FUMIFUGIUM:

or The Inconveniencie of the AER AND SMOAK of LONDON DISSIPATED.

TOGETHER With some REMEDIES humbly PROPOSED By J.E. Esq;
To His Sacred MAJESTIE,
AND To the PARLIAMENT now Assembled.

0	Dedication	•	To the Reader	0	<u>Fumifugium</u>	0	Footnotes
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Published by His Majesties Command.

Lucret. I. VI.802
Carbonúmque gravis vis, atque odor insinuatui
Quam facile in cerebrum ?

LONDON,

Printed by W. Godbid for Gabriel Bedel, and Thomas Collins, and are to be sold at their shop at the Middle Temple Gate neer Temple-Bar. M. D C. L X I.

Note: on the original copies of Fumifugium the title page quotation is attributed incorrectly to Lucretius, Book 5. Although the tract was restricted to a single edition, there were two issues and the mistake appears on both. The error was repeated in the Miscellaneous Writings. The quote, from Book VI, line 802, means 'And how easily the strong heavy charcoal fumes penetrate the brain?'

TO THE KINGS MOST SACRED M A I E S T Y.

Sir

It was one day, as I was Walking in Your MAJESTIES Palace, at WHITE-HALL (where I have sometimes the honour to refresh my self with the Sight of Your Illustrious Presence, which is the Joy of Your Peoples hearts) that a presumptuous Smoake issuing from one or two Tunnels neer Northumberland-House¹, and not far from Scotland-yard,² did so invade the Court; that all the Rooms, Galleries, and Places about it were fill'd and infested with it; and that to such a degree, as Men could hardly discern one another for the Clowd, and none could support, without manifest Inconveniency. It was not this which did first suggest to me what I had long since conceived against this pernicious Accident, upon frequent observation; But it was this alone, and the trouble that it must needs procure to Your Sacred Majesty, as well as hazzard to Your Health, which kindled this Indignation of mine, against it, and was the occasion of what it has produc'd in these Papers.

Your Majesty who is a Lover of noble Buildings, Gardens, Pictures, and all Royal Magnificences, must needs desire to be freed from this prodigious annoyance; and, which is so great an Enemy to their Lustre and Beauty, that where it once enters there can nothing remain long in its native Splendor and Perfection: Nor must here forget that Illustrious and divine Princesse, Your Majesties only Sister, the now Dutchesse of

Orleans,³ who at her Highnesse late being in this City, did in my hearing, complain of the Effects of this Smoake both in her Breast and Lungs, whilst She was in Your Majesties Palace. I cannot but greatly apprehend, that Your Majesty (who has been so long accustom'd to the excellent Aer of other Countries) may be as much offended at it, in that regard also, especially since the Evil is so Epidemicall; indangering as well the Health of Your Subjects, as it sullies the Glory of this Your Imperial Seat.

Sir.

I prepare in this short Discourse, an expedient how this pernicious Nuisance may be reformed; and offer at another also, by which the Aer may not only be freed from the present Inconveniency; but (that remov'd) to render not only Your Majesties Palace, but the whole City likewise, one of the sweetest, and most delicious Habitations in the World; and this, with little or no expence; but by improving those Plantations which Your Majesty so laudably affects, in the moyst, depressed and Marshy Grounds about the Town, to the Culture and production of such things, as upon every gentle emission through the Aer, should so perfume the adjacent places with their breath; as if, by a certain charm, or innocent Magick, they were transferred to that part of Arabia, which is therefore styl'd the Happy, because it is amongst the Gums and precious spices. Those who take notice of the Sent of the Orange-flowers from the Rivage of Genöa, and St.Pietro dell'Arena; the Blossomes of the Rosemary from the Coasts of Spain many Leagues off at Sea; or the manifest, and odoriferous wasts which flow from Fontenay and Vaugirard, even to Paris in the season of Roses, with the contrary Effects of those less pleasing smells from other accidents, will easily consent to what I suggest: And, I am able to enumerate a Catalogue of native Plants, and such as are familiar to our Country and Clime, whose redolent and agreeable Emissions would even ravish our senses, as well as perfectly improve and meliorate the Aer about London; and that, without the least prejudice to the Owners and Proprietors of the Land to be employ'd about it. But because I have treated of this more at large in another curious and noble subject, which I am preparing to present to Your Majesty, as God shall afford me Leasure to finish it, and that I give a Touch of it in this Discourse, I will enlarge my Addresses no farther, then to beg pardon for this Presumption of

SIR,

Your Majesties ever Loyal, most obedient Subject, and Servant.

J. EVELYN.

To the Reader.

I have little here to add to implore thy good opinion and approbation, after I have submitted this Essay to his Sacred Majesty: But as it is of universal benefit that I propound it; so I expect a civil entertainment and reception. I have, I confesse, been frequently displeased at the small advance and improvement of Publick Works in this Nation, wherein it seems to be much inferiour to the Countries and Kingdomes which are round about it; especially, during these late years of our sad Confusions: But now that God has miraculously restor'd to us our Prince, a Prince of so magnanimous and Publick a Spirit, we may promise our selves not only a recovery of our former Splendor; but also whatever any of our Neighbours enjoy of more universal benefit, for Health or Ornament:

In summe, whatever may do honour to a Nation so perfectly capable of all advantages. It is in order to this, that I have presumed to offer these few Proposals for the Meliorating and refining the Aer of London; being extremely amaz'd, that where there is so great an affluence of all things which may render the People of this vast City, the most happy upon Earth; the sordid, and accursed Avarice of some few Particular Persons, should be suffered to prejudice the health and felicity of so many: That any Profit (besides what is of absolute necessity) should render men regardlesse of what chiefly imports

them, when it may be purchased upon so easie conditions, and with so great advantages:

For it is not happiness to possesse Gold, but to enjoy the Effects of it, and to know how to live cheerfully and in health, *Non est vivere, sed valere vita*. That men whose every Being is Aer, should not breath it freely when they may; but (as that Tyrant us'd his Vassals) condemn themselves to this misery & *Fumo præfocari*, is strange stupidity: yet thus we see them walk and converse in London, pursu'd and haunted by that infernal Smoake, and the funest accidents which accompany it whereso: ever they retire.

That this Glorious and Antient City, which from Wood might be rendred Brick, and (like another Rome) from Brick made Stone and Marble; which commands the Proud Ocean to the Indies, and reaches to the farthest Antipodes, should wrap her stately head in Clowds of Smoake and Sulphur, so full of Stink and Darknesse, I deplore with just Indignation. That the Buildings should be composid of such a Congestion of mishapen and extravagant Houses; That the streets should be so narrow and incommodious in the very Center, and busiest places of Intercourse: That there should be so ill and uneasie a form of Paving under foot, so troublesome and malicious a disposure of the Spouts and Gutters overhead, are particulars worthy of Reproof and Reformation; because it is hereby rendred a Labyrinth in its principal passages, and a continual Wet-day after the Storm is over. Add to this the Deformity of so frequent Wharfes and Magazines of Wood, Coale, Boards, and other course Materials, most of them imploying the Places of the Noblest aspect or the situation of the Palaces towards the goodly River, when they might with far lesse Disgrace, be removed to the Bank-side, and afterwards disposed with as much facility where the Consumption of these Commodities lyes; a Key in the mean time so contrived on London-side, as might render it lesse sensible of the Reciprocation of the Waters, 4 for Use and Health infintely superiour to what it now enjoys. These are the Desiderata which this great City labours under, and which we so much deplore. But I see the Dawning of a brighter Day approach; We have a Prince who is Resolv'd to be a Father to his Country;

and a Parliament whose Decrees and Resentiments take their Impression from his Majesties great Genius, which studies only the Publick Good. It is from them therefore, that we Augure our future happinesse; since there is nothing which will so perpetuate their Memories, or more justly merit it. Medails and Inscriptions have heretofore preserv'd the Fame of lesse Publick Benefits, and for the Repairing of a Dilapidated Bridge, a decaid Aquæduct, the Paving of a Way, or draining a foggy Marsh, their Elogies and Reverses have out-lasted the Marbles, and been transmitted to future Ages, after so many thousand Revolutions: But this is the least of that which we Decree to our August CHARLES, and which is due to his Illustrious Senators; because they will live in our Hearts, and in our Records, which are more permanent and lasting.

I. May. 1661. Farewell.

FUMIFUGIUM:

OR, The Inconveniency of the Smoak of LONDON dissipated, &c.

PART. I.

It is not without some considerable Analogy, that sundry of the Philosophers have nam'd the Aer the Vehicle of the Soul, as well as that of the Earth, and this frail Vessell of ours which contains it; since we all of us finde the benefit which we derive from it, not onely for the necessity of common Respiration and functions of the Organs; but likewise for the use of the Spirits and Primigene Humors, which doe most neerly approach that Divine particle. But we shall not need to insist, or refine much on this sublime Subject; and perhaps it might scandalize scrupulous Persons to

pursue to the height it may possibly reach (as Diogenes and Anaximenes were wont to Deifie it)⁵ after we are past the Ætherial, which is a certain Aer of Plato's denomination⁶ as well as that of lesse pure, more turbulent and dense, which, for most part we live and breath in, and which comes here to be examin'd as it relates to the design in hand, the City of London, and the environs about it.

It would doubtlesse be esteem'd for a strange and extravagant Paradox, that one should affirme, that the Aer it selfe is many times a potent and great disposer to Rebellion; and that Insulary people, and indeed, most of the Septentrion Tracts, where this Medium is grosse and heavy, are extremely versatile and obnoxious to change both in Religious and Secular Affaires: Plant the Foote of your Compasses on the very Pole, and extend the other limb to 50 degrees of Latitude: bring it about 'till it describe the Circle, and then reade the Histories of those Nations inclusively and make the Calculation. It must be confess'd, that the Aer of those Climates, is not so pure and Defecate as those which are neerer the Tropicks, where the Continent is lesse ragged, and the Weather more constant and steady, as well as the Inclination and Temper of the Inhabitants.

But it is not here that I pretend to speculate upon these Causes or nicely to examine the Discourses of the Stoicks and Peripateticks, whether the Aer be in itself, generally cold, humid, warm or exactly temper'd as best conduces to a materiall principle, of which it is accounted one of the four; because they are altogether Physicall notions, and do not come under our cognisance as a pure and sincere Element; but as it is particularly inquinated, infected, participating of the various Accidents, and inform'd by extrinsecal Causes, which render it noxious to the Inhabitants, who derive and make use of it for Life. Neverthelesse, for distinction sake, we may yet be allow'd to repute some Aers pure, comparatively, viz. That which is cleare, open, sweetely ventilated and put into motion with gentle gales and breezes; not too sharp, but of a temperate constitution. In a word, That we pronounce for good and pure Aer, which heat not to sweats and faintnesse; nor cooles to rigidnesse and trembling; nor dries to wrinkles and hardnesse; nor moystens to resolution and over much softnesse. The more hot promotes indeede the Witt, but is weak and trifling; and therefore Hippocrates speaks the Asiatique people Imbelles⁹ and Effeminate, though of a more artifical and ingenious Spirit: If over cold and keen, it too much abates the heat, but renders the body robust and hardy, as those who are born under the Northern Bears, are more fierce & stupid, caused by a certain internal Antiperistasis and universal Impulsion (that is, the heat of their bodies is condensed and exercised by the coldness of the atmosphere surrounds them). The drier Aer is generally the more salutary and healthy, so it be not too sweltery and infested with heat or fuliginous vapours, which is by no means a friend to health and Longævity, as Avicen notes of the Æthiops who seldome arived to any considerable old Age. As much to be reproved is the moyst, viz, that which is over mix'd with æquous exhalations, equaly pernicious and susciptible of putrefaction; notwithstanding does it oftner produce faire and tender skins, and some last along while in it; but commonly not so healthy, as in Aer which is more dry. But the impure and Uliginous, as that which proceedes from stagnated places, is of all other, the most vile and Pestilent.

Now, that through all these diversities of Aer, *Mores Hominum do Corporis temperamentum Sequi*, is for the greater part so true an observation, that a Volume of Instances might be produced, if the Common notices did not sufficiently confirme it even to a Proverb. The Aer on which we continually prey, perpetually inspiring matter to the Animall and Vitall Spirits, by which they become more or less obfuscated, clowded and render'd obnoxious; and therefore that Prince of Physitians Hippocrates,

wittily calls a sincere and pure Aer, The Internunce and Interpreter of Prudence. The celestiall influences being so much retarded or affected, and improv'd through this omnipresent, and as it were, universal Medium: For, though the Aer in its simple substance cannot be vitiated; yet, in its prime qualities it suffers these infinite mutations, both from superiour and inferiour Causes, so as its accidentall effects become almost innumerable;

Let it be farther consider'd, what is most evident, That the body feedes upon Meats commonly but at certain periods and stated times, be it twice a day or oftner; whereas, upon the Aer, or what accompanies it (est enim in ipso Aere occultus vitæ cibus) it is allwaies preying, sleeping, or waking; and therefore, doubtlesse the election of this constant and assiduous Food, should something concerne us, I affirme, more then even the very meat we eat, whereof so little and indifferent nourishes and satisfies the most temperate and best Educated persons. Besides, Aer that is corrupt insinuates it self into the vital parts immediately; whereas the meats we take though never so ill condition'd, require time for the concoction, by which its effects are greatly mitigated; whereas the other, passing so speedily to the Lungs, and virtually to the Heart it self, is deriv'd and communicated over the whole masse; In a word, as the Lucid and noble Aer, clarifies the Blood, subtilizes it and excites it, cheering the Spirits and promoting digestion; so the dark, and grosse (on the Contrary) perturbs the Body, prohibits necessary Transpiration for the resolution and dissipation of ill Vapours, even to disturbance of the very Rational faculties, which the purer Aer does so far illuminate, as to have rendred some Men healthy and wise even to Miracle. And therefore the Empoysoning of Aer, was ever esteem'd no lesse fatall then the poysoning of Water or Meate it self, and forborn even amongst Barbarians; since (as is said) such Infections become more apt to insinuate themselves and betray the very Spirits, to which they have so neere a cognation. Some Aers we know are held to be Alexipharmæ and even deleterious to Poyson it self, as 'tis reported of that of Ireland: In some we find Carcasses will hardly putrifie, in others again rot and fall to pieces immediately.

From these, or the like considerations therefore, it might well proceed, that Vitruvius, and the rest who follow that Master-Builder, mention it as a principle for the accomplishment of their Architects, that being skilfull in the Art of Physick, amongst other Observations, he sedulously examine the Aer and Situation of the places where he designs to build, the Inclinations of the Heavens, and the Climats; *Sine his enim rationibus nulla salubris habitatio fieri potest*: there is no dwelling can be safe or healthy without it. 'Tis true, he does likewise adde Water also, which is but a kinde of condensed Aer; though he might have observ'd, that Element to be seldome bad, where the other is good; omitting onely some peculiar Fountains and Mineral waters, which are percolated through Mines and Metalique Earths less frequent, and very rarely to be encounter'd.

Now whether those who were the Antient Founders of our goodly Metropolis, had considered these particulars (though long before Vitruvius) I can no waies doubt or make question of; since having respect to the nobleness of the situation of London, we shall every way finde it to have been consulted with all imaginable Advantages, not onely in relation to Profit, but to Health and Pleasure; and that, if there be any thing which seems to impeach the two last Transcendencies, it will be found to be but something Extrinsecal and Accidental onely, which naturally does not concern the Place at all; but, which may very easily be reformed, without any the least inconvenience, as in due time we shall come to demonstrate.

For first, the City of London is built upon a sweet and most agreeable Eminency of Ground, at the North-side of a goodly and well-condition'd

River, towards which it hath an Aspect by a gentle and easie declivity, apt to be improv'd to all that may render her Palaces, Buildings, and Avenues usefull, gracefull and most magnificent: The Fumes which exhale from the Waters and lower Grounds lying South-ward, by which means they are perpetually attracted, carried off or dissipated by the Sun, as soon as they are born and ascend.

Adde to this, that the Soil is universally Gravell, not onely where the City it self is placed; but for severall Miles about the Countreys which environ it: That it is plentifully and richly irrigated, and visited with Waters which Christalize her Fountains in every Street, and may be conducted to them in such farther plenty, as Rome her self might not more abound in this liquid ornament, for the pleasure and divertisement, as well as for the use and refreshment of her Inhabitants. I forbear to enlarge upon the rest of the conveniences which this August and Opulent City enjoies both by Sea and Land, to accumulate her Encomiums, and render her the most considerable that the Earth has standing upon her ample bosome; because, it belongs to the Orator and the Poet, and is none of my Institution: But I will infer, that if this goodly City justly challenges what is her due, and merits all that can be said to reinforce her Praises, and give her Title; she is to be reliev'd from that which renders her less healthy, really offends her, and which darkens and eclipses all her other Attributes. And what is all this, but that Hellish and dismall Cloud of SEA COAL? which is not onely perpetually imminent over her head, For as the Poet,

Conditur in tenebris altum caligine Cœlum:

but so universally mixed with the otherwise wholsome and excellent Aer, that her Inhabitants breathe nothing but an impure and thick Mist accompanied with a fuliginous and filthy vapour, which renders them obnoxious to a thousand inconveniences, corrupting the Lungs, and disordring the entire habits of their Bodies; so that Catharrs, Phthisicks, Coughs and Consumptions rage more in this one City than in the whole Earth besides.

I shall not here much descant upon the Nature of Smoaks, and other Exhalations from things burnt, which have obtain'd their severall Epithetes, according to the quality of the Matter consumed, because they are generally accounted noxious and unwholsome, and I would not have it thought, that I doe here Fumos vendere, as the word is, or blot paper with insignificant remarks: It was haply no inept derivation of that Critick, who took our English, or rather, Saxon appellative, from the Greek word sm cw corrumpo and exuro, as most agreeable to its destructive effects, especially of what we doe here so much declaim against, since this is certain, that of all the common and familiar materials which emit it, the immoderate use of, and indulgence to Sea-coale alone in the City of London, exposes it to one of the fowlest Inconveniences and reproches, that can possibly befall so noble, and otherwise, incomparable City: And that, not from the Culinary fires, which for being weak, and lesse often fed below, is with such ease dispell'd and scatter'd above, as it is hardly at all discernible, but from some peculiar Tunnells and Issues, belonging only to Brewers, Diers, Lime-burners, Salt, and Sope-boylers, and some other private Trades, One of whose Spiracles alone, does manifestly infect the Aer, more, then all the Chimnies of London put together besides. And that this is not the least Hyperbolie, let the best of Judges decide it, which I take to be our senses: Whilst there are belching it forth their sooty jaws, the City of London resembles the face rather of Mount Ætna, the Court of Vulcan, Stromboli, or the Suburbs of Hell, then an Assembly of Rational Creatures, and the Imperial seat of our incomparable Monarch. For when in all other places the Aer is most Serene and Pure, it is here Ecclipsed with such a

Cloud of Sulphure, as the Sun it self, which gives day to all the World besides, is hardly able to penetrate and impart it here; and the weary Traveller, at many Miles distance, sooner smells, then sees the City to which he repairs. This is that pernicious Smoake which sullyes all her Glory, superinducing a sooty Crust or furr upon all that it lights, spoyling the moveables, tarnishing the Plate Gildings and Furniture, and corroding the very Iron-bars and hardest stones with those piercing and acrimonious Spirits which accompany its Sulphure; and executing more in one year, than expos'd to the pure Aer of the Country it could effect in some hundreds.

_____ piceaque gravatum Fœdat nube diem;

It is this horrid Smoake which obscures our Churches, and makes our Palaces look old, which fouls our Clothes, and corrupts the waters, so as the very Rain, and refreshing Dews which fall in the several Seasons, precipitate this impure vapour, which, with its black and tenacious quality, spots and contaminates whatsoever is expos'd to it:

_____ Calidoque involvitur undique fumo.

It is this which scatters and strews about those black and smutty Atomes upon all things where it comes, insinuating it self into our very secret Cabinets, and most precious Repositories: Finally, it is this which diffuses and spreads a Yellownesse upon our choycest Pictures and Hangings: which does this mischief at home; is Avernus¹⁰ to Fowl, and kills our Bees and Flowers abroad, suffering nothing in our Gardens to bud, display themselves, or ripen; so as our Anemonies and many other choycest Flowers, will by no industry be made to blow in London, or the Precincts of it, unlesse they be raised on a Hot-bed, and govern'd with extraordinary Artifice to accellerate their springing, imparting a bitter and ungrateful Tast to those few wretched Fruits, which never arriving to their desired maturity, seem, like the Apples of Sodome, to fall even to dust, when they are but touched. Not therefore to be forgotten, is that which was by many observ'd, that in the year when New-castle¹¹ was besieg'd and blocked up in our late Wars, so as through the great Dearth and Scarcity of Coales, those fumous Works many of them were either left off, or spent but few Coales in comparison to what they now use: Divers Gardens and Orchards planted even in the very heart of London, (as in particular my Lord Marquesse of Hertfords in the Strand, my Lord Bridgewaters, and some others about Barbican) were observed to bear such plentiful and infinite quantities of Fruits, as they never produced the like either before or since, to their great astonishment: but it was by the Owners rightly imputed to the penury of Coales, and the little Smoake, which they took notice to infest them that year: For there is a virtue in the Aer, to penetrate, alter, nourish, yea and to multiply Plants and Fruits, without which no vegetable could possibly thrive; but as the Poet.

Aret ager: vitio moriens sitit aëris herba:

So as it was not ill said by the Paracelsue, ¹² that of all things, Aer only could be truly affirm'd to have Life, seeing to all things it gave Life. Argument sufficient to demonstrate, how prejudicial it is to the Bodies of men; for that can never be Aer fit for them to breath in, where nor Fruits, nor Flowers do ripen, or come to a seasonable perfection.

I have strangely wondred, and not without some just indignation, when the South-wind has been gently breathing, to have sometimes beheld that stately House and Garden belonging to my Lord of Northumberland, even as far as White-hall and Westminster, wrapped in a horrid Cloud of this Smoake, issuing from a Brew-house or two contiguous to that noble Palace: so as coming up the River, that part of the City has appear'd a Sea where no Land was within ken; the same frequently happens from a Lime-kilne on the Banke-side neer the Falcon, which when the Wind blowes Southern, dilates it self all over that Poynt of the Thames, and the opposite part of London, especially about S. Paul's, poysoning the Aer with so dark and thick a Fog, as I have been hardly able to pass through it, for the extraordinary stench and halitus it send forth; and the like is neer Fox-hall at the farther end of Lambeth.¹³

Now to what funest and deadly Accidents the assiduous invasion of this Smoak exposes the numerous Inhabitants, I have already touch'd, whatsoever some have fondly pretended, not considering that the constant use of the same Aer (be it never so impure) may be consistent with the Life and Valetudinary state; especially, if the Place be native to us, and that we have never lived for any long time out of it; Custome, in this, as in all things else, obtaining another Nature, and all Putrefaction, proceeding from certain Changes, it becomes, as it were, the Form, and Perfection of that which is contain'd in it: For so (to say nothing of such as by assuefaction have made the rankest poysons their most familiar Diet) we read that Epimenides continu'd fifty years in a damp Cave, the Eremites dwelt in Dens, and divers live now in the Fens; some are condemn'd to the Mines, and others, that are perpetually conversant about the Forges, Fornaces of Iron and other Smoaky Works, are little concern'd with these troublesome accidents: But as it is not (I perswade my self) out of choyce, that these Men affect them; so nor will any man, I think, commend and celebrate their manner of Living. A Tabid Body might possibly trail out a miserable Life of seven or eight years by a Sea-cole Fire, as 'tis reported the Wife of a certain famous Physician did of late by the Prescription of her Husband: but it is to be considered also, how much longer, and happier she might have survived in a better and more noble Aer; and that old Par¹⁴ who lived in health to an Hundred and fifty years of Age, was not so much concern'd with the change of Diet (as some have affirm'd) as with that of the Aer, which plainly wither'd him, and spoyl'd his Digestion in a short time after his arrival at London.

There is, I confesse, a certain Idiosyncrasia in the Composition of some persons, which may fit and dispose them to thrive better in some Aers, then in other: But, it is manifest, that those who repair to London, no sooner enter into it, but they find a universal alteration in their Bodies, which are either dryed up or enflam'd, the hunours being exasperated and made apt to putrifie, their sensories and perspirations so exceedingly stopp'd, with the losse of Appetite, and a kind of general stupefaction, succeeded with such Cathars and Distillations, as do never, or very rarely quit them, without some further Symptomes of dangerous Inconveniency so long as they abide in the place; which yet are immediately restored to their former habit, so soon as they are retired to their Homes and enjoy the fresh Aer again. And I here I may not omit to mention what a most Learned Physician and one of the Colledge assur'd me, as I remember of a Friend of his, who had so strange an Antipathy to the Aer of London: that though he were a Merchant, and had frequent businesse in the City, was yet constrained to make his Dwelling some miles without it; and when he came to the Exchange, within an hour or two, grew so extremely indispos'd, that (as if out of his proper Element) he was forced to take horse (which us'd therefore constantly to attend him at the Entrance) and ride as for his Life, till he came into the Fields, and was returning home again, which is an Instance so extraordinary, as not, it may be, to be paralell'd in any place of Europe, save the Grotto del cane, nere Naples, the Os Plutonium of

Silvius, or some such subterranean habitation. For Diseases proceed not from so long a Series of causes, as we are apt to conceive; but, most times from those obvious, and despicable mischiefs, which yet we take lesse notice of, because they are familiar: But how frequently do we hear men say (speaking of some deceased Neighbour or Friend) He went up to London, and took a great Cold, &c. which he could never afterwards claw off again.

I report my self to all those who (during these sad confusions) have been compelled to breath the Aer of other Countries for some years: if they do not now perceive a manifest alteration in their Appetite, and clearnesse of their Spirits; especially such as have liv'd long in France, and the City of Paris; where, to take off that unjust reproch, the Plague as seldome domineers, as in any part of Europe, which I more impute to the Serenity and Purity of the Aer about it, then to any other qualities which are frequently assign'd for the cause of it by divers Writers. But if it be objected that the purest Aers are soonest infected; it is answered, that they are also the soonest freed again; and that none would therefore choose to live in a corrupt Aer, because of this Article: London 'tis confessed is not the only City most obnoxious to the Pestilence; but it is yet never cleare of this Smoake which is a Plague to many other ways, and indeed intolerable; because it kills not at once, but always, since still to languish, is worse then even Death it self. For is there under Heaven such Coughing and Snuffing to be heard, as in the London Churches and Assemlies of People, where the Barking and the Spitting is uncessant and most importunate: What shall I say?

Hinc hominum pecudumque Lues. _____

And what may be the cause of these troublesome effects, but the inspiration of this infernal vapour, accompaning the Aer, which first heats and sollicits the Aspera Arteria, through one of whose Conduits, partly Cartilaginous, and partly membranous, it enters by several branches into the very Parenchyma, and substance of the Lungs, violating, in this passage, the Larynx and Epiglottis, together with those multiform and curious Muscles, the immediate and proper Instruments of the Voyce, which becoming rough and drye, can neither be contracted, or dilated for the due modulation of the Voyce; so as by some of my Friends (studious in Musick, and whereof one is a Doctor of Physick) it has ben constantly observ'd, that coming out of the Country into London, they lost Three whole Notes in the compasse of their Voice, which they never recover'd again till their retreat; *Adeo enim Animantes* (to use the Orator's words) aspiratione Aeris sustinentur, ipseque Aer nobiscum videt, nobiscum audit, nobiscum sonat: In summe, we perform nothing without it.

Whether the Head and the Brain (as some have imagined) take in the ambient Aer, nay the very Arteries through the skin universally over the whole body, is greatly controverted; But if so, of what consequence the goodness and purity of the Aer is, will to every one appear; Sure we are, how much the Respiration is perturb'd, and concern'd, when the Lungs are prepossessed with these grosse and dense vapours, brought along in the Aer; which on the other side being pure and fitly qualified, and so conducted to them, is there commixed with the circulating blood, insinuating it self into the left ventricle of the heart by the Arteria Venosa, to rarifie and subtilize that precious vehicle of the Spirits and vital flame: The Vena Arteriosa disposing themselves into many branches through the Pulmonique lobes, for its Convoy the Aer (as we say'd) being first brought into them out of the Bronchia (together with the returning blood) to the very Heart it self; so as we are not at all to wonder, at the suddain and prodigious Effects of a poysonous or less wholesome Aer, when it comes

to invade such noble Parts, Vessells, Spirits, and Humours, as it visits and attaques, through those subtile and curious passages. But this is not all.

What if there appear to be an Arsenical vapour, as well as Sulphur, breathing sometimes from this intemperate use of Sea-Coale, in great Cities? That there is, what does plainly stupifie, is evident to those who sit long by it; and that which fortun'd to the Dutchman who Winter'd in Nova Zembla, was by all Physicians attributed to such a deleterious quality in the like fuell, as well as to the Inspissation of the Aer, which they thought only to have attemper'd as is by most esteem'd to be the reason of the same dangerous halitus of Char-Coale, not fully enkendl'd. But to come neerer yet.

New Castle Coale, as an expert Physician affirms, causeth Consumptions, Phthisicks, and the Indisposition of the Lungs, not only by the suffocating aboundance of Smoake; but also by its Virulency; For all subterrany Fuell hath a kind of Virulent or Arsenical vapour rising from it; which as it speedily destroys those who dig it in the Mines; so does it by little and little, those who use it here above them: Therefore those Diseases (saith this Doctor) most afflict about London, where the very Iron is sooner consum'd by the Smoake thereof, than where this Fire is not used.

And, if indeed there be such a Venemous quality latent, and sometimes breathing from this Fuell, we are lesse to trouble our selves for the finding out of the Cause of those Pestilential and Epidemical Sicknesses (Epidemiorum Causa enim in Aere, says Galen) which at divers periods, have so terribly infested and wasted us: or, that it should be so susceptible of infection, all manner of Diseases having so universal a vehicle as is that of the Smoake, which perpetually invests this City: But this is also noted by the Learned Sir Kenelme Digby, ¹⁵ in confirmation of the Doctrine of Atomical Effluvia's and Emanations, wafted, mixed and communicated by the Aer, where he well observes, that from the Materials of our London Fires, there results a great quantity of volatile Salts, which being very sharp and dissipated by the Smoake doth infect the Aer, and so incorporate with it, that though the very Bodies of those corrosive particles escape our perception, yet we soon find their effects, by the destruction which they induce upon all things that they do but touch; spoyling, and destroying their beautiful colours, with their fuliginous qualities: Yea, though a Chamber be never so closely locked up. Men find at their return, all things that are in it, even covered with a black thin Soot, and all the rest of the Furniture as full of it, as if it were in the house of some Miller, or a Baker's Shop, where the Flower gets into their Cupboards, and Boxes, though never so close and accurately shut.

This Coale, says Sir K. flies abroad, fowling the Clothes that are expos'd a drying upon the Hedges; and in the Spring-time (as but now we mention'd) besoots all the Leaves, so as there is nothing free from its universal contamination and it is for this, that the Bleachers about Harleum, prohibit by an express Law (as I am told) the use of these Coles, for some Miles about that Town; and how curious the Diers and Weavers of Dammask, and other precious Silks are at Florence, of the least ingresse of any Smoaky vapour, whilst their Loomes are at work, I shall shew upon some other occasion: But in the mean time being thus incorporated with the very Aer, which ministers to the necessary respiration of our Lungs, the Inhabitants of London, and such as frequent it, find it in all their Expectorations; the Spittle, and other excrements which proceed from them, being for the most part of a blackish and fuliginous Colour: Besides this acrimonious Soot produces another sad effect, by rendring the people obnoxious to Inflammations, and comes (in time) to exulcerate the Lungs, which is a mischief so incurable that it carries away

multitudes by Languishing and deep Consumptions, as the Bills of Mortality do Weekly inform us. And these are those Endemii Morbi, vernaculous and proper to London. So corrosive is this Smoake about the City, that if one would hang up Gammons of Bacon, Beefe, or other Flesh to fume, and prepare it in the Chimnies, as the good House-Wifes do in the Country, where they make use of sweeter Fuell, it will so Mummifie, dry up, wast and burn it, that it suddainly crumbles away, consumes and comes to nothing.

The Consequences then of all this is, that (as was said) almost one half of them who perish in London, dye of Phthisical and Pulmonic distempers; That the Inhabitants are never free from Coughs and importunate Rheumatisms, spitting of Impostumated and corrupt matter: for remedy whereof, there is none so infallible, as that, in time, the Patient change his Aer, and remove into the Country: Such as repair to Paris (where it is excellent) and other like Places, perfectly recovering of their health; which is a demonstration sufficient to confirm what we have asserted, concerning the perniciousnesse of that about this City, produc'd only, from this exitial and intolerable Accident.

But I hear it now objected by some, that in publishing this Invective against the Smoake of London, I hazard the engaging of a whole Faculty against me, and particularly, that the Colledge of Physicians esteem it rather a Preservation against Infections, then otherwise any cause of the sad effects which I have enumerated. But, as I have upon several encounters, found the most able, and Learned amongst them, to renounce this opinion, and heartily wish for a universal purgation of the Aer by the expedients I propose; so, I cannot believe that any of that Learned Society, should think themselves so far concern'd, as to be offended with me for that, which (as well as for their sakes, as the rest who derive benefit from it) I wish were at farther distance; since it is certain, that so many of their Patients are driven away from the City, upon the least indisposition which attaques them, on this sole consideration; as esteeming it lesse dangerous to put themselves into the hands of some Country Doctor or Emperic, then to abide the Aer of London, with all its other advantages. For the rest, they pretend to that honourable Profession; if any shall find themselves agreev'd and think good to contend, I shall easily allow him as much Smoake as he desires, and much good may it do him. But, it is to be suspected, and the answer is made (by as many have ever suggested the Objection to me) That there be some whom I must expect to plead for that, which makes so much work for the Chimney-Sweeper; Since I am secure of the Learned and Ingenuous, and whose Fortunes are not built on Smoake, or raised by a universal Calamity; such as I esteem to be the Nuisances, I have here reproved: I do not hence infer, that I shall be any way impatient of a just and civil Reply, which I shall rather esteem for an honour done me, because I know, that a learned and witty man is able to discourse upon any Subject whatsoever; some of them having with praise, written even of the praise of Diseases themselves, for so Favorinus of old, and Menapius since commended a Quartan Ague, Pirckhemierus the Gout, Gutherius celebrated Blindnesse, Hiensius the Louse, and to come nearer our Theam, Majoragius the nasty Dirt; Not I suppose that they affected these pleasant things, but as A. Gellius has it, exercendi gratia, and to shew their Witts; for as the Poet,

Sunt etiam Musis sua ludicra, mista Camænis Otia sunt:

But to proceed, I do farther affirm, that it is not the dust and Ordure which is daily cast out of their Houses, much lesse what is brought in by the Feet of Men and Horses; or the want of more frequent and better conveyances, which renders the Streets of London dirty even to a Proverb:

but chiefly this continual Smoake, which ascending in the day-time, is, by the descending Dew, and Cold, precipitated again at night: And this is manifest, if a peice of clean Linnen be spread all Night in any Court or Garden, the least infested as to appearance: But especially if it happen to rain, which carries it down in greater proportion, not only upon the Earth, but upon the Water also, where it leaves a thin web, or pellicule of dust, dancing upon the Surface of it; as those who go to bathe in the Thames (though at some Miles distant from the City) do easily discern and bring home upon their Bodies: How it sticks on the Hands, Faces and Linnen of our fair Ladies, and nicer Dames, who reside constantly in London (especially during Winter) the prodigious wast of Almond-powder for the One, Soap and wearing out of the Other, do sufficiently manifest.

Let it be considered what a Fuliginous crust is yearly contracted, and adheres to the Sides of our ordinary Chymnies where this grosse Fuell is used; and then imagine, if there were a solid Tentorium, or Canopy over London, what a masse of Soote would then stick to it, which now (as was said) comes down every Night in the Streets, on our Houses, and Waters, and is taken into our Bodies.

And may this much suffice concerning the Causes and Effects of this Evill, and to discover to all the World, how pernicious this Smoake is to our Inhabitants of London, to decrie it, and to introduce some happy Expedient, whereby they may for the Future, hope to be freed from so intollerable an inconvenience, if what I shall be able to produce and offer next, ¹⁶ may in some measure contribute to it.

PART. II.

We know (as the Proverb commonly speaks) that, as there is no Smoake without Fire; so neither is there hardly any Fire without Smoake, and the _kapna z_la, materials which burn clear are very few, and but comparatively so tearmed: That to talk of serving this vast City (though Paris as great, be so supplied) with Wood, were madnesse; and yet doubtlesse it were possible, that much larger proportions of Wood might be brought to London, and sold at easier rates, if that were diligently observed, which both our Laws enjoyn, as faisible and practised in other places more remote, by Planting and preserving of Woods and Copses, and by what might by Sea, be brought out of the Northern Countries, where it so greatly abounds, and seems inexhaustible. But the Remedy which I would propose, has nothing in it of this difficulty, requiring only the Removal of such Trades, as are manifest Nuisances to the City, which, I would have placed at farther distances; especially, such as in their Works and Fournaces use great quantities of Sea-Cole, the sole and only cause of those prodigious Clouds of Smoake, which so universally and so fatally infest the Aer, and would in no City of Europe be permitted, where Men had either respect to Health or Ornament. Such we named to be Brewers, Diers, Sope and Salt-boylers, Lime-burners, and the like: These I affirm, together with some few others of the same Classe removed at competent distance, would produce so considerable (though but partial) a Cure, as Men would even be found to breath a new life as it were, as well as London appear a new City, delivered from that, which alone renders it one of the most pernicious and and insupportable abodes in the World, as subjecting her Inhabitants to so infamous an Aer, otherwise sweet and very healthful: For, (as we said) the Culinary fires (and which charking would greatly reform) contribute little, or nothing in comparison to these foul mouth'd Issues, and Curles of Smoake, which (as the Poet has it) do Cælum subtexere fumo¹⁷, and draw a sable Curtain over Heaven. Let any man observe it, upon a Sunday, or such time as these Spiracles cease, that the Fires are generally extinguished, and

he shall sensibly conclude, by the clearnesse of the Skie, and universal serenity of the Aer about it, that all the Chimnies in London, do not darken and poyson it so much as one or two of those Tunnels of Smoake; and, that, because the most imperceptible transpirations, which they send forth, are ventilated, and dispersed with the least breath which is stirring: Whereas the Columns and Clowds of Smoake, which are belched forth from the sooty Throates of those Works, are so thick and plentiful, that rushing out with great impetuosity, they are capable even to resist the fiercest winds, and being extremely surcharg'd with a fuliginous 18 Body, fall down upon the City, before they can be dissipated, as the more thin and weak is; so as two or three of these fumid vortices, are able to whirle it about the whole City, rendring it in a few Moments like the Picture of Troy sacked by the Greeks, or the approches of Mount-Hecla.

I propose therefore, that by an Act of this present Parliament, this infernal Nuisance be reformed; enjoyning, that all those Works be removed five or six miles distant from London below the River of Thames; I say, five or six miles, or at the least so far as to stand behind that Promontory jetting out, and securing Greenwich from the pestilent Aer of Plumstead-Marshes: because, being placed at any lesser Interval beneath the City, it would not only prodigiously infect that his Majesties Royal Seat (and as Barclay calls it) pervetusta Regum Britannicorum domus; but during our nine Months Etesians¹⁹ (for so we may justly name our tedious Western-winds) utterly darken and confound one of the most princely, and magnificent Prospects that the World has to shew: Whereas, being seated behind that Mountain, and which seems to have been thus industriously elevated; No winds, or other accident whatever can force it though that solid obstacle; and I am perswaded, that the heat of these Works, mixing with the too cold and uliginous vapours which perpetually ascend from these Fenny Grounds, might be a means of rendring that Aer far more healthy than now it is; because it seems to stand in need of some powerful drier: but which London, by reason of its excellent situation, does not at all require: And if it shall be objected, that the Brakishnesse of the Spring-tides, happening hereabout at some periods, may render the Waters lesse useful for some purposes: It is an extraordinary Accident, which appearing rarely is cured again at the reversion of the next Tide: Or if it only concern the Brewer, I know no inconveniency, even if some of them were prescrib'd, as far as any fresh-waters are found dissemboguing into the Thames; since the commodiousnesse of the passage may bring up their Wares with so great ease: He that considers what quantities are transported from Dantzig, Lubeck, Hamborough, and other remote places into Holland, cannot think this an unreasonable proposition: But if their fondnesse to be nearer London, procure indulgence for some of them, The Town of Bowe,²⁰ in regard of its scituation from our continual Winds may serve for the expedient, and a partial Cure: But the rest of those banish'd to the utmost extreme propounded on the River.

At least by this means Thousands of able Watermen may be employed in bringing Commodities into the City, to certain Magazines & Wharfs, commodiously situated to dispense them by Carrs or rather Sleds, into the several parts of the Town; all which may be effected with much facility, and small expense; but, with such Conveniency and Benefit to the Inhabitants otherwise, as were altogether inestimable; and therefore, to be vallu'd beyond all other trifling objections of sordid and avaricious persons whatsoever. Nor, indeed, could there at all the lest detriment ensue upon this Reformation since, the Places and Houses deserted (which commonly take up a great space of Ground) might be converted into Tenements, and some of them into Noble Houses for use and pleasure, respecting the Thames to their no small advantage. Add to this, that it would be a means to prevent the danger of Fireing, those sad Calamities, for the most part,

proceeding from some Accident or other, which takes beginning from places, where such great and exorbitant Fires are perpetually kept going.

Nor were this a thing yet so extravagant, and without all President of former times; since even the Smoake and burning of lesse fœtid and noxious Fuell, produc'd an inconvenience so universall, in some Counties of this Nation: Not to mention the complaint which I have heard some parts even of France it self lying South west of England, did formerly make of being infested with Smoakes driven from our Maritime Coasts, which injur'd their Vines in Flower, that it was thought expedient an Act of Parliament should be made purposely to reform it in the seventh year of the Reign of His Majesties Grandfather that now is, which, to take off all prejudice, I shall here recite, as it remains upon Record.

Anno vii. Jacobi Regis.

An Act against burning of Ling, and Heath, and other Moor-burning in the Counties of Yorke, Durham, Northumberland, Cumberland, Westmerland, Lancaster, Darbie, Nottingham & Leicester, at unseasonable times of the year.

Whereas, many Inconveniencies are observed to happen in divers Counties of this Realm, by Moore-burnings, and by raising of fires in Moorish grounds and Mountaneous Countries, for burning of Ling, Heath, Hather, Furres, Gorsse, Turffe, Fearn, Whinnes, Broom, and the like, in the Spring time and Summer-Times: for as much as thereby happeneth yearly a great destruction of the Brood of Wild-fowle, and Moor-game, and by the multitude of grosse vapours, and Clouds arising from those great fires, the Aer is so distemper'd, and such unseasonable and unnatural storms are ingendred, as that the Corn, and the Fruites of the Earth are thereby in divers places blasted, and greatly hindered in their due course of ripening and reaping. As also, for that sometimes it hath happened, that by the violence of those fires driven with the Wind, great fields of Corn growing, have been consumed, and Meadows spoyl'd, to the great hurt and dammage of His Majesties Subjects: which Moor-burnings, neverthelesse, may be used, and practised at some other convenient times, without such eminent danger or prejudice.

Be it therefore Enacted by our Soveraign Lord the Kings most excellent Majesty, with the assent of the Lords Spiritual and Temporal, and of the Commons in this Parliament assembled, and by the Authority of the same: That from, and after the last day of July next ensuing the end of this present Session of Parliament, it shall not be lawful for any Person or Persons whatsoever in the Months of April, May, June, July, August, and September, nor in any of them, to raise, kindle, or begin; or to cause or practise to be raised, kindled, or begun any fires or Moorburnings in the said Counties of York, Durham, Northumberland, Cumberland, Westmorland, Lancaster, Darby, Nottingham, and Leicester, or in any of them, for burning of Ling, Heath, Hather, Furs, Gorsse, Turffes, Fearne, Whinnes, Broome or the like; neither to assist, further, nourish or continue the same; And that all and every Person and Persons, which from and after the said last day of July, shall offend contrary to the true intent, and meaning of this Statute, the same offence being proved by confession of the Party, or by the Testimonies of two sufficient Witnesses upon Oath, before one or more Justices of the Peace of the same County, City, or Town Corporate, where the offence shall be committed; or the Person or Persons offending, apprehended, shall be by the said Justice, or Justices of the peace, for every such offence, committed to the Common Goale of the County, City or Town Corporate, where the Offence shall be committed, or the person or persons apprended, there to remain for the space of one

Month without Bail or Main-prise.

And further, be it Enacted, by the Authority aforesaid, that all, and every person and persons, which shall be so convicted and imprisoned as aforesaid, shall not be enlarged from their said Imprisonment; but shall there remain after the said Month is expired, without Bail or Mainprise, until such time as every such Offender respectively shall pay, or cause to be paid to the Church-Wardens, or unto the Overseers of the poor of the Parish, or place, where the same Offence shall be committed, or the Offender or Offenders apprehended, or unto some of them, to the use of the poor of the said parish or place, where the same Offence shall be committed, to the Summe of Twenty Shillings, for every such Offence committed or done, contrary to this Act. This Act to continue until the end of the first Session of the next Parliament.

So far the Act. And here you see was care taken for the Fowl and the Game, as well as for the Fruits, Corn, and Grasse, which were universally incommoded by these unwholsome vapours, that distempered the Aer, to the very raising of Storms and tempests; upon which a Philosopher might amply discourse. And if such care was taken for the Country, where the more Aereall parts predominate, and are in comparison free; how much greater ought there to be for the City, where are such Multitudes of Inhabitants concern'd? And surely it was so of old, when (to object all that can be replied against it) even for the very Service of God, the Sacrifices were to be burnt without the Camp; amongst the Jews; as (of old) amongst the Romans, Hominem mortuum in urbe ne sepelito, nevè urito. That Men should burn, or bury the Dead within the City Walls, was expresly prohibited by a Law of the XII. Tables; and truely, I am perswaded, that the frequency of Churchyards, and Charnel-Houses contamminate the Aer, in many parts of this Town, as well as the Pumps and Waters, which are any thing near unto them, so that those Pipes and Conveyances which passe through them (obnoxious to many dangerous accidents) ought either to be directed some other way, or very carefully to be looked after.

We might add to these, Chandlers and Butchers, because of those horrid stinks, uiderous and unwholsome smells which proceed from the Tallow, and corrupted Blood: At least should no Cattel be kill'd within the City (to this day observ'd in the Spanish great Towns of America) since the Flesh and Candles might so easily be brought to the Shambles and Shops from other places lesse remote then the former; by which means also, might be avoided the driving of Cattel through the Streets, which is a very great inconvenience and some danger: The same might be affirm'd of Fishmongers, so wittily perstringed by Erasmus, per Salsamentarios nempe, inquinari Civitatem, infici terram, flumina, aerem & ignem, & si quod aliud est elementum. Then for the Butcher; That the Lex Carnaria of the Romans forbad them to kill, or have their Slaughter-houses within the Walls; that they had a certain Station assign'd them without; ne si passim vivant, totam urbem reddant pestilentum: So, as were the people to choose, malunt (says he) habere vicinos decem Lenones, quam unum Lanionum; They would rather dwell neer Ten Bawds, then one Butcher: But this is insulsus Salsamentarius, a quibble of the Fishmongers. I could yet wish that our Nasty Prisons and Common Goales might bear them Company; since I affirm they might all be remov'd to some distant places neer the River, the situation whereof does so invite, and rarely contribute to the effecting of it. But if the Avarice of the men of this Age, be so far deplorable, that we may not hope for so absolute a cure of all that is offensive; at least let such, whose Works are upon the Margent of the Thames, and which are indeed the most intollerable, be banished further off, and not once dare to approach that Silver Channel (but at the distance prescrib'd) which glides by her stately Palaces, and irrigates her welcome Banks.

What a new Spirit would these easie Remedies create among the Inhabitants of London? what another Genius infuse in the face of things? and, there is none but observes, and feels in himself the Change which a serene and clear day produces; how heavy and lesse dispos'd to motion. Yea, even to good humour and friendly inclinations, we many times find our selves when the Heavens are clowded, and discompos'd? when the South-winds blow, and the humours are fluid, for what we are when the Skie is fair, and the Aer in good temper? And there is reason, that we, who are compos'd of the Elements, should participate of their qualities: For as the Humours have their sourse from the Elements; so have our Passions from the Humors, and the Soul which is united to this Body of ours, cannot but be affected by its inclinations. The very dumb creatures themselves being sensible of the alteration of the Aer, though not by ratiocination, yet by many notorious Symptomes.

But I forbear to Philosophise farther upon this Subject, capable of very large and noble reflections; having with my promis'd brevity, endevoured to shew the Inconveniencies and Remedies of what does so universally offend, and obscure the Glory of this our renowned Metropolis; and which, I hope, may produce some effects towards the reforming of so publick a Nuisance. At least, let the continual sejourn of our Illustrious CHARLES, who is the very Breath of our Nostrills, in whose health all our happinesse consists, be precious in our Eyes and make our Noble Patriots now assembled in Parliament, consult for the speedy removal of this universal grievance.

It is certainly of far greater concernment (however light and aery it may appear to some) then the drayning of a Fen, or beautifying an Aquæduct, for which some have received such publick honours. Statues and Inscriptions: and will (if ever any thing did) deserve the like acknowledgements both of the present and future Ages. You therefore, that have Houses in the City, you that bring up your Wives and Families from their sweet Habitations in the Country; that Educate your Children here; that have Offices at Court; that study the Laws: In fine, all that are omókapnoi, & ad eundem fumum degentes, bear a part in this request of mine, which concerns the universal benefit; and the rather, for that having neither Habitation, Office, nor Being in the City, I cannot be suspected to oblige any particular. The elegant Ladies and nicer Dames; All that are in Health, and would continue so; that are infirm or Convalescent, and would be perfect; that affect the glory of our Court and City, Health or Beauty, are concerned in this Petition; and it will become our wise Senators, and we earnestly expect it, that they would consult as well the State of the Natural, as the Politick Body of this Great Nation, so considerable a part whereof are Inhabitants of this August City; since, without their mutual harmony, and well-being, there can nothing prosper, or arrive to its desired perfection.

PART. III.

An offer at the Improvement, and Melioration of the Aer of L O N D O N, by way of Plantations, &c.

There goes a pleasant Tale of a certain Sr Politick, that in the last great Plague projected, how by a Vessel fraight with peel'd Onions, which should passe along the Thames by the City, when the Wind sate in a favourable quarter, to attract the pollution of the Aer, and sail away with the Infection to the Sea: Transplantation of Diseases we sometimes read of amongst the Magneticall, or rather Magical Cures; but never before of this way of Transfretation: but, however this excellent conceit has often afforded good mirth on the Stage, and now I mention to prevent the application to what I here propound; There is yet another expedient, which I have here to offer (were This of the

poisonous and filthy Smoak remov'd) by which the City and environs about it, might be rendred one of the most pleasant and agreeable places in the world. In order to this I propose.

That all low-grounds circumjacent to the City, especially East and South-west, be cast and contriv'd into square plots, or Fields of twenty, thirty and forty Akers, or more, separated from each other by Fences of double Palisads, or Contr'spaliers, which should enclose a Plantation of an hundred and fifty, or more, feet deep, about each Field; not much unlike to what His Majesty has already begun by the wall from Old Spring-garden to St. James's in that Park; and is somewhat resembled in the new Spring-garden at Lambeth. That these Palisad's be elegantly planted, diligently kept and supply'd, with such Shrubs, as yield the most fragrant and odoriferous Flowers, and are aptest to to tinge the Aer upon every gentle emission at a great distance: Such as are (for instance amongst many others) the Sweet-briar, all the Periclymena's and Woodbinds; the Common white and yellow Jessamine, both the Syringa's or Pipe trees; the Guelder-rose, the Musk, and all other Roses; Genista Hispanica: To these may be added the Rubus odoratus, Bayes, Juniper, Lignum-vitae, Lavander: but above all, Rosemary, the Flowers whereof are credibly reported to give their sent above thirty Leagues off at Sea, upon the coasts of Spain; and at some distance towards the Meadow side, Vines, yea Hops.

_____ Et Arbuta passim, Et Glaucas Salices, Casiamque Crocumque rubentum, Et pinguem Tiliam & ferrugineos Hyacinthos, &c.

For, there is a very sweet smelling Sally, and the blossoms of the Tilia, or Lime-tree, are incomparably fragrant; in brief, whatsoever is odoriferous and refreshing.

That the Spaces, or Area between these Palisads, and Fences, be employ'd in Beds and Bordures of Pinks, Carnations, Clove, Stock-gilly-flower, Primroses, Auriculas, Violets, not forgetting the White, which are in flower twice a year, April and August; Cowslips, Lillies, Narcissus, Strawberries, whose very leaves as well as fruit, emit a Cardiaque, and most refreshing Halitus: also Parietaria Lutea, Musk, Lemmon and Mastick, Thyme; Spike, Cammomile, Balm, Mint, Marjoram, Pempernel, and Serpillum, &c. which upon the least pressure and cutting, breathe out and betray their ravishing odors.

That the Fields and Crofts within these Closures, or invironing Gardens, be, some of them, planted with wild Thyme, and others reserved for Plots of Beans, Pease (not Cabbages, whose rotten and perishing stalks have a very noisom and unhealthy smell, and therefore by Hyppocrates utterly condemned near great Cities) but such blossom-bearing Grain as send forth their virtue at farthest distance, and are all of them marketable at London; by which means the Aer and Winds perpetually fann'd from so many circling and encompassing Hedges, fragrant Shrubs, Trees, and Flowers (the amputation and prunings of whose superfluities, may in Winter, on some occasions of weather, and winds, be burnt, to visit the City with a more benign smoak) not onely all that did approach the Region, which is properly design'd to be Flowery; but even the whole City, would be sensible of the sweet and ravishing varieties of the perfumes, as well as of the most delightful and pleasant objects, and places of Recreation for the Inhabitants; vielding also a Prospect of a noble and masculine Majesty, by reason of the frequent plantations of Trees, and Nurseries for Ornament, Profit, and Security: The remainder of the Fields included yielding the same, and better Shelter, and pasture for Sheep and Cattel then now; that they lie bleak, expos'd and

abandon'd to the winds, which perpetually invade them.

That, to this end, the Gardiners (which now cultivate the upper, more drie and ungrateful soil) be encouraged to begin Plantations in such places onely: and the farther exorbitant encrease of Tenements, poor and nasty Cottages near the City, be prohibited, which disgrace and take off from the sweetness and amœnity of the Environs of London, and are already become a great Eyesore in the grounds opposite to His Majesty's Palace of White-hall; which being converted to this use, might yield a diversion inferior to none that could be imagin'd for Health, Profit, and Beauty, which are the three Transcendencies that render a place without all exception. And this is what (in short) I had to offer, for the Improvement and Melioration of the Aer about London, and with which I shall conclude this discourse.

FINIS.

FOOTNOTES

- ^{1.} Built in the early 1600s at the western end of the Strand at the top of Whitehall for Henry Howard, first Earl of Northampton (1540-1614), passing to the earls of Northumberland through his nephew and heir's daughter's marriage to Algernon Percy, tenth earl of Northumberland (1602-68). It stood where Northumberland Avenue now exits Trafalgar Square and was demolished in 1874 to make space for the former.
- ² Part of the old Whitehall Palace abutting the gardens of Northumberland House (see note above). This site and Northumberland House can be seen on a 1682 map by William Morgan, illustrated in Barker and Jackson, 1990, 44.
- ³ Henrietta, Duchess of Orleans (1644-70). E had spent an evening at St. James in her presence, see K. December 21 1660, p.128 (de Beer, III, 264).
- ⁴ At the time the Thames was not embanked and therefore wider. Low-lying areas like parts of Southwark and Bermondsey were affected by this.
- ^{5.} Diogenes 'the Cynic', a philosopher from Sinope (c.400-325 BC), and Anaximander, a philosopher from Miletus.
- ⁶ E's note: in Timæo (Plato's Timæus, a description of the divine source of the cosmos, 58, where he contrasts clear air, the aether, with misty and dark air).
- ⁷ Northerly lands. The word originates from a name for the constellation of the Great Bear (with seven stars), only visible in the northern hemisphere. The constellation is close to the pole star in the Small Bear, as seen from Earth, and is used as a 'pointer' to locate that star.
- 8.50 degrees north runs through northern France, Belgium, Luxembourg and Germany.
- ^{9.} E's note: 'Lib. de Aere Aqu. & Locis'. 'Imbelles', presumably for imbellious = unwarlike, see this reference chapters 16, and 22 (Penguin edition, Hippocratic Writings, edited G.E.R. Lloyd, p. 160 and 166.)
- ¹⁰ The poisonous Lake Avernus, near Pozzuoli; Evelyn visited it in February 1645, (de Beer, 1955, II, 346-7).
- ¹¹ E visited the city in the autumn of 1644, see K. (de Beer, II, 171-9).
- ¹² Paracelsus (1490-1541), Swiss physician and chemist. His real name was Philippus Theophrast von Hohenheim.
- 13. The name derives from Falkes de Breauté who lived here in the early thirteenth century. Now known as Vauxhall, just across the Thames from Westminster, it was best known in E's time for Vauxhall Gardens (see K. July 2 1661, de Beer, III, 291). See also Pepys May 28 and July 27 1667.
- ^{14.} Thomas Parr (c.1483-1635), reputed to have reached the age of 152, buried in Poets' Corner in Westminster Abbey (DNB).
- ¹⁵ Discourse of Sympathetick Powder', Sir Kenhelm Digby (1603-65), author and naval commander, noted plant dependence on oxygen, and wrote a paper (here referred to) on his powder which he believed cured wounds (DNB).
- ^{16.} E means his Elysium Britannicum, his planned master work on gardening and cultivation. It was never finished though parts appeared in the 1706 edition of Silva.
- 17. Martial, Epigrams VI.70.
- 18. Deadly (OED).
- ¹⁹ Etesian winds were those named by Greeks which blew annually from the north-west for forty days in the summer (see for example Lucretius De Rerum Natura, VI.716. In this context E means trade, or prevailing, winds.

^{20.} The village of Bow, now in East London, was on the main road to London and on the River Lea, a tributary of the Thames.

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Top of this page Diary of John Evelyn Sallis