

BENEDETTO VARCHI
ON THE BIRTH OF ARTEFACTS
ARCHITECTURE, ALCHEMY AND POWER
IN LATE-RENAISSANCE FLORENCE

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Promotoren prof. dr. Bart Verschaffel, prof. dr. Caroline van Eck
Proefschrift ingediend tot het behalen van de graad van
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Dutch summary

SAMENVATTING

Benedetto Varchi en de geboorte van het artefact. Architectuur, alchemie en macht in het Florence van de late Renaissance

Inleiding

Dit werk wil een bijdrage leveren tot de theorie van de architectuur, door eerst belangstelling te ontwikkelen voor het veel ruimere domein van de artefacten. In het bijzonder wil het eerst een analyse zijn van een reeks gevallen in de Laat-Renaissance-cultuur in Italië, waarbij het ontstaansproces van kunstmatige vormen vereenzelvigd wordt met een 'geboorte'. De notie van dergelijke geboorten is interessant omdat die toelaat om, binnen de bijzonder ruime categorie van het artefact, een onderverdeling te maken die niet berust op de esthetische criteria die gebruikelijk door de kunstgeschiedenis worden gehanteerd. We zullen ons dus in de komende hoofdstukken trouw houden aan onze categorie van het geboren artefact, maar we zullen daarbij meer geijkte categorisering schromelijk overschrijden. In wezen bevindt deze studie zich in het gebied waar de domeinen van kunst, biologie, en technologie met elkaar overlappen. Onze voornaamste doelstelling is de reconstructie van een 'filosofie van het geboren artefact', of de beschrijving van een wereldbeeld waarin de nevenstelling of totale identificatie van kunstmatige en biologische producties een duidelijke betekenis meekrijgt. De demarche die werd gevolgd bestond erin de vele geschriften van één denker in hun totaliteit door te nemen, en alle hints, te verzamelen die relevant blijken voor het thema.

De keuze viel hierbij op de Florentijnse dichter, letterkundige, filosoof en later historicus Benedetto Varchi. Varchi was geen filosofisch genie, maar hij verstond wel bijzonder goed de kunst van het overdragen van zijn eigen eruditie. Hij is een groot opvoeder geweest voor de generatie van de hertog; maar Varchi stond ook in zeer nabij contact met een hele reeks vooraanstaande Florentijnse kunstenaars, en dus met de wereld van het (hooggespecialiseerd) ambachtelijk werk. In het verloop van de hoofdstukken wordt het wereldbeeld van Varchi stilaan uit de doeken gedaan, en in verband gebracht met de omgevingen waarin hij leefde en werkte. In de hoofdstukken zes en zeven, worden dan de echte conclusies getrokken door het verband te leggen tussen de noties die Varchi introduceerde, en een reeks kunsten zoals die toen onder de directe hoede van de hertog werden bedreven.

Hoofdstuk een. Van *fuoruscito* tot hoveling.

Hoofdstuk 1 valt uit één in twee grote luiken. In het eerste luik wordt de politieke geschiedenis geschetst die de achtergrond vormt tot het eigenlijke onderwerp van het proefschrift: het culturele beleid van de Florentijnse hertog Cosimo I de' Medici.

Cosimo's regeerperiode wordt hierbij gesitueerd in de continuïteit van de verschillende soorten machtsgrepen die de bankiersfamilie de' Medici op de stad uitoefende sinds het begin van de 15^e eeuw. De eerste echte Medici plutocraat, Cosimo 'de Oude' (*Il Vecchio*) was erin geslaagd in de eerste decennia van het *Quattrocento* een systeem uit te bouwen waarin de schijn van een republikeinse oligarchie hoog kon gehouden worden, terwijl het hoofd van de Medici familie in wezen de werkelijke touwen van het stadsbeleid in handen hield. Dat systeem bleef in voegen tot en met de dood van Cosimo's kleinzoon, Lorenzo de' Medici, in het laatste decennium van de 15^e eeuw. Nadien zou een periode van tegenspoed volgen. De Medici worden uit de stad verbannen en twee regeringsvormen die hen uitdrukkelijke slecht gezind zijn volgen elkaar op: de theocratische dictatuur

van Savonarola, en de vernieuwde republiek die onder leiding van Piero Soderini komt te staan. In de eerste decennia van de zestiende eeuw keert het tij weer ten voordele van de bankiersfamilie. In een korte tijdsspanne worden opeenvolgend twee Medici-telgen verkozen tot Paus: Leo X (de zoon van Lorenzo il Magnifico), en Clemens VII. Vanuit hun Romeinse machtbasis zorgen deze Pausen ervoor dat het Medici-geslacht in Florence weer aan de macht komt. Clemens' weet in de vroege jaren 1530 zelf zijn eigen bastaardzoon, Alessandro de' Medici, tot Hertog van Florence te laten benoemen. Alessandro's beleid, dat slechts een zestal jaar zou duren, werd aangevoeld als een werkelijke dictatuur. Het is de bloederige moord in 1537 van de tiran die tot de aanstelling Cosimo de' Medici zou leiden.

De uitzonderlijke omstandigheden waarin deze aanstelling plaatsvond verklaren deels ook het uitzonderlijke karakter van de regeerperiode van Cosimo I de' Medici, de man die bijna eigenhandig, één van de meest stabiele dynastieën in het Europa van de 16^e en de 17^e eeuw stichtte.

Cosimo de' Medici was niet voorbestemd om te regeren. Hij maakte deel uit van een ondergeschikte tak van de Medici familie; een tak die noch in de politiek, noch in het zakendoen ooit een prominente rol had gespeeld. De jonge Cosimo was slechts zeventien en min of meer gespeend van politieke opleiding wanneer de leden van de Florentijnse senaat besluiten om hem aan te stellen als opvolger van de vermoorde hertog Alessandro. De jonge prins verrast echter vriend en vijand door zijn tactisch inzicht en zijn politieke sluwheid. Een vroege overwinning op het leger van de anti-Medici rebellen in Montemurlo versterkt aanzienlijk zijn machtsbasis.

Cosimo profileert zich snel als een meedogenloze maar rechtvaardige vorst, die alle mogelijke middelen aanwendt om zijn politieke invloed te versterken. Oorspronkelijk regerend binnen de lijnen van een constitutie die, ofschoon daterend uit 1532, toch nog sporen droeg van een republikeinse staatsstructuur, zou de nieuwe hertog van Florence gaandeweg de macht van een reeks traditionele raden en autonome bestuursorganen uithollen ten voordele van veel strakker gecontroleerd, en gecentraliseerd machtsstelsel.

Cosimo zou ook een volledig nieuwe verhouding aangaan met het Toscaans territorium, dat vroeger door de Florentijnse oligarchie meer als een kolonie werd beheerd. Onder de nieuwe hertog worden de overige Toscaanse steden opgewaardeerd, verkrijgen hun inwoners meer rechten. Concrete ingrepen in het landschap zoals irrigatiewerken en de bouw van een uitgebreid wegennet zorgen voor de economische verlevendiging van zieldogende gebieden. De aandacht voor het ganse Toscaanse *Dominio* uit zich ook in vernieuwde militaire strategieën. Het zijn niet langer enkel de steden die worden versterkt. Een gordel van forten moet ervoor zorgen dat vijandelijke troepen aan de grenzen zelf van de staat kunnen geweerd worden. Het Toscane van de Cosimo de' Medici wordt één van de eerste moderne territoriale staten.

De vernieuwende aanpak van de vorst uit zich tenslotte ook in de culturele politiek die gevoerd worden. De letteren en de kunsten worden actief gesponsord. Cosimo de' Medici laat onder zijn hoede de twee eerste overheidsgesubsidieerde academies voor letteren en voor de kunsten oprichten: de *Accademia Fiorentina* (°1541) en de *Accademia del Disegno* (°1563), waar verder in de tekst uitgebreid op zal teruggekeerd worden. De hertog doet ook grote inspanningen om de Universiteit van Pisa te heropenen en te laten herleven onder impuls van prestigieuze professoren die hij tracht aan te trekken, dikwijls met succes. Voor de hertog en zijn tijdgenoten was het echter tegennatuurlijk deze culturele initiatieven los te percipiëren van de inspanningen die geleverd werden op het vlak van de industrie, de landbouw, de heropleving van technieken. Zoals Machiavelli het formuleerde dienden dergelijke inspanningen één gemeenschappelijk en prioritair doel: het vergroten van het ontzag voor de vorst.

B. Het tweede luik van dit eerste hoofdstuk introduceert de man wiens teksten in de rest van het proefschrift centraal zullen staan voor de analyse van de 'naturalisatieprocessen' in de culturele politiek van de hertog: de filosoof, letterkundige en historicus Benedetto Varchi. Varchi's levensloop

wordt hierbij geschetst. Frappant hierin is het feit dat deze toekomstige hoveling van Cosimo I de' Medici een verleden heeft als politiek activist en actief lid van de anti-Medici rebellenfractie. Varchi werd geboren in 1503 in Florence. Hij studeert rechten in Pisa, neemt een tijd de notarispraktijk van zijn vader over, maar besluit zich uiteindelijk toch te wijden aan zijn passie voor poëzie en voor de letteren. Hij komt via Florentijnse vrienden in contact met de *Orti Oricellari*, een ontmoetingsplaats voor geleterde Florentijnse burgers dat ook een centrum vormt voor politieke en filosofische reflectie. Hier komt Varchi in contact met de vurigste tegenstanders van de Medici hegemonie over de stad. Leden van de *Orti*, waaronder de dichter Luigi Alamanni, pleegden in 1522 zelfs een mislukte aanslag tegen Giulio de' Medici, de latere paus Clemens VII. Met de naar Frankrijk geëmigreerde Alamanni zou Varchi uitstekende contacten behouden, ook na zijn aanstelling aan het hof van Cosimo de' Medici in 1543.

Naar aanleiding van de plundering van Rome door de troepen van keizer Karel V in 1527, een persoonlijke afstraffing voor Paus Clemens VII, stortte de machtsbasis van de Medici in Florence tijdelijk in elkaar. Voor een korte periode werd de republiek weer ingesteld, tot de Paus in 1529 een gigantisch leger op de stad afstuurt om overgave af te dwingen. Benedetto Varchi sluit zich aan bij de republikeinse militie die instaat voor de verdediging van de stad tijdens het beleg, maar besluit uiteindelijk toch te vluchten. In de jaren dertig komt hij een de kost als huisonderwijzer in verschillende Florentijnse burgerfamilies, waaronder de Strozzi's, een familie die een belangrijke rol zou spelen in de anti-Medici rebellenbeweging. Varchi beleeft de evenementen van 1537 van zeer nabij: de moord op hertog Alessandro de' Medici, de mobilisatie van het rebellenleger onder leiding van Filippo Strozzi, en de afstraffing van dat leger in Montemurlo door de troepen van de pas aangestelde jonge Cosimo. De debacle van Montemurlo en een aantal andere teleurstellingen doen Varchi's republikeins idealisme danig bekoelen. Geleidelijk aan zou hij zich afkeren van politiek engagement om zich op een intensere manier bezig te houden met zijn studies. Varchi trekt naar de universiteitsstad Padua, waar hij lid wordt van de invloedrijke *Accademia degli Infiammati*. De jonge geleerde raakt steeds meer geboeid door de problematiek van het vulgariseren van de wetenschappen. Hij vertaalt werken van Euclides en Aristoteles uit het Latijn naar het Toscaans. Hij ontpopt zich ook aan de *Accademia degli Infiammati* tot een bijzonder getalenteerde commentator van zowel filosofisch proza als poëzie. Om zijn kennis van de geschriften van Aristoteles te verscherpen trekt hij in 1541 naar Bologna, waar hij de leerling wordt van de Aristotelicus Lodovico Boccadiferro. In Florence stond Varchi nog steeds geboekstaafd als rebel, *fuoruscito*. Hij was feitelijk verbannen uit de stad; schriftelijk contact met hem onderhouden was strafbaar. Cosimo de' Medici ziet echter in dat een goede verhouding met de geleerde potentieel een groot politiek voordeel zou kunnen opleveren. Varchi was beroemd en beschikte over een indrukwekkend netwerk aan contacten in de wereld van de letteren en de kunsten. De vorst besluit de hand uit te steken naar de voormalige rebel. Na onderhandelingen aanvaardt Varchi in 1543 naar Florence terug te keren en een positie te aanvaarden als lezer aan de *Accademia Fiorentina*, de letterkundige academie, opgericht door een aantal van Varchi's Florentijnse vrienden, en die de hertog onder zijn hoede had genomen om er de speerpunt van de maken van zijn politiek van promotie van de Toscaanse taal.

Hoofdstuk twee. Benedetto Varchi lezer aan de Fiorentina.

Het is in de context van de *Accademia Fiorentina* dat Varchi het grootste deel van zijn oeuvre heeft voortgebracht. In dit hoofdstuk wordt die context belicht; het propagandistische programma van de academie wordt geanalyseerd en de wijze waarop Varchi dat programma invult. Het hoofdstuk vat echter aan met een overzicht van zijn belangrijkste teksten.

Dit overzicht van Varchi's teksten geschreven tussen 1543 en 1565, het jaar van zijn overlijden, wordt ingeleid door een introductie waarin beknopt de receptie van Benedetto Varchi's oeuvre door de moderne kritiek wordt besproken. Drie werken krijgen doorgaans de meeste aandacht, maar dan

telkens binnen verschillende disciplines: de *Storia Fiorentina* is voornamelijk bekend bij historici, en wordt geapprecieerd omwille van de rijkdom aan details die erin besloten liggen voor de politieke geschiedenis van Florence in de periode tussen 1527 en 1537. Hedendaagse letterkundigen zijn vooral vertrouwd met de *Ercolano*, een dialoog over de toen brandende problematiek van de juiste taalkeuze voor literatuur in de streektaal. Kunsthistorici en kunsttheoretici van hun kant kennen voornamelijk de *Due lezioni*, twee lezingen over de problematiek van de kunsten, die in 1550 samen werden gepubliceerd en vandaag erkend worden als mijlpalen in de ontwikkeling van de zestiende-eeuwse kunsttheorie. In tegenstelling tot de vele studies die over het werk van Varchi bestaan, wil dit proefschrift niet afzonderlijk ingaan op één van deze werken, maar de eenheid vinden tussen al deze verschillende werken. Ook wil het plaats maken voor een bespreking van teksten van Varchi die de hedendaagse kritiek meestal links laat liggen, omdat ze moeilijk te plaatsen zijn. Voorbeelden zijn de lezingen over de generatie van het menselijk lichaam, over het ontstaan van monsters, of over de verschillende soorten “warmte” die in de natuur en de kunst voorkomen.

Het geheel van Varchi's oeuvre wordt onderverdeeld in een reeks rubrieken: 1. de redevoeringen (voornamelijk lofreden) 2. het poëtisch oeuvre en, hiermee verwant, de correspondentie 3. een reeks nooit gepubliceerde, dikwijls onafgewerkte traktaten over uiteenlopende onderwerpen 4. een reeks vertalingen van (meestal) filosofisch werk (Boethius, Seneca, ...) 5. de tekst van de *Storia Fiorentina* (die uiteindelijk pas voor het eerst in de 18^e eeuw werd gepubliceerd 6. de *Ercolano* (ook postuum gepubliceerd, in 1570). Omwille van hun belang worden de academische lezingen afzonderlijk, onder een onderstaand luik besproken.

Het tweede luik van dit hoofdstuk bespreekt beknopt het ontstaan en de werking van de *Accademia Fiorentina*. De literaire academie kent aanvankelijk een bescheiden, privaats bestaans, net als de vele honderden gelijkaardige academies die toen in Italië de kop opsteken. Maar de uitdrukkelijke interesse van de hertog voor dit orgaan zou er een geheel eigen vorm aan verlenen. Cosimo's motiveringen om de academie zowel te infiltreren als uitdrukkelijk te steunen zijn repressief én propagandistisch. Maar de reactie van de Florentijnse intelligentsia op de uitdrukkelijke overheidssteun is interessant. Om niet uit de gunst van de vorst te geraken, verdringen rijke burgers, clerici, functionarissen zich om een lidmaatschap van de academie. Het aantal leden neemt spectaculair toe. De publieke lezingen van academie worden door duizenden toeschouwers bijgewoond.

Benedetto Varchi heeft een dubbelzinnige positie in die evolutie. Aan de ene kant is hij bevriend met de groep jonge dichters die aan de wieg stonden van de oorspronkelijke academie. Met hen betreurt hij het verlies van de prille idealen van onafhankelijkheid, vrijheid en literaire weerspanning die aan de basis lagen van het initiatief. Aan de andere kant is Varchi zelf één van de raderen van de door de hertog opgezette propagandistische machinerie. Hij is ook één van de drijfveren achter het zorgvuldig uitgekiend overheidsproject van promotie van de Toscaanse taal, doorheen ondermeer de vertaling van Latijnse klassiekers in de taal van Dante en Petrarca. Toch zou Varchi steeds vijandig blijven tegenover de meest volgzaamste factie van het bestuur van de Accademia, de groep rond de clerici Bartoli en Giambullari en de dichters Gelli en Lenzoni. Hij zou vijandig staan ten opzichte van de beslissing die door deze factie wordt uitgevaardigd om de beeldende kunstenaars af te stoten als academici, een maatregel die in 1547 wordt doorgevoerd.

Varchi vaart een eigen koers in zijn academische lezingen, die in het derde luik van dit hoofdstuk worden besproken. Een grove classificatie rangschikt deze lezingen onder drie koppen: Commentaren op werk van Dante, op werk van Petrarca, en thematische lezingen. Een dergelijke classificatie doet de lezingen echter geen recht aan, en geeft alvast niet de rijkdom weer van de thema's die aan bod komen. Voorbij de poëzie hebben de sprekers van de Fiorentina het over onderwerpen die gaan van anatomie en fysiologie over liefdestheorieën, predestinatie en goddelijke voorzienigheid tot en met beeldhouwkunst, schilderkunst en astronomie. Een dergelijk ruim spectrum aan onderwerpen is niet eigen aan Varchi's aanpak, maar wordt ook gedeeld door andere lezers.

Kenmerkend voor Varchi echter is de bijna doctrinaire aanhang aan het aristotelisch gedachtegoed. Varchi zegt herhaaldelijk een bepaalde passage uit Dante gekozen te hebben voor commentaar omdat Dante er uitdrukkelijk zijn trouw aan de leer van de Filosoof in kenbaar maakte. Het soort aristotelisme dat Varchi voorstaat is er echter één dat flirt met de heterodoxie, en sterkt afsteekt tegen de vrome filosofische houdingen van de overheidsgetrouwe lezers als Giambullari en Bartoli. De aandachtige toehoorder kon in Varchi's lezingen zinspelingen ontwaren naar onrechtzinnige overtuigingen zoals de gedachte dat onsterfelijkheid van de individuele ziel onmogelijk is; de notie dat de geschiedenis van de wereld, zich eindeloos herhaalt; of de idee dat het opperste wezen geen kennis heeft van de particuliere gebeurtenissen in het ondermaanse.

Een andere dimensie van Varchi die hem sterk doet afsteken ten opzichte van de meer behoudsgezinde leden van de *Fiorentina* is zijn uitgesproken interesse voor de ambachten en de kunsten. Als denker neemt Benedetto Varchi niet de elitaire en neerbuigende houding aan ten opzichte van de beoefenaars van ambachten die kenmerkend is voor een reeks tijdgenoten. Hij is zelf goed bevriend met veel van de belangrijkste schilders en beeldhouwers van zijn generatie. Hij komt expliciet om in hun voordeel wanneer zij uitgestoten worden uit de *Accademia Fiorentina* in 1547. Zijn twee lezingen over de beeldende kunsten gelden als pamfletten voor de erkenning van de waardigheid van de beeldende kunstenaars. Toch zou Varchi in zijn discussie van de waardigheid van de kunsten trachten coherent te blijven met het globaal filosofisch kader waarbinnen zijn denken zich ontrolt. Zijn pleidooien ten voordele van de kunsten verschillen hierin sterk van het zeer militante discours dat gelijktijdig door de kunstenaars zelf wordt opgezet, en dat zou leiden tot een aantal merkwaardige verschijnselen zoals de bijna metafysische relevantie die de schilder-theoreticus Federico Zuccari aan het artistieke ontwerp (*disegno*) zou verlenen.

Varchi's interesse voor de kunsten lijkt echter te ontstaan vanuit een typisch aristotelische belangstelling voor empirische activiteiten, voor de rijkdom van de materiële wereld, en lijkt aldus geheel in het verlengde te liggen van zijn belangstelling voor de natuurwetenschappen in het algemeen.

Hoofdstuk drie: Benedetto Varchi en de biologische wortels van de *concetti*

Dit werk is in de eerste plaats een onderzoek naar de betekenis van de nevenstelling van natuurlijk en kunstmatig geproduceerde lichamen in één welaflgebakende culturele context: de hofcultuur die in Florence ontstaat vanaf de jaren 1540. In de vorige hoofdstukken werd de filosoof en propagandist Benedetto Varchi als één van de belangrijke protagonisten van die hofcultuur geïntroduceerd. De voorstelling van het oeuvre van Varchi in het hoofdstuk 2 liet blijken dat deze teksten, indien in hun totaliteit beschouwd, toelaten een filosofisch kader te reconstrueren waarbinnen de aan het hof gebezigde parallellen tussen natuur – kunst hun volle betekenis reveleren. In dit hoofdstuk worden in de eerste plaats de hoofdlijnen van Varchi's aristotelisch wereldbeeld uitgezet. Die uiteenzetting gebeurt in een aparte inleiding.

Die inleiding gaat in op twee basisbeginselen van het zestiende-eeuwse peripatetische denken die door Varchi met grote overtuiging worden beleden: het hylomorfisch karakter van het wereldbeeld enerzijds. Dit is het principe dat iedere vorm van bestaan deels participeert in een materiaal principe, en deels in een vormelijk principe. En anderzijds de notie van de superioriteit van de vorm (*eidos*) van de natuurlijke soorten (minerale, plantaardige, en dierlijke soorten). Hiermee wordt met duidelijkheid de natuurlijke vorm als intrinsiek superieur gesteld ten opzichte van artificiële vormen. De superioriteit van de natuurlijke vorm berust in haar vermogen zich voor te planten en aldus een vorm van godgelijke eeuwigheid tot stand te brengen. Hiermee wordt de principiële ondergeschiktheid van de artificiële vorm afgekondigd.

Vanuit deze inleidende vaststellingen gaat het hoofdstuk over naar een meer precieze vraagstelling, namelijk de controversie over de eigenlijke betekenis van de notie *concetto*. De notie is in de loop van de zestiende eeuw geëvolueerd tot een belangrijke kunsttheoretische term: het verwijst naar de

innerlijke representatie die een kunstenaar zich van een kunstwerk maakt vooraleer hij overgaat tot de effectieve uitvoering ervan. Er bestaat een lange kritische traditie die van de 16^e tot de 20^e en zelfs 21^e eeuw reikt die aan dit *concetto* nevenstelt met de meest verheven inhoudsvormen van het intellect, en laat overlappen met de neoplatoons geïnterpreteerde ideeën. Dikwijls baseert deze traditie zich trouwens op korte passages uit de eerste van Varchi's *Due lezioni* om aan te tonen dat er een overlapping bestaat tussen de noties *concetto* en *idea*. Varchi's tekst maakt echter duidelijk dat dit niet het geval kan zijn. In zijn bespreking van een bekend sonnet van Michelangelo waarin de term een cruciale rol speelt (dit is de eerste van de *Due lezioni*) maakt hij expliciet duidelijk dat *concetti* niet in het intellect huizen, maar in een lager gelegen deel van het menselijke denkvermogen, een deel dat in wezen behoort tot het organische, materiële en dus sterfelijke deel van de menselijke ziel.

Een dergelijke vaststelling werpt een merkwaardig licht op het creatieve denken. Het zou betekenen dat de vorming van een *concetto* geassimileerd kan worden met een materieel proces, een belichaming. Op dit punt wordt vastgesteld dat de werkwoorden die verwijzen naar het vormingsproces van *concetti* meestal behoren tot de sfeer van de natuurlijke geboortes. Er kan echter nog een stap verder gegaan worden. Het *concetto*, indien men het als een tijdelijk, etherisch lichaam concipieert, gevat in de hersenventrikels van de kunstenaar, is in ieder geval een intermediair lichaam, een soort kiemkrachtig lichaam, dat het vermogen heeft de vorming van het uiteindelijke kunstwerk te sturen. Of zoals Varchi het formuleert: dat het vermogen om de vorm van het kunstwerk in de materie (bijvoorbeeld van een beeld in het blok marmer), te onttrekken aan het potentiële bestaan en te verheffen tot de sfeer van het actuele. Die formulering loopt merkwaardig parallel met de wijze waarop Varchi in een eerdere academische lezing de vorming van een menselijk of dierlijk lichaam besprak als het resultaat van de inwerking van een vormprincipe (besloten in het mannelijke zaad) op een materieel principe (besloten in het vrouwelijke menstruele bloed). Er wordt dus een impliciete parallel gelegd tussen het concept (het kiemkrachtig etherische lichaam van de organische ziel) versus het blok marmer enerzijds en het zaad versus het menstruele bloed anderzijds.

In de laatste sectie van het hoofdstuk wordt eerst opgemerkt dat Varchi in zijn parallel tussen de genese van een kunstmatig lichaam (als een concept) en een natuurlijk lichaam (vanuit de ontmoeting tussen een vormprincipe van een principe van materie) in feite eerdere zogenaamde technomorfe analogieën van Aristoteles gewoon omkeert. Aristoteles had de gewoonte regelmatig in zijn biologische traktaten gebruik te maken van parallellen met een reeks traditionele ambachten. Het effect van het mannelijke zaad op het vrouwelijke bloed werd eerder door hem vergeleken met de activiteiten van timmerlui op een werf. Het hele aristotelische hylomorphisme als dusdanig is in wezen een ontleening aan de sfeer van de ambachtelijke productie. De term die Aristoteles gebruikte om naar 'materie' te verwijzen (*hylē*) betekende in het Oudgrieks in de eerste plaats timmerhout.

Verder wordt er in deze sectie gewezen op het feit dat, in het populaire taalgebruik van de zestiende eeuw (waarvan Varchi zelf trouwens in zijn *Ercolano* een aantal mooie voorbeelden oprakelt), termen die verwijzen naar creatief denken een materiële, belichaamde connotatie meedragen. Ook de etymologie van de term *concetto* zelf heeft uiteraard een materiële dimensie. Het is afgeleid van het Latijnse werkwoord *concipere* wat betekent opvangen, vatten, in zichzelf vervat houden. Het Latijn voor "vat" is *conceptaculum*. Ook hier is er een rechtstreekse link met natuurlijke genese. Het biologisch bevruchttingsproces wordt in contemporaine medische traktaten, maar ook in de populariserende medische literatuur beschreven als een proces dat plaatsvindt wanneer de baarmoeder die zich als een hermetisch vat afsluit op het opgenomen zaad en het bloed dat het eerder bevatte. Tenslotte veronderstelde zowel de geleerde als de volkse medische traditie verregaande sympathieën tussen de baarmoeder en de fantasie als de zetel van het creatieve denken.

Het hoofdstuk sluit af met een concluderende passage waarin de aandacht in het bijzonder gevestigd wordt op het feit dat de geanalyseerde denkbeelden over zowel natuurlijke als artistieke genese in wezen twee verschillende momenten van conceptie onderscheiden (of twee momenten van

ontmoeting van een vorm-principe en principe van materie). In een eerste moment wordt soort semi-materiële vorm-drager voortgebracht. Een etherisch lichaam waarin een vormgevend vermogen vervat ligt. Wat betreft natuurlijke generatie correspondeert dit moment met de vorming van het mannelijk zaad; een proces dat plaats vindt in het hart van de vader, de zetel van zijn natuurlijke, ingeboren warmte, waar het bloed van de vader omgezet wordt in vorm-dragend zaad. De tweede conceptie treedt vervolgens op in de baarmoeder, waar het zaad en het vrouwelijke bloed vermengd geraken. De Aristotelische fysiologie gaat ervan uit de productie van vorm-dragend zaad een voorrecht is van het mannelijke lichaam, waarin meer ingeboren warmte besloten ligt dan bij de vrouw. Mannelijk zaad is het resultaat van een *coctio* die hitte genoodzaakt. Het ontbreken van de nodige warmte zorgt ervoor dat vrouwen in hun hart slechts menstrueel bloed weten te destilleren, geen kiemkrachtig vocht.

Parallel tonen een reeks kunsttheoretische geschriften aan dat Vasari en andere tijdgenoten zich laatdunkend uitlieten over het scheppende of het creatieve vermogen van vrouwelijke kunstenaars voor parallelle redenen. Hun gebrek aan mannelijk deugd, vervat in de lichaamswarmte, zou hen beletten nieuwe, inventieve beelden te smeden.

Hoofdstuk vier: Liefde en plezier. Over de natuur van de voortplantingsdrift.

Ondanks zijn toewijding aan de leer van Aristoteles wordt Benedetto Varchi ook vandaag nog geregeld voorgesteld als een Platonist. De voornaamste aanzet hiervoor is de centrale plaats die de erotische thema's (liefde, verlangen, lust ...) in zijn lezingen innemen. Varchi gaf verschillende thematische lezingen over het concept van de liefde, maar werd ook door tijdgenoten als de dichteres Tullia d'Aragona afgeschilderd als een expert in de (filosofische benadering van) de liefde.

'Amor' was in de Renaissance een wijdvertakt concept, waarrond zich een rijke literaire traditie ontwikkelde die uiteindelijk haar wortels vond in teksten van Plato, in het bijzonder het *Symposium*. Met de publicatie in 1484 van een uitgebreid commentaar bij Plato's dialoog over de liefde had de Florentijnse filosoof Marsilio Ficino de belangstelling voor de liefdesliteratuur doen opwakkeren. Varchi is duidelijk getekend geweest door Ficino's commentaar, dat hij "goddelijk" noemt. Hij zou er een aantal concepten gewoonweg van overnemen in verschillende van zijn teksten en lessen, zoals Ficino's voorstelling van de meest verheven en de meest verwerpelijke liefdesdriften als demonen (de *kalodaimôn* en de *kakodaimôn*). Dergelijke rechtstreekse ontleeningen aan het denken van Ficino komen echter voornamelijk voor in de vroege teksten, en nemen af in de meer volwassen jaren van Varchi's auteurschap. De globale tendens in de liefdesliteratuur van die tijd (vanaf de jaren 1530) neigde trouwens naar een meer oprecht opkomen voor de waardigheid van de sensuele liefde die haaks stond op de eerder preutse stellingnamen van laat-vijftiende-eeuwse Neoplatonici in die materie. Die evolutie is reeds natrekbaar in twee van de meest invloedrijke liefdesdialogen uit het begin van de zestiende eeuw: Bembo's *Gli asolani* (gepubliceerd 1505) en Leone Ebreo's *Dialoghi d'amore* (samengesteld in diezelfde periode, maar pas in 1535 eerst gepubliceerd). In 1531 publiceerde de Aristotelische filosoof Agostino Nifo een traktaat (*De pulchro et amore*) dat op een zeer zelfbewuste wijze opkwam voor de erkenning van een puur menselijke vorm van liefde. Een liefde die niets anders voor object zou hebben dan het genot van fysieke schoonheid. Varchi's geschriften zijn ook door deze vernieuwde traditie getekend.

De herleving van de natuurwetenschappen veroorzaakte verder ook een vernieuwde interesse in de plantaardige en dierlijke vormen van verlangen en lust. Getekend door auteurs die in hun denken insisteren op de intrinsieke intelligentie van de natuur, van Lucretius tot Galenus, zou Varchi ook veel aandacht aan de dag leggen voor de idee van een universele *appetitus* of liefdesdrift die verschillende vormen zou aannemen in functie van de bestaansvorm waarin deze passie optreedt. Varchi zou

op de meest expliciete wijze uiting geven aan het concept in een lezing uit 1564, waarin hij alle bestaansvormen binnen het Aristotelische universum doorloopt, van de *Prima Materia* tot en met de ‘Onbewogen beweging’, en de vorm analyseert die de *appetitus* er aanneemt. In de regel worden lagere vormen in de hiërarchie van het bestaan gedreven door een verlangen tot meer actualisatie, tot een hogere positie in de schaal die van de vormloosheid van de pure materie tot het immateriële van de pure vorm strekt. Op een bepaalde manier keert Varchi hierdoor de Neoplatoonse logica van de verhouding van de vorm als agent ten opzichte van de materie als patiënt. In plaats van als een geheel inert wezen wordt de materie voorgesteld als de *locus* van het initiatief naar haar eigen informatie.

Varchi zou het wezen van de liefde trouwens formeel definiëren als de passie die ieder bestaand lichaam drijft God zo verregaand mogelijk na te bootsen, om aldus de eigen perfectie en gelukzaligheid te bereiken. Het paradoxale gevolg van dat soort definities is dat uiteindelijk bij de meest imperfecte bestaansvormen de grootste impuls of het grootste potentieel tot verandering berust. Het is ook niet verwonderlijk dat wanneer hij spreekt over de allereerste graad van het bestaan in de lezing uit 1564 over de liefde, Varchi de vergelijking van Aristoteles overneemt die het verlangen van de *Prima Materia* had geïdentificeerd met “het verlangen van het vrouwelijke voor het mannelijke” of ook “het verlangen van het onvolmaakte voor het volmaakte”.

Deze fascinatie voor het vermogen of de neiging tot zelfvervulling van de materie, neigt naar een vorm van vitalisme, en herinnert alvast aan de sterke contemporaine fascinatie voor het microcosmisch equivalent van *Prima Materia*, het menstrueel bloed.

Dat in de menselijke soort, net als in overige diersoorten de universele *appetitus* de vorm aanneemt van sensuele liefde is noch verwonderlijk, noch verwerpelijk. Voortplanting van het individu zorgt voor het behoud van de soort en is het middel waardoor de mens en andere diër- en plantensoorten hun eigen eeuwigheid, en dus hun eigen perfectie nastreven. Alle wezens die voorzien zijn van een ziel, verlangen per definitie naar niets anders dan een gelijke aan zichzelf voort te brengen. Alle aardse wezens streven ditzelfde doel na. In het dialoog over de liefde van Tullia d’Aragona gaat het personage van Varchi zover te zeggen dat “een man die niet langer kan genereren, aangezien hij niet meer in staat is datgene te doen waarvoor de natuur hem schiep, niet langer een man is.” Deze stelling lijkt bij tijdgenoten van Varchi vrij letterlijk geïnterpreteerd geweest te zijn. Een recente studie over denkbeelden betreffende mannelijkheid en seksualiteit in de Italiaanse Renaissance van Valeria Finucci onderstreepte de mate waarin masculiniteit geheel werd gedefinieerd in termen van het voortplantingsvermogen.

Het personage ‘Varchi’ in het dialoog van Tullia geeft wel te kennen dat het vermogen ‘zichzelf te reproduceren’ ook andere vormen kan aannemen dan louter seksuele reproductie. Verwijzend naar een stelling in Plato’s *Symposium* onderstreept hij hoe de liefde voor jonge knapen ook resulteert uit een verlangen zichzelf te reproduceren. In dit geval gaat het echter wel om een geestelijke reproductie: de Socratische leermeester reproduceert na verloop van tijd zijn eigen kennis in de geest van zijn pupil.

Varchi weidde zelf ook een hele les aan het thema van monsters, die hij definieert als het resultaat van gefaalde generaties: een natuurlijk lichaam is een monster als het geen reproductie is van zijn voortbrenger. Een zoon die in het geheel niet op zijn vader gelijk is een monster; een dochter is steeds een quasi-monster, omdat ze beduidend verschillend is van haar vader, maar toch past binnen het plan van de natuur. Voor Varchi bestaan monsters ook in de sfeer van de kunsten. Een artefact is een monster als het niet overeenkomt met de oorspronkelijke voorstelling, het oorspronkelijke concept van de ambachtsman. Een smid die een dolk wil maken, en uiteindelijk korte degen voortbrengt, maakt een monster.

Maar een dolk, zo merkt de lezer op, ook al slaagt de smid erin hem correct te produceren, is helemaal niet zijn gelijke. Hoe moet dit proces dan in verband gebracht worden met de vermelde

universele driften? Varchi heeft een dubbel antwoord op die vraag. Door het produceren van een nuttig artefact, als een dolk of een spade, produceert de smid een instrument dat dienstig is voor het behoud van zijn eigen bestaan, of dat van verwanten of volksgenoten. Plato had anderzijds in het *Symposium* reeds aangegeven dat de ‘zwangerschappen van de ziel’, in de vorm van uitzonderlijk gesmaakte kunstwerken, hun auteur eeuwdurende roem en dus een vorm van onsterfelijkheid kunnen opleveren.

Varchi loofde op verschillende plaatsen in zijn lezingen het genereren als de meest natuurlijke en de meest loofwaardige activiteit die er bestaat. De paringsdaad, als een hoogtepunt van het generatieproces krijgt, zoals in hoofdstuk 3 reeds is aangegeven, dan ook een bijna metafysisch statuut toebedeeld. De *coitus* in dierlijke reproductie vormt het paradigma van de interactie van vorm en materie ter vorming van de zogenaamde *composti* (*syntheta* in het Grieks). Merkwaardig is dat Varchi ook de vorming van de kenobjecten van het intellect (die samen de ‘intelligibele’, en dus per definitie immateriële wereld vormen) voorstelt als *syntheta* van vorm en ‘materie’. Varchi neemt Aristoteles’ beschrijving over van het intellect als een bestaande uit een actieve en een passieve component: een bewegingsprincipe (het actieve intellect) en een passief principe (het hylisch, of materiële intellect). Maar de Florentijn gaat ook mee in de analyse die Averroës maakte van deze tweedeling in zijn commentaar op de *De anima*. Averroës had hierin de mogelijkheid geopend van een *coitio*, een totale fusie van het actieve en het hylische intellect. Dat punt van absolute intellectuele gewaarwording betekent dat al het kenbare instant gekend wordt. Het moment zou het summum van de menselijke gelukzaligheid. Varchi is een uitdrukkelijk voorstander van dit denkbeeld.

Het hoofdstuk sluit af met de vaststelling dat in het Varchiaanse wereldbeeld in feite drie werkelijkheidsferen worden voorgesteld. De externe wereld van de materiële, zintuiglijk waarneembare existentie. De intelligibele wereld waarneembaar door het intellect, en een intermediaire sfeer van interne, semi-materiële belichamingen of voorstelling, de wereld van de zintuiglijke beelden zoals geconstrueerd in de *fantasia*. Het principe van de vormendrang van het materiële veroorzaakt in deze drie sferen een verlangen om alle mogelijke vormen te implementeren. In het intellect ‘kan’ dit instant gebeuren, en veroorzaakt dit een mystieke, overweldigende totaalervaring. De traagheid van de materiële wereld maakt dat het verlangen naar alle vormen tegelijk slechts over een lang verloop van tijd, na vele cycli wordt gerealiseerd (het is dus het verlangen van de materie dat verantwoordelijke gesteld wordt voor de cycli van generatie en corruptie). De intermediaire wereld van de *phantasmata* en de *concetti* laat toe van deze langzame totstandkoming van de natuurlijke vormen een duw in de rug te geven. De hersenventrikels vormen dus de laboratoria waar nieuwe ‘natuurlijke’ vormen versneld tot stand kunnen komen.

Hoofdstuk vijf: Fysiocratie, of de heerschappij van de natuur

Het vijfde hoofdstuk buigt zich in het bijzonder over het taalgebruik aan het Florentijnse hof van Cosimo de’ Medici, en in het bijzonder over de plantaardige metaforen die gebruikte worden door verscheidene actoren van het hof. In het bijzonder wordt gekeken naar het gebruik van dergelijke metaforen in verband met de twee overheidsgecontroleerde academies: de letterkundige *Accademia Fiorentina* en de *Accademia del Disegno* voor beeldende kunsten en architectuur. De onderliggende aanname is dat in dergelijke metaforen precieze informatie besloten ligt over machtsverhoudingen binnen het hof.

Een aantal merkwaardige, en toch terugkerende motieven kunnen onderscheiden worden. De leden van beide academies worden vergeleken met gewassen en fruitbomen. Er wordt duidelijk van hen verwacht dat ze ‘bloesems’ en ‘vruchten’ zouden voortbrengen. De administratoren van deze organisaties, zoals de *luogotenente* van de *Accademia del Disegno*, Vincenzo Borghini, vergelijkt zichzelf dan weer met een tuinman, die de taak heeft, indien nodig, de storende elementen uit het corps van de *academici* (‘het onkruid’) te verdelgen. De hele academie wordt gezien als een soort moestuin.

Het eerste luik van het hoofdstuk gaat in op de oorsprong van dergelijke beeldtaal. Hierbij kan er eerst gewezen worden op een aanhoudende interesse vanwege de hertog zelf een zijn belangrijkste medewerker voor de landbouw en nieuwe cultivatietechnieken. Die had vond zijn neerslag in de literatuur. Gedichten over de landbouw en het rustieke leven, in de lijn van Virgilius' *Georgica*, zoals het lange gedicht *La coltivazione* (1546) van Luigi Alamanni, de eerder vermelde vriend van Varchi, kennen een groot succes.

Anderzijds grijpt het beeld van de 'vruchten van de geest' terug naar noties die ontwikkeld werden antieke literatuur over de opvoedkunde, bijvoorbeeld in de traktaten over de retorica van Quintilianus, Cicero en Seneca, en die uiteindelijk teruggrijpen naar het Stoïcijnse principe van de *logos spermatikon*. Volgens de Stoïcijnen wordt ieder kind bij de geboorte begiftigd met een 'vonken' of 'zaden' van de *logos*, de universele reden. Het is dan de opvoeding van het kind die zal uitmaken of deze 'kiemen van de rede' de kans krijgen om uit te groeien tot vruchtendragende gezonde planten.

Verder wordt er in deze eerste sectie ingegaan op het de ingebeelde continuïteit tussen reproductieprocessen in planten en in dieren. Op die manier blijkt dat de beeldspraak over planten en vruchten ook te kaderen valt in de eerder besproken parallellen tussen de natuurlijke geboorten en voortplanting, en de zogenaamde 'zwangerschappen van de geest'.

De parallel tussen plant en dier laat toe een wat mysterieuze stelling van Aristoteles, waaraan Varchi een groot gewicht geeft, beter te begrijpen. Aristoteles stelde dat de mens voortgebracht wordt door de mens, maar ook door de zon, net als een plant voortkomt uit een aan hem gelijke verwekker, maar ook uit de zon. De vaderplant is de directe oorzaak van het kiem, terwijl de zon de uiteindelijke oorzaak ervan is.

Het tweede luik van het hoofdstuk gaat meer in detail in op de plantaardige beeldspraak die gebruikt werd met betrekking tot de Florentijnse kunstenaarsacademie, de *Accademia del Disegno*. Men moet hierbij vaststellen dat deze beeldspraak niet langer de emanciperende connotatie in zicht draagt die eigen was aan het principe van de kiemkrachtige rede en deugd uit de antieke educatieve traktaten. De gelijkenis kunstenaar plant heeft echter een verdrukkende connotatie meegekregen. De nadruk ligt op de status van de kunstenaars als lagere wezens, ontdaan van vrije wilsbeschikking, en waarvan zowel het ontstaan als finaliteit berust in een principe (de Natuur) dat hun individueel bestaan totaal overstijgt. De kunstenaars leven in een orde die als een 'Fysiocratie' kan worden beschreven, een 'heerschappij van de Natuur'. De kunstenaar moet zich plooiën aan deze rigide orde, vruchten afwerpen, en dankbaarheid getuigen aan het zonnepincipe waarvan zijn bestaan afhankelijk is. Het niet willen passen in deze 'natuurlijke' en dus noodzakelijke orde heeft vernietiging of uitstoting tot gevolg.

Dit perspectief op de *Accademia del Disegno* zal verwonderen. De instelling wordt doorgaans in de eerste plaats gepercipieerd als een plaats van emancipatie van de beeldende kunstenaars uit de eeuwenoude verplichting tot affiliatie in de traditionele gilden, en de vereenzelviging met ambachten (zoals die van de schoenmaker, de ketellapper ...) die de kunstenaars stilaan beneden hun waardigheid achtten. Dat is althans het beeld dat de naoorlogse literatuur over de geschiedenis van de academie heeft gepromoot. De feiten, en recentere studies over de precieze machtverdeling binnen de nieuwe *Accademia* tonen aan dat, eerder dan een emancipatorisch orgaan, de kunstenaarsacademie in de eerste plaats een disciplineringsmachine was.

De academie was gekenmerkt door een rigide piramidale machtstructuur. Aan de top stond de *luogotenete*, een topfunctionaris van de hertog die zelf geen kunstenaar was maar wel beschikte over de absolute autoriteit. De kunstenaars die het hoogst in de hiërarchie stonden waren meestal door de hertog tewerkgesteld. Bij het minste vorm van protest riskeerden ze hun uitkering te verliezen.

Het onderwijs dat de jongeren kregen aan de academie kan ook moeilijk echt emancipatorisch genoemd worden. Er zijn bijvoorbeeld zeer weinig aanwijzingen dat architectuur, officieel één van de drie kunsten van het ontwerp (*arti del disegno*), ook als dusdanig aan de *Accademia* onderwezen werd. Architectuur was een discipline die (door Varchi, maar zelfs door kunstenaar-theoretici) als intrinsieke nobeler werd gerangschikt dan de overige kunsten. Architectuur werd beschouwd als meesterkunst of een leiderskunst. De jonge kunstenaars werd de werkelijke emancipatie ontzegd die een opleiding in de toegepaste meetkunde of in andere expliciet architecturaal getinte subdisciplines zou betekend hebben.

Evenmin was de *Accademia del Disegno* een instelling waar de creatieve inventiviteit van de kunstenaar geprezen en gecultiveerd werd. Meer nog dan in de 15^e eeuw heerste in de Florentijnse kunstpraktijk van het midden van de zestiende eeuw de regel dat de programmatische inhoud van een beeldend kunstwerk (de zogenaamde *invenzione*) door een aangestelde hofintellectueel werd ontwikkeld, meestal functionarissen met een literaire en klassieke opleiding, zoals Benedetto Varchi, Vincenzo Borghini of Cosimo Bartoli. Voor het inventieve werk van deze *letterati* werd meestal veel tijd uitgetrokken; de uitvoerende hofkunstenaars stonden daarentegen onder maximale tijdsdruk om deze programma's te implementeren.

Indien de plantaardige analogie vrij goed de passieve rol van de beeldende kunstenaars in het systeem weergaf, genereerde het ook op het vlak van de betekenisvorming een aantal winstpunten. Het spreken over kunstenaars in termen van gewassen, fruitbomen, en dergelijke, onderstreepte in de eerste plaats de idee van hun geworteld zijn in de Toscaanse bodem. Auteurs als Giorgio Vasari houden de gedachte levendig dat er iets zou zijn aan de natuur van Toscane als geboorteplaats, maar meer nog van Florence (de grond, de kwaliteit van de lucht, van het water...) dat de uitmuntendheid verklaart van de kunstenaars die er werden voortgebracht. Dat thema resonanceert met de manier waarop de stad sinds eeuwen met de bloeiende lelie werd geassocieerd, en de notie van het "Floreren" die zowel in de naam van de stad als in haar voornaamste embleem verzegeld liggen. Maar het grootste winpunt van de beeldtaal is dat het spreken over de creatieve geesten van de stad in termen van fruitbomen of gewassen steeds impliciet vergezeld gaat met de gedachte dat er een zonnepincipe is dat het groeien en het bloeien van de gewassen en fruitsoorten garandeert. Als absoluut heerser cultiveerde Cosimo de' Medici op een bewuste wijze zijn aura van zonnevorst. In vele opzichten is zijn beleid inspirerend geweest voor dat ander toonbeeld van absolutisme, het zeventiende-eeuwse Franse koninkrijk. Ook wat betreft de zonne-aura van de vorst.

Hoofdstuk zes: Hertogelijke alchemie

Hertog Cosimo de' Medici had slechts een bescheiden opleiding genoten wanneer hij, op 17-jarige leeftijd, verheven werd tot de functie van hertog van Toscane. Zijn opleiding zou hij zelf vervolledigen door het bestellen van specifieke werken bij zijn hovelingen. Het oeuvre van Benedetto Varchi, net als dat van andere vooraanstaande hofintellectuelen, blijkt op die manier ook een verregaande spiegel te zijn van de interesses van de hertog. Anderzijds is het ook duidelijk dat deze teksten, die niet in de eerste plaats bestemd waren om gepubliceerd te worden, maar wel om voor de hertog voorgelezen te worden, het denken en het beleid van die laatste op een tekenende wijze beïnvloed hebben. De teksten die in dit hoofdstuk besproken worden zijn tekenend voor deze wisselwerking. Cosimo de' Medici was bijzonder bewust van het belang dat zijn persoonlijk imago speelde in het oordeel van zijn onderdanen over de doeltreffendheid en de legitimiteit van zijn heerschappij. Zijn zorgvuldig uitgelezen vrijetijdsbestedingen worden handig ingezet om een zo positief mogelijk zelfbeeld te projecteren en zijn vorstelijk imago kracht bij te zetten. In dit hoofdstuk wordt ingegaan op voornamelijk twee van deze vrijetijdsbestedingen: Cosimo's passie voor de jacht, en zijn interesse in de praktische of operatieve alchemie.

Voor eigentijdse waarnemers stonden beide activiteiten met elkaar in verband. Cosimo was sinds zijn jeugd een goed jager. De dagelijkse praktijk van die sport liet hem toe zijn fysieke conditie in stand te houden, maar ook de fysieke conditie van zijn eigen territorium te kennen en te evalueren in functie van nodige ingrepen op het landschap. Tegelijk vormt het jachtterritorium van de hertog een groot openluchtlaboratorium voor de studie van de natuur. Volgens zijn biografen was de vorst een werkelijk natuurexpert. Hij zou de Toscaanse planten en dierenwereld bestudeerd hebben met de aandacht van een volwaardig bioloog. Die aandacht is ook gedeeltelijk gedocumenteerd, maar de nadruk van Cosimo's belangstelling blijkt gelegen te hebben op de betekenis van dier-, plant-, steen- en metaalsoorten als natuurlijke rijkdommen. Rijkdommen in de eerste plaats bedoeld om de staatskassen te spijzen en economie draaiende te houden. Volgens de overlevering zou Cosimo zelf de ontdekker geweest zijn van een reeks belangrijke marmergroeven en vindplaatsen van metaalertsen. Maar anderzijds ontwikkelt de vorst ook een doorgedreven interesse voor natuurlijke grondstoffen die een rol spelen in farmaceutische bereidingen. Niet enkel de verslagen van biografen, maar ook archiefmateriaal maken duidelijk dat de vorst zich persoonlijk bezighield met de bereiding van medicijnen en universele antidota. Deze geneesmiddelen, dikwijls eigen bereidingen, speelden een belangrijke propagandistische rol. Zij getuigden van de rijkdom van zijn botanische collecties en van de hertog's eigen kennis en bedrevenheid in de farmacologie, terwijl zij het beeld hielpen vormen van Cosimo als 's lands genezer. Dat beeld hernam een oude woordspeling die de Medici met artsen (*medici*) identificeerde. De geneesmiddelen en antidota van de hertog van Toscane waren over de hoven van heel Europa vermaard, met het resulterende profijt voor het imago van de opkomende prins.

Het farmaceutisch laboratorium van hertog Cosimo de' Medici was de facto ook een alchemistisch laboratorium. In het laatste decennium is het voorbehoud om Cosimo de' Medici af te schilderen als iemand die daadwerkelijk als alchemist werkzaam was weggevalen dankzij een aantal belangrijke studies (Perifano, Butters). In de tweede sectie van dit hoofdstuk wordt de achtergrond geschetst waarbinnen deze activiteiten moeten gesitueerd worden. De oorsprong van de alchemistische traditie wordt geëvoceerd, evenals de basispremissen van de discipline. Die premissen houden in de eerste plaats verband met de natuur en het gedrag van mineralen en metalen. Die basisassumpties, zoals de overtuiging dat metalen en mineralen net als plant- en dier soorten door natuurlijke groei tot stand komen, blijken voor een groot deel door de contemporaine natuurwetenschappen gedeeld te worden.

Het derde luik gaat in het bijzonder in op Benedetto Varchi's bijdrage tot het debat over de alchemie. Varchi schreef, waarschijnlijk in directe opdracht van de hertog, in het begin van de jaren 1540 zijn zogenaamde *Quistione* over de alchemie. Het betreft een dissertatie waarin de auteur, als buitenstaander, de filosofische 'mogelijkheid' van de alchemie tracht te bewijzen. De tekst is onafgewerkt en werd nooit gepubliceerd, maar werd zeker door Varchi zelf aan Cosimo voorgelezen.

Interessant is alvast Varchi's definitie van wat alchemie precies is. De auteur maakt snel duidelijk dat de term meer praktijken dekt dan de kunstmatige productie van goud of zilver. Hij geeft aan dat de term, van Arabische afkomst, slaat op de kunst van het vloeibaar maken van het vloeibaar (en dus manipuleerbaar maken) van zowel plantenextracten als metalen. De term waarmee door tijdgenoten naar het laboratorium van de hertog werd verwezen (*fonderia*; smelterij) dekt in een zekere zin deze brede definitie. Varchi onderscheidt drie soorten alchemie: 'ware', 'sophistische', en 'valse' alchemie. Van de drie soorten doet hij enkel 'valse' alchemie af als een verwerpelijke kunst die neerkomt op pure oplichterij en zelfs necromantie. 'Sophistische' alchemie, de kunst van het imiteren van waardevolle materialen, krijgt echter geen negatieve bijklank mee. De auteur komt hiermee blijkbaar zelf tegemoet aan de passie van de hertog voor de productie van imitatie-edelstenen. Echte alchemie, daarentegen, wordt gezien als de kunst waarbij een effectieve transmutatie van de materie

wordt tot stand gebracht die desgevallend kan leiden tot het bekomen van goud. De kern van de argumentatie waarmee hij de filosofische bezwaren tegen de mogelijkheid van de transmutatie van vorm tracht te weerleggen grijpt terug naar de geschriften van Albertus Magnus. Die had op zijn beurt verwezen naar Aristoteles' onderscheid tussen de imitatieve en de perfectieve kunsten om aan te geven. De alchemie imiteert de natuur niet, maar verwezenlijkt haar oorspronkelijke intenties, brengt haar tot volmaaktheid. Tegen het bezwaar dat alchemisten zichzelf godgelijke vermogens zouden toeschrijven antwoordt Varchi dat de alchemist, net als de andere beoefenaars van perfectieve kunsten, als de artsen of de landbouwers, niet meer doen dan de juiste omstandigheden verenigen om de natuur haar oorspronkelijke intenties te laten realiseren. Niet de alchemist, maar de natuur zelf voert transmutaties uit.

Varchi's meest belangrijke bijdrage tot het debat over de alchemie is echter een andere tekst, geschreven naar aanleiding van de lectuur van de *Quistione* voor Cosimo en een aantal van zijn medewerkers. Het gaat om de nauwelijks bestudeerde *Lezzione sui calori* ('Les over de warmten'), een tekst waarin de auteur de bewering weerlegt dat er in de natuur verschillende soorten warmten zouden bestaan. Volgens de redenering van verschillende tegenstanders van de alchemie zijn de generatieve warmten die zorgen voor de totstandkoming van gesteenten en metalen in de 'boezem van de aarde' of voor de ontwikkeling en de groei van dierlijke embryo's van een speciale soort die niet op kunstmatige wijze, met behulp van vuur kunnen gerepliceerd worden. Varchi weerlegt dat voorbehoud in een lange argumentatie. Het sluitstuk hiervan is echter een voorbeeld dat door de hertog zelf was aangegeven: de artificiële incubatie van eieren. Het feit dat eieren met kunstmatige warmte uitgebroed kunnen worden toont onweerlegbaar aan dat die generatieve warmte precies wel nagebootst kan worden. Alchemie is dus mogelijk.

Het vierde en laatste luik van dit hoofdstuk gaat meer bepaald in op de verschillende operaties die in de het hertogelijke alchemistische laboratorium werden uitgevoerd, en baseert zich hiervoor op een aantal bewaarde manuscripten. Die praktijken tonen de verregaande overlapping die ingebeeld werd tussen alchemie en de fysiologische processen die plaatsvinden in het dierlijke lichaam. De hitte geproduceerd in de alchemistische stoven werd geassimileerd met lichaamswarmte. De vaten waarin ingrediënten gemengd en getransformeerd worden imiteren de bloedvaten en de holle organen en kanalen waarin lichaamssappen circuleren en transformerende kookprocessen (*coctiones*) ondergaan. Het vormgevende vermogen van warmte speelt een essentiële rol. Er wordt, binnen de *fonderia*, veel aandacht besteed aan procedures die toelaten om, via opwarming, nieuwe substanties te ontwikkelen. Deze materialen die dikwijls een prominente rol krijgen in de architectuur (het gaat om kalk, gebakken klei, glas, staal, ...) worden voorzien van een bijzonder aura omdat ze door *coctiones* tot stand kwamen. De operatieve kracht van warmte in het bouwwezen herinnert aan Aristoteles' beschrijving van de vorming van een foetus die in vergelijkbare termen wordt beschreven.

In de hiërarchie van de verschillende lichaamsholten neemt het hart een bijzondere plaats in. Zeker voor de Aristotelische fysiologie heeft het hart een ontegensprekelijke voorrang op de andere organen. Het is het allereerste orgaan dat gevormd wordt: het is de zetel van de aangeboren warmte van het dierlijke lichaam. Het is, dankzij die warmte, ook de zetel van de meest essentiële *coctio's*. Hier wordt bloed getransformeerd tot *spiritus*, dat instaat voor de vitale en sensitieve functies van het lichaam. Maar in het (mannelijke) hart wordt bloed ook getransformeerd tot zaad, de substantie die het aangeboren warmteprincipe ook kan overdragen op een ander lichaam. In de laatste secties van het hoofdstuk wordt ingegaan op de mate waarin de *fonderia* van hertog Cosimo de' Medici, oorspronkelijk gelegen in het hertogelijke paleis in het centrum van de stad, vereenzelvigd wordt met het 'hart' van het symbolische lichaam van de staat.

Hoofdstuk zeven: Het overdragen van *virtù*

In het laatste hoofdstuk is de parallel gemaakt tussen het alchemistische laboratorium van de hertog (de *fonderia*) en de rol van het hart in een dierlijk lichaam. Het hart, volgens de Aristotelische biologie, is de plaats waar het generatieve zaad ontstaat, het resultaat van wat hogerop de ‘eerste of hete conceptie’ genoemd werd. Het vaderlijke zaad is de substantie waarin het vermogen vervat ligt om aangeboren, generatieve warmte over te dragen naar een derde lichaam. Het zaad speelt een intermediaire functie, het is een drager van vorminstructies en levengevend vermogen. In dit hoofdstuk wordt geanalyseerd hoe een reeks van de substanties die uit het hertogelijke laboratorium voortkomen een volledig analoge functie vervullen. De nadruk ligt hierbij op het feit dat deze producten als het ware als ‘warmtedragers’ kunnen gelezen worden. Een eenvoudig voorbeeld is peper, een kruid waaraan genezende eigenschappen werden toegeschreven, en waarvan werd gedacht dat het ook letterlijk vuur bevatte. Peper is uiteraard een natuurlijke substantie, maar uiteindelijk zijn alle producten van de *fonderia* samengesteld op basis van natuurlijke ingrediënten.

Een ingrediënt dat in dit verhaal een bijzonder statuut speelt is *spermaceti*, een olieachtig natuurlijk product dat in grote hoeveelheden werd gewonnen uit de holten in de snuit van de potvis. De substantie was bijzonder zeldzaam in het Italië van de Renaissance (potvissen komen nauwelijks voor in het middellandse zeegebied) maar genoot toch van een fantastische reputatie. Zoals de naam aangeeft werd sinds de Middeleeuwen gedacht dat de bijzonder verfijnde en goed brandbare olie in wezen het zaad van de walvis was. *Spermaceti* bevestigde aldus het vermoeden van een rechtstreekse link tussen dierlijk zaad en vuur. Cosimo de’ Medici wakkerde de fascinatie voor die bijzondere walvis aan door het skelet van een aan de Toscaanse kust aangespoeld exemplaar gereconstrueerd te laten ophangen onder de monumentale *Loggia de’ Lanzi*, recht tegenover het hertogelijke paleis.

De precieze functie van de zogenaamde ‘warmtedrager’ kan echter het best ingeschat worden door een analyse van bestaande denkbbeelden rond het ultieme product van een alchemistische manipulatie: de Steen der Wijzen. De analyse van een recept ter bereiding van de Steen der Wijzen afkomstig uit de collectie manuscripten die in de context van de hertogelijke *fonderia* werden geproduceerd, toont aan hoezeer dat proces wordt gepersonifieerd. De Steen der Wijzen, het resultaat van een langdurige procedure die in verregaand seksueel getinte termen wordt beschreven, is de *filius philosophorum*, het ‘kind’ van de alchemist. Anderzijds is de Steen een intermediair, een instrument dat in opdracht van de ‘vader’ de verlangde transformatie (van lood in goud of zilver) transformeert. Het is in dat opzicht een perfect analogon van dierlijk zaad (maar ook van de homunculus, dat ander emblematische object van het alchemistische streven). De steen bestaan niet om zichzelf, maar om een secundaire (getemperde) conceptie te weeg te brengen.

In de reeks van de verpersoonlijkte warmtedragers die in de context van de *fonderia* worden geproduceerd spelen zwavel en buskruit een bijzondere rol. Sinds de middeleeuwse alchemie werd zwavel reeds gezien als een analogon van dierlijk zaad. Een bijzonder invloedrijke traditie, ontstaan in de geschriften van Pseudo-Geber, identificeerde zwavel en kwik als respectievelijk de ‘vader’ en de ‘moeder’, of de ‘vorm’ en de ‘materie’ van alle metalen. Beide substanties speelden als dusdanig de absolute hoofdrol in de meeste alchemistische manipulaties. Ook in buskruit, een mengsel van zwavel, salpeter en verpulverd houtskool, werd zwavel verondersteld een inseminerende rol te spelen.

Nog meer dan helende oliën en destillaten of giften maakt buskruit duidelijk dat sommige substanties macht kunnen bevatten. In het midden van de 16^e eeuw woedde nog een ware wapenwedloop tussen vijandige staten voor het bekomen van het meest krachtige en efficiënte buskruit. Er werd aan industriële spionage gedaan om te trachten de nieuwe buskruitrecepten van de vijand trachten te ontfalen. Het is niet verwonderlijk dat in die context (al)chemistische expertise als een evident

teken van macht werd geïnterpreteerd. Het feit dat de prins zich persoonlijk met deze kunsten inliet moet door tijdgenoten geïnterpreteerd zijn geweest als een teken van zijn verlangen om hoogtechnologisch onderzoek te steunen. Anderzijds veroorzaakt de vereenzelviging van de prins met de *fonderia* de toeschrijving van het vermogen (de *virtù*) van een geneesmiddel, een gif, een buskruit of een andere substantie afkomstig uit de *fonderia* de krachtdadigheid van de prins zelf.

In het tweede luik van het hoofdstuk wordt de logica van de verpersoonlijking van de materie verder doorgetrokken. In het bijzonder wordt er aangetoond dat binnen de logica van het artificiële object als index, vehikel of drager van het transformerende vernuft van de prins ook in de meer traditionele kunstobjecten vervat komt te liggen. Het meest tekenende voorbeeld is dat van de porfiersculpturen die vanaf de jaren 1550 prominent aanwezig worden in de door de hertog gesponsorde kunstproductie. De meeste van deze sculpturen zijn van de hand van de beeldhouwer Francesco del Tadda, die zich in het beeldhouwen van het ongemeen harde porfier specialiseerde. Verscheidene contemporaine bronnen maken echter duidelijk gewag van het feit dat het Cosimo de' Medici hemzelf was die het recept vond voor de productie van een staal dat voldoende hard zou zijn om in porfier te beitelen zoals met dat in zachtere gesteenten doet. Het verhaal werpt een nieuw licht op de notie van auteurschap. Op een bepaalde wijze wordt de vorst evenzeer auteur van de beelden, die zonder zijn interventie niet tot stand hadden kunnen komen. Francesco del Tadda, maar ook de beitels die hij hanteert spelen slechts een ondergeschikte rol in het genealogisch verband dat de prins, doorheen de porfieren beelden, met zijn onderdanen (de toeschouwers van die beelden) in verband brengt. Hoofdstuk 5 heeft aangetoond dat de dominante retorica aan Cosimo's hof de kunstenaars reduceerde tot instrumenten, willoze gewassen.

Keten van opeenvolgende interacties tussen telkens een agerende, actieve partij enerzijds, en een materiële, passieve partij anderzijds, die resulteren in een nieuw lichaam dat opnieuw zelf een kracht of een werking (agency) kan uitoefenen op een passief lichaam. Menselijke lichamen kunnen zowel actieve als passieve pool spelen in dergelijke hiërarchisch ingebedde verhoudingen. Een menselijk lichaam kan passief zijn wanneer het bijvoorbeeld de werking van een gif ondergaat, wanneer het door een kanonskogel getroffen wordt, of wanneer zijn of haar gedrag door de fascinerende werking van een kunstobject beïnvloed wordt.

Hoofdstuk acht: Benvenuto Cellini. Het weerspannige instrument.

Het laatste hoofdstuk, acht, gaat in het bijzonder in op de figuur van Benvenuto Cellini. Cellini stelde zich in de loop van zijn bestaan in Florence openlijk uitdagend op ten opzichte van de Vorst. Een houding waar hij ook voor afgestraft zou worden.

Cellini's carrière vertoont een aantal interessante parallellen met die van Benedetto Varchi. Beide mannen zijn van dezelfde generatie en kennen elkaar sinds hun jeugd. Ze zouden ook een in moeilijke tijden, naar het eind van hun leven, een hechte vriendschapsband houden. Daar waar Varchi zijn hele carrière lang een ambigue verhouding zou hebben met de hertogelijke macht, zonder dat dit op langdurige rechtstreekse confrontaties zou leiden, was dit bij Cellini echter wel het geval. Cellini verwierp herhaaldelijk het verdrukkende systeem van omkadering van kunstenaars waarin hij werd gedwongen. Hij had een bijzonder stormachtige relatie met de verantwoordelijken van de *Accademia del Disegno*. Zijn weerspannigheid zou uiteindelijk leiden tot het voortijdige en plotse einde van zijn academische carrière.

Cellini kwam in 1545 in dienst van hertog Cosimo de' Medici, en trad onmiddellijk aan het werk voor de opdracht van een bronzen Perseusstandbeeld voor de Piazza della Signoria die hij van de hertog meekreeg. Het zou zijn enige belangrijke opdracht worden in Florence, waar hij nochtans de laatste drie decennia van zijn leven doorbracht. Het beeld van de *Perseus* zelf werd in 1549 gegoten, maar door de lange duur van de afwerking van het brons kan de groep pas in 1554 ingehuldigd

worden. Het werk wordt met enorm veel succes onthaald. Zowel opdrachtgever als uitvoerder zijn begrijpelijk tevreden, maar de verhouding tussen beiden zou snel ontaarden ten gevolge ondermeer van de twist over de betaling van het werk. Drie jaar na de inhuldiging van het beeld wordt Cellini berecht wegens overtreding van een recente wet op de sodomie, een wet waarvan geopperd is geweest dat ze door Cosimo zelf was ontworpen om politieke tegenstanders uit de weg te ruimen. De goudsmid en beeldhouwer wordt veroordeeld tot een gevangenisstraf van vier jaar. Een smeekbrief naar de hertog laat Cellini toe de straf te laten omzetten in huisarrest, maar de veroordeling kenmerkt het einde van de tewerkstelling van de kunstenaar door het hof voor grote opdrachten. Zijn huisarrest verbiedt hem uiteraard ook Florence te verlaten om een andere opdrachtgever te zoeken.

Het is in die context, en met het gevoel van werkelijk in de val gezet te zijn geweest, dat Cellini zijn biografie aanvangt. De *Vita* is een fresco waarin de auteur zichzelf een mythische dimensie toemeet, terwijl zijn tegenstanders erin worden verguisd. Cosimo neemt een niet onbelangrijke plaats in in deze laatste categorie. De biografie werd in het begin van de 18^e eeuw gepubliceerd, en zou vanaf dan een enorm succes kennen. Het werd door Romantici gevierd worden als een lofzang van het ongeremde Renaissance-individue aan zijn herwonnen vrijheid. Tijdens Cellini's leven, echter, was allicht slechts een handvol intimi met het manuscript vertrouwd. Het is het paradox van de geschiedenis dat Cellini erin sloeg om doorheen zijn tekst een indruk van Cosimo na te laten als een onoordeelkundig vorst die hijzelf herhaaldelijk kleineert, terwijl in de werkelijkheid Cellini naar het einde van zijn leven volkomen in de speelbal was van de prins.

Cellini's falen om zich in te passen in het rigide en verdrukkende systeem van het Florentijnse hof leest als de kroniek van een aangekondigde mislukking. De man blijkt effectief over een ontembaar karakter beschikt te hebben. De *Vita* is slechts de uitvergroting van een reeks effectief bestaande karaktertrekken. Ook bij andere opdrachtgevers stond de kunstenaar geboekstaafd als een al te mondige, zoniet onbeschofte medewerker, amper geschikt voor de zestiende-eeuwse hofse cultuur. Zoals ook uit zijn eigen poëzie blijkt was de kunstenaar vooral uit op een beleving van zijn eigen mannelijkheid. Niet bij machte zijn eigen dominantiedrift in te tomen, zou hij snel met zijn opdrachtgevers een competitieve in plaats van onderdanige verhouding aangaan. De *Vita* levert een paar mooie illustratie van die competitiezucht met Cosimo de' Medici, die bijzonder interessant zijn omdat ze reveleren in welke dimensies Cellini meende dat hij de autoriteit van de hertog kon aantasten (om dan zijn eigen competentie in diezelfde domeinen te kunnen onderstrepen).

Drie min of meer onderscheiden domeinen van hertogelijke expertise kunnen hierbij onderscheiden worden. Voor ieder van die domeinen zou Cellini telkens aantonen dat 1. Cosimo hierin een zekere autoriteit geniet 2. dat die autoriteit ongefundeerd is 3. dat zijn eigen expertise beduidend superieur is.

Het eerste domein is dat van het metaalgieten. Zoals eerder aangegeven was de manipulatie van metalen één van de basisactiviteiten van de *fonderia*. Cosimo experimenteerde zelf in de metallurgie, een industrietak die hem nauw aan het hart lag, en die hij trachtte te stimuleren door het rationaliseren van de uitbating van de verschillende ontginningsplaatsen die Toscane rijk was. Cellini was als goudsmid en als auteur van één van de grootse kunstwerken in brons uit zijn tijd natuurlijk ook goed geplaatst over oordelen te vellen over de expertise van de anderen. Het oordeel van de kunstenaar over de kennis van de hertog in het domein is vernietigend. Vooral de episode uit de *Vita* waarin Cellini en de hertog samen speculeren over wat er bij het gieten van de *Perseus* zal gebeuren is daarbij tekenend. Het tweede domein betreft de kennis van juwelen en edelstenen. Het namaken van edelstenen zou een passie geweest zijn van de hertog. De goudsmid Cellini haalt echter meermaals uit in de *Vita* met een vernietigend oordeel over die kennis. Het derde domein tenslotte betreft bekwaamheid op het vlak van de militaire architectuur en de kennis en bedrevenheid met wapentuig. Hier insisteert Cellini vooral op zijn eigen bedrevenheid. In de episode waarin

hij zijn eigen heldendaden beschrijft als schutter vanop de Engelenburcht tijdens de *sacco* van 1527, merkt de auteur van de *Vita* op dat allicht een nog betere artillerist zou zijn geweest dan goudsmid of beeldhouwer, moest hij voor dat beroep gekozen hebben. Elders beschrijft hij hoe hij niet alleen zelf zijn eigen wapens maakte, maar ook een geheel nieuw soort buskruit. Ook met de concurrentie binnen zijn eigen beroep gaat Cellini een buitengewoon agonistische verhouding aan. Kunstwerken (bijvoorbeeld edelsmeedwerken) worden in de *Vita* dikwijls in dezelfde termen als wapens beschreven. Zij dienen in de eerste plaats om de concurrentie een kop kleiner te maken.

Meer dan alle andere is echter één welbepaalde passage uit de *Vita* tekenend voor de manier waarop Cellini zijn eigen kunst percipieert. Het betreft het bekende relaas van de fusie (het gieten) van het beeld van de *Perseus*. Het is voornamelijk interessant omdat het treffend weergeeft hoezeer voor de beeldhouwer de creatieve essentie van zijn vak voornamelijk situeert in een degelijk vakwerk gewortelde onmiddellijke confrontatie met de materie. Anderzijds reveleert de episode ook zeer duidelijk een personifiërende omgang met de materie, die sterk herinnert aan de houding van alchemisten ten opzichte van hun te broeden gelegde ingrediënten.

In zijn beschrijving van de hachelijke onderneming van het gieten zou Cellini trouwen uitbundig een medische terminologie bezigen en spreken over zijn metaal als een te helen lichaam, in termen die ook weer volledig verenigbaar zijn met de houding van de alchemisten. Cellini zou trouwens een verregaande parallel ontwikkelen tussen de parallele genezing van zijn lichaam, dat op een bepaald ogenblik door een bijna fatale koorts wordt bevangen, en het lichaam van het metaal in de gietoven dat simultaan kritisch aan het afkoelen is. Deze parallellen onderstreept hoezeer zowel geneeskunde als de kunst van het metaalgieten kunsten zijn waarin in de eerste plaats warmte als delicaat instrument wordt gehanteerd. Een manipulatie die een verregaande expertise genoodzaakt. Net als geneeskunde is metallurgie toegepaste natuurfilosofie.

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¹ Quello che è degno d'osservazione: che 'n tutte le lingue la maggior parte dell'espressioni d'intorno a cose inanimate sono fatte con trasporti del corpo umano e delle sue parti e degli umani sensi e dell'umane passioni. Come "capo", per cima o principio; "fronte", "spalle", avanti e dietro, "occhi" delle viti e quelli che si dicono "lumi" ingredienti delle case; "bocca", ogni apertura; "labro" orlo di vaso o d'altro; "dente" d'aratro, di rastello, di serra, di pettine; "barbe", le radici; "lingua" di mare; "fauce" o "foce" di fiumi o monti; "collo" di terra; "braccio" di fiume; "mano" per picciol numero; "seno" di mare, il golfo; "fianchi" e "lati" i canti; "costiera" di mare; "cuore" per lo mezzo (ch'umbilicus dicesi da' latini); "gamba" o "piede" di paesi, e "piede" per fine; "pianta" per base o sia fondamento; "carne", "ossa" di frutte; "vena" d'acqua, pietra, miniera; "sangue" della vite, il vino; "viscere" della terra; "ride" il cielo, il mare; "fischia" il vento; "mormora" l'onda; "geme" un corpo sotto un gran peso; e i contadini del Lazio dicevano "satire agros", "laborare fructus", "luxuria segetes"; e i nostri contadini "andar in amore le piante", "andar in pazzia le viti", "lagrimare gli ornì", ed altre che si possono raccogliere innumerabili in tutte le lingue. Lo che tutto va di séguito a quella degnata: che "l'uomo ignorante si fa regola dell'universo", siccome negli esempi arrecati egli di sse stesso ha fatto un intiero mondo." Giambattista Vico, *La scienza nuova*, Milano: Biblioteca Universale Rizzoli, 1977, p. 284 (Napoli, Felice Mosca, 1725).

Introduction

This is worthy of attention: in all languages most expressions about inanimate objects are made of transfers from the human body and from its parts, from the human senses and from the human passions. Like “head” for top or beginning; “front”, “shoulders” for before and behind; “eyes” of vines and of certain the house; “mouth” for any opening; “lip” for the rim of a pitcher or other container “tooth” of a plough, rake, saw, or comb; the “beards” for roots; “tongue” of the sea; “throat” of rivers or mountains; “neck” of land; and the “arm” of a river. We say “hand” for a small number; “lap” of the sea for a gulf [Latin *sinus*, bay]; and “flanks” and “sides” lateral portions. We speak of the “rib” [coast] [Italian *costiera*, rib] of the sea, and the “leg” or “foot” of countries. We say “heart” for the centre (as the Romans said “*umbilicus*”, navel); “foot” for end, and “plan” [Latin *planta*, footprint] for base or foundation. We speak of the “flesh” and the “bones” [English stones] of fruit; a “vein” of water, rock or ore; the “blood” of the vine, meaning wine; and the “bowels” of the earth. Similarly, the sky or sea “smiles” on us; the wind “whistles”; the waves “murmur”; and a body groans under a great weight. In antiquity, the farmers in Latium used to say that “the fields were thirsty”; “the crops were distressed”, and “grains ran riot”. Even today farmers say that “plants fall in love”, “vines go mad”, and “fir-trees weep with sap”. And countless other examples can be cited in any language. All this follows from this significant truth: “The ignorant man makes himself the measure of the universe.” And in the examples cited, man has reduced the entire world to himself.¹¹

² David Summers, *The judgment of sense: Renaissance naturalism and the rise of aesthetics*, Ideas in context (Cambridge; New York, 1987)., p. 30.

³ Oscar Kristeller, "The modern system of the arts: a study in the history of aesthetics. Part I," *Journal of the History of Ideas* (1951).

1.

This study is an investigation into the history of architectural theory. Yet it approaches Renaissance reflections about architecture by investigating first the far larger and elusive domain in which that reflection is embedded: the theory of the artefact. There has been only scant attention within the disciplines of art- and architecture history for the 'theory of the artefact', and this for understandable reasons. By definition, the category of the artefact covers any hand-made object or construction; it therefore fails to define what made art-history legitimate in the first place, i.e. a criterion that distinguishes objects with artistic or aesthetic value from those on which it is agreed upon that they lack it. It is precisely that question which we will leave aside and allow us to broach a theory of the artefact.

This study focuses on one specific cultural environment: Cinquecento Florence, and, more particularly, mid-16th century Florence, when the city was under the reign of Duke Cosimo I de' Medici. That environment has been particularly fecund in reflections on artistry. A multitude of writings concerning the arts were issued, including the volumes written by the Aretine painter and architect who 'founded' the art-historical discipline. But viewed from the perspective of the history of Western aesthetics, the debate on the nature of the art object was still an early, embryonic phase. One critic termed the period as the 'prehistory of modern aesthetic language', reminding us that aesthetics as a distinct field of philosophical investigation only emerged in the 18th century.² The notion of the 'fine arts', furthermore, did not yet exist.³

One of the starting points of this research project was the following question: what is the significance of the use, in the Renaissance theory on the arts, of direct parallelisms between the production of a work and natural birth. Formulated otherwise: why did Renaissance authors in some cases write of artefacts as being 'born' instead of as being 'made'?

The point of working on artefacts that are 'born' and on related ideas, is that it allows to reveal other modes through which a series of 'special' artefacts were distinguished in the language and reflection of that moment. By identifying some artefacts as 'living' or 'born', people made value judgments about these things, which put them aside from a vast multitude of other everyday objects, and endowed them with a privileged statute. As we shall see, such attributions did not only occur for the objects that we, today, consider to be works of art. Among the several artificial products that were endowed with 'life' figure things we would now classify as belonging to the realm of technology or

⁴ Eugenio Garin, *Moyen-Age et Renaissance* (Paris, 1969)., p. 76.

⁵ The other verbs are: *fare, figurare, fingere, creare*. See Martin Kemp, “From “Mimesis” to “Fantasia”: the Quattrocento Vocabulary of Creation, Inspiration and and Genius in the Visual Arts,” *Viator* (1977)., p. 381.

⁶ Leonardo, Windsor 19045, cited in *Ibid.*, p. 377-378.

⁷ “Ma molto più [di fama gli] diede il modello del palazzo d’Agostin Chigi, condotto con quella bella grazia che si vede, non murato ma veramente nato, et adorno di fuori di terretta con storie di man sua, fra le quali alcune ve ne sono molto belle.”Vasari, T4/G4 (‘Life of Baldassare Peruzzi’), p. 318.

⁸ Zie Giovanni Rucellai and Alessandro Perosa, *Giovanni Rucellai ed il suo Zibaldone*, Studies of the Warburg Institute, v. 24, I-II (London, 1960)., p. 34.

even chemistry. Our approach has been not to let such classificatory transgressions refrain us from pursuing the logic of the ‘born’ artefact. We ended up investigating an area in which Late-Renaissance theories about biology, technology and art overlap.

2.

In 20th-century accounts of the ‘Age of Humanism’, ‘creation’ has been termed the activity in which the Renaissance individual most typically engaged. Eugenio Garin, evoking the capacity of 15th-century humanists and artists to reshape their own universe, coined ‘creator’ as the most profoundly resonating term of the whole Renaissance.⁴ And yet, when reviewing sources of the period, one is systematically confronted with accounts of artists who describe the process of invention and production of their works in terms that are borrowed from nature, from the realm of agriculture, from embryology and obstetrics.

Leonardo da Vinci, it has been noted, used seven different verbs to refer to the “creation of a painting” in his manuscripts. The standard formula, invariably used in contracts is *fare* (to do, to make). Yet half of the six other verbs carry explicit biological or natural associations: *partorire*, *nascere*, *generare* (begetting, being born, generating).⁵ Elsewhere Leonardo enigmatically observed:

Nature is concerned only with the production of elementary things, but man from these elementary things produces an infinite number of compounds, though he has no power to create any elementary thing except another like himself, that is his children.⁶

In the *Life of Baldassare Peruzzi*, Giorgio Vasari stated that one of Peruzzi’s most famous Roman buildings, the *Farnesina*, had been erected with such grace (*grazia*) that it seemed “not just bricked up, but truly born” (*non murato, ma veramente nato*).⁷ Vasari’s words are reminiscent of the etymology of the term *architecture*. As we will see in a later chapter, the word ultimately derives from the Greek verb *τίκτω*, which means ‘to beget’.

Sometimes such statements clearly mean to point to the fact that, like producing offspring, building is about producing something that will outlive its generator. As the merchant Giovanni Rucellai (1403–1481), Alberti’s most important Florentine patron, wrote in his personal record book or *Zibaldone*: “two things matter to man: to engender and to build.”⁸

In other cases, the use of the birth-analogy may refer to the fact that, like engendering and raising children, building is a collaborative effort requiring several con-

⁹“E perché t’ho assomigliato l’architetto alla madre, così è bisogno che sia madre e balia.” Filarete, Anna Maria Finoli, and Liliana Grassi, *Trattato di architettura* (Milano, 1972)., p. 41

¹⁰ In her article on Filarete’s treatise in *Paper Palaces*, Luisa Giordano limited herself to observe that the elevation of the architect to the rank of ‘mother’ signalled a “more dignified role than that afforded in the Middle Age”, while, on the other hand “it defines his position not as an autonomous artist, but rather as a privileged figure within the confines of the court.” (Luisa Giordano, “On Filarete’s ‘Libro Architetonico’,” in *Paper palaces: the rise of the Renaissance architectural treatise*, ed. Vaughan Hart and Peter Hicks (New Haven, CT, 1998)., p. 56). Rykwert, in his massive study on the corporeal roots of classical architecture, announced in 1989 as *Body and Building*, but published as *The Dancing Column* (1996), focused on Filarete’s derivation of architecture from the body of Adam, but left the long comparison of natural and architectural generation un-commented. (Joseph Rykwert, *The dancing column: on order in architecture* (Cambridge, Mass., 1996).) Hanno-Walter Kruft was caught by Filarete’s insistence that “the edifice is truly a living body”,¹¹ but limited himself to observe, regarding book II, that: “Filarete carries the verisimilitude of his organic conception so far as later to designate the client as the father and the architect as the mother of building.” (Hanno-Walter Kruft, *A history of architectural theory: from Vitruvius to the present* (London New York, 1994)., p. 54).

tributors, entailing a strong, almost passionate commitment while being rewarded with great pleasure. In his manuscript treatise on architecture written in the 1460's, Filarete explicitly identified a patron and his architect as sexual partners. The two will first have intercourse in order to conceive their 'child'. The architect, like an impregnated mother, will keep his project for a period of seven or nine months in his mind, let his imagination work on it, contemplate it from all sides and assess different alternative designs in accordance to the desires of his patron, the 'generator'. At the end of the prescribed term, the architect literally begets a project in the shape of a small wooden model, which he then proudly presents to the patron-father. Maternal love feelings, Filarete continues, will determine the architect's attitude to the newborn building. Driven by that love he will look after the child, fulfil its needs and insure its development into a beautiful and sane specimen. The best educators are sought after; they are the masons, carpenters and other building professionals who will insure the solid erection of the building. Filarete compares the architect's constant care for his building with a mother breast-feeding her child.⁹

Filarete's colourful analogy is well known but left relatively untouched in present-day analysis which suggests that it is perceived as a purely playful metaphor, tending to the grotesque because of the thoroughness with which the architect carries on the analogy into the smallest details (the seven-to-nine months, the breast feeding, ...).¹⁰ Yet, beyond the idea of creative partnership, the description may also be interpreted as the expression of some deeply engrained convictions about corporeal existence. Even if brought about by the will of humans, a building, and any artefact for that matter, is in the first place a body. The fact is stated with much emphasis not only by Filarete but also by Leon Battista Alberti. Pre- and early modern wisdom stipulates that terrestrial bodies, whether natural or artificial are subjected to the same rules of sublunary existence. They come into being and pass away, and are, in this cycle, governed by the non-corruptible higher spheres. See for instance the description given by the architect Francesco di Giorgio:

...it is manifest that everything contained within the heavens, subjected to generation and corruption, draws its origin, its increase, its [perfected] state and its decrease from the heavenly bodies – except the immaterial and incorruptible human soul – as does the contained from the container, the corruptible from the incorruptible, the inferior from the superior and, finally, the particular from the universal. From this follows necessarily that, no less than any of the bodies produced by nature, every single human building (*ciascuno umano edificio*) depends on the heavens.

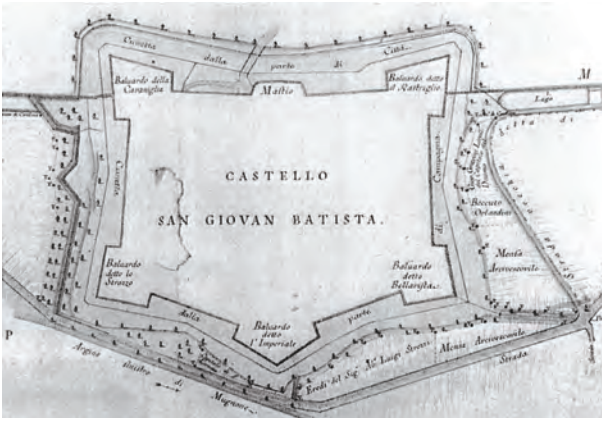


Fig. 0.1 Early drawing for the Fortezza da Basso.

¹¹ “Dall’altra parte, essendo manifesto che ogni cosa contenuta dalli cieli generabile e corrutibile pigli origine, augumento, stato e decremento dalli corpi celesti, ecetto la immateriale [et incorruttibile] anima umana, si come la cosa contenuta dalla continente, come la corrutibile dalla incorruttibile, come la inferiore dalla superiore, e finalmente la particolare dalla universale, seguita di necessità che non minore dipendenza dalli cieli abbi ciascuno umano edificio che li altri corpi della natura prodotti [...]. Ultimamente questo la esperienza testifica: perché spessissime volte per astronomia considerato lo ascendente et altre condizioni del punto della edificazione di molte città e altre opere umane, li tempi prosperi et avversi sono state giudicati e preditti. Non bisogna adurre autorità di astrologi, li quali con una voce concordandosi affermano non solo le cose naturali, ma eziandio le artificiali, e che più è, tutti li atti delle potenzie sensitive pigliare da corpi celestiali influenza...” Francesco di Giorgio Martini and Corrado Maltese, *Trattati di architettura ingegneria e arte militare* (Milano, 1967). (Primo trattato: Principi e norme necessarie e comuni), p. 301.

¹² Richard A. Goldthwaite, *The building of Renaissance Florence. An economic and social history*. (Baltimore and London, 1982)., p. 85.

As the architect makes clear, the idea entails that astrological predictions can be made on a building's life cycle:

...it often occurs that after astronomical observation of the ascendant and the other conditions proper to the point [in time] at which many a city or other human works were built, phases of prosperity and adversity have been discerned and predicted. It will not be necessary to invoke the authority of astrologists, which all in unison assert that not only the natural things, but also the artificial ones [...] derive influence from the celestial bodies.¹¹

For Francesco di Giorgio, consequentially, it is just as useful to cast the horoscope of a city or of a building, based on the exact date of its birth, as it is to cast the horoscope of a child. It is worth stressing in this context that the term for horoscope, in Tuscan is *genitura* ('coming-into-being'). Every thing generated, that is the idea, whether animate or not, is marked by its origination process, its genesis. The same idea is in fact embedded in the Tuscan term for nature: besides its meaning as 'nature', *natura* can also be read as the substantive derived from *nascere* (to be born). It can then be understood as either referring to a birth, a *nascimento*, or as the product of that birth, the thing born. The counterpart is the noun *fattura*. *Fattura* (facture), from the verb *fare*, refers simultaneously to the process of making, to the thing made, and to the qualities of that thing made.

As with the horoscope of a child, astrological calculations, according to Francesco di Giorgio, allow to make predictions about a city, a building, an artefact's fate. Some of the architect's contemporaries did not hesitate to schedule the astrological birth of their building in function of the most propitious constellations.

It has been noted how Filippo Strozzi, the builder of the homonymous Florentine Palazzo had asked Marsilio Ficino and a series of other astrological advisers to calculate the most propitious moment to start filling the newly dug foundations of his familial palazzo. Eventually, the date of 6 August 1489 was agreed upon as the most favourable to insure a durable future to the palazzo.¹² Another well documented, and even more ritualized instance of such an astrologically planned birth, or laying of the first stone is that of the Florentine *Fortezza da Basso*, a fortress built in 1534 under the government of the first Florentine Duke, Alessandro de' Medici. The astrologists whom Duke Alessandro had consulted were not able to agree on a date. One of them, a Carmelite friar, suggested July 15th 1534, others suggested that ceremony should take place four days later. Eventually the horoscope of the 15th was sent to experts in Bologna for advice. Their approval was decisive. Two marble slabs were prepared. During the ceremony Duke Alessandro de' Medici and his principal adviser, the Bishop of Assisi, were to lower the slabs simultaneously into bottom of the empty foundation ditch. The marble tables were

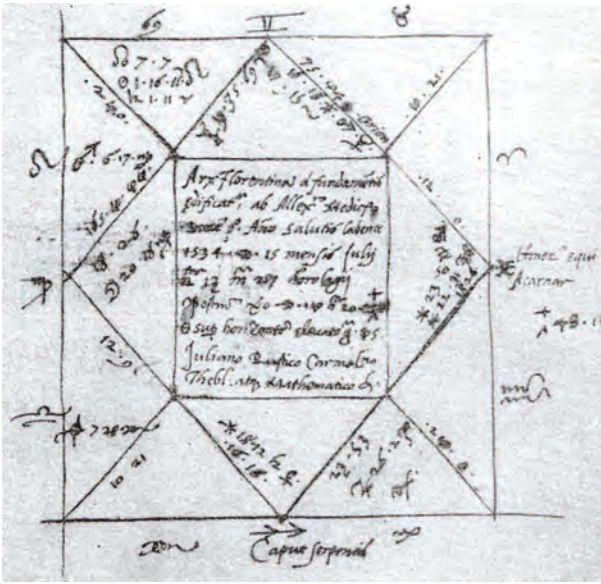


Fig. 0.2 Horoscope for the laying of the first stone of 'Arx Florentina' (Fortezza da Basso), July 15th 1534 (as published by Hale).

¹³ For a description of the whole ceremony, see J.R. Hale, "The end of Florentine liberty: the Fortezza da Basso," in *Florentine studies: Politics and society in Renaissance Florence*, ed. Nicolai Rubinstein (London, 1968), pp. 518-520.

engraved with personalized dedications. One of them mentioned the date and the exact hour of the foundation: July 15th, XIII and ½ hour after the previous sunset. The event itself was celebrated with great pomp, attended by crowds and described later by several witnesses. The slabs were consecrated during a solemn mass held moments before the astrologically determined time. But again conflict arose about when exactly that moment arrived. The ‘time measuring machines’ of the Carmelite astrologer and the Duke’s master clock maker Lorenzo della Volpaia were not synchronized. The stones, therefore, had not been laid at the moment foreseen which caused the astrologer to predict that the citadel would fall in ruins at the end of ninety-three years.¹³

The belief in astral influences on the life-cycle of an artificial body was not a marginal phenomenon. Beside a Duke and a Bishop, prominent intellectuals like the historian Francesco Guicciardini, the Bishop’s contact in Bologna at the time, were directly involved in the setup of the ceremony. This should all impel us to take the words of Francesco di Giorgio mentioned above highly seriously.

3.

The assertions of Francesco di Giorgio on a building’s individual destiny were rooted in a world view in which the physical phenomena of the sublunary are subjected to the inexorable influence of the heavenly bodies. Such views proceeded from Aristotelian-Scholastic theories about physics, corporeal existence, generation and corruption and were widely held and explicitly discussed in di Giorgio’s time. But during the several decades that separate Francesco di Giorgio from the mid-16th century, the period we will investigate, an evolution occurred in both the cultural climate and the attitude towards these problems. Writings about architecture tended to become increasingly focused on more specific problems directly linked with the practicalities of architectural design, such as the question of classical orders. Broad anthropological considerations about the role of architecture in human society, as we still find them in the writings of Alberti, Filarete, or Francesco di Giorgio tended to disappear from the general discourse on architecture. Nor does one find, in 16th- century Italian architectural treatises, reflections about the ontological status of the bodies which humans artificially assembled together.

For whoever is interested in the link between theories about corporeality and architectural theory and practice for that period, this deficit in direct sources has led, in some cases, to over-interpretation. A striking instance of such over-interpretation is the 20th-century reception of Michelangelo’s famous *Letter to an Unknown Prelate*. The document

¹⁴ “...p[erché] e cosa certa che le me[m]bra dell[']architettura dipe[n]dono dalle membra dell[']uomo[.] chi non e stato o non e buo[n] maestro di figure e massimo di notomia no[n] se ne puo i[n]tendere.” This is the last sentence of the letter as it appears in the transcription of Marcus Frings, “Zu Michelangelos Architekturtheorie: eine neue Deutung des sog. ‘Prälaten-Briefes’,” *Zeitschrift für Kunstgeschichte* 61 (1998), p. 227.

¹⁵ The other statement on art-theory being the equally brief letter Michelangelo addressed in 1547 to Varchi on the question of the primacy-contest between painting and sculpture. See chapter three.

¹⁶ Geoffrey Scott, *The architecture of humanism: a study in the history of taste* (New York, 1999), p. 135.

¹⁷ This is the transcription of the letter as it appears in Marcus Frings, “Zu Michelangelos Architekturtheorie: eine neue Deutung des sog. ‘Prälaten-Briefes’,” *Zeitschrift für Kunstgeschichte* 61 (1998).

¹⁸ Rudolf Wittkower, *Architectural principles in the age of humanism*, Studies of the Warburg Institute, v. 19 (London, 1949), p. 101.

is a fragmentary draft, found in Michelangelo's personal writings, of a letter to a high ranked church official, in which Michelangelo shares his views about one of his architectural projects – opinions diverge on whether this is the Roman Capitol or the church of Saint Peter – and eventually makes his case for a specific design solution by referring to the human body: the argument ends as follows:

...because it is a certain thing, that the members of architecture derive from the members of man. Who has not been or is not a good master of the human body, and most of all of anatomy, cannot understand anything of it.¹⁴

These are but a few words, but they have been given tremendous weight because they are one of the two only autograph statements on art theory and the only written statement on architectural theory that have been conserved from Michelangelo.¹⁵ Very different interpretations for the text fragment exist. Revealing the relevance of the human paradigm for Renaissance architecture, they also and foremost reveal the changing perceptions of these matters by their authors and epochs. Geoffrey Scott, for instance, used the letter in *The Architecture of Humanism. A study in the history of taste* (1914) in order to stress the corporeal approach to architecture he wished to advocate.¹⁶

Architecture, to communicate the vital values of the spirit, must appear organic like the body. And a greater critic than Vasari, Michael Angelo [sic] himself, touched on a truth more profound, it may be, than he realized, when he wrote of architecture: 'He that hath not mastered, or doth not master the human figure, and in especial its anatomy, may never comprehend it.'¹⁷

More than three decades later, the trailblazing study by Wittkower was published. *Architecture in the Age of Humanism* (1949), consciously constructed as a violent rebuttal of Scott's assumptions, quotes Michelangelo's *Letter* in order to disprove the point made by Scott. Wittkower, in his effort to stress the unembodied, mathematical logic of architecture, which derives of the human members only in terms of commensuration and proportions, carefully avoided any reference to anatomy when quoting the letter:

Michelangelo, in a letter of about 1560, wrote that 'there is no question but that architectural members reflect the members of Man' and that those who do not know the human body cannot be good architects.'¹⁸

Twelve years later the *Letter to an unknown prelate* became the spill around which James Ackerman built the opening chapter of his monograph *The Architecture of Michelangelo* (1961). Ackerman used the letter to demonstrate that Michelangelo was precisely distancing himself of the proportional, typically *Quattrocento* stance toward the body as an architectural reference. Here, in a remarkable swing back to a position akin to that of Scott, Ackerman came to stress again the organic, muscular strength emanating of Michelangelo's architecture.

¹⁹ James S. Ackerman and John Newman, *The architecture of Michelangelo*, 2nd ed. (Chicago, 1986), p. 44

²⁰ David Summers, *Michelangelo and the language of art* (Princeton, NJ., 1981), p. 442.

²¹ Frings, "Zu Michelangelos Architekturtheorie: eine neue Deutung des sog. "Prälaten-Briefes"."

[Michelangelo's] association with the human form was no longer a philosophical abstraction, a mathematical metaphor. By thinking of buildings as organisms, he changed the concept of architectural design from the static one produced by a system of predetermined proportions, to a dynamic one in which members would be integrated by the suggestion of muscular power.¹⁹

Twenty years later, an again more intellectualist interpretation of the *letter* appeared in David Summers's *Michelangelo and the Language of Art* (1981). Summers lent a particularly great weight to the *letter*, to which he dedicated an entire chapter of his book, to conclude rather disappointingly, after a strenuous argumentation, on the assertion that bilateral symmetry stood at the core of Michelangelo's theory of art and architecture. In high-flown, almost mystical terms, Summers concluded:

Symmetry is thus not simply formal, but revelatory, sensible and intelligible, infusing, to use Ficino's word, the intellect through the senses of sight.²⁰

One of the more recent interpretations of the *letter* is certainly the most prosaic, but it might also be the most realistic. In an article of 1998 Markus Frings dated the letter to shortly after 1550, earlier than what had been usually assumed, and identified the addressee as Cardinal Marcello Cervini. Cervini was then general administrator of the *Fabrica* of the Saint-Peter, but he was also an amateur Vitruvian and a former friend to Antonio da Sangallo, Michelangelo's greatest rival in architecture.²¹ Cervini publicly blamed Michelangelo in 1551 for having destroyed parts of da Sangallo's additions to Saint Peter. As Frings suggests, in the letter Michelangelo is only expressing his exasperation about the prelate's interfering in design matters. He thereby used his trademark rhetorical strategy of first conceitedly agreeing with his interlocutor, then suddenly and brutally inverting the argument to his own advantage. The apparent agreement with Cervini consists in rehearsing commonplace Vitruvian wisdom he knew the amateur-antiquarian could only agree with, i.e. the members of architecture are dependent on the members of the body of man, and then brutally uses the saying to his own advantage: 'who [unlike me] is no good master of anatomy, understands nothing of architecture', or, in other words, 'do not attempt on my authority!'

Frings observations certainly impel us to use caution in the interpretation of an artist's statement about his theory of his own art. Michelangelo, as recent studies have shown well enough, was a true entrepreneur with responsibilities and an agenda that predominated over the coherence of his statements on art and architecture theory.

²² “The tendencies of an age appear more distinctly in its writers of inferior rank than in those of commanding genius. These latter tell of past and future as well as of the age in which they live. They are for all time. But on the sensitive responsive souls, of less creative power, current ideals record themselves with clearness.” G.H. Palmer, *The English works of George Herbert*, Boston, Houghton, Mifflin and Co., 1905, preface, p. xii.

²³ Umberto Pirotti, “Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism,” in *The late Italian Renaissance*, ed. Eric Cochrane (New York, 1970), p. 253.

4.

In his interpretation of the *Letter to an unknown prelate*, David Summers exploited the ambiguity of the letter to build an elaborate theory in which a series of philosophers intervene whom Michelangelo might have read and who would have informed his outlook on the parallels between living and inanimate bodies. The debate on the intellectual and philosophical background of Michelangelo is ongoing and bound to be so because of the lack, as we have seen, of trustworthy sources.

The methodological option of this project has therefore been to shift the emphasis to the reconstruction of the theories of a more transparent mind than that of, for instance, Michelangelo. It needed to be a transparent mind that in the mean time would be generous enough to share some of the elementary notions needed for the reconstruction of a philosophy of the artificial body. The Florentine poet, philosopher, linguist and historian Benedetto Varchi is an author who elaborated much on some of the then current ideas on the relation between origination processes in nature and those in art. Varchi was a true interface between cultures. He received an elaborate training in several Italian universities, but in the mean time he was very close to the world of the most skilled Florentine artisans.

Benedetto Varchi was not an innovating philosopher for his age. In the firmament of 16th-century philosophy adorned with such bright stars as Pietro Pomponazzi, Agostino Nifo, Jacopo Zabarella or Giordano Bruno, Varchi goes considered today as no more than a dimly shining spot. This does not invalidate, though, the relevance of reading him.²² If not a mind capable of imparting a new impetus on the philosophical discipline, Varchi was instead endowed with a true talent to diffuse the philosophical knowledge that he had been instilled. His most important oeuvre is didactic in character. It has been described as “the result of a happy encounter between scholasticism and humanistic education.”²³ For a whole series of Florentine artists whose intimate friend he was, Varchi must have been their easiest gateway to philosophy, and considering Varchi’s education this meant a gateway to Aristotelianism. These artists include major personalities of the Florentine artistic scene of the mid 16th century, such as Agnolo Bronzino, Benvenuto Cellini, Niccolò Tribolo, Tasso, Bartolomeo Ammanati and others. Yet even the young Duke of Florence, Cosimo de’ Medici seems to have relied on the author to strengthen his own philosophical background. By reading the public lectures which Varchi gave between 1543 and 1564, we gain access to the philosophical notions and doctrines these men had at their disposal.

²⁴ Ibid., p. 23

²⁵ “Laonde manifestamente si vede che tutte le cose che in questa luce prodotte sono, prima nascono, secondamente crescono, poi per alquanto spazio, quasi fermandosi, si mantengono, dipoi scemano, e ultimamente si corrompono e mancano del tutto. Ed è tanto vero questo ordine, e così infallibilmente osservato, che si trovarono alcuni filosofanti i quali credettero che non solo nelle cose naturali e da Dio prodotto, ma ancora nell’artificiali i dagli uomini fatte, fussero tutti e cinque questi termini: principio, crescimento, colmo, scemamento, e fine, così ab eterno prefissi e stabiliti, che nessuna cosa né più durare potesse né meno di quel proprio e certo tempo, il quale al suo nascimento stato le fosse eternamente diterminato.” *L.cons.GG.* in *Opere* II, p. 507.

²⁶ See for instance *Storia Fiorentina* XV.7 in *Opere* I, p. 413.

²⁷ See on the subject Lorraine Daston and Katharine Park, *Wonders and the Order of Nature* (New York, 1998), pp. 201-202.

In his role of “cultural mediator”,²⁴ as a present-day critic labelled him, Varchi lies at the heart of one of the earliest philosophical debates on the arts, the debate on the relative supremacy of the figurative arts which was fed by two of Varchi’s lectures in particular, of 1547. Leatrice-Mendelsohn-Martone published an entire monograph on these *Due lezioni*. Our approach is different in that it distinguishes Varchi not so much as an interesting study case for his explicitly art-theoretical works, the *Due lezioni*, but instead sees Varchi for his whole oeuvre, written in vernacular and extending far beyond the realm of art into domains that matter for the understanding the onto genetic paradigm. Varchi’s works, covering subjects that range from cosmology and the physiology of love to the generation of animal bodies and monsters, offers in its entirety the necessary elements to reconstruct a world view in which unambiguous statements are made about the question of the birth of artefacts.

These elements of a philosophy of the born artefact, appear on occasion in the most unexpected places. One good example is the introduction to a purely formal talk delivered on occasion of the leave-taking of a colleague. Reflecting on the transitory nature of all things, Varchi cannot refrain from giving his audience a summary of his views on that problem in general. The notions we saw Francesco di Giorgio defended are thereby seriously adjusted. Varchi here admits the idea that all natural and artificial bodies are equally characterised by the five successive phases of birth, growth, apex, decay and end. But he dismisses as particularly absurd the idea that, from the very first day of a bodies’ existence, its destiny would be fixed.²⁵ Such an idea would run counter his understanding of the notion of free will, and would trivialise, among other things, the notion of merit.

Varchi’s condemnation of astrology in a leave-taking speech is telling of how the Florentine retains his pedagogic inclination in all circumstances. It is also characteristic of his views as a thinker. Varchi represented a *neo-Aristotelian* tradition that adopted a sceptic stance towards too esoteric notions that distanced themselves too much from the writings of the Stagirite. His distrust for astrologers (whom he considered “guessers”) and his fundamental rejection of the idea that ‘contingent events’ could be predicted, only form one aspect of that attitude.²⁶ Varchi also rejected the recourse to ‘occult qualities’ in natural philosophy, to explain the sometimes prodigious behaviour of matter and bodies. He was also far more enclined to consider monsters as objects of repulsion than of fascination or delight.²⁷

Using Varchi as our main guide has a series of consequences. One of these bears on astrology. A classical study such as Janet Cox-Rearick’s *Dynasty and Destiny in Medici art* demonstrated the central importance of astrology in the construction of meaning on a whole series of levels at both the 15th and the 16th-century Florentine courts. Yet

²⁸ “As to the customs of the Persians, I know them to be these. It is not their custom to make and set up statues and temples and altars, but those who do such things they think foolish, because, I suppose, they have never believed the gods to be like men (*anthrópophueas*), as the Greeks do [...]” Herodotus, *The Histories*, I, 131, (Translation: Herodotus and Alfred Denis Godley, *Herodotus, with an English translation* (London, New York, 1921).)

²⁹ Charlotte Seymour-Smith, *MacMillan Dictionary of Anthropology*, London: The MacMillan Press, 1986, p. 13.

following Varchi, we will no further inquire in practices such as the drafting of horoscopes for buildings or the organization of pageants held on occasion of a building's astrological birth. Through our author it is not, thus, the direct link between origination and destiny that we will investigate; we will instead examine other dimensions, such as the links between origination and 'nature'. The focus will be in the first place, not on the consequences, but on the mechanisms of origination in nature and in art. The realm of the biological will thereby assume a role of paradigm that extends far beyond the mere metaphor; it ends up influencing and informing the views Varchi and his contemporaries came to bear on culture and the arts in general.

5.

The notion of the 'birth of an artefact' or the projection of conceptions borrowed from natural generation on the origination process of man-made objects sheds an interesting light on the question of anthropomorphism in Renaissance material culture. In the context of the 15th and 16th century Italy, one of course finds numerous examples of anthropomorphic buildings: edifices that were given the shape of man, either in the ornaments, in the proportions or through other forms or systems that allow the 'translation' (to use Vico's terminology) of human features onto the built artefact. Twentieth-century studies on Renaissance architectural theory have given ample attention to the phenomenon. But it is important to keep in mind that from the viewpoint of other disciplines studying anthropomorphism in great detail such as theology, anthropology and psychology, the phenomenon is related to questions that extend far beyond the notion of 'form'.

In English the term 'anthropomorphism' was first defined in Ephraim Chamber's *Cyclopaedia* of 1753, as the widespread and wrongful tendency of attributing human characteristics to the Divinity. The study of religions had by then already identified such a bent for centuries. Herodotus (5th Century BC), sometimes portrayed as the first anthropologist, provided one of its earliest evocations, but he used another related term to describe it. The Greek historian predicated human-like representations of gods with the adjective *anthrôpophuês* (from *anthrôpos* and *phusis* nature), and opposed them to representations of divinities featuring animal characteristics on the one hand, and to representations of gods conceived as abstractions on the other hand.²⁸

In modern anthropological textbooks *anthropomorphism* is defined in even more general terms as:

...the attribution of human characteristics to non-human phenomena (deities, animals, natural phenomena).²⁹

³⁰ For both a usefull account on the universality of anthropomorphism in human behaviour and responses, as well as a good review of past theories on the tendency, see Guthrie. Guthrie's own evolutionary theory of anthropomorphism and animism, on the other hand, has been fiercely contested. See for instance Alfred Gell, *Art and agency. An anthropological theory* (Oxford, 1998), p. 121-122.

³¹ Charles Darwin, *The descent of man, and Selection in relation to sex*, (Part I, Chapter 2: Comparison of the mental powers of man and the lower animals), London: John Murray, 1871, p. 67.

Anthropologists seem to agree now that this tendency is something of a human universal, even though a fierce debate still divides opinions on the origins of that tendency to anthropomorphise.³⁰ Giambattista Vico was one of the first authors to conclude on the universality of that tendency, as the opening citation to this prologue attests. Vico's examples make clear that the pre-modern men whose language he dissects do not only project human bodily features onto inanimate objects, as when they speak of the a 'neck' of land, and the 'arm' of a river, or the 'bones' of a fruit. They also transfer their human "senses and emotions." Fields are said to be 'thirsty', crops 'distressed'. Plants 'fall in love', vines 'go mad', and 'fir-trees weep with sap'. One typical anthropological object of inquiry makes the point even clearer: the belief in spectral beings. Belief in ghosts and spirits constitutes a primordial instance of anthropomorphism.³¹ Spirits and ghosts are certainly human-like. The concept of a ghost is derived from that of a person. The spontaneous inferences made about a ghost's behaviour are tallied to a general conception of what a person is: ghosts perceive events, recall what has happened, become angry, etc. In the mean time, ghosts and spirits are formless and therefore feature strictly nothing that is derived from a human body. They are disembodied to a point of becoming a-physical: it is commonly assumed that ghosts pass through walls.

The example of the ghost, a clear instance of 'formless' anthropomorphism, provides us with an interesting starting point to analyse the circumstances in which Vico's *trasporti* are likely to occur. There is a particularly telling anecdote, narrated by a surprising witness in this context, Charles Darwin, that provides direct insight the heart of the matter. But the anecdote is also emblematic for the perspective we will adopt on anthropomorphic projections in this study. The quote is taken from Darwin's *On the Descent of Man, and Selection in Relation to Sex*, published in 1871. The author is talking here about one of his pets, but reflects about the behaviour of animals in general, including the human animal.

[...] my dog, a full-grown and very sensible animal, was lying on the lawn during a hot and still day; but at a little distance a slight breeze occasionally moved an open parasol, which would have been wholly disregarded by the dog, had any one stood near it. As it was, every time that the parasol slightly moved, the dog growled fiercely and barked. He must, I think, have reasoned to himself in a rapid and unconscious manner, that movement without any apparent cause indicated the presence of some strange living agent, and that no stranger had a right to be on his territory. The belief in spiritual agencies would easily pass into the belief in the existence of one or more gods. For savages would naturally attribute to spirits the same passions, the same love of vengeance or simplest form of justice, and the same affections which they themselves feel.

It is certainly not my intention to amend or rebut Darwin's theory about the origins of religious thought here. I merely brought up the anecdote in order to announce a central and maybe unexpected theme in this study: the theme of the immanence of agency. In much of what will follow, I will elaborate on instances of anthropomorphism that are very similar to Darwin's example. Instances in which the presence of a "strange living agent", is felt, feared or desired for in the confrontation with – at first sight – inanimate matter.

6.

Mid 16th-century Florence is commonly perceived as a background to the emergence of the doctrine of *Disegno*, a doctrine that validates the supremacy of invention over realization and that conceives realization as the mere projection on inert matter of 'designs' developed by the artist. In the Aristotelian ontology of a thinker such as Varchi, and of a good part of his contemporaries, the complementary pair of form and matter plays indeed a constitutive role. Their world-view is hylomorphic. Yet as our analysis will demonstrate, that hylomorphism is far more vitalized than is usually imagined. The late-Renaissance attitude towards matter is one that combines fascination and awe. This is of course a period in which many of the greatest mysteries of the behaviour of matter had still not been penetrated. To begin with the most wondrous of them: lodestone. Renaissance technology involves complex manipulation of reactive substances in operations such as the preparation of lime through the calcinations of stone or the extraction of metals from their ore. Yet mastery in these arts was obviously more a question of century-long experience and a permanent improving of inherited trade procedures through experiment than a question of gaining insight in the behaviour of matter. To account on the behaviour of matter, and in highly varying degrees according to the nature of the ingredients, of the operations and of the expected outcome, matter was invested with life.

Alchemy is the scene on which the liveliest performances of minerals and metals take place. That scene will benefit of much of our attention. As we shall see, a whole series of 'animating' projections on matter occur in the context of alchemy, which, in function of the specific cases, we will label alternatively vitalism, animism, zoomorphism, anthropomorphism, personification, or humanisation. Alchemy is also the scene *par excellence* of the birth of artefacts.

Surprisingly maybe from our point of view, alchemy also appears to have been a highly regarded activity in Cinquecento Florence, at least by a very significant and influential

faction of society. Its affinity with medicine placed it extremely high in the ranking of the arts. Its status of a master art also made it highly akin to architecture. The princes practised it. Like architecture, alchemy was an art exploited by Duke Cosimo de' Medici and his son and successor to fashion their own political *personae*. It certainly became an important ingredient in the exercise of power, as architecture was. In fact, in both disciplines appear to overlap in several regards.

Our investigation about 'births' in the domain of the arts will thus lead us eventually to recognize the extent to which 'naturalising' metaphors and analogies are, amongst other things, elements of a technology of action.

7.

Chapter one introduces the main protagonists of the story, Cosimo de' Medici and Benedetto Varchi, and sketches the historical events that prelude or constitute a background to the height of their careers.

Chapter two provides first a detailed overview of the written works of Benedetto Varchi that we will use as our main sources in the following chapters. Much attention will go here to the Accademia Fiorentina, the state-controlled institution that formed the immediate context of Varchi's activities as a divulgator of scientific and philosophical knowledge. I will analyse first the program of that institution, then the specific and sometimes conflicting ways in which Varchi individually pursued the realisation of these aims.

After the two introductory chapters, three goes to the heart of the matter. It lays out the major elements of Varchi's ontology and how he imagined the division of the human soul. I will thereby discuss the hylomorphic logic of his Aristotelian worldview in detail. The notion around which the chapter is organized is that of an artist's mental representation of his works. Starting from Varchi's analysis of the sonnet *Non ha l'ottimo artista alcun concetto...*, written by Michelangelo, I will thereby develop the parallels Renaissance men and women imagined between mental and corporeal conceptions. The extent of these parallels suggests that a shift has occurred since earlier, more heroic conceptualizations of the nature of an artist's creative ideas.

Chapter four, *Love and Pleasure*, focuses on the continuities imagined, not so much between the mechanisms of natural and artificial generation, but on the innate drive that humans share for both. It is only in this context that our author reveals himself as the inheritor of a rich Florentine Neo-Platonist tradition, for as elsewhere the Aristotelian nature of his thought is clearly dominant.

Chapter five is entitled *Physiocracy*, and will observe how the naturalisation of the discourse on the arts often also entails a form of politisation. ‘Authorities’ recuperate to their own purposes the seemingly innocent idea that the arts generate their offspring as nature does with hers. The chapter focuses in particular on the Accademia del Disegno, the Florentine artist’s academy founded in 1563. The systematic use, by the Academy’s authorities, of a vegetative imagery in their evocations of how the institution and its members function, is the main object of scrutiny. The example of the Accademia del Disegno shows how the legitimacy of power relations within the Duchy, and in particular the relations between the Duke and his artist-subjects occurs through analogies with the natural world. The parallels between natural and artificial modes of producing artefacts that are strongly underscored in such a context entail, in reality, a ‘system’ or a classification of the arts that departs from the idea of an intrinsic superiority of design.

Chapter six further investigates the idea of such a ‘different’ classification of the arts that challenged the emerging notion of the superiority of the arts of design. This will bring us to the identification of a series of ‘master arts’ to which Benedetto Varchi referred in his lectures, but which tellingly are also the ones that are performed by the Duke on an almost daily basis. The chapter investigates in particular the continuities that exist between three of these master-arts: medicine, architecture, and alchemy, and reveals the importance that the notion of heat assumes in these three realms.

In the next chapter, seven, I will further discuss the art of alchemy, this time in order to focus on how the alchemist relates to the products of his art. Alchemy is a discipline in which the language of birth, begetting and organic life is most prominently central. Practitioners of the ‘aurific art’ do develop very privileged ties with the outcomes of their manipulations, which remind us of Filarete words I mentioned earlier. The basic theme of the relation between the ‘Philosopher’ and his ‘Stone’ or ‘son’, will allow us then to identify, outside the realm of alchemy, ‘filial’ relations between persons, substances, and objects.

The last chapter is dedicated to one man, Benvenuto Cellini, whose life, work, and aspiration, constitute the embodiment of the notions we introduced earlier. The story of Cellini’s career in the service of Duke Cosimo is in fact a tragic one. Faced with the exercise of absolute authority, Cellini retorted with insubordination. To the violence of the regime, he opposed his personal violence, as an artist, as a man, and as an author. Bursting with inventiveness, that reaction is above all a brilliant exemplification of our claims.

At the very end of the book, the reader will find a series of appendixes. Appendix one is an overview of the most important Academic lectures of Benedetto Varchi. Appendix two is dedicated to three of Varchi's best scientist friends: the botanist Luca Ghini, the humanist-surgeon Guido Guidi, and the anatomist Andreas Vesalius.

CHAPTER ONE:

Varchi's early years

From *fuoruscito* to *cortegiano*



¹ For a concise description of the political 'system' put in place by the Medici clan in this period, see for instance chapters 1 and 2 of J.R. Hale, *Florence and the Medici: the pattern of control* (London: Thames and Hudson, 1983 (1977)), pp. 9-75, respectively titled: *The first steps to power* and *The Medicean regime*.

A. FLORENTINE DEVELOPMENTS: THE CATASTROPHIC 1530'S AND COSIMO DE' MEDICI'S RISE TO POWER

1. The rule of the Medici popes Leo X and Clement VII

For a good part of the 15th century, the city-state of Florence had de facto been led by the powerful banking family of the Medici.¹ Yet that rule, which is usually considered to have really started with the return from exile of Cosimo de' Medici *Il Vecchio* (1389-1464), in 1434, and reached the peak of its prestige under Cosimo's grandson Lorenzo *il Magnifico* (1449-1492), had never formally challenged the constitution of the Republic. If ambassadors were received and important political decisions were taken in the Medici family palace in the via Larga, in theory the elected members of the *Signoria*, the city council, were still the sovereign rulers. Despite their fabulous wealth, the Medici held no official title that would have legitimated their rule. That situation would change in the 16th century, but was to be preceded by a long period of exile and precarious circumstances for the family.

In 1492 Lorenzo de' Medici, who had been universally respected, died unexpectedly aged only 43; two years later, his heir and son, Piero di Lorenzo (1472-1503), who had none of his father's political talent, was forced to abandon the city, and to make place for Savonarola's theocratic government. After Savonarola's execution in 1498, the ancient Republic was reinstalled, headed from 1502 on by Piero Soderini, elected *gonfaloniere di giustizia* or head of the *Signoria*, for life.

The Medici family, in the meantime, was painfully undergoing the imposed exile. They had lost all their properties in Florence. Their palace had been confiscated, and robbed from most of the prestigious works of art it contained; their coat of arms had been carved away from public buildings. An end came to misfortune with the elevation to power of Lorenzo *il Magnifico's* second son, Giovanni de' Medici (1475-1521). Promised from childhood to a brilliant ecclesiastical career and named cardinal when only 13, Giovanni became head of the family after Piero's death in 1503. Under his leadership Medici hegemony over Florence was restored in 1512. One year later, he was elected pope under the name of Leo X. Leo's papacy lasted until 1521, but almost immediately after, in 1523, another member of the family, Giulio (1477-1534), was elevated to the pontifical throne, assuming the name of Clement VII. Both Leo X and Clement VII delegated the government of Florence to their next of kin. Yet by the 1520's, the only surviving male heirs of the family were two illegitimate teenage boys,

² Alessandro was officially presented as the natural child of Lorenzo de' Medici (1492-1519), the Duke of Urbino and son of Piero di Lorenzo. A conclusive argumentation in favour of his identification as the son of the future pope Clement VII, based on forensic evidence, is to be found in Gaetano Pieraccini, *La stirpe de' Medici di Caffagiolo* (Firenze:Vallechi editore, 1947), vol. I

³ As J. R. Hale qualifies them: Hale, *Florence and the Medici: the pattern of control*, p. 113.

⁴ This summary of the historical events in the subsequent sections (2 to 5) are based on Varchi's *Storia Fiorentina* and the following works: Giorgio Spini, *Cosimo I e l'indipendenza del Principato mediceo* (Firenze:Vallechi, 1980 (1945)); Rudolf von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica* (Torino: Einaudi, 1995 (1955)): Chapters I and II; Eric W. Cochrane, *Florence in the forgotten centuries, 1527-1800; a history of Florence and the Florentines in the age of the grand dukes* (Chicago: University of Chicago Press, 1973), Book I; Christopher Hibbert, *The Rise and Fall of the House of Medici* (London: Penguin Books, 1974), Part 3.

⁵ As Benedetto Varchi described in his account on the events, Clement VII had suddenly decided to dismiss the soldiers composing the papal army, in the months preceding the sack of Rome, out of a financial considerations. Benedetto Varchi, *Storia Fiorentina* II.16, in *Opere* I, p. 24.

cardinal Ippolito (1511-1535) and Alessandro (1510-1537), the latter being Clement VII's own son.² The two 'Medici bastards',³ residing in Florence, were put under the tutelage of Silvio Passerini, cardinal of Cortona, who was the pope's representative in the city. But Passerini was despised by native Florentines for his provincial roots, while his incapacity to grasp the subtleties of the city's political customs made his government utterly weak.

2. The last Florentine Republic

Clement VII's talents as a politician and a military leader did not match his gifts as a patron of the arts.⁴ The pope was personally responsible for the catastrophic events of May 1527, when Rome was sacked by an imperial army consisting mostly of protestant *Landsknechte*. Clement only escaped the pillages and murders by rushing into the fortified Castel Sant'Angelo. The Holy Roman Emperor Charles V had intended this punitive campaign as a reply to Clement's repetitive disloyalties and efforts to build alliances with the French king François I, Charles archrival. It turned into an outright tragedy because of Clement's incapacity to organize the city's defense.⁵

In Florence, the news of the humiliation of the pope soon led to the demise of the cardinal of Cortona, who was forced to flee the city, taking the two young Medici heirs with him. The republican constitution, which had ceased to be applicable in 1512, was reactivated and the several councils which had regulated the political life of the city (as the *Consiglio grande*, the *Otto di Guardia*, the *Dieci di Balìa*) were re-installed. The last Florentine Republic was to be short-lived, though, as internal political struggles opposed the city's wealthiest families (the *Ottimati*) to the defenders of a more popular rule (the *Popolani*). Clement VII forced into submission, had entered into an alliance with the Emperor, and was preparing to take his revenge on the Florentines. In the fall of 1529 he sent an imperial army of nearly 40.000 strong, to his native city. Florence tried to organize its own protection; under Michelangelo's supervision, hasty consolidation works of the existing defense system were effectuated. Civilians were encouraged to join the republican militia. Despite their clear numerical supremacy, the Imperials reaching Florence on October 13th decided to start a siege instead of launching an immediate attack. Florence was able to resist the siege for almost ten months, thanks, above all, to a series of efficiently-led outbreaks. But in the end exhaustion, starvation, the death of the most valuable captain, Castruccio Castracani and possibly treason brought the city to surrender on August 12th 1530.

⁶ For the details of the 1532 constitution, see von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, p. 200.

⁷ the *Otto di pratica* (a kind of ministry of defense, responsible for the gestion of the fortresses, but also for controversies among different communes of the *dominio*), the *Otto di guardia e balia* (responsible for the organisation of police and for penal giustice), the *Conservatori della legge* (a magistracy for civil justice), the *Ufficiali del monte* (a kind of ministry of the budget). See Furio Diaz, *Il Granducato di Toscana: i Medici* (1976), pp. 52-53.

⁸ See J.R. Hale, "The end of Florentine liberty: the Fortezza da Basso," in *Florentine studies: Politics and society in Renaissance Florence*, ed. Nicolai Rubinstein (London: Faber and Faber, 1968).

3. Duke Alessandro de' Medici

Clement VII personally organized the re-establishment of the Medici hegemony in Florence. In 1531 he obtained from the Emperor the elevation of Alessandro de' Medici, then 21 years old, as 'Duke of Florence'. The pope also drafted an important constitutional reform, for a more autocratic rule which he introduced in 1532. The new constitution abolished the *Signoria* as well as the function of *Gonfaloniere di giustizia*. It created two major councils: the *Consiglio dei 200*, whose members were elected for life and were all issued from Florentine aristocracy. From this large assembly the 48 members of a smaller senate were derived: the *Consiglio dei 48*. From this senate again, four *Consiglieri* were elected to constitute the *Magistrato supremo*, the executive government and equivalent of the ancient *Signoria*. Instead of being headed by a temporarily elected *Gonfaloniere*, the council of the four *Consiglieri* was now presided by Alessandro, who received the rather paradoxical title of *Duca della Repubblica fiorentina*.⁶ The senators were responsible for the nomination of the members of the different specialised magistracies of the government, most of which were inherited from republican times.⁷ The many contradictions of this new constitution were a reflection of its nature as the result of a compromise between the needs of an absolute Principate and the demands of the Florentine aristocracy (the *Ottimati*).

To signify his full support to the new Medici rule in Florence, the Emperor conceded the hand of his illegitimate daughter, Margaret of Austria (1522-1586) to the new Duke. In exchange of his favours, Charles V imposed the building on the western edge of the city, of the enormous *Fortezza da Basso*, a masterwork of state-of-the-art military engineering, designed by Antonio da Sangallo with the purpose as much to deter Florentine insurgents as to prevent an army from attacking from the outside. The first stone of this symbol of "the end of Florentine liberty" was laid on July 15th, 1534.⁸ The *Fortezza* was to house the Spanish garrison that had remained present in Florence ever since the occupation by the Imperial armies in 1530. Charles V similarly held the other major Tuscan fortresses of Pisa and Livorno.

Alessandro was loathed by most Florentines, and even more so after the death of Clement VII in 1534. His ruthless character, no longer restrained by the pope's tutelage, was then unleashed: The duke outraged his subjects with his brutal arrogance, his utter disdain for their rights and possessions, and, worse, for the chastity of their women. Many upper-class Florentines preferred exile to these humiliations, and came to constitute a growing flock of expatriated anti-Mediceans and nostalgic republicans, the so-called *fuorusciti*. They gained an important ally when the banker Filippo Strozzi, formerly one of Clement's partners in business, decided to leave Florence. Filippo's enormous fortune

⁹ On Lorenzino's *Apologia*, a composition von Albertini ranged among "the greatest works of rhetoric of the Cinquecento", see von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, pp. 211-214.

¹⁰ *Storia Fiorentina* XV.4, in *Opere* I, p. 412.

and international prestige soon made him the de facto leader of the *fuorusciti*, who were working out schemes to overthrow the new Medici tyrant and needed funds to raise armies. Then, in January 1537, an unexpected event suddenly accelerated the flow of history. On the morning of the seventh of that month, Alessandro de' Medici was found assassinated in the bedroom of his own cousin, Lorenzino. The assassin later showed to be Lorenzino himself, one of the few men the Duke had still trusted. Lorenzino (often referred to as *Lorenzaccio* – 'Lorenzo the villain' – since the murder) had attracted the unsuspecting tyrant in his own house under the pretext of a rendez-vous with a woman, then overwhelmed him and cut his throat. Lorenzino, who had of course long fled from Florence when the body was discovered, later justified the murder as a righteous tyrannicide.⁹ The rebel diaspora hailed the man as a hero.¹⁰ Michelangelo later idealized Lorenzino in his classicizing marble bust, *Brutus*, executed for the *fuoruscito* cardinal Niccolò Ridolfi.

But in the hours after the discovery of the body, the government successfully kept the news of the murder secret. A sudden and uncontrollable outbreak of popular rejoicing that could have led to an outright insurgency, could thus be avoided.

The senators, who had hurriedly gathered in the Palazzo della Signoria, secretly called in the troops from outside the city. They were under great pressure to find a rapid solution: Alessandro had left no heir but a six year old illegitimate boy, yet their own positions as senators could only be secured by the continuation of the Medicean Dynasty. A group of influential senators, members of the Florentine aristocracy led by Francesco Guicciardini, came up with the suggestion of appointing another, hardly known *but* legitimate heir: the 17 years old, politically unexperienced Cosimo de Medici, the scion of a lesser branch of the Medici-clan. The young man descended indeed not of Cosimo de' Medici *il Vecchio*, *Pater Patriae*, but of the latter's brother, Lorenzo. For one century Lorenzo's descendants had held no functions of political significance; their wealth was also limited. The rapid election of this young Medici, according to these *Ottimati* senators, was the only option to avoid a devastating power struggle (and their own demise). The *fuorusciti* were looming outside the city gates, and many members of the *Popolani* faction would only be too happy to help them re-establish a republican regime. The king of France would eagerly provide military support. The Holy Roman Emperor, on the other hand, who was still holding the *Fortezza da basso* with his troops, only needed a pretext to decide for the pure and simple annexation of Tuscany to his own dominions. A similar fate had befallen Milan earlier on. As a final argument, Guicciardini and his allies advanced the idea that it would be easy, to restrain the power of the new ruler. This opened new ways to realize their personal political ambitions: the establishment of an oligarchic regime following the Venetian model. The other members eventually agreed. By then a messenger



Fig. 1.1 Ridolfo del Ghirlandaio, *Portrait of Cosimo de' Medici at the age of twelve*, 1531.
Florence, Gallerie.

¹¹ Giovanni dalle Bande Nere ('Giovanni of the black bands', 1498-1526), the son of Giovanni il Popolano, died in Lombardy when trying to stop the Imperial army on its way to Rome. His only son, Cosimo, then six years old, had hardly known his father.

¹² "capo e primario del governo della città". See von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, p. 208.

had already been sent for Cosimo de' Medici, who was living with his widowed mother in their villa of Trebbio, in the Mugello countryside. His father, a mercenary general, Giovanni dalle Bande Nere, had died many years before.¹¹ On the morning of Januari 9th, the young Cosimino ('little Cosimo', as he was affectionately called) was ceremoniously installed as "head (*capo*) and leader of the city's government."¹²

4. Cosimo' de' Medici's Intronisation

The first months of the new heir's government were particularly difficult, but soon Cosimo demonstrated his uncanny capacity to extricate himself from critical situations. The young prince revealed himself in these events as a shrewd tactician, who could also be of a Machiavellian ruthlessness when necessary. These qualities completely surprised and eventually defeated his rivals and would-be 'protectors.'

In Februari 1537, after the news of the election of a new Medici at the head of the Florentine government had spread, the *fuorusciti* gathered in Bologna, planning to raise an army and to invade Florence. The operations were to be led by Filippo Strozzi's own son, the hot-tempered Piero, who was by then building a career as a general in the army of the French king François I. Filippo was understandably first hesitant, but put under the strenuous pressure of his warmongering son, he finally gave his consent to launch a powerful army on Florence by mid July. But Cosimo managed to keep himself well informed on the movements of these troops. In the morning of August 1st, 1537, he ordered a surprise attack on a vanguard of the *fuorusciti* army who had installed a camp at Montemurlo, near Prato. The *fuorusciti* soldiers, caught unprepared, were quickly slain and to the surprise of the attackers, many of the most important rebel leaders, who had incautiously joined this frontline position, could be taken prisoner, including Filippo Strozzi himself. Filippo's son Piero, though, managed to escape. Painstaking negotiations for the liberation of the head of the Strozzi family in exchange of an exorbitant ransom would last for more than a year, but failed ultimately. Most of the other captured opposition leaders were tried without delay and, by the end of August, publicly executed. The mercilessness of Cosimo's justice sent a shockwave through the minds of all Florentine citizens, either at home or abroad. Even if some minor rebel initiatives were taken thereafter, Montemurlo meant the effective end of the *fuorusciti* movement. On December 18th 1538, Filippo Strozzi, entirely broken, killed himself in his prison cell inside the *Fortezza da Basso*.

The spectacular victory of Montemurlo had a considerable impact on Cosimo's reputation. Charles V started to gain trust in the leading capacities of the prince. In late September 1537 the Emperor elevated the young Medici's from 'head' of the Florentine

¹³ Ibid., p. 280.

¹⁴ Cochrane, *Florence in the forgotten centuries, 1527-1800; a history of Florence and the Florentines in the age of the grand dukes*, p. 49-50.

¹⁵ Ibid., 62-63.

¹⁶ “Di autonomia, non è più neppure caso di parlare. Ogni potere è ormai concentrato nelle mani del principe. Lavoratore instancabile, Cosimo sbriga da solo tutti gli affari dello stato, s’immischia dappertutto e impartisce ordini che non ammettono obiezioni. Dai vari ambasciatori, commissari e segretari si fa consegnare rapporti in base ai quali, poi, lui solo giudica e provvede. Al di fuori della sua volontà e senza la sua approvazione non cade alcuna decisione di qualche importanza.” von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, p. 283. [All translations, unless otherwise indicated, are by the author]

government to Duke of Florence.¹³ The new Duke confirmed his ties with the Spanish-Habsburg Empire by wedding in 1539 Eleonora di Toledo, the daughter of Pedro di Toledo, viceroy of Naples and one of the most powerful Spanish noblemen of that time.

This, and other testimonies of submission addressed to the Emperor were in fact to conceal Cosimo's real ambitions, which were to strengthen his own autonomy as well as to assure the greatest possible political independence for Florence. The greatest progress in that process was made in 1543, when the Duke obtained from the Emperor the restitution of the fortresses of Florence, Pisa, and Livorno, and the departure of the Spanish troops from Tuscany. The gesture was significant. As Eric Cochrane put it: "*Florence was at last independent, or at least as independent as any other state in Italy after Venice and the Papal State, and more independent than it had been since Giovanni de' Medici had become pope in 1513.*"¹⁴

5. The Duchy's constitution under Cosimo

Cosimo left the constitution as defined by Clement VII's 1532 reform apparently unchanged. Both the *consiglio dei 200* and the *consiglio dei 48* continued to exist, as did the *magistrato supremo* and the majority of the other executive magistracies: *Otto di pratica*, *Otto di guardia e ballia*, ... 'Continuity' has been defined as one of the guiding principles of Cosimo's rule.¹⁵ Closer observation reveals that the effective powers of the members of the government councils became however increasingly reduced. Instead of being a fully operative legislative organ, the senate was reduced to the role of approving formally the new propositions of law developed by the Prince and his close collaborators. The latter, occupying newly invented functions like that of *primo segretario*, and the *auditori* (representatives of the Duke in the different councils and magistracies), took over the most important responsibilities of the once independent councils. As Rudolf von Albertini observed:

The term autonomy does no longer apply here at all. All power is concentrated in the hands of the Prince. Cosimo, an inexhaustible worker, disposes on his own all the affairs of the state; he interferes everywhere and issues orders that do not allow for objections. His various ambassadors, commissaries and secretaries are urged to deliver reports based upon which he alone, then, evaluates and decrees. Outside his will and his consent no decision whatsoever of importance is taken.¹⁶

There is one well known statement of a contemporary that is often cited as an illustration of this concentration of power in Cosimo's hands. It was written by Benedetto Varchi in his *Storia Fiorentina* and applies to the very first years of the young Medici's reign:



Fig. 1.2 Agnolo Bronzino, *Cosimo de' Medici in armour*, 1545. Florence, Uffizi.

¹⁷ “Né sia nessuno che si meravigli che io dica sempre Cosimo, e non mai lo Stato e i Quarantotto, né i Consiglieri, perciocché non lo Stato, né i Quarantotto, né i Consiglieri, ma Cosimo solo governava il tutto, né si diceva o faceva cosa alcuna, né così grande né tanta piccola, alla quale egli non disse il sì o il no.” *Storia Fiorentina* XV.44, in *Opere* I, p. 431.

Nor needs anyone be surprised that I always say Cosimo, and never 'the State' or '[the counsel of] the forty-eight' nor 'the counselors', because not the State, nor the *Forty-Eight*, nor the counselors, but Cosimo alone governed the whole, nor was anything said or done, however important or futile, to which he had not said 'yes' or 'no'.¹⁷

In the following years, the Duke, drawing self-confidence from his first successes and ever refining the bureaucratic machinery through which he exerted his power, would only enhance the autocratic nature of his regime. Cosimo took a first step back from power in 1565, when he transferred a great part of the responsibilities in the day-to-day running of the state to his eldest son, Francesco. The move in which Cosimo consciously imitated the resignation of Charles Vth in favor of his son Philip, was a prudent means of preparing his heir for the heavier political duties that he would have to assume sooner or later. That new reign dawned in 1574. When Cosimo died, he was only 54 years old, but mentally he died as an old man, completely exhausted by 37 years of strenuous efforts to keep a firm grasp on ever evolving events.

Cosimo's hopes to be one day crowned King of Tuscany were thwarted; yet towards the end of his life, in 1569, he did obtain the hereditary title of Archduke of Tuscany, which made him rank above all other Italian sovereigns, except the pope. The dynasty that Cosimo had managed to establish would rule unchallenged over Tuscany for over more than two hundred years, until the last male heir of the Medici line, Gian Gastone, died in 1737.

6. Towards a territorial state

Cosimo's Duchy consisted of two differentiated zones, the *contado* and the *dominio*, thus named according to an administrative division inherited from the days of the Republic. The *contado*, which designated an area stretching out for approximately 30 km on all sides of the city (plus a small zone around the coastal city of Livorno), had been under Florentine jurisdiction since the very days of the Medieval Commune. The *dominio* on the other hand, was constituted of territories that had gradually fallen under Florentine domination in the course of the 14th and the 15th century. It included the lands of the ancient Republic of Pisa. It did not, though, include the territories of the Republic of Siena, still by then an independent city state whose dominion touched the southern border of the Florentine Duchy. To the West, the Tuscan *dominio* was delimited by the Tyrrhenean coast, stretching from Piombino to Massa-Carrara. The Northern and Eastern borders more or less corresponded to the natural frontier made out by the Apennines. Here the Duchy touched the Papal States and the newly created Duchy of Parma.



Fig. 1.3 Map of North-Central Italy in the 16th century. From Cochrane, *Florence in the Forgotten Centuries*, p. 2.

¹⁸ Giorgio Spini, *Architettura e politica da Cosimo I a Ferdinando I* (Firenze: Olschki, 1976), p. 20.

In the days of the Republic, Florence had lived in a relation of distrust with its subjected territories and cities. Just as the majority of the inhabitants of Florence, for not being citizens, had no civil rights nor any kind of decisional power, so was it a fortiori also the case for the inhabitants of the dominated cities and territories. All were governed and exploited for the sake of the Florentine citizens: a small group of some 3000 privileged men.

Cosimo I very much changed that imbalance by developing a policy that would gradually dwindle most of the differences between the city, the *contado* and the *dominio*, a policy that also consequently limited the significance of Florentine citizenship and the privileges it brought along. Distancing himself from the previous defiant attitude and the policy of 'divide and rule' which had characterised the Florentine domination from the days of the Republic, Cosimo chose to become actively involved in the government of the subjected cities. Instead of promoting internal conflict, his measures imposed peace, sustained his own centralised authority, severe controls and a strict justice. The juridical differences between Florence and its *dominio* were also strongly reduced, sometimes entirely abolished. Measures were taken to revive local economies that were before often moribund. The Duke enlarged the harbour of Livorno, and drained the marshlands around Pisa, which were recuperated for agriculture. The Pisan economy was further stimulated in 1546 by a measure that granted the city the right to produce silk, a sector that had previously been a strictly Florentine prerogative. Cosimo also travelled a lot throughout the whole of his Duchy, and made it his duty to spend a considerable part of the year in the city of Pisa. This shift in attitude towards the formerly disdained 'colonies' is also revealed by the fact that Cosimo often, and even with some preference, employed non-native Florentines for key-positions in his government. Close personal collaborators such as his personal secretaries Francesco Campana and Lelio Torelli, or his first *guardaroba* Pierfrancesco del Riccio all came from the *dominio*.

Military strategies were also considerably adjusted: instead of waiting to fight an invading army until it had reached the fortification walls of a major city, enemies were now kept, as much as possible, outside the Duchy's borders. Fortresses at the outskirts of the State were therefore strengthened; new bulwarks were erected at particularly critical zones (Cosmopolis on the island of Elba, Heliopolis at the North-Eastern border,...). Giorgio Spini compared these to the belt of fortresses which Vauban built around the most forceful territorial state of the 17th century, Louis XIV's France.¹⁸ The Tuscan strongholds were manned by local militia-men, instead of the unreliable mercenaries who had been hired in the days of the Republic. With this set of measures, Cosimo was rapidly transforming a political entity that had been shaped according to the logics of the city-state, into a modern territorial state. Later in the mid-1550's, the Prince managed to

¹⁹ “Debbe ancora uno principe mostrarsi amatore delle virtù e onorare li eccellenti in ciascuna arte. Appresso, debbe animare i suoi cittadini di potere quietamente esercitare li esercizi loro, e nella mercanzia e nell’agricoltura, et in ogni altro esercizio delli uomini, acciocché quello non si astenga di ornare le sue possessioni per timore che le non gli siano tolte, e quell’altro di aprire un traffico per paura delle taglie; ma deve preparare premii a chi vuol fare queste cose, ed a qualunque pensa in qualunque modo di ampliare la sua città o il suo Stato. Debbe, oltre a questo, ne’ tempi convenienti dell’anno tenere occupati i popoli con feste e spettacoli...” Niccolò Machiavelli and Arthur L. (ed.) Burd, *Il principe* (Oxford: Clarendon Press, 1968), pp. 345-346. Translation from Niccolò Machiavelli and N. H. Thomson, *The Prince*, ed. Charles W. Eliot, The Harvard Classics (New York: P. F. Collier & son, 1909-1914).

²⁰ Niccolò Machiavelli, *Il Principe, di Nicholò Machiavello. La Vita di Castruccio Castracani da Lucca. descritta per il medesimo. Il Modo che tenne il duca Valentino per ammazar Vitellozo, Oliverotto da Fermo, il S. Paolo et il duca di Gravina Orsini in Senigaglia, descritta per il medesimo M. D. XXXIa.* (Roma: Antonio Blado d’Asola, 1532).

²¹ Cf. Spini, *Cosimo I e l’indipendenza del Principato mediceo*, p.VIII.

²² ‘Come si debba governare un principe per acquistarsi riputazione’, Machiavelli and Burd, *Il principe*, 337.

²³ Many of these cultural initiatives have been discussed have been discussed in the collective volume published in 2001 by Konrad Eisenbichler, *The cultural politics of Duke Cosimo I de’Medici* (Aldershot: Ashgate, 2001).

double the surface area of his Duchy by annexing Florence's long-time rival Republic: Siena. As a clear token of the Duke's capacity to integrate all parts of his enlarged *dominio*, stands the fact that, of all the political entities of Italy, Tuscany is the only one that has retained its geographical borders since the 16th century until the present day.

7. Cosimo's 'cultural' policy

Again, a Prince should show himself a patron of merit, and should honour those who excel in every art. He ought accordingly to encourage his subjects by enabling them to pursue their callings, whether mercantile, agricultural, or any other, in security, so that this man shall not be deterred from beautifying his possessions from the apprehension that they may be taken from him, or that other refrain from opening a trade through fear of taxes; and he should provide rewards for those who desire so to employ themselves, and for all who are disposed in any way to add to the greatness of his City or State. He ought, moreover, at suitable seasons of the year to entertain the people with festivals and shows.¹⁹

Machiavelli's *Il principe*, from which this passage is taken, was printed for the first time in 1532.²⁰ It is very likely that Cosimo read this text; he seems to have absorbed many of its most important lessons.²¹ This passage from the chapter "How a Prince should bear himself as to acquire reputation"²² reads as an encouragement to engage and support artists, yet it is far more outstretching than that. Machiavelli provides advice not only on the patronage of literature, art, and science, but also on economic and agricultural policy, all in one and the same paragraph. Cosimo's reign has been particularly rich in initiatives that all would fall under this advice from Machiavelli, which has been the subject of different, specialized studies (the institution of the literary Accademia Fiorentina (1541), the reorganization of the Pisan University (1543), the founding of 'presses of the state' – Lorenzo Torrentino's printing workshop (1547), the founding of the artist's Accademia del Disegno (1563), ... yet in the mind of the Prince, preoccupied in the first place with the improvement of his reputation, these initiatives must all have been part of a continuous chain of initiatives.²³

It is striking but not entirely surprising that Cosimo de' Medici's cultural patronage only gained momentum in the early 1540's, at the time significant progress was made in the affirmation of the autonomy of the Duchy by the restitution of the Tuscan fortresses – the end of Florence's occupation by the Imperial army. Before that time, the Prince had been coping with more urgent problems: the utter precariousness of his own regime. In the second place, Cosimo also needed to educate himself. Right after his

²⁴ Cochrane, *Florence in the forgotten centuries, 1527-1800*, p. 67.

²⁵ On the Medicean promotion of the artisan crafts, see Franco Franceschi and Gloria Fossi, eds., *La grande storia dell'artigianato. Vol. terzo: Il Cinquecento*. (Firenze: Giunti, 2000). The patronage of alchemy will be discussed in the chapters 6 and 7.

²⁶ The contemporary historian Bernardo Segni (1504-1558), described Varchi's appointment in the following terms: "Nella città [Cosimo] fu altresì autore di farvi un'Accademia nella quale s'esercitavano assai i giovani fiorentini nella lingua toscana, che fioriva ed era favorita non pure in Italia, ma anchora in la Francia ed in altri confini, perchè allora si tradussero dal greco le scienze, e col parlar di cose gravi e scientifiche con molta eloquenza di dire, s'acquistò per molti gran fama d'ingegno, perciò ancora Benedetto da Montevarchi, che faceva in lingua molta professione, fu provisionato da lui. [...] In Pisa similmente rizzò l'antico studio, facendosi con grosse provisioni di tutta Italia venir dottori di legge et di filosofia [...]" Bernardo Segni, *Storie fiorentine di Messer Bernardo Segni, gentiluomo fiorentino, dall'anno MDXXVII. al MDLV* (Milano: Società tipografica de' Classici italiani, 1805), II, p. 271.

²⁷ See Appendix 2C on Andreas Vesalius.

²⁸ Cochrane, *Florence in the forgotten centuries, 1527-1800*, p. 70.

nomination at the age of seventeen, the young Medici, who had not been predestined to a princely career, still needed to catch up. As one critic wrote, by then “Cosimo knew next to nothing about arts and letters.”²⁴ He was certainly not ready to emulate, from the very first years of his reign, the kind of patronage of his illustrious predecessors. But the young Duke went on a steep learning curve. By 1543, the basis was laid for the gradual constitution of the future Florentine community of talent. In 1542, as part of the preparatives for the reopening of the University of Pisa (that had been closed since 1526), Cosimo had sent two head-hunters (Filippo del Migliore and Bartolomeo Panciatichi) to the north-Italian University towns to recruit the professors of the Pisan *Studio*. Some of the most innovative European scientists in the domains of medicine (Guido Guidi, Andrea Cesalpino), anatomy (Andreas Vesalius), botany (Luca Ghini), mathematics (Giuliano Ristori) ... were subsequently attracted to Tuscany. Comparable efforts were made to attract renowned specialists from other arts and crafts (printing, tapestry weaving, glassblowing, crystal-carving, alchemy, engineering ...).²⁵

The gradual and increasing flux of talented and creative personalities was preceded and, in a significant measure, made possible by the return in his hometown of one Florentine: Benedetto Varchi. Varchi had been in contact with the Duke of Florence since 1542.²⁶ It is thanks to his efforts that Andreas Vesalius graciously offered his services (even if only for a short while – the winter of 1544) to the University of Pisa, a coup that considerably enhanced the prestige of the University.²⁷ It is thanks to the new climate created by Varchi’s return that an artist of the stature of Benvenuto Cellini consented to return to Florence in 1545, thus leaving a regal position in France. With Varchi “Cosimo suddenly acquired, at very little cost, the reputation he had been seeking as a ‘liberal prince’; and Florence became, once again, a distinct possibility for men of letters looking for a place to settle down.”²⁸

²⁹ “Era già non solo in Firenze, ma in tutta Italia celebratissimo il suo nome, onde fu aspettato e caramente ricevuto non solo degli amici suoi, che erano moltissimi d’ogni maniera, ma etian-
dio da tutta la città, e intanto era cresciuta la fama sua, che per 15 giorni, ritornato che fu in
Firenze, quando andava per la città, si come mi riferì M. Bartolomeo Serristori, [...] correvano
le genti d’ogni sorta per le strate onde passava, per conoscere in faccia colui che tanto tempo
avanti avevano con somma sua laute udito celebrare in ogni qualità di dottrina e buona lettera-
tura.” Giovambattista Busini and Gaetano Milanese (ed.), “Vita di Benedetto Varchi,” *Il Borghini*
II (1864), p. 421.

³⁰ Varchi’s homecoming and appointment at the Medici court had been the result of a lengthy and
delicate process of negotiations, in which many intermediaries played a role. What we do know
is that in 1542 Cosimo was presented with a series of sonnets written by the exiled poet, and
his enthusiasm was aroused. According to one of Eric Cochrane’s sources, Cosimo “carried [the
sonnets] around for several days, and read and showed them to many persons.” (Cochrane, *Florence*
in the forgotten centuries, 1527-1800, p. 70) By the end of Januari 1543, the author Giovambattista
Gelli was charged by the Dukes’ *maggiordomo*, Pierfrancesco del Riccio, to write to Varchi, whom
by then was living in Ferrara, with specifics of the terms and conditions of the poet’s return. (Gelli
wrote three letters, one dated on 31 Januari, and two on 3 Februari 1543. These are published in
AAVV, *Prose Fiorentine, parte quarta*, 4 vols. (Firenze: Tartani e Franchi, 1734-1745), vol. I, pp. 58-63.
See also for an excerpt Michel Plaisance, “Une première affirmation de la politique culturelle de
Côme Ier: la transformation de l’Académie des ‘Humidi’ en Académie Florentine (1540-1542),”
in *Les écrivains et le pouvoir en Italie à l’époque de la Renaissance, Première série*, ed. A. Rochon (Paris:
Université de la Sorbonne Nouvelle, 1973), p. 438 n. 299. On behalf of the Duke, a sum of 100
ducati d’oro was paid to Varchi who by then was in Ferrara. (Busini and (ed.), “Vita di Benedetto
Varchi,” p. 421) In the course of Februari, another collaborator of the court involved in the
negotiations, and a good friend of Varchi, Luca Martini, reported from Bologna that Benedetto
was temporarily halted there on his way back because of an illness, but he was soon to recover.
By early March the poet was in Florence. The agreement between both parties seems to have
stipulated the payment of a fixed stipend to Varchi.

³¹ For modern biographies of Benedetto Varchi, see the two 20th century monographs: Guido
Manacorda, *Benedetto Varchi. L’uomo, il poeta, il critico* (Pisa: Tipografia succ. fratelli Nistri, 1903)
and Umberto Pirotti, *Benedetto Varchi e la cultura del suo tempo* (Firenze: Olschki, 1971): Chapter
one, *L’uomo*. See also, for Varchi’s early years, the very detailed account of Vittorio Fiorini, “Gli
anni giovanili di Benedetto Varchi” in *Da Dante al Manzoni* (Pavia: 1923), pp. 15-83. These works
draw in a great extent on the three 16th century biographies of Benedetto Varchi. These are first
of the ‘Vita di Benedetto Varchi’ written by Don Silvano Razzi and published in the 1590 edition
of Varchi’s lectures: *Lezzioni di M. Benedetto Varchi Accademico Fiorentino lette da lui pubblicamente*
nell’Accademia Fiorentina... con la vita dell’autore [scritta da S. Razzi], all’illustriss. et eccellent. sig. Don
Giovanni de’ Medici (Firenze: Giunti, 1590), pp. XV-XXVII. Razzi’s *Vita* is less intersting than
the other two anonymous biographies, both of which were probably written by Giovambattista
Busini, one of Varchi’s *fuorusciti* friends: the shortest of these was published in *Lezioni sul Dante*
e Prose Varie di Benedetto Varchi, la maggior parte inedite tratte ora in luce dagli originali della Biblioteca
Rinucciniana, edited by Guisepp Aiazzi and Lelio Arbib (Firenze: Società editrice delle storie del
Nardi e del Varchi, 1841), pp. XV-XXVII. A second, longer version was published by Gaetano
Milanese in *Il Borghini II* (1864), pp. 349-361 / pp. 414-431. For the attribution to Busini, see
Pirotti, *Benedetto Varchi*, p. 1.

B. BENEDETTO VARCHI'S CAREER

1. 1543

For a city which cultural life had been declining since the bloody events of 1537, Varchi's return was a big sensation. For almost 15 days after his arrival in Florence, according to an observer, all sorts of people ran through the streets where he passed to catch a glimpse of the man. Although only in his early thirties by then, Varchi had already become a celebrity in the literary circuit ("Not only in Florence, but in the whole of Italy had his name become most famous...").²⁹ But above all, and this explains the Florentines' lively curiosity, Varchi himself was a *fuoruscito*. Until an agreement was reached for his return, decrees of banishment and confiscation had been posted against his person. Now he was hired to invigorate the Accademia Fiorentina, the institute that had to become the spearhead of Cosimo's cultural politics. His decision to return to Florence, and to work directly for the Duke after years of anti-Medicean opposition was perceived as the endorsement by a respected intellectual of the legitimacy of the new regime.³⁰

The history of Varchi's twin-round goes parallel - and this is what makes it relevant to our analysis -, to a collective shift in the mentality of a good part of the Florentine educated classes who from an attitude of rebellion and refusal of the rule of the Prince perceived as an usurper, to an attitude of resignation, and even prudent expectation, when the announced collapse of the fragile regime failed to occur.

2. Benedetto da Monte Varchi

Benedetto Varchi was born in 1503 from an upper middle class family of recently arrived Florentines; his grandfather had still lived in the town of Montevarchi, in the Valdarno, before emigrating to Florence in 1436.³¹ At the age of 18, Benedetto was sent by his father, a successful notary, to study law at the University of Pisa. Shortly after he obtained his *dottorato*, Benedetto matriculated at the Florentine *arte dei giudici e notai* (the guild of judges and notaries) as an independent notary. The death of his father, in 1524, left Varchi with the prospect of a comfortable career running the family's prosperous office. He did so, and practiced as a notary for a short while, then left the profession to indulge his own passion for scholarship, poetry and eloquence.



Fig. 1.4 Tiziano Vecellio, *Portrait of Benedetto Varchi, 1536-1540, Vienna, Kunsthistorisches Museum.*

³² See Felix Gilbert, "Bernardo Rucellai and the Orti Oricellari: A study on the origins of modern political thought", *The Journal of the Warburg and Courtauld Institute* 12, 1949.

³³ See, on Varchi's visits to the *Orti*, and his contacts with Machiavelli, Fiorini, "Gli anni giovanili di Benedetto Varchi," p. 56 note 1.

³⁴ Roberto Weiss, "Luigi Alamanni" in *DBI* I: 568.

³⁵ Letters from Luigi Alamanni to Varchi, written through the 1540's, are to be found in the folder *Lettere al Varchi*, cass. 1, BNF Micr. 2092.

3. The *Orti Oricellari*

Immerging himself in the literary circles of the day, the young Varchi soon came in contact with one of the important centres of republican activism in Florence: the *Orti Oricellari*. The name designated a great garden compound along the via della Scala, laid out at the end of the 15th century by Bernardo Rucellai (1448–1514), the son of the builder of the family Palace. From the early 16th century onwards, gatherings were held there in which members of the wealthiest Florentine families as well as many of the most eminent personalities of the city's literary life participated. Literature stood at the centre of the debates, but the participants soon developed a growing interest for history and politics. Many of the most important works on political philosophy of the Italian 16th century found their origin in the discussions at the *Orti Oricellari*, but it is important to note the gradual change of political orientation. Initially, the circle of the visitors at the gardens seems to have belonged to the aristocratic opposition against Piero Soderini and the popular republican government.³² Things changed in the second decade of the century, after the return of the Medici in 1512, and the death of Bernardo Rucellai two years later. Under the guidance of Bernardo's sons, Palla and Giovanni, characteristically humanistic speculations about the theoretical and practical problems of the state evolved towards a reflection of a more mature kind. To a great extent this was the result of the presence of Niccolò Machiavelli in the group, who had composed and read two of his major works, the *Discorsi* and the *Arte della Guerra* in the *Orti*. Machiavelli's own brand of republicanism inspired a whole group of (mostly younger) members, who would later turn out to be the principal defenders of the republican tradition, such as Filippo and Lorenzo Strozzi, Luigi Alamanni, Zanobi Buondelmonti, Battista della Palla, Alessandro de' Pazzi, Filippo de' Nerli, Donato Gianotti, Jacopo Nardi.³³ Their republican passion, their aristocratic pride, their taste for literature celebrating the slaying of tyrants, made them a dangerous opposition group for the aims of the Medici family. That the group did not intend to refrain from action was proved by the events of 1522, when the most radical of Machiavelli's 'pupils' – Alamanni, Buondelmonti and Della Palla – were involved in a conspiracy that aimed to assassinate cardinal Giulio de' Medici (the later Clement VII) and to install of a new republican regime. But the scheme was unravelled and Alamanni and Buondelmonti were forced to escape, while two less fortunate plotters were caught and decapitated.³⁴ Varchi, who only joined the circle of the *Orti* after these events, would nonetheless – even after his entering into the service of Cosimo I – conserve a lifelong and cordial contact with Luigi Alamanni, who from his position at the court of François I and later Henri II would continue to be a pillar of anti-Medicean opposition.³⁵

³⁶ The meeting took indeed place on the evening of Januari 8th, 1537. As Varchi explains, Filippo Strozzi first refused to believe his guest when affirmed to have assassinated Duke Alessandro. “Finalmente Filippo credendolo l’abbracciò, e chiamatolo il lor Bruto, gli promise, che farebbe che Piero e Ruberto suoi figlioli prenderebbono per moglie le due sue sorelle...” Varchi, *Storia Fiorentina*, XV.4, in *Opere I*, p. 412.

³⁷ “...il più degli uomini, e spezialmente i Fiorentini, e tra questi i fuorusciti, lo [Lorenzino] portarono con sommissime lodi di là dal cielo, non solo agguagliandolo, ma preponendolo a Bruto; onde molti, e tra questi Benedetto Varchi, molto più che non nessun altro, composero, e volgarmente e latinamente, molti versi così in lode e commendazione del Tirranicida e del nuovo Bruto Toscano, chè con tali nomi si chiamava in quel principio Lorenzo, come in biasimo e vituperio del duca Alessandro, e talora del signor Cosimo...” Varchi, *Storia Fiorentina*, XV.23, in *Opere I*, p. 420.

³⁸ Varchi gave a lively account of this expedition in the *Storia Fiorentina* XV.46-55 in *Opere I*, pp. 432-436.

4. At the service of the Strozzi

By the end of 1529, in the gloomy days that had preceded the arrival of the Imperial army sent by Clement VII, Varchi joined the republican militia, and served for several months as an ordinary soldier, before escaping when the battle gained intensity and living conditions in the besieged city grew ever harder. Michelangelo, despite his own, far greater responsibilities as head of the military defense works, had already done so a few months earlier. Varchi only returned to Florence in 1532, to work as a private tutor in the household of Lorenzo Strozzi, the brother of Filippo, the future leader of the *fuorusciti*. This responsibility, which brought Benedetto to follow the Strozzi family in its displacements during the following years, put the young *letterato* at the very heart of the rebel movement. He witnessed for instance, as he later recounted in the *Storia Fiorentina* written for Cosimo I, the most affectionate meeting in Venice taking place between Filippo Strozzi and Lorenzino de' Medici when the latter arrived, exhausted, to announce that he had just slaughtered his hated cousin forty-eight hours earlier.³⁶ Benedetto himself was overwhelmed with enthusiasm at the news: in the same *Storia Fiorentina* he explained, with surprising sincerity, that in the enthusiasm of the moment he had written partisan poetry celebrating the event:

...most people, and in particular the Florentines, and among these the *fuorusciti*, were elevating [Lorenzino] with the highest praises beyond heaven, not only equating him, but deeming him even worthier than Brutus; so that many men, and among these Benedetto Varchi more than anybody else, started to compose, both in vulgar and in latin, many verses in praise and tribute of the tyrant-slayer, the new Tuscan Brutus, since it was with such names that Lorenzo was referred to at that time, as well as verses vilifying and vituperating Duke Alexander, and occasionally even at *signor* Cosimo...³⁷

In April 1537, Varchi enthusiastically joined Piero, the most bellicose of the Strozzi, in a military expedition to Borgo San Sepolcro which turned out a total disaster and a bad omen for the rebels in the run-up to more important military encounters. As would occur once more a few months later, the notice of this supposedly secret operation had been leaked to the network of Cosimo's informants.³⁸ After the debacle of Montemurlo, Varchi stayed in the company of the escaped Piero Strozzi as the preceptor of the three younger sons of Filippo Strozzi, who was now held prisoner. Benedetto, in his role of *pedagogo*, equally held a responsibility for the health of his pupils. When at the end of 1537 one of the young Strozzi died, Varchi was sacked. Because he had refused to return a book owned by his former employer, Piero had him beaten up by a hitman one night on the market place. These details poignantly illustrate the kind of precariousness and

³⁹ Varchi's esteem drove him to start a correspondence with Bembo from early on. In 1535 the Florentine scholar would organize a special pilgrimage to Padua, where Bembo lived, to meet the man in person, and he did so the next year as well. In 1537, during a stay in Venice, Varchi was able to develop closer ties with Bembo, who would afterwards remember his admirer with tender affection. Bembo interceded in favour of his young friend when the latter came in trouble with the Duke's justice in 1545. In his letter to Cosimo, Bembo pleaded for the release of "mio carissimo amico, per le virtù che ho conosciuto in lui da me come figliuolo amato", and begged that against the fault that he might have committed ("[l'] errore che egli avesse comesso"), Cosimo would put the "molte buone e rare qualità sue". The letter is cited, undated, in A. Racheli, "Della filologia del secolo XVI, e in particolare della vita e degli scritti di Benedetto Varchi.", in *Opere* II, p. XII.

⁴⁰ The *Dialogo* would be an important source for Du Bellay's *Deffence et illustration de la langue françoise* of 1549. See C. P. Brand and Lino Pertile, *The Cambridge history of Italian literature* (Cambridge - New York: Cambridge University Press, 1996), 184.

⁴¹ Michel Plaisance referred to three letters of Battista Strozzi (then in Coreggio) to Varchi, dated 27 October 1537, and 27 January and 8 February 1538, in which Battista begs his correspondent to fulfill an earlier promise of sending the text. Among Varchi's Florentine contacts on these matters by that time, Plaisance cited Luca Martini, Chirico Strozzi, Battista Alamanni, Francesco del Garbo. Plaisance, "Une première affirmation de la politique culturelle de Côme Ier..." p. 367 note 14.

dependence in which most men of letters were still confined in the 16th century. For Varchi in particular, they led to a turning point in his engagement. In his *Storia Fiorentina*, written more than a decade later, Varchi pondered the events he had gone through since Cosimo's election with a melancholy that turned in outright bitterness when he came to describe the deeds of Piero Strozzi, the man whose reckless eagerness for war had caused the ruin and death of his own father, one of Europe's richest and most revered bankers, and the effective end for the freedom aspirations of many Florentines. Benedetto decided to turn away from any kind of political commitment and dedicate himself more intensely to his own studies in letters. At the end of the 1530's, he settled in the ancient university town of Padua.

5. Padua

Varchi had been attracted to Padua in the first place because the Venetian nobleman Pietro Bembo (1470-1547) lived there, the poet and literary theorist whose *Prose della volgar lingua* had considerably marked the Florentine scholar. In this dialogue, published in 1525, Bembo had advocated the validity of the *volgare* as a valid alternative for Latin, as long as it was unified by a precise set of rules. As a model for the establishment of these rules, he posited the written language he considered the purest: the one used by the best Tuscan authors of the fourteenth century. Being an eager poet in the vernacular himself, Varchi also particularly admired Bembo's imitations of Petrarchan poetry. Both men knew each other well from the earlier 'pilgrimages' that Varchi had made to the venerated master. Benedetto became one of Bembo's protégés. In a letter to Cosimo I, Bembo would later describe his feelings for his young admirer as those of a father for his son.³⁹ The privileged contact with Bembo considerably extended Varchi's network of social relations. Through the future cardinal, Varchi entered in contact with the Venetian circle around the poet Pietro Aretino and the painter Titian, from whom the Florentine poet ordered a revealing portrait, now in the München Pinakothek.

In Venice Varchi also came into contact with the humanist Sperone Speroni (1500-1588), who was by then working on his *Dialogo delle lingue*, a text devoted to the promotion of vernacular for the transmission of knowledge. The dialogue, which would prove influential as far as in France, where it inspired Joachim Du Bellay's campaign against neo-Latin, was eventually published in 1542.⁴⁰ But large portions of it had been ready in manuscript form by 1537, which Varchi had been allowed to read. The enthusiasm of the Florentine scholar was such that he sent portions of it to his circle of correspondents in Florence and elsewhere.⁴¹ With Sperone Speroni and the Roman nobleman Leone Orsini,

⁴² Cf. A.L. De Gaetano, *Giovambattista Gelli and the Florentine Academy: the rebellion against latin*. (Firenze: Olschki, 1976).

⁴³ Varchi, *Opere*, II, pp. 563. The whole text of this Paduan *lezione* is reprinted here, pp. 562–568. Varchi concludes the *lezione* observing that he didn't expand on the praise of the qualities of the author he commented, "...since they are so numerous and great, and well known and much celebrated everywhere, and since I don't want to be suspected of adulation." Varchi's praise of Bembo is typical of the laudatory passages in Varchi's public speeches, crammed with superlatives: "Delle qualità, e lodi dell'autore d'esso non ho voluto ragionare, si per essere quelle tante e tali, che omai sono in ciascun luogo notissime e celebratissime, e si per fuggire ogni sospetto d'adulazione, essendo egli, la buona di Dio mercè, ancora e vivo e sano, ed in istato e grado onoratissimo certamente e grandissimo, ma minore però della bontà sua e delle virtù le quali io sempre con somma e singolare osservanza ho non meno amate ed onorate, che ammirate." *Opere* II, p. 568.

⁴⁴ Cf. Richard S. Samuels, "Benedetto Varchi, the *Accademia degli Infiammati*, and the Origins of the Italian Academic Movement," *Renaissance Quarterly* 29 (1976): pp. 599–633. Samuels observed on Varchi's early Paduan lectures: "Tedious as such discussions of metrics and versification may appear to modern readers, they were undoubtedly of great interest to Varchi's sixteenth-century audience, an audience which regarded as an indispensable part of on's cultural achievement the ability to compose sonnets and canzoni in perfect imitation of Petrarch and his most accomplished imitators, and the ability to add an edge of novelty to a composition through assimilating to vernacular verse the offbeat or unusual in antique poetry." p. 620.

⁴⁵ *Ibid.*, 629.

⁴⁶ See Pirotti, *Benedetto Varchi*, pp. 10–11.

⁴⁷ Pietro Vettori (1499–1585) was, just like Varchi, a student of Verino. Vettori, the nephew of the great *Ottimato* statesman Francesco Vettori, devoted his entire career to the study of Latin and Greek. He is now considered the greatest classical scholar of his days. Vettori was very close to Varchi in the first years of their meeting. Having accepted a position as lecturer at the *Studio Fiorentino* under Cosimo's rule as early as in 1538, Vettori stayed well-informed of Varchi's activities during this last one's exile, as for example of the vagaries of the *Accademia degli Infiammati*. (See Cochrane, *Florence in the forgotten centuries, 1527–1800*, pp. 35, 70 on Vettori's return to Florence)

⁴⁸ In a passage from the *Ercolano* the character 'Varchi' says: "...quando era scolare in Padua [...] cominciai a tradurre la Loica, e la Filosofia d'Aristotile nella lingua volgare" Varchi, *L'Ercolano* in *Opere* II, p. 159.

⁴⁹ Varchi only finished the commented translation of the first book of the *Prior Analytics*, which was never published: *Commento primo di Benedetto Varchi sopra il primo libro della Priora d'Aristotile*, BNF, Filze Rinuccini, 10, fasc. 37. The project of writing down the commentary of the lectures of Nicomachean Ethics was never finished, and nothing of it has been published (Varchi's notes are kept in BNF, Filze Rinuccini, 10, fasc. 6, cc. 6 ff.; see also Samuels, "Benedetto Varchi, the *Accademia degli Infiammati*, and the Origins of the Italian Academic Movement," p. 622 for comments on Varchi's planned introduction to the comment on the *Ethics* there). Varchi did finish the commentary of the first book of another of Aristotle's texts, *Meteorology*, but the manuscript is dedicated to Cosimo I, and the work is consequently post-1543. (*Commento primo di Benedetto Varchi fiorentino sopra il primo libro della meteore d'Aristotele tradotta da lui di Greco in lingua toscana al molto onorando et eccellentissimo [...] Cosimo de' Medici Duca di Firenze*, BNF, Filze Rinuccini, 10, fasc. 29. Varchi also translated from Latin to Tuscan the life of Aristotle (written by Philipponus) which had been included in a 1536 edition of Ammonius Hermiae's commentary of the *Categories* (*Ammonii Hermiae in praedicamenta Aristotelis commentaries. Aristotelis vita*, Venice, 1536; for Varchi's manuscript see: BNF, Filze Rinuccini, 10 fasc. 4, c. 32 v.).

⁵⁰ See Florindo V. Cerreta, "An account on the early life of the *Accademia degli Infiammati* in the letters of Alessandro Piccolomini to Benedetto Varchi," *The Romanic Review* XLVIII, no. 4 (1957), pp. 249–264.

Varchi founded, in 1540, the Paduan Accademia degli Infiammati. The institution for the first time embodied an ideal to which Varchi dedicated himself entirely, and that would become crucial in Florence's 16th-century cultural agenda: "the advancement of learning through the vernacular."⁴² The presence of many scholars in the centre of learning that the city of Padua was, guaranteed large audiences at the public lectures in the vernacular organized by the *Infiammati*. Varchi gave his first performance on December 12th, 1540, with a learned comment on one of Bembo's sonnets, *A questa fredda tema, a questo ardente sperar...*, the author of which Varchi described as "il gentil e dottissimo poeta nostro."⁴³ The lectures that Benedetto gave in the following months, which were all comments on poetry, privileged an attention on form over content and put most of the emphasis on the technicalities of verse composition.⁴⁴ Things changed when Varchi was brought to replace, in the late summer of 1541, the philosopher Vincenzo Maggi, whose long series of lectures on Aristotle's *Poetics* had been scheduled for the opening of the academic year, but who was now suddenly incapacitated. Varchi lectured for several weeks, on Aristotle's *Nicomachean Ethics* instead. The success was immediate. The affluence of foreign students from the Paduan university (who had only superficially mastered the Italian vernacular) was such that from the second week of October onwards, Varchi had to deliver his *lezioni* in Latin to make himself understood by everybody, thus betraying part of the aims of the *Infiammati*.⁴⁵

Varchi could count, when he started the lectures on the *Ethics*, on some experience in the study of philosophy and Greek, as well as on his experience gained through recent attempts at translating and commenting Aristotle. His philosophical training amounted to what he had learnt in the courses of Francesco Verino at the Studio Fiorentino in the mid-1530's.⁴⁶ His knowledge of Greek had been acquired under guidance of Donato Gianotti when Varchi was first studying law in Pisa, then, more thoroughly with his mentor Piero Vettori around 1535.⁴⁷ And at the beginning of his Paduan sojourn Varchi had started to work on a translation project of "the logics and philosophy" of Aristotle 'in the vulgar'.⁴⁸ Varchi started the undertaking with a commented translation of the *Prior Analytics*. The commented translation of the *Nicomachean Ethics*, drawn from the lecture series, was to be another important step in this long-term project.⁴⁹

Varchi was not the only *Infiammato* displaying an interest in writing vernacular commentaries on Aristotle. So did the Sienese Alessandro Piccolomini (1508-1579), a former member of the pioneering Accademia degli Intronati (founded in Siena in 1531), now known for his strikingly diversified oeuvre.

Varchi and Piccolomini were very close in those days, as is known from their correspondence.⁵⁰ The evolution of their commitment as authors features also striking parallels. If one excludes the slumbering Lucca – Venice and Genoa being exceptional

⁵¹ *Parlamento a la plebe, persuadendola a non precipitarsi dietro agli ostinati di non voler accordo con li fuorusciti e con gli imperiali.*

⁵² On Piccolomini's early political tracts, such as the manuscript *Orazione de la Pace* (1531) and *Parlamento a la plebe* of the same year, as well as on the evolution of his political engagement in general, see Mireille Celse, "Alessandro Piccolomini, l'homme du ralliement" in *Les écrivains et le pouvoir en Italie à l'époque de la Renaissance, Première série*, ed. A. Rochon (Paris: Université de la Sorbonne Nouvelle, 1973), pp. 7-76.

⁵³ "Io già più mesi e forse anni sono, ho avuto in animo et ho più che mai, di ridur ne la lingua nostra, non solo alcune cose di astrologia e di cosmografie, scritte da Tolomeo; ma ancor buona parte de le cose filosofiche, così naturali, come morali, secondo la via dei peripatetici; non traducendo, ma ampliando dove bisogna, di maniera però che io non mi parti dal parer primamente di Aristotile e di poi dei primi suoi greci espositori." Letter from Piccolomini to Aretino, dated March 20, 1541, in *Lettere scritte al Sig. Pietro Aretino da molti*, Venice, 1552, II, pp. 143-6; see also Florindo V. Cerreta, *Alessandro Piccolomini. Letterato e filosofo senese del Cinquecento* (Siena: Accademia senese degli Intronati, 1960), pp. 35-41.

⁵⁴ Alessandro Piccolomini, *Della grandezza della terra e della acqua*, Venezia, 1558, preface (unpaginated); translation from R. Suter, "The scientific work of Alessandro Piccolomini", *Isis*, 60, 1969, p. 211.

⁵⁵ Piccolomini's oeuvre includes works on mathematics, mechanics, astronomy and geography, such as the treatise *Della grandezza della terra e della acqua* (on the relative dimensions of the mass of earth and of water on our globe), but the influential compendium "*Della filosofia naturale*" (1551, expanded version 1565) stands central. For complete list of Piccolomini works, both published and unpublished, see Cerreta, *Alessandro Piccolomini. Letterato e filosofo senese del Cinquecento*, pp. 171-196.

⁵⁶ On this row, see Heiki Mikkeli, "The cultural programmes of Alessandro Piccolomini and Sperone Speroni at the Paduan *Accademia degli Infiammati* in the 1540's," in *Philosophy in the Sixteenth and Seventeenth century. Conversations with Aristotle*, ed. Constance Blackwell and Sachiko Kusukawa (Aldershot: Ashgate, 1999), pp. 76-85.

⁵⁷ *Ibid.*, 78, paraphrasing Speroni.

cases – Siena was the only republic or free medieval commune left in Italy after the fall of Florence. But its internal weaknesses made it a battleground in the struggle for influence that opposed France and the Holy Roman Empire; a struggle that ended, as we have seen, with the annexation of Siena to Tuscany. As a member of a major Sienese patrician family, Piccolomini was strongly engaged, from his early twenties, in the battle for the conservation of the city's precarious political liberty. Piccolomini's early writings (such as the oration *The parliament to the masses, as to persuade them not to join, precipitately, those persisting to refuse an agreement with the fuorusciti and with the 'Imperials' - 1531*),⁵¹ show a great preoccupation with the attitude the city needed to adopt towards the rapidly evolving situation in Tuscany.⁵² Piccolomini must have been struck and discouraged as much as Varchi by the dramatic end of the Florentine rebel movement. By the time of their stay in Padua around 1540 their interest had commonly evolved towards more contemplative and absolute forms of knowledge than were politics. In 1541 Piccolomini wrote that it was his intention to write on cosmology in the vernacular, as well as to translate and to comment Aristotle and his first commentators.⁵³ Both men engaged themselves in a common effort, which Piccolomini would later summarize as follows: "to free us who are born in Italy of the need to learn foreign languages in order to acquire the sciences."⁵⁴ As both Varchi's and Piccolomini's later oeuvre show, their first preoccupation was with the natural sciences.⁵⁵ Translating and commenting Aristotle was the logical first step to take.

These ambitions were not universally shared. The question whether natural philosophy was a subject fit for vulgarization seems to have caused a real row among the different members who were deciding over the cultural program of the *Infiammati*. It opposed in the first place Varchi and Piccolomini to Speroni.⁵⁶

Speroni's view was that literary production in the vernacular should focus on the disciplines devoted to practical life, on knowledge that generates intellectual satisfaction and happiness. Ethics, rhetoric, poetry, the humanistic disciplines, all range within this category. Taking over the convictions of his master, Pietro Pomponazzi, in this regard, Speroni considered knowledge on matters of natural philosophy (and of the contemplative disciplines in general) too uncertain and thus unfit for intellectual gratification. These problems can serve at best as "an appetizer that one eats before the main dishes, that is, the humanistic disciplines."⁵⁷ Beside this main objection regarding their speculative, fugitive nature, Speroni advanced two other reasons for dismissing the natural sciences as a object of vulgarization. First there is a problem of difficulty, or rather of lack of difficulty, which is the dimension that gives appeal and grace to a text. In a passage at the end of the *Dialogo delle lingue* Speroni lets the character 'Bembo' say that, even if a peasant can learn to discuss philosophical or scientific matters in the vernacular, he will still not be able to

⁵⁸ Sperone Speroni and H. Hart (ed), *Dialogo delle Lingue*, (München, 1975), p. 132.

⁵⁹ A text to be found in Sperone Speroni et al., *Opere di M. Sperone Speroni degli Alvarotti tratte da' mss. originali* (Venezia: Appresso D. Occhi, 1740), 445-446; Cf. Mikkeli, "The cultural programmes of Alessandro Piccolomini and Sperone Speroni at the Paduan *Accademia degli Infiammati* in the 1540's," pp. 78-79.

⁶⁰ The date of Varchi's departure can be deduced from the first of the series of letters from Piccolomini to Varchi, mentioned in note ... , dated April 27th 1541; see Cerreta, "An account on the early life of the *Accademia degli Infiammati* in the letters of Alessandro Piccolomini to Benedetto Varchi," p. 257, in which Piccolomini mentions he just heard of Varchi's arrival in Bologna.

⁶¹ On April 27th, Piccolomini wrote: "Harò caro che Vostra Signoria mi avisi qualche cosa di cotesti studii e del modo di legger del Bocca di Ferro; e del successo di cotesta *Accademia*" Cerreta, p. 257; on May 24th: "... e mi avisiata alcuna volta de gli studii di Bologna, e come il Bocca di Ferro vi soddisfa." Ibid., p. 259; on June 9th: "Harò molto caro M. Benedetto, poi che così vi lodate del Bocca di Ferro, che duraste tanta fatica di far che io havesse 2 o 3 lettioni di quelle che fatte tenete più belle, che gli habbai lette in questi giorni" Ibid.

⁶² On July 6th, Piccolomini wrote: "... duolmi che non si possin haver alcune lettioni del Bocca di Ferro; ma non potendosi ci patiran queste voglie" Ibid., p. 260.

⁶³ Piccolomini's transfer would have taken place in 1542, with no further precision. Ibid., p. 255.

⁶⁴ See Umberto Pirotti, "Benedetto Varchi e l'aristotelismo del Rinascimento," *Convivium* III (1963): 280-311, an article that was later published in a translated and condensed version as Umberto Pirotti, "Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism," in *The late Italian Renaissance*, ed. Eric Cochrane (New York: Harper and Row, 1970), pp. 168-210, later still integrated in a slightly amended version in Pirotti, *Benedetto Varchi e la cultura del suo tempo* as Chapter II, *Nel solco dell'aristotelismo*, pp. 63-108.

⁶⁵ Pirotti, "Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism," p. 186.

produce poetry or speeches.⁵⁸ On the other hand, objected Speroni in a short essay *Di che si debba scrivere oggidì in questa lingua volgare, ed a cui* ('What one ought to write about today in this vulgar tongue, and to whom'), these matters have already been treated well enough in Greek and Latin, in already existing books.⁵⁹ Varchi and Piccolomini, who later emerged as some of the most talented scientific vulgarizers of their generation, could only disagree.

6. Bologna

The rupture caused by this quarrel ran deep, and seems to have contributed to the departure of both Varchi and Piccolomini from Padua. Varchi left as soon as the spring of 1541 to perfect his philosophical knowledge in Bologna (maybe frustrated by his own shortcomings experienced while lecturing on the *Ethics*), where the reputed Aristotelian philosopher Lodovico Boccadiferro (1482-154) was lecturing.⁶⁰ As we learn from a series of letters that Piccolomini sent from Padua to Varchi in Bologna, the young Sienese professor equally displayed an avid interest in Boccadiferro's lectures, and repeatedly begged Varchi to send him his opinion on the courses, and, if possible, transcriptions of the lessons.⁶¹ Varchi's answers further aroused Piccolomini's curiosity about the Bolognese philosopher, but it appeared impossible to send the text of any lecture.⁶² A few months later, possibly following a further deterioration of the conflicts within the *Inflammati*, Piccolomini decided to follow Varchi to Bologna and attend Boccadiferro's lectures by himself.⁶³

Boccadiferro had a decisive influence on Benedetto Varchi. This fact has been thoroughly underscored by Umberto Pirotti, who studied in detail the relationship between both thinkers.⁶⁴ In contrast to the present day, in which all major philosophical texts are available in translations, and questions can be resolved by turning to numerous commentaries, monographs and essays, the sixteenth century scholar who wanted to explore the works of Aristotle by himself ran the risk of understanding nothing or getting hopelessly lost. Aristotle's work had been composed in a difficult language and was translated into an often obscure jargon. The writings of most authoritative commentators were hardly accessible or only in equally defective versions.

A master was all but indispensable, therefore – a master who, by his human presence, could alleviate the aridity and the abstruseness of many of the problems and who could, by adapting himself to particular circumstances, resolve the doubts in the text itself or in the works of the many commentators. This is the kind of teacher that Varchi found in Boccadiferro.[...] For Varchi, Boccadiferro was the Noah's Ark of philosophical knowledge.⁶⁵

⁶⁶ Boccadiferro's fame caused him to be pressed by Cosimo de' Medici to accept a position at the reopened Pisan University. But the old master could not be persuaded to leave his hometown.

⁶⁷ Pirotti, "Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism," p. 187.

Boccadiferro was famous in his days because he had managed to make the writings of Aristotle completely his own.⁶⁶ He also thoroughly mastered the Greek and Arab commentaries. “Varchi had only to stay in his company to penetrate the secrets of Aristotelianism.”⁶⁷ He did so during almost the whole of 1542.

Varchi must have felt by then that he was ready to return to his native city. There, in the meantime, stirred by the regular notices they had received about the progresses of the Paduan *Accademia degli Infiammati*, a series of Varchi’s Florentine poet-friends had, in turn, founded their own literary academy towards the end of 1540. The name this joyous *brigata* (band) of poets had chosen for themselves was *Accademia degli Umidi*, an ironical reference to their Paduan inspirators, whom they intended to ‘extinguish’. To everybody’s surprise, the young prince Cosimo de’ Medici very soon demonstrated a great deal of interest in this – initially – private and modest initiative. Through a subtle operation of infiltration – that has been documented with commanding care by Michel Plaisance – he managed to gradually transform this confidential society of talented *letterati* into one of the first European state-controlled organ of cultural propaganda. It is in the context of the *Accademia Fiorentina* – as the group of the *Umidi* had been renamed – that Varchi, who was now a confirmed lecturer and a mature philosophical interpreter, would produce the bulk of his scholarly work.

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A large, light gray, stylized number '2' graphic that curves from the top right and descends towards the bottom right, partially overlapping the text.

CHAPTER TWO:
Benedetto Varchi lecturer at the Fiorentina

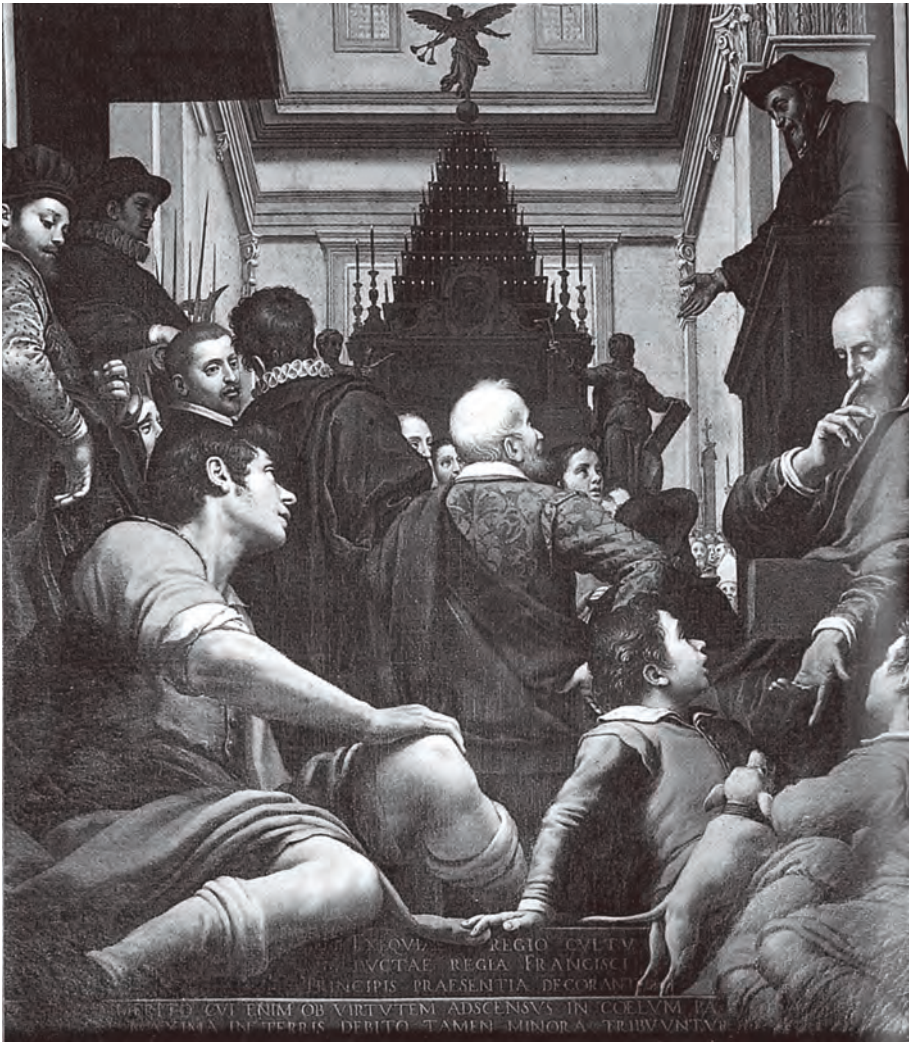


Fig. 2.1 A. Ciampelli, *The Catafalque of Michelangelo in San Lorenzo, 1617*. Florence, Casa Buonarroti.

¹ The measure was taken around 1554. It allowed Cosimo to redefine the terms of engagements with several of his courtiers, including Varchi. See Umberto Pirotti, *Benedetto Varchi e la cultura del suo tempo* (Firenze: Olschki, 1971), p. 34.

² François Quiviger, "Benedetto Varchi and the Visual arts," *Journal of the Warburg and Courtauld Institutes* 50 (1987), p. 220.

³ Sergio Rossi, *Dalle botteghe alle accademie. Realtà Sociale e teorie artistiche a Firenze dal XIV al XVI secolo*. (Milano: Feltrinelli Editore, 1980), pp. 110-111.

A. VARCHI'S WRITTEN OEUVRE

1. Introduction

Benedetto Varchi produced an extensive and diversified written oeuvre in the years between 1543 and his death in 1565. During the whole expanse of these twenty-two years, the former rebel received a salary from his new employer, except for a short period in the mid-1550's, when at the height of the war with Siena, the Duke had suspended as a temporary cost-cutting measure, payments to a great part of his *stipendiati*. Benedetto had then immediately plunged into poverty.¹

Three works in Varchi's production are usually singled out, the respective importance attributed to them usually depending on a particular present-day outlook. Historians point to the significance of the *Storia Fiorentina*, Varchi's history of Florence for the period reaching from 1527 until the dawn of Cosimo's reign, an account especially dazzling for the richness of the detailed information it provides. Linguists underscore the importance of the *Ercolano*, a dense dialogue on one of the hotly debated questions of that day - that of the proper language for literature-, published posthumously in 1570. Art historians, finally, will recognize the *Due lezioni* as Varchi's crucial achievement. This book, published by Lorenzo Torrentino in 1550, contains the text of two lectures that Varchi had delivered more than two years earlier, for the audience of the Accademia Fiorentina. They include the exegesis of a sonnet by Michelangelo (first lecture) and three disputes (second lecture): on the relative nobility of the arts in general; on the *paragone* or contest between painting and sculpture; and on the comparison of painting and poetry. The *Due lezioni* remained relatively unnoticed to art-historians until Erwin Panofsky integrated parts of them in his own comments on Michelangelo's sonnet "*Non ha l'ottimo artista alcun concetto...*" and have gradually gained attention since. They are now considered landmarks in Cinquecento art-theory, comparable to the prefaces of Vasari's *Lives*, and recognised as seminal in the formulation of the academic vision on the arts developed during the 16th century. One author has labelled the 1550 edition "a bridge between the culture of the workshops and the world of the accademie".² The first of both lectures constituted a printed consecration of Michelangelo's mythical genius, and appeared before the first issue of the Vasarian *Lives* of that same year. The second lecture, respectfully commenting on the written statements of eight artists on a theoretical issue (some of whom were Varchi's close friends), is considered one of the first straightforward appraisals of the figure of the artist-intellectual coming from an outsider.³

- ⁴ Hermann Gmelin, *Personendarstellung bei den Florentinischen Geschichtschreibern der Renaissance*, Beiträge zur Kulturgeschichte des Mittelalters und der Renaissance herausgegeben von Walter Goetz (Leipzig-Berlin: B.G. Teubner, 1927), p. 77.
- ⁵ Umberto Pirotti observed: “If those philosophers who made a valid contribution to the enrichment of the human mind were alone worthy of study, there would be little point in wasting time on Benedetto Varchi. [...] He himself did not hesitate to admit that the doctrines he professed were not the fruit of his own personal elaboration, but were derived rather from the masters he had chosen.” Umberto Pirotti, “Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism,” in *The late Italian Renaissance*, ed. Eric Cochrane (New York: Harper and Row, 1970), p. 168. Earlier Leonardo Olschki had stressed the “fast vollständige Mangel an Originalität” in Varchi’s writings. Leonardo Olschki, *Geschichte der neusprachlichen wissenschaftlichen Literatur. Bildung und Wissenschaft im Zeitalter der Renaissance in Italien* (Leipzig-Firenze-Roma-Genève: Leo S. Olschki, 1922), p. 178.
- ⁶ Varchi had the reputation, among his contemporaries, to be sexually attracted to young adolescents. Many affairs with young boys are documented. See Vittorio Fiorini, “Gli anni giovanili di Benedetto Varchi,” in *Da Dante al Manzoni* (Pavia: 1923), pp. 15-83 and Pirotti, *Benedetto Varchi e la cultura del suo tempo*, pp. 47-54. This fact, as well as an accusation of the rape of a young girl, has very much tainted the perception of Varchi by 19th and 20th century critics. The first author of a monograph on Varchi, Guido Manacorda, mingling literary critique and moral assessment, eventually judged his subject in the following terms: “Il Varchi, uomo, non riesce simpatico. La prima impressione che dalla lettura delle sue opere riceviamo, ci indurrebbe a scorgere in lui l’abito turpe dell’ipocrisia; una più attenta considerazione ci fa in seguito ricredere. No; quando enunciava i suoi principi morali, e s’entusiasmava nell’ammirazione del Buono e del Bello, era in buona fede: se nella realtà della vita, le sue azioni troppo spesso non rispondevano a quei principi, a quegli entusiasmi, dobbiamo vederne la ragione nel carattere suo, incapace di frenare il prorompere delle passioni. Tutta la sua vita fu contraddizione continua fra pensiero e sentimento. [...] egli comprese in astratto quel che doveva essere virtù, ma quasi sempre, ripeto, carattere debole e fiacco, cadde nel vizio.” Guido Manacorda, *Benedetto Varchi. L’uomo, il poeta, il critico* (Pisa: Typografia succ. fratelli Nistri, 1903), pp. 32-33. The affair of the rape surfaced shortly after Varchi’s nomination as consul of the *Accademia Fiorentina* in 1545. In the house on the countryside where Varchi was residing a girl, still a child, was raped. According to Varchi’s anonymous biographer, the real culprit, a Pisan boy named Licchisensi, managed to escape. But encouraged to do so by one of Varchi’s colleagues at the *Florentina*, Carlo Lenzone, the girl’s father stepped to the justice authorities (*Otto de balia*), and, instead of the Pisan, charged Benedetto with the crime. So far for the biographers’ version. What we further know is that Varchi was effectively imprisoned, that his enemies unleashed their furor, and that his friends interceded in his favor. Bembo wrote a letter to Cosimo in which he called Varchi “mio carissimo amico, per le virtù che ho conosciuto in lui da me come figliuolo amato”, and begs that against the fault that he might have committed (“[l]’ errore che egli avesse commesso”), Cosimo would put the “molte buone e rare qualità sue”). (letter is cited, undated, in A. Racheli, “Della filologia del secolo XVI, e in particolare della vita e degli scritti di Benedetto Varchi.”, in *Opere* II, p. V-XX, XII) Varchi was eventually released, but only after having recognized his guilt, and paid both a fee, and a sum for the girl’s dowry. The events have been interpreted differently by modern critique. Manacorda judged Varchi probably guilty. He wrote an special appendix on the affair. Manacorda, *Benedetto Varchi. L’uomo, il poeta, il critico*, pp. 157-161. Umberto Pirotti concluded that Varchi’s confession had been extracted, if not under torture, then under “moral violence” (Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 26). Plaisance entirely subscribed to this last thesis and considered the version of the anonymous plausible. If he doubted whether Varchi’s imprisonment was directly ordered by Cosimo himself, he certainly saw the confession as the result of a carefully led “chantage”, disclosing Cosimo’s penchant for exploiting judicial matters in a truly totalitarian fashion. Varchi had in fact displayed signs of insubordination to his new patron recently, and the affair presented a welcome means to render Varchi more docile. In the summer of 1544, Varchi had shown himself (for reasons we do not know) ready to leave the service of Cosimo in favor of a position under Archbishop Girolamo Sauli, with whom he had had a brief contact in Rome. Cosimo, informed of the case, was outraged. The hypothesis was recently echoed by Deana Basile, who suggested that, by pressuring Varchi, Cosimo was preparing him for a new commission: the *Storia Fiorentina*. Deana Basile, “Fasselli gratia per poetessa: Duke Cosimo I de’ Medici’s role in the Florentine literary circle of Tullia d’Aragona,” in *The cultural politics of Duke Cosimo I de’ Medici*, ed. Konrad Eisenbichler (Aldershot: Ashgate, 2001), p. 138.

Considered together, these three texts (the *Storia*, the *Ercolano* and the *Due lezioni*), demonstrate the impressive level of learning that Cosimo's *cortegiano-letterato* had succeeded to acquire three seemingly distant domains: history-writing, linguistics, and art theory/philosophy. Varchi has appropriately been named as "one of the great erudites of the full Renaissance,"⁴ but few critics have attempted to explain Varchi's oeuvre in its entirety by anything else than by referring to the dominating trend, in 16th-century literature, towards encyclopedianism. Several of Varchi's other writings have thus escaped attention, such as Varchi's tract on the 'species of heat', or the lecture before the Accademia Fiorentina 'on the generation of the body.' One of the reasons why such texts (to be discussed in detail in the following chapters) received scant consideration is related to the still dominating general perception of Varchi being an essentially unoriginal thinker.⁵

I have not the intention to overthrow such judgements here. My point is certainly not to plead for a reevaluation of Benedetto Varchi's production, urging the reader to discover qualities (either literary or philosophical) that have remained hidden until now, nor to enhance the (rather tarnished) moral reputation of the man himself.⁶ Such an undertaking has no value for our enquiry on Varchi's position in the art-nature-debate. The aim of the next chapters will instead be to approach Benedetto Varchi's oeuvre in its totality, in an unprejudiced way, as a heuristic tool to analyze how his particular culture approached questions related to natural and artificial bodies, that is, to works of nature, art, technology and architecture.

Unlike earlier studies of 16th century art-theory, I will thereby not so much focus on Varchi's *Due lezioni*, as on the way these two lectures are embedded in a vast collection of writings that are remarkable, not so much for the doctrines they made accessible, but for the particular avenues of enquiry and argumentation they choose to follow. The aim of the present chapter is to present the full extent of these writings, and the ways in which these works were specifically designed for, and came to interact with, a particular Florentine audience. I will introduce the academic lectures themselves after a sketch of the context of the Accademia Fiorentina. But I will first provide an overview and brief discussion of Varchi's other literary productions.

2. Orations

Benedetto Varchi, a man celebrated for his arresting appearance on a pulpit,⁷ and considered one of the most talented orators of his days,⁸ had been commissioned to write and recite several funeral orations for important public figures. These orations were sometimes read in the church, as part of the funeral service itself, as in the case of the famous San Lorenzo

⁷ “... aveva grande, ed a ciò molto accomodata voce, e bello, e grazioso modo d’orare, era a vederlo, ed a udirlo in su i Pulpiti, e sopra le cattedre cosa meravigliosa...” Don Silvano Razzi, “Vita di Benedetto Varchi,” in *Lezioni di M. Benedetto Varchi Accademico Fiorentino lette da lui pubblicamente nell’Accademia Fiorentina...* (Firenze: Giunti, 1590), pp. XV-XXVII, XX. Other descriptions, on the other hand, present us Varchi above all as a huge bodily presence: Lasca has written, deridingly: “Non fu mai visto il più bello omaccione/ del mio gran Varchi, e non si vedrà mai,/ grosso, grasso, ...” Anton Francesco Grazzini, *Le rime burlesche, edite e inedite, di Antonfrancesco Grazzini, detto Il Lasca, per cura di Carlo Verzone* (Firenze: G. C. Sansoni, 1882), p. 350.

⁸ Varchi has actually been compared to Demosthenes and Cicero. See the praise of the abbot Giovanni Maria Crescimbeni, *L’istoria della volgar poesia* (Rome: il Chacras, 1698), cited in AAVV, *Notizie letterarie, ed istoriche intorno agli uomini illustri dell’Accademia Fiorentina, parte prima* (Firenze: Piero Matini stampatore arcivescovale, 1700), p. 154: “...ornatissimo delle più gravi scienze, peritissimo delle più amene Lettere, e della più eloquente facondia dottato in guisa, che la Toscana favella, colla quale egli scrisse, non dovette per lui invidiare alla Greca il suo Demonstene, alla Latina il suo Tullio.”

⁹ The *annals* of the *Accademia Fiorentina* mention that Varchi’s oration happened “non senza lachryme degl’uditori (...) non meno ornatamente che pietosamente” Cited by Alessandro Cecchi, “Il Bronzino, Benedetto Varchi e l’Accademia Fiorentina: ritratti di poeti, letterati e personaggi illustri della corte medicea,” *Antichità Viva* (1991), p. 24.

¹⁰ The list of Varchi’s published orations, chronologically ordered, is the following (only first prints are mentioned): Benedetto Varchi, *Oratione funebre sopra la morte del reverendissimo cardinal Bembo* (Firenze: Per il Doni, 1546); Benedetto Varchi, *Orazione funerale sopra la morte del Signore Stefano Colonna da Palestrina fatta et recitata da m. B. V.* (Firenze, 1548); Benedetto Varchi, *Orazione funerale fatta gia, et recitata nell’Accademia Fiorentina da m. B. V., sopra la morte dell’illustrissima et ecc. signora madonna Maria Salviati de’Medici.* (Firenze: Lorenzo Torrentino, 1549); Benedetto Varchi, *Orazione sopra la morte del s. Giovanbattista Savello* (Firenze: Giunti, 1551); Benedetto Varchi, *Orazione funerale fatta, et recitata da m. B. V. nell’esequie dell’illustrissima et eccellentissima singo donna Lucrezia de’Medici, duchessa di Ferrara, nella chiesa di S. Lorenzo, agli XVI di maggio l’anno 1561* (Firenze: Giunti, 1561); Benedetto Varchi, *Orazione funerale di m. B. V. fatta, e recitata da lui pubblicamente nell’esequie di Michelagnolo Buonarroti in Firenze, nella chiesa di San Lorenzo.* (Firenze: Giunti, 1564).

¹¹ “*immagini oscure, versi spesso zoppicanti, periodi sgrammaticati.*” Detlef Heikamp, “Rapporti fra accademici ed artisti nella Firenze del ‘500,” *Il Vasari IX* (1957), p. 10.

¹² Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 185. Pirotti’s conclusion is that the scholar wrote much, too much Tuscan verses (223). The production of Latin verses, equally abundant, is judged equally mediocre (232).

¹³ Razzi, “Vita di Benedetto Varchi,” p. XX.

¹⁴ Eric W. Cochrane, *Florence in the forgotten centuries, 1527-1800; a history of Florence and the Florentines in the age of the grand dukes* (Chicago: University of Chicago Press, 1973), p. 85.

¹⁵ “...un certo segnale della sua naturale eloquenza [...] sopra un caso di morte, per esempio, di un’ Amico, o d’un Principe [...] quaranta o cinquanta Sonetti in ciascun variasse concetto.” Filippo Valori, *Termini di mezzo rilievo e d’intera dottrina tra gl’archi di casa Valori in Firenze, col sommario della vita d’alcuni* (Florence: C. Mariscotti, 1604), cited in AAVV, *Notizie letterarie, ed istoriche intorno agli uomini illustri dell’Accademia Fiorentina, parte prima*, p. 161. Varchi did write such series of sonnets, as Valori points out, in the case of the death of his friend Luca Martini, or that of Cardinal Giovanni de’ Medici, Cosimo’s son.

¹⁶ *Ibid.*

oration Varchi delivered at the occasion of Michelangelo's death in 1564. In other cases, the funeral orations were read as part of secular homage ceremonies held in the great lecture room of the Accademia Fiorentina. Here Varchi for instance read, on Good Friday 1544, an oration to the memory of Maria Salviati, Cosimo de' Medici's own mother, who had died on December 20th 1543. The records of the Fiorentina mention how this performance, "no less ornate than pious" moved the crowd to tears.⁹ The text of the oration was later published (1549), as was that of Michelangelo, and of a number of other important personalities (Cardinal Bembo, the *condottiero* Stefano Colonna, Cosimo's daughter Lucrezia, ...).¹⁰

3. Poetry and correspondence

Varchi produced during his lifetime an impressive poetic oeuvre, written both in Tuscan and Latin. Present-day critics usually consider this production as insignificant from a literary point of view, belonging to the zone of second-rate writings. For Detlef Heikamp, who wrote an early, crucial article on the relations between the poets of the Fiorentina and their artist friends, Varchi appears as one of the many mediocre talents of the Fiorentina whose impatience and eagerness to write made them strand in "obscure imagery, often wobbling verses, grammatically incorrect periods."¹¹ Even Umberto Pirotti, the author of the most complete study on Varchi's written oeuvre, presented him as a *verseggiatore* (a versifier), a term with a clear negative connotation.¹²

Yet it seems that it is precisely Varchi's 'fecundity' and his speed of production which caused the esteem of his contemporaries. Benedetto's pupil and biographer don Silvano Razzi held that the Florentine orator was capable, in only one night before the performance, to both write and learn by heart an entire oration.¹³ He was also able to compose a whole score of sonnets in just one day.¹⁴ Far from condemning such profusion, Varchi's contemporaries saw in it a "certain sign of his natural eloquence", as Filippo Valori put it, immediately adding how "in the case of the passing away of only one person, for example, a friend, or a prince" the poet could produce "forty or fifty sonnets, varying the concetto in each one of them."¹⁵ For both series of poems, Valori praised the "facondia, e varietà de' concetti comunicati."¹⁶

Poetry was an instrument of communication in mid-16th century Italy. The only poetry Varchi published during his lifetime was his epistolary poetry, collections of sonnets that had been directly addressed and sent to correspondents. As such, these poems constitute condensed (and easily publishable) equivalents of the author's abundant and scattered correspondence.¹⁷ A (cautiously selected) collection was put to press in

- ¹⁷ Until now, no one has undertaken the publication of a *carteggio*, an organized collection of Varchi's correspondence.
- ¹⁸ Benedetto Varchi, *Dei sonetti di m. B.V., parte prima* (Firenze: Lorenzo Torrentino, 1555); Benedetto Varchi, *Dei sonetti di m. B.V. colle risposte, e proposte di diversi, parte seconda* (Firenze: Torrentino, 1557).
- ¹⁹ The play is also unanimously deemed an artistic failure by modern critique. See Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 250 n. 1. Pirotti referred to the opinions of the historians of literature A. Gaspary, W. Creizenach, I. Sanesi, M. Apollino, Benedetto Croce and Mervin T. Herrich.
- ²⁰ The following lines are taken from the poem Lasca wrote after having read *La suocera*: "O Varchi, o Varchi, io vo' darvi una nuova;/anzi un ricordo proprio da fratello,/disponetevi a far diù degna prova;/e dove altrui più giova,/attendete a tradurre e commentare/e fateci Aristotile volgare." Grazzini, *Le rime burlesche, edite e inedite, di Antonfrancesco Grazzini, detto Il Lasca, per cura di Carlo Verzone*, p. 24; Cited in Michel Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine," in *Les écrivains et le pouvoir en Italie à l'époque de la Renaissance, Deuxième série* (Paris: Université de la Sorbonne Nouvelle, 1974), p. 191. The lines are a pun on Varchi's own insistence, in the introduction to *La Suocera*, that his main intention in writing the theatre play had been that of *giovare* (to please while instructing).
- ²¹ This manuscript *Trattato delle proporzioni et proporzionalità* (BNF, Ms Landau Finaly 205), as yet unpublished, accompanied a letter sent by Varchi in Padua to his friend Luca Martini in Florence. To this package Varchi also added a particular game, the so-called *giuoco di Pitagora* or *Ritimimachia* ("guerra o combattimento di numeri" ^f 25v), for which Luca Martini had asked. The game, played on a double chessboard (8X16 squares) of early medieval origin, was based on the Greek theory of numbers. Varchi's accompanying treatise on arithmetic was intended as the directions for use for the (particularly complex) board game. The arid treatise on arithmetic proportionality is preceded by an introductory dialogue between Carlo di Ruperto Strozzi, Cosimo Rucellai, and Jacopo Vettori is staged in the *Orti Oricellari*.
- ²² The undated and fragmentary *Esortazione alla caccia* was published in Benedetto Varchi, Giuseppe Aiazzi, and Lelio Arbib, *Lezioni sul Dante e Prose Varie di Benedetto Varchi, la maggior parte inedite tratte ora in luce dagli originali della Biblioteca Rinucciniana*, 2 vols. (Firenze: Società editrice delle storie del Nardi e del Varchi, 1841) II, p. 223, and in the *Opere* II, p. 782-785.
- ²³ *Della bellezza e della grazia, discorso*. Published in *Opere* II, p. 733-735. See also further, chapter 5.
- ²⁴ Benedetto Varchi, *Questione sul Alchimia di Benedetto Varchi; codice inedito* (Firenze: Stamperia Magheri, 1827 (1544)). See also further, chapter 6, on this text.
- ²⁵ *Sul verbo farneticare*, was published in *Opere* II, pp. 736-755. This long consideration on the verb 'farneticare' was written in the form of a letter to Luca Martini as Varchi's response to a heated debate he had himself caused. On Sunday June 14th 1545 (the eight lecture on *Paradiso*, I), Varchi explained, among others, the verse "Che madre fa sopra figliuol deliro". Expanding on the notion of *deliro* and *delirare*, Varchi observed here, *en passant*, that the Florentine *farneticare* ('to frenziate') had no immediate equivalent in Latin (*Opere* II, p. 385).²⁶ If to us it might seem of secondary importance, the affirmation had far-reaching consequences, caused a heated debate, and led to a rupture between Varchi and his one-time mentor and friend Pietro Vettori, the great classical scholar, who could not resign to any hint at a possible inferiority of Latin to the Florentine vernacular. Varchi's further contribution to the debate, the letter to Luca Martini, contains a precise description of the meaning of 'farneticare': "...quando dunque il cervello è offeso per qualunque cagione, di maniera che patisca non solamente la fantasia, ma la cogitativa ancora, in guisa che non si immagini nè si giudichi rettamente, ma si dicono cose vane e diverse, senza alcuno o discorso, o proposito, cotale accidente si chiama propriamente da noi Fiorentini farneticare..." A few passages further, Varchi respecifies the lack of any precise equivalent, not in Latin nor even in Greek, which is a far richer language than Latin: "A questo accidente, come a molti altri, non posero i Latini nome alcuno proprio, ma volendo sprimere, dicevano per traslazione e non propriamente [...] ora delirare con una voce solo, ora con più, come loqui aliena, delira, deliramente, e se altre si truovano; nè di questo si maravigli niuno o gli paia strano, conciosia che i Greci, la lingua dei quali è tanta più ricca della Latina quanto meno severa, non hanno, che sappia io, verbo alcuno che lo sprima propriamente..." *Opere* II, p. 745.
- ²⁶ *Sopra un caso cavalleresco fra il capitano Francesco de' Medici e l'abate Pandolfo Rucellai, parere e lettere*, published in Varchi, Aiazzi, and Arbib, *Lezioni sul Dante e Prose Varie ...* II, p. 133 ff., and in *Opere* II, pp. 755-781.

two times in 1555-1557.¹⁸ The more than seven hundred sonnets of these volumes are a direct testimony of the considerable energy the Florentine *letterato* invested in maintaining his extended social networks. Many of these poems are addressed to some of the most prominent personalities of that days, active in wide-ranging domains of public life: politicians, writers, visual artists, scientists, ecclesiastics... The results of 'poetic duelling' (*tenzone*) also figure in the tomes. This was a common practise in contemporary literary circles in which a first poet by composing a sonnet proposed a theme and established rhyme scheme (*proposta*) and the second poet (the addressee) replied in kind (*risposta*). In contrast with the *tenzoni* of many contemporaries, those published by Varchi lack the aggressive, mordant edge often found in other such poetic exchanges. This trait seems to reflect Varchi's own personality, more inclined to a pacifying than an agonistic stance.

Varchi also wrote one comedy, with the surprising title *La suocera*, ('The mother-in-law'). This longest piece of fiction Benedetto ever wrote (probably in 1547), received soon severe criticism.¹⁹ Antonfrancesco Grazzini (*il Lasca*), one of Varchi's earlier pupils and a close friend, jumped upon the failure of the *Suocera* to remind Benedetto that he would better restrain himself to what he was best at: vulgarizing Aristotle.²⁰

4. Manuscript treatises

Varchi left several treatises, some of which were published from the 19th century onwards. This series of (often unfinished) written pieces on various subjects testify both on Varchi's own interests as well as on of the specific demands of his position as a salaried court-writer. They include a *Treatise on proportions and proportionality* (1539),²¹ an unfinished 'praise of hunting',²² a short discourse *On beauty and grace*,²³ a treatise on the 'possibility of Alchemy' (1544),²⁴ another on 'the species of heat' (1544), a discussion on the meaning of the Tuscan term *farneticare* (1545),²⁵ and a long commentary on a question of etiquette (1555).²⁶ Some of these texts, of particular interest for our discussion, will be analyzed in greater detail below.

5. Translations

As we have seen earlier, the young Varchi had been engaged in an ambitious project to translate Aristotle in the vernacular. None of these (often unfinished) translations have however been published, and few fragments have been conserved.²⁷ Varchi's project of

- ²⁷ See Richard S. Samuels, "Benedetto Varchi, the *Accademia degli Infiammati*, and the Origins of the Italian Academic Movement," *Renaissance Quarterly* 29 (1976), pp. 621–622.
- ²⁸ Gaetano (ed.) Milanesi, "Vita di Benedetto Varchi," *Il Borghini* II (1864), p. 429. For book I of this translation, see BNF, Ms. Conv. Soppr. A.V. 1443: *De gli elementi, ò ver ' principii d'Euclide secondo il modo et ordine. Iconc. libro primo tradotto in lingua volgare da messer Benedetto Varchi*.
- ²⁹ Boethius and Benedetto Varchi, *Boezio Seuerino della consolazione della filosofia* (Florence: [L. Torrentino], 1551)
- ³⁰ Lucius Annaeus Seneca and Benedetto Varchi, *De benefizii* (Florence: Lorenzo Torrentino, 1554)
- ³¹ Varchi owed a small property in Pieve di San Gavino, a place near to Barberino di Mugello. After 1558, the year Cosimo gave him the villa *La Topaia* equally in the Mugello, this place became his usual residence. Razzi, "Vita di Benedetto Varchi," p. XVIII.
- ³² Tullia d' Aragona, Rinaldina Russell, and Bruce Merry, *Dialogue on the infinity of love*, The other voice in early modern Europe (Chicago: University of Chicago Press, 1997), p. 73.
- ³³ Benedetto Varchi and Girolamo Razzi, *Storia fiorentina* (Colonia: P. Martello, 1721)
- ³⁴ The news reached Florence on March 5th, 1548. The announcement was sufficiently important for Agostino Lapini to record into his *diario fiorentino*. The assassination on Cosimo's command occurred on February 26th. Cf. Rudolf von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica* (Torino: Einaudi, 1995 (1955)), p. 211.
- ³⁵ A direct illustration of that sudden relief is the funeral oration Varchi read in the church of San Lorenzo for Stefano Colonna (see above, this chapter), the former lieutenant general of the Florentine troops, on March 20th 1548. Varchi unreservedly evoked, in this oration, the heroic siege of Florence and the strong republican feelings he himself had felt in those days. At the same time, he expressed his disgust for those who had betrayed that cause by selling the besieged town to the Imperials, as Malatesta Baglioni had done, the chief Republican commander of those days. If Cosimo could tolerate such a stance on behalf of his historian, some other parties did not. Not long after the *orazione*, while he was crossing the streets of Florence at night, Varchi was brutally attacked by an armed man and, according to the sonnet the victim later wrote on the event, almost fatally wounded by the blade (see Varchi's sonnet *Ben credeva io, del ciel Motor sovrano, ...* dedicated to the Creator, to which Varchi attributes his own salvation, cf. the last tercet: "*Tre volte e più, quasi rabbioso verro, / Si spinse a far di me l'ultimo scempio, / Ma tante il colpo tua pietà ritenne*" *Sonnetti* I, CCLXIX, *Opere* p. 872). The culprit was later identified as Ridolfo Baglioni, son of Malatesta, who had wanted to avenge Varchi's accusations on behalf of his father (See Michel Plaisance, "Culture et Politique à Florence de 1542 à 1551..." p. 210, where he corrects an earlier, erroneous dating of the attack by Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 31). Realizing his profession as a "sincere" historian was putting him in permanent danger of similar physical assaults, Varchi from then on limited his public appearances in the city.

translating Euclid is also remarkable. According to his biographer, the Florentine poet-philosopher finished the translation of the first four books of Euclid's elements, only the first of which is now conserved in manuscript form.²⁸ In turn, Varchi did gain some renown with two other philosophical translations, which were both much celebrated: a translation of Boethius' *De consolazione philosophiae* (first published in 1551)²⁹ and a translation of Seneca's *De Beneficiis* (published in 1554); the latter was dedicated to Eleonora di Toledo, Cosimo's spouse.³⁰ Varchi typically worked on such translations during his long retreats on the countryside, away from Florence, first in the small property he owned in Pieve di San Gavino, a place near to Barberino di Mugello, later in the villa named *La Topaia*, also in the Mugello, that Cosimo had given to him in 1548.³¹

6. The *Storia Fiorentina*

The Duke turns to you, and to your everlasting pen, in matters worthy of everlasting memory.³²

Originally hired first and foremost as a philosopher and lecturer for the Accademia Fiorentina, somewhere towards the end of 1546 Varchi was charged with an entirely new responsibility: the writing of a detailed history of the events that occurred in Florence during the period immediately preceding Cosimo's own reign: The ousting of the Medici in 1527, the last Florentine republic and the siege and fall of the city in 1530. The period to study was later extended until 1532, and then until 1537, to include the reign of the first Duke of Florence, Alessandro de' Medici, and the events of 1537 which saw the instalment of Cosimo. The newly appointed historian was granted access for his work to all the documents from the state archives and to the official acts that he deemed useful. The *Storia Fiorentina* would from then on absorb the majority of Varchi's energy until his death. Known by contemporaries in a (perpetually revised) manuscript version (from which Varchi had used to read passages to the Duke), the first printed edition of the *Storia* only appeared in the early 18th century.³³

A good year after Cosimo had commissioned the *Storia*, the news reached Florence that Lorenzino de' Medici, Duke Alessandro's murderer, had himself been assassinated in Venice.³⁴ This murder, in fact perpetrated by one of Cosimo's own agents (who used a poisoned dagger), seems to have brought about a more relaxed stance of the Duke towards the events of 1537. Lorenzino, Cosimo's own remote cousin, suspected of conspiring with the French in the period 1546-48, had still been a real threat for the Florentine regime. His elimination caused evident relief at the Florentine court, and enhanced Varchi's freedom to provide an unprejudiced account of the events as they had

³⁶ “segreti e nascosti vizii...” *Storia Fiorentina* I.2 in *Opere* I, p. 11.

³⁷ See for exaple Varchi’s introduction of the pope: “...si fece chiamare... Clemente VII... per mostrare, come crederettero alcuni, almeno di fuori e col nome, quella clemenza e pietà, la quale egli nel vero dentro e co’ fatti non ebbe.” *Storia Fiorentina* II.1 in *Opere* I, p. 15.

³⁸ *Storia Fiorentina* II.16 in *Opere* I, p. 25.

³⁹ Varchi repeatedly harshly condemned Clement’s catastrophic diplomacy, but also some particularly incautious acts of policy-making, like the pope’s sudden decision, in the months preceding the sack of Rome, to dismiss the soldiers composing the papal army out of a financial reasons. *Storia Fiorentina* II.16 in *Opere* I, p. 24.

⁴⁰ The *Storia* details, among other things, how Alessandro regularly had henchmen sent to assassinate his opponents (*Storia Fiorentina* XIV.37 in *Opere* I, p. 371). Varchi also strongly suggests that Alessandro had his own cousin, kardinal Ippolito de’ Medici, killed, and that he prided himself of having done so. (*Storia Fiorentina* XIV.37 in *Opere* I, pp. 375–76). Alessandro is also portrayed as a shameless seeker of sexual pleasure, showing no mercy for the honesty of any Florentine woman, not even the sacred virgins (*Storia Fiorentina* XIV.4 in *Opere* I, p. 356).

⁴¹ For a systematic rebuttal of the often heard claim that Varchi’s history is adulating the Medici, see Pirotti, *Benedetto Varchi e la cultura del suo tempo*, pp. 149–161.

⁴² Varchi wrote in the dedication to Cosimo of the *Storia*: “Al che fare [scrivere la Storia] tanto più mi risolvei, se non tosto, volentieri, quanto io sapeva, che la storia è, come anco tutte l’altre cose mortali, di forma composta e di materia; ed avendo ella per forma, o volemo dire anima, la verità, e per materia, o vero corpo, le parole, a me dava il cuore di potere, mediante l’aiuto divino, e le promesse di V.E. alla prima e più perfetta parte di lei compiutamente soddisfare; ciò è scrivere liberissimamente, senza odio o amore di persona alcuna la stessa verità delle cose, alla quale e la natura m’inchina, e l’usanza mi alletta, e la profession mia tanto m’invita, quanto l’obbligo non solo persuade, ma sforza.” (*Storia Fiorentina*: Proemio in *Opere* I, p. 7) And at the end of book 6: “[il] duca Cosimo, dal quale solo ho per sua cortesia, non già per gli miei meriti, non pur facoltà di poter secondo il mio grado onoratamente vivere, ma eziandio, quello che maggiormente stimo ed è più mirabile, libertà di scrivere queste cose sinceramente...” *Storia Fiorentina* VI.39 in *Opere* I, p. 123.

⁴³ See the vast amount of *Lettere di Giovanni Battista Busini a M. Benedetto Varchi sugli avvenimenti dell’assedio di Firenze*, reprinted in *Opere* I, pp. 445–529.

⁴⁴ von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, p. 309. See also p. 340: “Egli si serve di un ricco materiale di documentazione, di atti ufficiali, di diari e di testimonianze dell’epoca; e si fa descrivere minuziosamente dagli amici che hanno vissuto attivamente quegli anni e seguito gli eventi da vicino – citiamo il Busini, il Nardi, il Gianotti – determinati avvenimenti.”

⁴⁵ “E se la trattazione del Varchi non brille per l’acuto senso politico e storico, essa si distingue però per una gran ricchezza e vivacità, poiché l’autore esamina anche le situazioni economiche, descrive la città e le forme costituzionali che vi sono succedute e procede spesso con molto intuito e fine conoscenza psicologica.” *Ibid.*, p. 340–341.

occurred.³⁵ Cosimo also allowed his historian to develop, on occasion, a strikingly unsympathetic outlook on the house of Medici. The *Storia Fiorentina* contains as a result bitter criticisms on some illustrious members of the Duke's family. Varchi, for instance, accused Cosimo *il Vecchio* to have used no less his "secret and hidden vices" as his talents to raise himself to his position of power.³⁶ Giulio de' Medici, pope Clement VII, who holds a far more prominent role in the *Storia*, is systematically depicted as a cruel dissimulator,³⁷ hated by all his subjects who considered him the Antichrist,³⁸ a coward, avaricious, and directly responsible for the sack of Rome.³⁹ Alessandro de' Medici, finally, Cosimo's predecessor, is portrayed as a full-fledged tyrant, murderous, libidinous, showing not the slightest consideration for his subjects.⁴⁰ Varchi did not, in the *Storia*, temper the rage he had vented more than two decades earlier, in his most anti-medicean years, against Duke Alessandro.⁴¹ Committing himself to the greatest objectivity possible in his account (the 'soul' of which he described as 'the truth', the matter were his 'words'), Varchi himself praised his patron for the far-reaching degree of freedom that he was given.⁴²

Varchi's efforts to attain the greatest "sincerity" or "objectivity" possible in his account made him apply methods of research as a historian which were until then unprecedented. Ludwig von Albertini has stressed that Varchi was the first to use official documents, notes and reports from administrators, diplomats, and other eye witnesses of the unfolding of political events, as sources for his own history writing. Varchi also took care to contact for extensive reports direct witnesses whom he could trust. The historian relied extensively, for instance, on detailed information provided by his *fuoruscito* friend (and probable biographer) Bernardo Busini, on the circumstances of the siege of Florence (which Varchi, as we saw, before, did not entirely witness for himself).⁴³ Today these methods appear, as Ludwig von Albertini emphasized, strikingly modern.⁴⁴ If Varchi's text is often tediously detailed, and continually meandering between the most exhaustive descriptions of facts "as they occurred", it can be ascribed as being the result of the historian's preoccupation for being as faithful as possible to his sources. The result, in any case, is that the information provided in the *Storia*, for the most part and in the measure that it can be checked, turns out to be rigorously exact. Defending Varchi against critics who tended to consider him representative of the decline of history writing in Florence after the great generation of Machiavelli and Guicciardini, von Albertini observed:

If Varchi's investigation does not excel because of its sharp political and historical awareness, it does certainly impose itself through its arresting wealth and vividness, since the author equally examines the economic situation, provides a description of the city and of the successive constitutional structures of the state; he finally often proceeds with much discerning and with a refined psychological judgment.⁴⁵

⁴⁶ Jakob Christoph Burckhardt and Samuel George Chytwynd Middlemore, *The civilisation of the period of the renaissance in Italy* (London: C. K. Paul & co., 1878), vol.I, p. 46.

⁴⁷ First published by the Giunti press in 1570, in one Venitian and one Florentine series. The Ercolano is named after one of Varchi's aristocratic friends, the young count Cesare Ercolano, whom Varchi, as a token of his friendship, had staged as one of the interlocutors in the dialogue. The philologist Vincenzo Borghini (1515-1580), *spedalingo* of Florence's foundlings hospital and the first *luogotenente* of the *Accademia del Disegno* figures as another interlocutor. The central character in the dialogue, though, is 'Varchi' himself.

⁴⁸ "...io non sono di quelli i quali credono che questa lingua è finita in questi valentuomini [Petrarca and Boccaccio], non essendo ella ancora morta." Annibale Caro cited in Maurizio Vitale, *La questione della lingua* (Palermo: Palumbo, 1978), p. 92.

It is this profusion of relevant information of various kind contained in the text that had brought Jacob Burckhardt to a surprisingly early praise of the *Storia*:

For the first half of the sixteenth century probably no State in the world possesses a document like the magnificent description of Florence by Varchi.⁴⁶

7. The Ercolano

The full (translated) title of this work, only published posthumously in Venice in 1570, is *Ercolano, ovvero agli alberi. Dialogo nel quale si ragiona generalmente delle lingue e in particolare della Fiorentina de Della Toscana*. ('The Ercolano, or to the trees. Dialogue in which one reasons on the languages in general and on the Tuscan language in particular').⁴⁷ It is, as we mentioned, one of the key-texts in the debate holding 16th-century Italian *letterati* in its grip: the debate about the correct vernacular for literary compositions, referred to as the *questione della lingua*. Since the days of the founding of the Accademia degli Infiammati, Varchi had been a major protagonist.

The Ercolano originated, as literary historians know, as an act of support to a good friend, the *letterato* Annibale Caro (1507-1566), in the context of Caro's quarrel with another poet, Ludovico Castelvetro (1505-1571). Caro had written in 1533 a *canzone* in imitation of Petrarch's style, entitled *Venite all'ombra de' gran gigli d'oro*. The Modenese poet Ludovico Castelvetro, a rigid Bembist whose opinion had been asked, had sharply condemned the poem for its use of a certain number of non-Tuscan terms and words that didn't appear in the approved 'antique' authors. The polemic would last several decades and generate a number of important writings on the *questione della lingua*. In his *Apologia*, written in 1555 (but published only in 1558), Caro, very probably inspired by Varchi's opinion, had defended his initial position by asserting the intrinsic superiority of the living vernacular as it was spoken in Florence and Tuscany, pleading also for the right of an author to renew the language he uses.

I am not to be counted among those who think that this language has come to its end in these deserving gentlemen [Petrarch and Boccaccio], since she is certainly not dead yet.⁴⁸

In the *Ercolano* (written in the period between 1560 and 1565 - but never edited to a final version), Varchi had proposed his own reformulation of this thesis. The work is thus in the first place an attack against Castelvetro and the too restrictive kind of Bembism he stood for, which completely untied the prescribed literary language from the spoken idiom.

Varchi's plea against an excessively rigid and restrictive approach to the *Questione della lingua* resounds with a number of themes that surfaced from earlier writings. One of

⁴⁹ See above, under 'Manuscript treatises'.

⁵⁰ "Lo scrivere non è della sostanza delle lingue, ma cosa accidentale, perché la propria e vera natura delle lingue non è, che si favellino, e non che si scrivano, e qualunque lingue si favellasse, ancorché non si scrivesse, sarebbe lingua ad ogni modo." *L'Ercolano* cited by Vitale, *La questione della lingua*, p. 93.

⁵¹ "il parlare, ovvero favellare umano esteriore, non è altro che manifestare ad alcuno i concetti dell'animo mediante le parole." *L'Ercolano* in *Opere* II: 23.

⁵² "...il fine di chi favella è principalmente mostrare di fuori quello che egli ha racchiuso dentro nell'animo, ovvero mente, ciò è nella fantasia, perché nella virtù fantastica si riserbano le immagini, ovvero similitudini delle cose, le quali i filosofi chiamano ora *spezies*, ora *intenzioni*, ed ora altramente; e noi le diciamo propriamente *concetti*, e talvolta *pensieri* ovvero *intendimenti*, e ben spesso con altri nomi." *L'Ercolano* in *Opere* II, p. 24.

the most important of these is probably the insistence on the importance of the richness of a language, a theme that had earlier generated his essay (addressed to Luca Martini) on the verb *farneticare*.⁴⁹ This theme was rooted in Varchi's conviction that language is a natural, living phenomenon.

The essence of a language, according to Varchi, is its spoken form. A language can perfectly exist without being written. The written form is only one of its *accidental* side-aspects.⁵⁰ But even speech, as Varchi's solemn definition at the very start of the *Ercolano* made clear, is also a *translation* or a derivation from a phenomenon of a higher order: the processes of thought which take the form of 'concepts' (*concetti*) in our mind:

talking (parlare), or the human exterior speech (il favellare), is nothing else than manifesting to somebody the concepts of the spirit (animo) by means of words⁵¹

Further in the same passage, Varchi clarifies this definition:

...the end of whoever speaks is in the first place to show to an outsider what he keeps hidden inside his spirit, or mind, that is to say inside the *fantasia*, because inside the 'fantasising faculty' the images are kept, or rather the likenesses of the things, that what the philosophers sometimes call 'species', sometimes 'intentions', and sometimes with yet other names; and we call them properly concepts, and also thoughts or considerations (*intendimenti*), and often yet other names.⁵²

Just as Varchi had stressed the relativity of writing in comparison to speech, so now he came to underline the fact that speech is also relative, and can be substituted by other modes of thought-expression like gestures: the language of the bodily signs. The whole system, as sketched out in these passages of the *Ercolano*, eventually brings about a gradual hierarchy of different levels of embodied thought. On top of this hierarchy figure the *concetti*, the purest form of thought, existing in the mind in the form of mental representations of existing things. Speech is then the first level of exteriorization of these thoughts, and written language, derived on its turn from speech, an expression at a lower level. The noblest kind of written language, which Varchi considers as derivative of plain written language, comes to constitute a fourth level of expression, paradoxically situated at the lowest base of the hierarchical ladder.

In the *Ercolano*, but equally in earlier texts, Varchi defended the opinion that clarity and precision should figure among the most important objectives of any process of translation (be it from thought to speech, or from speech to writing, as in translations from one written language into another.) The viewpoint is illustrated in the following passage from the *Ercolano* dialogue, in the answer of 'Varchi' to the question whether concision or lengthiness ought to be preferred by writers of a common language. The answer is unambiguously in favor of lengthiness (despite the risk of boredom), since:

- ⁵³ “La brevità genera il più delle volte oscurità, e la lunghezza fastidio, ma perché la prima e principal virtù del parlare è la chiarezza, par che n’apporti men danno l’esser fastidioso che oscuro...” *L’Ercolano* in *Opere* II, p. 166.
- ⁵⁴ “...che ciascuno può non solo acconciamente e agiatamente, ma copiosamente ancora e leggiadramente sprimer con ella i suoi concetti tutti quanti...” *Or. Pign. Cons.* in *Opere* II, p. 338.
- ⁵⁵ “... più vaga, e più adorna, ma più ricca ancora e più pregiata.” *Ibid.*
- ⁵⁶ “... l’opinione mia è stato sempre che le lingue non si debbano restringere, ma rallargare...” *L’Ercolano* in *Opere* II, p. 34.
- ⁵⁷ “...quella lingua sia migliore, la quale sarà più ricca...” cited in Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 122.
- ⁵⁸ “Se la morfologia segue non di rado orientamenti puristici, per il lessico è, in sostanza, irconciliabile avversario del purismo: questo s’adopera a scacciare i vocaboli non autenticati dal sigillo dei buoni autori.” *Ibid.*, p. 123.
- ⁵⁹ An example (and a hundred others could be given), is the next passage, in which the character ‘Varchi’ declares: “*Essere in detta*, significa essere in grazia e favore; essere in disdetto, in disgrazia e disfavore. Quando uno cerca pure di volerci persuadere quello che non volemo credere, per levarloci dinanzi e torci quella seccaggine dagli orecchi, usiamo dire: Tu vuoi la baia, o la berta, o la ninna, o la chiacchiera, o la giacchera, o la giostra, o il giambo, o il dondolo de’ fatti miei; o tu ucelli; tu hai buon tempo; ringrazia Dio se tu sei sano; anche il Duca murava; e molti altri somiglianti.” *L’Ercolano* in *Opere* II, p. 61. Even better is the following series, in which ‘Varchi’ explains the link between a bad oration and a Stingray (*pesce pastinaca*), and in the mean time include a disarming self-confession about his own discourse: “Quando alcuno, per procedere mescolatamente e alla rinfusa, ha recitato alcuna orazione, la quale sia stata come il pesce pastinaca, cioè è senza capo e senza coda, come questo ragionamento nostro, e insomma non sia soddisfatta a nessuno, s’usa a dire a coloro che ne dimandano: Elle è stata una pappolata, o pippionata, o porrata, o pastocchia, o vero pastocchiata, o cruscata, o favata, o chiacchierata, o fagiolata, o intemerata; e tal volta una baiaccia, o vero baiata, una trescata, una taccolata, o tantaferata, una filastrocca, o vero filastroccola.” *L’Ercolano* in *Opere* II, p. 59.
- ⁶⁰ “Non fo menzione de’ passerotti, perchè la piacevolezza e la moltitudine loro ricercherebbe un libro appartato; il che già fu fatto da me in Venezia e poi da me e da M. Carlo Strozzi arso in Ferrara.” *Ibid.*

Brevity most of the time generates obscurity, while length causes boredom; but since the first and most important quality of talking is clarity, it seems to me that [language] will suffer less from being boring than from being obscure...⁵³

In 1545 already, when accepting the position of head or ‘consul’ of the *Fiorentina*, Varchi had outlined it as the core agenda of the academy to enrich the Florentine idiom, and the whole Tuscan language. If the Florentine vernacular is already such “... that anybody can, not only fittingly and effortlessly, but also with profusion and loftiness, express with it all his *concetti* whatever they are...”,⁵⁴ still efforts have to be invested in order to make it, not only “more beautiful, more adorned, but above all richer and more esteemed.”⁵⁵ Beyond the ‘beauty’, and the ‘ornament’ of a language, it is its richness that causes praise.

Varchi’s militancy in favour of a permanent expansion and regeneration of the vernacular would even bring Varchi to distance himself momentarily from the opinions of his friend Caro, when he defended the use of the term *parlatura* (‘talkery’ or ‘talkature’), which this time Castelvetro had been using and Caro had ridiculed. While arguing in favour of the adoption of the term in the authorized Florentine language (arguing that *parlatura* was as logically derived from the verb *parlare* as *fattura* from *fare* and *creatura* from *creare*), Varchi made again his point clear: “my opinion has always been that the languages ought not to be restrained, but broadened instead...”⁵⁶ Elsewhere in the *Ercolano* he wrote: “that language shall be superior, that is the richest...”⁵⁷

Enriching a language in order to expand the range of concepts that may be communicated seems, for our scholar, to involve essentially a development or growth of the lexicon. As Pirotti has stressed, there is a striking contrast between Varchi’s approach of grammar and syntax, in which he tended to remain faithful to Bembo’s puristic inclination, and his attitude in lexical matters, where, on the contrary, he rejected all rigid restrictions and deployed an attitude of “generous hospitality.”⁵⁸

The *Ercolano* itself is an astonishing testimony of that hospitality. Varchi displayed in the dialogue not only his mastery of the classic Tuscan of the Trecento poets, but equally his knowledge of the Florentine language as it was spoken by his contemporaries on the market places and in the *botteghe*. Proofs are the endless series of popular synonyms or the strings of stock expressions with similar meanings that the author is able to align in the *Ercolano*.⁵⁹ The richness of this book makes it an invaluable document on mid-16th century Florentine oral culture. Linguists can now only regret the loss of another of work on Florentine language that Varchi had composed: a collection of so-called *passerotti* (local proverbs, gibes, and *modi di dire* or expression patterns) that he compiled while in exile in Venice, but which he had later, according to his own words, committed to the flames.⁶⁰

The central theme that emerges from the *Ercolano*, the insistence on the necessity to dispose of the widest possible array of terms to express a thought, is truly the preoccupation of a translator, an intermediary in the transmission of learning: the precise task Varchi had assigned to himself as the member of an institution dedicated to the vulgarization of knowledge.

⁶¹ The alias *Lo Stradino* is simply derived from *Strata* or *Strada*, the town Mazzuoli originated from.

⁶² *Libro Capitoli Composizioni et Leggi della Accademia degli Humidi*, BNF, II, IV 1. Plaisance explains how, at the moment of the conflict which intervened two months after the creation of the academy and led to its transformation into the *Fiorentina*, the new group of members instituted a second book of minutes, the *Atti dell'Accademia Fiorentina* (Biblioteca Marucelliana, BIII52-53-54), in which they furnished their perspective on the events. Michel Plaisance, "Une première affirmation de la politique culturelle de Côme Ier: la transformation de l'Académie des 'Humidi' en Académie Florentine (1540-1542) in *Les écrivains et le pouvoir en Italie à l'époque de la Renaissance, Première série*, ed. A. Rochon (Paris: Université de la Sorbonne Nouvelle, 1973), p. 385.

⁶³ The phenomenon of choosing self-denigrating academic aliases (a trend that is only the logical continuation of the use of highly unflattering academy-names: *intronati*, *umidi*, *addormentati*, *incolti*, *alterati*,...) seems to have been widespread in the 16th-century Italian academies. See on the subject Yates, 1949, p. 11 and also Pevsner p. 37. At the *Infiammati*, Varchi was addressed as *l'Affezionato*. See Giuseppe Ongaro, "Due lettere inedite di Andrea Vesalio a Benedetto Varchi," in *Scritti in onore del prof. A. Pazzini* (Roma: 1968), pp 559-574, 652. The use of aliases was lost when the *Umidi* became the *Fiorentina*; Giovanni Norchiati is the last academician to receive a name evoking *humiditàzza* when he was enlisted a member, somewhere in late November 1540, and Lasca was the only one whose academic name endured. Plaisance, "Une première affirmation de la politique culturelle de Côme Ier..." p. 387.

⁶⁴ A.L. De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," *Bibliothèque d'Humanisme et Renaissance* XXX, no. 1 (1968), p. 30. See also Plaisance, "Une première affirmation de la politique culturelle de Côme Ier..." p. 386, who observed here that Giovanni Mazzuoli had been using the alias 'Lasca' since 1536, and deduced that he must have pleaded for the name that was agreed upon.

⁶⁵ De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," p. 30.

B. THE ACCADEMIA FIORENTINA

1. The founding and gradual institutionalisation of a literary society

The new era of institutionalized academic life in Florence began in a place where it might not have been expected. On All Saints day 1540, a group of young poets gathered in the house of a retired soldier, Giovanni Mazzuoli or lo Stradino,⁶¹ to spend time in discussions about their mother tongue. During the session, the eleven men present decided on the creation of an academy and started thinking about a possible name. Two weeks later they met again, on Sunday November 14th, and agreed upon Accademia degli Umidi ('Academy of the Wet Ones'). As it befits any beginning academy, statutes were written and a book of minutes was instituted in which the events of every session, as well as new decrees were to be carefully written down.⁶² It is on one of the first pages of this book that the list of names of the founding members appears, together with their chosen nicknames, all drawing from the theme of the *'humidezza'*. Cynthio d'Amelia thus called himself *humoroso* ('the humorous One')⁶³, Filippo Salvetti *Frigido* ('the cold One'), Bartolomeo Benci *Spumoso* ('the foamy One'), and Anton Francesco Grazzini, the most talented poet of the group, *Lasca* (the name of a silvery fresh water fish).⁶⁴

The initial ambition of this private fellowship of companion poets was primarily that of spending their weekly leisure time in good company, reading their own poetry aloud and commenting on that of the others. The example of the Paduan Accademia degli Infiammati was particularly inspiring for the young Florentines since, through the defence of the Tuscan and the propagation of the ideas of Bembo, it had proposed a redefinition of culture which gave a second chance to these men who lacked a profound classical education. If literature was their passion, they had indeed not had the chance to enhance their expertise at the university; in fact, the social statute of most of the founding members was that of merchants.⁶⁵

The ties with the political power were initially informal, and all ran through the person of Stradino, who, in a rather odd way, was close to Cosimo. Nearly sixty at the time of the creation of the academy, and affectionately called *Padre Stradino* by the *Umidi*, or simply *Padre* (his official academic alias), Stradino had started his career as a trader, but had eventually opted for a more adventurous kind of life. He enrolled as a mercenary in the service of Giovanni delle Bande Nere, the father of Duke Cosimo, whom he followed in his campaigns and to whom (like many other soldiers of the *Bande Nere*) he was particularly devoted. After Giovanni's death, Stradino's transferred much of his affec-

⁶⁶ “...Giovanni da Strada, chiamato volgarmente da chi il Padre Stradino, da chi il Consagrata, uomo di nuove maniere e fatto, come s’usa a dire, all’antica. La costui professione, tutto che fosse, come s’afferma di Socrate, bruttissimo così di viso come di corpo, era d’amare santamente e con incredibil costanza tutti i giovani fiorentini i quali fossero o buoni, o nobili, o belli; e perchè il signor Cosimino, cioè è il Signor Cosimo oggi duca, era bonissimo, nobilissimo, e bellissimo, egli, oltre che era stato al soldo del signor Giovanni suo Padre, gli portava particolare e singolarissima affezione, e da lui fu sempre, sì per le sue, se bene stravaganti, ottime qualità, e sì per la memoria del padre, favorito sempre e accarezzato.” *Storia Fiorentina* X.36 in *Opere* I, p. 216.

⁶⁷ Lasca would later celebrate the shelve in a poem: “Di vento, di fuoco e di diaccio/cose vi son, che la filosofia/non ne sa punto e non n’intende straccio./L’antica e nuova Tosca poesia/v’è dentro; tal che mai non vide Atene/né miglior né piu bella libreria” Grazzini, *Le rime burlesche, edite e inedite, di Antonfrancesco Grazzini, detto Il Lasca, per cura di Carlo Verzone*, p. 483; cited in Plaisance, “Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l’Académie Florentine,” p. 222.

⁶⁸ 11 Februari 1541, Plaisance, “Une première affirmation de la politique culturelle de Côme Ier...” p. 410.

tion from the father to the son. Drawing a portrait of Stradino in a passage of the *Storia Fiorentina*, Varchi had presented the *Padre* of the *Umidi*, whom he knew very well, as a kind of Florentine Socrates, lover of all young Florentine boys that were either good, noble or handsome; Stradino had found all three of these qualities combined in *il signor Cosimino*, the future Duke.⁶⁶ The affection seems to have been reciprocal and enduring, and, still according to the same testimony, Stradino was always favored by the Duke (“*favorito sempre e accarezzato*”), who fully recognized his “excellent, although extravagant” qualities. One of Stradino’s eccentricities was his passion for collecting texts; chivalric tales of which he was fond but also other compositions. Stradino had spent much time during his military career collecting all the handwritten vernacular compositions of past and present times that crossed his path. Once retired, he gathered these precious writings in one bookshelf which the *Umidi*, with feigned contempt, nicknamed *l’armadiaccio* (“the ugly little cupboard”).⁶⁷ The collection, from which Stradino regularly lent items to his young friends, functioned as the centre of gravity of the *Umidi*.

If the *Umidi* had intended to keep the character of their *brigata* private and intimate, these aims were soon thwarted by the sensation that the creation of the academy had caused in Florence; the initiative soon became a public event. The *Umidi* could not but accept the growing number of candidate members which presented themselves from the very first weeks after the creation. The alerted authorities soon decided to interfere, fearing that the influential group might evolve into a kernel of political activism, but realizing at the same time that tutelage of this centre for vernacular learning might generate political gain. As early as late December 1540, an operation was launched to forge the Accademia degli Umidi into a useful Medicean tool. The young academy was first infiltrated by some of Cosimo’s closest collaborators or most trustworthy subjects. Cosimo Bartoli and Pietro Giambullari, two intellectuals with an irreproachable past as *Palleschi* (staunch Medici-supporters), were accepted as *Umidi* during the meeting of December 25th. Both men were ecclesiastics; Giambullari was canon of the church of San Lorenzo. Their mission seems to have been the preparation of a serious adjustment of both the statutes and the aims of the *Accademia*, to put these more in line with the Medici desires. These adjustments were effectively voted less than two months later, on February 11th. Bartoli and Giambullari were backed in this task by a series of new members who joined the *Umidi* by the middle of January: Pier Francesco del Riccio, Cosimo’s *maggiordomo*, Filippo del Migliore, the Duke’s headhunter for the Studio Pisano, and Giovambattista Gelli, the hosier-poet, very close to Bartoli and Giambullari, who – despite his working-class roots – would prove an impeccable courtier in the course of his long academic career. Francesco Campana, Cosimo’s first secretary also joined somewhat later as a member.⁶⁸

⁶⁹ Ibid., 410 and 417

⁷⁰ Ibid., 423.

⁷¹ Ibid., 432; De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," p. 33.

With some of Cosimo's highest ranking officials adhering, membership of the *Umidi* suddenly grew desirable for citizens wishing to show off their good intentions towards the regime. During the session in which the reform was instantiated, on February 11th, no less than 42 new candidates were accepted as *accademici*. Among those were several members of the wealthiest patrician families (the Rucellai, Strozzi, Serristori, Pucci, ...), lecturers at the *Studio Fiorentino*, such as Francesco Verino and Piero Vettori, and influential prelates. Four bishops had already gained membership in Januari; they were now joined by men like Niccolò Ardinghelli, the private secretary to pope Paul III and Tommaso Sertini, archbishop of Pisa. Two major artists also obtained membership that same day: Bronzino and Tribolo, who were both intimate friends of Varchi. Michelangelo was also enrolled shortly after (on March 31st together with 34 other men) although he never left Rome where he lived since 1534.⁶⁹

As Plaisance's detailed enquiry has shown, despite the ever increasing number of members, the two groups that were rivals from the very first days of the academy, the *Umidi* on the one hand, and the reformers on the other, would remain the two most important lobbying factions inside the *Fiorentina*. Despite a heroic resistance, feverishly led by Lasca and prudently supported by Varchi, the *Umidi* would eventually bow to the strength of the opposing faction of the reformers: Giambullari, Gelli, Bartoli, and Carlo Lenzone, supported by a great number of government officials. The history of the Florentine academy reads as the chronicle of the gradual departure, from 1540 on, from the ideals that had initially motivated its founders. A first milestone of this reform were the new statutes voted on February 11th 1541, which regulated the role and the election procedures of the different officials of the academy: the consul, the censors, the *provveditore*, the *cancelliere*, etc. This first reform also laid new emphasis on the activity of the academy as a tool for public education, and stressed the importance of the weekly public lectures. The emphasis would soon result in a shortage of lecturers and the installation of a system (on July 8th, 1541) in which lecturers would be chosen by drawing lots from a ballot, with penalties for the selected academicians if they would refuse their duty.⁷⁰

The proposal to replace the name Accademia degli Umidi with Accademia Fiorentina was first submitted by the reformers on that same meeting of February 11th, causing a wave of protest among the founding members, and the despair of Lasca, who was unable, though, to avoid the name change. On March 25th, 1541, less than five months after its creation, the academy was officially re-baptized. The whole process of transformation of the *Umidi* into the *Fiorentina* eventually culminated with the ducal decree of February 22nd 1542, by which the academy became an institution under full protection of the state. The same decree specified that the consul of the *Fiorentina* (elected for a duration of 6 months), automatically assumed the function of rector of the Florentine University (*Studio*).⁷¹

⁷² Lelio Torelli was one of the most capable collaborators Cosimo inherited from Duke Alessandro. See von Albertini, *Firenze dalla repubblica al principato. Storia e coscienza politica*, p. 284. Still very influential by the time Varchi wrote the *Storia Fiorentina*, Torelli is referred in it as the author of the (published) funeral oration for Duke Alessandro de' Medici, and described (very favourably) in the following terms: "Aveva quest'uomo in quell tempo grandissimo nome d'esser non solamente buon dottore, ma giusto; le quali due cose sogliono rarissimo volte accozzarsi insieme: di costui mi converrà nel processo della storia favellare diversamente più volte, conciossiacosaché egli per molte e diverse qualità sue, fu da molti anni ed è ancora primo auditore e maggior segretario del duca Cosimo." *Storia Fiorentina* XV.34 in *Opere* I, p. 425. Torelli also curated the edition of the Florentine manuscript of Justinian's Pandects, cf. R. Burr Litchfield, *Emergence of a bureaucracy: the Florentine patricians, 1530-1790* (Princeton, N.J.: Princeton University Press, 1986), pp. 78-79. See also Cochrane, *Florence in the forgotten centuries, 1527-1800; a history of Florence and the Florentines in the age of the grand dukes*, p. 63.

⁷³ On the session of March 31st, 1541. See Plaisance, "Une première affirmation de la politique culturelle de Côme Ier...", p. 417.

⁷⁴ BNF, Magl., Cl. IX, f.16v-20r., cited by Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine," The whole text of the *Costituzione* is here published in annex, p. 239-240.

⁷⁵ "Atteso che gli esercizi degli Accademici nostri debbono essere, leggere pubblicamente e privatamente, comporre opere in versi o in prosa e tradurre le scienze e l'altre cose utili e onorate di qualunque altra lingua e recarle nella nostra fiorentina." *Ibid.*, p. 239.

⁷⁶ "...qualunque Accademico [...] sia tenuto e obbligato ogni anno soddisfare ad uno almeno degli obblighi sopradetti..." *Ibid.*, p. 239.

⁷⁷ "Non s'intendono mai per composizioni una cosa piccolo, come tre o quattro sonetti." *Ibid.*, p. 240.

This first wave of reforms was followed by several others, of which the most drastic occurred in the years 1546–47. In October 1546 Francesco Campana, the first secretary of the Duke, came to die. It was the famous jurist Lelio Torelli who would succeed Campana in that key-function of being Cosimo’s right arm, and called to intervene in almost all political decisions.⁷² The energetic and shrewd Torelli (member of the *Fiorentina* since 1541),⁷³ would turn out to advocate a far more radical and muscled approach in matters of cultural politics than his predecessor had done. Torelli held several meetings of the *Fiorentina* at his own house, where he forced the applicability of an earlier, suspended, clause of the statutes denying voting right to academicians who had never lectured. Gaining thus a far better control on the votes, Torelli was able to impose his own candidate for the elections of early 1547: Giambullari. The day of the election, March 4th, a text issued by the authorities was read aloud, the *Costituzione dell’obbligo degli accademici*, an inflexible ‘charter on the obligations of all academicians’, which were summarized as:⁷⁴

to lecture publicly and privately, to compose works in verses or in prose and to translate the sciences and the other useful and illustrious works from whatever other language, making them available in our Florentine [tongue].⁷⁵

The authors of the text, i.e. Torelli and Cosimo themselves, underscored how it was their will (“vogliamo e ordiniamo”) that

... any Academician [...] will be compelled and obliged to satisfy every year at least one of the aforementioned obligations⁷⁶

The *Costituzione* reveals the measure in which the ruling power was expecting for its investments in the institution (accommodations, salaries for the academy officials) to be returned in the form of a continuous stream of lectures and publications, a production that had to be both profitable for the education of young Florentines (Cosimo’s future generation of functionaries) and to flood the Italian (and European) market of books with publications of general interest written in the *lingua fiorentina*. The text of the *Costituzione* also made clear that the censors screening the annual production of the academicians would “never” consider satisfying, small-scaled literary compositions like a few sonnets (“una cosa piccola, come tre o quattro sonetti”).⁷⁷ The phrase pointed an accusing finger towards so many members of the *Fiorentina* whose literary production was only confidential and mostly of a private nature.

On March 4th the creation of a council of reformers, a *balìa*, was also decreed, whose six members, headed by the new consul, were simply appointed by the authorities, and no longer elected by the academicians, as was the custom. The work of these reformers, the radical re-formulation of the statutes of the *Fiorentina*, would eventually lead to the collective expulsion, in August 1547, of all those members who no longer in complied to

⁷⁸ The results of the reform of the statutes by the special *balìa* are presented on the session of Thursday August 11, after Alfonso de' Pazzi's lecture on Petrarch's sonnet *Orso al vostro destrier si puo ben porre*.

⁷⁹ For the list of the 147 remaining academicians after the massive expulsion, see Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine," pp. 234–237.

⁸⁰ The details of the voting procedure are described in *Ibid.*, p. 164. First, among all academicians present at the voting session, a series of six *elezionari* are chosen by drawing lots. Each of these *elezionari* is then bound to propose the name of one candidate. Every academician is then asked to vote for every candidate separately by depositing a black or a white bean in a ballot. The candidate with the highest number of votes is elected.

⁸¹ In his inaugural speech, at the beginning of his own consulate in April 1545, we hear Varchi saying: "... fui tentato tutto di volere quanto prima rinunziarlo [il consolato], al che fare fui molte fiato molto vicino. E di certo l'avrei fatto, se, oltre che le leggi nostre nol consentivano, ..." *Or. piogl. Cons. in Opere II*, p. 339.

⁸² The term of the first Paduan *principe* (Leone Orsini) in 1540 had been of two months, in imitation of the tenures of the *principato* of the *Intronati*. Soon though, the tenures were increasingly lengthened from two to six months, in order to avoid a too great frequency of the inaugural ceremonies and pomp. See Samuels, "Benedetto Varchi, the *Accademia degli Infiammati*, and the Origins of the Italian Academic Movement," p. 602.

⁸³ This was certainly the case at the *Accademia degli Infiammati*; indications about the usual pomp at the investiture ceremonies in Padua are provided in one of Alessandro Piccolomini's letters to Varchi in the context of the problematic run-up to the 'coronation' of Sperone Speroni as fifth *principe* of the *Infiammati*. As Piccolomini reported to Varchi, Sperone Speroni had caused much indignation among the academicians by belittling the ceremony of his own investiture (planned for November 1st 1541), and even threatening not to attend it. Normal pomp (eventually down-scaled to satisfy Speroni) would have included the construction of an entire "apparato" in the building where the academicians met, with an "arco triomfale a la porta di fuori." Piccolomini's letter to Varchi of November 3rd, 1541; reprinted in Florindo V. Cerreta, "An account on the early life of the *Accademia degli Infiammati* in the letters of Alessandro Piccolomini to Benedetto Varchi," *The Romanic Review* XLVIII, no. 4 (1957), p. 263.

the newly adapted academic requisites.⁷⁸ Among the expelled members were almost all the artists (Cellini, Bronzino, Tribolo, ...), some famous outsiders like Pietro Aretino, and even most of the very first members of the *Umidi* such as Luca Martini and Lasca himself. After the cleansing, 147 members were left (among whom figured Varchi, but also Michelangelo, the only non-expulsed artist). Michelangelo was mentioned, together with 36 other 'new members,' under a column designing them as *Padri* of the academy: these *Padri* turned out to be prelates, professors, important members of the court and of some major councils, and some celebrities whose allegiance to the Duke was considered to be reliable.⁷⁹

One of the next major milestones of the Fiorentina's evolution was the year 1553, when, due to ever recurring problems, the original system of lectures was abandoned, and replaced by a far more rigid scheme in which all lectures of the academy, instead of being given by a succession of academicians, were given by two lecturers with a fixed appointment. Giovambattista Gelli was designated to lecture, every Sunday on Dante; Benedetto Varchi was appointed as the fixed lecturer (*lettore fermo*) on Petrarca, which he accomplished every Thursday for two years. Many of the lectures we will discuss below were given before this radical modification of the academic rules. For a full understanding of the context in which they originated, it will be useful to provide some details about the practical functioning of the institution during the 1540's.

2. The day-to-day functioning of the *Fiorentina*

The Accademia Fiorentina was governed by a consul (*console*), who during his tenure functioned as the head of the group of academicians. The function corresponds with that of the *Archintronato* in the Siense Accademia degli Intronati, and with that of the *principe* of the *Inflammati*, the two major predecessors of the Florentine academy. To the term *principe* the members of the *Fiorentina* had preferred, in deference to their ducal protector, the politically neutral *console*. The *console* was chosen from the group of academicians through a complex voting procedure, in which candidates did not propose themselves, but were put forward by other academicians.⁸⁰ Initially, it seems that designated academicians have sometimes refused the charge, but moral pressure and statutory rules gradually made it harder to do so.⁸¹ The tenure of the *console* lasted in principle for six months, as did that of the Paduan *principe*.⁸² Elections were generally held in Februari and August, and the new consul was officially crowned (*incoronato*) a few weeks later, during a ceremony full of pomp.⁸³

The office of consul brought a stipend and much honour to the elected academician. As mentioned, he was at the same time named Rector of the *Studio Fiorentino*. In

⁸⁴ Varchi announced that (exceptional) arrangement during his acceptance speech in April 1545. See *Or.pigl.Cons.* in *Opere* II, p. 341.

⁸⁵ Plaisance, “Une première affirmation de la politique culturelle de Côme Ier...”, p. 415.

⁸⁶ For the details of all the buildings put at disposal of the academy by the Duke, cf. BNF, II, II, 150, ff. 25-26.

⁸⁷ Cf. Varchi’s announcement that he will lecture on Dante’s *Paradiso* “ogni domenica pubblicamente in questo luogo, dopo il vespro subito” *Or.pigl.Cons.* in *Opere* II, p. 340.

⁸⁸ So did Ugolino Martelli, confined to bed by a serious illness during his consulate of 1544, invite his fellow academicians in his private apartments, in order to honor his duties as consul. Cecchi, “Il Bronzino, Benedetto Varchi e l’Accademia Fiorentina: ritratti di poeti, letterati e personaggi illustri della corte medicea”, p. 24.

return he had a considerable number of responsibilities, the most important of which was to guarantee the continuity of the lecture cycles. Despite different measures, the *Fiorentina* would suffer from a chronic shortage of lecturers, which caused several consuls to take the charge themselves. For many months during his consulate that started in April 1545, Varchi did so: he assumed responsibility both for the weekly ‘public’ lesson on Sunday as well as for the ‘private’ lesson on Thursday.⁸⁴

The consul was assisted in his work by a series of minor officials, whose office, as we saw, had existed with some minor variations in the *Fiorentina*’s predecessors: the two *consiglieri*, (the consul’s immediate assistants), the *provveditore* (controller), the *cancelliere* (secretary). One office that deserves closer attention is that of the censors. There had been censors at the *Infiammati*, members charged with reading and commenting on the written compositions that authors had wanted to submit for collective advice. In the first days of the *Umidi*, that role of literary councillors had been spontaneously endorsed by all the members. In the *Fiorentina* as it had been shaped after the Februari 1541 reform, the office of censors would be much stricter, with well defined tasks and aims, and an increasing grip on the production of the academy. It was their duty, for example, to screen the draft of the Sunday lecture three days before it was brought before the audience, and to propose corrections. Other academic compositions were to be deposited in a box (with multiple locks) of which only the censors possessed the different keys. Only after detailed scrutiny could these texts be read before the co-academicians. The number of censors was originally two, and passed to four after a decision of March 12th 1542.⁸⁵

If the first meetings of the *Umidi* were held at the houses of their members (the house of Stradino, in the via San Gallo, or at the house of Giovanni Norchiati), official ducal sponsorship after the Februari 1541 reform also resulted in a series of buildings and spaces, property of the state, that were put at the disposal of the academic sessions.⁸⁶ The most important of these spaces was certainly the lofty *Sala del Papa* in the Dominican convent of Santa Maria Novella, the room where most of the sessions of the great Ecumenical Council of 1439 had been held. The Duke had explicitly requested that all public lectures of the Accademia Fiorentina would be held in this hall, one of the greatest auditoria in town. The sessions at Santa Maria Novella were open to any interested Florentine. They were held on Sunday evenings, and referred to as the ‘*lezioni pubbliche*’, in opposition to the ‘*lezioni private*’ held usually on Thursdays.⁸⁷ A space in the buildings of the *Studio Fiorentino*, in the Via dello Studio, was available for these more confidential sessions, which could also be held at the house of an important member.⁸⁸ Some Thursday sessions were held, as we saw, at Lelio Torelli’s house.

The distinction between the public and the private sessions of the *Fiorentina* is less simple to grasp than might appear at first sight. Visitors, if interested, were also

⁸⁹ About his Thursday cycle of lectures on Petrarca's *Canzone degli occhi*, Varchi specifies: "... a chiunque vorrà sarà conceduto il venirvi" *Or.pigl.Cons.* in *Opere* II, p. 340.

⁹⁰ "... quale hordinanza migliore et più utile alla eruditione dei gioveni si poteva immaginare non che trovare che quella delle tornate nostre privatamente, ove ragionando, discorrendo, leggendo, disputando, potessero cominciare a prendere animo i gioveni di mettersi a più lodate et celebrate imprese; quale ordinamento più honorevole et più famoso all'esercitio et alla dottrina loro porteva mettersi in opera che le nostre publiche lettioni, dove i nostri accademici, considerando prima d'havere a salir là ove da tutta la città insieme et da diversissime sorti et condizioni d'huomini dovessero essere uditi et notati, fossero sforzati di mettere ogni studio, ogni diligenza et ogni fatica in procurare d'essere lodati e celebrati da tutti..." Bibliothèque Nationale (Paris), *Fonds Italien*, 981, f^o 39 r.; cited in Plaisance, "Une première affirmation de la politique culturelle de Côme Ier: la transformation de l'Académie des 'Humidi' en Académie Florentine (1540-1542)," p. 424-425.

⁹¹ "diversissime sorti e condizioni d'uomini", *Ibid.*

⁹² "ogni studio, ogni diligenza et ogni fatica", *Ibid.*

⁹³ "...così nobile ragunanza di tanti ingegni rari, e spiriti peregrini, fu primieramente ritrovata da' suoi prudentissimi fondatori, e poi sapientissimamente ordinata, affinché tutti gli uomini, e specialmente la gioventù fiorentina, potessero insieme con la bontà dei costumi e cognizione delle scienze, non solo apprendere, ma esercitare ancora la facoltà del bene ed ornatamente parlare: la quale [...] è grandissima e onoratissima parte della vita civile" *Or.Pigl.Cons.* in *Opere* II, p. 337. It was also the educative role of the *Fiorentina* Anton Francesco Doni stressed when he compared the academy to its Siennese and Paduan predecessors in *La Zucca*, published 1587: "L'Academia de Siena non fu fatta per altro che per mostrare al mondo I belli intelletti loro, quello di Padua per imparare et insegnare molta dottrina utile et honorata. Quella di Firenze, qual vive hoggi illustre, per essercitar la gioventù et far frutti degni d'una sì mirabil patria." A.F. Doni, *La Zucca*, (Venetia: Girolamo Polo, 1589), p. 120. For declarations of Gelli and Bartoli further revealing the formative dimension of the *Fiorentina*, see *Ibid.* 114.

⁹⁴ Michel Plaisance, "Les leçons publiques et privées de l'Académie florentine (1541-1552)" in *Les commentaires et la naissance de la critique littéraire. France/Italie (XIV^e-XVI siècles)*, ed. Gisèle Mathieu-Castellani and Michel Plaisance (Paris: Aux amateurs de livres, 1990), p. 117.

⁹⁵ "L'Académie Florentine, qui regroupe presque tous les écrivains et artistes toscans, est un organisme qui englobe le Studio florentin et qui est en liaison avec l'Université de Pise. Ses fonctions sont donc multiples. Dans la mesure où elle coiffé le Studio qui assure une formation propédeutique aux jeunes Florentins, avant qu'il aillent recevoir à Pise la formation spécialisée qui fera d'eux les élites dont le duché à besoin, elle participe aussi à leur formation et à leur orientation." Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine", p. 153. Michel Plaisance was the first to stress the intended complementarity of the three major Tuscan institutions for public instruction: the *Studio Fiorentino*, the *Accademia Fiorentina* and the university of Pisa: See also Plaisance, "Une première affirmation de la politique culturelle de Côme Ier..." pp. 431-432, and Plaisance, "Les leçons publiques et privées de l'Académie florentine (1541-1552)," p. 114.

welcome to the Thursday sessions.⁸⁹ The contrast (besides that of the authors involved, see also below) was rather a difference in the way speaker and audience related, the private session being more informal and colloquial, leaving more space for discussion and debate.

In a text written shortly after his election as consul in 1544, Ugolino Martelli praised the admirable complementarity of both kinds of meetings, when one considered their usefulness as training grounds for young members. Brought to practice reading, reasoning, and debating during the private sessions, these junior academicians were both enticed and prepared to take the more serious challenge of a public Sunday lecture, and mount to the chair “where the whole town is gathered together.”⁹⁰ But while the speakers of the Thursday lesson were addressing a (familiar) public of academicians who could intervene and interrupt their presentation, the difficulties of the Sunday lectures lay elsewhere. Here, speaking not to insiders, but to a very diversified public, taken from all levels of Florentine public society (“the most diverse kinds and conditions of men”⁹¹), the lecturer had to deploy all his skills (“all his learning, all his diligence and all his energy”⁹²) if he wanted to make himself understood by everybody, and obtain the praises of his entire audience.

Dwelling on the utility of the *Fiorentina* in his inaugural speech as consul in 1545, Varchi emphasized the educational role of the academic lectures which allowed in particular younger members to train (“esercitare”) their skills in oratory, a fundamental component of public life.⁹³ As a result of this system we find in the list of all the Sunday lecturers, not only experienced scholars like Varchi or Bartoli, but also many young academicians. An extreme case was that of Bernardo Conigiani, who lectured in 1542 on a sonnet of Vittoria Colonna, aged only 16.⁹⁴

As a training platform for public speaking in the mother tongue, an exercise considered anything but simple, the *Fiorentina* was also part of a keenly integrated educational program devised by the authorities for the constitution of the future elite of the state. As we saw, the academy had tight institutional bonds with the *Studio Fiorentino*: the consul was its rector, and the private sessions of the academy took place in the *Studio*'s premises. The program of the Accademia Fiorentina reads as a vernacular counterpart to the curriculum of the Studio Fiorentino, which, after the 1543 reform (the re-opening of the Pisan University) was limited to Latin and Greek Language and Literature, rhetoric and philosophy. Before leaving for Pisa in order to undertake more specialized studies, young Florentines were provided, through their hometown academy and Studio, with a thorough preparatory formation.⁹⁵

⁹⁶ Cited by De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," p. 37.

⁹⁷ See Judith Bryce, "The oral world of the early Accademia Fiorentina," *Renaissance Studies* 9, no. 1 (1995), p. 80.

⁹⁸ Cosimo Bartoli, *Ragionamenti Accademici di Cosimo Bartoli, Gentil'huomo et Accademico Fiorentino, sopra alcuni luoghi difficili di Dante* (Venetia: Francesco de' Franceschi Senese, 1567), 7r.

⁹⁹ Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine", p. 159.

¹⁰⁰ For the tradition of the *Lectura Dantis*, see Bryce, "The oral world of the early Accademia Fiorentina," pp. 87-88.

¹⁰¹ The noted Greek scholar Francesco Filelfo started his series of public lectures on Dante on December 21, 1431. He quickly received the backing of the Florentine Studio which proposed to have a chair put there in Santa Maria del Fiore for the commentator. According to a contemporary source, the lectures were attended by about two hundred people. The series, for which Filelfo sometimes asked his students to take over the charge, lasted until well into 1432. Filelfo gave a strong political tint to his commentaries, which took place at the time of the conflict between Rinaldo degli Albizzi and Cosimo de' Medici for the control of Florence, and overtly mocked earlier commentators with Medici sympathies. The orations gained the character of a real civic event of prime importance, and had a dramatic outcome for Filelfo. In May 1433, the scholar was brutally beaten up by some Medici henchmen and disfigured. Filelfo was eventually exiled, forced to pursue his career in Milan. See Deborah Parker, *Commentary and ideology: Dante in the Renaissance* (Durham [N.C.]: Duke University Press, 1993), pp. 53-57.

¹⁰² Bryce, "The oral world of the early Accademia Fiorentina," p. 87.

3. The audiences

When referring to the crowd attending the Sunday lectures in the quote mentioned above (see note 90), Ugolino Martelli had stressed its size and diversity. We find both characteristics confirmed by other testimonies. The inaugural lesson of Francesco Verino (on Canto XVII of Dante's *Purgatorio*), the first to be held in the *Sala del Papa*, occurred according to the academy's annals "*con grande concorso di popoli che fu cosa mirabile*".⁹⁶ In varied forms we see this formula reappearing in the same annals: "*con grata udienza d'infinito popolo*" (in 1541), "*con grande moltitudine di popolo*" (1542), "*con grande udienza di popolo*" (1542), "*infiniti uditori*" (1550), and even "*infinitissimi numero d'uditori*" (1549).⁹⁷

In his *Ragionamenti Accademici*, a work based on a series of academic lectures of the 1540's (published in 1567) Cosimo Bartoli spoke of audiences of 2000 people for some of the most popular lectures.⁹⁸ Bartoli explicitly mentioned Francesco Verino's series on Dante's *Purgatorio*, delivered in the course of 1541, right before his death, as among the most attended. But so must have been the lectures of Benedetto Varchi, whom Plaisance presents as the "star" of the "brilliant cast of academic lecturers", in the years immediately following his return.⁹⁹

The presence of a numerous, socially diversified audience at the Sunday sessions may be explained, at least partially, by the fact that such scholarly lectures fitted in a long Florentine tradition. The *Lectura Dantis* in particular, the learned commentary on the *Divina Commedia*, had been a recurrent feature of civic life ever since the days of Boccaccio, who gave around 1373, a series of 60 public lectures on the *Commedia* in the church of Santo Stefano.¹⁰⁰ The use of these orally presented commentaries¹⁰⁰ was perpetuated in the Quattrocento both by some of the most reputed men of letters (like Francesco Filelfo)¹⁰¹ as by lesser lights, and appear to have been attended by all kinds of men. The phenomenon reveals how much Dante's poem formed part of the popular culture of the fourteenth and the fifteenth century.¹⁰² We will see that it was no less the case in the sixteenth.

The appeal of the academic lectures, even to the lower strata of Florentine society, also emerges as less surprising when one takes a close look at the kind of men one could find among the academicians themselves. This was done by Judith Bryce, who has pointed out how many of the practices of the early *Accademia Fiorentina* (debates, lectures, theatrical performances, ...) still feature the typical characteristics of an oral culture, despite the *Fiorentina's* declared aim to promote literacy. Bryce argued that much of the tense, conflictual atmosphere of the *Fiorentina*, as it had been revealed by Plaisance's study, and which had resulted in a literary production often close to direct verbal aggression, was due to the great disparities of background of the *accademici*.

¹⁰³ Ibid., pp. 82-83.

¹⁰⁴ Plaisance, “Les leçons publiques et privées de l’Académie florentine (1541-1552),” p. 113; For the first ten years of the *Fiorentina*’s existence, Plaisance recorded only one instance in which another author than Petrarch was commented at the *lezioni private*: in 1545 did Benedetto Varchi comment on three *canzoni* taken from Bembo’s *Asolani*.

¹⁰⁵ Cf. Ibid., p. 114.

¹⁰⁶ Ibid. p. 115.

¹⁰⁷ The complete list of ‘ancient’ authors cited by Plaisance is Cino da Pistoia, Piero Orsilago, Leon Battista Alberti, Sannazar. For the contemporaries: Vittoria Colonna, Bembo, Luigi Alamanni, Michelangelo Buonarroti, Giovan Battista Strozzi, Michelangelo Serafini, and maybe Pompeo della Barba, who gave a comment in two lessons on a sonnet “of one of his friends”, which he might have written himself. For details, see Ibid., p. 116.

Particularly in the early period of the Academy, the membership was far from being socially or culturally homogeneous [...], with a multitude of rifts, splits, factions, hostilities and alliances, based on class, traditions of political loyalty, clientelistic connection, education and profession as well as individual proclivities, personalities and even sexual orientation. In the first six years or so, particularly before the 1547 reform [...], the members represented a surprisingly wide social spectrum.¹⁰³

4. The poets whose work was commented at the Accademia Fiorentina

Perpetuating a preference that had been marked ever since the days of the *Humidi*, the Thursday private sessions of the *Fiorentina* dealt almost exclusively with the work of Petrarch, whose sonnets and *canzoni* were explained and commented upon from week to week, following the order of the *Canzoniere* itself.¹⁰⁴ From 1542 on, all academicians were supposed to pass this test of commenting on a pre-determined poem in front of their fellow members. The lecturer of the week to come was appointed by lottery. Other academicians could interrupt the course of the expositions, ask questions, start debating. The colloquial mode of these sessions made it possible to argue on a pre-determined subject, which seems to have occurred a few times, rather than commenting on a poem. A well known example is the debate organized on the question whether Petrarch's Laura had been a girl of flesh and blood, or rather a literary fiction.¹⁰⁵

If Petrarch, and more particularly his *Canzoniere* made up the subject of many of the public sessions of the academy as well, several other authors were also brought up here. It has been calculated that one half of the public *lezioni* were devoted to Petrarch, one quarter to Dante, and another to some other authors of verse, both 'ancients' and contemporaries.¹⁰⁶ Among the ancients we find Leon Battista Alberti, whose sonnet *Alma ch'hai dolorosi oscuri mali* was commented by Ventura Strozzi in 1549. Amidst the contemporary authors figure among others Vittoria Colonna, Bembo, Luigi Alamanni, and most famously Michelangelo. Varchi explained the sonnet *Non ha l'ottimo artista...* of the sculptor in 1547.¹⁰⁷

¹⁰⁸ Pirotti considered, from a purely literary perspective, Varchi's *lezioni* for the *Accademia Fiorentina* to be his very best prose. Pirotti, *Benedetto Varchi e la cultura del suo tempo*, pp. 252–255.

¹⁰⁹ *Opere di Benedetto Varchi, ora per la prima volta raccolte con un discorso di A. Racheli intorno alla filologia del secolo XVI e alla vita e agli scritti dell'autore aggiuntevi le lettere di Gio. Battista Busini sopra l'assedio di Firenze*, 2 vols. (Trieste: Lloyd Austriaco, 1858–59).

¹¹⁰ De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," p. 36.

C. VARCHI'S ACADEMIC LECTURES

1. Printed editions

The publication of Benedetto Varchi's lectures started during his own lifetime. The very fact (if we compare this fate to the belated publications of the *Storia Fiorentina* and the *Ercolano*) is an indication of how much these lessons were appreciated by contemporaries. But even modern critics, on the whole sceptical about Varchi's oeuvre, tend to judge the *lezioni* with much indulgence.¹⁰⁸

These editions, usually grouping two or three thematically linked lectures together, so as to obtain a certain volume, were based on the very manuscripts Varchi had himself prepared and used for his lectures. It is as one of these early publications that the *Due lezioni* were issued in the first months of 1550, bundling Varchi's two 1547 lectures on the visual arts. In 1590, more than two decades after Varchi's death, the first compilation of a far greater collection of lectures appeared. This early anthology, *Lezioni di M. Benedetto Varchi, Accademico Fiorentino ...* was dedicated to Don Giovanni de Medici, an illegitimate son of Cosimo, who, as we shall see in chapter seven, led a commendable career as an architect. This edition contained thirty of the most important lectures Varchi had delivered during his lifetime. Two new compilations were published in the 19th century, the latter of which, collected and edited by A. Racheli, and published in 1848-49, is the most complete.¹⁰⁹

It is based on the latter edition that I drew up the following list of Varchi's surviving lectures given at the Accademia Fiorentina. The different lectures are chronologically grouped under three headings: Commentaries on works of Dante; on works of Petrarch; and lectures that are not commenting on any specific text, but which treat a general subject instead.

2. The agenda of the *Fiorentina* lectures in general

It has been observed that labelling the different lectures that were presented before the Accademia Fiorentina as 'lectures on Dante' or 'lectures on Petrarch' is particularly misleading. As one historian observed: "...the content of the lezioni cannot be determined by the title."¹¹⁰ An example often referred to is Cosimo Bartoli's lecture on the *Canto XXXI* of Dante's *Purgatorio*. Even if, strictly speaking, it did comment on the verses

¹¹¹ Ibid., p. 44.

¹¹² Plaisance, "Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l'Académie Florentine," p. 239.

¹¹³ Doni's dialogue *Ragionamenti diversi fatti ai marmi di Fiorenza*, was first published in Venice in 1552-53. I will cite here the whole passage from which the quote is taken, because it very well illustrates the considerable status of the lecturers of the *Fiorentina* among whom Varchi was counted. In the fifth *ragionamento*, the inborn character *Risoluto* ranges Varchi as Latinist among the "literati e virtuosi gentilhuomini" living in town: "Qui ci sono uomini che hanno pochi pari al mondo: nelle lettere grece, c'è il mirabil Vittori e altri infiniti che sono dottissimi in quella lingua, fatti sotto la dottrina di sì raro spirito; le lettere latine ci fioriscano mirabilmente; il Varchi è eccellente; e nella filosofia molti e molti si fanno divini; di gentiluomini poi che son litterati, che attendono alle faccende del mondo, quanti ce ne sono in questa terra! Tanti che voi stupireste; messer Filippo del Migliore se ne chiama uno che mai praticaste con il più raro ingegno, gentil, cortese, reale, ed è de' grandi uomini da bene che si trovi. Ma ditemi: voi dimandate de' dotti; voi dovete esser certo ignorante, perché l'academia di questa città lo dimostra con tante opere stampate che tutto il mondo n'è pieno. Avete voi vedute le lezioni che hanno lette molti begli intelletti? L'opere del Segni intelligente, del Bartoli supremo, del Giambullari raro, del Gello acutissimo, e altri infiniti sapienti fiorentini?" Doni, *I marmi* (Bari: Laterza, 1928), Vol. I, p. 64, (Parte I, Ragionamento Quinto).

in which Dante observes a vision reflected in Beatrices' eyes, Bartoli's text stands as a dissertation on its own, on the anatomy and the physiology of the eye. Thanks to the exceptional doctrinal density of the *Divina Commedia*, the lecturers of the *Fiorentina* were able to address, while still discussing the same poem, a virtually unlimited set of topics. De Gaetano, who went through all the minutes of the academy on these lectures, and through the texts of many of them which have survived, provided the following list of subjects that were touched upon:

... the color of the eyes, anatomy and physiology, love, dreams, grammar, the soul, law and justice, free will, fortune, fate, the elements (earth, water, air, fire) friendship, envy and jealousy, Providence, beauty, honor, the spots on the moon, monsters, medicine (for and against), peace and concord, how the earth was inhabited, human and divine happiness, infinity, eternity, the sentiments and senses, ideas, divine and human intelligence, fame, eloquence, sculpture and painting, the Bible, nature, comets, predestination, nobility, size of the heavens, size of the planets, arms vs. letters, the sea, rain, the tides, perfection of the universe, time, laughter, metaphors, cause and effect, affections (attributes), the qualities of Hell, money.¹¹¹

This surprisingly wide range of topics very well illustrates the degree to which the lecturers of the state-sponsored academy had followed the lofty agenda of the institution, as it had been formulated in the *Costituzione dell'obbligo degli accademici* mentioned earlier:

“to translate the sciences and the other useful and illustrious works from whatever other language, making them available in our Florentine [tongue].”¹¹²

The pressure to publish put on the members of the academy, led to an important output of printed works in the Florentine vernacular: the learned members of the academy produced, according to Anton Francesco Doni, “so many printed works that the whole world is filled with them.”¹¹³ Doni, himself a former printer, describes with these words taken from *I Marmi* (1552-3) the very ambition Cosimo nurtured with his policy of promoting both the production and the publication of learned texts in the local dialect: filling the world with Tuscan books. The zeal with which both the different members of the *Accademia* and the local printers have followed this agenda, led to what is probably the greatest success of Cosimo's cultural policy. The degree in which his policy of promotion of the Florentine vernacular succeeded can be measured against one simple observation: in the unified Italy of the present days, the ancient Florentine has effectively become the national idiom.

¹¹⁴ The new regulation also abolished the system of alternating lecturers; one *lettore fermo* received the responsibility of preparing and delivering the Sunday Dante commentaries. The first *lettore fermo* on Dante was Giovambattista Gelli. See De Gaetano, "The Florentine Academy and the advancement of learning through the vernacular: The Orti Oricellari and the Sacra Accademia," p. 38.

¹¹⁵ Umberto Bosco, *Enciclopedia dantesca*, 6 vols. (Roma: Istituto della Enciclopedia italiana, 1970-1978) vol II, pp. 871-872.

¹¹⁶ "A questi tempi... che sono più di quaranta anni passati; nel qual tempo la lingua fiorentina, come che altrove non si stimasse molto, era in Firenze per la maggior parte in dispregio; e mi ricordo io, quando era giovanetto, che il primo e più severo comandamento che facevano generalmente i padri a' figliuoli e i maestri a' discepoli, era che eglino né per bene, né per male non leggessero cose volgare, per dirlo barbaramente come loro..." *L'Ercolano* in *Opere* II, p. 124.

¹¹⁷ "...e maestro Guasparri Mariscotti da Marradi, che fu nella grammatica mio precettore, uomo di duri e rozzi, ma di santissimi e buoni costumi, avendo una volta inteso in non so che modo, che Schiatta di Bernardo Bagnesi e io leggevamo il Petrarca di nascoso, ce ne diede una buona grida, e poco mancò che non ci cacciasse di scuola." *Ibid.*

¹¹⁸ "Vedesì che il grande crescere della lingua a questi due, al Petrarca e al Boccaccio, solamente pervenne; da indi innanzi, non che passar più oltre, ma pure a questi termini giungere ancora, niuno s'è veduto." Pietro Bembo, *Prose della volgar lingua*, *Gli Asolani*, *Rime* (Torino: UTET, 1966), p. 45.

¹¹⁹ *Ibid.*, p. 198.

3. Dante and scientific vulgarization

The overview of the lectures Varchi gave on Sundays, during the sessions of the *Fiorentina* held in the *Sala del Papa*, and thus reaching the largest audience, show that the great majority of these were commentaries on passages from the *Divina Commedia*. In this, Varchi shared his interest for the great poet with all the *Fiorentina* lecturers, an interest that was intimately related to the cultural aims of the *Fiorentina*: emphasizing the nobility of the Tuscan vernacular tradition through a rediscovery of the giants of the Trecento. From 1553 on, a new regulation of the academy imposed Dante as the only author, whose oeuvre was fit for commentaries during the Sunday public sessions.¹¹⁴

Yet it must be remembered that before the 1540's and the conscious promotion by the *Fiorentina*, Dante's *Divina Commedia* had long been a controversial text among Italy's literary elite. Since the Trecento Latinists had regretted Dante's use of the vernacular for such an elevated subject. The Florentine humanist Niccolò Niccoli (1364-1437), one of the most influential intellectuals of Cosimo il Vecchio's entourage, had famously downgraded the poem, in the very beginning of the 15th century, as fit for cobblers and bakers.¹¹⁵ The fact that reading vernacular literature was considered highly unsuitable in patrician and upper middle class Florentine circles, even in the beginning of the 16th century, is illustrated by an anecdote reported in the *Ercolano*. Varchi remembers how, when he was still a young boy, "the first and most severe order fathers used to give to their sons, and schoolmasters to their pupils, was that they were never, under any circumstance, to read books written in vulgar."¹¹⁶ One day the young Benedetto, together with one of his comrades, had been caught at reading Petrarch, the event caused an outburst of anger in his teacher of Latin grammar, the austere Guasparre Mariscotti ("a man of hard, rough and in the meantime saintly and righteous manners"), who had almost thrown them out of his school.¹¹⁷

For some of the most important advocates of the vernacular of those days, such as Bembo, Dante did not deserve a place at the sides of Petrarch and Boccaccio as one of the greatest authors of the Florentine tradition.¹¹⁸ The author of the *Commedia* and the *Convivio* was repeatedly reprimanded in the course of the *Prose della volgar lingua* for the use of incorrect or inappropriate (too lowly) terms. Towards the end of the *Prose*, Bembo even called Dante "licenziosissimo" (highly transgressive) in his great poem.¹¹⁹ Considering the *Divina Commedia* exclusively from a formal and aesthetic perspective, Bembo showed little regard for those critics who considered Dante to be Petrarch's superior because of the "greatness" and the "variety" of his subject. Such considerations, according to the Venetian, could and might certainly not influence quality judgments on a literary work.

¹²⁰ “... non sono pochi quegli altri, a’ quali Dante più soddisfa, tratti, come io stimo, dalla grandezza e varietà del soggetto, più che da altro. Nella qual cosa essi s’ingannano; perciò che il soggetto è ben quello che fa il poema, o puollo almen fare, o alto o umile, o mezzano di stile, ma buono in se o men buono non giamai.” *Ibid.*, p. 85.

¹²¹ “...tutta la dottrina ti tutti gli altri poeti in tutte quante le lingue non arriva per modo alcuno, quanto porta il giudizio mio, né alla centesima parte di quella sola che si contiene in questa terza parte ed ultima Cantica; la quale non che io che una sono e non so nulla, ma mille uomini dottrinattissimi non potrebbero bastevolmente dichiarare in mille anni.” *L.Par.I.* in *Opere* II, p. 400. See also, for example, this passage from the *Lezzione della terra e del cielo*: “Dante, l’ingegno e la dottrina del quale passò di tanto, secondo alcuni, tutti gli altri poeti di tutti i tempi e di tutte le lingue, che vien più tosto divino stimato che umano...” *Opere* II, p. 433.

¹²² “...in Dante ci è sugo e dottrina, e nel Petrarca solo leggiadrezza di stile, ed ornamenti poetici”, Lodovico Dolce, *L’Aretino, ovvero dialogo della pittura di Lodovico Dolce, con l’aggiunta delle lettere del Tiziano a vari e dell’Aretino a lui*, ed. G. Daelli, Biblioteca rara (Milano: G. Daelli and comp., 1863), 55.

¹²³ “...per la sua meravigliosa dottrina, non ebbe manco valore, appresso di color che consideran diligentemente l’opere sue, che si valesse quella di Pitagora, appresso i discepoli suoi. I quali altro che ‘ipse dixit’ rispondevano a chi haveva dubbio alcuno ne le cose che egli avevano imparate da lui.” Gelli, *Il Gello sopra Donna mi viene spesso nella mente di M.F. Petrarca*, Firenze, 1549, p. 8-9.

... there are quiet a few people who rejoice more in [the writings of] Dante, attracted as they are, it seems to me, by the loftiness and the diversity (*varietà*) of the subject, more than by anything else. In this they are clearly fooling themselves, since the subject may be that which will cause – or at least may cause – a poem to be elevated, humble, or in-between in style, but it will never cause it to be good or less good as such.¹²⁰

In the context of the Accademia Fiorentina, as we saw, things were completely different. Since Francesco Verino had launched the custom of the academic *Lectura Dantis* in 1541, the public, scholarly commenting on the *Divina Commedia* had become an institution, even before Varchi's return to Florence. In total opposition to Bembo's stance, Dante's *Commedia* was thereby not so much considered for its value as a linguistic model, but rather for its wisdom, the quantity of knowledge it held, which made it highly appropriate for the academy's vulgarizing aims. The doctrinal density that was felt in Dante is well expressed in the long series of praises to the 'divine' Dante that appear in Varchi's *lezioni*. The following example, highly formulaic but very representative, is taken from his 1545 lecture series on the first *Canto* of Paradise:

... the whole doctrine of all the other poets in whatever other language does not, in any kind of way, – according to my opinion – reach even to a hundredth part of [the doctrine] that is contained in this third and last part [of the *Divina Commedia* – *Paradiso* that is]; which is such that – not only I who am ignorant – but even thousands of the most erudite scholars, in a thousand years' time, could not sufficiently elucidate it.¹²¹

If in 1557 the Venetian polygraph Lodovico Dolce could write in his *Dialogo della pittura* that "in Dante there is marrow (*sugo*) and doctrine, and in Petrarch only loftiness of style, and poetic ornaments...",¹²² it is in great part due to the emphatic insistence by the lecturers at the Accademia Fiorentina on the *Divina Commedia*'s density, and its encyclopaedic dimension. In one of his lectures of the later 1540's Giambattista Gelli had compared Dante to Pythagoras, whose opinions, reportedly, had had the value of an oracle for the students that surrounded him.¹²³

Significantly, when Varchi stressed Dante's qualities as a philosopher (an ever recurrent theme in the *lezioni*) it is to the all-encompassing mind of Aristotle, Varchi's prime authority, rather than to any other philosopher, that he would compare the poet. Varchi's central criterion in his selection of passages from the *Commedia* for his lectures was precisely the presence of manifest expressions of peripatetic allegiance, of course numerous in Dante's scholastic cosmology. A good example is the passage on the generation of the human body from *Canto XXV* of the *Purgatorio*, which Dante, according to Varchi, had mostly based on the doctrines of Aristotle and Averroës. It is only when Dante follows Aristotle's doctrine that for Varchi he truly becomes "my guide (*Duce*), my lord, my

¹²⁴ “mio Duce, mio signore, mio maestro” *L.Par.I.* in *Opere II*, p. 342.

¹²⁵ “[Aristotile...] senza il quale non saprei muovere un passo...” *L.5.Poet.* in *Opere II*, p. 696.

¹²⁶ “...vi recitero solamente in quello modo che giudichero migliore, tutti I primi capi e tutte le risoluzioni principali di quelle cose, che mi paranno più necessarie e più vere, seguitando sempre Aristotile, principe de’ Peripatetici, e il suo commentatore Averrois: I quali due senza dubbio, seguitò in questo luogo, e quasi in tutti gli altri della Commedia e opera sua Dante medesimo, il quale fu grandissimo e ottimo Peripatetico, se non quanto dalla fede nostra e santissima religione cristiana gli fu vietato.” *L.Gen.Corp.* in *Opere II*, p. 286.

master”.¹²⁴ In his search for truth, Varchi had greatest confidence in Aristotle (without whom he “could not take a single step”¹²⁵), and he can only rejoice to see that Dante did so too:

...I will outline for you [...] all the primary notions and the fundamental workings of those things [...] whereby I will always follow Aristotle, Prince of the Peripatetics, and his commentator Averroës; the two men which Dante himself doubtlessly followed in this passage, as in almost all the others of the *Divina Commedia*. Dante was [indeed] a staunch and excellent Peripatetic, for as much as his faith and the most holy Christian religion did not forbid him.¹²⁶

¹²⁷ Pier Francesco Giambullari, *Il Gello di M. Pier Francesco Giambullari* (Firenze: Doni, 1546).

¹²⁸ Henk van Veen, *Cosimo de' Medici, vorst en republikein: een studie naar het heersersimago van de eerste groothertog van Toscane (1537-1574)* (Amsterdam: Meulenhoff, 1998), p. 162.

D. LONELY RESISTANCE FROM INSIDE THE FIORENTINA

More than exclusively a courtier, Benedetto Varchi was an intellectual with a genuine interest in authentic knowledge; for knowledge that would reach beyond the particular demands of his patron. The tediously accurate and “sincere” *Storia Fiorentina* bears witness to this fact.

The same attitude was not exactly shared by his opponents inside the city’s literary academy. Gelli, Giambullari, Lenzoni, Bartoli, the men who had infiltrated the *Accademia degli Umidi* to organize a series of reforms on the authorities’ behalf, had developed in the course of the 1540’s a new mythology on the origins of Florence; a mythology apparently devised, in the first place, to provide their patron with a handy political tool, and to strengthen their own positions as courtiers. The so-called Etruscan myth was first sketched out in a short tract written by Gelli in 1544 (*Dell’origine di Firenze*). The thesis, which had even caused Cosimo’s enthusiasm, was reformulated in far greater detail in Giambullari’s work *Il Gello* (named after Gelli), a work that was approved by the censors of the academy in March 1546, and published shortly after.¹²⁷ According to this myth, Tuscany and its cities, Florence in the first place, descended from the reign of the Etruscans, and had originally been founded by the god Janus, also associated with the Old-Testamentic Noah. More specifically, Florence itself would have been founded by (the so-called Lybian) Hercules. Providing Florence and Tuscany with a far older ancestry than ancient Rome, the myth suggested that Florence had served as a model for Rome, instead of the contrary. Evidence of the hypothesis was to be found in the supposedly Semitic roots of the Tuscan tongue. Adversaries such as Lasca and Varchi therefore often deridingly referred to the closely-knit faction (Gelli, Giambullari, Lenzoni, Bartoli) as the *Aramei* (the Arameans).

The so-called ‘etruscan myth’ (*mito etrusco*) surfaced occasionally in Cosimo’s political propaganda, when it appeared suited to a particular circumstance, for instance when the ancestral integrity of the Tuscan territory had to be stressed; it was used proficiently, for instance, during public ceremonies related to the annexation of Siena to the Florentine Duchy.¹²⁸ Yet in the later years of Cosimo’s reign, during the 1560’s, it considerably lost of importance.

Varchi condemned the myth. It was based on slipshod research and scant evidence; it amounted, in his eyes, to sloppy scholarship, far removed from the standards of accuracy that he had set himself. Benedetto was particularly harsh, for example, about the reliance of Giambullari and his associates, in their arguing for the Hebrew roots of Tuscany (a “ridiculous opinion”), on authors such as the Viterbese friar Annius, which he

¹²⁹ Varchi never named his direct foes, but the attentive reader must have been well aware of their identity “E qual maggiore vanità, o più perduta opera sarebbe che il volere le ridicole opinioni d’alcuni moderni con ragioni e con autorità confutare? I quali dietro gli scritti di frate Annio viterbese, o d’altri in gran parte, secondo il giudizio nostro, favolosi scrittori, affermano Firenze essere stata edificata da Ercole Egizio, anni circa mille secentottanta innanzi l’avvenimento di Cristo...” *Storia Fiorentina* IX.29 in *Opere* I, p. 177.

¹³⁰ Pirotti, “Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism,” p. 197.

¹³¹ For the most recent account of Boccadiferro’s work and thought see Luca Bianchi, *Studi sull’aristotelismo del Rinascimento* (Padova: Il poligrafo, 2003), pp. 125-132.

dismisses as pure storytellers.¹²⁹ He must also have felt a certain embarrassment with this eagerness to fashion history according to their needs for propaganda.

Historical accuracy is not the only characteristic that opposed Varchi (and with him, great part of the *Umidi*) to the *Aramei*. The latter also stood for a series of conservative values to which Varchi and the *Umidi* could hardly be identified: religious orthodoxy, moral conservatism, blind nationalism and social elitism. The last sections of this chapter will detail three particular points in which the community or generation Benedetto Varchi represented as a thinker and author departed clearly from the conservative strand of thought of his opponents inside the *Fiorentina*: religious heterodoxy, sympathy towards the manual artists, and finally curiosity for the sake of scientific innovation.

1. Heterodox Aristotelianism

Even if a present-day reader may not always notice it at first sight, Varchi's Florentine lectures frequently collided with the dogmas of Christian faith. His audience was confronted on several instances with interpretations of the Aristotelian world view that resulted in pure heresy. Umberto Pirotti observed about this matter: "Varchi's heterodoxy is perhaps the most notable part of his thought [...] for it echoes a side of the Renaissance civilization that so far has not received sufficient attention."¹³⁰

Much of the direct heresies contained in Varchi's academic lectures may be traced back to the unflinching kind of Aristotelianism Varchi had familiarised himself with in Bologna, when he was under the tuition of Lodovico Boccadiffero, Varchi's professor of philosophy and mentor in the early 1540's.¹³¹ Through his masters at the Bolognese University Boccadiffero had been familiarized with a series of heterodox ideas derived from a strictly secular reading of Aristotle and Averroës. These notions, characteristic for the line of thought sometimes referred to as 'radical' or 'heterodox Aristotelism', may be ranged under three essential captions: the nature of God and of His involvement in worldly affairs, the nature of the world and its duration, and finally the nature of the rational human soul and its (im)mortality. To put it bluntly, for radical Aristotelians, God was not free, nor almighty, nor did he know of all the minute particulars of earthly life, with which, being the first but remote cause of the movement of the world, He was only concerned accidentally, and through the mediation of the heavens. Similarly these philosophers conclude that God could not be the creator of the world since, along with Aristotle, they refused to accept the possibility of a creation *ex nihilo*. Nothing can be created out of nothing: the world, consequently, was necessarily created for eternity (*ab eterno*), and is ever since subjected to an endless series of transformations or cycles of development.

¹³²The eight lessons on the first Canto of Paradise is a good example. A great part of this lesson is dedicated to two major questions, constituting little chapters in it: the question of divine providence ('se Dio avesse cura del mondo o no') and the question of free will ('Se l'uomo ha la volonta libera di maniera che possa volere e disvolere quello che gli piace più').

¹³³"...secondo il lume soprannaturale e ispirazione divina..." *L.Inf.Creaz.* in *Opere* II, p. 312.

¹³⁴"...secondo la ragione umana e e il discorso naturale, come fecero i filosofi gentili..." *Ibid.*

¹³⁵See the fourth lecture on the first canto of Paradise, *Opere* II: 364: "...conciosia che I filosofi e massimamente i Peripatetici, secondo i quali parliamo sempre, non vogliono che Dio abbia cura e providenza delle cose umane particolarmente; anzi, il che è più, dicono che egli non le conosce se non in universale, cioè è conoscendo sè stesso..."; see also the ninth lecture of the same series, where the freedom of God to act is compare to the freedom of stones or of fire to be subjected to the forces that pull them downward or upward: *Opere* II, p. 405: "... i migliori filosofi, e tra questi il dotissimo ed onorandissimo precettore mio M. Lodovico Boccadiferro, buona memoria, tengono che secondo Aristotile Dio muova per necessità di natura, non altramente che la gravità nelle pietre e la leggerezza nel fuoco, mossi massimamente perché secondo Aristotile, la libertà non sequita la volontà; ma l'intelletto, e non in igno intelletto, ma solamente in quegli dove si ritruova il discorso, come è il nostro, e questa libertà dice imperfezione, perché significa potenzialità, per usare nelle cose filosofiche i vocabili de' filosofi; ora in Dio non è potenza nè imperfezione alcuna."

¹³⁶The impossibility of the immortality of the individual soul is stated indirectly, but in non-ambiguous terms in the following statement from one of the 1545 lectures on Dante's first Canto of Paradise: "Astratte e separate non semplicemente, ma in quanto a un certo che, si chiamano tutte quelle [sostanze] le quali dipendono nondimeno in quanto all'oggetto dalla materia, cioè è hanno bisogno nelle operazioni loro della sentimenta, e queste sono tutte le forme umane o vero anime razionali, la quali ancora che per sè stesse e di loro natura medesima siano immateriali e per conseguenza immortali, non possono però accidentalmente nè essere ancora, secondo i Peripaterici, non che operare senza corpo; conciosia che come l'occhio non può vedere cosa alcuna senza i colori, così l'intelletto non può intendere veruna cosa senza i fantasmi." *L.Par.I.* in *Opere* II, p. 399.

¹³⁷"... non solo potemo credere, [...] ma dovemo ancora, Firenze medesima, la Cupola stessa, questa Accademia propria, nonché la stampa e l'artiglierie e questa cattedra qui, sopra la quale sono già tante fiata, quantunque indegnamente, salito, essere state infinite volte secondo i filosofi, e infinite volte secondo i medesimi dover essere." *L.5Poes.* in *Opere* II, p. 694. A few paragraphs earlier, in the very opening of the lecture, Varchi had provided an even more detailed account on the doctrine of the eternal return: "Fu non dubbia la opinione del maggior uomo che mai, secondo il giudizio de' migliori filosofi, che tutte quante le cose di tutto questo mondo inferiore fossero [...] non solamente state infinite volte per l'addietro, ma eziandio infinite volte dovessero essere per l'innanzi; di maniera che niuna scienza, niuna facoltà e niuna arte si ritrova in luogo nessuno la quale e non sia già stata, e non debba ancora essere infinite volte. Anzi tutte le cose che da tutti gli uomini, per tutti i luoghi e in tutti i tempi furono o fatte, o dette, o pensate, erano state e pensate e dette e fatte infinite volte prima, e infinite volte e pensate e dette e fatte saranno poi, in guisa che nissuna cosa in niuno modo nè è, nè fu, nè sarà mai sotto il cielo, la quale infinite volte non sia stata per lo passato, e non abbia ad essere infinite volte per l'avvenire." *L.Poet.G.* in *Opere* II, p. 694.

Radical Aristotelians eventually refused the idea of the immortality of the individual soul. According to them, the individualization of any substance is only achieved through materialization: matter is the only possible agent of plurality. It is thus the ‘materialized’ part of the soul, the sensitive soul, as opposed to its rational counterpart, that instantiates a person’s individuality. But as all material entities the sensitive soul is subjected to corruption and mortality. After death the individual soul of a person ceases to exist. The immortal rational soul then reassumes its undifferentiated nature, shared by all humans at the same time. There is, consequently, no eternal life of the individual soul.

All three positions of heterodox Aristotelianism are prominent in Boccadiferro’s teachings, and echoed in Varchi’s lectures, together with the typical sofism Averroists adopted to avoid direct accusations of heresy, the ‘theory of the double truth’. Embarrassing instances (like the examples mentioned here) of direct incompatibility of a philosophical conclusion with the dominant theological view are thereby bypassed by the affirmation that both may be true simultaneously, but on a different level of reality, not falsifying each other mutually.

Varchi did not avoid matters in which philosophical (Aristotelian) orthodoxy came in unavoidable collision with Catholic faith. On the contrary, in the choice of the topics for his lectures, he seems to have felt a magnetic attraction to subjects arousing major controversies, often related to questions of faith.¹³² The theory of double truth is applied by simply distinguishing the two different ways on which one can reason about a particular question: theologically, which is “according to the supernatural light and divine inspiration”¹³³, and philosophically “according to human reason and the *discorso naturale*, like the gentile philosophers did.”¹³⁴ This division allowed the lecturer of the *Fiorentina* to postulate that, philosophically, there are only ten different Intelligences in the eternal, super-lunar world, which are the souls of the ten skies. Simultaneously, according to theology or Christianity, the number of Intelligences, or angels, is of course innumerable. Varchi thus also familiarised his audience with the opinion that, superior beings, including God, have no care for lower beings,¹³⁵ that the immortality of the human soul is an illusion,¹³⁶ and that the history of the world stages the permanent repetition of a same play, *ad infinitum*:

... we may not only believe, [...] we also have to believe that Florence itself, the Cupola, even this very Academy, as well as the art of printing and artillery, and this very chair that, however undeservingly, I already climbed so many times, have existed before an infinite number of times according to the philosophers, and will, according to them, exist again in the future an infinite number of times.¹³⁷

Blatantly heretic statements such as “God’s motions are imposed by natural necessity, not unlike stones which are naturally forced to fall due to gravity or fire is brought to

¹³⁸ See the citation under note 135.

¹³⁹ “E in questo [la diffinizione generale dell’anima] mostrò [Aristotile] il medesimo ingegno e giudizio, che nell’altre cose tutte, il quale fu veramente divino.” *L.Creaz.Inf.* in *Opere* p. 317.

¹⁴⁰ *L.5Poes.* in *Opere* II, p. 694.

¹⁴¹ See the citation under note 135.

¹⁴² See for example the passage from the text *Prolegomeni e precognizioni* in which Aristotle’s methods of treating a particular subject of science in texts is compared to Nature’s way of proceeding: “Onde chi vuole scrivere o dichiarare alcuna scienza (favello qui delle scienze particolari), come chi volesse insegnare la Fisica o alcuna delle Matematiche, deve seguitare l’ordine della Natura, ciò è cominciare dalle cose più semplici verso le più composte, come si vede che fece Aristotile nell’Ascoltazione naturale, ed in tutte l’altre scienze particolari.” *Dei prolegomeni e precognizioni* in *Opere* II, p. 809.

¹⁴³ “...un petit groupe qui anticipe l’esprit de la Contre-Réforme.” Plaisance, “Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l’Académie Florentine,” p. 177.

¹⁴⁴ See the citation above, under the note 126.

¹⁴⁵ “...la folle ed empia credenza di Averroe”, Pierfrancesco Giambullari, *Lezioni. L’origine della lingua fiorentina altramenti il Gello* (Milano: Giovanni Silvestri, 1827), p. 74.

¹⁴⁶ Cited in Pirotti, “Aristotelian philosophy and the popularisation of learning: Benedetto Varchi and Renaissance Aristotelianism,” p. 197 note 73.

¹⁴⁷ This is the title of the short chapter 3 from her book dedicated to these contacts. Leatrice Mendelsohn, *Paragoni: Benedetto Varchi’s Due Lezioni and Cinquecento Art Theory* (Ann Arbor, Michigan: UMI Research Press, 1982), pp. 29-33.

rise because of its lightness”¹³⁸ are enshrined in Varchi’s lectures under the precautions of double truth. Such affirmations are thus always preceded by formulations like “secondo i filosofi”, “secondo i Peripatetici” or “secondo Aristotile”, but the attentive listener cannot be duped. “Divine”¹³⁹ Aristotle is repeatedly hailed as the brightest thinker of history, “the greatest man ever produced under the light of this world”,¹⁴⁰ and the voice of the Peripatetics, “whom we always follow in our discussions”,¹⁴¹ is often directly identified with the voice of Nature or the voice of Truth.¹⁴²

Varchi’s heterodox Aristotelianism put him directly at odds with the more conservatively educated ecclesiastics inside the Fiorentina. Plaisance has labeled the faction of the Aramei “a small group that anticipates the spirit of the Counter-Reform”¹⁴³ Exactly one week after Varchi had given his *Lezzione sulla creazione ed infusione dell’anima razionale* in December 1543, in which he had assured always to follow “Aristotle, prince of the Peripatetics, and his commentator Averroës”¹⁴⁴ and had celebrated Averroës as “*dot-tissimo*”, Giambullari vigorously uttered his discontent about such references. In his own *lezzione* of Sunday December 9th, Giambullari castigated the “mad and impious belief of Averroës.”¹⁴⁵ Many years later, in his *Historia dell’Europa* of 1566, Giambullari also attacked “the main belief of Averroës [...] that God pays no attention to the small things [of this world].”¹⁴⁶

2. Varchi’s group of artist friends

As is well known, Benedetto Varchi stood in contact with a vast number of artists, both in Florence and abroad. The fact is well documented. In her study on Varchi’s *Due lezioni* on the arts, Leatrice Mendelsohn-Martone labelled Varchi “a letterato among the artists.”¹⁴⁷

A simple means of grasping the extend of these contacts is to scrutinize Varchi’s vast amount of poems sent to his correspondents: The volumes of published sonnets alone track Varchi’s exchange of encomiastic verses with artists as diverse as the painters Bronzino, Alessandro Allori, Jacopo Pontormo, Giorgio Vasari, Giulio Cova; the sculptors Benvenuto Cellini, Raffaello da Montelupo, Michelangelo, Leone Leoni and Vincenzo Danti; the architects Galeazzo Alessi, Bartolomeo Ammanati, Giovambattista Tasso; the goldsmiths Pietropaolo Galeotti and Giovanni di Francesco (il Piloto), and eventually highly skilled craftsmen like the engraver Antonio Crocini (il Crocino), the master watchmaker Benvenuto della Volpaia, the embroiderer (*ricamatore*) Antonio Bacchiacca, and even *Messer Bastiano*, a perfumer.

As various sources attest, the scholar had assiduous, almost daily contacts with a fraction of the mentioned artists; a small group of Florentine artists whom he knew since

- ¹⁴⁸ Dario Trento, "Pontormo e la corte di Cosimo I," in *Kunst der Cinquecento in der Toscana* (München: Bruckmann, 1992), p. 141.
- ¹⁴⁹ On the relationship between Varchi and Luca Martini, see Plaisance, "Une première affirmation de la politique culturelle de Côme Ier: la transformation de l'Académie des 'Humidi' en Académie Florentine (1540-1542)," pp. 363-366.
- ¹⁵⁰ See the articles of Heikamp, "Rapporti fra accademici ed artisti nella Firenze del '500"; Detlef Heikamp, "Luca Martini, i suoi amici artisti e Pierino da Vinci," in *Pierino da Vinci. Atti della giornata di studio (Vinci, Biblioteca Leonardiana, 26 maggio 1990)*, ed. Marco Cianchi (Firenze: Becocci editore, 1995), pp. 67-71; Trento, "Pontormo e la corte di Cosimo I," ; and eventually the work of Jonathan Nelson, "Dante's portraits in 16th Century Florence," *Gazette des Beaux Arts* CXX, no. 6 (1992): pp. 69-77; Jonathan Nelson, "Creative patronage: Luca Martini and the Renaissance portrait," *Mitteilungen des Kunsthistorischen Institutes in Florenz* 39 (1995), pp. 282-303; Jonathan Nelson, "Luca Martini, Dantista, and Pierino da Vinci's relief of the *Death of Count Ugolino della Gherardesca and his sons*," in *Pierino da Vinci: Atti della giornata di studio (Vinci, Biblioteca Leonardiana, 26 maggio 1990)*, ed. Marco Cianchi (Firenze: Becocci Editore, 1995), pp. 39-71.
- ¹⁵¹ *Magistrato et Officio dei Fossi*, created April 29 1547.
- ¹⁵² Nelson, "Creative patronage: Luca Martini and the Renaissance portrait," pp. 284-285.
- ¹⁵³ "stava in casa dell'amicissimo suo M. Luca Martini (il quale quivi in ufficio onoratissimo serviva il Duca) in compagnia di Pittori, Scultori, et altri si fatti nobili artefici, del quale havea quel buon gentil'huomo sempre molto al servizio." Razzi, "Vita di Benedetto Varchi," p. 13.
- ¹⁵⁴ "L'amicizia e la familiarità del Martini con artisti riguarda sia i maggiori – Michelangelo, Pontormo, Bronzino – che i più modesti e gli umili come sono il Crocino; suoi contatti mostrano lo stesso intreccio tra il popolaresco degli artigiani e la mondanità dell'arte ufficiale di corte o la grande arte religiosa che caratterizza tutto l'ambiente artistico dell'epoca: pare che proprio questa mescolanza sia elemento essenziale per la vitalità artistica della Toscana di allora." Heikamp, "Luca Martini, i suoi amici artisti e Pierino da Vinci," p. 69.
- ¹⁵⁵ "Dell'arti, alcune sono, secondo la distinzione di Galeno, vili ed indegni, come quelle che si esercitano colle forze e fatiche del corpo, che i Greci dall'operare delle mani chiamano chirurgiche, da cheir mano, come a dir manuali; altre oneste e liberali, fra le quali pone primieramente la medicina, la Retorica, la Musica, la Geometria, l'Astronomia, l'Aritmetica, la Dialettica, la Grammatica, e la scienza delle Leggi." L. Paragone in *Opere* II, p. 631.
- ¹⁵⁶ The idea is summarized in the following citation: "Come ciascuno che opera, opera a qualche fine, perché il fine è quello che muove l'operante, così chiunque opera, opera necessariamente dintorno a qualche materia, perché di nulla non si può fare cosa alcuna. Onde quella materia, d'intorno la quale si maneggia l'artefice, o speculativo, o attivo o fattivo che egli sia, si chiama subbietto o vero soggetto: il quale i Toscani chiamano alcuna volta latinamente tema." *Dei prolegomeni o precognizioni* in *Opere* II, p. 807.

at least the early 1530's and who were very close; a group that includes "Pontormo, Cellini, Tribolo, Tasso, Pierino da Vinci, Bronzino and Crocino."¹⁴⁸ Luca Martini is the crucial figure for the understanding of Varchi's insertion into this company of artists.¹⁴⁹ Present-day studies on the artists of this group (Pontormo, Bronzino, or Pierino da Vinci), as well as studies on Luca Martini himself have sketched a portrait of this long time companion of Varchi who was not only a friend of artists, but equally an extremely refined connoisseur and a patron of the arts on his own behalf.¹⁵⁰ Martini, like Varchi a former notary, a poet and a member of the *Umidi*, developed a career as engineer in Cosimo's service. His competence and aristocratic lineage allowed him to reach the highest echelons of the Duke's bureaucracy. As head (*provveditore*) of the state administration for the supervision of works of draining and hydraulic engineering,¹⁵¹ Martini settled in Pisa, where Cosimo had ordered the drainage of important areas of swampland.¹⁵² In his richly adorned Pisan residence, Luca Martini organized something like a secondary court, a satellite centre of cultural activity. Varchi's biographer Don Silvano Razzi evoked Varchi's frequent passages in Pisa, where the Duke regularly summoned the scholar to read new passages from the *Storia Fiorentina*. On these occasions, Varchi "...stayed in the house of his dearest friend signor Luca Martini (who was serving the Duke there in a most honoured function) in company of painters, sculptors and other noble artisans of the kind, from whom that good *gentil'huomo* always held many at his service."¹⁵³ As a patron, Martini was able to engage the artists that had been companions for many years. It placed him, and in a certain measure Varchi as well, in an intermediary position about which Detlef Heikamp wrote:

Martini's friendship and familiarity with artists regarded both the greatest: Michelangelo, Pontormo, Bronzino, - as well as the most modest and humble such as Crocino: his contacts demonstrate the same intertwining between the working-class, popular sphere of the artisans and the mundane distinction of the official court art or the great religious art that characterizes the whole artistic sphere of that era: it seems that it is precisely that blend that makes out the essential ingredient of the artistic vitality of the Tuscany of those days.¹⁵⁴

Keeping in touch with the artisan class was a fundamental aspect of Varchi's outlook as an intellectual. The whole vulgarizing project of the Paduan and Florentine academies was precisely conceived to provide the moderately educated (among whom the artists) access to knowledge that would otherwise remain unapproachable. Even if he reported, in his lectures, the distinction, attributed to Galen, between the trades (*arti*) considered vile and unworthy because they imply physical and manual activity, and, on the other hand, the "honest" and "liberal" arts,¹⁵⁵ he nonetheless tried hard, in practice, to blur that distinction, by referring, for instance, to the speculative scientists as artisans themselves.¹⁵⁶ Theologians, philosophers, grammarians, logicians, historians, orators ... are thus all lik-



Fig. 2.2 Agnolo Bronzino, *Portrait of Luca Martini with Map of Pisan Canal System*. Florence, Galleria Palatina.

¹⁵⁷ For the likening of natural philosophers, metaphysicians and theologians to *artefici*, see *L.Am.D.* in *Opere II*, p. 330; For the comparison of historians, philosophers, and orators to artisans, see *Dei prolegomeni o precognizioni* in *Opere II*, pp. 811–812; A presentation of the grammarian, the logician, the rhetorician and the poet as artisans is to be found in *L.Par.I* in *Opere II*, p. 343.

¹⁵⁸ “E innanzi che io faccia questo [...] non voglio mancare d’avvertirvi, che la generazione e formazione del corpo umano è cosa tanto riposta e tanto nascosa, che di lei (come bene disse Aristotile) non si può avere dimostrazione e certezza; anzi in questa, come in molte altre cose naturali, possono molte volte e sogliono bene spesso intendere più e giudicare meglio gli uomini idioti e volgari, che i dotti e scienziati. E però dovrebbero i filosofi in molte cose rapportarsi al giudizio di coloro i quali sono esercitati coll’opere tutto il tempo della vita loro in quello esercizio, del quale essi scrivono a pena una volta colle parole. Ed io per me darei più fede in questo caso alle donne sperte, ed anco a qualche uomo pratico, che a’ filosofi: si perché la sperienza è in tutte le cose è in tutte le cose vera e certa maestra...” *L.Gen.Corp.* in *Opere II*, p. 286.

¹⁵⁹ “E per meglio e più agevolmente dimostrarlo, [Michelagnolo] usa, come fa sempre Aristotile, un esempio dalle cose artificiali, le quali ci sono più note, del quale niuno si poteva immaginare nè più a proposito alla materia della quale si tratta, nè più dicevole a lui che la tratta.” *L.s.MB.* in *Opere II*, p. 614.

¹⁶⁰ *L.s.MB.* in *Opere II*, p. 626.

ened to the practitioners of manual trades since they perform a transformative action on an existing “subject matter”.¹⁵⁷ On the subject of human generation, a wildly controversial topic among scholars, Varchi confessed that he would rather trust the opinion of a midwife than that of a philosopher: “...in this as in many other natural things, simple and lowly people (*uomini idioti e volgari*) often have a better judgment than the learned and the scientists (*i dotti e i scienziati*).” Philosophers, Varchi observes “ought to commend themselves to the judgment of those people who do possess experience through the practice of the work they have been doing their entire life”, while they themselves come to think on these topics only once, when they write down their opinions with words.¹⁵⁸ Varchi also pleaded for a re-valuation of the manual or “chirurgical” arts by stressing that Aristotle himself, in his philosophical considerations, constantly relied on “material examples,” (“*esempl[i] delle cose artificiali*”) instructive paradigms offered by arts such as carpentry, sculpture, etc.¹⁵⁹

This attitude evidently clashed with that of the elitist reformers of the Accademia Fiorentina. When in the spring of 1547, under the consulate of Pietro Giambullari, the reform was on its way that would oust all non-professional writers out of the *Fiorentina*, Varchi expressed his protest in his own way. During two successive Sundays, on March 6th and March 13th, he gave two deliberately provocative lectures that pleaded for the recognition of visual artists as out-and-out intellectuals (and thus de facto deserving their place in the academy). The first of these was a scholarly commentary on Michelangelo’s sonnet, in which the artist had used a sculptor’s metaphor to express his own frustrations in love. Varchi concluded the lecture with an uninhibited tribute to Michelangelo’s genius, to be celebrated according to the orator not only for his accomplishments as a painter, sculptor and architect, but also as an outstanding poet (“*eccellentissimo poeta*”) and a master in the art of loving (“*amatore divinissimo*”), just as Petrarch had been.¹⁶⁰ The lecture on Michelangelo, universal artist, was designed to provide the basis for the argument of the next Sunday’s oration, which was to raise the debate on the relative nobility of painting and sculpture (the *paragone*) to the level of a philosophical controversy.

Varchi had previously asked a series of his artist friends and relations (both painters and sculptors, as well as to the multitalented Michelangelo) to write down their arguments on the matter of the *maggioranza delli arti* (the nobility contest among the arts). Benedetto could make good use of these artists’ letters in the drafting of his own text. But the point of the epistolary enquiry was also to demonstrate the competence of the artists to argue convincingly on abstract matters in a written text. To demonstrate the value of these documents, Varchi had the letters included in the separate edition of his two lectures on the visual arts, which were published, as mentioned, in 1550 at Lorenzo Torrentino’s printing press.

¹⁶¹ On the procedure and the nature of the submitted *canzoni*, see Deborah Parker, “The poetry of patronage: Bronzino and the Medici,” *Renaissance Studies* 17, no. 2 (2003), pp. 231-245.

¹⁶² The sonnet written on the occasion of the death of Tribolo contains the poignant verses: “...*Mi piango il commun danno, e vorre' anch'io, /uscire di questo carcere fore...*” The sonnet constitutes also a list of the names of those who had been forming a tied group of friends around Tribolo. It includes, beside Varchi himself and the architect Giovambattista Tasso, to whom the sonnet was dedicated, Luca Martini, Pierino da Vinci, Pontormo, Bronzino, Lorenzo da Marignolle, and Antonio Crocini. (*Sonetti* I.153 in *Opere* II, p. 855). In the sonnet written after Pierino's death, Benedetto lamented on the miserable fate that forced him to see his closest friends depart at the flower of their age, while he, grown gray, is condemned to stay and weep. “...Dunque de miei più cari or quegli or questi/ Verdi sen voli all'alto asilo eterno,/Ed io canuto in questo basso inferno,/A pianger sempre, e lamentarmi resti?...” *Sonetti* I.155 in *Opere* II, pp. 855. Giorgio Vasari included the sonnet at the end of his life of Pierino in the 1568 edition of the *Vite*.

¹⁶³ “...essendo in que' tempi ridotta in Fiorenza l'arte del disegno in una compagnia di persone che più attendevano a far baie et a godere che a lavorare, e lo studio de' quali era ragunarsi per le botteghe et in altri luoghi, e quivi malignamente e con loro gerghi attendere a biasimare l'opere d'alcuni che erano eccellenti e vivevano civilmente e come uomini onorati.” *Vite* G5, (“Vita di Aristotile da Sangallo”), p. 405.

Varchi's protests did not deter the reformers of the *Fiorentina* to carry their plans through. On August 11th 1547, as we saw, all visual artists were expelled from the academy, except Michelangelo – yet the latter had never participated in any meeting. Only Bronzino would later return in the *Fiorentina*, benefiting from a 1549 rule that allowed members to be reinstated on presentation of a poem that passed the scrutiny of the censors. But this happened as late as in 1566. To get that far, Bronzino had been compelled to write a particularly humbling piece of allegorical poetry in honour of Cosimo.¹⁶¹

The artists that Varchi and Martini frequented on an almost daily basis were among the most talented of their time. They effectively dominated the artistic scene at Cosimo's court until about 1550, undoubtedly benefiting from their contacts with the *Umidi*. But Stradino died in June 1549, Tribolo in September 1550 and Pierino da Vinci, Luca Martini's young protégé, died unexpectedly in 1554. These losses, bitterly remembered by Varchi in a series of poignant sonnets,¹⁶² heralded the arrival of a new generation of artists at the Florentine court. Vasari was making his entrance as a member of staff in 1555, bringing in his wake the sculptor Bartolomeo Ammanati. The multitalented Giorgio Vasari, whose star rose with astonishing speed, would increasingly attract the Duke's new artistic commissions to himself and his associates. These newly arrived courtier-artists brought along attitudes that were at odds with the still slightly rebellious and untamed nature of the original group around Varchi and Martini: an exacerbated professionalism; a fixation on productivity and efficiency; and an absolute and shameless submission to the patron's authority.

Men such as Tribolo, Tasso, Bronzino, Pontormo, Cellini ... had produced an art that, in its multilayered, opaque and altogether suggestive nature appears at times as the visual equivalent of burlesque poetry. The 'bohemian' lifestyle of some of them, such as Pontormo or Tasso, stood in sharp contrast to the values that would come to predominate in the days of Giorgio Vasari. A measure of this shift is given by Vasari himself, who in the 1568 edition of the *Vite* uttered some bitter criticism on the generation that had dominated the artistic scene in the 1540's:

the arts of design were reduced in those days to a group of persons more likely to joke and enjoy themselves than to work, and whose studies amounted to meetings in shops and other places where they spent time speaking evil, in their ambiguous jargon, of the works of some others that were outstanding, and lived as civilized and honorable men.¹⁶³

Elsewhere, he described some of these men as:

a company of friends, or rather a gang, who, pretending to live as philosophers instead lived like pigs and beasts: they never washed their hands, their face, their head, nor their beard; they never swept their house and changed the sheets of



Fig. 2.3 Agnolo Bronzino, *Portrait of Pierino da Vinci (?)*, 1550-1555. London, National Gallery.

¹⁶⁴ “una compagnia d’amici, o più tosto masnada, che sotto nome di vivere alla filosofica, vivevano come porci e come bestie: non si lavavano mai né mani né viso né capo né barba, non spazzavano la casa e non rifacevano il letto se non ogni due mesi una volta, e non beevano se non al fiasco e al boccale; e quella meschinità di vivere, come si dice, alla carlona, era da loro tenuta la più bella vita del mondo.” *Vite* G5, (‘Vita di Aristotile da Sangallo’), p. 404.

¹⁶⁵ “‘Orbè, Giorgio –disse– come va ella?’ ‘Va bene, Iacone mio, – rispose Giorgio– io era già povero come tutti voi et ora mi truovo in tre mila scudi o meglio; ero tenuto da voi goffo, et ora questo famiglio che è qui serve me e governa questo cavallo; vestiva di que’ panni che vestono i dipintori che son proverbi, et ora son vestito di velluto; andava già a piedi, et ora vo a cavallo: sì che, Iacon mio, ella va bene affatti, rimanti con Dio.’ *Vite* G5, (‘Vita di Aristotile da Sangallo’), p. 405. Also cited in Patricia Lee Rubin, *Giorgio Vasari: art and history* (New Haven: Yale University Press, 1995), p. 32, whose translation I borrowed.

their beds only once in two months; they never drank if not directly from the bottle or the jar, and they considered this miserable life, *alla carlona* as one says, the most beautiful possible.¹⁶⁴

That Vasari considered himself different from this company, of which Giambattista Tasso was a prominent member, is very well rendered in a little dialogue which must have taken place in the late 1540's, and which the Aretine re-enacted a few paragraphs further in the same passage of the 1568 *Vite*. Vasari describes himself getting back to Florence from a sojourn at Monte Uliveto, when he is stopped in the *canto de' Medici* by the painter Jacone, one of the most bragging members of the group, who addresses him with a mocking "Well, well, Giorgio, how is your lordship?" The proud author of the *Vite* remembers the precise terms of his vivid and condescending reply:

I was once poor like all of you and now I have three thousand scudi or more; you thought me foolish, but the monks and priests consider me to be a worthy man; I once served you and now I have this servant to wait upon me and take care of this horse; I once wore those rags that are worn by painters who are poor, and now I am clothed in velvet; I once went on foot and now I ride a horse: so, my dear Jacone, everything is going quite well; God be with you.¹⁶⁵

¹⁶⁶ Nardi's remarks appear at the end of his monograph on Pietro Pomponazzi, whose work as a philosopher he clearly saw as marking the definitive emancipation from Averroism. Rertuning to it, as Varchi did, could only be backwards. On Varchi's attitude towards the sciences, Nardi wrote: "E così il Varchi non si rese alcun conto del rinnovamento in atto delle scienze e della filosofia, al quale gli averroisti rimasero ostinatamente avversi. Non altrettanto avversi a questo rinnovamento iniziato da Leonardo e portato all'avanguardia della cultura europea da Galileo furono invece altri aristotelici, che capirono, come il Pomponazzi, che Aristotele non è infallibile e, pur avendo subito l'ascendente del suo pensiero, s'arresero alla nuova esperienza che in tutti i campi metteva allo sbaraglio il sistema aristotelico della natura e il suo metodo di ricerca scientifica insieme alla sua metafisica." Bruno Nardi, *Studi su Pietro Pomponazzi* (Firenze: Le Monnier, 1965), p. 382. Varchi is eventually cast as the complete opposite to Leonardo da Vinci, of whom Nardi remembers that by the mid-sixteenth century his portrait was sometimes used to depict Aristotle. But against Leonardo "omo senza lettere" stands a Varchi, who, if "letterato", was just repeating Aristotle's worn knowledge with servility.

¹⁶⁷ See Galileo's *Due lezioni all'Accademia Fiorentina circa la figura, sito e grandezza dell'inferno di Dante*, delivered in 1588 (Galileo was then 24). The text of the lectures is to be found in Galileo Galilei and Paolo Rossi, *Galileo Galilei, Cento libri per mille anni* (Roma: Istituto poligrafico e Zecca dello Stato, 1995).

¹⁶⁸ "Nel che dovemo sapere, come altra volta s'è detto, che Aristotile e Galeno, che in questo sono d'accordo, dicono, che negli occhi non è colore nessuno veramente, ma solo in apparenza, come si vede nell'arco baleno; la qual cosa è manifestissimamente falsa, come ne mostrò, e negli occhi degli animali ed in quelli degli uomini, apertissimamente l'eccellentissimo Vesalio nella notomia fatta da lui pubblicamente nello Studio di Pisa." L.3.C.O. in *Opere* II, p. 473.

CONCLUSION. THE REFUGE IN THE NATURAL SCIENCES

Because of his dependence on Medieval authorities such as Aristotle and Averroës, Benedetto Varchi has sometimes been portrayed as a typical product of the late-Renaissance backward-looking aristotelianism, completely unaware of the recent progresses made in different disciplines that gradually eroded the ancient world-view.

The historian of philosophy Bruno Nardi, for instance, found it strange that Varchi, despite having in his library a copy of both Copernicus's *De revolutionibus orbium caelestium* and Vesalius' *De humani corporis fabrica* (books, both published in 1543, which allegedly destroyed the old certitudes about both the Macro- and the Microcosm), he nonetheless entertained his Sunday audiences with evocations of Dante's views on Ptolemy's cosmography and Aristotle's physiology.¹⁶⁶

The contradiction may, in reality, be less important than it might seem at first glance. It would take decades, and a figure like Galileo before heliocentrism could break through. It must not be forgotten either, that Galileo himself had a gripping interest for Dante's cosmography: Galileo lectured in 1588 before the Accademia Fiorentina, on the form, the location, and the dimensions of Dante's hell.¹⁶⁷ On the other hand, even the most brilliant physicians and anatomists were by the mid-16th century still revering Aristotle's writings on medicine. Varchi was aware enough of current medical debates to be aware of the fact. One of the most reputed physicians of his days, Cosimo's expert in surgery at the university of Pisa, Guido Guidi was not only a member of the *Accademia*, but also a distant relative of Varchi and an excellent friend. Furthermore, as Bruno Nardi obviously did not know, Varchi was one of the best Italian friends of Andreas Vesalius himself, and an attentive observer of the anatomist's scientific findings. It is thanks to Varchi's role as an intermediary that Cosimo was able to attract Vesalius to the university of Pisa for a few months in the winter of 1544, shortly after the publication of his groundbreaking treatise (See Appendix 2C).

Without pretending that the Florentine scholar grasped the full extent of the innovative character of the works of men such as Guidi and Vesalius, it would be an utter distortion to depict him as impermeable to any evidence that might imperil the whole edifice of philosophical and scientific Aristotelianism. In one of his lectures on Petrarch's *Tre canzoni degli occhi*, Varchi for instance remembered how Vesalius had demonstrated during his public dissections in Pisa the inaccuracy of one of Aristotle's (and Galen) affirmations: that the colour of an eye would not be real, but virtual, comparable to the colours of a rainbow.¹⁶⁸ More importantly, in the earlier manuscript treatise on alchemy, Varchi had openly questioned the validity of Aristotle's theory of free fall, and anticipated the

¹⁶⁹ “E sebbene il costume dei filosofi moderni è di creder sempre, e non provar mai tutto quello, che si trova scritto ne’ buoni autori, e massimamente in Aristotile, non è pero, che non fusse più sicuro, e più dilettevole fare altramenti, e discendere qualche volta alla sperienza in alcune cose, come verbi gratia nel movimento delle cose gravi, nella qual cosa e Aristotile, e tutti gli altri Filosofi senza mai dubitarne hanno creduto, et affèrmato, che quanto una cosa sia piu grave, tanto più tosto discenda, il che la prova dimostra non esser vero. E se io non temessi allontanarmi troppo dalla proposta materia, mi distenderei piu lungamente in provare questa oppinione, della quale ho trovati alcuni altri, e massimamente il Reverendo Padre, non men dotto Filosofo, che buon Teologo, Fra Francesco Beato Metafisico di Pisa, e Mess. Luca Ghini Medico, e Semplicista singularissimo, oltre la grande, non solamente cognizione, ma anche pratica dei Minerali tutti quanti, secondo che a me parve quando gli udi da lui pubblicamente nello Studio di Bologna; ...” Varchi, *Questione sul Alchimia di Benedetto Varchi; codice inedito*, 34.

observations Galileo was to make more than half a century later. This passage is actually the first documented challenge to this ancient certitude; it is furthermore embedded in one of Varchi's most explicit statements on the necessary complementarity of theory and praxis in the sciences.

And even if the habit of the modern philosophers is always to believe, and never to test all that is found written in the books of the good philosophers, and most of all in Aristotle, it is untrue, though, that it wouldn't be safer, and more delightful to try otherwise. A good example is that of the motion of heavy objects, a topic about which Aristotle, and all the other philosophers, have always believed and asserted, without ever putting this in doubt, that the more an object is heavy, the faster it will fall, which experience proves to be false. And if I wasn't worrying about getting carried too far away from my topic, I would dwell on it at greater length to prove this opinion which I happen to share with some other men, most of all the reverend father (an no less erudite philosopher as he is a good theologian) Fra Francesco Beato, metaphysician from Pisa, and Messer Luca Ghini, physician, and most remarkable expert in pharmaceutical botany, who furthermore possesses a great theoretical and practical knowledge of all imaginable minerals, for as much as I noticed when I heard him teach in public at the University of Bologna.¹⁶⁹

Luca Ghini (1490-1556), the man whose lectures Varchi went to follow at the *Studio* of Bologna in the early 1540's, and with whom the Florentine poet-philosopher developed close ties, had just been hired by Cosimo de' Medici as lecturer on botany at the re-opened University of Pisa when Varchi wrote these lines (See appendix 2A) It is, again, very probable that Benedetto Varchi played an important role in the effort to get the Bolognese to Florence, where the latter would found the first scientific botanic garden of Europe, and tutor some of the most important natural scientists of the later 16th century: Ulisse Aldrovandi (1522-1605), Bartolomeo Maranta (1500-1571), Luigi Anguillara (1512-1570), Andrea Cesalpino (1519-1603).

Benedetto Varchi did not only introduce extremely attentive observers of nature's works of art such as Andreas Vesalius and Luca Ghini in Tuscany. He was also instrumental for the gradual intrusion of the natural sciences in domains of Florentine intellectual life that had not until then been in contact with them. The Florence of the 1540, we have already evoked this, is a milieu in which artists and scholars had shifted away from political controversies that had gripped entire generations before. It was a time in which men such as Luca Martini turned away from activism, and decided to invest their efforts and talents in concretely useful projects, made possible by the new regime's means, such as the realization of a drainage system that was to transform huge areas of swampland around Pisa into fertile and fruit yielding acres. It was also that period in which artists such as

¹⁷⁰ As we know from the volumes that once belonged to him, and are now property of the Florentine Biblioteca Riccardiana, Varchi possessed, for instance, a surprising amount of printed biological and veterinary works: a volume containing Aristotle's *Parva Naturalia* (Venice, 1523), another with Avicenna's *De animalibus* (Venice, 1508), the *Carmina Iambica de animalium proprietate* (Venice, 1533) a Greek poem on all kinds of animals written around 1300 by the Byzantine Manuel Philè, three volumes on zoology of the French physician Jean Ruel published in the 1530's (two editions of the *Veterinariae medicinae libri II*, and the *De natura stirpium libri tres*), and eventually a 1528 Basel edition of Publius Vegetius Renuatus treatise on horse and cow diseases, the so-called *Mulomedicina*. See Maria Prunai-Falciani and Benedetto Varchi, "Manoscritti e libri appartenuti al Varchi nella Biblioteca Riccardiana di Firenze," in *I manoscritti della Biblioteca riccardiana di Firenze* (Roma: Istituto Poligrafico e Zecca dello Stato, 1996).

Tribolo, (Pierino) Da Vinci, Bronzino, all at the same time produced works of art that celebrated in finely crafted allegories the miracles of nature's fertility. Having lost faith in the necessary benevolence of man, these men turned to that entity which had always proven to be mankind's unflinching benefactress: nature. The very nicknames of these men, in fact, were tributes to nature – Bronzino is in reality the name of a fungus; Tribolo that of a herb; Lasca refers to a fish; Tasso to a badger.

The science of nature that Varchi allowed to intrude in his Sunday lectures is the one he is familiar with and which he estimated his audience ought to be familiar with. It is not necessarily that of Luca Ghini or Andreas Vesalius or the other scientists with whom he was in touch. It is not the nature of the recent discoveries; nor necessarily that of the multitude of books he owed on the subject.¹⁷⁰ It is that of the most essential physics, the primordial principles of the behaviour of living matter, and no one had grasped these better than Aristotle.

¹ Léon Brunschvicg, *L'expérience humaine et la causalité physique* (Paris: Alcan, 1922), pp. 140-141.

CHAPTER THREE:

Benedetto Varchi and the biological roots of *conceitti*

Aristote parle tour à tour comme un sculpteur et comme un biologiste : sculpteur et biologiste ne peuvent pas ne pas interpréter en sens contraire les rapports de la matière et de la forme. Qu'est ce que la matière pour le sculpteur ? C'est un bloc homogène, informe ; le rôle du statuaire est de donner au marbre une forme, et du même coup il lui confère une individualité. Praxitèle fait un Eros ou un Hermès ; cet Hermès particulier, l'Hermès d'Olympie, ne se confondra ni avec les autres Hermès du même Praxitèle, ni avec les répliques qui peuvent être faites de cette statue : elle se caractérise, pour l'artiste, par ce qu'elle offre d'unique ; et de toute évidence, c'est la forme qui est ici principe d'individualité. [...]

De l'atelier du sculpteur, passons au spectacle de la nature vivante. Le savant est celui qui, dans l'individu, discerne la forme de l'être, qui en voyant Callias, a l'intuition immédiate de l'humanité [...]. Autrement dit, la forme, c'est ici l'espèce. Pour une pluralité d'individus d'une même espèce, la forme est homogène ; leur différence vient de la matière qui fait de chacun d'eux le sujet particulier de prédicats communs. Dans le domaine biologique, il est évident que la matière est principe d'individualité.¹

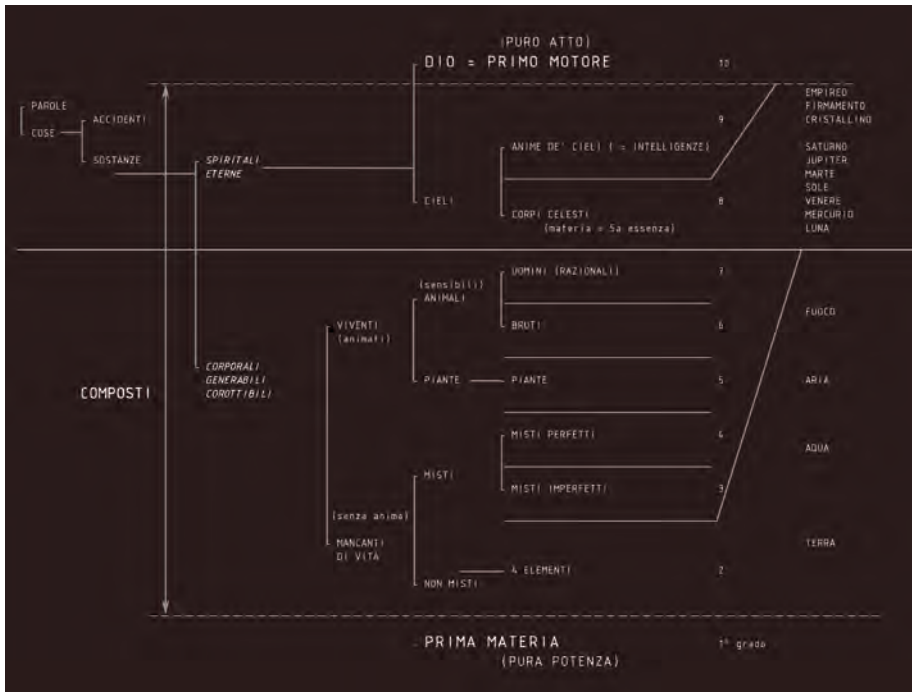


Fig. 3.1 Benedetto Varchi's ten grades of being (from the *L.Am.D.*)

² See the forewords to the following lectures: the 1540 *Inflammati* lecture on a sonnet of Bembo in *Opere II*, p. 562; *L. Gen. Corp.* in *Opere II*, p. 284; *L. Par. I 1* in *Opere II*, p. 341; *L. Par. I 9* in *Opere II*, p. 399.; *L. d. Sens.* in *Opere II*, p. 487; *L. Paragone* in *Opere II*, p. 627.

³ *L.Am.D.* in *Opere II*, pp. 321–335.

⁴ In an earlier lecture Varchi had proposed a division of the enti in seven grades: *L. Par. I. 1* in *Opere II*, p. 344.

⁵ According to Varchi, the materia prima, which the ancients called caos, is “puro non ente, cio è quello che è privazione d’ogni ente, e che ha essere nessuno” *L.Am.D.* in *Opere II*, p. 324.

PROLOGUE: THE ONTOLOGICAL SUPERIORITY OF NATURAL BODIES

In the preceding chapters I have introduced Benedetto Varchi as a courtier and divulgator of Aristotelian doctrine at the Florentine court of the middle of the 16th century. I have argued that, if considered in its totality, Varchi's cycle of academic lectures offers a full panorama on at least one important approach to the question of the continuities between natural and artificial births at the time. In this chapter, I will focus in particular on the role of mental representations in the origination process of artificial products, and the precise nature that Varchi and his contemporaries attribute to these representations. The focus of this chapter will be on the mind, its contents and the realm of the 'not yet tangible'.

Yet, as I will argue, the mental and seminal *concetti* from which the 'tangible' objects of art proceed have roots in the realm of sublunary realm of life. To picture that realm, this chapter is preceded by an introduction on Varchi's Aristotelian physics. This preliminary outline figures as a backdrop to the discussion in the core of the chapter. It introduces in particular two notions that hold a crucial position in Varchi's ontology: the hylomorphic understanding of reality on the one hand, and the principle of the intrinsic superiority of natural species over other forms of sublunary existence on the other.

Varchi's hylomorphic world-picture: The ten grades of being

On many occasions in his lectures Varchi indicated how all things existing (the *cose* in opposition to the *parole*) can be subdivided in different categories.² The most systematic and detailed of these categorizations appears in one of Varchi's last lectures, given in 1564, on the subject of love.³ For the sake of his argument (demonstrating that "love" is a passion that occurs on all levels of existence) Varchi divided the entities (*enti* - a direct translation of Aristotle's *ousia*) in ten grades.⁴ His version of the "great chain of being" (a graphic representation of which is given in Figure 3.1) forms a gradual progression in ten steps from the most 'uninformed' or least existing prime matter (1st grade) to the most immaterial tenth grade, which corresponds to God, the Prime Mover (*primo motore*) in the Aristotelian universe. All the forms of existence that are to be found in between these extremes are compounds (*composti*, *suntheta*) of form and matter. To be correct, prime matter, which is stuff out of which everything is made, and which, consequently, is potentially everything, can hardly be counted among the *enti*. No one could ever trace it since it has no form at all.⁵ The first 'actualisation' of prime matter occurs when it receives

⁶“ [...] la terra, la quale essendo contraria del fuoco, ha pochissimo di materia e moltissimo di forma, viene ad avere per l’opposito moltissimo di materia e pochissimo di forma.” *L.Par.I.8* in *Opere* II, p. 391.

⁷The detail of this cosmology are explained in *L.Par.I.2* (enumeration of the ten skies according to theological doctrine), *Opere* II, p. 348, and *L.Par.I.4* (on cosmographical notions like the ecliptic, the zodiacal belt, the celestial equator, etc.); The four lezioni on *Paradiso* II (1545), in which Dante and Beatrice penetrate the body of the moon, do detail the nature of that heavenly body. Varchi also dedicated an autonomous (undated) lecture to the dimensions of the different heavenly spheres: *Della terra e del cielo*.

⁸See Peck’s introduction to Aristotle and A. L. Peck, *Generation of Animals*, Loeb classical library (London; Cambridge, Mass.: W. Heinemann, 1943), pp. lix-lxi.

the form of one of the four elements: water, air, fire or earth. Aristotle referred to these simplest kinds of *suntheta* with the formula ‘simple bodies’. In Varchi’s ontological ladder the *corpi semplici* constitute the second grade of being. Elsewhere the Florentine lecturer pointed to the fact that among the four elements, there is a gradation as well, according to the prevalence either of the material or the formal character of the element. Fire is thus described as containing much form (action) and little matter (potential), while its opposite, earth, carries little form, but much matter.⁶ Different combinations of the four elements make out the different kinds of terrestrial existence (these are the grades three to seven which cover mineral, vegetal and animal life). An important gap divides these forms of *ousia* from the higher categories. It is the gulf that lies between earthly existence, necessarily subjected to an eternal cycle of generation and corruption from the celestial forms of existence, which are eternal. The eternity of the heavenly bodies (the ten spheres, respectively the sphere of the sun, of the moon, of the five planets, the heaven of the fixed stars, and two supplementary heavens, the crystalline and the empyrean heavens)⁷ is due to the fact that these are made out of a particular substance, *aither* or simply the fifth element (*quinta essenza*), which is not subjected to the cycles of changes typical of the four earthly elements.

Metabolè and imperishable eidoi: the natural species

Aristotle referred to the processes of change to which all sublunar existence is subjected with the term *metabolè* (change), of which there can be three kinds.⁸ The first two of these are *genèsis* (generation) and *phthora* (corruption), which affect *ousia* itself. The third kind of change is termed *kinèsis* (movement). *Kinèsis* concerns changes of quantity (it is then growth or diminution), quality (changes of qualities are ‘alterations’), or place (it is then ‘locomotion’). All earthly bodies are permanently subjected to these processes of *metabolè*. They are first generated or caused to exist, they then may grow or diminish, be altered and change of place, and eventually they will also disappear.

If every object or body under the moon is subjected to the cycles of *metabolè*, its generation (*genèsis*) is brought about by one of the following agents: nature, art or chance. Of these three forms of agency, nature is certainly the most fascinating (Varchi certainly agreed on that), since she generates an entirely special brand of earthly *composti*.

In the context of earthly perishable existence indeed, a series of creatures had been instantiated, which, despite their necessary mortal nature as individual entities, have the capacity to reproduce themselves, and thus, if considered collectively, to attain the kind of immortality normally available only to heavenly beings: these are the plant and

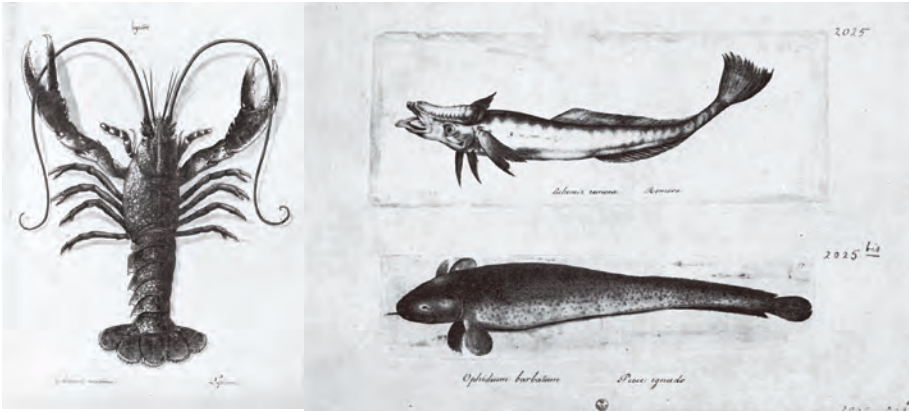


Fig. 3.2 Anonymous, Lobster (*Homarus Gammarus*), mid-16th century. Pen- and watercolour drawing from the Tuscan Grand-Ducal collections. Florence, Uffizi (2083 Orn).

Fig. 3.3 Anonymous, Remora (*Echeneis*) and Motella (*Gaidropsarus*), mid-16th century. Pen- and watercolour drawing from the Tuscan Grand-Ducal collections. Florence, Uffizi (2025 Orn).

⁹ See for example *Generation of Animals* II.1.

¹⁰ *Metaphysics* VII, 1032a15ff. Peck observed: “[...] in reproduction, as understood by Aristotle, not only the individual is concerned but the cosmos at large: it is a business in which the powers of the universe are concentrated and united; and it is the means whereby that eternity, with which, if he could have done it, God would have filled the whole creation from one end to the other, is attained so far as possible by the creatures that are subject to decay [...]” Peck in Aristotle and Peck, *Generation of Animals*, p. v.

¹¹ “Sapere alcuna cosa non è altro che conoscere la natura ed essenza d’essa mediante le sua cagioni; e tutte le cose che si sanno scientificamente, si sanno mediante la dimostrazione, la quali non è altro che un sillogismo scientifico, cioè è che fa sapere.” *L.d.Nat.* in *Opere* II, p. 649.

¹² *Parts of animals* I.5, 645a28ff. [All translations from Aristotle in this and the following chapters are from Jonathan Barnes (ed.), *The Complete Works of Aristotle* (Princeton: Princeton University Press, 1984), except for the translations from the book *Generation of Animals* which are taken from Peck.]

¹³ “Fra tutte le cose naturali... niuna se ne ritrova in luogo nessuno... la quale non abbia in sé, come diceva il Filosofo nel primo libro delle parti degli Animali alcuna cosa di divino e degnissima di grandissima ammirazione. Laonde niuno (gran fatto!) si trova di sì poco ingegno, né di sì grosso, il quale non prenda alcuna volta nel contemplare i miracoli della Natura, non meno dilettevole meraviglia, che meravigliosa dilettevole; anzi quanto è più ingegnoso ciascuno, e più intendente, tanto con maggiore e meraviglia e diletto, fatica di conoscere le cagioni d’essa.” *L.d.Nat.* in *Opere* II, p. 649.

animal species.⁹ The term Aristotle used to refer to species is *eidos* (plur. *eidōi*), which has also the meaning of ‘form’. Varchi similarly used the term *spezies* in many instances with the double meaning of natural species and form simultaneously.

The fact that the Greek term for natural species and form are synonymous reflects a truth that Aristotle never omitted to stress: plant and animal species, for their ‘permanent’ character, are the *ousiai* ‘par excellence’ in the sublunar world.¹⁰ In a worldview that explicitly refuted the autonomous existence of forms (as in the Platonic doctrine of the ideas), animal and plant species are the only instances of ‘permanent form’ that humans will ever have the chance to observe closely. Aristotle’s biological books are ample testimony to the worth he attributed to natural life forms, but some passages mark the point with particular acuity. A good example is the beautiful last chapter of *Parts of Animals*, I. If knowledge of ‘celestial things’ may procure us more pleasure than that of earthly bodies, such is the idea of that chapter, it is only of perishable plants and animals that we may obtain abundant information, “living as we do in their midst”, information from which one can draw *epistēmē*, real scientific knowledge based on the unraveling of precise causal relationships.¹¹ The project of investigating natural life is for Aristotle necessarily all-inclusive. The student of animal life, for that sake, needs to incorporate:

...any member of the kingdom, however ignoble. For if some have no grace to charm the sense, yet nature, which fashioned them, gives amazing pleasure in their study to all who can trace links of causation, and are inclined to philosophy. [...] We therefore must not recoil with childish aversion from the examination of the humbler animals. Every realm of Nature is marvelous: and as Herculitus, when the strangers who came to visit him found him warming himself at the furnace in the kitchen and hesitated to go in, is reported to have bidden them not to be afraid to enter, as even in that kitchen divinities were present, so we should venture on the study of every kind of animal without distaste. For each and all will reveal to us something natural and something beautiful. Absence of haphazard and conduciveness of everything to an end are to be found in nature’s works in the highest degree, and the end for which those works are put together and produced is a form of the beautiful.¹²

Varchi echoed this crucial passage (to which he also directly refers) in his lecture *On nature*, when he stated that no one is to be found, however dim-witted or on the contrary however knowledgeable, who does not experience, in the contemplation of the miracles of nature, “no less joyful wonder, than wondrous joy.” And, paradoxically, the greater someone’s ingenuity and knowledge, the more, with pleasure and amazement, will he pursue the investigation for the causes.¹³

The superlatives used (both by Aristotle and Varchi) to describe the pleasures experienced by the student of nature entail that these pleasures are superior to any other,

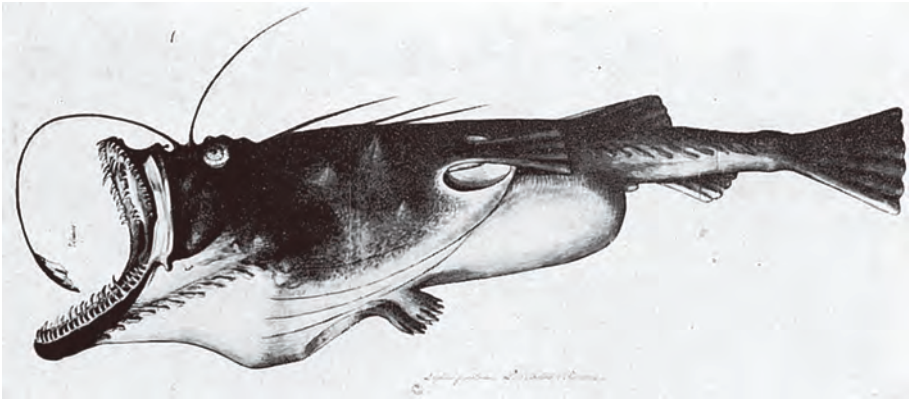


Fig. 3.4 Anonymous, Monkfish (*Lophius Piscatorius*), mid-16th century. Pen- and watercolour drawing from the Tuscan Grand-Ducal collections. Florence, Uffizi (2057 Orn).

¹⁴ *Parts of animals* I.1, 639a20.

¹⁵ See for example the proem to the Paragone-lecture, where the orator hastens to add that artefacts nonetheless can make earthly life much more pleasurable and comfortable; nay, that we have become entirely dependent on them: “Delle [cose] artificiali, le quali sono più e diverse, trattano più e ragionano diversi artefici; e queste se bene sono assai meno degni delle naturali, come le naturali sono infinitamente meno perfette delle divine, arrecano però non solamente molti e grandissimi piaceri, ma molte e grandissime utilità alla vita mortale. La quale senza l’arti non pure non si potrebbe vivere comodamente, ma né vivere ancora...” *L.Paragone* in *Opere* II, p. 627.

and in particular to the delight caused by the contemplation of any man-made object. Aristotle described three agencies which can cause the *genesis*, the “coming-into-being” of sublunary objects: beside nature, these are art and chance (haphazard). The series of three implies a clear hierarchy. The products of chance are not only ontologically inferior to those belonging to the other two categories (their form has no rational cause whatsoever), it is also hardly possible to draw any pleasure from their contemplation. Objects of art (that is: made by humans), occupy an intermediate position, since chance always plays an important role in art. Incapable of lasting existence, and in general less perfect in the way they serve their purpose (*telos*) they are resolutely less worthy than natural bodies. There will always be, according to Aristotle, more beauty and purpose to be found in the works of nature than in the works of art.¹⁴ The fact is acknowledged, somewhat grudgingly but unequivocally, by Varchi.¹⁵

¹⁶ See Leatrice Mendelsohn, *Paragoni: Benedetto Varchi's Due Lezzioni and Cinquecento Art Theory* (Ann Arbor, Michigan: UMI Research Press, 1982).

¹⁷ See Sergio Rossi, *Dalle botteghe alle accademie. Realtà Sociale e teorie artistiche a Firenze dal XIV al XVI secolo*. (Milano: Feltrinelli Editore, 1980), p. 89.

¹⁸ Erwin Panofsky, *Galileo as a critic of the arts* (The Hague: M. Nijhoff, 1954), p. 2.

¹⁹ The artists were Giorgio Vasari, Bronzino, Pontormo, Battista Tasso, Francesco da Sangallo, Tribolo, Benvenuto Cellini and Michelangelo. For the original texts of the letters, see, most recently Benedetto Varchi, Vincenzo Borghini, and Paola Barocchi, *Pittura e scultura nel Cinquecento, Arte e memoria* (Livorno: Sillabe, 1998), 61-84, where the footnotes establish numerous links to Varchi's *lezione sulla maggioranza delle arti*, equally published in the volume. Leatrice Mendelsohn provided a detailed analysis of the individual letters in an appendix to her book. Mendelsohn, *Paragoni: Benedetto Varchi's Due Lezzioni and Cinquecento Art Theory*, pp. 147-160.

²⁰ Agnolo Bronzino, *Al molto dotto M. Benedetto Varchi mio onorando*, in Varchi, Borghini, and Barocchi, *Pittura e scultura nel Cinquecento*, p. 68. Bronzino had in fact opposed the mechanical effort exercised by the sculptors to the worthier *fatica dell'animo* of the painters. Varchi used the expression *fatica d'ingegno* (*L.Paragone* in *Opere* II, p. 639) or *difficoltà dell'ingegno* (*L.Paragone* in *Opere* II, p. 643). The opposition is, as has been noted, is also reminiscent of Leonardo's reflections on the debate on the *maggioranza* of the arts. See also Rossi, *Dalle botteghe alle accademie. Realtà Sociale e teorie artistiche a Firenze dal XIV al XVI secolo*, 121ff..

INTRODUCTION: THE THEORY OF DISEGNO

This chapter is dedicated to an examination of the meaning Benedetto Varchi (and along with him many contemporaries) attributed to the notion of the *concetto*. The term's importance, which has been duly recognized, is linked to its role in the unified theory of the arts that emerged in Florence in the middle of the 16th century. It will be useful, by means of introduction, to rehearse the most important elements of this theory and the stages of its emergence.

Varchi's two lectures on the arts of 1547 signal a seminal moment. In the context of the rapidly evolving atmosphere at the Florentine academy, the *Due lezioni* may be interpreted as a form of silent protest against the impending ousting of the artists from the academy. The reformers of the Fiorentina were by then about to take that step on the basis of the artist's insufficient literacy and (liberal) education. Varchi would have delivered from his pulpit a full-blown philosophical discussion on the topic of the visual arts with the intention to underscore the intellectual dimensions of artistic practice. Yet concurrent motivations probably played a role.¹⁶ Present-day critique tends to see the lectures as one of the first manifestations of the "academic ideology" regarding the arts that would lead to the creation of the Accademia del Disegno, created in 1563.¹⁷ The lectures would be a milestone in the intellectualisation of the art-theoretical discourse, a process fulfilling itself until the present day. As I will demonstrate in this chapter, such a perspective might be too teleological. Varchi's dissertation on the arts within his self-imposed Aristotelian philosophical frame, reveals all the contradictions of the epoch in the attitude towards the activities of creative artisans.

To prepare the two academic lectures on the arts of 1547, Varchi had organised what Panofsky referred to as "the first public opinion poll on art",¹⁸ an enquiry, among eight prominent Florentine artists (painters and sculptors - including Michelangelo) regarding their opinion on the question: "Which is the greater art, painting or sculpture?"¹⁹ Varchi had sent a draft of his own lecture on the question to the artists. Their answers, eight letters addressed to the *letterato* himself (from the most elaborate - Giorgio Vasari's letter for instance -, to the most succinct - Michelangelo's reply) echoed Varchi's philosophical style, but also served for Varchi to fine-tune the terminology and argumentation of his final version of the lecture, which was delivered on March 13th. His detailed examination of the problem for instance echoed Bronzino's argument that beyond physical effort, painting required above all an effort of the mind (*fatica dell'animo*)²⁰ or Vasari's, Pontormo and da Sangallo's insistence on the importance of good draughtsmanship (*disegno*) in all three arts. Using such arguments, Varchi devised his own final and conciliatory

²¹ “Ora ognuno confessa che non solamente il fine è il medesimo, cioè una artificiosa imitazione della natura, ma ancora il principio, cioè il disegno [...]” *L.Paragone* in *Opere* II, p. 642.

²² Varchi announced the *terza disputa* of his lecture in the following terms: “[...] ultimamente dichiarerò, come saprò il meglio, quale sia la somiglianza e quale la differenza tra la poesia e l’arte del disegno, sotto la quale comprendonsi alcune altre arti. Comprendonsi gli intagliatori non tanto di legname, come era già il nostro buon Tasso, oggi nobile architetto, quanto di gioie e pietre fini [...], come ancora gli Orafi in molte parti, e quegli che anticamente si chiamavano *frigiones*, ed oggi ricamatori [...], e massimamente la Pittura a la Scultura.” *L.Paragone* in *Opere* II, p. 645.

²³ “[...] il disegno è l’origine, la fonte e la madre di amendue loro [...]” *L.Paragone* in *Opere* II:642. For an analysis of the role played by Varchi’s lectures in the genealogy of the art-theoretical fortune of the term, see Robert Williams, *Art, Theory, and Culture in sixteenth-century Italy: from techne to metatechne* (Cambridge; New York; Melbourne: Cambridge University Press, 1997), chapter one: *Vasari’s concept of disegno*, 29–72; Karen-edis Barzman, “Perception, knowledge and the theory of disegno in sixteenth-century Florence,” in *From studio to studiolo: Florentine draughtsmanship under the first Medici grand Dukes*, ed. Larry J. Feinberg (Seattle: Oberlin College, 1991), pp. 37–48; Rossi, *Dalle botteghe alle accademie. Realtà Sociale e teorie artistiche a Firenze dal XIV al XVI secolo.*, chapter four: *Varchi, Michelangelo e la disputa sul ‘Primato’ delle arti*, 89–122; Wolfgang Kemp, “Disegno: Beiträge zur Geschichte des Begriffs zwischen 1547 und 1607,” *Marburger Jahrbuch für Kunstwissenschaft*, no. 19 (1976), pp. 219–40.

²⁴ A military strategy or plan could be referred to with the term *disegno*. See for instance Macchiavelli’s use of it in his *Arte della Guerra*: “Sopra che voglio che voi prendiate questa regola generale: che il maggiore rimedio che si usi contro ad uno disegno del nimico, è fare volontario quello ch’egli disegna che tu faccia per forza...” Niccolò Machiavelli et al., *L’Arte della Guerra* (Roma: Salerno editore, 2001), p. 177.

²⁵ “Dico adunque che la scultura e la pittura per il vero sono sorelle, nate di un padre, che è il disegno, in uno sol parto et ad un tempo, e non precedono l’una alla altra se non quanto la virtù e la forza di coloro che le portano addosso fa passare l’uno artefice innanzi a l’altro, e non per differenza o grado di nobiltà che veramente si trovi infra di loro.” *Vite* T1, (‘Proemio a tutta l’opera’), p. 26.

solution for the controversy: painting and sculpture are equally worthy, because of the coincidence of both their end (the imitation of nature), and their principle (*disegno*).²¹ In his lecture Varchi also coined the generic term “arte del disegno”, under which the sub-disciplines painting, sculpture, and a series of other arts were to be ranged.²² The dependency of painting and sculpture from *disegno* was expressed in terms of human genealogy: “*disegno* is the origin, the source, and the mother of them both”.²³

The notion of the “conchetto” on the other hand had stood central in the first of Varchi’s two lectures on the arts, in which the scholar had commented upon one of Michelangelo’s sonnets. Varchi thoroughly analysed Buonarroti’s use of the term “conchetto” to designate an artist’s mental representation of the work he intended to effectuate. The centrality of both the terms *conchetto* and *disegno* in the first, respectively the second lecture signalled their intrinsic parentage. Derived from the verb *disegnare*, which had (and still has) both the meaning of literally drawing or sketching and that of scheming, plotting, planning future actions, *disegno* bore in itself an intentionality, which made it overlap with the notion of *conchetto*.²⁴ It is above all painter-architect and art-historian Giorgio Vasari who would exploit that link as a part of his efforts to promote his own version of Varchi’s conciliatory theory of the arts. The same year in which the *Due lezioni* were issued in print, Vasari published his first edition of the *Vite*, the proem of which contains the statement: “painting and sculpture are truly sisters, born from one father in one delivery and at the same time...”²⁵ Although Vasari repeatedly used the expression *arti del disegno* in this edition, to which he implicitly counted the architects (the purpose of the *Vite* being to honour equally painters, sculptors and architects of the past), the threshold was still too great by 1550 to include the nobler art of architecture to the level of the other two. Vasari gradually took that step, as the apparent prestige of the visual artists rose gradually. In 1563, on Vasari’s initiative and with Ducal patronage, the very first Academy for the arts of design (Accademia del Disegno) was founded, the equivalent for the visual arts of what the *Fiorentina* had been for the letters. The institution was destined for painters, sculptors and architects. The second, largely extended edition of Vasari’s *Vite*, published in 1568 at the Giunti press, firmly established painting, sculpture and architecture as the “three arts of design” (*tre arti del disegno*). The introduction on painting of this edition contains Vasari’s most elaborate and famous definition of *disegno*:

Because design, the father of our three arts of architecture, sculpture, and painting, proceeding from the intellect, derives from many things a universal judgment, like a form or idea of all things in nature – which [nature] is most consistent in its measures – it happens that not only in human bodies and those of animals, but in plants as well and buildings, and sculptures and paintings, it [design] understands the proportion that the whole has to the parts and the

- ²⁶ “Perché il disegno, padre delle tre arti nostre architettura, scultura e pittura, procedendo dall’intelletto cava di molte cose un giudizio universale simile a una forma ovvero idea di tutte le cose della natura, la quale è singolarissima nelle sue misure, di qui è che non solo nei corpi umani e degl’animali, ma nelle piante ancora e nelle fabbriche e sculture e pitture, cognosce la proporzione che ha il tutto con le parti e che hanno le parti fra loro e col tutto insieme; e perché da questa cognizione nasce un certo concetto e giudizio, che si forma nella mente quella tal cosa che poi espressa con le mani si chiama disegno, si può concludere che esso disegno altro non sia che una apparente espressione e dichiarazione del concetto che si ha nell’animo, e di quello che altri si è nella mente imaginato e fabricato nell’idea.” *Vite* G1, (“Introduzione alle tre arti del disegno: della Pittura”), p. 111. The English translation is borrowed from Robert Williams, *Art, Theory, and Culture in sixteenth-century Italy: from techne to metatechne*, p. 33.
- ²⁷ This definition of *disegno* plays an important role in the whole controversy about Vasari’s true authorship of (the theoretical passages) of the *Vite* (now stirred in particular by Charles Hope’s suggestion of a largely collective authorship). The passage has been one of the first to be attributed to Vincenzo Borghini, Vasari’s principal adviser for the 1568 edition. See Anthony Blunt, *Artistic theory in Italy, 1450-1600* (Oxford; New York: Oxford University Press, 1994), p. 100.
- ²⁸ For a recent detailed analysis of the definition and its conflicting sources, see the chapter *Vasari’s concept of disegno* in Williams, *Art, Theory, and Culture in sixteenth-century Italy: from techne to metatechne*, pp. 29-72.
- ²⁹ “[...]luce generale dell’intelletto; alimento e vita delle operazioni intellettive [...]” Romano Alberti, *Origine e progresso dell’Accademia del Disegno, De Pittori, Scultori, & Architetti di Roma, Dove si contengono molti utilissimi discorsi, & Filosofici ragionamenti appartenenti alle sudette professioni, & in particolare ad alcune nove definitioni del Disegno, della Pittura, Scultura, & Architettura, ed al modo d’incaminar i giovani, & perfettionar i provetti. Recitati sotto il regimento dell’Eccelente Sig. Cavagliero Federico Zuccari, & raccolti da Romano Alberti Secretario dell’Accademia.* (Pavia: Pietro Bartoli, 1604), p. 19.
- ³⁰ “Scintilla della Divinità”, (Federico Zuccaro, *L’idea de’ pittori, scultori, et architetti* (Torino: Agostino Disserolio, 1607) I.7, p. 51) or “Scintilla divina nell’anima nostra espressa” *Ibid.* II, 14, p. 183, cited by Erwin Panofsky, *Idea: a Concept in Art Theory*, trans. J.S. Peake (Columbia: S.C., 1968), p. 86.
- ³¹ Zuccaro, *Idea*, II.16, p. 196; cited by Panofsky, *Idea: a Concept in Art Theory*, p. 88.
- ³² Zuccaro, *Idea*, I. 7, p. 50; cited in Panofsky, *Idea*, p. 87.

parts to one another and to the whole. And because from this arises (*nasce*) a certain notion (*concetto*) and judgement (*giudizio*) which forms in the mind that which, when expressed with the hands, is called design, one may conclude that this design is nothing other than a visible expression and declaration of that notion of the mind, or of that which others have imagined in their minds or given shape to in their idea.²⁶

The definition (a remarkable hybrid that was not devised by Vasari alone)²⁷ falls out in two parts: in the first one, *disegno* comes to label no less than a cognitive faculty, a power of the intellect that is capable of ‘drawing’ universal information from the particular vision of plant, animal or human bodies.²⁸ The result of this derivation process is a notion, judgment, *concetto* contained in the mind of the artist, which, when given shape or expressed materially is (this time in the second designation of the word) again a *disegno*. The clear distinction between a material and an immaterial *disegno* connected to the intellect and the realm of the Idea heralded the later distinction, operated by the painter and theorist Federicco Zuccari (1540–1609), between *disegno pratico* and the *disegno intelletivo* (or *disegno esterno* and *disegno interno*). Zuccari, an ex-member of the Florentine Accademia del Disegno, and the founder of its counterpart in Rome, (the Accademia di San Luca, founded in 1593), would, in his Roman academic lectures and in his treatise on art-theory published towards the end of his life lift the spiritual significance of the *disegno interno* to extreme heights: *Disegno*, with Zuccari, becomes the “general light of the intellect; the nutriment and life or our intellectual operations,”²⁹ “a spark of the divine mind”³⁰ and a “sign of the divine inside ourselves” (*segno di Dio in noi*).³¹ If man’s intellect makes him “a second God”, in Zuccari’s terms, then his *disegno interno* allows him, to form inside himself, “a second World.”³² Half a century separates Varchi’s use of *disegno*, and that of Zuccari. The bold statements of the latter demonstrate the impact the notions of “concetto” and “disegno” had on the evolving self-image of artists, especially regarding the intellectual relevance of their work. The question is whether the glorified meanings this term ended up assuming did correspond with anything that had been originally imparted to it.

³³ Michelangelo Buonarroti and James M. Saslow, *The poetry of Michelangelo: an annotated translation* (New Haven: Yale University Press, 1991), p. 302.

³⁴ I reproduce the sonnet here as it appeared in the printed version of the *Due lezioni*. Michelangelo's original autograph text, as published by James Saslow, features some minor variations in punctuation, spelling (e.i. the use of *superchio* instead of *soverchio*) and the use of capitals. See *Ibid.*, 302, note 151.

³⁵ This translation is partially based on the one which appeared in the 1968 English edition of Panofsky's *Idea* (Panofsky, *Idea: a Concept in Art Theory*, p. 117-118), which I could not accept as such. For other translations (none of which I can agree with in their entirety) see Creighton Gilbert and Robert Newton Linscott, *The complete poems and selected letters of Michelangelo* (New York: Random House, 1963), p. 100; Elizabeth Basye Holt, *A documentary history of art*, [2d ed. (Garden City, N.Y.: Doubleday, 1957) II, p. 198; Robert John Clements, *The poetry of Michelangelo* ([New York]: New York University Press, 1965), p. 64 ff; Mendelsohn, *Paragoni: Benedetto Varchi's Due Lezioni and Cinquecento Art Theory*, p. 103-104; Buonarroti and Saslow, *The poetry of Michelangelo: an annotated translation*, p. 302.

A. TWO LECTURES ON CONCEPTION

1. The commentary on *Non ha l'ottimo artista....*

We introduced the *Due lezioni* above. The first of these is best approached through its subject, a sonnet Michelangelo wrote between 1538 and 1544.³³

*Non ha l'ottimo Artista alcun concetto,
ch'un marmo solo in sé non circoscriva
col suo soverchio, e solo a quello arriva
la man, che ubbidisce all'intelletto.*

*Il mal ch'io fuggo, e 'l ben ch'io mi prometto
in te, Donna leggiadra, altera e diva,
tal si nasconde, e perch'io più non viva,
contraria ho l'arte al disiato effetto.*

*Amor dunque non ha, né tua beltate,
o durezza o fortuna o gran disdegno
del mio mal colpa, o mio destino, o sorte;*

*se dentro del tuo cor morte, et pietate
porti in un tempo, e che 'l mio basso ingegno
non sappia, ardendo, trarne altro che morte.*³⁴

(The outstanding artist does not have in himself any concept that a single marble is not enclosing in itself with its excess; and to this [concept] attains only the hand that obeys the intellect.

The evil that I flee, and the good that I promise myself, in you, gracious Lady, noble and divine, are likewise hidden. And so as to make me die, my art goes contrary to the desired effect.

Love, then, is not to blame for my misery, nor your beauty, or hardness, or fortune, or great disdain; neither my destiny, or fate

If inside your heart you harbor death and mercy at the same time, and my unworthy mind, burning, cannot draw forth other than death.)³⁵

³⁶ On the question of this dedication, see Buonarroti and Saslow, *The poetry of Michelangelo: an annotated translation*, p. 303.

³⁷ Panofsky, *Idea: a Concept in Art Theory*, p. 118.

³⁸ James M. Saslow, for instance, recently observed on the sonnet that it counts “[...] among Michelangelo’s best known and most important for his revelations of Neoplatonic artistic theory [...]” Saslow, p. 303. Moshe Barash, for instance, brought Michelangelo’s sonnet in direct relation with a passage from a 6th-century Neoplatonist author who had explained mystical ascendance by comparing it to the way in which a carver, while proceeding in his work, slowly reveals the finished form. Dionysius Areopagita had indeed described the mystical ascendant as “him who, in order to produce a true image, removes all obstacles which prevent [us] from seeing the hidden form, and by the mere removal reveals the obscured beauty in its pure splendor.” Moshe Barasch and Lucy Freeman Sandler, eds., *Art the ape of nature: Studies in honor of H.W. Janson* (New York: Harry N. Abrams Publishers, 1981), 169.

³⁹ Francisco de Hollanda, *De la pintura antigua por Francisco de Hollanda, versión castellana de Manuel Denis* (1563), cited by David Summers, *Michelangelo and the language of art* (Princeton, N.J.: Princeton University Press, 1981), p. 223.

⁴⁰ See *Ibid.*, p. 117.

The statement on the nature of artistic activity contained in Michelangelo's sonnet can be resumed in one phrase: The outstanding artist has no 'concept' that cannot be contained in a single marble block, and the only instrument capable of revealing it there, is the hand that follows the instructions of the mind. Beyond this affirmation, which is in reality only the first term of a metaphor, the sonnet is first and foremost a reflection on the misery of the unhappy lover. It was very probably addressed to Vittoria Colonna, the marchioness of Pescara, for whom Michelangelo nurtured strong feelings.³⁶ Erwin Panofsky has efficiently resumed the sonnet's true subject matter:

...potentially the block of stone contains any figure that the artist can think of, and it depends only on his skill as a sculptor what manner of figure comes into being; in a similar way, evil as well as the greatest bliss, death as well as compassion is present in the beloved's heart, and it is only due to the lover's poor skill in practising the art of love if death instead of compassion is brought forth.³⁷

A long tradition exists in which this sonnet is viewed as one of the most explicit manifestations of the Neoplatonic character of Michelangelo's art theory, a tradition kept vivid until the present day.³⁸ In Christian Neoplatonism, the mind of God contains the Ideas (the intangible forms) of all things. The sparkle of divinity contained in man is precisely his capacity to create in turn, in his own mind, imitations of these ideas (quasi-Ideas), which are engaged in the same kind of relationship to the artefacts derived from them, as are linked the Ideas in God's mind to the realities of the natural world. The Portuguese painter and art theorist and Francisco de Hollanda (1517-1584) for instance wrote:

"The philosophers say that the perfect inventor and immortal God, when he made the works such as only he understands and knows, first made and had the examples and ideas of the works that he then made in his most high intellect, and saw before that they were perfect, as afterwards they came to be; this highest master and captain it is [...] that we should follow more than any other study and make the same example and ideas in the intellect of that which we wish to come be."³⁹

Authors who favour a strictly Neoplatonic lecture of the above-mentioned sonnet often bolster the claim, as Erwin Panofsky did, by referring to Michelangelo stating, when talking about his marble *Night* in the Medici Chapel, that he had not created the figure, but simply liberated her from the marble mass in which she was encased. The image stages the inspired sculptor's work as a potent metaphor for the process of recollection (*anamnesis*) that, according to (Neo-)Platonic doctrine can provide access to the Ideas that were implanted in any man's soul even before birth.⁴⁰

⁴¹ In *L.s.MB.* (*Opere* II, p. 616), Varchi wrote: “Concetto: Questo vocabolo, il quale è non men bello che generale significa appresso i Toscani, quello che appresso i Greci *idea* [in Greek in the text], ed i Latini *notio*.” Further, p. 617: “In questo luogo si piglia concetto dal nostro Poeta Buonarroti and Saslow, *The poetry of Michelangelo: an annotated translation* per quello, che dicemmo di sopra chiamarsi da’ Greci *idea* da’ Latini *exemplar*, da noi modello, ciò è per quella forma o immagine detta da alcuni intenzione, che avemo dentro nella fantasia di tutto quello che intendiamo di voler o fare, o dire.” The passages constituted the basis on which Panofsky affirmed the equivalence of *concetto* and *idea*, with a certain prudence, nonetheless that is not always to be found in later authors who referred to him. See for instance Paola Barocchi’s commentary to Varchi’s *lezzione* in Paola Barocchi, *Scritti d’arte del Cinquecento*, La Letteratura italiana; storia e testi, v. 32 (Milano-Napoli: R. Ricciardi, 1971) II, p. 1323, where Panofsky is cited without the German scholar’s allusions to an Aristotelian interpretation of the notion. But see also Varchi’s following enumeration, appearing further in the *lezzione*, which considerably thins down the specificity of the term *idea* instead: “E così il primo principio, o vogliamo dire la cagione efficiente di tutte le cose, che si dicono e che si fanno, è quella spezie o forma, o immagine, o sembianza, o idea, o esempio, o esemplare, o similitudine, o intenzione, o concetto, o modello, o altamente, che si possa o debba dire, come sarebbe simulacro, o fantasma [...]” *L.s.MB.* in *Opere* II, p. 617.

⁴² The idea is expressed in what Varchi referred to as the “unità del composto”, the ‘unity of composites’.

⁴³ The argument is particularly developed in two instances: 1. the 1543 lecture on the soul, where Varchi provided the example of the wooden ball (“Ma, per tornare all’unità del composto, niuno, ch’ io creda, dimanderà mai perchè una palla di legno o di qualunque altra materia sia una cosa sola, essendovi la forma, cioè la tondezza, e la materia, cioè il legno, che sono due cose; perciocché (come s’è detto di sopra) l’atto e la potenza, o vero la forma e la materia, non hanno bisogno di mezzo ad unirsi e congiungersi insieme; onde la tondezza, che è la forma o vero l’atto, s’unisce col legno, che è la potenza e la materia, o vero il subietto, senza mezzo nessuno; e così nell’uomo e in tutti gli altri composti.” *L. Creaz. Inf.* in *Opere* II, p. 318). The example of the ball was drawn from Aristotle’s *Metaphysics* VII.8 (1033b20–25), the argument of which (the explicit refutation of the existence of forms as self-subsistent substances) Varchi develop in his lecture on Michelangelo’s sonnet: instance 2. (*L.s.MB.* in *Opere* II, p. 620), cf. the next note.

⁴⁴ *Metaphysics* VII.8 (1033b20–25). Here Aristotle refuted the idea that an autonomous ‘template’ could account for the forms of particular things, since such an autonomous form could not explain the intermediary stages that one observes during the growth (in the case of a natural body) or the origination process (in the case of an artificial body) of the thing in question: “Is there then a sphere apart from the individual spheres or a house apart from the bricks? Rather we may say that no ‘this’ would ever have been coming to be, if this had been so. The ‘form’ however means the ‘such’, and is not a ‘this’, a definite thing; but the artist makes, or the father generates a ‘such’ out of a ‘this’. And the whole ‘this’, Callias or Socrates, is analogous to this bronze sphere, but man and animal to bronze sphere in general.”

⁴⁵ “Bisogna dunque sapere che una delle principali cagioni che inducesse Platone a porre le idee, fu il non vedere d’onde s’introducessero le forme nelle cose [...] la cui opinione Aristotele riprova lungamente nel settimo della Metafisica.” *L. Paragone* in *Opere* II, p. 620.

⁴⁶ “Avicenna poi non gli piacendo le idee, finse una intelligenza, la quale [chiamò] la datrice delle forme [...]” *L.s.MB.* in *Opere* II, p. 620.

⁴⁷ *Metaphysics*, VII.7, 1033a13–17.

2. *Concetto* as a synonym of *Idea*?

In order to read the first quatrain of the sonnet along these lines, as an affirmation of the entirely immaterial existence of immutable Ideas, and a likening of the sculptor's artistic intentions to such "templates", it is necessary to read the term "*concetto*" as a synonym of "*idea*", in the sense of the contents of the noblest part of the human mind, its intellect.

The authors who have argued for such a lecture have always searched Varchi's exegesis of the sonnet for hints that would have likened the term *concetto* to a Platonic Idea. They noticed, in particular, that Varchi three times enumerated *concetto* and *idea* in one and the same breath, as if they were synonyms.⁴¹ Yet the only conclusion one could draw from these enumerations is that the lecturer used the term *idea* in a thinned down meaning, as a Platonic interpretation is explicitly denied in the lecture. As a good Aristotelian, Varchi refuted the doctrine of the Ideas, on the basis of the impossibility of existence of unembodied form.⁴² Everything in the universe for him, (except God himself) necessarily participated in some way or other in materiality. The form of any body, either natural or artificial could not possibly lead an autonomous existence, detached from some form of matter. On the level of mental representations such a distinction is possible (one can think the roundness of a ball distinctively from its being made out of wood), yet in the realm of 'substance', such a distinction is impossible (roundness will not instantiate itself away from matter such as wood). The principle, referred to as the necessary "unity of compound" (*unità del composto*), is stressed repeatedly all along the Varchian lectures.⁴³ In his lecture on Michelangelo's sonnet, Varchi also explicitly repeated the most virulent attacks Aristotle had formulated, in book VII of the *Metaphysics*, on Plato's belief in Forms as self-subsistent entities.⁴⁴ Varchi observed that with his doctrine of the Ideas, Plato has sought to account in a too straightforward way for the problem of the origin of forms.⁴⁵ His solution, still according to the Florentine, is just as unacceptable as Avicenna's conclusion that a "form-providing" demon had been at the origin of the 'templates' of all things.⁴⁶ The main problem with Platonic Forms or Ideas conceived of as fixed, immutable templates is that they cannot account for the processes of change that make bodies (natural and artificial) what they are.

Aristotle's reply to Plato in book VII of *Metaphysics* had been to insist on the fact that a new form proceeds, not, in the first place, from a separate superior realm, but 'out of' something else. The new form of a built house comes forth from the timber and the bricks, in the same way as a healthy man is produced out of an invalid (the art of medicine acting as the efficient cause of the change).⁴⁷ According to this point of view, the most fascinating side of any art is not so much situated at the level of the nature of the forms that it imparts on bodies, but on the contrary at the level of the procedures

⁴⁸ Nicomachean Ethics VI.4, 1140a10-11.

⁴⁹ The parallel between the *exemplum* of the marble block struck by the sculptor to reveal a figure, and that of flint (*pietre focaie*) struck to reveal the form of fire is provided Barocchi, *Scritti d'arte del Cinquecento*, p. 620.

⁵⁰ “chiunque fa qualunque cosa, non fa altro, secondo I Peripatetici, che trarla dall'essere potenziale e ridurla all'attuale; al che fare ha bisogno né delle Idee di Platone, né del demone d'Avicenna, cioè del datore delle forme.” *L.s.MA.* in *Opere II*, p. 620.

⁵¹ *L.Paragone*, in *Opere II*, p. 628. (Paola Barocchi, ed., *Trattati d'arte del Cinquecento: Fra Manierismo e Contrariforma* (Bari: Laterza, 1960) I: 7). A similarly detailed division is also provided in the short essay *Divisione della Filosofia* in *Opere II*, pp. 794-796.

through which these instantiation of form occurs. How is a certain form, leading first a potential existence, lifted out of inertia into actuated existence? Aristotle posited in the *Nicomachean Ethics* that “all art is concerned with coming-into-being”.⁴⁸ For Varchi it was precisely that progression from potential existence into actual existence which made up the central argument of Michelangelo’s sonnet: A marble block contains per definition a multitude of forms, which, embedded inside, exist *in potenza* (the form of a man, of a horse, of a lion, etc...). A great master in the art of sculpture would be able to extract from the mass all the forms he could possibly imagine, on the sole condition that he correctly mediates between the *concetto* he holds in his mind (the mental representation of the thing to be carved) and the hand that holds the chisel and fashions the stone. That hand needs to be the *concetto*’s obedient and docile instrument.

The quatrain, as Michelangelo’s commentator makes clear in the end, has a validity that extends far beyond the realm of stone carving, and even of love. The act of extracting (the form of fire) from a piece of flint by striking it amounts to exactly the same logic:⁴⁹ “whoever makes something is not doing anything else, according to the Peripatetics, than drawing it from potential being and reducing it to actual existence”. And as to underscore Michelangelo’s allegiance to Peripatetic doctrine, Varchi adds: “an operation for which he has no need whatsoever nor of Plato’s Ideas, nor of the demon of Avicenna, the so-called ‘supplier of forms’.”⁵⁰

3. The division of the soul

An easy way to refute any possible identification, from Varchi’s outlook, of artistic concetti with ‘Ideas’ would be to look at his own division of the faculties of the mind and of the corresponding mental practises or ‘habits’. According to that division, the mental processes related to art-production do not even occur in the higher mental faculties. Figure 3.5 shows a graphic summary of the Varchian division of the human mind as the Florentine lecturer provided it in his proem to the *maggioranza* lecture and elsewhere.⁵¹ The dotted horizontal line distinguishes the mind’s mortal, corruptible dimension below, particular reason (that is, the reflective faculty of the sensitive soul, also called *cogitativa*), from its rational counterpart above: universal reason, or the intellect.

According to Aristotle’s paradigm of human cognition, as laid out in book six of the *Nicomachean Ethics* (which is Varchi’s source), the intellect is divided in two main faculties: a higher part, superior reason, or the speculative intellect, on the one hand, and inferior reason, or the practical intellect on the other. Dedicated to the contemplation of universals, superior reason hosts the habits of the mind that lead to science: truthful

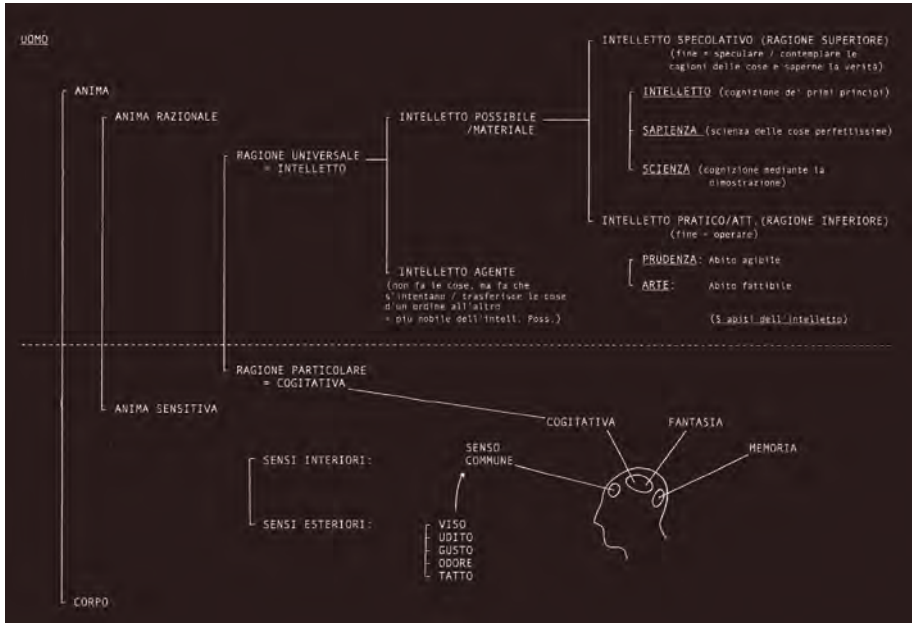


Fig. 3.5 Benedetto Varchi's Aristotelian division of the faculties of the human soul.

⁵² "L'arte è un abito fattivo, con vera ragione, di quelle cose che non sono necessarie, il principio delle quali è non nelle cose che si fanno, ma in colui che le fa" is Varchi's formal definition of art. *L.Paragone*, in *Opere* II, p. 629.

⁵³ Williams, *Art, Theory, and Culture in sixteenth-century Italy: from techne to metatechne*, p. 37.

⁵⁴ "...onde si vede manifestamente che la sua parte migliore [della Poesia] è nell'intelletto speculativo." *L.Paragone* in *Opere* I, p. 645.

⁵⁵ François Quiviger, "Aspects of the criticism and exegesis of Italian art c. 1540 - c. 1600" (Ph. Dissert., University of London, 1989), p. 223.

⁵⁶ *Ibid.*, 222.

knowledge of universals. The end of the less noble practical intellect on the other hand is not speculation but action. According to the kind of action envisaged, either practical or productive, two different ‘habits’ of inferior reason are distinguished: prudence, the *abito agibile* in Varchi’s words (‘mental routines of action’), and art, the *abito fattibile* (‘mental routines of production’).

Situated at the level of the practical intellect, the arts do, in this scheme, participate to rationality: Varchi defines them collectively as the reasoned consideration of things that are not necessary (the products of art can either be or not be) and whose origin is not in themselves, but in their maker.⁵² Their noble status was thus affirmed, yet the rigid scheme marks, rather than a fusion, a strict distinction between the arts and the sciences, such as geometry, which belonged to superior reason.

Aiming at ennobling the arts, but incapable of abandoning familiar frameworks, Varchi thus seems to make only paradoxical progress with his division. As authors such as François Quiviger and Robert Williams have observed, the Florentine scholar postulated such rigid separations in his taxonomy of the arts and sciences, that his division does not “serve him adequately when he tries to deal with the phenomena that really interest him [the fine arts], and he comes close to contradicting himself.”⁵³ Williams illustrates this statement with the inconsistencies appearing in the relative classification of the visual arts and poetry. Though Varchi recognised a necessary practical (or ‘factive’) dimension to poetry, he stressed nonetheless that poetry requires mastery of philosophy. The poet needs to stand out in all sciences. If ‘writing poetically’ as the result of years of practice is a capacity of the practical intellect, for Varchi “the best part of poetry is in the speculative intellect.”⁵⁴ But access to the universals is explicitly denied to the visual artists, who remain confined to the domain of the practical and the applied. François Quiviger put it even more bluntly by stating that “If Varchi considered the visual arts to be superior to crafts, he certainly never articulated this conviction in any theoretical expression.”⁵⁵ Because of his reliance on the Aristotelic-Scholastic conception of the arts as productive habits, concerned with making objects (or, aiming at the induction of any artificial form on matter), Varchi is unable to “distinguish the specific method employed by the artist from those used by the carpenter, the blacksmith or the potter.”⁵⁶

But why should one assume that Varchi was trying to search strong theoretical means to secure the nobility of the visual arts in the first place? Even if he was a distinguished aesthete, with sympathy for his talented artist friends, there is still no ground to believe that Varchi was engaged in Vasari’s partisan effort to lift a few crafts, concerned with the production of images, high above the multitude of the other arts. It needs to be remembered that Varchi, in his enumeration of the different practitioners of the *arte del disegno*, included not only the painters and sculptors, but also the carvers (*intagliatori*) of

⁵⁷ “Comprendonsi [sotto l’arte del disegno] gli intagliatori non tanto di legname, come era già il nostro buon Tasso, oggi nobile architetto, quanto di gioie e pietre fini, nel quale artificio tiene lo campo senza contrasto alcuno il gentilissimo M. Alessandro Greco, come ancora gli Orafi in molte loro parti, e quegli che anticamente si chiamavano *frigiones*, ed oggi ricamatori; tra tutti i quali è eccellentissimo Antonio Bachiacca antichissimo amico nostro; come vi dimostrano largamente l’opere lavorate da lui all’Eccellenza del nostro Illustrissimo signor Duca, e massimamente la Pittura e la Scultura.” *L.Paragone* in *Opere* II, p. 642.

⁵⁸ See *L.Paragone* in *Opere* II, pp. 632–633. (Prima disputa: della maggioranza e nobiltà delle arti.)

⁵⁹ Peck, Introduction, p. xlvi in Aristotle and Peck, *Generation of Animals* .

⁶⁰ Aristotle’s dependence on paradigms (*exempla*) from the realm of *technè* had been stressed by Averroes in his Grand Commentary on the *De anima*, a passage that displays clear parallels with Varchi’s words on Michelangelo: “Ayant notifié ce qu’on entend par ‘passion’ dans le cas de l’intellect, et [indiqué] l’homonymie [de ce terme] quand il est appliqué à l’intellect et à la matière, [Aristote] prend une comparaison (*exemplum*) dans les choses sensibles pour expliquer ce que veut dire cette notion dans le cas de l’intellect matériel.” Averroës and Alain de Libera, *L’intelligence et la pensée. Sur le De anima* (Paris: Flammarion, 1998), p. 98.

⁶¹ “E Aristotile quasi sempre dà gli esempi dell’architettura...” *L.Paragone* in *Opere* II, p. 635.

⁶² Varchi noted on the first quatrain of the sonnet: “E per meglio e più agevolmente dimostrarlo, [Michelagnolo] usa, come fa quasi sempre Aristotile, un esempio dalle cose artificiali, le quali ci sono più note...” *L.s.MB.* in *Opere* II, p. 614.

⁶³ *Generation of Animals*, II, 23, 731a25.

⁶⁴ *Physics*, II. 8, 199a12–19.

refined woods, stones and gems, the goldsmiths and the tapestry-weavers (among whom he had equally close contacts).⁵⁷ Furthermore, if all the productive arts (the *technai* in Greek) were to be put on a hierarchical scale (in function of their increasing worthiness or ‘nobility’), medicine, according to him, would stand on top, immediately followed by architecture, a distinction these arts deserve in the first place on the basis of their utility for human society (yet a multitude of other criteria come into play). On that hierarchical ranking, the arts of painting and sculpture (clearly subordinate to architecture) drop behind at an unspecified position.⁵⁸

Varchi was more interested in the paradigmatic nature of processes of artificial creation and their links with natural generation, less in the social emancipation of his artist friends. In his biological treatises, Aristotle had often used material examples from the arts to explain certain complex natural processes. As a critic observed: “By Aristotle, *phusis* (nature) and the products of *phusis* are constantly compared with *technè* and the products of *technè*.”⁵⁹ Varchi was well aware of that fact. It had been stressed by the Commentator (Averroës) himself.⁶⁰ Omnipresent are the examples and analogies drawn from the arts of carpentry, stonecutting, medicine, pottery, etc. to explain complex processes in biology, psychology or even metaphysics. Housebuilding is a central reference. Benedetto Varchi observed: “Aristotle almost always takes his examples from architecture”.⁶¹ Those arts for themselves are not the central topic in Aristotle’s course of reasoning. As part of everyday life and common experience, these examples or so-called technomorphic analogies only serve to help the philosopher’s audience to easily grasp the point of a specific argument. With his sonnet *Non ha l’ottimo artista*, Michelangelo had in fact imitated Aristotle.⁶² His ‘material example’, that of the sculptor and his marble block, breaches truths that extend far beyond the realm of the arts, into the realm of human passions. The fact certainly caught Varchi’s attention and explains his choice.

Aristotle’s use of examples of the *technai* served him in the first place to illustrate his convictions about the purposefulness and ‘rationality’ of nature. In the production of forms and bodies nature proceeds according to a *logos*, a ‘rational method’ very much comparable to that of the experienced artisan: “...nature acts like an intelligent workman.” is a truth stated in *Generation of animals*.⁶³ In *Physics* Aristotle observed:

Thus if a house, e.g. had been a thing made by nature, it would have been made in the same way as it is now by art; and if things made by nature were made not only by nature, but also by art, they would come to be in the same way as by nature. The one then is for the sake of the other; and generally art in some cases completes what nature cannot bring to a finish, and in others imitates nature. If, therefore, artificial products are for the sake of an end, so clearly also are natural products.⁶⁴

⁶⁵ “E innanzi che io faccia questo, non voglio mancare d’avvertirvi, che la generazione e formazione del corpo umano è cosa tanto riposta e tanto nascosa, che di lei (come bene disse Aristotile) non si può avere dimostrazione e certezza.” *L.Gen.Corp.* in *Opere* II, p. 286.

⁶⁶ The exact date is Sunday May 28th. Varchi’s very first academic *lezzione*, delivered the day of his election as *accademico*, Sunday March 15th, 1543, was a commentary on Petrarch’s sonnet *La gola, il sonno e l’oziose piume...* which is a praise of literacy and the culture of knowledge and philosophy. The text of this *lezzione* has never been published. The manuscript is now in Paris (Bibliothèque Nationale, *Fonds italien*, 981). For extracts, see Michel Plaisance, “Une première affirmation de la politique culturelle de Côme Ier: la transformation de l’Académie des ‘Humidi’ en Académie Florentine (1540-1542)” in *Les écrivains et le pouvoir en Italie à l’époque de la Renaissance, Première série*, ed. A. Rochon (Paris: Université de la Sorbonne Nouvelle, 1973), pp. 385, 418.

If art and nature share the same ends, use the same building blocks to shape bodies (the four elements), and both impart motion (*kinesis*) to these building blocks to do so, their major difference lies in the origins of these motions. Natural bodies have the capacity to move themselves, or are moved by intrinsic causes that are inscribed in themselves (even if ultimately brought about by the motions of the heavens). The alterations imparted on artificial bodies, on the other hand, are brought about by external causes, that is, by an artisan using his hands and possibly instruments.

The lecture on Michelangelo's sonnet had provided Varchi with a good example to illustrate that principle: in the artificial process of coming-into-being of a marble statue, the principle that instantiates the *genèsis* (its 'efficient cause'), is not located within the marble block itself, but inside the artisans' mind, in the form of a mental representation, a *concetto*. In most of the natural processes of change that men are brought to witness daily, for instance the growth of a shoot, one can only witness the change, and infer that the principle which brings it about (that is, the 'form' of the adult tree) is inscribed within the shoot itself. But this principle and the body on which it exerts its action cannot be distinguished.

There are, nonetheless instances in which the similarity between the artificial and the natural modalities of *kinesis* come to overlap even more. Animals are *compositi* of matter and a soul. The latter principle corresponds to a dynamic form (*eidòs*) endowing the body not only with a capacity for growth, alteration and self-locomotion, but even for reproduction. During reproduction the *eidòs* of the animal needs to be transferred from one body to another. The 'miracle of natural reproduction' thus instantiates, for a short lapse of time, a situation in which the principle of change of a natural body is extrinsic to the body itself. A short lapse of time that would prove particularly fascinating to a man such as Benedetto Varchi, ever so intrigued by the differences and similarities between nature and art, who dedicated one of his first, longest, and densest *Fiorentina* lectures to this "most furtive and most enigmatic" question of natural generation.⁶⁵

On the generation of the body, was the second lecture Varchi delivered to his Sunday audience at the Accademia Fiorentina, at the end of May 1543, shortly after his return from exile.⁶⁶ More than a pioneering feat (as one of the very first elaborate discourses popularizing learned knowledge on embryology, a genre that would know an increasing success in the second half of the 16th century), the lecture was also a declaration of intent, or a foreshadowing of those philosophical questions that would stand central in the lecturers. From many perspectives the 1543 lecture *On the generation of the body* forebodes the commentary on Michelangelo's sonnet, delivered four years later. Before zooming in on these parallels, it will first be necessary to introduce the global outline of the lecture on natural generation.

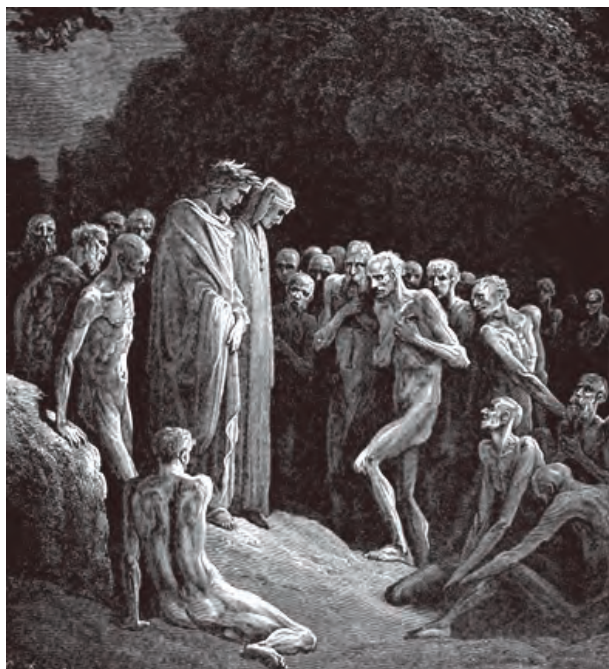


Fig. 3.6 Gustave Doré, *The Souls of the Gluttonous*, illustration for *Le Purgatoire* de Dante Alighieri, avec les dessins de Gustave Doré (Paris, 1868).

⁶⁷ For a detailed analysis of this passage of Purgatorio XXV and the doctrines it contains, see René Stella, “La représentation du corps dans l’oeuvre de Dante”, in *La représentation du corps dans la culture Italienne. Actes du colloque de 1980* (Aix-en-Provence: Université de Provence, 1982), pp. 15-16 and Stephen Bembrose, “‘Come d’animal divegna fante’: the animation of the human embryo in Dante,” in *The human embryo*, ed. G.R. Dunstan (Exeter: University of Exeter Press, 1990), pp. 123-135.

⁶⁸ The second lecture on Purgatorio XXV was read before the Fiorentina in December 1543. It must have been followed by a third one, also on the rational soul of which the text has been lost. The first and the second lecture were published at the Giunti press in 1560 under the titles *Sulla generazione del corpo umano* and *Sulla creazione ed infusione dell’anima razionale*. The third lecture that appears in this collection is the lecture *Della generazione de’ mostri*, presented for the *Accademia Fiorentina* in July 1548.

⁶⁹ BNF, manoscritti Palatini, 678, fol. 42 v.; Cited in Louis Haas, *The Renaissance man and his children: Childbirth and early childhood in Florence, 1300-1600* (New York: St. Martin’s Press, 1998), p. 34.

⁷⁰ The English translation of Dante’s verses I use here, which makes no attempt at reconstructing poetic meter, is based on Stephen Bembrose translation: Bembrose, “‘Come d’animal divegna fante’: the animation of the human embryo in Dante,” p. 126.

4. The lecture *On the generation of the body*

Varchi's 1543 lecture on animal embryology is now known as the *Lezzione sulla generazione del corpo*. Formally, though, it presents itself as a learned and detailed commentary on a passage from the 25th canto of Dante's *Purgatorio*.

The scene of *Purgatorio* XXV is one of the many instances in the *Divina Commedia* in which the 'Dante' character of the poem, intrigued by a specific detail he is brought to see, starts interrogating one of the souls or shadow-bodies present. The explanatory conversations that ensue often have a rather technical character. In this case, 'Dante' observes the shadow-bodies of the gluttons in the 6th circle of purgatory and is amazed to see them so lean, while as spiritual beings, and thus not needing any nutrition, he would have expected them not to suffer any change of aspect due to a lack of food.⁶⁷

'Dante's' question is answered first and rather unsatisfactorily by his guide Virgil, then, with more contentment, by the silver Latin poet Statius, whom Virgil had summoned for help. Statius provides a learned explanation (24 tercets long) on the particular ways in which the soul interferes with the body it inhabits, and after death, with its shadow-body. The term shadow-bodies (*ombre*) designates the ghost-like appearance with which the souls wandering in hell and purgatory are endowed. It is an image generated by the densification and rarefaction of the air wherever the deceased souls are floating. These shadow-bodies, and this is the conclusion of Statius' speech, reflect the passions to which the souls are subjected, including the perpetual craving for food that is the specific penitence imposed on the gluttons until their 'purgation'. It is that craving that causes their shadow-bodies to be so thin.

It is only the first part of Statius' speech that Varchi decided to comment in his May 1543 lecture, a passage eight tercets long.⁶⁸ Here, Statius explains the mechanisms of impregnation and child-development according to scholastic doctrine. Florentines appear to have been commonly acquainted with that passage. The trecento poet Antonio Pucci referred to it as a description of the "*nascimento nostro*".⁶⁹

Like Aristotle and Aquinas, Dante conceived the seed of man as exclusively produced by the father. In the father's body that seed is first a blood of a superior quality, which unlike 'normal blood' will not be used for the nourishment of the members:

Sangue perfetto, che poi non si beve
da l'assetate vene, e si rimane
quasi alimento che di mensa leve,

(Refined blood, which is not subsequently absorbed
by the thirsty veins and which remains,
as it were, food carried away from the table after a meal,)⁷⁰

⁷¹ “Come il sangue, il quale non è diventato sperma, ha virtù del cuore di diventare tutte le membra, come si vede nel nutrimento; perché l’ossa convertono il sangue in ossa, le vene in vene, la carne in carne, e di tutti gli altri nel medesimo modo; così, poiché è diventato sperma, ha virtù di fare tutti i membri, operando in virtù dell’anima.” *L. Gen. Corp.* in *Opere* II: 297.

Passing through the heart, the blood is endowed there with the ‘formative power’ (“*virtù informativa*”), the capacity to give shape to all the members of the future new-born, a capacity equally present in the blood that is sent out to form the members of the own body.

prende nel core a tutte membra umane
virtute informativa, come quello,
ch’a farsi quelle per le vene vane.

(receives in the heart the power
to give form to all human parts, like that blood
which runs through the veins in order to produce them)

Dante thus compares the formative virtues of sperm to the nutritive capacities of ‘regular’ blood: its power to give shape to the members it feeds. Varchi: “...the blood, that did not become semen, has the capacity [*virtù*] to become all members, as one sees in nutrition. Because the bones convert the blood in bones, the veins in veins, the flesh in flesh, and all the other parts in the same manner...”⁷¹ After a last transformative ‘digestion’ in the heart, the seed then pursues its journey, to a place that need not be mentioned.

Ancor digesto, scende ov’è più bello
tacer che dire; e quindi poscia geme
sovr’altrui sangue in natural vasello.

(Once more refined, it descends to that place which it is more seemly
not to name; thence it falls, later on,
upon another’s blood in a natural vessel.)

“*Altrui sangue*” is a blood produced by the body of the woman, a menstrual blood of a refined kind, and the immediate counterpart of the male semen. Contained in the woman’s womb that blood then receives the incoming male seed. The female blood provides the matter upon which the semen will then exert its form-providing motions.

Ivi s’accoglie l’uno e l’altro insieme,
l’un disposto a patire, e l’altro a fare
per lo perfetto loco, onde si preme;

(Here the two unite one with the other,
one disposed to be the recipient and the other to be the active force -
because of the perfection of that place whence it originates (lit. *is squeezed*))

The “perfect organ” mentioned by Dante is the heart of the man, which Aristotle imagined not only as the first organ to be formed, the kernel from which the blood vessels and arteries grow and extend like twigs from a stem, but also as the seat of the soul. The action of the seed on the maternal blood slowly causes a fetus to appear.

⁷² “...non poteva trovare piu segnalato vocabolo, nè che meglio sprimasse la mente sua: perchè tale è proprio il seme dell’uomo al mestruo, quale è il coagulo che noi chiamiamo gaglio, o vero presame, al latte.” *L. Gen. Corp.* in *Opere* II, p. 299.

⁷³ See Aristotle, *Meteora* IV, 383a1.

⁷⁴ “...essendo tutto l’uomo composto di forma e di materia, cio è d’anima e di corpo, il padre da sola l’anima, senza punto di materia o di corpo, e la madre dà la materia sola, o vero il corpo senza punto di forma.” *L. Gen. Corp.* in *Opere* II, p. 299.

e, giunto lui, comincia ad operare
coagulando prima, e poi avviva
ciò che per sua materia fẽ constare.

(and as soon as this [semen] has arrived, it begins to exert its power,
first coagulating and then vivifying
that which by its presence it has caused to 'set'.)

In his comment on this last tercet, Varchi praised Dante for his judicious choice of the verb *coagulare*, which conveys the idea of both coagulating blood and curdling milk.⁷² Aristotle himself had also used the analogy of rennet (fig-juice) and milk to describe the action of semen on menstrual blood in *Generation of animals*. Varchi also referred to Aristotle's definition of curdling as a thickening when water is expelled, due sometimes to cooling down, more often to the addition of heat.⁷³

Anima fatta la virtute attiva
qual d'una pianta, in tanto differente,
che questa è in via e quella è già a riva,

(Once the active power has become a soul,
like that of a plant (but with this difference: that the former is still [develop] *en route*, while the other has already reached its destination)

The first verse of this tercet shows well how the duality of the parental contribution (paternal form vs. maternal material) remains constituent of the newly conceived being. As Varchi puts it: "...since man in his entirety is composed of form and matter, that is to say, of soul and body, the father provides only the soul, without an ounce of matter, and the mother the matter alone, thus the body, without anything of its form."⁷⁴

tant'ovra poi, che già si move e sente,
come spungo marino, e indi imprende
ad organar le posse, ond'è semente.

(it then operates in such a way that it can already move and feel
like a sea-sponge, and thenceforth it sets about
furnishing organs for the faculties it has generated.)

Receiving life in successive stages, the foetus is first endowed with the set of faculties characteristic of plants, the vegetal soul. Then he gradually acquires the power to feel and to move, as animals do.

Or si spiega, figliuolo, or si distende
la virtù ch'è dal cor del generante,
dove natura a tutte membra intende.

⁷⁵ *Sulla creazione ed infusione della anima razionale (L. Inf. Creaz.)*.

⁷⁶ “... dichiareremo prima alcuni nomi e principii, i quali sono necessarissimi, così a trattare del corpo umano, che a generarlo.” *L. Gen. Corp.* in *Opere II*, p. 286.

⁷⁷ *L. Gen. Corp.* in *Opere II*, p. 286-290.

⁷⁸ See Chapters 17-19 of book I.

⁷⁹ In the introduction to the exposition of the ‘principles’ of generation, Varchi had already observed: “Onde io, lasciate in dietro tutte le quistioni [that is to say the fiery debates existing between the several experts, both physicians and philosophers on the matter] [...] vi reciterò solamente in quel modo che giudicherò migliore, tutti i primi capi e tutte le risoluzioni principali di quelle cose, che mi paranno più necessarie e più vere, seguitando sempre Aristotile, principe de’ Peripatetici, e il suo commentatore Averrois: i quali due senza dubbio, seguitò in questo luogo, e quasi in tutti gli altri dela Commedia e opera sua Dante medesimo, il quale fu grandissimo e ottimo Peripatetico...” *L. Gen. Corp.* in *Opere II*, p. 286. The presentation of the theories of generation runs from p. 291-294, where the actual commentary of Dante’s verses starts.

(Now, my son, the power which comes
from the father's heart spreads itself
through all the body's parts, as Nature intends.)

It is only when one particular organ, the brain, is sufficiently developed, that the rational soul, the hallmark of the human species, will be infused in it, a process that escapes from the realm of the purely biological. For Dante as for Aquinas, whose doctrine the Tuscan poet follows on that matter, the outside agency responsible for the adjunction of the rational soul is God himself. Varchi scheduled his commentary on the following tercets of Statius's speech to be an exposé of his viewpoints on Aristotelian psychology (in the sense of science of the soul - *psuchè*), yet that plan was partly aborted. Instead of the series that had been intended, only one unfinished lecture was delivered in December 1543.⁷⁵

In the May 1543 lecture, however, the question of the rational soul is not touched. In reality then, the process described, both in Dante's verses and in Varchi's analysis, is that of the initial development of any animal brought forth through sexual reproduction, a criterion that applies to most animal species. If one takes a closer look to the text of the *Lezione della generazione del corpo*, it becomes apparent that it follows both in structure and content Aristotle's treatise *Generation of animals*, and aims at a critical vulgarization of this seminal text, the ultimate source of Dante's ideas on generation. If Varchi sometimes directly referred to Aristotle's treatise on generation as a source, many other instances of his *lezione* feature direct borrowings from that text without such mentions. Both Varchi and Aristotle's texts display an essentially triple structure: 1. explanation of a number of general principles 2. presentation of the actual theory of sexual generation 3. discussion of a number of secondary problems mostly related to sex-differentiation and inheritance. Varchi preceded the actual analysis of Dante's verses indeed with an introduction into a number of general terms and principles, "as necessary to discuss the human body, as to generate it."⁷⁶ These principles are the five protagonist substances in animal generation (Aristotle considered them 'parts' of the body), blood (*sangue*) and four of its special by-products. These four substances derived from blood are: sperm (*lo sperma dell'uomo*), female seed (*il seme della donna*), menstrual blood (*mestruo*), and spirit (*spirito*).⁷⁷ A similar presentation of these animal 'parts' appeared in book I of *Generation of Animals*.⁷⁸ After the presentation of these principles, Varchi continued his lecture with a general account on the way these substances actually interfere in generation. Some dissident doctrines are also presented on that occasion, such as the theories of Galen and Avicenna; in the end, though, and in the actual commentary of Dante's verses that follow, the orator unambiguously held on to the Aristotelian hypothesis. Dante, Varchi stipulated, had done the same.⁷⁹

⁸⁰ The following account on the context in which Aristotle's *Generation of Animals* originated, its basic themes and the use of metaphors is largely based on Anthony Preus, "Science and philosophy in Aristotle's *Generation of Animals*," *Journal of the History of Biology* 3, no. 1 (1970), pp. 1-52.

⁸¹ Varchi referred to the pangenesis-theory in one of the problems discussed at the end of the lecture on the *Generazione del corpo*: "Alcuni volevano che così nel maschio, come nella femmina, uscisse da tutti i membri una umidità, la quale servisse alla generazione" *Opere* II, p. 304.

⁸² *Generation of Animals* I.18, 722a29-34

⁸³ *Generation of Animals* I.18, 722b2-3.

⁸⁴ In 1924 the German embryologist Hans Spemann and Hilde Mangold discovered that a series of cells in the animal embryo have the task to 'induce' specific developments in other cells. The researches baptized the zone in which these cells appear (the so-called gray crescent) the 'organizer'. See Ludwig von Bertalanffy and J. H. Woodger, *Modern theories of development; an introduction to theoretical biology* (London: Oxford university press, 1933), pp. 121-128.

One of Aristotle's main concerns in writing *Generation of animals* had been to refute two widespread theories on animal generation in his own days: the theory of *preformationism*, and that of the so-called *pangenesi*.⁸⁰ According to the popular theory of *preformationism*, the spermatc materials drawn from all the members of the male genitor were supposed to be already connected while still in the father's body, and to form there a "small animal" that finds in the mother's body only a site for its growth. *Pangenesi* held that the spermatc materials (both in the male and the female) were drawn from the entire body of the parents. The fact that the components of the male and female seed were obtained in this way accounted both for the nature of the coital pleasure, that pervades the whole body of the genitors, as well as for the resemblance of offspring and parents.

Aristotle could not agree with any of these hypothesis's: The preformationist or *homunculus* theory failed to explain how a female animal could be generated – an animal with parts resembling those of the mother rather than that of the father. The *pangenesi* theory, on the other hand, beside other problems failed to explain how the information on the individual parts of the body could be reassembled to form an organic whole.⁸¹ To make this problem explicit, Aristotle used the *exemplum* of a written word: not only are the individual letters of a word needed to form it. Of even greater importance is the particular way in which these letters are combined. Aristotle termed such a specific arrangement *synthèsis*, 'composition.'⁸² If one imagines that in animal generation according to the *pangenesi* theory 'something' performs such a *synthèsis* after all parts have been brought together, then "it would be this that would be the cause of the resemblance, not the coming of the semen from every part of the body."⁸³

This realization convinced Aristotle that the essential agent in animal generation could not be a material element, a component of the future animal body, but needed instead to be an active principle capable of taking care for the disposition, the arrangement of the parts. It is that organizing principle that the Stagirite identified in *Generation of animals* with the *eidòs*. The *eidòs* is thus both the result of a process of natural generation (a complex and dynamic structure or 'form'), and the principle that brings it about: an "organizer" pretty much in the sense that this term has in contemporary embryology.⁸⁴ The essential argument of *Generation of animals* is that this "organizer" is entirely contained in the male spermatc material, which thus serves as the vehicle of the father's *eidòs*, while the female counterpart, the "menstrual fluid" (*katamènia*), provides only the homogeneous matter out of which all future "parts" of the fetus are to be fashioned. It is in making this point that the artisan analogies come to play an important role. In Chapter 21 of Book I, Aristotle introduces the first three of these to describe the action of the semen on the *katamènia*: 1. That of a bed made by a carpenter; 2. that of a ball resulting from the combination of wax and form, and eventually 3. that of the art of healing and a

⁸⁵ *Generation of Animals* I.21 729b16-21.

⁸⁶ *Generation of Animals* I. 21, 729b10-11.

⁸⁷ *Generation of Animals* I. 22, 730b26.

⁸⁸ *Generation of Animals* I.,22, 730b2-4.

⁸⁹ Ancient Greek had no noun equivalent to 'architecture'. In reality Aristotle here used the term *oikodomèsis*, to be translated as 'housebuilding'. The action of building a house was referred to with the verb *oikodomeô*.

⁹⁰ *Generation of Animals* I.22, 730b4-8.

⁹¹ *Generation of Animals*, I.22, 730b20-26.

⁹² "Potrebbe ancora agguagliare il seme dell'uomo [...] a uno strumento, come per dir così, a una sega; perché considerando lo sperma in sé, s'assomiglia a una sega. Perché come la sega operando in virtù dell'arte, induce la forma dell'arte, così il seme, del maschio operando in virtù dell'anima, induce l'anima." *L. Gen. Corp.* in *Opere* II, p. 300.

patient.⁸⁵ The point intended by these three *exempla* amounts to the following: "...when- ever one thing is made from two of which one is active and the other passive, the active agent does not exist in that which is made..."⁸⁶ In the three cases the patient undergoes a transformation which can be assimilated to a series of motions (cf. the notion of *kinèsis*): from raw timber to bed, from unformed to spherical, and from ailing to healthy). But it is clear in the meantime that the agents themselves (the movers) were left unaltered: the carpenter is still himself, the spherical spherical, and the art of healing unmodified.

Aristotle also likened the female insect bringing the eggs she carries with a male in order to have them fertilized to somebody who would "carry the material to the workman".⁸⁷ The case is a variation on the core analogy developed a paragraph earlier: that of the woman's womb as a building site, a place where building materials like wood (*hylè* in Greek, which is also the term Aristotle uses generically to designate "matter") are available for construction:

Not only must the mass of material exist there from which the embryo is formed in the first instance, but further material must constantly be added that it may increase in size.⁸⁸

(During gestation, menstrual blood, nature's building material, is constantly added to increase the mass of the embryo. The phenomenon explains the absence of menses in pregnant women.)

"Therefore the birth must take place in the female. For the carpenter must keep in close connection with his timber, and the potter with his clay, and generally all workmanship and the ultimate movement imparted to matter must be connected with the material concerned, as for instance, architecture⁸⁹ is in the buildings it makes."⁹⁰

Similarly, the principle that is to endow the *eidos* of the future animal body, the male semen, is present at the natural building site, the womb. While still remaining within the frame of the carpenter/housebuilder analogy Aristotle lingered extensively on the nature of semen as a mediator of imparted motion:

"It is [the carpenter's] hand that moves his tools, his tools that move the material; it is his knowledge of his art, and his soul, in which is the form, that move his hands or any other part of him with a motion of some definite kind, a motion varying with the varying nature of the object made. In like manner, in the male of those animals which emit semen, nature uses the semen as a tool and as possessing motion in actuality, just as tools are used in the products of any art, for in them lies a certain sense the motion of the art."⁹¹

This passage did not pass unnoticed to Varchi. He eagerly accepted the comparison of male semen and a carpenter's tool "possessing motion in actuality"⁹² which he tried hard

⁹³ “...perché considerando la sperma in sé, s’assomiglia a una sega.” Ibid.

⁹⁴ “...il padre o la virtù informativa non fa altro che ridurre in atto e cavare della materia quello che v’era prima in potenza.” *L. Gen. Corp.* in *Opere II*, p. 301.

to make explicit: "...if one considers sperm as such, it is like a saw..."⁹³ More seriously, beyond the question of the instrumental character of semen, this passage touches the very core of the problem of the transmission of form, existing first in the mind of the artist, or in the heart of the father, then transmitted to matter through operations that are thought to be analogous in art and nature.

The very end of the commentary (which is not the end of the lecture) gives a hint that Varchi considered himself that he had not yet been able to explore the matter at hand in its entirety. The Florentine commentator observed here that it is the doctrine of some authors (and he is referring both to the Platonists as to Avicenna) that the individual agents in animal generation were not doing more than to "dispose the matter properly, in order to allow a superior and universal agent to introduce a form into it." God, according to this doctrine, would introduce all three the vegetative, the sensitive and the intellectual form. As a consequence, according to these philosophers, all forms would originally be otherworldly, imported from 'the outside'. Such a statement, Varchi observes "is utterly false according to Aristotle, because all the natural forms (except the intellectual soul which comes from the outside) are drawn from the potentiality of the matter (*si cavono della potenza della materia*)."⁹⁴ Varchi's very conclusion of the commentary of the verses is: "the father or the informative virtue does nothing more than to bring to actualization and to draw out of the matter those things that were there potentially."⁹⁴

Four years before the lecture on Michelangelo's technomorphic sonnet, Varchi thus concluded his commentary on *Purgatorio* 25 with an almost identical statement: giving birth to a new form is nothing but the revelation, by applying a precise set of procedures, of a presence that lies slumbering in the matter. Both here, in 1543, as in the later lecture, the statement repudiates the idea of a transcendence of the *eidoi*.

5. Similarities between both lectures

Brought about by their common dependence on Aristotle's *Generation of animals*, both Varchian *lezioni* we discussed above display a series of most revealing parallels, which ultimately become parallels between Dante's passage from *Purgatorio* XXV and Michelangelo's sonnet: In both cases two distinct sites are mentioned, in which an instruction is generated. It is the heart of the father in *canto* 25; it is the mind of the artist in the sonnet. The other site is where the instruction arrives and 'organizes' or shapes a material principle: this is the mother's womb in Dante's description, where the *katamènia*, the raw material of life, awaits 'information'. In the sonnet this second site is the artist's workshop, where a marble block is ready to take shape. In both cases also, a vector is responsible for translating

the instruction from the first to the second site, where that instruction is made operative. That vector is male semen in the case of the generation of an animal body. In the case of the generation of a sculpture as described by Michelangelo and Varchi, it are the carefully coordinated ‘motions in actuality’ of the artist’s hands and tools. In both cases, the process is also supposed to have a dimension in time, which is relatively pre-established in the case of animal generation. In his *lezione sulla generazione del corpo*, Varchi treats the question of the viability (the earliest possible birth) of a human foetus in detail. As for the effective duration of the formation process, he estimates that this takes between 30 and 45 days.

⁹⁵ Maria Karvouni, "Demas. The human body as a tectonic construct," *Chora* 3 (1999), p. 105-106.

⁹⁶ *Ibid.*, p. 106.

⁹⁷ Leon Battista Alberti, *On the art of building in ten books* (Cambridge, Mass.: MIT Press, 1988), IX.5, 194.

B. THE ECHOES OF POPULAR WISDOM

1. Aristotle's technomorphism reversed

Aristotle's first preoccupation in writing *Generation of Animals* had been to provide a comprehensive and convincing account of the processes governing the *genèsis* of a living body. The use of the carpenter's analogy was a natural step to take. As an explanatory strategy it appears to fit in a long tradition, embedded in the Greek language: the verb *iktô*, to beget, belongs to the same etymological family as *tektôn*, carpenter, the term used by Aristotle. Maria Karvouni recently pointed to the fact that the term *tektôn*, (that would eventually engender *architektôn*) needed not always referring to an artisan working in wood.⁹⁵ The close tie between *tektôn* and *technè*, which refers to all the productive arts, suggests a more general meaning. Indeed, the Indo-European root **tekʷ* generally signified 'to work with an axe, or a sharp metal tool', a characterization that applies both to the carpenter and the stone-cutters or sculptors. Homer, for instance, would have used *tektôn* to refer to masons.⁹⁶

When Varchi revitalized the analogy through his symmetric lectures on *genèsis* in nature and art, the comparison was inverted. Here it is the production of a work of art that is illuminated and simultaneously receives a new significance by its comparison to animal generation. The interesting dimension about this lies in the fact that it is not formulated in the form of prescriptive instructions to artists, encouraging them to imitate nature even better. Varchi is not repeating statements such as the following, written down by Alberti about one century earlier: "The most expert Artists among the Ancients [...] were of opinion that an edifice was like an animal, so that in the formation of it we ought to imitate Nature."⁹⁷ Varchi's observations on the similarities between natural and artificial generation, instead, come a posteriori. They are clearly not addressed to artists – More than a reflection on the nature of the artist's activities, they are a reflection on the nature of the artefact, and in particular, on the good artefact: the one that most efficiently serves his purpose.

As Aristotle had used technomorphic analogies to illustrate the rationality and teleology of nature, Varchi in turn represented the trend in which 'natural analogies' are used to affirm the rationality, purposefulness, but also the inexorable necessities of a series of artefacts, mostly pieces of state-sponsored art or technology.

But by revitalizing the analogy between giving birth and making, Varchi also evoked the echo of a series of traditional notions his contemporaries held about the inter-

⁹⁸ For a detailed summary of the notions Renaissance Aristotelians held about the organic soul, see Katharine Park, *The organic soul*, in Charles B. Schmitt, Quentin Skinner, and Eckhard Kessler, *The Cambridge history of Renaissance philosophy* (Cambridge [England]; New York: Cambridge University Press, 1988), pp. 464–484.

⁹⁹ See the earlier mentioned verses from Dante's *Purgatory*, 25. On the threefold dimension of the soul in Varchi (I. Vegetativa II. Sensitiva ovvero irrazionale III. Razionale ovvero intelletiva), see the fourth part of Varchi's lecture on the infusion of the rational soul, entitled, *Della divisione dell'anima nelle sue parti, o vero potenze e operazioni*. *Opere* II, pp. 318–321.

¹⁰⁰ “Clearly those principles whose activity is physical cannot be present without a physical body – there can, for example, be no walking without feet; and this also rules out the possibility of their entering from outside, since it is impossible either that they enter by themselves, because they are inseparable [from a physical body], or that they enter by transmission in some body, because the semen is a residue of the nourishment that is undergoing change. It remains then that Reason (*ton noun*) enters in, as an additional factor, from outside (*thurathen*), and that it alone is divine, because physical activity has nothing to do whatsoever with the activity of Reason.” Aristotle, *Generation of Animals* II.3, 736b22–29.

¹⁰¹ For details on Aquinas' 'special creation', cf. Bembrose, p. 131.

dependency of mind and body which provide the parallels mentioned above (the generation of an instruction, the mediation of that instruction by a vector, and the ‘actualisation’ of that instruction through motion, imposing an alteration on the patient substance) with a far greater immediacy than one might imagine at first. Some of these parallels are just as well embedded in the Tuscan vernacular as the link between *tektón* and *tiktô* is in ancient Greek. The term “*concetto*” will play a key role here.

The analysis of the ‘physiology’ of creative thought and natural conception will proceed in three successive steps. I will first consider the emphasis of traditional Florentine culture on the material, substantial nature of creative thought. In a second step, I will evoke how both getting hold of a good idea and conceiving a child were envisioned as processes akin to acts of retention and sealing of a naturally volatile substance. In the third and final step, I will evoke the idea of a ‘sympathy’ between the seat of creative thought and the sites where human generation does occur, that is to say, between the brain and the uterus.

2. The materiality of creative thought

The psychology of Varchi’s days (in the sense of ‘science of the mental faculties’) was based on a series of notions inherited from the Medieval (both Arab and Latin) interpretation of Aristotle’s *De Anima*. Briefly outlined, this psychology may be said to have distinguished two separate principles of thought: one series of faculties bundled under the denomination ‘sensitive soul’, which are part of a larger set of faculties that govern the material functioning of the human body, sometimes referred to as the ‘organic soul’.⁹⁸ We saw in Dante’s passage that this ‘organic’ soul starts developing in the foetus immediately after conception. The earthly soul-principle, as a matter of fact, proceeds directly from the substance contained in the male semen that had brought about the developmental motions in the so-called fetation, first instantiating the vegetative faculties (growth, nutrition), then the sensitive ones (perceptual and motive faculties).⁹⁹ The other principle of thought, which is largely dependent on the first, is the rational soul, the intellect. Aristotle had enigmatically mentioned in *Generation of Animals* that the intellective faculty of the soul (‘Reason’) is infused “from outside”, during gestation, without adding much detail.¹⁰⁰ For Aquinas (and, after him, Dante) that “outside” could be directly identified with God, whom they imagined following the course of development of every human fetus in order to be ready to instil an “especially” created, individual rational soul, whenever the brain functions of the child were sufficiently developed.¹⁰¹



Fig. 3.7 Leonardo da Vinci, Diagrammatic sagittal section through the head with a representation of the three brain ventricles. Pen drawing, around 1490. Windsor Castle (Clark 12603r).

¹⁰² L.3.C.O.IV in *Opere* II, p. 463.

¹⁰³ For a detailed analysis of Leonardo's sketch, see Leonardo, Charles Donald O'Malley, and J. B. de C. M. Saunders, *Leonardo da Vinci on the human body: the anatomical, physiological, and embryological drawings of Leonardo da Vinci: with translations, emendations and a biographical introduction* (New York: Greenwich House: Distributed by Crown Publishers, 1982), p. 330.

¹⁰⁴ Varchi's detailed account on the four interior senses appears in *L.Par.I.2* in *Opere* II, p. 350. See also *L.creaz.Inf.* in *Opere* II, p. 320.

¹⁰⁵ For a summary of the fierce Renaissance dispute on the nature of the intellect, see Eckard Kessler, *The intellectual soul*, in Schmitt, Skinner, and Kessler, *The Cambridge history of Renaissance philosophy*, pp. 485-534.

The two souls, sensitive and rational, are of a radically different nature in the measure that the former remains entirely material and thus mortal, while the latter is thought incorruptible and eternal. The sensitive soul is a delicately proportioned mixture of elements in which fire and air predominate. All its operations are brought about by the motions of material substances, even if of an ethereal, rarefied kind. These operations are also clearly localizable in the body. The most important of them take place in the brain. Several centuries after Aristotle, Galen had been able to demonstrate that the sensitive and motor functions of an animal body were entirely dependent on its nervous system, and that the brain was the very core of that system. Figure 3.7 shows one of Leonardo's early interpretations of a traditional diagram: that of the three brain-ventricles (*ventricoli o vero celle*)¹⁰², which Medieval and Renaissance physicians imagined as hollow spaces in the brain mass located between the front and the occiput, and in which they assumed the most important functions of the mortal mind to occur.¹⁰³ Nerves were pictured as hollow conducts through which hot vapours, messenger spirits, circulated. Sensations from the outside world are brought in through the senses, from which they are conveyed by means of the circulation of the 'sensitive spirits' through such conducts, to the *sensus communis*, a faculty situated in the frontal ventricle. The second ventricle, linked to the first through a small channel, was imagined as the seat of two faculties: the [facoltà] *cogitativa*, an instinctive power of judgment, akin to animal reasoning, and imagination (*fantasia*). It is from this central ventricle that the motor nerves originate, through which again vaporous spirits convey the instructions for motion to the muscles. The last ventricle, situated at the back of the head, was thought to contain memory (*memoria*). It functions as a kind of storage room for thoughts processed and produced by the *cogitativa* and the *fantasia*.¹⁰⁴

The sensitive part of the organic soul was thought to be in charge of a first level of thought. What it contains are in the first place the appearances of the exterior objects as they had been perceived by the senses (referred to as *phantasmata* in Greek). Thanks to memory and imagination (faculties which Varchi, following an established tradition, referred to as "interior senses"), the sensitive soul has the capacity to stage these "ghosts" again, even when the external objects from which they are derived are no longer within reach of the senses.

Compared to the sensitive soul, the intellect (*nous* in Greek), only appearing in the human species, constitutes a superior level of thought. It was thought of as entirely immaterial, and so were its contents (the *noèta*). Lacking dimensions, it is not linked to any specific site in the body either. Certain authors imagine it to be evenly spread over the whole body.¹⁰⁵

In which of both souls is one now to imagine the *concetto* Michelangelo mentioned in his sonnet? The sculptor had argued that what is to guide the hand of the *artista*

- ¹⁰⁶ In the word for word commentary, Varchi observes on Michelangelo's use of *intelletto*: "Questo nome intelletto significa più cose [...] ed è propriamente in noi quella parte più nobile dell'anima per la quale noi intendiamo, e si chiama molte volte mente. [...] Ma in questo luogo si piglia altramente, ciò è per quella potenza o virtù che si chiama immaginazione, o vero fantasia, della quale avemo ragionato più volte, la quale non solamente è differente dall'intelletto, ma diversa, essendo quello immortale appresso i più veri filosofi, e questa appresso tutti e senza alcun dubbio mortale." *L.s.MB.* in *Opere* II, pp. 619.
- ¹⁰⁷ *Ibid.*
- ¹⁰⁸ Dans un autre texte, Varchi est tout aussi clair sur le fait que les concepts sont les produits de la fantaisie : « dans la virtù fantastica sont conservées les images, ou similitudes des choses, lesquelles les philosophes appellent tantôt espèces, tantôt intentions, tantôt par d'autres noms ; et nous les appelons correctement concepts, quelquefois pensées, ou entendements » : "Ho detto i concetti dell'animo, perché il fine di che favella è principalmente mostrare di fuori quello che egli ha racchiuso dentro nell'animo, ovvero mente, ciò è nella fantasia, perché nella virtù fantastica si riserbano le immagini, ovvero similitudini delle cose, le quali i filosofi chiamano ora spezie, ora intenzioni, ed ora altamente; e noi le diciamo propriamente concetti, e talvolta pensieri, ovvero intendimenti." *Ercolano* in *Opere* II, p. 24.
- ¹⁰⁹ Katharine Park, *The organic soul*, in Schmitt, Skinner, and Kessler, *The Cambridge history of Renaissance philosophy*, p. 472.
- ¹¹⁰ "CONTE CESARE: In ché significato pigliate voi *ghiribizzare*? VARCHI: *Ghiribizzare*, *fantasticare*, *girandolare*, e *arzigogolare* si dicono di colori i quali si stillano il cervello, pensano a ghiribizzi, a fantasticherie, a girandole, ad arzigogoli,, ciò è a nuove invenzioni e a trovati strani e straordinari, i quali o riescono, o non riescono [...]" *Ercolano* in *Opere* II, p. 44.
- ¹¹¹ The original meaning of *capriccio* is in fact 'shiver'; see the first definition given by the *Dizionario della Crusca* "quel tremore, che scorre per le carni, o per errore di che che sia, che ti fa arricciare i peli, o per febbre sopravvegnete. Lat. *horror*." For several instances of the use of *capricci* and *ghiribizzi* by Giorgio Vasari and Anton Francesco Doni, see Barocchi, ed., *Trattati d'arte del Cinquecento: Fra Manierismo e Contrariforma*, p. 1329.
- ¹¹² [Noot over term gril/grillen in het Nederlands??]
- ¹¹³ All three expressions abound in 16th-century Tuscan texts. In a passage of the *Vite* Vasari referred to the mental efforts painters needed to go through as "le sophistiche e gli stillamenti di cervello di pittura" *Vite* T4/G4, p. 108. Vasari also often referred to artist's *cervelli* as a metonymy for their inventive powers. These *cervelli* are said, for instance to be "capriccioso" (T4, 'Vita di Francesco Mazzuoli', p. 532), "capriccioso e fantastico" (T4, 'Vita di Morro da Feltro', p. 517), "capriccioso e pazzo" (T4, 'Vita di Bartolomeo da Bagnocavallo', p. 496), "capriccioso e bizzarro" (*ibid.*), "terribile" (G5, 'Vita di Battista Franco', p. 486.), "stravagante" (T3/G3, 'Vita di Sandro Botticelli', p. 511), "sofistico" (G3, 'Vita di Gherardo miniatore Fiorentino', p. 471). The painter Pietro Perugino, because of his stubbornness, is said to have a "cervello di porfido", 'a porphyry brain'. (T3/G3, 'Vita di Pietro Perugino', p. 611).
- ¹¹⁴ Vasari described a girandola as a "machina piena di trombe di fuoco e di razzi et altri fuochi lavorati, la quale girandola aveva ora forma di tempio, ora di nave, ora di scogli e talora d'una città o d'uno Inferno, come più piaceva all'inventore" *Vite* G5, ('Vita di Niccolò detto il Tribolo'), p. 222. This passage from Tribolo's vita contains also several detailed descriptions of *girandole*. See also the very last chapter of Vannoccio Biringuccio's *Pirotechnia* (book X, chapter 10), dedicated to the manufacture of *girandole*. Vannoccio Biringuccio and Adriano Carugo, *De la pirotechnia: 1540* (Milano: Il polifilo, 1977), pp. 440-443.

is the *intelletto*. It would seem clear thus that the author is referring to the intellect, the rational soul. But this is not what Varchi claims. In his commentary on the sonnet the philosopher is very explicit: the poet has used an improper term and his real intention could only have been to refer to the *fantasia*, certainly not to the intellect.¹⁰⁶ Michelangelo's confusion is excusable, though, Varchi immediately observed. Even Petrarch and ultimately Aristotle himself had occasionally confused the *fantasia* and the rational mind.¹⁰⁷ But, properly speaking, a visual artist's *concetti* can only refer to the productions of the former, and are thus strictly confined to the realm of the sensitive soul.¹⁰⁸

According to this assumption, the *concetti* in their quality of *phanstasmata* have an almost tangible existence. They are images that take shape and exist as eddies in a hot vapour whirling in some hollow spaces of the artist's body. They are the products of the organic soul, a principle of faint efficiency at its beginnings, the powers of which are also lessening towards the end of the body's life-cycle.¹⁰⁹ A principle whose activity is no more than pure sensation or a sub-intellectual kind of thought, visual, associative, savage and often escaping from the powers of the will (seated in the intellect).

The wild, material, irrational character of the products of the *fantasia* is well rendered by the terminology referring to it in the popular Florentine language of the 16th century. The wealth of that terminology (for which Varchi himself is an excellent source) might strike us today. Several of the verbs and nouns in question are moreover impossible to translate in contemporary English. This is already the case for an elementary verb such as *fanstasticare* ("to fantasticate"?). So the more for *ghiribizzare*, *mulinare*, *girandolare*, *arzigogolare*, which are all referring to the inventive activity of fantasy.¹¹⁰ Their products are *fantasie*, *ghiribizzi*, *grilli*, *girandole*, *arzigogoli*, *capricci*, ...¹¹¹

It is in this series that we have to fit the famous verb *farneticare*, ("to frenziate") whom Varchi had declared impossible to translate into Latin, and thus a mark of the contemporary vernacular's superiority over its venerable ancestor. Nouns like *ghiribizzi* (...) and *grilli* (crickets in English) suggest at once thriving, animated, imbalanced and vibrant thought forms: like insects inhabiting the thinker's brain.¹¹²

The idea that the contents of the mind are tangible substances is well present in familiar expressions of the time such as *spezzarsi il cervello*, *stillarsi il cervello*, *alambicarsi il cervello* (to crush one's mind, to distillate one's mind, to 'alambicate' one's mind).¹¹³ The same allusions to alchemy as the art of the manipulation of gaseous substances, of heat and light, are present in the verb *girandolare*. In the Florence of the Renaissance, the term *girandole* referred technically to the 'whirling suns', specific firework-devices very popular at public celebrations, consisting of a suspended wheel which, once ignited, started spinning while sending out showers of sparks.¹¹⁴ These were, by definition, the products of inventive, fanciful minds. The late 16th artist Bernardo Buontalenti, celebrated for his versatility



Fig. 3.8 Vanoccio Biringuccio, *Girandole*, from *Pirotechnia* (Venice, 1540).

¹¹⁵ On the origins of Buontalenti's surname, see Filippo Baldinucci, *Notizie de' professori del disegno da Cimabue in qua, per le quali si dimostra come e per chi le bell'arti di pittura, scultura e architettura lasciata la rozzezza delle maniere greca, e gottica, si sano in questi secoli ridotte all'antica loro perfezzione*, ERanalli, ed. (Firenze: V. Batelli e Compagni, 1846 (1681-1728)) vol. II, p. 293 ff.

¹¹⁶ "Questo signore ha un cervello come una bandiera di campanile, che ogni vento che vi dà drento la fa girare." *Vite G6*, (Vita di Michelagnolo Buonarroti), p. 119.

¹¹⁷ "Il Carro significa la volubilità de gl'Ebrii, perciocché il troppo vino fa spesso aggirare il cervello a gl'huomini, come s'aggirano le ruote de i Carri." Cesare (Giovanni Campani) Ripa, *Iconologia, ovvero descrizione di diverse imagini cavate dall'antichità, de di propria inventione (1603)*, first edition Rome, Giovanni Gigliotti, 1593; this edition is the third edition, Rome, Lepido Facii, 1603. Here in facsimile. ed. (Hildesheim, NY: Georg Olms Verlag, 1970), p. 59.

¹¹⁸ The lemma "Concetto" of the *Fabbrica del Mondo*, which was dedicated to Cosimo I de' Medici, starts with the mention: "Lat: conceptus. È quello che l'huomo genera, o propone nell'animo di fare[...]" Francesco Alunno, *La Fabbrica del Mondo di M. Francesco Alunno da Ferrara, nella quale si contengono le voci di Dante, del Petrarca, del Boccaccio, & altri buoni autori, mediante la quali si possono scrivendo isprimere tutti i concetti dell'huomo di qualunque cosa creata*, dit is niet de eerste editie: in onderschrift op de titelpagina: Di nuovo ristampata, ricorretta et ampliata dalo istesso autore, & non solo nelle cose volgari, ma anchor piu nelle latine, & con assia miglior ordine distinte, & collocate. ed. (Venezia: Paolo Gherardo, 1557).

¹¹⁹ "E perciò la donna gravida ne i primi giorni nulla sente; quindi co'l tempo sente, che il concetto se le muove nel ventre di modo oscuro, e poi di più chiaro, e perfetto." Giuseppe Liceto, *La nobiltà de' principali membri dell'uomo*. (Bologna: Giovanni Rossi, 1590).

¹²⁰ Jean Piaget, *La représentation du monde chez l'enfant* (Paris: PUF, 2003), p. 46. Piaget termed 'substantialism' the children's tendency to imagine thought to be material.

¹²¹ See *Generation of Animals* II. 2, in general, on the nature of semen, and 736a13 on its foaminess.

(he not only staged many important fire works, but was also stage-designer, architect, engineer, jeweller, culinary stylist, etc.), was called by his contemporaries Bernardo delle Girandole.¹¹⁵

Michelangelo did also refer to the operations of the human mind in tangible, sometimes mechanical terms. According to Vasari, the sculptor would have one day referred to one of his (particularly indecisive) patrons with the words: “this *signore* has a brain like a bell-tower’s weather-vane: any wind that comes to blow in it causes it to turn (*girare*).”¹¹⁶ Similar expressions also appear in the terminology and iconography related to drunkenness and volubility. According to Cesare Ripa’s *Iconologia*, too much wine is said to “far girare il cervello” (‘to cause one’s brain to spin’). The revolving wheels of Bacchus triumphal chariot would be a reference to that truth.¹¹⁷

3. Conceiving as processes of retention

Today, both in English and Italian, the term ‘concept’ solely refers to abstract mental representations (with, according to the discipline in which the term is used, a series of specific supplementary meanings). In 16th century Italian vernacular, the term *concetto* referred more in general to “what man generates”, to use the terse formula of Francesco Alunni, the author of the proto-encyclopedia *La Fabbrica del Mondo*.¹¹⁸ Not only, thus, the fruits of thought, or intentions entertained by the mind, but also bodies conceived in the flesh. The obstetricians of those days thus spoke of the motions of the *concetto* in the mother’s belly, and used the term as a synonym of *creatura*, *parto* and *feto*.¹¹⁹ The double meaning of *concetto* is well embedded in the etymology of the word. The Latin nouns *conceptus* and *conceptum* derive from the verb *concipere*, which literally meant ‘to receive, to collect, to contain, to keep inside oneself.’ A *conceptaculum* is a container. The action of collecting something in a vessel while managing to prevent its flowing away, could as efficiently describe the seizing, mentally, of an idea, as well as the fact of conceiving in the biological sense. To the question “could one see [somebody’s] thoughts if his head were to be opened?” asked by Jean Piaget to a 12-years-old, the child had answered: “no, they wouldn’t stay inside.”¹²⁰ The same idea of the volatility of the information-bearing substance dominated the question of animal conception in the classical tradition. Figure 3.9, taken from Jacob Rueff’s *De conceptu et generatione hominis*, shows the successive stages in the development of a human foetus. The images were first published in 1554, but the view that underlies them goes back to antiquity, and, not in the least, to Aristotle. For Aristotle, human semen is in reality a foam (comparable to stiffly beaten egg whites), a fine mixture of water and *pneuma*, a hot gaseous substance.¹²¹ It is

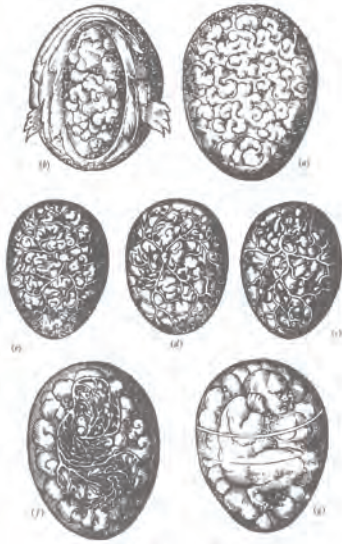


Fig. 3.9 Jacob Rueff, *The successive stages of the development of the human embryo inside the womb, from the De conceptu et generatione hominis* (Tiguri: Christoffel Froschouer, 1554). Image from Joseph Needham, *A History of Embryology* (Cambridge, 1959).

¹²² See *Generation of Animals* II. 2, 736b30 ff. on the *thermon* which causes semen to be generative.

¹²³ "... la materia [dello sperma] è schiumosa e spugnosa, perché vi si rinchiude dentro assai spirito, come nella spugna assai acqua: onde spargendosi in terra tosto diventa minuto e si secca prestamente, perché lo spirito si parte ed esala via, e l'altra parte viscosa si restringe e raccoglie insieme..." *L. Gen. Corp.* in *Opere* II, p. 288.

¹²⁴ The Roman physician and philosopher Scipione (also Girolamo) Mercurio (1550–1615) observed in his treatise on obstetrics first published in Verona, shortly before 1600: "Galeno nel libro settimo del sopradetto libro [15°] dice, che questo eccede ogni altro miracolo di Natura; conciosia cosa che nel tempo della gravidanza la bocca della matrice sia tanta stretta e serrata, che in essa non entrerebbe un piccolo ago, quantungue sottilissimo, & all'incontro, nel tempo del parto si allarga, e dilate tanto, che par essa passando la creatura, felicemente viene in luce." Scipione Mercurio, *La commare o raccogliatrice* (Verona: Francesco de' Rossi, 1642 (before 1600)), p. 25. Varchi had said, half a century earlier: "... ed è [la matrice] tanto ghiotta e tanto ingorda dello sperma virile, o più tosto la natura tanta accorta e tanto sollecita della generazione, che ricevuto dentro il seme, si chiude subito e in tal guisa, che (secondo affermano) non vi potrebbe entrare, né ancora una punta d'ago." *L. Gen. Corp.* in *Opere* II, p. 292.

¹²⁵ "... il parto o bambino nel ventre, è rinvolto e circondato da tre tele. La prima è una certa tela sottile non altramente quasi che quella, che veggiamo stare appicata al guscio dell'uovo di dentro: e chiamasi questa prima tela, armadura, o vero guardia, ed è fatta dalla natura per tre cagioni e giovamenti. Prima, accioché la virtù e lo spirito, che è nel seme del maschio, non evapori ed esali; e accioché le parti dello sperma non si spargano, ma stiano raccolte insieme, perché sempre la virtù unita è più forte." *L. Gen. Corp.* in *Opere* II, p. 292.

¹²⁶ Alberti has his 'Gianozzo saying': "Adunque così li dissi; in questo non biasimerei se le cose da serbare, per non le lasciare in mano e uso della brigata, si serrassimo ne' luoghi loro colle chiavi, e lodarei le chiavi tutte stessonno appresso della madre di famiglia, la quale osservasse ch'elle non andassono per troppe mani, anzi le tenesse tutte appresso di sé [...]" Alberti, *I libri delle famiglia* III in Leon Battista Alberti and Cecil (ed.) Grayson, *Opere volgari: vol. 1* (Bari: Laterza, 1960), p. 236.

¹²⁷ "La donna in casa conservi quello che l'è portato." Alberti, *I libri della famiglia*, II in *Ibid.*, p. 106.

the same substance that through the particular kind of heat it received from the father's heart has the capacity (*virtù*) to induce life and 'organization' in the menses.¹²² Since its original Greek meaning is that of "breath", Aristotle's *pneuma* could also be called "the breath of life". Varchi also compared the way *pneuma* – *spirito* – is contained in the semen, to the way water may be contained in a sponge.¹²³ Sperm that is spilled in the open air will soon lose all the spirits it contains, and only the watery, viscous part is then left to observe. The most important task, then, of the female womb (to which Dante had referred with the terms "*natural vasello*", natural vessel), once it has received the semen, is to impede the "breath of life" to seep out.

In a passage from the *De usu partium* that would later turn into a commonplace of Medieval and Renaissance medicine, Galen had cited it as one of the miracles of nature that the matrix is capable of absorbing the coveted semen and sealing it off with such hermetic efficiency, that, until the day of birth, the opening through which this is to occur will not allow the passage of even a thin probe. Paraphrasing Galen's image, sixteenth-century authors, among whom Varchi himself, spoke of the impossibility to insert the thinnest needle in the cervix, the uterus's avid mouth ("bocca della matrice"), immediately after the semen was enclosed.¹²⁴ Inside the matrix, the fetus is furthermore soon wrapped in three different membranes, the first and most crucial of which (similar to the membrane sticking to the inner part of an eggshell) is referred to as the "stronghold" (*armadura*) or "sentinel" (*guardia*), "...in order to avoid the power (*virtù*) or the spirit that is in the male's semen to evaporate and exhale..."¹²⁵ In Reuff's image-sequence we see how the *pneuma* or the spirits, represented as a thick and fiery cloud, because they are well-contained in the ovoid uterus, can properly exert their 'formative' or 'organizational' fusion with the menses: a handsome "conceptum" is the happy result.

It may be remembered here that in the world-view conceived by men that had been dominant in both antique and early modern times, the inclination to continence ("continentia" in Latin) represented the epitome of female virtue. Woman was the traditional custodian of the keys of the Roman *domus*, a tradition that lasted in Florence until the Renaissance, as Alberti testified in the *Libri della famiglia*.¹²⁶ That book also contains the plain statement: "Woman ought to conserve in house what is brought to her."¹²⁷

One might wonder now whether 16th-century artists, who used the word "*con-cetto*" to refer to their artistic intentions, were familiar with the embryological consonance of the term. The increasing accessibility of popular medical works on embryology in the vernacular make it rather unlikely that it would have completely escaped their attention. But the way and the contexts in which the artists who were Varchi's contemporaries have been using the term, indisputably confirms their awareness of its duplicity. If the action of producing *ghiribizzi* was said *ghiribizzare*, then the artists said that they give birth to their



Fig. 3.10 Cornelis Bos after Michelangelo, *Leda and the Swan*. Copper engraving. Amsterdam, Rijksprentenkabinet.

¹²⁸ "...da questa cognizione nasce un certo concetto..." see above in this chapter, note 26.

¹²⁹ "...chi da poi in tal arte vuol partorir qualche cosa degna d'essere o letta o vista, sia di bisogno che o sia quel medesimo ch'è già stato da quel primo partorito, o almeno simile a quello, e vadia per quella via, non andando, sia tanto più inferiore quanto più dalla via retta si dilunga." Ascanio Condivi et al., *Vita di Michelagnolo Buonarroti* (Firenze: Studio per edizioni scelte, 1998), p. 53. Condivi also wrote: "Spero tra poco tempo dar fuore alcuni suoi sonetti e madrigali, quali io con lungo tempo ho raccolti sì da lui sì da altri, e questo per dar saggio al mondo quento nell'invenzione vaglia e quanti bei concetti naschino da quel divino spirito." Condivi et al., *Vita di Michelagnolo Buonarroti*, p. 66.

¹³⁰ "Ora ha per le mani un'opera di marmo, qual egli fa a suo diletto, come quello che, pieno di concetti, è forza che ogni giorno ne partorisca qualcuno." Condivi et al., *Vita di Michelagnolo Buonarroti*, p. 51.

¹³¹ On the circumstances of the Alfonso's commission to Michelangelo of the *Leda*, see William A. Wallace, "Michelangelo's *Leda*: The Diplomatic Context," *Renaissance Studies* 15 (2001), pp. 473-499.

¹³² Varchi wrote: "Sta il parto nel ventre della madre chinato e curvo, quasi che cerchi la figura tonda, la quale è perfettissima. Tiene la faccia sopra le ginocchia, in guisa che il naso venga nel mezzo, e ciascuno occhio sopra un ginocchio..." Varchi, *L. Gen. Corp.* in *Opere* II, p. 292. A similar formulation is to be found in a late 16th Century handbook for midwifery: "La creatura dunque così raccolta forma di se quasi una figura circolare, e questo avviene, non sole, perche è intesa dalla natura, come la più perfetta di tutte l'atre figure matematiche: ma accioché in tale figura possi la creature moversi con ogni agevolezza, senza nocumento nei moti della madre ad ogni differenza di luogo: al che fine non solo è attissima la figura circolare, ma qualunque altra sarebbe state inutile." Mercurio, *La commare o raccogliatrice*, 14. (*Cap. III: Del sito naturale delle creatura nel ventre materno*).

¹³³ Alberti's metaphor is particularly detailed. The potential friendship in the mind of the person is first inseminated with benevolence; intimacy (*l'uso familiare*) is assimilated to the natural heat of the brooding. True friendship is what is hatched. Lack of assiduity will cause an abortive birth. "Adunque non la benivolenza per sé, né per sé stesso ancora l'uso familiare costituisce la intera amicizia, ma inseminasi l'amicizia di benevolenza. E come el pavoncino per essere covato esce in vita fuori donde era nell'uovo inchiuso, così l'amore già nell'animo conceputo piglia spirito ed esce in luce e comune notizia fra chi ama, quando per uso e dimestichezza si è bene osservato; e dove l'assiduità mancasse, li segue che quello già forse impresso caldo e fervore vitale perisce o esce abortivo, così in amicizia la benevolenza non con assiduo officio servata perisce." Alberti, *I libri della famiglia* IV, in Alberti and Grayson, *Opere volgari: vol. 1*, p. 305.

concepts. The term Vasari used, in his definition of *disegno* mentioned at the beginning of this chapter, to refer to the origination of a *concetto* in the artist's mind was *nascere*.¹²⁸ The verb *partorire*, to beget, to deliver is extremely frequent in the terminology Michelangelo used (or is supposed to have used) in the context of artistic creation.¹²⁹ Ascanio Condivi, Michelangelo's mouthpiece, described the old master as "spilling over with *concetti* so that he is forced to give birth to one of them every day."¹³⁰

An image exists, furthermore, that might be a good illustration of the Michelangelesque *concetto* in both its artistic and embryological acceptance. The image in question is an engraved copy, by the hand of Cornelis Bos, of *Leda and the swan*, a painting Michelangelo finished in 1530 for the Duke of Ferrara, Alfonso d'Este but which was probably destroyed somewhere in the 17th century.¹³¹ Several copies of the *Leda* have been conserved, but Bos's engraving seems to be one of the most accurate renderings of the original. It features a detail lacking in the other copies: the egg in the lower right corner of the painting, the fruit of *Leda* and *Zeus's* union and out of which either *Castor* or *Pollux* (both also visible in the back of the scene) will come to being. In transparency, through the egg's shell, the shape of this future offspring may already be discerned: the foetus is seating in exactly the same position as the one in the image-sequence of *Jacob Rueff*: with flexed members and raised knees, the chin on the chest and the little fists on the temples. It is this position that is closest to the perfection of the spherical form, as the early-modern treatises on gynaecology and obstetrics observed.¹³² It is tempting to see in this egg a vivid portrayal of what *Benedetto Varchi* had identified as the central notion of the first quatrain of Michelangelo's sonnet: the Aristotelian notion of existence "*in potenza*".

The bird's egg as a metaphor of fragile entities still needing careful attention before they could reveal themselves in full brilliance was not new. One century earlier, in his *Libri della famiglia*, *Alberti* had described the friendship (*amicizia*) a person might 'conceive' in his mind as a value that needed to be maintained with constant proofs of intimacy, just like a young peacock chick will only hatch if it was bred with assiduity.¹³³ The novelty lies in the fact that such metaphors are now applied, earnestly, to the work of the sculptor; an artisan working in a mineral matter which at first sight hardly looks alive.

4. 'Sympathies' between the seat of creative thought and the sites of human generation

The Early Modern mind still imagined the ties between the generative capacities of the human body and the powers of his imagination to be multiple. 16th-century physicians spoke of the great "sympathy" between the two:

- ¹³⁴ “Chiara cosa è che la imaginatione, e la generatione sono attioni dipendenti della medesima facoltà animale attinente al medesimo sopposito; e pero nascendo come da un medesimo fonte, hanno molto sympathia, e convenienza insieme...” Mercurio, *La commare o raccogliatrice*, p. 57.
- ¹³⁵ Mercurio saw, for instance, a direct link between the “la Fantasia nella testa, e la generativa ne i testicoli”, between ‘actions’ and ‘passions’: “...quando i vasi spermatici sono piene di seme, sorge da questi l’imaginativa di [s]caricarli, e di vuotarli, e desiderando la donna, forma una imaginatione libidinosa; & all’incontro quando il pensiero, e la imaginatione rivolge cose amorose per la mente, allora quasi in un subito (come avviene particolarmente ne i giovani) le parti genitali si gonfiano, e si irritano di tale imaginatione, e s’accingono insieme a l’atto venereo; e questa è quella sympathia, che è tra l’una e l’altra potenza.” *Ibid.*, p. 57.
- ¹³⁶ The topic of the Early Modern belief in the imprinting powers of maternal imagination is relatively well studied. On the link between these imaginations and monstrous births in (mostly medical) literature, see Huet. On the vivacity of the credence in late 16th-century Italy, as reflected in Torquato Tasso’s *Gerusalemme liberata*, see Valeria Finucci, “Maternal imagination and monstrous birth: Tasso’s *Gerusalemme liberata*,” in *Generation and degeneration. Tropes of reproduction in literature and history from antiquity through early-modern Europe*, ed. Valeria Finucci and Kevin Brownlee (Durham & London: Duke University Press, 2001), 41–77. A later version of this article appears in Finucci’s recent book, Valeria Finucci, *The manly masquerade: Masculinity, paternity and castration in the Italian Renaissance* (Durham and London: Duke University Press, 2003). On the role of the belief in the female culture of Renaissance Italy, see Jacqueline Marie Musacchio, “Imaginative conceptions in Renaissance Italy,” in *Picturing women in Renaissance and Baroque Italy*, ed. Geraldine A. Johnson and Sara F. Matthews Grieco (Cambridge: Cambridge University Press, 1997), pp. 43–59. A very late theoretical exposition on the subject, and a testimony of the impressive persistence of this belief, even in educated circles, is the early 19th century Benjamin Bablot, *Dissertation sur le pouvoir de l’imagination des femmes enceintes. Dans laquelle on passe successivement en revue tous les grands hommes qui, depuis plus de deux mille ans, ont admis l’influence de cete faculté sur le Foetus, & dans laquelle on répond aux objections de ceux qui combattent cete opinion* (facsimile of the 1803 Royez-edition, Paris) (Paris – Genève: Editions Champion – Slatkine, 1989 (1803)).
- ¹³⁷ Marie-Hélène Huet, *Monstrous Imagination* (Cambridge: Harvard University Press, 1993), p. 14.
- ¹³⁸ Paracelsus and Jolande Szàekács Jacobi, *Selected writings*, Bollingen series, 28 (New York: Pantheon Books, 1951), p. 106.
- ¹³⁹ “Potemo ancora aggiungere un’altra cagione dei mostri, e questa è l’immaginazione, dalla quale, benché per accidente, vengono infiniti effetti mirabili...” *L. Gen. Mostri* in *Opere* II, p. 669.
- ¹⁴⁰ An author on midwifery such as Mercurio dedicated an entire chapter of his treatise to the topic, entitled: ‘Della cagione, per la quale il desiderio ardente della donna gravida habbia forza di macchiare, e di imprimere nel corpo della creatura l’immagine della cosa desiderata’. The authorities cited here include Avicenna and Girolamo Cardano. Mercurio, *La commare o raccogliatrice*, p. 77ff.
- ¹⁴¹ “...la cause de quoi a toujours été référée à la forte imagination de la femme concevante ou enceinte, émue de l’appétit véhément, ou de l’aspect, ou d’un attouchement d’icelui à l’improviste; comme même de ce qu’on en voit naître d’aucuns ayant en quelque endroit du corps la figure et substance d’une couenne de lard, d’autres une souris, d’autres une écrevisse, d’autres une sole, et d’autres semblables.” Paré, *De monstres et des prodiges* (1573), Ambroise Paré, L. Delaruelle, and M. Sandrail, *Textes choisis* (Paris: Les belles lettres, 1953), p. 130.
- ¹⁴² “...Ce qui n’est point hors de raison entendu la force de l’imagination se joignant avec le vertu conformatrice, la mollesse de l’embryon, prompte et comme une cire molle à recevoir toute forme, et que, quand on voudra éplicher tous ceux qui sont ainsi marqués, il se trouvera que leurs mères auront été émués durant leurs grossesse de quelque tel appétit ou tel accident.” Paré, *ibid.*
- ¹⁴³ “Le donne gravide molte volte desiderando el vino, vehementemente pensano el vino desiderato: quella forte immaginazione gli spririti interiori commuove e commovendgli in essi dipinge la imagine del vino desiderato: questi spiriti muovono similmente el sangue, e nella tenera materia del concepto la imagine del vino scolpiscono.” Marsilio Ficino and Cosimo Bartoli, *Sopra lo Amore o ver’ Convito di Platone* (Firenze: Neri Dorteletata [PierFrancesco Giambullari], 1544), p. 201.
- ¹⁴⁴ See Katharine Park, *The organic soul*, in Schmitt & al., *The Cambridge history of Renaissance philosophy*, p. 472.

It is evident and clear that imagination and generation are actions depending on the same animal faculty [...]; and since they are originating (*nascendo*) from the same source, they have a great mutual sympathy, and correlation (*convenienza*)...¹³⁴

This sympathy or correlation entailed some forms of direct communication between the seats of sexual generation and fantasy, both in male and female bodies. Male *fantasia* was linked to the seats of the male generative faculty: the testicles and the seminal ducts. Female *fantasia* directly communicated with her womb. An author such as Scipione Mercurio attributed the emergence of libidinous fantasies in the mind of a man to the physical pressure of the semen on the seminal ducts in case of prolonged abstinence.¹³⁵ Inversely, lustful thoughts do (especially in young men) immediately cause physiological changes in the organs of reproduction. In women, it was the influence of imagination on parturition that was most talked about. The belief of a direct impact, ‘signing’ or ‘imprinting’ of a pregnant woman’s fantasies on her foetus was still vivid and widespread.¹³⁶ Even notoriously sceptical thinkers such as Pietro Pomponazzi and Montaigne vehemently adhered to it.¹³⁷ Paracelsus (who did not shun artisan’s analogies either) described the principle in the following terms:

...the child in the mother’s womb is exposed to the mother’s influence, and is as though entrusted to the hand of the potter, who creates and forms out of what he wants and what he pleases.¹³⁸

The belief was an easy expedient to explain otherwise unaccountable facts. It was, for instance, a means for embryologists rejecting Galen’s hypothesis of the two (male and female seeds) to account for the simple resemblance between a mother and her child. More spectacularly, it was designated as the cause of smaller or more important “marvellous effects” noted on the body of the newborn.¹³⁹ A specific craving of the mother (for a red fruit, for wine, for meat ...) had the capacity to “sign” the child’s skin in the womb (with a ‘strawberry mark’, a wine mark, redness of the face, etc.)¹⁴⁰ Unexpected emotions or contacts could cause a spot to take the features of a mouse, a crayfish or a sole.¹⁴¹ The French surgeon Ambroise Paré compared the embryo in the mother’s womb to a soft little wax mass, ready to receive any imprint.¹⁴² Almost one century earlier, Marsilio Ficino had established a direct parallel between the image of wine a pregnant woman might conceive in her mind, and the wine-stains these thoughts may “sculpt” on the body of her child or *concepto*, the term Bartoli used in his translation.¹⁴³ Physiologically, the process was explained through the agency of mediating *spiriti* which had received the imprint of the image in the *fantasia*, before travelling through the arteries and veins to the womb.¹⁴⁴ The principle was very familiar to 16th-century Florentines, who called such stains “voglie” (cravings) as Varchi himself attests.¹⁴⁵ The belief also gave credibility and authority to the

- ¹⁴⁵ "... e quando i parti nascono con alcuno di quei segni in alcuna parte del corpo, che noi Fiorentini chiamiamo voglie, tra i quali porremo ancora quelli, che di padre e madre bianchi nascono ghezzi; perchè possono venire dalla medesima cagione, come vedremo nel capo sequente." *L.Gen.Mostr.* in *Opere* II, p. 664. Or elsewhere: "Per qual cagione nascono qualche volta i parti con alcuni segni e note in alcuno membro, o di vino, o di carne, o di frutte, o d'altre cose da mangiare, che noi fiorentinamente chiamiamo voglie? Queste non sono altro, come ne dichiara il nome, che voglie e disiderii della madre; e vengono perchè la virtù fantastica, o vero immaginativa, seguitano quattro affetti o perturbazioni: appetito, piacere, paura e dolore. E questi sono alcuna volta tanto grandi e possenti che muovono e dispongono non solamente il corpo proprio di colui che gli ha, ma alcuna volta l'altrui;" *L.Gen.Corp.* in *Opere* II, p. 309.
- ¹⁴⁶ As Ambroise Paré wrote: "...nous remarquerons en passant combine est dangereux d'offenser une femme grosse, de lui montrer et ramentevoir quelque viande, de laquelle elle ne puisse avoir la jouissance promptement, voire et de lui faire voir les animaux ou des portraits d'iceux difformes ou monstrueux." Paré, *Des monstres et des prodiges*, in Paré, Delaruelle, and Sandrail, *Textes choisis*, p. 130.
- ¹⁴⁷ See Musacchio, "Imaginative conceptions in Renaissance Italy," p. 48.
- ¹⁴⁸ Already in the late 19th century, G. Marcotti observed: "The custom of giving wives a beautiful wax, sugar, or plaster doll can also be explained by something other than devotional purposes: that is, by the belief that the woman would engender a child analogous to the image that she keeps before her eyes during her pregnancy." G. Marcotti, *Un mercante fiorentino e la sua famiglia nel secolo XV* (Florence, 1881), p. 121 n. 43. The translation of this passus is from p. 317 of "Holy dolls: play and piety in Florence in the Quattrocento", which is Chapter 4 in Christiane Klapish-Zuber, *Women, family and ritual in Renaissance Italy* (Chicago: University of Chicago Press, 1985), pp. 311-329. See that article for details on the habit of offering bambini to young spouses even if Klapish-Zuber did not subscribe to Marcotti's theory and attribution of what she calls a "magical function" to the nuptial doll. See p. 317.
- ¹⁴⁹ These birth-trays and vessels stand central in Musacchio, "Imaginative conceptions in Renaissance Italy"
- ¹⁵⁰ On the roots of the proverb, and the principle of 'automimesis', as Martin Kemp baptized it, see Martin Kemp, "Ogni dipintore dipinge se: A Neoplatonic echo in Leonardo's Art Theory?" in *Cultural aspects of the Italian Renaissance: Essays in honour of P.O. Kristeller*, ed. C. Clough (Manchester: 1976), pp. 311-333; Frank Zöllner, "Ogni pittore dipinge se: Leonardo da Vinci and 'automimesis'," in *Der Künstler über sich in seinen Werk* (1992).
- ¹⁵¹ "Comune difetto è ne' dipintori ittali il riccognossersi l'aria e figura del hoperatore mediante le molte figure da lui dipinte." da Vinci Leonardo and Heinrich Ludwig, *Das Buch von der Malerei*, 3 vols. (Wien: W. Braumèuller, 1882), § 186. Translation from Zöllner, "Ogni pittore dipinge se: Leonardo da Vinci and 'automimesis'", p. 143.
- ¹⁵² "Questo accade, che il giudicio nostro è quello, che moue la mano alle creazioni de lineamenti d'esse figure per diuersi aspetti, in sino a tanto ch'esso si satisfaccia. E perche esso giudicio è una delle potentie de l'anima nostra, con quele essa compose la forma del corpo, dov'essa abita, secondo il suo volere, onde, avendo co'le mani à rifare un corpo humano, volentieri rifa quel corpo, di ch'essa fu prima inuentrice." Leonardo and Ludwig, *Das Buch von der Malerei*, § 499.

folk-wisdom's advice to meet a pregnant woman's wishes as soon as possible: one needed to prevent the mental image of the desired thing from leaving a lasting impression. The fear to cause irremovable imprints on the mind with emotionally potent visions dictated the strong interdiction ever to show monstrous images to pregnant women.¹⁴⁶ 16th-century illustrated bestiaries warned pregnant women to keep away: the images of grotesque beasts these books contained might impact on their progeny.¹⁴⁷ Instead of such visions, women were actively surrounded with many effigies of well-formed male babies, the sole legitimate desires of future mothers in this strictly patriarchal society. One of the recurrent items in the trousseaus of young Florentine brides, for instance, were the so-called *bambini*, doll-like painted sculptures of handsome baby boys.¹⁴⁸ Typical presents offered during a pregnancy to young women were painted wooden trays (*desco da parto*, or 'birth-tray') and majolica vessels depicting, on their upper sides, scenes associated with childbirth. On the reverses of those trays and bowls, though, appeared concealed, and thus even more potent because never unwittingly glanced at, images of naked little boys, or, on at least in one beautiful 16th century vessel, the word "maschio", male, spelled in large capital characters within an elaborate cartouche.¹⁴⁹

The belief in links between the animal faculties involved in generation and the *fantasia* surfaces furthermore in another, more typically local credence. A Florentine saying, appearing in the 1470's and very popular in the following decades, sustained that "ogni pittore dipinge se", 'every painter is depicting himself.'¹⁵⁰

The analysis of the kind of debates that the maxim brought about in artistic circles proves that this folk wisdom was not to be interpreted in present-day psychological or expressionistic terms, but in a sense we might almost designate as 'genetical': the saying would have meant that the imaginative faculty of the painter, his *fantasia*, remains permanently subject to the powers of the formative virtue (the *virtute formativa* of Dante's *passus*), the ancestral faculty out of which the whole of the sensitive soul eventually grew. During the formation of the artist's body, before his birth, that virtue had drawn in the flesh, those traits that it later, when the artist will be full-grown, will try to reproduce once again through the man's art. Leonardo, who referred to the imaginative faculty of the organic soul as the 'judgement', *giudizio*, expressed the idea in the following terms:

It is a common defect of Italian painters that one recognizes the expression and figure of the artist throughout the many figures painted by him.¹⁵¹ "This happens because it is our judgement which guides the hand in the creation of the outlines of figures until they prove satisfactory. And since this judgement is one of the faculties of our soul, with which it composed the form of the body, where it now lives, according to its own goodwill, therefore, when it now needs, with the hands, to produce a human body again, willingly does it compose that body again, of which it was the first inventor."¹⁵²



Fig. 3.11 *Anonymous Tuscan, 'Bambino', polychrome wood, 15th century. Florence, Museo Bardini.*

¹⁵³ "...è di tanta potentia questo tal giuditio, ch'eglio move le braccia al pittore e fa gli replicare se medesimo, parendo a essa anima, che quella sia il vero modo di figurare l'homo, e chi non fa come lei, faccia errore." Ibid. § 108.

¹⁵⁴ Condivi et al., *Vita di Michelagnolo Buonarroti*, p. 65.

Elsewhere in his so-called treatise on painting Leonardo observed:

This judgement is so powerful that it moves the painter's arm and makes him copy himself, since it seems to that soul that this is the true way to construct a man, and whoever does not do so, commits an error.¹⁵³

Leonardo reacted vehemently to this threat (of unconsciously painting ones own features), which he saw as the mark of lazy and weak powers of invention. Michelangelo alluded to this conviction, and the parallels between generation in the flesh and in art, when he remarked to the handsome son of a Bolognese painter whose work he despised: "My boy, [...] your father is truly better at making living figures than painted ones."¹⁵⁴

The saying "ogni pittore dipinge se" thus implicitly portrays artistic activity as an alternative means of indulging the natural instinct for reproduction. In the next chapter we will see how Varchi has been close to providing a full-fledged theory putting the drive for artistic creation on a par with the urge for sexual reproduction.

¹⁵⁵ *Generation of Animals* 1.2, 716a20–21.

¹⁵⁶ Recent studies on Vasari's attitude towards female artists suggest a deeply engrained conviction of women's lesser creative capacities as artists. See Fredrika H. Jacobs, "Woman's capacity to create: The unusual case of Sofonisba Anguissola," *Renaissance Quarterly* XLVII, no. 1 (1994), pp. 74–101, and in particular Maike Christadler, *Kreativität und Geschlecht: Giorgio Vasaris "Vite" und Sofonisba Anguissolas Selbst-Bilder* (Berlin: Reimer, 2000).

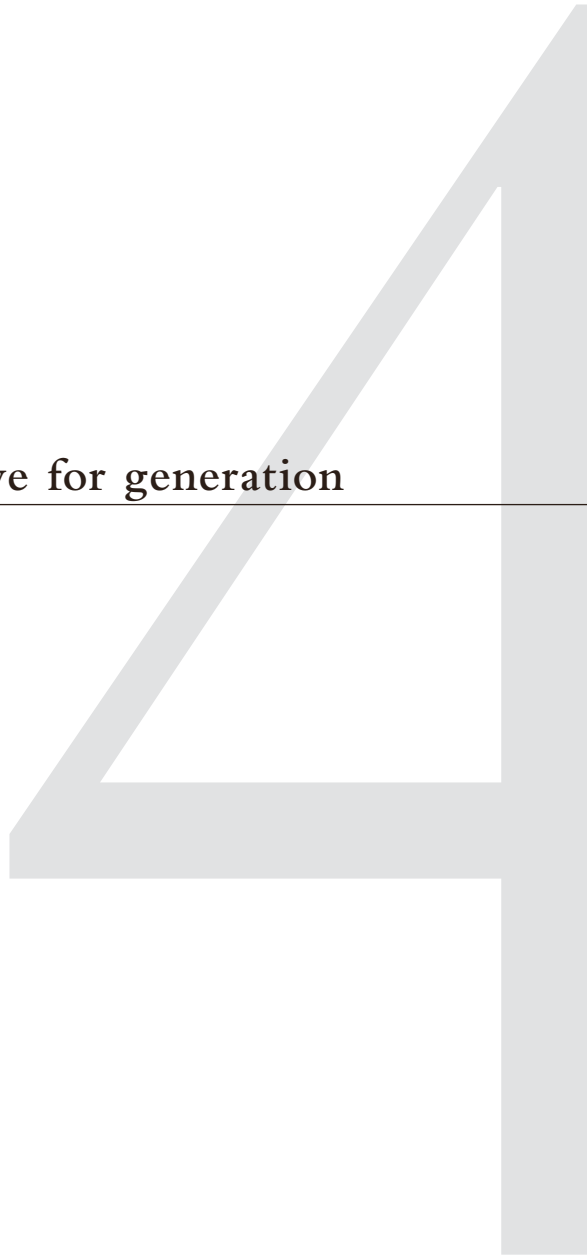
CONCLUSION: TWO CONCEPTIONS

Varchi intended his audience at the *Accademia Fiorentina* to grasp the parallels between the 1543 lecture *On the generation of the body* and the 1547 lecture on Michelangelo's sonnet. The analogies were intended to stress the correspondences between artificial and natural forms of generation, between creative and procreative processes. Yet, as one speaks of the parallel between two types of conception, it is important to remember that, in both cases, two distinguished moments of conception also appear:

In the case of Dante's account on the biology of human reproduction, a first conception occurs in the heart of the father where the semen is cast. The second conception occurs in the female womb, where this first *conceptus*, semen, is mixed with the *katamenia*, as to produce the foetus. In the case of Michelangelo's example of the sculptor, the first conception brings forth the artist's *concetto*, a seminal product of the mind which is then, through the intermediary of the sculptor's nerves, muscles, and tools, brought to fuse with the marble.

If we temporarily focus on the biological modus of conceiving, we may find relevant physiological differences between both moments. Aristotle and his Renaissance followers, such as Varchi, considered the most relevant differences between male and female bodies to be founded in a difference of natural body-heat. It is man's superior body temperature which allows him to perform the ultimate concoction of blood, in the heart, as to form semen. Because of her lack of sufficient body heat, such a feat is denied to the female body, who, instead, produces the *katamenia* as a kind of aborted semen, 'insufficiently concocted' blood. The most fitting analogy to describe the difference between male and female body as the sites of respectively a 'hot' and a 'tempered', tepid or lukewarm conception, would be that of a signet ring and its imprint in wax. The signet ring made out of gold, bronze or any other metal stands for semen. It is itself a combination of matter and form; it was necessarily conceived at a furnace, or in a flame hot enough to allow the ring's distinctive form to be imprinted in the metal. When that ring is then used afterwards, to impress a quantity of wax, a certain amount of heat would have been needed to soften the wax as to make it receptive for the ring's form, but a significantly smaller amount than in the first case. According to Aristotle, "by definition the male is that which is able to generate in another."¹⁵⁵ The product of his own, first, hot generation, allows him to do so. This course of reasoning depicts us both the seat of man's inventive powers (the central ventricle of the brain) and his heart as hot furnaces, capable of melting down entering substance (nourishment on the one hand, scattered visual impressions on the other), reshuffling them, and fusing them again in new, unseen forms.¹⁵⁶

CHAPTER FOUR:
Love and Pleasure
The nature of the drive for generation



¹ “But the curious thing is that Varchi, the great Platonist, interpreted the opinion about the nature of this ideal artistic concetto and its relationship to the actual work of art, as championed in Michelangelo’s poem, in a purely Aristotelian sense.” Erwin Panofsky, *Idea: a Concept in Art Theory*, trans. J.S. Peake (Columbia: S.C., 1968), p. 120.

² “artistotelico ficiniano”, see Selene Ballerini, "Benedetto Varchi aristotelico ficiniano," *Misure critiche* 21 (1991), pp. 25-42.

³ Tullia d’Aragona was born around 1510 in Rome as the daughter of one of the most famous Roman courtesans in the days of Leo X, Giulia Campana. Her mother took care of Tullia’s excellent education, which allowed her many skills to flower. She read music, as contemporaries testify, played lute, sang, and composed her own verses. Tullia sustained that she was the daughter of Cardinal Luigi d’Aragona, whose name she adopted. Her career is described in detail by Enrico Celani in the foreword to his edition of Tullia’s poetry. Tullia d’ Aragona and Enrico Celani, *Le rime di Tullia d’Aragona, cortigiana del secolo XVI*, Scelta di curiosità letterarie (Bologna: Romagnoli Dall’Aqua, 1891), pp. III-LXIII.

⁴ The *cortegiane oneste*, as a distinct professional group, stood at the very top of the complex Renaissance hierarchy of female prostitution; a Roman census of the 1510’s, cited by Enrico Celani, mentioned, besides the *cortesane oneste*, the *cortesane puttane*, *cortesane da candela*, *cortesane da lume*, *cortesane de la minor sorte*. See *Ibid.*

⁵ For the details of the whole transaction, see *Ibid.*, XXXVI-XXXIX. Celani published here the letter of supplication Varchi wrote to the Duchess Eleonora, on Tullia d’Aragona’s behalf. For a more recent account, see Deanna Basile, " *Fasseli gratia per poetessa*: Duke Cosimo I de’ Medici’s role in the Florentine literary circle of Tullia d’Aragona," in *The cultural politics of Duke Cosimo I de’ Medici*, ed. Konrad Eisenbichler (Aldershot, [England]; Burlington, Vt.: Ashgate, 2001), pp. 135-147. The nature of the, evidently warm-hearted relation between Varchi and Tullia is evoked in Rinaldina Russel’s introduction to Tullia d’ Aragona, Rinaldina Russell, and Bruce Merry, *Dialogue on the infinity of love*, The other voice in early modern Europe (Chicago: University of Chicago Press, 1997), pp. 21-48, a publication that also features an exhaustive bibliography.

1. The place of *eros* in Varchi's writings

In this section, the role attributed to love as the motive force behind generation will be examined. Varchi broadly defined love as a craving for pleasure. The analysis of that craving will once again confirm how much natural and artificial generations are considered to be parallel processes. Not only will the nature of the drives initiating the generative processes but also their intrinsic finalities come to display far-reaching similarities.

Love (*amore*), desire (*desiderio*) and lust (*appetito*) are central notions in the totality of Varchi's *lezioni*. Several of the Fiorentina lectures are explicitly taking *eros* as their theme. Two of them are simply entitled *Dell'amore* ('on love', 1553 and 1564). One discusses its representation (*Della pittura d'amore*, undated), others tackle questions and problems related to loving (*Sopra sette dubbi d'amore*, 1554; *Sopra alcune questioni d'amore*, 1554), while in still other lectures, such as the eight *lezioni* on Petrarch's *Canzoni delli occhi* (1545), amorous spell and desire are obviously of paramount importance.

This preoccupation with the theme of *eros* has struck earlier authors who, in consequence, labeled Varchi as a Neoplatonist. Panofsky, for instance, spoke of "Varchi, the great Platonist", and was genuinely surprised by his interpretation of Michelangelo's sonnet in Aristotelian terms.¹ A more recent critic has used the more convenient label "Ficinian Aristotelian", which accurately reflects the syncretism of his doctrines, at least in erotic matters.²

The ways in which his contemporaries considered the Florentine scholar as an expert in problems regarding love is reflected in the role he (or rather his character) played in Tullia d'Aragona's *Dialogo sopra l'infinità dell'amore* ('Dialogue on the infinity of Love'). Tullia, one of the most renowned courtesans of the era and also a skilled author of verses, wrote the dialogue shortly before her arrival in Florence in 1546.³ The work, published in Venice in 1547, came to be crucial in Tullia's manoeuvres to conserve her prestigious status as an 'honest courtesan' (*cortegiana onesta*) while being in Florence.⁴ One of Cosimo I de' Medici's edicts concerning public order forced all the city's prostitutes to wear a yellow scarf as a distinctive sign of their profession. The publication of the *Dialogue* meant that the professional status of poet (*poetessa*) could be bestowed on her. By this means, Tullia could be exempted from the humiliating disciplinary measure of the scarf. In fact, it was Benedetto Varchi himself, who had been befriended to Tullia long before her arrival in the city, who obtained this particular favour from the authorities.⁵

Tullia's dialogue, now celebrated as an early testimony of the feminist struggle against the dominating misogynic tendencies of early-modern educated culture, is inscribed in a long tradition of Renaissance dialogues on love, the roots of which, ultimately, lie in Plato's *Symposium*. Even if other characters appear in the *Dialogue on the*

⁶ In one of the first exchanges of the texts, ‘Tullia’ sustains that: “To tell you the truth, I don’t seem to know anything, except that I know nothing. – VARCHI: That itself would be no mean feat. You could compare yourself to Socrates, who was the wisest and the most virtuous man in the whole of Greece. – TULLIA: I didn’t mean that mine was the Socratic ignorance. You are putting excessively subtle interpretations on what I say. However, if Socrates was so wise and virtuous, why don’t you make a practice of imitating him? For as you know, he discussed everything with his friend Diotima and learned all manner of wonderful things from her, especially concerning the mysteries of love.” Aragona, Russell, and Merry, *Dialogue on the infinity of love*, pp. 65–66.

⁷ *Ibid.*, p. 85.

⁸ The *Commentarium in convivium Platonis, de amore* was not issued as an autonomous book; it first appears in printed form in Plato and Marsilio Ficino, *Diui Platonis Opera omnia M.E interprete* (Firenze, 1484).

⁹ Marsilio Ficino and Hercole Barbaraso de’ Terni, *Il Comento sopra il Convito di Platone et esso Convito. Tradotti in lingua Toscana* (Venetia: 1544). The other translation by the hand of Hercole Barbaraso de’ Terni appeared in Venice.

¹⁰ “...è da sapere, seguitando pur la dottrina di Platone, secondo che dichiara M. Marsilio Ficino nel suo divinissimo comento sopra il *Convivio* di Platone...” *L.d.Sens.* in *Opere* II, pp. 487–488. In the *Dialogo dell’infinità d’amore*, ‘Tullia’, at a certain point, comes to ask ‘Varchi’ “Aveto voi letto Platone, ed il *Convivio* di messer Marsilio Ficino?” ‘Varchi’s answer: “Signora, sì, e mi paion amene due miracolosi...” Tullia d’Aragona, *Dialogo della infinità d’amore*, in Mario Pozzi, *Trattati d’amore del Cinquecento* (Roma; Bari: G. Laterza, 1975 (1912)), pp. 185–248.

¹¹ See Paola Barocchi, ed., *Trattati d’arte del Cinquecento: Fra Manierismo e Contrariforma* (Bari: Laterza, 1960) vol. I, p. 310.

¹² See Varchi’s early essay *Della bellezza e della grazia* (published in *Opere* II: 733–735; in Barocchi, *Ibid.* I: 85–91, and in Paola Barocchi, *Scritti d’arte del Cinquecento*, La Letteratura italiana; storia e testi, v. 32 (Milano-Napoli: R. Ricciardi, 1971) II: 1671–1682). The essay was dedicated to the founder and first *principe* of the Paduan *Infiammati*, Leone Orsino, and probably written in 1543.

infinity of Love, the largest part of the text consists of exchanges between Tullia d'Aragona herself and Benedetto Varchi. These passages echo the culmination of Plato's symposium: the dialogue between the young Socrates and his female teacher in the art of love, Diotima. Here, instead, the roles are reversed. It is the older Varchi who lets his light shine on Tullia, his female student.⁶

Varchi is depicted in the *Dialogo* as a thinker who elevates love above all other motive forces in (human) existence. His character is heard saying:

For I can say, from the day I was born – when love began to hold me in his arms, a baby in swaddling clothes – until this very hour, past my forty-second year, I have never refrained from loving and despite the fact that many of us know that love is everywhere and governs all, we are unable to praise it as fully and as honourably as to come even close to its immeasurable worth.⁷

The term *amore* as understood by Tullia, Varchi, and their contemporaries, covered a large spectrum of emotions and experiences: from the craving for sensual gratification, over the desire for fame and worldly goods, to the pursuit of the divine. As such it was the subject of a wide range of literary works ranging from dialogues intended for a wide audience to learned comments destined to the educated classes.

The trend answered to a need for insights in the own inner life and for means mediating between the conflicting urges of the individual and the codes of conduct imposed by society and religion. A work largely contributing to the flourishing of that tradition in Renaissance Florence was Marsilio Ficino's commentary on Plato's *Symposium*, composed in 1469 and published in Latin in 1484, with the subtitle *De Amore*.⁸ That this text had not lost its appeal in the first half of the 16th Century is demonstrated by the fact that two Italian translations appeared simultaneously in 1544. One of them, the one by Cosimo Bartoli, was published in Florence.⁹ Varchi himself did recognize the huge impact of Ficino's commentary on the revival of dialogic literature on love. In his own writings, he praised it as a "most divine" thing. In the writings of d'Aragona it was called "miraculous."¹⁰

Several notions appearing in Varchi's (especially earlier) texts are directly indebted to the Ficinian commentary. In the now famous brief *On beauty and grace [of a woman] (Della bellezza e grazia)*, for instance, which can be dated around 1543,¹¹ Varchi adopted almost literally Ficino's considerations on physical beauty from *De amore* and claimed the superiority of the grace (*grazia*) of a woman, a hard-to-grasp soul-related quality, over the traditional criteria of physical appeal (symmetry, proportion and harmonious colours of her bodily members).¹²

In his eight 1545 lectures on the *Canzoni degli occhi*, the long poem in three parts in which Petrarch had addressed the magnetic eyes of his beloved Laura, Varchi also evoked

- ¹³ Ficino evoked the strali in Convivium VII.4 (Marsilio Ficino and Pierre (ed.) Laurens, *Commentaire sur le banquet de Platon, de l'amour. Commentarium in convivium Platonis De amore.*, ed. Pierre Laurens and Alain Michel (Paris: Les Belles Lettres, 2002), 218). The occurrences in Varchi are in *Tre Canzoni degli occhi*, *Opere* II, p. 471. Varchi cites here a series of synonyms for the *spiritelli d'amore*, like *saette, strali, raggi, splendore, lume, faville*. See also the *Lezzione Della Pittura d'Amore* in *Opere* II, p. 494.
- ¹⁴ Ficino's division appears in *Convivium* VI.8 (Ibid. , 149–150). Varchi's Paduan *lezzione* on the Petrarchan sonnet *Non da l'hispano Hiberno...* (Canzoniere 210), datable to 1540 or 1541 is now conserved in the ANF, *Carte Strozziiane* III, n. 206 (together with two other unpublished Paduan *lezzioni*). A large extract of it is published in Ballerini, "Benedetto Varchi aristotelico ficiniano," pp. 28–32.
- ¹⁵ The Ficinian representation of the most elevated and the vilest form of love as demons, with the three intermediary human passions in between would reappear only once explicitly, in the undated and fragmentary lecture on the senses *Dei Sensi*, a commentary on Petrarch's sonnet *Orso, e non furon mai...* (See *Opere* II, p. 488). Elsewhere Varchi seems to have refuted the identification of Love to a demon; Generally the emphasis come to lie on the continuity between typically human love and its version in other beings, and thus on the sequence in four steps (natural, sensitive, rational, and angelic love), see most conspicuously, the 1564 *lezzione* on love in its totality (*Opere* II, pp. 321–335). In the lecture *Dell'amore* (on Petrarch, 1553), a division of human love in five kinds is still upheld, but is articulated differently as in Ficino, and does not mention the demons any longer. See *Opere* II, p. 499.
- ¹⁶ "Conciosia cosa che se non fusse amore, non sarebbe cose nessuna: perchè, oltre che si disolverebbe e disunnirebbe, e per conseguente mancherebbe tutta questa macchina mondana, il primo motore non moverebbe;" *L.Am.D* in *Opere* II, p. 322.
- ¹⁷ Ficino, *Convivium*, III.3. Ficino and Laurens, *Commentaire sur le banquet de Platon, de l'amour. Commentarium in convivium Platonis De amore*, p. 60: "Voilà pourquoi toutes les parties du monde, étant l'œuvre d'un seul ouvrier et les membres d'une seule machine, semblables entre elles d'un amour réciproque, en sorte qu'on peut dire que l'Amour est le nœud éternel et la copule du monde, le soutien immobile de ses parties et le fondement solide de toute la machine.")
- ¹⁸ "...poggiare sopra il cielo, e quivi contemplando visibilmente la prima cagione a faccia a faccia, diventare lei" *L.s.MB.* in *Opere* II, p. 612. Ficino described in his commentary on Plato's symposium the idea of beauty as the splendor of the face of God.

Ficino's theory of the so-called *spiritelli d'amore*. According to this theory the condition of being-in-love is the effect of a physiological cause: similar to rays or little darts (*strali*), small doses of *spiritus* erupt from the eyes of the beloved and travel through the air in straight lines, reaching the lover's eyes first and finally his heart, where his *pneuma* will jump for joy because of the recognition and direct contact with a sisterly soul, with which it shares a profound sympathy.¹³ A desire to absorb these soul-emanations is responsible for the lover's urge to get drawn into his beloved's eyes.

In another early Varchi text, a Petrarchan commentary delivered to the Paduan Accademia degli Inflammati, the commentator borrowed quite literally Ficino's division of human love in five different kinds.¹⁴ According to that division, the noblest of these, eternal love, exists in the form of a spirit or good demon (*kalodaimôn*), which entices man into the contemplation of divine beauty. Its counterpart, the lowest form of human love that reduces man to the lower forms of existence and drives him to sexual reproduction, equally exists as a (bad) demon (*kakodaimôn*). In reality, as Ficino observed and Varchi echoed, both demons are intrinsically good since sexual generation and the care for progeny is as necessary as the pursuit of higher knowledge. According to Ficino, the three intermediary forms of love are no demons, but passions. Divine love, the noblest of them, urges man to a contemplative life, to behold spiritual beauty. Human love is the drive to lead an active and moral course of life. Animal love, by contrast, is the lowest 'erotic' passion that drives man to concupiscence and the enjoyment of the lowest sense (touch). In later writings, other divisions are developed and Varchi's dependence on strictly Ficinian notions decreases in favour of a theory of love increasingly grounded in Aristotelian concepts.¹⁵

In general, though, the realm of love, desire and yearning is the one domain in Varchi's conceptions in which notions issued from Florentine Neoplatonism continue to resound most strongly. As late as 1564, one year before his death, Varchi would still picture love/desire as the one ubiquitous principle in the universe, whose duty it is to insure the transmission of motion at all levels of existence through an endless set of conveyor belts, from the prime mover downward. Conceived as such, love preserves the orderly functioning of the "*universal machine*".¹⁶ This image is a direct echo of one of Ficino's descriptions.¹⁷ In the introduction to the lecture on Michelangelo's *Sonetto*, Varchi explained how love is the means given to man to realize his own purpose: to attain beatitude, or to "lean on the sky, and, from thereupon, through the visual contemplation of the First Cause, face to face, become Him."¹⁸ The fact that love is the medium given to man in order to ascent to heaven and become godlike explains why in allegorical representations *Amor* is depicted with wings. The very question of the iconography of love even became the subject of one of Varchi's academic lectures: *Della pittura d'amore*.

¹⁹ See *L.3C.O. VII* in *Opere* II, p. 479.

²⁰ Pietro Bembo, *Gli Asolani* (Venezia: Aldus Manutius, 1505).

²¹ Leone Ebreo (Judah ben Isaac Abrabanel, c. 1460-1523), a Jewish scholar born in Lisbon, held a position as lecturer in philosophy and medicine at the University of Naples in the first decades of the 16th century. Ebreo composed his *Dialoghi d'amore*, a blend of Jewish, Greek, Platonic, Aristotelian and Arabic doctrines, in Tuscan, motivated by a desire to address the growing flock of humanists who used the literary Tuscan, instead of Latin, as their language. Many reprints followed the first Roman (and posthumous) edition (1535); the work was also translated into French, Latin, Jewish, Hebrew. See Fabrizio Lelli, *Leone Ebreo*, in Paul F. Grendler and Renaissance Society of America, *Encyclopedia of the Renaissance* (New York: Scribner's, 1999).

Despite these parallelisms, Varchi's theory of love should not be considered congruent with that of Ficino. Varchi, a man who had chosen himself as motto the Petrarchan verse *così quaggiù si gode* ('such is the way one ought to enjoy oneself down here'),¹⁹ and who seemed to have outlived that program, was obviously inclined to pleasures the austere Neoplatonists of the later Florentine '400 would have condemned. In the meantime, his writings also participate to a general evolution of early 16th-century love-literature towards increasingly sensualist themes as an attempt to solve the contradictions inherent to Ficino's doctrine. As a result of that shift, earthly forms of love are no longer indiscriminately condemned. The cravings and appetites of beasts, plants and other lowly bodies are considered with renewed interest and elicit even the enthusiasm from the natural philosopher.

Ficino's Neoplatonism entailed God's strong concern for all forms of existence under the moon for being emanations of Himself. The love that links man to God is thereby a reciprocal passion. A doctrinal Aristotelian, Varchi would, in several passages of his texts, seriously doubt such a far-reaching involvement of the Prime Motor into the particulars and the accidents of human life: on several places, as we have seen, Varchi bluntly posited that God has no concern for, stronger even, no knowledge of these.

2. The rise of sensualism in earlier treatises on love

In the shift from Ficino's asceticism to the sensualism of later literature on Love, the writings in the vernacular play an important role. Two early 16th-century dialogues are of particular importance: Bembo's *Gli Asolani* (published in 1505)²⁰ and Leone Ebreo's *Dialoghi d'Amore* (composed 1501-1506; published in 1535).²¹ Both works upheld the most important Ficinian themes, such as the idea of the spiritual origins of beauty, the conception of a world entirely enlivened by divine light, and the condemnation of the lower senses (touch, smell, taste). Both works nonetheless mark a turn: Leone Ebreo's dialogue by insisting on a conception of love defined, in both universal and embodied terms, as the desire to fuse and become one with the beloved and to participate in its/his/her substance; Bembo's *Asolani* through its courteous and mundane tonalities. In this work, it is no longer the love of man for God, but the 'honest' love between man and woman that had become the principal centre of interest. Bembo's outlook on love was echoed in Baldassar Castiglione's highly influential dialogue *Il Cortegiano*, (first published in 1528 – a first draft was written in 1507), which idealized both the perfect gentleman courtier and the accomplished court lady. The *Book of the courtier* reflects the emergence of new class of highly respected and desired women in the previously all-male world of the court.

- ²² Agostino Nifo (1469-1538) a highly successful philosopher (and physician) originating from Sessa Aurunca, taught philosophy at the universities of Padua, Naples, Salerno and Rome; he is the author of many Aristotelian commentaries and treatises on Averroës; he wrote extensively on natural philosophy. Nifo's role is important in the whole controversy on the immortality of the soul, in which, from an earlier adherence to the Averroïst doctrine, he later, stirred by Pope Leo X, started displaying a strong commitment to the demonstrability of personal immortality in response to Pietro Pomponazzi's attacks on the notion. See Laurence Boulègue, *Agostino Nifo (1469-1528) Aristotélisme et humanisme des XV^e et XVI^e siècles*, in Agostino Nifo and Laurence Boulègue, *De pulchro et amore; Du beau et de l'amour. Vol. 1. Le livre du beau*, Les Classiques de l'Humanisme (Paris: Les belles lettres, 2003), pp.VII-CXXXIV.
- ²³ For Nifo's womanly passions, see Nifo, 2003, p. XXXIII; for his celebration of d'Aragona's beauty, see *Ibid.*, p. LXIX.
- ²⁴ Speroni's *Dialogo d'amore* was first published in a collection of *Dialoghi*, issued in 1542 at the Aldine press, a compilation which also included the dialogues *della dignità delle donne, del tempo di partorire, delle lingue, della discordia, del Cathaio, della Fortuna* and others.
- ²⁵ See Sperone Speroni's *Dialogo d'amore*, in Pozzi, *Trattati d'amore del Cinquecento*, p. 517.
- ²⁶ On Francesco Patrizi da Cherso (Frane Petric' – the man was of Dalmatian origin), see Lina Bolzoni, *L'universo dei poemi possibili: studi su Francesco Patrizi da Cherso* (Roma: Bulzoni, 1980). *Delfino ovvero del bacio* is all well considered only a marginal text in Patrizi's large oeuvre; it was only published for the first time in the 20th century. Patrizi, 1975. For a recent French translation: Francesco Patrizi and Sylvie Laurens-Aubry (transl.), *Du baiser* (Les belles lettres, 2002).
- ²⁷ According to Patrizi's own theory, the *spiritelli d'amore* are not only emanated through the eyes of the beloved, but equally through the pores of her skin. The lover can thus attain replenishment from the contact with his beloved's *pneuma*, not only by looking her in the eyes, but also by touching her: his enamored heart draws her *spiritelli* to himself through his own networks of veins and pores, just as a lung would inhale air. The greater the portion of touched skin, the greater the fusion of the *pneumata* of lover and beloved. The kiss is said to enhance the effect exponentially, which explains its ravishing nature. See also Pierre Laurens, *Petite introduction a la philosophie du baiser*, in Patrizi and Laurens-Aubry, *Du baiser*, pp. 17-26.

More decided steps toward physically assuming theoretical notions on love are taken by authors such as the Aristotelian Agostino Nifo,²² whose *De pulchro et amore* (Rome, 1531), a strictly philosophical questioning of the Neoplatonic strain of thoughts, definitely untied the notion of beauty from the ‘Divine Light’. In this double treatise, Nifo pleaded for the recognition of a distinctly human form of love: a love that would have as object nothing else than the enjoyment of the human (corporeal) beauty. The concept entails a rejection of the earlier condemnation of the ‘lower senses’. According to Nifo, touch, smell and taste (through the kiss) played an equally crucial role in the appreciation of the beauty of a body. Furthermore, whereas Platonists such as Ficino had only tolerated sexual intercourse as a means for procreation, Nifo started to praise sex as benefic in itself. Being himself not only a philosopher but also a physician, he based these conclusions on medical evidence. In a remarkable reversal of the Platonist’s argumentation, he affirmed that it is no longer reproduction that ennobles an otherwise vile act. Reproduction, by contrast, is referred to as a second-rate drive, in the sense that it is shared with the beasts. What distinguishes human sexuality is the whole of accompanying superior aesthetic experiences that are characteristic of the human species. It is significant, furthermore, that the dedicatee of Nifo’s treatise was a woman, whose beauty the author, himself a notorious womanizer, praised in lofty terms.²³

Tribute to sensuous love is also paid, for instance, in the more playful *Dialogo d’amore* (Venice, 1542) by Sperone Speroni, Varchi’s former colleague at the Paduan Accademia degli Umidi. In this dialogue, strong erotic tension is induced by the presence, as a character, of a famed courtesan, Tullia d’Aragona, and one of her well-known lovers (Bernardo Tasso, the father of Torquato).²⁴ Here, the realization of the “perfect hermaphrodite”, the ultimate fusion, body and mind, of male and female is represented as the natural end of the amorous longing.²⁵ Marked by Paduan Aristotelianism, Speroni did not refrain from emphasizing the sensuous dimension of love-making. Yet by the middle of the 16th century even Neoplatonists would no longer depict amorous sensuality as vile. A good example is the elegant little dialogue *Il Delfino overo del bacio*, written by the philosopher Francesco Patrizi da Cherso’s (1527–1597), a militant anti-Aristotelian.²⁶ ‘Delfino, or on the kiss’ is a true subversion of Ficino’s positions, in which the author exploited the theory of the *spiritelli* or *strali d’amore* to sing the praises of the sensuous kiss: a far more effective means for a lover and his/her beloved to exchange bodily spirits than the sense of sight.²⁷

²⁸ “SOFIA: Tu dici ben il vero, che la comunità de l’amore è più manifesta: imperò che quasi nessuno uomo è spogliato di quello, né maschio né femmina né vecchio né giovane; e anco i bambini, ne la prima cognizione, amano le madri e nutrici loro. FILONE: Tu non fai adunque l’amore più comune de l’umana generazione? SOFLA: Ancor in tutti gli animale irrazionali che generano si truova amore, tra femmine e maschi, e tra figliuoli e parenti. FILONE: Non solamente la generazione è cagione de l’amore che si truova negli uomini e negli altri animali, ma molte altre cose ci sono. Niente di manco l’amore non è solamente in questi; anzi la comunità sua in molte più cose del mondo si stende.” Leone Ebreo and Santino Caramella, *Dialoghi d’Amore* (Bari: Laterza, 1929), pp. 62-63.

²⁹ Dante, *Divina Commedia*: Purgatorio XVII.91-93.

³⁰ “E amano tanto ciascuno il suo proprio luogo, che se la terra per possibile o impossibile si levasse, e abbandonasse il centro suo e universale, l’acqua per sua natura non si partirebbe del luogo suo, né andorebbe il suo centro; e il medesimo farebbe il fuoco se l’aria si levasse ella.” *L.Am.D.* in *Opere* II, p. 324.

3. Love as a universal passion

Benedetto Varchi's interest in the natural sciences and medicine increased his receptivity for doctrines that displayed a deep reverence for the intrinsic intelligence of Nature, ranging from Lucretius' Epicureanism to the theories of Galen. Looking beyond the strictly human forms of love that had drawn Ficino's privileged attention (the two demons and three passions), Varchi shifted the emphasis again towards the universality of the passion or *appetito* that underpins love. The theme of the commonness of love (*comunità dell'amore*), its presence in all humans and all non-rational animals, had been pleaded by Leone Ebreo in the second of the *Dialogi d'Amore*.²⁸ The most fervent plea in favor of the idea of a universal *appetitus*, as such a familiar ingredient of Scholastic Aristotelianism, is to be found in Varchi's 1564 *lezzione* on Love, briefly mentioned in the preamble of the precedent chapter. This late Varchian lecture was a commentary on a passage from Dante's *Purgatorio* 17, which initiates with the words:

“Nè creator, nè creatura mai,
Cominciò ei, figliuol, fu sanz' amore,
O naturale, o d'animo, e tu 'l sai.”²⁹

(‘Neither Creator nor a creature ever,
Son’, he began, ‘was destitute of love
Natural or spiritual; and you know it.’)

In his lecture Varchi followed his hierarchical chain of being from bottom to top to analyze how, at each of the ten levels (*gradi*), the universal *appetite* manifests itself. At the level of the four elements, for instance, universal love appears as the desire, from the elemental particles, to rejoin their respective natural sites (earth in the centre of the world, water is atop of the earthly globe, air and fire as two spheres encircling this kernel). Fire and air when not impeded will therefore always move upward to the sky; earth and water hurry down, as to approach their ideal disposition in four concentric zones around the centre of the world (earth, water, air, fire). According to Varchi, water's desire for its natural site is such that, if one would take away the world's earthen kernel (supposing that it was possible), the universe's water mass would remain suspended, floating concentrically around this new void, girdled by the spheres of air and fire.³⁰

The division of the kinds of love and desire, related to the nature of the entities differently positioned on the ontological ladder, are subjected to it, generate four primary classes of love: natural, sensitive, rational (human), and angelic love. One notes that in Varchi's account such a division no longer entails any moral valuation. Natural love, for instance, the passion to which mineral bodies are subjected (the cause, for instance, of the downward movement of a falling stone or of the mutual attraction between a magnet

- ³¹ “Il primo e più nobile [amore] è quello, che principalmente in Dio, e poi nell’altre intelligenze di mano in mano si ritrova, e quello si chiama intellettuale, o vero angelico. Il secondo è quello, che solo nelle creature razionali, ciò è negli uomini si ritrova, onde è appellato razionale. Il terzo è quello che è proprio degli animali bruti, onde prese il suo nome e si chiama animale. Il quarto ed ultimo è quello, che in tutte le cose mancanti d’anima si ritrova; e questo quanto è più comune ed universale di tutti gli altri, tanto è ancora men degno e men perfetto, e si dice naturale.” *L.Am. P.* in *Opere* II, p. 499.
- ³² “...solo l’uomo per lo contenere in sé tutte l’altre nature, ed essere come un picciol mondo, ha in sé tutti tre gli amori, ciò il naturale, il sensitivo, e l’intellettivo; onde può amare e come pianta, e come animale, e come uomo.” *L.s.MB.* in *Opere* II, p. 625.
- ³³ Marsilio Ficino and Raymond Marcel, *Théologie platonicienne de l’immortalité des âmes*, 3 vols. (Paris: les Belles Lettres, 1964-1970) vol. I, pp. 40-44.
- ³⁴ Ficino and Laurens, *Commentaire sur le banquet de Platon, de l’amour. Commentarium in convivium Platonis De amore* I.3, p. 10.
- ³⁵ “Le paradoxe des conclusions vers lesquelles s’oriente l’Aristotélisme s’exprime donc ainsi. D’une part, le monde, qui est mû, réclame Dieu comme sa cause motrice. D’autre part, si Dieu le meut, c’est parce que le monde a Dieu pour cause finale, sans cependant qu’il y ait lieu de déduire de là que le moteur du monde soit Dieu lui-même ; car il est contraire à la psychologie du Dieu aristotélécien que le désir, qui monte du monde vers Dieu, puisse redescendre de Dieu vers le monde. Comment alors concevoir ce rapport tellement singulier qu’il exclut toute réciprocité entre le monde qui aspire à Dieu, et Dieu qui ne connaît pas le monde ?” Léon Brunschvicg, *L’expérience humaine et la causalité physique* (Paris: Alcan, 1922), p. 154.

and a piece of iron) is praised for its faultless and unerring characteristics. In the same line of reasoning, Varchi considers sensitive love, a passion arising from cognition through the senses, highly praiseworthy since it is the incentive that drives animals to search for what is profitable to them. Rational love, the kind of love that distinguishes the human species, is, by contrast, presented as resulting from the blend of a man's free will and of necessity. The extent of that free will remains nonetheless limited.

Humans have furthermore no access to the fourth kind of love/desire: intellectual or angelic love, which is only to be found in God and the Intelligences.³¹ Man, according to Varchi, is termed a microcosm because of his limited capacity to experience the three earthly kinds of desire; not all four possible forms of love.³²

4. Patient matter and its capacity for action

One remarkable result of Varchi's return to more Aristotelian conceptions of love and desire is that, in some way, the shift results in a reversal of the balance between agent form and 'patient matter', proper to Neoplatonicism.

Ficino had entitled the second chapter of the first book of his *Theologia Platonica*: "corpus natura sua nihil aget" ("the nature of a body is to do nothing"). The chapter was written as a lamentation on the inertia of matter whose laziness will only increase with its mass. Matter needs to be endowed with qualities transcending it in order to be set in motion.³³ Ficino pictured this endowment as a light shining from God (the One) that generated, out of the primal chaos, a triple series of realities of decreasing nobility and increasing obscurity: the Intelligence (in Ficino's terms the *mens angelica*, Plotinus's *nous*), the World-soul (*anima mundi*), and eventually the material world (*corpus mundi*).³⁴ The rays shining from God, causing chaos to be informed, thereby generated the first forms of *appetitus*, the desire of the thing receiving the emanation to conform itself to the source of its illumination.

Ficino's God, who lets his light shine over the chaos displayed below, is by definition overflowing with sollicitude for the lower realities proceeding from His Oneness. In the Aristotelian theology and cosmology that Varchi wields, things are different. It is one of the great paradoxes of Aristotelianism that it posits a God who, despite being the universe's Prime Mover, is nonetheless entirely devoid of desire and sollicitude.³⁵ Instead of escaping that paradox, Varchi tried to explain it. Commenting Dante's verses in which the poet addressed God as "*tu, sempiterni desiderato*", Varchi invited his audience to consider God as the final cause (instead of the efficient cause) of all movement in the world. The best way to understand the difference, according to the lecturer, is to picture a lover

³⁶ “...tra i filosofi è grandissimo dubbio e difficilissimo, se il primo Motore muove il cielo come efficiente o come fine [...]; e tra la cagione efficiente e la cagione finale è grandissima differenza; e perché ognuno non intende questi termini [...] daremo uno esempio che gli dichiari manifestamente. Poniamo che chi che sia amando alcuna persona si movesse da sé per andare a trovarla; in questo caso quella persona è cagione del movimento di colui, ma non è cagione efficiente, onde diremo che ella non muove efficientemente, ma come amata e desiderata, ciò è come fine, e però si chiama causa finale.” *L.Par.I 6* in *Opere II*: 380.

³⁷ “Bisogna dunque che sappiamo principalmente tre cose, la prima delle quali è, che in tutto l’universo non si trova cosa nessuna, la quale sia perfetta, ciò è a cui non manchi alcuna cosa da una in fuori, e questo è il Facitore e mantentore di tutte, ciò è Dio, del quale non possiamo altro intendere veramente se non che intendere non possiamo. La seconda è, che tutte le cose, essendo imperfette e manchevoli, come detto avemo, desiderano naturalmente la loro perfezione, ed interezza: e la perfezione ed interezza loro non è altro che assomigliarsi a Dio, quanto alla natura di ciascuna conviene il più. La terza ed ultima cosa è, che tutte le cose come sono manchevoli, e come desiderano la loro perfezione naturalmente, così hanno ancora dalla natura, la quale non manca mai nelle cose necessarie, un mezzo, mediante lo quale possono la loro perfezione, e conseguentemente la loro beatitudine, conseguire.” *L.Am.P* in *Opere II*, p. 505.

³⁸ “E questo mezzo è senza dubbio nessuno l’amore, e per questo solo, e non per altro sta ferma la terra, ed i cieli si muovono; per questo corre l’acqua, producono le piante, e generano gli animali: e per ridurre infinite cose in poche parole, tutto quello, che fanno tutte le cose, lo fanno solo per amore, ciò è per conseguire la perfezione ed ultima felicità.” *L.Am.P* in *Opere II*, p. 505.

³⁹ “[l’amore] non è altro che un appetito dato dalla natura a ciascuna cosa d’assomigliarsi a Dio quanto può il più, per conseguire la perfezione e beatitudine sua.” *L.Am.P* in *Opere II*, p. 505.

⁴⁰ The expressions ‘in potenza’ and ‘potentially’ only poorly render the associations (of latent but real power) that was originally embedded in Aristotle’s terminology. To convey the idea of a ‘potentiality’, Aristotle had used the term *dunamis*, which generically means power, but in more specific sense, linked to materiality, refers to a ‘distinctive physical quality’, a ‘distinctive character’ (See Aristotle and A. L. Peck, *Generation of animals*, Loeb classical library (London; Cambridge, Mass.: W. Heinemann, 1943), p. li). Aristotle has attributed a particular sense to the term, making it “a capacity of being acted upon,” but in this meaning the old sense of specificity was still very much retained. (Aristotle and Peck, *Generation of animals*, p. liv.). The adverbial formula *dunamei* (the dative of *dunamis* which means literally ‘in potentiality’), was translated in Tuscan as “in potenza” (after the medieval Latin “*in potentia*”); The correlative of Aristotle’s *dunamei* (potentially), *energeiai* became, in translations, “in atto.”

⁴¹ “E questo è quello che intendeva il Filosofo, quando disse, che la materia prima disiderava la forma come la femmina il maschio: cioè come l’imperfetto il perfetto.” *L.Am.D* in *Opere II*:324.

⁴² On the argument see David Summers, “Form and Gender,” *New Literary History* 24 (1993), pp. 243–71.

⁴³ These contraries provide guidelines of how ideas ought to be linked by virtue of the scheme of contrariety to which all belong. The ten pairs of contraries are: “...limited and unlimited, odd and even, one and plurality, right and left, male and female, resting and moving, straight and curved, light and darkness, good and bad, square and oblong.” (Aristotle, *Metaphysics* I.5, 986a22–26.)

who, seeing his beloved, starts walking towards her. Even if she remains immobile, she is the (final) cause of the motions of the lover.³⁶

The reasoning is simple: no substance in the world is truly perfect, except one, God. Because of their deficiency, all other substances long for their own perfection and the completion of the ‘entireness’ (*interezza*). This longing is nothing else than the desire for resemblance to God, as far as this is attainable by the nature of the substances in question.³⁷

All things now have been endowed by providential Nature with a means or an incentive to realize their own completion or ‘beatitude’: love. It is thanks to love, the omnipresent driving force in the world, and nothing else that:

... the earth stands still and the heavens move, that water runs, crops produce and animals generate: and to resume infinite things in few words, every action of whatever entity is only performed out of love, and driven by the desire for perfection and ultimate bliss.³⁸

This brings Varchi eventually to the following “*most universal and most true definition of love*”:

“is nothing else than an appetite endowed by nature to every single thing to strive for as much resemblance as possible with God, in order to pursue its own perfection and bliss.”³⁹

One of the less expected consequences of this creed is that if imperfection contains in itself the drive for perfection and change, the most imperfect forms of being will contain the greatest ‘potentiality’ for change, or, to use Aristotle’s term, the greatest *dunamis* for change.⁴⁰ In contemporary terms, they will be the ones with the strongest urge for transformation and with a greater range of possibilities of actualization. In this light, prime matter takes on mythic dimensions when considered for its transformative potentiality and thus for the level of its craving for actualization. Not surprisingly, when talking about prime matter in the 1564 lecture on love, Varchi repeated Aristotle’s famous paralleling this craving with what the Ancients liked to consider as the archetypal kind of desire:

“primal matter desires form like the female desires the male, which is like the imperfect desires the perfect.”⁴¹

This personification of prime matter does not surprise in the context of Aristotle’s biological conceptions that are permeated with the systematic identification of matter as feminine and form as masculine; and female as imperfect and male as perfect.⁴² Far from being typical of Aristotle, these identifications are eventually rooted in a series of archaic convictions which one can summarize most easily by citing the so-called ten Pythagorean contraries which Aristotle discussed in *Metaphysics*.⁴³

⁴⁴ See Summers, "Form and Gender", p. 257 on the validity of such a scheme of contraries, Aristotle observed further in *Metaphysics*, "...nearly all thinkers agree that being and substance are composed of contraries, at least all have contraries as their principle." *Metaphysics* IV, 1004b29-31.

⁴⁵ On the Peripatetic doctrines, one recent critic observed vehemently: "Aristotle's biological and psychological ideas parallel his political and ethical ideas about women. Together, these ideas are circular, self-supporting, and antifeminist to the core." Maryanne Cline Horowitz, "Aristotle and woman," *Journal of the History of Biology* 9, no. 2 (1976): 183-213, p. 212. See further Stephen R.L. Clark, "Aristotle's woman," *History of Political Thought*, no. 3 (1982): pp. 177-191, Suzanne Saïd, "Féminin, femme, femelle dans les grands traités biologiques d'Aristote", in *La femme dans les sociétés antiques*, ed. Edmond Lévy (Strasbourg, Université des Sciences Humaines: AECR, 1983), 93-117, and for the Renaissance period: Ian Maclean, *The Renaissance notion of woman: a study in the fortunes of scholasticism and medical science in European intellectual life* (Cambridge, [Eng.]; New York: Cambridge University Press, 1980).

unlimited	-	limited
even	-	odd
plurality	-	one
left	-	right
female	-	male
moving	-	resting
curved	-	straight
darkness	-	light
bad	-	good
oblong	-	square

The series implies that an analogy would exist between the way the notion ‘limited’ stands to ‘unlimited’ and the way ‘odd’ stands to ‘even’, or ‘light’ to ‘dark’. As has been remarked, the categories are pairs, but they are hierarchical rather than symmetrical, the notions in the right column being considered superior to their counterparts at the left.⁴⁴ Male or masculinity is associated with all other notions in the right column, while female goes identified with ‘unlimited’ (indefinite), ‘even’ (such as four, six...) ‘plurality’, ‘left’, ‘movement’, ‘curved’, ‘dark’, ‘bad’, and ‘oblong’. As is well known, these asymmetries have had powerful and radical anthropological implications for several millennia.⁴⁵

Aristotle and Varchi’s blend of fascination and distrust for the feminine cravings of prime matter, expressed in the last quote, seems to find its equivalent in the feelings that pre- and Early Modern men nurtured for that other quintessentially female substance: menstrual blood. As the quintessential feminine agent in biological reproduction, the *katamenia* are the microcosmic equivalent of prime matter. In the realm of organic life, it is the building material (*hylē*) that contains *in potenza* the forms and features of all animal bodies. The opinion that these matters keep their own powers (*dynameis*) hidden in themselves, and keep longing for the appropriate circumstances for their release and actualization, endows matter with a kind of vitalism that seems to contradict Ficino’s convictions about matter.

5. ‘desiderando ciascuno di generare simile a se’

At the beginning of this chapter, when pointing to the link between species and forms (both *eidoi*) in Aristotle’s ontology, I have already hinted to the way biological reproduction was conceived of as a means to achieve eternity. Striving for eternity is one major way to achieve the ubiquitous wish to resemble God. As a strategy it is one of the most successful. Reproduction is what elevates the natural species at the highest level of earthly existence: the conviction is crucial in Varchi’s thought.

⁴⁶ “... tutti gli animati desiderano grandissimamente, e cercano più d’altro di generare cosa a loro somigliante per conservarsi almeno nella spezie, dacchè non possono nell’individuo.” *L.3.C.O.* in *Opere* II: 445.

⁴⁷ “There is no doubt about the fact that all the other things, from man downward, pursue their end, if they are not prevented from it: because heavy things will always fall down, if nothing holds them back, and the light things will always move upward; and like herbs, fruit trees and all plants will always produce their flowers and their fruits, similarly will all animals, terrestrial and aquatic, always generate if not prevented from it; and thus they pursue their end, and their perfection, by making themselves as similar as possible to God.” (“Ne è dubbio alcuno, che tutte l’altre cose, dall’uomo in fuori, conseguono sempre il loro fine, se impedito non sono: perché sempre le cose grave vanno in giù, se non hanno chi le ritenga, e le leggieri all’insù; e come l’erbe, i frutici, e le piante producono sempre i fiori e frutti loro, così tutti gli animali, terrestri o aquatici, generano sempre se impedito non sono; e così conseguono sempre il lor fine, e la perfezione loro, e s’assomigliano in quel modo, che possono a Dio.”) *L.Am.P.* in *Opere* II, p. 505.

⁴⁸ “...allora si chiama perfetta alcuna cosa nel genere suo, quando ella puo fare e generare cosa somigliante a sè. Onde nè le piante, nè gli animali, nè gli uomini stessi si possono chiamare perfetti infino che non possono generare cosa a loro somigliante.” *L.Paragone* in *Opere* II, p. 637.

⁴⁹ For a rich account on both learned and popular beliefs in spontaneous generations in the Italian Renaissance, see Chapter I (“The useless genitor: Fantasies of putrefaction and nongenealogical births”) in Valeria Finucci, *The manly masquerade: Masculinity, paternity and castration in the Italian Renaissance* (Durham and London: Duke University Press, 2003), pp. 37–78.

⁵⁰ “First of all, I do not understand why you blame and call “dishonest” that kind of love that is not only common to all animate things – I mean earthly creatures – but is proper to them, for they are made more for it than for anything else. We can observe this in plants and grasses, which have a vegetative soul; in all brutish animals, which have vegetative and sensitive souls; and in human beings as well, who possess a rational and intellectual soul besides the vegetative and the sensitive ones.” Aragona, Russell, and Merry, *Dialogue on the infinity of love*, p. 93.

⁵¹ *Ibid.*

⁵² Finucci, *The manly masquerade: Masculinity, paternity and castration in the Italian Renaissance*, p. 35. Finucci provided at least one very direct illustration of the idea: A papal bull of 1587 legislating “...that men unable to emit seminal fluid because they lacked testicles [as is the case with *castrati*-singers] could not marry, although they may have been able to have sex, may have desired only one partner, and may have provided sexual satisfaction.” *Ibid.*

...all the animati (beings endowed with soul) have an enormous desire, and long for nothing more than to generate a similar to themselves in order to preserve themselves at least as a species, since they can't preserve themselves as individuals.⁴⁶

Generating is thus what plants and animals do most spontaneously, as long as they are not prevented to do so.⁴⁷ The capacity to generate a body similar to themselves is also what distinguishes so-called “perfect” from “imperfect” plants and animals.

a thing is called perfect in its own sort, when it can make and generate things similar (somigliante) to itself. And thus no plant, no animal, no man can be said perfect as long as it cannot generate something similar to it- or himself.⁴⁸

(Aristotle had termed imperfect those animals like mice and insects that come forth, not through the sexual conjunction of a male and a female animal but supposedly out of the corruption of putrefied matter, the so-called *generatio ex putris*).⁴⁹ As made clear by the instances in the lectures in which Varchi invokes the conviction that the perfection of an animal lies in its capacity to make a replica of itself, the principle can be extended beyond the limits of biological reproduction. The above mentioned quotation (“a thing is called perfect...”), for instance, occurs in a passage of the *Paragone*-lecture in which Varchi discussed the perfection of real *scienza*, knowledge. Knowing something for real, Aristotle had pointed out, is being capable of transmitting that knowledge through teaching. According to Varchi, the principle was only a particular case of the universal truth, with biological roots, according to which only the perfect organism is able to replicate itself.

Moreover, Varchi questions the statement that Benedetto referred to the biological principle of perfection as dependent on reproductive capacities. Replicating part of one's wisdom in another man's (or boy's) mind, such is the implicit analysis, can thus be seen an act of partial self-reproduction.

The same line of reasoning is developed by the character ‘Varchi’ in Tullia d’Aragona’s *Dialogo dell’infinità dell’amore*. Near the end of the dialogue, ‘Varchi’ repeatedly vents his exasperation on ‘Tullia’s’ condemnation of earthly love, a kind of love that, as the ‘love-expert’ answers, is shared by all earthly creatures and for which “they are made more [...] than for anything else”.⁵⁰ ‘Varchi’ continues, with the same eagerness: “For Aristotle says that the man who cannot generate, since he cannot do what nature has created him to do, is no longer a man.”⁵¹ More than a philosophical definition, this statement was accepted quite literally by Varchi’s contemporaries. Valeria Finucci, who recently wrote a book on Renaissance notions on masculinity, could resume her findings in the following words. What makes a Renaissance man a man is “not a penis, in my reading, but testicles; that is; not phallic potency but the power to make progeny for society’s sake...”⁵² But if

⁵³ 'Tullia' would eventually concede to 'Varchi' that "we humans cannot be reprehended for [...] for the instinctive drives that arise from our nature. Hence the first type of love is not to be blamed, either in the plant or the animal kingdom. And it should not be called lascivious or "dishonest" in them, or indeed in human beings. Rather, it can be and should be lauded to a greater extent in humans because they are capable of generating offspring of a more noble and worthy caliber than plants and animals can." Aragona, Russell, and Merry, *Dialogue on the infinity of love*, p. 94.

⁵⁴ *Ibid.*, p. 96-97.

⁵⁵ Plato, Benjamin Jowett, and Hayden Pelliccia, *Symposium: the Benjamin Jowett translation* (New York: Modern Library, 1996), p. 23. In the same passage of the *Symposium*, Plato had detailed what these 'pregnancies of the soul' could consist of: "And what are these conceptions? Wisdom and virtue in general. And such creators are poets and all artists who are deserving of the name of inventor. But the greatest and fairest sort of wisdom by far is that which is concerned with the ordering of states and families, and which is called temperance and justice." *Ibid.*

⁵⁶ "Mostri, nella seconda e più stretta definizione, si chiamano tutte quelle generazioni, le quali si fanno oltra il volere e fuori dell'intendimento di chi le fa." *L.Gen.Mostr.* in *Opere* II, p. 663.

⁵⁷ "quasi mostri si chiamano le femmine e tutti quei figliuoli, che non somigliano I padri loro; perciocché se bene la donna è della medesima specie dell'uomo, come dice Aristotile, è nondimeno dissimile al generante, desiderando ciascuno di generare cosa simigliante a sé, e conseguentemente sempre maschio e non mai femmina." *Ibid.*

this plea for generation – and thus for the realization of one’s own masculinity – is referring in the first place to the production of living offspring,⁵³ ‘Varchi’ also included in it other types of human generation:

...just as pregnant bodies long to generate, so do pregnant souls, and even more so. Socrates and Plato, therefore, whose souls were replete with all goodness, overflowing with doctrine, rich in all virtues and, finally, pregnant with all kinds of lofty and venerable habits, desired nothing more than giving birth and generating something similar to themselves. [...] This is real and authentic virtuous love. It is much worthier than the other as the soul is worthier than the body. These lovers deserve far more praise than the others, just as generating a beautiful soul is far more commendable than giving birth to a beautiful body.⁵⁴

‘This celebration of the ‘pregnancies of the soul’ by ‘Varchi’, and their application as a justification for (chaste?) love between an adult and a (beautiful) adolescent male, was directly borrowed from Plato’s *Symposium*. In that dialogue, ‘Diotima’ had argued that it was only normal that, since generation is favored by the presence of beauty, the man who is pregnant of the soul and desirous to generate, “wanders about seeking beauty that he may beget offspring – for in deformity he will beget nothing – and naturally embraces the beautiful rather than the deformed body.”⁵⁵

In Varchi’s own writings, the theme of the capacity to produce a similar to oneself resurfaces in discussions on monsters. As Varchi had devoted much attention to the mechanisms of pregnancy, in his lecture cycles, he also assigned considerable space to the problem of monstrous births, which he describes as instances of failed natural generation. In 1548, Varchi devoted an entire *lezione*, spread over two Sunday-sessions, to ‘monsters’, in which he gave a more detailed definition. “Monsters [...] is the name given to all progeny that comes about beyond the desire and contrary to the intention of the ones who beget it.”⁵⁶ According to this definition, and given the universal rule that every male parent will only desire offspring similar to himself, newborn little girls are to be considered monstrosities. Yet, since girls/women are not entirely out of nature’s order (they guarantee the conservation of the species), they receive the more than dubious Aristotelian label of quasi-monsters (*quasi mostri*).

Quasi monsters is the name given to female girls and all those children that are not resembling their fathers; since, although woman belongs to the same species as men, as Aristotle says, she is nonetheless dissimilar from the generator, and every man desires to generate something resembling himself, and thus always a boy and never a girl.⁵⁷

Varchi never went as far as to say explicitly that man’s capacity to make paintings or sculptures that rigorously reproduce the features of his own body could be considered

⁵⁸ “...qualunque volta alcuno agente intende di conseguire alcun fine, e nollo consegue, quello propriamente si chiama mostro. E si trovano cotali mostri non solo nelle cose animate, come sono gli uomini, gli animali e le piante, ma ancora in quelle che mancano d’anima, come si vede molte volte nelle pietre, nei metalli ed in tutti gli minerali e misti e perfetti, e non meno nelle cose artificiali che nelle naturali.” *L. Gen. Mostr.* in *Opere II*, p. 663.

⁵⁹ “...ogni volta che alcuno artefice, verbicausa, un medico, dà una medicina a un malato per guarirlo ed ella l’amazza o nollo guarisce, quello è mostro; e così se un pittore volendo ritrarre alcuno, non sa somigliarlo, o un fabbro volendo fare un pugnale, facesse un coltello, e di tutti gli altri nel medesimo modo.” *L. Gen. Mostr.* in *Opere II*, p. 663.

⁶⁰ Plato, Jowett, and Pelliccia, *Symposium: the Benjamin Jowett translation*, p. 23.

⁶¹ “E da questo procede ancora che non solo i padri amano così affettuosamente i figliuoli e discendenti loro, ma eziandio gli scrittori di qualunque maniera, e gli artefici medesimi, quanto sono più degni e più eccellenti, tanto si rallegrano maggiormente gli uni e gli altri dell’egregie opere fatte da loro come quelli che sperano di dover vivere lungo tempo, e quasi perpetuarsi con elle almeno nelle memorie e per le bocche degli uomini, o più virtuosi degli altri, o più pregiati.” *L.3. C.O.* in *Opere II*, p. 445.

as a sufficient token of his reproductive capacity, and thus of his perfection. But some examples given in the 1548 lecture on monsters demonstrate that the seemingly strictly biological category of ‘the monstrous’, could (without much trouble) be extended to artificial productions. The above mentioned definition, indeed, is applicable to an immensely broad field of generations, both natural and artificial:

...anytime a certain agent intends to pursue a certain end, but fails to pursue it, this properly is to be called a monster. And one can find such monsters not only in animate things, as are men, the animals, and the plants but equally in those things that lack a soul, as one regularly sees in stones, in metals, and in all the minerals both of the imperfectly and the perfectly mixed kinds, and no less in the artificial things than in the natural things.⁵⁸

To illustrate the notion of a monster in the arts, Varchi gave the example of a physician, who administers a drug to a patient and thereby kills him while it had been his intention to cure. This failed operation resulting in the death of the patient is monstrous, as much as a painted portrait that lacks the resemblance to the model the painter intended it to have. And when a blacksmith desires to make a dagger but ends up with a knife instead, that result is also a monster.⁵⁹

But a dagger, of course, even if the blacksmith does succeed in producing it, does not resemble its maker. How does the activity of the smith (or the doctor, or any other artist) can be connected with the above mentioned universal drives? Varchi seems to imply two direct connections. On the one hand, when producing a useful tool, the blacksmith does provide a means that will enhance comfort and health if not of himself, at least for the future owner of the tool. Like the doctor producing health in another man’s body, the maker of the dagger contributes, if not to the conservation of his own body, then of that of a kin, or eventually of that of his species. On the other hand, the ‘pregnancies of the soul’, as Plato had already pointed out, if really successful, bring about that kind of immortality that is eternal fame. As ‘Diotima’ had pointed out:

I am persuaded that all men do all things, and the better they are the more they do them, in hope of the glorious fame of immortal virtue; for they desire the immortal.⁶⁰

Resulting from the same desire for immortality, artworks and children are desired with the same intensity, and loved with the same passion. As Varchi put it:

... not only do fathers love with such affection their young ones and descendants, but also writers of all kinds, as well as all artisans (artefici), the more they are worthy and excellent in their art, the more will they draw greater pleasure [...] out of the outstanding works they made, with the feeling of having a long life ahead, to be able to perpetuate themselves with these works, at least in the memories and in the mouths of the more virtuous, or the more praised men.⁶¹

⁶² “secondo i filosofi il generare e la più naturale cosa che si faccia, dunque la migliore e più lodevole.” *L.Am.P.* in *Opere* II, p. 501.

⁶³ “Ben è vero che l’intelletto nostro non potendo intendere nulla senza il senso, ha bisogno delle bellezze terrene, mediante le quali desto ed incitato saglia alle celesti: onde è che quanto gli uomini sono più filosofi e conseguentemente più perfetti, tanto più cercano e si dilettono delle cose belle, non avendo altra via, non che migliore di questa per levarsi da terra.” *L.Am.P.* in *Opere* II, p. 506.

⁶⁴ *Metaphysics* I.1, 980a22-23.

⁶⁵ “La bellezza non è altro che una certa grazia, la quale diletta l’animo di chiunque la vede e conosce, e diletando lo muove a desiderare di goderla con unione, ciò è, a dirlo in una parola, lo muove ad amarla.” *Discorso delle Bellezza e della Grazia* in *Opere* II, p. 733. Compare with the definition of love that appears in the first of Leone Ebreo’s *Dialoghi d’amore*: “... l’amore veramente si può diffinire che sia desiderio di godere con unione la cosa conosciuta per buona.” Ebreo and Caramella, *Dialoghi d’Amore*, p. 45.

⁶⁶ “gli uomini d’apparare mirabilmente si dilettono” *L. Ter. Ciel.* in *Opere* II, p. 432.

6. 'il maggior miracolo di tutti i miracoli'

Perceiving strong reproductive urges in animal and plant species had urged Varchi to posit that drive as a universal natural law. Because of its 'naturalness' this law was endowed with a strong positive connotation.

... according to the philosophers, generating is the most natural thing that occurs, and thus the most praiseworthy and laudable.⁶²

Because of the importance of this animal urge in the explanation of human and even cultural phenomena, one could speak of a 'zoomorphism' to qualify Varchi's type of naturalization of human behaviour. One immediate corollary of this attitude, and of the elevation of generation to a quintessential status, is the celebration of its necessary preliminary: coition, or the fusion of the agent and the patient principles that triggers the whole generation process.

As we have seen through the analysis of Varchi's *Lezzione sulla generazione del corpo*, animal coition becomes a paradigm to all processes through which *synthèta*, that are *composti* of form and matter, come about. These processes, in fact, govern the constitution of everything in a universe. In the hylomorphic cosmos of the Aristotelians, all things, except God and prime matter, are *synthèta*.

Coition (or a process similar to coition) is a necessary phase in the constitution of sensible bodies. More surprisingly, it also ends up playing a role in the constitution and the proliferation of the intelligibles, which are the entities perceived and manipulated by the intellect.

Following in this Aristotle, Varchi sustained that no knowledge can reach the intellect that hasn't passed through the senses (the intermediary being the sense-images, *phantasmata*, contained in the inner senses). An eagerness to know is thus in the first place an eagerness to feel, to sense.⁶³ The love of beauty, as the drive for sensuous experiences, is also the drive for knowledge. Aristotle's *Metaphysics* famously opens with the phrase:

All men by nature desire to know. An indication of this is the delight we take in our senses.⁶⁴

In keeping with Leone Ebreo, Varchi had defined beauty as "a certain grace, which delights the soul (animo) of anyone seeing and knowing it, and which, while causing delight brings about the desire for enjoying it in a merger."⁶⁵ Elsewhere, the Florentine lecturer had observed: "men take incredible delight from learning".⁶⁶ Following a long tradition, that resurfaced in Leone Ebreo's *Dialoghi* but that eventually went back to the Islamic philosopher Averroës, Varchi in fact described the acme of intellectual beatitude in terms of a copulation:

⁶⁷ “Ma quello che è il maggior miracolo di tutti i miracoli è, che l’uomo mediante gli abiti delle virtù e delle scienze, può copulare l’intelletto possibile coll’agente, ciò è fare che siano un medesimo.” *L.Am.D.* in *Opere* II, p. 329.

⁶⁸ See especially *De anima* III.4-5.

⁶⁹ *De anima* III.5, 430a10-13.

⁷⁰ “Have not we already disposed of the difficulty about interaction involving a common element, when we said that thought is in a sense potentially whatever is thinkable, though actually it is nothing until it has thought? What it thinks must be in it just as characters may be said to be on a writing-table on which as yet nothing actually stands written: this is exactly what happens with thought.” *De anima*, III.4, 429b30-430a2. Averroës, in his *Great Commentary* compared the material intellect in particular to the wax of the tablet, ready to receive any form that might be written on it. Averroës and Alain de Libera, *L’intelligence et la pensée. Sur le De anima* (Paris: Flammarion, 1998), pp. 65 and 99.

⁷¹ *De anima* III.5, 430a16-17.

⁷² Among the many writings of Aristotle Averroës commented upon, the *De anima* holds a privileged position. Averroës (Ibn Rushd) wrote no less than a *Long*, *Middle* and *Epitome* type commentary on the *De anima* itself; a supercommentary on Alexander of Aphrodisias’ *De anima* and four independent treatises directly concerned with immortality. See the introduction to Averroës, *The epistle on the possibility of conjunction with the active intellect by Ibn Rushd with the commentary of Moses Narboni*, trans. Kalman P. Bland, Moreshet: Studies in Jewish history, literature and thought (New York: The Jewish Theological Seminary of America, 1982), 1 ff.

⁷³ No trace has ever been found of the Arabic original text of the *Great commentary*, which was known in the Middle-Ages through the (rather obscure) Latin translation of Michael Scotus, the astrologer of Emperor Frederic II. For a (very first) translation in a modern tongue of the central part of the *Great commentary*, as well as an instructive introduction on remarkable fate of this text, see Averroës and de Libera, *L’intelligence et la pensée. Sur le De anima* .

⁷⁴ For a history of Averroïsism see the very partisan, but still classical: Ernest Renan, *Averroès et l’averroïsme* (Paris: Maisonneuve et Larose, 2002 (1852)). For a more recent, nuanced and concise overview, see: Maurice-Ruben Hayoun and Alain De Libera, *Averroès et l’averroïsme*, Que sais-je (Paris: PUF, 1991).

⁷⁵ For a vivid portrait of the philosophical milieu at Padua in the beginning of the 16th century, and the positions of the different factions (Averroïsts and others), see the John Herman Randall’s introduction to Pietro Pomponazzi, “On the immortality of the soul (*De immortalitate animae*),” in *The Renaissance philosophy of man*, ed. Ernst Cassirer, Paul Oscar Kristeller, and John Hermann Jr. Randall (Chicago: The University of Chicago Press, 1948), pp. 280-381.

But the greatest miracle of all miracles is the fact that man, through the practice of the virtues and the sciences, can copulate the possible intellect with the active intellect, or make them fuse and become one.⁶⁷

The idea of the functioning of intellect as the interplay of a passive and an active component, a patient intellect and an active intellect, had been discerned by Aristotle himself in a famous passage of the *De anima*.⁶⁸ To justify the postulation of two different faculties in the intellect, Aristotle had explained:

...since in every class of things, as in nature as a whole, we find two factors involved, a matter which is potentially all the particulars included in the class, a cause which is productive in the sense that it makes them all (the latter standing to the former, as e.g. an art to its material), these distinct elements must likewise be found within the soul.⁶⁹

Aristotle compared abstraction to sense perception. In addition, he understood abstraction as the elevation of information contained in the inner senses, under the form of *phantasmata*, to a higher level of universality, contained in the patient intellect in the form of intelligible species. The agent intellect is the power of abstraction that operates this elevation, the patient intellect is the metaphorical matter out of which the intelligible is formed. The metaphor Aristotle used in particular was that of a wax tablet on which the ‘characters’ of the intelligibles were inscribed. This wax tablet was initially a “tabula rasa” (from *rado*, to scrape of, to smoothen).⁷⁰ Another famous metaphor of book III of *De anima* is the comparison of the active intellect to light that shines on a series of surfaces (the patient intellect) and thus reveals the colours that were present but indiscernible in obscurity. Just like the active intellect, “light makes potential colours into actual colors.”⁷¹

These passages of *De anima* remained nonetheless frustratingly obscure for many subsequent writers and, because of the importance of Aristotle’s division of the intellect in the debate on the immortality of the soul, subject to endless speculation. Late-antique Greek authors such as Alexander of Aphrodisias (ca. AD 200) or Themistius (fourth century AD) already commented extensively on *De anima*. They were followed by the Islamic philosophers Avicenna (980-1037) and, most importantly, Averroës (or Ibn Rushd, 1126-1198) who wrote their own commentaries.⁷² Averroës’ *Great commentary* of *De anima* became in turn one of the most passionately debated (and not always correctly understood) texts in the Latin Middle-Ages.⁷³ The *Great commentary* caused the emergence of a doctrine, referred to as Averroïsm, which was upheld by a succession of Medieval and Early modern authors, and in the meantime violently attacked by not lesser authorities than Aquinas and Petrarch.⁷⁴ Averroïsm flourished with renewed vigour at the University of Padua during the 15th century. When Varchi studied in Padua, the teachings of the *Commentator* were still highly esteemed by philosophers such as Marcantonio Zimara.⁷⁵

⁷⁶ See Averroës and de Libera, *L'intelligence et la pensée. Sur le De anima*, p. 167.

⁷⁷ Averroës, *The epistle on the possibility of conjunction with the active intellect by Ibn Rushd with the commentary of Moses Narboni*

⁷⁸ Pomponazzi, "On the immortality of the soul (De immortalitate animae)," p. 296.

⁷⁹ "La cagione della generazione dell'uomo è primieramente come tutte l'altre, ciò è per introdurre la forma nella materia; il che è fine propinquo di tutte le generazioni: secondariamente possiamo dire che si generi per conservazione della specie, e così per compimento e perfezione dell'universo, parlando però filosoficamente e non secondo i teologi cristiani; e brevemente, il fine d'ogni generazione secondo i filosofi è l'introduzione della forma nella materia, e il fine del generato contemplare le sostanze astratte, e copulare l'intelletto possibile coll'agente." *L.Gen. Corp.* in *Opere* II, p. 294.

⁸⁰ "E in questa copulazione consiste, secondo quel non mai bastante lodato Arabo Avenr, ciò è figlio di Rois, chiamato altamente Alulide Rosaceo, l'ultima perfezione, e per conseguente la suprema felicità e beatitudine umana, poiché in ella si vede, s'intende e si fruisce l'ultimo bene intuitivamente e a faccia a faccia. Le quali tutte cose sono state dette da me così brevemente, perché dimostrano tutte insieme, e ciascuna di loro, che nella spezie umana si trovi il maggiore e migliore amore che trovare si possa in cosa alcuna sotto il cielo. Perché l'uomo solo, tra tutte le creature o mondane o celesti ha l'arbitrio libero, ed è capevole delle virtù e delle scienze: mediante le quali egli può (come io ho detto pur testè) copulare l'intelletto possibile e l'agente, e divenire quasi Dio." *L.Am.D.* in *Opere* II, p. 329.

In the 36th commentary of book III of *De anima*, Averroës had described the successive actualization of theoretical intelligibles in our material intellect as stages in the progression towards a merge (a *copulatio*) of the material and the agent intellect.⁷⁶ Ibn Rushd also postulated the possibility to reach the stage of a total conjunction of the material and the agent intellect: a man in such a state would think about and know all possible beings; having reached his end as a human being, he would resemble God and experience perpetual ecstasy. Averroës had reiterated his conviction that such a state was possible in a separate treatise, written, like the *Great commentary*, towards the end of his life: the *Epistle on the possibility of conjunction with the active intellect*.⁷⁷

Pietro Pomponazzi, whose epoch-making *De immortalitate animae* (1516) was written, to a large extent, as a rebuttal of the main Averroïst assertions (such as the unity of the intellect), had refused the idea that a conjunction could ever occur, considering it futile and contrary to Aristotle.

Futile, because, so far as history tells, no such union has ever been found to this day. And thus the goal of man is vain, since no one has attained it, nay, no one can attain it, since the means appointed for that goal cannot be possessed. For it is impossible for any man to know all things, as Plato says in the Republic, Book X, nor even all visible things.⁷⁸

Varchi, who must have known Pomponazzi's objections, did not accept them. The assertion that the end of man is to copulate his material intellect with his active intellect is consistently made, from the very first until the last academic lectures. In the preamble to the 1543 *Lezione della generazione del corpo*, the lecturer observes that "the end of every generation, according to the philosophers, is to introduce form into matter, and the end of the generated (generato), is to contemplate the abstract substances, and to copulate the possible intellect with the agent [one]."⁷⁹ In the 1564 lecture on love, Varchi hailed the "never sufficiently praised" Averroës for his sustaining the possibility of conjunction, which constitutes "the ultimate perfection, and therefore the supreme human bliss and beatitude"; it makes man become "almost godlike".⁸⁰

7. Conclusion: Three hylomorphic realms

In the first place, Benedetto Varchi, identified two distinct but parallel realms of reality, both of which are governed by the principles of hylomorphism. The first of these realms is that of the intelligibles, which come into being by the 'actualisation' or 'enactment' of 'the stuff of rational thought', the material (also *hylic*) intellect. Every intelligible is the embodiment of one of the innumerable possible forms that lay embedded in that faculty.

⁸¹ Varchi never explicitly ascertained the doctrine of the unity of the intellect, which should normally have been part of the whole of Averroïst convictions he defended. But since, while it sustained the immortality of the intellect, this doctrine negated the possibility of the preservation of an individual soul after dead, it was a very unpopular position to defend. Varchi's planned series of lectures on psychology (starting with *Sulla creazione ed infusione dell'anima razionale*) was probably aborted for these reasons. As a lecturer on Dante, Varchi could hardly afford to defend positions that had been attacked by Dante himself.

⁸² "Voglio ancora che sappiamo, che il potere la materia prima trapassare dalla potenza all'atto, ciò è diventare tutte le cose, fa che ella tutte l'appetisce; ma perchè nolle può conseguire e possedere tutte insieme e a un tratto: perchè ciascuna cosa, non potendo esser più d'una forma sola: le consegue e possiede a una a una, di mano in mano. E guinci è che il mondo, senza mancar mai, ogni giorno muore ed ogni giorno rinasce." *L.Am.D.* in *Opere* II, p. 324.

⁸³ "...non si fece mai nulla, che non si potesse fare, e nulla che si potesse fare, non si fece." *L.s.M.A.* in *Opere* II, p. 615.

The other realm of existence is that of the corporeal bodies, which come into being through the gradual information of prime matter.

The parallel between both realms is reinforced by the fact that, according to the tenets of Averroism, the intellect is literally one instead of being divided in as many minds as there are human individuals. To Averroists, the human intellect is one eternal entity. They considered it the Intelligence corresponding to the sub lunar realm, the ‘lowest of the intelligences’ (just as the other intelligences corresponded to the successive heavenly spheres).⁸¹ In the realm of human intelligence, one man’s conjunction of the material intellect with the agent intellect constitutes, as it were, the simultaneous actualisation of all the possible intelligibles, or, as Averroës would have put it, a bright light shining on an immense patchwork of colors that previously had only been glimpsed at in quasi obscurity.

Varchi also evoked the possibility of the equivalent in the world of the sensible entities: the actualisation of all forms existing *in potenza* (*dunamel*) in prime matter. This would only imply the realization of a legitimate and natural desire for form of the prime matter. Corporeality, however, does not allow for such an event to occur instantaneously.

I want us further to know that the power of primal matter to elevate itself from potentiality to actuality, and thus to become all things, makes that it desires (appetisce) them all; but because it cannot pursue and possess them all simultaneously [...] it chases them and possesses them one after the other, as it goes along. And this makes that the world, while remaining eternal, every day dies, and every day regenerates.⁸²

As has been pointed out earlier, the emphasis on desire as the driving force in the functioning of the world machine shifts the initiative from above to below. Prime matter, the lowest echelon of the chain of being, ends up causing all generation and corruption out of its hunger for form. This craving for form of the Protean stuff is such, according to Varchi, that eventually, “nothing was ever made, that could not be made, and nothing that can be made, will not be made”.⁸³

Between the realms of the sensitives and the intelligibles, a third realm exists, as we have seen in the preceding chapter, the realm of the sense-image, the *phantasmata*, the *concetti*. Not entirely immaterial but existing as volutes of subtle vapour whirling in our bodily cavities, these contents of the sensitive soul are not corporeal enough to be subjected to the slowness and inertia of the early cycles of generation and corruption. Sense-images, *ghiribizzi* and *concetti*, are the shadows of the species that appear in corporeal existence. Their relative immateriality, though, allows them for much faster breeding, transformation, and invention. The ventricles of the brain may thus function as laboratories where the embodiment of new *species*, yet unseen in the sensible world, may

be simulated, and judged. The eventual realisation of the prophecy of the actualisation of all possible sensible forms (“nothing that can be made, will not be made”) can thus be boosted, through artificial production, with the help of this intermediate realm: the realm of the quasi-corporeal products of the sensitive human soul.

CHAPTER FIVE:

Physiocracy, or the rule of Nature

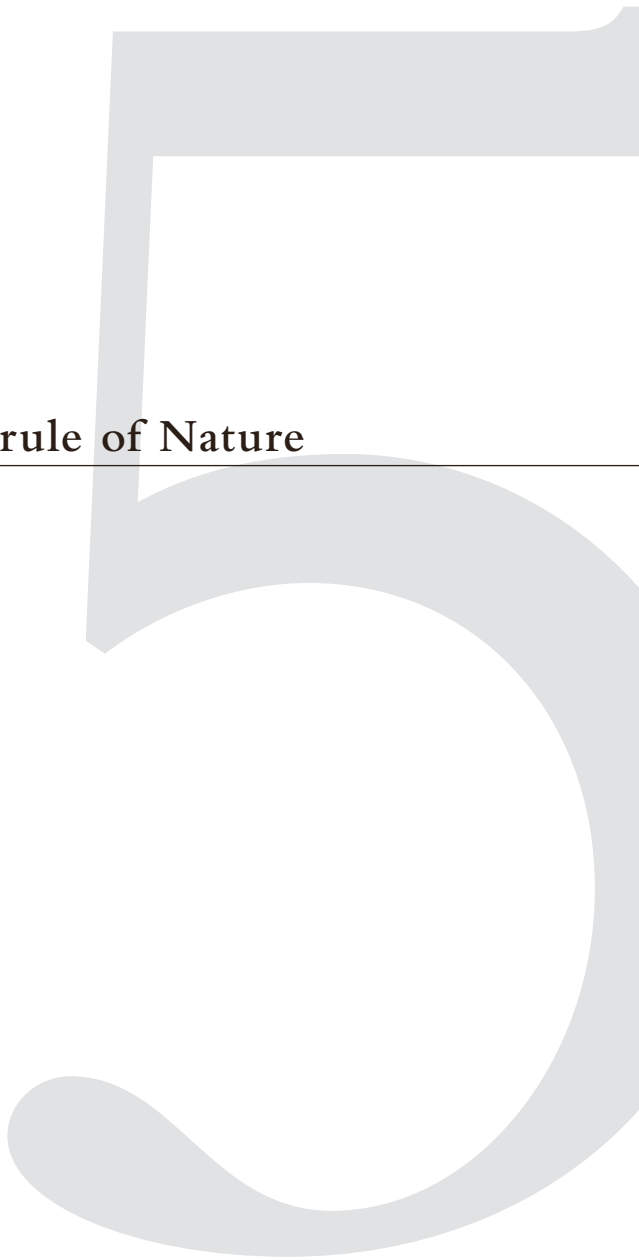




Fig. 5.1 Agnolo Bronzino, *Portrait of Francesco de' Medici (aged 10)*, 1551. Florence, Uffizi.



Fig. 5.2 Agnolo Bronzino, *Portrait of Maria de' Medici (aged 11)*, 1551. Florence, Uffizi.

¹ Racheli's edition of Varchi's *Opere* do for instance contain a letter Varchi wrote to one of the Duke's collaborators in which he submitted more than twenty proposals for new *imprese* for "the Illustrious Prince", most likely prince Francesco de' Medici. See *Opere* II: 326-327. The letter is undated, but among Varchi's proposals figures an *impresa* Francesco did indeed take up as his own: that of the weasel eating a basket of rue (*Ruta graveolens*) with the motto: "Amat victoria curam", 'Victory loves care(ful preparation)'. The *impresa* figures for instance in the ceiling of Francesco's *Studiolo* in the Palazzo Vecchio. According to ancient beliefs, the weasel prepared itself for an encounter with snakes by eating rue, a strongly odorant plant. The odour and the virtue of the rue were thought to make the weasel invulnerable, even to the poison of the basilisk. On the weasel and the rue see for instance, Pietro de Crescenzi and Francesco Sansovino, *Pietro Crescentino tradotto novamente* (Venice: Francesco Sansovino, 1561) Book 6, Chapter 101.

² See the Figures 5.1, 5.2 and 5.3.

³ On the figure of Pierfrancesco Riccio, his responsibilities, the extent of his power, and his problematic relations with the artists he commissioned works of art from, see Alessandro Cecchi, "Il maggiordomo ducale Pierfrancesco Riccio e gli artisti della corte medicea," *Mitteilungen des Kunsthistorischen Institutes in Florenz* 42 (1999):115-143.

⁴ "...una lettera elaboratamene e terribilmente cortigiana..." Luciano Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino* (Firenze: artout maschietto&ditore, 2002 (1967)), p. 57.

INTRODUCTION

This chapter is concerned with language and communication as it was used at Cosimo de' Medici's ducal court. Like any other form of official communication and even when the texts are not instructed or written by the sovereign himself, the court's language bears the mark of power. For any two correspondents within the court are, almost by definition, positioned differently in its intricate but rigidly pyramidal hierarchy. Power relations, therefore, become readable.

Benedetto Varchi, a prominent official as we have seen, and occasionally an outright propagandist for the regime,¹ will only play a marginal role in this chapter. But the imagery which he promoted, an imagery strongly tainted by natural themes such as birth, natural growth and fecundity, certainly will.

In January 1551, Varchi's friend and former colleague at the Accademia Fiorentina, Agnolo Bronzino was working on a series of portraits of the Duke's children who were then staying in Pisa with their parents.² In a letter to the Duke's *maggiordomo* Pierfrancesco Riccio, Bronzino described the progress of his work.³ The letter, which Luciano Berti labeled "emphatically and awfully courteous",⁴ has interested art historians for the information it contains on the circumstances in which Bronzino executed the celebrated portraits of the Medici children. Here, it will hold our attention for different reasons. Before actually describing his work, Bronzino wrote:

... I am up here in Pisa, as You know, where I have been all the time with these most saintly lords enjoying the blessed sweetness of such a good and benevolent Prince, who surely is incomparable. And, to put it briefly, His illustrious and most unique spouse and His angelic and sweetest children are of the sort deserved by such Lordship and He is such as they deserve to have for their father and husband; so much that it seems to me, when I observe them, to see so many angels, and when I listen to them, to hear as many heavenly spirits. I find myself painting now [in the room] where they learn Latin and Greek letters, and I draw enormous pleasure out of seeing that these tender plants, so well-born, are kept both so pure and looked after, and so perfectly corrected and directed to the most benefic aspiration, so that one should pick the most happy fruit from them. And I feel pleasure seeing that these, who after our age shall have to rule our dearest city, are receiving such good education as to give firm expectation of future prosperity to us, who are seeing them, for the future generations, since our descendants will no less appreciate and enjoy that most sacred seed of such and excellent and most valorous Prince, then we do now. For surely we are able to say that we are finding ourselves in the happiest part of the world, and under [the rule of] the most perfect Lord that ever was....⁵



Fig. 5.3 Agnolo Bronzino, *Portrait of Don Garzia de' Medici (aged 3,5)*, 1551. Florence, Uffizi.

⁵ “...Io son quassù in Pisa, come quella sa, dove continuamente mi sono trovato con questi santissimi signori et mi godo la beata dolcezza di tanto buono et benigno principe, che certo è incomparabile. Et per dirla in una, la sua Ill.ma et unica consorte et gli suoi angelici et dolcissimi figliuoli son tali quali merita un tanto signore et egli è tale quale son degni d’havere per degno padre et Marito, tanto mi pare, quando io gli veggo, vedere tanti angeli et udendoli sentire tanti Spiriti del cielo. Trovami a dipingere dove imparano le lettere latine et le greche et mi piglio grandissimo piacere a vedere che queste tenere piante et così ben nate, siano così bene et purgate et custodite et così perfettamente corrette et indiritte a ottimo segno, acciò se ne debba corre felicissimo frutto, et mi godo veggendo che quelli che doppo questa nostra età hanno a reggere la nostra carissima città, habbino sì buona educatione et diano così ferma speranza di futuro bene a noi, che li veggiamo, per quelli che verranno, perché non manco gustino et godine gli nostri posterì del santissimo seme di tanto ottimo et valorosissimo Principe, che ci facciamo hora noi di quello: che certo possiamo dire di ritrovarci nella più felice parte del mondo et sotto al più perfettissimo signore che mai fusse...” Agnolo Bronzino to Pierfrancesco Riccio, letter cited in *Ibid.*, p. 57–58.

⁶ “...non devemo nè maravigliarsi nè sgomentarci, se piccioli infino ad ora sono stati di questa nostra, quasi repubblica di lettere e di giovani studiosi, i progressi; ne se ne sono veduti ancora, non che colti que’ fiori, per non dir frutti, che si sperava, e che pareva ragionevole che se ne dovessero e vedere e cogliere. Perciocché (oltre che la Natura comincia sempre dalle cose più piccole e meno perfette, e provvede verso le più grandi e più perfette) tutte quelle cose che nascono e crescono prestamente, prestamente ancora mancano e muoiono.” *Or. Pigl. Cons.* in *Opere* II, p. 338.

⁷ “...faccia proporre qualche virtuoso ragionamento, a cagione che esercitandosi i giovani in questa onorata maniera partoriscono al tempo que’ veri frutti che s’aspettano di questa impresa...” BNF, *Magl.*, Cl. IX. 91, f° 13v. Cited in Michel Plaisance, “Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l’Académie Florentine,” in *Les écrivains et le pouvoir en Italie à l’époque de la Renaissance, Deuxième série* (Paris: Université de la Sorbonne Nouvelle, 1974), p. 201.

⁸ “Ieri, che funmo a 31, si raguno l’Accademia et compagnia del Disegno nel capitolo degli Angeli, che furono 70 in numero; et vi venne una gioventù fioritissima da sperarne, che queste arti, per mezzo di questo ordine che V.E. a provisto loro, abbia a far gran frutto in questa Vostra città.” Letter from G. Vasari to Duke Cosimo I, Februari 1st, 1563. Frey, CCCXCIII, vol. I, p. 712.

⁹ “Et perché Sua Ecc.tia disegna di queste piante virtuose ricorne il frutto...” Letter from G. Vasari to M. Buonarroti, 17(?) March 1563, Frey CDII, vol. II, p. 737.

If one reads beyond the ceremonial and obsequious tone employed by the painter, at least three elements appear as particularly intriguing. First, Bronzino is referring to Cosimo's children as plants. Secondly, he looks forward to the "most happy fruits" Florentines will pick from them. Thirdly, Bronzino labels them as being the Duke's "most sacred seed".

Surprisingly, very similar formulas were used profusely in the academy of letters, the Accademia Fiorentina, and its younger equivalent for the visual arts, the Accademia del Disegno. The members of both academies were described by their superiors as plants, as blossoming plants, the excellent fruits of which they similarly expected to pick. Benedetto Varchi, for instance, in his acceptance speech as consul of the Fiorentina in 1545, expressed his dissatisfaction about the scant progress made by the young institution in the following terms:

"We ought not to be amazed or stunned if the progress booked by our republic, so to speak, of letters and of young scholars has been small until now. Neither have we yet seen, nor harvested those flowers (let alone the fruits) that one had hoped for and which one reasonably expected to see and then to pick. Because (besides the fact that Nature always starts with the little and less perfect things, and then proceeds towards the greater and most perfect) all the things that are born and grow speedily, speedily also come to diminish and die.⁶

Similar terms are used, with more authority and a harsher tone, by Lelio Torelli, the Duke's first secretary and the brain behind the 1547 reform of the Fiorentina. In his note on the obligations of the academicians and of their consul, he wrote:

...[the consul] ought to suggest some virtuous discussion, which would bring the youngsters, while exercising in this honorable manner, to beget in due term those real fruits that one is expecting from this undertaking.⁷

In the Accademia del Disegno such agricultural metaphors appear from the very beginning. Vasari, founder of the Academy, started his written account of the first official Academy meeting, account which was meant for Cosimo, with the following words:

Yesterday, on the 31st [of January 1563], the Accademia et Compagnia del Disegno came together in the chapter-room of Santa Maria degli Angeli. They were 70 in number. Along came a most blossoming youth which makes one anticipate that those arts, through the means of the statutes that Your Excellency has provided them with, will bear many fruits in this city of Yours.⁸

In a letter to Michelangelo which described the very same meeting, Vasari depicted the members of the 'body of the academy' (*il corpo dell'Accademia*) as 'virtuous plants' (*piante virtuose*), the "fruit" of which the Duke intended to "collect" (*ricorre il frutto*).⁹ Vasari also explained how the Duke had accepted to become the "head" (*capo*) of the fresh institution in order to increase its prestige, make it radiate beyond the borders of Florence, in

¹⁰ “Et a cagione che non solo questa citta, ma tutto il mondo goda di questi onoratissimi frutti, per maggiormente aggrandilla, a voluto S.E. esserne capo et successivamente vol, che sia il medesimo tutti coloro che saranno al governo di questa citta...” Letter from G.Vasari to M. Buonarroti, 17(?) March 1563, Frey CDII, vol. II, p. 737.

¹¹ “Et molti si son risvegliati, et di nuovo accesi allo studio di queste arti, da poterne sperare frutti eccellenti...” Letter from V. Borghini to Cosimo I, Februari 1st, 1563, Karen-edis Barzman, *The Florentine Academy and the early modern state: the discipline of disegno* (New York: Cambridge University Press, 2000), p. 239.

¹² “Ma perché è bisogna, come i prudenti agricoltori, subito che le cattive erbe nascono, sarchiarle, e sverre e non lasciar come è accaduto quest’anno, che le affoghino.” Selva di notizie, draft for the departure speech of October 18th 1565 in Vincenzo Borghini and A. Lorenzoni, *Carteggio artistico inedito* (Firenze: Succ. B. Seeber, 1912), 12.

order that “not only this city, but the whole world would taste of these most honored fruits”.¹⁰

Vincenzo Borghini, the first intendant (*luogotenente*) of the Accademia del Disegno, used similar terms in his report to the Duke about the inaugural meeting. He described the mounting emulation caused among the artists because only an elite of them were eligible for membership in the following terms:

And many of them woke up again, and were stirred once more to the study of these arts, so that one might expect excellent fruits (*da poterne sperare frutti eccellenti*)....¹¹

Vincenzo Borghini made the comparison of the *Accademia* with a winter garden or an orchard very explicit in 1565, at the occasion of his farewell speech as *luogotenente* after a particularly troubled year at the Academy. He encouraged his successor to be unreservedly harsh with members of the academy who would cause havoc, just like a gardener would show no pity whatsoever for any plant disturbing the quiet growth of his crops.

For it is necessary, like the wise cultivator, as soon as he sees bad weeds coming up (*nascono*), to hoe and extirpate them, instead of letting them suffocate the [good plants], as has happened this year...¹²

It is to all such language and imagery, used to describe artists and their activities at and around Cosimo’s court that we will pay attention in what follows.

¹³ See Appendix 2 A on the botanist Luca Ghini.

¹⁴ Targioni-Tozzetti mentioned how: “[Vincenzo Borghini] disseco le possessioni delle Carriere presso alla Fortezza da Basso, che non poco danno rendeva alla salute della città, per esser luogo palludoso, e la ridusse ad aria salubre.” G. Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durement il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” in BNF, Targ. Tozz. 189, VI, f. 219.

¹⁵ Luigi Alamanni, *La coltivazione di Luigi Alamanni al christianissimo re Francesco primo* (Paris: Robert Estienne, 1546).

¹⁶ The 18th-century natural scientist Giovanni Targioni Tozzetti observed on the poem: “...della coltivazione, diviso in sei libri, nel quale in luoghi proprissimi, in immagini vivissimi, e con somma felicità di stile, raccolte tutti il piu utili precetti d’Agricoltura, de le Operazioni proprie fatte in Toscana. Con questo leggiadro ed istruttivo Poema, stampato per la prima volta in Parigi nel 1546, L’Alamanni non solamente si acquistò gran lode, ed incontro il gradimento del magnanimo Re, ma giovo molto ai suoi paesani ai quali abbeli, e raddolci gli utili precetti dell’Agricoltura, ed insieme insegnò ai Francesi molte industriose pratiche della coltivazione usata nel Fiorentino,” Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durement il regno del Serenissimo Granduca Cosimo I...”, f. 108.

¹⁷ Francesco Sansovino (transl.), *Pietro Crescentio tradotto novamente* (Venetia: Appresso F. Rampazetto, 1564); see also Pietro de’ Crescenzi, *Trattato dell’agricoltura di Pietro de’ Crescenzi. compilato da lui in latino, e diviso in dodici libri, ne’ quali distintamente si tratta delle piante, e degli animali, e di tutte le vilerce utilità, già traslato nella favella fiorentina, e di nuovo rivisto, e riscontro con testi a penna dall’Inferigno* [i.e. Bastiano de’ Rossi]. (Firenze: Giunti, 1605).

A. THE ORIGINS OF VEGETATIVE SIMILE

1. Botany and cultivation

The identification of both the young Medici princes and the Florentine academicians with plants calls to mind the enthusiasm for agriculture, cultivation, and botany, which was fostered by the Duke. As mentioned earlier, Cosimo founded one of the earliest botanical gardens of Europe in Pisa, where the rarest specimen were to be nurtured, and soon thereafter he established its equivalent in Florence.¹³ Even the gardens of the Duke's private villas on the Tuscan countryside were renowned for the collections of flowers and plants they hosted. The garden of the villa of Castello included its own botanical section where the growth of the species it contained was followed closely by the Duke himself. The Duke's collaborators did not live isolated from nature either. Much of court life took place in those countryside villas and many courtiers had of a second residence in the peaceful rural areas outside Florence. Varchi for instance did most of his writing and studying in his residences in the Mugello. Borghini, on the other hand, had acquired direct experience in agriculture in an earlier career: he had been responsible for the draining and improving the cultivation grounds of the Badia Fiorentina in 1544, the abbey of which he had been *cellario* (storekeeper) as a younger man.¹⁴

A striking testimony of the contemporary *letterati's* enthusiasm for agriculture is Luigi Alamanni's poem *La coltivazione* which counts no less than five thousand verses and was first issued in 1546.¹⁵ Whereas it was published in France and dedicated to François I, this imitation of Virgil's *Georgica* was written in Tuscan verse and describes Tuscan cultivation techniques.¹⁶ The mid-16th century is also the period in which the founding text of the Italian tradition of literature on agronomy, the *Ruralia commoda* (translated as *Il libro della agricoltura*) of Pietro de' Crescenzi (1230–1320), a Bolognese physician, scientist and lawyer, was rediscovered. This book in twelve parts, covers general agriculture, fertility of soil and field products, vines, arboriculture and horticulture, meadows and woods, pleasure-gardens, husbandry, bee-keeping, hunting and fishing, etc. The seminal work, written by, was known in numerous manuscripts and translations since the 14th century. In 1561 Francesco Sansovino (1521–1586), the son of the sculptor and architect Jacopo Sansovino, issued a beautifully edited and illustrated Italian translation of the text (*Il libro della agricoltura*) which testified to the untarnished reputation of the text. The translation was reprinted three years later.¹⁷ Sansovino's edition of de' Crescenzi appears to have

¹⁸Victoria Kirkham recently found a list of the books that were bought by the household of Bartolomeo and his wife the poetess Laura Battiferra over a period of about six months from late 1564 until early 1565. The list includes: “an *Architecture* by Leon Battista Alberti, one by Piero Cattaneo, one by Sebastiano Serlio, and one by Cosimo Bartoli”, Vannoccio’s *Protechnia*, Laura Battiferra’s *Seven Psalms*, “a new selva,” a copy of the *Dialogues* by Giovan Andrea Gilio, a Pietro Crescenzio, a Valerius Maximus, and “*Le rime by Madonna Laura*”. Victoria Kirkham, “Creative partners: The marriage of Laura Battiferra and Bartolomeo Ammanati,” *Renaissance Quarterly* 55 (2002): 498-558, p. 527.

¹⁹“...fatte venire da fuori, e che indi propagate per le campagne Toscane, presero il nome del Vechietti stesso...” Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durement il regno del Serenissimo Granduca Cosimo I...”, f. 215.

²⁰Maryanne Cline Horowitz, *Seeds of virtue and knowledge* (Princeton: Princeton University Press, 1998), xvi.

²¹See for instance I.3, section 3-5: “My ideal pupil will absorb instruction with ease and will even ask some questions; but he will follow rather than anticipate his teacher. Precocious intellects rarely produce sound fruit. By the precocious I mean those who perform small tasks with ease and, thus emboldened, proceed to display all their little accomplishments without being asked: but their accomplishments are only of the most obvious kind: they string words together and trot them out boldly and undeterred by the slightest sense of modesty. Their actual achievement is small, but what they can do they perform with ease. They have no real power and what they have is but of shallow growth: it is as when we cast seed on the surface of the soil: it springs up too rapidly, the blade apes the loaded ear, and yellows ere harvest time, but bears no grain. Such tricks please us when we contrast them with the performer’s age, but progress soon stops and our admiration withers away.” Translation from Quintilian, *The Institutio Oratoria of Quintilian* (London, New York: W. Heinemann; G.P. Putnam’s Sons, 1921).

²²“Though I have spoken in some detail of the duties of the teacher, I shall for the moment confine my advice to the learners to one solitary admonition, that they should love their masters not less than their studies, and should regard them as the parents not indeed of their bodies but of their minds. Such attachments are of invaluable assistance to study. For under their influence they find it a pleasure to listen to their teachers, believe what they say and long to be like them, come cheerfully and gladly to school, are not angry when corrected, rejoice when praised, and seek to win their master’s affection by the devotion with which they pursue their studies. For as it is the duty of the master to teach, so it is the duty of the pupil to show himself teachable. The two obligations are mutually indispensable. And just as it takes two parents to produce a human being, and as the seed is scattered in vain, if the ground is hard and there is no furrow to receive it and bring it to growth, even so eloquence can never come to maturity, unless teacher and taught are in perfect sympathy.” II.9, 1-3 (Translation from *Ibid.*)

been one of the books bought by Bartolomeo Ammanati around 1564–1565, besides architecture treatises of Alberti, Cataneo, and Serlio.¹⁸ The popularity of ‘agricultural’ literature herald an era in which rich Florentine patricians such as Bernardo Vecchietti would finance and set up experiments with crops and fruits in the gardens of his villa *Il Riposo* outside Florence. Vecchietti, also a great patron of the arts and a good friend of the Granddukes, is known to have created new varieties of fruit, which he “brought to light, and propagated from [his gardens] over the Tuscan countryside, while the fruits adopted his name”: people spoke of the “Susine del Vecchietto” and the “Fiche del Vecchietto” (Vecchietti’s prunes and figs).¹⁹

2. Stoic antecedents – seeds of virtue and knowledge

But there exists also a long tradition, carried on in particular in humanist pedagogical works, to use vegetative analogies to describe the process through which a child’s mind grows from infancy to adulthood. The tradition has long roots stretching back to antiquity and more particularly to Stoic convictions about the nature of man. Stoics believed that every child receives at birth sparks or seeds of the divine *logos* (universal order) that governs the world. If allowed to develop in the best circumstances These ‘seeds of reason’ (*logos spermatikos*) shall evolve into a healthy and flourishing mind. The concept was enthusiastically adopted by Latin authors such as Quintilian, Cicero and Seneca in their educational theories. These authorities firmly established the belief that one should nurture, nurse, prune, fence, and cultivate a child or sapling from infancy to adulthood. Maryanne Cline Horowitz, who recently published a historical and conceptual study on the *Seeds of virtue and knowledge* observed how Renaissance humanists eagerly adopted the association between horticulture and culture, already “deeply grounded” in language and symbolism, and transformed it into a major defining motif of their age. With Renaissance authors such as Petrarch, Guarino, Ficino, Sadoletto, Erasmus, Du Vair, Bodin and Charron, “...humanist strategies for education build upon analogies of a pupil to a young tree and the educator to a gardener. To us they bequeath the idea that under proper educational cultivation the human mind might attain the full flowering of wisdom.”²⁰ Quintilian had also developed the idea, all along the *Institutio oratoria* (The education of an orator), that the seeds of wisdom can be transplanted from the wise (the teacher) to the unlearned (the pupil) who is likened either to shallow soil or fertile ground, with understandably different results in the long run.²¹ Echoing Platonic themes we broached in the last chapter, Quintilian in one instance even likened the teacher to an inseminating father giving birth to the child’s new mind.²²

²³ “Sustanzia, nella quale è virtù di generare, e che genera cosa simile al suo subbietto”. *Dizionario della Crusca*. Lemma: seme.

²⁴ “Avendo dunque la Natura fatta le piante, nelle quali non è distinto il maschio della femmina, e volendo fare nel sesot grado gli animali bruti, ne’ quali oltra cotale distinzione, e oltra tutte le perfezioni che si trovano nelle piante, si ritrovasse aconra il sentimento, il movimento locale e il destro e sinistro...” *L.Am.D.* in *Opere* II, p. 328.

²⁵ *Generation of Animals*, I.2, 716a20-23.

²⁶ *Generation of Animals*, I.2, 716a15-18.

Yet in the way the vegetal analogy is used either by Bronzino when talking about the Medici princes or by the Florentine academy officials when talking about the artists, there are some significant differences. When Bronzino speaks of the young princes as Cosimo's "most sacred seed", he is not using a metaphor. The children are, quite literally, the Duke's own seed grown (almost) mature. It is the literal character of the comparison which we will broach now.

3. Literal similarities between animal en vegetal generation

The exact terms Bronzino had used to describe Cosimo's children were "*santissimo seme*". The Tuscan noun *seme* derives from the Latin *semen* and refers to both vegetal and animal (male) seed. The Cruscan encyclopedia defines *seme* in strikingly general terms as "substance, in which resides the potency to generate, and which generates an entity similar to its subject"²³ *Seme* could, when talking about plants and just as in Latin, equally refer to a shoot used for propagating, a graft or scion.

Common Renaissance theories was vegetal generation as entirely analogous to animal generation, with that significant difference that plants were considered asexual. Varchi linked the absence of a distinction in plants between male and female to their incapacity to move or to sense, and to the absence of a distinction between left and right in their bodies.²⁴ Still, the process of reproduction in plants was considered a highly gendered one. In the vegetal world Aristotle's general definition of 'the male' and 'the female', posited at the very beginning of *Generation of animals*, still applied: "the male is that which has the power to generate in another [...], while the female is that which can generate in itself, i.e. it is that out of which the generated offspring, which is present in the generator, comes into being";²⁵ Now it is the earth in which a seed is planted which assumes the maternal role of providing the matter of the future organism. The analogy likening a mother's womb to fertile ground in which the genitor plants his seed was of course as old as agriculture itself. It still resonates in the present-day English term "matter" which is etymologically related to Greek terms *mètèr* (mother) and *mètra* (matrix, womb). It is precisely because Aristotle had echoed these immemorial parallelisms in *Generation of animals*, that his doctrine could resound so deeply. Eventually, the generality of the definition of male and female allowed the whole universe to be read in gendered terms. Aristotle himself observed:

This is why in cosmology too they speak of the nature of the Earth as something female and call it "mother", while they give to the heaven and the sun and anything else of that kind the title of "generator" and "father".²⁶

²⁷ Dante, *Paradiso*, XIII, v. 65-66. (English translation Alighieri Dante and Henry Wadsworth Longfellow, *The Divine comedy of Dante Alighieri* (Boston: J. R. Osgood and company, 1871)).

²⁸ Dante, *Paradiso*, VIII, v. 127-129. (tr. Longfellow).

²⁹ “La natura universale non è altro che una virtù attiva, o vero cagione efficiente in alcun principio universale, o vero in alcuna sostanza superiore, come sono i cieli e l’anime loro, ciò è l’intelligenze che li muovono. Onde, perché ognuno intenda, la natura universale non è altro che la virtù celeste, e la virtù celeste non è altro, secondo alcuni, che la forza e potenza delle stelle, le quale discendendo, mediante i raggi, in questo mondo inferiore, genera e mantiene tutte le cose.” *L.d.Nat.* in *Opere* II, p. 653.

³⁰ Giovanvettorico Soderini, *Trattato della coltivazione delle viti e del frutto, che se ne può cavare* (Firenze: Domenico Maria Manni, 1784), pp. 70, 73.

As Aristotle's considerations of the cycles of generation and corruption make clear, the heavens are ultimately the cause of every *genesis* that occurs in the sublunary world. Coming-into-being can be resumed in some cases to the mere interplay of earthly matter and heavenly influences. Seed (animal or vegetal) is not always required as an intermediary. *Generatio ex putris*, mentioned earlier, the mode in which 'imperfect' animals such as mice and vermin come forth out of putrescent matter, occurs a-sexually and without seed. Here matter directly undergoes the informative effect of the heavens. Things generated, in short, are caused by the motions of the heavens; with or without the seed intermediary. Dante summarized the idea in *Paradiso*, Canto 13:

...le cose generate, che produce
con seme e senza seme il ciel movendo.

(Things generated, which the heaven produces
By its own motion, with seed and without.)²⁷

Dante and Petrarch's writings provide numerous passages in which the cosmic impregnation of earth by the heavens is poetically despiced in starkly gendered terms, often as the interplay between earthly wax and a heavenly seal or signet (*sugello*). The term *suggellare*, which refers to the action of printing a seal into wax, is frequently used in evocations of the heavens' generative powers. A passage Dante's *Paradiso*, Canto 8 states for instance that:

La circular natura, ch'è suggello
a la cera mortal, fa ben sua arte ...

(Revolving Nature, which a signet is
To mortal wax, doth practise well her art ...) ²⁸

In these verses, Dante identified the combined powers of the different heavenly orbs to 'Nature'. The identification is not unusual. As observed by Varchi, who commented on the passage, "universal nature" is "nothing else but celestial virtue, and celestial virtue is nothing else, according to some, but the strength and power of the stars, which coming down in the form of rays to the inferior world, generates and maintains all things."²⁹ A very concrete example may illustrate this statement: In his treatise on the cultivation of vines, the Florentine Giovanvettorio Soderini (1526-1596) advised his reader to wait until the moon is in the right sign of the zodiac before harvesting the grapes, and added that these are Cancer, Leo, Libra, Scorpio, Capricorn, or Aquarius. And he adds that an increasing moon at harvest will eventually yield more wine, but of a lesser duration, than if the harvest occurred at a waning moon.³⁰ Exemples such as these are innumerable.

In poetical evocations of the heavenly influences, the latter are often presented as the effects, not of the totality of the spheres, but of the most prominent of all planets,

³¹ Dante, *Paradiso*, I:v. 37-42 (English translation Longfellow).

³² *L. Par. I.* in *Opere* II, p. 364.

³³ Canzoniere IX. “Quando ‘l pianeta che distingue l’ore/ ad albergar col Tauro si ritorna,/cade virtù da l’infiammate corna/ che veste il mondo di novel colore;// et non pur quel che s’apre a noi di fore,/le rive e i colli, di fioretti adorna,/ ma dentro, dove già mai non s’aggiorna, gravido fa di sé il terrestre humore,// onde tal fructo et simile si colga; così costei, che’è tra le donne un sole,/ in me, movendo de’ begli occhi i rai,/ crìa d’amor pensieri, atti, et parole; ma, come ch’ella gli governi o volga,/ primavera per me pur non è mai.” Varchi referred to this sonnet in the lectures on the *L. 3. C. O.* in *Opere* II: 463.

³⁴ Petrarch, Canzoniere, 71, v. 102-105. Varchi analyzed the passage in the following terms: “...come un terreno magro non prudurrebbe cosa alcuna, se prima non vi si gittasse il seme, e poscia si coltivasse, così il Poeta, agguagliando sè a quel terreno sterile, ed i begli occhi al coltivatore d’esso, dice che tutto il pregio e tutta la lode, di quello che egli fa, si debbe attribuire non a sé, ma a loro.” *L. 3. C. O.* in *Opere* II, p. 461.

³⁵ At the end of the *Lezione sui calori*, Varchi made clear that the proposition “il sole e l’uomo generano l’uomo” is *certissima*. (*Opere* II, p. 524). The postulate is repeated in the *Lezione della Natura*, when Varchi talks about the heavenly influences and the notion of the *natura universale*.” *L. d. Nat.* in *Opere* II: 653.

³⁶ *Physics* II. 2, 194b13-14.

whose grasp on sublunary events is most tangible, that is the sun. Dante referred to the sun as “the lantern of the world” in the following verses from *Paradiso*, Canto 1:

Surge ai mortali per diverse foci
la lucerna del mondo; ...
... e la mondana cera
più a suo modo tempera e suggella.

(To mortal men by passages diverse
Uprises the world’s lamp; ...
...and the mundane wax
Tempers and stamps more after its own fashion.)³¹

The effects of the sun on the wax-like humours of the world are described as a process of first bringing down the humours to the right temperature (*temperare*) and then signing them with a form (*sugellare*), like Varchi observed so well in his commentary.³² Petrarch’s sonnet *Quando ‘l pianeta che distingue l’ore...* is similarly a tribute to the generative powers of the sun, which compares the effects on the terrestrial humours to the way in which the enlightened rays coming from Laura’s eyes impregnate the poet’s mind with amorous thoughts, deeds and words.³³ The same idea is expressed in a passage of one of the *Canzoni degli occhi* in which Petrarch addressed his beloved with the words:

...onde s’alcun bel frutto
Nasce di me, da voi vien prima il seme:
Io per me son quasi un terreno asciutto,
colto da voi; e ‘l pregio è vostro in tutto.

(If ever any beautiful fruit
Is born from me, from you came first the seed,
I for myself are but dry land
That you cultivate; and the price is all yours.)³⁴

Laura’s eyes are the true begetters of whatever might come from Petrarch’s mind, just as the sun is the true cause of whatever results from its inseminating and nurturing rays.

The idea that earthly generation can occur with and without seed and that, of all the heavenly bodies, the sun is the most potent ‘informator’, the idea that is evoked in these poetic passages, eventually connect to one of Aristotle’s most puzzling statements. Benedetto Varchi repeatedly ruminated over this statement in his academic lectures, and while strongly asserting its the validity of which he ascertained:³⁵

“Man is begotten by the sun and by man as well.”³⁶

³⁷ “ministro maggior della natura”, Dante, *Paradiso* X: v. 28.

³⁸ “...il maggiore, anzi il padre di tutti i lumi...”. According to calculations Varchi borrowed from several authors, the sun can contain the earth 166 and 3/8th times. *L. Ter. Ciel.* in *Opere* II, p. 438.

³⁹ For Aristotle’s endorsing of the ‘law of continuity’ in natural history, see Arthur O. Lovejoy, *The great chain of being. A study of the history of an idea* (Cambridge, MA: Harvard University Press, 1966 (1936)), pp. 55-56. Summarizing Aristotle’s position, Lovejoy wrote: “Nature refuses to conform to our craving for clear lines of demarcation; she loves twilight zones, where forms abide which, if they are to be classified at all, must be assigned to two classes at once. And this insensibly minute gradation of difference is especially evident at precisely those points at which common speech implies the presence of profound and well-defined contrasts.” See for instance the next passage from book VIII of the *History of animals* (588b), also cited by Lovejoy: “[Nature] passes so gradually from the inanimate to the animate that their continuity renders the boundary between them indistinguishable; and there is a middle kind that belongs to both orders. For plants come immediately after inanimate things; and plants differ from one another in the degree in which they appear to participate to life. For the class taken as a whole seems, in comparison with other bodies, to be clearly animate; but compared with animals to be inanimate. And the transition from plants to animals is continuous; for one might question whether some marine forms are animals or plants, since many of them are attached to the rock and perish if they are separated from it.” (Translation of Lovejoy, *The great chain of being. A study of the history of an idea*, p. 56).

⁴⁰ For Varchi the existence of *piantanimali* equally demonstrated the ‘law of continuity’ in Nature, succinctly stated as: “la Natura non fa salti”, nature does not proceed from one extreme to the other without passing through and intermediary phase. When hot water cools of it will first be tepid before becoming cold, “e tra le piante e gli animali sono alcune cose che non sono al tutto piante, nè al tutto animali, come le spugne...” *Della natura*, p.628. Elsewhere Varchi explains that these forms of life were termed by the Geeks “zoofita, cioè è animali e piante, come se noi dicesimo animalpiante, e veramente piantanimali, ...” *L. Am. D.* in *Opere* II, p. 328.

⁴¹ See for instance *Lezione Sui Calori* in *Opere* II, p. 517: “Il caldo naturale [...] si genera della più pura ... parte del sangue in quegli animali i quali hanno sangue; ma nelle piante, ed in quegli animali che mancano di sangue, si genera da una cosa equivalente e proporzionata al sangue, cioè è dalla più sottile e pura parte del nutrimento.”

⁴² “Onde come tutte le virtù e la vita stessa degli uomini dipendono dal cuore, il quale è in un certo modo nel mezzo, così nelle piante, come ne la vita stessa e tutte le virtù loro dipendono non dal cuore propriamente, ma da una particella somigliante e proporzionata al cuore, la quale è nel mezzo del tronco o vero pedale tra le radici ed i ramei.” *L. 3. C. O.* in *Opere* II, p. 470.

⁴³ For Varchi’s use of the term *pedale*, see note 44.

Even if a child proceeds in first instance from the semen of its father, ultimately, its existence is caused by the motions of the heavens. More than any other stars or planets, it is the sun, “Nature’s most important minister” as Dante stated it,³⁷ or “the biggest, nay, the father of all the heavenly lights” according to Varchi, which causes the child.³⁸ It is as if the entire genealogical tree of humanity sprouted from the sun. With this rather counterintuitive affirmation about the nature of man Aristotle underscored the continuity between humans and plants. Plants, of course, are manifestly begotten by both plants and the sun. Nonetheless it is to the latter, their ultimate cause and principle, that they incessantly manifest their filial gratitude, as sunflowers do most explicitly.

4. Similarities between animal and vegetal bodies; animal fruit

Renaissance men and women perceived far-reaching continuities between the realm of the animal and the vegetal. It would be a mistake to imagine that the impact of Renaissance Aristotelianism had been to disseminate the conviction that animals and plants, in the overall taxonomy of the natural world, belong to radically different and easily distinguishable categories. On the contrary, as Arthur Lovejoy stressed, the Aristotelian understanding of the natural species’ hierarchy (later referred to as the ‘Great Chain of Being’) focuses as much on the differences as on the continuities between the different classes of being.

Indeed Aristotle often considered the similarities between classes, families, and species more important than the differences between them.³⁹ Renaissance authors, Varchi among them, were particularly interested in species that seemed to bridge the gap between two important classes. Aristotle had referred to these as zoophytes (*zôophutoî*), a term which the Italians poetically translated as *piantanimali*.⁴⁰ Typical instances are polyps, sponges and jellyfishes. These Renaissance authors also took over Aristotle’s conviction that plants and trees have a liquid running through their veins that is “something equivalent and proportioned to” animal blood⁴¹ and that plants and trees also feature a (hard to discover) organ in their centre that was “proportioned to” an animal heart.⁴²

A tree’s trunk (*pedale* in Tuscan) was likened to a foot.⁴³ But plants also were seen as animals turned upside down, because of their habit to take nourishment from below, through their roots, instead of from above as we do. Much attention was also paid to plants like the mandrake with conspicuous anthropomorphic features. Words like *midollo/midolla* (pulp, pith, marrow, the Tuscan equivalent of the Latin *medulla*), *succo* (sap, blood, cf. *succus*) and *scorza* (bark, peel, skin, crust, the equivalent of *cortex*), were applicable both to animals and plants.⁴⁴ These analogies, from the Great Chain of Being to what was said about *succo*

⁴⁴ The very first verses from one of Michelangelo's longer poems (n° 267) puns on that duplicity: "I sto rinchiuso come la midolla / da la sua scorza, qua pover e solo, / come spirito legato in un'ampolla..." James Saslow decided to translate the verses as follows: "I am shut up here, all alone and poor, / as is the pulp of a fruit by its husk, like a genie bound up in a bottle; ..." Michelangelo Buonarroti and James M. Saslow, *The poetry of Michelangelo: an annotated translation* (New Haven: Yale University Press, 1991), p. 452.

⁴⁵ See chapter two ('La prose du monde') of Michel Foucault, *Les mots et les choses: une archéologie des sciences humaines* (Paris: Gallimard, 1966), pp. 32-59.

⁴⁶ See Louis Haas, *The Renaissance man and his children: Childbirth and early childhood in Florence, 1300-1600* (New York: St. Martin's Press, 1998), pp. 19, 207.

⁴⁷ The Latin original of the prayer is "Ave Maria, gratia plena / Dominus tecum, benedicta tu / In mulieribus et benedictus / Fructus ventris tui Jesus. / Sancta Maria, Sancta Maria, / Maria ora pro nobis, / Nobis peccatoribus, / Nunc et in hora mortis nostrae. / Amen".

and *midolla*, are as such only manifestations of the all-pervading and organizing ‘principle of similitude’ which Michel Foucault has put at the very heart of Renaissance *epistèmè*.⁴⁵

As we have seen, animals and plants were thought to have a similar sexuality: both carry seed (*seme*) and both produce fruit. In this context it needs to be mentioned that Florentines often referred to their own offspring as their own fruit: in the so-called *ricordanze*, the diary-like ‘memories’ in which Florentine householdchiefs kept a record of family events, one finds numerous instances of expressions such as “Costanza [my wife] has born fruit” (“*Costanza...ha frota*”), or “first fruit” (“*primo frutto*”) when the author is referring to a first son or daughter.⁴⁶ Such expressions, it will be noted, are only repeating the terms of one of the most common catholic prayers, the Ave Maria, in which Jezus is referred to as “the fruit of thy womb” (“*il frutto del tuo seno*”).⁴⁷



Fig. 5.4 Claude Paradin, 'Non inferiora secutus – Following no meane things', from *The Heroicall Devises of M. Claude Paradin* (London: W. Kearney, 1591).

⁴⁸ I chose this term for its accuracy, despite the fact that "Physiocracy" refers today in the first place to a 18th-century economic doctrine, originated in France, and animated by the father of the revolutionary Comte de Mirabeau. Physiocrats believed that governments should not interfere with the operations of the natural economic laws.

B. THE GARDENER'S PERSPECTIVE ON THE ACCADEMIA DEL DISEGNO

1. The principle of physiocracy

In the previous chapters, we have seen how the court philosopher and popularizer of scholarly knowledge Benedetto Varchi assembled a theory according to which artistic creation can be seen as entirely participating in the order of nature. This is because artificial bodies are like natural bodies in so far as they (1) result from the fusion of a (inferior, female) material principle with a (superior, male) formal yet tangible principle, an inseminating *concetto*; (2) are brought about by a natural drive common to plants, men and others animals urging them to replicate. However, in the beginning of this fifth chapter, we have seen how, in the Florentine academies of literature and art, it was the artists themselves who were assimilated to natural bodies. Artists are here subjected to a form of 'naturalisation' by the language that is used by their administrators: they are likened to plants, the products of their hands and minds are likened to preciously nurtured flowers and fruits.

The point that I want to make in the next section is that the vegetative imagery under Cosimo de' Medici's reign is outstripped of the initial emancipating connotations it bore in the humanist and educational tradition. In the educational treatises for up-and-coming youngster, the assimilation of a mind to a plant primarily suggested the possibilities for a prosperous growth. This is no longer the case. When the Accademia del Disegno was founded in 1563, one year before Michelangelo's death, an era ended which Vasari, in the first edition of *Vite* (1550), calls the 'adulthood of art', the summit which was reached after the rebirth (*rinascità*), infancy and youth of art. Located on a curve between generation and inescapable corruption, the plant analogy lost its emancipating value and its promise of a luxuriant future development. New connotations of the vegetative simile now foregrounded with a distinctly oppressive connotation. The emphasis is now on the assimilation of the artists to lower organisms, increasingly denied of free will, whose finalities as well as the origins of their motions lie in Nature, that is, in a principle which is clearly reaching beyond their own existences. That is why this chapter is entitled "Physiocracy" or "The rule of Nature."⁴⁸

I will argue here that, as a member of a state-controlled academy, the artist sees himself constrained to a strict agricultural genealogy: as a youngster he is first but a seed in the hands of the cultivator, depending on his goodwill for his own germinating and

⁴⁹ Nikolaus Pevsner, *Academies of art past and present* (Cambridge, England: Cambridge University Press, 1940), p. 42.

⁵⁰ *Ibid.*, p. 44.

⁵¹ *Ibid.*, p. 50.

⁵² *Ibid.*, p. 46.

growth, as well as on the presence of a good breeding ground and, most importantly, of the benevolence of his first solar cause. The analogy furthermore entails the academic artist's obligation to flower and bear fruit, to yield produce: non productive crops and bad weeds were useless in the 'physiocratic' order, and must be eliminated.

The identification of culture and horticulture did not contribute to the emancipation of either the members of the academy of letters or design. In the rest of this section I will further develop the case of the Accademia del Disegno and confront the depiction of the institution as an 'orchard' with the common perspective of this pioneering academy as primal locus of social emancipation for artists in Europe. The Academy is indeed often perceived as a momentous step forward in the gradual emancipation of the visual artists from their traditional association with vile mechanical trades (cobbling, smithery, etc.). In what follows I will focus on the contrary, on the repressive, disciplinarian aims of the Accademia del Disegno. These aims will help putting the vegetative analogies cited above into perspective.

2. The Accademia del Disegno as the vector of the artist's social emancipation?

The foundation of the Florentine Accademia del Disegno has been hailed by modern critique as a seminal moment in the history of the education of the European artist. Nikolaus Pevsner, the author of *Academies of Art Past and Present* (1940), could state, without exaggeration, that "Vasari's Accademia del Disegno stands at the beginning of the evolution of modern academies of art."⁴⁹ The Academy was indeed the very first formal institution for artistic education since antiquity. Pevsner's study, written in the years immediately preceding the war and therefore necessarily based only on fragmented sources for the individual academies broached in the analysis, proved keenly effective in disseminating the idea that it had been the original aim of Vasari (presented as the main founder of the new academy) to create a "new system of organization by which artists might free themselves altogether from the restrictions of guilds and obtain a raised social status."⁵⁰ Further, Pevsner described the "intentions" of the "founder" of the Academy as following: "Vasari wanted to sever the artists as far as possible from all affairs of the guild."⁵¹ Pevsner also used the term "university of art".⁵² Pevsner's extrapolations seem to have been partially based on some of Vasari's partisan statements in the *Vite*, claiming a greater social recognition for the class of the visual artists to which he himself belonged. On the other hand they draw much on the observation that in 1571, the Florentine artists were exempted from the obligation to be affiliated to the guilds they had always been

⁵³ The Grand Duke granted the regulatory and juridical authority of a guild to the academy through a document that is dated December 10th, 1571. Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, p. 208.

⁵⁴ See Nikolaus Pevsner, *Academies of art past and present*, p. 53. For a nuanced account on the significance of the 1571 regulation, see Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, Chapter Six: 'Fellowships of Discourse: The Academy's Confraternity and Guild.' pp. 181-214.

⁵⁵ "Licenziandosi poi la Compagnia, fu ordinata la prima tornata per la prossima domenica, per dar principio, oltre al corpo della Compagnia, a una scelta de' migliori e creato un'Accademia, con l'aiuto della quale chi non sapeva imparasse, e chi sapeva, mosso da onorata e lodevole concorrenza, andasse maggiormente acquistando." *Vite*, G5, ('Vita di Fra Giovan Antonio Montorsoli'), p. 507.

⁵⁶ The three other members were the sculptor Francesco da Sangallo (1494-1576) and the painters PierFrancesco di Iacopo di Sandro Foschi (1502-1567), Michele di Ridolfo Ghirlandaio Tosini (1503-77).

⁵⁷ These statutory addenda of July 1st 1563 are equally reprinted in the Appendix of Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, p. 231-240.

associated with.⁵³ Before that date, painters were indeed to take on membership of the *Arte de' Medici e Speziali* – the guild of the Apothecaries–, while sculptors were obliged to affiliate themselves to the *Arte dei Fabbricanti*, the constructors' guild.⁵⁴

Pevsner's account was also strongly influenced by the fact that one of the main published sources on the Academy's foundation was precisely a passage from Vasari's *Vite*, in which Vasari had above all stressed his own contribution to the project. Let us follow this account closely.

In narrating the life of the sculptor Fra Giovan Antonio Montorsoli (1506–63), the author of the *Vite* tells us how on the day of the Santissima Trinità 1562, Montorsoli, Vasari himself and a few dozens of other *artefici* gathered together to inaugurate a new funeral chapel for artists in Montorsoli's own convent, the house of the Servites of the Santissima Annunziata. The ceremony, during which the body of Pontormo (who had died many years earlier) was translated to the new crypt, was conceived as the official act of re-establishment of the once flourishing, now decayed, old lay-confraternity for artists, the *Compagnia di San Luca*. Under a new name, the 'company' would accept painters, sculptors and architects as members and meet both their spiritual and social needs. In the mean time, the members also decided to establish an academy, that is to say a selection of the very best among the members of the *Compagnia*. The understanding was that the formalization of such an elite would, as Vasari described it, help the beginners to make fast progresses thanks to the benevolent advice provided by these seniors, and incite the seniors to "honorable and praiseworthy concurrence."⁵⁵ According to his own account, Vasari manoeuvred to involve the Duke in the undertaking, whose endorsement and promises of funding he soon obtained. A committee was then appointed for the drafting of the statutes of the new institution, composed of six eminent members of the Florentine artist's community, among which figured Vasari, Montorsoli and Bronzino.⁵⁶

The statutes were solemnly presented during a first meeting in January 1563 during which a first round of elections was also held to determine who would be granted that status of *accademico*, the title given to the members of the true *Accademia*. The other members were usually referred to as the *corpo della Compagnia*. From that day on regular meetings would start, usually twice a month, always on a Sunday. The various activities of the *Compagnia ed Accademia* took place during but also outside these meetings. After a few months a second set of rules, in the form of statutory addenda destined to address initial lacunae were also written down and approved.⁵⁷ The amended statutes ruled the functioning of the institution for more than two centuries until the latter was thoroughly modified in 1784 and rechristened to *Accademia delle Belle Arti*.

- ⁵⁸ Barzman's analysis was preceded by a series of important studies. See in particular, Ted Reynolds, "The Accademia del Disegno in Florence, its formation and early years" (Thesis (Ph.D.), Columbia University, 1974); M.A. Jack Ward, "The 'Accademia del Disegno' in Sixteenth Century Florence: A Study of an Artist's Institution" (PhD diss., University of Chicago, 1976); Charles Dempsey, "Some observations on the education of artists in Florence and Bologna in the later sixteenth century," *Art Bulletin* 62, no. 4 (1980): 552-569; Antony Hughes, "An academy for doing. I: The Accademia del Disegno, the guilds and the principate in sixteenth-century Florence," *Oxford Art Journal* 9, no. 1 (1986a): pp. 3-9; Antony Hughes, "An academy for doing. II: Academies, status and power in early modern Europe," *Oxford Art Journal* 9, no. 2 (1986b): pp. 50-62; Zygmunt Wazbinski, *L'Accademia Medicea del disegno a Firenze nel cinquecento: idea e istituzione* (Firenze: Olschki, 1987).
- ⁵⁹ Justinian and Lelio Torelli, *Digestorum seu Pandectarum Libri quinquaginta ex Florentinis Pandectis repraesentati*, 2 vols. (Firenze: Lorenzo Torrentino, 1553).
- ⁶⁰ For a reprint of the *Capitoli et Ordini dell'Accademia et Compagnia dell'Arte del Disegno, approvati [il dì 13 di gennaio 1563] dall'Illustrissimo et Eccellentissimo Signor Duca Cosimo de' Medici, Duca secondo di Fiorenza et di Siena*, see the Appendix 1 to Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, pp. 221-231.
- ⁶¹ On the figure of Vincenzo Borghini, his at the Ducal court and his activities as iconographer see the work of Rick Scorza, especially his doctoral dissertation. Rick Scorza, "Vincenzo Borghini (1515-1580) as Iconographic Adviser" (PhD diss., Warburg Institute, University of London, 1987). On Borghini's role in the Florentine academies, see Rick Scorza, "Borghini and the Florentine Academies," in *Italian academies of the sixteenth century*, ed. David Chambers and François Quiviger (London: Warburg Institute, 1995), pp. 136-64. On his involvement in the *apparato* for the 1565 celebration on occasion of Francesco de' Medici's wedding, see Rick Scorza, "A new drawing for the Florentine 'Apparato' of 1565: Borghini, Butteri and the 'Tuscan poets'," *Burlington magazine* 127 (1985) and Rick Scorza, "Borghini, Butteri and Allori: a further drawing for the 1565 'Apparato,'" *Burlington magazine* 137 (1995).

3. The un-heroic history of the artist's academy

More recent scholarship on the *Accademia del Disegno*, and in particular, Karen-Edis Barzman's monograph *The Florentine Academy and the Early Modern State. The Discipline of Disegno* (2000) allows for a more nuanced view on the academy's supposed emancipatory program, based on more accounts and sources than just Vasari's.⁵⁸ Barzman analyzed the institution in Foucauldian terms, and revealed its nature as a typical product of the absolutist state that Tuscany had become under Cosimo's rule. The institution was as a potent tool to discipline the Florentine artists instead of emancipating them. In particular, Barzman studied the sources regarding the drafting of the statutes and revealed that several other prominent Ducal collaborators besides Vasari were deeply involved in the academy's formation process, process which shows numerous parallels with the reform of the *Accademia Fiorentina*. It needs to be stressed, that all six artist-members of the drafting committee had close ties with the Florentine court. Vasari and Bronzino received a fixed salary from the Duke. The whole drafting process was furthermore carefully monitored by Cosimo's personal secretary Lelio Torelli, also an expert in Roman law and the editor of the famous Florentine edition of Justinian's *Pandectae*.⁵⁹ Torelli probably wrote himself much of the articles of association and signed them for approval on January 13th 1563.⁶⁰ The inaugural session of January 31st 1563, during which the statutes were presented to some 70 members of the *Compagnia* strongly reminds the official proclamation of the 1547 reform of the *Fiorentina* we have evoked in an earlier chapter. In both cases Torelli is the architect of a text rigidly constraining the academicians to obedient behaviour. Furthermore, the *luogotenente*, 'substitute' or 'representative' of the Duke and the official head of the organization appointed at the inaugural meeting was the zealous *letterato* and clergyman Vincenzo Borghini, known as Vasari's best friend, but also more importantly as a perfectly reliable and equally multitalented ducal collaborator. Borghini's official function was that of administrator of Florence's foundlings' hospital (the *Ospedale degli Innocenti*).⁶¹

When stressing the 1571 reform and the abolition of the obligation for Florentine artists to be member of either to the *Arte dei Fabbricanti* or to the *Arte dei Medici e Speziali*, Pevsner omitted to mention that the *Compagnia ed Accademia* itself in fact adopted itself the characteristics of a guild (*università*, from the Latin *universitas*, referring to a group of people, a society, a guild). A reform of the statutes approved in 1585 officially rechristened the organization as the *Università, Compagnia, ed Accademia del Disegno* (the Guild, Confraternity and Academy of Design). Instead of causing the abolition of and the emancipation from the guild regulations necessarily conditioning the artist's professional activities, the instauration of the *Università, Compagnia ed Accademia del Disegno* amounted simply to changing of the instance issuing these regulations.

⁶² Claudia Conforti, *Vasari architetto* (Milano: Electa, 1993), pp. 160-190. On the iconographical program of the facade, and its encomiastic dimensions, see R.J. Crum, “‘Cosmos, the world of Cosimo’: the iconography of the Uffizi facade,” *Art Bulletin* LXXI (1989): pp. 237-253.

⁶³ Also in later accounts; see for instance the next passus from Aldo Manuzio’s biography of Cosimo: “...trattenne [Cosimo], mentre ei visse, con grosse provisioni i più rari ingegni di Firenze, anzi di tutta la Toscana, & loro honorò, & favori straordinariamente, per lasciar forse memorio con si magnifiche opere della nobiltà del suo spirito...” Aldo Manuzio il Giovane, *Vita di Cosimo de’ Medici, primo Granduca di Toscana* (Bologna: [Aldo Manuzio], 1586), pp. 176-177. Or further in the same biography: “Ché più? aiutò & accarezzo tutti gli elevati ingegni in qual si vogli professione, con singolari dimostrazioni di liberalità, & munificenza.” p. 179.

⁶⁴ See, for instance, the first sentence of Chapter III of the January 1563 statutes: “Sua Eccellenza Illustrissima vuole che questo oratorio sia corpo di Compagnia generalmente di tutti gl’uomini di disegno, cioè architetti, scultori, pittori...”. Chapter IV of the same statutes pursues: “Ordina Sua Eccellenza Illustrissima che di questo corpo di Compagnia se ne faccia un ristretto o scelta de’ più eccellenti, ... e si chiama Accademia del disegno...” Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, p. 223.

⁶⁵ “Era spento il luogo dove si ragunano tanti chiari spiriti ed onorati ingegni” January 1563 statutes, Chapter I, *Ibid.*, p. 222.

⁶⁶ “...la bontà di Dio...ha voluto che questa sua rinascita accaglia...” January 1563 statutes, Chapter I, *Ibid.*

The whole operation in fact perfectly tallies with the reforms set in motion by Cosimo de' Medici at the time. These reforms eroded the structures which had been the traditional bases of power under the the Republican regime and replaced them with similar institutions placed under a closer tutelage of the ducal authority. A telling manifestation of Cosimo's attitude towards the guilds had been the Duke's decision to provide them with one uniform architectural shrine. The building complex known as the *Uffizi* was designed to house the 'offices' of the city's thirteen magistracies, among which figured all the guilds whose seats had been, until then, scattered over town. The complex, designed by Giorgio Vasari and begun in 1559–1560, streamlined the guilds and signalled their total submission to the authority of the prince, whose personal imagery is the only figurative element to adorn its façade.⁶²

4. The academy itself as a body and as a plant

In early documents on the *Accademia del Disegno*, the academicians are often identified with their capacity of invention, their *ingegno*.⁶³ The January 1563 statutes describe how it was God's goodness, noticing the "excellence of so many wandering *ingegni* (*pellegrini ingegni*)" that had decided to favour and to reward these through the "happy reign of the Most Illustrious and most excellent Lord Duke Cosimo de' Medici." The action of the prince, then, is at first to bundle these wandering spirits together into a new body.⁶⁴

The new *Compagnia del Disegno* is in fact presented in the statutes as a revivification of the old *Compagnia di San Luca*, the old craft confraternity for artists supposedly founded in the 13th century. This company, as the text of the January 1563 statutes specifies, had decayed because of the "disappearance of the place where such bright spirits and honoured *ingegni* used to assemble".⁶⁵ The new *Compagnia del Disegno*, for which the Duke provided new accommodations, is presented in the statutes as the old company reborn, the exact term used is that of a "*rinascita*".⁶⁶ The earliest known iconography of the institution is in fact strongly marked by that idea of 'renaissance'. In 1562, the sculptor Montorsoli carved the stone covering of the funerary crypt of the *Compagnia* at the Santissima Annunziata. The delicately chiseled marble displays the earliest emblem of the *Compagnia*. It consists of the image of a mirror surrounded by an hourglass, a burning lamp and several tools like pencils, pens, chisels, a compass and a square, the instruments of the three *arti del disegno*. The chiseled image on the oval covering stone of the sepulchre is bordered by the motto of the emblem, carved in large letters: "FLOREAT SEMPER VEL INVITA MORTE" (May it/she/he bloom forever, in spite of death). The oval stone is surrounded by four skulls with thighbones, through which a ribbon is whirling, on which



Fig. 5.5 *Giovann' Agnolo Montorsoli, Marble cover to the funerary crypt of the Compagnia ed Accademia del Disegno, 1562. Florence, Santissima Annunziata.*

⁶⁷ Coloss. 3, 3: "mortui enim estis, et vita vestra abscondita est cum Cristo in Deo".

⁶⁸ See, on these notions see 'Chapter one: Psuchè' in Richard Broxton Onians, *The origins of European thought about the body, the mind, the soul, the world, time and fate* (Cambridge: University Press, 1951), and particularly p. 113-115, on the idea that the hollow bones of a body contained the seed of new life, based on the "assimilation of man to other children of Mother Earth..." (p. 113). Among the several examples that Onians provides here is Homer's referring to men as 'corn-stalks' (*kalamè*).

⁶⁹ "...della felice Accademia degl'Humidi, onde è sorto di si bei rampolli tale e tanta pianta quale è questa e la nostra felicissima Accademia Fiorentina". Michel Plaisance, "Culture et Politique à Florence de 1542 à 1551, 160, note 36.

one can read the *subscriptio* of the emblem: “MORTUI SUMUS / ET VITA NOSTRA / ABSCONDITA / EST CUM CRISTO IN DEO” (we are dead, and our life is now hidden with Christ in God). Montorsoli paraphrased in the epigram a citation from Saint Paul’s epistle to the Colossians.⁶⁷ The whole emblem strongly implies the idea that life through art is inextinguishable, for the buried artists: the burning flame, despite time passing by, the hourglass... But the skulls and the thighbones were also considered, from Ancient Greece onwards, not so much as symbols of death but rather as symbols of a possible renewal of life. As the parts containing the greatest amount of marrow and thus life-preserving moisture of the whole *skeletos* (originally meaning ‘the dried one’), the skull and thighbones represented the seed-like qualities of a buried death body and its capacity to shoot new sprouts or generate new life, a message that echoes the motto of the *Compagnia*’s emblem.⁶⁸ Two decades earlier the Accademia Fiorentina had been described as a reborn mutation of its predecessor, the Accademia degli Umidi. In his accession speech as consul of the Fiorentina, Ugolino Martelli had described the genealogy in the following terms: “...the felicitous Accademia degli Umidi, from which such beautiful twigs sprouted, and such a huge and important plant as is our most fortunate Accademia Fiorentina.”⁶⁹

5. The rigid power structure

The remark (1565) of *luogotenente* Borghini on persons behaving like “weeds” mentioned had been in the first place a reference to the few agitators like Benvenuto Cellini. In the run-up to Michelangelo’s funeral, Cellini had been troubling the fragile equilibrium of the Academy by challenging the established hierarchy with a claim for a greater recognition of the sculptors within the body of the *Compagnia*. The hierarchical structure of the organization was a complex edifice, jealously watched over by its administrators who were not tolerating the slightest claims for a part in decision making by the inferior strata of the pyramid. The whole structure of the *Compagnia* was strikingly exemplified in the way its appearance was staged during important public festivities. One interesting instance, the detailed account of which was given by Vasari in a letter to Cosimo, is the way in which the members of the *Compagnia ed Accademia* were accommodated in the church of San Lorenzo during Michelangelo’s *Esequie*. The Duke’s *luogotenente*, although not an artist was, naturally installed on the most prominent seat, flanked by the consuls and the officials selected for the organization of the *Esequie* (Vasari, Bronzino and Ammanati). The other academicians, about thirty, were seated on both sides of the *luogotenente*. The members of the *Compagnia* which had not been elected as *accademici* were seated in the back, on other, less decorous benches. At the feet of the academicians

⁷⁰ “Avendo messo imezzo, dirimpetto al pergamo, il Signor Luogo Tenente, tramezzato da e consoli et da tre deputati sopra lonoranza, che fu Bronzino, Giorgio Vasari e Bartolomeo Ammanati. [...] Usossi amorevolezza alle cose di Michelagnuolo, perche facemmo, che Lionardo Buonarroti sedessi a lato del Luogo Tenente, che è molto piaciuto questo atto di pieta verso la virtu di quel vecchio. In sonna, tutta l’Accademia ste mezza di qua et mezza di la dal Luogo Tenente, et tutta la Compagnia dinanzi in altre banche. A piedi della Accademia sedevano forse XXV giovanetti, che tutti imparono a disegnare; et ce n’è de valenti. Questa cosa ha dato stamani tanta ammiratione a vedere insieme ottanta fra pictori et scultori, che non si crede che sia mai stato in tempo insieme alcuno l’arte in tanta copia e grandezza.” Letter of G. Vasari to Cosimo I, July 14th, 1564, Frey, CDLIII, vol.II, p. 86.

⁷¹ Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, p. 188.

⁷² For the details of this case, and the precise terms used by the *luogotenente*, Agnolo Guicciardini, see Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, p. 54-55.

sat the young scions, twenty-five *giovannetti*” which were all learning to draw, and some of which are worthy.”⁷⁰ Vasari observed how Lionardo Buonarotti, Michelangelo’s nephew and heir, had exceptionally been invited to sit at the most honored place, right beside Vincenzo Borghini, a token of piety towards the *virtù* of the deceased ‘divine’ artist that had been much appreciated.

Another public performance in which the rigid structure of the *Compagnia* was eloquently expressed was the yearly feast of the Purification of Mary, or Candlemas, an occasion during which the members appeared solemnly dressed in public procession. As Barzman observed, more or less obvious signs like the position of the men in the procession and the size of the candles they bore signalled their relative status. The elevated status of the institutions’ doctor, for instance, was thus made apparent during the Candlemas procession: “...the physician was distinguished by the size of his candle, one *libbra*, or pound, which, while smaller than that given to the *luogotenente* (two *libbre*), was the same size as those carried by the academy’s other chief officers (the three consuls, the *cancelliere* and the *provveditore*); the lesser officers carried candles of six *oncie* or ounces, while the members-at-large were given candles of three ounces.”⁷¹

In cases of dissention, the academic hierarchy worked no differently. In 1567, after much insistence, the *Compagnia ed Accademia* was offered a new seat for its meetings: the unfinished family chapel of the Scala, a family which had produced several generations of Medici-dignitaries. The octagonal structure of the chapel had been designed by Giuliano da Sangallo, but was left unfinished due to exhausted funds and the architect’s departure to Rome in 1494. Cosimo obtained the cession of this *Tempio* by one of the Scala heirs, a totally devoted administrative collaborator. The ‘voluntary donation’ of the chapel, an important loss for the Scala family patrimony, combined with the academicians’ promise that they would complete the building by their own means, allowed Cosimo to acquire this piece of valuable Tuscan heritage and refashion it as a significant piece of patronage at the lowest expense possible. Yet when the different *accademici* then started quarrelling over the nature of the works needed for the restoration and completion of the building, the *luogotenente* reacted vehemently with an implacable argument: all the salaries of the artists employed at court would be suspended in the absence of an immediate agreement. These artists, the best and most influential of the *accademici del Disegno*, and thus the whole academy with them, saw themselves trapped and immediately yielded to the demands.⁷²

- ⁷³ This is the basis of Varchi's near assimilation of the arts of Medicine and Architecture. See *L.Paragone* in *Opere* II, p. 633.
- ⁷⁴ "Comincerommi dunque dall'architettura come da la più universale e più necessaria et utile agli uomini et al servizio et ornamento della quale sono l'altre due..." *Vite* T1/G1, ('Introduzione alle tre arti del disegno'), p. 28. Similar term had already appeared in Vasari's answer to Varchi's 1546 enquiry on the nobility of the arts: "Quello artefice in che scienza si sia, o virtuoso che più perfettamente alla natura si accosta, quello esser più vicino all prima causa si comprende. E quegli che giovano a essa natura nel conservarla in ogni studio o scienza, così intellettuale, come manuale, quelle più perfette diciáno essere: come l'architettura più delle scoltura e pittura, la quale a giovamento et ornamento della natura vediamo i suoi fini attendere." Letter from Giorgio Vasari to Benedetto Varchi (12 Februari 1547), in Benedetto Varchi, Vincenzio Borghini, and Paola Barocchi, *Pittura e scultura nel Cinquecento, Arte e memoria* (Livorno: Sillabe, 1998), p. 66.
- ⁷⁵ See on the catafalque: Rudolf Wittkower and Margot Wittkower, *The Divine Michelangelo. The Florentine Academy's Hommage on His Death in 1564* (London: 1964).
- ⁷⁶ In the lists of members of the Accademia del Disegno, only three *artefici* are mentioned as architects before 1600. Giorgio Vasari himself, Cresci Butteri (ca.1540-1603), and Giovanni Antonio Dosio (1533?-1610). Only Dosio is mentioned as 'architetto'. The titel of both Vasari and Butteri is 'pittore architetto'. For the early years of the academy, Barzman counted in total 75 members. 42 of them are painters, 29 sculptors, and 4 do not have a specified profession. Vasari and Butteri are counted here among the painters. Dosio would only become a member of the institution in the 1580's. Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, pp. 35-37.
- ⁷⁷ On of the rare traces of effective educational practices in architecture at the Accademia del Disegno in its early years is a mention in a letter from Borghini to Vasari (februari 21, 1563), in which the *luogotenente* explains how he keeps the youngsters busy by letting them draw architectural *ghiribizzi*: "...vo essercitando que fanciulli et facendoli ghiribizzare un poco [...] et io fo fare spartimenti fantastici, scorniciamenti, colonne, pilastri, porte, termini". Frey, vol. II, p. 24. Rick Scorza, on the other hand, connected this phrase, and the practice of copying architectural drawings with a sketchbook he identified as the result of one student's work as a copyist of drawn architectural plans and elevations. Rick Scorza, "A Florentine Sketchbook: Architecture, Apparati and the Accademia del Disegno," *Journal of the Warburg and Courtauld Institutes* 54 (1991): pp. 181-185.
- ⁷⁸ An attempt to reconstruct the practical curriculum of the Accademia del Disegno was made by Karen-edis Barzman, "The Florentine Accademia del Disegno: Liberal education and the Renaissance Artist," in *Academies of art between Renaissance and Romanticism*, ed. Anton W.A. Boschloo (Leiden: SDU uitgeverij, 1989), pp. 14-32. The conclusions of this article were slightly amended in chapter V of her monograph ('Disegno as a disciplinary practice: The Academy school'), Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, 143-180. The best documented educational practices of the early academy, eventually, are the classes of figure drawing, and the lectures of (elementary) mathematics.
- ⁷⁹ The famous passus from the byelaws of the academy, with the institution's pledge to hold an annual dissection session in the hospital of Santa Maria Nuova is to be found in Document 2 of the Appendix to *Ibid.*, p. 231: "Vogliamo etiamdio, che que' Consoli che saranno in ufficio nel tempo del verno, sieno tenuti, e debbano procurare che si faccia in Santa Maria Nuova una Anathomia a beneficio dei Giovani dell'Arte del Disegno, alla quale debbano tutti esser chiamati, per ordine di essi Consoli." The most thorough evaluation of whether these sessions have effectively taken place was done by Monique Kornell in her doctoral dissertation on artistic anatomy in 16th century Italy. (Chapter II: 'The sources and methods for the study of anatomy by artists'; § 2.4.1) Kornell concludes, basing herself on various indications, that the chance that these sessions would have been effectively held, especially before 1570, is extremely slight. Monique Kornell, "Artists and the study of anatomy in sixteenth-century Italy" (PhD thesis, Warburg Institute, London, 1993), 76 ff.

6. Architecture as an academic discipline?

In both Varchi and Vasari's classifications of the visual arts, architecture is unambiguously classified as the most noble of the three visual arts. According to Varchi, Architecture is unarguably the most useful in the conservation of human health and life, a dimension which Varchi puts at the heart of the disciplines' nobility.⁷³ in the introductory part to the *Vite*, Vasari also ranged architecture first and noblest on the basis of its usefulness:

“I will thus start off with [the art of] architecture, since it is the most universal, necessary and useful for humans and since both other two [arts] are destined to serve and adorn her...”⁷⁴

The whole *disputa della maggioranza delle arti*, the topic of Varchi's 1547 *lezione*, is in the first place a discussion over the relative nobility of painting and sculpture. When this discussion resurfaced in 1564, on occasion of the design of Michelangelo's catafalque and the relative placement of the four allegories of the arts at its corners, the academicians discussion about whether the allegories of painting and sculpture were to be placed at the right (nobler) or at the left (less noble) side of the rear face of the monument. But no discussion was necessary about whether the positions of architecture and poetry at the front face of the monument were legitimate and obvious.⁷⁵

If architecture's superiority above both other visual arts was no point of discussion, the whole purpose of promoting the equivalence of the three *arti del disegno* under the paternity of *disegno* is in the first place destined to elevate the prestige of painting and sculpture by associating them with a 'master art' with strong ties to liberal disciplines such as geometry and arithmetic. Yet despite the insistence with which the equivalence of the *arti del disegno* is promoted, especially in the visual imagery linked to the Accademia del Disegno, in practise, the institution counted very few architects among its members.⁷⁶ Furthermore, the training of the youngsters was based in the first place on the development of free-hand drawing skills. There are no traces left of an instruction in architecture that would have reached beyond the copying of existing architectural drawing and prints or the design of ephemeral structures to be erected in cardboard, linen and wood on the occasion of a solemn entry or a festival.⁷⁷ It seems very probable that architecture, as an autonomous discipline, was only marginally touched upon in the curriculum.⁷⁸

A similar case is that of the instruction of human anatomy. Despite the fact that the statutes of the Accademia mention explicitly that a public dissection had to be performed annually for the instruction of the younger members, no evidence was ever found that these dissections effectively took place.⁷⁹ The mention thus seems no more than just an early promise, destined to call upon and evoke the professional prestige and

⁸⁰ On anatomy and social distinction, see Andrea Carlino, *Books of the body: anatomical ritual and renaissance learning* (Chicago: University of Chicago Press, 1999).

⁸¹ “Italian architects in the fifteenth and sixteenth centuries ordinarily turned to building at an advanced age. They apprenticed in the studio of a painter or sculptor and practised one or both of the arts until the requirements of some patron turned them to architecture. There was no guild to harbor architects and no means of serving an apprenticeship in the profession. The title of Master Architect, rather than being a prerequisite for employment, was normally granted to a master craftsman in another field in consequence of his receiving his first building commission. Because in this system architecture perforce involves more taste than technique, the social position of the architect was high, and if a man was not a gentleman before practising architecture, he became one after.” James S. Ackerman, “Architectural practice in the Italian Renaissance,” *Journal of the Society of Architectural Historians*, no. 13 (1954), p. 3.

⁸² See Eve Borsook, “Art and politics at the Medici court II: The baptism of Filippo de’ Medici in 1577,” *Mitteilungen des Kunsthistorischen Instituts in Florenz XIII* (1967): pp. 94–114.

⁸³ See Barzman, *The Florentine Academy and the early modern state: the discipline of disegno*, pp. 189–205.

‘distinction’ associated with the performance of anatomical demonstrations which were associated with the universities and the much respected art of medicine.⁸⁰

The association of the Academy with architecture remains thus an ambiguous one. To the outside world, the institution was presented as a place where the three *arti del disegno* were treated on an equal footing. Yet in practice pupils only acquired scant expertise in the art of building, an art which, far more than painting or sculpture, would have boosted their social prestige.⁸¹

7. Towards a recognition of the artist’s creative inventiveness?

The second half of the 16th century in Florence was a period in which the writing of ever more complex iconographical programs for important cycles of decoration or refurbishment, the so-called *invenzioni*, was increasingly assigned to court *litterati* such as Cosimo Bartoli or Vincenzo Borghini. This evolution gradually reduced the role of visual artists even the highest-ranking among them to that of mere executioners of pre-established visual schemes.

An eloquent example of this evolution (many more could be provided) are the circumstances, documented by Eve Borsook, of the *apparato* for the celebrations of the christening of the first-born son of Francesco I in 1577. The long-expected little boy, Filippo, was born on May 20th of that year. Five days later delegations of ambassadors were sent to the most important courts of Europe to announce the event and invite the guests to the ceremony which was planned for the 29th of September. Vincenzo Borghini was charged with drafting the *invenzione* for the planned sumptuous decorations of the *battistero*. Borghini would need no less than three entire months of creative isolation to produce his result. On September 1st, he handed his booklet of instructions over to Bernardo Buontalenti, who, the very same day, ordered the start of the building operations inside the *battistero*.⁸²

A great part of the events the Compagnia ed Accademia del Disegno was actively involved were of a typically confraternal kind: funerals, celebrations of feasts and special devotions. For such occasions, the younger members were charged with the production, at minimal costs, of elaborate paintings (on cheap canvas), or virtuous sculptures (in papier-maché and plaster) under the close supervision of selected *accademici*, referred to as the *festaiuoli*.⁸³ Even if of an exceptional scale, the funeral of Michelangelo had been such an occasion. The very short deadlines, the subject for the works that were rigidly prescribed, prepared the aspiring academicians to the kind of alienating working conditions they would encounter later in their career.

⁸⁴ Louis XIV was only nine years old when the French *Académie Royale de Peinture et Sculpture* was inaugurated in Paris in 1648. Yet those who drafted its statutes have been clearly inspired, as the text itself makes clear, by the precedent of the Art Academy founded under the auspices of the Duke, later Grand-Duke of Tuscany. It is only after the reform of the institution by Louis XIV's chief administrator, Jean-Baptiste Colbert, that the French Royal Academy would come to stand under the direct tutelage of the court.

If one were, in conclusion to this section, to consider Pevsner's assertion that the Florentine artist's academy was seminal for the European academic tradition, it might seem reasonable now to answer with a conditional yes, providing that one would identify that tradition in the first place with a gradual evolution towards increasingly state-controlled and bureaucratically-ran artist's associations. It will be no surprise that, in his way of outlining a common policy towards the state's artistic community, as in other things, Cosimo de' Medici had been an example for the kind of cultural policy that was instigated and directed by the French king Louis XIV.⁸⁴

⁸⁵ "...il padre se ne tornò a Firenze e lo dette in balia in una villa detta Settignano, vicina alla città tre miglia, dove ancor hanno una possessione, che fu delle prime cose che in quel paese messer Simone da Canossa comprasse. La balia fu figliuola d'uno scarpellino e similmente in uno scarpellino maritata. Per questo Michelagnolo suol dire non esser maraviglia che cotanto dello scarpello diletto si sia, motteggiando per avventura, o forse anco dicendo da doverlo, per saper che il latte della nutrice in noi ha tanta forza, che spesse volte, trasmutando la temperatura del corpo, d'una inclinazione ne introduca un'altra, dalla natural molto diversa." Ascanio Condivi et al., *Vita di Michelagnolo Buonarroti* (Firenze: Studio per edizioni scelte, 1998), pp. 8-9.

⁸⁶ See on the subject the texts presented in Michael Sherberg, "The Accademia Fiorentina and the Question of the Language: The Politics of Theory in Ducal Florence," *Renaissance Quarterly* 56 (2003): 26-55.

⁸⁷ "... non basta intendere una lingua, né favellarla ancora, a volere che si possa chiamare lingua natia ma bisogna intenderla e favellarla naturalmente, senza averla imparato da altri che dalle balie nella culla." *L'Ercolano in Opere* II, p. 172.

⁸⁸ "la nostra urbanità [...] consiste primieramente nella vera pura e dolce pronunzia fiorentina: e secondariamente in una certa sincera particolare e naturale proprietà di parole, di costruzioni, di modi di dire, di proverbi, di motti, e di un certo andare di noi, come proprio nostro, e di molti altri Toscani: cose che voi non potete mai conseguire, fuori di Firenze e di que' luoghi dove la lingua è naturale, e si parla col latte in bocca." Carlo Lenzoni, *In difesa della lingua Fiorentina, et di Dante* (Florence: 1556), 20. Cited and translated in Sherberg, "The Accademia Fiorentina and the Question of the Language: The Politics of Theory in Ducal Florence," pp. 41-42.

C. THE TRUE AIMS OF THE VEGETATIVE SIMILE

1. Emphasizing the young artist's 'rootedness'

Michelangelo used to say, if we may believe his biographer Ascanio Condivi, that his inclination to stone-carving was linked to the wet-nurse his father had assigned him to when he was still a newborn. The woman was the daughter of a stone carver, married to a stone carver and living in Settignano, a town next to Florence which was famous for its quarries. According to the sculptor, she would have instilled in the newborn the taste for yielding the hammer and the chisel through her milk.⁸⁵ Michelangelo's quip, while echoing with deep-rooted beliefs in the special virtues of maternal milk, is in fact the translation to the realm of the artistic skills of what had by then (1553) become a *topos* in discussions on the *Questione della lingua* and the nature of a true "native" or "mother tongue."⁸⁶ Varchi, for instance, defined the latter as that language which one learns from no other than one's own wet-nurse (*balia*) while still lying in the cradle (*culla*).⁸⁷ Other observers suggested that Florentines received the rich particularities of their tongue with their wet-nurse's milk. Carlo Lenzoni stated that the particularities of the local tongue, such as the "sweet Florentine pronunciation" and "a certain rhythm used by us" can never be acquired "outside of Florence and those places where the language is natural, and is spoken with milk in the mouth."⁸⁸

Such sayings reveal a profound awareness of the extent to which either artistic or language skills are strongly modulated by the environment in which the person spent the most formative period of his or her life, that is infancy. The vegetative simile applied to artists did therefore reinforce their awareness of the fact that, just as is the case with plants, their talents and fertility proceeded from parameters tied to the site or the place in which they live.

In the context of the Florentine Accademia del Disegno, two scales are of primary importance when one considers these convictions. Firstly, there is the scale of the city, Florence, as a geographical site to which contemporary texts assigned special virtues. Secondly there is the scale of the academy, its premises and the way in which the youngsters were taught. In the third and last section of this chapter I will examine the extended mythology existing around the nature of the site of Florence as such. But first I will briefly set forth the way in which the administrators of the Accademia del Disegno conceived of it as a place with special educational values as in itself, located within the larger cosmos of Florence.



IN FIRENZE
 Appresso i Giunti
 1564

Fig. 5.6 Anonymous, *Fiorentine Lily*, illustration on the last page of Benedetto Varchi's *Orazione Funerale... in honour of Michelangelo Buonarroti* (Firenze, 1564).

⁸⁹ "...poi che Quella mi ordino in voce che si cercassi di qualche luogo finito, publico et onorato, et che avessi a depender da Lei, et che fussi degno della Sua real grandezza, mi sono avolto assai: Dove mi è venuto un capriccio, che trovo ch'è una delle cose di .V.E.I. piu care et non finita, la quale con una miseria di spesa in meno di dua anni si finirebbe perfettamente..." Letter of Vasari to Cosimo I, Februari 1st, 1563, Frey, CCCXCIII, vol. 1, p. 712.

⁹⁰ The first definition of *fiorito* given in the *Dizionario* is : "pien di fiori", like the Latin *floridus*, *florens*. But the last line of the lemma, after a series of examples, mentions: "e FIORITO si dice d' ogni arnese, e vestimento ben mantenuto." *Arnese* is equally a much inclusive term; the best English equivalent is probably "gear". It is in turn defined in the *Dizionario della Crusca* as: "nome generico di tutte masserizie, abiti, fornimenti, guernimenti, e per lo più, si piglierebbe per gli addobbamenti più nobili di case, di Città, di navilj, d' eserciti, e simili. Lat. *suppellex*."

⁹¹ "... io dirò che io sia di città donna di tutto 'l mondo, ed egli di città obbediente alla mia; io dirò che io sia di città fioritissima d'arme, d'imperio e di studi, dove egli non potrà la sua se non di studi commendare." Giovanni Boccaccio (Vittore Branca ed.), *Il Decamerone*, Torino: UTET, 1956.

Under the patronage of Cosimo the *Compagnia ed Accademia del Disegno* would receive three different sites for meetings and lectures. A first site (for a very brief period) was Brunelleschi's unfinished chapel at the Camaldolensian monastery of Santa Maria degli Angeli (until 1563). The the Academy moved briefly to Michelangelo's New Sacristy at San Lorenzo. Finally they were assigned a series of spaces at the Cistercian monastery Cestello on the Borgo Pinti, which included the Chapel mentioned earlier that was designed by Giuliano da Sangallo in the late 15th century but then left unfinished. In all three cases these were structures designed by some of the greatest names of the Florentine architectural tradition. The implicit expectation was that the quality of the architecture would have a stimulating effect on the young recruits while making them aware of their own indebtedness to that tradition. In the three cases it also seems that the implicit aim was to exploit the workforce of the aspirant academicians to complete, under the expert guidance of the senior members, the unfinished structures in a short term. In a letter to Cosimo asking to obtain the Sagrestia Nuova as a new meeting place for the artist's association, Vasari insisted that the Chapel had been a true school for himself and all the artists of his generation. In the meantime, though, and in the same letter to the Duke, Vasari held up the prospect of quickly completing the embarrassingly unfinished Medici mausoleum thanks to the presence of the zeal and eager young boys. Vasari confidently asserted: "with only the slightest expense (*con una miseria di spesa*), in less than two years it could be brought to perfection."⁸⁹

2. Confirming Florence's reputed fertility

Just as the term *frutto* covered a larger semantic field than the mere "fruit" would do today, so did the term *fiore* and its derivatives *fiore*, *fioriti*, *fioritissimi* mean more than mere "flower" or "blossoming" in Cosimo's days. The first case was shown earlier on in this chapter, now we shall turn to Florence and the *fiore*.

In the natural world, flowers are promises of fruits, of the delivery of gifts useful to animals and humans. Their aesthetic appeal is grounded in that promise. It is also on that basis that we should understand the extensions of the meaning of "flower" or "flowered." The *Dizionario della Crusca* teaches us for instance that *fiorito* was an adjective commonly used for well-kept utensils, furniture, weapons and clothes.⁹⁰ Boccaccio described a city in the *Decamerone* as being "most flowered with weapons, leadership and learning".⁹¹ Beyond the metaphor, these expressions imply that the shine of a well-kept sword, the manifest acuity of a mind, the "flowering" of a beard were the symptoms of a potential (*dunamis*) for beneficent action. This action is of a kind intrinsically similar to



Fig. 5.7 Benvenuto Cellini, Detail of the marble base of the Perseus (modern copy), Florence, Loggia dei Lanzi.

⁹² Bocaccio, who explicitly mentioned the “*piacer, che di natura il fiore agli occhi porge*” (Ibid. p. 775), in the mean time made the golden florins omnipresent protagonists in the *Decamerone*, generating endless pleasures and displeasures to a string of characters in the different *novelle*.

⁹³ See Onians, *The origins of European thought about the body, the mind, the soul, the world, time and fate*, p. 238–240.

⁹⁴ “L’anno che si fece parentado fra il signor duca Cosimo et il signor don Petro di Tolledo marchese di Villafranca, allora vecherà di Napoli, pigliando il signor Duca per moglie la signora Leonora sua figliuola, nel farsi in Fiorenza l’apparato delle nozze, fu dato cura al Tribolo di fare alla Porta al Prato, per la quale doveva la sposa entrare venendo dal Poggio, un arco trionfale; il quale egli fece bellissimo e molto ornato di colonne, pilastri, architravi, cornicioni e frontespizii. E perché il detto arco andava tutto pieno di storie e di figure, oltre alle statue, che furono di man del Tribolo, fecero tutte le dette pitture Battista Franco Viniziano, Ridolfo Ghirlandaio e Michele suo discepolo. La principal figura dunque che fece il Tribolo in quest’opera, la quale fu posta sopra il frontespizio nella punta del mezzo sopra un dado fatto di rilievo, fu una femina di cinque braccia, fatta per la Fecondità, con cinque putti, tre avolti alle gambe, uno in grembo e l’altro al collo...” *Vite* G5, (‘Vita di Niccolò detto il Tribolo’), p. 218.

⁹⁵ Jean Toscan, *Le carnaval du langage. Le lexique érotique des poètes de l’équivoque de Burchiello à Marino* (XVe–XVIIe siècles), 4 vols. (Lille: Presses Universitaires de Lille, 1981).

⁹⁶ See for instance the room entirely dedicated to Opi in the *Quartiere degli elementi* in the Palazzo Vecchio decoration cycle (*Sala di Opi*, 1555–1557); the caryatid-like Diana’s in the base of Cellini’s Perseus.

that of a plant that is ready to produce a ripe fruit. Furthermore, the assumption must have been that such promises of future action, as forms of capital, were naturally pleasant to look at, just as it was pleasant to behold a shining golden Florin (*florino*).⁹²

The way in which the notions of “flower” and “flowering” to extended beyond the realm of the vegetal is in perfect continuity with the way in which the term “fruit” surfaced in both the realm of the animal and in that of the artificial bodies (see beginning of this chapter). The universality of both notions (flower, fruit) demonstrates the extent to which the idea of fertility was all-inclusive since antiquity. A telling notion that illustrates this principle is the the horn of plenty or *kornukopia*, the quintessential symbol of fertility. According to myth the *kornukopia* either referred to the horn of the she-goat Amaltheia or the horn of the prototypic river-god Achelous. Richard-Broxton Onians pointed to the strong consonances with animal sexuality carried in this symbol, since horns were considered in antiquity as outcrops of the body’s generative power concentrated in the head (which is said *keras*, also the Greek for ‘horn’).⁹³ Beside corn, fruits, flowers and vegetables, horns of plenty were sometimes, during antiquity, represented containing *phalli*. An echo of that practice is to be found in one of the portraits Bronzino made of Luca Martini, the government official responsible for draining the Pisan marches. In the portrait, Martini is represented with a *cornucopia*-like basket of flowers and fruits in his arms, among which features a hardly ambiguous broad bean. This portrait, datable to the early 1550’s, is only one of the many visual expressions of a tendency to worship of fertility in the broadest sense of the word. Worship that is particularly present in the first decades of Cosimo’s reign.

One of the early instances of that fertility worship can be found at Cosimo’s wedding with Eleonora di Toledo in 1539. The *apparato* featured for instance, an allegory of fecundity (*Fecondità*) sculpted by Tribolo, on top of a triumphal gate at the Porta al Prato through which the spouse was to enter the city. The standing female figure was adorned with five naked *putti*, three clasping her legs, one in her arms, and one on her neck, in hopeful anticipation of the Duchess’s own future fertility.⁹⁴ In a similar vein is the statue of ‘Abundance’ (*Dovizia*), which Pierino da Vinci executed to adorn the Piazza Cairolì in Pisa, a square which Cosimo wanted to be refurbished in order to house the Pisan vegetable and fruit market. The notion of *Dovizia*, must have had a particular resonance to contemporaries, for in the slang of the burlesque poets, as Jean Toscan pointed out, *dovizia* was used to refer to sperm.⁹⁵ This again underscores again the continuities between the vegetal and the animal realms. Other personifications of fertility such as Opi (Rea in Greek, the goddess of abundance, spouse of Saturn, from *opimitas*, plentifulness), and the multi-breasted Diana of Efesus are ubiquitous in the iconography of the artistic projects carried out under Cosimo’s patronage.⁹⁶



Fig. 5.8 Niccolò Tribolo, *Natura*.

⁹⁷ Francesco Bocchi, *Eccellenza della statua del S. Giorgio di Donatello* (1584) in *Trattati*, vol. III, p. 127.

⁹⁸ Domenico Mellini, *Descrizione dell'entrata della serenissima Reina Giovanna d'Austria et dell'apparato fatto in Firenze nella venuta & per le felicissime nozze di S. Altezza Et del Illustrissimo & Eccellentissimo S. Don Francesco Medici, Principe di Fiorenza & Sienna* (Florence, 1566) I, p. 6.

⁹⁹ “[Fiorenza] perché in nel luogo che lui [capitano Fiorino] aveva li detti i sua alloggiamenti, per natura del luogo, era abundantissima quantità di fiori [...], e perché i fiori apportano buono augurio, questo nome di Fiorenza pose nome alla detta città.”, Benvenuto Cellini, *Vita*, ed. Ettore Camesasca (Milano: Biblioteca Universale Rizzoli, 1985), p. 83.

¹⁰⁰ Vincenzo Borghini, “Dell’origine della città di Firenze,” in *Discorsi di Vincenzo Borghini con le annotazioni di Domenico Maria Manni*, ed. V. Borghini (Milano: Società Tipografica de’ Classici Italiani, 1808), vol I, p. 35.

¹⁰¹ See for instance the following description of the Venitian ambassador Vincenzo Fedeli (1561) on the surroundings of Florence: “E tutta questa bellissima regione ben coltivata e posta sotto felicissimo cielo, sotto aere benigno e temperato, ma sottilissimo; e per questo fa gli huomini ingegnosi, pronti e molto sottili in qualsivoglia cosa, e molto accomodati alla pace, alla guerra, alle arti, alle lettere, alli traffichi, ed all’agricoltura, nella quale pongono grandissima industria; onde nasce una copia infinita di grani, e d’ogni altra sorte di biade, di legume, de preziosi vini e d’oli perfettissimi, e d’ogn’altra sorte di frutti della terra in somma bonta e perfezione.” Vincenzo Fedeli, “Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l’anno 1561,” in *Relazioni degli ambasciatori veneti al senato*, ed. Eugenio Albèri (Firenze: Tipografia all’insegna di Clio, 1839), p. 324.

¹⁰² “E il paese della Toscana di aria purgata, e sottile, fertile di piante, e di miniere, & vago & abbondante di quei commodi, che la Natura porger suole [sic] per loro uso, e diletto, à’ viventi; & al tempo nostro habitato al pari delle più habitate, e frequentate, regioni dell’Italia; ricco di Città, di Castella, di Ville, di Colli, di Fonti, Laghi, Fiumi, Boschi. Partecipa il suo sito della Marina, e della Montagna, insieme: Onde puo con Militia Marittima, e Terrestre, d’ogni parte sicurarsi, & mantenersi. Sono i suoi habitatori ingengnosissime, & industriosissime, persone. poiche, à qualunque cosa si applicano, felicemente riescono. Scoprendosi in loro elevato ingegno, e gran giudizio; natural felicità, nello spiegare i pensieri dell’animo; e tersa favella, norma del parlare pui nobile, e lodato, alle altre Provincie convicie, che sono per altro & inclite, & illustri; prontezza, e facilità, à riuscire cosi nelle arti della pace come in quelle della guerra; prudenza, ne’ governi; civiltà, e politia, nel conversare; accortezza, e destrezza di costumi, nel trattare con persone, di quasi voglia grado, condizione, e età; & in universale, bella, & gratiosa, disposizione di corpo, fattezze convenevoli; e, quanto à’ beni della fortuna, ricchezza grandi, e dignità cosi temporali, come spirituali, alle quali pervengono mediante la loro virtù, e valore.” Aldo (il giovane) Manuzio, *Vita di Cosimo de’ Medici, primo Granduca di Toscana* (Bologna: [Aldo Manuzio], 1586), pp. 7-8. Further in the text, Manuzio observed: “In questa dunque si nobile si bella e si antica Città, in qui nati sono, & hanno fiorito, e fioriscono, innumerabili ingegni, cosi nelle armi come anco nelle lettere, & in ciascuna della arti liberali eccellentissimi personaggi adornati di sumpremi titoli e honori, ... nacque Cosimo...” Ibid. p. 10.

It is against this backdrop of the meanings of *frutto* and *fiore* that we have to consider the celebrations of Florence as a natural site of exceptional fecundity, in many texts, works of arts and allegorical representations.. Francesco Bocchi called the city of Florence “una feconda madre” to all the geniuses it had begotten.⁹⁷ In one of the arches for the *apparato* of Francesco de’ Medici’s wedding in 1565, Florence was represented as a “bel nido”, in which “disegno” was nurtured and reached maturity.⁹⁸ At Cosimo’s own wedding banquet, a quarter of a century earlier, an allegorical figure representing Florence had been wearing a nest on her head in which six red eggs were to be seen, standing for the heraldic Medici “palle”. The most common allegorical representation in Cosimo’s days identified Florence with Flora, the Roman goddess of spring and of the flowering of plants.

16th-century Florentines truly believed that the etymology of Florentia at least partially derived from the Latin for flower, *flora*. The medieval chronicler Giovanni Villani (c. 1276–1348) had traced the origins of the city’s name back to a Roman captain, himself auspiciously named Fiorino, who, having discovered an area on the shores of the Arno covered with blooming lilies decided to establish a settlement there. The lily was to become the city’s emblem and would cause the Florentines to re-christen their cathedral Santa Maria del Fiore. Benvenuto Cellini rehearsed the story of Captain Fiorino and his field of lilies in his *Vita* when claiming to be a direct descendant of the Roman city-founder.⁹⁹ Vincenzo Borghini, who equally accepted the story, stressed the significance of the flowers as good omens for the city’s future (“*apportano buono augurio*”). But he also provided a purely geographical explanation for the city’s fertility: the site of Florence is simply fruitful for that is the nature of the place (“*per natura del luogo*”).¹⁰⁰

An multitude of authors reflected upon the Florentine *genius loci* and many parameters were taken into account. But it is striking to notice how much importance was given to the quality of the air on the shores of the Arno. The Florentine air was systematically said to be “sharper” and “thinner” than the air one might breathe in Venice or in Rome for instance, and it could engender equally sharp and subtle *ingegni*.¹⁰¹ Aldo Manuzio *il Giovane* began his encomiastic portrait of Tuscany at the beginning of his *Vita di Cosimo* with the following words:

The Tuscan country, blessed with a pure and subtle air, is fertile with plants and metal ores, and abundantly adorned with those goods that Nature uses to provide to the living for their use and delight. [...] Its inhabitants are most ingenious and industrious people, since, whatever they undertake, they happily accomplish.¹⁰²

For Giorgio Vasari, the quality of the air is the key to understand the spectacular feats of Florence in the realm of the arts.¹⁰³ In the telling life of the Florentine painter Gaddo Gaddi, Vasari explains how the “subtleness of the Florentine air, which usually produces

- ¹⁰³ The most explicit *locus* from the *Vite* in this regard is the famed passage from the *Vita del Perugino* in which Vasari pictured a dialogue between the young apprentice Perugino and his unskilled but wise and well-traveled master in Perugia. On Pietro's question in what part of the world it is that the best masters in their art are 'made' (*in che parte meglio si facessero gli uomini di quell mestiero*), the master's answer is a praise of Florence in these domains, and an enumeration of the three main reasons of that city's superiority in the arts, two of which Vasari, through the old master's voice, explicitly links to the quality of "that air" (*quell'aria*). *Vite* G3/T3, ('Vita di Pietro Perugino pittore'), pp. 596-598.
- ¹⁰⁴ "...nella frequente conversazione che avevano insieme [Gaddo Gaddi e Cimabue] e nel discorrere bene spesso amorevolmente sopra le difficoltà dell'arti, nascevano ne' loro animi concetti bellissimi e grandi. E ciò veniva loro tanto più agevolmente fatto quanto erano aiutati dalla sottigliezza dell'aria di Firenze, la quale produce ordinariamente spiriti ingegnosi e sottili, ..."Vasari, *Vite* G2/T2, ('Vita di Gaddo Gaddi, pittor fiorentino'), p. 81
- ¹⁰⁵ "E quelli hanno lo spirito migliore e più sottile e più lucido, I quali hanno il sangue più puro e più sincero: il che viene della buona digestione, e questa si fa col mangiare temperatamente e cibi ottimi e appropriati." *L. Gen. Corpo* in *Opere* II, p. 290.
- ¹⁰⁶ Leon Battista Alberti and Giacomo Leoni, *The Ten Books of Architecture: the 1755 Leoni edition* (New York: Dover Publications, 1986), I.3.
- ¹⁰⁷ "...[le] ferite della testa, che in Toscana per la sottilità dell'aria [sono] tutte mortali..."Vincenzo Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," p. 356.
- ¹⁰⁸ See André Chastel, "La théorie du milieu à la Renaissance," in *L'uomo e il suo ambiente, Quaderni di San Giorgio* (Florence: Sansoni, 1973).
- ¹⁰⁹ *Storia Fiorentina* in *Opere* I, pp. 176-178.
- ¹¹⁰ "...air for want of motion will grow thick and muddy..." Alberti and Leoni, *The Ten Books of Architecture: the 1755 Leoni edition*, I.4, p. 6.
- ¹¹¹ In his first *invenzione* for the *Studiolo*, a letter to Vasari written in the fall of 1570, Borghini wrote, regarding the correspondence between the four elements depicted in ceiling, and the small bronze statuettes destined for the eight corresponding *nicchie*: "Per l'Acqua metterei nelle nicchie due statue di donne, perché l'acqua è molto generative; come per il Fuoco gli torrei ambe due maschi, che è attivissimo: Ma tutto si può variare a suo gusto. Per la prima piglerei Venere in sua conca marina, con perle in mano. Nell'altra Amphitrite o altra nimfa marina, la quel vorrei da messo in giù pesce, come sono le Syrene, con ambre et coralli in mano, che sono le gioie del mare, etc." cited in Ettore Allegri, *Palazzo Vecchio e i Medici: guida storica* (Firenze: S.P.E.S., 1980), p. 342.
- ¹¹² Alberti and Leoni, *The Ten Books of Architecture: the 1755 Leoni edition*, I.4, p. 6.

ingenious and refined minds (*spiriti ingegnosi e sottili*)” facilitates the generation of “beautiful and lofty *concetti*”.¹⁰⁴ Giving birth to finely crafted thoughts is considered easier when the substance in which the organic soul shapes its creations is of a more refined kind. As Varchi underscored in one of his lectures, the best *spiriti* are the ones that are “thinnest and clearest”.¹⁰⁵ One century earlier, Alberti had already observed that:

...they who draw a pure air, have better understandings than those who breathe a heavy moist one: Which is supposed to be the reason that the Athenians had much sharper wits than the Thebans. [...] And it is certain, that air is the more healthy, which is the most purged and purified, and which may most easily be pierced by the sight, the clearest and lightest, and the least subject to variations. And on the contrary we affirm the air to be pestiferous, where there is a continued collection of thick clouds and stinking vapours, and which always hangs like a great weight upon the eyes, and obstructs the sight.¹⁰⁶

If the link between the functioning of the *ingegno* and the quality of the air was thought to be directly physical, the Florentine conditions also entailed a degree of physical risk: it was believed that the air in Florence was so thin that this made, contrary to other regions, all wounds to the head fatal.¹⁰⁷

Water as well played an important role in what André Chastel has labelled the Renaissance “*théorie du milieu*.”¹⁰⁸ Deficiencies in the quality of a certain *aria* were often ascribed to the proximity of corrupt water exhaling noxious vapors. Inversely, clear running water produces fresh salubrious air. Another rather plausible etymological tradition, as Benedetto Varchi observed in his *Storia Fiorentina*, linked the name *Florentia* to the fast-flowing nature of the Arno, the waters of which are streaming down right from the Apennines. The city would have originally been called *Fluentia* and its inhabitants *Fluentini* or *Populus Fluentinus*.¹⁰⁹ The steady stream of the Arno must have certainly been perceived as a token of the quality of its water. Both stagnant air and water have a tendency to thicken, alter and turn pestiferous.¹¹⁰

In his *invenzione* for the *Studiolo* of Francesco I de’ Medici, conceived in 1570, Vincenzo Borghini presented ‘water’ as the generative element *par excellence*, and associated it with the goddess Venus and the nymph Amphitrite.¹¹¹ Water, as Alberti observed, “gives nourishment to all plants, seeds, and everything else that has the vegetative life, with the plenty of whose fruits men are refreshed and supported. If all this be granted, certainly we ought very carefully to examine what veins of water the country is furnished with, in which we intend to dwell.”¹¹² Considering the importance attributed to the nature of the streams that foster a particular region, we might attribute more than just a conventional significance to the use of the Arno river god as yet another important allegorical figuration of Florence.



Fig. 5.9 Drawing for Michelangelo's catafalque, Pen, ink and wash drawing, c. 1564. Milan, Ambrosiana, Codex Resta.

¹¹³ The only explicitly mentioned author of the booklet commemorating Michelangelo's *Esequie* is Jacopo Giunti, who was also its editor. Rudolph and Margot Wittkower nonetheless advanced powerful arguments for an attribution of the bulk of the text of Vincenzo Borghini; see Wittkower and Wittkower, *The Divine Michelangelo. The Florentine Academy's Hommage on His Death in 1564*, p. 34 ff.

¹¹⁴ See *Ibid.*, p. 90.

¹¹⁵ *L. Terr. Ciel.* in *Opere* II, p. 438.

¹¹⁶ AAVV, *Libro Capitoli Composizioni et Leggi della Accademia degli Humidi*, Bibliothèque Nationale de France, II IV, 1, f°17r°; cited in Michel Plaisance, "Une première affirmation de la politique culturelle de Côme Ier: la transformation de l'Académie des 'Humidi' en Académie Florentine (1540-1542)," p., 396.

The catafalque built by the members of the Florentine Accademia del Disegno on the occasion of Michelangelo's funeral inside the church of San Lorenzo displayed an inscription "Florens Florentia", that we now may read both as "flowering Florence" and "streaming Florence". The catafalque also displayed on its base two reclining river Gods. As Vincenzo Borghini, probably the author of the booklet commemorating the event observed:¹¹³

Tiber had a horn of plenty, filled with flowers and fruits, signifying therewith the fruits which the Arts have borne in our town. They were so many and so great that they have filled the world, and especially Rome, with extraordinary beauty. This was very well demonstrated by the other river, representing, as I have said, the Tiber, because, stretching out one arm, he had his hands filled with flowers and fruits from the horn of plenty of the river god Arno, who was lying nearby, facing him.¹¹⁴

More than any other son of Florence, Michelangelo had indeed embellished the eternal city with a multitude of masterly works of art.

3. Positing the Duke as the ultimate generator

We have seen how the plant analogies served to emphasize a double nationalistic agenda. On the one hand, they impressed on young talents the extent to which they are indebted to their Florentine roots for what they are able to achieve. On the other hand, the plant analogies reconfirmed, to insiders and outsiders alike, the legendary reputation of the city for an all-pervading kind of fertility. The third and certainly most important asset of the use of vegetative simile in contemporary 'art-criticism' is of course that these similes open up possibilities for implicit associations with the Duke as being the ultimate cause of all the metaphoric "fruits" that are grown and harvested in Florence and Tuscany. This is what I will discuss now.

Autocratic rulers often generate, in the minds of a select group of particularly obsequious subjects, an imagery that identifies them with supreme beings. Michel Plaisance published a series of interesting poems of the *Umidi*, which were written in November and December 1540, between the foundation of *Accademia degli Umidi* and its reform into the *Accademia Fiorentina*. In these poems the poet-friends of Lasca and Varchi are in fact actively soliciting the Duke's favours. Many of these poems spontaneously resort to an imagery that identifies the young Duke with what Varchi had called "the father of all heavenly lights", the sun.¹¹⁵ Goro della Pieve thus compared Cosimo in his composition to a "new sun" (*nuovo sol*), of which he awaited the rays,¹¹⁶ while the poet, sculptor and architect Paolo Geri, wrote the following verses:



Fig. 5.10 Domenico Poggini, *Duke Cosimo de' Medici as Apollo*, 1559. Florence, Boboli Gardens.

¹¹⁷ *Ibid.*, p. 397.

¹¹⁸ "...leurs offres de service un peu trop naïvement insistantes n'avaient pas trouvé la formulation capable de faire passer le pouvoir de la simple tolérance à la protection ouverte. D'après ce que l'on sait, Côme était peu sensible à la flatterie et assez peu prodigue de son argent." *Ibid.*, 398.

¹¹⁹ The tapestry, now in Palazzo Pitti, was destined to decorate the Palazzo Vecchio, and, features the arms of Cosimo de' Medici and Eleonora da Toledo, framed by a representation of Apollo on Cosimo's side of the stemma, Minerva at the side of his spouse. Janet Cox-Rearick, *Dynasty and desitiny in Medici art: Pontormo, Leo X and the two Cosimo's* (Princeton: Princeton University Press, 1984), p. 240, plate 163. For Domenico Poggini's marble, realized in 1559, see *Ibid.*, p. 275, plate 180.

¹²⁰ "...una bella ,& grande Fortezza, la quale nominò, HELIOPOLI, benché ella venghi, dalla piu gente, con parola volgare, che l'istesso vale, cha la Greca, chiamata, la CITTA DEL SOLE." Manuzio, *Vita di Cosimo de' Medici, primo Granduca di Toscana*, p. 146.

¹²¹ On the importance of the Capricorn ascendant in Cosimo de' Medici's horoscope, see Cox-Rearick, *Dynasty and desitiny in Medici art: Pontormo, Leo X and the two Cosimo's*, p. 257-291.

¹²² On Cosimo's identification with Hercules, see *Ibid.*, p. 254.

¹²³ Pietro Aretino, cited in Eric W. Cochrane, *Florence in the forgotten centuries, 1527-1800; a history of Florence and the Florentines in the age of the grand dukes* (Chicago: University of Chicago Press, 1973), 29.

Felice laur che dal mio bel sole
Adornate son tutte le tue fronde,
tal che l'ha convertite in gemme et oro,

le tue vaghe fiorite et verdi fronde
desidero sì, ma più d'esse il mio sole,
che con sua raggi sol mi può far d'oro.¹¹⁷

(Blissful laurel : my lovely Sun
has adorned all your branches
so as to convert them in diamonds and gold

your fine twigs, flowered and green
I do desire, yes, but even more my Sun,
Who with his rays only can turn me into gold)

As Plaisance mentioned, Cosimo seems not to have been particularly sensitive to these all too direct advances.¹¹⁸ In the mean time solar references became a recurrent theme in Cosimo's authorized visual imagery. The Duke had himself at least twice depicted as Apollo, once on a tapestry designed by Bronzino in 1549 and once in Domenico Poggini's marble *Duke Cosimo de' Medici as Apollo*.¹¹⁹ [beeld van Poggini – cox-R; beeld 180]. Furthermore, after having founded an entirely new fortified city in the Romagna Fiorentina, on the border with the papal state, the Duke decided to christen it Heliopolis or, as locals said, *Città del Sole*.¹²⁰

As we have seen, the sun, for authors such as Dante and Petrarch, is a metonym for the aggregate of all the heavenly bodies, stars and planets, the virtues of which, trickling down, maintain the cycles of generation and corruption in the realm of the sublunary. In the dichotomy female – material / male – formal, the sun stands for the universe's ultimate masculine principle (God not included), whose motions and rays temper and mold the wax of the earthly humors. All attributes that result from the sun's particular status are also to be found, even if not always simultaneously, in the imagery that is projected on Cosimo in the decades following the poems of the *Umidi*. The Duke sought to associate his own persona as much as possible with supra-terrestrial entities. As is well known, one of the emblems he most often used is that of the Capricorn, the astrological sign Cosimo shared with his main *exempla*, the Roman emperor Augustus and his modern counterpart Emperor Charles Vth.¹²¹ On the other hand Cosimo consistently sought to identify himself with figures exuding high levels of manliness, such as Hercules.¹²² The Duke's relations with other parties are most often likened to relations between father and son or between husband and wife. When in 1537, Pietro Aretino described Florence as “a young maid who bit by bit lets her breasts be touched and her clothes undone and ends up doing what is asked of her”,¹²³ his point was still to

¹²⁴ “...usando di dire, che godeva, che is suoi sudditi, da lui spesso chiamati figliuoli, godessero”
Domenico Mellini, *Ricordo intorno ai costumi, azioni e governo del serenissimo Granduca Cosimo I ora per la prima volta publicati con illustrazioni* (Firenze: Stamp. Magheri, 1820), p. 14.

¹²⁵ “Io stupisco, che alcuni eccellenti stieno, e sieno stati tanto. Il Tribolo, il Pontormo, il Vittori, il Bandinello, Benvenuto, il Varchi: ma quello viene dalla Nobiltà del Principe, che gli ha per figliuoli.” Anton Francesco Doni, *I Marmi*, 2 vols. (Bari: Laterza, 1928 (1552)) II, p. 23.

¹²⁶ *Physics* II. 2, 194b13-14.

¹²⁷ Letter from G. Vasari to Duke Cosimo I, Februari 1st, 1563. Frey, CCCXCIII, vol. I, p. 713-14.

¹²⁸ “Onde se bene è superfluo et parra forse presuntione, non manchero pero di raccomandare a .V.E.I. caldamente questa impresa, che e Sua propria creatura, certificandola, che da Lei sola ha da venire tutto il buono di questa academia.” Letter from V. Borghini to Cosimo I, Februari 3rd, 1563. Frey, vol. I, p. 716.

demonstrate the illegitimate character of the young Medici's regime. Later on, contemporary Florentines increasingly thought of Florentia and Cosimo de' Medici as a perfectly legitimate and happy couple. The Duke also consciously fostered the idea of his paternal position towards his subjects by calling them his "children" (*figliuoli*).¹²⁴ If the *Compagnia del Disegno* is a brotherhood (*fratellanza*), and its members call themselves brothers (*fratelli*), then they also refer to their Duke as "padre" and "capo". The implicit idea is that, whatever merits or talents these men have, they inherited these from their metaphoric father. In Giovan Battista Gelli's satirical dialogues *I Marmi*, one character, a nameless non-Florentine called the 'Wandering Academician' (*Accademico Peregrino*), observes:

The sheer number of excellent [minds] that live, and have lived [here in Florence] leaves me puzzled. Tribolo, Bandinelli, Benvenuto [Cellini], Varchi: but this is caused by the nobility of the Prince, whose children they are.¹²⁵

The vegetative simile that was used to describe the coming-into-being of works of art in the course of Cosimo de' Medici's reign, strongly limited, conceptually, the freedom and self-determination of the artists from whom the works eventually originated. The production of grapes by a vine, for instance, is not an act of free will. The quality of the outcome is, furthermore, only partially dependent on the vine's specific "talents". At least as important are the qualities of the site in which the vine is rooted, and, most of all, the quantity and quality of the sunrays both vine and grapes will receive. The identification of the Duke to "the lantern of the world" implicitly depicts him as the ultimate cause, and the provider of the real formative virtue, that makes out the specific quality of the fruits that his subjects bring fourth.

It is here that the Aristotelian dictum "Man is begotten by the sun and by man as well"¹²⁶ takes its full sense. In several cases, the merit for certain military operations, administrative undertakings or works of art would be directly attributed to the Prince, and not (at all) to the courtier or artist who effectively executed them. We see this logic applied, for instance, to the *Compagnia ed Accademia del Disegno* as a whole, which, despite resulting from a common initiative, is presented as the brainchild of no more than one genitor. Vasari wrote to Cosimo that the "academy was born from You and will flower under Your most felicitous name".¹²⁷ Borghini similarly observed in a letter to the Duke that this undertaking (*impresa*) is "Your own creature", and that "from You alone is to come all the good from this academy."¹²⁸

In another climax of self-effacement characteristic of the rhetoric of patronage, Vasari ended up attributing all the merit for the sumptuous renovation of the Palazzo Vecchio, which he had been planning while coordinating a numerous team, to the Duke himself. Of the planned Sala Grande (Sala dei Duecento) and the monumental staircase

¹²⁹ “...opera che superera ogni altra che sia stata mai fatta da e mortali per la grandezza et magnificientia, si per gli ornamenti di pietre, statue di bronzi, marmi, Fontana et per linventione et storie di picture” Letter of G. Vasari to Cosimo I, March 3rd, 1563, Frey, CCCXCVII, vol. 1, p. 722.

¹³⁰ “... et perche tutta questa invensione nasciò tutta, dico, dagli alti concetti di Lei, insieme con la richeza delle matiere, che non solo supereranno tutte le sale fatte dal senato Vinitiano, et di tutti i re et imperatori et papi che furono mai, atteso che se bene anno auto i tesori, non a nessuno di loro ne suo luoghi un corpo di muraglia si grande et si magnifico ne anche un animo si invitto da saper por mano a una impresa si terribile et di tanta importanza.” Letter from Vasari to Cosimo, 3 March 1563, Frey, vol. I, p. 722-3.

nearing completion, Vasari wrote to the Duke in March 1563 that it was an achievement that “will surpass all other [building works] that were ever realized by mortals for its scale and magnificence, for its ornaments of stone, statues of bronze, for its marbles, its fountain, and for the inventions and the *storie* of the paintings.”¹²⁹ But the credit for all this was only the Duke’s, for

...the whole of this invention was born in its totality, indeed, from the elevated *concetti* of You[r Excellency], together with the preciousness of the materials, that [these spaces] will not only surpass all the rooms built by the Venetian Senate, and by all the kings, emperors and popes that ever lived, considered that, despite the fact that they had the necessary money, none of them ever achieved to complete in their premises a built structure (*un corpo di muraglia*) so huge and magnificent. They simply did not dispose of a mind so indomitable [as Yours] that would have allowed them to engage in so terrible and important an undertaking.¹³⁰

In this case, Vasari must have felt that he could rightfully attribute the whole of the achievement to the *concetti* of his patron, even its material dimension, since the stone used for the chimneypieces and the other carved parts was the *mischio* of Serravezza, a rare multicoloured marble of which Cosimo had reportedly discovered well-hidden quarries himself, during one of his hunts. Furthermore, as we shall see below in chapter seven, Cosimo’s personal alchemical research helped discover new means of tempering steel that facilitated the actual carving of hard stones. All these elements played a role in Vasari’s affirmation that even the material splendour (“*la ricchezza delle materie*”) of these rooms proceeded from the Duke himself.

Just as the *Compagnia ed Accademia* had been pictured by Vasari and Borghini as Cosimo’s own creature, so were the fruits of its members efforts no more than “born... from the Duke’s elevated *concetti*.” Being his own children, drawing their strength from his presence, even the most excellent of Florence’s creative minds were no more than instruments in the hands of the Duke.

¹ François Jacob, p. 33. ('La Structure Visible').

CHAPTER SIX: Ducal alchemy

Pour décrire la génération, le XVI^e siècle utilise, sinon des modèles, du moins des images empruntées à deux activités créatrices de l'homme : l'alchimie et l'art. L'utilisation de la chaleur pour transformer la matière constitue la méthode des alchimistes par excellence. Quand ceux-ci cherchent quelque combinaison nouvelle du mercure, du soufre, et du salpêtre, c'est dans la chaleur des fourneaux et des alambics. De même, quand la putréfaction transforme en mouches un morceau de viande, c'est par la chaleur qu'elle dégage. De même aussi, quand s'élabore la semence des animaux parfaits, c'est grâce à la chaleur du corps. La matière et les esprits qui l'habitent se trouvent malaxés, triturés, renvoyés du cœur au foie, du foie au cerveau, du cerveau aux testicules par « retours et résolution et replis comme capréoles de vigne », explique Paré. A mesure de leur progression dans les entortillures et anfractuosités du corps », les humeurs et la semence se chargent de toutes les vertus nécessaires à leur futur travail, les vertus concupiscibles, ossifiques, carnifiques, nervifiques, veinifiques, etc.¹

² Gaetano Pieraccini, *La stirpe de' Medici di Caffagiolo* (Firenze:Vallechi editore, 1947), vol. II, p. 26.

³ Aldo Manuzio il giovane, one of Cosimo's biographers wrote that his heir Francesco was by far better schooled in letters: "...nella cognitione delle lettere l'è di molto superiore...", Aldo (il giovane) Manuzio, *Vita di Cosimo de' Medici, primo Granduca di Toscana* (Bologna: [Aldo Manuzio], 1586), p. 182.

⁴ "...perciò quando egli [Cosimo] voleva leggere da se stesso si sentiva fieramente infiammare la testa..." Baccio Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana* (Firenze: Bartolomeo Sermartelli, 1578), p. 9.

⁵ Ibid.

⁶ Ibid.

INTRODUCTION

Contrary to earlier namesakes such as Lorenzo *il Magnifico*, Cosimo de' Medici, issued from a minor branch of the family tree and never predestined to rule, had only benefited from what has been labelled a “fragmentary” education.² His schooling in reading and writing seems to have been frankly flawed.³ Reading seems to have caused him headaches,⁴ so his favourite books (mostly the works of antique historians and naturalists) were read to him aloud by some collaborator.⁵

In this chapter I will continue the argument only implicitly suggested in chapter five: Cosimo de' Medici hired many of his collaborators foremost for his own education and ordered their writings according to his own interests. The writings I will analyse in this chapter particularly well illustrate that point. The young prince's eagerness to learn, he was seventeen when raised to power, throws an interesting light on his insistence to promulgate literature in the vernacular by means of the Accademia Fiorentina. Even if one of his biographers insisted that the Tuscan Duke was able to respond in Latin to certain ambassadors, the mere mention of the fact allows us to doubt Cosimo's fluency in that language.⁶

That several of Benedetto Varchi's writings were never published during either his or the Duke's lifetime, is easily explained from this point of view. The purpose of a text such as the *Storia Fiorentina* was in the first place to be read aloud to the Duke himself (what Varchi dutifully did in Pisa on several occasions). Once such a reading was done, the main purpose of the manuscript was served. An appointed academic lecturer like Benedetto Varchi, we may assume, was not only supposed to address himself to the people of Florence, but also to the Duke himself. It is not surprising then to notice that the centres of interest of these courtiers proceeded in part from Cosimo's own intellectual baggage, and that, conversely, the written and lectured texts of these *letterati* eventually came to inform aspects of the Duke's thoughts and policy.

In the chapter five I have shown how the re-introduction in Florence of a scholarly interest in natural sciences which was a totally a-political endeavour, at the outset, and in which Varchi was instrumental, eventually backfired and generated, rather spontaneously and not always from top to bottom, new symbolic structures of oppression, new metaphors that allowed the regime to conceptualize and impose its inflexibly autocratic rule. Two weeks after the second of the *Due lezioni* on the arts, and as a pendant to these, Varchi delivered before the Fiorentina the *Lezione della Natura* already mentioned earlier. The lecture, which started with a praise of Nature and an elaborate definition of what was exactly understood by the term, ended with the enumeration and

⁷ “...alcune di quelle più famose proposizioni, le quali si debbono ben credere, ma non già si possono provare, raccolte di vari luoghi e diversi libri d’Aristotile...” *L.d.Nat.* in *Opere* II, p. 657.

⁸ First published in Venice, 1537 (Octavianum Sceptum), and frequently reprinted since. Marcantonio Zimara (c. 1475–1532), who had been taught philosophy in Padua by Pomponazzi and Nifo, was professor of philosophy in the same city from 1525 to 1528.

⁹ “*La natura fa tutto quello che ella fa ad alcun fine*” *L.d.Nat.* in *Opere* II, p. 657.

¹⁰ “*La natura per se stessa intende, appetisce e cerca sempre il bene, e non mai male alcuno, se non per accidente*” *Ibid.*

¹¹ “*La natura fa sempre come perfettissima maestra di tutte le cose il migliore, cioè cava di qualunque cosa quello che più perfetto se ne puo cavare*” *Ibid.*

¹² “*La natura, come veramente liberale, da le cose dove, quando, e a chi si debbono dare*” *L.d.Nat.* in *Opere* II, p. 658.

¹³ “*La natura e ordinatissima, anzi cagione d’ordine, onde delle cose naturali niuna è disordinata, se non di rado e per accidente*” *Ibid.*

¹⁴ “*La natura come non abbonda mai nelle cose superflue, così non manca mai nelle necessarie*” *Ibid.*

¹⁵ “*La natura fa, dice il filosofo, come un prudente padre di famiglia, il quale mai non lascia perdere cosa nessuna, d’onde si possa trarre alcuna utilità*” *L.d.Nat.* in *Opere* II, p. 659.

¹⁶ “Veddisi apertamente all’hora in quell giovinetto una continenza & una fermezza d’animo grandissima, perchiocché à si gran nuova quanta era quella che all’hora gli fu data, egli non si rallegrò molto ne si dimostrò nell’aspetto ò ne i movimenti del corpo superbia o leggerezza alcuna.” Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 17.

the brief commentary of “some of the most famous aphorisms [on nature], which one is forced to believe, yet incapable to prove, gathered from different places in different books of Aristotle...”⁷ Varchi drew these aphorisms which illuminate specific aspects of nature’s providence, economy and functionality from a popular printed index to Aristotle and Averrois, the *Tabula dilucidationum in dictis Aristotelis et Averrois* of Marcantonio Zimara, a former professor of philosophy in Padua.⁸ When one reads these solemnly professed maxims, it is hard to avoid imagining that the men and women in the Fiorentina audience interpreted them at least unconsciously as political metaphors. Showering that audience with statements like these indeed amounts to a refined kind of political propaganda:

*In anything she does, nature aims at a particular end*⁹

*By herself, nature always discerns, desires and pursues the good, and never any evil, except by accident*¹⁰

*Like the most perfect master, nature always makes the best out of all things, that is to say, she extracts out of anything the greatest perfection that can be found in it*¹¹

*Nature, possessing true liberality, gives things where, when and to whom they are to be given*¹²

*Nature is most ordered, or better, generating order; consequently no natural thing is disordered, if not seldom and accidentally*¹³

*Just like she never abounds in superfluous things, nature never lacks in the necessary things*¹⁴

*Nature acts, [...] like a prudent family man, who never spills anything that might have some usefulness*¹⁵

The message then is clear: the citizens of Tuscany stand under a double protection of a beneficent nature and of a prince who succeeds in emulating her solicitude toward human beings. In the physiocratic order that is projected upon Tuscany by implicit and explicit forms of political propaganda, Cosimo de’ Medici comes to perform a very specific role which probably is best identified as “nature’s earthly administrator”, “representative”, or “helping hand”. Contemporary accounts of the Duke have all stressed the extraordinary levels of self-control and self-awareness Cosimo displayed as a prince, from the very first moments of his rule. His first biographer, for instance, described the young Cosimo’s first apparition before Florence’s senate in the following terms:

One could then openly notice in that young person a impressive countenance and firmness of mind, since as a reaction to that great news that he was given at that moment, he did not rejoice much, nor did he demonstrate in his expressions or in his bodily movements any kind of arrogance or frivolity.¹⁶

Extremely conscious of his own image as a public figure and as the embodiment of his own rule, Cosimo very carefully fashioned his own persona and infused even his

moments of leisure with a meaning designed to reinforce his central role within the 'physiocratic' political order he devised. It are these mechanisms that this chapter will attempt to unravel. I will therefore focus on some of the Ducal 'passtimes', in particular on Cosimo de' Medici's passion for hunting and interest for alchemy. As a prism to interpret the matrix of meanings in which these activities come to be staged, I will again use a series of Varchia's texts.

- ¹⁷ See for instance this line from a letter written by Pier Francesco Riccio, Cosimo's private tutor, on December 23, 1533 (Cosimo is by then 14 years old), to the boy's mother, Maria Salviati: "Il tempo si consuma in caccie et musica et lettere honestamente." Cited in Pieraccini, *La stirpe de' Medici di Caffagiolo*, vol. II, p. 10. Baccio Baldini also mentions hunting as one of Cosimo's favorite activities in the period 1530-1537. Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 13.
- ¹⁸ "E cosi come Alessandro fu fatto duca con la guerra e con la forza, all'incontro Cosimo e pervenuto al principato per vocazione, con quiete e tranquillità; e come David al pascer le pecore per voler di Dio fu chiamato al regno, cosi Cosimo uccellando e pescando fu chiamato al principato; ed oggidi si dice in Firenze che questo giovane per certo uccellava allora l'aquile e i girifalchi [falcons], e pescava l'orche e le balene, poiche ora si vede ch'egli ha preso uccelli cossi grandi e pesci cossi grossi." Vincenzo Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," in *Relazioni degli ambasciatori veneti al senato*, ed. Eugenio Albèri (Firenze: Tipografia all'insegna di Clío, 1839), vol. III, p. 337. See also for instance this line from a letter written by Pier Francesco Riccio, Cosimo's private tutor, on December 23, 1533 (Cosimo is by then 14 years old), to the boy's mother, Maria Salviati: "Il tempo si consuma in caccie et musica et lettere honestamente." Cited in Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," p. 10. Baccio Baldini also mentions hunting as one of Cosimo's favorite activities in the period 1530-1537. Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 13.
- ¹⁹ "Del cacciare, del pescare & dell'ucellare, si cognobbe cosi bene che quei cacciatori, uccellatori & pescatori che egli havea appo di se, i quali poi che egli fù eletto Principe della sua patria furono assai & peritissimi di quell'arti quando egli voleva fare qualche grossa caccia ò qualche gran pescagione, il che egli faceva l'anno molto fiato, eglino volentieri s'appigliavano al consiglio suo, dove fusse di mestiere tender le reti o mettere i cani o gl'ucelli alle poste, & in qual tempo si dovessero trovar le fiere più in un luogo che in un altro..." Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 86.
- ²⁰ "...nella caccia, non vi e chi lo superi, e stracca ognuno..." Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," p. 349.
- ²¹ "... è ammaestrata [la lepre] di riposarsi nel covo con la coscia distesa sotto al fianco, con le gambe dinanzi allugate, pari e congiunte insieme, sovra le quali ella si tiene il mento appoggiato, stendendo le orecchie di dietro sopra l'una e l'altra spalla; veglia con le palpebre serrate, e dorme con gli occhi aperti e le luci ferme, e dormendo muove velocemente il labro di sopra la bocca, e meno quando ella è desta; ha li peli per esser spessi e molli maravigliosamente tali, che né vento né pioggia la può con facilità offendere..." *Esortazione alla caccia in Opere II*, p. 785.
- ²² "Vogliono nondimeno tutti [i cani] aver la testa leggera e asciutta; l'orecchie lunghe e sottili e pendenti, la fronte larga e grande ed in mezzo incavata; gli occhi neri e splendenti e non ascosti indentro; il collo molle e tondo: il petto largo; lo spazio che divide l'una spalla dall'altra, pieno; le gambe dinanzi più corte dell'altre, dritte, ferme, con li nervi drittamente seguiti; li fianchi non cavati indrento, ma sospinti infuori; la spina della schiena non magra, ma carnosa e di lunghezza mezzana; la coscia grassa, di sopra larga, di sotto ristretta; il ventre ritirato e voto, le anche curve, lontana l'una dall'altra, e nervose; le giunture piene di nervi e forti: le gambe di dietro molto più lunghe che quelle dinanzi, ma nondimeno ragionevoli; li piedi rotondi e duri; il pelo lungo e pieno; il colore né bianco né nero, né rosso in tutto, ma mescolato. Le quali parti insieme, o almeno le più d'esse che si conoscono in un cane, ne danno vero segno e certa speranza di grandissima bontà." *Esortazione alla caccia in Opere II*, p. 784.
- ²³ "... i buoni cacciatori non prima arrivano nel luogo, che sanno come giaccia quel piano, come surga quel monte, dove arrivi quella valle, ove si varchi quel fiume, quali vie sieno più corte, quali più facili al cavalcare..." *Esortazione alla caccia in Opere II*, p. 782.

A. COSIMO DE' MEDICI AND THE USE OF TUSCAN RESOURCES

1. The Duke as a hunter-harvester

Cosimo had been fervently hunting and fishing since childhood; the fact is well-documented and reappears in several accounts of contemporaries.¹⁷ The Venetian ambassador Vincenzo Fedeli established a parallel between King David, who had been called by God to reign while David was herding his sheep, and Cosimo who was hunting in the Mugello, the rumour goes, when summoned to Florence for his elevation.¹⁸ Hunting was one of the skills the young Duke perfectly mastered and he succeeded, as we shall see, in drawing the fullest range of self-glorifying significance out of that mastery. During his reign, Cosimo continued to hunt almost daily. His expertise was such that the professionals he hired to prepare the hunts often turned to him when they themselves needed advice.¹⁹ Vincenzo Fedeli confirmed that “in hunting, there is no one who could beat or tire him.”²⁰

Hunting game (*cacciare*) or birds (*uccellare*) as well as fishing (*pescare*) were counted in the Renaissance among the “honest pleasures” of the elite. They were encouraged through a series of treatises and promoted as means for male aristocrats and princes to enhance their bodily vigour, their skills at handling weapons and their knowledge of local topography, the latter is always an asset of importance in case of armed conflicts. Benedetto Varchi rehearsed these arguments in his own *Esortazione alla caccia*, an unfinished work that eloquently illustrates the reciprocal exchanges brought about between the Duke, his interests, and the literature his courtiers produced. Varchi’s praise of hunting oscillates between on the one hand a thinly veiled glorification of the Duke’s qualities as a hunter and on the other hand an evocation of the pleasures of outdoor activities which shows such an emotional involvement on the part of the author that one suspects Varchi to have been involved in the hunting on many occasions (see for example Varchi’s vivid account of the physique and character of the hunting dog²¹ or his tender description of a sleeping hare²²). In the *Esortazione* Varchi observed:

Good hunters do not arrive at the site before they know how this particular expanse evolves, how that hill rises, where that valley leads to, where that river forces its way to, what paths are the shortest, which ones the easiest to ride horse on...²³

The quotation implies the existence of a special relationship between the good hunter and his hunting territory, a relationship that entails for the hunter a refined topographical knowledge. In the case of the Duke, that bond between the hunter and his territory is



Fig. 6.1 Ignazio Danti, *Planimetric view of Tuscany in the Galleria delle Carte Geografiche*, c. 1580. Rome, Vatican.

²⁴ “[Cosimo] non traeva del cacciare, del pescare & dell’uccellare solamente la cognoscenza di sopra-detta, ma il cognoscere ancora i siti de i luoghi, l’imboccare & lo sboccare de i valli, la diversità delle strade, i cominciamenti de i monti, le dipendenze, le sommità & l’altezza loro, la grandezza profonda & la varietà delle foci de i fiumi, i segni delle tempeste & delle calme del mare & delle mutazion’ de i tempi, in guisa che egli havea a mente tutte le parti e tutti i paesi de gli stati suoi, non altramente che se egli fusse stato continuamente presente in tutti [...] & spesse fiato avvenne che essendo egli stato il giorno in qualche luogo à cacciare, à pescare, à uccellare, ritornando dipoi la sera all’alloggiamento chiamava qualch’uno di quei suoi ministri a cui egli havea dato la cura di quel luogo dove egli era, & gli comandava che provvedesse à una cosa o altra secondo che egli il giorno nell’andar cacciando, pescando, o uccellando, havea veduto che faccia mestiere di provvedere...” Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 88.

²⁵ Giorgio Spini, *Architettura e politica da Cosimo I a Ferdinando I* (Firenze: Olschki, 1976), pp. 28–42.

extended to the entire Duchy. The Duke knew his Duchy as a good hunter knows his hunting area. Such is the implicit meaning of the passages on hunting from several of Cosimo's 16th-century biographies whose authors insisted upon the fact that the Duke alternated his hunting and fishing areas so as to cover, in the end, the whole of Tuscany. These exercises provided the Duke with such a detailed knowledge of the Tuscan topography that he became a kind of walking atlas of his own Duchy:

From the hunting, the fishing and the bird hunting, [Cosimo acquired] wisdom on sites and locations, on the widening and the narrowing of the valleys, on the diversity of the roads, on the emerging of the hills, the nature of their slopes and summits and their heights; of the rivers: their width, depth, and the variety of their mouths; the signs of the storms on sea, their dying down, and of any change of weather. So much that he was [firmly] holding in mind all the parts and all the small towns of his states, not differently than if he were continuously present in all of them. [...] It often happened that, returning in the evening to his quarters from a days hunting, fishing, or bird hunting in some place, he called for one of his ministers to whom he had delegated the care over that locality, and ordered him that he would take care of one thing or another according to what he had seen during his day of hunting or fishing that needed to be provided for...²⁴

Even during his hours of leisure, the quotation suggests, this totally devoted prince kept ruminating about means to improve the physical shape of his state. This passage also suggests that nothing, for the good administrator, surpasses direct empirical assessment of a situation. It needs to be observed, though, that Cosimo's continuous attention to the geographical and meteorological characteristics of the parts of his State, as portrayed here, were part of the Duke's conviction that geography could, if needed, be altered and improved. As is known, Cosimo engaged during his principate in a state-wide campaign of land improvement for the sake of public health and the development of agriculture.²⁵ The draining of the Pisan marchlands supervised by Luca Martini, reclaimed an area which was previously infertile and infested with malaria-bearing mosquitoes and is but one example of such a transformation of existing geographical conditions. The implicit metaphorical image carried by the Duke is that of the farmer applying his mastery of the agricultural art to select the best areas for cultivation and guarantee the best circumstances for the growth of his crops through draining, irrigation, use of manure, etc.

Yet the expertise of the hunting Duke, if we have to believe the encomiastic accounts of his earliest biographers, did not stop at his knowledge of topography and climate, nor at that of his prey, but included a stunning expertise of all sorts of animals and plants encountered during the hunts. A text that very much shaped the string of official biographies written in the last decades of the 16th Century is the first of them,

²⁶ In the preface to his biography, Baldini wrote: "...mi son messo a raccontare le molte, grandi, & rare virtù, & i gran fatti di questo valoroso Prencipe, molti de i quali essendo io presente vidi, & le virtù dell'animo suo ho potuto assai sconvenevolmente bene cognoscere, sendogli stato sevirtore tredici anni continui, & tanto intimo quanto ciascheduno sa..." Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana* (unpaginated). Before his appointment to cure the Duke, Baldini had been responsible with the health of his firstborn son, Francesco, probably in 1560. The ASF possesses a letter by Baldini written from Rome on April 24, 1560 to the Duke in the physician report on the health of the Prince, sent on tour to Rome. (ASF, Mediceo del Principato, f. 484, c. 573). See another similar letter written in June 1560. (ASF, Mediceo del Principato, f. 485, c. 120).

²⁷ "...ragionava il Gran Duca di tutte queste cose sì dottamente ch'ei pareva che egli avesse lungo tempo atteso alla filosofia naturale & alla Medicina..." Ibid., p. 87.

²⁸ Cosimo's personal physician and first biographer Baccio Baldini wrote in 1578: "...delettava assai quando egli desinava ò cenava d'udir ragionare qualch'uno de i suoi servitori quali più gli piaceva, di storie, della natura de gli animali, delle piante, delle cose di Geografia, o altri ragionamenti simiglianti à questi, à i quali egli faceva spesse fiato bellissime risposte, & moveva à chi ragionava molti dubbi & molto malagevoli à sciorgli." Ibid., p. 85.

²⁹ "...egli haveva acquistato finalmente una cognoscenza grandissima di molti animali terrestri, d'uccelli & di pesci, del tempo del lor passaggio, del covare, del partorir loro & di quei cibi di che quelle sorte d'animali si pascono, de i luoghi dove eglino covano, partoriscono & habitano, così in mare come in terra, de i modi & delle armi con che eglino si difendano da gl'agguati & delle forze de gl'altri animali, & delle varie maniere con le quali eglino si procacciano il vivere, & come eglino s'ingannino & s'uccidono l'un l'altro." Ibid., p. 86.

³⁰ "Impercioche ei conosceva una grandissima quantità di piante, & le loro virtù, & anche i luoghi, ove meglio mettono, i tempi del lor fiorire, & del nascere, & ogni altra lor qualità. [...] Ma non meno che di molte piante, conobbe le nature de gli animali d'ogni genere, de' pesci, de' volatili, de' quadrupedi, il lor nascere, il morire, il tempo del covare, del partorire, i cibi, di che si pasce ciascun d'essi, il modo del prenderli, & altri particolari, i quali benissimo teneva à mente: di sì felice memoria fu dalla natura dotato. [...] Et essendogli estremamente diletto della Caccia, dell'uccellare, & delle pescaggioni, fu in voler sapere tutte le sorti di aguati soliti à farsi nel cacciare, & nel pescare, curiosissimo, & tanto ne seppe che non pareva di havere già mai ad altro inteso." Manuzio, *Vita di Cosimo de' Medici, primo Granduca di Toscana*, p. 184-185.

the *Vita di Cosimo de Medici, primo Gran Duca di Toscana*, published in 1578 and authored by a privileged witness, Baccio Baldini, the Duke's personal physician for the last thirteen years of his life (1561–1574), who had also served the family before that period.²⁶ Baldini asserts to have been struck by the depth of Cosimo's knowledge in the natural sciences (“...he seemed to have studied natural philosophy and medicine for a long time”²⁷ was the weighty claim coming from the physician) and by the way in which Cosimo exploited his outdoor activities as a means of continuously learning in these domains. The Duke's desire for wisdom seemed limitless: according to Baldini, even when constrained to stay at home, the Duke seized every chance to extend his knowledge on the things of nature:

...during his lunches or his dinners he enormously enjoyed hearing one of his servants discoursing on stories, on the nature of the animals, on plants, on geography, or on other topics of that kind, and he quite often made beautiful replies, which left the speaker with many difficult doubts.²⁸

The long passage of Baldini's biography on the *caccie* (hunts) starts with an evocation of Cosimo's knowledge of wild animals, whether living on the ground, in the air, or under water. The Duke's lofty mind did not only distil information for the capture of the game. As a true philosopher, according to Baldini, he observed both their behaviour and their morphologies and pondered about the instruction he might draw from it in the field of military strategy for instance :

In the long run [Cosimo] had acquired an enormous knowledge of many terrestrial animals, birds and fishes: the time of their passage, of their breeding, of their giving birth; the nature of their food and the kind of animals they eat, the places where they breed, where they give birth and where they live, both in the sea and on land; of the strategies and weapons with which they defend themselves from the tricks and strengths of the other animals, and of the different ways in which they hunt down their preys, and how they deceive and kill each other.²⁹

The last statement was repeated with even more emphasis some 8 years later in another biography of Cosimo I de' Medici, by the hand of Aldo Manuzio *il giovane*:

He knew the nature of the animals of every breed, of the fishes, of the volatiles, of the quadrupeds, of their birth, their death, their brooding, the diets, or what every one of them feeds on, the way to catch them and other particulars, which he firmly remembered by heart...³⁰

When Manuzio, at this point, suddenly shifts his description to an evocation of Cosimo's prodigious memory, Baldini, instead, systematically proceeds with the description of the Duke's similarly impressive expertise on plants. As for the animals, the Duke's science is

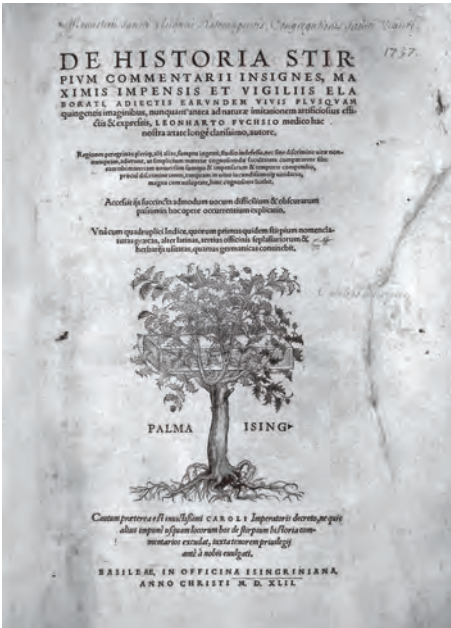


Fig. 6.2 Leonhart Fuchs, *Titelpage of the De Historia Stirpium Commentarii Insignes* (Basel: Michael Isingrin, 1542).

³¹ “Conosceva ancora una quantità grandissima di piante, & sapeva i luoghi ne i quali nascono, dove le vivon più lungo tempo, dove le faccino più frutti e più saporiti, il tempo quando le fioriscono, & fanno il frutto loro & la virtù ancora che molte di quelle hanno di sanare i mali che vengono così à gl’huomini come à gl’animali senza ragione, perche ei si dispose d’usare questo conoscenza che egli aveva delle piante à comune utilità e beneficio de gl’huomini...” Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 86.

³² In a synecdochical conflation, the term ‘simple’ was equally applied to any plant used as a pharmaceutical ingredient.

³³ “Ma per camminare alla conclusione, voglio pur dire una cosa rara di questo principe, che di tutto s’indende e ne fa professione, e ciascheduna cosa pare che sia sua propria. E specialmente delle erbe e dei semplici n’ha egli una grandissima cognizione, e n’ha i giardini ripieni, e ne fa tenere una particolar cura, con grandissima sua dilettazone in farli piantare, governare e sperimentare, avendo appresso di se uomini eccellentissimi in questa professione; e tra gli altri uno da Civitate suddito della serenità vostra che in ragionar di queste cose me l’ha molto lodato, dicendo che per la gran scienza sua lo voleva mandare nell’Indie per riportare delli semplici di quelle parti, per farne prova se sono dell’istessa virtù, o se ve ne sono d’altre sorti di maggiore che non sono dalle nostre bande; e di continuo sopra questi fa lavorare d’acque e d’oli lambiccati per sperimentarli in diverse infermita e ferite...” Fedeli, “Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l’anno 1561,” p. 356.

³⁴ Cf. Appendix 2A on Luca Ghini.

again described in terms of knowing ‘when’, knowing ‘where’ and knowing ‘how’ to get most profit out of that knowledge.

He was also familiar with an enormous quantity of plants, and knew the places in which these were born, and where these lived longest, and where these produced the greatest amount of fruits and of the most delicious (*saporiti*) kind, and when these are flowering, and bearing their fruits; [he equally knew] the virtues many of these have to cure the pains that come unexplained to both men and animals, since he had decided to use the knowledge that he had of the plants for the universal utility and benefit of men...³¹

The passage allows us to understand in more general terms the purpose of the Ducal hunting expeditions: beside drawing possible teaching from animal behaviour, the hunt served above all to gather useful ingredients found on the Tuscan countryside, be they of animal or vegetal origins. In other words usefulness meant a capacity to feed or to cure.

2. The Medici prince as a healer

Cosimo de’ Medici, we know from a variety of sources, did not limit himself to gather knowledge about the medical virtues of herbs and plants, he was also actively engaged in the preparation of drugs. As Baldini explains in the passage of his biography following the last quotation, Cosimo had many herbs, leaves and flowers distilled the whole year through, out of which he obtained “the most precious essences (*acque*) and oils”, which he used in order to make various types of drugs. Another interesting testimony on Cosimo’s pharmaceutical use of plants is to be found in the report written by the Venetian ambassador Vincenzo Fedeli in 1561. Anticipating Baldini’s remarks, Fedeli emphasized the Duke of Florence’s expertise (“*grandissima cognizione*”) in herbs and what were then called simples (*semplici*), i.e. unmixed extracts of one specific herb or flower.³² The ambassador mentioned how Cosimo had “gardens full of” medicinal herbs. Cosimo personally oversaw their planting, nursing and handling, which was taken care of, “with extreme delight”, by competent specialists.³³ Fedeli had interviewed one of these botanists, a native of a city under Venetian rule, who spoke in laudatory terms of the Prince’s expert ability to converse on pharmaceutical botany. The man also told the ambassador that Cosimo had once intended to send him to America (*nell’Indie*) to bring back botanical samples in order to verify whether these possessed the same curing powers (*virtù*). The gardens “full of” medicinal plants which are mentioned by Fedeli’s interlocutor all stem from the *Giardino de’ Semplici* founded in 1544 by Luca Ghini in Pisa, on behalf of the faculty of medicine.³⁴



Fig. 6.3 H. Brunschwig, Titelpage of the *Liber de arte Distillandi de Compositis* (Strassburg: Johann Grüninger, 1512).

³⁵ *Il Ricettario Medicinale necessario a tutti I Medici, et Speciali. Nel quale con bellissimo ordine si insegna tutto quello che si può desiderare intorno alla cognizione del provedere, eleggere, conservare, preparare, et comporre qualsivoglia sorte di Medicamento; secondo l'uso dei migliori e più eccellenti medici. Di nuovo per ordini dell'Ill.mo et Ecc.mo S.re Duca, et de S.or Principe di Fiorenza, et di Siena, Ricorretto et ampliato da' Dodici Riformatori periti di tale Arte, et eletti da loro Ecc. Illust.*, Florence: Giunti, 1567. On this publication and Cosimo's involvement in the project, see Alfredo Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoirs, culture et politique*, Etudes et essais sur la Renaissance (Paris: H. Champion, 1997), pp. 67-77.

³⁶ Cosimo I, G. D. di Toscana "Raccolta di segreti alchimici con sue postille originali," (XVI sec.), fol. 54 r. - 69 v.

³⁷ Pietro Andrea Mattioli and Cosimo de' Medici, *Di Pedacio Dioscoride Anazarbeo libri cinque. Della historia, & materia medicinale tradotti in liunque volgare Italiana da M. Pietro Andrea Matthiolo Sanese Medico.* (Venezia: Bascarini, 1544).

³⁸ "...e dove si fanno tante mirabili cose e un luogo grande, che is chiama la fonderia del duca di Firenze, nella quale si lavora di continuo con infinite varietà di fuochi, di fucine, di fornelli, e lambicchi; e il duca vi va spesso, e vi sta, e vi lavora di sua mano con grandissima sua diletta-zione..." Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," p. 356.

³⁹ "...ed e cosa rara da vedere per l'ordine e per la copia de' rimedi ritrovati e fatti per la salute de' corpi umani..." Ibid., p. 357.

⁴⁰ "...ed ha ritrovato rimedi alla punta al fianco, alle strette di urina, ed alle ferite della testa, che in Toscana per la sottilita dell'aria erano tutte mortali, ed ora sono fatte sanabili. Fa fare con diligenza il sopravvivo e il mitridate, e con tanta perfezione, che se ne vede evidente prova e salutaria alle acutezze de' veleni; e di subiti rimedi ritrovati se ne vede ogni giorno esperienza grandissima..." Ibid., p. 356.

Cosimo's interest in pharmaceutical botany is well documented. Politically it culminated in his personal supervision of the *Ricettario Fiorentino*, an official document detailing and thus regulating hundreds of therapeutic preparations, and which was published in 1567 under the auspices of the guild of the Physicians and Apothecaries.³⁵ His very personal preoccupation with these investigations appears in the great number of works on pharmacy and its sister art, alchemy, that stand in his personal library, several of which feature numerous notes in Cosimo's own handwriting (see for instance the many notes in the manuscript *Raccolta di segreti alchimici*, now in the Florentine Biblioteca Nazionale,³⁶ or in the 1544 Italian edition of Dioscorides' *De materia medica*).³⁷

The botanists mentioned by Fedeli were only part of a larger crew of men working at obtaining the distillates in question, mixing them into preparations and testing these for their efficiency of different kinds of illnesses, wounds and cases of poisoning. Most of these operations took place under direct supervision of Cosimo in the chemical and pharmaceutical laboratory he had set up inside the Ducal palace, the so-called *fonderia*. As Fedeli later specified in his 1561 report:“

...the place where so many marvelous things are produced is a huge space, called the *fonderia* of the Duke of Florence, in which one is continuously at work with a variety of fires, forges, furnaces and retorts; the Duke goes there often, remains there and works in the place with his own hands and enormous delight...³⁸

The Venetian ambassador added that the *fonderia* was “...an extraordinary thing to see for the profusion of remedies that were rediscovered and produced there in favor of the health of human bodies...”³⁹ The merit for these discoveries, as Fedeli's enumeration of the most important of them attests, is systematically attributed to Cosimo:

...he found remedies for cramps in the liver area, for obstructions of the urinary passages, for injuries to the head, which because of the thinness of the Florentine air were all mortal, and are now curable. He ordered the diligent preparation of [two 'universal' antidotes referred to as] the 'surviver' (*soppravivo*) and the 'mithridatum', and with so much perfection that one can literally witness their salutiferous effectiveness against the stings of poisons; and proof [of the success] of those rediscovered remedies is to be seen in abundance every day.⁴⁰

A passage from Baccio Baldini's account makes clear that the whole ducal pharmaceutical business was amply advertised to the outside world.

He produced many different kinds of drugs [...], which he offered not only to those of his vassals which needed them; he also sent some with great pleasure all over Europe, to whoever would have requested them and for the great benefit of the people who made use of them. This was a favor truly worthy of the



Fig. 6.4 Leonhart Fuchs, dead-nettle (*Lamium*), from the *De Historia Stirpium Commentarii Insignes* (Basel: Michael Isingrin, 1542), p. 469.

⁴¹ “...faceva fare assai maniere di medicamenti così semplici come composti, de I quali ne dava non solamente à I suoi vassalli à cui ne faceva di bisogno, ma ne mandava ancora molto volentieri per tutta l’Europa, a qualunque gliene havesse chiesti, con grandissima utilità di coloro gl’usavano, cortesia veramente degna d’esser usata da i Principi grandi, si come quella che gli rende più che alcun’ altra cosa somigliante a Dio, perciocché ei fanno a gl’huomini in questa guisa maggior beneficio che sia quasi possibile far loro, rendendo o conservando à quegli la lor sanità, senza la quale eglino non possono veramente godere niuno di quei doni che Iddio ottimo & grandissimo ha data loro, onde Antonin Pio fù dell’usare questa tal cortesia tanto lodato da gl’antichi scrittori, & medesimamente da Galeno quel gran filosofo & peritissimo Medico in quel libro che egli scrisse della Triaca, il quale ei mandò à Pisone nobilissimo Cittadin Romano.” Baldini, p. 86-87. Galen’s text to which Baldini is referring here is the *De Theriaca ad Pisonem*, a treatise on the therapeutic use of the theriac root. For a recent edition, see Galen and Enrico Coturri, *De theriaca ad Pisonem*, Biblioteca della “Rivista di storia delle scienze mediche e naturali”; v. 8 (Firenze: L.S. Olschki, 1959).

⁴² Thus Giovambattista Cini, writing in 1611: “...essendo costretti gli altri Principi non meno che i privati forestieri mancandone ne lor paesi a lui [Cosimo] ed agli’huomini del suo stato con comune gloria il piu delle volte ricorrere. Havendo fra l’altre nelle distilazioni ed in altre cose medicinali con l’esperientie fatte ritrovato et messo in uso cose di tanta efficacia & valor che a lui che liberalissimo n’era quasi a nuovo Esculapo di tutta Europa concorrevano le genti per potere dall’infermita liberarsi.” Giovambattista Cini, *Vita del Serenissimo Signor Cosimo de’ Medici primo Granduca di Toscana* (Florence: Giunti, 1611), p. 521-2.

⁴³ On the Medici-medico parallel, see Janet Cox-Rearick, *Dynasty and desitiny in Medici art: Pontormo, Leo X and the two Cosimo’s* (Princeton: Princeton University Press, 1984), pp. 18, 39, 40, 237, 248; Suzanne B. Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, 2 vols. (Florence: Leo S. Olschki, 1996), p. 249.

⁴⁴ Cox-Rearick, *Dynasty and desitiny in Medici art: Pontormo, Leo X and the two Cosimo’s*, p. 248.

⁴⁵ Brussels, Royal Museum of Ancient Art, cat. n° 1329.

great Princes, since it is what, more than anything else, made him similar to God, since the drugs procured these men with a greater benefit, so to say, than anything else [...], that is to return or conserve their health, without which they would be incapable of truly enjoying any of the gifts that the good and mighty lord endowed them with. It is for using the same courtesy, that [the Roman Emperor] Antoninus Pius was so highly praised by the ancient writers, and in particular by Galen, that great philosopher and excellent physician [...].⁴¹

As Baldini's comments make particularly clear, Cosimo's active involvement in the production of therapeutic drugs allowed him to draw on the considerable prestige that is traditionally associated with the figure of the healer. Baldini's imagery would evolve a few decades later in a depiction of the first Medici Grand Duke as a new European Asclepius.⁴² Beside the parallels suggested with Antoninus Pius, with God, with Asclepius, with the latter's father Apollo, the Greek god of Medicine, the whole endeavor allowed Cosimo to rehearse an older familial conceit: the identification of the members of the Medici-dynasty with *medici* (physicians), an identity that had been particularly exploited by Giovanni de' Medici (Pope Leo X) and that was suggested by the pills on the family's coat of arms.⁴³ Furthermore, two physicians, the authors of a surgical miracle, stood as the Medici's saintly protectors, one of which even shared Cosimo's first name. Saint Cosmas and Damian, the patron saints of doctors and surgeons, have appeared in Medicean imagery since the time of Cosimo de' Medici *il vecchio*, for whom Fra Angelico painted the altarpiece of the Church of San Marco, in which Cosimo *pater patriae* is represented, haloed, as Saint Cosmas.⁴⁴ Cosimo de' Medici had himself represented as Saint Cosmas in Alessandro Allori's *The risen Christ with Saint Cosmas and Damian*, now in Brussels.⁴⁵

3. Cosimo de' Medici as *ritrovatore* and *inventore*

It will strike the modern reader that the verb used to refer to the discovery of new remedies in the above mentioned accounts is "ritrovare", to re-discover. When Fedeli stated that Cosimo had discovered remedies for cramps, injuries to the head, etc, he used the formula: "ha ritrovato rimedi a...". Such formulation is in the first place an expression of the characteristic intellectual humility of the early modern period. As Frances Yates has summarised,

The great forward movements of the Renaissance all derive their vigour, their emotional impulse, from looking backwards. The cyclic view of time as a perpetual movement from pristine golden ages of purity and truth through succes-



Fig. 6.5 Leonhart Fuchs, *asparagus* (*Asparagus*) from the *De Historia Stirpium Commentarii Insignes* (Basel: Michael Isingrin, 1542), p. 58.

⁴⁶ Frances Yates, *Giordano Bruno and the hermetic tradition*, Routledge Classics (London and New York: Routledge, 2002 (1964)), p. 1.

⁴⁷ "...ei ritrovò ancora con questa medesima sua sollecitudine & con l'andar continuamente rileggendo lo stato suo quelle cave delle miniere d'ariento & di piombo, & de i marmi bianchi & de i mischi ancora che sono sulle montagne di Pietrasanta, le quali erano state nascoste à tutti molti & molt'anni & le messe in uso, & essendogli detto da alcuni che si conoscevano benissimo delle miniere che poco utile fli si farebbe à cavarvi, rispose molto generosamente che assai utile era il pascere in quella guisa gl'uomini di quelle Montagne, le quali sono sterilissime, & render vivi quei metalli che gli erano, si che ei se ne potesse far qualche cosa in servizio de gl'huomini." Baldini, *Vita di Cosimo Medici, primo Granduca di Toscana*, p. 88. Aldo Manuzio almost literally copied this statement in his own biography: "Egli scopri le miniere del piombo, & dell'argento in Pietrasanta, & di più altri metalli: egli le cave de' Marmi à Saravezza, & di più altre sorti di pietre, innanzi da niuno conosciute. Et, dicendogli alcuni pochi praticchi di miniere, che pochissimo utile ne trarrebbe, rispose, Ei non pi parrà poco, se in queste cave nutrirassi la maggior parte de gli habitatori di quelle Montagne, le quali sono sterilissime, & si renderan vivi quei morti Metalli." Manuzio, *Vita di Cosimo de' Medici, primo Granduca di Toscana*, p. 183.

⁴⁸ Cosimo made important progresses towards the rationalization of the iron extraction in Elba by the establishment of a new administration to that effect, the so-called *Magona di ferro*. See Furio Diaz, *Il Granducato di Toscana: i Medici* (1976), p. 264.

sive brazen and iron ages still held sway and the search for truth was necessarily a search for the early, the ancient, the original gold from which the baser metals of the present and the immediate past were corrupt degenerations. Man's history was not an evolution from primitive animal origins through ever growing complexity and progress; the past was always better than the present, and progress was revival, rebirth, renaissance of antiquity.⁴⁶

With these opening lines of one of her classics, Frances Yates was referring first of all to speculative philosophy but the evocation is also perfectly applicable to the natural sciences, the realm to which the *fonderia*-investigations belong. In the domain of pharmacology, for instance, the *De materia medica* of the Greek physician and pharmacologist Pedanius Dioscorides (40-c. 90AD), a text for which the Duke showed such an eager interest, was still the reference in the 16th century, despite the fact that ever more new plant species, unmentioned by Dioscorides, were being discovered overseas. And it is interesting to see that the verb “ritrovare” and the noun “ritrovatore” are also found in, accounts of Duke Cosimo de' Medici's hunting campaigns. Cosimo, the hunter-philosopher as he is portrayed by his biographers, could hardly (re)discover new animal or plant species in Tuscany, the fauna and flora of which were too well known. It is in the realm of the mineral species that his contemporaries depicted him as a “ritrovatore”. Cleverly interpreting, during his horseback journeys, the external signs signaling a hidden deposit of some precious mineral, the Duke allegedly discovered several mines and quarries that proved essential for the development of the Tuscan industry. Baccio Baldini narrated these findings in the following terms:

...with that same solicitude of his, and with this continuous re-examining of his state [Cosimo] also rediscovered those extraction sites of silver and lead ore, as well as those quarries of white marble and of the ‘mixed’ (*misti*) marbles that are in the hills above Pietrasanta, which had remained hidden to all for many and many years, and he put them back to use. And when some capable mining experts told him that not much profit was to be gained from extracting there, he answered – thus manifesting his generosity– that it was more than a little useful to feed (*pas cere*, lit.: graze) in that guise the people of those hills, which are most sterile, and to endow the metals that were there with life (*render vivi*), in order that something may come of them for the benefit of men.⁴⁷

The largest profit was made during the sixteenth century with the sale of iron extracted from an important vein on the island of Elba, a site that had already been exploited by the Etruscans.⁴⁸ But Cosimo (and his son Francesco) invested many efforts in setting up new mining and quarrying sites for other resources: “silver in Montecatini Val di Cecina, in Campiglia, in Pietrasanta, alum in Massa; mercury in Gello Pisano; copper in Montecatini;

⁴⁹ “...argento a Montecatini Val di Cecina, a Campiglia, a Pietrasanta, alume a Massa; mercurio a Gello Pisano; rame a Montecatini; marmo a Pietrasanta e Montalcino; ferro e marcasite a Montieri ecc.” *Ibid.*, p. 265.

⁵⁰ The eighteenth-century Florentine naturalist Targioni-Tozzetti, while discussing Cosimo’s contributions to the progression of the ‘physical sciences’ in Tuscany, summarized this campaign in the following terms: “Ben sapeva Cosimo quanti mali avesse prodotto al Genere umano l’ignoranza della Fisica, e per lo contrario quanto fosse importante per la felicità dei Paesi lo studio di essa, e soprattutto dell’istoria Naturale, da cui possono e i Principi, ed i Popoli ricavare sicuri teoremi per conservare la sanità pubblica, per migliorare i prodotti de’ terreni, per accrescere i materiali da rendere più durevoli e più ornati gli edifizii per scuoprire e levar fuori dalle viscere della terra Minerali // a prò del commercio, finalmente per somministrare diversi nuovi mezzi di fomentare l’industria, di perfezionare la Arti, e di accrescere i comodi della vita.” G. Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durenate il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” in *BNF Targ. Tozz. 189, VI* (Firenze), f. 5-6

⁵¹ The advice, derived from Avicenna, is part of Matthioli’s extensive comment on the virtues of gold, to which Dioscorides paid almost no attention. Mattioli and Medici, *Di Pedacio Dioscoride Anazarbeo libri cinque. Della historia, & materia medicinale tradotti in liunque volgare Italiana da M. Pietro Andrea Matthiolo Sanese Medico*, p. 414.

⁵² The French Huguenot historian Aubigné (1552-1630), for instance, wrote in his *Histoire Universelle*: “Au bout de l’Amérique qui est le plus près du Canope est le détroit de Magellan, premièrement recogneu par Vasco Nunès en l’an 1513, puis à bon escient traversé par Magellan sept ans après ; et pourtant ce destroit n’a porté le nom de l’inventeur.” Théodore Agrippa d’Aubigné, *L’Histoire universelle*, 3 vols. (Maille: J. Moussat, 1617-1620) vol.I, p. 16.

marble in Pietrasanta and Montalcino; iron and marcasite in Montieri, etc.”⁴⁹ But the information, fitting in the third part of Baldini’s description of the hunting campaigns of the Duke, completes the illustration of the core idea that the physician-biographer intends to convey: Cosimo was very personally engaged in an ambitious campaign that aimed at the most efficient and useful exploitation of all natural resources of Tuscany, both for the private prestige of the Prince and for the benefit of the entire population. After the animal and the vegetal resources, the examples are mineral.⁵⁰ We shouldn’t be surprised to see Baldini citing metal and marble extraction in one breath. Taxonomically both belong to the same general class of existence. In Varchi’s *ordine dell’enti*, both metals and marbles were placed under the heading “*misti perfetti*”. Both were considered aggregations of predominantly particles of water and earth, taken (through their origination process) to a certain level of perfection that determines their homogeneity, hardness, colour, shininess and other qualities. Both materials were equally and absolutely useful to the life of man: metals for their matchless qualities when applied in the fabrication of tools; marbles and other stones for their use in architecture.

Metal, stones and other minerals were abundantly used in Renaissance pharmacy, a fact Cosimo knew well. This places them in immediate continuity with vegetal and animal elements. Precious metals and ground gems frequently appeared as ingredients in drugs for ailing (and well-off) patients. Dioscorides had dedicated almost the entire fifth and last book of his *De materia medica* to the medical use of metals. In the copy of this book which Cosimo had filled with his handwritten notes, one may read how gold, administered through the eyes in powdered form, is a good remedy against heart diseases and spleen (“*tristezza d’animo*”).⁵¹ The organic continuity between mineral, vegetal and animal bodies is stressed in Baldini’s text in the statement attributed to the Duke that he intended to feed the inhabitants of the mountains with these metals. The term he used is “*pascere*”, i.e. to graze, which stresses both the identification of these mountain dwellers with cattle as well as the identification of the metals (“brought to life”) with grass or another kind of living fodder. As we will see in the next section, the identification of metals with grass is not as metaphorical or as gratuitous as it might seem.

It might be useful to remember that in the 16th century, the semantic gap between the terms *ritrovatore* (re-discoverer) and *inventore* was extremely narrow. *Inventore* is a derivative from the Latin verb *invenire*, which means in the first place to meet (people); in the derived meaning it refers to the act of finding again, recovering, objects or facts. The Latin etymology was still very present in the mid 16th-century meanings of the term. The *Dictionarium Tetraglotton* (Latin, French, German, Dutch) published in Antwerp in 1562, for instance, translated *inventor* as “trouveur” and “vinder” (‘finder’). Explorers were referred to as the *inventors* of the coasts, islands, and straits they discovered.⁵² It must

⁵³ Pliny, *Naturalis Historia* XXXVI. 65.

⁵⁴ See *Vite* T3 ('Life of Antonello da Messina'), p. 309 and T1/G1 ('Introduction to the painters'), p. 132.

⁵⁵ *Vite* G3, ('Life of Jacopo della Quercia'), p. 22.

⁵⁶ See the order Vasari received from the Dukes secretary, Bartolomeo Concino in the beginning of 1563: "Havendo trovato Sua Eccellenza una cava di pietra bella mistia à Pietrasanta, m'ha commandato ch'io vi scriva, che vorebbe saper l'altezza delli stipiti da usci et da porte di camere o di sale et parimente d'ogni sorte misura da camini, accioche possa risolversi, se ne puo servir' per le stanze di palazzo o altrove." Letter of Bartolomeo Concino to Vasari, March VII, 1563, Frey, vol. I, p. 732-733. See also Vasari's answer on the matter in his letter to Concino of March 10th, 1563 (Frey, vol. I, 733)

⁵⁷ "Un giorno sua Eccellenza illustrissima mi fecie dare parecchi libri d'argento e mi disse: "Questo è dello argento delle mie cave: fammi un bel vaso." Benvenuto Cellini, *Vita*, ed. Ettore Camesasca (Milano: Biblioteca Universale Rizzoli, 1985) II.65, p. 547.

be stressed that, when considered aside from its use in the realm of literary productions, the term *inventor* mostly refers, from Pliny to Vasari, to people who had come across new substances or manufacturing techniques (*artes* or *technai*). As for the explorer-inventor, the notion of primacy appears to be crucial. In Pliny at least, creativity seems not to be an issue. A typical instance of ‘invention’ in the *Naturalis Historia* is the accidental discovery of glass by some Phoenician merchants of soda who had been cooking on a sand beach and discovered that some of the sand, under the combined effect of their fire and some soda left there by chance, had liquefied and coagulated in a vitreous mass, *et hanc fuisse originem vitri*.⁵³ Typical inventors in Vasari’s *Vite* include Jan van Eyck (‘inventor’ of oil-painting)⁵⁴ and Jacopo della Quercia (‘inventor’ of the practice of using scale-models in sculpture).⁵⁵

On that basis, Cosimo could rightfully be called the ‘inventor’ of the new minerals he discovered, such as the multicolor, ‘mixed’ marble (*mischio*) he found in an area between Pietrasanta and Serravezza, the use of which he immediately ordained for the ornamental stonework (doorposts and chimneypieces) of the Palazzo Vecchio. This order was given as part of the renovation campaign of which, as we saw in chapter five, Giorgio Vasari attributed all the merit to the Duke himself.⁵⁶ The episode underscores the extent into which a great part of the merits of a work of art or piece of architecture were embedded in the material put at use: in the mentioned cases the availability of these materials was mediated to such an extent by the Duke as to become entirely his. Cellini tells us how Cosimo once gave him a great quantity of silver while saying: “This is silver from my mines. Make me a handsome vase.”⁵⁷

In the same line of thought, the *fonderia* of Cosimo de’ Medici could as rightfully be termed a place of ‘invention’. As we will show further in this chapter, much more than just drugs, ointments, and antidotes were produced in the premises referred to as the *fonderia*. It was a place where skilled technicians were active in the production of a wide assortment of substances and artifacts, ranging from medicines, poisons and perfumes, to explosive devices and machineries passing through *objets de vertu* of all kind fashioned out of the most precious and diverse materials. The *fonderia* was simultaneously an alchemical laboratory, a metal foundry, an arsenal, a pharmaceutical laboratory, and a workshop for applied mechanics. It was also the place where Cosimo’s eldest son, the melancholic Prince Francesco de’ Medici seems to have spent even more time than his father, and more time than seemed reasonable to his contemporaries. The archives contain a letter sent in 1560 to Francesco, who was 19, from Rome in which the Prince is warned by one of his younger brothers “not to loose himself too much in the pleasures of the *fonderia*”. Rumours had spread in Rome that Francesco never came out. In the mean time Giovanni, the author of the letter, makes clear that, considering Francesco’s dedication to

⁵⁸ Letter of November 26, 1560: “Con grandissimo piacere ho inteso per la sua del 14 che tenga buona salute [...] Gardi di non si profonder troppo nel piacere della *fonderia*, che qua vien detto che ella non esce mai et massimamente il giorno, talché al ritorno nostro speriamo di vedere qualche nuova e bella invenzione.” Cited in Giulio Lensi Orlandi, *Cosimo e Francesco de’ Medici alchimisti* (Firenze: Nardini, 1978), p. 135.

the *fonderia* he at least expects to find at his return in Florence “some new and beautiful invention” (“qualché nuova e bella invenzione”).⁵⁸

The term *invenzione*, contrary to inventor, is more concerned with a second strand of meanings, linked to the Latin term *inventio* and the specific sense the term held in the technical terminology of rhetoric. In the classical rhetoric *inventio* (*heurèsis* in Greek) stands for the art of finding the appropriate arguments for a plea. The *inventio* precedes the other stages of the process of composing a speech which are respectively: devising the right succession of the chosen arguments (*dispositio*), formulating the arguments (*elocutio*), memorizing (*memoria*) and delivering them (*actio*). In the context of more loosely defined literary productions the meaning of *inventio* gradually extended, so much that in the Italian Renaissance, in the context of literary productions, the meanings of inventor (*inventore*) and author (*autore*) often conflated.

The fact that even in its original significance, *invenzione* referred first of all to the choice of the correct subject matter, we might say the correct ingredients, only emphasizes the parallel with the act of devising a pharmaceutical recipe, that is to say a specification of what ingredients ought to be used, and in which quantity. Stumbling upon a correct recipe, a process that may require long phases of trial and error, then becomes truly an invention. Yet there is some fatality involved in such an approach of the notion of invention. The *ritrovatore* may often be seen as the non-intentional but providential instrument of a transcendental agency: nature. As much as a dandelion will rely on the haphazard gusts of the wind to take his seeds to convenient sites, nature may rely on ‘discoverers’ to attain her goals. In this way, even the notion of *inventio* comes to play a distinct role in Physiocracy.



Fig. 6.6 Giovanni Stradano (Jan van der Straet), *Alchemists at Work*, 1571. Florence, Palazzo Vecchio, Studiolo of Prince Francesco de Medici.

⁵⁹ Ibid.

⁶⁰ Alfredo Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, ed. Claude Blum, *Etudes et Essais sur la Renaissance* (Paris: Honoré Champion, 1997); Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, in particular vol. I, pp. 241–267.

⁶¹ “Grâce à ses aspects pluriels et stimulants, l’alchimie trouva un accueil favorable dans ces nouveaux centres d’agrégation de lettrés, d’artistes, d’hommes de science et de techniciens que furent les cours princières, dont le prince était le pivot. L’intérêt de Côme Ier pour l’alchimie en est un exemple saisissant.” Alfredo Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 38.

B. THE ROOTS OF ALCHEMY

1. Cosimo and Francesco de Medici as alchemists

In 1978 the Florentine engineer Giulio Lensi Orlandi published an essay entitled *L'arte segreta. Cosimo e Francesco de' Medici alchimisti*.⁵⁹ The hermetic prose of the book and its content were deliberately provocative: Orlandi aimed at correcting the dominant perception of Cosimo de' Medici as a modern, efficient and strictly rational ruler, by revealing his passion for an occult science. Lensi Orlandi justly claimed attention to an aspect of the Duke's cultural policy that by then had been discarded. But by insisting on the secretive, reclusive and personal nature of these alchemical investigations he failed to grasp their very spirit. More than two decades later, it is no longer provocative to label Cosimo as an alchemist. Two recent studies, Alfredo Perifano's *L'Alchimie à la cour de Côme Ier de Médicis: savoirs, culture et politique* (1997) and Suzy Butters' *The Triumph of Vulcan* (1996) reconfirmed with far more nuance the centrality of alchemy in the whole of Cosimo's efforts to promote the arts and the industries in Tuscany.⁶⁰ These studies reveal that instead of an esoteric, quasi magical and personal endeavour, the 16th century variant of the art of alchemy as it was practiced at the Florentine court was such as to allow teamwork and the sharing of knowledge, at least among well trusted collaborators. Rather than being an opaque whole of doctrines, 16th-century alchemical thought adhered as much as possible to the cognitive and operative scheme of the other arts and sciences. As Alfredo Perifano observed:

Thanks to its multi-layered and stimulating aspects, alchemy met with a favorable reception in these new meeting places for *letterati*, artists, men of science and technicians that were the princely courts, and of which the prince constituted the axis. The interest of Cosimo I for alchemy is a striking example of this phenomenon.⁶¹

In the following sections of the chapter I will explore the plural significance that was attributed to the term 'alchemy' at Cosimo de' Medici's court, by referring to a series of manuscripts that were part of the Ducal collection and that are now generally accepted as central evidence of the Duke's interest for alchemy. Central among these manuscripts is a text written in 1544 by Benedetto Varchi: *Si l'archimia è vera o no quistione*. Before proceeding to the actual analysis of these texts, it is useful to briefly rehearse some of the notions that lie at the very base of the traditional alchemical doctrine.

⁶² Both China and India have developed their own alchemical traditions. According to Robert Halleux, these traditions may well have developed independently of one another. See Robert Halleux, *Les textes alchimiques*, Typologie des sources du Moyen Age occidental; fasc. 32 (Turnhout, Belgium: Brepols, 1979), pp. 60–64.

⁶³ For a French translation of the texts of the Leiden and Stockholm papyri, see *Ibid.*

⁶⁴ For a recent translation of Zosimo's most influential text (the *Authentic memories*), as well as a useful introduction to the figure, see Zosimus Panoplitanus and Michèle Mertens, *Mémoires authentiques / Zosime de Panopolis; texte établi et trad. par Michèle Mertens*, ed. Les alchimistes grecs (Paris: Belles Lettres, 1995).

⁶⁵ Gareth Roberts, *The mirror of alchemy: alchemical ideas and images in manuscripts and books from Antiquity to the seventeenth century* (Toronto: University of Toronto Press, 1994), p. 22.

⁶⁶ See on this subject the section on “Alchemical secrecy and pseudonymous authorship” from Pamela O. Long, *Openness, secrecy, authorship: technical arts and the culture of knowledge from antiquity to the Renaissance* (Baltimore: Johns Hopkins University Press, 2001), pp. 144–148.

2. The alchemical tradition

Historians situate the roots of the Western alchemical tradition in the crafts of ancient Egyptian goldsmiths and jewellers at the royal and sacerdotal workshops who engaged in efforts to produce artificial substances that imitated costly metals, precious stones and gems.⁶² In the Hellenistic age these practices expanded in Egypt with the rise of a middle class increasingly interested in jewel imitations. Testimonies of this phase are two Greek texts (datable to the 4th century C.E. but embodying an earlier tradition) listing recipes for artificial gold, artificial silver, imitations of fine dyestuffs for textiles and ersatz gems. These two papyrus manuscripts, named after the libraries that own them (Leiden and Stockholm papyri), are now considered the oldest alchemical texts conserved, despite the fact that they do not feature yet the kind of theorization and speculation that would characterize later writings in the tradition.⁶³

Hellenistic Egypt, and in particular the late-Antique centre of scientific efflorescence that was Alexandria, became the scene of a gradual broadening of the ambitions of the alchemist practitioners who claiming that, beyond merely counterfeiting the appearance of precious substances, they were able to literally recreate these substances. The series of beliefs and practices that emerged was a blend of the developed technological processes inherited from Egyptian antiquity, Aristotelian theories on matter and change, animistic approaches to the universe's functioning, and beliefs in occult powers, spirit intermediaries, magic, astrology, etc. Characteristic for this phase are the writings of one of the earliest identifiable alchemical authors, Zosimos, who lived around 300 C.E., and was a native from Panopolis, a town in Upper Egypt.⁶⁴ Drawing on different philosophical traditions, as well as on the technological tradition that surfaces in the Leiden and Stockholm papyri, Zosimos produced an abundant alchemical oeuvre, written in a dim, enigmatic style, labelled "oracular" for its abundant use of enigma and aphorism, and which proved to be greatly influential.⁶⁵

These early Greek alchemical texts reached the Latin West through the intermediary of the Arabic authors, who considerably marked and extended the alchemical tradition. Arabic alchemy produced a great quantity of writings, most of which were attributed (by all odds wrongfully) to philosophical authorities such as Geber (8th Century C.E.), Rhazes (8th-9th C.), and Avicenna (10th-11th C.) In the Medieval Latin West, this tradition of spurious attributions of alchemical writings to authorities continued, a practice destined to conceal real authorship which thus illustrated the marginal position of alchemy as a branch of learning.⁶⁶ Contrary to medicine, a discipline that equally included both an operative and a theoretical branch, alchemy failed to gain acceptance in the curricula of the medieval universities. It remained a strongly contested discipline in the Renaissance.

⁶⁷ Regarding Alberti's condemnation of alchemy (most explicit in the *De iciarchia*), see Francesco Furlan, "De l'alchimie ou des sciences inutiles. Méthode et valeur de la recherche chez Leon Battista Alberti," *Chrysopoëia* II, no. 3 (1988): pp. 221–248. For Leonardo's attitude, see the section *Leonardo da Vinci and Alchemy* in William Royall Newman, *Promethean ambitions: alchemy and the quest to perfect nature* (Chicago: University of Chicago Press, 2004), 2004, pp. 120–125. The typically humanist stance towards the aurific art, evident in Petrarch's and Erasmus' writings, is discussed in Sylvain Matton, "L'influence de l'humanisme sur la tradition alchimique," *Micrologus*, no. 3 (1995): 279–345, 1995.

⁶⁸ Eliade reworked and expanded the first edition (1956) of his book in 1977. Mircea Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée.*, ed. Yves Bonnefoy, Idées et recherches (Paris: Flammarion, 1977). The English translation of the first edition is Mircea Eliade, *The forge and the crucible*, 2d ed. (Chicago: University of Chicago Press, 1978); the expanded edition was translated shortly after its original version: Eliade, *The forge and the crucible*.

⁶⁹ "...si les sources, les galeries des mines sont assimilées à l'uterus de la Terre-Mère, tout ce qui gît dans le 'ventre' de la terre est vivant, encore qu'au stade de gestation. Autrement dit, les minerais extraits des mines sont en quelque sorte des *embryons* : ils croissent lentement, comme s'ils obéissaient à un autre rythme temporel que la vie des organismes végétaux et animaux – ils ne croissent pas moins, ils 'mûrissent' dans les ténèbres telluriques. Leur extraction de la Terre est donc une opération pratiquée avant terme. Si on leur avait laissé le temps de se développer (c'est-à-dire le rythme géologique du temps), les minerais seraient devenus des métaux murs, 'parfaits'." Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée*, p. 34.

⁷⁰ "Comme le métallurgiste, qui transforme des 'embryons' en métaux, en accélérant la croissance commencée dans la Terre-Mère – l'alchimiste rêve de prolonger cette accélération et de la couronner par la transmutation finale de tous les métaux 'ordinaires' – ordinaires parce que incomplètement murs – dans le métal 'noble', parfaitement 'mûr' qui est l'or." Mircea Eliade, "La terre-mère et les hierogamies cosmiques," in *Mythes, rêves et mystères*, ed. Mircea Eliade (Paris: Gallimard, 1957), p. 210–11.

⁷¹ Mircea Eliade's richest account on the theme of the *terra mater* is Ibid.

⁷² Robert Halleux, "Fécondité des mines et sexualité des pierres dans l'Antiquité Gréco-Romaine," *Revue belge de philologie et d'histoire* 48 (1970): pp. 16–25.

⁷³ Ibid., pp. 16–19.

Authors such as Petrarch, Alberti, Erasmus and Leonardo da Vinci, to name just a few, wrote violent diatribes against the alchemists and their claims that the artificial transmutation of base metals and silver was possible and within their reach.⁶⁷

3. Surviving assumptions about metals and minerals

As Mircea Eliade showed half a century ago in his groundbreaking *Forgerons et alchimistes* (1956/1977), the belief in the possibility of the transmutation of metals (hence in the possibility of alchemy) rested wholly upon the conviction that metals lived a life perfectly analogous to that of vegetal or even animal forms of existence.⁶⁸ That conviction entailed the belief in the ‘birth’ and the ‘growth’ of metals. Metals were supposed to originate from some seed in the entrails of the earth (assimilated to a female uterus) where they grew under the influence of the heavenly bodies. The notion of the life of metals also entailed that the aim of every metal is to evolve and turn into gold in a slow gestational process that will take millennia before completion. Mining ores from the bosom of the earth, according to Eliade, was assimilated to the premature extraction of an embryo from its mother’s womb, before it had been able to mature.⁶⁹ The key claim of the alchemists, then, is that they are capable of artificially accelerating these maturation processes by a series of ectopic manipulations.⁷⁰ Most of these assumptions, as I will argue first, were still accepted by 16th-century authors, even by pioneers in the practical sciences of metallurgy and mineralogy such as Vanoccio Biringuccio or Georgius Agricola, the authors of the first really scholarly treatises on the subject, who clearly took a sceptical stance towards the claims of the alchemists.

The idea that mineral substances are born in the fertile bosom of the earth is grounded in the archaic conception of the earth as the mother of all existence, a *terra mater*, traces of which are to be found in most diverse cultures.⁷¹ The persistence of this ancient conception in the Western Antique tradition is proved on the one hand by the nature of the lexicon regarding mining, metallurgy and mineralogy, and on the other hand by the persistence of three beliefs: the influence of the heavenly spheres on the origination process of a metal; the utility of leaving mines fallow; and the notion of a sexuality of the minerals.

Robert Halleux has demonstrated in an short but insightful article how the nouns and verbs that designate mineral deposits in Antique texts, from Homer onwards, use terms borrowed from the domain of (animal) generation.⁷² In a large range of both Greek and Roman authors, Halleux noted the extensive use of words like *gignesthai* and *nascitur* (to be born), *gennaô* and *gignere* (to engender), *phuein* and *procreare* (to procreate), *autophuês* (native), *genethlê* (place of birth) where the origination of minerals was discussed.⁷³

⁷⁴ Plutarch, *De defectu oracularum*, XXXXIII.434.

⁷⁵ See also Halleux, "Fécondité des mines et sexualité des pierres dans l'Antiquité Gréco-Romaine," p. 20-21.

⁷⁶ Pliny, *Naturalis Historia*, XXXIV (The natural history of metals) 49.

⁷⁷ Theophrastus, *De lapidibus*, 31.

⁷⁸ A. Daubrée, «La génération des minéraux métalliques dans la pratique des mineurs du Moyen Âge, d'après le *Bergbüchlein*,» *Journal des Savants*, no. juin 1890-juillet 1890 (1890), p. 387.

The Ancients imagined not only humans, animals, trees and plants but also metals and minerals to be subjected to the direct influences of the stars and planets. The conviction proceeded from a belief in the universal validity of astrology. Regarding the necessity of fallow, Plutarch had alluded to the fact that, just like crop fields do tire after some years of exploitation, mines are worn out after a while.⁷⁴ Conversely, in Strabo, Pliny, Virgil, or Servius one can read how the emptied cavities of mines spontaneously refill with the precious metal after they were left untouched for a while.⁷⁵ Pliny, for instance, observed on a series of lead mines in Spain:

It is a marvellous fact that these mines, [...] when they have been abandoned for some time, become replenished, and are more prolific than before. This would appear to be effected by the air, infusing itself at liberty through the open orifices, just as some women become more prolific after abortion. This was lately found to be the case with the Santarensian mine in Bætica which, after being farmed at an annual rental of two hundred thousand denarii, and then abandoned, is now rented at two hundred and fifty-five thousand per annum.⁷⁶

The idea that stones and minerals have a gender, first appeared in the *De lapidibus*, one of the most important treatises on mineralogy from antiquity written by Theophrastus of Eresus (372-287 BC), friend and successor of Aristotle in the Peripatetic school. Theophrastus designated darker and more opaque variants of certain stone species, such as the *kuanos* (azurite – copper carbonate hydroxide), or *sardion* (chalcedony – cryptocrystalline quartz) as *arrèn* (male), while the lighter and more transparent variants came to be qualified as *thèlus* (female).⁷⁷

Even if in the Renaissance there was a circulation of different kinds of theories on the origins of minerals and metals, we find unchanged both the use of a terminology referring to birth as the firm belief in the three assumptions cited above (the influence of the stars and planets, the utility of fallow, and a sexuality of the stones). A wonderful source on these beliefs is one of the earliest treatises on mining of the Renaissance, the so-called *Bergbüchlein*, a dialogue written in German vernacular by the Saxon physician Calbus Fribergius and published in 1505. The very first chapter of the booklet, dedicated to the origins of metals, confirms the idea that the action of the sun and the planets was supposed to reach as deep as the dark and inaccessible depths of the globe:

It needs to be noticed that, for the growth or generation of a metallic ore, a genitor is required, as well as a submitted entity or matter that would be capable of perceiving the generative action. The general genitor of all things, of ore and whatever is being born, is heaven with its movements, its radiance, and its influences, as we are told by the masters in the natural sciences.⁷⁸



Figs. 6.7 & 6.8 Georgius Agricola, longitudinal ore-deposit or 'veins', from the *De Re Metallica* (Basel, 1556). Reprinted in Agricola & Hoover, 1950, pp. 67, 7.

⁷⁹ Ibid.

⁸⁰ "Mais la chose soumise ou la matière générale de tous les métaux est, selon l'opinion des sages, un soufre et un mercure qui, par le cours et l'influence du ciel, doivent être purifiés et consolidés en un corps métallique et un minerai." Ibid., p. 387. On 'Geber' and the origins of the 'sulphur-mercury theory' of the composition of metals, see John Read, *Prelude to chemistry. An outline of alchemy; its literature and relationships* (London: G. Bell and sons, 1936), p. 17 ff.

⁸¹ I borrow here the terms ('sexualized' and 'sexaulization') employed by Eliade, most emphatically in Chapter 3 of *Forgerons et Alchimistes: 'Le monde sexualisé'*, to describe a "qualitative classification" of the earthly phenomena observed in archaic and pre-modern societies, a classification that is unrelated to the real mechanisms of fertilization of plants, for instance, but that expresses "an experience of mystic sympathy with the world." Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée*, p. 27.

⁸² "...le minerai d'argent se fait sous l'influence de la lune ... d'un mercure clair et d'un soufre constant et pur, par le pouvoir géniteur et la propriété de la matière." Daubrée, "La génération des minéraux métalliques dans la pratique des mineurs du Moyen Âge, d'après le *Bergbüchlein*," p. 442.

⁸³ "Selon l'opinion des sages, l'or est engendré d'un soufre le plus clair possible et bien purifié et rectifié dans la terre, sous l'action du ciel, principalement du soleil, de manière qu'il ne contient plus aucune humeur qui pourrait être détruite ou brûlée par le feu ; ainsi d'un mercure qui est le plus constant possible, et au plus haut degré purifié, ou point qu'un soufre pur n'y trouve plus aucune résistance à la génération." Ibid., p. 443.

The author then proceeds by detailing an old key to the influence of the heavens on metals, reaching back to Babylonian astrological doctrine: the correspondence of the seven metals with the seven planets:

The influence of heaven is multiplied by the course of the firmament and the rotation of the seven planets. That is why every metallic ore receives a very particular influence of its own planet, according to its property and following its conformity regarding heat, cold, moistness and dryness. Gold has thus been brought about by the sun, silver by the moon, tin by Jupiter, copper by Venus, iron by Mars, lead by Saturn, and quick-silver by Mercury.⁷⁹

These correspondences, as Fribergius notes, brought Hermes (Trismegistos) and many sages after him to call the metals after the planets that caused their formation: Sun for gold, Moon for silver, ... etc. (We continue to do so in the case of mercury, which in the Renaissance was mostly referred to as 'live' silver: *vif-argent* in French, *argente vivo* in Italian. The quickness or liveliness of this peculiar substance - 'silver water' in Latin - is mirrored by the mobility of its planet, the fastest moving of them all). The author then rehearses the conviction, derived from Aristotle but infused into the medieval alchemical tradition by the writings of pseudo-Geber, that all metals proceed from the union of a male and a female substance: sulphur (hot, dry, and highly inflammable) and mercury (moist, cold, and protean of form).⁸⁰ Like plants and men, metals (and stones) thus share both a proximate and a distant cause. Reformulating the Aristotelian dictum we analyzed in the last chapter ("Man is begotten by the sun and by man as well"), Fribergius and his contemporaries sustained that the sun (the heavens) and (sulphur, the seed of) metals generate metals. Theophrastus' principle of gendering gems according to their colour and transparency is maintained, but the positing of sulphur as the father and mercury as the mother of all metals became the most prominent instance of 'sexualization' in mineralogy for the Medieval and Renaissance period.⁸¹

As the author of the *Bergbüchlein* put it, the action of the stars and planets is to purify both substances to a certain degree, which consequently unite and form a certain metal. It is the quality of the sulphur and mercury that makes up the generated metal. Silver, for instance, is made, "under the influence of the moon, [...] of a clear mercury and a sulphur that is stable and pure".⁸² Gold, of course, is made of the purest sulphur united to the most refined form of mercury.⁸³ The *Bergbüchlein* is remarkable for its wood-engraved illustrations, which are the first to represent what Renaissance metallurgist called the 'veins', the thread-like canals in which metal ores are concentrated, under or, occasionally, at the surface of the earth. A great part of the small treatise is dedicated to the possible orientations of these veins and to the extent to which the 'exposition' to the heavenly influences was more or less favourable for the growth of certain metals, just like



Fig. 6.9 Georgius Agricola, longitudinal ore-deposit or 'veins', Illustration from the *De Re Metallica* (Basel, 1556). Reprinted in Agricola & Hoover, 1950, p. 50.

⁸⁴ Pierre de Rosnel, *Le mercure indien, ou le tresor des Indes. Premiere partie. Dans laquelle est traité de l'or, de l'argent & du vif-argent, de leur formation, de leur origine, de leur usage & de leur valeur. Avec une explication sommaire des titres de l'or & de l'argent, & de leur affinage.* (Paris: R. Chevillon, 1667), p. 13. Cited by Daubrée, "La génération des minéraux métalliques dans la pratique des mineurs du Moyen Âge, d'après le *Bergbüchlein*," p. 383.

⁸⁵ "During 180 years [Agricola's *De re metallica*] was not superseded as the text-book and guide to miners and metallurgists, for until Schlüter's great work on metallurgy in 1738 it had no equal." Georgius Agricola, Herbert C. Hoover, and Lou H. Hoover, *De Re Metallica. Translation from the first Latin edition of 1556.* (New York: Dover Publications, 1950), p. iv. (Translators preface).

⁸⁶ The *De ortu et causis subterraneorum* formed the first book of a volume comprising five parts, published in Basel in 1546. The titles of the other four parts were, in the 1549 Venice translation: 'De la Natura di quelle cose, che da la terra scorrono Lib. IIII'; 'De la Natura de le cose Fossili, e che sotto la terra si cavano Lib. X'; 'De le Miniere antiche e moderne Lib. II'. IL BERAMANNO, o de le cose Metallice, Dialogo.'

⁸⁷ "Avendo deliberato d'investigare la natura de le cose, che dentro la terra si generano; mi pare conveniente considerare poco prima i loro nascimenti, e cause. E per che le cose che la natura genera ne' canali, e nel grembo interiore della terra; ne vengono parte da se stesse su fuori ne l'aria aperto; come e l'humore, la esshalazione, l'aere, il fuoco; parte ancho ne sono a forza di mano cavate, come e una terra di qualche segnalata virtu, come e un sugo congelato, una sasso di qualche premio, come sono i metalli, e quel che chiamiamo Misto, tratterame prima de la generatione, e de le cause de le cose de la gia detta prima maniera....." Giorgio Agricola, *De la generatione de le cose, che sotto la terra sono, e de le cause de' loro effetti e nature. Libri V. De la Natura di quelle cose, che da la terra scorrono Lib. IIII. De la Natura de le cose Fossili, e che sotto la terra si cavano. Lib. X. De le Miniere antiche e moderne Lib. II. IL BERAMANNO, o de le cose Metallice, Dialogo; Recato tutto hora dal Latino in Volgare.* ([Venezia]: 1549), p. 1r.

⁸⁸ 'Sugo', from the Latin *succus*, besides its culinary meaning, was the technical term used to refer to the 'humoural' liquid inside vegetables, that is the equivalent of animal blood. Agricola's use of the term makes clear that such a humour is also thought to exist inside the mineral body of the earth. For the identification blood - *succus/sugo* see for instance the definition provided by the 13th century author Pietro de' Crescenzi: "Egli è da sapere, che sì come negli animali, così eziandio nelle piante, è una cosa, ch'è in potenza a ciascuna parte della pianta, e chiamasi sugo, ec. Il sugo è umore, per li pori della radice attratto, a nutrire tutta la pianta, il quale si distribuisce, per le parti della pianta dalla virtù nutritiva." Pietro de' Crescenzi, *Trattato dell'agricoltura di Pietro de' Crescenzi. compilato da lui in latino, e diviso in dodici libri, ne' quali distintamente si tratta delle piante, e degli animali, e di tutte le villerice utilità, già traslato nella favella fiorentina, e di nuovo rivisto, e riscontro con testi a penna dall'Inferigno [i.e. Bastiano de' Rossi]* (Firenze: Giunti, 1605), book II, chapter 4, n.1., which was taken over in the lemma *sugo* of the *Dizionario della Crusca*.

grapevines might benefit from a more or less favourable exposition to the sun and the moon in function of the orientation and slope of the terrain.

If the seven planets (including the sun) were thought to make the metal ‘ripen’ under the earth, similar convictions were held about gems. A seventeenth century French jeweller wrote for instance on the ruby:

The ruby in particular, is steadily being born in the earthly cavity; first it is white, then, ripening, it gradually obtains its redness; which explains why one may find some which are entirely white, others half white and half red [...]. As the child is feeding itself on blood in the bosom of its mother, so the ruby is forming and feeding itself.⁸⁴

The Bergbüchlein strongly influenced the work of another Saxon physician writing on ore, Georgius Agricola, who was to become, with his *De re metallica* (1556), the undisputed authority on mining and metallurgy for almost two centuries.⁸⁵ In this treatise, Agricola greatly developed the nomenclature of the different *venae* of metal ore that may be found; the rich and detailed wood-engraved illustrations of the treatise are strongly reminiscent of contemporary anatomical imagery. In an earlier publication, translated in Italian as *De la generatione de le cose, che sotto la terra sono, e de le cause de' loro effetti e nature. Libri V* (‘On the generation of the things that are underground, and of the causes of their effects and natures, in five books’).⁸⁶ Agricola unmistakably subscribed to the principle of the underground birth, growth and maturation of minerals; the very first lines of this book read as follows:

Having decided to investigate the nature of the things that are generated inside the earth it seems suitable first to briefly consider their births and causes. And since the things that nature generates in the canals, and in the womb of the earth, partially by their own means come out to the open [...] and partially are to be dug out by hand [...] we will first treat of the things of the first kind...⁸⁷

The lexicon used in Agricola’s lines combine the identification of earthly cavities with the womb of the *terra mater* with images referring to other bodily processes in which substances happen to be formed inside animal bodies. The imagery merely elaborates the root-analogy that identifies earth as a macrocosm to the microcosm. Agricola compares the process through which mineral substances come out to the surface of the earth “by their own means” to “secretions”, “exhalations”, and “coagulations”. A blood-like “juice” (*sugo*) is said to be pouring out through “pores” in the earth.⁸⁸

The idea that the earth functions as one huge human body is repeatedly asserted in parallels developed by a multitude of Renaissance authors, often with a medical training. Marsilio Ficino considered stones as the teeth of earth and grasses and plants as its

⁸⁹ Ficino, *Teologia Platonica*, IV.1: “Nous voyons la terre engendrer, grâce à des semences particulières, une multitude d’arbres et d’animaux, les nourrir et les faire croître ; nous la voyons faire croître même des pierres comme ses dents, des végétaux comme une chevelure aussi longtemps qu’ils adhèrent à leurs racines, alors que si on les arrache ou on les déterre, ils ne grandissent plus. Pourrait-on dire que le sein de cet être femelle manque de vie, lui qui spontanément enfante et entretiens tant de rejetons, qui se soutient de lui-même et dont le dos porte des dents et des cheveux ?” Marsilio Ficino and Raymond Marcel, *Théologie platonicienne de l’immortalité des âmes*, 3 vols. (Paris: les Belles Lettres, 1964–1970), vol. 1, p. 144.

⁹⁰ “Tout ainsi qu’au grand monde, il y a deux grandes lumières, savoir le soleil et la lune, aussi au corps humain, il y a deux yeux qui l’illuminent, lequel est appelé Microcosme ou petit portrait du grand monde accourci, qui est composé de quatre éléments comme le grand, auquel se font vents, tonnerres, tremblements de terre, pluie, rosée, vapeurs, exhalations, grêles, éclipses, inondations d’eau, stérilité, fertilité, pierres, montagnes, fruits et plusieurs et diverses espèces d’animaux. Aussi se fait-il le semblable au petit monde, qui est le corps humain. Exemple des vents : ils se voient être enclos ès apostèmes venteuses et aux boyaux de ceux qui ont la colique venteuse, et pareillement en aucunes femmes, auxquelles ont ayt le ventre bruire de telle sorte qu’il semble y avoir une grenouillère, lesquels sortant par le siège rendent bruits comme coups de canonnades. Et encore que la pièce soit braqué vers la terre, néanmoins toujours la fumée du canon donne contre le nez du canonnier et de ceux qui sont proche de lui. Exemple de pluies et inondations d’eau, cela se voit aux apostèmes aqueuses et au ventre des hydropiques. Exemple de tremblement de terre : telle chose se voit au commencement des accès de fièvres, où des pauvres frébricitants ont un tremblement universel de tout le corps. Exemple de l’éclipse : cela se voit aux syncopes ou défaillances de cœur et aux suffocations de la matrice. Exemples de pierres : on les voit à ceux auxquels on en extrait de la vessie et autres parties du corps. Exemple des montagnes : on les oit aux bosses et à ceux qui ont des loupes grosses et énormes. Exemple de stérilité et sècheresse : on le voit aux hectiques qui ont la chair de leur corps presque toute consommée. Exemple de fertilité : on la connaît à ceux qui sont fort gras fessus et ventrus, tant qu’ils crèvent en leur peau ; force leur est de demeurer toujours couchés ou assis, pour ne pouvoir porter la grosse masse de leur corps. Exemple des animaux qui se procréent en nos corps, à savoir poux, punaises et mormions, et autres que décrivons à présent [...]. Je dis encore qu’aux apostèmes il se trouve corps fort étranges, comme pierre, craie, sablon, coquilles de limaçon, épices, foin, cornes, poil et autres choses, encore plusieurs et divers animaux, tant morts que vivants. Desquelles choses la génération (faite par corruption, et diverse altération) ne nous doit étonner beaucoup ; si nous considérons que, comme nature féconde à mis proportionnement en l’excellent microcosme toute sorte de matière pour le faire ressembler et être comme image vive de ce grand monde, aussi elle s’ébat à y représenter toutes ses actions et mouvements n’étant jamais oisive quand la matière ne lui défaut point.” Ambroise Paré, L. Delaruelle, and M. Sandrail, *Textes choisis* (Paris: Les belles lettres, 1953), pp. 129–131.

⁹¹ “...le pietre ordinariamente si generano non solo dentro, e fuori della terra, ma nell’aria ancora, e negli interiori degli animali, e degli uomini stessi...” Benedetto Varchi, *Questione sul Alchimia di Benedetto Varchi* (Florence: Stamperia Magheri, 1827), p. 54.

⁹² “... travandomi l’anno passato in Pisa alla notomia del dottissimo, e giudiziosissimo Vessalio, e trovandomi presente mentre che egli sparava l’Eccellentissimo M. Mercantonio degli Armati Dottore di Leggi, Senese, morta quasi di subito per una vena, che infracidatagli nel petto, se gli era rotta, gli vidi cavare della vescica del fiele circa diciasette pietruzze rossigne di grandezza, e forma quasi d’una cicercchia, se non che erano alquanto minori, e piu schiacciate. Il medesimo avvenne poco di poi in Firenze quando egli sparò M. Prospero Martelli, se non che le pietre erano piu, e maggiori.” *Ibid.*, p. 54.

⁹³ On Michelangelo’s calculus problems from the later 1540’s on, and his claim, in a letter to Vasari (May 22 1557) that he “owed his life to” his friend Realdo Colombo who had relieved him on several occasions, see Leo Steinberg, “Michelangelo and the doctors,” *Bulletin of the History of Medicine* 56 (1982): 543–553.

⁹⁴ “Often with my own hands I extracted innumerable stones of various colors discovered in the kidneys, lungs, liver, and portal vein, as you Jacopo Boni, have seen with your own eyes in the venerable Ignatius, general of the Society of Jezus.” The passage appears in the final section of the *De re anatomica*, on monstrosities in anatomy, which is addressed to the little known physician Jacopo Boni, the man who had autopsied Ignatius de Loyola (died July 31st 1556). As the passage makes clear, Boni must have told Colombo about the many forms of calculus he had found on that occasion. See Robert J. Moes and Charles O’Malley, “Realdo Colombo: ‘On those things rarely found in anatomy’. An annotated translation from the *De re anatomica* (1559)”, *Bulletin of the History of Medicine* XXXIV, no. 6 (1960), p. 525.

hair, both suspending their growth once they have been torn from their roots.⁸⁹ Ambroise Paré reversed the analogy, and considered kidney stones (and a series of other phenomena he had observed as a surgeon) as proof of the human body's replicating the processes occurring inside the macrocosmic body.⁹⁰ In the *Quistione* on alchemy, to be discussed later in this chapter, Varchi used the example of calculus inside the body of animals to prove that stones are not only generated under the surface of the earth.⁹¹ At one of the autopsies performed by Andreas Vesalius during his passage at Pisa (early 1544), Varchi had seen with his own eyes how the anatomist had removed 17 little red stones from the bladder of a corpse, and even more numerous and bigger one's from the body of another man autopsied in Florence.⁹² Realdo Colombo, the physician who soothed Michelangelo's suffering from kidney stones,⁹³ recalled towards the end of his treatise on anatomy (1559) the "innumerable stones of various colours" that he had discovered in dissected corpses.⁹⁴ Paracelsus had argued in one of his treatises the Latin translation of which was dedicated to Cosimo de' Medici and entitled *De tartaro*, that most diseases were caused by sedimentations of 'tartar' in the body, a substance akin to calcareous rocks.⁹⁵

The long passage from Ambroise Paré quoted in footnote 90 reminds us that the earth, like the human body, produces a multitude of substances and little bodies, animate or inanimate, some of which are clearly more useful (or of less nuisance) than others. But it is interesting to observe that the kind of language that explicitly refers to what Eliade called the 'gynaecomorphic birth' of minerals (like "giving birth", "womb of the earth") is only reserved to contexts in which the most precious mineral productions are discussed: the most useful and worthy metals, the most beautiful gems. Gems and precious metals, just like human embryos, are not only the most inaccessible and best protected of bodily productions, they also happen to be the most desired. Whatever substance finds its way out of the host body "by its own means" (hair, nails, teeth, excrements, sweat, lice ...) is considered cheap, indifferent or even undesired.

The womb (whether terrestrial or maternal) is the place in which desire crystallizes, yet expectations are often thwarted. Time and circumstances may delay or prevent the fulfilment of nature's intentions, and frustrated desire, as we saw earlier, produces monsters. The idea is summed up in a citation picked up by Gaston Bachelard and Mircea Eliade:

If there were no obstacles outside which would hold back the realisation of her designs, Nature would achieve all her productions [...]. That is why we need to consider the births of imperfect metals as that of aborted brood and monsters, which only occur because Nature was diverted in her actions, and that she met an opposition that tied her hands, and obstacles which impeded her to act with as much regularity as she is accustomed to do [...]. This is how one may explain that, while she is only intent to produce one metal, she is nevertheless constrained to make several of them.⁹⁶

⁹⁵ Adam of Bodenstein, the author of the translation, wrote in the dedication to Cosimo: “En vérité, dans cet ouvrage qu’aujourd’hui nous offrons à Votre Altesse, il [Paracelsus] enseigne les origines, les causes, les symptômes et les soins des maladies de façon très concise et claire et l’intitule *Du tartre*, parce que la cause de toutes le maladies se trouvant dans le corps est le tartre.” Appendix I to Perifano, *L’alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 169. (Perifano’s own translation of the *Epistola dedicatoria Illustrissimo invictissimoque Principi ac Domino of the De tartaro*.)

⁹⁶ “S’il ne se trouvait point d’empêchements au dehors qui s’opposassent à l’exécution de ses desseins, la Nature achèverait toutes ses productions [...]. C’est pourquoi nous devons considérer les naissances des métaux imparfaits comme celle des Avortons et des Monstres, qui n’arrive que parce que la Nature est détournée dans ses actions, et qu’elle trouve une résistance qui lui lie les mains, et des obstacles qui lui empêchent d’agir aussi régulièrement qu’elle n’a accoutumé de faire [...]. De là vient encore qu’elle ne veuille produire qu’un seul Métal, elle est néanmoins contrainte d’en faire plusieurs.» Nicolas Salomon, vol. I, pp. XXVIII et XXIX; cited by Gaston Bachelard, *La terre et les rêveries de la volonté* (Paris: J. Corti, 1948), p. 247 – by Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée*, p. 41.

⁹⁷ Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée*, p. 41.

Only gold, then, is the true child of nature's desires. The solar metal is nature's "legitimate son."⁹⁷ If the belief in a 'gynecomorphic' birth of metals, the nature of ores as embryos, the possibility of the ripening of metals (their metamorphosis or their transmutation) in natural circumstances was not the subject of much contention in the days of Duke Cosimo, what was instead subject of controversy was the belief that the right circumstances for such a ripening could be (re)created artificially, as the alchemists asserted. And it is exactly this debate that lies at the very core of Varchi's manuscript *Quistione* on alchemy.

⁹⁸ The text was only published once in 1827 by Domenico Moreni (Moreni/Varchi, 1827) with the title: *Questione sull'alchimia*. A detailed analysis, in fact a transcription of the text was published by Alfredo Perifano in the French journal for Alchemical studies *Chrysopoeia*: Perifano, "Benedetto Varchi et l'Alchimie. Une analyse de la *Questione sull'alchimia*," . The most recent analysis of the text appeared in Newman, *Promethean ambitions: alchemy and the quest to perfect nature*, pp. 132-45.

⁹⁹ Varchi mentions some of the guests by their names: il Signore Giordano Orsini, il Signore Don Carlo Cardines, Pirro Musofilo, Signore della Sassetta, Pasquino Bertini. He also mentions an unnamed Spanish doctor. For more details on these guests, see Perifano, 1987, pp. 188-189. In this article openly doubted Moreni's identification of the figure of Don Pedro di Toledo as being the viceroy of Naples and father of Eleonora da Toledo, Cosimo's spouse. He would later (Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique* , pp. 95-96) identify the Don Pietro in question as the lord of the castle of St. Eramo in Naples, who had been forced to quit his function after a reshuffle ordered by Charles V, and had consequently moved to Florence in the service of Cosimo.

¹⁰⁰ "... se io credeva, che secondo i principii d'Aristotile si potesse o provare, o riprovare dimostrativamente l'Archimia essere o possibile , o impossibile." Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. xxiv.

¹⁰¹ "... Duca Cosimo Signor, e Padrone nostro sempre osservandissimo, nel quale insieme con tante altre singolarissime doti, quasi chiarissimi fregi della incomparabile bontà, et ineffabile virtù sue risplende ancor questa della cognizione, e dello studio de' Metalli..." Ibid., p. 4.

¹⁰² In the dedication of the *Lezione sui calori*, written on December 24, 1544 to Andrea Pasquali, Cosimo's personal physician, Varchi wrote: "La qual cosa ho ritrovata verissima si in molte altre quistioni, e si in quella fatta ultimamente da me sopra l'Archimia, la quale leggendo io in presenza di V. S. all' Eccellenza dell' Illustriss. Duca signor nostro..." *Lezione sui calori* in *Opere* II, p. 508.

¹⁰³ "1. Se l'Arte dell'Archimia è possibile; 2. Se l'Arte dell'Archimia si puo sapere e fare; 3. Se l'Arte dell'Archimia e stata saputo e fatta mai; 4. Se l'Arte dell'Archimia si debba permettere dalla Repubbliche, e da' Principi nelle citta loro." Varchi, *Questione sul Alchimia di Benedetto Varchi*, p.5.

C. BENEDETTO VARCHI'S LEGITIMATION OF ALCHEMY

1. *Se l'archimia è vera o no quistione*

We have no more information on the circumstances in which Benedetto Varchi's tract *Se l'archimia è vera o no quistione* originated than the few indications provided by the author himself. The text, which exists in two manuscript versions now held in Florence, is dated November 11th 1544. It is dedicated to Bartolomeo Bettini, a rich Florentine merchant and a long-time friend of Varchi.⁹⁸ Varchi explains in the dedication of the text how he was one evening at the house of Don Pietro da Toledo (a relative of the Duke's spouse) in the company of a number of distinguished guests, when, after having discussed a series of topics, they broached the subject of alchemy.⁹⁹ A heated debate soon divided the men present in opponents and supporters of the aurific art, upon which the philosopher Varchi was asked whether "according to the principles of Aristotle" it could be "demonstratively" proven that alchemy was either "possible, or impossible".¹⁰⁰ Varchi's answer, based on the arguments that came through his mind on the spot, pleased Don Pietro to such an extent that the host asked Benedetto to write it all down, and to add anything that might improve the argumentation.

Whatever the truth of this story, it seems clear that the *Quistione* was at least indirectly written as a Ducal commission. Even if he did not directly dedicate it to Cosimo, Varchi added several courtly tributes to his patron in the text, praised him for his "incomparable goodness" and his "knowledge and expertise of metals".¹⁰¹ We also know that Varchi read the text aloud to Cosimo shortly after it was written.¹⁰² The treatise, needless to say, ends up strongly advocating the theoretical possibility of alchemy; a conclusion that must have satisfied the Duke.

In the introduction to the *Quistione* as it came down to us, Varchi outlined a succession of four chapters in which he planned to treat his subject. The chapter's titles are formulated as questions: whether the art of alchemy is 1. possible, 2. can be known and performed, 3. has ever been known and performed, and 4. is to be permitted by Republics and by Princes in their cities.¹⁰³

But only the first of these questions was eventually treated: whether alchemy is "possible", or "truthfull". The other chapters were probably never written. Furthermore, for almost three centuries even the text of chapter one only existed as a manuscript, until it was published in the early 19th century.

¹⁰⁴ “... e noi seguitando ‘l costume nostro la setta, e via Peripatetica, e diremo puramente, e semplicemente la verita, cioe, quel poco, che ne intendiamo, non gia per esperienza o pratica alcuna, non avendo esercitatola mai, ne vedutola esercitata, ma mediante li studii della santissima Filosofia...” Ibid. , p. 5.

¹⁰⁵ “...tal che chi vuol biasimare alcuno, e dilleggiarlo insieme li dicono, in luogo di grandissima ingiuria, e vituperio, Archimista.” Ibid., p. 3.

¹⁰⁶ Ibid., p. 4.

¹⁰⁷ Ibid., p. 21.

Despite being only a fragment of the originally planned treatise, the first chapter stands as an autonomous treatise. It is composed of two parts. The first is a systematic enumeration of the existing arguments, traditional or recent, against the ‘possibility’ of alchemy, and an enumeration of ancient and contemporary authorities, Avicenna, Averroes, Aquinas, Nifo, Agrippa, Erasmus, who negated alchemy’s truthfulness. The second part of the text, on the contrary, enumerates the arguments in favour of alchemy and mentions the authorities in support of the aurific art again Averroes and Aquinas, together with Albertus Magnus are mentioned. The arguments of the opponents as well as their authorities are here systematically rebutted.

Before entering the discussion of the arguments I would like to stress that Varchi’s text is situated entirely outside the tradition of alchemical writings. His primary aim, probably following a ducal request, had been to write a philosophical enquiry on the matter, according to the Aristotelian method. Alchemical treatises often featured a theoretical part followed by practical instructions, recipes and secrets. None of the latter appear here. Varchi openly recognizes that he never practiced the art himself, nor had he ever seen anybody practicing it.¹⁰⁴ The aim is clearly to appear as a neutral judge in a much contested field.

2. True, sophistic and false alchemy

The introduction of the *Quistione* makes clear that an evident confusion exists about the term alchemy, a confusion that Varchi does not manage himself to solve entirely. He makes clear that the term bears a strongly negative connotation for many people. “Archimista” has become a term of abuse in Tuscan,¹⁰⁵ and when speaking about “cose archimiate” Varchi’s contemporaries in the first place thought about poisons, forged money, and worthless imitations. According to Varchi the situation is such that, if somebody were to argue in favour of that art, he would better do as the rhetoricians recommend and use a less negatively connoted synonym.¹⁰⁶

One of the key elements of the rhetoric strategy the author decided to adopt was to invent a new nomenclature and to divide “alchemy” in three different categories: true, sophistic, and false alchemy (*archimia vera, sofotica, e falsa*).¹⁰⁷ This distinction is introduced at the critical point in the argumentative structure of the treatise: the juncture of the first (in disfavour) and the second parts (in favour). Judgments of value on alchemy in general are thus considered impossible. The term alchemy, according to Varchi, covered too many practices.

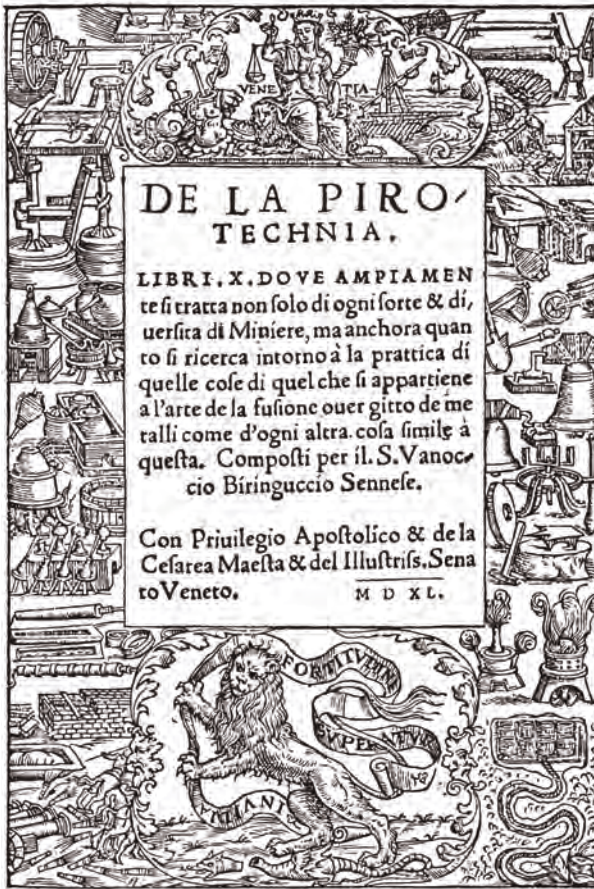


Fig. 6.10 Vanoccio Biringuccio, Titelpage of the Pirotechnia (Venice, 1540).

¹⁰⁸ Ibid., p. 63.

¹⁰⁹ “Dentro alla Porta di San Giorgio [...] era un lunghissimo bastione [...] ed in quel mezzo sopra l’orto de’ Pitti s’edificò poi un gagliardissimo cavaliere, il quale, benché altissime, sopprafaceva le mora, ed in su questo si pose la grandissima colubrina gettata da M. Vanoccio Biringuccio da Siena, la quale pesò diciotto migliaia di libbre; aveva nella culatta una testa di liofante e si chiamava da’ fanciulli l’archibuso di Malatesta.” *Storia Fiorentina* in *Opere* I, p. 219.

¹¹⁰ “...uomo pratico di tutte le miniere e molto sperimentato nell’arte del getto...” Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 22.

¹¹¹ Vannoccio Biringuccio, *The pirotechnia of Vannoccio Biringuccio. Translated from the italian with an introduction and notes by Cyril Stanley Smith & Martha Teach Gnudi* (Cambridge, MA and London: MIT Press, 1966), p. 39. Biringuccio also observed on his own choices in the same passage from book I: “...I am more drawn by more powerful reasons, or perhaps by natural inclination, to follow the path of mining more willingly than that of alchemy, even though mining is a harder task, both physical and mental, is more expensive, and promises less at first sight and in words than does alchemy; and it has as its scope the observation of Nature’s powers rather than those of art- or indeed of seeing what really exists rather than what one thinks exists.” Ibid., p. 40.

¹¹² Ibid., p. 337.

The strategy Varchi used of destignifying different forms of alchemy had been applied earlier by the Sieneſe gun-caster and metallurgist Vanoccio Biringuccio (1480-1538/9) whose treatiſe on metallurgy appears to have been a major ſource of inſpiration for the *Quiſtione*. Varchi mentioned in his *Quiſtione* that he knew Biringuccio well.¹⁰⁸ It is likely that both men met each other during the ſiege of Florence when Biringuccio had been engaged in caſting one of the hugeſt pieces of artillery uſed by the beſieged Florentines. In the paſſage from the *Storia Fiorentina* on the 1529 defence works around Florence, Varchi mentioned this monſtrous gun in the ſhape of an elephant.¹⁰⁹ Biringuccio, the author of the *Pirotechnia* ('Arts of fire', 1540) which I briefly referred to earlier in this chapter, had no natural inclination towards alchemy. He is beſt labelled an industrial chemiſt and engineer. Varchi called him "a man of practical expertise in all ores and much experienced in the art of caſting..."¹¹⁰ Biringuccio had gained his experience in metallurgy through numerous travels in Italy and Germany; he was appointed at the aſenal and the mint of his native Siena where he eventually ſucceeded to Baldaſſare Peruzzi as chief architect of the Duomo. The *Pirotechnia*, published poſthumouſly, perfectly reflects Biringuccio's practical expertise of the chemical ſciences. It contains, in ten books, a wealth of technical deſcriptions, moſtly original, in the domains of mineralogy, metallurgy, glaſsmaking, gun-caſting, bellfounding, goldſmithery, typecaſting and gunpowder technology. With his kind of expertise and attitude, Biringuccio had no patience for the tentative ſpeculations of the alchemiſts regarding the behaviour of metals. Biringuccio did accept the theory of the 'gynecomorphic' birth of metals, but the alchemiſts' pretence to ſpeed up Nature's ſecular work rhythm he conſidered fooliſh. His lengthy excuſus on alchemy in his chapter on gold ore (from book 1, on the metal ores) contains ſtatements ſuch as:

...the great deſire that [alchemiſts] have to become rich cauſes them to gaze in the diſtance and hinders them from ſeeing the intermediate ſteps becauſe they are thinking only of the final reſult, folding about them the ſhadow of the happineſſ that they would derive from ſuch a thing.¹¹¹

Yet in the mean time Biringuccio was not blind to the gains in the domain of applied chemiſtry that centuries of alchemical experimentation had effectively brought about. In book IX of the *Pirotechnia*, concerned with uſeful manipulative techniques in chemiſtry ſuch as diſtillation and ſublimation, his final judgment on alchemy appears leſs categorical.

Besides the ſweetneſſ offered by the hope of one day poſſeſſing the rich goal that this art promiſes ſo liberally, it is ſurely a fine occupation, ſince in addition to being very uſeful to human need and convenience, it gives birth every day to new and ſplendid effects ſuch as the extraction of medicinal ſubſtances, colors and perfumes, and an infinite number of compositions of things.¹¹²

¹¹³ Ibid.

¹¹⁴ Newman, *Promethean ambitions: alchemy and the quest to perfect nature*, p. 116.

¹¹⁵ *Physics* II. 8, 199a15–17.

It is here that Biringuccio introduced the distinction between one distinct kind of alchemy that he eventually considers praiseworthy, for it opens up the path to chemical innovations and new industries.

Thus, in short, it can be said in conclusion that this art is the origin and foundation of many other arts, therefore it should be held in reverence and practiced. But he who practices it must be ignorant neither of cause nor of natural effects, and not too poor to support the expense. Neither should he do it from avarice, but only in order to enjoy the fine fruits of its effects and the knowledge of them, and that pleasing novelty that it shows to the experimenter in operation.¹¹³

Against this “true” type of alchemy, based on science, cautious experimenting and modest expectations, the metallurgist posits another “sophistic, violent and unnatural” variant, under which he regroups the “criminal” practices intent on “fraud” and deception. Biringuccio’s distinction between the “alchemy of the philosophers” and the “alchemy of the sophists” is thus meant in the first place to distinguish the charlatans and impostors from those men who are sincerely (even if desperately) trying to discover the alchemical secrets, basing themselves on genuine knowledge and learning.

The step from Biringuccio’s division between true and sophistic alchemy, and Varchi’s triple distinction between true, sophistic and false alchemy might seem a small one, yet, as William R. Newman recently stressed in his book on the nature of the alchemical ambitions, Varchi’s move is highly significant. Biringuccio and Varchi’s discussions of alchemy, according to Newman, have to be seen against the backdrop of the contest between alchemy and the visual arts that had been waging ever since mediaeval times. As I mentioned in my short account on the origins of alchemy, the discipline had its root in practices of forgery: the deceitful imitation of gems and precious metals. Gradually emancipating themselves from these modest beginning, the alchemists of late antiquity began

...to view their products in Pigmalion-like fashion as replications, rather than representations, of the natural world. Always aware of the potential charge that they too were engaged in a sort of *trompe-l’oeil* trickery, the medieval and early modern alchemists explicitly claimed that their discipline perfected nature rather than merely imitating it.¹¹⁴

As Newman explains, the latter view was based on Aristotle’s distinction, expressed in the *Physics*, that

...generally art in some cases completes (*epitelei*) what nature cannot bring to a finish, and in others imitates (*mimēitai*) nature.¹¹⁵

Alchemical writers thus held that most other productive arts (shipbuilding, fabric making, etc) merely mimicked natural products, imitating its methods (see for instance Pliny’s

¹¹⁶ “La terza spezie dell’Archimia, e quella, che promette, non solamente di volere , e poter seguitare, et imitare la natura, ma di potere ancora , e voler vincerla, e trapassarla, il che e del tutto non solo impossibile, ma ridicolo; e pero la chiameremo falsa.”Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 26.

¹¹⁷ “...non muta veramente Scott Marble and., eds., *Architecture and body* (Rizzoli, 1988) non trasforma la sostanza, ma li accidenti soli...”Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 24.

¹¹⁸ “...onde tal arte siccome dritta a buon fine, può essere mediante le sue belle, e quasi divine operazioni, et al mondo, et a chi li fa, di molto piacere, e di molto utilità, e onore.”Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 136.

¹¹⁹ In an unedited biography of Cosimo, Filippo Cavriana wrote that one of the favourite activities of Cosimo was that of forging gems (*De vita Cosmi magni ducis*, BNF ms. Magl. XXV.49). See Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durenre il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti”, f. 183.

story that the inventor of mortar – and thus masonry – had just replicated on grander scale the way swallows built their nests), or its features (as in painting, sculpture, and the other representational arts). Alchemy, their own art, on the contrary, was supposed to duplicate natural products in ways that improved nature’s own methods. Alchemists, consequently, tended to be particularly condescending towards the practitioners of the mimetic arts, which they placed on a par with forgers, players of illusionist tricks. The pictorial and plastic arts were relegated to the status of bad alchemy.

Varchi, who was himself engaged in the debate on the *maggioranza* of the arts, could not altogether negate these discussions. He did not cope with it frontally, though. In his 1547 *lezzione* on the topic of the *maggioranza degli arti*, for instance, he did refrain from precisely situating whether alchemy was to be considered more worthy or noble than painting and sculpture. Yet alchemy is mentioned a few times, and the *Quistione* is explicitly mentioned in the context of Varchi’s evocation of the art of medicine, which he ranks at the top of his hierarchy of the arts. In fact one may say that the theme of alchemy is underlying and present in the *Due lezzioni*, while on the other hand painting, sculpture and architecture are equally underlying in the *Quistione*.

Let us examine that last assertion, and therefore return to Varchi’s triple division of alchemy. The main subtlety of that division is in fact that, by adding a third category, false alchemy (*archimia falsa*), Varchi is able to unload all the negative connotations from the “sophistic” variant of alchemy (*archimia sofotica*). False alchemy now contains all the most despicable claims that are uttered regarding bodily transmutations: people claiming that they can resurrect dead human bodies, for instance, or people practising necromancy, or claiming to distill oils that cure all diseases instantly, or claiming to have made bronze statues that can talk, etc. Such claims are, according to the philosopher, not only completely impossible, but ridiculous.¹¹⁶

Such claims are extraneous to sophistic alchemy then, which is, on the other hand to be distinguished from its true variant in that it is incapable of “truly transforming substance, but accidents only”.¹¹⁷ It produces appearances instead of true presences. Yet it is not to be condemned altogether.

If directed to a good end, this [practice] can, thanks to its beautiful and almost divine operations, provide both to the world, and to the persons who perform it, great amounts of pleasure, usefulness, and honour.¹¹⁸

Varchi seems to have anticipated, when writing these words, Cosimo’s own penchant for the art of forging gems, a skill in which his son Francesco would excel, several decades later.¹¹⁹ But the category extends further. As Newman observed:

...it is highly significant that Varchi gives a positive role to sophistic alchemy, the very category in which the alchemists placed the visual arts themselves.



Fig. 6.11 Stradano, *Alchemists at work* (detail: Prince Francesco de' Medici at work).

¹²⁰ Newman, *Promethean ambitions: alchemy and the quest to perfect nature*, p. 137.

¹²¹ Danti was summoned before the authorities for debt six times in a single year. On Danti and alchemy See David Summers, "The sculpture of Vincenzo Danti: a study in the influence of Michelangelo and the ideals of the Maniera" (Ph.D. diss., Yale University, 1969), pp. 505-512. Summers also reprinted here Danti's poem on condemnation of alchemy, the *Capitolo contra l'alchimia*.

¹²² See Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, p. 241.

¹²³ "...se si puo mediante l'Arte fare dell'Argento e dell'oro artificiale che sia della medesima spezie che'l naturale, cioe, che sia vero, e perfetto, et abbia tutte quelle medesime qualità, e virtu, che l'oro generato dalla natura, et in somma, che regga come si dice volgarmente, al martello, e stia a tutti quanti e' paragoni." Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 9.

¹²⁴ "Dico adunque che questa parola Chemia, non vuol dire altro nella lingua Greca, che fusoria, a veramente fondibile nella nostra, datta cosi dallo struggere, o vero liquefare i metalli, che i Grevi chiamano chein..." Ibid., p. 6.

¹²⁵ "L'archimia, non e altro che una arte, che insegna a fondere e trasformare i metalli l'uno nell'altro [...] metalli non si piglia propriamente, ma largamente in guisa, che comprenda non solamente tutti i minerali, ma ancora i mezzi minerali, e massimamente il zolfo, e l'ariento vivo, che essi chiamano Mercurio, i quali duoi sono l'uno il padre, e l'altro la madre di tutti i metalli, come si vedra di sotto." Ibid., p. 7. The categorization applied in the mentioned passage (metalli, minerali, mezzi-minerali) concerns the measure in which the substance can be fused or not. Metals are those substances that can be melted when heated; minerals are unfusible, stone-like of nature, while the nature of *mezzi minerali* (to which belong sulphur, salpetre, and all kinds of salts) lies somewhere in between. They do not liquefy when heated, but can be dissolved in water or other liquids. Varchi classifies mercury as a mezzo-minerale. The title of the fifth book of Albertus Magnus' *De mineralibus* is in itself a definition of semi-minerals "De mineralibus quae media inter naturas lapidum et metalorum esse videntur." But the term minerali was sometimes also used as generically referring to all things that are mined, "materia di miniera" is the definition of the *Dizionario della Crusca*.

By treating *archimia sophistica* in a positive light, Varchi may have made it easier for others trying to span the visual arts and alchemy to see a bridge between the disciplines rather than sinking on the divide between transmutation and representation.¹²⁰

Newman himself thinks in the first place of Varchi's friend, Benvenuto Cellini, both a sculptor and a goldsmith/metalworker. One could also think of another of Varchi's friends, the sculptor and art-theorician Vincenzo Danti. Danti was one generation younger and a true pupil of Varchi.¹²¹ He indulged in the Great Work to a point of hurling himself into bankruptcy.¹²²

Finally, I would like to observe that, even if Varchi's threefold division entails an upgrade of the position the visual arts held in the eyes of alchemists, even if the visual arts are no longer disparaged as "bad alchemy", they remain clearly subsidiary to "true alchemy".

3. True alchemy as a perfective art

When Varchi writes about the legitimate (true) kind of alchemy, he implicitly operates a double definition. On the one hand alchemy is used in its traditional (restrained) sense as the art of transmuting lower metals into silver or gold. It is in that sense that 'alchemy' is used in the title of the sophistic. When he asks whether the art of alchemy is truthful, he thus asks whether it is possible to make artificial (silver or) gold that would stand all the standard tests.¹²³ On the other hand the term is also used, very interestingly, with a more generic meaning. Varchi had provided a highly enlightening etymology of the notion, at the very beginning of *Quistione*. The philosopher here explained that the term *alchimia* derives from the Greek *chein*, which means "melting", that *chemeia* stands for "the art of melting or liquefying metals".¹²⁴ The prefix "al" is thereby no more than the Arabic article which remained attached to the noun. Varchi's etymology is perfectly correct, except that he forgot to mention a second derivation from the Greek *chumeia*, which referred to the art of extracting juices or infusions from plants (*chumos* meaning juice, sap). As we shall see, Varchi's own conception of alchemy includes the arts of essence-extraction. And as we have seen, distillations were also part of the daily routine in Cosimo's *fonderia*. Varchi concluded his analysis of the term by revealing that, due to the great parentage between the l and the r, *alchimia* is sometimes pronounced *archimia*, especially by the Tuscans, and it is this spelling that he chose to apply all along. After the etymology follows the formal definition: "*archimia* is nothing else than an art that teaches the melting and transformation of metals one into the other", whereby 'metals' is taken in a wide sense, as to include also all the mineral substances.¹²⁵



Fig. 6.12 Stradano, *Alchemists at work* (detail).

¹²⁶ See Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, I, p. 247.

¹²⁷ “La scienza de’ Minerali, la studio del farli cavare, e purgare, scienza veramente regia, studio senza alcun dubbio divino, e propriamente da Principi, perche pare, che abbia in non so che modo amista, e quasi parentado coll’Archimia, è da molti dileggiata, e biasimata ancora ella. E pure chi dirittamente riguarda fra tutte le cose della natura, niuna, o pochissime se ne trovano, la quale sia o piu utile, o piu dilettevole, o piu onesta per non dire, necessaria, che lo studio, e cognizione de’ metalli, i quali oltra le grandissime utilità, che n’arrecano alla medicina, et oltra le molte comodita, che n’apportano ai dipintori, et altri ingegniosi mestieri, sono gli strumenti di tutti gli Artifici, i pregi di tutti le cose, li ornamenti di tutte le dignità, e quando bene non fussero nessuna di queste cose, e non porgessero alcuna ne comodita, ne utilita a cosa veruna, si sono eglino di tanto piacere, e n’arrecano cosi fatta meraviglia agli animi generosi, et a li spiriti elevati, che gli considerano, e contemplano, che ogni fatica v’è dentro, et ogni tempo non meno utilmente che lodevolmente impiegato.” Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 3.

¹²⁸ “... e pure il vetro che piace tanto, e che è tanto utile, e li specchi similmente tanto piu tosto stupendi, che meravigliosi, a chi pur intende, non sono altro che Archimia; l’ottone parimente, e l’acciao non altro che Archimia non sono; medesimamente, il sale, non il naturale, e quello che si cave, ma l’artifiziale, e quello che si fa, e fatto dall’Archimia. L’Archimia fa la calcina, fa tante maniere di vasi, fa la polvere d’Artigliera, fa finalmente mille varie acque, mille olii, e diversi liquori, et altre cose infinite, senza le quali non si protrebbe non che vivere comodamente, ma ne vivere ancora.” *Ibid.*, p. 4

¹²⁹ Paracelsus, cited by Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, p. 234.

Varchi's insistence of alchemy as "the art of melting" metals, explains why Cosimo's secret alchemical laboratory, where other operations than exclusively metallurgical ones were performed, was referred to as the *fonderia* (foundry). The specialised artisans active in it were referred to as *fonditori* ('founders'), which was used interchangeably with the term *stillatori* ('distillers').¹²⁶ Alchemy, as described by Varchi and practiced in the *fonderia* appears to be a domain in which metallurgy and pharmaceutical botany overlaps with "the science of minerals, the study of how to excavate and purify them", which he considers a "divine" and truly "princely" art.¹²⁷ The examples alleged to demonstrate the goodness and extreme utility of the alchemical arts also extend beyond the mere manipulation of metals:

...and even glass that pleases so much, and that is so useful, as well as the mirrors, not just marvelous but plain astounding, for the knowledgeable are none else than *archimia*. And so are brass, and steel nothing but *archimia*, and similarly salt, not the natural salt, or the one that is mined, but the artificial one [...] is made by *archimia*. *Archimia* makes lime, makes so many kinds of vases, makes artillery powder; it finally makes thousands various (distilled) waters, thousands of oils and diverse liquors, and other infinite things without which one could not live in comfort, nor even live at all.¹²⁸

The idea that alchemy generally covers all arts that bring nature to perfection, in the sense of the citation from Aristotle's *Physics*, is also found in the writings of Paracelsus, who stated:

Nature [...] brings nothing to the light that is at once perfect in itself, but leaves it to be perfected by man. This method is called alchemy. For the alchemist is a baker, in that he bakes bread; a wine merchant, seeing that he prepares wine; a weaver, because he produces cloths. So whatever is poured forth from the bosom of Nature, he who adapts it to the purpose for which it is destined is an alchemist.¹²⁹

Varchi's and Paracelsus's statements clearly give vent to a profound belief in the teleology of both nature and art, a belief in their necessary mutual collaboration, and the conviction that the sublunary world is a place where everybody is supposed to share a part of the burden of work. In the same line of thought are the following words of the French master-potter and mineralogist Bernard Palissy, taken from his *Recepte veritable*. Nature is depicted here as an industrious factory with obedient employees working hard to produce the row matters humans will need.

God did not create all things to leave them idle; hence every one of them does its duty, following the order the order that was given it by God. The stars and the planets are not idle, the sea wanders from one side to the other and strives to

¹³⁰ "... Dieu ne créa pas toutes choses pour les laisser oisives, ains chacune fait son devoir, selon le commandement qui lui est donné par Dieu. Les astres et les planètes ne sont pas oisives, la mer se pourmeine d'un costé et d'autre et se travaille à produire choses profitables, la terre semblablement n'est jamais oisive : ce qui se consomme naturellement en elle, elle le renouvelle et le reforme de rechef, si ce n'est en une sorte, elle le refait en une autre. [...] Or faut icy noter que, tout ainsi que l'extérieur de la terre se travaille pour enfanter quelque chose pareillement le dedans et matrice de la terre se travaille aussi à produire : en aucuns lieux elle produit du charbon fort utile, en d'autres lieux elle conçoit et engendre du fer, de l'argent, du plomb, de l'estain, de l'or, du marbre, du jaspé, et de toutes espèces de minéraux et espèces de terre argileuse, et en plusieurs lieux elle engendre et produit du bitume, qui est une espèce de gomme oligineuse qui brusle comme résine..." Bernard Palissy, *De l'art de terre; suivi de la Recepte véritable* (Abbeville: Paillart, 1930), p. 113.

¹³¹ Varchi was very familiar with Aristotle's *Meteorology*, on which his master in philosophy Lodovico Boccadiferro had written a commentary. See Umberto Pirotti, *Benedetto Varchi e la cultura del suo tempo* (Firenze: Olschki, 1971), p. 74. Varchi himself also wrote a manuscript text entitled This text, which is now lost, was dedicated to Cosimo I de' Medici.

¹³² *Principii della meteora* would mean *Principles of [Aristotle's book on] the heavenly bodies*; Varchi referred to the *Meteorology* as "il libro della meteora". The reference to this (now lost) manuscript in the *Quistione* reads: "dalla esalazione calda, e umida, che per virtu medesimamente del Sole si leva dall'acqua in quel modo che noi abbiamo dichiarato lungamente nel libro dei principii della Meteora all'Eccell. et Ill. Sig. Cosimo de'Medici..." Varchi, *Questione sul Alchimia di Benedetto Varchi*, pp. 8-9. Varchi also referred to this text in the *Lezione sui calori* in *Opere II*, p. 515: "...come avemo dichiarato ampiamente nei principii della Meteora al benignissimo et serenissimo Duca di Firenze, signor nostro e padrone osservandissimo."

¹³³ The Greek *meteōrologia* simply means 'the science of the heavenly bodies and their effects.'

¹³⁴ "...il zolfo, e l'ariento vivo, che essi [archimisti] chiamano Mercurio, i quali duoi sono l'uno il padre, e l'altro la madre di tutti i metalli, come si vedra di sotto." Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 7

¹³⁵ The seventh of the ten arguments against alchemy that Varchi alleges himself is entitled: "Diversità di materia e di forma" and reads: "Ogni volta, come dice il filosofo nella metafisica, che l'agente, e la materia sono diverse di spezie, anco quel, che risulta, e si fa da loro, e diverso di spezie. Ora in questo caso l'agente e la materia sono diverse di spezie, perche dell'i agenti uno e naturale, cioe essa natura, e l'altro artificiale, cioe essa arte. Le materie ancora sono diverse di spezie, perche gli Archimisti usano l'ariento vivo nel generare i metalli, e la natura il vapore umido: dunque l'oro naturale, e l'oro archimiatato non sono della medesima spezie." *Ibid.*, p. 15.

produce profitable things, the earth, similarly, is never lazy: whatever consumes itself inside her she renews and recreates right away; and if it is not as one species, she produces it as another. [...] Yet one needs to observe here that, just as the outer surface of the earth works hard to give birth to something, likewise is the inner part, the matrix of the earth also striving to produce: in some places she conceives and engenders iron, silver, lead, tin, gold, marble, jasper, and all species of minerals and of clayish earth, and in different places she also engenders and produces bitumen, which is a species of oily gum that burns like resin....¹³⁰

The conceptual frame in which Varchi builds up his treatise is, as mentioned, entirely Aristotelian. He makes clear from the start that he accepts Aristotle's theory that minerals originate through the 'coagulation' or the congealing of two kinds of 'exhalations' or 'breaths' (*aliti*) of the earth, as is briefly described in the *Meteorology* III, 6.¹³¹ A first hot and dry exhalation is described as smoky: it produces the stone-like minerals. The other exhalation, hot and wet, is of a vaporous nature; subjected to a great cold it transforms into metals, the nature of which is thus partly watery, a fact that resurfaces when the metals are heated. The principle is just mentioned here, but Varchi refers to another of his writings (now lost), the *Principii della meteora* dedicated to Cosimo, in which he had described the process in detail.¹³² According to Aristotle, it is the sun that causes the earth to warm up and 'breathe' or exhale, which explains why the passage on the formation process of minerals is to be found in *Meteorology*, Aristotle's book on the heavenly bodies and their effects.¹³³ Contrary to the author of the *Bergbüchlein* and following Aristotle, Varchi makes no mention of the influence of any other planet on the formation of metals: the influence of the heavenly bodies is subsumed to that of the sun.

However Varchi knows and accepts the fact that alchemists do work with sulphur and mercury as their basic ingredients, which he calls "the father" and the "mother of all metals".¹³⁴ The difference of the matter upon which the transmutation is operated (the hot and humid vapour in the natural process; the mercury in the artificial one) is one of the ten reasons advanced by the detractors of alchemy that Varchi rehearses at the beginning of his *Quistione*.¹³⁵ To refute this kinds of arguments Varchi stresses, from the start, the fact that all bodies are made up from the four elements, and that these in turn derive from one and the same material principle: prime matter.

One is again surprised, when reading *Quistione sull'archimia*, to notice the emphasis that is laid on the principle of continuity between the animal, the vegetal, and the mineral forms of life. The fourth argument 'against the possibility of alchemy', for instance, entirely rest upon the principle of that continuity. The fact that it is impossible to make artificial animals, ("No art can generate a dog"), is used to argue the impossibility to make perfect metals.

¹³⁶ “Niuno puo, per mezzo d’alcuna arte generare un cane, o altro simile, le mistioni de’ quali sono piu agevoli, e piu manifeste, che quelle de’ metalli, la quali sono fortissime, e del tutto nascoste alli nostri sensi; dunque molto meno potra alcuno conseguire la mistione de’ metalli, e generare l’oro.” Ibid., p. 14

¹³⁷ “Tutte le spezie sono distinte , e diverse tra loro in guisa, che ciaschuna spezie e sempre o piu perfetta, o meno perfetta di qualunque altra; e questa propositione maggiore non proveremo altramente per essere notissima da se agli’intendenti, essendo la spezie come i numeri, e niuna spezie, come dice Avicenna, si puo trasformare in un’altra...” Ibid. , p. 12.

¹³⁸ “[L’archimia esser falsa], ragione terza: ciò che si genera, si genera da una cosa somigliante a se.” Ibid. , p. 13.

¹³⁹ “La natura nel generare i metalli se serve di cose semplici, e naturali, ha i luoghi proprii, e determinati, cioè, nelle viscere della terra, e dentro le pietre: usa caldi naturali, e continovi.; l’arte dall’altro lato si serve di cose composte, e accidentali; non ha luoghi proprii, e determinati lavorando sopra terra, e dentro vasi di vetro, e d’altri composti, usa caldi discontinui, e non naturali; dunque non puo produrre i medisimi effetti che la natura” Ibid., p. 16.

¹⁴⁰ “La natura conduce in centinaia, e forse in migliaia d’anni i metalli alla perfezione, e bonta loro; come puo dunque l’arte fare in brevissimo tempo quello, che la natura fa a pena in lunghissimo.” Ibid. , p. 14.

Nobody can, by means of any art, generate a dog, or any other similar animal, the mixtures of which are easier [to do/undo] and more apparent, than those of metals, which are very strong, and almost entirely hidden to our senses. Thus even more impossible will it be for anybody to carry out the mixtures of the metals, and generate gold.¹³⁶

The second counterargument reads: “One cannot change species”, meaning that it is a rule of nature that all species are distinct, and that it is impossible to metamorphose one species into another.¹³⁷ If it were possible to make gold out of lead, it would be possible to change men in wolves, lions or cats (as is sometimes thought about witches).

The notion of species stands also central in another of the evoked objections: Aristotle stated in *Physics* and the *Generation of animals* that animals brought forth through a *generation ex putris* (like insects, mice, ...) could not be of the exact same kind and species as their counterparts issued out of sexual reproduction, since the very mechanism of their origination is totally different. Even if at first sight similar, a mouse *ex putris* is intrinsically different from a sexually generated one: the latter can have progeny, the former not. If the same principle applies to metals, thus goes the argument, then artificial gold would be of a different species than natural gold.¹³⁸

The nature of the difference between art and nature’s ways of proceeding is further detailed in the same section of the counterarguments: nature would have its own instruments, its very own places, its own operational ‘heats’ that art does not dispose of:

Nature in the generation of metals uses simple, and natural things, it has its own, determinate sites to do so, that is to say, in the bowels of the earth, and inside stones: it uses natural and continuous heats; art on the contrary uses things that are composite, and accidental. It doesn’t dispose of own and determinate sites, since it works above earth, and inside glass recipients, and other compound things; it uses discontinuous heats, and not the natural ones. It cannot, consequently, produce the same effects as nature does.¹³⁹

Nature also uses far more time to do its work than art is accustomed to:

Nature needs hundreds, maybe thousands of years to bring metals to their perfection and goodness. How could art do in a very brief period of time what nature does only with pain and in a very long period?¹⁴⁰

It is not my intention to review here in detail the arguments with which Varchi individually rebuts each of these objections against the possibility of alchemy in the second part of his treatise. Let it suffice to disclose the most powerful and most central argument used in his rebuttal strategy, an argument Varchi borrowed from Albert the Great.

Alchemy, according to that line of thought, is not really similar to the purely productive arts like carpentry, or stone carving. It is, on the contrary, best to compare with

¹⁴¹ “...di maniera che non l’arte, o l’Archimista genera, e produce l’oro, ma la natura disposta pero, et aiutata dall’Archimista, e da”larte, non atramente che la sanita in un corpo malato non si rende ne dalla medicina, ne dal medico, ma dalla natura disposta pero, ed aiutata dal medico, e dalla medicina.” Ibid. , p.21

¹⁴² “E perche il zolfo, come padre, e agente e l’argento vivo, come madre, paziente sono i principii di tutti i metalli, pero i veri Archimisti si maneggiano, e s’affaticano intorno a essi principalmente, e non altramente che i buoni medici purgano prima mediante gli sciloppi , e le medicine appropriate, a ciò, cosi le materie putrefatte come quelle, che agevolmente si corromperebbero, poi mediante le cose confortative confortano, et aiutano la virtu naturale, tanto che ella possa digerire, e cosi tornare l’infermo alla pristina sanita, il che è l’ultimo, e vero fine del medico. Così ne piu, ne meno i buoni Archimisti purgano prima la materia dell’argento vivo, e del zolfo, poi confortano le virtu delle materie, cosi le elementali, che le celesti secondo la proporzione della misione di quel metallo, che essi vi vogliono introdurre, e di poi lasciano operare alla natura; onde si vede manifestamente, che non l’arte fa i metalli, me essa natura, se non quanto l’arte e strumento, cioe, aiuta or levando, et or ponendo dai corpi minerali, come fa ne’ corpi umani la medicina.” Ibid., p. 22.

¹⁴³ Ibid., pp. 41-2.

medicine, or agriculture. In these arts man is no more than the helper (coadjutor) or the assistant of nature, which is herself still responsible for the work done.¹⁴¹ The alchemist will thus do no more than disposing the ingredients in such a way as to let nature operate the right interactions, just like a physician can only administer some drugs as to support a natural process of recovery in the patient. Neither is, of course, the farmer responsible for the growth of his crops; he can only improve the circumstances in which that natural growth occurs.

The argument allows Varchi to tackle all the objections that insisted on the insuperable difference between art and nature's way of proceeding. The art of alchemy is not putting itself in the place of nature; it is just assisting nature in doing what the latter is used to do. The crucial verb in the description of the task of the alchemist is "*confortare*", which means both 'soothing' and 'inciting' or 'encouraging', an effort that needs to be directed to "the natural virtues of the matter." The next quote from the *Quistione* shows how much the art of medicine and alchemy are conceived of as related:

... since sulphur, as the father and agent, and mercury, as the mother and patient are the first principles of all metals, the real *archimisti* are primarily concerned with these in their manipulations and efforts. And exactly like good physicians first purge matter using syrups and other appropriate medicines to that effect, and then administer some comforting drugs to soothe and help the natural virtue, so that it may perform the digestion necessary to restore pristine health to the sick [...]. In precisely the same way do good *archimisti* first purge the matter of the quicksilver and the sulphur, and then comfort the powers (*virtù*) of these substances [...] according to the relative proportion specific to the metal [whose form] they want to infuse; and then they let nature operate. So one can clearly see that it is not art that makes the metals, but nature itself, and that art is no more than an instrument or aid that adds or subtracts [matter] to the mineral bodies, just as medicine does in the human bodies.¹⁴²

The parallel between medicine and alchemy naturally entails the equalling of the objects of both arts: human bodies and metals. Varchi formulated the idea quite simply: like a weak man can be brought to a healthier condition by his doctor, a metal that is not entirely pure can be purified by the alchemist, and 16 or 20 karat gold can be turned to its perfection, i.e. the purest 24 karat kind.¹⁴³ But the idea of the parallel body-metal is of course one of the foundation of the soteriological dimensions of alchemy as a mystical discipline; some of the most refined products of that art ('potable gold', the elixir) being conceived of as drugs whose infinite virtue enabled to cure not only metals, but living bodies, to rejuvenate them, and, eventually, to procure them immortality.

Such parallels between bodies and metals also occasionally surface in lay or non-alchemical contexts. The goldsmith and sculptor Benvenuto Cellini, for instance, implic-

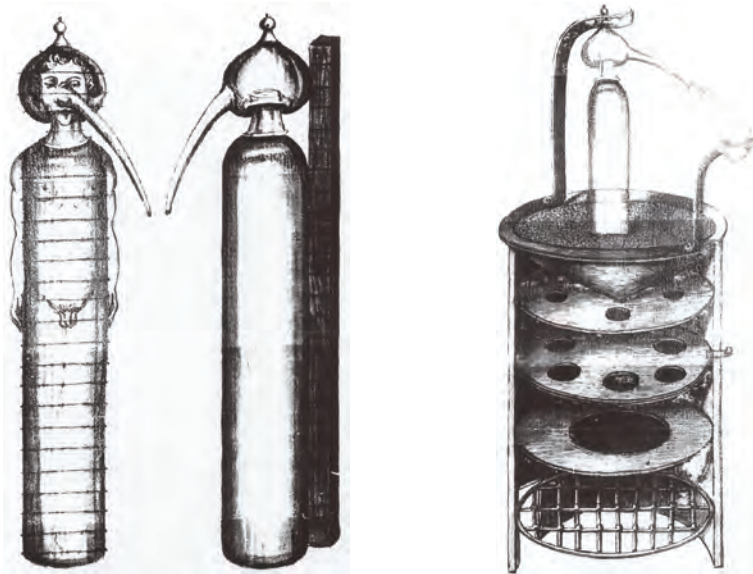


Fig. 6.13 & 6.14 Anonymous (& G.Dorn), *The Anatomic Man*, from the *Anatomia delli corpi vivi*, BNF, MS Palat, 666.

¹⁴⁴ “Era la infirmità stata tanta inestimabile, che non pareva possibile di venirne a fin; e quello [medico] ci durava più fatica che mai, e ogni giorno mi portava nuovi rimedii, cercando di consolidare il povero istemperato istrumento...” Cellini, *Vita* I. 85, p. 294.

¹⁴⁵ “...al mio partire, nella conduttura di un sasso solo per far la sua statua aveva speso dodici mila scudi.” Fedeli, “Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l’anno 1561,” p. 350.

¹⁴⁶ Biringuccio, *The pirotechnia of Vannoccio Biringuccio*, p. 79

¹⁴⁷ Ibid, p. 80.

¹⁴⁸ Don Antonio de’ Medici was born as the bastard son of Francesco and his mistress Bianca Cappello in 1576. Antonio lost his hereditary right to the Ducal title when Francesco’s younger brother, the future Grandduke Ferdinando, annulled Antonio’s rights to inherit by claiming Bianca’s pregnancy had been simulated. See Diaz, *Il Granducato di Toscana: i Medici*, p. 235.

¹⁴⁹ At the death of Antonio in 1621, an exhaustive inventory was put up of all items in the Casino di San Marco, Buontalenti’s building in the Medici Gardens (1577) to where Francesco I had transferred the activities of the *fonderia*; featuring in that inventory was the manuscript translation of Gerhard Dorn’s work, the *Anatomia delli corpi vivi*, now in the BNF, Ms. Palat. 666. See Paolo Galuzzi, “Il mecenatismo Mediceo e le scienze,” in *Idee, istituzioni, scienza ed arti nella Firenze dei Medici*, ed. Cesare Vasoli (Firenze: Giunti-Martello, 1980), pp. 209–210.

¹⁵⁰ A fragment of Dorn’s key for that comparison reads as follows: “Se il colore sarà come la pietra citrina significa d’effetto e mancamento delle facultà nutritive et espulsive./ colore di topazio dinota apostemma delle reni. Colore Crisolito augumento delle anni./ Colore di smeraldo oppilazione delli humori radicali./ Colore di Prassinon mancamento delle reni, e della diaframma./ Colore della Malachita mancamento della digestione.” (Dorn), *Anatomia delli corpi vivi*, f. 34.

itly compared a healthy body with a piece of well-tempered steel, when he referred, in the course of his *Vita*, to his own body diminished by an illness as a “distempered instrument” (*istemperato istrumento*).¹⁴⁴ The parallel human body-metal is also grounded in the intuition, awkward to our modern sensibilities, but ubiquitous in Renaissance literature, that substances always present themselves as a *composto* of matter and form with finite dimensions, and thus as a body. Whatever its dimensions, a certain quantity of a substance will always be referred to as a body; one illustration of the phenomenon is the way in which, in Renaissance Italian, many terms used as the names of materials (like “marmo”, “sasso”, “legno”, ...) can as easily become substantives, referring to individual objects, the nature of which is usually made clear by the context of the phrase. “Sasso” could thus be used to refer to a pebble, but equally to far larger stones, as when Vincezo Fedeli says Cosimo paid 12.000 ducats for the order of just one “sasso” to make his statue.¹⁴⁵ More striking instances of this tendency to understand matter in corporeal terms surface when they are applied to liquid matter. Vanoccio Biringuccio for instance defined mercury (*argente vivo*) as “a body of running and liquid matters almost like that of water...”¹⁴⁶. Alchemists are particularly interested in that body, the Sienese observes:

...indeed it is the sport and flirt of the alchemistic crowd, who continually stand around it with the desire to anatomize it, attempting sometimes with cajoleries and deceits, and sometimes with force, to put it in most narrow prisons or to wall it in with various devices, or else to lock it up with irons or other strong chains.¹⁴⁷

The alchemists themselves compared their inquiries into the secrets of matter to a dissection on an animal body. Antonio de' Medici, a grandson of Cosimo and heir to his chemical interests,¹⁴⁸ possessed a manuscript intended for publication with the title *Anatomia delli corpi vivi* ('Anatomy of the living bodies').¹⁴⁹ The text, originally written in Latin by the German Gerard Dorn, one of the main adepts of Paracelsan philosophical alchemy, is in reality a treatise on a iatro-chemical technique to diagnose a patient's illness by distilling ('anatomizing') his urine. The diagnosis on the sick patient is obtained by observing a series of phenomena that appear during the distillation of the urine which is effectuated in strictly regulated circumstances, using a special alembic that Dorn meticulously described and illustrated in his manual. The features to be scrupulously observed and interpreted when the distillation device is gradually heated include the number and location of condensation droplets on the alembic or the colour of the salts obtained when all liquids have been evaporated (salts which are, among other things compared to the colour of gems)¹⁵⁰. Figure 6.14 features the manuscript's illustration of that glass alembic or flask, with clear anthropomorphic features. According to the text, this “anatomical man” needed to measure exactly one sixth the height of a well proportioned body to

¹⁵¹ “...la sesta parte d’un corpo humano ben proporzionato, tal che la misuretta di legno, sei volte misurata rappresenti //la lunghezza d’un corpo humano. Considerando che la misuretta sia d’un piede, e di 24 dita grossa, che nostro huomo anatomico habbia sei altezze, o lunghezze di piedi simili, et cento quaranta dita grosse...” Ibid., f. 1-2

¹⁵² In 1544, Varchi committed what Pirotti called an “imprudence”. During a short stay in Rome, he stood on the brink of abandoning his service for Cosimo as to follow the Archbishop Girolamo Sauli. Cosimo clearly manifested his discontent. See Pirotti, *Benedetto Varchi e la cultura del suo tempo*, p. 25.

be effective.¹⁵¹ The whole idea is that, when observed in the right receptacle heated according to a prescribed method, the “body” of the patient’s urine becomes a telling analogon for his real body. In very literal terms, Dorn’s diagnostic technique very well expresses the conviction that even an apparently homogeneous liquid (urine) or matter (metal) is enclosing a complexity that can be analysed and anatomized, and influenced. It also perfectly illustrates how in some doctrinal strands, such as Paracelsus’ iatro-chemistry, alchemy and medicine come to overlap entirely.

Varchi’s own insistence on the parallels between alchemy and medicine as perfective arts entails that in both arts, the exact ways through which Nature proceeds lie beyond the limits of human sense perception and comprehension. Some actions though, like the addition or subtraction of certain ingredients can encourage her to perform a desired operation.

In the argumentation of the *Quistione* on the possibility of alchemy, and much in line with the lecturer’s abhorrence for occult explanations, Varchi very much downplays the importance of the specific characteristics of the site or place in which a metal is generated. The only thing that is considered crucial in that respect are conditions of temperature. It is the right amount of heat that appears to be the true instrument with which nature performs its work: be it inside the bowels of the earth or inside the womb of animals. Alchemists tried to imitate these circumstances by causing in their ovens a steady, moderate heat, very similar to the heat of a maternal womb or of a brooding bird’s nest. Contrary to a claim often found in antique and contemporary medical literature, namely that nature operates with its own, natural kinds of heat, Varchi sustained the opposite: there is no difference between natural and artificial heat, which are both capable of causing natural processes of generation. The question, as we shall see shortly, proved to be much contested.

4. Varchi’s true contribution to the alchemy-debate: the *Lezzione sui calori*

Alfredo Perifano who has until now paid the closest attention to Varchi’s *Quistione* on alchemy, has much insisted on the ‘mercenary’ commitment of the author to his task. Varchi, according to Perifano, would have been more or less forced to write the treatise in the very perilous context of the year 1544, a year in which Varchi, because of a careless move, was in serious peril of losing his freshly acquired position and salary.¹⁵² The decision to write the *Quistione*, an act of clear benevolence towards the Duke, would have helped to secure the stability of his position again. Once the first part of the text, read

¹⁵³ Perifano, “Benedetto Varchi et l’Alchimie. Une analyse de la *Questione sull’alchimia*,” p. 187.

¹⁵⁴ Biringuccio, *The pirotechnia of Vannoccio Biringuccio*, p. 38.

¹⁵⁵ “Al che [la proposizione: ‘tutti i calori sono d’una spezie medesima’] avendo risposto Sua Eccellenza Illustrissima non meno giudiziosamente (come fa sempre) che con verità, che questo appresso lei non aveva dubbio nessuno, ed avendone raccontati molti esempi parte veduti da lui propia, e parte uditi da altri...” *Lezione sui calori* in *Opere* II, p. 508-509.

before the Duke, had yielded its expected result and danger had give way, there was no need to pursue the effort: Varchi could just drop the project of ever finishing the treatise, and turn back to his own preferred researches.¹⁵³

Perifano did not, though, pay much attention to another text which was written in the immediate aftermath of the *Quistione* and which constitutes a continuation of its central arguments: the lecture on the question of the ‘heats’ (*Lezzione sui calori*), that demonstrates a far greater commitment to these matters than Perifano had assumed.

In the dedication to that *lezzione sui calori*, which is addressed to Cosimo’s first physician, Andrea Pasquali, Varchi explains that he wrote his lecture as a reply to an objection Pasquali himself had uttered right after Varchi had read the *Quistione* to Cosimo and some officials. Pasquali had in fact openly doubted whether one could sustain, as Varchi had done in his *Quistione*, that there is only one kind of heat operative both in nature and art, instead of several ‘species’, which would also have different functions and effects. Pasquali’s scepticism only rehearsed a classical and central objection against alchemy. Biringuccio, in his attack on the alchemists, had resumed that objection in the following words:

...likewise the heats that they apply are intermittent and intemperate fires, very unlike natural ones since they lack a certain proportion of nourishing, and augmentative substance.¹⁵⁴

To Pasquali Varchi had answered that he realized fully that the problem of the “species of heat” was ample and contentious enough to be treated in an autonomous text. Varchi set himself to work and produced the *lezzione sui calori* a few months later.

The treatise on heats features many of the characteristics of the one on alchemy. Varchi again used the format of the *Quaestio*. The text in fact bears the subtitle *Quistione se i calori sono differenti tra sè, o pure sono tutti d’una medesima spezie spezialissima*. (‘Debate on whether there is a difference between the various [forms of] heat, or whether they are instead all of one and the same species.’) With the earlier treatise on alchemy, the text on the ‘heats’ shares the Aristotelian frame of thought, the same rigorous enumeration of arguments in disfavour of the central claim, and the same eventual rebuttal of all these arguments. Varchi’s position on the matter, developed in a lengthy argumentation that I will not detail here, is again firmly supported by the Duke. As mentioned in the dedication, Cosimo had shared his opinion on the matter as soon as the question had been raised: to him, it made no doubt whatsoever that all forms of heat were of the same kind, considering that their effects are one and the same. And Cosimo had added in the discussion a whole series of illustrations (*esempi*) of the fact, “partly observed by himself, and partly heard from others...”¹⁵⁵ Varchi is thus again advocating his master’s point, and it is very probable that he also took over some of the Duke’s or practical examples in favour of the thesis.

¹⁵⁶ “Consciosia cosa che il calore celeste è perfettivo e salutarevole a meraviglia, dando alle piante la vita vegetativa, agli animali bruti la vegetativa e la sensitive, ed agli uomini la vegetativa, la sensitive e la razionale, dove il calore nostro elementare consuma e distrugge tutte le cose a cui s'appiglia.” *Lezione sui calori* in *Opere* II, p. 510-511.

¹⁵⁷ “E chi non ha veduto alcuna volta accendersi il fuoco dagli specchi concavi, rivolti verso la spera del sole per li raggi che si congiungono ed uniscono ad un punto solo?” *Lezione sui calori* in *Opere* II, p. 511. But as a decisive argument, the example of the concave mirrors is invoked p. 520.

¹⁵⁸ “...le uova, le quali, messe nel forno, o in altri luoghi temperatamente caldi, nascono non altamente, che sotto la chioccia;” *Lezione sui calori* in *Opere* II, p. 521.

¹⁵⁹ “...se bene, molti, non pur idioti ed illiterati, ma dotti e filosofi, non solo non lo credono, ma se ne fanno beffe, burlandosi di chi lo dice.” *Lezione sui calori* in *Opere* II, p. 521.

¹⁶⁰ Luciano Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino* (Firenze: artout maschietto&ditore, 2002), p. 373.

The examples are only provided after a detailed examination of the principal sources of heat that are customarily distinguished. Varchi analyses the nature of the heat caused by the sun (*caldo solare*), the heat of the element fire (*caldo elementare*), and finally the kind of warmth found in living bodies, responsible for the conservation of their life (*caldo naturale*). Varchi had earlier also rehearsed the main arguments of those who advocated the existence of diverse species of heat. How could one sustain, was one of these, that the heat produced by the heavens, which kindles and perfects vegetal, animal and rational forms of life, would be of the same kind as the heat of fire which consumes and destroys whatever it is brought in contact with?¹⁵⁶

Varchi's (or Cosimo's) first practical example was precisely destined to prove in fact that the rays of the sun produce a kind of heat that is indeed entirely similar to that brought forth by earthly fire: does one not see parabolic mirrors set inflammable substances afire? Since the one proceeds from the other, both varieties of heat (the heat of a fire and the heat of the sun) necessarily share the same nature.¹⁵⁷ Similarly, the water contained in a bowl put under the rays of the sun will warm up in exactly the same way as to when it would have been put on a moderate fire.

The second example is provided by silkworms: in silkworms, which are normally lethargic in a temperate ambient, will regain their vivacity when put in a warm place as on the bosom of a woman. In the same circumstances, the eggs of the silkworm can also hatch. It is clear that the species of heat needed to kindle the body of animals can also be provided by artificial fire.

5. Artificial incubation

The third, and most convincing example ("*segno più certo*") of the 'unity of heat' Varchi provides is that of chicken eggs, which, "when put in the oven, or in another place that is temperately warm, will hatch in exactly the same way as under a brooding hen..."¹⁵⁸ And Varchi immediately added: "...although many people, not only idiots and illiterates but learned men and philosophers, not only refuse to believe it, but also ridicule it, and make fun of those who sustain it."¹⁵⁹ Varchi's indignant reaction towards the ill-advised sceptics underscores the novelty, in Cosimo's days, of experiments with artificial incubators which Varchi must have observed. Luciano Berti reported that Francesco de' Medici, Cosimo's son, attempted the artificial incubation of eggs in 1571,¹⁶⁰ but Varchi's mention is a strong indication that Cosimo would have witnessed such a feat or would even have himself conducted such an experiment to a good end as early as in 1544. This is an extremely early date for successful artificial incubation in Europe, and had Varchi's text



Fig. 6.15 Ulisse Aldrovandi, position of the chick at the moment of hatching, from *Ornithologiae tomus alter* (1600). Reprinted in Aldrovandi & Lind, 1963, p. 219.

¹⁶¹ “Eggs are hatched by the incubation of the mother-bird. In some cases, as in Egypt, they are hatched spontaneously in the ground, by being buried in dung heaps.” *History of Animals* VI.1, 559b1.

¹⁶² Cited by F. Gregorovius, *The Emperor Hadrian* (London: Macmillan, 1898), p. 124.

¹⁶³ *History of Animals* VI.1, 559b1.

¹⁶⁴ *Ibid.*; Pliny, *Naturalis historia*, X.75.

¹⁶⁵ Pliny, *Naturalis historia*, X.76.

been published earlier, more rumour could have been given to the fact, which now seems to have passed unnoticed.

The history of artificial incubation goes back to the Ancient Egyptians, who had built huge clay ovens in which large quantities of eggs were hatched. But the whole art of building and using these incubators, in an era in which no instruments whatsoever existed to measure or control temperature, appears to have been a well-kept secret. The very functioning of these ovens, as well as the ancestral empirical techniques used by the attendants to control the intensity of the fire were first accurately described as late as in 1809, the year of the publication of the *Description de l’Egypte*, written by the members of the scientific staff of Napoleon’s Egyptian expedition. The tradition of building and exploiting these incubators seems to have been kept alive for all those centuries, but had never been subjected to thorough scrutiny before. In fact earlier writers, up to Aristotle, had critically misunderstood the technique the Egyptians had put in practice, by focusing on the combustible agent that was used to that effect: manure. According to the Stagirite, the Egyptians indeed practiced ‘artificial’ incubation of poultry eggs, but by “burying them in dung heaps”; the necessary heat there was then, supposedly, naturally produced by the putrefaction of the manure.¹⁶¹ The Roman Emperor Hadrian seems to have been similarly preoccupied with this combustible, when he wrote in A.D. 130 from Egypt to his brother in law: “I wish [the Egyptians] no worse than that they should feed on their own chickens, and how foully they hatch them.”¹⁶² Pliny, when evoking cases of artificial incubation, also mentioned the “dunghills of Egypt”, together with two other examples which both, interestingly, feature only “natural” forms of heat put into use, instead of “artificial” fire. One of these, also mentioned by Aristotle,¹⁶³ was that of a drunkard in Syracuse who used to hatch his eggs by burying them not very deep under the ground where he placed his rush-mat. He then sat drinking until they hatched.¹⁶⁴ Pliny’s other example is more sophisticated and involves Livia Augusta, the wife of Emperor Augustus. Pliny wrote that the future empress:

...when pregnant in her early youth of Tiberius Cæsar by Nero was particularly desirous that her offspring should be a son, and accordingly employed the following mode of divination, which was then much in use among young women: she carried an egg in her bosom, taking care, whenever she was obliged to put it down, to give it to her nurse to warm in her own, that there might be no interruption in the heat: it is stated that the result promised by this mode of augury was not falsified.¹⁶⁵

The fact that in this testimony, the nature of the heat produced in the Empress’s bosom was able to determine the gender of the little chick underscores the ‘special’ qualities of the ‘natural’ heat produced by a woman’s body. In fact, Aristotle had quite adamantly

¹⁶⁶ *Generation of animals* II.2, 737a1-8

¹⁶⁷ See Joseph Needham, *A History of Embryology*, 2nd ed. (Cambridge: Cambridge University Press, 1959), p. 26.

¹⁶⁸ See C. Romijn, "Kunsmatig broeden en Europese vorstenhuizen," *Tijdschrift voor Diergeneskunde* 103, no. 12 (1978): 629-640.

¹⁶⁹ "...preso e considerato il calore come ed in quanto calore, ciò è come qualità pura, tutti i calori sono non pur d'una medesima spezie spezialissima, ma sono tutti uno ed il medesimo, non essendo atra differenza tra loro, che accidentale e nel modo di considerarli. Perché il medesimo caldo, se si considera come istromento dal cielo, si chiama caldo celeste; se come strumento della natura, naturale; se si considera come qualità semplice del fuoco, si chiama elementare,; se some strumento dell'arte e regolato da lei, si chiama caldo artificiale: e così tutti realmente ed in effetto sono un medesimo, ma si diversificano, secondo che sono strumenti di diversi agenti ed operanti." *Lezione sui calori* in *Opere* II, p. 521.

posited, in *Generation of Animals*, that the kind of heat found in animal bodies is of an entirely particular nature:

...fire does not generate any animal, and we find no animals taking shape either in fluid or solid substance while they are under the influence of fire; whereas the heat of the sun does effect generation, and so does the heat of animals, and not only the heat of animals which operates through the semen, but also any other natural residue which there may be has within it a principle of life. Considerations of this sort show us that the heat which is in animals is not fire and does not get its origin or principle from fire.¹⁶⁶

The incubation experiment to which Cosimo and Varchi referred forced them to exactly the opposite conclusion: 1. fire on the contrary does generate animals, and consequently 2. the heat that is in animals is fire or gets its origin or principle from fire.

But as mentioned, these experiments remained unnoticed. More than half a century later Galileo Galilei, the inventor of one of the first thermometers, derided the idea of artificial incubation which he considered ridiculous, though he must have heard more insistent reports from Egypt on eggs being hatched in ovens.¹⁶⁷ In Europe, conclusive experiments with incubators are only reported from the 18th century on.¹⁶⁸

These specifics on the history of artificial incubation allow us better to grasp the exceptional character of the successful experiments Cosimo and Varchi seem to have witnessed. The empiric evidence is presented as a conclusive argument in the 1544 *Lezzione* in favour of the thesis that all heats are identical in their nature: there can thus be no qualitative difference between the heat produced by the sun (and possibly other heavenly bodies; *caldo solare / celeste*), the heat that rules organic processes in animal bodies (*caldo naturale*) and the heat of fire (*caldo elementale*). The example of the incubator shows that a fire, properly contained and regulated by art, can produce a fourth kind of heat (*caldo artificiale*) that is potentially the equivalent of the other three.¹⁶⁹

Paradoxically, while the proof that the generative heat of a brooding chicken or a womb could be imitated by art or technology constituted a considerable advancement in the biological sciences, it must also have encouraged Cosimo and his collaborators of the *fonderia* to return to their alchemical ovens with renewed enthusiasm. The fact that alchemists thought of the maturation of a metal in the ovens until it turns into gold as perfectly analogous to that of the hatching of a chicken out of an egg appears, as will not really surprise us, most literally in texts with a clearly sceptic stance towards alchemy. The French master ceramist Bernard Palissy observed with scorn,

...[the alchemists] put the mentioned substances in a very slow fire, intending to imitate the matrix of the women or the animals, knowing well that generation comes about through a very measured heat [...] and in this manner they wait a

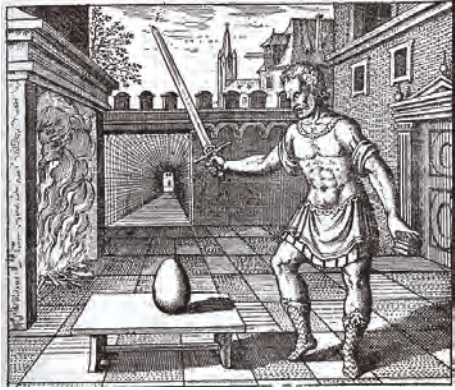


Fig. 6.16 Michael Maier, Emblem 8: 'Accipe ovum et igneo percute gladio' (Take the egg and hit it with the sword of fire), *Atalanta Fugiens* (Oppenheim, 1617).

¹⁷⁰ "...ils mettent lesdites choses en un feu fort lent, voulant imiter la matrice de la femme ou de la bête: sachant bien que la génération se fait par une lente chaleur [...] et attendent ainsi long-temps à couvrir les œufs : ie di aucuns ont attendu plusieurs années..." Bernard Palissy, *Oeuvres complètes de Bernard Palissy*, ed. Paul-Antoine Cap (Paris: Dubochet, 1844), p. 193.

¹⁷¹ "...c'est pure folie de vouloir générer les métaux par le feu..." Ibid., p. 196.

long time for the hatching of their eggs: I say, some of them have been waiting for years...¹⁷⁰

Palissy preferred his own opinion on the matter not to be ambiguous, as he observed in the same text: "...it is pure folly wanting to generate metals with fire..."¹⁷¹ The parallel between artificially generating gold and hatching chicken is also used, with comic immediacy in a scene from Ben Jonson's satire *The Alchemist* (1610). Act two, scene two of that play features the lead role alchemist, Subtle, manipulating substances with his supporter Sir Epicure Mammon, when they are interrupted by the questions of a third protagonist (Surly), who expresses his incredulity regarding the whole procedure. To Surly's skepticism, Subtle replies:

SUBTLE: Why what have you observ'd, Sir, in our Art, seemes so impossibile?

SURLY: But your whole worke, no more. That, you should hatch gold in a Fornace, Sir, as they do egges in Egypt.

SUBTLE: Sir, doe you believe that egges are hatche'd so?

SURLY: If I should?

SUBTLE: Why, I thinke that the greater Miracle. No Egge, but differs from a Chicken, more, then *Mettals* in themselves.

SURLY: The *Egg's* ordained by *Nature*, to that end: and is Chicken, in *Potentia*.

SUBTLE: The same we say of Lead, and other *Mettalls*, which would be Gold, if they had time.

MAMMON: And that, our Art doth funder.

SUBTLE: I, for 'twere absurd to thinke that *Nature*, in the earth, bred Gold perfect i'the instant.

Even if Jonson's lines are clearly deriding, and part of the 17th century fashion of staging archetypically pedantic and idle characters (the alchemist, the physician ...) to achieve comic effects, they provide us with an accurate picture of the kind of discourse and terminology used by the alchemists. Central to their preoccupation, it appears, was the realization that artificial heat can reveal, in a certain substance, what was hidden there "in potentia".

¹⁷² “...un granello solo, o d’oro, o d’argento...”Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 40.

¹⁷³ The man’s Hungarian name was Edérlyi Dániel. See Lázló Szathmáry, *Magyar Alchémisták* (Budapest: 1928), pp. 353–355. See also Perifano, *L’alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, pp. 88–89.

¹⁷⁴ Bernard Palissy, in his *Discours admirables*, reported a beautiful instance of alchemical fraud, whereby the silver, supposedly generated by transmutation was simply hidden, in powdered form, in a hollow space carved out in the wooden stick used to stir the heated preparation, and sealed with a small wax stopper. Even the person manipulating the substances could thus be duped: the mere fact of stirring in the heated mixture with the stick, casually prepared on the workbench by the deceiver, sufficed for the wax to melt and sublimate and for the silver to pour in the preparation, without the notice of the person stirring. Palissy, *Oeuvres complètes de Bernard Palissy*, p. 197

¹⁷⁵ The exact title of the recipe in question is “a tirar in rosso ogni metallo”. See Perifano, *L’alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 57.

¹⁷⁶ [Li]bro nel quale si scriveranno esperimenti e cose certe per mano del duca di Fiorenza o vero in sua presentia, né ci sarà su cosa che non sia certissima per utile comune. (1556). See *Ibid.*, p. 50.

D. THE DUCAL FONDERIA: STAGING METAMORPHOSES

1. Sources on the alchemical procedures

Varchi had stated in his *Quistione* that one alchemist producing only one minuscule grain of gold or silver would be enough to prove, irrefutably, the ‘possibility of alchemy.’¹⁷² Cosimo was clearly more ambitious, and that ambition also led him to be seriously deceived.

László Szathmary narrated, in his history of Hungarian alchemy, the tale of the man responsible for Cosimo’s trouble, a certain *Usifer*, a Hungarian adventurer better known under the name of Daniel of Transylvania.¹⁷³ At a certain point of his life *Usifer* decided to settle in Florence, where he developed a prosperous practice as a physician. Rumours soon spread that he had discovered a recipe for the synthesis of gold. The rumours eventually caused Cosimo to summon the man to his palace. Daniel confirmed the fact and immediately proposed to sell his formula to the Duke in exchange of a sum of 20.000 ducats. Cosimo accepted the bid, provided, of course, that Daniel would first realize a transmutation under his very own eyes. Cosimo himself provided all the necessary ingredients for the demonstration, except the *usifer*, which was Daniel’s self-prepared miracle ingredient. The experiment was a success: Cosimo paid the 20.000 ducats as had been agreed, and was handed in exchange a sufficient amount of *usifer*. Daniel shortly after announced his departure for France, while promising to be back soon. Cosimo was producing gold in the mean time; for a while, everything went well, until the efficiency of the product suddenly vanished, and all further attempts at obtaining gold failed. By that time, of course, *Usifer* himself had disappeared in France without leaving any trace.¹⁷⁴

More tangible traces than this isolated story of Cosimo alchemical ventures are provided by a series of manuscript texts, now in the Florentine archives, that have been identified as the theoretical complements of the practical investigations carried out at the *fonderia*. Perifano brought a manuscript to attention (*Magliabecchianus XVI, 34*) which contains handwritten alchemical recipes that have been attributed to Cosimo himself. One of these describes the “reddening” of any kind of metal, a traditional way of describing the *chrysopoeia*, the “production of gold.”¹⁷⁵ The manuscript *Palatinus 1139*, also conserved at the Florentine *Biblioteca Nazionale*, is dated 1556 and entitled: *Book in which experiments will be written down and certain facts by the hand of the duke of Florence or in his presence, nor will there feature in it anything that is not most certain (or) in favour of the common good.*¹⁷⁶ It contains a series of recipes, among which one for a “well-trying life elixir”,

- ¹⁷⁷ “[E]lisir vitis probatissimo”; “[M]odo di far olio da veleno.” For the details of the recipe of the *olio da veleno*, see *Ibid.*, pp. 53-54.
- ¹⁷⁸ *Raccolta di segreti alchimici con sue postille originali*, BNF, Ms. II-IV-15, fol. 54r.-69v. The author mentioned in the catalogue for this manuscript is Cosimo himself.
- ¹⁷⁹ ‘pratica vera per far argento. (copiata).’ The recipe is based on mercury and sulphur.
- ¹⁸⁰ ‘moltepllicatione d’oro e d’argento. (copiata).’
- ¹⁸¹ ‘ricetta per oro (copiata).’
- ¹⁸² *Generations of animals*, II.3, 737b1-2.
- ¹⁸³ See Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 101.
- ¹⁸⁴ Allegretti was an active member of the same group of Florentine intellectuals to which Varchi belonged, and was for instance, like Varchi, very close to Annibal Caro and Benvenuto Cellini. See *Ibid.*, p. 126-127. On the more than courteous relations between Varchi and Allegretti, see Pirotti, *Benedetto Varchi e la cultura del suo tempo*, pp. 2,7,9,10. Both men also exchanged sonnets; see for example *Sonetti* II, LXXIX in *Opere* II, p. 935.
- ¹⁸⁵ “...che poi son nato, se non in grembo, nelle braccia almeno della tua bel Flora...” Allegretti, ..*De la tramutazione*, ... f°1. The *De la trasmutazione de' metalli* was first published by Mino Gabriele in 1981 (Roma: Edizioni mediterranee); see the introduction to this work for the scarce biographical data on Allegretti.
- ¹⁸⁶ “... Nel ventre della terra hanno la sede/ I freddi e pigri metalli, in cui molti/ Secoli e molti ha la Natura spesi/ Nel creargli, e condurgli ad esser tali;/ Onde alcun disse, ch'esser non posseva/ Di generare in lor desio, né possa:/ Ma chi con occhio d'intelletto chiaro/ Rimirerà dalla Natura in seno,/ Vedra ch'a questi ha dispensato il caro/ Tesoro della vita, e'l privilegio/ Come le cose naturali han tutte/ Di nascere, e produrre il suo simile./ Ma non sono i loro parti agli occhi nostri/ Sì manifesti, e conti, come quegli/ De gli altri misti; ...” Antonio Allegretti, *De la trasmutazione de' metalli: poema d'alchimia del XVI secolo; a cura di Mino Gabriele*. (Roma: Edizioni mediterranee, 1981), p. 52.
- ¹⁸⁷ The Brescian Giovan Battista Nazari had published an earlier version of his alchemical novel in Brescia, in 1564, under the title: *Il metamorfosi metallico et humano...* (‘The metallic and human metamorphosis’). But as Mino Gabriele demonstrated, Allegretti had certainly based his book IV on the 1572 version of the work, which is, incidentally, strongly reminiscent of the *Hypnerotomachia Polyphili*, even in its remarkable woodcut illustrations.

and Cosimo's recipe for an oily antidote against poisons (*olio da veleno*) prepared with scorpions drowned in the oldest possible olive oil.¹⁷⁷ The manuscript entitled *Miscellany of alchemical recipes with his [Cosimo's] own apostils* is equally a collection of diverse recipes;¹⁷⁸ here Cosimo's handwriting appears in brief notes made in the margins. Next to the first recipe, for instance, entitled 'true procedure for the composition of silver',¹⁷⁹ Cosimo's hand wrote down "copied"; The Duke equally copied recipe 10 'multiplication of gold and silver',¹⁸⁰ and 32 'recipe for gold', in which, interestingly, gold is made on the base of a *cimento reale*, a "Royal cement", a kind of powerful glue (the ingredients include saltpetre, pulverized silver and tin), that would allow the alchemist to 'glue' particles of baser metal into gold.¹⁸¹ The principle of this glue oddly echoes with one of Aristotle's statements from *Generation of animals*: "All bodies depend on something glutinous to hold them together".¹⁸² But this amazing recipe book also contains a recipe for 'a perfumed water', tried out by Cosimo, a 'mode to catch great amounts of fish' (to be done at night using two underwater lanterns resembling monstrous eyes), or an interesting 'recipe for diamonds' that may be summarized as follows: pulverize a sapphire, sprinkle the powder in a bath of liquid gold, add some borax, filter, and you will collect diamonds.

Given Cosimo's interest in alchemy, several authors decided to dedicate explicitly alchemical writings to the Duke. One of these is the *Libro de metalli et distillatione* written by the Cistercian monk Basilio Lapi.¹⁸³ The manuscript, dedicated to "the Duke of Florence" is to be dated it before 1557, when Cosimo received the title of 'Duke of Florence and Siena'. In that dedication Lapi made clear it had been his intention to write an exhaustive discussion of alchemy, which he defined as the art of the transmutation of metals, but also as a medical practice.

Another alchemical work dedicated to Cosimo is the long manuscript poem, entitled *De la trasmutazione de' metalli*, written by one of Varchi's friends,¹⁸⁴ the poet and prose-writer Antonio Allegretti native from the region of Florence. In the dedication of his poem to Cosimo, Allegretti described himself as "if not born from the very womb of Your beautifull *Flora*, then at least from her arms").¹⁸⁵ The whole poem, divided in four books totalling some 1500 verses, is an exposition of the alchemical *Opus* which resorts mainly to mythological imagery. The emphasis is on the fact that "the cold and lazy metals" live a vegetal kind of life in the bosom of the earth, and "have the privilege, like all the natural things, to be born, and to produce others to their likeness".¹⁸⁶ Allegretti's poem was probably started toward the mid 1550's, but only completed in the 1570's. The fourth part is heavily drawing on a classic alchemical novel, Giovan Battista Nazari's *Della Tramutazione metallica sogni tre* ('Three dreams on metallic transmutation'), published in 1572.¹⁸⁷

The last manuscript I will mention here bears no title, and is usually referred to by its first lines: *All' Illustrissimo et Eccellentissimo Signore Cosimo de Medici Duca di Fiorenza e*

¹⁸⁸ BNF, Palatinus 901.

¹⁸⁹ “Circa quest’anno [1563], Maestro Sisto de’ Bonsisti da Norcia, padre di Niccolò, viene chiamato presso i Medici per la sua abilità nel contraffare le pietre preziose.” Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino*, p. 359.

¹⁹⁰ In his manuscript biography of Cosimo, Filippo Cavriani mentioned that the making of artificial gems was one of Cosimo’s favorite hobby’s. Filippo Cavriani, “De vita Cosmi magni ducis,” in *Biblioteca Nazionale ms. Magl. XXV/49* (Firenze: onuitgegeven), f. 49. See also Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durenente il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” f. 183.

¹⁹¹ “[el] quarto libro, in el quale si mostra la forma deli forni et vasi publici et secreti necessari per l’arte distillatoria et allchimica” Sisto de’ Boni, *All’illustrissimo...*, cited by Perifano, *L’alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 115, n°3.

¹⁹² Biringuccio, *The Pirotechnia Vanoccio Biringuccio*, p. 38.

Siena.¹⁸⁸ From the dedication (again, to Cosimo) we may deduce that the text was written between 1557 and 1570. Sisto de Boni Sexti da Norcia, the author of this practically oriented treatise on several key alchemical manipulations, had been appointed at the Medici-court around 1563¹⁸⁹ for his expertise in the synthesis of artificial gems, a field in which Cosimo had similarly developed a keen interest.¹⁹⁰

The text is divided in four parts, the first three of which discuss the preparation of the three main purposes of the alchemical art: potable gold (*oro potabile*), the philosophers' stone (*la pietra de' philosophi*), and the elixir (*lo elixir*). The fourth part of the treatise consists of a remarkable series of 19 watercolor illustrations of alchemical ovens or furnaces for diverse operations together with the corresponding flasks and alembics. De Boni described this fourth book as the one "in which the form is shown of the furnaces and both the public and secret vessels (*vasi*) necessary for the distillatory and alchemical art."¹⁹¹ In the table of contents of his manuscript the author wrote a caption for all but the last of these images of this series. Several of Sisto de Boni's images are remarkable because they so strikingly feature a characteristic that is latent in virtually all depictions of alchemical instruments since the medieval period: the extremely organic form of the vessels. Alchemists knew that they were attempting to recreate, in their vessels and containers, processes that were, normally, to take place in natural sites. Biringuccio, again questioning the possibility of alchemy, had objected:

Certainly, I am not deceived in this, for I see that the mothers in which they wish to find this birth have wombs of factitious glass...¹⁹²

Trying to make up for the artificiality of the glass and earthenware of their flasks and stills, alchemists tried hard to have at least the forms of their containers mimicking natural reservoirs.

2. The alchemical furnaces and vessels as imitations of the human body

The alchemical *opus* is a lengthy procedure in which several ingredients are brought together and submitted to a series of manipulations and transformations in which heat, as an operative force, comes to play a key role. All the instruments depicted in Sisto de' Boni tables ("necessary for the distillatory and alchemical art") are devices designed to realize one of the many steps or intermediary processes of the *opus* by subjecting the ingredients, which are enclosed in a series of vessels, to the effect of "artificial fire."

The strikingly organic forms of the vessels featuring in Boni's illustrations are typical of a phenomenon that has deep roots in the Latin alchemical tradition. That is the

¹⁹³ “...render [l'alchimia] il più possibile omologa, quando non mimetica, rispetto alla medicina scolastica...”. Chiara Crisciani, “Il corpo nella tradizione alchemica,” *Micrologus* (1993), p. 191.

¹⁹⁴ See *Ibid.*, p. 228–229.

necessity, as Chiara Crisciani described it “to make [alchemy] as analogous possible, and even mimetic, of scholastic medicine”.¹⁹³ Our examination of Benedetto Varchi’s texts on Alchemy and on the nature of heats already provided a first series of hints on the use of that evolution. Emphasizing the similitude between the arts of medicine and alchemy (by describing both as ‘sciences of the body’, and as such related to natural philosophy – by stressing the fact that both arts are doing no more than preparing the field for nature to operate – by stressing the double –theoretical and practical- nature of both arts) contributed to elevate the status of alchemy in the hierarchy of the arts. Medicine benefited from a far greater prestige than alchemy in the Medieval period. The former was taught at the universities from which the latter was banned. In an important 14th century alchemical treatise, the *Pretiosa Margerita Novella* written by Pietro Bono, a physician, one can already observe the stress on the analogies between both arts used as a strategy for dignifying alchemy.¹⁹⁴

In the alchemical tradition, the reference to the human body as an analogical example is manifest, as we have already partially evoked, in the terminology used by the authors to refer to both the alchemical processes (nutrition, digestion, reproduction) and the substances that are resulting from these processes (blood, urine, milk, sperm). The measure in which the realms of the mineral and the metallic were thought of as overlapping is maybe most blatant in the often recurring literal presence of organic ingredients (urine, milk, sperm, feces) in alchemical preparations.

The formal likenesses between the diverse vessels used in alchemical preparations, like those featured in the images of Sisto de’ Boni go in exactly the same directions. The glass flasks shaped like a human body’s internal organs are meant to support the alchemist’s effort to imitate, with the heat of his furnace, the exact kind of transformative conditions found in organic bodies. In the case of the alembics or the pelicans (the *vasi circulatorii*) the form of the vessels, combined with the heat even bring about a dynamic imitation of the cyclic circulation of bodily fluids.

The fact is a reminder that alchemical events do not only imitate natural processes of generation, as they occur in the animal womb (or in the womb of the macrocosmic animal), but also the less spectacular changes to which the animal body subjects the different substances and fluids it contains. Aristotelian-Galenic physiology, which inherited Hippocratic doctrines, conceived the animal body as a huge container for the four humours and a series of other fluids, which are subjected, in a series of specific, vessel-like organs, to transformative heating processes, the so-called *concoctions* (from the Latin *coctio*, a ‘cooking’). In the introductory section of the *Lezione sulla generazione del corpo* on the substances (milk, blood, semen, ...) that take a part in the generative process, Varchi had translated the term *coctio* as a “digestion” (*digestione*), while stressing that generally three

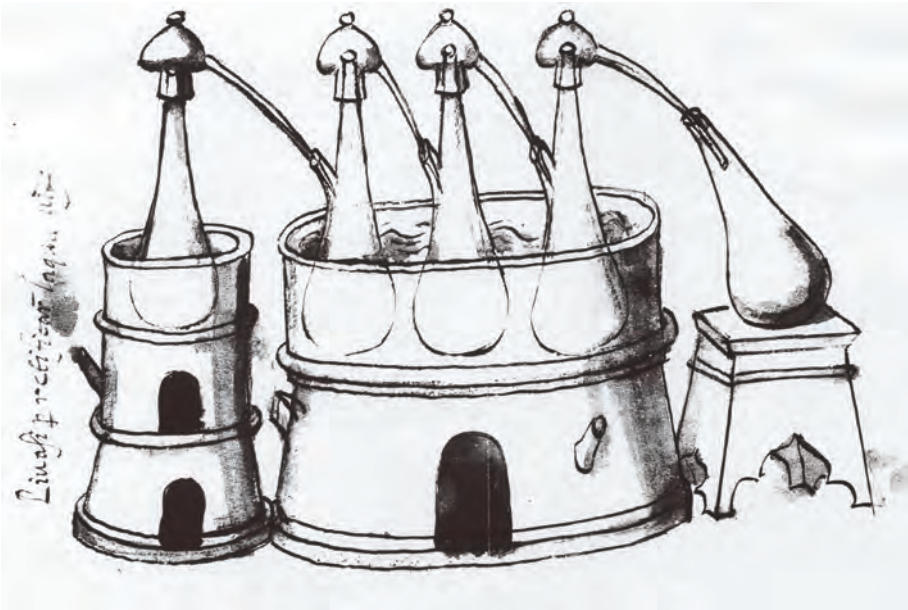


Fig. 6.17 Sisto de' Boni, 'il modo delli forni et vasi per rettificare l'acqua vite' (the method of the furnaces and vessels for the rectification [purification by means of repeated distillations] of aqua vitae), Illustration from BNF, Ms. Palat 901.

¹⁹⁵ *L. Gen. Corpo* in *Opere* II, p. 287.

¹⁹⁶ "...si trasmuta il cibo in in sugo che I medici chiamano, pur con nome greco, chilo." Ibid.

¹⁹⁷ See Needham, *A History of Embryology*, p. 33.

¹⁹⁸ The fact is mentioned by Varchi himself, see *L. Gen. Corpo* in *Opere* II, p. 287.

¹⁹⁹ "Now the products which are formed by human art are formed by means of instruments, or rather, it would be truer to say that they are formed by means of the movements of these instruments, and this movement is the activity, the actualization of the art, for by "art" we mean the shape of the products which are formed, though it is resident elsewhere than in the products themselves. The *dynamis* of the nutritive Soul behaves in the same way. Just as, in the independently existing animal or plant, this Soul, which uses heat and cold as its instruments, (for it is in these that its movements subsists, each several thing being formed according to some definite *logos*), at a later stage produces growth out of the nourishment supplied., so in precisely the same way at the very outset, this Soul, while the natural object is being formed, causes it to be set and constituted." *Generation of Animals*, 740b 26

main kinds of concoctions or digestions are distinguished.¹⁹⁵ A first *digestione* or *coctio* occurs in the stomach (“il ventricolo, o vero stomacho a modo nostro”), where the food is “transmuted” into “a juice that the physicians call [...] *chilo* (chyle)”.¹⁹⁶ The residue of this first digestion are the faeces, which are subsequently expelled. The second digestion occurs in the liver, where the food is cooked a second time, and is thereby transformed (*si muta*) in blood. The remainder or ‘superfluity’, this time, is of watery nature which, after being collected through the veins in the bladder, is then expelled as urine. A third *coctio* takes place in the heart where two superfluities are separated: yellow bile (*collera*) and black bile (*maninconia*). The fourth humor, phlegm (*flemma*) is no more than ‘undigested’ blood. Varchi’s regular use of terms such as *mutare*, *transmutare* underscores the connection with alchemy.

Being the hottest place of the whole body, the heart is according to Aristotelian physiology certainly the place where the most important transformative processes are operated. Not only is blood here purified from its superfluities like black and yellow bile; according to Aristotle, the heartbeat that we perceive as a pulse of sound and motion is to be conceived of as the steady boiling of the blood in the heart, a process in which a new substance is produced in the same way as vapour is generated in boiling water. That substance, *pneuma* or spirit, will serve as the instrument of the sensitive soul. The heart of a male body, hotter than its female counterpart, is capable, as we have seen, to produce the subtlest and most active kind of *pneuma*, that which is to make out the most important ingredient in male semen.

Then again, if one considers the formation of a new body, or the growth of existing parts, these processes are akin to a *coctio*. The author of the Hippocratic treatise *Regimen* (5th century BC) had already described the formation of a foetus in terms of a cooking process, when mentioning the slow solidification of the matter and the gradual formation of a crust.¹⁹⁷ Avicenna had similarly compared a foetus to a bread being baked in the oven.¹⁹⁸ In Aristotle a similar imagery is used, be it with more nuance and greater detail. Aristotle compared, as we have seen, the manipulations by the ‘organizing’ semen of the female matter to the movements of a carpenter’s instrument on his timber. But other passages of *Generation of animals* reveal that in practice, the principle bearing the dynamic form in the semen, what Aristotle had called the *symphuton pneuma* is to be thought of as a heat. Varchi used the term *calore naturale* that we met earlier when discussing the species of heat. In English the *symphuton pneuma* is usually translated as ‘connate heat’. It is through operations of a thermal kind that this connate heat brings the form of the foetus, existing potentially in the mother’s menstrual blood, into actuality. Aristotle described heat and cooling (which is deprivation of heat) as the “instruments” of the first soul-principle in the animal embryo.¹⁹⁹ The first organ to be formed, as Aristotle had observed in his

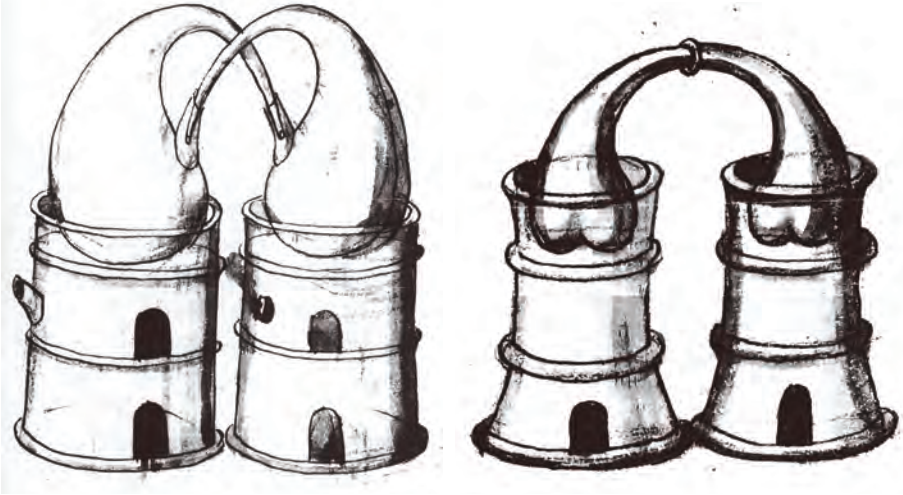


Fig. 6.18 Sisto de' Boni, 'vasi doppii colli loro fornelli circulatorii ad uno alltro modo' (double vessels with their small furnaces for circulation in another manner), BNF, Ms. Palat 901.

Fig. 6.19 Sisto de' Boni, 'dui alltri vasi diversi colli loro forni per posser circolare con quelli quello che ve piace' (two other and different vessels with their furnace allowing the circulation of whatever you like), BNF, Ms. Palat 901.

²⁰⁰ Ibid., 743a1-11.

²⁰¹ Ibid., 743a18-21.

meticulous analysis of the development of poultry eggs, is the heart: it constitutes the *archè*, the principle, the foundation from where the form-providing “connate heat” can be distributed, together with blood as building material, all over the body, through the emerging tree network of arteries and veins, to form the organs and the parts. *Generation of animals* II.4 describes this process in a passage that starts as an architectural metaphor: Aristotle compares the blood-vessels to wooden armatures which give momentary support and form to the masonry that rests upon them. But later in the passage the Stagirite ends up drawing analogies mainly with the arts of pottery and cooking. The emphasis is again on thermal agencies:

Beginning at the heart, the blood-vessels extend all over the body. They may be compared to the skeleton models which are traced out on the walls of buildings, since the parts are situated around the blood-vessels, because they are formed out of them. The formation of the uniform parts is affected by the agency of cooling and heat; some things are “set” and solidified by the cold and some by the hot. [...] As the nourishment oozes through the blood-vessels and the passages in the several parts (just as water does when it stands in unbaked earthenware), flesh, or its counterpart, is formed: it is the cold which “sets” the flesh, and that is why fire dissolves it.²⁰⁰

Brought about by heat are instead the harder and more resistant components of the body:

The sinews and bones are formed, as the fluidity solidifies, by the agency of the internal heat; hence bones (like earthenware) cannot be dissolved by fire; they have been baked as it were in an oven by the heat present at their formation.²⁰¹

A paragraph further in the same chapter Aristotle had interestingly referred to the notion of proportion (*symmetria*) in this discussion on the agency of heat and cold. The notion appears when the Stagirite remarks that the process of ‘baking’ body parts is far from being casual. It requires the exact circumstances to take place. If the ‘setting’ (by heating or cooling) of animal parts is then comparable to the way we cook food to make it tasty, it is mainly because in both cases it is the right proportion of heat that will reveal the right potentialities encased in the matter that is heated. The right proportion is the one that will instantiate the right changes, or, as Aristotle puts it, the desired “movement”. It is as if the heated matter functioned as a sophisticated lock-mechanism, requiring a precisely proportioned heat as a key to be brought in movement.

This [organizing] heat resides in the seminal residue, and the movement (*kinèsis*) and the activity (*energeia*) which it possesses are in amount and character correctly proportioned (*symmetros*) to suit each several part. If they are at all deficient or excessive, to that extent they cause the forming product to be

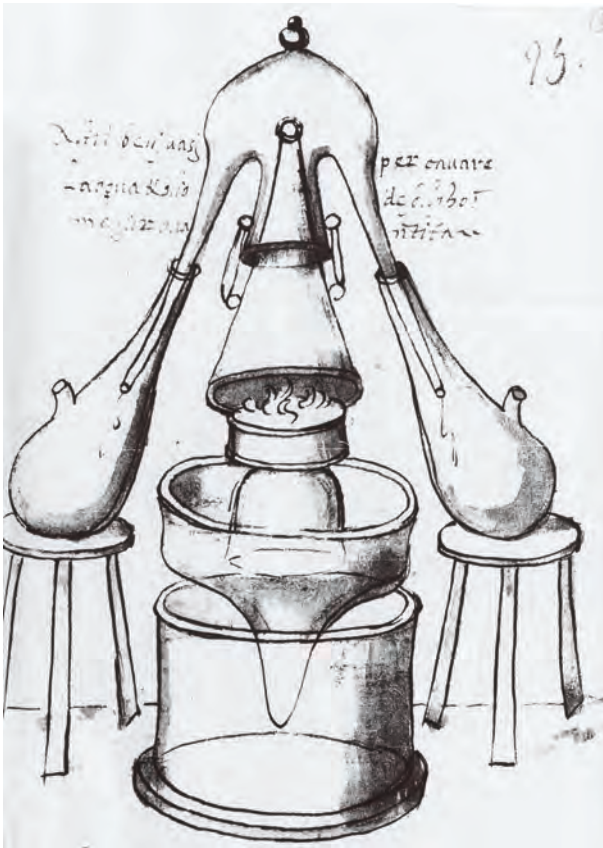


Fig. 6.20 Sisto de' Boni, 'uno alltro modo più bello et migliore et alltri belli vasi per cavare lo olio et acqua del sopho in maggiore quantità' (Another, more beautiful and better manner, with other beautiful vessels to extract oil and water from sulfur, in greater quantities), BNF Ms. Palat 901.

²⁰² *Generation of Animals*, 743a27-34.

²⁰³ *Meteorology* 379b18-20 ; "La digestion, la quale è la terza operazione delle due qualità attive, cioè è del caldo e del freddo, si diffinisce dal filosofo nel quarto *della Meteora*, una perfezione fatta dal caldo naturale e proprio delle passioni opposte. La qual diffinitione è non meno scura che dubbia, e a volere dichiararla non basterebbe un giorno intero..." *L.Gen.Corp.* in *Opere* II, p. 287.

²⁰⁴ "...when concoction has taken place we say that a thing has been perfected and has come to be itself?" *Meteorology*, 379b20-22.

²⁰⁵ *Meteorology*, 380a11 ff.

²⁰⁶ *Meteorology*, 380b7-10.

²⁰⁷ "...il fine e termine di ciascuna digestion è di far sì che l'umido si raguni e si rappigli, e per questo tutte le cose, onde non si può separare l'umido, non nutriscono, com'è l'oro puro." *L.Gen.Corp.* in *Opere* II, p. 287.

inferior or deformed. The same is true by things that are “set” by heat elsewhere than in the uterus; *e.g.*, things that we boil to make them pleasant for food, or for any other practical purpose. The only difference is that in this case the correct proportion of heat to suit the movement is supplied by us, whereas in the other, it is supplied by the nature of the generating parent.²⁰²

Aristotle’s teleological approach of natural phenomena brought him to envisage the processes of transmutation of matter in natural bodies very much in terms of an evolution towards an end that is necessarily good. Concoctions (or digestions) always lift living matter one step higher on the scale of nobility and purposefulness. Important statements in this regard appear in book IV of *Meteorology*, where Aristotle provided a definition of the notion of concoction as a process in which “the natural and proper heat of an object perfects the corresponding passive qualities”, a definition to which Varchi explicitly referred in the *Lezzione* on the generation of the body.²⁰³ Under the action of this proper heat, the object is “perfected”, brought closer to its destiny.²⁰⁴ Again, the sense of taste is presented as an excellent means to detect whether a concoction has reached his end. The central example presented here is that of the ripening of a fruit, a process caused by the heat of the sun that is presented as one of the three species of ‘concoction’ (the other two being boiling and broiling).²⁰⁵ The sense of taste is of course particularly sensitive to whether a fruit has yet fulfilled its concoction. But the concepts of rawness and ripening are considered universally valid. A mason’s clay brick is said to be ‘raw’ as long as it hasn’t been compacted and hardened as brought to perfection under the effect of fire. A cheese is raw as long as it hasn’t completed its maturation, which, as in the case of the brick, an evolution from a soft to a denser and harder state. We are reminded, in this context of equating perfecting and maturation, of the example of the ruby given earlier, a gem thought of as having attained its deep red, mature stage, only after a long process of underground ‘ripening’.²⁰⁶

The examples of the brick and the cheese make clear that a concoction (ripening, boiling, broiling) is a process in which a part of the moist or the liquid matter in the heated body is brought to a solid state. As Varchi observed: “...the aim and end of every digestion is to cause the moist to condense and coagulate, and that is the reason why all the things, from which you cannot isolate the moist, do not nourish, as is the case with pure gold.”²⁰⁷ The legendary indissolubility of gold, the fact that it resists all attempts to untie the bonds of its composition, to be digested (hence the alchemists efforts to produce ‘potable gold’), is thus interpreted as a loss, in this precious metal, of all moisture. Such is the physiological explanation of the idea that gold is the endpoint of the lengthy maturation process of all metals.

Varchi’s observations on ‘digestions’ aiming at ‘setting’ moist run along the lines of the so-called doctrine of the radical moist: the idea that life is a delicate balance in a

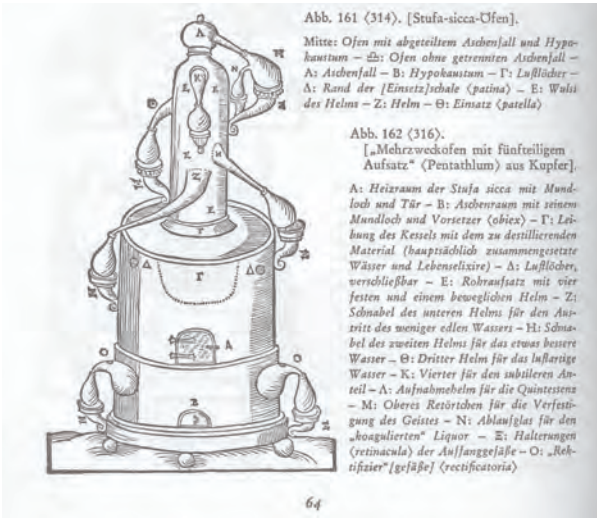


Fig. 6.21 Andreas Libavius, multi-storied furnace with a covering in five parts, from *Alchymia* (Frankfurt, 1606). Reprinted in Libavius 1964, p. 64.

²⁰⁸ See Needham, p. 33-34.

²⁰⁹ For many sources on the idea in Ancient Western thought of aging as ‘drying up’, see Richard Broxton Onians, *The origins of European thought about the body, the mind, the soul, the world, time and fate* (Cambridge: University Press, 1951), chapter VI, ‘The stuff of life’, and particularly p. 212 ff. The most important text from from the Aristotelian corpus on the matter is *On length and shortness of life*. See there 466a18: “We must remember that an animal is by nature humid and warm, and to live is to be of such a constitution, while old age is dry and cold, and so is a corpse.”

²¹⁰ “E quelli senza dubbio hanno più lunga la vita, I quali hanno più caldo e più umido meglio proporzionati, e temperati insieme l’un coll’altro.” *Lezzione sui Calori in Opere II*, p. 518.

²¹¹ There seems to have been a strong tendency in the sixteenth century Academic tradition in Italy towards self-derision in the choice of the both the names of the academies and the aliases. See on this Nikolaus Pevsner, who spotted names like the academy of the: “*Addormentati, Incolti, Immaturi, Ipocondriaci, Naufraganti, Percossi, Sonnachiosi.*” Nikolaus Pevsner, *Academies of art past and present* (Cambridge, England: Cambridge University Press, 1940), p. 37.

²¹² “E come mediante il mangiare si rifà e ristora il caldo naturale logoro e consumato tanto dalle cagioni di dentro, quanto da quelle di fuori, così mediante il bere si ristora e rifà l’umido consumato e logoro per le medesime cagioni. E se l’umido che si ristora, si potesse ristorare delle medesime bontà, che il perduto, o più tosto nel medesimo luogo (perché della medesima bontà secondo me sarebbe impossibile) si potrebbe viver sempre, come si puo cavare dalla diffinizione che dette Aristotile della vita.” *Lezzione sui Calori in Opere II*, p. 518. Varchi presumably refers here to the aforementioned text *On length and shortness of life*, where the conditions for a long life in animals and plants are examined.

body of a quantity of moist and a natural heat, which altogether draws on and is kept alive by that moist, like the flame of an oil-lamp slowly lives on and slowly consumes the oil. Varchi dwelled on the idea of the radical moist in the long section devoted to the “calore naturale” in the *Lezzione sui calori*. Here we read that the life of a body comes to an end when its natural heat dies out, and that the former happens when the reserve of moist has come to an end. The idea that the maturation of a body equals a gradual loss of moist is first and most evidently to be found in the embryological treatises of the corpus Hippocraticum, based for a large part on correct observations of the evolving amount of moist in an egg being incubated.²⁰⁸ In the mean time, the conception of aging as gradually drying up, goes back to the very roots of Western thought, as is hinted, for instance, by the Greek term *skelētos*, which, as we have seen, meant “dried up” (from the verb *skellō*, “to dry up”).²⁰⁹ For Varchi, life is longest for those

...who have most heat and most moist, very well proportioned and tempered together the one with the other.²¹⁰

In children, the strength of the connate heat is still overwhelmed by the abundance of radical moist present in their bodies, which explains their hampered mental faculties. When Varchi’s friends Stradano, Lasca and their companions were calling themselves the “Umidi” (‘the wet ones’), they were thus deridingly downplaying themselves as ‘Immatures’, especially in confront with the Paduan “Infiammati” (‘the enflamed ones’).²¹¹ Eating helps a body to restore his natural heat, while drinking replenishes the bodily reserves of moist, but these actions will normally never entirely revoke the loss of the original heat and moist. If that were possible man could live eternally.²¹² As in all actions of heat, so in the conservation of heat of which the *caldo naturale* is the guarantor, balance and proportionality are of prime importance:

One says of [natural heat] that it is proper [to the body in which it lives], precisely because it is tempered and proportioned (*commisurato*), and for these reasons vivifying and salubrious, where the alien [heat] is improper, because it is distempered and without measure, and for that reason deadly and harmful. So just like this one is said to be appropriate and proportionate for its being adjusted to every individual member and proportioned to its radical humid, so that other one is called alien and disproportioned...²¹³

It is the notion of proportion that allows Varchi to make the distinction between the *caldo naturale* and the heat of fire. Fire, to a body, is no more than entirely disproportioned heat. Fever is no more than a *caldo naturale* that has run out or proportion to resemble fire.²¹⁴ The virtue of drugs as those produced at the ducal *fonderia* is that they can restore such situations of thermal disproportion or loss of balance in bodies.

²¹³ “Chiamasi [il caldo naturale] propio, perché è temperato e commisurato, e per questo vivifico e salutare, dove lo strano è improprio, perché è stemperato e smisurato, e per questo mortifero e nocivo. Onde come quello si chiama appropriato e proporzionato per l’essere appropriato a ciascun membro e proporzionato al suo umido sostanziale, così questo si chiama alieno e sproorzionato ...” Ibid. Regarding the link between the notions of *proportione, simmetria, complessione, temperamento* and the idea of health as a delicate balance of heats and fluids, cf. the next citations. (1) Benvenuto Cellini, when reflecting at the origin of his innate talent for the arts of fire (goldsmithery, making medals, smaltare, making *sugelli*,...), sustained that it was connected to his own constitution: “...e questo veniva per un’ espresso dono prestatomi dallo Idio della Natura d’una complessione tanto buona e proporzionata” Benvenuto Cellini, *Vita*, ed. Ettore Camesasca (Milano: Biblioteca Universale Rizzoli, 1985) 1.26, p. 43. (2) In the *Lezione* on nature Varchi made clear that the notion ‘nature’ was sometimes used to refer to a body’s temperament or complexion, a result of the balance of the four humours or ‘elements’: “Pigliasi ancora [il vocabolo ‘natura’] da’ medesimi medici per la temperatura del corpo, o vero temperamento, che volgarmente diciamo complessione; perché, come testifica il medesimo Galeno, la natura risulta dalla simmetria, cioè è dalla moderata e commisurata mescolanza de’ quattro elementi...” *L.d.Nat.* in *Opere* II, p. 652. (3) In the *Lezione* on the generation of monsters, Varchi also interpreted the successful interplay between semen and *mestruo* as a matter of balanced heat: “...così il seme dell’uomo o il calore che è in esso, non ha la sua virtù indeterminate, ma certa e prescritta di maniera che può cuocere e trasmutare tanta materia e non più, talmente che tra il mestruo della donna ed il seme dell’uomo è una convenienza e proporzione certa.” *L.Gen.Mostr.* in *Opere* II, p. 668. (4) In Baldassar Castiglione the complexion of man and women are their respective advantages are evaluated: “Dicovi ancora che la donna è di complessione frigida in comparation dell’omo, il qual per troppo caldo è distante dal temperamento; ma, quanto in sé, è temperata, o almen più propinqua al temperamento che non è l’omo, perché ha in sé quell’umido proporzionato al calor naturale che nell’uomo per la troppa siccità più presto si risolve e si consuma. Ha ancor una tal frigidità che resiste e conforta il calor naturale e lo fa più vicino al temperamento; e nell’omo il superfluo caldo presto riduce il calor naturale all’ultimo grado, il quale, mancandoli il nutrimento, pur si risolve...” Baldassar Castiglione, *Il libro del cortegiano*, ed. Giulio Preti (Torino: Einaudi, 1965), XVIII, p. 233.

²¹⁴ *Lezzione sui Calori* in *Opere* II, p. 519.

²¹⁵ Biringuccio, *The Pirotechnia Vanoccio Biringuccio*, p. 42.

I examined, in this section, the way in which the processes of material transformation occurring in animal bodies, the process through which food is digested, transformed in nutritive material first, and eventually in bones, limbs and living flesh, formed a principle source of inspiration and a central parallel for alchemists in their operations. That conclusion was contested by opponents. Biringuccio, again, is their eloquent spokesman when he wrote:

And who will ever believe that bread, herbs, and fruits may be converted into flesh by any heat or artificial digestion in the same way that Nature does; and likewise that wood that is burned and converted into charcoal like the ashes of metals, or passed through the smelting fire, may begin to bud again, become green, and engender still other wood.²¹⁵

Just like it is impossible to recreate artificially the generative heat of the womb, so is it vain, according to Biringuccio, to try to reproduce the natural heats that realize the transformative digestions that help natural bodies to stay in life. For Biringuccio artificial fire and the resulting heats can only be instruments of analysis, division, destruction. They cannot not “upgrade” a substance to a higher level of animation, they can only downscale it.

Varchi adopts in both his texts on alchemy and the nature of heats the opposite attitude. There exists only one heat, which is the principle that regulates all processes of transformation and transmutation in nature and which allows art to perform her own transmutations. If artificial fire may appear to have a destructive effect, it is because it is not always applied with the required “proportion” to the matter that is heated.

3. Staging transmutations

Up to now, I have focused on two central concepts in Varchi’s defense of alchemy (the notion of Art as Nature’s coadjutor, and the principle of the unity of heats), without directly addressing Varchi’s reply to a third crucial objection against alchemy: the conviction, stemming from Avicenna, that mutations of species are impossible, since “otherwise it would be possible to change men in wolves, lions or cats.”

Varchi’s answer is that Avicenna, despite being a great philosopher and physician was wrong on this point. Benedetto’s first counterarguments are in fact taken from the above-mentioned transformative processes of digestion: the claim that men cannot change in wolves, lions or other animals is erroneous. Referring to an earlier observation of Themo Judaei, Varchi remarks that men can perfectly pass into the substance of a wolf:



Fig. 6.22 Antonio Lorenzi & al. (?), Grotta degli Animali, ca. 1560-1570. Villa di Castello.

²¹⁶ “...si puo [...] dire, che un uomo corotta la sua propria forma, potrebbe diventar Lupo, come le carni di tanti animali, e tante varie frutte diventano uomini, e ch'è piu maraviglioso in un giorno solo mediante le trasformazioni fatte dal calore naturale nella prima, seconda, e terza digestione, come sanno i medici;” Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 47.

²¹⁷ “...diamo loro per esempio le pecchie, e le vespe, che dicemmo di sopra, o vogliamo molte sorte di bachi, che ora senz'ale, et ora con esse, e mutando forma, e figura, se trasmutino manifestamente in diverse spezie; e cosi seguita, che i metalli, si possano fare, e che 'l Archimia non sia falsa.” Ibid., p. 48.

²¹⁸ “Come l'arte fa del ferro acciaio, trasformandolo, si puo dire in un'altra spezie, mediante i fuochi, e la tempera, come del rame ottono, mediante i fuochi, e la giallamina, come di sassi, e d'erba vetro // di tanto, e tante diverse maniere, come fa mediante il salnitro, carbon di salcio, e zolfa, la polvere d'artiglierie, ritrovamento come maggiore, e piu maraviglioso di tutti gli altri, cosi forse di tutti gli altri più biasimevole, e più dannoso. E veramente chi vede, e considera cosi nell'artiglierie, come nelle mine, e fuochi lavorati i molti, e varii, e potentissimi effetti di questa somigliantissimi a quelli del cielo adirato, e non meno spaventose, me bene più nocevoli al mondo, [...] chi vede, dico, e considera questi effetti inestimabili, e quasi soprannaturali, e non si maraviglia della forza, e potenza del'Archimia [...] non so io gia, se non e del tutto insensato [...]” Ibid. p. 37-38.

²¹⁹ “...per vie esteriori, e superficiali...” Ibid., p. 15.

²²⁰ “...con ogni sua radical sostanza passa tutta nel tutto...” Ibid., p. 15.

...a man, after the corruption of his own form, might become wolf, just like the flesh of so many other animals, and of so many fruits turn into men, in a process which, and that is truly astonishing, lasts only one day and during which the natural heat operates the first, the second and the third digestion, as the physicians know.²¹⁶

Other examples of changes of species that Benedetto considers conclusive include the wide range of insects which happen, in the diverse stages of their existence, to undergo radical changes, such as bees, wasps and butterflies (first wingless larvae, then nymphs, then winged bees/wasps/butterflies). These animals "...change form, and features, and thus manifestly transmute from one species into another; the consequence, thus, is that metals can be made, and that alchemy is not false."²¹⁷

Characteristically for the kind of extended definition of alchemy that Varchi sustained, the examples he cites in the *Quistione* of instances of man-made, or provoked species transmutation are not in the first place concerned with chysopoeia. Varchi's *archimia*, closer to Biringuccio's *arts of fire*, brings forth effects that are considered no less useful and spectacular than the production of gold:

Just as art makes steel out of iron, transforming it, we might say, into another species using fires and tempers, so it does make brass out of copper and calamine (zinc ore), using fires; in the same way out of stones and herbs it makes glass of so many kinds, and out saltpeter, carbon and sulphur it makes gunpowder, a rediscovery that may be called the most marvellous of them all, as well as the most blameworthy and damaging. And truly whoever looks at and considers in artillery, in mining, in fireworks the many, varied and most powerful effects of that art, highly similar to those of the infuriated heavens while no less frightening and even more destructive than those [...] whoever would see, I say, these inestimable and almost supernatural effects, while omitting to wonder, in the mean time, about the strength and the power of *Archimia*, is, for me, no less than completely insane.²¹⁸

The point in this series of cited technological accomplishments, is that all those instances imply on the one hand the instrumental use of fire or heat, and that all, on the other, result in a transformation that affects substance, so as to create entirely new classes of material: new *eidoi*, truly new species. The instances convincingly prove that the subtle control of heat allows man to mimic, using fire, the transformative powers of the 'natural' forms of heat. The arts of fire thus allow man really to imitate nature's ways of proceeding: not by modifying matter from the outside, in superficial ways, as in sculpting wood or stone,²¹⁹ but by changing matter intrinsically, substantially.²²⁰

Beside the examples of men metamorphosed in wolves, and the larvae transforming into butterflies, Varchi had also cited certain processes of petrification as proof



Fig. 6.23 Tribolo, Left Marble basin in the Grotta degli Animali, before 1550. Villa di Castello.



Fig. 6.24 Tribolo, Right Marble basin in the Grotta degli Animali, before 1550. Villa di Castello.

²²¹ “E che alcuna spezie, corrotta la prima forma, si possa trasmutare in un altra, ancora che agli avversari stesse provare il contrario, si può provare agevolmente non tanto coll’ autorità d’ Alberto, che lo dice in mille luoghi, ma ancora colla sperienza del corallo, e molt’ altre cose, che si petrificano, come sanno i pratici, et egli medesimo nel capitolo sesto, del primo libro dei Metalli racconta l’esempio di Federigo Imperadore, il quale si certifico, che nella Gotia era una fonte, dove tutte le cose, che si tuffavano, statevi per alquanto tempo, diventavano pietre. Ma perché queste proverebbero a molti parer piuttosto favole di poeti, che autorità di Filosofi, e molti non sapendo le forze, poco meno che omnipotenti, della natura, non credono se non quello, che veggono, diamo loro per esempio le pecchie, e le vespe, che dicemmo di sopra, o vogliamo molte sorte di bachi, che ora senz’ ale, et ora con esse, e mutando forma, e figura, se trasmutino manifestamente in diverse spezie; e così seguita, che i metalli, si possano fare, e che ‘l Archimia non sia falsa.” Ibid., p. 48.

that transmutations are common phenomena in nature: in certain circumstances, plants or animals happen to turn into stone by some wondrous process as in the case of coral, or certain animal and plant fossils.²²¹ Coral was thought of as a soft and green vegetal formation, growing on the bottom of the sea, which petrified and turned red at the very moment it was lifted out of water and brought in contact with air.²²² Varchi mentioned a wondrous source, observed by Emperor Frederick II, and discussed by Albert the Great, which petrified everything that was left in its waters. As Philippe Morel recently argued, fossils and petrified animals were an absolutely central theme in the 16th century artificial grottoes that appear in Italy, and of which Cosimo I and his son Francesco built some of the most remarkable examples. The mud-like animal and human shapes which cover the inner walls of Buontalenti's *grotta* in the Boboli gardens, assembled by Piero Mati in *spugne* (stalagmites recuperated from natural grottoes), and which were dripping with water in the original scenography, could thus be interpreted as the representation of such a petrification process, arrested in an intermediary stage. The wonderfully realistic aquatic animals, on the other hand, which Niccolò Tribolo sculpted in the fronts of the marble basins for the *grotta degli animali* in the garden of Cosimo's villa in Castello (the predecessor of the Boboli *grotta*), represent the completion of the petrification: masterly chiselled out of the white Carrara marble, these crustaceans, shells, sharks and other fishes are the bas-relief versions of the fossilized creatures sculptors as Tribolo often observed in their working material (see Figures 6.24 and 6.25). One can now grasp the importance of such imagery: by demonstrating the possibility of the transmutation of matter, these staged fossils also argued for the 'possibility' of alchemy. It needs to be remembered that, while Tribolo had been commissioned the design of the gardens of Castello in the late 1530's and early 1540's, it is to Varchi himself, Tribolo's friend and the author of the *Quistione*, that Vasari's ascribes the *invenzione* of the garden complex.

4. The *fonderia* as a research institute

If we lack the necessary sources to reconstruct in detail the organization of the *fonderia* in the last decades of the 16th century, there is an indirect testimony that might be of great use to form ourselves a clearer picture. One of the major treatises on practical alchemy of the earlier late sixteenth century is the *Alchymia* of the German Andreas Libavius, first published in 1597. Libavius added to the second edition of this work (Frankfurt, 1606) a series of wood-engraved plates, illustrating a multitude of alchemical vessels, stills, furnaces and other devices. The series also contains the plan and the elevations (with an extensive legend) of an ideal "chemical institute", particularly interesting in our

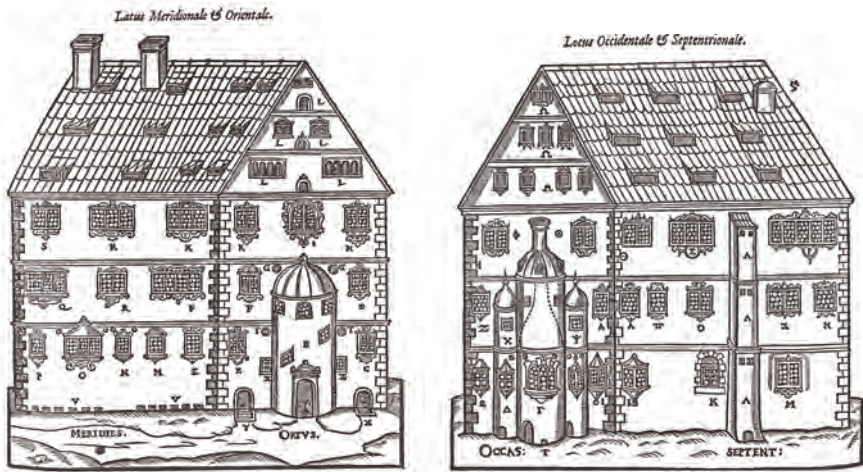


Abb. 2 (97). [Aufriß der] Süd- und Ostseite.

Fig. 6.25 Andreas Libavius, plan and elevations of a 'chemical institute', from *Alchymia* (Frankfurt, 1606). Reprinted in Libavius 1964, p. 6-8.

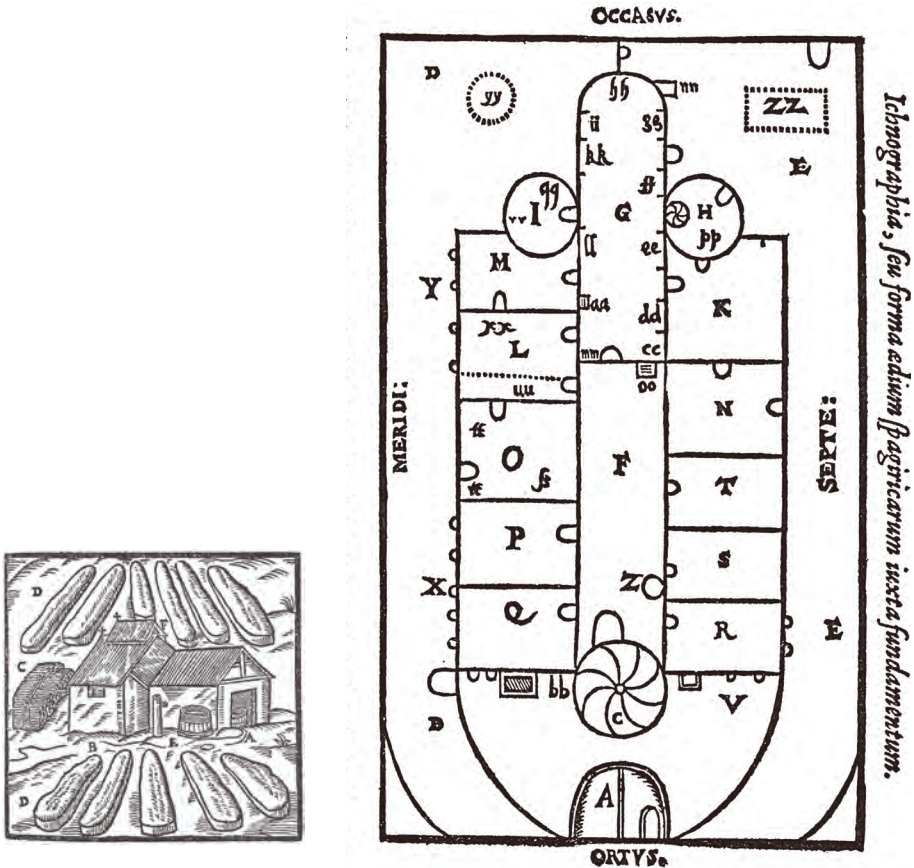


Fig. 6.26 Andreas Libavius, the salt piter farm of the 'chemical institute', from *Alchymia* (Frankfurt, 1606). Reprinted in Libavius 1964, p. 8.

regard; the result is a huge multi-storeyed building, which houses a main laboratory with furnaces for water-baths, ash-baths, and steam-baths: distillation apparatus for upward and downward distillation, with and without cooling: sublimation apparatus, fireplace; reverberatory furnace and large bellows. The analytical laboratory contains assay furnaces and analytical balances, some in cases. The institute also contains a preparation room with press, a pharmacy, a crystallisation room, etc. The laboratory has water laid on, and in the open air there are facilities for making alum and vitriol, and a saltpetre plantation. The whole complex also contains apartments, a 'winter dining hall', a library, and a study. It is only an attentive scrutiny of the plan that reveals the presence, in one small circular room, of a secret laboratory (H), the so-called "sanctuary" (*adyton*), which contains the one truly 'alchemical furnace' of the whole complex, the 'philosopher's oven'.

Libavius' whole chemical laboratory shows well the kind of shift that state-sponsored alchemical research institutes like Cosimo's *fonderia* were bound to take, a shift away from time and money-consuming mystic manipulations towards experiments on materials and procedures that might yield tangible results. In the meantime, as was also suggested in the cited passages from Biringuccio *Pirotechnia*, the undiminished fascination for the true alchemical utopia was the best imaginable incentive to unleash inquisitive enthusiasm among the numerous researchers active in such institutions, as well as the enthusiasm and the funding of the patron of these researches. Embodying that ultimate quest, the 'philosopher's oven' could never entirely disappear from these laboratories. Nonetheless, one ought to imagine a multitude of products coming out of Libavius' institute, of equal or even greater utility than gold; the same had happened at the Florentine *fonderia* decades before the *Alchymia* had been written.

Cosimo, we are told by contemporary sources, discovered himself the formula of a new kind of temper, based on herbal extracts, which made it possible to obtain a new kind of steel, of an unseen hardness. Varchi had cited glass, which was in those days obtained by the heating of a mixture of quartz (a "fusible stone", as for instance Agricola put it) with soda ash, a process that had to be performed in several stages and several ovens. As has been widely reported by contemporaries, Cosimo's son, Francesco, would have been the first to rediscover, in the spaces of the Florentine *fonderia*, the means to melt crystal, a mineral far harder than quartz and reputedly hardly "fusible." But the invention is sometimes ascribed to Cosimo himself.²²³

Like his father, Francesco was fond of imitating gems; the Venetian ambassador Andrea Gussoni reported in 1576 that Francesco had shown him a little vase in emerald he had made with his own hand. The same ambassador reported how Francesco, with the help of some craftsman, had succeeded in producing a kind of porcelain virtually identical to Indian porcelain in lightness, transparency, etc.²²⁴

- ²²² See Pliny's account on coral: "Its form is that of a shrub, and its colour green: its berries are white and soft while under water, but the moment they are removed from it, they become hard and red, resembling the berries of cultivated cornel in size and appearance. They say that, while alive, if it is only touched by a person, it will immediately become as hard as stone; and hence it is that the greatest pains are taken to prevent this, by tearing it up from the bottom with nets, or else cutting it short with a sharp-edged instrument of iron: from which last circumstance it is generally supposed to have received its name of "curalium."⁴ The reddest coral and the most branchy is held in the highest esteem; but, at the same time, it must not be rough or hard like stone; nor yet, on the other hand, should it be full of holes or hollow." *Naturalis Historia*, XXXII.11: *The natural history of Pliny*, transl. John Bostock and Henry T. Riley (London: H. G. Bohn, 1855), p. 6011. Further links between corals and petrifying processes are discussed in Michael Cole, "Cellini's blood," *Art Bulletin* LXXXI, no. 2 (1999), pp. 227-230.
- ²²³ See Cavriana; on this attribution by Cavriana, see Targioni Tozzetti, "Notizie dei progressi delle scienze fisiche in Toscana durenate il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti," p. 183-184.
- ²²⁴ "...ha [Francesco] ritrovato il modo di fondere il cristallo di montagna, e lo fonde in vasi da bere ed altre sorti, lavorandoli nella fornace nel medesimo modo che si lavora nella fornace del vetro ordinario, e perciò ha salariati alcuni maestri dei nostri da Murano molto sufficienti. Questi vasi, e per la materia in se e per l'artificio, sono molti nobili e vaghi, e tanto piu desiderabili quanto che sono fatti da lui solo, ed anco per il lavoro riescono molto belli. Ha di piu ritrovato modo di far la porcellana d'India, e riesce, a tutte le prove che si fanno, di quella // qualità che e quella dell'Indie, cioè nel trasparire, nel gettar il fuoco, cosi leggiera e cosi sottile, ed infine ha le medesime condizioni; e mi ha detto esservi stato piu di dieci anni attorno, prima che l'abbia potuta ritrovare, avendone gia avuto un poco di lume da uno che venne di Levante, ed esso poi ordinariamente fattovi lavorare un uomo, per cio salariato, facendo ogni giorno nuova esperienza, e con incredibile pazienza guastandone migliaja prima che ne sia venuto in cognizione." Andrea Gussoni, "Relazione dello stato di Firenze di Andrea Gussoni, tornatone ambasciatore nel 1576," in *Relazioni degli ambasciatori veneti al senato*, ed. Eugenio Albreri (Firenze: All'insegna di Clio, 1841), vol. IV, pp. 377-78.
- ²²⁵ See Gussoni's statement in the previous footnote.
- ²²⁶ For this transferral, and the others that followed (to Francesco de' Medici's *Casino di San Marco* in 1577) see the summary in Perifano, pp. 47-49.
- ²²⁷ In a letter of May 12, 1558, Vasari wrote to Cosimo: "Et quando paressi a Quella di levar via la fonderia, che saria una savia eletione, si potria asettarla con lo imbiancarla o paralla [pararla], di maniera che, oltre che leveresti il fuoco et il funmo, che a gia rovinato et rovina tutta quell opera, [ma] si leverebbe una bachanalia che oggi e diventata. Pur a questo et a ogni altra cosa rimetterommi, come sepre ho fatto, al giuditio di V.E.I." The Duke negated Vasari's request to remove the *fonderia* from the palace. In his answer to Vasari's letter he simply wrote: "Della fonderia manco vi occorre far altro, sino che altro non deliberiamo." Frey, vol. I, pp. 502-503.
- ²²⁸ The fact is mentioned in an earlier letter (December 26 1556) Vasari had sent to the Duke. The letter makes clear that by the time the laboratory had recently changed place inside the palace. Vasari mentions a *fonderia vecchia* that he just transformed into apartments, and the *fonderia nuova*, which actually caused the beginning of the fire. See Frey I, p. 464. See also Frey's note on the difficulty to locate both sites with precision on page 466.
- ²²⁹ "...e dove si fanno tante mirabili cose e un luogo grande, che is chiama la fonderia del duca di Firenze, nella quale si lavora di continuo con infinite varietà di fuochi, di fucine, di fornelli, e lambicchi; e il duca vi va spesso, e vi sta, e vi lavora di sua mano con grandissima sua dilettazone ..." Fedeli, "Relazione di Firenze di Messer Vincenzo Fedeli tornato da quella corte l'anno 1561," p. 356.

As this list mentioned above makes clear; beyond the pharmaceutical productions of the *fonderia*, the emphasis in this true state-laboratory was on the production of new substances, or rather the improvement of artificial substances to new levels of perfection, through a process that always implied the addition of heat. The development of these high-tech materials could be a lengthy and costly process. The invention of true porcelain mentioned above was, according to Gussoni's statement, only obtained after ten years of research, a process in which a man had been paid to try out a new formula every single day, ending up wasting thousands of samples.²²⁵

The sheer cost that such investigations represented, as well as the fact that the Princes were very actively involved in them, spending much of their personal leisure time in the laboratory do signal the particular importance of this place in the symbolic economy of the court activities.

We must remember that, until it was moved to a premise of the Palazzo Pitti somewhere after 1560, the ducal *fonderia* was located in the Palazzo Vecchio, the building that had always been the very siege of Florentine government.²²⁶ That presence in the palace famously caused the irritation of Giorgio Vasari, who complained about the fact that the fumes of the *fonderia* were damaging his freshly painted decoration cycles in the apartments.²²⁷ In 1556, the heat of the *fonderia*'s furnaces nearly caused a fire to break out in the room reserved to the pages beneath.²²⁸ We must also remember that in the *fonderia* craftsmen were working on substances (plants, animal extracts, metals, stones, *mezzi-minerali*), that were often, because of the way they had been harvested, explicitly linked to Cosimo's reputation as a collector and a discoverer of resources. We must remember that, if we are to believe witnesses such as the Venition Vincenzo Fedeli cited above, the Duke himself spent considerable time in the *fonderia*.

...the duke is often going there, and he stays there, and works there with his own hands and enormous delight...²²⁹

Keeping the systematic analogies in mind that were established between the ovens and stoves in which these ingredients were transformed into new substance of a higher level of 'perfection', a more effective realization of their *telos* as Tuscan (mineral/vegetal/animal) bodies, it is no longer hard to figure out the kind of imagery that was promoted of the *fonderia* as the warm bosom, or the even warmer heart of the metaphorical Tuscan body; the place where these ingredients, after due preparation and purification, where concocted into new, unseen substances thanks to the addition of well-tempered and well-proportioned heats. As in a stomach food is upgraded to chyle, or in a heart blood is concocted to perfection, in the stoves, furnaces and stills of the *fonderia* the ingredients, brought together by the agency of the duke himself, are drawn closer to their utilitarian destiny. Fedeli added to the above mentioned account that the emphasis of the *fonderia*'s production was

²³⁰ “...senza le quali non si protrebbe non che vivere comodamente, ma ne vivere ancora.”Varchi, *Questione sul Alchimia di Benedetto Varchi*, p. 4

²³¹ “Si diletta [Francesco] anche di fuochi artificiali, ed ho inteso da lui medesimo, e da molti suoi principali che ha modo di fare una palla di cosi grandi artificio, che uscita dal pezzo si fa rompere ove l'uomo vuole, o vicino a trenta braccia di uscita, o a mezza strada, e dove da ed e rotta fa grandissima mortalita di gente. Ha, per quanto me ha detto lui, ritrovato un modo di moltiplicare il salnitro [salpêtre], pigliando, come dice, novanta libbre di sale e dieci di salnitro, e cosi novecento con cento ne fa mille.” Gussoni, “Relazione dello stato di Firenze di Andrea Gussoni, tornatone ambasciatore nel 1576,” p. 379.

²³² “...ha un luogo che lo chiama il Casino, ove, in guisa di un piccolo arsenale, in diverse stanze ha diversi maestri che lavorano di diverse cose, e quivi tiene i suoi lambicchi ed ogni suo artificio.” *Ibid.*, p. 379.

on preparations of a pharmaceutical kind. Somehow anticipating the future flowering of the “archimical” disciplines, Benedetto Varchi had stressed in 1544 that these arts produce infinite things, “without which one could not only not live in comfort, but simply not live at all...”²³⁰ Many technologies indispensable to the art of architecture fall under the “archimical” or “pyrotechnical” disciplines, like the preparation of chalk by the calcination of calcareous stone, the forging and tempering of steel instruments for chiselling marbles and even harder stones, the smelting of glass, the manufacture of bricks, tiles and other *terracotta* elements by the firing of moulded clay elements, etc... The same is true for the arts of war as they were practiced in the 16th century. In the age of ever improving artillery technology, the military was dependent on chemical technology for the production of sulphur, saltpetre and grinded charcoal, the ingredients of gunpowder; but equally for the melting of bronze and the casting of guns, disciplines in which Biringuccio had so much excelled. And here again, the *fonderia* seems to have played the role of a high-tech research laboratory, under the watchful eye of the Duke. The Venetian Andrea Gussoni tells us that Francesco had a keen interest in gunpowder; he delighted in fireworks, tried to figure out cheap and fast ways to produce saltpetre, and told the ambassador that he had invented a

...cannonball of such *artifizio* that once it has come out of the gun it can be brought to explosion wherever man wants, either at no more than thirty *braccia* of the outlet, or halfway of its trajectory, and were it explodes it causes great mortality of men.²³¹

Besides a chemical and pharmaceutical laboratory and a forge, the *fonderia* thus also seems to have functioned as an arsenal. In fact, Gussoni referred to the new *fonderia* Francesco had installed at the Casino di San Marco as “almost a small arsenal.”²³²

5. The hottest Tuscan forge

In this chapter I attempted to throw light on Varchi’s extended definition of alchemy as referring to a series of transformative “arts of fire”. I have thereby interpreted Benedetto Varchi’s aborted manuscript treatise as a very early attempt to plead in favour of those arts, because of their capacity fully to realize the ideal of all Renaissance arts: the imitation of nature. Varchi, as we have seen, was well aware of the distinction between processes of change that only affect the externalities of the substance in opposition to transformations which fully affect substantial form, the *eidos*, the species of the material at hand. Imitating the kind of proportionate tempered heats that were thought to lie at the basis of most natural processes of transformation or transmutation, the “arts of fire” tried, and succeeded, in doing precisely that. Even if Varchi did not mention alchemy or any similar disciplines in



Fig. 6.27 F. Poppi, *The Foundry of the Bronzes*, 1571, Florence, Palazzo Vecchio, Studiolo.

²³³ I will cite here the whole passage at once: “We call an origin [*arché*] (1) that part of a thing from which one would start first, e.g. a line or a road has an origin in either of the contrary direction. (2) That from which each thing would best be originated, e.g. we must sometimes begin to learn not from the first point and the origin of the thing, but from the point from which we should learn most easily. (3) That from which (as an immanent part) a thing first arises, e.g. as the keel of a ship and the foundation of a house, while in animals some suppose the heart, others the brain, others some other part, to be of this nature. (4) That from which (*not* as an immanent part) a thing first arises, and from which the movement or the change naturally first proceeds, as a child comes from the father and the mother, and a fight from abusive language. (5) That by whose choice that which is moved is moved and that which changes changes, e.g. the magistracies in cities, and oligarchies and monarchies and tyrannies are called origins (*archai*) and so are the arts, and of these especially the architectonic arts. (6) That from which a thing can first be known; for this also is called the origin of the thing, e.g. the hypotheses are the origins of demonstrations.” *Metaphysics*, V.1, 1012b33–1013a16.

²³⁴ “...many arts have issued solely from [alchemy]; indeed, without it or its means it would have been impossible for them ever to have been discovered by man except through divine revelation.” Biringuccio, *The Pyrotechnia Vanoccio Biringuccio*, p. 337.

the classification of the arts in function of their nobility he provided in his *Paragone*-lesson, we are entitled to believe that he considered the transformative arts of fire to stand at the top of that hierarchy, together with medicine and architecture, two other noble disciplines preoccupied with the conservation and the comforting of human bodies, and far ahead of the arts of painting and sculpture.

Varchi had pointed out, in that same *Paragone*-lecture, that some arts are making decisions, giving orders, while inferior other arts merely execute. He had thereby called the former “principal arts” (*arti principali*), or, to use an Aristotelian term, “architectonical” (*architettoniche*). These are the arts that “transmit principles to the others, that command the others” like the art of horse-riding commands the arts of bridle-making and saddle-making. It is here that one may find Varchi’s insistence on using the slightly bastard term “archimia” instead of “alchimia”. While the former variant insist more on the status of alchemy as an *ars*, an art, it also suggests an etymological connection with the Greek notion of the *archè*, a term (from *archò*, going ahead, starting) which literally means ‘that what comes first’ and from there on may mean ‘the origin’, the ‘point of departure’, the ‘principle’, the ‘foundation’. *Archò* also means ruling, leading, commanding, from which *archôn*, leader, king, was derived, but also *architekton*, chief carpenter or chief mason.

At the beginning of book V of *Metaphysics*, Aristotle had provided himself a detailed, sixfold definition of the term *archè*, insisting that, beside ‘starting point’ it meant “that from which [...] a thing first arises”, both when the *archè* comes to form an immanent part of the thing, as in the case of the keel of a ship, the foundation of a building, or the heart of an animal, as well as when the *archè* will not become an immanent part, “as a child comes from the father and the mother, and a fight from abusive language.”²³³ In the political sense the *archè* is “that by whose choice, that which is moved is moved, and that which changes changes”, a definition that may apply to “oligarchies, monarchies, and tyrannies”, all referred to as *archai*, but also to arts, “and of these especially the architectonic arts.”

It is most likely Varchi himself ended up attributing a generic meaning to the term “*arti architettonici*”. It might well be the emergence of alchemy, that art which makes so many others possible, as Biringuccio had recognized, that had urged the necessity.²³⁴ By using the form “archimia”, Tuscans such as Varchi endowed the art with the status of an *archè*, a master-art and a principle of change itself, and thus certainly an activity worthy of the Prince (*Principe*, which also means ‘principle’ or ‘origin’ in Italian) himself the *archè* of Tuscany as a political entity.

As is well known, questions of primacy or *precedenza* were of prime importance in the extremely hierarchical Renaissance society. But the same is true in Renaissance biology. Galen had disputed Aristotle’s conviction that the heart, which he called the



Fig. 6.28 G.M. Butcheri, *The Artisans of Glass* (with prince Francesco de' Medici on the left), 1571, Florence, Palazzo Vecchio, Studiolo.

²³⁵ See Aldrovandi's 1564 manuscript, *De osservatione foetus in ovis*, in which the experiment is narrated and the scientist's observations are written down in detail. This manuscript was recently published, with a lengthy and useful introduction, in Ulisse Aldrovandi and Sandra Tugnoli Pàttaro, *Osservazione di cose straordinarie. Il De osservatione foetus in ovis (1564) di Ulisse Aldrovandi* (Bologna: CLUEB, 2000), pp. 234-297. Aldrovandi wrote, while observing a little nucleus, the precursor of the heart of the chick, developing in the egg third day after it was laid: "Vedemmo la goccia di sangue muoversi a lungo nell'albume. [...] Di conseguenza, pare coretta l'opinione del Filosofo seconda la quale, nella generazione degli animali, il cuore si forma per primo, sebbene Galeno sostenga che nei vivipari sia il fegato a formarsi per primo..." Ibid. pp. 241-243. Regarding the next, fourth day of the development, Aldrovandi noted: "...ha preso forma il cuore, principio fondamentale della vita." Ibid. p. 245.

²³⁶ Ulisse Aldrovandi corresponded with both Francesco I and Ferdinando I. These letters provide a mass of information on the continuous exchanges of pieces of information, of paintings, of animal specimen, like the snakes offered by Francesco I to Aldrovandi and painted by Jacopo Ligozzi. For these letters, see Alessandro Tosi, ed., *Ulisse Aldrovandi e la Toscana: Carteggio e testimonianze documentarie* (Firenze: Olschki, 1989).

foundation (*archè*) of the body, was the very first organ to appear in a developing embryo, by affirming the primacy of the liver. The whole question was the subject of a hot debate in Medieval and Renaissance embryology, one of the great dividers of that discipline. As we have seen, Varchi presented himself as a strong supporter of the Aristotelian hypothesis. His position, however motivated, was certainly not unfounded. A great scientist such as the Bolognese Ulisse Aldrovandi, could, in 1564, almost two decades after Varchi, confirm that Aristotle had been right, after a scrupulous and lengthy experiment in which this “Bolognese Aristotle” had observed the gradual development of fertile poultry eggs.²³⁵ Aldrovandi most probably later exchanged his findings with Duke Francesco de’ Medici, who had himself had an interest in poultry eggs, and with whom Aldrovandi exchanged a voluminous scientific correspondence.²³⁶ The early 17th century saw the physician William Harvey, also a great embryologist, reconfirm the “the principality of the heart”.²³⁷ In his groundbreaking treatise on the motions of the heart *De motu cordis* (1628), the first correct description of the entire blood-circulation and of the role the heart holds in it, Harvey also revealed the full political meaning of the interest which scientists, physicians and men of culture like Varchi had started developing in the 16th century for Aristotle’s hypothesis. In the dedication of his treatise to King Charles I “the most illustrious and invincible monarch” Harvey had written:

Most gracious king, the Heart of creatures is the foundation of life, the Prince of all, the Sun of their Microcosm, on which all vegetation does depend, from whence all vigor and strength does flow. Likewise the King is the foundation of his Kingdoms, and the Sun of his Microcosm, the Heart of his Commonwealth, from whence all power and mercy proceeds.²³⁸

Shortly the publication of the *De motu cordis*, Galileo, the greatest 17th century advocate of heliocentrism who also benefited of the patronage of Cosimo de’ Medici’s grandson, Cosimo II, had drawn a similar parallel in a letter written from Florence. Talking to his correspondent about the “wondrous strength and *energia* of the spirit and light of the Sun, diffused throught the universe”,²³⁹ Galilei observed:

...as in the heart of the animal a continuous regeneration of the vital spirits occur, which sustain and enliven all the members, while to that heart itself nourishment is administered, without which it would die, similarly does the sun conserve itself, drawing its nourishment *ab extra*, as the source from which that prolific light and heat provides and is disseminated, that gives life to all the members of the universe.²⁴⁰

More than half a century earlier, Varchi had anticipated this kind of parallels when he had, in his 1564 lecture on love talked about the Sun, “nature’s most important minister”, as having been “put at the centre of the great animal [macrocosm], just as the heart had

²³⁷ “Nor must we disagree from Aristotle concerning the principality of the heart, that it does not receive motion and sense from the brain, nor blood from the liver [...] the heart is the first subsistent, and [...] it hath blood, life, sense, and motion before the brain or liver were made, or appear’d distinctly, at least before they could perform any function.” William Harvey et al., *The anatomical exercises: De motu cordis and De circulatione sanguinis, in English translation*, Dover ed. (New York: Dover Publications, 1995), p. 114.

²³⁸ Ibid., p. vii.

²³⁹ “...della mirabil forza ed energia di questo spirito e lume del Sole, diffuso per l’universo...” Galileo Galilei, “Lettera a Monsignor Piero Dini in Roma (Firenze, 23 marzo 1615)” in Galileo Galilei and Ferdinando Flora, *Opere*, La Letteratura italiana; storia e testi. v. 34: Galileo e gli scienziati del Seicento, t. 1 (Milano: R. Ricciardi, 1953).

²⁴⁰ “...come nel cuore dell’animale si fa una continua rigenerazione di spiriti vitali, che sostengono e vivificano tutte le membra, mentre però viene altresì ad esso cuore altronde somministrato il pabulo e nutrimento, senza il quale ei perirebbe, così nel sole, mentre *ab extra* concorre il suo pabulo, si conserva quel fonte onde continuamente deriva e si diffonde questo lume e calore prolifico, che dà la vita a tutti i membri che attorno gli riseggono.” Ibid.

²⁴¹ “Lo ministro maggior della Natura [il sole] [...] fu posto in mezzo dell’animale, grande, come il cuore in mezzo dell’animale piccino.” *L.Am.D.* in *Opere* II, 1564, p. 331.

been put at the centre of the small animal [microcosm]”²⁴¹ a formula that precociously hints at heliocentrism and seems to suggest that Varchi had at least read the exemplary of Copernicus’ *De revolutionibus orbium caelestium* that he owed.

If Varchi was not able to endorse, beyond this suggestion, the idea that the Sun stood at the very heart of the universe, he did repeatedly insist on its significance as “principle of life,” a life that is mediated through the sun’s radiated heat. He did also, on several occasions, detail the means through which the heart radiates through the whole animal body the heats of which it is the main seat. Returning to the topic of the *fonderia*, one has not insisted enough, in my opinion, on the meaning of the presence, inside the body of the Ducal Palace, of some of the hottest ovens and smitheries of the whole Duchy.



CHAPTER SEVEN:
Passing down *virtù*

INTRODUCTION

In chapter six I have argued that the Prince and his collaborators placed the (al)chemical technology of the ducal *fonderia* in the continuity of naturally occurring transformations and processes, such as the mutation of nutritive substances and humours inside animal bodies. More specifically, I have suggested that the Palazzo Vecchio *fonderia* was conceived of as the animal heart in the metaphoric body of the Tuscan state. In this chapter, I will pursue this analogy by pointing to further parallels between the products issued by the *fonderia*-laboratory and the (noblest) outcome of an (male) animal heart, i.e. generative semen. Semen, as we have seen, is obtained from the ultimate concoction of blood in the hottest and noblest vessel of the body. In many respects the pharmaceutical preparations, the ‘pyrotechnic’ inventions but also the decorative objects made out of precious, rare, or unprecedented materials from the *fonderia* function as *analoga* of animal semen.

In part A of this chapter I will focus on a series of substances that have a capacity to transform ‘third bodies’ and are therefore of interest to the *fonderia*. We will see how most of these substances belong to the domain of the medical or of the military science, two realms of human enquiry involved with, respectively, the conservation and the destruction of health and life, two arts that are strongly tied to the Medici’s exercise of power and imagery. In part B, I will briefly argue that these generative substances constitute interesting paradigms to approach, in rather uncommon ways, the functioning of works of art. We will further elaborate on a series of notions introduced in chapter five and concerning the ‘naturalisation’ of art production under Cosimo I de’ Medici. More specifically we will introduce here the notion of ‘art mediated chains of agency’, a genealogical relationship that link artists and works of art in their common dependency on the Prince. In part C, eventually, I will focus on how, in its later decades, Cosimo’s rule subjects architecture to a greater attention to materiality. This evolution manifests a desire to reduce the contribution of individual artists in actually shaping the building. One case study will illustrate this shift: that of, the *Cappella de’ Principi*, the mausoleum Cosimo had imagined for himself and his kin, and which was eventually designed by his own son.



Ubiquity of the Philosopher's Stone.

From *Atalanta Fugiens*, Maier, 1617. (See pp. 136, 244.)

Fig. 7.1 Michael Maier, Emblem 36: 'Lapis projectus est in terras, & in montibus exaltatus, & in aere habitat, & in flumine pascitur, id est, Mercurius' (The Stone has been projected on earth and got carried away into the mountains; it lives in the air and feeds on the stream that is Mercury), *Atalanta Fugiens* (Oppenheim, 1617).

¹The Franciscan philosopher Roger Bacon defined alchemy as: "...a science teaching the transformation of metals, which is effected by a medicine." Bacon, *Speculum alchimiae*, cited in Gareth Roberts, *The mirror of alchemy: alchemical ideas and images in manuscripts and books from Antiquity to the seventeenth century* (Toronto: University of Toronto Press, 1994), pp. 97-99.

² *Ibid.*, p. 108.

³ Cited by *Ibid.*, p. 54.

⁴ Villanova, cited by *Ibid.*, p. 54.

A. HOT CONCEPTIONS AND BEARERS OF FORM-GIVING HEAT

1. The philosopher's stone

Since its ancient origins, alchemy, in its narrow definition, is the art of artificially producing gold and, to a lesser degree, silver. However, obtaining a certain amount of artificial gold did not rank highest among the alchemist's pursuits. Alchemists were looking instead for an intermediate product that by virtue of its own arcane properties, could transmute important quantities of base metals into perfect gold. The bulk of alchemical literature is in fact concerned with this agent of transmutation and seeks to determine its nature. The *Usifer* of Daniel of Transsylvania, for instance supposedly was such an agent. But generally the mysterious substance was referred to as the 'philosopher's stone' or the 'elixir'.

In the last chapter, we have seen that the natural philosophy on which alchemical wisdom is based ascribes a vegetal kind of life to metals and a natural tendency to evolve into gold as their most perfect stage or their healthiest condition. The philosopher's stone was considered to be a 'medicine' of the metallic bodies,¹ as it drastically accelerates this natural evolution towards gold. The term elixir derives from the Arabic *al-iksir* which in turn refers to the Greek *xerion* which means 'powder for wounds'.² A small amount of it was thought to be capable of exerting a transformative effect on a far greater body. Albertus Magnus translated *elixir* as *fermentum* and claimed that "just as bread is leavened and raised through good yeast, so is the matter of metals transmuted."³

The alchemical treatise written by Cosimo's gem-maker Sisto de' Boni and mentioned in chapter six, contains three chapters respectively on how to prepare 'potable gold' (*oro potabile*), on the *Lapis philosophorum* and on the elixir. This division conveys the idea that the art of alchemy has different ends. In fact some authors upheld the idea that there were three kinds of alchemical medicines in function of whether animal, vegetal, or mineral bodies were to be cured. They would have the effect of, respectively, restoring health and even procuring immortality, stimulating growth, and transmuting base metals into gold. But alchemists seem to have agreed that one substance was capable of performing all three operations. The 13th-century physician and major alchemist Arnold of Villanova observed:

There abides in nature a certain pure matter, which being discovered and brought by art to perfection, converts to itself proportionally all imperfect bodies that it touches.⁴

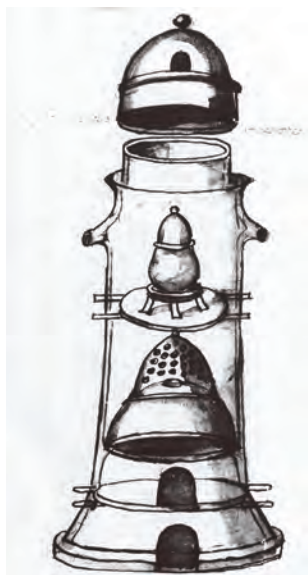


Fig. 7.2 Sisto de' Boni, 'el forno secreto deli philosophi hatenore necessario dove se fa la retrogradazione deli dui luminarii et le circulationi et coagulazioni philosophiche' (The secret furnace athanor of the philosophers, necessary, where the retrogradation of the two luminaries is performed, as well as the philosophical circulations and coagulations), BNF, Ms. Palat 901.

- ⁵ "La qual pietra [filosofale], finita et multiplicata, averà natura de fonderse come cera et penetrare e tingere et permanere in elli corpi inperfectti et trasmutar quelli in natura solifica o lunifica vera." Sisto de' Boni, *All' Illustrissimo et eccellentissimo signore Cosimo de' Medici Duca di Fiorenza et Siena*, in Alfredo Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, ed. Claude Blum, *Etudes et Essais sur la Renaissance* (Paris: Honoré Champion, 1997), p. 194.
- ⁶ Such descriptions could call for as many as seven hundred distillations of the same substance as just one stage in the process of obtaining the Stone. See Suzanne B. Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, 2 vols. vols. (Florence: Leo S. Olschki, 1996), vol. 1, p. 241.
- ⁷ Earlier Greek texts added a fourth stage, the *xanthosis* (yellow) as an intermediary between the white and the red, but this was often omitted by later authors. Roberts, *The mirror of alchemy: alchemical ideas and images in manuscripts and books from Antiquity to the seventeenth century*, p. 55.
- ⁸ See John Read, *Prelude to chemistry. An outline of alchemy; its literature and relationships* (London: G. Bell and sons, 1936), p. 95.
- ⁹ Mircea Eliade, *Forgerons et alchimistes. Nouvelle édition corrigée et augmentée*, ed. Yves Bonnefoy, *Idées et recherches* (Paris: Flammarion, 1977), p. 131.
- ¹⁰ "Et il primo precepto delli philosophi è questo: che noi dovemo ridurre li dui luminarii in argento vivo et questa prima opera la chiamarono solutione, et dicono questo essere el fundamento et la radice et la chiave de questa arte. Appresso per testimonio che questa sia el vero, notate le parole che dice Aristotile: Sappia lo artefice che le spetie de li metalli trasmutar non si possono, se prima voi non ridurrete quelli dui luminarii in prima materia, cioè in argento vivo." Sisto de' Boni, in Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 192.
- ¹¹ "Et ponete questo vasetto in el forno secreto chiamato hatenore, et dateli el fuoco de digestion tanto temperato che el mercurio non sublimi e che vi possiate tollerar la mano nuda senza scottarvi..." Sisto de' Boni, *All' Illustrissimo et eccellentissimo...*, f. 24r., in Perifano, *L'alchimie à la cour de Côme Ier de Médicis*, p. 195.

The terms *Lapis philosophorum* and elixir suggest that we are dealing on the one hand with a hard substance and on the other with a liquid. In effect, Sisto de Boni's definition of the stone presents it as an elusive hybrid:

...which stone, once it has been obtained and multiplied, will have the aptitude to melt like wax and to penetrate, to taint and to endure in those imperfect bodies, and to transmute them in a true solar or lunar nature.⁵

Descriptions of the ritual road that was to be followed in order to realize the *opus magnum* and thus to obtain the *Lapis* or the elixir range from detailed texts on dauntingly extensive and complex manipulations⁶ to short accounts written in an obscure and elusive prose as is the case of de' Boni's recipe for the Stone. Whether long or short, detailed or elusive, the *opus* traditionally counted a series of steps named after the colors that the manipulated ingredients were meant to turn into before the *Lapis* was obtained. These colours were black first, the so-called *melansis*, then white, *leukosis* and finally red, *iosis*.⁷ The products of those intermediate stages were the white and the red elixir. The black stage, *melansis* or *nigredo* as medieval authors named it, was likened to death and consists of 'putrefying' the main ingredients (silver and gold, the two "luminaries" in de' Boni's case) and reducing them into their primary components by an immersion into a 'water'. The *nigredo* phase projects on the mineral world the idea that a plant seed needed first to putrefy, or die, before it could germinate.⁸ Eliade suggested one should imagine this phase as a return to a pre-natal stage, a *regressus ad uterum*, as an operation aimed at reducing the ingredients to their *Prima Materia* by dissolving their specific forms.⁹

In Sisto's formula, gold leaves were crunched in a stone mortar and then dissolved or 'drowned' in a bath of mercury, itself a substance associated with Prime Matter.¹⁰ The liquid mass was filtered through a cloth, a large number of times, residues were crunched and dissolved again, until all gold had passed through the filter. The mixture was collected into a glass recipient (*vasetto, overo urinaletto*), covered with a lid, and put into the "secret furnace called *hatenore*", where it was "given the fire of digestion which is so tempered that the mercury will not sublimate and that You [Sisto is addressing himself to Cosimo] could hold Your naked hand [inside] without being burned..."¹¹ The fire was to be kept steady at this intensity for ten days. The liquid metal was subsequently "washed" with salted water, "dried" with warmed cloth, filtered again, and brought back to "cook" or "digest" inside the Secret Furnace for ten days. This sequence was to be repeated until all gold particles were entirely amalgamated with the mercury (all gold is then supposedly brought down again to its "own *prima materia*"). A final distillation, operated in two retorts placed "mouth to mouth", finalised the "reduction of gold



Fig. 7.3 'Coitus', from *Turba philosophorum*, 16th century. Paris, Bibliothèque nationale de France, Ms. Lat. 7171, f.40.



Fig. 7.4 'Conjunction sive coitus', from *Rosarium philosophorum* (Frankfurt, 1550). Reprinted in Roberts, 1994, p. 83.



Fig. 7.5 Johann Daniel Mylius, 'Coitus', from *Anatomiae auri sive tyrocinium medico-chymicum* (1628). Reprinted in Smith 2004, p. 134.

¹² "Et per questi modi medesimi, voi potrete ridurre in mercurio el corpo della luna." Sisto de' Boni, *All' Illustrissimo...*, f.25r. in Perifano, *L'alchimie à la cour de Côme Ier de Médicis*, pp. 196.

¹³ Ibid.

¹⁴ "Et hora voi avete fatto el matrimonio de 'l maschio con la femina. Et così li philosophi lo chiamarono, in quella hora, coito..." Sisto de' Boni, *All' Illustrissimo...*, f.29v. in Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 196-197.

to its mercury". Following the same procedure, Sisto wrote, the alchemist will be able to perform "the reduction in mercury of the body of the moon."¹² Because they ultimately derive from two strongly gendered planets and metals, both mercuries obtained in this manner come to bear the attributes of masculinity and femininity, respectively.

For the next stage, the preparation of the "white elixir out of which the red elixir will then be born",¹³ the two mercuries obtained in the previous stage were mixed into the same lidded glass *vasello* which was then placed on a small tripod inside the Secret Furnace, to which was given "suave fire". As de' Boni observes:

And now you have performed the marriage (*matrimonio*) between the male (*il maschio*) with the female (*la femina*). And it is as follows that the philosophers called this moment: the coitus...¹⁴

The furnace was kept steady at a temperate fire, until a thin black film appeared at the surface of the mercury solution. The film or "offspring" (*parto*) was then cautiously collected with a spoon (wooden, glass, golden or silver) and conserved in another covered glass recipient, preciously kept in the athanor as well. The operation was repeated until eventually the black film would no longer appear. The remaining mercury, "most splendid", was referred to as the "virginal milk" while the accumulated black secretions formed what was termed the "male sulphur", the "dragon" (*dragho*), or the "male little boy" (*il figliolo maschio*). After been grinded in a mortar and left again for a month in the temperate fire of the oven, "to make him thirsty", the "little boy" was given the "virginal milk" or the "female mercury" to drink. A quarter of the whole quantity was given at a time. After each feeding session, the *figliolo* returned into the suave fire of the furnace for a monthlong stay. Once the "little boy" had drunk "all his milk", he was supposed to be "white as snow". The white elixir was then ready.

Unfortunately Sisto's manuscript does not provide any specifics on the last, 'red' stage of the *opus*. The reader is only left with the elusive mention that "the red elixir will be born out of the white elixir". But already in this fragmentary recipe, one of the most typical characteristics of the alchemical descriptions features prominently: the systematic identification of alchemical processes with human (or animal), reproduction, conception, gestation, birth and nurturing. These analogies also appear from an even superficial assessment of alchemical emblems in which, for instance, scenes of a *coniunctio* between gendered elements or allegorical figures (the King and the Queen) figure prominently. Through these analogies, the alchemist is brought, to play the role of a caring go-between who spreads the bed on which the two strongly



Fig. 7.6 'Resurrection', Illustration from *The Booke of the Rosary of the philosopher*, London, British Library, Additional MS 29,895. Reprinted in Roberts, 1994, plate 16.

¹⁵ "Prendi una vergine ben lavata e purificata e che sia incinta per virtù della semenza spirituale del suo primo marito, senza che per questo la sua virginità sia lesa, maritala senza sospetto di adulterio con l'altro uomo, essa concepirà nuovamente con la semenza corporale del suo primo marito e metterà al mondo un figlio adorabile di due sessi, la pietra filosofale." G. Lensi Orlandi, *Cosimo e Francesco de' Medici, alchimisti* (Florence: Nardini, 1978), p. 37 (without references).

¹⁶ Michael Maier, *Symbola aureae mensae*, (1617), cited in Roberts, *The mirror of alchemy: alchemical ideas and images in manuscripts and books from Antiquity to the seventeenth century*, p. 82.

¹⁷ See C.G. Jung, *Psychology and Alchemy* (London: Routledge & Kegan Paul, 1953); in particular Part III, 'Religious ideas in alchemy', of which the fifth chapter is entirely dedicated to 'The lapis-Christus parallel'.

¹⁸ The passage in questions from the *De natura rerum* reads as follows: "We must now by no means forget the generation of homunculi. For there is something to it, although it has been kept in great secrecy and kept hidden up to now, and there was not little doubt and question among the old philosophers whether it even be possible to nature and art that a man can be born outside the female body and [without] a natural mother. I give this answer – that it is by no means opposed to the spagyric art and to nature, but that it is indeed possible. But how this should happen and proceed – its process is thus – that the sperm of a man be putrefied by itself in a cucurbit for forty days with the highest degree of putrefaction in a horse's womb, or at least to long that it comes to life and moves itself, and stirs, which is easily observed. After this time, it will look somewhat like a man, but transparent, without a body. After this, it be fed wisely with the arcanum of human blood and be nourished for up to forty weeks, and be kept in the even heat of the horse's womb, a living human child grows therefrom, with all its members like another child, which is born from a woman, but much smaller." [Pseudo-]Paracelsus, *De natura rerum*, Theophrastus Paracelsus and Karl Sudhoff, *Theophrastus von Hohenheim, genannt Paracelsus, Sämtliche Werke*, 14 vols. (München: Oldenbourg, 1922–33), vol. 11, pp. 316–317. Cited in English translation in William Royall Newman, *Promethean ambitions: alchemy and the quest to perfect nature* (Chicago: University of Chicago Press, 2004), p. 204.

gendered protagonist substances are to recline and perform their fecund union. One alchemist, cited by Orlandi, wrote down the following most succinct formula:

Take a virgin well washed and purified, and pregnant by virtue of the spiritual seed of her first husband, yet without any harm to her virginity. Marry her without suspicion of adultery with the other man, and she will newly conceive with the bodily seed of her first husband, and beget an adorable son of both sexes, the philosopher's stone.¹⁵

In the mean time the alchemist was also the obstetrician who effectively brought this child to life, a child of which he is himself also partly the begetter. The Stone is indeed referred to as the “*filius philosophorum*”, the ‘philosopher’s son’; it is in fact the child of his desires. Some authors develop the attribution of a human nature to the stone to its very limits, by projecting it on an entire life cycle:

And so the stone, just like man, is conceived from a mixture of two seeds, masculine and feminine, is transformed into an embryo through impregnation, is born into the light of day, is nourished with milk, grows, reaches maturity, is bound in marriage, breeds from his wife, is afflicted by a cross or a tide of tribulations, dies, is buried, remains for some time in the grave, from there it arises, and enjoys new incorruptible life and is not able to die any more.¹⁶

Except for the phase in which it supposed to have been ‘married’, the Stone, in this citation, is identified with the man whose exceptional destiny brought him to transcend and escape the sublunary cycle of generation and corruption. The *Lapis-Christus* parallel is a recurrent theme.¹⁷ As Christ’s destiny represents the zenith of what a father could hope for his son, the Stone represents the summit of the alchemists’ desires regarding the properties of an artificial substance, a result he can only hope for with devout humility and confidence.

Let us not forget that, much in the line of producing the *Lapis*, one of the alternative ambitions of several early-modern alchemists was to really produce, by the means of their art, effectively living, miniature human beings. The author of the Paracelsian treatise *De natura rerum* (1572), possibly Paracelsus himself, posited the feasibility of the operation, and even provided its readers with a recipe for the artificial generation of *homunculi*: the self-moving miniature human beings are obtained by putting human semen in a glass flask and subjecting it to temperate heat and feeding it with human blood.¹⁸ [beeld alchemist met homunculus] Obtained from the alchemist’s own semen, without a doubt, these little creatures, when brought to maturation, take on the characteristics of powerful genies. As William Newman observed: “The *De natura rerum* announces that from such *homunculi*, if they reach adulthood, arise marvellous beings, such as giants and dwarves. These creatures have



Fig. 7.7 David Ryckaert III, *Alchemist with Homunculus in Vessel*, c. 1640. Mannheim, Reiss-Engelhorn Museen.

¹⁹ Ibid.

²⁰ Vannoccio Biringuccio, *The pirotechnia of Vannoccio Biringuccio. Translated from the italian with an introduction and notes by Cyril Stanley Smith & Martha Teach Gnudi.* (Cambridge, MA and London: MIT Press, 1966), p. 43.

²¹ Ibid., p. 40.

wonderful strength and powers, such as the ability to defeat their enemies with ‘great forceful victory’ [...] and to know ‘all hidden and secret things’ ...”¹⁹ Referring to similar claims, Biringuccio had written three decades before the publication of the *De natura rerum*,

[The alchemists] wish to make you believe that even outside a woman’s body it is possible to generate and form a man or any other animal with flesh, bones and sinews, and to animate him with a spirit and every other attribute that he requires.²⁰

And he added :

...if what they say is true, they could say that they hold prisoner in a bottle that God which is the creator of all these things.²¹

The desire to humanize both the protagonist substances in alchemical preparations and their outcome is not only clear in the alchemical recipes, it equally appears in the form of the alchemical furnaces inside of which the interaction of substances is staged, and out of which the *filius philosophorum* is born. Many of the furnaces depicted in Sisto de’ Boni’s book have explicit architectural features. The tower-like furnace in which the distillation of the gold and silver mercury is to be performed displays a tile-covered *cupola*, round moldings or a rusticated arched opening to the combustion chamber, architectural details which clearly extend beyond immediate functional needs. Another of Sisto’s illustrations shows a “reverberating furnace” in which “the bodies of the metals” are submitted to another kind of treatment, and which resembles a miniature version of the Palazzo Strozzi. According to the manuscript of Cosimo’s gem-maker, the *Lapis* is thus to be begotten in a building with Florentine features.

In its emphasis on the architectural character of alchemical furnaces, Sisto de’ Boni’s advice is no isolated case. Even furnaces where operations of a less esoteric nature should be performed, could strikingly take on the aspect of secular and even religious buildings. Biringuccio’s *Pirotechnia* for instance contains the image of a complex of “chambers for the condensation of mercury vapor distilled from the ore” which resembles a basilica with a baptistry and two shortened campanili. Another of Biringuccio’s “furnaces for distillation” has the appearance of a crenelated tower with fortified bastions. Georgius Agricola showed in his *De re metallica* an image of a glassmaker’s furnace, the domed and ribbed structure of which bears some resemblance to the *cupola* of the Florentine cathedral. Those examples confirm the suspicion, slumbering in Varchi’s text on alchemy, that the distinction between the strictly alchemical arts and related disciplines is a blurred one. Humanization also

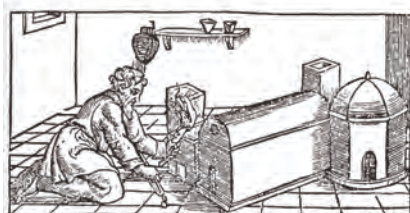
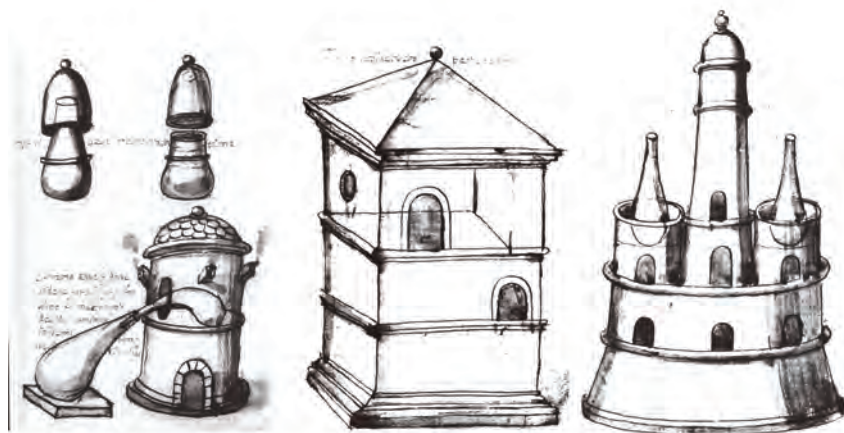


Figure 5. Chambers for the condensation of mercury vapor distilled from the ore.

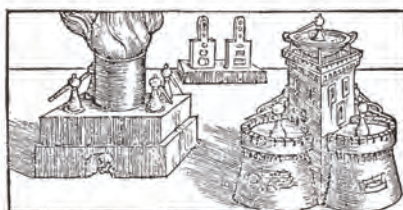


Figure 7.10. Tower furnaces (athanors) for distillation. Detail at back shows flue register.



A—BLOWPIPE. B—LITTLE WINDOW. C—MAGNET. D—FURNACE. E—SHOCK OF BRASS BY WHICH THE GLASS IS PRESSED.

Fig. 7.8 Sisto de' Boni, 'Vessels for the retrogradation...', BNF, Ms. Palat 901.

Fig. 7.9 Sisto de' Boni, 'The reverberating furnace where the bodies of the metals are calcinated and other other things necessary to the alchemical arts are done', BNF, Ms. Palat 901.

Fig. 7.10 Sisto de' Boni, 'Another furnace with tower in another manner', BNF, Ms. Palat 901.

Fig. 7.11 Vanoccio Biringuccio, *Chambers for the condensation of mercury*, from *Pirotechnia* (Venice: 1540).

Fig. 7.12 Vanoccio Biringuccio, *Tower furnaces...*, from *Pirotechnia* (Venice, 1540).

Fig. 7.13 Georgius Agricola, *Dome-shaped furnace for melting glass*, from the *De Re Metallica* (Basel, 1556). Reprinted in Agricola & Hoover, 1950, p. 591.

²² Cited by Arthur Edward Waite, *The Hermetic museum, restored and enlarged: most faithfully instructing all disciples of the sopho-spagyric art how that greatest and truest medicine of the philosopher's stone may be found and held* (London: J. Elliott and co., 1893), p. 243.

seemed to occur for the products of the ‘pyrotechnical’, for the children of the less hermetic ‘artisans of fire’ like glassmakers, potters and metallurgists. Projecting the features of human dwellings and buildings on furnaces, ovens and other generative containers amounts to inserting of these substances in what we might call the ‘society of virtuous bodies for the benefit of the human race’.

The point here is that the philosopher’s stone constitutes a crucial instance of what is usually and rather inadequately referred to as anthropomorphism, i.e. the attribution of human characteristics to an inanimate object. I say inadequately because in the case of the *Lapis* a wide range of human qualities are attributed to the coveted substance, except those qualities that relate to human form (*morphè*). Indeed, if in alchemical recipes there is a broad consensus on the nature of the Stone, on its supposed capacities to transmute bodies, its own shape on the other hand, its color and hardness are legendarily elusive. Undistinguishable from the elixir, it might be liquid. Sisto de’ Boni explained how it would spontaneously soften like wax to permeate base metals. It is also hardly recognizable to the non-initiated. Villanova believed it “abides in nature”. Similar beliefs in the ‘ubiquity of the stone’ resurfaces regularly in the alchemical literature, as in the following account of 1526, published in the *Gloria Mundi*, according to which the Stone is:

...familiar to all man, both young and old, is found in the country, in the village, in the town, in all things created by God ; yet it is despised by all. Rich and poor handle it every day. It is cast into the street by servant maids. Children play with it. Yet no one prizes it, though next to the human soul it is the most beautiful and the most precious thing upon earth, and has power to pull down kings and princes. Nevertheless, it is esteemed the vilest and meanest of all things.²²

The Greek Zosimos of Panopolis (c. 300 C.E.), one of the founding figures of the alchemical discipline, referred to the *Lapis* as a “stone which is not a stone, a precious thing which has no value, a thing of many shapes which has no shapes, this unknown which is known of all.”²³ In the 15th century Nicola Valois wrote: “There is a Stone of great virtue, it is named Stone yet is not Stone, it is mineral, vegetal, and animal, and it is found in all places at all times, and by all people...”²⁴

Though it has no form, and certainly not the form of a human being, the Stone is humanized. Its most important human characteristic is its capacity for autonomous and targeted action. The humanization of the Stone also opens up paths to account for its fallibility. Failure lurks around any corner along the long path that leads the alchemist to the realization of his Masterwork. The result obtained after



Fig. 7.14 Michel Maier (& Ramon Lull), ‘The child’s body (ie the Philosopher’s Stone) comes into motion from the masculine and the feminine’, illustration from Michael Maier, *Symbola aureae mensae* (Frankfurt, 1617), p. 405.

- ²³ Cited by Read, *Prelude to chemistry. An outline of alchemy; its literature and relationships*, p. 129. In the same vein, Ben Jonson had one of the characters of *The alchemist* observing on the “Lapis philosophicus”: “‘Tis a stone, And not a stone; a spirit, a soul, and a body: Which if you do dissolve, it is dissolv’d; If you coagulate, it is coagulated; If you make it to fly, it flieth.” Ben Jonson, *The Alchemist* (London: Thomas Snodham, 1612), Act 2, scene 5, (unpaginated).
- ²⁴ “Il est une Pierre de grande vertu, et est dite Pierre et n’est pas Pierre, et est Minérale, Végétale, et animale, qui est trouvée en tous lieux et en tous temps, et chez toutes personnes...” Nicolas Valois and Nicolas Gropary, *Les cinq livres; ou, La clef du secret des secrets* (Paris: Retz, 1975); cited in Lensi Orlandi, *Cosimo e Francesco de’ Medici, alchimisti*, p. 34.
- ²⁵ “La pietra minerale si trova nella miniera dell’oro, dell’argento, e del rame e dove essa vena è finita. Bisogna quindi cavare alquanto e si troverà questa benedetta pietra minerale, quale sarà di più colori e sarà con acqua ghiacciata e subito che vedrà l’aria diventerà dura e rossa e perché non ci abbia a perdere la sua virtù è necessario aver preparato scatola o cassetta e mettervela dentro perché dandoli sopra vento, pioggia, sole o acqua perderà la sua virtù minerale e non darebbe nulla onde bisogna esser diligentissimo in guardarla perché è come una creatura terrena.” G. D. di Toscana Cosimo I, “Raccolta di segreti alchimici con sue postille originali,” (XVI sec.), fol. 54 r. – 69 v., cited in Lensi Orlandi, *Cosimo e Francesco de’ Medici, alchimisti*, p. 73.
- ²⁶ Richard C. Trexler, *Public life in Renaissance Florence*, ed. Charles Tilly and Edward Shorter, *Studies in Social Discontinuity* (New York: Academic Press, 1980). See in particular the section ‘Objects’ of Chapter 2, ‘Cosmos’, pp. 55–73.
- ²⁷ Interestingly, Trexler defined “idols”, when the term was applied to sacred representations, as “...no more nor less than a representation that was not working. To accuse a person of worshiping idols was to denounce him for worshiping something that possessed no *virtù*, no spiritual power – a coin image, for example, that despite rumors had not bled or given some sign of work. Proving an image prodigious disproved the charge of idolatry. The *image* was a valid, participatory intelligence; the *idol* was pure object, without spirit, without efficacy.” *Ibid.*, p. 71.

months of efforts might just refuse to serve its intended purpose. During the *Opus*, the Philosopher is going through the kind of anxieties experienced by a father who witnesses the growth of his son, knowing how many accidents might divert him from the realization of a perfect destiny, from becoming the agent that his begetter had ardently hoped for.

2. Semen

Among the many recipes that Cosimo de' Medici held in his manuscript *Raccolta di segreti mirabili* (see chapter 6) figures an account on the Philosopher's Stone, entitled *Relatio sopra la pietra de' filosofi*. The relatively short passage is interesting because it provides detailed instructions on the actual precautions that were needed in manipulating the Stone.

The mineral Stone is found in the gold mine, in the silver mine, in the copper mine and where that vein is extinguished. It is thus necessary to dig fairly deep and then that blessed mineral stone will be found, which will be of several colours and which will contain water that has turned into ice [crystal]; as soon as it will see the air it will become hard and red; in order to avoid that it would loose its *virtù* it is necessary to have prepared a box or a casket and to put it inside, because if exposed to wind, rain, sun, or water it would loose its mineral *virtù* and it would not work (*non darebbe nulla*) therefore it is essential to be most diligent in storing it because it is as like an earthly creature.²⁵

These precautionary measures that should avoid the loss of effective power (*virtù*) of the Stone are strongly reminiscent of the care with which ecclesiastics manipulated and stored sacred objects in order to avoid the loss of their curative and protective power. Richard Trexler defined “sacred objects” within the *cosmos* of Renaissance Florence as “objects with power”, with “participatory intelligence”, with the capacity to bestow effective protection and perform miracles. He identified three species of sacred objects:²⁶ the hosts which are sacred according to the doctrine of the ‘real presence’; the relics; and the miraculous images.²⁷ Hosts, relics and miraculous images were all conserved behind the walls of the most sacred buildings, treated with utmost care, cautiously stored in protective shrines and containers, only exposed and viewed in highly ritualized conditions when their power was effectively required. As Leonardo da Vinci, in his *Trattato della pittura*, put it when evoking the power of painted images:

- ²⁸ “Or, non si vede le pitture rappresentatrici le immagini delle divine deità essere al continuo tenute coperte con copriture di grandissimi prezzi? E quando si scoprono, prima si fanno grandi solennità ecclesiastiche di vari canti con diversi suoni. E nello scoprire, la gran moltitudine de’ popoli che quivi concorrono, immediate si gittano a terra, quelle adorando e pregando per cui tale pittura è figurata, dell’acquisto della perduta sanità e della eterna salute, non altrimenti che se tale idea fosse lì presente ed in vita.” da Vinci Leonardo, *Trattato della pittura dal Codice Urbinate Vaticano* (Neuchâtel: Le bibliophile, s.d.), sd, p. 9.
- ²⁹ It is actually Varchi who reported that reputation of Our Lady of Impruneta in the *Storia Fiorentina*. Varchi here also mentions that “once before she had invisibly fled at night.” “Era la fama nel volgo fiorentino che la tavola della Madonna dell’Impruneta non volesse albergare dentro le mura di Firenze, donde una volta se n’era invisibilmente di notte tempo fuggita.” *Storia Fiorentina*, X.37 in *Opere I*, p. 216.
- ³⁰ “... la materia [dello sperma] è schiumosa e spugnosa, perché vi si rinchiude dentro assai spirito, come nella spugna assai acqua: onde spargendosi in terra tosto diventa minuto e si secca prestamente, perché lo spirito si parte ed esala via, e l’altra parte viscosa si restringe e raccoglie insieme...” *L. Gen. Corpo* in *Opere II*, p. 288.
- ³¹ “...il parto o bambino nel ventre, è rinvolto e circondato da tre tele. La prima è una certa tela sottile non altramente quasi che quella, che veggiamo stare appicata al guscio dell’uovo di dentro: e chiamasi questa prima tela, armadura, o vero guardia, ed è fatta dalla natura per tre cagioni e giovamenti. Prima, accioché la virtù e lo spirito, che è nel seme del maschio, non evapori ed esali; e accioché le parti dello sperma non si spargano, ma stiano raccolte insieme, perché sempre la virtù unita è più forte.” *L. Gen. Corpo* in *Opere II*, p. 292.
- ³² “The so-called blood-making faculty in the veins, then, as well as all the other faculties, fall within the category of relative concepts; primarily because the faculty is the cause of the activity, but also, accidentally, because it is the cause of the effect. But, if the cause is relative to something- for it is the cause of what results from it, and of nothing else- it is obvious that the faculty also falls into the category of the relative...” Galen and Arthur John Brock, *Galen On the natural faculties* (London, New York [etc.]: W. Heinemann; D. Appleton and Company, 1916), I.4

Does one not see the images representing the divinities being continuously kept concealed with the most valuable covers? And when these are uncovered, this is not done without great ecclesiastical solemnities, various songs and sounds. And during the uncovering, the great multitude of people that had gathered there, immediately throw themselves to earth, adoring these images and praying to [the divinities] for whom the panels were painted, for the recovering of lost health or for eternal salvation, as if that [divinity] was really present there and alive.²⁸

The deference displayed towards sacred objects, out of a permanent fear for their refusal to be effective when they would be prayed for, strongly humanised them. In some cases the objects were even attributed irrational whims and stubborn behaviour. This is the case of the panel of Our Lady of Impruneta, one of the most sacred Florentine images, notorious though for her attachment to her home-sanctuary in the Tuscan hills and for her refusal to stay overnight in Florence, even when Florentines needed her most, as during the siege of 1529.²⁹

On the other hand, the advices from the *Raccolta di segreti mirabili* regarding the storage of the Stone and the warnings of the volatility of its powers also remind us of contemporary accounts on the nature of animal semen. We remember that Varchi, using an imagery also found in Aristotle, had compared animal semen to a foamy liquid containing small bubbles of spirit, just like a sponge can contain a certain quantity of water. Once this foam comes out into the open, the active part of the semen soon evaporates and disappears.³⁰ To avoid this risk, the organs involved in animal coition had been designed by prudent Nature to function as hermetic vessels allowing the circulation of the “hot”, active substance of the semen from one container to the other without any risk of loss or cooling off. The airtight outer fetal membrane, called the *guardia* or ‘keeper’ by Varchi, and the sealed womb guarantee the conservation of these active qualities before and during the conception.³¹ But what do we know exactly about the *virtù* contained in both semen and the Philosopher’s Stone, apart from what is stated about their elusive nature?

There is an insightful passage of Galen’s treatise *On the natural faculties*, remarkable for its truly modern conscience of the relativity of linguistic expressions, in which the physician of Pergamon observes that it is the habit in medical literature to use the term ‘faculty’, ‘power’ or ‘virtue’ whenever one is ignorant of the precise causes of a phenomenon. Galen therefore labeled the notion ‘faculty’, ‘virtue’ as a “relative concept.”³²

³³ Ibid.

³⁴ As happens in the translation of the above cited passage, see Galen, *Claudii Galeni Pergameni de naturalibus facultatibus libri tres* / Thomas Linagro Anglo interprete. (Lyon: Gulielmum Rouillium, 1560), p. 7-8.

³⁵ The lemma *virtù* of the *Dizionario della Crusca* mentions three main clusters of meaning for *virtù*, each time illustrated with several examples: 1. excellence of mind (either with or without a religious connotation), from the Latin *virtus*. 2. Worthiness (*valore*), from the Latin *virtus*, *prestantia*, and finally 3. power, vigor, faculty, innate quality (*possanza, vigore, forza, e qualità naturata*) from the Latin *vis, potentia*.

...so long as we are ignorant of the true essence of the cause which is operating, we call it a faculty. Thus we say that there exists in the veins a blood-making faculty, as also a digestive faculty in the stomach, a pulsatile faculty in the heart, and in each of the other parts a special faculty corresponding to the function or activity of that part.³³

Galen's remark is not a condescending reproach to earlier authors, rather is it an acknowledgement of the limitations of the investigative means he and his colleagues had at their disposal. He himself would make abundant use of the notion of the 'faculty', especially in the cited treatise.

Galen's "faculty" is the immediate predecessor of the notion *virtù* as we have encountered it in Tuscan texts on the subjects of alchemy, pharmacy or medicine, and their relationship may need some etymological clarification at this stage. The original Greek term used by Galen in his *On natural faculties* (*Peri phusikôn dunameôn*) is *dunamis*, a notion prominent also in Aristotle's work, as we have seen. Humanists like the English physician Thomas Linacre (c. 1460-1524) chose to translate *dunamis* into either *potentia* (power, potentiality) or *facultas* (faculty) or both.³⁴ But *dunamis* was as frequently translated as *vis*, from which eventually the Italian *virtù* derived as in Dante and Varchi's *virtù informativa*. *Vis*, in turn, is derived from the Greek *bia*, 'life force', a notion almost synonymous to *dunamis*, but leaning more to violent force. *Vis* covers a wide range of meanings, all related to force and traditional notions about masculinity: from physical strength, vigorous action, energy of character, to overwhelming rush, violence and force exerted to obtain sexual gratification. When used in relation to impersonal entities, it signals the power or capacity to do something, to perform a specific action.

Now that we have shed light on the filiation between the terms *dunamis* – *bia* – *vis* – *virtù* which all share the meaning of force, capacity and faculty, we must keep in mind that the term *virtù* simultaneously stands as the Tuscan equivalent of the Latin term *virtus*.³⁵ If equally related to manly qualities, *virtus* is not physically connoted. It specifically refers to qualities of the mind rather than qualities of the body: excellence of character in the sense of resolution, steadfastness, valor. And it was never attributed to non-human entities, contrary to *vis*. A translation of *virtù* as virtue is thus only appropriate when used in the context of human qualities, not, obviously, when the behavior of objects or substances is discussed. Nonetheless, both a man with *virtus* and a substance with *vis* seem to share the fact that they are likely to perform targeted, specific actions, of a beneficent, 'selfless' nature, i.e. actions that will benefit to others than the agents themselves. This positive moral connotation signals that a third party

³⁶ See for instance Varchi's often repeated claim: "il seme opera in virtù del generante", cf. notes 41 and 43 below.

³⁷ A same shift of meaning seems to have occurred in the case of the English *virtually*, which originally bore the same meaning as *virtualmente*, see the lemma *virtually* in the Oxford English Dictionary. Instances of the adverb in the sense of 'as good as' appear only from the 17th C. on, while the ancient meaning of the word is traced back to the 15th C.

³⁸ See for instance the *Lezione sui calori*, where Varchi observes that sunrays are "virtually hot", which he opposed to a fire which is "formally hot": "E ancora da avvertire, che una cosa si chiama calda in due modi, virtualmente come il sole il quale non è caldo, né in atto, né in potenza, se bene e cagione col movimento e lume suo di generare il caldo, e formalmente come il fuoco il quale è caldo in atto per la sua propria forma e natura." *Opere* II, p. 515.

³⁹ "Onde è quello che dicono I filosofi e I medici che, poichè la gallina ha generato l'uovo in corpo, ancora che egli abbia il guscio, se il gallo si congiunge con essa lei, l'uovo che nasce è gallato, ciò è atto e utile a generare e che di lui nasce il pulcino? Viene, perchè, come si è già detto più volte, il seme del maschio non concorre materialmente, ma virtualmente..." *Gen. Corp.* in *Opere* II, p. 308.

⁴⁰ Codex Atlantico, 270 v.c. in Leonardo, *Les carnets de Léonard de Vinci* ([Paris]: Gallimard, 1942), II, p. 247.

⁴¹ "E perchè lo sperma opera virtualmente (il che è più nobile e più perfetto che operare formalmente), e opera in virtù del generante, e come strumento del padre, però Aristotile lo chiamò virtù separata e divina, e Galeno dubitava se gli era creatore o creatura." *L. Gen. Corp.* in *Opere* II, p. 288.

⁴² *Generation of Animals*, II.3, 736b34-39.

⁴³ "...il seme, il quale opera in virtù del generante (morto lui) ha possanza di introdurre nel parto, ancora che non sia animato egli, l'anima vegetativa e sensitiva e disporlo a ricevere l'intelletiva." *L. Gen. Corp.* in *Opere* II, p. 291.

⁴⁴ *Generation of Animals* II.1, 734b10.

is always and necessarily involved when a *virtù* operates. A bearer of *virtù* will by necessity act ‘on behalf of somebody else’, which is exactly what the expression ‘in virtue of’ (*in virtù di*) means.³⁶

The adverb *virtualmente* (virtually) as it is used in contemporary prose conveys similar connotations. Varchi, for instance, mentioned in his lectures on several occasions that agents can perform actions either ‘materially’ (*materialmente*) or ‘virtually’ (*virtualmente*). As this contradistinction makes clear, *virtualmente* must not be understood here in the modern sense to mean “as good as”. Rather, in accord with Galen’s remarks, it refers to cases in which the precise nature of the links between an agent and the action he performs remain indirect and in any case not immediately visible to the observer.³⁷ A third, unknown intermediary (a *virtù*) comes into play. For instance, everybody knows that there is a cause to effect relationship between sunlight and the maturing of grapes though the nature of the efficient or proximate cause of the alteration is not open to sensory experience and can only be conjectured. It will be said then that a hidden cause is operative, for instance a heat ‘contained in’ the sunrays that ‘cooks’ the grapes to maturation.³⁸ Varchi for instance used the distinction *materialmente/virtualmente* to explain how a cock could fertilize a chicken’s egg through the eggshell, which he believed was possible.³⁹ When Leonardo da Vinci claimed that the ostrich and the spider hatch their eggs by merely watching them, he also implicitly conceded that this happens virtually instead of materially.⁴⁰ Semen is of course a very interesting case. It both operates “virtually” and “in virtue of” a generator, so much that Varchi wondered whether one had to qualify it “a creator or a creature?”⁴¹ Semen acts “virtually” because it uses the *virtù informativa* contained in the *pneuma* to cause the alterations of the foetation. As Aristotle wrote:

...the semen contains within itself that which causes it to be fertile – what is known as ‘hot’ substance, which is not fire nor any similar substance, but the *pneuma* which is enclosed within the semen or foam-like stuff, and the natural substance which is in the *pneuma*...⁴²

On the other hand, semen acts “in virtue of the generator” (*in virtù del generante*). Semen (the proximate cause) will thus fashion and organize the matter of the fetus on behalf of the generator (the remote cause). It is not only the instrument of the father, it also has the virtue to remain operative, as Varchi remarked, even after the death of the latter.⁴³

Aristotle essentially provided two models to illustrate how semen could “have within itself the movement which the generator set going.”⁴⁴ The first of these could be labelled a thermodynamic model, and resorts to the principle of the physical transmissibility of heat. As we have already mentioned, this model presents semen (or

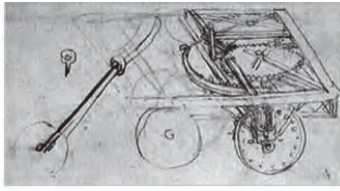


Fig. 7.15 Leonardo da Vinci, sketch for a three-wheeled automatic cart, c. 1478. Milan, Biblioteca Ambrosiana, CA 812r. Reconstruction M. Taddei & E. Zanon, 2004.

⁴⁵ The ‘motion’ brought about by the semen on the parts of the body of the future foetus must not be understood “in the sense of changing their position”, but in the sense that “while remaining in the same position they undergo ‘alterations’ as regards softness, hardness, colour, and the other differences which belong to the uniform parts...” *Generation of Animals* II.5, 741b11-14.

⁴⁶ “...come si vede nel divino libro delle *Meccaniche* du Aristotile...” *L.Paragone* in *Opere* II, p. 632.

⁴⁷ See for instance *Mechanics* 849b25-37: “Let AB be a circle and CD another circle in contact with it; then, if the diameter of the circle AB mover forward, the diameter CD will move in a backward direction as compared to the circle AB, as long as the diameter mover round the same point. [...] The same thing will happen in the case of a larger number of circles, only one of them being set in motion. Mecanicians seizing on this inherent peculiarity of the circle, and hiding the principle, construct an instrument so as to exhibit the marvellous character of the device, while they obscure the cause of it.”

⁴⁸ Hero of Alexandria, who authored several treatises on late-antique machineries around 62 C.E., used the term *energeia* to describe one of his mechanisms in the *Automata*, a treatise on air- and water driven automatic theatres. (*Automata*, 1, 7); see also the lemma *energeia* in Henry George Liddell et al., *A Greek-English lexicon*, New ed. (Oxford: Clarendon Press, 1940).

⁴⁹ *Generation of Animals* II.5, 741b7-9. I slightly adapted Beck’s interpretation here, by translating *en tois automatois thaumasi* as “in the ‘wondrous’ self-moving mechanisms” instead of “in the ‘miraculous’ automatic puppets”.

⁵⁰ “Now it makes no difference whether we say “the semen” or “that from which the semen comes,” in so far as the semen has within itself the movement which the generator set going. And it is possible that A should move B, and B move C, and that the process should be like that of the “miraculous” automatic puppets: the parts of these automatons, even while at rest, have in them somehow or other a *potentiality*, and when some external agency sets the first part in movement, then immediately the adjacent part comes to be *in actuality*. The cases then are parallel: just as with the automaton (1) in one way it is the external agency which is causing the thing’s movement, -viz. not by being in contact with it, so too that from which the semen originally came, or that which fashioned the semen, [causes the embryo’s movement] – viz., not by being in contact with it still, but by having once been in contact with it at some point; (2) in another way, it is the movement resident within <which causes it to move> just as the activity of building causes the house to get built.” *Generation of Animals* II.1, 734b8-18.

⁵¹ One of Leonardo’s drawings, datable to 1478 (Codex Atlantico 812r (296va)) presents such a mechanism, the so-called Leonardian automobile, which was recently reconstructed by Mario Taddei and Edoardo Zanon for the Florentine Museum for the History of Science (dir. Paolo Galuzzi). According to Taddei and Zanon, Leonardo’s miniature carriage could be brought into motion at distance, by pulling a string, which then released a break on the mechanism.

the *pneuma* inside the semen), as containing a certain quantity of heat, endowed by the heart of the generator and conserving its capacity to cause motions or alterations after its emission from the father's body.⁴⁵ The second model is mechanical or kinetic: the independent agent is set in motion by a generator. This model resorts to an analogy with automatic mechanisms, the kind of mechanisms evoked in "Aristotle's divine book on *Mechanics*" as Varchi had called it,⁴⁶ a text that is now considered spurious.⁴⁷ The process of "actualising" the fetus is seen here as bringing in motion a complex clockwork mechanism.⁴⁸

As the parts of the animal to be formed are present *potentially* (*dunamēi*) in the matter, once the principle of movement has been supplied, one thing follows on after another without interruption, just as it does in the wondrous self-moving mechanisms.⁴⁹

In another passage from the same treatise, Aristotle explains how the semen that contains the self-moving principle may bring the whole mechanism in motion by comparing it to a clockwork toy containing a loaded spring, which, when allowed to uncoil, transforms its potential energy into kinetic energy. That stored energy is first imparted by an external agency, the real cause of the toy's movement. Yet the toy needs no longer to be in contact with that agent once it is 'loaded'.⁵⁰ Once the self-activated motion transmitter is brought in contact with the passive clockwork that lacks the principle of its own motion (menstrual blood), activation occurs and everything is set in motion. The example of the toy-automaton with the loaded spring stresses the potential nature of a *virtù*. It will still need a small impulse to unleash its motion and thus to transform its *dunamis* into *energeia*.

If we don't know much of the nature of the "wondrous automata" Aristotle was referring to and which were apparently used in theatre-like performances, we know of some Renaissance equivalents, such as Leonardo's three-wheeled automatic cart appearing on a folio of the Codex Atlantico. The cart could "miraculously" be set in motion by pulling a string backstage; a lever was lifted by the pull and the spring-driven mechanism operating the wheels was released.⁵¹ In the case of semen, specific conditions such as the semen's presence with the menstrual blood inside the sealed and temperately heated womb, trigger the release of the forces it carries within (the *virtù informativa*).

Summarizing these considerations, we may say that for a 16th-century Aristotelian like Varchi, the *virtù* of an object or of a substance that is not endowed with an animal soul, is its capacity to perform a targeted action on behalf of an external agent. That agent is the cause of the motion in question but needs not to be present when the

⁵² See Varchi's *L.Gen.Mostr.* in *Opere* II, p. 669, where he compares the effect of the "caldo del presame" with the heat of semen. The comparison comes, as we have seen from *Generation of Animals*, book IV, to which Varchi explicitly refers here. See also Aristotle's *Meteorology*, 389b10-11: "Thus blood, semen, marrow, fig-juice, and all things of the kind are hot as long as they are in their natural state...". In *History of Animals*, 522b8 Aristotle wrote: "Rennet then consists of milk with an admixture of fire, which comes from the natural heat of the animal, as the milk is concocted." On spiders, ostriches, and handsome girls, see Leonardo, *Codex Atlantico*, 262 r.b. or Leonardo, *Les carnets de Léonard de Vinci*, p. 247.

⁵³ "... il lume è qualità spiritale e non passione corporale in guisa che il lume come lume, ciò è per sé, e di sua propria natura non può esser cagione di riscaldare, ma riscalda per accidente, ciò è come riflesso e ripiegato, ciò è ribattuto e ripercosso dalla terra; onde i raggi diritti non riscaldano, perché altamente la regione mezza dell'aria sarebbe calda, ove ella è fredda." *Lezione sui calori* in *Opere* II, p. 516. The text proceeds here with some very insightful considerations about the relation between the angle at which the sunrays strike the surface of the earth and the warmth generated, thus explaining why great heats occurs during summer and at noon.

⁵⁴ Petrarch's *Canzoniere* contains many instances of such "ardore" caused in the author's heart by Laura's glance, but see in particular CXXI, the so-called *Canzone degli occhi*, which was commented by Varchi in no less than eight *lezioni*. Here, the poet says himself to "turn into snow" under Laura's "ardent rays", but the physiological effects of Petrarch's "consuming" love under the effects of her "so powerful fire" are further described in detail, and commented in even greater detail by Varchi.

⁵⁵ The whole passage from the *Lezione sui calori*, from which this citation is taken, goes as follows: "...diremo che una cosa può essere calda in due modi in atto, come è il fuoco, ed in potenza. E questo può essere in due modi medesimamente; perciocché il ferro e tutte l'altre cose che si possono scaldare di fuori, ciò è da uno agente estrinseco, si chiamano anche elle calde in potenza. Alcune altre cose si chiamano anche elle calde in potenza, non perché abbiano bisogno del caldo di fuori, ma perché hanno bisogno d'alcuna cosa, che le riduca dalla potenza all'atto, come è il pepe e molte altre cose, le quali a toccarle ci paiono fredde, ma masticate ed ingoiate da noi ci riscaldano meravigliosamente, essendo state attuate, ciò è ridotte dalla potenza all'atto dal calore naturale, come si dice delle medicine calde." *Lezione sui calori* in *Opere* II, p. 514-515.

action is performed. Bearers of *virtù* like semen or the philosopher's Stone are thus in a sense extensions of the agent's capacity to act. An alchemist who prepared the Stone needs no longer to be present or even alive when the latter effectively operates the transmutation of a base metal into gold, no more than a male animal needs to be present or living when his semen fashions his future offspring inside the mother's womb.

3. Pepper and malvasia

In many of the mentioned examples of 'virtual' action 'heat' was the instrument through which the *virtù* of an object or body is exerted. Sunrays contain heat as do the rays coming out of the eyes of handsome girls, that is out of their *lumi* as Petrarch said. Heat is also contained, as some claimed, in the rays emanating from the eyes of spiders and ostriches. Semen contains heat in the same way as figjuice and other substances that curdle ("cook") milk do.⁵²

The specificity of these *bearers of heat* is that the warmth they contain is dormant, and only activated when brought into contact with the right receptor. Sunrays only heat when reverberated by the surface they hit on⁵³ and a girl's glance needs to strike a boy's eyes to generate "ardour" in his heart.⁵⁴ In his *Lezzione sui calori* Varchi provided both the theoretical framework and some insightful examples of that principle when he talked about "warm drugs" (*medicine calde*).

Varchi first observed that one should distinguish two ways in which "things can be hot". Things can be *in atto*, that is to say "at work" (*energeiai*), as in the case of a burning fire or they can be *in potenza* (*dunamei*). In the latter case a further distinction can be made. Some substances can be heated from the outside, like a piece of iron can be reddened in a forge and in that sense every iron or steel rod is "potentially hot" (*calde in potenza*). Or things can display the formal characteristics of heat only in specific circumstances, like pepper for instance or other spices. They are also said to be "potentially hot", but in a different way. Here no heat needs to be adduced from the outside, since the heat pepper contains is "intrinsic". Yet pepper requires "a certain thing that would reduce [its potential heat] from potentiality to actuality." Pepper and these other spices are therefore among those edible substances which:

...when we touch them appear to be cold, but once we masticate and swallow them they warm us up in a marvellous way, since they are then 'actuated', that is reduced from *potenza* to *atto* by the natural heat [present in our bodies], as one says of the hot drugs.⁵⁵

⁵⁶ See note 57.

⁵⁷ “E qui non e da tacere che quell’anno medesimo, che fu il 1564, che io lo seguitai sempre, come ho detto, in compagna, che ritrovandoci a Seravezza, viddi pui volte, che egli faceva entrare nel fiume per pigliar le Trote, uno che si chiamava l’Allodola, e quando costui usciva dell’acqua, dove stato lungamente, e diventato nero, come un panno monacchino, lo faceva il Duca passare tre, e quattro volte per una gran fiamma di fuoco cosi ignudo, e di sua mano gli dava a mangiare un cartoccino di pepe, e a bere una gran tazza di Malvasia, e con una manciata di testoni lo mandava a riposarsi, tenendolo anche per cio provisionato.” Domenico Mellini, *Ricordo intorno ai costumi, azioni e governo del serenissimo Granduca Cosimo I ora per la prima volta pubblicati con illustrazioni* (Firenze: Stamp. Magheri, 1820), p. 67.

⁵⁸ On wine and pepper as substances which release their intrinsic “heat” or “strength” only when ingested, see the following passage featuring in one of Marsilio Ficino’s letters, an elegant comparison with the hidden virtues of knowledge: “Adunque diligentemente i frutti de la sapienza mondar si debbono, accioché nutriscano. Quanta forza nel vino sia non bene giudica, chi solamente lo vede, ma chi lo beve. Quanto caldo nel pepe si senta, non quello che solo con le mani il tocca, ma chi con la lingua lo gusta al tutto conosce. Quanto sia grande lo splendor del sole ne l’aere, non dentro ma fuor de le nubi, anzi pure ogni nube purgata vediamo.” Marsilio Ficino, “Che la scorza non nutrisce, ma la medolla.” (*Al Reverendissimo Arcivescovo di Amalfi Giovanni Niccolino*) Marsilio Ficino and Felice Figliucci, *Tomo primo [-secondo] delle divine lettere del gran Marsilio Ficino*, 2 vols. (In Venegia: Appresso Gabriel Giolito de Ferrari, 1546), vol. II, p. 316r.

⁵⁹ It is interesting to confront the apparent interest in ‘hot medicines’ and ‘hot’ victuals of the ‘exemplary’ prince that was Cosimo with the well documented and much criticized preference of his son, Francesco, for ice-cold beverages. On this subject, see Luciano Berti, *Il principato dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino* (Firenze: artout maschietto&editore, 2002 (1967)), p. 45.

⁶⁰ Marco Polo for instance reported on the Reign of Coilum, (a city on the Southwestern Indian coast where planted pepper-trees were growing in abundance) that the local climate is so hot that you can cook an egg there by dragging it in the river behind your boat: “Vi nasce [...] pepe in grande abbondanza che si raccoglie di maggio, giugno e luglio. [...] C’è da notare che in quell paese fa tanto caldo e il sole è cosi ardente che a malapena si può sopportare. Pensate che se andate per fiume e sospendete un uovo nell’acqua, l’uovo si cuocerà dopo pochi colpi di remo.” Marco Polo, Maria Bellonci, and Anna Maria Rimoaldi, *Il Milione* (Torino: Edizioni Rai, 1982), p. 193.

⁶¹ Pliny, John Bostock, and Henry T. Riley, *The natural history of Pliny* (London: H. G. Bohn, 1855), XII.14, p. 3113. In the same passage, Pliny in fact vents his disdain for the recent fashion in the Empire to use pepper as an article of food, which consequently became so much looked for that it ended being sold by weight, “just as if it were so much gold or silver.”

The mechanism, Varchi proceeds, is based on that “most important axiom of the Philosopher” who asserted that nothing can be ‘reduced’ from potentiality to actuality except by something that possesses the same form in actuality. The idea that the connate heat of the body masticating the pepper eventually triggers the spice’s heat into “actualisation” is another instance of that axiom. And it is close to that other crucial axiom that stipulates that natural agents necessarily engender things that are similar to themselves.

Like Varchi, Cosimo de’ Medici seems to have been fascinated by the workings of these “hot drugs”. This is suggested by one of the Duke’s most bizarre habits, observed in 1564 and reported by a man who by then was “always following the Duke in his campaigns.”⁵⁶ According to Domenico Mellini, when Cosimo went to Seravezza, the mountainous site close to Carrara where the Duke had discovered a new kind of variegated marble, he made a man, nicknamed ‘Allodola’ (skylark), enter the river to catch trout.⁵⁷ When, after some time, that fellow came out of the ice-cold water, his skin had darkened so much that it looked “like a monk’s cloth.” Then Cosimo made the naked man pass “three or four times through the high flames of a fire” lit on the shore, after which “out of his own hand [he] gave him to eat [the content of] a small paper-cone of pepper” and he made him drink a great cup of *Malvasia*. Allodola was then given a small reward and sent to rest. As Mellini stressed, the Duke had observed this strange ritual “several times over”; Cosimo actually kept ‘Allodola’ with him and even provided this peculiar courtier with a salary, just to do that.

This little ceremony features the Duke personally assisting at the gradual recovery of a living body’s lost heat is strongly reminiscent, in fact, of an alchemical experiment. It features the Prince enjoying the act of dispensing a proportioned quantity of heat to this altered body. The heat that is expertly administered both externally and internally, through two “hot drugs”, pepper and an aromatic wine.⁵⁸ Part of the ritual was also Cosimo’s witnessing the gradual restitution of Allodola’s health, signalled by the recovery of his original complexion. The changing colors recall the processes of transmutation of bodies operated in the *fonderia*.⁵⁹

Pepper, still a relatively expensive commodity in Renaissance Florence, bore a series of associations linked to the power of the ‘virtues’ it contained. An explicit link was made between the strength of pepper and the ardent sunrays of the regions in Southern India where it originated from.⁶⁰ Pliny had already written about “...that mature flavor which the Indian [pepper-]grain acquires by exposure to the sun.”⁶¹ In Renaissance Florence, pepper was also associated with *virtù* in the sense of bodily vigor. A still very common gesture in Italy today in which all fingertips of one



Fig. 7.16 Agnolo Bronzino, *Portrait of Ludovico Capponi*, c. 1550. New York, *The Frick Collection*.

⁶² In the *Ercolano* Varchi wrote that to hold “accozzati insieme tutti e cinque i polpastrelli, cioè le sommità delle dita” is referred to, “fiorentinamente”, as “far pepe”, from which the expression came “tu non faresti pepe di luglio.” *L'Ercolano* in *Opere* II, p. 55. The lemma *pepe* of the *Dizionario della Crusca* contains a paragraph on “far pepe” which mainly draws on Varchi’s account: “Far pepe: è accozzare insieme tutti, e cinque i polpastrelli, cioè le sommità delle dita, il che, quando di verno è gran freddo, molti, per lo ghiado, non posson fare: onde in proverbio, a un dappoco, Tu non faresti pepe di Luglio. Lat. Ialemo frigidior.” *Diz. Crusca*.

⁶³ Antonio Guainerio (d. 1448), *Tractatus de matricibus*, in *Opera Omnia* (Pavia: 1481), fol. z4va-b. Cited by Valeria Finucci, *The manly masquerade: Masculinity, paternity and castration in the Italian Renaissance* (Durham and London: Duke University Press, 2003), p. 17.

⁶⁴ See Thomas Laqueur, *Making sex: body and gender from the Greeks to Freud* (Harvard university press, Cambridge (Mass.), 1990).

⁶⁵ Galen and Margaret Tallmadge May, *Galen on the usefulness of the parts of the body. Peri chreias moriàon [romanized form] De usu partium*, Cornell publications in the history of science (Ithaca, N.Y.: Cornell University Press, 1968), II.14, p. 628.

⁶⁶ For a (at times hazardous) summary of the relation between physiological considerations on bodily heat and the social organization of a classical Greek city like Athens, including the belief in slaves’ diminished bodyheat, see the first chapter of Richard Sennett’s *Flesh and Stone: Nakedness, the citizen’s body in Pericles’ Athens*. Richard Sennett, *Flesh and stone: the body and the city in Western civilization*, 1st ed. (New York: W.W. Norton, 1994), pp. 31-67.

hand are pressed together was referred as “making pepper” (*far pepe*), a Florentine expression reported by Varchi. The idea being that it requires strength and heat to press one’s fingers together in that way, as it appears from the fact that it is hard to do so in wintertime. The gesture is consequently belittling, and bears a meaning that seems to accompany the popular expression: “Tu non faresti pepe di luglio!” (You couldn’t “make pepper” in July!), addressed to an unworthy individual (*un dappoco*).⁶² Crushed pepper was also used as a sexual stimulant for men: it needed to be chewed first, then spread with saliva on the penis before intercourse.⁶³

Through such expressions and practices a connection was established between the value, the “ardor” of a man, and the intrinsic heat of the grain of pepper. The dominant medical doctrine in Italian Renaissance, of Hippocratic-Aristotelian origin, strongly insisted on the role of heat in the process of gender differentiation. That doctrine posited the principle that Thomas Laqueur has labelled the “one-sex model”:⁶⁴ Male and female bodies and their respective organs were considered to be perfectly homologous. Females sexual organs were conceived of as defective, stunted versions of the male member and testes, incapable of outward maturation due to the lack of heat and the higher humidity of the female body. Galen had formulated the idea with much concision:

All the parts, that men have, the women have too, the difference between them lying in only one thing...that in women the parts are within [the body], whereas in men they are outside.⁶⁵

Vesalius’ illustrations of the female genital system, in which an excised vagina looks uncannily similar to an inverted penis cavity, makes that point particularly clear. Because their innate heat was weaker, women were thought incapable of “cooking” the main bodily fluid, blood, to its ultimate perfection; neither did their tempered heat suffice to bring about the alchemy of truly inventive (creative) thought.

If the citizens of Renaissance Florence, where slavery was not as widespread as in Classical Greece, seem no longer to have upheld the idea that unfree men had a lower bodily temperature than free men, the idea of a physiological basis of social hierarchies was still very much engrained in the mentality of Varchi’s contemporaries.⁶⁶ The Tuscan tongue, as it was developed in the Trecento, provides multiple evidence of the fact that these notions were deeply embedded, not in the least the systematic association of ‘igneous’ terms like *ardere*, *ardore*, *ardimento*, *arditamente*, *fuoco*, with manly, much desired and prestigious values. The two verbs *ardire* (lit. “to dare”, “to have the eagerness to act”) and *ardere* (“to burn”) had largely overlapping meanings.



Fig. 7.17 *Anonymous*, Illustration from a Florentine guide for good living. 15th century. Reprinted in Bell, 1999.

⁶⁷ "...egli non poteva in modo alcuno patire l'essere chiamato di prontezza d'animo, & di ardire la padre inferiore." Aldo (il giovane) Manuzio, *Vita di Cosimo de' Medici, primo Granduca di Toscana* (Bologna: [Aldo Manuzio], 1586), pp. 43-44.

⁶⁸ Vasari, *Vite* G5 ('Vita del Tribolo'), p. 225.

⁶⁹ "Some hairs are congenital, others grow after the maturity of the animal; but this occurs in man only. The congenital hairs are on the head, the eyelids, and the eyebrows; of the later growths the hairs on the pubes are the first to come, then those under the armpits, and, thirdly, those on the chin [...]. In fact, if a man be castrated before reaching puberty, the later growths of the hair never come at all; and, if the operation takes place subsequently, the after-growths, and these only, shed off, except that on the pubes. Women do not grow hairs on the chin [...]. The other after-growths are found in women, but more scanty and sparse. Man and women are at times born incapable of the after-growths; and of them, those who are destitute even of the growth upon the pubes are constitutionally impotent." *History of Animals* 518a19-518b4. On the protective function of hair, and the way this explains the reason why man is the only animals to have hair on his chest and not on his back, see *History of Animals* 658a16ff.

On facial hair see *History of Animals* 658b2ff: "No animal has so much hair on the head as man. This, in the first place, is the necessary result of the fluid character of the brain, and the presence of so many sutures in his skull. For wherever these is the most fluid and the most heat, there also must necessarily occur the greatest outgrowth. But secondly, in order to protect the head, by preserving it from excess of either heat or cold. And as the brain of man is larger and more fluid than that of any other animal, it requires a proportionately greater amount of protection. For the more fluid a substance is, the more readily does it get excessively heated or excessively chilled, while substances of an opposite character are less liable to such affections." Earlier in the same passage Aristotle had remarked that no other animal has hair on the pubes, as man has.

⁷⁰ See for instance Vasari's observations on Michelangelo's beard: "...la barba, e' capegli neri, sparsa con molti peli canuti, lunga non molto e biforcata, e non molta folta." *Vite* G6 ('Vita di Michelagnolo'), p. 122. Some years earlier, Ascanio Condivi had written on the same beard: "...I capelli negri e così la barba, se non che in questa sua età d'anni settantanove sono copiosamente macchiati di canuti. Ella è biforcata, lunga de quattro in cinque dita, non molto folta, come nell'effigie sua si può in parte vedere." Ascanio Condivi et al., *Vita di Michelagnolo Buonarroti*, *Tabulae artium*; 2 (Firenze: Studio per edizioni scelte, 1998), p. 66.

⁷¹ On the protective purpose of hair, and its function as a heat and moist corrector, see especially *Parts of animals* II.14, 658a11-b14.

⁷² See on the subject Grace Q. Vicary, "Visual Art as Social Data: The Renaissance Codpiece," *Cultural Anthropology* 4, no. 1 (1989), pp. 3-25.

⁷³ Patricia Simons, "Alert and erect: masculinity in some Italian Renaissance portraits of fathers and sons," in *Gender rhetorics. Postures of dominance and submission in history*, ed. Richard C. Trexler, *Medieval & Renaissance Texts & Studies* (Binghamton, NY: Centre for Medieval and Early Renaissance Studies, 1994), 163-186, p. 169.

If a man's heat, his *fuoco* or his *ardimento* signalled his eagerness to act, it is clear that such qualities were strongly desired in the Prince's body. According to Aldo Manuzio, Cosimo could not bear the idea of being considered inferior to his father regarding "the promptness of his mind, and his *ardire*."⁶⁷ Wanting to express how, in the 1540's, Cosimo was very eager to make progress in the project of the Castello garden, Vasari wrote: "the Lord Duke was [by then] extremely hot on that work" (*il signor Duca era caldissimo in quell'opera*).⁶⁸

The Renaissance, it must be remembered, is also an age in which physical, external signs of virility were fiercely displayed. Unlike the Romans, most Florentines of the 16th century were proudly displaying their facial hair, showing a physical trait that Aristotle had explicitly associated with masculine heat, dryness and maturity.⁶⁹ Florentines compared facial hair with the manes of a lion; written portraits of famous men included a detailed description of the nature of that person's beard that was supposed to provide precise physiognomic clues on his character.⁷⁰ For Aristotle hair is a clever means which nature devised in order to sustain the correct balance of heat and cold over the animal's body.⁷¹ Since man is the only mammal to walk upright and thus to expose his front, he is also the only animal to display hair on his chest and not on his back. Equally protective or heat-corrective is the hair on the pubes. The typically late Renaissance habit of wearing elaborate codpieces might well have been conceived as an artful means of improving this natural protection.⁷² As Patricia Simons stressed, evidence from individual or group-portraits suggest that the sporting of genital decoration, increasingly fashionable from the early 16th century onwards, was restricted to young adult males, that is to say to men whose masculinity still needed support and reinforcement.⁷³ If it was genuinely thought that male semen drew its virtue and perfection from its intrinsic heat, it must have been legitimate to avoid any unnecessary loss of that heat. The same preoccupation with conserving connate heat led the authors of Renaissance 'guides for good living' to advise their masculine readership to wear knitted caps during conception.



Fig. 7.18 Woodengraving of the Piazza della Signoria with the loggia dei Lanzi, 1583.
 Florence, Biblioteca Ricciardiana.

⁷⁴ On the event, see Francesco Vossilla, “Cosimo I, lo scrittoio del Bacchiacca, una carcassa di capodoglio e la filosofia naturale,” *Mitteilungen* XXXVII (1993), p. 381–395.

⁷⁵ “E per insino a dì 5 di detto febbraio, il dì di S. Agata, si messe, nella loggia grande di piazza, la spina della schiena d’uno pesce grande, che rimase in secco di là da Livorno: qual era sì grande che occupava poco manco che la metà di detta loggia: stettevi pochi mesi, e poi si levò.” Agostino Lapini and Odoardo Corazzini, *Diario fiorentino di Agostino Lapini dal 252 al 1596: ora per la prima volta pubblicato da Gius. Odoardo Corazzini* (Firenze: Sansoni, 1900), p. 107.

⁷⁶ On the Florentine habit of organizing *caccie*, spectacular fights or “hunts” with wild and exotic animals on the city’s main *piazze*, and particularly on the Piazza della Signoria, see most recently Claudia Lazzaro, “Animals as cultural signs: a Medici Menagerie in the grotto at Castello,” in *Reframing the Renaissance: visual culture in Europe and Latin America 1450-1650*, ed. Claire Farago (New Haven and London: Yale University Press, 1995), 197–227, in particular pp. 204–208.

⁷⁷ The link with this passage from Suetonius was first established by G. Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durenente il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” in *BNF Targ. Tozz. 189, VI* (Firenze) f° 165, and was stressed with much emphasis by Vossilla, “Cosimo I, lo scrittoio del Bacchiacca, una carcassa di capodoglio e la filosofia naturale,” p. 382.

⁷⁸ Suetonius, Alexander Thomson, and Thomas Forester, *The Lives of the twelve Caesars* (London: G. Bell & sons, ltd., 1914) (“Octavius Caesar Augustus, LXXII”), p. 126.

4. Spermaceti

The idea that semen was a *bearer of dormant heat* is strikingly illustrated by one, rather exceptional instance. It is the case of an animal species whose semen was thought to be inflammable. One equally exceptional event, reported by several testimonies, furthermore link that animal to Cosimo and the image of his own self he choose to promote towards his subjects. The facts occurred in 1550 and must have caused a stir among the Florentine population. On February 5th, the Duke ordered the display, suspended under the vaults of the Loggia de' Lanzi, of the carcass of a whale that had stranded earlier on the shore close to Livorno.⁷⁴ Located right next to the Palazzo Vecchio, the ducal residence since 1540, and facing the city's main square, the monumental 14th-century Loggia formed the most prestigious frame possible for this bizarre display. In 1550, a few years before the installation of Cellini's Perseus, the loggia was only adorned with 14th-century fresco paintings and Donatello's bronze Judith. According to the diarist Lapini, the whale's carcass was of such proportions that it occupied almost half of the whole length of the Loggia.⁷⁵

Since the Middle Ages, Florentines had indulged in the habit of organizing reenactments of the ancient circus games on the Piazza della Signoria, in which wild and often exotic beasts were hunted down on an improved arena, or brought to chase and kill each other.⁷⁶ In the same spirit, the whale carcass functioned as a prestigious hunting trophy ordered on display on behalf of the city's most renowned hunter. It has also been stressed that the use of huge sea creatures to adorn architecture might have fitted in Cosimo de' Medici's *imitatio* of the Roman Emperor August.⁷⁷ In the *De vita Caesarum*, a text cherished by Cosimo, Suetonius had written how

He [Augustus] had a particular aversion to large and sumptuous palaces [...]. Those of his own, which were far from being spacious, he adorned, not so much with statues and pictures, as with walks and groves, and things which were curious either for their antiquity or rarity; such as, at Capri, the huge limbs of sea-monsters and wild beasts, which some affect to call the bones of giants; and also the arms of ancient heroes.⁷⁸

Pliny also explains how Marcus Aemilius Scaurus (1stC. BC), a Roman official who had fought the war against Mithridates of Pontus in the Near East, exhibited at his return in Rome,

...among other wonderful things, the bones of the monster to which Andromeda was said to have been exposed, and which he had brought from



Fig. 7.19 Giotto di Bondone, *Jona swallowed by the whale*, c. 1306. Padua, Cappella dell’Arena.

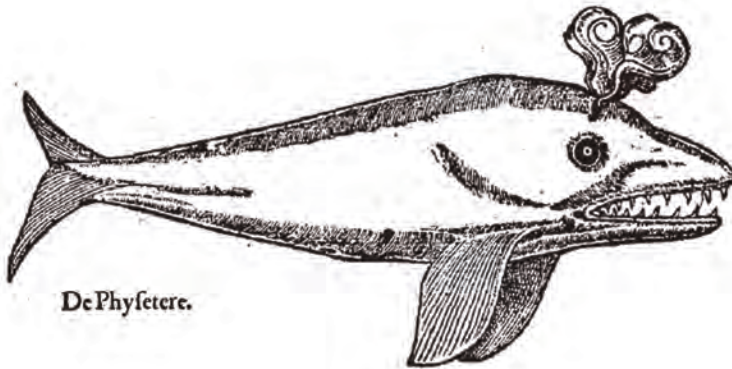


Fig. 7.20 Guillaume Rondelet, *Phycetere*, from the *Libri de Piscibus Marinis* (Lyon, 1554), p. 485.

⁷⁹ Pliny, Bostock, and Riley, *The natural history of Pliny*, IX.iv, p. 2364.

⁸⁰ See book IX of the *Naturalis Historia*, ‘The natural history of fishes.’

⁸¹ See Lapini’s citation above in note 75.

⁸² “BALENA. La figura di questo gran pesce trovandosi scolpita in pietra, fa chi la porta ardito e coraggioso ad ogni impresa, della quale sempre ne sia vittorioso.” Lodovico Dolce, *Libri tre di M. Lodovico Dolce, nei quali si tratta delle diverse sorti delle Gemme che produce la Natura, della qualità, grandezza, bellezza et virtù loro*. (Venetia: Giovanni Battista, Marchio Sessa e fratelli, 1565), p. 96r. Dolce’s text is the (relatively faithful translation of Camillo Leonardi’s *Speculum Lapidum*, published in Pesaro in 1502.

⁸³ Donald J. LaRocca, “Arms and armor,” in *Encyclopedia of the Renaissance*, ed. Paul F. Grendler and Renaissance Society of America (New York: Scribner’s, 1999), p. 119.

⁸⁴ “La baléna è di maravigliosa grandezza, che gitta l’acqua più alta, che niuna generazion di pesce.” From an manuscript Italian translation of Latini’s *Tresor*, a compilatory work originally written in French, during Latini’s exile in France. Cited in the *Dizionario della Crusca* under the lemma “balena”.

⁸⁵ Leonardo da Vinci, *Codex Atlantico*, 203 r.b.

⁸⁶ *On youth, old age, life and death, and respiration*, 18, 476b12 ff.

Joppa, a city of Judea. These bones exceeded forty feet in length, and the ribs were higher than those of the Indian elephant, while the back-bone was a foot and a half in thickness.⁷⁹

Such accounts on what Pliny himself called “sea-monsters” (*ceti*)⁸⁰ illustrate how much still, in Roman Antiquity, cetaceans remained fabulous animals and reports on them fringed on mythology. In later centuries, though, reliable information on the creatures was gradually gathered. Several whale species did venture past the Street of Gibraltar, and still today occasionally strand on the Italian shores. By the 16th century, direct observation on stranded or caught animals, together with traveller’s accounts on the whales of the Atlantic and the Indian Oceans had greatly improved knowledge about the animals. Yet, in regard of the whale of the Piazza della Signoria, present-day scholarship has not wondered what the Florentines knew exactly about the “big fish” (*pesce grande*)⁸¹ exposed under the loggia.

There certainly was much fear of the whale or *balena* during the Renaissance. The Florentines realized it was one of the hugest animals on earth, capable of effortlessly swallowing a man, as Jonas had been. They also associated the creature with strength and power. It certainly was significant to them that the term *balena* read like a trope of *baleno* and *balenare* (‘lightning’ and ‘striking lightnings’). “The figure of this great fish,” one could read in a 16th-century treatise on lithology, “when carved in a gemstone, makes whoever wears it daring (*ardito*) and courageous in every undertaking, out of which he will always come as the victor.”⁸² Armorers used whalebones since the 13th century as a means to reinforce body armor before the introduction of steel plates.⁸³ Brief accounts on the animal, like that of the 13th-century Florentine philosopher Brunetto Latini, mentioned that “the whale is of a wondrous size and throws water higher than any other kind of fishes”.⁸⁴ The idea of whales spouting water was taken over by Leonardo da Vinci who saw the animal as a microcosm, or rather, who compared “the body of the earth” to that of a fish, a dolphin or a whale “who breathes water instead of air.”⁸⁵ But Aristotle had already pointed out that dolphins and whales, which he distinguished from fishes for their lack of scales and especially of gills, were breathing air through a blow-hole. Cetaceans indeed have lungs as Aristotle must have observed through dissection, they “sleep with their head out of water”, they “snore”, and suffocate when prevented from returning to the surface of the sea, as sometimes happens with dolphins caught in fishing nets.⁸⁶

By the mid-16th century, a period that saw the publication of the first illustrated and systematic treatises on biology, naturalists had had the occasion to verify through their own dissections on stranded or caught whales the veracity of Aristotle’s

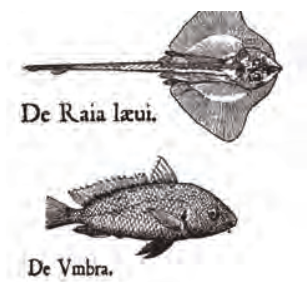


Fig. 7.21 Guillaume Rondelet, *Raia laevi* and *Umbra*, from the *Libri de Piscibus Marinis* (Lyon, 1554), pp. 344, 132.



Fig. 7.22 Francesco Colonna, *The odoriferous mixture in the golden candelabrum is lit by the priestess*; woodcut from the *Hypnerotomachia Poliphili* (Venice, 1499), o7.

⁸⁷ “C’est une beste de merveilleuse grandeur, aiant la geule grande, les dens aigües, la langue grande et charnüe, le conduit pour respirer bien plus grand que les autres bestes, que est cause qu’elle souffle bien plus fort, é quelle reiette beaucoup plus d’eau...” This description is taken from the Rondelet’s own French translation of the *Libri de piscibus marinis* of 1558, Guillaume Rondelet, *Histoire entière des poissons* (Lyon: Matthieu Bonhomme, 1558), p. 356.

⁸⁸ Also spelled *phuséó* in Ionian.

⁸⁹ “Ab effectu Graeci nominis *phusètèr* [in Greek characters in the text] vocatur, quasi flator, quòd nimbosame quondam alluuiem aquarum efflando emittat, ut plerunque etiam alveos navigantium deprimata, à nostris *peis mular*: ab Italis *capidolio*, à Santonibus *senedette*.” Rondelet, 1554, p. 485. The same lines in the French version read: “*PHUSETER* en Grec, comme si on disoit en François un souffleur, parce qu’en soufflant, ou expirant il iette par son conduit une grande abundance d’eau comme une nuée, de laquelle il peut remplir les esquifs ou autres petits vaisseaux, é les renverser dans l’eau. En Languedoc s’appelle *Peis Mular*, en Italien *Capidoglio*, en Saintonge *Senedette*.” Rondelet, *Histoire entière des poissons*, p. 356.

⁹⁰ In the original Latin version of the *Libri de piscibus marinis*, a note appears on the oils extracted from the *Physeter*’s head (and addition that was not integrated in the French translation of 1558): “Ex huiusmodi belvatum cerebro pinguitudo oleo liquidior defluit, quae partium tenuitate facilem quocunque penetrare, quum haec diu multumque defluendo exhausta fuerit, sub cranio reliquiae squamulis sardinarum in aceruum coactis similes sunt, quae igni admotem liquuntur, deinde frigore concresecunt.” Guillaume Rondelet, *Libri de Piscibus Marinis, in quibus verae Piscium effigies expressae sunt* (Lyon: Matthieu Bonhomme, 1554), p. 486.

observations on the cetacean's lungs. Through their efforts, considerable progress was made regarding the identification of the different species. In fact it is thanks to a brief mention of the *Loggia de' Lanzi* specimen in a work of one of these naturalists that we know to which species Cosimo's whale belonged. The French physician and biologist Guillaume Rondelet, author of the *Libri de piscibus marinis* (1554) who happened to be in Florence in 1549, identified the whale of the loggia as a *Physeter*. He describes the animal as follows: it is "a beast of a marvelous size, with a huge mouth, sharp teeth, a great and fleshy tongue, the breathing-hole far greater than in other animals, which causes it to blow far harder and to spout far more water [than other beasts]..."⁸⁷ In fact the name *phusetter*, derived from the Greek *phusaô* (to blow)⁸⁸, and thus indirectly related to the notion of *phusis* (Nature), means nothing else than "the blower" (*flator*; *souffleur*), as Rondelet made clear in the very first lines of his account.⁸⁹

Yet the *Physeter macrocephalus*, as its complete Linnean designation goes, is remarkable for more than its blowhole and spouting capacities. This hugest representative of the class of the toothed whales is characteristic for its bulky, rectangular snout which caused the Portuguese to refer to it as a *cachalote* ('bighead') a term that migrated into French. As must have been discovered by the first whalers active in the Indian Ocean in the early Middle Ages, the head of the *physeter* features a series of reservoir-like cavities (hence the German and Dutch names *Pottfish* and *potvis*) which contain a whitish, waxy substance, believed, by these and subsequent fishers, to be the whale's own sperm. In English, the common name of the *physeter* is still Sperm Whale while the wax is called, at least from the 15th century onwards, *spermaceti* (whale sperm). Until today, spermaceti is praised for its qualities as a lubricant (it was traditionally used by clockmakers), as an ingredient in pharmacy and cosmetics and as a fuel generating a bright, smokeless and sweet-smelling flame. The translucent spermaceti candles are considered most exclusive, still today; they are more refined even than those made out of the finest quality bee-wax.

Renaissance Italians were aware of the qualities of this substance, which caused them to refer to the *physeter* as *capodoglio* (oil-head), a term that is already found in the 14th-century manuscript translations of Marco Polo's *Milione*.⁹⁰ In his travel accounts, Marco Polo described the hunt for the Sperm Whale as he had witnessed it. The hunt was performed by natives in the Indian Ocean who employed a hunting technique with harpoons and light vessels not unlike that of the 18th and 19th century whalers.⁹¹ Francesco Colonna's late 15th-century fantasy novel, the *Hymnerotomachia Polyphili* features the "most suave sperm of the immense whales" used as ingredient in a costly mixture of fragrant essences set alight by a priestess during one of the sexually connoted 'sacrifices' to which Polifilo and his beloved Polia attend.⁹²

⁹¹ Marco Polo's detailed account on the whale hunt appears in his description of the island of Socotra (Socotra), situated in the Indian Ocean, close to the tip of the Horn of Africa. See Polo, Bellonci, and Rimoaldi, *Il Milione*, pp. 199–201.

⁹² “Nella sua summitate promineva exigentente una circolata apertione di concula ovvero una platina, meno di uno amplexo ulnale. In questa dunque posito fue il suavissimo sperma delle ingenti ceti, mosco odorifico, la cristallina et fugitiva camphora, olente ladano dilla magna Crete, thimioma et mastice, ...” Francesco Colonna, Lucia A. Ciapponi, and Giovanni Pozzi, *Hypnerotomachia Poliphili* (Padova: Antenore, 1964), vol. 1, p. 219 [o 4v]. Joscelyn Godwin's recent English translation (1999) is unreliable for this passage.

⁹³ See *History of Animals*, 651a20–651b17.

⁹⁴ “Bodily fatness is produced by the natural heat in the process of digestion, and at the same time the natural heat thrives, as it were, on this fatness. In like manner charity both causes devotion (inasmuch as love makes one ready to serve one's friend) and feeds on devotion. Even so all friendship is safeguarded and increased by the practice and consideration of friendly deeds.” Aquinas, *Summa Theologica*, Second Part of the Second Part, Question 82, article 2. (‘Whether devotion is an act of religion’). Thomas Aquinas, *The Summa Theologica of St. Thomas Aquinas Literally translated by Fathers of the English Dominican Province* (1920).

⁹⁵ *History of Animals* 522b14–15.

⁹⁶ Melville's novel in fact re-enacts the centuries old terror for the Sperm Whale, an effect that is contrived, for instance, by the evocation of many earlier accounts on the animal. See for instance, chapter 32 (*Cetology*), or chapter 51 (*Moby Dick*). From this last chapter, for instance: “And as if the now tested reality of his might had in former legendary times thrown its shadow before it; we find some book naturalists -- Olassen and Povelson -- declaring the Sperm Whale not only to be a consternation to every other creature in the sea, but also to be so incredibly ferocious as continually to be athirst for human blood. Nor even down to so late a time as Cuvier's, were these or almost similar impressions effaced. For in his Natural History, the Baron himself affirms that at sight of the Sperm Whale, all fish (sharks included) are ‘struck with the most lively terrors’, and ‘often in the precipitancy of their flight dash themselves against the rocks with such violence as to cause instantaneous death’. And however the general experiences in the fishery may amend such reports as these; yet in their full terribleness, even to the bloodthirsty item of Povelson, the superstitious belief in them is, in some vicissitudes of their vocation, revived in the minds of the hunters.” Herman Melville, Luther Stearns Mansfield, and Howard Paton Vincent, *Moby-Dick, or, The whale* (New York: Hendricks House, 1952), p. 178.

According to Aristotelian physiology, bodily fat is produced by the natural heat of the body. It is obtained from the concoction of blood in the stomach as a result of abundant nutrition.⁹³ Fat, in a way, is thus “stored natural heat”, kept in reserve by the body for days of hardship. It is in that sense that, for instance, Aquinas would compare bodily fat to devotion and natural heat to charity in his *Summa Theologica*.⁹⁴

Spermaceti, as an equally inflammable oily substance, is in its quality of semen also a form of concocted blood, yet of a far superior *virtù*, since it stores not just natural heat, but the kind of heat that endows living form to matter. To the Duke of Florence and his contemporaries, the sheer quantity of stored ‘semen’ in a Sperm Whale amounting up to four tons per animal, or more than one-tenth of the total body mass of the animal must have been entirely amazing. Aristotle, who did not seem to know this species, had established a direct link between the distinctive features of the human animal and the volume of semen he emits:

All sanguineous animals eject sperm. [...] Taking the size of his body into account, man emits more sperm than any other animal.⁹⁵

To 16th century sensibilities, the extreme quantity of stored semen observed in the *capodoglio* must have related to the nature and the virtues of the animal. In that regard, Rondelet’s illustration of the whale is particularly telling. Considering the habitual standards of naturalistic representation one finds in the *Libri de piscibus marinis*, the wood-engraving of the *Physeter* appears surprisingly unrealistic. [Figure](#) for instance displays two more typical illustrations from the treatise, the image of the *Raia Laevi*, one of the fourteen ray-species featuring in Rondelet’s fish-encyclopaedia, and the *Umbra*, a species living in muddy, dark water, both of whom are rendered faithfully and in their most minute details. In the *Physeter* instead, Rondelet’s illustrator imaginatively stressed all traits that enhance the ‘manly’ and predator-like character of the whale by exaggerating the size of the ferocious black eyes or the prominence of the toothed jaws. Indeed, especially to those who had observed it at sea, the Sperm Whale must not have come across as a harmless creature. It still is the hugest toothed animal on earth, who feeds on the equally mythic giant octopuses in the depth of the oceans: chunks of the giant squids are often found in the stomachs of captured or stranded whales. As early whalers knew, and Herman Melville chillingly described in *Moby Dick*, Sperm Whales are capable of ramming and sinking ships several times their own tonnage.⁹⁶ But most telling in Rondelet’s image of the creature is the cloud that swells from its blow-hole, which, instead of water or vapor resembles a sizzling smoke-spiral. The image confirms the idea that the animal draws its congenital strength and ‘fuming’ ferocity from an excess of heat which escapes as a hot smoke or else crystallizes in the

⁹⁷ The place destined to receive the bellows of the main fire in Libavius' *Chemical Institute* is referred to as the *physeterium* (see the device marked *nn* in the upper and central area of the plan in fig. 6.26).

⁹⁸ "(Sperm Whale). -- This whale, among the English of old vaguely known as the Trumpha Whale, and the Physeter Whale, and the Anvil Headed Whale, is the present Cachalot of the French, and the Pottsich of the Germans, and the Macrocephalus of the Long Words. He is, without doubt, the largest inhabitant of the globe; the most formidable of all whales to encounter; the most majestic in aspect; and lastly, by far the most valuable in commerce; he being the only creature from which that valuable substance, spermaceti, is obtained." *Moby Dick*, p. 133. Melville Himself exploited the parallels between *Moby Dick* and the forge aboard the *Pequod*, on which the harpoons are crafted; the pounding of this forge announces the fatal blows that the whale would eventually deliver to the ship. See chapters 62 'The blacksmith' and 63 'The forge'.

⁹⁹ See the testimony of the Florentine Gaetano Cambiagi on the event: "... dipoi l'ossa furno mandate a Firenze per i navicelli infino a Signa, dipoi poste su certe carra: dette ossa funo attaccate insieme come vivo fosse sotto la loggia di Pisani, ma per il gran puzzo non vi poterono stare." Gaetano Cambiagi, *Descrizione dell' imperiale giardino di Boboli* (Firenze: Stamperia imperiale, 1757), p. 64 ; also cited by Targioni Tozzetti, "Notizie dei progressi delle scienze fisiche in Toscana durement il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti," f. 164.

¹⁰⁰ On this 1544 dissection session in Pisa, see Appendix 2C.

¹⁰¹ See the letter Luca Martini wrote to Cosimo's *Maggiordomo*, PierFrancesco del Riccio on Januari 12th 1550 (modern reckoning. Martini warns in the letter for the heavy weight of the different bones, and for their delicacy, especially of the 'beautifull' skull. "Questio giorno abiamo charicho in sur una schafa l'ossa del pesce grandde che sono una meza ischafata e djrtola al portinajo di Singnja [Signa] [...] e fra sej giornj doverano essere arivata al portto. E perchè queste ossa sono molto gravi e isconcie al manegiarlle io ò scrjtto al portjnaio che usi diligenza e cosj al mandarlle dove V.a R.da S.a gl'imporrà e masimamente ali ossj della testa che sono moltj bellj e facilj al guastarlj. E a ciò che nel meterlj insieme non si abia a durar faticha si sono lasciate stare chome apresso: la testa con 2 pezi sopra detta testa col naso; 2 mascella; 2 alie con 2 guancje atachate con le fune che dovevano essere lj orecchie; 29 chostole overo lische che ve ne una rotta e atachata con fune; 11 pezi di stiene che vanno allato al chapo in uno pezo; 24 nodj di stiene in uno pezo che vanno in el mezo; 17 pezi dj stiena in un pezo che sono inverso la choda [...] Piacjale tenermj per rachomandato al [Niccolò] Tribolo, al [Battista del] Tasso, e al [Agnolo] Bronzino, e a [Francesco del] Tadda." ASF, Mediceo del Principato vol. 1176, ins. 1, f^o2. (MAP entry 3028).

¹⁰² On crocodiles, ostrich eggs, unicorn horns and other such naturalia exposed in Medieval churches, see Lorraine Daston and Katharine Park, *Wonders and the Order of Nature* (New York: Zone Books, 1998), especially chapter II, 'The properties of things', pp. 67-108.

¹⁰³ "...encores aujourdui on voit la machoire d'une à Mompelier, à l'entrée de la grande eglise de S. Pierre, que le vulgaire pense estre une coste, mais c'est la machoire basse. Les costes sont plus courtes é moins grosses. Des neuds du rateau du dos d'icelle en sont faits des sièges à Frontignan." Rondelet, *Histoire entière des poissons*, p. 356.

¹⁰⁴ "...laquelle estant desechée, le duc de Florence fit metre devant son palais..." Ibid., p. 356.

form of spermaceti. It may be reminded here that in Latin (al)chemical literature, a pair of bellows, the indispensable instrument to obtain high temperatures in a forge, was equally referred to as a *physeter*.⁹⁷ As the blow-hole of whales, the orifices of the bellows used in the ‘pyrotechnic’ arts were equally provided with a valve (*vintula*). The dark skin and the square snout of the “Anvil Headed whale” must only have strengthened the impression of the animal as a flouting forge.⁹⁸

It must have costed Cosimo de’ Medici a considerable amount of money to ship the gigantic bones from *Lido di Bocca d’Arno* where the whale had stranded, to Signa and thereafter on carriages to Florence where the bones were assembled under the *loggia* “as if [the whale] was alive.”⁹⁹ The art of assembling skeletons, even of human bodies, was only recently introduced by Vesalius who used skeletons as didactic tools in his anatomical demonstrations. For instance, when Vesalius taught in Pisa during the winter of 1544, he had started with preparing and assembling a skeleton.¹⁰⁰ Luca Martini, Cosimo’s superintendent in Pisa and a likely interested spectator at Vesalius’ earlier demonstrations in that city, played an important role in the novel undertaking of assembling the skeleton of a whole whale. Martini, who had coordinated the sending of the bones to Signa, had drawn up a detailed inventory of the individual elements of the skeleton before carefully packaging them.¹⁰¹

Individual whale bones had been exposed earlier in the Middle-Ages as the kind of natural *mirabilia* exposed in or around churches.¹⁰² Rondelet explained that the jawbone of a Sperm Whale was exhibited at the entrance gate of the Saint Pierre Church in Montpellier; the churchgoers mistook it for a rib. In Frontignan, not far from there, separate vertebrae of the whale were used as seats.¹⁰³ Pliny’s account also suggested that Augustus exposed sparse whale bones in his villa. Yet Cosimo’s demanding and costly desire to have the very ‘lifelikeness’ of the animal reconstructed is innovating and particularly relevant. It suggests a desire of the Prince to teach or to inform his subjects on the topic of natural philosophy by showing the species in its natural integrity, but it is hard to imagine that no symbolic framework was to support that ‘lesson’. As we have seen in our overview of both popular and learned accounts on the whale and the Sperm Whale, the species had already gained a terrifying prestige that was only to increase in the next centuries. A prestige related to what was perceived as the animal’s most peculiar bodyheat management, which must have lent it an almost alchemical air. The ‘blower’ is the producer of a precious and costly ‘bearer of form-providing heat’. Under these circumstances, Cosimo’s exhibition of the skeleton “in front of his palace”¹⁰⁴ reads as a covetous claim of the animals’ powerful emblematic aura.



Fig. 7.23 Gilliam van der Gouwen, *Sperm whale stranded between Scheveningen and Katwijk*. Copper engraving, 159.

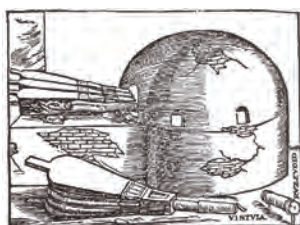


Fig. 7.24 Vanoccio Biringuccio, *German cupping furnace with a brick dome and bellows with valve (vintula)*, from *Pirotechnia* (Venice, 1540).

¹⁰⁵ “T’en ai veu une autre, prise en Italie, laquelles estant desechée, le duc de Florence fit metre devant son palais: mais pour la grande paunteur la fallut oster.” Rondelet, 1558, p. 356. Probably citing an unreferenced account, Targioni-Tozzetti also wrote: “...ma stante il grande fetore che tramandava la copiosa pinguedine in esse [ossa] racchiusa, e corotta, fu duopo levarle.” Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durente il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” f. 163.

¹⁰⁶ It has always been a point of contention whether the ‘sulphur’ and the ‘mercury’ in sulphur-mercury theory on the composition of metals were to be taken as the common substances themselves, or a ‘philosophical’ counterpart. Redgrove observed: “By these terms ‘sulphur’ and ‘mercury’, however, must not be understood the common bodies ordinarily designated by these names; like the elements of Aristotle, the alchemistic principles were regarded as properties rather than as substances, though it must be confessed that the alchemists were by no means always clear on this point themselves. Indeed, it is not altogether easy to say exactly what the alchemists did mean by these terms, and the question is complicated by the fact that very frequently they make mention of different sorts of ‘sulphur’ and ‘mercury.’” H. Stanley Redgrove, *Alchemy: ancient and modern* (London: W. Rider & son, ltd., 1922), p. 20.

¹⁰⁷ Pliny, *Naturalis Historia*, Book 35, Chapter 50: ‘Sulphur, and the several varieties of it. Fourteen remedies’, p. 6292.

¹⁰⁸ *Ibid.*

As Rondelet made clear, the display eventually had to be removed because of the stench that was spread by the putrefying marrow of the bones.¹⁰⁵ What could have become a more permanent kind of urban *apparato* was thus doomed to disappear after only a few months. This accidental short-lived fate must not, though, prevent us from taking the display of the Sperm Whale in the Loggia de' Lanzi earnestly, as a carefully planned and thought-over project of almost architectural scale, aiming, like so many other contemporary initiatives at promoting the Prince's prestige. It was not, thus not simply a passing whim.

5. Sulphur and gunpowder

With the 'hot' medicines mentioned by Varchi and manipulated by his patron (pepper, malvasia) and the remarkable fuel that is spermaceti, we have touched upon a series of substances that in their qualities of 'bearers of form-providing heat' can be said to be analogous to animal semen. If there is any substance, though, that can best claim the status of semen-analogue, it is certainly sulphur some of the properties of which we have already touched upon in chapter 6.

Sulphur, or at least an idealization of the mineral as "philosophical sulphur" gained its prestigious status as "seed of metals" and counterpart to 'female' mercury in the writings of pseudo-Geber.¹⁰⁶ But the mineral was already well-known long before, during Antiquity, as the source of some amazing phenomena. Unpurified sulphur is found in great quantities around the sites of volcanic eruptions and in the vicinity of hot water springs. Pliny, who called it "an agent of great power upon other substances",¹⁰⁷ dedicated an entire chapter of the *Naturalis Historia* to uses of the 'brimstone'. Uses were mostly medical, sulphur and sulphurous waters have always been considered useful for the cure of skin diseases, but also related to the cloth manufacture where it was used to bleach wool and linen. The high inflammability of the yellow powder was equally familiar: sulphur entered in the manufacture of matches. Pliny also mentions how Anaxilaus, the legendary founder of the city of Messina in northern Sicily,

...used to employ this substance by way of pastime: putting sulphur in a cup of wine, with some hot coals beneath, he would hand it round to the guests, the light given by it, while burning, throwing a ghastly paleness like that of death upon the face of each.¹⁰⁸

¹⁰⁹ For an extensive account on the parallel evolution of gunpowder and gunsmithing technologies between the 14th and the 16th century, see Bert S. Hall, *Weapons and warfare in renaissance Europe: gunpowder, technology, and tactics* (Baltimore, Md.: Johns Hopkins University Press, 1997).

¹¹⁰ Biringuccio, *The Pirotechnia of Vānoccio Biringuccio*, p. 90.

¹¹¹ The same observation was made by Pliny: "...there is no substance that ignites more readily, a proof that there is in it a great affinity to fire. Lightning and thunder are attended with a strong smell of sulphur, and the light produced by them is of a sulphureous complexion." Pliny, Bostock, and Riley, *The natural history of Pliny*, XXXV.50, p. 6293.

¹¹² "Sulphur is a very well-known mineral and apparently is produced in many places. It is engendered from an unctuous earthy and powerfully hot substance so that it is considered among experienced workers to bear resemblance to the element of fire. This is called by the same men the masculine seed and the prime agent of Nature in the composition of metals. Because of its great dryness and heat it has, as experience shows, affinity with fire, which is easily introduced in it when brought near. And once introduced the fire is quenched only with difficulty before its unctuousness is wholly consumed." Biringuccio, *The Pirotechnia of Vānoccio Biringuccio*, p. 86.

¹¹³ See Redgrove, *Alchemy: ancient and modern*, p. 22.

¹¹⁴ *Ibid.*, p. 20.

¹¹⁵ "...journallement la terre produit des pierres, et [...] en plusieurs lieux la terre se réduit en pierre par l'action du sel, qui fait le principal de la congélation, comme tu peux cognoistre que pour cause que les coquilles sont salées, elles attirent à soy ce qui leur est propre, pour se réduire en pierre." *Recette véritable* in Bernard Palissy and Paul-Antoine Cap, *Oeuvres complètes de Bernard Palissy* (Paris: Dubochet, 1844), p. 119.

¹¹⁶ See Andreas Libavius, Max-Planck-Gesellschaft zur Förderung der Wissenschaften. Gmelin-Institut für Anorganische Chemie und Grenzgebiete., and Gesellschaft Deutscher Chemiker., *Die Alchemie des Andreas Libavius: ein Lehrbuch der Chemie aus dem Jahre 1597: zum ersten mal in deutscher Übersetzung mit einem Bild- und Kommentarteil* (Weinheim/Bergstr.: Verlag Chemie, 1964), p. 315. (Book II.1, ch. 50).

Yet the use of sulphur during Antiquity is in no way comparable to its applications during the Renaissance when the increasing sophistication of firearms brought about ever-growing needs for explosives.¹⁰⁹ As Biringuccio observed, sulphur

...serves human needs in medicine, in the purifying and bleaching of wool, and in diverse other things. But the greatest quantity today is consumed in making gunpowder. Without the use of sulphur, this admirable thing [gunpowder] would be nothing, because without it it would be impossible to introduce the fire instantaneously throughout the powder so that it will ignite as it is seen to do.¹¹⁰

And according to the Sieneese metallurgist, this “well-known mineral” has such characteristics of dryness and heat that it has “affinity with fire.”¹¹¹

We have seen that for medieval and Renaissance alchemists, sulphur or “philosophical sulphur” was the seed of all metals, which “informed” its “material” counterpart mercury in the process of the conception of a metallic body. By combining them in different proportions and in different degrees of purity, sulphur and mercury were supposed to give rise to the various metals and minerals. Even Biringuccio, despite his latent scepticism towards alchemy, acknowledged that “experienced workers” in the ‘pyrotechnic’ arts, call sulphur “the masculine seed and the prime agent of Nature in the composition of metals.”¹¹²

In the course the 16th century, the sulphur-mercury theory on the origin of metals and minerals was extended by the addition of ‘salt’ as the third member of the so-called *tria prima*. According to the Paracelsian outlook, the three ‘hypostatical principles’ were at the origin of all substances, not just of minerals or of metals.¹¹³ The term ‘salt’ referred to sodium chloride and other soluble minerals known as salts, such as saltpetre for instance. In the sulphur-mercury-salt theory, ‘salt’ designated “a supposed basic principle [...] of fixity and solidification, conferring the property of resistance to fire”.¹¹⁴ This emerging new theory, championed by Paracelsus, was rooted in the improving distilling techniques which allowed for obtaining salts out of an increasing number of natural substances. For a very empirical thinker like Bernard Palissy, who spent a great part of his career observing the behaviour of soluble and fusible minerals, salt was the main agent responsible for processes of “congealing” (*congelatio*) in the mineral world.¹¹⁵

At the time Libavius wrote, the theory of the ‘three hypostatical principles’ was well-engrained. In the *Alchemia* he described mercury as a watery, “fat vapour”, which in any combination of the *tria prima* received the effects of both the informative principle (*informator*), sulphur, and the fixating principle (*terminator*), salt.¹¹⁶

¹¹⁷ The first evidence for the use of artillery takes the form of two images found in two illuminated manuscripts written around 1326 by Walter de Milemete, chaplain to the English king Edward III. Each of these images depict a large cannon in the form of a jar or a bottle and filled with an arrow-like projectile. See LaRocca, "Arms and armor," p. 142. Documented references to fire-arms abound from the middle of the Fourteenth century onwards.

¹¹⁸ "A great and and incomparable speculation is whether the discovery of compounding the powder used for guns came to its first inventor from the demons or by chance. With this invention he certainly far surpassed all men of every age from the creation of the world up to that day when it was announced to him – men so very learned, indeed like angels and of divine intellect, powerful in every knowledge and power." Biringuccio, *The Pirotechnia of Vanoccio Biringuccio*, Book X, chapter II: 'Concerning the powder used for guns and the methods of compounding and making it.'

¹¹⁹ To provide an idea of these proportions: for the preparation of "gunpowder for medium guns", Biringuccio suggest a mixture of 5 parts of saltpetre with one part of charcoal (made out of willow twigs) and one part of sulphur. *Ibid.*, p. 415.

¹²⁰ Biringuccio dedicates long paragraphs to his own (safe) method of obtaining the finest and most homogeneous mixture possible. In ancient times, Biringuccio observes, "it was customary to grind gunpowder like one would "grind flour with certain hand mills and millstones, but it was a very dangerous operation as well as a laborious one. This composition becomes so hot when rubbed against the stones that it easily produces fire, especially since all the materials are disposed to do so, in the same way that when two dry laurel twigs are rubbed together with a little violence, fire appears at once." *Ibid.*, p. 414. In Biringuccio's own method the saltpetre is hereby first dissolved in water, in which then the charcoal and the "finely ground and well-sifted" sulphur is then added, while the mixture is stirred, "as is done with cheese on macaroni." (p. 415). The charcoal is ground when the mixture will still be moist; the powder is then "dried of every trace of moisture that it may contain", sieved as to obtain an impalpable substance, then moistened again for granulation. (p. 414).

¹²¹ "Noi aspettiamo con desiderio quel secreto di far la polvere d'artiglieria di quella perfectione et finezza che è stata insegnata a cotesta Repubblica, et che parimente ci sarà carissimo il secreto di quelle palle, poichè afferma essere questa una maniera migliore di quant'altre se ne siano ritrovate fino ad hora..." Letter from Ferdinando I (in Pratolino) to Lelio Tolomei, the Grand-Duke's resident ambassador in Venice on September 7th, 1591. ASF, Mediceo del Principato, vol. 280, Fol. n°91. (MAP 7362).

¹²² Biringuccio, *The Pirotechnia of Vanoccio Biringuccio*, p. 410.

¹²³ *Ibid.*

¹²⁴ "...he who considers well will see that this things made by art is more harmful to the life of man than the deadly poisons in numerous animals, herbs, and in so many other things produced by Nature, or than the very thunderbolts of the sky. This is also much more harmful than iron extended and made long, sharp, and cutting, as used by all armies in so many periods for the destruction of life. For all these things are not without the hope of escape, but with gunpowder it can be said these is no such hope, not even the slightest." *Ibid.*

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

It is clear that from all Renaissance recipes in which sulphur entered, gunpowder was the most spectacular. The use of artillery, unknown to the Ancients, was introduced in Europe somewhere at the beginning of the 14th Century¹¹⁷, before which it had long been used in China. Yet during the Renaissance gunpowder was not seen as an imported good but as an invention that was possibly inspired by demons and with which one man had “certainly far surpassed all men of every age from the creation of the world up to that day that it was announced by him...”¹¹⁸

Both the quality of artillery pieces and projectiles as well as that of gunpowder were constantly improving by a series of innovations. Guns evolved from cylinders made out of fixedly assembled staves of wrought iron, held together with iron rings, to carefully cast bronze pieces of artillery, the barrels of which, in the 16th century, were mechanically polished. Projectiles went from roughly hewn stone balls to perfectly spherical steel bullets, with a far greater capacity for destruction, but requiring also heavier charges and more reliable powder chambers. The quality of the gunpowder was enhanced by: improving the purity of its three ingredients, sulphur, charcoal and saltpetre¹¹⁹; adapting the proportion of the mixture to the kind of fire-piece used; developing techniques like granulation and methods obtaining ever finer and more homogeneous mixtures.¹²⁰ These innovations led to a permanent arms race between military rival states. As late as in 1591 Grand Duke Ferdinando I of Tuscany, Cosimo’s son, wrote to his ambassador in Venice that he “waited full of desire for that secret to make gunpowder of that perfection and refinement [...] that has [recently] been taught to this Republic...”¹²¹

By the middle of the 16th century guns and gunpowder had become so sophisticated that they were able, still in the words of the Sienese gun-caster, to imitate the “formidable and horrific effects of the elements and of the heavens” by releasing “violent thunderbolts or fearful earthquakes.”¹²² Firearms “strike buildings that have been made with artful structures to resist every violence”¹²³ and conquer them, in the end, facing very little resistance. With explosives, “mountains not only open at the desire and will of men, but turn their very roots upside down.” As is customary for the epoch, Biringuccio’s considerations on the “powerful vigour” of gunpowder blend awe and admiring astonishment with an apparently sincere regret as to the mercilessness of these weapons and the harm they cause to humankind.¹²⁴

But how does Biringuccio explain that “this composition in so small a quantity of material can produce as it does so sudden and violent an effect”?¹²⁵ The key to this mystery lies in a truth “philosophers have discovered by experiment and have shown in writing.”¹²⁶ They tell us indeed that one part of fire is ten times as voluminous as



Fig. 7.25 Ludovico Buti, *The manufacture of gunpowder*. Fresco painting, 1588. Florence, Uffizi, room 23.

¹²⁷ Biringuccio, *The Pirotechnia of Vannoccio Biringuccio*, p. 411.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ "...solamente dal salnitrio dipende tutta la virtù, e possanza della polvere." Niccolò Tartaglia, *Quesiti et inventioni diverse de Nicolo Tartaglia sopra gli tiri delle artiglierie et altri suoi vari accidenti* (Venetia: Venturino Ruffinelli, 1546), p. 38.

¹³¹ "...apprehendere il fuoco con fiamma & introdurlo nelli altri due materiali..." Ibid.

¹³² "...mantenere il detto fuoco senza fiamma..." Ibid.

¹³³ "...persistent rumours have also insisted that the overseers of army barracks and boys' schools snuck it into the food to quell the carnal appetites fo their charges." Jack Kelly, *Gunpowder. A History of the explosive that changed the world* (London: Atlantic books, 2004), p. 34.

¹³⁴ Biringuccio, *The Pirotechnia of Vannoccio Biringuccio*, p. 88.

one part of air, one of air ten times more than one of water. One part of water, finally, occupies ten times the space of one part of earth. “Therefore, since gunpowder is a corporeal and earthy thing composed of four elemental powers”,¹²⁷ when fire is ‘given access’ to this mixture through the means of sulphur, this causes “... a great multiplication of air and fire...”¹²⁸ Clearly, the process is seen in terms of fire violently striving to reproduce itself:

...since the fire is the superior agent and more powerful than all the others, it converts them all into itself before they issue from its dominion. Even if the space in which this transformation would occur were to be a thousand times as voluminous as the quantity of gunpowder involved, it would not be sufficient to contain the expanding power of the multiplications. A great impetus arises, and the container will burst or its weakest part will yield, as does the bullet in the case of an explosion occurring in a barrel.¹²⁹

By virtue of the sulphur present in it, gunpowder equally becomes a ‘bearer of dormant heat’ needing only the slightest contact with the small flame of a match or a wick to turn its *dunamis* into powerful *energeia*. In a way, a gunpowder explosion is the very paradigm of a process of conception, reproducing the Paracelsian *conjunctio* of the *tria prima*, where saltpetre (‘salt’) and charcoal (matter or ‘mercury’) undergo and reverberate the active effect of the inseminating sulphur.

For the Brescian mathematician and artillery expert Niccolò Tartaglia (1499–1557), all the power and *virtù* of gunpowder depended on the saltpetre, the ingredient that appears in the greatest proportion in the mixture (Tartaglia proposed a ratio of 100/10/36 for respectively saltpetre/sulphur/carbon in his most modern recipe for “polvere di bombarda”).¹³⁰ Sulphur was needed to “apprehend the fire with a flame and introduce it into the other two materials”,¹³¹ while the function of carbon was only to “maintain the said fire flameless”.¹³² In this regard, it is above all saltpetre that assumes the role of the “material” substance being animated by the inseminating sulphur. That function explains why, according to rumours, saltpetre, if ingested, became an inhibitor of male sexual ardour comparable to menstrual blood.¹³³

It is seldom stressed that one of Cosimo’s most important and early sculptural commissions, the fountain of Hercules and Antaeus in the garden of the villa of Castello, was interpreted by contemporaries as an allegorical figuration of the process of melting or extracting sulphur from its ore. The ore, usually a concretion of sulphur and earth is, as mentioned before, mostly found in areas of volcanic activity. It is in the first place the particular smell of sulphur that will signal “where Nature produces this ore.”¹³⁴ As Biringuccio observed, “it is excavated from open mines because if the



Fig. 7.26 Georgius Agricola, *The extraction of sulphur from its ore*, from *De Re Metallica* (Basel, 1556). Reprinted in *Agricola & Hoover 1950*, p. 579.



Fig. 7.27 Vanoccio Biringuccio, *Tubulated vessels for the extraction of sulphur by distillation*, from *Pirotechnia* (Venice, 1540).

¹³⁵ Ibid.

¹³⁶ For the description of the process in Biringuccio, see pp. 89–90 (Book II, ch. 2., ‘Concerning sulphur and its ore’). Agricola describes the procedure as follows: “The ores which consist mostly of sulphur and of earth, and rarely of other minerals, are melted in big bellied earthenware pots. [...] the pots [...] have below their mouths a long, slender spout. In order that the mouth of the pot may be covered, an earthenware lid is made which fits into it. [...] In each furnace are placed two pots with spouts, and the furnace must be covered by plates of iron smeared over with lute two digits thick; it is thus entirely closed in, but for two or three ventholes through which the mouths of the pots project. Outside of the furnace, against one side, is placed the pot without a spout, into the two holes of which the two spouts of the other pots penetrate, and this pot should be build in at both sides to keep it steady. When the sulphur ore has been placed in the pots, and these placed in the furnace, they are closely covered, and it is desirable to smear the joint over with lute, so that the sulphur will not exhale, and for the same reason the pot below is covered with a lid, which is also smeared with lute. The wood having been kindled, the ores are heated until the sulphur is exhaled, and the vapour, arising though the spout, penetrates into the lower pot and thickens into sulphur, which falls to the bottom like melted wax. It then flows out through the hole, which, as I said, is at the bottom of this pot; and the workmen makes it into cakes, or thinn sticks or thin pieces of wood are dipped in it.” Georgius Agricola, Herbert C. Hoover, and Lou H. Hoover, *De Re Metallica. Translation from the first Latin edition of 1556*. (New York: Dover Publications, 1950), p. 580.

¹³⁷ In the proem to the *Lezione sui calori* (a *quistione* that proceeded from the *quistione* on alchemy) Varchi observed “...avviene spessissime volte, che nel disputare un dubbio solo ne nascono molti [...] più difficili che quello stesso non è, del quale si quistiona principalmente [...] Ed è possibile che i poeti antichi, i quali coprirono tutte le dottrine sotto il velame de’ versi loro, volessero significare ancor questo per lo ritrovamento della favola dell’Idra, a cui tagliato un capo ne rinascevano sette altri subitamente.” *Lezione sui calori* in *Opere* II, p. 508.

¹³⁸ “Li antichi sotto il velo delle favole poetice hanno occultato questa scientia – Sotta la favola di Hercule et di Antheo hanno occultato la preparatione del solpho...” Giovanni Bracceso, *La esposizione di Geber philosopho, di M. Giovanni Bracceso da Iorci Nuovi, nella quale si dichiarano molto nobilissimi secreti della natura...*, Venice, Gabriele Giolito de’ Ferrari, 1544. Cited in Perifano, *L’alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, p. 171.

miners should try to extract it in any other way they could not endure to stay inside the mines on account of the great heat and unendurable odour that it gives out.”¹³⁵ Both the Sienese and Agricola describe in very similar terms a distillation method by which the mineral is separated from its ore. To that effect, the ore is placed in “big-bellied” earthenware pots, carefully sealed off with a lid and provided with spouts directed downwards. The pots are placed on a furnace, the heat of which causes the sulphur to melt, to sublime and to pour out of the spouts as a fluid resembling liquid wax. It is collected in a prepared receptacle. A workman will then mould the soft substance into sulphur cakes or sticks.¹³⁶ Agricola insists that all joints should be smeared over with lute, as to avoid that the sulphur would exhale through anything but the spout.

It was customary in 16th-century Europe to believe that Ancient mythologies were in fact veiled allegorical representations of higher philosophical truths. Benedetto Varchi was convinced that “the antique poets” systematically covered their doctrines “under the veil of their verses” and, for instance, saw the story of Hercules’ struggle with the Hydra as the mythological parallel to the general truth that the resolution of one philosophical problem often generates new questions.¹³⁷ Whenever Hercules smashed one of the multiple snakeheads of the monster, seven new ones sprouted from the mutilated neck. With the seven main metals corresponding to the seven planets and Greco-Roman divinities, it is not surprising that Alchemists were particularly holding on to the idea and myths in which spectacular metamorphoses occurred. Such is the story of Pyrrha and Deucalion or of Juno transferring the eyes of the dead Argus to a peacock’s tail, stories that were allegedly disguised descriptions of a particular stage in the *Opus*. This idea in turn made elaborate alchemical allegories possible, often in the form of dreamtales, such as Antonio Allegretti’s *Della Trasmutazione de’ Metalli* and Giovan Battista Nazari’s *Della Tramutatione metallica sogni tre*. In 1544 a Brescian monk named Giovanni Bracesco (c. 1482–c.1555) published an alchemical dialogue providing a systematic interpretation of Greco-Roman mythology as cryptic representations of alchemical procedures. “The Ancients, under the veil of poetic fables have occulted this science – Under the fable of Hercules and Anteus they have occulted the preparation of sulphur.”¹³⁸

The great fountain of Hercules and Anteus constitutes the apex of the complex and still elusive scheme Tribolo developed for the garden of Castello, with the assistance, according to Vasari, of Benedetto Varchi. The fountain is the endpoint of a series of sculptural and aquatic exhibits which are disposed along the gentle slope of the garden. It is also the point where all circulating waters and channels come



Fig. 7.28 Niccolò Tribolo, Pierino da Vinci and Bartolomeo Ammanati, *Fountain of Hercules and Antaeus*, ca. 1540-1560. Villa di Castello.

¹³⁹ Vasari in fact referred to the scene as “Ercole che fa scoppiare Anteo”. Vasari, *Vite* G5, (‘Vita di Niccolò detto il Tribolo’), p. 215.

¹⁴⁰ That is some 9.3 meters; this dimension is apparently to be counted from the level of the smaller fountain “of the labyrinth.”

¹⁴¹ “Dalla bocca del quale Anteo, in cambio dello spirito, disegnò [Tribolo] che dovesse uscire, et esce, per una canna acqua in gran copia, la quale acqua [...] vien gagliarda e saglie dal piano, dove sonoe le scale, braccia sedici, e riscando nella tazza maggiore fa un vedere meraviglioso.” Vasari, *Vite* G5, ‘Vita di Niccolò detto il Tribolo,’ p. 215.

¹⁴² The mythological theme of the twelve works of Hercules was already a subject cherished by the elder Cosimo de’ Medici, *Pater Patriae*, whose palace in the via Larga featured a fresco cycle of the ‘twelve works’ painted by Antonio Pollaiuolo, now lost. For Cosimo I de’ Medici’s identification with Hercules, see Kurt W. Forster, “Metaphors of rule. Political Ideology and history in the portraits of Cosimo I de’ Medici,” *Mitteilungen* XV (1971): pp. 65-104, 1971, pp. 72-82; Janet Cox-Rearick, *Dynasty and desitiny in Medici art: Pontormo, Leo X and the two Cosimo’s* (Princeton: Princeton University Press, 1984), 253-254.

¹⁴³ “La scienza de’ Minerali, la studio del farli cavare, e purgare, scienza veramente regia, studio senza alcun dubbio divino, e propriamente da Principi, perche pare, che abbia in non so che modo amista, e quasi parentado coll’ Archimia, è da molti dileggiata, e biasimata ancora ella.” Benedetto Varchi, *Questione sul Alchimia di Benedetto Varchi* (Florence: Stamperia Magheri, 1827), p. 3.

together. Tribolo only lived long enough to finish the huge basin and base of the fountain that he wonderfully chiseled out of white marble with the assistance of the young Pierino da Vinci. The statue of Hercules and Antaeus that was to crown the composition was only installed later, after having been molded and cast in bronze by Bartolomeo Ammanati in 1559-1560. The statue features Hercules in the act of lifting (separating) Antaeus from the earth in order to prevent the giant from having any contact with the creature that was his mother and which gave Antaeus renewed strength. As Hercules crushes his opponent's body in the grip of his powerful arms, the latter's spirits gush out of his mouth opened to the heavens in a scream.¹³⁹ The fountain cleverly represents this expelled life force, as Vasari observed, by a powerful flow of water led to the bronze mouth of Antaeus through a large conduct. Under great hydrostatic pressure, this spouted water raised no less than sixteen *braccia* in the air,¹⁴⁰ cascading back in the fountain's great marble basin in a spectacular curve.¹⁴¹

Generally the image of Hercules crushing Antaeus is interpreted as a typical instance of encomiastic celebration of the Medici power, a celebration which is part of a long tradition where Medici rulers identify themselves with Hercules.¹⁴² Some authors have also interpreted the statue as an allegorical representation of Cosimo's "crushing" victory over the *fuorusciti* at Montermurlo. I would like to suggest the complementary idea that the fountain represents one of the key operations in the process of preparing gunpowder, that the fountain in its glorifying manner depicts the process of extracting a powerful bearer of *virtù*, sulphur, from its earthen husk.

Just like the *capodoglio* of the *Loggia de' Lanzi*, the Hercules and Antaeus fountain in Cosimo's villa of Castello would be a monument raised to honour a substance that yields extraordinary levels of *virtù*, i.e. *spermateci* on the one hand and sulphur on the other. The fountain celebrates a bearer of transformative heat which happens to lie at the origin (*archè*) of the Tuscan firepower, as seed to the metallic guns and to the powder and bullets that are fed to them. Hence gunpowder can be equated with the principle of annihilation of the State's potential enemies.

In chapter six I have evoked the princely resonances that were embedded in the term *archimia* as it was used and understood by Benedetto Varchi in its extended definition. Varchi likened *archimia* to the "science of the minerals", "the expertise of knowing how to extract them, how to purify them" which he termed a "truly royal science, a study without any doubt divine, and truly worthy of a Prince."¹⁴³ What I have argued here is that the high status which alchemy or the 'arts of fire' enjoyed at the court of Cosimo was not primarily related to the famous quest for the Philosopher's Stone but

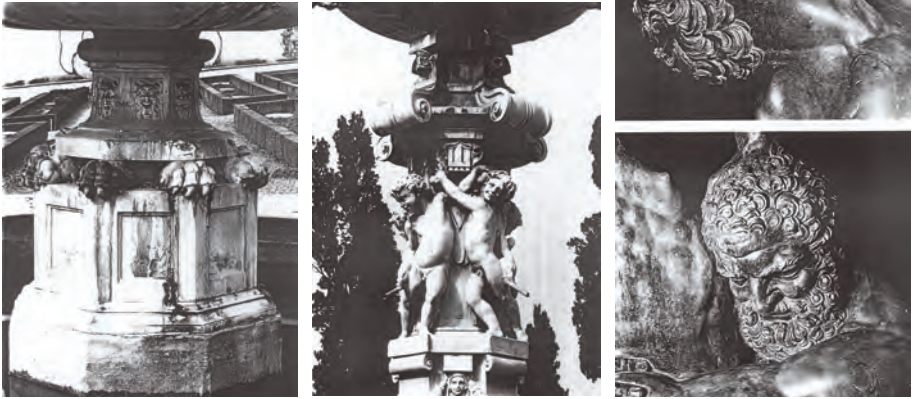


Fig. 7.29 Niccolò Tribolo, Pierino da Vinci, Details of the Fountain of Hercules and Antaeus, before 1550. Villa di Castello.



Fig. 7.30 Bartolomeo Ammanati, Bronze of Hercules and Antaeus, 1559-1560. Villa di Castello.

had much more to do with the preparation of a series of strategic substances which carry form-giving heat. Purified sulphur, its corollary gunpowder or drugs were capable of functioning like links in important chains of events. To put it otherwise, substances such as sulphur, gunpowder and drugs are generative substances. They have the capacity, when triggered, to beget events, to bring things in motion, to transmit the virtues they have been endowed with. Hence the title of this section.

B. THE TUSCAN GENEALOGY OF NATURAL AND ARTIFICIAL BODIES

1. The secondary agent

Even if at the *fonderia* the prevailing attitude towards alchemy was of a no-nonsensical and pragmatic kind, the Duke and his *stillatori* – *fonditori*, as we have seen in the first part of this chapter, had not rejected the possibility of ever attaining the alchemist's ultimate goal: the preparation of the *Philosopher's Stone*. I have described the 'personifying rituals' that surround the making of the *Lapis*, rituals which mimic the different stages of sexual reproduction and of social life. These rituals are also 'birth' rituals and reveal two intertwined truths to us. 1. High expectations are encapsulated in this fiercely desired object or substance. By attributing 'personhood' to the *Lapis* or by formally elevating it to the ranks of an autonomous social agent, his maker invests it with volition, power and agency. 2. By identifying the *Lapis* with his own biological offspring, the alchemist tries to elicit a kind of filial obedience of the object.

We have analysed the nature of the *Lapis* in connection with a series of other generative substances which we have identified as 'bearers of *virtù*', that is bearers of a strongly gendered capacity for efficient and indirect action. We have also seen that the divide between artificial 'bearers of *virtù*' and natural ones is blurred. The quintessential natural 'impartor of motion' is animal semen, a substance endowed with the power to give shape, an extremely complex shape for that, to the matter with which one brings it in contact. Semen, conceived as it was in the Aristotelian tradition is just like the *Lapis* a quintessential example of what I will call here a 'secondary agent', a concept borrowed from the 'anthropological theory of art' of Alfred Gell. Gell refers to a series of artefacts which in one way or another have the capacity to exert agency on bodies surrounding them. The predicate 'secondary' means only that these artefacts do not possess volition as human agents do. Yet as the objectifications of an agency that was imparted on them, they occasionally appear to the outsider as having autonomous intentionality.

Some of the simplest yet most convincing examples Gell gave of secondary agents are a series of animal traps for which the anthropologist vehemently claimed the status of works of art. Illustration 7.31 shows one of these: an arrow trap used in central Africa by indigenous gamehunters. Once loaded or empowered, the arrow



Fig. 7.31 (Weule), *Sketch of a Central African Arrow Trap*. Reproduced in Gell, 1996, p. 2.

¹⁴⁴ Alfred Gell, "Vogel's net. Traps as artworks and artworks as traps," *The journal of material culture* 1, no. 1 (1996): pp. 15-38, p. 27.

¹⁴⁵ Ibid.

trap has *virtù*, that is the capacity for autonomous, targeted action at a propitious moment. The device is capable of doing the hunting on behalf of its owner. As a surrogate hunter, it is also a model of its creator:

It is, in fact, an automaton or robot, whose design epitomizes the design of its maker. It is equipped with a rudimentary sensory transducer (the cord, sensitive to the animal's touch). This afferent nervous system brings information to the automaton's central processor (the trigger mechanism, a switch, the basis of all information-processing devices) which activates the efferent system, releasing the energy stored in the bow, which propels the arrows, which produce action at distance (the victim's death). This is not just a model of a person, like any doll, but a 'working' model of a person.¹⁴⁴

The trap strongly reminds us of Aristotle's mechanical analogon for semen, that is the clockwork toy with loaded spring which is capable of specific action on behalf of its builder even in his absence. As Gell explained, the trap is not clever or deceitful, it is the hunter who knows the habitual behaviour of his prey and is able to subvert it to his own advantage. But "...once the trap is in being, the hunter's skill and knowledge are truly located in the trap, in objectified form, otherwise the trap would not work. This objective knowledge would even survive the death of the hunter himself."¹⁴⁵ For Gell, the trap as a secondary agent constitutes a far better representation of the hunter who built it than any graphic portrait would ever be. It is the objectivation of the hunter's will to kill. In a similar way, the *Lapis* is the active objectivation of the alchemist's ardent desire for gold. And semen is the active objectivation of a father's will for offspring.

2. The paradigm of the drug

If we may assume that no *Lapis* in the strict sense of the word was ever produced in the ducal *fonderia*, we have ample evidence that a series of other substances which were prepared in the laboratory, realized the ambitions of the *Lapis*. Best documented of these substances are the drugs that, according to the biographers of Cosimo, were prepared by the Duke.

The drugs were powerful instruments of Medici propaganda. Easily transportable to foreign courts all over Europe, these drugs, many of which were truly effective, functioned as powerful indexes and mediators of Cosimo's own healing agency. In a manuscript *Discorso sopra la peste* the Bolognese physician Baldassare Pisanelli noted that whoever would obtain even a small amount of the Tuscan Grandduke's "scorpion oil" would live "safe from any kind of infection".

¹⁴⁶ “Ci e ancora quel preciosissimo oglio di scorpioni, fatto prima dall’Altezza del Duca di Ferrara, con tanta diligeza, e dispendio, e poi dall’Altezza del Granduca di Toscana, del qual chi ne potesse aver ‘un poco, potrebbe viver sicuro da qualsivoglia infettione; et io per me lo chiamo Balsamo di questo Principe.” Baldassare Pisanelli, *Discorso sopra la peste*, f^o. 105, cited in Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durement il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” p. 185.

¹⁴⁷ See Anton Francesco Doni, *I Marmi*, 2 vols. (Bari: Laterza, 1928 (1552)), vol II, p. 20.

Pisanelli referred to the substance as “the balsam of that Prince.”¹⁴⁶ If one accepts the advertised genealogy that linked the *fonderia*’s products with the Prince, the virtues contained in these substances are nothing but the emanations of the *virtù* of the Prince himself. If Varchi and his contemporaries had not yet absorbed the Greek *energeia* into their language to constitute the notion of *energia* used by Galileo, they did nonetheless conceptualize *virtù* or ‘capacity for action’. They understood *virtù* in very tangible terms as a heatlike quality and quantity that could be passed down or transmitted from one body to another. By positing the principle of the ‘oneness of all species of heat’, Varchi had even reinforced the idea that fertile heats could be universally exchanged.

The example of the ducal drug instantiates a relatively simple relationship between an agent (the Prince), a secondary agent (the drug) and a patient (the person whom the drug is given to). Yet, as we will see, far longer chains of agency, in which a greater number of protagonists intervene, were imagined. As products of the arts of alchemy or of medical pharmacy, substances such as *Lapis* or drugs function by direct physical contact with the body of the passive recipient for which they are intended for. Such processes are directly physiological and, to our perception, they are clearly distinct from processes that do not allow contact. Yet, as I will argue here, the drug paragon is one that can apply to other forms of communication between agent and patient bodies, forms that do not involve physical contact. As we have already seen, heat can be mediated by visual rays. In chapter five, we have also come across the fertilising power of sunrays. In chapter four, we have briefly discussed the Ficinian idea of the *spiritelli d’amore* that are mediated through someones’ glance, revealing a physiological understanding of visual perception.

Artefacts that are of exceptional artisanship have a mesmerizing effect on viewers. In 16th-century Florentine texts, that effect was poetically evoked as petrification. Viewers of Michelangelo’s *Aurora* in the Medici Chapel are said to be turned into stone.¹⁴⁷ Cellini’s bronze group of *Perseus and Medusa* was said to cause *stupore*, astonishment and stupefaction when viewed. This image of the petrifying work of art underscores the parallel I wish to draw here between the *Lapis* and the art object as both exert a transformative agency on a passive or receptive body. But the image says nothing about the mechanisms of that agency. What the psychological or physiological mechanisms are is not important here. We need to understand that the viewer undergoes a transformation, as if while being sick he had ingested a healing drug. The relationship that connects the artisan with his sculpture, and with the transformed



Fig. 7.32 Michelangelo da Caravaggio, Head of Medusa, before 1598. Firenze, Uffizi.

viewer is a genealogical one. The artisan stands to his work as a father to his son, and in turn, after the petrifying experience, he stands to the transformed viewer as a grandfather to a grandchild. In other words, we can draw a genealogical line that evolves over three generations from artist to work of art to viewer. Furthermore, paraphrasing Varchi, effects that are generated in the mind of the viewer, through the intermediate action of the work, but which were not intended by the artisan, may be termed monstrous.

The genealogical scheme implies that true intentionality is only possessed by the highest link in the chain or, in other words, by the first actor of what I will call the series of ‘hierarchically embedded agent-patient relationships’. One of the purposes of the Florentine ‘physiocratic order’ which I described in chapters five and six was in effect to place the artisans or the artists at lower levels of the genealogical chain than the ones that could be expected from such creative minds. The artists and all other creative Florentine minds, although more or less masters of their own work, are all, in the ‘physiocratic order’, the ‘children of the Duke.’ The community of Florentine bodies, both natural and artificial, eventually shapes into a massive genealogical tree the principle, stem and *archè* of which is Cosimo. In such a symbolic genealogy, the distinction between artefacts and living people tends to blur. The Florentine courtier-artists, the artefacts they produce, the ‘virtuous drugs’ are all reduced, in some way or another, to a status of “ducal seed”. All are, or at least should be, intent on acting on both the Prince’s and the State’s behalf. Their role is reduced to that of intermediates who pass down the Duke’s *virtù* in long chains of successive agencies, ultimately changing the behaviour of the final recipients, for example the Florentine citizen whose conduct has to be influenced.

These claims ask for illustrations. In what follows, I will describe a telling example of such a ‘hierarchically embedded agent-patient-relationship’ in the realm of Florentine artistic practice. It is the example of porphyry sculpture that referred directly to the Duke as its origin.



Fig. 7.33 Francesco Ferrucci del Tadda, Portrait of Grand Duke Cosimo I, London, Victoria and Albert Museum.

¹⁴⁸ “Finalmente, poi che niuna altra cosa in questi nostri tempi mancava alla perfezione delle nostr’arti che il modo di lavorare perfettamente il porfido...” Vasari, *Vite* G1, (‘Delle diverse pietre che servono agl’architetti per gl’ornamenti e per le statue della Scultura’), p. 35.

3. The example of porphyry sculpture

The story of Cosimo de' Medici's personal involvement in the production of porphyry sculptures is a particularly telling instance of a complex 'art-mediated chain' in which more than one index comes to play a role. I will not go into the details of the story which Suzanne Butters tells with precision and insight in *The Triumph of Vulcan*, but will limit myself to rehearse its basic facts as they appear in the latter study.

The Triumph of Vulcan grew out of a nodal element which is Vasari's account, in the second edition of of Giorgio Vasari's *Vite*, of how Cosimo de' Medici had been instrumental in the "rediscovery" of the art of sculpting porphyry. The rediscovery occurred in the second half of the 1550's in Florence. According to Vasari, the art of sculpting porphyry was by then, the only art which had not yet reached perfection.¹⁴⁸

Because of its rarity and its exceptional color – porphyry is a purple dotted stone with whitish, crystalline grains – and because it had prestigious antique and Imperial connotations, porphyry was a particularly prized material in the Renaissance. The prestige of the purple stone, mostly due to its incredible hardness, reached back to the Ancient Egyptians, who were the first to give shape to this mineral that was excavated from one quarry located in the Red Sea Mountains of Eastern Egypt, the so-called Porphyry Mountain or *mons porphyrytes*. The Egyptians and Ancient Romans were able to excavate huge blocks of purple Porphyry; yet the hardness of the stone limited the ways in which it could be shaped; the then known abrasion techniques were hardly able to meet the challenge. In the Middle Ages and the Renaissance, Egyptian porphyry was only available as fragments and left-overs of Antique monuments. One of its most successful implementations in Medieval architecture was in the form of roundels (*rotae*), laboriously sown slices of porphyry columns, that were integrated in complex inlaid church pavements or panelling, often in combination with roundels of green serpentine. See, for instance, the Cosmatesque works found in and around Rome from the early 12th century onwards. Porphyry fragments could also be turned into crude shapes by pounding them for a long time with steel hammers having a toothed side, and then polishing the raw surfaces with the use of much emery and supple leather belts. Yet whenever operations other than sawing, grinding or polishing had to be performed, great difficulties arose. Vasari asserted that Leon Battista Alberti had been one of the first moderns to take up the challenge of some refined carving on porphyry. But in fact he falsely attributed to Alberti the small porphyry slab that was fitted in the threshold of the Santa Maria Novella church as part of an unobtrusive

¹⁴⁹ Vasari is talking here about the carving of the name of Bernardo Rucellai (Bernardo Oricellario) on a small commemorative porphyry plaque at the doorstep of the church of Santa Maria Novella. That carving, as Butters pointed out, took place shortly before Bernardo's death in 1514. By then, Leon Battista Alberti (1404-1472), who had designed the façade of the Santa Maria Novella for Bernardo's father, Giovanni, had long died. See Butters, *The triumph of Vulcan: Sculptors tools, porphyry, and the Prince in Ducal Florence*, vol. I, p. 140-142.

¹⁵⁰ Known today as the carburization, the process of alloying carbon to the iron mostly happened unknowingly when the iron was brought in direct contact with the incandescent charcoal during the process of smelting or heating. See on this, *Ibid.*, I, chapter 10 ('The Nature of Porphyry and the Mechanics of Hardening Steel').

¹⁵¹ See *Ibid.*, I, p. 164.

¹⁵² Biringuccio, *The Pirotechnia of Vannoccio Biringuccio*, p. 67.

¹⁵³ See Butters, *The triumph of Vulcan*, I, p. 167.

funerary monument to the memory of Bernardo Rucellai.¹⁴⁹ According to Vasari, even the humble task of carving the eighteen antique letters in the small porphyry slab was too much of a match for ‘Alberti’. Whenever the latter struck a blow with his chisel, the stone only threw off sparks. The architect was not able to obtain the clear-cut edges and angles required by the *all’antica* lettering. Eventually, ‘Alberti’ was forced to take recourse to using a drill (*mulinello a braccio*) with tiny rotating copper wheels and emery. It is with that technique, according to Vasari, that the inscription still to be seen today was realized. The whole operation had been so time-consuming that ‘Alberti’ never undertook any other work in porphyry later. As this example makes clear, the hardness of porphyry required techniques that extended well beyond the limits of what steel chisels could achieve in those days.

We know today that the very hardness of steel, an ‘improved’ iron, is obtained by carburization: the addition of a small quantity of carbon to the iron, and the subsequent quenching and tempering processes. Quenching consists of immersing the heated metal in a cold liquid bath, causing a sudden drop in temperature; tempering consists of the same procedure performed after the steel was heated again a second or a third time. These successive sudden drops in temperature ‘fixate’ the carbon atoms in the crystalline structure of the iron, and thus strongly reduce the ductility of the matter.

Renaissance smiths and metallurgists, even if they were capable of making excellent steels, ignored the crucial role of carbon in the procedure.¹⁵⁰ It was unknowingly that the smiths added carbon to the metal, when they put their iron to heat on a bed of incandescent coals. Steel was not considered to be an alloy of two different elements, but simply a better and more perfected variety of iron. Some believed, following Aristotle, that the coals were necessary to provide sufficient heat to drive the impurities out of the iron. For them, steel was a “cleaner” form of iron.¹⁵¹ Biringuccio wrote: “...steel is nothing other than iron, well purified by means of art and given a more perfect elemental mixture and quality by the great decoction of the fire than it had before.”¹⁵² Yet these smiths and metallurgists were very well aware of the importance that changes in the manufacturing environment, especially changes in temperature, could have on the quality of the finished product. In the absence of thermometers, smiths had to rely on the colour of the heated steel objects (which could range from whitish yellow to dark red) to know the exact moment at which it needed to be quenched. Butters evoked the telling preparation of the traditional Japanese swordsmiths for this operation, who knew they had to heat the sword blade “to the colour of the moon in Februari or August.”¹⁵³



Fig. 7.34 *Giorgio Vasari and Francesco Ferrucci del Tadda, porphyry and marble fountain with Andrea del Verrocchio's Boy with a Dolphin. Florence, Palazzo Vecchio, courtyard.*

¹⁵⁴ The cited examples all come from the numerous Cinquecento temper recipes Butters analyzed in her study. See *Ibid.*, I, p. 167.

¹⁵⁵ “E pur l’anno 1553, avendo il signor Ascanio Colonna donato a papa Giulio III una tazza antica di porfido bellissima larga sette braccia, il Pontefice per ornarne la sua vigna ordinò, mancandole alcuni pezzi, che la fusse restaurata; per che, mettendosi mano all’opera e provandosi molte cose per consigli di Michelagnolo Buonarroti e d’altri eccellentissimi maestri, dopo molta lunghezza di tempo fu disperata l’impresa, massimamente non si potendo in modo nessuno salvare alcuni canti vivi come il bisogno richiedeva. E Michelagnolo, pur avezzo alla durezza de’ sassi, insieme con gl’altri se ne tolse giù né si fece altro.” Vasari, *Vite* GI, (‘Delle diverse pietre che servono agl’architetti per gl’ornamenti e per le statue della Scultura’), p. 35.

¹⁵⁶ “... e per agevolar al maestro il modo di lavorar il porfido, fece [Cosimo] di non so che erbe stillar un’acqua di tanta virtù, che spegnendovi dentro i ferri bollenti, fa loro una tempera durissima.” Vasari, *Vite* GI, (‘Delle diverse pietre...’), p. 35–36.

¹⁵⁷ “Il Tadda, perendoli il segreto datogli dal duca fusse rarissimo, si mise a far prova d’intagliar alcuna cosa; e gli riuscì così bene, che in poco tempo ha fatto in tre ovati di mezzo rilievo, grandi quanto il naturale, il ritratto d’esso signor duca Cosimo, quello della duchessa Leonora, ed una testa di Gesù Cristo, con tanta perfezione, che i capelli e le barbe, che sono difficilissimi nell’intaglio, sono condotti di maniera che gli antiche non stanno punto meglio.” *Ibid.* p. 36.

In the Renaissance, much attention was also paid to the nature of the quenchant and tempers, which could range from rainwater and olive oil to stranger preparations such as mixtures of chopped earthworms and radish juice, mercury, dissolved human feces and “the white liquid by-product of soapy water mixed with the dung of a herbivorous ox.”¹⁵⁴ According to Vasari, the best temper available for the making of steel tools, at the time “Alberti” was carving his piece of porphyry, was the blood of a male goat (*sangue di becco*). But such steel, as we have seen, was still no match for porphyry. The situation did not improve in the first half of the 16th century. Vasari explained how, as late as 1553, a series of excellent sculptors which included the great Michelangelo were forced to abandon their efforts to restore a damaged antique porphyry *tazza* that Pope Giulio III had received as a gift, for lack of the proper tools.¹⁵⁵

Only two years later, in 1555, so Vasari tells us, Cosimo decided to order a porphyry “fountain of extraordinary beauty” for the inner courtyard of his ducal residence, the *Palazzo Vecchio*. The fountain had to be made out of some larger porphyry fragments found in the ducal stocks. To “ease” the work of the artisan who was to carve out the basin and its pedestal, Cosimo decided to apply his mind to the problem, and, in Vasari’s words,

ordered the distillation, out of I don’t know what herb, of a water of such virtue (*un aqua di tanta virtù*), that the reddened tools that were quenched in it, saw themselves provided with a remarkably hard temper.¹⁵⁶

It is with such treated instruments that the master stonecutter, Francesco del Tadda, put himself to work on the fountain following a design provided by Vasari. The result is still to be seen in the courtyard of the palazzo Vecchio. Thereupon,

Tadda, as it appeared to him that the secret he had been given by the Duke was most rare, put himself to the challenge of sculpting a few things [in porphyry]. It worked out so well that in a short lapse of time he finished three oval bas-relief portraits, of natural size, of the Lord Duke Cosimo himself, another of the Duchess Eleonora, and one head of Jesus Christ, with such perfection that the hair and the beards, which are most difficult to carve, have been carried out in a way that could not have been surpassed by the antiques.¹⁵⁷

The extent to which these works signalled an unparalleled achievement is underscored by Vasari mentioning that when the Duke, then residing in Rome, told Michelangelo about the refinement of these bas-reliefs, Michelangelo could only respond with incredulity. Vasari, on Cosimo’s instructions, sent the head of Christ to Rome so that Michelangelo could view it with his own eyes. The old master was struck with astonishment and forced to admit the value of “this rarest gift” to the contemporary



Fig. 7.35 G. Zocchi, drawing for 1744 view of Piazza Santa Trinità in Florence, with the Column of Justice by Ammanati and Tadda. New York, Morgan Library.



Fig. 7.36 Francesco Ferrucci del Tadda, *Justice*, 1569-1581. Florence, Piazza Santa Trinità.

¹⁵⁸ “Di queste opere ragionando il signor Duca con Michelagnolo, quando Sua Eccellenza fu in Roma, non volea creder il Buonarroti che così fusse; perché, avendo io, d’ordine del Duca, mandata la testa del Cristo a Roma, fu veduta con molta maraviglia da Michelagnolo, il quale la lodò assai, e si rallegrò molto di veder ne’ tempi nostri la scultura arricchita di questo rarissimo dono, cotanto invano insino a oggi desiderato.” Vasari, *Vite* G1, (‘Delle diverse pietre che servono agl’architetti per gl’ornamenti e per le statue della Scultura’), p. 36

¹⁵⁹ See Butters, *The triumph of Vulcan*, I, p. 294.

art of sculpture, a gift that had “so long been desired for in vain.”¹⁵⁸ As Vasari tells us, and as we know from other evidence, Francesco del Tadda dedicated the rest of his career entirely to the art of sculpting porphyry. The most impressive of all the works he produced is undoubtedly the over life-sized figure of Justice, still towering from above a huge granite column on the Piazza Santa Trinità, a statue on which Tadda purportedly worked for about twelve years.¹⁵⁹

Francesco del Tadda has long remained, and in many respects still is considered, a secondary figure of the contemporary artistic scene. The fact reveals the problematic nature of his authorship as a sculptor. It would be hard to refer to Tadda’s works as his own “oeuvre” in the present-day understanding of that term. First, most designs he worked on were not his: the Palazzo Vecchio fountain was designed by Vasari; the statue of Justice was designed by Bartolomeo Ammanati. Tadda limited himself to carve those designs out of porphyry. Furthermore, as Vasari’s account makes very clear, such carving would have been entirely impossible if Tadda had not been given the ‘secret’ of the special herbal temper. Without such a temper, nobody, not Tadda or anybody else could have accomplished the feat.

The invention of the temper is thus endowed with the ultimate primacy (*precedenza*) over all other episodes in the creation of the first samples of porphyry sculpture. It is therefore to the author of that invention, Cosimo, that the major credit for the existence of these works is to be given. As the primary cause of the whole art of carving porphyry, Cosimo, a fortiori, becomes the author of all porphyry sculptures. To put it in other terms, any of Tadda’s porphyry sculptures would in the first place be an index of the Duke’s agency and only marginally reflect that of the stone carver of Fiesole or of any other intervenient in the process. These porphyry sculptures thus stand at the endpoint of a long ‘art-mediated chain of transaction’ of which Cosimo is the logical starting point. The temper and the tempered tools are intermediaries passing down Cosimo’s *virtù*. In the process Tadda is merely the instrument of an instrument.

Vasari’s attribution of the invention of the temper to the Duke directly implies Michelangelo’s defeat in the struggle to subdue the rebellious stone that opposes him directly to Cosimo. Michelangelo’s double acknowledgement of his inferiority in the story (in the episode with Giulio III’s *tazza*, and when the porphyry head of Christ, brought to his presence, forces him to express his *maraviglia*), doubly underscores the Duke’s superiority in a highly considered branch of the art of sculpture. Yet the credibility of that superiority entirely rests upon the plausibility of the Duke personally



Fig. 7.37 Francesco Ferrucci del Tadda, *Head of Christ*. Reproduced in Butters 1996, ill. 110.



Fig. 7.38 *Genealogical tree of the Medici*, from *Manuscript of Leo X*. Florence, Biblioteca Laurenziana, Ms. Palat. 225.

¹⁶⁰ Ibid., I, p. 266.

¹⁶¹ Ibid., I, 261.

¹⁶² Ibid., I, p. 261-262.

¹⁶³ Alfred Gell, "Technology and Magic," *Anthropology Today* 4, no. 2 (1988): pp. 6-9. p. 7.

¹⁶⁴ Ibid.

developing the new temper. Butter's lengthy analysis buttressed that plausibility by demonstrating that there is no ground at all to exclude the possibility that Cosimo effectively invented the temper.

Because he is known to have taken a personal interest in the materials and procedures of the *fonderia*, at the very least Cosimo could have overseen the preparation of a new quenchant by his *stillatori*, and it is not inconceivable that he actually distilled it with his own hands. That Cosimo personally chose the herb or herbs that went into the new temper is perfectly plausible.¹⁶⁰

The question that opened the chapters on the ducal interest for alchemy was the following: what exactly was Cosimo's motivation for investing considerable time and money in the activities of the *fonderia*? The example of the new steel temper and the art of sculpting porphyry show the gains, both utilitarian and propagandistic, that were to be gained from the Prince's personal involvement in the activities of the *fonderia*. The Medici experiments with new steel tempers allowed for more than just the development of harder sculptors' tools. In the course of the 1560's and 1570's, as concrete evidence shows, court armourers were able to develop highly improved armours and breastplates that resisted the heavy impact of an arquebus-shot bullet. The direct advantage of such pieces of armour for the equipment of the Prince's own elite troops is self-evident, but these pieces of high-technological military equipment also proved useful as gifts to important political friends. In 1573, for instance, the son of Pope Gregory XIII, also Castellan of the Castel Sant'Angelo and an important Medici ally, was offered an entire suit of gilded festival armour; the armour had been hardened with the juices of several herbs to resist firearms, in accordance with a 'Grandducal' recipe.¹⁶¹ As an index of the metallurgical and chemical expertise possessed by Cosimo and Francesco, this gilded armour functioned in a very comparable way to, for instance, the bas-relief head of Christ which had so much impressed Michelangelo. In 1565, the armour was used as a gift to a most important political friend: the Emperor Maximilian II.¹⁶²

These examples illustrate a point made earlier: considered from an anthropological viewpoint, these works of art are virtually indistinguishable from objects we would qualify today as technological. Alfred Gell would have classified both gifts, the porphyry head of Christ and the tempered, gilded armour in the domain of the "Technology of Enchantment". The technology of enchantment is made up of all "psychological weapons which human beings use to exert control over the thoughts and actions of other human beings."¹⁶³ Gell further specified about this technology of enchantment, "the most sophisticated that we possess"¹⁶⁴:



*Fig. 7.39 Matteo Piatti, Steel armour for Francesco I de' Medici, between 1568 and 1574.
Florence, Bargello.*

Under this heading I will place all those technical strategies, especially art, music, dances, rhetoric, gifts, etc. which human beings employ in their intentions or projects. These technical strategies – which are, of course, practiced reciprocally– exploit innate or derived psychological biases so as to enchant the other person and cause him/her to perceive social reality in a way favourable to the social interests of the enchanter.¹⁶⁵

The Medici gifts to both Maximilian II and the son of Gregory XIII function in that sense on a double level. On the one hand they clearly demonstrate the willingness of the Tuscan rulers to spend lavish sums of money on political allies. Both objects consistently advertised their high costs, either in terms of their material (porphyry/gilded steel), or in terms of the time it had unmistakably taken to make them. At a higher level of sophistication, both items also function, as evidence of the exceptional technological expertise of the Medici princes. It will have sufficed for Maximilian II to have a look at the refined undulations of Christ's beard and hair and realize they were carved out of Egyptian purple porphyry, to grasp that an exceptional agency had been at work there. And by way of experiment, the Castellan of the Castel Sant'Angelo might have had an arquebus-bullet shot at his newly received gilded festival armour in order to test its quality. The result would have irrefutably demonstrated the exceptional character of his gift, and more importantly, would have enticed the Castellan into greater admiration and regard for the house of Medici. This was the aim of the gifts in the first place.

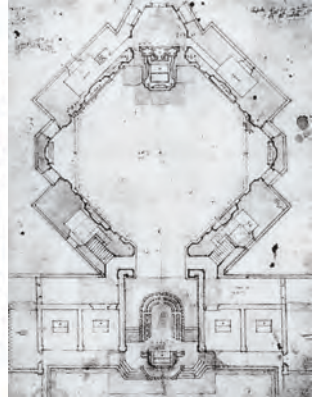
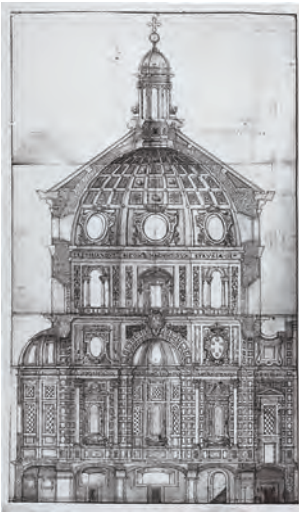


Fig. 7.40 Don Giovanni de' Medici, plan drawing for the Cappella de' Principi, 1602. BNF

Fig. 7.41 Don Giovanni de' Medici and A. Pieroni, Elevation drawing for the Cappella de' Principi, 1602. BNF

Fig. 7.42 V. Spinazzi, Section through the Cappella showing building progress in the course of the 18th century. Florence, Uffizi.

¹⁶⁶ “Ma perché troppo sarei lungo a volere minutamente raccontare molte altre pitture, disegni, che non hanno numero, modelli e mascherate che ho fatto, e perché questo è a bastanza e davantaggio, non dirò di me altro, se non che, per grandi e d'importanza che sieno state le cose che ho messo sempre innanzi al duca Cosimo, non ho mai potuto aggiugnere, nonché superare, la grandezza dell'animo suo, come chiaramente vedrassi in una terza sagrestia ch'e' vuol fare a canto a San Lorenzo, grande e simile a quella che già vi fece Michelagnolo, ma tutta di varii marmi mischi e musaico, per dentro chiudervi, in sepolcri onoratissimi e degni della sua potenza e grandezza, l'ossa de' suoi morti figliuoli, del padre, madre, della magnanima duchessa Leonora, sua consorte, e di sé.” *Vite*, G6 (‘Descrizione dell’opere di Giorgio Vasari...’), p. 407-408.

¹⁶⁷ On the measure in which the project for the mausoleum vented Cosimo’s aspirations to the title of King of Tuscany, see André Chastel, “La chapelle des princes à Saint Laurent,” in *Firenze e la Toscana dei Medici nell’Europa del ‘500*, vol. III: *Relazioni artistiche. Il linguaggio architettonico europeo.*, ed. G.C. Garfagnini, Biblioteca di storia toscana moderna e contemporanea. Studi e documenti (Florence: Olschki, 1983), 1983.

¹⁶⁸ See Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino*, p. 290.

¹⁶⁹ “Di che ho io già fatto un modello a suo gusto e secondo che da lui mi è stato ordinato; il quale mettendosi in opera, farà questa essere un nuovo mausoleo magnificentissimo e veramente reale.” *Vite*, G 6, (‘Descrizione dell’opere di Giorgio Vasari...’), p. 407-408

C. ARCHITECTURE AS AN INDEX OF VIRTÙ

1. Cosimo's mausoleum

Vasari concluded his autobiography, which appears at the very end of the 1568 edition of the *Vite*, by telling his reader that he will spare him the many details of his recent projects, except for one. One projects stands out for its nobility and exceptional character, even if, by that time, it was still nothing but a project: Cosimo's mausoleum.

As the passage makes clear, Cosimo had asked his architect Vasari to design a new chapel "beside" the church of San Lorenzo for him. As a 'third sacristy' to the church, this new chapel would have completed the series of the two other Medici-chapels built by respectively Brunelleschi and Michelangelo. The Duke intended the structure to function as a mausoleum for himself and his immediate kin, i.e. his parents, wife and children. Cosimo's idea, Vasari makes clear, was to build the chapel "great and similar to the one Michelangelo already made there, but entirely decorated with different variegated marbles (*mischì*) and mosaics..."¹⁶⁶ The new chapel had to signal the truly monarchical status Cosimo had attained. As such, it fitted in the series of grandiloquent Medici realizations undertaken from the 1560's onwards. These projects used architecture to attain new levels of *magnificenza* or "*regalitas*" as André Chastel put it: the Uffizzi and the courtyard of if the Pitti Palace (1560), the monumental *Sala* of the Palazzo Vecchio (1563), the *Apparato* for the arrival of young Francesco's bride, Giovanna d'Austria (1565) and the brand new villa of Pratolino (1569).¹⁶⁷

Vasari probably started working on the funerary chapel project in 1566.¹⁶⁸ By the time of the publication of the Giuntina edition of the *Lives*, he had "already made a model [of the chapel] according to [Cosimo's] taste and following what he had instructed to me; this model, if carried out, will cause it to be a new mausoleum, most magnificent and truly royal (*veramente reale*)."¹⁶⁹

We have already touched upon Cosimo's interest for variegated and coloured marbles, which was to reach its fullest expression in this project. Yet Cosimo died and so did Vasari before the construction was undertaken. Cosimo's son and successor Francesco I took the relay and hired Lombard artisans specialized in the cutting and polishing of the so-called *pietre dure*, the hard siliceous stones, as opposed to the *pietre*

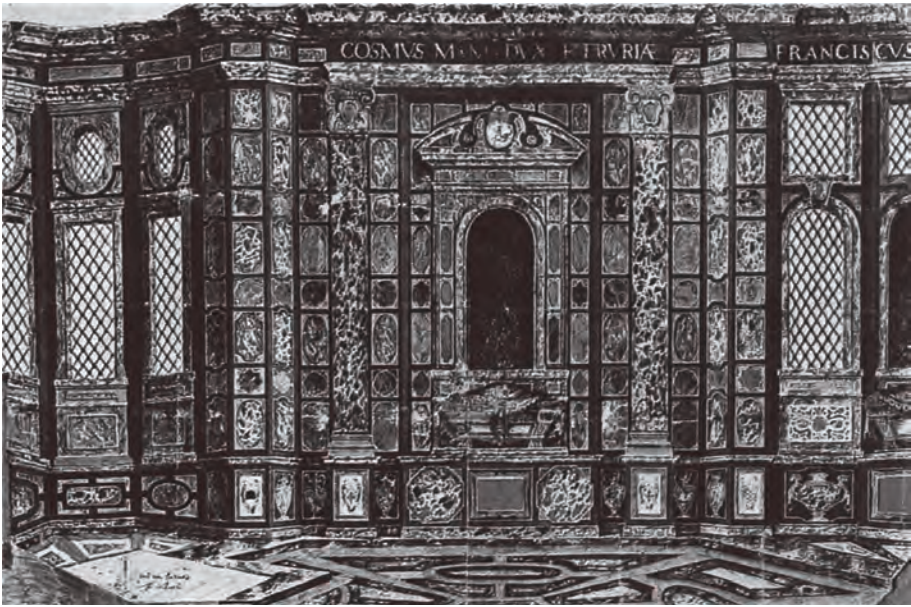


Fig. 7.43 M. Nigeti (?), *Drawing with elevation detail for the Cappella de' Principi according to Don Giovanni de' Medici's model, 1602.*

¹⁷⁰ Zobi mentions that Francesco hired around 1580 a certain 'maestro Bianchi' and "molti altri maestri lavoratori di pietre dure" from Milan, to prepare the works for the sepulchre. See Antonio Zobi, *Notizie storiche relative a' celebrati lavori di commesso in pietre dure, che in Firenze sempre più fioriscono merce la munifica protezione dei Sovrani della Toscana* (Firenze, 1853), p. 151.

¹⁷¹ The *Opificio delle pietre dure*, producing far more than just decorations for the Capella de' Principi, remained seated in the Uffizzi until 1798, when it was moved to its actual site in the via degli Alfani. See Annamaria Giusti, *Opificio delle pietre dure di Firenze: guida al museo* (Venezia: Marsilio editore, 1995).

¹⁷² Don Giovanni, born in 1567, was the fruit of Cosimo's liaison with the young Eleonora degli Albizzi (a liaison that lasted from late 1565 until 1567). On the career of this brilliant "soldato, diplomatico, ingegnere, architetto, letterato...", who died on Murano in 1621, see Gaetano Pieraccini, *La stirpe de' Medici di Caffagiolo* (Firenze:Vallechi editore, 1947), vol. II, pp. 216-249.

¹⁷³ The last hand to the *Cappella de' Principi* was laid in 1829 with Pietro Benvenuti's eight (rather unfortunate) paintings in the *cupola* of the monument. (Chastel, "La chapelle des princes à Saint Laurent," , p. 799) But as Luciano Berti observed, in its actual state, the chapel is in fact still unfinished. Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino*, p. 288.

¹⁷⁴ The *Museo dell'Opificio delle Pietre Dure* still holds in its collection a *Testa incompiuta di Cosimo I de' Medici*, that was part of the goods inventorized in the house of Bernardo Buontalenti after his death in 1608. Bernardo had sculpted the face in *marmo rosso*, while hair and beard, still in *stucco* on the sculpture, most likely were to be sculpted out of a darker species of marble. See Giusti, *Opificio delle pietre dure di Firenze: guida al museo*, p. 30.

tenere of calcareous origins.¹⁷⁰ But under Francesco the project in fact stalled. After the raise to power of the more energetic Ferdinando in 1587 new progress was made. On the one hand, Ferdinando pursued the efforts to attract and prepare specialized artisans for the decoration of the chapel with stone *intarsie*, flooring or panelling made out of delicately cut and assembled coloured marbles, also referred to as *commesso* (lit. ‘brought together’). To that effect, in 1588, he instituted the *Opificio delle pietre dure* as a specialized department of the Granducal workshops that were housed in the upper level of the Uffizi.¹⁷¹ On the other hand, the Archduke set a series of architects to work, among whom the late Bernardo Buontalenti and Ferdinando’s own brother, Don Giovanni, one of Cosimo’s late illegitimate children.¹⁷² After two contests and a gradual increase in size of the chapel, it is eventually to Don Giovanni, a member of the Accademia del Disegno and a more than deserving dilettante architect, that the project was assigned in 1602. The works started in 1604 and due to the staggering complexity and price tag of the *pietre dure* interior decoration they would last until the 19th century.¹⁷³

One of the watercolour drawings (fig. 7.43) joined to Don Giovanni’s model of 1602 provides a fine impression of how Cosimo’s architect-son conceived the interior of the sepulchre in which he himself would be buried: as a sample book of hundreds of variegated and coloured marbles presented on a funeral background of black *paragone* marble. As the elevation makes clear, the sepulchral space would have been well lit through large window bays so as to allow visitors to enjoy the full detail and splendour of the polychromous display. The avoidance of any non-lythic and disturbing element in the composition was originally pushed to the extreme: even the statues planned for the dark niches above the sarcophaguses were to be realized as *commessi* of coloured stone; they would be three-dimensional versions of the flat marble *intarsie*. The *Museo dell’Opificio delle Pietre Dure* still holds in its collection a *Testa incompiuta di Cosimo I de’ Medici*, that was part of the goods inventoried in the house of Bernardo Buontalenti after his death in 1608. Bernardo had sculpted the face in *marmo rosso*, while hair and beard, still in *stucco* on the sculpture, most likely were to be sculpted out of a darker marble varieties.¹⁷⁴

Don Giovanni’s drawing appears as a fairly faithful rendering of the original paternal *conchetto*. Its fragmented aspect, avoiding the pompous monumentality which the *Cappella* was to assume later, seems in line with the relatively modest scale Cosimo and Vasari had in mind for the *terza sagrestia*. One of Don Giovanni’s first plans actually features a chapel with dimensions that are perfectly comparable to both Brunelleschi’s and Michelangelo’s *sagrestie*. The nature of the sepulchre as a collection of marble samples equally seems to have been part of Cosimo’s original desires and the idea lived

¹⁷⁵ “Con affetto di gratitudine e di pietà alla Gloria del gran padre, del grand’Avo, e degl’altri alla generosa sua Schiatta appartenenti, haveva deliberato ergere gloriosi sepolchri, ornandoli di preziose pietre Chalcidonii, Prasme, Sardonii, Agate, e Diaspri, di variati colori, tutte da se con propria diligenza ne’ suoi propri paesi ritrovate, e di già a quest’uso destinate, per collocarli in edifizio sacro in mezzo agli altri due da suoi maggiori già fabbricati, contigui alla parte superiore di questo ornatissimo e nobilissimo Tempio.” L. Giacomini, *Oratione de le Lodi di Francesco Medici* (Firenze: Sermantelli, 1587), p. 178; cited by Berti, *Il principe dello studiolo: Francesco I dei Medici e la fine del Rinascimento Fiorentino*, p. 297.

¹⁷⁶ The Dominican friar Agostino del Riccio (1541-1598) authored various treatises on diverse subjects, none of which were printed before the 20th century; these manuscript works, however, were well-known to contemporaries as to the Florentine scholars of the 17th and 18th centuries.

¹⁷⁷ “Io non conosco, amantissimi Fiorentini, né tampoco mi so dare ad intendere o persuadere di poter conoscere qual maggior lodo si possa dare a un’arte sì utile e necessaria e dilettevole come è l’architettura, dove ogni artefice deve conoscer bene la materia della quale si serve.” Riccio in *Scritti*, II, p. 1243. Riccio in fact started the dedication of his treatise with the statement: “Essendo le pietre la materia delle fabbriche, la cognizione d’esse è non solamente utile, ma necessaria all’architettura, dove ogni artefice deve conoscer bene la materia della quale si serve.”

¹⁷⁸ See Detlef Heikamp’s introduction to Agostino del Riccio’s *Del giardino di un Re*, a passage from the treatise *Agricoltura sperimentale* on princely gardens. Agostino Del Riccio, “Del giardino di un Re; a cura di Detlef Heikamp,” in *Il giardino storico Italiano: Problemi di indagine Fonti letterarie e storiche Atti del convegno di studi Siena-San Quirico d’Orcia 6-8 ottobre 1978*, ed. Giovanni Ragionieri (Firenze: Olschki, 1981), pp. 59-60.

on in the minds of his sons. The author of one of the funeral orations to Francesco I, Giacomini, while alluding to the project of the chapel, could not avoid evoking its nature as an enumeration of precious minerals:

Moved by a sentiment of gratitude and piety towards the Glory of his great father, of his great forebearer, and of the other members of his generous lineage, [Francesco] had decided to erect glorious sepulchres, ornate with precious stones, chalcedony, *Prasme*, sard agates, agates and jaspers of varied colours, all retrieved by himself with the appropriate care from their native countries, which were already destined to that use, in order to set them up in a sacred edifice situated in between the other two that had already been erected by his elders, contiguous to the upper part of that most ornate and most noble temple.¹⁷⁵

I use the project of the Medici mausoleum for one main reason. The project is an early instance of the shift, occurring in the minds of both Florentine patrons and artists during the last decades of the 16th century, towards a greater valuation of the materiality of their realisations disregarding more immediate and formal qualities. In the course of this third and last section of chapter 7, I will relate this evolution to the ‘art-mediated chains of agency’ that I have discussed in the two earlier sections. The shift towards material considerations is also perceptible from the 1560’s onwards in and around Florence, as books and texts on materials used in architecture and particularly on marbles multiply. This literature on architectural lithology runs from Vasari’s first chapter of the introduction on architecture in the *Vite* to the *Istoria delle pietre* written in 1597 by the Florentine Monk Agostino del Riccio.¹⁷⁶

Del Riccio justified this treatise by pointing to the fact that in the “useful, necessary and delightful art of architecture”, it is necessary that every artisan would “have a good knowledge of the matter he is using.”¹⁷⁷ The lookout of del Riccio was that of the amateur with a clear scientific penchant and developed taste for the mechanical arts. Living at the cloister of San Marco, he often, during his moments of leisure, visited the artisans at work in Francesco I’s *Casino di San Marco* across the square. The friar thus gained the friendship and esteem of Francesco himself and of prominent courtiers-artisans such as Jacopo Ligozzi and Bernardo Buontalenti. He was also well-acquainted with specialists in new disciplines such as Tommaso Francini and Ventura da Bagnarea, automata-builders at the villa of Pratolino.¹⁷⁸ Riccio was a born catalogueur. His first known work *l’Arte della memoria* of 1595 was dedicated to the Florentine youth, and destined to provide the latter with a means of artificially training their memories by providing them with so-called *alfabeti*, i.e. series of alphabetically ordered and thematically linked substantives. Del Riccio’s

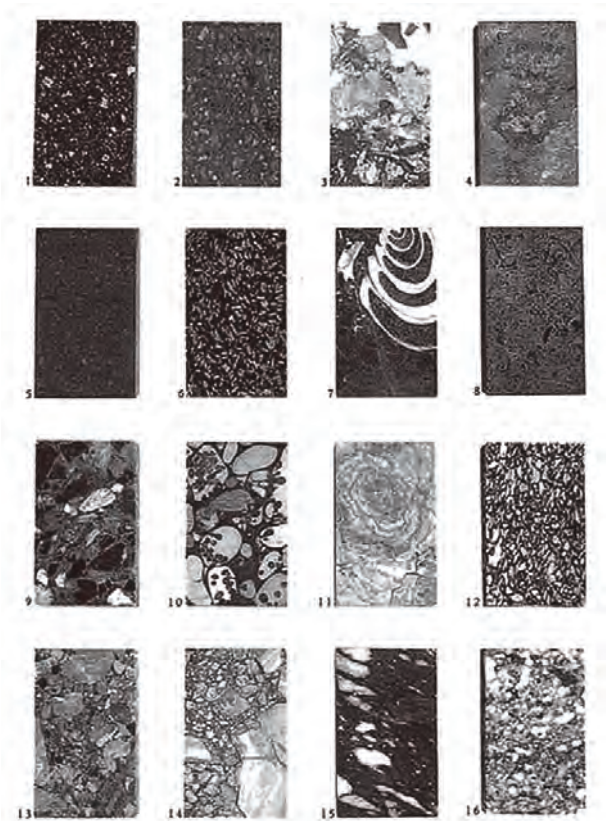


Fig. 7.44 Marble samples.

¹⁷⁹ “I nomi di tutte le pietre, [...] I colori loro, il luogo onde si traggono, la grandezza o picciolezza dei pezzi, la sodezza o tenerezza, la resistenza all’ingiurie dell’acque, de’ venti e de’ ghiacci; nel settimo luogo, quali recevin lustro, quali no, e per ultimo, ove si trovino in opera, nella città di Fiorenza o in altre di quelle città ove a noi sia accaduto il vederle.” Del Riccio, in *Scritti II*, p.1243, notes.

¹⁸⁰ As Ottaviano Targioni-Tozzetti made clear, in a 1829 lecture presented before the *Accademia delle Crusca*, the entire title of the manuscripts is *Istoria delle pietre scritta circa l’anno 1597 dal P. Agostino del Riccio Fiorentino dell’ordine de’ predicatori, figliuolo del Convento di S. Maria Novella di Firenze, colle figure delle medesime dipinte da Vincenzio Doni fiorentino, nella quale si favella delle gioie e pietre preziose, delle pietre dure e tenere che servono a varii usi, de’ luoghi d’one si vacano e di quegli dove sono state poste in opera col modo di lavorale e commetterle e incollarle*. See Agostino Del Riccio, *Istoria delle pietre; a cura di Paola Barocchi* (Firenze: S.P.E.S., 1979), p. 42.

¹⁸¹ The *Dizionario della Crusca* defines *marmo* as: “Pietra fine, e dura, di diversi colori, e spezie. Lat. *marmor*, gr. *mármaros*.”

¹⁸² “E perché le gemme sono spezie di pietre e esse ancora entrano nelle fabbriche per ornamento, massimamente nelle fabbriche picciole, che sono immitazioni delle grandi, come astucci, tavolini e studioli, ho preso a parlare di questo ancora ...” Del Riccio, in *Scritti II*, p. 1243.

¹⁸³ On the correspondence between this *Studiolo* and the *Tribuna* itself, see Heikamp, 1964. A precise description of the *Studiolo* is given by Bocchi, 1591; cited in Berti, *Il principe dello studiolo*, p. 203–204. In the 1568 edition of the *Vite*, Vasari also described the luxurious piece of furniture, which by then was “presso al fine” *Vite G6*, (‘Degli Accadici del Disegno’), pp. 241–242.

¹⁸⁴ Giusti, *Opificio delle pietre dure di Firenze: guida al museo*, p. 30.

repertory of words, practically oriented, focused on the Florentine idiom and its specific contexts, and so would his lithological repertory. The *Istoria delle pietre*, an encyclopedia of all the “species of stones” used in architecture, is largely inspired by Pliny’s book 36 (‘The natural history of stones’) but focuses specifically on Florence. It is a long repertoire, ordered according to Riccio’s own logic, and including, for every entry,

...the name of all the stones, [...] their color, the site from where they are quarried, the size of the pieces, the hardness of softness, the resistance to the injuries caused by water, winds and ice; [...] which one of them can receive a gloss [when polished], and, finally, where those have been put to use, in the city of Florence, or in another city where I happened to see them.¹⁷⁹

As the entire title of the manuscript makes clear, Del Riccio’s list of 132 entries should have been accompanied by painted representations of every stone or marble. Those figures, though, were lost or never realized.¹⁸⁰

There are no real divisions, or families in Del Riccio’s ‘species’ of stones. The term *marmo*, for instance, was not used as a counterpart of *pietra*; instead it designated any kind of stone with a sufficient hardness and refinement of grain as to “take luster” (*ricever lustro*) when polished.¹⁸¹ Similarly, no intrinsic gap is felt between stones used in architecture and gems. Del Riccio comments:

...since gems are species of stones and that they too enter in the buildings (*fabbriche*) as ornaments, in particular in those tiny little buildings that are imitations of the great ones, such as portable chests (*astucci*), small tables and cabinets (*studioli*)...¹⁸²

As the friar must have observed many times over, gem architecture was popular in late 16th-century Florence. Small scale architectural compositions were pure pretexts for assembling columns, architraves and pilasters fashioned out of truly precious materials, and appeared as the costly miniature pendants to the buildings in which they were displayed. For instance, Bernardo Buontalenti’s so called *Tribuna*, an octagonal exhibition room on the top floor of the Uffizzi, originally featured in its centre a most precious cabinet which Buontalenti designed himself in the form of a *tempietto* using costly materials such as ebony, alabaster, bronze, silver, gold, *Lapis lazuli*, agate, jasper, chrysolite, amethyst, sapphire.¹⁸³ Or, another instance, in Don Giovanni’s funerary chapel a resplendent ciborium, located on the main altar, imitated the structure of the whole edifice: its columns were wrought in rock-crystal; other parts in gems, gold, silver; the whole was crowned with a rock-crystal cupola (fig. 7.45).¹⁸⁴ Beside stones such as the *marmo bianco di Carrara*, the *macigno di Fiesole* and the *pietra forte*, Del Riccio’s *Istoria delle pietre* thus also lists precious minerals such as the emerald (*smeraldo*), the



Fig. 7.45 Drawing for the ciborium of the Cappella de' Principi according to Don Giovanni de' Medici's project of 1602. BNF .

¹⁸⁵ For the latter, see Del Riccio, *Istoria delle pietre*; a cura di Paola Barocchi, p^o 95r.

¹⁸⁶ For the details on Del Riccio's dependance from Dolce, see *Ibid.*, pp. XVII-XXIII.

¹⁸⁷ "Nelle pietre varie non si scolpiscono I pitaffi e memorie d'uomini illustri, come nei profidi, serpintini e marmi, come si vede in Rome et in Firenze." Del Riccio, in *Scritti* II, p. 1247.

¹⁸⁸ See *Vite* GI, ('Delle diverse pietre che servono ag'architetti per gl'ornamenti e per le statue della Scultura'), pp. 31-54.

ruby (*rubino*), the sapphire, (*zaffiro*), etc. The total lack of a-priori distinctions in the *genus* of the stones is testified by the appearance, in the list, of several substances of animal origins such as corals, pearls and all types of calculus which are grouped under the chapter *pietre che si trovino nell'animali*.¹⁸⁵

As Paola Barocchi has shown, for his lemmas on gems, Del Riccio drew heavily on earlier sources such as Lodovico Dolce's *Libri tre ... delle diverse sorti delle Gemme che produce la Natura, delle qualità, bellezza et virtù loro* published in Venice in 1565.¹⁸⁶ In turn Dolce's work is a translation of Camillo Leonardo's 1505 *Speculum lapidum*. The latter must have seemed desperately speculative to Del Riccio and many of his Florentine contemporaries. The *Speculum lapidum*, if containing an admirable account on the origins of gems, is chiefly an imaginative *alfabeto*, tainted with much Hermetic imagery, on the occult curative *virtues* of gems and gems engraved with magical symbols. Del Riccio's outlook is more down-to-earth and empiric. It relies on Florentine and typically pragmatic writings that are contemporary to Dolce's translation, such as Vasari's cited introduction to architecture for building stones (1568) and Benvenuto Cellini's book on the jeweller's trade secrets, the *Trattato di orificeria*, published in the same year.

Vasari and Del Riccio's lithological treatises offer, retrospectively, clues as for the reason why Cosimo decided, when planning his sepulchre, to opt for an architectural form that so radically departed from the solutions provided by the Old and the New sacristies of San Lorenzo, with their sober bichrome interplay of *pietra serena* and white materials. Three parallel lines of motivation are discernible. Stones, first, and in particular the *pietre dure* which were to be the inner crust of the *terza sagrestia*, constituted the perfect embodiment of what the funerary chapel was to be: a memorial, and thus by definition set to stand the test of time. The harder the stone, the less ephemeral the inscriptions carved in it. As Del Riccio observed:

Isn't it in various stones that the epitaphs and memories of illustrious men are carved, such as in porphyries, in serpentines and in marbles, as one sees in Rome and Florence?¹⁸⁷

Hardness was in fact the main criteria Vasari had used in classifying his *pietre* and *marmi*. For Vasari hardness was the standard of a stone's nobility, a standard that caused him to decree porphyry and serpentine as respectively the numbers one and two in the absolute hierarchy of stony building materials.¹⁸⁸ On antique columns of granite, an equally sturdy material, Vasari had observed:



Fig. 7.46 Francesco Ubertini or il Bacchiacca, *Painted decoration of the Scrittoio del Duca with birds, plant samples, fishes and other animals, before 1552. Florence, Palazzo Vecchio.*

¹⁸⁹ "...ed il tempo istesso, che tutte le cose caccia a terra, non solamente non le ha distrutte, ma neppur cangiato loro il colore. E per questa cagione gli Egizi se ne servivano per i loro morti, scrivendo in queste aguglie coi caratteri loro strani la vita de' grandi, per mantener la memoria della nobiltà e virtù di quelli." *Ibid.*, p. 40.

¹⁹⁰ "Le pietre varie che si cavano dalla terra sono di numero grande, sì come sono le piante, I pesci, le stelle, gli uccelli, che di ciascheduna sorte ne numeriamo mille cinquecento, ma son un numero infinito; così le pietre, e variano in colori, in grandezze, in durezza e tante sono state dall'antiquarii trovate e di nuovo se ne trovano e troveranno, che si può dir che sieno un numero infinito." Del Riccio, in *Scritti II*, p. 1247.

¹⁹¹ Pliny (36, 11) had observed: "For what place is there, in fact, that has not a marble of its own? In addition to which, in our description of the earth and its various peoples, we have already made it our care to mention the more celebrated kinds of marble." Pliny, Bostock, and Riley, *The natural history of Pliny*, p. 6327.

¹⁹² Ettore Allegri, *Palazzo Vecchio e i Medici: guida storica* (Firenze: S.P.E.S., 1980), p. 49.

¹⁹³ On the so-called scrittoio del Bacchiacca in connection to Cosimo's interest in natural history, see Vossilla, 1993. Vossilla's article was published together with a second account on the *scrittoio*, analyzing the different plant and animal species depicted, for as much allowed by the dramatic state of the paintings. In it, Maria Adele Signorini concluded that all the depicted species were known in the middle of the 16th century, and indigenous. Maria Adele Singorini, "Sulle piante dipinte dal Bacchiacca nello scrittoio di Cosimo I a Palazzo Vecchio," *Mitteilungen XXXVII* (1993), pp. 398-407.

...and time itself, that ends up knocking over all things, not only didn't destroy them, but has not even altered their color. And it is for that reason that the Egyptians used it [granite] for their deads, and wrote in these needles (*aguglie*) with their strange characters the life of the great ones, to maintain the memory of the nobility and the virtue of these men.¹⁸⁹

The decoration of the *Cappella de' Principi* did not only distinguish itself by the hardness of its material. As we already mentioned, the variety of *marmi* and *pietre* used was to make up a kind of inventory of all the known species, a sort of literal equivalent to lithological *alfabeti*. The need for *magnificenza* merges here with a didactic purpose. As an encyclopaedic showcase of all stones, the *Cappella* very much paralleled contemporary efforts in the listing of all species of plants or animals. The daunting difficulty of any such undertaking made every attempt even more impressive. As Del Riccio observed, thus mitigating the weight of his own inventory:

The various stones that are quarried out of earth are of a great number, just as the plants, the fishes, the stars and the birds are, so that if, of every sort, we number thousand five hundred different [species], they are [in reality] of an infinite number. Thus are the stones, and they vary in color, in size and in hardness and so many of them have been found by antiquarians and again are found and will be found, that one may say that they are of an infinite number.¹⁹⁰

As Luciano Berti pointed out, next to the scientific and encyclopaedic purpose of the Capella slumbers a political and economic one. A showcase for the entire world's marbles, the *Cappella* also and in the first place presents the Tuscan marbles and stones, the resources from the Medici's own caves and quarries. Looking at the polished surface of those marbles, such as the famous *mischi* from Serravezza and Stazzema, Cosimo and his successors, when visiting the sepulchre, would see the image of their own territory.¹⁹¹ The space, in that way would have been comparable to Cosimo's tiny workroom in the Palazzo Vecchio, the so-called *scrittoio* realized in the early 1550's.¹⁹² The *scrittoio* was a very plain room decorated only with the most expertly executed naturalistic depictions of different native Tuscan plants, fishes and other animals that are directly and most delicately painted on the whitewashed walls. These decorations formed a kind a wallpaper portrait of Tuscany, its fauna and flora (fig. 7.46).¹⁹³

The preparatory operations required for the new San Lorenzo Mausoleum, in particular the slicing and cutting of the hard siliceous stones, entailed a far less sculptural relation with the material than had been customary. Traditional stone sculpture, even the porphyry sculpture of Francesco del Tadda, relied on the virtuosity of the tools but certainly to a large extent on the artisans own *virtù* in handling these. Tadda sculpted

¹⁹⁴ “...simile a quella che già vi fece Michelagnolo, ma tutta di varii marmi mischi e musaico...”

¹⁹⁵ In the chapters dedicated to the use of marbles in architecture from book 36 of the *Naturalis Historia*, Pliny several times indicates that earlier Romans had no taste for variegated marble, used as an interior decoration. Cicero, for instance, is cited in chapter 5 as mocking the city wall of Chios, which its inhabitants had erected in a native variegated marble, one of the first to be used. Pliny himself, who often chastised his contemporaries for their inclination to the lavish use of marbles observed: “And, by Hercules! the art of painting never would have been held in such esteem, or, indeed, in any esteem at all, if variegated marbles had been held in admiration.” Pliny, Bostock, and Riley, *The natural history of Pliny*, XXXVI.5, p. 6324.

¹⁹⁶ *Ibid.*, XXXVI.9, p. 6326.

¹⁹⁷ *Ibid.*

¹⁹⁸ One manuscript collection of *Segreti diversi* from Cosimo’s library (BCNF, Magl. XVI, 103) contains the description of a small handsaw consisting of copper thread tight on little iron arch, to be used with pulverized emery in water. The instrument is said to be most effective “quando vuoi segare pietre o marmi of ferro”. Cited in Butters, *The triumph of Vulcan*, II, Appendix IV, 13, p. 397.

his porphyry as Michelangelo had sculpted his Carrara marble, imposing a formal logic on a recalcitrant stone. The *Cappella de' Principi* turned that sculptural logic upside down. Vasari had written, at the end of his *Vite*, that the mausoleum was to be “similar to the one that Michelangelo built there” but different in the variety of its materials.¹⁹⁴ That difference heralds a complete overturn of the new roles form and *disegno* come to play in architecture. The complex sculptural and architectural forms carved out of the homogeneous masses of marble and *pietra serena* are substituted by extremely simple forms (mostly flat) carved out of slabs of the most complex marbles. It are the marmoreal forms, the colourful and veined compositions that are painted by the hand of nature, which are now stepping to the foreground of architecture.¹⁹⁵

2. Polishing Pietre Dure

The multicoloured and variegated marbles and hard stones intended for the Medici mausoleum needed to be cut into slabs or into tiny pieces before being joined together as tiling or stone mosaics. The surfaces were then polished. The cutting and polishing methods followed standards of procedure that went back to the remotest antiquity. The stone was ‘sawed’ with blades of steel or copper, which did not need to be toothed: an abrasive powder or emery, dissolved in water and sprinkled in the cleft along the blade, rasped the marble away. As Pliny observed: “though apparently effected by the aid of iron, [the division of the marble] is in reality effected by sand; the saw acting only by pressing upon the sand within a very fine cleft in the stone, as it is moved to and fro.”¹⁹⁶ The best emery, according to Pliny, was prepared with sand from Ethiopia; the sand has the effect of “dividing the stone without leaving any roughness on the surface”.¹⁹⁷ This technique combining the use of a metal blade and emery, still used today, was capable of cutting through any kind of hard stone; it even allowed, as some early-modern artisans knew, to cut through iron.¹⁹⁸

In other words, the use of *pietre dure* in the future Medici chapel did not require the kind of technological innovation that had made the sculpting of porphyry possible. The only disadvantage with the abrasive techniques for cutting through hard or semi-precious stones such as porphyry, serpentine, jasper, agate, *Lapis lazuli*, and chalcedony was that they were tantalizingly time-consuming. The men handling the huge reciprocal frame saws, used for slicing great pieces, sat sawing for hours until they obtained one single slice. Rhythm and endurance were important in order to obtain an equal surface. The Florentine instrument builder Benvenuto della Volpaia (1486-1532), who carried out experiments on the sawing of porphyry columns,

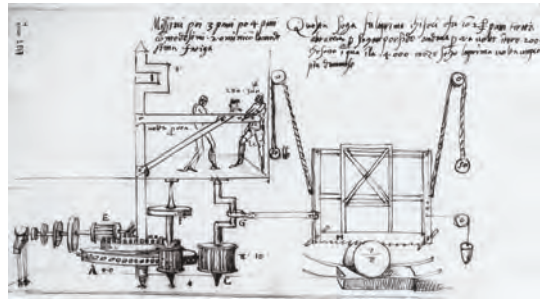
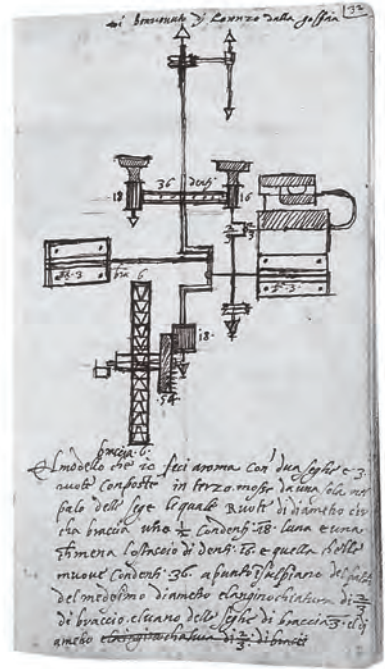


Fig. 7.47 Benvenuto della Vólpaia, Project drawing for a machine destined to saw porphyry, before 1533. Florence, Biblioteca Medicea Laurenziana. Reproduced in Franceschi & Fossi 2000, p. 161.

Fig. 7.48 Alberto Alberti after Benvenuto della Vólpaia, saw for cutting porphyry. Venice, Biblioteca Marciana. Reproduced in Butters, 1996, ill. 33.

Fig. 7.49 Jacopo Zuchi, Enchained slave cutting a stone with a saw and emery. Detail from *The Mining of Gold*, 1571. Florence, Palazzo Vecchio, Studiolo.

¹⁹⁹ Pliny observed: “For giving the last polish to marble, Thebaic stone is considered well adapted, as also porous stone, or pumice, powdered fine. [...] For polishing marble statues, as also for cutting and giving a polish to precious stones, the preference was long given to the stone of Naxos, such being the name of a kind of touchstone that is found in the Isle of Cyprus. More recently, however, the stones imported from Armenia for this purpose have displaced those of Naxos.” Pliny, Bostock, and Riley, *The natural history of Pliny*, XXXVI.9–10, pp. 6326–6327.

²⁰⁰ See the *Modo di segare i marmori, et quale arena sia la migliore a fare li mischi*, from the *Primo Libro del Capitano Francesco de’ Marchi da Bologna, Cittadino Romano* (BNE, II, I, 277, fols. 87v–88v); published in Butters, *The triumph of Vulcan*, II, Appendix IV, 12, pp. 395–396.

²⁰¹ Verwijs naar appendixen van Artigianato.

set the standard sawing rate at 2000 motions back and forth an hour. The motions were so simple and repetitive that they were, in Ducal Florence, often performed by slaves. The fact is alluded to in Zucchi's idealized picture of the Grand ducal mining activities for the Studiolo of Francesco I, where a chained slave is seen handling a small frame saw in one hand and pouring solved emery in the sawn cleft (fig. 7.49). Della Volpaia also made several drawings for hydraulic, horse- and men powered machines for cutting porphyry, which might have inspired Bernardo Buontalenti when he designed his own mechanical saws for the hardstone cladding of the Chapel of the Princes at San Lorenzo under Ferdinando I. One of Bernardo's machines, powered by chained slaves brought from Livorno, was kept on the ground floor of the Uffizzi during the late 1590's, and was meant to provide the masters carvers, working on the upper level, with the necessary hard stones for their inlays.

The polishing process of these marble and hard stone cladding was just as tediously repetitive as the sawing of the slabs and equally liable to be mechanized. Polishing happened with emery of varying hardness and granulometry. For the last polish, pumice, powdered fine, yielded good effects.¹⁹⁹ In his notebooks the courtier Francesco De Marchi (1504-1576), also a dilettante of military architecture, described how pavements are best polished using a heavy stone, handled by two men, each sequentially pulling a rope attached to the stone. It is the rasping effect of sand, dispersed by water under the stone, that then smoothes the stone pavement. For the finishing touch the operation is repeated with a pane of lead attached to the inferior side of the stone.²⁰⁰

Though performed with elementary means, the sawing and polishing effectively transform rough minerals into lustrous, delicately multicolored surfaces and detailed patterns. As the rubbing generates a considerable amount of heat, it must have been easy for alchemy-enthusiasts like Cosimo and Francesco to assimilate the process to the fire-bred processes of the chrysopoetic art that artificially speeded up the evolution of living natural substances towards their own perfection. The numerous polished stone vases which Francesco de' Medici commissioned and which were fashioned out of semi-precious materials such as *Lapis lazuli*, were, we know now, produced in the same facilities that housed Francesco's alchemical laboratory at the Casino di San Marco.²⁰¹ Many of these vases were exposed in Francesco's *Studiolo* in the Palazzo Vecchio, the ceiling of which was decorated, moreover, with an allegory of fire perfecting nature (fig. 7.50). Poppi's fresco represents Nature as a naked woman offering a rock fragment with incrustated rough diamond carbuncles to Prometheus.²⁰² Prometheus' attributes are just his chains and a burning torch while a



Fig. 7.50 Francesco Morandini or il Poppi, *Nature offers a rough precious stone to Prometheus*, 1570. Firenze, Palazzo Vecchio, Studiolo.

²⁰² In the *invenzione* for the whole Studiolo, Vincenzio Borghini observed for this scene in particular: “...la natura dà il suo carbonchio o cristallo et simile altra materia rozza et informe, et l’arte gli pulisce, riquadra, intaglia, etc. ...” ‘First’ *invenzione*, from a letter sent to Vasari, around September 1570. Cf. Allegri, *Palazzo Vecchio e i Medici: guida storica*, p. 342.

²⁰³ Vincenzo Borghini wrote in his invention for the Studiolo, which was to house Francesco’s collection of jewels, medals, cameo’s, fine crystalware etc: “Considerando che simil cose [the items in question] non sono tutte della natura, ne tutte dell’arte, ma ùa vi hanno ambedue parte, aiutandosi l’una l’altra, - come, per dare uno esempio, la natura dà il suo diamante o carbonchio o cristallo et simile altra material rozza et informe, et l’arte gli pulisce, riquadra, intaglia etc. [...] Borghini then proceeds his *invenzione* of the late summer 1570 with a description of the scene of the exchange between Nature and Prometheus.” Cited in *Ibid.*, p. 342.

²⁰⁴ The observation comes in the analysis of the first quatrain of Michelangelo’s sonnet. “Dovemo ancora sapere, e perfettamente intendere la vera e maravigliosa sentenza di questa prima parte, che secondo il medesimo Aristotile: *Actio Agentis* (perché veggiamo che io non trovo queste cose da me, ne le cavo, d’onde elle non sono) *nihil aliud est, quam extrahere rem de potentia ad actum*; ciò è: L’azione o vero operazione d’un agente, o vero operante, non è altro che cavare la cosa della potenza all’atto, che in somma non vuol significare altro, se non che chiunque fa qualche cosa, non fa altro che cavarla dall’essere potenziale e ridurla all’essere reale. Onde quell’Arabo [Averrois] [...] diceva con diverse parole, ma nel medesimo sentimento che il maestro: *Ab agente nihil provenit, nisi extrahere illud, quod est in potentia ad actum*; ciò è: D’uno agente non viene altro, se non cavare quello che è in potenza e condurlo all’atto.” *L.s.MB.* in *Opere II*, p. 615.

²⁰⁵ “Non è dunque generare o fare alcuna cosa che cavarla dall’essere potenziale e darle l’attuale esistenza, o vero l’essere reale.” *Ibid.*

wheel and some finely shaped gems appear at his feet. Fire and the power of abrasion, symbolized by the wheel thus figure in this representation as the ultimate agents of artistic perfection.²⁰³

If the *Studiolo's* concetto and ceiling, express the idea that the abrasives' action on a precious stone is the quintessential act of artistic intervention, it is plausible that Borghin's contemporaries assimilated abrasion and its processes to the an act of conception. Form is indeed infused into matter on both occasions. However, the straightforward nature of abrasion reminds us that, even in the purest Aristotelian understanding of it, a form-infusion process always amounts to reveal the forms that were already present in the matter rather than forcefully imprinting it. As Varchi would have put it, rehearsing his Aristotle, and meditating his Michelangelo:

Actio agentis nihil aliud est, quam extrahere rem de potentia ad actum [...] ²⁰⁴

And further on, Varchi writes:

Thus, both generating and making something, are nothing else than extracting that something from a potential being and give it actual being, or real existence.²⁰⁵

It would be hard to find a more direct example of potential existence lifted into actuality than the polishing of *pietre fine* or *pietre dure*, and the gradual but spectacular transition that it entails from rough amorphousness to brilliance and precision.

In these cases, the effect of the *virtù informativa*, if we are to pursue the generative parallel, is reduced to its simplest expression: it is no more than a heat-producing motion that can be performed by slave-, water- or horse-powered machines. The self-moving capacities of such mechanical bearer's of *virtù* again remind us of Aristotle's parallel between semen and wound-up automata. Semen, the quintessentially secondary agent, performs its duty on behalf of the generator, even if the latter is absent. Similarly the slave-driven machine of the Uffizzi continues to soften stone surfaces, even in the absence of the *maestri* who conceived it. Another Aristotelian parallel we have come across earlier brings us to consider the effect of the abrasive machines on the stones as that of a generative heat on an incubated egg. The trimming agents, whether mechanical or not, are those well-tempered forces capable of revealing out of the indistinct embryonic mass precisely that face or appearance to which the rock was destined, the true form of its species.

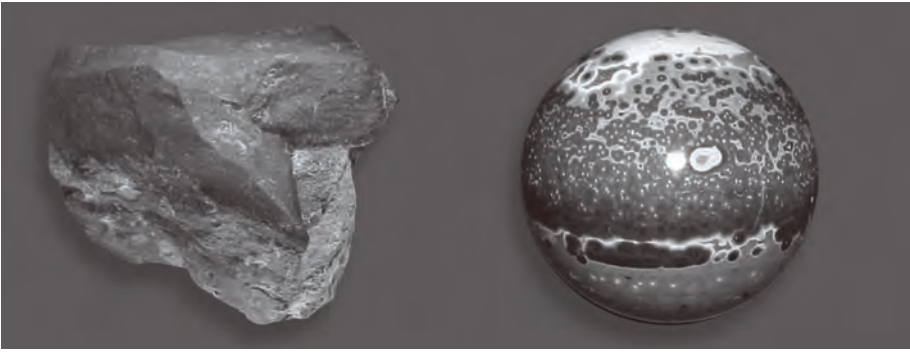


Fig. 7.51 Jasper, in rough and polished state.

²⁰⁶ On the transfer, in Januari 1583, of the different 'arts' formerly housed in Francesco's Casino di San Marco to the Uffizi, and on the realization, there, of a combination of a gallery and workshop, see Suzanne B. Butters, "'Una pietra eppure non una pietra'. Pietre dure e botteghe mediche nella Firenze del Cinquecento," in *La grande storia dell'artigianato. Vol. terzo: Il Cinquecento*, ed. Franco Franceschi and Gloria Fossi (Firenze, 2000), p. 165. Butters cites the words of an illustrious visitor, Cardinal Scipione Gonzaga, who visited the upper floor of the Uffizi in 1586 and was evidently struck by the closeness of both the exhibition rooms and the 'production rooms'. p. 165.

²⁰⁷ "... perché delle cose naturali si debbe favellare liberamente e apertamente, come hanno fatto tanti, non pur filosofi e medici, così greci come latini ed arabi, ma teologi ancora, e uomini santissimi, e nessuno debbe vergognarsi o avere a schivo di sapere quelle cose, di che egli fu prima generato, e poi nutrito..." *L. Gen. Corpo* in *Opere* II, p. 289.

²⁰⁸ "E io passando a più alta e più benigna materia, dichiarerò cosa è spirito, e quanti sono; il che è non meno utile e necessario, che le cose passate." *Ibid.*

²⁰⁹ "sed nihil facile reperitur mulierum profluvio magis monstrificum. acescunt superventu musta, sterilesunt tactae fruges, moriuntur insita, exuruntur hortorum germina, fructus arborum, quibus insidere, decidunt, speculorum fulgor aspectu ipso hebetatur, acies ferri praestringitur, eboris nitor, alvi apium moriuntur, aes etiam ac ferrum robigo protinus corripit odorque dirus aera, et in rabiem aguntur gustato eo canes atque insanabili veneno morsus inficitur." Pliny, *Naturalis Historia*, VII.15.

The fact that contemporaries kept considering such comings-into-being worthy of attention, is illustrated by the fact that the cutting and polishing operations of the stones were put on display. That is why Francesco de' Medici transferred a great part of the activities that had formerly taken place in the Casino di San Marco to the rooms adjacent to his new gallery of art on the highest level of the Uffizzi. Francesco wanted to show off the art of polishing and cutting, he wanted to allow visitors to enter the workshops and witness the genesis of the pieces that were manufactured there.²⁰⁶

3. The ultimate link of the 'art-mediated chain'

According to the theory on the generation of animal bodies that Varchi developed drawing on Aristotle and Dante, conception follows from the interaction in the womb of the male form-bearing principle and the female receptive matter. The latter is a purified kind of menstrual blood. Regarding that substance, Varchi encouraged his audience at the *Accademia Fiorentina* to face that fact and not to be prudish:

Because of natural things one should be able to converse freely and openly [...] and nobody should feel shame or embarrassment to know these things, to know what he was first generated from and then nourished by²⁰⁷

Varchi also recommended to his listeners to inform themselves further, and directed them to Aristotle's *History of Animals* and, for those who were interested in monstrosities, to book VII of Pliny's *Historia Naturalis*. Having said that, Varchi could allow himself to proceed to more "elevated and auspicious subjects".²⁰⁸ Pliny's passage on menstrual blood summarises very well the fascination as well as the anguishes and taboos that surround *katamenia* in patriarchal societies. According to Pliny :

It would indeed be a difficult matter to find anything which is productive of more marvellous effects than the menstrual discharge. On the approach of a woman in this state, must will become sour, seeds which are touched by her become sterile, grafts wither away, garden plants are parched up, and the fruit will fall from the tree beneath which she sits. Her very look, even, will dim the brightness of mirrors, blunt the edge of steel, and take away the polish from ivory. A swarm of bees, if looked upon by her, will die immediately; brass and iron will instantly become rusty, and emit an offensive odour; while dogs that may have tasted of the matter so discharged are seized with madness, and their bite is venomous and incurable.²⁰⁹

²¹⁰ “...quin et bituminum sequax alioqui ac lenta natura in lacu Iudaeae, qui vocatur Asphaltites, certo tempore anni supernatans non quit sibi avelli, ad omnem contactum adhaerens praeterquam filo, quem tale virus infecerit.” Ibid. ,VII.13, p. 2152.

²¹¹ See Chapter 4

The examples make clear that the *katamenia* are irradiating the total opposite of fertilizing forces of seed. Bodies or substances that are about to be (must, seeds, grafts), or that have already been brought to ‘efficient actualisation’ (fruits, stainless mirrors, sharp steel, shining ivory, clean iron) are reduced, they are brought one step back towards formlessness when put into contact with this anti-actualizer. But one of Pliny’s further examples of the ‘marvelous effects’ of *katamenia* is more puzzling:

In addition to this, the bitumen which is found at certain periods of the year, floating on the lake of Judæa, known as Asphaltites, a substance which is peculiarly tenacious, and adheres to everything that it touches, can only be divided into separate pieces by means of a thread which has been dipped in this virulent matter.²¹⁰

Pliny identified the *katamenia* here to a poison, a *virus*, and it is remarkable to see the principle of material passivity in turn transformed into an active virulent substance. The idea that menstrual blood would have the power to liquefy bitumen will reappear later in the alchemical tradition where menstrual blood was a solvent. It is in a bad of mercury which is the alchemical equivalent of *katamenia*, that Sisto de’ Boni’s gold and silver, as we have seen in his description of the *nigredo*, were drowned, putrefied, dissolved and thus returned to the stage of the *prima materia*.

Katamenia and Prime Matter conceived of as both the solvent and the dissolved, evoke the image of a kind of primal soup, a bath of acids haunted by the remnants of the bodies that were drown in it. They evoke a soup pregnant with potential form ready to resurge. Despite the fact that, as the lowest level in the *ordine dell’ente*, Prime Matter and its animal equivalent, *katamenia* should be almost inexistent, they are amongst the substances to which most life and intentionality are attributed. In Pliny’s vision, those intentions are clearly mostly malevolent. Varchi’s perspective is significantly different. He even credited, as we have seen, Prime Matter’s unappeasable craving for form that Aristotle had compared to the never-ending “female yearning for the male” as the source of the earthly cycles of generation and corruption.²¹¹

But to attentive readers of Aristotle’s corpus, and Varchi can certainly be counted among them, the Stagirite offered genuine reasons to believe that if not Prime Matter, then *katamenia* were also, at least to a certain extent, bearing form. The last books of *Generation of Animals*, deal with the following problem: what are the causes of the resemblance between mother and child? This was obviously a puzzling question for those who radically upheld the idea that the father is the only agent to contribute to form, while the mother just provides the matter. In order to answer the question they raise, the last books of *Generation of Animals* envisage the inscription,

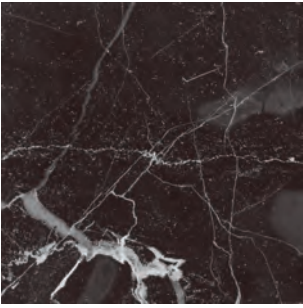


Fig. 7.52 *Black veined marble from Carrara.*

²¹² “Il fine principale di tutte le pietre è propriamente l’essere dure e colorite: dure, perch’elle sieno permanenti; e colorite, perché si riconosca l’una sorta dall’altra. Dalle quali qualità nasce in loro quel tanto di bellezza che vi si vede. Perciocché i colori portano con esso loro vaghezza, e le durezze il lustro o vero risplendenza; le quali amendue qualità si appropriano alla bellezza. E non ha dubbio alcuno che, quanto più lustrante e colorita sarà alcuna pietra, tanto più sarà bella nel genere suo.” Vincenzo Danti, *Trattato delle Perfette Proporzioni*, in *Trattati* I, p. 244.

by the mother, of some kind of latent form in the *katamenia*. That realization helped lifting the conviction that the entire burden of infusing form in matter needed necessarily to be incumbent upon the artificer.

The theories ‘naturalizing’ the artistic creation processes as they emerged under the rule of Cosimo I de’ Medici, viewed the domain of the arts (the *manifatture umane*) in perfect continuity with the natural chains of causality (originating in the heavens). And thus they shifted the focus from the artist and artificer as source of agency and intentionality to higher, more remote, natural and necessary forces. Within this ‘physiocratic order’, forms directly caused by nature, such as the pattern of a variegated marbled, more ‘necessary’ or less ‘accidental’ than any artist’s invention, acquired a higher ontological status in the classification of objects liable to aesthetic appreciation.

This observation explains for a great part the sudden interest, from the 1560’s onwards, for works of art such as *pietre dure commessi* in which the balance between the pre-eminence of the work’s materiality on the one hand and a formal *concetto* on the other decidedly tended towards the former. Matter ends up prevailing over mind. If these works of art were indexing some kind of agency, it was the agency of Nature; it was the agency of the heavenly bodies. Slave labor and the use of machines reduced the artisans’ contribution, formerly thought essential in the manufacturing of any *composto*, to a purely quantitative and no longer qualitative character. Through the association of such artefacts with the Grand-Ducal authority, the latter was invested with a sense of absolute “necessity” that constituted the very core of its propaganda. Within these works of polished hard stone, art no longer figures as the real protagonist in the genesis of form and humbly steps aside to perform its servile role as *coadjutor* of nature.

Vincenzo Danti had observed that:

The principal finality (*fine*) of all stones is specifically their being hard and colored: hard, so that they would last eternally; coloured, so that one might distinguish one species (*sorta*) from the other. These qualities engender that profusion of beauty one observes in them. Because colours bring along loveliness, and the hardnesses allow for brilliancy (*lustro*) or rather resplendence; which two qualities amount to beauty. And there is no doubt whatsoever, that, the more brilliant and coloured a stone will be, the more beautiful in its kind.²¹²

By revealing both colour and shininess, the processes of cutting and polishing thus help to realize the finality (*fine*) of the stones. These operations are thus in a way

similar to the process by which the natural heat of a brooding hen, or the artificial heat of an incubator will bring the substance of an egg to its finality, that is to say, to the form of a chicken. Assisting at the process of the polishing of hardened stones, and their metamorphosis from indistinctness into bright colour and shininess, the visitors of the *Pietre dure* workshops in the Galleria degli Uffizi must have had the impression that they were witnessing a natural process. It is important to bear in mind the display of the polishing operations: spectators were brought to see the polished stone's birth, its *nascimento*, its *natura*. Stone commessi were meant not only to display *natura naturata*, but also to imitate *natura naturans*.

CHAPTER EIGHT:
Benvenuto Cellini
The recalcitrant agent





Fig. 8.1 Benvenuto Cellini, Bronze portrait bust of Duke Cosimo I de' Medici (detail), 1546. Florence, Bargello.

¹ Cellini mentioned in his autobiography contacts with Varchi's brother, nicknamed *il Grasucio*, as early as 1523. Fleeing Florence and a death sentence pronounced against him (due to a bloody incident he caused), Cellini was helped by *il Grasucio* when, disguised as a monk, as he just sneaked outside Florence's city walls. See Benvenuto Cellini, *Vita*, ed. Ettore Camesasca (Milano: Biblioteca Universale Rizzoli, 1985), I.19, p. 118. In the years 1535-36, as numerous letters attest, Varchi acted as the main intermediary between Cellini and Bembo when the goldsmith was preparing his splendid medal of Bembo. These letters have been published in Eugène Plon, *Benvenuto Cellini* (Paris: E. Plon et cie, 1883), pp. 330-334. For mentions of this medal in the *Vita*, see Cellini, *Vita*, I.94, pp. 320-321.

² Cellini, *Vita*, I.84, p. 291.

³ *Ibid.*, I.84, p. 293.

A. CELLINI'S FLORENTINE CAREER: AUTHORSHIP AND RESISTANCE

An figure particularly worth studying more closely in our discussion of Cosimo's creation of a Physiocracy and our study of the corresponding 'hierarchically embedded agent/patient relationships' is that of Benvenuto Cellini. As a courtier and master artisan of the Duke of Tuscany, Cellini adopted an ambiguous position in these matters: on the one hand he eagerly embraced the notions, dear to the Duke, that I have described earlier (such as the 'pyrotechnical' view on the classification of the arts, a 'physiological' approach of the creation process, and a tendency to 'vivify' or animate art objects), while on the other hand he categorically refused to accept the logic that pushed the Ducal employees to adopt a passive, receptive, 'feminine' attitude in the established hierarchy of artistic initiative. A refusal one is led to consider as the cause for his eventual fall from grace and the sudden end to his artistic career. Benvenuto Cellini is the prototypical bad weed in the Duke's blooming orchard. It is in fact to him in the first place that the severe speech of the *luogotenente* Vincenzo Borghini, mentioned in chapter 5, was addressed.

Cellini's career displays some interesting parallels with that of Benedetto Varchi. Both men were native Florentines of the same generation (Cellini, born in 1500 was three years Varchi's elder) and knew each other from youth.¹ They belonged to the same circle of friends which also included prominent figures such as Luigi Alamanni, Guido Guidi, Annibale Caro, Antonio Allegretti and Albertaccio del Bene. In Florence, as we have seen, Cellini was also a member of the circle of artist-friends around Luca Martini, whom the Florentine goldsmith in the *Vita* called, like Varchi did, his "carissimo amico".² In 1535 Varchi would write a poignant sonnet in memory of Benvenuto ("quella chiara alma amica, in cui fioria virtù cotal") as he had received from Rome the false notice of Cellini's death.³ We may reasonably assume that Varchi's presence in Florence played a role in Cellini's decision to put an end to his own exile and abandon his enviable position at the French court of François I. Benvenuto arrived in Florence in 1545 and immediately set to work on the monumental commission Cosimo I de' Medici had assigned him: the realization of a larger-than-life bronze sculpture of *Perseus* to be placed under the Loggia de' Lanzi (the same place where in 1550, while the *Perseus* was in preparation, the gigantic skeleton of the Duke's Sperm Whale would come to hang). The realization of this unprecedented work monopolized much of Cellini's energy in the following years. The bronze *Perseus* was cast in 1549, but the extremely laborious finishing process delayed its official inauguration to 1554; when unveiled it was almost unanimously hailed a masterwork. Despite the understandable satisfaction of both parties a conflict soon arose between the sculptor and the Duke about the fee for the work. Cellini complained that

- ⁴ Michael Rocke, *Forbidden friendships: Homosexuality and male culture in Renaissance Florence* (Oxford: Oxford University Press, 1997), p. 233.
- ⁵ Rocke labelled the law a “hardening of attitude toward sodomy and a repressive turn in measures to police it.” *Ibid.*, p. 234. For the text of the law, see Cantini, vol. I, pp. 211–213.
- ⁶ Michel Plaisance, “Culture et Politique à Florence de 1542 à 1551: Lasca et les Humidi aux prises avec l’Académie Florentine,” in *Les écrivains et le pouvoir en Italie à l’époque de la Renaissance, Deuxième série* (Paris: Université de la Sorbonne Nouvelle, 1974), p. 155, note 23.
- ⁷ Domenico Zanre, “‘Che K.zo vuol dire?’ A Re-Reading of Mid-Sixteenth-Century Linguistic Debates in the Accademia Fiorentina,” *Italian Studies* 53 (1998), pp. 30–31.
- ⁸ For a reprint of that letter, see Margaret A. Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy* (New York: Palgrave Macmillan, 2003), appendix I, pp. 147–148.
- ⁹ In 1562, for instance, Cellini was (according to his own account) invited by Catherine de’ Medici, the widow of the French King Henry II, to complete her husband’s funerary monument. Cosimo, though, did not even answer to the sculptor’s request for a permission to leave, but would have observed deridingly to the man who had formulated the request in Cellini’s name, that “Benvenuto is that valiant man that everybody knows, but today he doesn’t want to work any longer”. (“Benvenuto è quel valente uomo che sa il mondo, ma ora lui non vuole più lavorare”) Cellini, *Vita*, II.112, p. 646.
- ¹⁰ *Vita di Benvenuto Cellini orefice e scultore fiorentino...*, Colonia: Pietro Martello, s.d. [1728].
- ¹¹ Benvenuto Cellini and Johann Wolfgang von Goethe, *Leben des Benvenuto Cellini, Florentinischen Goldschmieds und Bildhauers, vom ihm selbst geschrieben. Übersetzt und mit einem Anhang hrsg. von (J. W. v.) Goethe.* (Tübingen: Cotta, 1803).
- ¹² See Richard Fisher, “‘Ein Repräsentant seines Jahrhunderts’: A portrait of the Artist in Goethe’s *Anhang* to the Autobiography of Benvenuto Cellini,” *Michigan Germanic Studies* 14, no. 2 (1988): 85–105, p. 89.
- ¹³ See Angela Biancofiore, *Benvenuto Cellini artiste-écrivain: l’homme à l’oeuvre* (Paris – Montréal: L’Harmattan, 1998). This book proposes a very detailed reading of the original manuscript of the *Vita*, now in the Biblioteca Medicea-Laurenziana (Cod. Med. Pol. 234²). Biancofiore observed: “La plupart des premiers interprètes de cet ouvrage singulier [...] étaient persuadés que l’auteur ‘écrivait comme il pensait’: s’agirait-il alors d’une forme miraculeuse d’écriture spontanée ? L’une des préoccupations de notre travail est de démontrer précisément le contraire, puisqu’il s’agit d’une écriture profondément traversée de références littéraires parmi lesquelles figurent Dante, Pétrarque, Boccaccio, Villani, Pulci, Grazzini, Macchiavel et d’autres auteurs.” pp. 12–13. See also Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*. Gallucci draws her reader’s attention to “The meticulous, almost “maniacal” attention to detail in Cellini’s writings” which “recalls the jeweler’s eye for small detail.” p. 22. See also Victoria C. Gardner Coates, “‘Ut vita scultura’: Cellini’s Perseus and the self-fashioning of artistic identity,” in *Fashioning identities in Renaissance art*, ed. Mary Rogers (Aldershot, [England]; Brookfield, VT: Ashgate, 2000).

the sums he had advanced for the payment of the materials had still not been reimbursed. Three years after the inauguration of the *Perseus*, the sculptor and goldsmith was convicted of the crime of sodomy perpetrated on one of his young shop assistants. Cellini never denied the facts, which were aggravated by their repeated character.

In a context where the spheres of politics and sexuality became increasingly and antagonistically intertwined, sodomy was perceived by Cosimo as a personal affront to his position as the city's ruler.⁴ Committed to eradicate this "crime against Nature", the Duke had created on July 8th 1542 a particularly harsh law against sodomy, (*Bando sopra la bestemmia e la sodomia*),⁵ which incidentally, as Michel Plaisance already remarked, had provided him with "an additional weapon against his enemies".⁶ Domenico Zanre recently pointed to the connection between the *bando* and Cosimo's 1548 even harsher law declaring the crime of *lesa maestà* ('wounding of the Prince's majesty') a capital offence.⁷ It is under the terms of the first *bando* that Benvenuto Cellini was sentenced by the Otto di Guardia, in March 1557, to a four-year prison sentence. The Duke, responding to a letter of supplication Cellini sent him from his prison cell, mitigated the verdict by transmuting the years of imprisonment into house-arrest.⁸ Yet despite this apparent sign of clemency, the conviction coincided with Cellini's fall from the court's grace. In the following 14 years between his condemnation and his death in 1571, the artist would not receive any significant commission, while his pleas for obtaining the right to travel abroad were systematically refused.⁹

It is in this context of intense frustration and of feeling trapped that Cellini started to write a series of literary works, among which his autobiography, that he started in 1558, holds a most particular place. Cellini's *Vita* only circulated in manuscript form during the artist's lifetime (unlike the artist's treatises on the goldsmith's art and on sculpture, published three years before his death, in 1568). The *Vita*, which remains, until today, a profoundly disturbing yet fascinating text, was only published for the first time in 1728.¹⁰ From thereon, the book would know an increasing success. Modern readers, from Goethe (who first translated the *Vita* in German)¹¹ to Burckhardt, considered the central protagonist of the *Vita* prototypical of the emancipated Renaissance individual: as Goethe stated it, "robustly conscious of his individual *virtù*, while summarily reflecting all the incongruities of his age."¹² Those authors read the *Vita*, the earliest surviving autobiography of an artist, as the disarmingly honest confessions of an impulsive character, written in a touchingly naive prose. However, recent studies of the *Vita* that place it in the continuity of Cellini's rich written oeuvre (which includes the double art treatise but also a sizable corpus of poems) revealed its literariness: a conscious attention for narrative strategies, literary references and puns, hidden under a seemingly unadorned, almost oral style.¹³ That kind of perspective on the sculptor's autobiography is also useful to fully appreciate the immediate

¹⁴ On the *Vita* as the late Cellini's attempt to solve the problem of his self-validation, see Jane Tylus's illuminating article on Cellini in her volume on the vulnerability characterizing authorship of many a European writer in late 16th and early 17th Century. Jane Tylus, "The Merchant of Florence. Benvenuto Cellini, Cosimo de' Medici, and the *Vita*," in *Writing and vulnerability in the late Renaissance* (Stanford, Calif.: Stanford University Press, 1993), pp. 31-53.

¹⁵ The episode is partly known from a letter of thanks Cellini sent to Varchi on May 22, 1559. See Cellini, *Vita*, p. 58; but the original manuscript of the *Vita* (which is partly written by Cellini's own hand, and mostly by that of Michele di Goro Vestri, his amanuensis), features several of Varchi's autograph corrections. On these corrections, see Biancofiore, *Benvenuto Cellini artiste-écrivain: l'homme à l'oeuvre*.

¹⁶ Letter from Cellini to Varchi, May 22, 1961. From Plon's translation: See Plon, *Benvenuto Cellini*, p. 99. Cellini's illegitimate son, Giovanni, was born in 1561 and legitimized by the Duke in a decree of November 20th 1561.

¹⁷ See Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, p. 146.

motives of the author in writing it. And these motives appear to be both an attempt to justify his life-choices as well as a vindication. The *Vita*, in which Cellini describes the story of his life from his birth until 1562, reveals itself as the ultimate attempt of an old frustrated artist, deprived of his habitual means of expression, to re-fashion his own damaged self.¹⁴ That refashioning is operated through the glorification of his own heroic accomplishments on the one hand, and the brutal disparaging on the other hand of those individuals who contributed to his own downfall, among whom Cosimo incontestably holds a place. Cellini's bitter sense of being isolated echoes that of Varchi who seems to have lived the last decade of his life in similar conditions. Both friends appear to have benefited from some mutual support. Varchi strongly encouraged Benvenuto in his biographical project: when Cellini presented him in 1559 the first part of his manuscript asking for corrections and stylistic improvements, Varchi famously observed that it was perfect as it was.¹⁵ In 1561, Cellini wrote a poignant letter to his friend asking him to compose an epitaph (in Latin or the vernacular) for a humble funerary monument to his deceased son, to be placed in the convent of the Annunziata. The first words of that letter reveal the sculptor's personal distress at the twilight of his life:

I have to tell you that I lost my only son. He was almost raised [the boy was about three]. For whole my life I think I never owned anything that was dearer to me. Death took him from me in four days, and the pain I suffered was such that I thought about following him. It is clear that I could no longer, today, wish for such a treasure.¹⁶

The paradox of history is that through the *Vita* we are left with an image of Cellini as a stout adventurer-hero, prefiguring, as Gallucci observed, *The three Musketeers* and Casanova, while in reality he spent the last third of his life at the service of a patron who had known exactly how to exploit, to belittle and eventually to silence him.¹⁷

The need to silence Cellini surfaced unsurprisingly after the completion of the *Perseus*. After he had obediently and brilliantly executed his masterwork, Cellini, who was trying to get the maximum out of his fee and threatened to leave Florence in search of another patron, must have become burdensome to his employer. Rather than facing the threat of Cellini entering the service of a political rival, Cosimo used the pretext of sodomy to pin down the sculptor in Florence. He might as well have eliminated him.

The need to resort to this radical measure was imposed by Cellini's utter unsuitability to the rigid power-structure of Cosimo's court. As the *Vita* illustrates on many occasions, Cellini gets into trouble whenever a situation forces him to quit the manly, active, dominant role he was keen to adopt in any social exchange. Cellini's contemporaries noted that he never had been able to behave appropriately towards patrons. In a letter from Rome in 1539, Annibale Caro reported to Luca Martini that the pope Paul III had

¹⁸ Annibale Caro, *Lettere familiari*, ed. Aulo Greco (Florence, 1957), vol. I, p. 162.

¹⁹ “Ora, se bene potrei molto più allargarmi nell’opere di Benvenuto, il quale è stato in tutte le sue cose animoso, fiero, vivace, prontissimo e terribilissimo, e persona che ha saputo pur troppo dire il fatto suo con i principi, non meno che le mani e l’ingegno adoperare nelle cose dell’arti, non ne dirò qui altro, attesoché egli stesso ha scritto la Vita e l’opere sue...” *Vite* G 6, (‘Degli Accademici del Disegno’), p. 246.

²⁰ Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, p. 111.

²¹ “There is therefore a lust for revenge, which is called anger; there is a lust of money, which goes by the name of avarice; there is a lust of conquering, no matter by what means, which is called opinionativeness; there is a lust of applause, which is named boasting. There are many and various lusts, of which some have names of their own, while others have not. For who could readily give a name to the lust of ruling, which yet has a powerful influence in the soul of tyrants, as civil wars bear witness?” Augustine, *The City of God*, XIV, 15. (Philip Schaff, ed. New York: The Christian Literature Publishing Co., 1890).

²² Michael Rocke, “Gender and sexual culture in Renaissance Italy,” in *The Italian Renaissance. The essential readings*, ed. Paula Findlen, Blackwell essential readings in history (Malden, MA: Blackwell, 2002), p. 208.

commented on Cellini's way of addressing authorities by observing that he feared more "what [Cellini] can do or say in the future than what he has done or said in the past".¹⁸ Vasari, in his brief account from the 1568 edition of the *Vita*, calls the sculptor both "audacious, proud, vivacious, over-fervent and most terrible (*terribilissimo*)" as well as "a person who has been only too well able to speak for himself with Princes".¹⁹

Cellini's personality, as can be reconstructed from the testimonies that came down to us, exemplifies, in an exacerbated degree, the culturally determined need for Renaissance adult men to demonstrate their own manliness. The notion of *virtù*, in the sense of manliness and the perpetual quest for honour, does indeed dominate every aspect of the sculptor's personality to a degree that is almost unparalleled in any other Western artist. The *Vita* is "a litany of proclamations of masculinity"²⁰ that surprises by its utter lack of moral inhibition. As any reader of the *Vita* remembers, Cellini did not censure the episodes in which he raped, mutilated or murdered. The string of events related in the book reads as a self-conscious celebration of Cellini's own *libido dominandi*, the formula under which Augustine had grouped the desire for vengeance, the lust for money, the yearn to defeat opponents and the lust for fame.²¹ Murderous acts of vengeance, artistic feats, and sexual assaults on female courtesans, models or servants are narrated on the exact same bragging tone with which Cellini described his military exploits, such as his defence of the Castel Sant' Angelo during the 1527 sack of Rome.

Some present-day observers might wonder how one should relate Cellini's sexual interest in boys (scantly evidenced in the *Vita*, but dominant as a theme in the poetry and widely documented elsewhere) with those displays of masculinity. Studies on Renaissance sexuality such as Michael Rocke's *Forbidden Friendships* have revealed that there was no perceived contradiction between living one's own manliness and having intercourse with partners of the same sex. Same-sex relations in Renaissance Italy corresponded to a strictly hierarchical pattern, in which adult males took the sexually 'active' role in intercourse with 'passive' teenage boys or adolescents. As Rocke observed elsewhere: "Sex between males thus always embodied oppositions – older and younger, active and passive, penetrator and penetrated. These were far from neutral distinctions, for contrasting values related to gender adhered to them, values such as dominance and submission, honour and shame, and, not least, masculine and feminine."²²

A far greater continuity was perceived than one might imagine in engaging in sex with women or male adolescents. The formulation of the 1557 Sentence convicting Cellini of sodomy is in this context revealing. The council for criminal justice (*Otto di Guardia*) noted that:

...for about the last five years this Cellini had kept as his boy Fernando di Giovanni da Montepulciano, a youth whom he used most frequently sexually

- ²³ "...perché circa di cinque anni or sono passati esso ha tenuto per suo ragazzo Fernando di Giovanni da Montepulciano, giovanetto con il quale ha usato carnalmente moltissime volte col nefando vizio di sodomia, tenedolo in letto come sua moglie..." Sentence of the Otto di Guardia, dated 27 February 1557; reprinted with translation in Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, Appendix 3, pp. 153-154.
- ²⁴ Margaret A. Gallucci, "Cellini's trial for sodomy: Power and patronage at the court of Cosimo I," in *The cultural politics of Duke Cosimo I de' Medici*, ed. Konrad Eisenbichler (Aldershot, [England]; Burlington, Vt.: Ashgate, 2001), p. 39.
- ²⁵ In one of his most ferocious poems, Cellini wishes his two arch-rivals in art, Baccio Bandinelli and Giorgio Vasari (referred to with the mocking diminutive *Giorgetto*) to be raped "by all things". The sonnet ends with the lines: "ongi cosa entri in culo al Bandinello;/ e se non ha cervello,/ per l'uno e l'altro polo io vi prometto/ ch'ogni cosa enterrà in culo a Giorgetto.// S'e' non ha più diletto, sel torrà in culo la sua pulita moglie,/ che può cavarsi tutte le sue voglie./ Son poeta da coglie, perch'ho 'l pel bieco e già l'avevo nero:/ basta così ridendo dirvi il vero." Cited, with a translation, in Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, pp. 62-63.
- ²⁶ See in this regard Jean G. Péristiany, *Honour and shame: the values of Mediterranean society* (London: Weidenfeld and Nicolson, 1966) and Julian Alfred Pitt-Rivers, *Mediterranean countrymen: essays in the social anthropology of the Mediterranean* (Westport, Conn.: Greenwood Press, 1977).
- ²⁷ The wearing of both offensive weapons and defensive clothing was strictly regulated by the 'magistracy of the Eight' (*Otto di Guardia*); in 1562, Cellini had to petition Cosimo himself to obtain the right to wear weapons and chainmail (*camicia di maglia*). The letter in question, addressed to the Duke and dated 20 August 1562, is reprinted in Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, Appendix 3D, pp. 115-116.
- ²⁸ Edward Muir, "The double binds of manly revenge," in *Gender rhetorics. Postures of dominance and submission in history.*, ed. Richard C. Trexler, Medieval & Renaissance Texts & Studies (Binghamton, NY: Centre for Medieval and Early Renaissance Studies, 1994), p. 80.
- ²⁹ "Avedutosi il Re di quello isdegno e io vinto dalla passione, volsi cominciare a parlare: subito il savio Re disse queste formate [=testuali] parole in sua lingua: 'Benvenuto, io ti taglio la parola: si che sta cheto, e arai più tesoro che tu non desiderer, l'un mille.'" Cellini, *Vita*, II.41, p. 499.
- ³⁰ "...mi comandò con una grande e paventosa voce chio io non parlassi più parola, ché guai a me; e poi aggiunse che mi affogherebbe nell'oro." *Ibid.*, II.46, p. 507.
- ³¹ "Da poi si partì, e mi disse: 'Addio, *mon ami*: qual gran parola a un re non si usa.'" *Ibid.*, II.46, p. 507.
- ³² "...perché, essendo io della famiglia del castello..." *Ibid.*, I.34, p. 166.

engaging in the most despicable vice of sodomy, keeping him in bed as if he was his wife...²³

The reference to the young Fernando, “used by” Cellini, as his “wife” follows a then current pattern of feminization of the passive partner in sodomy denunciations which were also currently referred to as whore, bitch, woman.²⁴ The posture of dominance and even aggression associated with the ‘active role’ in a sodomitic encounter is also exemplified by Cellini’s use of sodomy as “his preferred mode of attack” in his satirical poetry.²⁵

As an epitome of the traditional Mediterranean culture of male domination,²⁶ Cellini would become something of an anachronism in Cosimo’s regime where courtier-artisans, as we have seen, tended to be no longer the owners of their virtues. By measures such as the 1542 sodomy law, or the laws strictly restraining the right to wear daggers, swords and defensive clothing,²⁷ Cosimo had engaged in a finely tuned effort to mollify or neuter his (male) subjects by removing the ground or the means for much violent agonistic behaviour. By judicially imposing the ideal of courteous restraint that was to gain ever more importance in the Early-Modern ‘civilizing process’, these laws were perceived by contemporaries as contributing to the “feminization of public life”, as Eduard Muir labelled it.²⁸

Jane Tylus has argued that Cellini’s maladjustment to the court of Cosimo I sprang from his earlier career and his being accustomed to more ‘traditional’ modes of patronage (in his dealings with figures such as pope Clement VII and the French King Francis I) that were regulated by the symbolic economy of nourishment, gift-giving, and forms of reciprocity irreducible to purely monetary exchanges. In the *Vita*, for instance, Cellini mentions with glee how “that great King” of France had told him at one point of an animated discussion to shut up since he would be given a thousand times more than what he desired.²⁹ At another occasion the King ordered his sculptor to silence by belittling, as Cellini recounts, “...that he would drown me in gold.”³⁰ The *Vita* stages these two verbal exchanges in such a way that the King is only able to trade his authority (the right to silence Cellini) by a promise of priceless reward. It is the transaction between two equals, from man to man. The last cited exchange, in fact, came to an end when Francis left Cellini with the words, “Good-bye, *mon ami*”; words (*mon ami*), as the artist himself recognizes, hardly ever heard from the mouth of a king.³¹ Cellini’s relation with that other earlier patron, pope Clement VII seems to have been similarly affectionate: the good understanding on artistic matters together with his behaviour at the siege of the Castel Sant’Angelo during the sack of Rome had tightened bonds to such a degree that Benvenuto counted himself “of the family” of that pope.³²

Tylus’ point is that, much unlike the Popes and Kings of the ‘golden age of patronage’ with whom Cellini had first dealt, Cosimo stood for an impersonal, bureau-

³³ “Singularissimo mio patrone, le vere suppliche e i veri nostri patti non consistono in queste parole né in questi scritti, ma sì bene il tutto consiste che io riesca con l’opere mie a quanto io l’ho promesse; e riuscendo, allora io mi prometto che vostra Eccellenza illustrissima benissimo si ricorderà di quanto la promette a me.” Ibid., II.53, p. 522. (All translations from Cellini’s *Vita* are based on the translation of John Addington Symonds, *The autobiography of Benvenuto Cellini* (New York: Modern Library, 1985).

³⁴ The observation appears right after Cosimo’s proposal to draft a contract for the Perseus, in II, 53. The author of the *Vita* regrets his unawareness, at that time, of Cosimo’s true nature, which eventually would cause him much trouble: “Certamente che se io fossi stato astuto a legare per contratto tutto quello che io avevo di bisogno in queste mia opera, io nonarei àuto e’ gran travagli, che per mia causa mi son venuti: perché la volontà sua si vedeva grandissima sì in voler fare delle opere e sì nel dar buon ordine a esse. Però non conoscendo io che questo Signore aveva più modo di mercatante che di duca, liberalissimamente procedevo con sua Eccellenza, come duca e non come mercatante.” Cellini, *Vita*, II.53, p. 522.

³⁵ Ibid., p. 19.

cratic and basely economic approach to the remuneration of his artisan-courtiers; a logic that Cellini met with total incomprehension. Benvenuto refused, for instance, to prepare a contract that would carefully itemize the supplies needed for casting the commissioned *Perseus*. Benvenuto's reaction to this offer demonstrates how he considered the distrust of the given word that such a contract entails an insult to his professional integrity. According to the *Vita*, the sculptor textually replied:

Most rare patron, the real petition and the real agreement do not consist in these words or in these documents, they depend on how far I succeed in doing the work as I promised; and if I do succeed, then I am certain that your Most Illustrious Excellency will remember only too well all that you promised me.³³

When, upon the completion of the *Perseus*, Cellini received the visit of Cosimo's secretary who asked how much exactly he wanted for it, Benvenuto reacted with a tenfold version of that irritation. He was at first speechless; then when threatened to lose his Excellency's favor unless he specified his price, he burst out in anger, boasting that not even ten thousands crowns would be enough. That excessive remark, as Tylus observed, is a clear sign of the artist's disgust at valuing his work at a fixed price, a practice Cellini clearly considers un-liberal and reducing his inimitable feat to a simple act of producing goods for an anonymous market.

To Cellini, procedures such as the drafting of a preliminary contract appeared unworthy of true princes; they elicit his famous observation that Cosimo behaved more like a merchant than a Duke.³⁴

Tylus is probably right when stating that Cellini's inadaptedness to the Medici-court of the 1550's and 1560's is (partly) due to his incapacity to deal with Cosimo's distant, cold and impersonal way of closing deals, even with prominent collaborators, a way of administrating for which inspiration came from early modern capitalist corporations such as the Medici banks. Such businesslike exchanges between the prince-executive and the courtier reduced to the status of contractor eluded direct confrontations. In the scene mentioned above, Cosimo significantly sent his secretary to question Cellini on his price, thus blocking off the kind of direct contacts that might have reminded the Duke of their "real [that is, verbal] agreement", and "all that you promised me."

The second part of Cellini's *Vita*, describing the events from 1540 until 1562, and thus for the most part dedicated to the time Cellini spent in Cosimo's service, reads as a sequence of desperate attempts to provoke the Duke's reaction. Ettore Camesasca in fact labelled the entire *Vita* "a dialogue between Benvenuto and Duke Cosimo I".³⁵ An imagined dialogue, one should add, since in real life the Duke remained mostly silent to Benvenuto's provocations.

Several of those systematic attempts to elicit the Duke's reaction are outright insults. As I will argue in what follows, a vast amount of these more or less implicitly offending remarks embedded in the *Vita* challenge Cosimo's competence in what I have designated above the "master arts" (what Cellini's friend Varchi described as the *arti architetonici*, the architectonic arts), while claiming expertise in these for himself. In all the episodes of the *Vita* describing confrontations with Cosimo, Cellini appears animated by a never declining agonistic drive to challenge the worth of his patron.



Fig. 8.2 Benvenuto Cellini, *Perseus and Medusa group (detail)*, 1545-1554. Florence, Loggia dei Lanzi.

³⁶ “...avviatosi per andarsene, lo inbasciatore di Lucca disse al Duca: ‘Signiore, questo vostro Benvenuto si è un terribile uomo’. Il Duca disse: ‘Gli è molto più terribile che voi non dite; e buon per lui se e’ non fussi stato così terribile, perché gli avrebbe auto a quest’ora delle cose che e’ non ha aùte.’” *Ibid.*, II, 100, p. 625.

³⁷ “Avendo io grandissimo desiderio di cominciare a lavorare, dissi a sua Eccellenza che io avevo bisogno d’una casa, la quale fussi tale che io mi vi potessi accomodare con le mie fornaciette, ...” *Ibid.*, II, 54, p. 522.

³⁸ “Vennimi in questo tempo un poco di male alle rene; e perché io non potevo lavorare, volentieri mi stavo in guardaroba del Duca con certi giovani orefici, che si domandavano Gianpagolo e Domenico Poggini, ai quali io facevo fare uno vasetto d’oro, tutto lavorato di basso rilievo, con figure e altri belli ornamenti: questo era per la Duchessa, io quele sua Eccellenza fecava fare per bere dell’acqua. Ancora mi richiese che io le facesse una cintura d’oro, e anche quest’opera ricchissimamente, con gioie e con molte piacevole invenzioni di mascherette e d’altro: questa se le fece. Veniva a ogni poco il Duca in questa guardaroba, e pigliasi piacere grandissimo di veder lavorare e di ragionare con esso meco.” *Ibid.*, II, 58, p. 531.

B. CELLINI'S PERSONAL CONTEST FOR PRE-EMINENCE

It is with some reason that Cosimo referred to Cellini as “*terribile uomo*”.³⁶ As we shall see in this section, all along the *Vita* the goldsmith-sculptor ridiculed many of the skills and expertises that had come to form the very fabric of the Duke's personal authority over his subjects: While contemporaries highly esteemed Cosimo's knowledge of gems and metals, Benvenuto deemed them below the average. As we shall see, when discussing the casting of the *Perseus*, Cellini compared his mastery of the art of bronze-casting to equal and even exceed that of the Duke's best gun-casters. Elsewhere he depicts himself as far more competent in designing fortifications than the most knowledgeable ducal military engineers. If we have to believe the *Vita*, Benvenuto, in his early twenties, carried out experiments with gunpowder that led him to the discovery of secrets still undiscovered by anybody by the time the *Vita* is written. Eventually, the artist depicted himself as being a born leader, bent on giving orders and coordinating people, as well as being a professional killer, even within his own profession and with the means proper to that profession. The reader of the *Vita* is alternatively presented with a protagonist shooting small game with a self-made gun, or stabbing adversaries with self-produced daggers. Simultaneously, the reader also discovers an artist set to astound and neutralize his public and his rivals with medals, jewels and sculptures indexing baffling levels of *virtù*.

1. Metalcasting

Cellini explains in his *Vita* how, upon his arrival in Florence and receiving the commission of the *Perseus*, he immediately summoned the Duke to provide him with a house (just as François I had given him a residential castle, *Le Petit Nesle*), that needed to be big enough to contain all the furnaces the artist needed.³⁷ Eventually, Cellini would have a workshop built on the grounds of the house he was given. The site, where the casting of *Perseus* was to take place, figures in the *Vita* as Benvenuto's own private *fonderia*, one that stands in direct competition with the premises of the Duke in the Palazzo Vecchio. Many episodes narrated in Book II, relate alternatively Benvenuto's visits to the workshops of the Duke (referred to as the *guardaroba*), and Cosimo's own visits to the workshop of the sculptor. Cellini always describes himself as obliged, much against his own liking, to spend time at the Palazzo Vecchio, thus obeying the Duke's whims, who, after a tiring day, enjoyed watching his goldsmiths at work and having discussions with them about their art.³⁸ In one of the dialogues from the *Vita*, Cosimo in fact urges his sculptor to



Fig. 8.3 Benvenuto Cellini, *Saltcellar*, 1540-4543. Formerly in Vienna, *Kunsthistorisches Museum*.

³⁹ Cosimo's proposal comes immediately after the completion of Cellini's bronze portrait of the Duke, to which the following fragment refers: "Di questa opera sua eccellenza ne prese grandissimo piacere e mi pose tanto amore, che lui mi disse che gli sarebbe stato grandissimo a piacere che io mi fossi accomodato a lavorare in Palazzo, cercandomi in esso Palazzo di stanze capace, le quale io avessi di bisogno: perché pigliava piacere di tal cose grandissimo. A questo io dissi a sua Eccellenza che non era possibile, perché io non arei finito l'opere mia in cento anni." *Ibid.*, II.58, p. 531

⁴⁰ Cellini observed: "...il Duca sempre diceva che se ne intendeva benissimo..."; and in II, 73 puts the following words in his mouth: "Io fo professione di intendermene, e me ne intendo benissimo." *Ibid.*, II.53, p. 563.

⁴¹ In II, 73, Cosimo had first observed while looking at the wax Perseus: "Benvenuto, questa figura non ti può venire di bronzo, perché l'arte non te lo promette" (p. 562). The objection is detailed in II, 74, immediately followed by Cellini's reply: "...il Duca disse: 'Or dimmi, Benvenuto, com'è che quella bella testa di Medusa, che è lassù in alto in quella mano del Perseo, mai possa venire?' Subito io dissi: 'Or vedete, Signor mio, che se vostra Eccellenza illustrissima avessi quella cognizion dell'arte, che lei dicie di avere, la non arebbe paura di quella bella testa che lei dicie, che la non venissi; ma sì bene arebbe ad aver paura di questo piè diritto, il quale si è quaggiù tanto discosto. [...] Sappiate, Signore, che la natura del fuoco si è di ire all'insù, e per questo le prometto che quella testa di Mesua verrà benissimo; ma perché la nature del fuoco non è l'andare all'ingiù [...] è impossibile che quel piede venga; ma ei mi sarà facile a rifarlo.'" *Ibid.*, II.74, p. 564-565.

⁴² "...finendolo di scoprire, trovai che le dita non erano venute, di detto piede, e non tanto le dita, ma e' mancava sopra le dita un pochetto, a tale che gli era quasi manco mezzo; e se bene e' mi crebbe quel poco di fatica, io l'ebbi molto caro, solo per mostrare al Duca che io intendevo quello che io facevo." *Ibid.*, II.78, pp. 574-575.

⁴³ On Cosimo's penchant for the art of forging gems, see chapter 6, note 119.

⁴⁴ "Il nostro Duca, che si diletta grandemente di gioie, ma però non se ne intendeva" Cellini, *Vita*, II.60, p. 534.

⁴⁵ According to Cellini's version, the embroider Antonio Bacchiacca, who had been at work in the adjacent room, "ran up at the noise." On Cellini's preoccupation with speaking the truth: "Io son sempre stato amicissimo della verità e nimico delle bugie..." *Ibid.*, II.83, p. 583.

install his workshops in the Palazzo Vecchio, a suggestion vehemently refused by Cellini because in such circumstances, “not in a hundred years would I have finished my own works.”³⁹ In contrast to the sculptor, who was utterly displeased by his imposed visits to the *guardaroba*, the Duke was very eager to visit Cellini in his own premises. Benvenuto’s behaviour in these circumstances is that of the apprehensive artisan, profoundly distrusting the advices of a visitor who assertively professes his own expertise in the casting of metals.⁴⁰ The observations and comments given by Cosimo in the *Vita* are designed to illustrate the Duke’s ignorance, on even the elementary principles of these arts. The most conspicuous example of this is the Duke’s assertion, while inspecting the wax original of the *Perseus*, ready to be cast, that Medusa’s head would never come out well. At this Cellini answered that, if Cosimo had really been such an expert, he would have known that, since it is the nature of fire – and thus of molten bronze – to move upwards, and not downwards, it are the lower parts of the sculpture that are at risk to show some defect, not Medusa’s head.⁴¹ The *Vita* very much insists on the fact that this prediction, done in the presence of the Duke, did indeed come out. When unearthing the bronze after it had cooled down, Cellini discovered a defect at the tip of the *Perseus* right foot, exactly where he had predicted it.⁴² The detail becomes the tangible sign of Cellini’s complete mastery of his art, and, consequently, of the Duke’s ignorance.

2. Expertise in precious stones and jewellery

Cosimo has been described by his contemporary biographers as an expert in minerals and an adept of the practice of imitating gems.⁴³ Cellini on the contrary, who to his own displeasure was given several court commissions for precious *minutae* (small pieces of jewellery) whilst busy on the *Perseus* and therefore forced to frequently exchange his ideas on jewellery with the Duke and his wife, instead repeatedly stressed Cosimo’s ignorance on these matters. The Duke, according to Cellini, takes “great delight” in jewels, (*si diletta grandemente di gioie*), but has no sound judgement about them at all.⁴⁴ That harsh verdict is made in relation to an episode from the *Vita*, taking place soon after his arrival in Florence, in which Cellini had been asked his opinion on a diamond of more than thirty-five carats. Cosimo had already bought the (wildly expensive) diamond from his broker when he submitted it for approval to his courtier, who, typically less courtly than observant of his own ideal of truthfulness, felt obliged to point to its many shortcomings: its lack of purity and lustre, its cropped point. The dialogue between both men ended in angry shouting.⁴⁵ Cellini and his colleague-artisans, left behind in the room, are then depicted laughing at the Duke’s ‘simplicity’ (*simplicità*) in having been so easily duped by



Fig. 8.4 Ludovico Buti, *The Workshop of the Architect*. Frescoed ceiling, 1588. Florence, Galleria degli Uffizi, room 23 (former 'armeria').

⁴⁶ Ibid., II.83-84.

⁴⁷ Ibid., II, 85-86.

⁴⁸ "In questo tempo si destò la guerra di Siena; e volendo 'l Duca afforzicare Firenze, distribui le porte infra i sua scultori e architettori..." Ibid. II.85, pp. 587-588.

⁴⁹ Ibid., II.85, p. 588.

⁵⁰ Ibid.

his own gem broker. A few years later, a comparable episode took place, equally narrated in its tedious details by the author of the *Vita*, involving this time a flawed pearl necklace that Cosimo and especially his wife, Eleonora, had failed to identify as such.⁴⁶

3. Fortifications and weaponry

Cellini gave ample attention to two episodes from his life in which he was involved in planning military fortifications.⁴⁷ The first of these episodes occurred in 1553, during the war with Siena; Cosimo had ordered the reinforcement of Florence's military defence system, and assigned, to that effect, the different city gates "to his sculptors and architects."⁴⁸ Cellini was given the Porta al Prato and another, smaller gate. Colleagues such as Bandinelli, Tasso, Francesco da Sangallo, etc. were charged with directing the works at other bastions and gates. Instructions came from Cosimo himself, who had first examined the whole defence system and then verbally transmitted his intentions to a middleman, who was to trace out the individual solutions for every gate and bastion, and hand out to the sculptor/architects. Examining the middleman's plan for his gate, Cellini noted what he considered to be a huge mistake in the way it implemented the intention ("*era scoretissimo*"), and at once took to the Duke ("*subito con questo disegno in mano me n'andai a trovare il mio Duca*").⁴⁹ Cosimo first reacted with anger to the insolent remark, noting that he only would trust the sculptor when it comes to "*far benissimo le figure*", but not in these military and architectural matters. Where upon Cellini answered that even in artistic matters he had learned a lot from his discussions with the Duke. Why shouldn't Cosimo in turn not lend a listening ear to him on this? Cellini obtains permission to make his own drawn proposal, which, according to the narrative, vividly illustrated to the Duke all the defects of the first solution, whereupon the sculptor received *carte blanche* to go ahead with his plans for the two gates.

Cellini's boastful account succeeds at delivering blows both to the middleman, who is dismissed as a dilettant ("*questo Lattanzio si diletta alquanto di questa professione*"),⁵⁰ and to Cosimo who, in appointing that Lattanzio, had once again committed a serious error of *giudizio*.

A similar pattern is identifiable in the immediately following section of the *Vita*, in which the actual realization of the two gates is described. This time, the incompetent official with whom Benvenuto clashes is the Lombard captain commanding the garrison of the Porta al Prato. The man is staged as the prototypical Cellinian adversary: totally ignorant but presumptuous and defiant. His refusal or incapacity to grasp the sense of the plans for the *Porta* causes Benvenuto to lose his patience. In the text he calls

- ⁵¹ "...andai all'altra Porticciuola d'Arno, dove io trovai un Capitano da Cesena, il più gentil galante uomo che mai conosciessi di tal professione: ei mi dimostrava di essere una gentil donzelletta, e al bisogno egli si era de' più bravi uomini e 'l più micidiale che immaginar si possa. Questo gentile uomo mi osservava tanto, che molte volte ei mi faceva peritare; e' desiderava di intendere e io piacevolmente gli mostravo: basta che noi facevào a chi si faceva maggio carezze l'un l'altro, di sorte che io feci meglio questo bastione che quello, assai." Ibid., II.86, p. 590.
- ⁵² Cf. the preceding note. See also the fact that the captain is both described as most sweet and deadly efficient (*micidiale*); as "so receptive as to make me waver" ("*mi osservava tanto che molte volte ei mi faceva peritare*") that "he desired to understand, and I showed him with pleasure", etc.
- ⁵³ Most likely the actual Bagno di Romagna, on the extreme Eastern frontier of Tuscany.
- ⁵⁴ Cellini, *Vita*, II.94, pp. 606-607.
- ⁵⁵ Cellini described how the appointed head of artilleries of the castle, a certain Giuliano fiorentino lied weeping with misery at the sight of the plundering of Rome, and did not dare to shoot by fear of hurting persons of kin, so that Cellini had to take over the job. (I.34).
- ⁵⁶ According to Cellini's account, it was his stubborn will to fight that prevented the fall of the castle on May 6th and eventually convinced the actual gunners of the castle to take back their positions. "Io seguitavo di tirare [...] mi sforzavo di fare quello che io non potevo: basta che io fu causa del campare la mattina il Castello, e che quelli altri bombardieri si rimessono a fare i loro uffizii." Cellini, *Vita*, I.34, p. 167.
- ⁵⁷ "Io, che tal volta più era inclinato a questa professione che a quell'ache io tenevo per mia, la facevo tanto volentieri, che la mi veniva fatta meglio che la ditta." Ibid., I.34, p. 168.

the man a “beast”, he mocks his foreign accent, his long moustaches, his ridiculous beret, his pointless impetuosity. The implicit message, again, is how badly Cosimo picks out collaborators.

Against these characters that are true agents of hostility and defiance, stand, all along the *Vita*, a few exceptions: persons that appear to be remarkably compliant to the sculptor’s instructions. One of them is the captain commanding Cellini’s other *Porta* (“the most genteel *galante uomo* that I ever met”), whom the sculptor characteristically feminizes by calling him a “*gentil donzeletta*”, ‘a sweet little maiden’.⁵¹ The captain was a man after Cellini’s own heart; the bastion they produced together, Benvenuto confesses, was considerably better than the other one. In fact, their collaboration is described in such ambiguous terms (“*basta che noi facevano a chi si faceva maggior carezze l’un l’altro...*”) that one is at pains of determining whether Cellini is using a generation metaphor or had actually a relation with the captain.⁵²

The second episode took place about one year later. Immediately after the *Perseus* was entirely unveiled in late April 1554 (and before the troubles with the Duke), Cellini decided to undertake a pilgrimage of grace and gratitude for his recent success to some Tuscan sanctuaries. After having warned the Duke that he would be absent for a week, Benvenuto headed for Vallombrosa, Camaldoli and “Bagni”,⁵³ the latter a locality on the eastern frontier of the Duchy. While staying there, Benvenuto was incidentally informed by a clever local of an undetected weakness in the Duchy’s system of military defence, close to Camaldoli. On hearing of this breach, the zealous Benvenuto immediately decided to interrupt his pilgrimage and to report the fact as soon as possible to his patron. The next paragraph of the *Vita* features both Cellini and Cosimo, left alone in a room of the ducal palace, bent over a topographical drawing of the site in question and discussing military topography.⁵⁴

In both the episode of the planning of the bastions, and that of the breach at Camaldoli, the artist tried to convey an image of himself as a courtier with a real taste for leadership and a hypertrophied sense of responsibility. In a series of other passages from the *Vita*, Benvenuto provides his reader with other arguments to buttress his plea for the recognition of his expertise in planning and devising military infrastructure, by emphasising his expertise with weapons. The scene of the heroic defence of the Castel Sant’Angelo, recognized as the culminating point of the first part of his autobiography, is of course an occasion for the artist to emphasize his qualities as a military leader: cold-blooded readiness,⁵⁵ enticing enthusiasm,⁵⁶ and eagerness to kill. But Cellini reveals himself here above all as a master in artillery operations; in fact, he observes that his inclination to that art is such that he probably would have been better in that profession (artillerist) than in his own.⁵⁷ Cellini’s mastery as a gunner (*bombardiere*) is evidenced by a series of masterstrokes,

⁵⁸ Ibid., I.36, p. 174.

⁵⁹ “Tenevo uno scoppietto diritto, di mia mano; e drento e fuora non fu mai specchio da vedere tale. Ancora facevo di mai mano la finissima polvere da trarre, inella quale io trovai i più bei segreti, che mai per insino a oggi da nessuno altro si sieno trovati...” Ibid., I.27, p. 140.

⁶⁰ “e di questo [see citation above], per non mi ci stendere molto, solo darò un segno da fare maravigliare tutti quei che son periti in tal professione. Questo si era, che con la quinta parte della parlla il peso della mia polvere, detta palla mi portava ducento passi andanti in punto bianco.” Ibid., I.27, p. 140.

⁶¹ “ebbe perizia [...] e fu così esercitato e squisito imberciatore, che tirando con l’archibuso faceva colpi di singolar maraviglia...” Domenico Mellini, *Ricordo intorno ai costumi, azioni e governo del serenissimo Granduca Cosimo I ora per la prima volta pubblicati con illustrazioni* (Firenze: Stamp. Magheri, 1820), p. 67.

⁶² The inventory of Cellini’s household goods at his death mentions: “Two daggers, a knife ‘in the Turkish style’, two swords, and a *zagaglia*, a kind of long sword common to the sixteenth century.” Clothes of chainmail were also regular items in Cellini’s wardrobe. Gallucci, *Benvenuto Cellini: sexuality, masculinity, and artistic identity in Renaissance Italy*, p. 114–115. Further in the *Vita*, Cellini recalled with glee how Cosimo’s predecessor, Alessandro, had once let Benvenuto choose from his own *guardaroba* whatever gun he wanted. The invitation followed Alessandro’s observation that “he knew how much pleasure I took in such things [beautiful fireweapons]”. “Mentre che io gli parlavo, Sua Eccellenza era innella sua guardaroba e considerava un mirabile scoppietto, che gli era stato mandato della Alamagna: il quale bello strumento, vedutomi che io con grande attenzione lo guardavo, me lo porse in mano, dicendomi che sapeva benissimo quanto io di tal cosa mi dilettao, e che per arra di quello che lui mi aveva promesso, io mi pigliassi della sua guardaroba uno archibuso a mio modo, da quello in fuora, che ben sapeva che ivi ‘nera molti de’ più belli e così buoni. Alle qual parole io accettai e ringraziai [...] e scelsi il più bello e migliore archibuso che io vedessi mai, che io avessi mai, e questo me lo portai a casa.” Cellini, *Vita*, I.80, pp. 279–280.

⁶³ “...il gran piacere, che io traevo da questo mio scoppietto...” I, 27, p. 140. Further Cellini explains that the time he had lost to his art in hunting had been largely compensated by the tremendously positive effect both the open air and the pleasures of shooting had had on his melancholic nature: his hart at once bounced up in enjoyment, functioned better, and was replenished with quite some *virtù*. (“...tutte le volte che io andavo a questa mia caccia, miglioravo la vita mia grandemente, perché l’aria mi conferiva forte. Essendo io per natura malinconico, come io mi trovavo a questi piaceri, subito mi si rallegrava il cuore, e venivami meglio operato e con più virtù assai, che quando io continuo stavo a’ miei studii e esservizii: di modo che lo scoppietto a la fin del giorno mi stava più a guadagno che a perdita.” Ibid., I.27, p. 140.

⁶⁴ See Plon, *Benvenuto Cellini*, p. 108–109. Plon observed: “L’artiste ne s’est du reste pas vanté de cet exploit, raconté par Magliabecchi et par Jacopo Rilli, d’après une note manuscrite alors en possession d’un membre de l’Académie de Florence.” p. 109.

like that impossibly distant shot from his *girifalco*, to which Benvenuto had given “*un’ arcata meravigliosa*” that ended up slicing a Spaniard in two.⁵⁸

By the time he arrives at the episode of the *sacco*, the reader of the *Vita* is already well informed about Benvenuto’s enjoyed handling fire weapons. In the description of on his life in Rome in his early twenties, Cellini had explained how he used to spend his Sundays outdoors, amongst the antique ruins, both looking for *anticaglie* to draw or copy in wax, or for the pigeons to shoot since the birds abounded there. To do so, the goldsmith asked his young assistant to carry his small harquebus (*scoppietto*), a weapon of polished steel, that Cellini had made with his own hands and on which he recollects with tender nostalgia. He immediately adds that he had also manufactured the corresponding gunpowder himself, a process which had taken him beyond the limits of the available knowledge of that day:

I had a fowling-piece which I had made myself; inside and outside were as bright as a mirror. I also used to make a very fine sort of powder, a process that brought me to discover the most beautiful secrets, which, until today, have never been found by anybody else...⁵⁹

The quality of his gunpowder was indeed such that – and this, according to the author, will astonish the experts – with an amount of powder weighing one-fifth of the bullet, he was able to shoot, point-blank, at a distance of 200 paces.⁶⁰ This episode is to be read against the reputation of Cosimo, who was himself a particularly good shooter. Mellini, for instance, wrote of the Duke that in hunting “he had dexterity [...] and was such an experienced and exquisite aimer that with his harquebus he produced the most astonishing shots...”⁶¹

One is struck by the continuity, in Cellini’s account on his *scoppietto*, between the manufacturing of the weapon, the composition of a gunpowder perfectly proportioned to the gun, and the use of the harquebus “against the pigeons.” All three activities are described as the artful phases of one and the same sport. Cellini, who owned a rather important arsenal for an artist, drew as much pleasure out of producing the weapons as of owning and using them.⁶² Both the brilliant beauty of the object and its precise shots contributed to the “great pleasure that I drew from this *scoppietto* of mine”.⁶³ Another remarkable episode illustrates the measure in which fire-weapons and entertainment went truly hand in hand for the goldsmith. The story comes not from Cellini but from a note of an anonymous member of the Accademia Fiozentina. Yet it is highly amusing.⁶⁴ To get rid of a certain impostor Benvenuto had imagined to install, behind the door of his *bottega*, harquebus loaded with gunpowder which was connected to the door with a mechanism: whoever pushed the door unloaded the weapon. It was, however, another person than the one for which the contraption was intended who fell victim to

⁶⁵ “L’altro giorno appresso mi fu portato un cartello di disfida per combattere seco, il quale io accetai molto lietamente, dicendo che questa mi pareva impresa da spedirla molto più presto che quelle di quella altra arte mia...” Cellini, *Vita*, I.26, p. 136.

⁶⁶ “[era] venuto a Roma un certo maestro Giovanni da Castel Bolognese, molto valentuomo per far medaglie di quella sorte che io facevo, in acciaio, e [...] non desideravo altro al mondo che di fare a gara con questo valentuomo, e uscire al mondo adosso con una tale impresa, per la quale io speravo con tal virtù, e non con la spada, ammazzare quelli parecchi mia nemici.” Ibid., I.65, p. 246.

the joke; Cardinal della Casa entered the room unexpectedly, and, as can be imagined, remained considerably shaken after the frightening surprise. The aim of Cellini's version of the arrow trap - to terrify instead of killing - was attained, yet the victim was mistaken. Another passage from the *Vita* remembers how the young Benvenuto, after having slapped a man in the face, received the day after, a letter of challenge for a duel, reacted with enthusiasm:

On the following day a challenge to fight with him was brought me, which I accepted very gladly, saying that I expected to complete this job (*impresa*) far quicker than those of the other art [goldsmithing] I practiced.⁶⁵

If it might also allude to the tedious slowness of most operations in the goldsmith's art or in sculpture, the last statement is above all the overt formulation of a message that implicitly transpires throughout the whole *Vita*: Benvenuto's artistic ventures or *imprese* (a term borrowed from the language of chivalry) largely exceed the difficulties of classical military feats while being essentially of the same nature. That is why Cellini, as we have seen, noted that he would probably have made a better artilleryman than he was an artist. The parallel between those "two arts" he practiced also implies that the activity of creating art objects entails a competitiveness comparable to the ferocious rivalries displayed by armed men on a battlefield. In another passage from the *Vita*, Benvenuto used the language of war to describe how the arrival in Rome of one worthy competitor in the art of making medals suddenly monopolized all of his attention (he even forgot about the girl he had desperately wanted the instant before) and made him long for nothing else than to engage the competition with this contender:

...a certain Maestro Giovanni of Castel Bolognese had just come to Rome, very ingenious in the art of making medals of the sort I made in steel, and [...] I thirsted for nothing more than to compete with this *valentomo* and take the world by storm with some great masterpiece, which I hoped would kill my numerous enemies by virtue [of my art] and not by the sword.⁶⁶

In perfect continuity with Alfred Gell's theory, art and the art object are here described in terms of their effectiveness: when successful they beat competitors, and "kill" the enemy, just as a good weapon will kill opponents and astound the world. Art - the highly specialized crafts of goldsmithing and sculpture - make out Cellini's arena; his artistic *virtù* is his weapon.



Fig. 8.5 Benvenuto Cellini, Perseus and Andromeda, Bronze relief at the feet of the Perseus (detail of the modern copy), 1554. Florence, Loggia dei Lanzi.

⁶⁷ Ettore Camesasca, 'Cronologia della vita e delle opere', in *Ibid.*, p. 52.

⁶⁸ *Ibid.*, II.75, p. 567.

C. THE CASTING OF THE PERSEUS

One of the most revealing comments on how Cellini envisioned the nature of his own artistic *virtù*, and the mechanisms of its implementation, is provided by the episode of the casting of the *Perseus*. The passage is the longest description of a craft procedure in the *Vita*, it concerns the artist's most important piece and figures as the moment of greatest dramatic intensity in the second and last part of the text. Cellini furthermore repeated the story, from a slightly more distant angle but mentioning essentially the same details, in his *Trattato di Scultura*, published in 1568.

The famous episode, as narrated in the *Vita*, has yet drawn comments from many critics; it seems neither possible nor desirable to resume these here. My main purpose will be instead to illustrate two points. First, that Cellini's emphasis on the casting rather than on the design process of his *Perseus* reveals his conception of the creative process as being essentially rooted in a confrontation with the materiality of his work, and that it is in this struggle that true mastery reveals itself. Two, that Cellini considers both the bronze alloy and the fire (itself an element, and thus matter, as we ought not to forget) to be true protagonists in that struggle: both are depicted as truly endowed with life. As the artisan eventually tames the living forces of both the metals and the fire, Cellini identifies himself as much with the mythic smith-artifex described by Mircea Eliade, as with the alchemist.

1. Healing bronze

The episode of the casting of the *Perseus* took place in the fall of 1549.⁶⁷ By then Cellini had already separately cast, as a trial run, the contorted body of Medusa lying at the hero's feet. The other part of the group, which included the whole body of *Perseus* holding out Medusa's head in his stretched hand, was to be cast in one piece. Never before had a piece of that size been produced in a single cast. Cellini used a technique in which the core (the *anima*) of the mould was formed by a terracotta original of the statue (slightly shrunken after firing), which was then covered with a coat of wax of the same thickness as the sheet of bronze envisaged. That wax was in turn covered in layers of special clay and solidly packed in bricks. The subsequent heating of the whole melted the wax (that flew away, thus liberating the space for the bronze) and hardened the clay of the outer mould. Cellini had this whole mould prudently lowered in a large pit dug in his workshop, "by virtue of winches and good cables" ("*per virtù d'argani e buoni canapi*")⁶⁸, then covered with



Fig. 8.6 Georgius Agricola, examples of cupelling furnaces, from *De Re Metallica* (Basel, 1556). Reprinted in Agricola & Hoover, 1950, p. 481.

⁶⁹ “... tutti quegli che m’aiutavano, i quali erano in circa a dieci o più, infra maestri di fonder bronzo e manovali e contadini e mia lavoranti particolari di bottega...” Ibid., II.7, p. 568.

⁷⁰ “il modo mio, il quale era molto diverso da tutti gli altri maestri di tal professione.” Ibid., II.75, p. 567.

⁷¹ For Cellini’s description of a furnace for casting bronze, see chapter four of his treatise on sculpture: *The treatises of Benvenuto Cellini on goldsmithing and sculpture* (New York: Dover Publications, 1967), p. 127.

⁷² “...in poche ore questo gran male m’ara morto...” Cellini, *Vita*, II.76, p. 568.

⁷³ “...io mi sento morire...” Ibid., II.76, p. 569.

⁷⁴ See Cellini, *The treatises of Benvenuto Cellini on goldsmithing and sculpture*, p. 123.

⁷⁵ “Stando in queste smisurate tribulazioni, io mi veggo entrare in camera un certo omo, il quale nella sua persona si mostrava d’essere storto come una “esse” maiuscola; e cominciò a dire con un certo suon di vocie mesto, afflitto, come coloro che danno il condannamento dell’anima a quei che hanno ‘ndare a giostizia, e disse: “Oh Benvenuto! la vostra opera si è guasta e non ci è più un rimedio al mondo.” Cellini, *Vita*, II.76, p. 569.

earth. A network of two types of conducts had first been grafted on the mould, connecting it to the surface above the ground: one type of tubes were to receive the flow of fused bronze and disperse it in the mould, while the others were to allow the evacuation of hot air and gasses. Cellini had built the furnace that was to provide the melted bronze right next to where the mould was buried, partially dug in as well.

Benvenuto was helped in preparing the mould and manoeuvring the furnace by a crowd of assistants (“ten or more”), among which figured, besides his habitual workshop team, some manual workers, peasants, and a number of professional gun casters.⁶⁹ During the work that had to be done before the lighting of the furnace, these men had closely followed Benvenuto’s instructions, whose overall method (*il modo mio*) “differed considerably from that of all the other masters in the trade.”⁷⁰

In the account, the heating of the furnace with logs of resinous pine occurred immediately after the mould was put into place. Initially everything went well; the lumps of metal inserted in the brick space referred to as the ‘bed’ of the furnace did properly liquefy, until a series of simultaneous accidents intervened.⁷¹ The excessive heat of the furnace first set fire to the roof which threatened to fall down; through that roof then, a strong wind and heavy rain hurled inside, dangerously cooling off the furnace; to make it all worse, Cellini himself, exhausted by the prolonged efforts, was caught by a strong fever and felt himself collapsing. He was forced, instead of casting (*gittare*) his bronze, to throw (*gittare*) himself on his bed, not without having first given instructions to his aids for the rest of the operations.

From there on, the text of the *Vita* develops a most strange parallel between Cellini and the bronze, both depicted at this stage as fragile bodies critically and inexorably losing their vital body heat. The mass of fused metal, instead of liquefying further in the ‘bed’ of the furnace, starts to curdle or to stiffen again, while Cellini himself, “struggling” with fever in his own bed, was heard saying “...in a few hours time this violent disease will have me dead.”⁷² and somewhat later, with increased fever, “...I feel myself dying...”⁷³ It is at that moment of utter misery that one of the workmen slowly enters the artist’s sleeping room, “his body twisted in the form of a capital S”, to tell him that his work is ruined. The man, as Benvenuto points out, spoke with the pitiful and afflicted tone of those charged with spiritually assisting condemned prisoners on their way to the scaffold. As Cellini explained later in his treatise on sculpture, the workmen at that point believed that the bronze could no longer be heated to the melting point necessary for the cast.⁷⁴ The metal then needed to be dug out again, an operation that would have irremediably damaged the mould and thus Cellini’s original sculpture. That was the essence of the message delivered by the sinister herald: “there is no more remedy (*rimedio*) in the world” that might have saved the work.⁷⁵ On hearing those words, Cellini reports that,



Fig. 8.7 Michael Maier, Emblem 29: 'Ut Salamandra vivit igne sic lapis' (Like the Salamander, the Stone draws its life from fire), *Atalanta Fugiens* (Oppenheim, 1617).

⁷⁶ "Subito che io senti' le parole di quello sciagurato, messi un grido tanto smisurato, che si sarebbe sentito dal cielo del fuoco..." Ibid., II.76, p. 569.

⁷⁷ See Margherita Orsino, "Il fuoco nella vita di Benvenuto Cellini: Aspetti di un mito dell'artista-fabbro," *Italian Studies* 52 (1997), pp. 94-110.

⁷⁸ Since at least Pliny (Nat. History, X, 86), it was believed that the salamander had such a cold and wet skin, that, like ice, it could extinguish fire. Along the centuries this gave rise to the idea that fire was the salamander's natural habitat, where it prospered without being hurt by the flames. In Medieval thought, the salamander, thus became a representation of the just man who does not lose his piece of mind in the middle of tribulations. This is, for instance, the meaning of François Ier's salamander *impresa* (to which the salamander episode in the *Vita* also refers), the motto of which read: *nutrisco et extinguo*, which was translated by Claude Paradin as "à autrui mort, à moi vie." Claude Paradin: *Devises Héroïques, Par M. Claude Paradin Chanoine de Beaujeu* (Lyons : J. de Tournes & G. Gazeau, 1551). In alchemical literature, along parallel lines, the salamander came to represent the Philosopher's Stone in the red stage (uncombustible sulphur); it thus stands as the mineral equivalent of the individual whose humours are perfectly balanced. Emblem 29 of Michel Maier's *Atalanta Fugiens*, for instance, represents a salamander wallowing in a lively fire; its motto reads: "Like the Salamander, the Stone draws its life from fire". The subscript of the emblem makes clear that what both the Stone (in its red state) and the salamander share is their "fixedness" or temperance: "But who can doubt the Substance of that Precious Stone to be most Fixed? Certainly no man that knows it. By which it appears that the Stone is by Fixation to be reduced to the Nature of the Salamander, that is to the greatest Fixedness which neither declines nor refuses Fire. For it is no Salamander till it has learnt to endure Fire with the utmost patience, which must of necessity be effected in long process of time." From the English translation of Michel Maier, *Atalanta Fugiens*, British Library MS. Sloane 3645 (transcript from McLean).

⁷⁹ "Era molto freddo: guardando innel fuoco, a caso vidde in mezzo a quelle più ardente fiamme uno animaletto come una lucertola, il quale si gioiva in quelle più vigorose fiamme. Subito vedutosi di quel che gli era, fecie chiamare la mia sorella e me, e mostratolo a noi bambini, a me diede una gran ceffata, per la quel i io molto dirottamente mi missi a piagniere. Lui piacevolmente rachatomi, mi disse cosi: 'Fiogliolin mio caro, io non ti do per male che tu abbia fatto, ma solo perché tu ti ricordi che quella lucertola che tu vedi innel fuoco, si è una salamandra, quali non s'è veduta mai più per altri, di chi ci sia notizia vera; e così mi baciò e mi dette certi quattrini.' Cellini, *Vita*, I.4, pp. 88-89.

⁸⁰ Orsini also developed the idea, buttressed in many passages of the *Vita*, that Cellini considered himself partly as an *artista indiatolato*, an artist possessed by some evil, superhuman forces that escaped his own control. See Orsino, "Il fuoco nella vita di Benvenuto Cellini..." pp. 99-102.

⁸¹ The words they address to him collectively are: "Sù, comandate, ché tutti vi aiuteremo tanto quanto voi ci potrete comandare, in quanto si potrà resistere con la vita." Cellini, *Vita*, II.76, p. 570.

⁸² Ibid., II.77, p. 571.

though half-dead, he uttered a yell so formidable that it “would have been heard by the sphere of flame”.⁷⁶ This scream addressed to the heaven of the ether, the natural residence of fire located immediately under the sphere of the moon, constitutes a turning point in the narrative.

As Margherita Orsino demonstrated, Cellini saw himself, or at least the self-mystified version of himself from the *Vita*, as having a personal and privileged affiliation with the igneous element.⁷⁷ One sign of that special relation with fire is the famous episode of the auspicious apparition of a salamander to Benvenuto at the beginning of the *Vita*.⁷⁸ That salamander was first spotted by Cellini’s father, who sat playing music at the hearth; Cellini, by then, was about five years old.

The weather was very cold. Happening to look into the fire, [my father] spied in the middle of those fiercely burning flames a little creature like a lizard, which was sporting in the core of the intensest coals. Becoming instantly aware of what the thing was, he had my sister and me called, and pointing it out to us children, gave me a great blow on the ears, which caused me to howl and weep with all my might. Then he pacified me good-humouredly, and spoke as follows: ‘My dear little boy, I am not striking you for any wrong that you have done, but only to make you remember that that lizard which you see in the fire is a salamander, a creature which has never been seen before by any one of whom we have credible information.’ So saying, he kissed me and gave me some pieces of money.⁷⁹

Orsino rightly observed that the whole little ritual simulated a ceremony of knightly investiture. The conclusion of the procedure, signalled by the young Cellini’s shout, marks the beginning of a pact between Benvenuto and fire, for better and for worse, one could say.⁸⁰

Cellini’s invocation of the elemental fire, in the account of the fusion of the *Perseus*, did not miss its effect. Animated by a sudden external force, the sculptor scrambled out of bed, hurriedly put on his cloths again while angrily kicking whatever servant tried to help him, and rushed down to his workshop, where he found his paralyzed collaborators begging for instructions.⁸¹ Stirred by these expressions of servility, Benvenuto immediately inspected the furnace to find that his metal, critically cooled off, had started to coagulate and to form one big “cake” (*migliaccio*) of hardened material. The *Life* then features Cellini in his favourite role: that of the military-style commander, shouting orders to his collaborators. Some men are sent to quench the flames on the roof, others to limit the intrusion of wind and rain with improvised means. The re-born sculptor-founder then has a load of young oak fetched from a neighbour, wood that is immediately fed to the combustion chamber of the furnace. The combined effect of the heat of the oak and Cellini’s efficient orders regarding the handling of the furnace (“*Porta qua, leva là...*”)⁸²

⁸³ “...il detto migliaccio si cominciava a liquefare...” Ibid.

⁸⁴ Cellini, *The treatises of Benvenuto Cellini on goldsmithing and sculpture*, p. 124.

⁸⁵ “Allora io feci pigliare un mezzo pane di stagnio, il quale pesava in circa a 60 libbre, e lo gittai in sul migliaccio dentro alla fornacie, l quale, come gli altri aiuti e di legnie e di stuzzicare or co’ ferri e or cone stanghe, in poco spazio di tempo e’ divenne liquido. Or veduto di avere risuscitato un morto, contro al credere di tutti quegli ignoranti, e’ mi tornò tanto vigore che io non mi avvedevo se io avevo più febbre o più paura di morte.” Cellini, *Vita*, II, 77, p. 571.

⁸⁶ “...’l coperchio della fornacie si era scoppiato o si era sollevato di modo che ‘l bronzo si versava...” Ibid., p. 572.

⁸⁷ “In un tratto ei si sente un romore con un lampo di fuoco grandissimo, che parve proprio che una saetta su fussi creata quivi alla presenza nostra...” Ibid.

⁸⁸ Tylus, “The Merchant of Florence. Benvenuto Cellini, Cosimo de’ Medici, and the *Vita*,” p. 47.

⁸⁹ “...di modo che, veduto ognuno che’l mio bronzo s’era benissimo fatto liquido, e che la mia forma si empieva, tutti animosamente e lieti mi aiutavano e ubbidivano: ed io or qua e or là comandavo, aiutavo e dicevo: ‘O Dio, che con le tue immense virtù risuscitasti da e’ morti, e glorioso te ne salisti al cielo!’; di modo e’ s’empié la mia forma: per la qual cosa io m’inginocchiai e con tutto ‘l cuore ne ringraziai Iddio.” Cellini, *Vita*, II.77, p. 572.

⁹⁰ Michael Cole, *Cellini and the principles of sculpture* (New York: Cambridge University Press, 2002), p. 50.

⁹¹ See Michael Cole, “Cellini’s blood,” *Art Bulletin* LXXXI, no. 2 (1999): pp. 215-235, and Cole, *Cellini and the principles of sculpture*.

soon bring the *migliaccio* to start melting.⁸³ In his account from the *Trattati*, Benvenuto wrote: "...I used oak, because I wanted the greatest possible heat, and thus the metal began to move at once..."⁸⁴ Yet, a final breakthrough would only come after Cellini decided to correct the composition of the alloy that had altered:

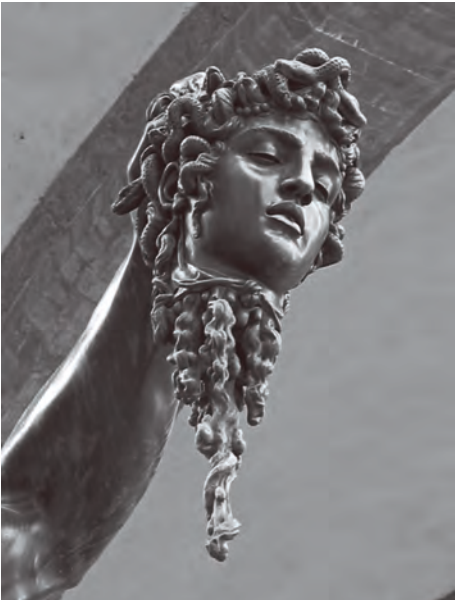
I then ordered half a pig of pewter to be brought, which weighed about sixty pounds, and flung (*lo gittai*) it into the middle of the cake inside the furnace. By this means, and by piling on wood and stirring now with pokers and now with iron rods, the curdled mass rapidly began to liquefy. Then, knowing I had brought the dead to life again (*veduto di avere risuscitato un morto*), against the biased opinion of those idiots, I felt such vigour fill my veins, that all those pains of fever, all those fears of death, were quite forgotten.⁸⁵

The regained vigour in Cellini's body is paralleled by a burst of energy in the metal, whose heat, right at that moment, made the cover of the furnace explode.⁸⁶ The enormous burst of sound was paired with a flash of light, "as if a lightning had been formed on the very spot."⁸⁷ The image, cunningly, identifies Cellini to Vulcan, who manufactured Jupiter's thunderbolts in his own Sicilian forge. The bronze now manifested its state of readiness by pouring out of a furnace that is likened to a sarcophagus with an opened lid; as Jane Tylus observed: "...the furnace erupts and ejaculates a long stream of fire..."⁸⁸ After the last necessary corrections (during which all of Cellini's pewter dinner plates are thrown in the fusion) the molten bronze eventually flowed into the buried mould as intended.

...and every one could now perceive that my bronze was in most perfect liquefaction, and my mould was filling; whereupon they all with heartiness and happy cheer assisted and obeyed my bidding, while I, now here, now there, gave orders, helped with my own hands, and cried aloud: "O God! Thou that by Thy immeasurable power didst rise from the dead, and in Thy glory didst ascend to heaven!"... even thus in a moment my mould was filled; and seeing my work finished, I fell upon my knees, and with all my heart gave thanks to God.⁸⁹

Just as Cellini himself rose from his deathbed, so did the ailing metal. Just as Christ resurrected from his sepulchre, so did the bronze erupt from its furnace. Much has been written on Cellini's describing the events in terms of a revivification, but, as Micheal Cole recently observed, the usual understanding is that the sculptor, when talking about a resurrected death, would have alluded to his sculpture. Instead, Cellini is clearly only referring to the bronze itself.⁹⁰

In a celebrated article (*Cellini's blood*) and his monograph on the Florentine sculptor, Cole provided many interesting insights on the *Perseus* project in general, and on the episode of the cast in particular.⁹¹ Cole first noted that the story of the origination process of the *Perseus* seems in the first place destined to stress, as much as possible,



*Fig. 8.8 Benvenuto Cellini, Perseus and Medusa group (detail), 1545-1554.
Florence, Loggia dei Lanzi.*

⁹² Cole, "Cellini's blood," p. 221.

⁹³ *Ibid.*, pp. 224-5.

the distance that separates his own art from that of his fellow marble-sculptors. Almost no mention is made of the lengthy design and modelling process of the figures that preceded the cast; Cellini spent no time describing procedures he knew he shared with all his colleagues, but focused on the unprecedented feat that casting the *Perseus* in one piece represented. In the spirit of Leonardo da Vinci, Cellini turned the focus from his own artistic originality to the design and functioning of the furnace and the channelling apparatuses. Yet for Cole there is more.

Presenting himself as a pourer of metals, Cellini discovered, he could do something no stonecutter could: he could explain just how he spirited his figures.⁹²

In his lengthy demonstration of this idea, Cole insisted very much, citing Allegretti and Biringuccio, on the spirit-bearing qualities supposedly attributed to metal; those qualities would be rooted in the watery nature of metals. Pouring his works in bronze, according to Cole, would have given Cellini the means of literally “spiriting” his sculptures (providing them with ‘soul’ by contrivance), a stage clearly denied to sculptors in stone. In casting a bronze figure, the sculptor repeats the archetypal creation of primal man, according to the myth of Prometheus or to the Biblical tradition. The parallel is to be read between the fused metal poured into a clay mould, and the spirit or life-providing breath infused to a mere clay effigy in the different myths.

Making man will have to go beyond giving him a form in clay; it must also involve ignition. If the making of the first man is to be emulated, one cannot just shape bodies, one must also, Prometheus-like, animate them. [...] Once liquefied metals are understood as living, the pouring of them into the armed mold could reproduce the archetypal act of life-giving.⁹³

More particularly, Cole argued that Cellini and his contemporaries (among whom the authors of the numerous sonnets that were posted on the sculpture when it was unveiled) were drawing parallels between ‘bronze in fusion’ and blood, as two “spirited” substances. The moment in which the artist pours his ‘living metal’ into the earthen form, thus corresponds to that moment of ignition. Endowed with spirits derived from its creator, the bronze sculpture eventually retains qualities that are wholly missing in marble creations that were never cast.

Yet Cole’s demiurgic interpretation of Cellini’s account on the cast of the *Perseus* (the fusion as an infusion of lively spirits) omits the whole therapeutic dimension of the procedure, in which the ailing metal is brought back to sanity again, just as the ailing Cellini recovers with the intervention of heavenly forces. Cellini pictured himself in the episode as the healer of the bronze which his “treacherous” assistants had abandoned to its own fate. According to the account from the *Trattati*, at the end of his intervention, Cellini, triumphant,

⁹⁴ Cellini, *The treatises of Benvenuto Cellini on goldsmithing and sculpture*, p. 124.

⁹⁵ Cellini, *Vita*, II.77, p. 571.

⁹⁶ Albertus, III.9 'Whether one form of metal can be transmuted into another, as the alchemists say', Albertus, *Book of minerals* (Oxford: Clarendon P., 1967), p. 178.

... gave thanks to God, and turning to the lot of them said: Did you see how everything has its remedy? In spite of the pain such was my delight that I felt no more fatigue; the fever just went to the devil, and I sat down to eat and drink with a light heart, together with the whole lot of them, and everyone marveled at that.⁹⁴

Surprisingly, much emphasis is put on the consumption of food after the effort, both in the *Vita*, and in the *Trattati*. The shared meal does indeed underscore the relief, the happy and relaxed atmosphere after particularly anxious moments. Yet the emphasis on Cellini's own appetite in particular signals the restoration of his own inner flame, through its readiness for the combustion of food.

The remedy mentioned in this citation (“did you see how everything has its remedy”) might refer to the young oak Benvenuto had decided to administer at the most critical moment. The sculptor knew that pine and alder were the kinds of wood normally used when melting artillery pieces, for these produce a soft kind of warmth. Oak instead, and particularly young oak, “heats more powerfully than any other sort of tree...”⁹⁵ The wood, thus, may be said to have functioned as a kind of ‘hot medicine’, a substance with the capacity of setting free an important quantity of heat for the benefit of the ailing metal. But Cellini also administered more directly a supplementary quantity of pewter to the fused metal, thus restoring the precarious ‘humoral’ balance of the alloy. In any case, the terminology used, and the whole notion that the metal had been ill appears as strongly reminiscent of earlier mentioned identifications of that primordial manipulator of metals, the alchemist-physician, assisting nature in her efforts to accomplish the recovery of an ailing substance. That idea had been most convincingly expressed in the next passage from Albertus Magnus’ *Book of minerals*, a passage that had also deeply struck Cellini’s friend Benedetto Varchi.

But then we must say that skilful alchemists proceed as skilful physicians do: for skilful physicians, by cleansing remedies clear out the corrupt or easily corruptible matter that is preventing good health – for good health is the end which the physician has in mind – and then, by strengthening nature, they aid the power of nature, directing it so as to bring about natural health. For thus undoubtedly health will be produced by nature, as the efficient cause; and also by art, as the means and instrument. And we shall say that skilful alchemists proceed in entirely the same way in transmuting metals. For first, they cleanse thoroughly the material of quicksilver and sulphur, which, as we shall see, are present in metals. And when it is clean, they strengthen the elemental and celestial powers in the material, according to the proportions of the mixture in the metal that they intend to produce. And then nature itself performs the work, and not art, except as the instrument, aiding and hastening the process, as we have said. And so they appear to produce and make real gold and real silver.⁹⁶

⁹⁷ “Gittare i fondamenti, per dar principio. Lat. iacere fundamenta.” *Dizionario della Crusca*, Lemma *iacere*.

⁹⁸ The quotation is taken from the *Emerald Table*, a text that Albertus, together with Arnold of Saxony, referred to as Hermes’ *Book of alchemy*. See Albertus, *Book of minerals*, p. 186.

⁹⁹ Cellini, *The treatises of Benvenuto Cellini on goldsmithing and sculpture*, p. 113.

The parallel between the physician, the alchemist and Cellini, casting his *Perseus*, all three participating as coadjutors to a process whose efficient cause is eventually Nature, entails that in a certain way, a transmutation occurred in the initially ailing body of the metal. Thanks to the transformative influences of the heavens (“the celestial powers”), supported by the reinforcing measures of Benvenuto, the bronze has reached the point of perfection that would lend the *Perseus*, as a finished work, its overpowering efficiency. That perfection is first predicated on the capacity of the fused metal to perform its duty (smoothly penetrating the maze of canals leading to the mould with a steady stream). The health of the glowing liquid is signalled by that quality that Cellini struggled so much to obtain: the “most perfect liquefaction”, which corresponds to an unquantifiable, but very specific balance of heats. In a second time, the balance of the alloy is to guarantee the perfection of the statue in its visual appearance and effect.

2. Personifying bronze

It is hard to miss what has been referred to as the “copulative thematic” in the casting of the *Perseus*. During the process, a mould buried in the earth gets literally inseminated with a stream of heated metal that Michael Cole has compared to spirited blood, but which one could also envisage as *pneuma*-holding concocted blood, that is, semen, as it was produced in the hot furnace. It is worthy to remember that the verb *gittare*, which Cellini uses incessantly, derives from the later verb *iacere*, (to emit, to throw) with a string of related meanings expressing the idea of relatively uncontrolled emission; that it was also often used, as the *Dizionario della Crusca* specifies in the expression *gittare i fondamenti*, (‘to cast the foundations’), can be understood also as to give principle to, to cause.⁹⁷ Born, just as the Lapis was, from the meeting of a feminine and a masculine principle, the birth of *Perseus* is similarly naturalized. Its place of origination mimics as much as possible that of the ‘natural metals’. As Albertus Magnus had quoted from an earlier treatise on alchemy that he attributed to Hermes: “The Mother of metal is Earth, that carries it in her belly”.⁹⁸ To Cellini and his peers it must have seemed highly significant that their mould, made of clay for the most part, was buried underground, and allowed for the casters to dig up their work from the earth as if it had been generated by the *terra mater* herself. Organic materials and fertilizers even came to play a role; in the *Trattati*, for instance, Cellini praised the special kind of clay he used for his molds for its particular “aptitude to receive the metal” (*lo accettare il metallo*).⁹⁹ The recipe of that clay, furthermore, also endowed it with all the qualities of the perfect fertiliser. Cellini had in fact developed a method (“a secret”) in which clay was mixed with much water, “to obtain the texture of dough”, and mixed



Fig. 8.9 Cellini's bronze *Perseus* and the marble colossi of Michelangelo and Bandinelli.

¹⁰⁰ “Nel nome e nella favola di Demogorgone hanno occultato la material e la pratica di questa arte.” Giovanni Braccesco, in Alfredo Perifano, *L'alchimie à la cour de Côme Ier de Médicis: savoir, culture et politique*, ed. Claude Blum, *Etudes et Essais sur la Renaissance* (Paris: Honoré Champion, 1997), p. 173.

¹⁰¹ John Shearman, *Only connect. Art and the spectator in the Italian Renaissance*, The A.W. Mellon lectures in the fine arts; 1988 (Princeton, N.J.: Princeton University Press, 1992), pp. 44-58.

with cloth frayings which had to be left to decompose for at least four months, until they had completely rotten.

If through the evocation of its sexualized conception and its birth from the bosom of the earth, the *Perseus* is, in a way likened to the *Lapis*, the parallel does not stop there. We have seen in the precedent chapter how Giovanni Bracesco read the antique fable of Hercules and Antaeus as an allegory of “the preparation of sulphur”. In the same work (*La esposizione di Geber philosopho*, 1544), Bracesco presented the Gorgo Medusa as an evocation of both “the matter and the practice” of the art of alchemy.¹⁰⁰ Among all the creatures of antique mythology, Medusa was the one performing the most amazing metamorphoses; her transformative capacities were exploited in direct ways by the authors of the Medicean monument. As John Shearman suggested, through the clever position of the *Perseus* brandishing the head of Medusa, and the choice of bronze as a material (explicitly not stone), Michelangelo’s David and Baccio Bandinelli’s Hercules and Cacus, directly opposing the *Perseus*, may be seen as entangled in the fiction of the *Perseus* group, turned into cold stone as a result of the petrifying power of the Medusa head.¹⁰¹ The two marble colossi thus appear suddenly as two sorry protagonists in a scenography that entangles a good part of the Piazza della Signoria, the earliest victims of Medusa’s gorgonization.

Yet this brilliant scenario was not the work of Cellini’s inventive powers. It was Cosimo, as sources from contemporaries specify, who had devised the combination of the *Perseus* subject, the bronze medium, and the particular site. Cellini, on the other hand, amplified his commission by adding the contorted body of Medusa at the feet of the hero, as well as the marble base on which the group stands, and its rich ornaments that include a series of smaller bronze figures. It was Varchi, we know with certainty, who authored the inscriptions that appear above these smaller characters, yet the extent to which Varchi eventually acted as Cellini’s iconographic adviser is not known.

The four characters, appearing in small niches carved in the four sides of the base, represent four relatives, and simultaneously, four precise episodes from the story of Perseus. Jupiter, on the front side of the statue, is represented armed with a thunderbolt; the inscription reads: *TE FILI, SI QUIS LAESERIT, ULTOR ERO*” (If anybody would hurt you, my son, I will be your avenger”. Danae, in the next niche, is Perseus’ mother, the nymph whom Jupiter has seduced, and to whom, while she was secluded by her father, he had appeared in the shape of a golden rain. The words of her inscription were supposedly spoken while, impregnated, she fled from her cruel father: “*TUTA JOVE AC TANTA PIGNORE LAETA FUGOR*” (With Jupiter’s protection and the pledge of future grace, I go happily into exile.”) Danae, in Cellini’s bronze statuette is represented naked, with her young son at her feet. The two other sides of the base are adorned with the figures of Minerva and Mercury, Perseus sister and brother, whom each had provided Perseus with



Fig. 8.10 Benvenuto Cellini, *Danae and the young Perseus*, c. 1553. Florence, Loggia dei Lanzi.



Fig. 8.11 Benvenuto Cellini, *Mercurius*, c. 1553. Florence, Loggia dei Lanzi.

¹⁰² In the cartouche under Mercury feature the words: “FR S [FRATRIS] UT ARMA GERAS, NUDUS AT ASTRAVOLO.” (So that you would bear the weapons of your brother, it is naked that I fly to the heavens”); while the commentary of Minerva, equally addressing Perseus is: QUOVINCAS, CLYPEUM DO TIBI, CASTA SOROR” (So that you may be victorious, I, your chaste sister, give you my shield).

¹⁰³ Giorgio Spini, *Architettura e politica da Cosimo I a Ferdinando I* (Firenze: Olschki, 1976), p. 69.

¹⁰⁴ Ovid, *Metamorphoses*, 4.770.

¹⁰⁵ Ovid, *Metamorphoses*, 4.740.

a part of his indispensable equipment for the slaying of the Medusa.¹⁰² The evocation of the most significant events in Perseus' life is completed by a bas-relief on the front side of the balustrade on which the scene is represented of Perseus liberating Andromeda, an episode occurring after the beheading of the Gorgon.

As has been noted by several authors, it is almost impossible to escape the implicit parallels contained in this evocation of both Perseus' ancestry and feats, and Cosimo's own genealogy and biography. The exile of Danae left to raise her child alone, while persecuted by her parents, is mirrored in the hardship of Maria Salviati, Cosimo's mother, when she had to raise her young son alone in the period following the death of her husband. Jupiter is then a type for Cosimo's own father, the powerful and respected Giovanni dalle Bande Nere, while the statue itself would celebrate Cosimo's own heroism in rescuing Florence from the Medusa of past tyrants.

The bronze group was conceived of as a reply to Donatello's Judith and Holofernes that stood under another arcade of the Loggia de' Lanzi; a statue that had come to be invested with republican values, and was interpreted as a celebration of popular revolt against tyrants, a program that the *Perseus* cunningly subverts. As Giorgio Spini underscored, Medusa had also been since Dante a symbol of discord that paralyzes men's capacity for action.¹⁰³

More particularly, the Piazza della Signoria on which the *Perseus* stands, had been the scene of the executions that had followed Cosimo's victory over the *fuorusciti* at Montemurlo, and which had continued, without interruption, for four days. Hundreds of Florentines, among whom many pre-eminent patricians, had been publicly beheaded at that occasion. While reinterpreting these events as the decisive cutting by the young Duke of the Gordian knot of conflicting powers that were holding Florence in their grip, the bloody decapitation of Medusa seems intended in the first place to keep the traumatizing souvenir of the aftermath of Montemurlo lively; and it is herein that Cellini's particularly vivid rendering of the blood that gushes out of Medusa's head and torso that fringes on the sordid, while constituting focal points on which the fascination of the beholder crystallizes. Michael Cole has also been the first scholar to grant proper attention to these strange formations of undulating blood, seemingly arrested between motion and immobility. Cole discovered that Cellini, in archival documents, had referred to the blood-clots as 'gorgons' ("*gorgoni del collo e della testa della Medusa*"), as if the monster's blood constituted the essence of her transformative nature. From Ovid's account of the beheading of the Gorgon, we learn already that Medusa's blood brought forth the winged horse Pegasus, that the blood dripping from the head while Perseus flew with it over the Lybian desert, generated poisoned snakes,¹⁰⁴ and that, when brought in contact with sticks of fresh wood, the blood had the power to metamorphose these into coral.¹⁰⁵



Fig. 8.12 Benvenuto Cellini, *Perseus and Medusa group*, 1545-1554. Florence, *Loggia dei Lanzi*.

¹⁰⁶ Thomas Hirthe, "Die Perseus-und-Medusa-Gruppe des Benvenuto Cellini in Florenz," *Jarbuch der Berliner Museen* XXIX-XXX (1987-1988), p. 197 ff.

¹⁰⁷ "Aan hun louter artistieke respons op het beeld kan een vorm van escapisme niet vreemd zijn geweest ..." Henk van Veen, "Wat een opdrachtgever wil: Cosimo I de' Medici en Cellini's Perseus en Medusa," in *Kunstenaars en opdrachtgevers*, ed. Harald Hendrix and Jeroen Stumpel, *Utrecht Renaissance Studies* (Amsterdam: Amsterdam University Press, 1996), p. 55.

Red coral was indeed so much associated with Medusa's blood that Pliny referred to it as *gorgonia*, while the term *gorgoni* appears in Italian with the same meaning. Just like the Hercules and Antaeus group of Castello, the *Perseus* with the head of the Gorgo Medusa could thus be read as a monument to a substance, endowed with (transformative and generative) powers, of a potentially harmful nature.

3. The *Perseus* as a weapon

There has been a lively debate in recent scholarship on Cellini's *Perseus* on whether the political connotations that I evoked above were effectively intended. Thomas Hirthe, the author of a seminal analysis of the meaning and iconography of the *Perseus*, has answered to the question in strongly affirmative terms.¹⁰⁶ The figure of the mythical hero brandishing his sword may have stand as a generalized allegory of the peace bringing prince. But the severed head of Medusa, dripping with blood, must have constituted, for Cellini's contemporaries a too direct allusion, to be innocent, to the bloody events that had taken place on the very spot in 1537. It is on the piazza della Signoria that Cosimo had ordered the beheading of hundreds of *fuorusciti* in the aftermath of Montemurlo in 1537. That act of cruelty that had been foundational for Cosimo's rule. The memory of the events must have certainly been vivid in the Duke's own mind, when he devised the group in 1545, only seven years later. It certainly was also in the mind of the Florentine citizens when the *Perseus* was unveiled.

Yet observers have noted the fact that the numerous sonnets that were posted on the base of the sculpture by artists, critics and *letterati* on occasion of the 1554 inauguration were strictly eulogizing, and did not contain any mention of political themes. These sonnets endlessly vary on the theme of the beholder being petrified by the skill and the vivacity displayed in Cellini's masterwork. All omit the slightest reference to any oppressive political message contained in the work.

If this fact might seem puzzling at first sight, it is eventually not that surprising. As Henk van Veen recently observed, the absence in the sonnets of any reference to the chilling 1537 events constitutes no proof at all to conclude that no such negative emotions existed in the spectators of the work. Rather is the purely artistic reaction of the eulogizers of the group to be seen as a collective form of escapism, a need to sublimate the content that was too oppressive in celebrations of Cellini's artistry.¹⁰⁷ Among the enthusiastic poets, as Van Veen observed, figured all too 'knowing spectators': men such as Benedetto Varchi and Lelio Torelli, who, profoundly co-involved in the architecture of power, could simply not be blind to the political message of the *Perseus* which they had themselves contributed



Fig. 8.13 Benvenuto Cellini, *Perseus and Medusa group (detail)*, 1545-1554. Florence, Loggia dei Lanzi.

¹⁰⁸ Cellini, *Vita*, II.90, p. 598.

¹⁰⁹ “De politieke respons op de Hercules and Cacus was voor Alessandro teken dat zijn positie nog niet onaantastbaar was. Het uitblijven daarvan bij de onthulling van de *Perseus* leverde Cosimo het bewijs dat hij met de oppositie in de stad nagenoeg had afgerekend.” van Veen, “Wat een opdrachtgever wil: Cosimo I de’ Medici en Cellini’s *Perseus* en *Medusa*,” p. 57.

¹¹⁰ Niccolò Martelli, letter to Luigi Alamanni, Aug. 20, 1546. in Heikamp, 1957. “...egli si vedrà con stupor delle genti nel rialto della Piazza di sua Ecc.za Ill.ma nell’altro arco della Loggia di là della Giudetta di Donato, quasi luogo vacuo e privo riserbato fino a questo tempo, con l’invenzione nella idea del famoso Duca nostro, dalle fatali stelle per adornar la patria di quanto bello in metallo, natura, arte, ingegno, norma e stil, può fare.” (Translation from Cole, “Cellini’s blood,” p. 231.)

to fashion. Van Veen also evoked the scene, narrated in Cellini's *Vita*, in which the Duke had first ordered the *Perseus* to be partially unveiled and shown to one passer-by as to check for his reaction.¹⁰⁸ The man's admiring response is then a sign that the political agenda is accepted and interiorized. Political comments on the *Perseus* and Medusa group would have amounted to a form of rebellion against authority (such was the significance that had been given to the strongly negative reception of the Bandinelli's *Hercules and Cacus*, a work inaugurated under the government of Duke Alexander, in 1536). "The absence of [such a political response] at the occasion of the unveiling of the *Perseus*, offered to Cosimo the proof that he had almost done with the opposition inside town."¹⁰⁹

There is some irony in the fact that it has been precisely the extraordinary talent of that unwilling courtier (Cellini) to devise the most chilling details of the group: the spouting flow of blood that petrifies in Leonardesque curls of bronze. Representing a substance that, for its mineralizing powers, constituted somehow inverted *Lapis*, (for its capacity to turn precious substances, such as living flesh, into base stone) these coagulated clods are also precisely the details that must have caused the Florentine 'knowing spectators' to get caught in a web of emotions blending terror, fascination, and perplexity. Having conceived the idea for this work, Cosimo had probably imagined the *Perseus*, as a secondary agent, to induce precisely these reactions into his subjects. The irony lies in the fact that as a particularly sophisticated contrivance, the *Perseus* was cast in a foundry that had tried to erect itself as a direct challenger of the Ducal *fonderia*. Cellini had described the origination process of the bronze in terms that were more appropriate to the operations carried out by Cosimo's *distillatori*, *fonditori* and alchemists than by the men usually at work in an artist's *bottega*. While paralleling his own creation with that of the Duke, the sculptor, in the meantime, tried hard to demonstrate that, whatever Cosimo did or intended to do, he could do better. Yet Cellini only once received the opportunity to excel. As we have seen at the beginning of this chapter, the *Perseus* remained the only fruit to be begotten by the Cellinian foundry. Cellini appears in the process to have been but a willing tool to contrive a politically oppressive work. Yet even if brought forth in a peripheral centre, the *Perseus*, performed its duties as perfectly as if it had been produced in the ducal *fonderia*. Like the items brought forth from Cosimo's *fonderia*, the *Perseus* was also presented by contemporaries as an original invention of the Duke. An invention, that, if we have to believe Niccolò Martelli, had been instilled from the heavenly spheres directly into the Duke's mind.

The people will look at [the *Perseus*] with amazement [when it is] on the platform of his Excellency's piazza, in the other archway of the Loggia, beside the one with Donatello's Judith. This space has been empty, and virtually reserved until now for the invention, [come] from the fateful stars, into the mind of our famous Duke; it will adorn the realm with all that metal, art, ingeniousness, knowledge, and style can make.¹¹⁰

APPENDIX I

Benedetto Varchi's published
Fiorentina lectures



- The Italian titles are taken from the Racheli edition (Lloyd Austriaco, 1848-49). The pages mentioned refer to that edition, volume II.
- The number appearing after the English title corresponds to the number of lectures on the given topic.
- The dates correspond to the actual date of the session the lecture was presented. Dates without brackets are confirmed by external evidence (the text itself or other data). The other dates are derived from the Racheli edition. The abbreviation S. stands for Sunday.
- The abbreviation on the right, above the page numbers, is used in the footnotes of the following chapters to refer to the lecture in question.

A. DANTE COMMENTARIES

On the generation of the body 1 **L. Gen. corp.**
 (Sulla generazione del corpo) S. May 28th 1543 (pp. 285-310)

A learned commentary of a passage of *Canto XXV* of Dante's *Purgatorio*, on the physiology of the generation of the human body.

On the creation and infusion of the rational soul 1 **L. Inf. Creaz.**
 (Sulla creazione ed infusione dell'anima razionale) S. Dec. 2nd 1543 (pp. 311-312)

Commentary of the passage of *Purgatorio XXV* immediately following the preceding one. Here the infusion of the soul in the unborn child is discussed.

On the first canto of Dante's *Paradiso* 9 **L. Par. I**
 (Sopra il primo canto del paradiso di Dante) (Starting on the fourth
Sunday of April 1545) (pp. 341-406)

A series of nine lectures in which *canto 1* of *Paradiso* is systematically and extensively commented. In *canto 1*, Beatrice and Dante start their ascension through the heavenly spheres. Beatrice explains the order of the universe and the natural cause of their elevation. The *canto* serves as a pretext for Varchi's treatment of different philosophical and theological problems, such as human psychology (second lecture), the geography of the world (fourth lecture), the precise location of paradise (fifth lecture), or divine providence (eight lecture), etc.

On the second canto of Dante's *Paradiso* 4 **L. Par. II**
 (Sopra il secondo canto del paradiso di Dante) (undated, 1545) (pp. 406-431)

A series of four lectures in which Varchi started a commentary of the whole of *Paradiso*, *Canto 2*. In this part of the *Divina Commedia*, Dante and Beatrice enter inside the translucent mass of the body of the moon. The argument is seized by Varchi to discuss questions such as the substance of the moon (first lecture), the (im)possibility of the interpenetration of two solid bodies (second lecture), the paradox of the stains on the moon (unlikely signs of corruption of a heavenly body –third and fourth lecture).

On earth and heaven 1

(Della terra e del cielo)

(undated)

L. Ter.Ciel.

(pp. 431-439)

This lecture is a commentary on *Paradiso* 22, in which Dante and Beatrice, still ascending, reach the 8th sphere, the heaven of the fixed stars, and have a global overview of the earth and its different skies. Varchi discusses units of measure, methods that have been used to measure the dimensions of the earth; the number of the different heavenly spheres, their sequence, and the nature of their movements. The lecture ends with a list of the different dimensions (expressed in miles – *miglie*) of the earth and the different skies.

On love 1 (but presented in two sessions)

(Dell'amore)

(3rd and 4th S. of
August 1564)**L. Am. D.**

(pp. 321-335)

A commentary of the verses of *Purgatorio*, 17, starting with “*Ne creator, ne creatura mai...*” The core topic of the lectures are the verses in which Beatrice explains how the Universe is endowed with an order that makes it similar to the form of God. It is used by Varchi as a starting point to lay out the order of the world (*ordine degli enti*): the ten levels of existence, and ‘love’ as the force connecting these different levels.

B. PETRARCH COMMENTARIES**On the three canzoni degli occhi 8**

(Sulle tre canzoni degli occhi)

Starting on April
23, 1545**L.3.C.O.**

(pp. 439-486)

The eight lectures constitute a long commentary on a sequence of three poems of Petrarch, three *canzoni*, which have been titled ‘the *canzoni* of the eyes’, (*Canzoniere* 71, 72, 73) since they celebrate the eyes of Laura. The first lecture is an introduction to the art of analyzing poems. In the actual commentary Varchi re-introduces topics such as the physiological effects of love (3rd l.), a discussion of the four cardinal virtues and their bodily correspondents (4th l.), the qualities of light: the difference between *lume* and *luce* (5th l.), the Ficinian theory of love irradiating from the beloved’s eyes like arrows (*strali d’amore* – 6th l.), a division of love in its different species (7th l.), the meaning of the verb ‘to inform’ (*informare* – 8th l.)

On the senses 1

(Dei sensi)

(undated.)

L.d.Sens.

(pp. 486-489)

A lecture of which but a fragment is conserved. Commentary on Petrarch’s sonnet *Orso, e’ non furon mai...* (*Canzoniere* 38). Varchi’s commentary is a philosophical discussion of the possible reactions of a human being when brought in contact with the beloved, and the role of the senses therein.

On the representation of Love 1

(Della pittura d'amore (versi del trionfo d'amore)

(undated.)

L.Pitt.Am.

(pp. 489-496)

A series of verses from Petrarch's *Trionfo d'Amore I* (*Quattro destrier vie più che neve bianchi...*) are the starting point of this lecture. The lecture is entirely dedicated to the question why Love was represented by the Ancients as Cupid: a winged young naked and blindfolded boy?

On love 1

(Dell'amore)

(3rd S. of

Lent 1553)

L. Am. P.

(pp. 496-507)

A commentary on the sonnet *S'amor non è...* (Canzoniere 132). The lecture is again a discussion of the different divisions of the species of love. (intellectual, rational, animal, natural love) On the interplay between body and soul in love. Man as a microcosm is a container of all possible forms of love. On the question of the free will.

C. VARIOUS LECTURES ON GENERAL THEMES

Acceptance speech as consul of the Accademia Fiorentina 1

(Orazione nel pigliare il consolato dell'Acc. Fior.)

S. April 12th 1545

Or. Pigl. Cons.

(pp. 335-341)

Eulogy of the Accademia Fiorentina. Praise of its founder (the *Umidi*). Eulogy of Cosimo de Medici's politics regarding the promotion of the Tuscan vernacular. Presentation of Varchi's own aims and intentions during his consulate.

On envy 1

(Sopra l'invidia)

(2nd S. of Lent 1545)**L.s.Inv.**

(pp. 582-611)

The lecture presents itself as a systematic treatment of the question: What is the nature of the human passion referred to as envy? Subquestions such as how many species of envy are to be found? and Who are the people who envy? are treated with apparent distance. But the lecture is a means for Varchi, then recently elected Consul of the *Accademia* and strongly contested by a number of Academicians, to defend himself from his detractors by accusing them of jealousy.

On the sonnet of Michelangelo Buonarroti mentioned below 1 **L.s.MB.**
(Sopra il sottoscritto sonetto di Michelangelo Buonarroti) S. March 6th 1547 (pp. 611-627)

The first of Varchi's two lectures on the visual arts (*Due lezioni*). It presents itself as an extensive scholarly commentary of Michelangelo's sonnet *Non ha l'ottimo artista alcun concetto...* The exegesis emphasizes above all the first quatrain of the sonnet, in which Michelangelo provides a 'material example', that of the sculptor extracting from the stone the image he had in mind, to develop further in the poem a parallel with his own troubles in love. Varchi reads the first quatrain as a reference to Aristotle's theory of potential and actual form. The analysis is above all a tribute to Michelangelo who is praised, not only for his achievements as a sculptor, painter and architect, but also for his feats as poet and lover.

On the contest between the arts (*Paragone*) 1 **L.Paragone**
(Della maggioranza dell'arti) S. March 13th 1547 (pp. 627-648)

The second of the lectures on the arts is no longer a commentary, but addresses more directly the theme or question of the *Paragone*, the contest for primacy among the different visual arts. The whole lecture is divided in three 'disputes', or sub questions. 1. On the relative nobility of the arts. 2. A comparison of the dignity of sculpture and painting. 3. About what makes painters and poets different.

On nature 1 **L.d.Nat.**
(Della natura) S. March 27th 1547 (pp. 648-660)

This lecture was conceived by Varchi as a counterpart to the lecture on the arts, given two weeks earlier. Varchi had then announced that this lecture on the subject of nature would treat the similarities that are to be observed between the arts and nature. The lecture starts as the praise of nature as the most talented artist; then proceeds with a detailed analysis of Aristotle's definition of 'nature' as it appears in *Physics II*. Varchi then explains how the word 'natura' as commonly used in Tuscan, can mean eight different things. These different meanings are illustrated and analyzed. The lecture ends with a series of propositions taken from Marcantonio Zimara's synopsis of the works of Aristotle, propositions that summarize universal truths about nature's behaviour.

On the generation of monsters 1 (in two sessions) **L.gen.Mostr.**
(Della generazione de' mostri – lez. 1) (1st and 2nd S. of July 1548) (pp. 660-681)

This is no commentary either, but an attempt to systematize (in a double lecture) existing knowledge on monsters. The whole lecture is composed of an introduction, three main chapters and an appendix. The three main chapters propose to treat separately: 1. a definition of the notion of monsters, and how they come about. 2. What are the species of monsters, and how are these to be explained. 3. An interrogation about the reason of existence of monsters. In the appendix specific questions are addressed, such as whether true giants are to be found somewhere? If satyrs exist? If centaurs exist? Whether from a woman one can become a man? Especially in the second chapter, this lecture proposes itself as a complement to the 1543 lecture on the generation of the human body, whereby, in this case, the mechanisms of flawed generations are explained: how do these come about and what are the results?

One poetics in general 1

(Della poetica in generale)

(2nd S. Oct. 1553)**L.Poet.G.**

(pp. 681-694)

This thematic lecture on poetics (in the Aristotelian sense is divided in two sections. In a first one, Varchi presents the different terms he will come to analyze: *poeta, poetica, poesia, poema*. Here the text treats the question under which division of philosophy poetics is be ranged. What is the end of it? The second part presents a definition of poetics (a faculty that teaches the ways in which actions, affects ... ought to be imitated), which is analyzed word by word.

On poetry 5

(Della poesia)

(1st S. Dec. 1553)**L.5Poet.**

(pp. 694-733)

Five thematic lectures, respectively 1. On the nature of the poet 2. On heroic poets 3. On heroic Tuscan verse 4. On tragedy. 5. On judgment (*giudizio*) and the tragic poets.

Words spoken at the Acc. Fior. at the end of the consulate of M. Guido Guidi 1

(Parole ... nell'Acc. Fior. nel rendere il consolato in nome di mess. Guido Guidi a mess. Agnolo Borghini)

(1st S. April 1554)**L.cons.GG.**

(pp. 507-508)

This text was read before the *Accademia Fiorentina* on occasion of the end of Guido Guidi's consulate and the transferral of that office to Agnolo Borghini. Guidi's responsibilities at the Pisan Universities withheld him from being present; Varchi agreed to give a leave-taking speech in his place. Referring to the necessary decline of all earthly things, Varchi urges his colleagues to consider a reorganization of the *Accademia Fiorentina*.

On seven doubts regarding love 1

(Sopra sette dubbi d'amore)

(1st S. of June 1554)**L.7d.Am.**

(pp. 525-531)

The lecture is not a commentary, but the treatment of seven different interrogations regarding love: who should discuss it (1); whether the good and the beautiful amount to the same (2); if all good things are also beautiful (3); why one loves or dislikes certain people more for no apparent reason (4); why lovers desire to stay close to their beloved one (5); why lovers fear and honor the presence of their beloved (6); why lovers feel ashamed to confess being in love (7).

About some questions regarding love 4

(Sopra alcune quistioni d'amore)

(undated 1554)

L.aq.Am.

(pp. 531-561)

In a series of four lectures, Varchi treats questions (or doubts) concerning love very much similar to the ones discussed in the preceding lecture, such as: what is the most noble: the lover or the beloved (1.1); what is the most powerful passion, love or hatred (1.2); if someone is loved, is he obliged to love in return (2.2); does a honest lover experience passions (2.5), etc.

APPENDIX II

Varchi's naturalist friends

¹ The most recent article on Luca Ghini is N. Galassi, “Luca Ghini, una vita per la scienza,” *Museologia scientifica* VII (1992): pp. 187–205.

² For the history of the early days of the Pisan *Orto botanico* see Fabio Garbari and Lucia Tongiorgi Tomasi, “Le origini del Giardino dei Semplici: dall’Orto dell’Arsenale all’Orto novo” di via Santa Maria,” in *Giardino dei Semplici. L’orto botanico di Pisa dal XVI al XX secolo*, ed. Fabio Garbari (Ospedaletto: Pacini, 1991).

³ See G. Targioni Tozzetti, “Notizie dei progressi delle scienze fisiche in Toscana durante il regno del Serenissimo Granduca Cosimo I raccolte dal dott. Giovanni Targioni Tozzetti,” in *BNF Targ. Tozz. 189, VI* (Firenze), f° 44.

⁴ The physician Giovanni Targioni-Tozzetti (1712–1783), a man of large interests, had been curator of the Botanical Garden of Florence, and lecturer on botany at the University of Florence, before becoming director of the Magliabecchiana library in 1739, the precursor of the actual Biblioteca Nazionale del Comune di Firenze. He gained an extraordinary insight in the 16th century printed and manuscript collection of the library, and gathered an impressive set of notes on the progresses of the “physical” sciences in Tuscany under the reign of Cosimo I. See the last note for the reference to this document.

2.A. LUCA GHINI

Luca Ghini (around 1490-1556)¹ was a physician and botanist of international reputation teaching at the *Ateneo* of Bologna when Cosimo appointed him in 1544 for the *lettura dei semplici* (a course on medical botany) at the university of Pisa, after having failed to attract the the Lutheran Leonhart Fuchs to accept the position. Ghini supervised in his adoptive town the creation of the first botanical garden of Europe.² He would later found a similar garden in Florence, in order to allow students to continue their investigations on the living plant specimen even during the summer break, when most of them were residing in Florence. The naturalist was famous for his ceaseless quest for new species, which he gathered himself during field trips in the vicinity of Bologna and in Tuscany. With the support of Cosimo he also had exotic species sent from remote places as far as Egypt to extend his collection. If Ghini has not been influential as an author of treatises like Fuchs or Pietro Mattioli were in his branch, his impact on the discipline of botany was nonetheless considerable. He invented the principle of the herbarium (*hortus siccus*), the collection in book-form of real specimen of dried plants, which was to be of considerable importance in the efforts of inventorizing and starting a classification of all plants species. All the great botanists of the second half of the 16th century have been trained under his guidance: the Bolognese Ulisse Aldrovandi, the Venetian Bartolomeo Maranta, Luigi Anguillara, from Latium, and eventually the Aretine Andrea Cesalpino, who was Ghini's successor at the Pisan *cattedra dei Semplici*.³

Like many experts in medical botany of those days, Ghini invested a considerable part of his efforts in the clarification of the *De materia medica*, written by Dioscorides, a Greek physician and botanist working in the Rome of Emperor Nero, and which was regarded as the most important work on botany and pharmacology from Antiquity. Ghini's work of reconnecting Dioscorides' text, of which no trustworthy illustrated versions existed, and which was marred with often abstruse terms, with actual herb and plant species represented a painstaking effort. The famous 18th-century Tuscan naturalist Giovanni Targioni-Tozzetti tellingly compared that effort with the one 16th-century architects and philologists were engaged in with the translation of Vitruvius.⁴

Benedetto Varchi knew Ghini from his Bolognese period in the early forties, where he had been assisting at some of his lessons. It is not impossible that Varchi himself would have played a role in the negotiations that were to persuade Ghini to accept the new position at the University of Pisa. In his own writings, Varchi was full of praise for the scientist in whom he recognized an outstanding researcher. This is no less the case in the following sonnet taken from the first volume of Varchi's published poetry (1555), and addressed to Ghini. The scene from which Varchi calls for his friend is a pastoral suggestion of the countryside around Florence during summer. Varchi complains about the absence out of Florence of his friend Ghini, probably still in Pisa, while the summer holidays ought not, in fact, to withhold him from enjoying the more pleasant company and climate Florence and its surroundings has to offer.

Ghini, you are comparable not only to the good
Harvester of healthy herbs and flowers,
But almost the equal of Phebus and his great son,
So many and such are the liquors you gave to the world,

That the souls often, instead of wandering away,
returned to fuse with their bodies,
Many fatal destinies have thus been overturned,
for which immortal praise and eternal honours are following you,

- ⁵ *Ghino, che di salubre erbe e di fiori/Non pure al buono accoglitore del quale, /Ma quasi a Febo e al suo gran figlio eguale, /Tanti ne date al mondo e tai liquori//Che l'alme spesso poco men che fuori, /Tornano ai corpi unite, e 'l lor fatale/Corso vincon di molte, onde immortale/Pregio ven segue e sempiterni onori://Or che i raggi del sol più dritti e gravi/Fendon la terra, e par che 'l cielo avvampi, /Perche bramar vi fate indarno ancora?//Qui dov' i boschi e i colli e i fiumi e i campi /V'aspettan lieti, e vi chiamano ogn'ora /Fior, fronde, erbe, ombre, antri, onde, aure soavi.* (Prima parte, sonetto CCXXXV, Benedetto Varchi, *Opere*, 2 vols. (Trieste: Lloyd Austriaco, 1858-59), II p. 867/ *De sonetti di M. Benedetto Varchi*, Firenze, 1555, p. 120) The last verse of this sonnet is taken over Petrarch's *Amor, che meco al buon tempo ti stavi...* (*Canzoniere*, 303.)
- ⁶ For a detailed history of the coming into being of the *Chirurgia* see C.E. Kellet, "The school of Salviani and the illustrations of the *Chirurgia* of Vidus Vidius," *Medical History* II (1958): 264-286 and Mirko Drazen Grmek, "Vidius et les illustrations anatomiques et chirurgicales de la Renaissance," in *Sciences de la Renaissance. VII Congrès international de Tours*. (Paris: 1973), pp. 159-186
- ⁷ Guidi's mother, Constance, was the daughter of the famous painter Domenico del Ghirlandaio (1449-1494). Varchi's mother, Diamante, had been wedded in a first marriage to the younger brother of Domenico, also a painter: Benedetto del Ghirlandaio (1458-1497), in homage to whom Varchi was given his first name. See Ludwig Choulant, *History and bibliography of anatomic illustration* (New York: Hafner Publishing Company, 1962 (1920)), p. 211 for Guidi's ancestry; see Gaetano (ed.) Milanese, "Vita di Benedetto Varchi," *Il Borghini* II (1864): 349-361 / 414-431, p. 351-352 for Varchi's ancestry and the story of his name.
- ⁸ "Presentai a S.M. [François I] le mie fatiche, le quali furono accettissime, e avendomi fatto pagare il salario d'un anno corso come medico, senza ch'io abbia servito, me n'ha ordinato un altro per lettore; e così prestamente m'ha spedito con doppio grado e salario a leggere in Parigi dove io mi trovo contentissimo. Comincerò in calen di settembre qualch'opera di Ippocrate; sono lettore libero senza alcuna soggezione di collegi. Salutate messer Luca Ghini, e offritegli se vuole di qua semplice alcuno, che me ne scriva; e io per l'ordinario quando avrò commodità di cosa che me paia degna di lui, non mancherò di mandargliela. Vivete felice, e salutate tutta la vostra Accademia per mai parte, e scrivete qualcosa. V[ostro] minor fratello Guido Guidi." Reprinted in *Opere* II, p. 288.
- ⁹ Cellini mentioned in his autobiography contacts with Varchi's brother, nicknamed *il Grasuccio*, as early as 1523. Fleeing the town after a bloody incident he caused and the ensuing death-sentence, Cellini is helped by *il Grasuccio* when, disguised as a monk, he just passed outside the city walls. See Benvenuto Cellini, *Vita*, ed. Ettore Camesasca (Milano: Biblioteca Universale Rizzoli, 1985), I.19, p. 118.

But now that the rays of the sun come down to split the earth
Right from above and with more weight,
Why do you needlessly leave us longing for you still?

Here, where the forests and the hills, the rivers and the fields,
Wait for you in joy, and that every hour calling for you are
Flowers, leaves, herbs, shadows, caverns, sweet breezes.⁵

2.B. GUIDO GUIDI

The Florentine physician Guido Guidi (Vidus Vidius in Latin; 1509-1569) gained considerable fame with the publication in 1544 of his commented translation of a series of Greek treatises on Surgery, the *Chirurgia e Graeco in Latinum conversa... cum nonnullis commentariis*. The nine treatises, issued from the Hippocratic collection, and later commented by Galen and Oribasius, had come down to Guidi in manuscript version through the intermediary of a humanist friend. Guidi by then was still in Italy where he had studied and worked as physician of Cardinal Ridolfi. In the early 1540's Guidi went searching for a patron to finance his translation. His work was ready to be printed. It included the translation of the manuscripts, an original commentary, and an impressive number of exquisite wood-engravings to illustrate the different therapeutic devices described in the text. He eventually found a patron in the person of the French King François Ier.⁶ The most immediate source we have on Guidi's first contacts with the French king, and his appointment as lecturer at the Collège Royal following his gift of his manuscripts for the *Chirurgia* to François, is a letter written by the physician himself to his long-time Florentine friend, Benedetto Varchi, who was even a distant cousin.⁷ The letter written from Paris on July 30th, 1542, and addressed to Varchi in Bologna, began with the words “*messer Benedetto mio carissimo*”. The last paragraph, in which the contacts with the king are evoked, contains also a kind reference to Luca Ghini, obviously by then a good acquaintance of both men.

“I presented to her Majesty [François I] the fruits of my labour, which he accepted with great pleasure, and after having me paid the salary for a year as physician, which I did not perform, he allotted me another stipend as lecturer. He thus dispatched me promptly with a double title and pay to lecture in Paris where I find myself most satisfied. I will begin at the calends of September with some work of Hippocrates; I'm a free lecturer without any imposed colleges. Greet messer Ghini, and tell him that, if he wants any simple (*semplice*) from here, that he only has to write me about it; and I as usual whenever I'll find anything within reach that I would estimate of interest for him, I will not refrain from sending it to him. Live happily, and greet the whole of your Academy on my behalf, and write something. Your little brother, Guido Guidi.”⁸

During his stay in France, Vidius was hosted by his compatriot Benvenuto Cellini (also one of Varchi's long-time friends⁹) in the property that François I had assigned him, the Hôtel du Petit-Nesle in Paris. Both Cellini and Guidi's access to the French court had been kindly prepared by Luigi Alamanni, the *fuonscito* poet with whom Varchi was in regular contact. Cellini wrote a lively account on the period he and Guidi lived together. It includes a description of the circumstances in which the *Chirurgia* was printed. Cellini had been actively co-involved in the undertaking.

“Far back in my autobiography I ought to have recorded the friendship which I won with the most cultivated, the most affectionate, and the most companionable man of worth I ever knew in this world. He was Messer Guido Guidi, an able physician and doctor of medicine, and a nobleman of Florence. [...] Messer Guido came to Paris; and not long after making his acquaintance, I took him to my castle, and there

- ¹⁰ “Sebbene molto prima io mi dovevo ricordare della mia guadagnata amicizia del più virtuoso, del più amorevole, e del più domestico uomo dabbene che mai io conoscessi al mondo: questo fu messer Guido Guidi, eccellente medico e dottore e nobil cittadino fiorentino [...]. Capitò il ditto messer Guido in Parigi; e avendole cominciato a cognoscere, lo menai al mio castello, e quivi gli detti una stanza libera da per sé: così ci godemmo insieme parecchi anni. [...] Con il sopraditto messer Guido godemmo l’amicizia tanti anni, quanto io là soprastetti, gloriandoci spesso insieme che noi imparavamo qualche virtù alle spese di quello così grande e meraviglioso Principe, ognun di noi innella sua professione. [...] Avevo in questo mio castello un giuoco di palla da giuocare alla corda, del quale io traevo assai utile mentre che io lo facevo esercitare. Era in detto luogo alcune piccole stanzette dove abitava diversa sorte di uomini, in fra i quali era uno stampatore molto valente di libri: questo teneva quasi tutta la sua bottega drento innel mio castello, e fu quello che stampò quel primo bel libro di medicina a messer Guido.” *Ibid.*, II.224–25, pp. 462–463. (English translation from Benvenuto Cellini and John Addington Symonds, *The autobiography of Benvenuto Cellini* (New York: Modern Library, 1985)).
- ¹¹ See Kellet, “The school of Salviati and the illustrations of the *Chirurgia* of Vidus Vidius,”; Michael Hirst, “Salviati illustrateur de Vidus Vidius,” *Revue de l’Art* 6 (1969): pp. 19–28.
- ¹² M.D. Grmek, “Guido Guidi” in Charles Coulston Gillispie, ed., *Dictionary of scientific biography*, 18 vols. (New York: Scribner, 1970–1990), vol. 5, p. 580.
- ¹³ The posthumous editions of Guidi’s unpublished works, edited by his nephew, Guido Guidi Jr., are the *Universae artis medicinalis pars quae at curationum morborum spectat* (Frankfurt, 1596); *Ars medicinalis* (three volumes, Venice: Giunti, 1611) which contained the first printed edition of the treatise on anatomy *De anatome corporis humani*, which was later published separately, in Frankfurt in 1626. As Ludwig Choulant wrote: “*The complete anatomic work which Guido left was also not published until long after his death, and when, at last it appeared it hardly received the attention that it deserved.*” Choulant, *History and bibliography of anatomic illustration*, p. 212.
- ¹⁴ M.D. Grmek, “Guido Guidi” Gillispie, ed., *Dictionary of scientific biography*, p. 581.
- ¹⁵ *L. Cons. GG.* in *Opere* II, p. 507.
- ¹⁶ Guido, ch’al sommo del arte guidi/Ch’or mantien sani, or toglie i corpi a quella,/Ch’al fin tutti gli sfacc ingorda e fella,/Quasi alto lume e chiaro agli alfei lidi;//L’opera che di nuovo ordita vidi/Al subbio tuo non men dotta che bella,/Ovunque luce la maggiore stella,//Perch’io non teco pur, ma soglio ancora/Col grande Arno allegrarmi e con coloro,/Che dopo di noi di mano in man saranno.//Tu più bel nome; ei maggior gloria ancora,/Essi, come alle piaghe, ai morbi loro/Per te vero rimedio e certo avranno. This first sonnet was published in the first volume of Varchi’s *Sonetti* (1555); *Sonetti* I, CCXCVI in *Opere* II, p. 876.
- ¹⁷ See *L. Gen. Corp.* in *Opere*, p. 287.
- ¹⁸ *L. cons. GG.* in *Opere* II, p. 507.
- ¹⁹ *Sonetti* III, XI in *Opere* II, p. 980. This sonnet, in which Varchi expresses beside admiration for his friend “voi sacro si denno e pio signore”, is full of melancholic remorse for Varchi’s own “mondano errore” and the “tante e si male spese ore”. The last tercet, especially, seems to announce Varchi’s own imminent death: “*Ond’io senza curar che prosa o rima/Segni il mio sasso, m’apparecchio andarne:/Pur bramo e spero ancor vedervi prima.*”

assigned him his own suite of apartments. We enjoyed our lives together in that place for several years. [...] We enjoyed our mutual friendship during all the years I stayed in Paris, and we did often did we exult together on being able to advance in art and knowledge at the cost of that so great and admirable prince, our patron, each in his own branch of industry. [...] I had a tennis-court in my castle, from which I drew considerable profit. The building also contained some little dwellings inhabited by different sorts of men, among whom was a printer of books of much excellence in his own trade. Nearly the whole of his premises lay inside the castle, and he was the man who printed Messer Guido's first fine book on medicine."¹⁰

Thanks to its wonderful illustrations, now generally attributed to Francesco Salviati,¹¹ *Vidius Chirurgia* is still considered “one of the most beautiful scientific books of the Renaissance.”¹² It was also a considerable scholarly achievement, which caused the envy of the Paris Faculty of Medicine. Vidius was to abandon his position in 1547, at the death of François I. Like Cellini had done two years earlier, Guidi then sought refuge in his homeland, where he was cordially welcomed by Cosimo de' Medici, who appointed him professor of philosophy and medicine at the Pisan *Studio* in 1548. While teaching in Pisa, Guidi prepared an ambitious treatise of anatomy, the *De anatome corporis humani libri VIII*, whom he composed around 1560, but which was never published during his lifetime. When it appeared, at last, in the early 17th century, it received only limited attention.¹³ According to Grmek, “Guidi's true merits can be established only after study of the original version of his anatomical work (MS II, III, 32, Biblioteca Nazionale, Florence), a study which has not yet been made. Guidi certainly described the vertebrae, the cartilaginous structures, and the bones of the cranium better than any of his predecessors. [...] It is interesting to note that his anatomical work concluded with a group of experiments on living animals (for example, ligature of the blood vessels). The first professor of medicine at the Collège de France thus inaugurated the method of vivisection that was to bring such fame to that chair.”¹⁴ Varchi in any case seems to have grasped the scientific qualities of a man whom he called “not only a friend, but a parent.”¹⁵ The first sonnet Varchi wrote to Guidi before 1555 is overflowing with praise for the scientist's achievements.¹⁶ Already in 1543, at the very beginning of the *Lezione sulla generazione del corpo*, Varchi referred to Guidi as “[il] maggiore e più eccellente medico che oggi viva e che forse sia stato da Galeno in qua”.¹⁷ Varchi would also intervene on behalf of his “little brother”, at the occasion of the leave-taking ceremony at the end of Guidi's consulate of the Accademia Fiorentina in 1554. Guidi, who had been elected *console* in 1553, was held, as outgoing official, to give a speech before the *Accademia*. But his activities at the Pisan *Studio* prevented him from coming to Florence on April the 1st. On request, Varchi had agreed to stand in and to give a self written short speech for the occasion. That speech has been conserved. The text is again an occasion to praise Guidi, who is referred to as “il molto così eloquente, come dotto M. Guido Guidi, filosofo e medico eccellentissimo.”¹⁸ Vidius died in Pisa in 1569. Just like Varchi, he made himself a priest towards the end of his life. He was given the high church office of provost of Pescia. Varchi's last and undated sonnet to Guidi is addressed: “a Monsignore M. Guido Guidi, preposto di Pescia.”¹⁹

²⁰ Choulant, *History and bibliography of anatomic illustration* , p. 169.

2.C. ANDREAS VESALIUS AND THE 1544 DISSECTION SESSION IN PISA

Andreas Vesalius was born in Brussels in 1514, from a respectable family of physicians, several of whom had been engaged in the translations of ancient medical texts. Andreas own father was apothecary to the Emperor, Charles V. Vesalius followed a preliminary education in Louvain, from 1528 on, first at the Pedagogium Caestre, later at the Collegium Trilingue, where he learnt to write his exquisite Latin, some Greek and acquired a base in the understanding of Hebrew and Arabic. In 1533 he was ready to undertake his formal training in medicine in Paris. But Vesalius was soon frustrated by an anatomical instruction that was almost exclusively theoretical, based on the exegesis of Galen's writings. The young man soon decided to complete his poor practical experience with his own investigations on human remains. He gathered these at the notorious gibbet of Montfaucon or at the cemetery of the Innocents. In 1536 the wars between Charles V and François I forced him, as an imperial subject, to leave France, before having completed his degree. Vesalius returned in Louvain, where he performed his first public dissection in 1537. It is in Louvain that he completed his baccalaureate that same year with a thesis immediately published with the title: *Paraphrase on the 9th book of Rhazes*. Vesalius then moved to Italy in order to obtain his doctorate in medicine. The circumstances there for studying medicine and anatomy were far better than in the rest of Europe. Vesalius matriculated at the prestigious *Studio* of Padua, one of the centres of the scientific Renaissance. The University had also developed, since its foundation in 1222, and especially since the days of Pietro d'Abano (1250-1316), a glorious medical tradition that even influenced Dante. In late 1537 Vesalius was granted his title of Doctor in Medicine with the highest votes by the Faculty of Medicine. He was thereupon immediately appointed professor of Surgery by the Venetiansenate, who tutored the institution, a nomination that included the responsibility of teaching anatomy. Vesalius was by then 23 years old.

Because of his defiant attitude towards the ancient authoritative texts, as was his equally unorthodox habit of descending from his chair to perform himself the anatomical demonstrations, Vesalius' lessons caused much commotion and attracted huge crowds of students. In 1538 the anatomist published the *Tabulae anatomicae sex*, a series of six large anatomical wood engravings, which combined highly detailed graphical representations with the corresponding nomenclature of the parts shown. The sheets were realized on behalf of the students in order to facilitate their understanding during the dissection sessions. With this innovation, an instantaneous success as demonstrated by the numerous plagiaries it suffered, even outside Italy, Vesalius showed to have grasped the full graphic and didactic potential offered by the new printing techniques. The *Tabulae* were also a tryout preparing a far more ambitious project that was to exploit the capacities of the printing media for teaching purposes at an unprecedented level.

In the early 1540's, while teaching and participating to some side-projects, like a voluminous edition of Galen's *Opera omnia*, published at the Venetian Giunti-press in 1541-1542, the anatomist was actively preparing his own decisive contribution to the anatomical discipline: the epoch-making *De humani corporis fabrica*. The book that made Vesalius "the founder of modern anatomy"²⁰ saw the light in 1543, printed with the utmost care in the shop of Johannes Oporinus from Basel, a former professor of Greek turned printer. The more than 700 pages thick in-folio, illustrated with a multitude of cleverly inserted wood-engravings of an unprecedented elegance and clarity in a scientific work, contained the sum of all the knowledge Vesalius had acquired through years of intense anatomical investigation and of restless scrutiny of the authoritative texts. The result was a strident denunciation of the many errors to be found in the antique canonical texts on human anatomy, and especially in the until then unanimously revered works of Galen, of whom Vesalius could

²¹ Andreas Vesalius, *Epistola, rationem modumque propinandi radicis Chynae decocti*. (Basel: Johannes Oporinus, 1546)

²² “In November 1543 a refurbished University of Pisa was reopened through the efforts of the young Duke Cosimo I, 1519–1574, who had gained his ducal throne only six years earlier. Exactly when the invitation had been tendered to Vesalius to give a short course in anatomy in Pisa is unknown, although Cosimo had sent Filippo del Migliore through north Italy in 1542 to recruit teachers, and it seems possible therefore that the emissary may have got in touch with Vesalius in the late spring or summer of 1542 before his departure from Padua and gained his promise to conduct the course that now was about to begin. Probably, this was prior to Vesalius’ appointment as an imperial physician, since it seems unlikely that, once located in the distant Netherlands, he would agree to the long journey to Italy for such a brief time as he was now to spend in Pisa.” Charles O’Malley, *Andreas Vesalius of Brussels 1514–1564* (University of California Press, 1964), p. 199.

²³ This changed in 1963 with the publication of L.R.C. Agnew, “Varchi and Vesalius,” *Bulletin of the History of Medicine* 37 (1963): pp. 527–531. It was Agnew who first formulated the possibility of a close tie between Vesalius and Varchi, basing himself exclusively on Varchi’s sonnet. In the wake of Agnew’s remark appeared Luc Indestege, “Vesalius’ lof in een gedicht van een tijdgenoot,” *Scientiarum Historia* 6, no. 4 (1964): pp. 178–184 which adds few information, except a versified and rhymed translation of Varchi’s sonnet in Dutch. Agnew had also suggested that among Varchi’s conserved papers traces of this relation might possibly be found. It is following this lead that Giuseppe Ongaro found five years later two autograph letters from Vesalius to Varchi in the collection of Varchi’s manuscripts conserved in the BNF. These two letters (BNF–Autografi Palatini: Varchi: Cass. II, 116–117) were dated December 27th, 1544 and May 11th, 1546. They were published in facsimile and transcription (without translation) in Giuseppe Ongaro, “Due lettere inedite di Andrea Vesalio a Benedetto Varchi,” in *Scritti in onore del prof. A. Pazzini* (Roma: 1968), pp. 559–574. In 1972 Michele Ciliberto published a third letter (BNF–Autografi Palatini: Varchi, cass. II, 118): M. Ciliberto, “I rapporti tra Vesalio e Varchi alla luce di documenti inediti,” *Episteme* 6 (1972): pp. 30–39.

²⁴ See Hossam Elkhadem, Paul Heerbrant Jean, and Liliane Wellens De Donder, *André Vésale. Expérimentation et enseignement de l’anatomie au XVI^e siècle*, Catalogue des expositions organisées à la Bibliothèque royale Albert I (Brussels: Bibliothèque royale Albert I, 1993), pp. 6–7. The same exhibition catalogue, though, did refer to Varchi’s sonnet from the 1555 edition of the *Sonetti*, a book that was exposed on the occasion, see pp. 18–19.

²⁵ See Ongaro, “Due lettere inedite di Andrea Vesalio a Benedetto Varchi,” p. 560 for details.

²⁶ Ciliberto, “I rapporti tra Vesalio e Varchi alla luce di documenti inediti,” p. 38.

demonstrate that he had never actually dissected a human body, despite the extremely detailed anatomical descriptions the antique physician had provided in his writings. The publication of the treatise represented a turning point in the discipline of such magnitude that present-day historians of anatomy refer to all that preceded 1543 as “pre-Vesalian” anatomy. The date also represented a turning point in the life of the anatomist himself.

Andreas Vesalius had dedicated the *De humani corporis fabrica* to the Emperor Charles V, with the aim of obtaining an appointment as court-physician. In August 1543, Vesalius left Basel, where he had been supervising the final phase of the printing process, for Gelderland where the Emperor was by then in campaign, in order to hand him over a fresh copy of the *Fabrica* printed on vellum with a magnificent leather binding, and to propose his services. Charles accepted the book and the proposal. From then on, until his death in 1564, Vesalius would not leave the service of the Emperor. He was appointed *medicus familiaris ordinarius*, a charge that, as it turned out, would not leave much opportunity for further scientific research. As is often noted with much amazement by present-day historians, at the age of 29, Vesalius’ scientific career had virtually come to an end.

Soon after his appointment, though, Vesalius left the Imperial court for a short stay in Italy. In the winter of 1543–1544, Vesalius stayed successively in Padua, Bologna, Pisa and Florence, where he performed widely attended public anatomical demonstrations and autopsies. The circumstances and the exact reasons of this stay in Italy have long puzzled historians. What was known from one of Vesalius’ later publications (the so-called *Letter on the Chinese root*, 1546) is that Cosimo de’ Medici had offered him the chair of anatomy at Pisa, with a generous salary of 800 crowns.²¹ Charles O’Malley suggested that Vesalius would have had contacts with the Duke’s head-hunters for the university, while these were browsing the north-Italian universities to recruit new professors for the University of Pisa, soon to re-open. According to O’Malley’s hypothesis, Vesalius refused the appointment, but agreed nonetheless to conduct the public anatomy session yearly held at the university during winter.²² That suggestion, though could not be supported by hard written proof. But a few years after the publication of O’Malley’s biography, three letters were found in the Florentine Biblioteca Nazionale, handwritten by Vesalius himself, and all three addressed to Benedetto Varchi. These letters clarify the course of events in the life of Vesalius for the years 1543–44. Before the discovery, Benedetto Varchi had hardly been put in connection with Vesalius. Varchi’s name does not appear in O’Malley’s monograph. One knew of a sonnet Varchi had addressed to Vesalius, published in 1555, but in the bulk of Varchi’s production, this piece had only received scant attention.²³ A study did even completely omit, while carefully listing the conserved letters of Vesalius, to mention the three Florentine ones addressed to Varchi.²⁴ That last fact becomes even more surprising if we consider the rarity of Vesalius’ autographs today. Only nine letters written by the anatomist have been preserved and are conserved today in different collections around the world.²⁵ One third of these have thus been addressed to Varchi.

The three letters in question allow for an accurate reconstruction of the Vesalius’ journey to Italy of the winter 1543–44, and its immediate aftermath. That journey represents a complicated episode in cultural diplomacy of a greater subtlety than one would have suspected.

The earliest of these three letters (and last to be found) was written from Padua on 11 December 1543. It already expresses an intimate friendship between Vesalius and Varchi. The address of the letter mentions: “Doctissimo viro Benedicto Varchio, amico suo ut fratri.”²⁶ It can be deduced from this message that, contrary to what had been thought, Padua had initially been Vesalius’ destination, instead of Pisa. As O’Malley had already specified, by the end of 1543 Vesalius’ ties with the University were not yet entirely severed (despite the fact that the Faculty had by then already

²⁷ See O'Malley, *Andreas Vesalius of Brussels 1514-1564*, 135.

²⁸ See Ciliberto, "I rapporti tra Vesalio e Varchi alla luce di documenti inediti," p. 37.

²⁹ Letter from Cosimo I to Benedetto Varchi, entitled "*al Magn. M. Benedetto Varchi nostro carissimo in Fiorenza*", BNF – Filza II Rinuccini; reprinted in *Ibid.*, p. 39.

³⁰ These texts, cited hereafter were first discovered and analysed in detail by Andrea Corsini in 1915, who provided a detailed reconstruction of Vesalius' Pisan journey and his lengthy anatomical demonstration. Andrea Corsini, "Andrea Vesalio nello Studio di Pisa," in *Volume pubblicato nel XXX anno di Direzione sanitaria del Prof. D. Barduzzi delle RR. Terme di S. Giuliano* (Siena: Stab. Tipografico S. Bernardino, 1915).

³¹ "...È arrivato qua il Vessalio per fare la notomia et la venuta sua assai ha dato piacere a S. Ecc.tia [Cosimo I] Scott Marble and., eds., *Architecture and body* (Rizzoli, 1988) La cagione perchè si spaccia questa scudetta è solo per havere a questo effetto di costà duoi corpi d'huomini morti et m'ha comandato S. Ec.tia lo scriva alla S.V.R. che subito si dia alla busca nello Spedale di S.ta Maria Nuova per haverne duoi non vecchi ma quanto più siano giovini non importerà. Dice il Campana [Francesco Campana] quando vene fussi uno di donna non importerà et trovati questi corpi lei gli farà chiudere in due casse et gl'invierà giù per lo Arno in un barchetto o navicello et con quella più celerità possibile gli farà condurre qua. Questo negotio V. S. R. lo farà fare secretamente sì di levargli corpi come di fargli condurre et gli farà consegnare qua nel convento di San Francesco de' frati conventuali dove sarà l'ordine Marble and., eds., *Architecture and body* " Brief sent from Marzio Marzi' de Medici (one of Cosimo's secretaries) to Pierfrancesco del Riccio, Maggiordomo on January 22, 1544. *Archivio di Stato di Firenze, Mediceo del Principato*, vol. 1171, n°6, f°286.

³² "Seguendo S. Ex. [Cosimo I] d'andare a udire questi dottori, hier l'altro fu alla lettione del Remigio, et del Brando, et hierj a quelle del Decano, et del Lapino, et con tale attentione et patientia gli hauditi, et poi sentiti disputare, et arguire, che più la S.V. non si potrebbe immaginare. Hoggi par che si sia fatta la vacatione, rispetto alla notomia, havendo j'l Vesalio cominciato a vedere et leggere quelle cose delli ossi, de' quali non si è potuto far lo schieletto intero, perchè il cadavero che venne di costà [Firenze] havea rotto non so che costole, sicchè el mal suo non fu pleura come qua fu avisato. Et doppo questo si anderà più innanzj et preparasi perchè questa vuol che sia l'ultima di fare cose grandi et farassi di più corpi, poichè de' subretti non manca, così di più huomini, come d'altri animali Marble and., eds., *Architecture and body* ." Report sent from Vincenzo Riccobaldi (one of Cosimo's secretaries) in Pisa to Pierfrancesco del Riccio, on January 30th, 1544. *ASE, Mediceo del Principato*, vol. 1171, n.°6, f.°283.

³³ "... El Duca [Cosimo I] non va alla notomia (come pare che habbi voglia) sentendo el Vesalio essere lodato di sorte che Galeno et Aristotile, quali in ogni lettione sino ad ora ha ripreso, et riprenderà più per l'avenire. A comparatione sua non hanno saputo niente in questo caso della Nothomia, cosa da fare stupire el mondo. Ha ancor le mani nell'ossa, et presto le metterà nella carne, dove ci sarà che fare un pezzo..." Letter from Vincenzo Ridolfi (court official) to Pierfrancesco del Riccio from Februari 2, 1544. *ASE, Mediceo del Principato*, vol. 1171, n.°1, f.°17. This letter was first attributed by Corsini (1915) to Vincenzo Riccobaldi, like the second (see above). This attribution was recently corrected by the authors of the Medici Archive Projects (see their entry n° 6166).

³⁴ See Corsini, "Andrea Vesalio nello Studio di Pisa," , p. 16.

attracted a successor to Vesalius: Realdo Colombo). Officially, Vesalius' absence had been an authorized permission. On December 10th, and very probably on Vesalius own insistence, the University authorities requested from the *Riformatori* that Vesalius' salary would be restored which had been wrongly withheld during his absence.²⁷ It appears from the letter, but also from Vesalius testimonies in the *Letter on the china root*, that he intended to exploit until the very end his prerogatives as professor of anatomy (before the definitive end of his contract) in order to perform anatomical research on human bodies, something that appeared impossible to do north from the Alps. In his letter, Vesalius explains his intention to remain in Padua at least for the winter. In the mean time, the correspondence is clearly an answer to recent prayers of Varchi on behalf of Cosimo for having the anatomist coming over to perform the traditional winter anatomy session in Pisa. On December 11th, Vesalius appears still uncertain about accepting to preside what he calls the "bacchanals" in Pisa. He appears reluctant to make concrete promises. While affirming not to put Cosimo's liberality in doubt, he says also to have been asked by the Ferrarese, by people from Verona... The anatomist promised to do his best in order to meet the desire of his friend.²⁸ As the course of events showed, he eventually surrendered to Varchi's pressure. A letter has been conserved written from Pisa by Cosimo himself on January 19th, in which he warmly congratulated his newly-appointed courtier for the obtained success. This message confirms the idea from Vesalius' own letter that it had been Varchi himself who led the negotiations. This message also makes clear that Vesalius was first to arrive in Florence, where Cosimo asks Varchi to give him the best welcome, from where he would travel to Pisa.

"Messer Benedetto carissimo, Noi haviam' preso con gran piacere, et contento d'intendere la resolutione del Vessalio di venirne a questa volta, quanto di cosa potessimo intendere: Restate costà [a Firenze] sino alla sua venuta, Raccoglietelo, e fategli quella buona compagnia, che voi solete, e faresti ad una persona da noi molto amata, com'è lui per le sue rare virtù; et sapendo che per essermi, oltre alle parte predette, vero amico voi non sete per mancare d'ogni buon ufficio, senza in altro affaticarci di questo ce ne riposeremo in Voi. Bene Valette. [...] el duca di Firenze"²⁹

If Cosimo left it over to Varchi to receive his friend in Florence, he seems to have personally overseen the practical organization of the event once Vesalius had actually arrived in Pisa. Three reports sent between the Ducal secretaries from Pisa to Florence provide us with many particulars illustrating this.³⁰ The first of these mentions how Vesalius' arrival toward the end of April 1544 caused "much pleasure to his Excellency" and that he personally ordered two corpses to be sent from the Florentine *Ospedale di Santa Maria Nuova*. The instructions order that the bodies ought not to be too old; It did not matter, furthermore, if one of both was a woman's body. The corpses had to be sent over the Arno on the fastest boats to be found, and with the greatest discretion.³¹ A report of January the 30th portrays Cosimo attentively following the courses of several of his Pisan professors, including the anatomy sessions of Vesalius.³² Three days later Cosimo is said to regret deeply not being able to follow the rest of the demonstration,

"since he heard Vesalius being praised as a like of Galen and Aristotle, whom in every lesson until now he has been correcting, and will correct in the future. According to him [Vesalius] those knew nothing in the field of anatomy, which is an astonishing claim. He still has his hands on the bones, and will soon attack the flesh, where there is not little to do..."³³

After the anatomical demonstration, which must have lasted for about three weeks,³⁴ Vesalius left Pisa towards then end of February, and stopped briefly in Florence, where he performed the autopsy on two men, the Florentine patrician Prospero Martelli, and the Siense Giurisconsult Marcantonio Bellarmati. He then returned to the Netherlands in order to fulfill his new duties at the Imperial court.

³⁵ See Vesalius, *Epistola, rationem modumque propinandi radicis Chynae decocti.* , p. 40.

³⁶ Ongaro, “Due lettere inedite di Andrea Vesalio a Benedetto Varchi,” , p. 566.

³⁷ Vesalius, *Epistola, rationem modumque propinandi radicis Chynae decocti.* , p. 195–196.

³⁸ See *Ibid.* , p. 40

³⁹ “All’eccellentissimo M. Andrea Vessalio: Vessalio mio, che così conto e chiaro/Il picciol mondo e le sue parti avete,/Come ha’l maggior Colui che ‘l fece, e sete/Solo senza simil, non dico paro://Al Toscan Duce non di voi men raro,/Intendendo de ma come sarete/Sopra l’Arno in breve alle Pisane mete,/Fu dolce più ch’io non so dire, e caro://E ch’io di nuovo caldamente a voi/Riscrivessi m’impose, e quanto all’opra/Facesse di mestier, tutto fornissi.//Movete dunque, e col favor di sopra/Venite a lui far lieto e tragger noi/Col lume vostro di si oscuri abissi.” Sonetti I, CCXXXVIII in *Opere* II, p. 867. In my own translation I tried to eliminate the many errors appearing in that proposed by Agnew: “My Vesalius, for I count you mine,/The world of the minute is clear and you have knowledge of its parts/Just as He who made it has the greater [world] and you/Are alone without anyone similar, let alone equal: //To the Tuscan Duke, no less excellent than you,/Hearing from me that you would shortly be/On the Arno within Pisan borders,/It was more pleasant and dearer than I can say://And he commanded me that I should again write warmly too/ and that I should furnish all/That was necessary to do the work:/Journey then and do us [with] the favor[.]/Come to make him happy and draw us/By means of your light from such dark abysses.” Agnew, “Varchi and Vesalius,” , p. 528.

⁴⁰ Cf. for example Indesteghe, “Vesalius’ lof in een gedicht van een tijdgenoot,” , p. 181; Elkhadem, Heerbrant Jean, and Wellens De Donder, *André Vésale. Expérimentation et enseignement de l’anatomie au XVIe siècle* , pp. 18–19.

⁴¹ See Andrea Corsini, “Nuovi documenti riguardanti Andrea Vesalio e Realdo Colombo nello Studio Pisano,” *Rivista delle Scienze Mediche e Naturali* III, no. 1-2 (1918): 507–512, pp. 508–509, for more details about the dealings between Cosimo I and Charles V on the matter.

⁴² Ongaro, “Due lettere inedite di Andrea Vesalio a Benedetto Varchi,” , p. 567.

The two other letters written by Vesalius to Varchi in 1544 and 1546, discussed the aftermath of the visit to Pisa in the winter of 1544, and provide details about Cosimo's offer to appoint Vesalius as a permanent professor in Pisa. As demonstrated by Giuseppe Ongaro, who first published both letters, the offer was made on Vesalius' own demand. Vesalius was experiencing far more difficulties than he had anticipated in his new responsibilities. Lacking expertise in the practice of curative medicine, the young anatomist was also confronted with a series of other court-physicians surrounding Charles V, which, on Vesalius' own account, were exceedingly backward-looking.³⁵

Vesalius also offers a testimony of the specific difficulties he encountered in the transition from a position as scientist towards a responsibility as court physician and surgeon, and the hostilities of the other court physicians.³⁶ The *Letter on the china root* vents on many occasions the frustrations Vesalius' experience in this difficult transition period, which led him, after destructive critique on his publications from some of the court physicians and other high officials to throw a great quantity of his own manuscripts notes to the flames, an impulsive deed which he understandably came to regret soon afterwards.³⁷ It is in this context that Vesalius asked Varchi to have an appointment proposal prepared. A notice that of course, much rejoiced both Varchi and Cosimo, who, together with his secretary Francesco Campana prepared in late 1544 the offer of a salary of 800 annual crowns.³⁸ It is probably in this context that Varchi's sonnet published in 1555, was written.

("to the most excellent M[esser] Andreas Vesalius)
My dear Vesalius, you who picture
The little world with the same clarity and precision
As He, who made it, pictures the greater one,
You are only without a match, I don't say without equal

The Tuscan Duke (no less rare than you are)
When he heard from me that you would soon
Arrive on the Arno at your Pisan destination,
Got sweet more than I could tell, and friendly;

And he ordered me adamantly to write to you again,
And regarding to the work, to take dispositions and
To make sure all would be purveyed

Move thus, and with the favour from above
Come to make him happy and to pull us
With your light, from such obscure abysses."³⁹

The sonnet was written in terms vague enough as to allow several modern authors to see it as fitting the context of Vesalius' imminent arrival in January 1543, as a temporarily appointed anatomist.⁴⁰ This confusion may not be accidental; by remaining vague Varchi was able in this one sonnet to refer to his leading role in the negotiations with the world-reputed scientist he twice played, as well as on the gratitude of Cosimo that resulted from it twice as well. He thus maximally exploited his prestigious contact for the fashioning of his own persona as a committed, learned and well-connected courtier.

Cosimo's proposal to appoint Vesalius almost caused a diplomatic incident with the Emperor, who refused to let his physician go. The duke of Tuscany was forced to apologize and alleged that he only dared buying off the anatomist in Imperial service, because it had been on Vesalius own request.⁴¹ In Vesalius second letter to Varchi, dated December 27, 1544, Vesalius apologizes to his friend for the imposed refusal to an offer that he had himself requested.⁴² His situation has improved in the mean time, and this may have been the very purpose of the whole undertaking; if Vesalius knew the

⁴³ “De me vero nihil scribam, quod quondam in eum locum recepistis, cui potissimum me prodesse voluissetis, si Grandvella aut Caesar ut ad studia rediissem, mihi concessissent.” Ibid., p. 574.

⁴⁴ On the bitter rivalry between Vesalius and Colombo, which originated in Vesalius' unexpected return in Padua in 1543, where he had found that his successor had been belittling his own reputation for a while, see O'Malley, *Andreas Vesalius of Brussels 1514-1564*, p. 110, 197, and elsewhere.

⁴⁵ The preface to the *Letter on the china root* is signed by Vesalius' brother, Franciscus. Andrea Corsini had first described the text of the dedication (Corsini, “Andrea Vesalio nello Studio di Pisa,” p. 7) as “*una prefazione che contiene espressioni della piu viva ammirazione per la liberalità di esso principe nel promuovere et nel agevolare gli studi : anzi è un vero inno di riconoscenza per quanto egli avea fatto a favore del fratello Andrea, allorche in Pisa avea potuto, disseccando cadaveri, mostrare agli studiosi la verità dei suoi asserti et ottenerne la piu ampia approvazione.*” Corsini did find, three years later, a document proving that the preface had in fact been composed by Vesalius himself. The decision to publish it under his brother's name was most likely taken out of fear to displease the Emperor with all too direct praise to Cosimo. See Corsini, “Nuovi documenti riguardanti Andrea Vesalio e Realdo Colombo nello Studio Pisano,” p. 511.

⁴⁶ Vesalius, *Epistola, rationem modumque propinandi radicis Chynae decocti.*, p. 140; translation from O'Malley, *Andreas Vesalius of Brussels 1514-1564*, p. 201.

⁴⁷ See Ciliberto, “I rapporti tra Vesalio e Varchi alla luce di documenti inediti,” p. 33-34.

⁴⁸ Ciliberto did refer briefly to Boccadiferro in his article, but only as Varchi's master in philosophy, under the overview of the existing literature on Varchi, under note 7, p. 33. The contact between Vesalius and Boccadiferro are not mentioned.

⁴⁹ These notes, which also constitute an extraordinarily vivid account of Vesalius' personality and his preoccupation with the promotion of his own empirical approach to anatomy, were published and translated in 1959 by Ruben Eriksson. Heseler makes clear, at the end of his account on Vesalius' third demonstration, given in the morning of January 16th, that besides Curtius, other Bolognese professors were present, among whom Boccadiferro: “*Curtius, Boccaferrius, Erigijs al alii multi abibant.*” Ruben Eriksson, ed., *Andreas Vesalius' first public anatomy at Bologna 1540: An eyewitness report by Baldasar Heseler medicinae scholaris together with his notes on Matthaeus Curtius' lectures on anatomia mundini*, Studies and sources published by the Swedish history of science society (Uppsala: Almqvist & Wiksells, 1959), p. 108.

Emperor would not let him go, the offer was a useful reminder to his employer of the high esteem in which he was held abroad. But a few months later, in the last letter, though, from May 11th of 1545, it is again vexation and regret that breathes through Vesalius' words:

“I won't write you anything about me, given that you have now accepted a certain person in this function that you had specifically destined for myself if Granvelle and the Emperor would have allowed me to return to the studies.”⁴³

A great part of Vesalius' frustration is caused by the fact that it is Realdo Colombo (the “*certain person*” in question) that had been appointed in Vesalius' place. Colombo was a former student of the Flemish anatomist at Padua, who soon turned out an aggressive rival as soon as Vesalius had left the place.⁴⁴ Regret also transpires through Vesalius' *Letter on the china root*, published by Oporinus in 1546. This book, which uses as the pretext of a discussion of the therapeutic uses of a medicinal substance, the so-called *china root*, for digressions on many other more general subjects, was dedicated to Cosimo de' Medici. The gesture was both meant a way of expressing his gratitude for Cosimo's care and kindness on his regard, as well as a hint for possible future benefits.⁴⁵ Both the text of the preface as the text of the *Letter on the Chyna root* repeatedly refer to Cosimo and his efforts to promote scientific study at the Pisan *Studio* in highly praising terms. Vesalius' own account, for example, of the rapid dispatching of one body from Florence (and not two as originally requested) at the start of the 1544 public dissection section reads as follows: “By order of the illustrious Cosimo, Duke of Tuscany – granted us by the Gods for the benefit of scholarship, and who has done everything that could contribute to the welfare of the students of the university – the cadaver of a nun from some burial vault in Florence was sent on a fast barge for the preparation of a skeleton.”⁴⁶

The friendship between Varchi and Vesalius most probably goes back to the period in which both men were living in Padua, that is, between 1537 and 1541, before Varchi left Padua for Bologna. As appears from their correspondence they knew each other well, and were well informed of their respective activities, for which they show mutual respect. Michele Ciliberto pointed towards a passage from Vesalius second letter (December 27, 1544) which refers to Varchi's project of vernacular erudition.⁴⁷ An supplementary bond between both men (which, as far as I now, has never been mentioned)⁴⁸ may lie in their common admiration and friendship for the philosopher Lodovico Boccadiferro. Vesalius might have known Boccadiferro from a series of anatomical demonstrations he gave as a guest-professor in Bologna in January 1540, sessions to which we know Boccadiferro assisted. Vesalius was invited to in Bologna, between January 15th and January 28, to conduct the “anatomy of three human subject and six dogs” which spanned over 26 six sessions. The anatomical demonstrations were alternated with lectures on Mondino de' Luzzi by Matteo Corte (Matthaeus Curtius) who was the regular professor of medicine at the University of Bologna. The two weeks revealed many overt disagreements between both men, which were carefully registered in the notes a German student, Baldasar Heseler, made of both the lectures and Vesalius' anatomical demonstrations.⁴⁹

Contrary to Matteo Corte (who was outraged by Vesalius' attacks on Galen), Boccadiferro must have remained much impressed by Vesalius' performance. In the *Letter on the chinese root*, Vesalius explained how, during his short Italian journey of 1543–1544, he had been staying for a short while in Bologna, while on his way from Padua to Florence and Pisa, in the house of a friend, Giovanni Andrea Bianchi. This Bianchi, supported by Boccadiferro who by then must have developed equally close ties with the anatomist, were able to convince Vesalius to participate to the ongoing anatomical demonstration at the University:

⁵⁰ Vesalius, *Epistola, rationem modumque propinandi radicis Chynae decocti.*, p. 176; English translation from O'Malley, *Andreas Vesalius of Brussels 1514-1564*, p. 198.

⁵¹ F. Puteus, *Apologia in anatome pro Galeno contra Andream Vessalium*, Venice, 1562, p. 116. See also Eriksson, ed., *Andreas Vesalius' first public anatomy at Bologna 1540: An eyewitness report by Baldasar Heseler medicinae scholaris together with his notes on Matthaëus Curtius' lectures on anatomia mundini*, p. 310, and O'Malley, *Andreas Vesalius of Brussels 1514-1564*, p. 198 on the episode.

“...my friends Boccadiferro and Bianchi, to whom I owe so much for their great kindnesses to me, and many of the students insisted that I dissect the major parts of a body then available; this dissection continued far into the night.”⁵⁰

Vesalius' account on the improvised Bolognese anatomy of 1544 is confirmed by another testimony, that of Francesco Pozzi (Franciscus Puteus), who specified that Vesalius analysed in particular the venous system of his subjects, but who also gave an account of the discussion that raged on the following days, between the professors and the student left alone after Vesalius' sudden departure. In the discussion Boccadiferro, defending Aristotle's positions, sharply attacked some of Galen's assumptions, which caused much anger on behalf of Barlolomeo Maggi, by then professor of anatomy in Bologna, and his students, which were all adopting a strong Galenist stance.⁵¹

References

ABBREVIATIONS

- Trattati* Barocchi, Paola, ed. *Trattati d'arte del Cinquecento: Fra Manierismo e Contrariforma*. 3vols., Bari: Laterza, 1960.
- Scritti* Barocchi, Paola. *Scritti d'arte del Cinquecento*, 3vols., Milano-Napoli: R.Ricciardi, 1971.
- Frey* Frey, Karl, ed. *Der literarische Nachlass Giorgio Vasari's*. 2 vols. Munich, 1923-30.
- Opere* Benedetto Varchi. *Opere di Benedetto Varchi, ora per la prima volta raccolte con un discorso di A. Rachei intorno alla filologia del secolo XVI e alla vita e agli scritti dell'autore aggiuntevi le lettere di Gio. Battista Busini sopra l'assedio di Firenze*. 2 vols. Trieste: Lloyd Austriaco, 1858-59.
- Vite* Vasari, Giorgio, Rosanna Bettarini, and Paola Barocchi. *Le vite de' più eccellenti pittori, scultori e architettori, nelle redazioni del 1550 e 1568*. 6 vols. Firenze: Sansoni, 1966-87.
G: Giuntina edition (1568)
T: Torrentino edition (1568)
(*Vite* G6 for instance refers to vol. 6, Giuntina version)
(<http://biblio.cribecu.sns.it/vasari/consultazione/Vasari/indice.html>)
- Crusc.* *Vocabolario degli Accademici della Crusca*, 1612.
(<http://vocabolario.biblio.cribecu.sns.it/Vocabolario/html/index.html>)
- MAP Medici Archive Project
(<http://www.medici.org>)
- DBI Dizionario Biografico Italiano
- OED Oxford English Dictionary
- BNF Biblioteca Nazionale Centrale di Firenze
- ASF Archivio di Stato di Firenze

For the abbreviations of Varchi's individual lectures, see the list in Appendix 1.

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- Fig. 6.17 Sisto de' Boni, *'il modo delli forni et vasi per rettificare l'acqua vite' (the method of the furnaces and vessels for the rectification [purification by means of repeated distillations] of aqua vitae)*, *Illustration from BNF, Ms. Palat 901*.
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- Fig. 6.20 Sisto de' Boni, *'uno alltro modo più bello et migliore et alltri belli vasi per cavare lo olio et acqua del sopho in maggiore quantità' (Another, more beautiful and better manner, with other beautiful vessels to extract oil and water from sulfur, in greater quantities)*, BNF, Ms. Palat 901.
- Fig. 6.21 Andreas Libavius, *multi-storied furnace with a covering in five parts*, from *Alchymia* (Frankfurt, 1606). Reprinted in *Libavius 1964*, p. 64.
- Fig. 6.22 Antonio Lorenzi & al. (?), *Grotta degli Animali*, ca. 1560-1570. Villa di Castello.
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- Fig. 6.27 F. Poppi, *The Foundry of the Bronzes*, 1571, Florence, Palazzo Vecchio, Studiolo.
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CHAPTER 7

- Fig. 7.1 Michael Maier, Emblem 36: 'Lapis projectus est in terras, & in montibus exaltatus, & in aere habitat, & in flumine pascitur, id est, Mercurius' (The Stone has been projected on earth and got carried away into the mountains; it lives in the air and feeds on the stream that is Mercury), *Atalanta Fugiens* (Oppenheim, 1617).
- Fig. 7.2 Sisto de' Boni, 'el forno secreto deli philosophi hatenore necessario dove se fa la retrogradazione deli dui luminarii et le circulationi et coagulazioni philosophiche' (The secret furnace athanor of the philosophers, necessary, where the retrogradation of the two luminaries is performed, as well as the philosophical circulations and coagulations), BNF Ms. Palat 901.
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- Fig. 7.4 'Conjunction sive coitus', from *Rosarium philosophorum* (Frankfurt, 1550). Reprinted in Roberts, 1994, p. 83.
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- Fig. 7.19 Giotto di Bondone, *Jona swallowed by the whale*, c. 1306. Padua, Cappella dell'Arena.
- Fig. 7.20 Guillaume Rondelet, *Physeter*, from the *Libri de Piscibus Marinis* (Lyon, 1554), p. 485.
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CHAPTER 8

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