

211 SCRIBES

211.0 Writing a piece of text often entails more than just making the letters. Correction, rubrication and decoration are often done at a later stage, and often also by persons other than the scribe; and if it is the scribe himself who does these jobs, he still does them in a different role.

In these matters, as in others, one should not, and can not, draw a precise line between those who write to make a book, those who write but not to make a book, and those who work to make a book but not by writing — SCRIBES, CLERKS and ■ILLUMINATORS■, for short.

211.1 **writer**

a person who, in whatever context, writes a (long or short) piece of text.

= FR 211.02 scripteur, ES 211.02 escribano, *scriptor*, IT 85/1 scriba, amanuense (cf. 85/3 scrittore ‘(a) author of a text, (b) = ‘writer’’)

211.2 **scribe** **copyist**

(a) a person who performs (or is able to perform) the work of writing a copy of a pre-existing text into a new book.

He is a **professional scribe** if he does this regularly, to earn his living; he is an **occasional scribe** if he does it sometimes, for no remuneration or one that merely supplements his normal income. To be distinguished from the author, who writes a text he himself is creating at the instant; the compiler and the excerptor, who write existing text but to an extent, and in an order, chosen by themselves; the ■reportator, who writes down a rendering (not necessarily verbatim) of a text that is being spoken by another; and the annotator, who also creates short texts in the instant, that, however, are subsidiary to a preexisting text.

(b) ‘Scribe’ is also used in the general sense of ‘writer’.

= FR 211.01 copiste, scribe, ES 211.01 copista, escriba, escribano, amanuense, IR 85/2 copista, trascrittore

(c) ‘Scribe’ is also used to mean ‘any of the persons that make the page’, without specifying whether the person(s) that decided the °layout, that executed the °pricking and the °ruling, the scribe(s), the °rubricator(s) etc. were the same.

211.3 **music scribe** ■ D: notator?

a °scribe specialized in writing the musical notation.

He would often be a different person from the **text scribe**.

211.4 **corrector**

a person who corrects errors made by the °scribe.

This role must sometimes be subdivided into the function of reading the text, finding the errors and noting the correct text (generally in the °margin), and that of actually executing the correction (generally in the ■body of the text).

Cf. FR 211.03 réviseur, correcteur, censeur, IT 85/6 revisore, correttore (but a **reviser** would rather be a person who feels entitled to make changes in a text for reasons of content or style, and a **ensor** one who is officially charged with checking whether a text conforms with certain norms, and if it does not, to delete the offending passages); = ES 211.03 corrector

211.5 **rubricator**

a person who executes the °rubrication.

= FR 211.04 rubricateur, ES 211.04 *rubricator*, IT 85/7 rubricatore

211.6 **illuminator** **limner**

a person who performs (or is able to perform) the work of executing ■■the illumination???, ■■the painted decoration???

- FR 211.05 enlumineur, ■ ES 211.05 iluminador, miniaturista, IT 85/8 miniatore
- IT 85/9 decoratore, ornatista ‘who executes the decoration’

211.7 **initialler** ■■

?? lettrist (D)

a person who executes (plain or decorated) °initials.

= FR 211.06 lettriste

Cf. ES 211.06 coloreador, IT 85/10 coloritore ‘person charged with colouring initials, miniatures and other elements of decoration’ ■■■

211.8 **flourisher**

a person who executes °flourishing.

211.9 **calligrapher**

a °writer whose script is remarkable for its esthetic qualities.

= FR 211.07 calligraphe; cf. ES 211.07, IT calligrafo calígrafo, pendolista ‘... or who intends to/is able to write faithfully according to a given model’

211.10 **writing master**

a person who, in a professional way, teaches the art of writing.

= FR 211.08 maître d’écriture, ES 211.08 maestro de escritura, IT 86/2 maestro di scrittura

211.11 **public scribe
scrivener**

a person whose profession is to execute small jobs of writing (which may even include copying books) for members of the public, against payment.

= FR 211.09 écrivain public, ES 211.09 escribano (a), IT 85/5 (b)

211.12 **clerk**

a person who executes various writing jobs (which may include copying books) in the service of a person or a body (such as a notary, a chapter, a town).

= ES 211.09 escribano (b,c), IT 85/5 (a)

211.13 **secretary**

a person who executes various writing jobs (which may include copying books) in the service of a person of rank to whom he is attached.

= FR 211.10 secrétaire, ES 211.10 secretario, IT 86/3 segretario

¶ # FR 211.11 notaire, tabellion, ES 211.11 notario, escribano publico, IT 86/4 notaio, tabellione, tabulario ‘person authorised to draw up and to authenticate documents’, notary; IT 86/5 scriniario ‘(the same) on papal authority’

¶ # FR 211.12 greffier, ES 211.12 escribano judicial, IT 86/6 cancelliere ‘person charged with the written report of legal procedures’

212 PEN AND INK

212.0 The quintessential implements of the scribe are PEN and INK, and these are the subject of this section, together with some tools directly related to them.

212.1 **pen**

a tool for writing with °ink.

If the pen is made from a bird’s feather, it is a **quill**; if it is from a reed or cane, it is a **reed pen**. It is hardly possible to distinguish these (and possibly metal pens) from the finished writing.

Note that the ‘reed pen’ of ancient Egypt is neither a reed nor a pen, but a thin rush (which is not hollow) with a slightly frayed end, functioning rather like a °brush.

pen — quill = FR 213.01 plume, ES 213.01 pluma, péndola, IT 89/2 penna (b) — (a)
reed pen: cf. FR 213.02 calame, ES 213.02 cálamo, IT 89/3 calamo (‘... or of metal’)

212.2 **shaft**

the round, hollow stem of the °pen (in which the °ink is held by capillarity).

= FR 213.03 fût, canon, tuyau, ES 213.03 cañón, IT 89/4 fusto, cannello
Cf. IT 89/5 canaletto ‘small furrow which runs along the shaft’

212.3 **barbs**

the filaments at the side of the stem of the feather.

These are **stripped** before °cutting the pen.

barbs = FR 213.04 barbe, barbule, ES 213.04 barba, bárbula

to strip = FR 213.05 ébarber, ES 213.05 desbarbar, IT 89/7 sbarbare

¶ # FR 213.06 plumet, ES 213.06 plumaje, IT 89/8 pennacchio ‘tuft of barbs left at the (upper) end of the shaft’

212.4 **to cut**

to trim

to shape the writing end of the °shaft with a cutting instrument.

= FR 213.07 tailler, ES 213.07 tallar, templar, IT 89/9 temperare, tagliare

¶ # FR 213.08 becquer, ES 213.08 despuntar, IT 89/10 spuntare, beccare ‘to spoil the point of the pen so that it can no longer produce a regular line’

■ ■ 212.5

¶ # FR 213.09 échancre, ES 213.09 escotadura, IT 89/11 scanalatura ‘the writing end of the °shaft, trimmed so as to form the °nib’

212.6 **nib**

the point of the °pen, provided with a °slit.

The point may be sharp; but most Medieval pens were cut with a **broad nib**; they may be **square-cut**, if the final cut is at right angles to the axis of the °shaft, or **right-oblique** or **left-oblique**, if the right- or left-hand side is slightly shorter than the other.

nib = FR 213.10 bec (a), ES 213.10 punta (a), IT 90/1 (FR, ES (b), IT 90/2 sponda ‘either of the two ends separated by the slit’)

Cf. FR 213.11 biseau, ES 213.11 bisel, IT 90/3 punta mozza, bisellatura, bisello ‘the edge of the broad nib’; FR 213.12 tranchant, ES 213.12 corte, IT 90/4 taglio ‘the width of the nib’; IT 90/5 taglio di sguincio ‘oblique cut’

212.7 **slit**

a longitudinal cut in the middle of the °nib, allowing the °ink to flow from the °pen.

= FR 213.14 canal, ES 213.14 canal, IT 91/1 fenditura, fessura, spaccatura, intaglio

212.8 ■ ■ ■ ■ mapping pen? (Cl.)

a type of °pen formed by two metal points whose distance can be regulated by a screw, so as to produce lines of any desired width.

■ ■ ■ does this exist in the Middle Ages?? ■ ■ ■

= FR 214.10 tire-ligne, ES 214.11 tiralineas, IT 93/1 tiralinee

212.9 **pen-knife**

a small, very sharp knife.

It may be constructed as a folding knife.

= FR 215.13 canif, ES 215.17 cortaplumas, IT 97/1 temperino, coltellino

212.10 **pen-case**

a case or box for carrying °pens and other scribe’s tools.

It is often combined with a portable ink container.

= FR 212.10 écritoire (b), 212.11 plumier; cf. ES 212.13 escribanía, 212.14 plumier, IT 89/1 portapenne, astuccio, teca libreria

212.11 **ink**

a coloured liquid suitable for tracing lines by means of a °pen.

Unless otherwise specified, ink is presumed to be ‘black’.

For °ruling, strongly diluted (very light brown) inks are often used, and sometimes inks in other colours, notably pink or violet.

= FR 221.06 encre, ES 221.06 tinta, IT 100/7 inchiostro

pink ink: FR 221.11 rosette, ES 221.13 rosácea, IT 101/4 rosetta

212.12 **vegetable ink**

°ink consisting (mainly) of vegetable ingredients.

= ES 221.07 tinta vegetal

212.13 **carbon ink**

°ink of a deep black colour due to the presence of carbon.

Pure carbon ink consists of carbon (such as °lampblack) and °gum arabic. But carbon may also be added to °metallic ink.

= FR 221.07 encre carbonée, ES 221.08 tinta al carbón, IT 100/8 inchiostro al carbone, - al nerofumo

212.14 **iron-gall ink**

copper-gall ink

°ink of a colour in the light brown to black range, due to a chemical reaction between a tanning substance (often °galls) and a sulfate of iron, — of copper (°vitriol).

Iron-gall inks are said to tend towards a reddish hue, copper-gall inks towards a greenish one.

Together they are called **metallic inks**.

= FR 221.08, 09 encre ferro-gallique, - -tannique, - cupro-gallique, -tannique, ES 221.10, 11 tinta ferro-gálica, - -tánica, - cupro-gálica, -tánica, IT 101/1, 2 inchiostro ferro-gallico, - -tannico, - cupro-gallico, -tannico

metallic ink = ES 221.09 tinta metálica, IT 100/9 inchiostro metallo-gallico

212.15 **invisible ink**

°ink whose trace is not visible under normal circumstances, but becomes visible on the application of heat or of a developing agent.

= FR 221.10 encre sympathique, ES 221.12 tinta simpática, IT 101/3 inchiostro simpatico

212.16 **ink-well**

ink-stand

a small container for °ink, into which the °scribe dips his °pen as he proceeds.

= FR 222.08 encrier, ES 222.10 tintero

212.17 **ink-horn**

an °ink-well made of (or made in the shape of) an animal’s horn.

= FR 222.09 corne, cornet, ES 222.11 cuerno

213 DRY MARKING TOOLS

213.0 Apart from the pen, the scribe has other instruments to draw lines and to write. Some — the STILUS — draw ‘blind’ lines; others — such as the PLUMMET — draw ‘coloured’ lines, but not by means of a liquid.

213.1 **dry point**
hard point

the sharp (but not too sharp) point of a hard instrument, used for tracing, by pressure, a non-coloured line — a **blind line** — on (or rather in) a ■ writing surface.

The effect is most frequently seen in °dry-point ruling, but also for instance in °dry-point glosses, or in ■ reader's marks such as crosses.

In many cases a slightly curved edge may also serve, such as the back of a knife, or even a thumbnail.

= FR 214.02 pointe sèche, ES 214.02 punta seca, IT 91/3 punta secca

213.2 **stylus**

stilus

a tool consisting of a stem of hard material (for instance metal, bone, wood) with a pointed end, suitable for producing °dry-point lines.

The typical form is that used for writing on °wax tablets, which has the other end flattened for erasing lines drawn in wax.

= FR 214.01 stilet, style, poinçon, traçoir, ES 214.01 punzón, estilo, IT 91/2 stilo, stiletto, punteruolo, graffietto

¶ # IT 91/4 matita cieca 'a tool of any material with a dry point'

213.3 ■■■■

a mineral substance capable of leaving a 'coloured' trace.

Such a substance may for instance be a metal or alloy, or a chalk. It is generally given the shape, or worked into a mixture capable of being given the shape, of a narrow cylinder, which can be placed in a holder, a **porte-mine**.

= FR 214.07 mine

the stick or cylinder of ■■■: FR 214.06 crayon

the holder: FR 214.08 porte-mine, ES 214.09 portaminas, IT 92/7 portamina

■■■ ES 214.06 lápiz, IT 92/5 matita, lapis 'writing tool that gives a black or grey line, consisting principally of a *mina*, which may be in a holder'; ES 214.07 mina, IT 92/6 mina 'narrow cylinder, of graphite or other material, that gives a dark trace'; ES 214.08 mina de plomo, IT 91/5 stilo di piombo, piombino, punta d'argento 'instrument consisting of a wooden stick with a metallic point (lead, silver ...) that gives a metallic grey line'; IT 92/8 apuntire, -tare, temperare 'to sharpen the *matita*'

213.4 **chalk**

white, friable mineral (calcium carbonate), used in the form of sticks that leave a trace.

= FR 221.01 craie, ES 221.01 tiza, yeso, IT 100/1 gesso

213.5 **silver-point**

lead-point

metal (silver-bearing lead or similar material) used, in a holder, for drawing silver-grey lines.

= FR 221.02 mine de plomb, - d'argent, ES 221.02 mina de plomo, - de plata, IT 100/3 mina di piombo, d'argento

213.6 **graphite**

a soft mineral (a form of carbon) used, in a holder, for drawing dark-grey lines.

Cf. FR 221.03 plombagine, graphite, mine de plomb, ES 221.03 plombagina, grafito, mina de plomo, IT 100/2 piombagine, grafite, nero di piombo

213.7 **plummet**

a composite material, containing lead, used for drawing grey lines.

Some lines appear to be drawn with an implement that is plummet, but also sometimes scores the surface like a °stylus (or: that appears to be a stylus, but its lines are sometimes plummet-grey); it might be called **hard plummet**.

■■ is that = mine de plomb? ■■

213.8 **red crayon**

red chalk

hematite (a natural ferric oxide, Fe₂O₃), or a composite material containing it, used for drawing red lines.

= FR 221.04 hématite, sanguine, ES 221.04 hematites, oligisto rojo, sanguina, IT 100/4 sanguigna, ematite (also 110/8 ematite)

213.9 ■■■**brown**

conventional name for undetermined materials drawing reddish-brown lines.

= IT 100/5 mina bruna

213.10 **charcoal**

carbonized (uncompletely burnt) wood, used for drawing black lines.

The French and Italian names suggest that it is properly the wood of the Spindle-tree (*Euonymus europaeus*).

= FR 221.05 fusain, ES 221.05 carboncillo, IT 100/6 carboncino, fusaggine

214 PAGE-MAKING TOOLS

214.0 There is a number of tools that serve particularly (though not exclusively) for preparing the page: treating the surface (such as POUNCE), determining the layout (such as a TEMPLATE), pricking (mainly the AWL), and ruling (for instance the RULER, or the RULING BOARD).

214.1 **pumice stone**

a porous volcanic rock, used as an abrasive.

= FR 215.17 pierre ponce, ES 215.23 piedra pómez, IT 97/7 pietra pomice

214.2 **pounce**

a mixture of various ingredients (generally containing at least a °resin, such as °sandarac, and some form of chalk, such as °chalk, powdered eggshells, powdered cuttlefish bones; sometimes also powdered glass), used to prepare the writing surface so as to accept the ink better.

Pounce is generally in a powdered form, to be sprinkled on the surface; but there are also recipes for brick-like forms, to rub the surface with.

Cf. FR 243.10 groison ('powdered chalk ...')

214.3 **pattern**

pattern sheet

a sheet containing, in actual size, shapes or dimensions that are to be copied.

= FR 215.04 gabarit, patron, ES 215.05 patrón, IT 94/3 sagoma; cf. ES 215.06 plantilla, 215.07 escantillón, ságoma 'instrument for drawing lines and fixing dimensions'

214.4 **template**

a °pattern sheet with pricked holes, or with lines or shapes cut out, so that transfer to another surface can be effected mechanically (by °pricking■■ or by °pouncing■■ through the holes, or by following the contours of the **stencil**).

■■214.5 = FR 215.05 pochoir, ES IT 94/4 maschera, sagoma forata, stampino

214.6 **awl**

a strong needle set in a handle.

= FR 215.09 alène, ES 215.13 lezna, IT 95/2 lesina

Cf. FR 215.08 tiers-point 'awl or file of triangular section' [ES 215.12 lima, IT 95/3 lima triangolare are said to correspond to FR 215.08, but are defined as a file!]

214.7 **pricking wheel**

a spiked wheel set in a handle, for making a line of °pricks for °ruling.

= FR 215.10 roulette, ES 215.14 rueda (a), IT 95/5 rutella, ruota dentata (a)

Cf. FR 215.11 molette, ES 215.14 rueda (b), IT 95/5 rutella, ruota dentata (b) 'spiked wheel'

Cf. IT 96/1 forchetta, portarotella ‘the handle of the pricking wheel’

214.8 **straight-edge ruler**

lath with sharp and straight edges, for guiding an instrument in tracing lines.

= FR 215.01 baguette, ES 215.01 regla, IT 93/3 riga, regolo

Cf. FR 215.02 férule, IT 93/5 ferula ‘ruler made of wood’; ES 215.02 pauta ‘instrument for ruling paper’; IT 93/4 righello, quadrello ‘ruler with a square section’

214.9 **set-square**

a tool consisting of two laths at a right angle.

= FR 215.03 équerre, ES 215.03 escuadra, IT 94/1 squadra

214.10 **protractor**

ES 215.04 transportador ‘instrument formed by a half-circle with degrees, used for drawing curved lines’

214.11 **French curves**

IT 94/2 curvilineo ‘instrument with the edges formed as a line with constant or variable curvature, used for drawing curved lines’

■ ■ Is there any support for the idea that these two might have existed in the Middle Ages? ■ ■

214.12 **ruling-board**

a board with a grid of threads or strings affixed to it, so that transfer of a °ruling pattern can be effected mechanically by rubbing.

= FR 215.06 planche à régler, mastara, ES 215.08 mastara, IT 94/6 mastara

214.13 **ruling-grid**

ruling-frame

a rectangular wooden frame with a series of wooden slats (or other elements) parallel to the shorter side, to be placed on a °sheet as a guide for °ruling.

= ES 215.09 plancha para pautar, IT 94/7 tavola per rigare

214.14 **rake**

a tool capable of drawing a number of parallel and equidistant lines at the same time.

Used probably first for °ruling °staves for music, then also for ruling pages.

Cf. ES 215.10 peine (‘... of lead or tin’), IT 94/8 pettine (same, and ‘at adjustable distances’)

214.15 **guide sheet**

feint-ruling

a sheet with a very visible °ruling on it, to be placed under the writing sheet so that the ruling can be seen in transparency.

= FR 215.07 guide-lettres, guide-âne, ES 215.11 falsilla, IT 95/1 falsariga, riga falsa

215 OTHER SCRIBAL TOOLS

215.0 Apart from specific writing tools, a scribe uses a number of common office implements, from a DESK or SCISSORS to some tools more often used for art work.

Writing-masters mention some other scribe’s (or clerk’s) tools: a thimble, a mirror, a lamp, some sort of clips, string, seals and sealing-wax.

215.1 **desk (reading-, writing-)**

a piece of furniture comprising an inclined plane to place a °sheet or a book, for writing or reading.

= FR 212.07 pupitre, ES 212.08 pupitre, IT 88/5 leggio
 Cf. IT 88/6 scannello ‘small box with an inclined lid, covered with baize, used as a desk and for storing writing tools’; 88/7 scriviritto, scrivimpiedi ‘a high desk used for writing in a standing position’; 88/9 scrivania ‘writing table with horizontal or inclined top, often with a number of pigeonholes’; 88/10 scrittoio ‘(a) a piece of furniture to write on, (b) a room for writing, studying or reading’

215.2 **writing-chair**

a piece of furniture uniting a chair and an (adjustable) °desk.

The desk may be a large, probably separate, **writing-board**.

= IT 87/4 banco (b); = FR 212.10 écritoire (a)? cf. ES 212.09 escritorio

215.3 **lectern**

a steeply inclined °desk on a vertical stand.

There are straight, **stand-alone lecterns** (often mounted on a column, sometimes with an adjustable screw device), and **swiveling lecterns** on a vertical axis with a Z-shaped bend, that allows the book to be precisely positioned (these were often affixed to, or associated with, a °desk or a °writing chair).

There were also **revolving lecterns**, conical structures turning on a vertical axis, allowing the user to have a number of books open at the same time.

= FR 212.09 lutrin, ES 212.11 facistol

¶ # FR 211.06 banc, ES 212.07 banco, banca (a) ‘table’, (b) ‘bench’; (a) cf. IT 87/4 banco (a) ‘horizontal or inclined table’, (b) = IT 88/1 panca, 88/2 panchetta; also 88/3 poggiapiedi ‘footstool’; 88/4 scranno, scranna, scanno ‘chair with arm-rests and a high back’

¶ # FR 211.08 bureau (a) ‘baize’, (b) ‘desk’; ES 212.10 fieltro, IT 88/11 feltro = (a)

215.4 **compasses**

dividers

a tool consisting of two hinged legs, that can be fixed at a desired angle, for drawing circles or transporting distances.

= FR 214.09 compas, ES 214.10 compás, IT 93/2 compasso, circino, sesto

215.5 **scraper**

razor (D razer)

a tool consisting of a sharp metal blade on a handle, for scraping surfaces.

Cf. FR 215.12 grattoir, rasoir, ES 215.15 raspador, raedera

215.6 **folder**

a blade of wood or bone, with a moderately sharp edge, for sharpening folds in °parchment or °paper.

= FR 215.14 plioir, ES 215.18 plegadera

Cf. IT 97/2 tagliacarte ‘opener’ (for °uncut books)

215.7 **scissors**

a tool consisting of two blades with opposed cutting edges, that pivot around a rivet.

= FR 215.15 ciseaux, cisailles, ES 215.19 tijeras, IT 97/3 forbice, -ci, cesoia, -ie (a)

215.8 **shears**

a tool consisting of two blades with opposed cutting edges, that are joined by a spring.

= FR 215.16 forces, cisailles, ES 215.20 cizallas, IT 97.3 forbice, -ci, cesoia, -ie (b)

215.9 **hare’s foot**

the foot of an animal with the fur, used *i.a.* for finishing the polishing of °gold leaf and for removing °pounce.

= FR 215.21 pied -, patte de lièvre, ES 215.29 pata de conejo, IT 98/5 pie di lepre

215.10 **plumblines**

a paper-weight (of lead), attached with a string to a similar counterweight or to the °desk, to hold the °sheet to the sloping surface of the desk.

= FR 215.22 fil à plomb, presse-papier, ES 215.30 plomada, pisapapeles, IT 98/6 fermacarte, filo a piombo

215.11 **sand**

a powder (which may consist of, or contain, sand but also many other ingredients) to sprinkle over °pages as a help in drying.

= ES 215.28 arenilla ('... particles of magnetic iron'), IT 99.5 polverino (a)

215.12 **sander**

a container with °sand, to sprinkle over °pages as a help in drying

= FR 222.15 sablier, ES 222.17 arenillero, salvadera, IT 99/5 polverino (b)

215.13 **stump**

a tool with a soft end, for spreading colours or softening drawings.

ES 215.16 esfumino, IT 96/3 sfumino

215.14 **burnisher**

a hard, smooth, rounded tool, made from an animal's tooth or from a (semi-)precious stone, used for making a surface smooth and brilliant by prolonged rubbing (°burnishing).

Suitable stones are **amethyst** (a violet variety of quartz), **jasper** (an opaque stone), **agate** (a stone with concentric zones of different colour) and crystalline °hematite. Dog's teeth are also a favourite.

= FR 215.18 brunissoir, polissoir, dent de loup, pierre à brunir, ES 215.24 bruñidor, pulidor, diente de lobo, piedra para pulir, IT 98/1 brunitoio, pietra da brunire, dente di lupo, dentello
amethyst = FR 215.19 améthyste, ES 215.25 amatista, IT 98/2 ametista

jasper = ES 215.27 diaspro, IT 98/4 diaspro

agate = FR 215.10 agate, ES 215.26 ágata, IT 98/3 agata

¶ # ES 215.21 cincel, IT 97/5 cesello 'chisel' (?); ES 215.22 buril, IT 97/6 bulino 'burin, graver'; IT 95/4 succhiello 'drill'; IT 97/4 tenaglia 'pincers'

216 ADHESIVES

216.0 A special place among scribal implements must be given to GLUE and PASTE.

216.1 **adhesive**

any substance that, adhering firmly to the surfaces of two materials, joins them by forming a thin layer between them.

= FR 242.01 colle, ES 242.01 cola, IT 117/2 colla, collante, adesivo, glutine, agglutinante

216.2 **glue**

an °adhesive made from °gelatin or °resins dissolved in hot water, used warm.

= FR 242.02 colle forte, - à chaud, ES 242.02 cola fuerte, IT 117/3 cola a caldo

216.3 **size**

a thin, weak (°hide) glue, used *i.a.* as a surface treatment for °paper, or as a °binding medium.

Other substances, used for similar purposes, are sometimes called by the same name.

= FR 243.04 eau de colle, ES 243.06 agua de cola, IT 120/4 acqua di colla, colletta

216.4 **gelatin(e)**

a complex protein present (in the form of collagen) in various animal tissues, which forms a colloidal suspension in water.

= FR 242.04 gélatine, ES 242.04 gelatina, IT 118/1 gelatina animale

216.5 **bone glue**

a °glue based on the °gelatin extracted from bones.

= FR 242.05 colle d'os, ES 242.05 cola de hueso, IT 117/6 colla d'ossa

Cf. IT 117/5 colla forte, - cerv(i)ona (cerbuna), caravella 'glue based on the gelatin from bones, skins, fish ...'

216.6 **hide glue**

parchment glue

a °glue based on the °gelatin extracted from offal of °skin, °leather, °parchment etc.

= FR 242.06 colle de peau, ES 242.06 cole de retal, IT 117/7 colla di pelle, - di pergamena, - di carnicci, - di spicchi

Cf. ES 242.07 ajicola 'glue from pieces of skin cooked in garlic'

216.7 **fish glue**

a °glue based on the °gelatin extracted from fish offal.

It was also used as a °binder for °gold leaf.

= FR 242.07 colle de poisson, ichtyocolle, ES 242.08 cola de pescado, colapez, IT 117/8 colla di pece, ittiocola

216.8 **paste**

an °adhesive based on °starch dissolved in hot water, used cold.

= FR 242.03 colle de pâte, - de farine, - blanche, - à froid, ES 242.03 engrudo, IT 117/4 colla d'amido, - di farina, - di pasta, - a freddo

216.9 **starch**

a carbohydrate present in plant cells, notably in the grains of cereals (wheat) and e.g. potatoes, which forms a colloidal suspension in water.

= FR 242.08 amidon, ES 242.09 almidón, IT 117/9 amido

221 DYES AND PIGMENTS

- 221.0 There are two sections devoted to matters which concern painters rather than scribes. This section begins by naming some of the basic concepts concerning PAINT, especially the insoluble PIGMENT, the soluble DYE that becomes a pigment if precipitated on a CARRIER, and the BINDING MEDIUM that enables the pigment to stay on the page.
- 221.1 **colorant**
a substance capable of giving a colour to another substance.
- 221.2 **paint**
a coloured substance, a liquid or a paste, destined to cover certain surfaces.
= FR 221.12 peinture, ES 221.14 pintura, IT 101/5 pittura, tinta, vernice
- 221.3 **gouache**
a °paint diluted with water, to give opaque colours.
= FR 221.13 gouache, ES 221.15 aguada, *gouache*, IT 101/6 guazzo
- 221.4 **water-colour**
■ ■ wash? ■
a °paint diluted with water, to give transparent colours.
= FR 221.14 aquarelle, ES 221.16 acuarela, IT 101/7 acquarello, acquerello
- 221.5 **layer of paint**
a layer of °paint on a surface.
= IT 101/8 pellicola pittorica
- 221.6 **flesh-colour**
°paint used to render the colour of the human body.
= FR 212.15 carnation, charnure, ES 221.17 encarnación, encarnadura, IT 101/9 incarnato
- 221.7 **dye**
a soluble substance that is capable of permanently colouring another substance.
= IT 104/1 colorante
- 221.8 **stain**
a °dye that requires no °fixative or °mordant.
- 221.9 **pigment**
an insoluble substance that, dispersed in a °binding medium, gives its colour to a °paint.
= FR 231.01 pigment, ES 231.01 pigmento, IT 104/2 pigmento
- 221.10 **lake**
(a) °colorant obtained from vegetable juices treated with °alum.
(b) °pigment consisting of an organic °dye permanently fixed on a mineral substance that serves as a **carrier**.
The carrier is often °chalk; generally a °mordant (such as °alum) is necessary.
= ES 234.04 laca, IT 101/10 lacca
- 221.11 **binder**
binding medium, - agent
medium
a colloidal substance that contains °pigments in solution or suspension, and that, when it dries, assures the permanent adherence of the pigments to the surface.
It may also be put on the surface before the pigment is added, or afterwards (as a °fixative).
= FR 243.01 liant, détrempe, bitume, ES 243.01 aglutinante, temple, bálsamo, IT 117/1

veicolo, mezzo

Cf. IT 119/8 legante, tempera (a) (tempera (b) ‘painting done with colours with yolk or °white of egg as a °binder [for panel painting]’)

221.12 **additive**

a substance added to one or more others to modify their properties.

Such an additive may for instance be a **solvent**, to make a mixture more fluid; a **diluent**, to augment its volume or lessen its concentration; a **siccative**, to accelerate its drying; or a **preservative**, to inhibit the growth of micro-organisms.

= ES 243.02 aditivo, IT 119/9 additivo

solvent: = IT 119/10 fluidificante

diluent: = IT 119/11 diluente

siccative: = FR 243.02 siccatif, ES 243.03 secante, IT 120/1 essiccante, siccativo, indurente [defined as ‘... that activates the fixing of the colorants’ — a mistake, presumably]

221.13 **fixative**

a substance that serves to attach the °colorants to the surface, or to protect them from environmental dangers.

= ES 243.04 fijador, IT 120/2 fissativo

221.14 **sugarwater**

solution of honey or sugar, used as a °binding medium.

= FR 243.03 eau de miel, - de sucre, ES 243.05 aguamiel, hidromiel (IT 120/3 gives miele, zucchero as substances used in water)

221.15 **gum water**

solution of a °gum (generally °gum arabic or °gum tragacanth), used as a °binding medium.

= FR 243.05 eau de gomme, ES 243.07 aguagoma, IT 120/5 acqua di gomma, - gommata

221.6 **glair**

white of egg

white of egg (albumen), treated so that it can be used as a °binding medium.

= FR 243.06 blanc d’oeuf, glaire d’oeuf, + clair d’oeuf, albumen, ES 243.08 clara de huevo, albura, IT 120/6 albume, chiara d’uovo, bianco d’uovo

221.7 **earwax**

a secretion of glands of the outer ear, used (to prevent froth) in preparing °glair.

= IT 120/10 cerume

221.8 **tallow**

the fat of several ruminants.

■■what is this for????????■■

= FR 243.07 suif, ES 243.09 sebo, IT 120/7 sevo, sego

222 PREPARING AND HANDLING COLOURS

222.0 This section mentions techniques for preparing paint (such as GRINDING), provisions for keeping them (the CLOTHLET, but also various small vessels), and tools for handling them, mainly the BRUSH.

222.1 **to grind** (D to crush, to grind, to powder)

(a) to reduce to small particles by crushing.

(b) to prepare (an °ink or a °paint) by grinding the ingredients.

= FR 222.01, ES 222.01 moler, triturar, IT 101/11 macinare, triturare, frantumare, pulverizzare

- 222.2 **■to dissolve**
to make powdered materials fluid by immersing them in water or a °binding agent.
= ES 222.02 desleir, IT 102/11 stemperare
- 222.3 **to sift**
to make a powdered substance pass through a sieve, to render it more homogeneous.
= IT 102/2 setacciare, stacciare
- 222.4 **to mix**
to mix °paints, or their ingredients, to obtain the desired colour.
= ES 222.03 mezclar, IT 102/10 mesticare (cf. 102/12 miscela, mistura, miscuglio, mescolanza ‘a mixture of several colours, obtained without chemical reactions’)
- 222.5 **strainer**
a piece of cloth serving as a filter.
= FR 222.03 étamine, ES 222.05 estamiña, IT 102/4 canovaccio, stami(g)na (cf. 102/3 filtrare ‘to filter’)
- 222.6 **grinding stone, - slab**
a hard, polished stone serving as a working surface for °grinding, by rubbing the material between the stone and a smaller stone (the **muller**).
Marble and porphyry are suitable materials.
= FR 222.04 porphyre, marbre, ES 222.06 pórfido, mármol, IT 102/5 porfido, marmo
- 222.7 **mortar**
a hollow container of hard material, for °grinding by means of an elongated, equally hard object, the **pestle**.
mortar = FR 222.06 mortier, ES 222.08 mortero, almirez, IT 102/6 mortaio
pestle = FR 222.05 pilon, ES 222.07 mazo, mano de mortero, - de almirez, majadera, IT 102/7 pestello
- 222.8 **crucible**
a hollow container of heat-resistant material, to contain substances that have to be submitted to fire.
= FR 222.07 creuset, ES 222.09 crisol, IT 222/8 crogiolo
- 222.9 **■■■**
to submit a substance to heat, in order to eliminate water or volatile substances and to induce chemical reactions.
= IT 102/9 calcinare
- 222.10 **clothlet**
a piece of cloth, saturated with a vegetable °dye, as a means of keeping the °colorant ready for use.
= FR 222.02 panne, panneau, ES 222.04 paño, lienzo, IT 102/1 pezzuola
- 222.11 **saucer**
a small, shallow container.
= FR 222.10 godet, ES 222.12 salserilla, IT 103/4 ciotola, scodella
- 222.12 **cockle-shell**
the shell of a mollusc (especially of scallop, Pecten), often used to contain small quantities of °paint.
= FR 222.13 coquille, ES 222.15 concha, IT 103/5 conchiglia
- 222.13 **phial**
a small vase with a narrow neck.
= FR 222.11 fiole, ES 222.13 redoma, ampolla, IT 103/3 fiala, orciolo
- 222.14 **dip-cup
dipper**

a small container with water or another liquid, to cleanse °brushes in or to keep them from drying out.
= FR 222.12 pincelier, ES 222.14 cubeta, pincelero, IT 103/6 bacinella

222.15 **brush**

a tool formed by a tuft of animal hairs (especially of small rodents) fixed at the end of a handle, suitable for spreading colours.

= FR 214.03 pinceau, ES 214.03 pincel ('... and for writing on certain surfaces'), IT 92.1 pennello

¶NB FR 214.04 soie, ES 214.04 cerda, pelo, IT 92/2 setola 'the animal hairs composing the brush' (and IT 92/3 vaio 'a species of squirrel'; FR 214.05 virole, collerette, collet, ES 214.05 arandela, IT 92/4 ghiera, bocciolo, bucciolo 'a collar (generally of a section of the shaft of a feather, or of metal) by which the hairs are affixed to the handle')

222.16 **palette**

(a) a thin slab of wood, with a device for holding it in the hand, on which a painter holds and mixes small quantities of °paint.

(b) the set of colours a painter prefers to use.

(a) = FR 222.14 palette, ES 222.16 paletta, IT 103/7 tavolozza

223 TANNINS AND MORDANTS

223.0 TANNINS (of which the best known comes from the GALL-NUT) and MORDANTS (of which the best known is ALUM) are not themselves colouring agents, but they are indispensable in working with them, whether it is inks or paints.

Some not directly related substances are also mentioned in this section.

223.1 **tannin**

any of a large group of substances contained in the bark and other organs of many plants, that have the property (a) of preserving skins (making them into °leather), (b) of forming, with several metallic salts, coloured precipitates that can be used in °inks.

Also called **tannic acid** (or gallotannic acid; from it, gallic acid can be derived); the precipitates are **tannates**.

tannin: = FR 241.01 tanin, tannin, ES 241 01 tanino, IT 115/1 tannino

tannic acid: = FR 241.02 acide gallique, ES 241.02 acido gálico, IT 115/2 acido gallico, -tannico

223.2 **gall**
gall-nut

excrescence on various plants (particularly on oaks: **oak-gall**), produced as a consequence of the sting of an insect (gall wasps), and very rich in °tannin.

= FR 241.03 noix de galle, ES 241.03 nuez de agalla, IT 115/3 noce di galla

223.3 **sumac**

a group of shrubs (i.a. *Rhus coriaria*) from which a °tannin can be extracted.

= IT 115/4 sommacco, scotano, cotina, capecchio

223.4 **valonea**

the dried acorn cups and the beards of certain species of oak (*Quercus aegilops*); a °tannin extracted from these.

= FR 241.04 valonée, IT 115/5 val(l)onea, val(l)onia

223.5 **myrobolan** (myra-, -balan, -ns)

the dried fruit of certain Oriental plants, from which a °tannin is extracted.

= FR 241.05 myrobolan, ES 241.04 mirobálano, IT 115/6 mirabolano (miro-, -balano), algarovilla, dividivi

223.6 **vitriol**

a sulfate that, combined with a °tannin, produces a black deposit used to make °ink.

Green vitriol is an iron sulfate, **blue vitriol** a copper sulfate.

green vitriol = FR 231.06 vitriol vert, ES 231.07 vitriolo verde, IT 105/4 vetriolo verde

blue vitriol = FR 231.07 vitriol bleu, - de Chypre, ES 231.08 vitriolo azul, IT 105/5 vetriolo blu, - di Cipro

223.7 **mordant**

a substance used to fix a °dye to a °carrier (resulting in a °lake).

Apart from substances named below, some common substances can also be used as mordants, such as wine, vinegar and urine (the latter known as ‘chamber lye’).

Cf. FR 241.06 mordant (b), ES 241.05 mordiente (b), IT 115/7 mordente (a) ((a) ‘the property of inks and dyes to attach themselves deeply to the support’)

wine: ES 241.06 vino, IT 115/9 vino

vinegar: FR 2412.07 vinaigre, ES 241.07 vinagro, IT 116/1 aceto

urine: ES 241.11 orina, IT 116/5 urina, orina

Cf. IT 115/8 mordenzare ‘to subject a material to the action of a mordent’

223.8 **tartar**

name given to several (potassium) salts of tartaric acid, which form as a deposit in wine, and are used as °mordants.

= FR 241.08 tartre, ES 241.08 tártaro, tártatro, sarro, IT 116/2 tartaro, feccia

223.9 **bile**

yellow fluid secreted by the liver, used as a °mordant (and also as a yellow °pigment).

= FR 241.09 fiel, bile, ES 241.09 hiel, bilis, IT 116/3 fiele, bile

223.10 **gall-stone**

a pathological concretion in the gall bladder, mistakenly sought as a source of °bile.

= FR 214.10 pierre de fiel, bézoard [but the bezoar is a hair-ball or similar object formed in the stomach], ES 241.10 cálculo biliar, IT 116/4 pietra di fiele

223.11 **alum**

a natural potassium aluminium sulphate (double sulphate), used as a °mordant (and for °tanning).

There are similar substances which are called by the same name.

= FR 241.11 alun, ES 241.12 alumbre, IT 116/6 allume, - di rocca, - di potassio, kalinite

223.12 **lye**

potash

a solution of wood ash, containing potassium carbonate (K_2CO_3), used as a °mordant.

223.13 **saltpetre**

a natural potassium nitrate (KNO_3), used as a °mordant.

= FR 241.12 salpêtre, nitre, ES 241.13 salitre, IT 116.7 salnitro, nitro

223.14 **sal ammoniac**

ammonium chloride (NH_4Cl), used as a °mordant.

= FR 241.13 sel ammoniac, ES 241.14 sal de amoníaco, IT 116/8 sale di ammonio, - di ammoniaco, - di ammonico

223.15 **garlic juice**

juice of garlic, used as a °mordant in °gilding.

= IT 116/9 succo d’aglio

- 223.16 **sweet almond oil**
a fluid obtained by pressing almonds, and used in °gilding.
= IT 116/10 olio di mandorle dolci

224 GUMS AND RESINS

- 224.0 GUMS, such as GUM ARABIC, and RESINS, such as SANDARAC, are substances that have manifold uses in book-making. But it rather difficult to be precise about which is used for what; and even more difficult to be certain which gum is meant by this or that name in our sources ('sandarac' may mean what we call 'realgar' or what we call 'minium'!)
- 224.1 **gum**
resin
terms for a great number of substances secreted by various plants and trees, that exude and then harden when the surface of the plant is incised.
They are gums if they are soluble in water, and resins if they are not. Some are qualified as gum-resins.
Apart from the more exotic ones cited below, gums are also extracted from native trees, notably **cherry, plum and almond**.
Cf. FR 242.09 gomme, résine, ES 242.10 goma, resina, IT 118/2 gommoresina (gomma-), resina naturale
cherry, plum, almond gum: IT 117/3 gomma di ciliegio, - di susino, - di mandorlo
- 224.2 **birdlime**
an adhesive substance made from the bark of holly (*Ilex aquifolium*) or mistletoe (*Viscum album*).
■■ codicology??■■
= FR 242.10 glu, ES 242.11 liga, IT 118/7 vischio, pania
- 224.3 **pitch**
a °resin from pine or fir trees.
= FR 242.11 poix, ES 242.12 pez, resina blanca [but there is a difference], IT 118/8 pece greca, colofonia
- 224.4 **gum arabic**
properly: a °gum secreted by several species of *Acacia*.
It was used very frequently, as a °binding medium and otherwise. The term is often used as a general term for gum.
= FR 242.12 gomme arabique, ES 242.13 goma arábiga, IT 118/4 gomma arabica, - del Nilo
- 224.5 **gum tragacanth**
a °gum secreted by the shrubs of the genus *Astragalus*.
= FR 242.13 gomme adragante, ES 242.14 goma adraganto, - tragacanto, IT 118/5 gomma adragante, - di Smirne, - di Morea, - di Siria, dragante, dragantone
- 224.6 **mastic**
a °resin extracted from the shrub *Pistacia lentiscus*.
= ES 242.15 amáciga, mástique, IT 118/6 mastice
- 224.7 **aloe gum**
a °gum extracted from *Aloe vera*.
= FR 242.14 aloès, ES 242.16 aloe, IT 118/9 aloe

- 224.8 **opoponax**
a °gum extracted from species of Commiphora.
= FR 242.15 opopanax (-ponax), ES 242.17 opopónaco, opopánax, IT 119/1 opoponaco (-pan-)
- 224.9 **asafoetida**
a °resin extracted from species of fennel (Ferula).
= FR 242.16 assa-foetida (-fétida), ES 242.18 asa-fétida, IT 119/2 assafetida
- 224.10 **sarcocolla**
a °gum extracted from various species of the shrub Penaea.
Said to have been used as a °binder in °miniatures.
= ES 242.19 sarcocola, IT 119/3 sarcocolla
- 224.11 **incense**
frankincense
a °resin from several species of the tree Boswellia.
= ES 242.20 incienso, IT 119/4 incenso
- 224.12 **sandarac**
a °resin from the North African tree Callitris quadrivalvis (= Tetraclinis articulata).
Used i.a. in °pounce.
= ES 242.22 sandáraca, IT 119/6 sandracca
- 224.13 **camphor**
a substance extracted from the wood of the Oriental tree Camphor laurel (Cinnamomum camphora).
■ ■ codicology?? ■ ■
= FR 242.17 camphre, ES 242.23 alcanfor
BUT: IT 119/7 olio di canfora ‘... used as a solvent for resins’ ■ ■ not before XIX?
- 224.14 **cloves**
the dried flower buds of the Oriental shrub Eugenia caryophyllata, used as an antiseptic in combination with °gums and °resins.
= IT 120/9 chiodo di garofano

¶ NB ES 242.21 gutapercha, IT 119/5 guttaperca ‘guttapercha, a resin from Malaysian trees’: not in Europe before ca. 1840.
-

231 BLACK

231.0 The most important black pigments are LAMPBLACK and CARBON BLACK.

231.1 lampblack

black deposit from smoke (**soot**), used as a °pigment.

The source are mostly vegetable oils, fats and °resins.

= FR 231.03 noir de fumée, suie, ES 231.03 negro de humo, hollín, atramento, IT 104/4 nerofume, fuliggine, atramento

Cf. IT 104/7 nero di lampada ‘black from oils, fats and other fuels’, 104/8 nero di resina ‘black from resins or from pine roots’

231.2 char

carbonized plant material (°charcoal) or animal material, used as a °pigment.

The best vegetal sources were vine shoots; other wood and fruit stones were also used (‘vine black’, ‘peach black’, ...) From animal sources, **bone black** (probably not in the Middle Ages) and **ivory black** (known in Antiquity, but probably not in the Middle Ages).

The term ‘carbon black’ is too comprehensive.

= FR 213.04 noir de charbon, ES 231.05 negro de carbón, IT 104/6 nero di carbone, - di carbonio (‘... (b) term for various substances which owe their colour to the presence of elementary carbon’)

general: ES 231.04 negro vegetal, IT 104/5 nero vegetale

Cf. IT 104/9 nero di vite ‘black from shoots of vines’, 104/10 nero di noccioli ‘black from fruit stones’

bone black: ES 213.06 negro animal, IT 105/1 nero d’ossa, - animale, carbone animale

ivory black: IT 104/11 nero d’avorio

231.3 sepia

blackish liquid secreted by the cuttlefish and other marine cephalopods, used as °ink or as a black °pigment.

Probably not used before the 16th century.

= FR 231.02 sépia, ES 231.02 sepia, IT 104/3 seppia

231.4 bistre

soot from wood (especially beech), suspended in water, used as a brown °pigment (or °ink).

= IT 105/3 bistro organico [IT 105/2 bistro, bruno di manganese ‘a manganese salt ...’ is not Medieval]

¶ NB FR 231.05 noir d’Allemagne ‘carbonic mineral (coal), powdered, used as a °pigment’

232 WHITE

232.0 The principal white pigment is WHITE LEAD.

232.1 white chalk

powdered chalk, used as a °pigment.

■ ■ in MSS? ■

= FR 232.01 blanc de Troyes, ES 232.01 creta, IT 105/6 creta bianca, biancone

232.2 lime-water

slaked lime (calcium hydroxide) diluted in water, used as a white °pigment.

■ ■ in MSS? ■ ■

= FR 232.02 lait de chaux, ES 232.02 lechada, IT 105/7 latte di calce

- 232.3 **plaster (of Paris)**
 material obtained from burning gypsum (hydrated calcium sulfate), used as a white °pigment.
 ■■in MSS?■
 = FR 232.03 plâtre, ES 232.003 yeso, IT 105/8 bianco di gesso cotto
- 232.4 **china clay**
Chinese white
 very fine clay, used mainly for pottery but also as a white °pigment.
 Medieval names are argilla, bolus alba.
 = FR 232.04 kaolin, blanc de potier, terre blanche, ES 232.04 caolin, arcilla blanca, IT 105/9 caolino, terra bianca, bianco dei vasai
- 232.5 **bone white**
 powder obtained from calcined animal bones, used as a white °pigment.
 A white pigment was also obtained from calcined egg-shells, or oyster shells.
 = FR 232.05 blanc d'os, poudre -, cendre d'os, ES 232.05 blanco de hueso, polvo -, ceniza de hueso, IT 106/1 bianco d'ossa, polvere -, cenere d'ossa
 oyster shells: IT 106/2 bianco di gusci d'ostriche
- 232.6 **white lead**
 lead carbonate, used as a white °pigment.
 Medieval white lead probably varied in composition. It is very poisonous; also it is incompatible with °verdigris and °orpiment.
 = FR 232.06 blanc de blomb, céruse, ES 232.06 cerusita, albayalde, blanco de plomo, IT 106/3 biacca, bianco di piombo, cerussa
 Cf. IT 106/4 bianco d'argento, - leggero 'variety of white lead'

233 YELLOW

- 233.0 WELD and ORPIMENT are the best-known yellow pigments.
- 233.1 **saffron**
 a substance extracted from the pistil of the homonymous flower (*Crocus sativus*), used as a yellow °stain.
 = FR 233.01 safran, ES 233.01 azafrán, IT 106/5 zafferano, croco ((a) the plant, (b) the pigment)
- 233.2 **turmeric**
Indian saffron
 a substance extracted from the root of *Curcuma* sp., used as a yellow °pigment.
 ■■is this ME???■
 = FR 233.02 souchet, safran des Indes, curcuma, ES 233.02 cúrcuma, azafrán de las Indias, juncia, IT 106/6 curcuma, zafferano degli Indiani (the plant; cf. 106/7 curcumina 'the substance extracted from *Curcuma*')
- 233.3 **safflower**
bastard saffron
 a substance extracted from Safflower or False saffron (*Carthamus tinctorius*), used as a yellow °stain.
 ■?????????????
 = FR 233.03 carthame, faux safran, safran bâtard, - d'Allemagne, ES 233.03 alazor, cártamo, azafrán romí(n), - bastardo, IT 106/8 cartamo, falso zafferano, z. bastardo, zafferanone
- 233.4 **weld**
 a substance extracted from Weld or Dyer's broom (*Reseda luteola*; = Wild woad), used as a yellow °pigment.
 = FR 233.04 gaude, ES 233.04 gualda, IT 106/9 erba guada (goda, gualda, guaderella), - lutea, - gialla, reseda dei tintori, biondella (the plant; cf. 107/1 luteolina 'the substance

extracted from it'

¶NB IT 107/2 arzica 'Medieval name for several yellow pigments, especially for the °lake from weld juice'

233.5 **aloes**

juice from the leaves of several species of aloe, used as a yellow °pigment.

■ME ??????■

= IT 107/5 aloe, succotrino

233.6 **massicot**

a lead oxide (PbO), used as a yellow-orange °pigment.

Litharge, of a similar colour, has the same composition but a different crystalline structure.

—Medieval and modern nomenclature are particularly inconsistent.

= FR 233.07 massicot, ES 233.07 masicote, IT 107/6 giallo di piombo, massicotite, massicot

litharge = IT 109/9 litargirio

233.7 **lead-tin yellow**

a lead stannate (Pb₂SnO₄), used as a yellow °pigment.

233.8 **orpiment**

an arsenic sulphide (As₂S₃), used as a yellow °pigment.

It is not compatible with °verdigris and °white lead.

= FR 233.10 orpiment, orpin, ES 233.10 oropimente, IT 114/5 orpimento, giallo reale, - del re

233.9 **realgar**

arsenic sulphide (As₂S₂), used as an orange °pigment.

It is also used as a °preservative.

= FR 234.12 réalgar, ES 234.18 rejalgar, IT 110/3 realgar, risagallo (risi-, risal-)

¶NB FR 233.05 gomme-gutte, ES 233.05 gomorresina, IT 107/3 gommagutta 'a resin extracted from an Oriental shrub, used as a yellow °pigment': not before the 17th century

¶NB FR 233.08 jaune de Naples, ES 233.08 amarillo de antimonio, - de Nápoles, IT 107/7 giallo di antimonio, - di Napoli, - egiziano 'Naples yellow, a lead antimonate (Pb₃(SbO₄)₂), used as a yellow °pigment' — but not before 1620

¶NB IT 107/8 giallorino 'ambiguous Medieval term, which appears to refer to °Naples yellow, °massicot or °lead-tin yellow'

¶NB FR 233.06 safran minéral, ES 233.06 azafrán mineral 'a sulfite of antimony, used as a yellow °pigment': unclear whether Medieval.

234 RED

234.0 For red pigments the confusion of names is particularly serious. 'Minium' sometimes seems to mean what we call CINNABAR, 'cinnabar' may mean DRAGON'S BLOOD, the name 'VERMILION', now used for artificial cinnabar, should properly mean CARMINE ...

234.1 **madder**

a plant (*Rubia tinctorum*) whose root provides a red °dye (alizarin).

= FR 234.01 garance, alizari, ES 234.01 rubia, granza, alizarín, IT 108/1 robbia, garanza (ES 234.02 purpurina, alizarina, IT 108/2 alizarina 'the pigment')

madder °lake: ES 234.04 laca de rubia, - de grana, IT 108/3 lacca/rosso di robbia, - di garanza, garanzina

234.2 **archil**

blue, red or purple °dye extracted from various kinds of lichen.

These lichens are also the source of litmus.

= FR 234.02 orseille, ES 234.05 urchilla, IT 108/4 oricello, tornasole, laccamuffa (108/5 orcina ‘the colouring agent in archil’)

234.3 **alkanet**

dyer’s bugloss

a plant (*Alkanna tinctoria*) whose root provides a red to violet °dye (alkannin).

= FR 234.03 orcanette, ES 234.06 orcaneta, IT 108/6 orcanetto, alcanna spuria (108/7 alcannina ‘the dye’)

234.4 **brazil(-wood)**

a red °dye extracted from the wood of an East Indian tree (*Caesalpinia sappan*).

= FR 234.04 brésil, ES 234.07 brasil, IT 108/8 brasile, brasilio, verzino (108/10 brasilina ‘the dye’)

Cf. ES 234.08 laco de palo de Brasil, - de Pernambuco, IT 108/9 lacca di verzion, rosa, rosetta ‘lake obtained from brazilwood’

234.5 **dragon’s blood**

a red °resin from East Indian trees (especially *Dracaena draco*).

= FR 234.05 sang-dragon, laque de Venise, ES 234.09 sangre de drago, laca de Venecia, IT 109/1 sangue di drago, lacca di Venezia, resina di dragone

234.6 **shellfish purple**

a red to violet °dye extracted from various marine snails, especially of the genus *Murex*.

= FR 234.06 pourpre, ES 234.10 púrpura, IT 109/2 porpora

234.7 **carmine**

a red °dye obtained from kermes, that is dried females of an insect (particularly *Coccus ilicis* = *Kermes vermilio*).

Note that cochineal, a similar source, is from Mexico and was not known here before the sixteenth century.

= FR 234.07 carmin, laque, ES 234.12 carmin, IT 109/4 carminio, cremisi, chermisi
kermes: FR 234.08 cochenille, kermès, graine d’écscarlate, ES 234.11 cochinilla, quermes, IT 109/3 cocciniglia, chermes, kermes

Cf. ES 234.13 laca de cochinilla, - de quermes, IT 109/5 lacca ci chermes, - di cocciniglia ‘lake obtained from kermes’

¶ NB ES 234.14 gomalaca, laca de las Indias, IT 109/6 gommalacca, lacca rossa, - indiana ‘red lacquer obtained from the secretion of small insects [*Laccifer lacca*]’ is shellac, a varnish used i.a. for furniture (French polish), but apparently not in the Medieval West (IT 109/7 laddia ‘the colouring agent in shellac’)

234.8 **minium**

a lead oxide (Pb_3O_4), used as an orange-red °pigment.

= FR 234.09 minium, stupium, ES 234.15 minio, IT 109/8 minio, - di piombo, biacca bruciata, - usta, cerussa usta

234.9 **cinnabar**

sulphide of mercury (HgS), used as a red °pigment.

It is a natural pigment, but can also be made artificially, and is then called ‘vermilion’.

= FR 234.10 cinabre, ES 234.16 cinabrio, IT 110.1 cinabro

Cf. FR 234.11 vermilion, ES 234.17 bermellón, IT 110/2 vermiglione, vermiglio, cinabro artificiale ‘a red colour on the base of °minium or cinnabar’

234.10 **ochre**

an earth colour, reddish or yellowish (**red, yellow ochre**) according to the prevalence of iron oxide (°hematite, Fe_2O_3) or hydrated iron oxides (limonite), used as a °pigment.

= FR 233.09 ocre, ES 233.09 ocre, IT 107/9 ocre (both), 107/10 ocre gialla ‘yellow ochre’; cf. 107/11 limonite ‘a mixture of iron oxides, the base of all yellow iron pigments’

red ochre: ES 234.20 almagre, ocre rojo, IT 110/6 ocre rossa, terra rossa, rubrica
 Cf. IT 110/7 ocre bruna, terra d'ombra, - di Siena, - gialla, - bolare 'ochre of reddish-brown colour, rich in iron oxides and manganese'

234.11 **hematite**

an iron oxide (Fe₂O₃), principal component of all reddish iron-based °pigments.
 It exists in various forms: as an earth, but also as a hard crystalline stone (suitable to make a °burnisher).
 = IT 110/8 ematite

234.12 **sinoper**

a variety of red °ochre, used as a °pigment.
 Cf. FR 234.13 sinople, ES 234.19 sinople, IT 110/4 sinopia [who say that it is 'a variety of red quartz']
 Cf. IT 110/5 cinabrese 'cinabrese, a mixture of sinoper with ■■°lime white, used to paint flesh colour'

235 GREEN

235.0 SAP GREEN, VERDIGRIS and MALACHITE appear to be the principal green pigments. There must have been many more green pigments than enumerated here.

235.1 **sap green**

a green (or yellow) °dye extracted from the ripe berries of several species of Rhamnus (R. cathartica, Common buckthorn, and R. frangula [= F. alnus], Alder buckthorn).

From the unripe berries a yellow dye is extracted.

= FR 235.02 vert de vessie, - d'épine, ES 235.01 verde de espino, IT 110/9 verde vescica
 buckthorn: FR 235.02 nerprun, bourdaine, bougue-épine [but nerprun = R. cathartica,
 bourdain = R. frangula!], ES 235.02 cambrón, nerprun, arraclán, IT 111/1 spincervino, grani
 gialli, - di Persia, - di Avignone

the yellow °lake from Rhamnus (also from other plants: °weld, °turmeric ...): IT 107/4 giallo
 santo, stille di grano

Cf. FR 235.03 prunellier, épine noire, ES 235.03 endrino, espino negro IT 111/2 prugnolo,
 prugno selvatico, susino selvatico, spino 'Blackthorn (Prunus spinosa) [its berries = sloe],
 which produces a similar dye'

235.2 **black nightshade**

a plant (Solanum nigrum) whose leaves provide a green °dye.

Some other plants can also provide green dyes.

= IT 111/3 erba morella

235.3 **rue**

a plant (Ruta sp.) from whose leaves a juice can be extracted that is used to mix with °verdigris.

Various other plants can be used for similar purposes.

= IT 111/4 erba ruta

235.4 **iris green**

a green °dye extracted from the flowers of the Iris (Iris pseudacorus).

= FR 235.04 vert d'iris, - de lis, ES 235.04 verde de lirio, - de lis, IT 111/5 verde d'iris, -
 d'ireos, - di giaggiolo, - di gladiolo

235.5 **verdigris**

an acetate of copper, used as a green °pigment.

There were many varieties of this pigment. Some corrode parchment. It is incompatible with °white
 lead and °orpiment.

= FR 235.05 vert-de-gris, - de Rouen, - de cuivre, ES 235.05 verdín, cardenillo, IT 111/6

verderame

235.6 **malachite**

a green copper carbonate (closely related to °azurite, but with a slightly different molecular structure).
 = FR 235.06 malachite, outremer vert, ES 235.06 malaquita, verdemar, IT 111/7 malachite
 The °pigment derived from malachite: FR 235.08 vert d'azur, azur vert, vert d'Allemagne, IT 111/8 verde malachite, - azzurro, - della Magna, - di montagna
 ¶NB IT 111.9 crisocolla 'generic Medieval term for malachite and other copper compounds'

235.7 **vergaut**

a mixture of °orpiment and °indigo, which makes a green °pigment.

235.8 **terre verte**

a greenish earth, used as a °pigment.
 = FR 235.07 vert de Vérone, terre verte, ES 235.07 verdemontaña, IT 112/1 terra verde, - di Verona, celadonite (sel-)
 Cf. IT 112/2 verdaccio, bazzeo 'dirty green mixture of °ochre and terre verte'

236 BLUE

236.0 The principal blue pigments are those from INDIGO and WOAD, LAPIS LAZULI and AZURITE.

236.1 **indigo**

a blue °dye (indigotin) extracted from the leaves of an Oriental shrub (*Indigofera tinctoria*).
 Other plants of the family also produce the same dye.
 = FR 236.02 indigo, ES 236.02 añil, índigo, IT 112/5 indaco (112/6 indacano 'the colouring agent in indigo')

236.2 **woad**

a plant (*Isatis tinctoria*) from which a blue °dye (indigotin) is extracted.
 The dye from woad (and several other plants) is almost identical with Oriental °indigo.
 = FR 236.01 guède, pastel, isatis, ES 2326.01 glasto, hierba pastel, IT 112/3 isatide, guado, glast(r)o (112/4 guado (etc.)), falso indaco 'the dye extracted from woad'

236.3 **turnsole**

a plant (*Crotophaga tinctoria*) from which **folium**, a °dye of variable colour (between blue, violet and red, depending on the acidity) is extracted.
 turnsole = FR 236.04 tournesol, croton des teinturiers, ES 236.04 tornasol, IT 112/7 tornasole, eliotrope minore
 folium = FR 236.03 folium, ES 236.03 folium, IT 112/8 tornasole, *folium*

236.4 **lapis lazuli**

a semi-precious stone, composed of several minerals (aluminium silicates with sodium and calcium, lazurite), from which the blue °pigment **ultramarine** is extracted.
 lapis lazuli = FR 236.05 lapis-lazuli, azur, lazurite, ES 236.05 azur, lazulita, IT 112/10 lapislazzuli (113/1 lasurite 'principal component of lapis lazuli')
 ultramarine = FR 236.06 outremer, ES 236.06 azul marino, - de ultramar, IT 113/2 azzurro/blu oltremare, - oltremarino, azzurro di pietra

236.5 **azurite**

a blue copper carbonate (closely related to °malachite, but with a slightly different molecular structure).
 = IT 113/3 azzurrite, pietra di Armenia (113/4 azzurrite, azzurro della Magna, - d'Alemagna, - tedesco, azzurro/blu citramarino, - di montagna, - di Armenia 'the °pigment derived from azurite')
 Cf. FR 236.07 azur d'Allemagne 'a mineral of silver with copper or cobalt, used as a blue pigment' [but probably the pigment from azurite is meant]

¶NB IT 112/9 ciano ‘a term for natural or artificial azurite; a °dye derived from Cornflower (Centaurea cyanus)’

¶NB ES 236.07 azul de Prussia ‘a compound of iron and cyanogen’ is not Medieval

ES 236.08 azul de Sajonia ‘a solution of °indigo in sulphuric acid’ ■■ = Fr. bleu de Saxe; used for textile dyeing, but when? ever in books MA????????????

236.6 **smalt**

a potassium glass coloured blue by cobalt salts and used as a °pigment.

Probably not before the 15th century. — Glass coloured by copper salts produces **Egyptian blue**, known in ancient Egypt but probably still in use in the earlier Middle Ages.

= FR 236.08 bleu d’email, smalt, ES 236.09 esmalte, IT 113/5 blu di smalto

¶NB FR 236.09 améthyste, ES 236.10 amatista, IT 113/6 ametista ‘amethyst, a violet variety of quartz, used as a °pigment’ — probably not in books

237 GOLD

237.0 GOLD is, of course, not a real ‘colour’, but evidently it is one of the most important items in Medieval painting. In this section it is described, together with some of the ways of handling it (BURNISHING, ARMENIAN BOLE), and some of the ways to imitate it (MOSAIC GOLD).

237.1 **gilding**

application of gold (either as °leaf gold, or as °powder of gold as a °paint) or of materials resembling gold.

= FR 212.16 dorure, ES 221.18 dorado, IT 113/7 dorature

237.2 **gesso** **bole**

preparatory layer on which painting or °gilding is executed.

It consists basically of an inert base (such as chalk), a °binder (for instance °size), a humectant (for instance honey), and a colouring agent (most often °Armenian bole).

= FR 243.08 assiette, assize. ES 243.10 sisa, asiento, IT 120/11 assiso, asiso, mestica

237.3 **primer**

white material with which surfaces destined to receive a painting are covered.

= FR 243.09 imprimure, ES 243.11 imprimación, IT 121/1 imprimitura

237.4 **Armenian bole**

a soft earthy clay (coloured red by iron oxides), used in making a °gesso for °gilding.

= FR 243.11 bol d’Arménie, ES 243.12 bol de armenia, - arménico, IT 120/2 bolo d’Armenia, - armeno, terra bolare, - di Lemno

237.5 **fig milk**

a milky fluid extracted from fig trees, used to slow down drying processes of certain °paints, and as a °mordant for °gilding.

= IT 120/8 latte di fico, lattificio

237.6 **to burnish**

to make smooth and polish a metal surface.

= IT 113/9 brunire

¶NB IT 114/7 oro matto, - opaco ‘unburnished gold’

237.7 **gauffered** **incised** **punched**

(of gold surfaces:) provided with a decoration consisting of lines and patterns impressed into the surface.

237.8 **leaf gold**

gold leaf

gold in the form of very thin sheets, used for °gilding and illumination.

= ES 221.201 oro batido, pan de oro, IT 113/10 oro in foglia, - in fogli, - in lamina, foglia d'oro

¶NB ES 221.22 batihoja 'gold- or silver-beater'

237.9 **powder of gold**

gold powder

gold in the form of a fine powder, used for painting (with pen or brush), and also for writing.

Powder of gold can subsequently be °burnished.

= ES 221.19 oro molido, IT 113/11 oro in polvere, polvere d'oro

237.10 **shell gold**

°powder of gold suspended in °gum arabic (and kept in a °cockle shell or similar small container).

Also called 'wash gold'.

= IT 114/2 oro in conchiglia

237.11 ■■■

°gilding done with °powder of gold by means of a brush.

= IT 114/1 doratura a nicchia

237.12 ■■■

°paint ■■■ on a base of silver, or resembling silver. ■■ //gilding ■■

= ES 221.21 plateado, IT 113/8 argentature

¶NB IT 114/4 similoro, orpello, oro falso 'an alloy consisting mainly of copper with varying amounts of other metals, imitating gold' was invented (by Pinchbeck) in the 18th century.

237.13 **mosaic gold**

tin sulphide (SnS₂), used as a yellow °pigment, to imitate gold.

= FR 233.11 or mussif, ES 233.11 oro musivo, IT 114/6 oro musivo, porporina, giallo di stagno

237.14 **mosaic silver**

an amalgam of mercury, tin and bismuth, used for imitating silverwork.

■■ any evidence for ME use on books? ■■

= IT 114/8 argento musivo

237.15 **tin**

tin, used in thin sheets or powdered, polished and varnished with linseed oil, to imitate silver, or with a gold-coloured varnish, to imitate gold.

■■ in MSS? ■■

tin leaf: IT 114/9 foglia di stagno

imitation of gold: IT 114/3 doratura a mecca

237.16 **marcasite**

iron sulfide (FeS₂; differing from pyrite by its structure), used for writing in 'silver' letters.

= IT 114-10 marcas(s)ite, pirite bianca