

*RAPHAELIS FABRETTI Urbinatis de Aquis & Aquæductibus veteris Romæ Dissertationes tres in Quarto Romæ, 1680.*

1. **T**HE first Discourse of the noble and ingenious *Fabretti* represents the Art and Grandure of the *Aquæductus Alexandrinus*, which taking name from *Severus* the Emperor, as *Spartianus* assures, runs obliquely for a good Foundation, yet loftily, in most places upon an Arc LXX. foot high, through *Procoio di Pantano* between the *Via Labicana* and *Prænestina*, hard by the noble Sepulcher of the said Emperor and his Mother, unto the *Vineyard of the Carthusians* in the City, at 14 miles distance from its Fountain. The *Duct* or *Specus* is  $2\frac{1}{2}$  foot broad,  $4\frac{1}{2}$  high, and thick in the sides  $2\frac{1}{4}$ , admitting in divers places an *Aperture* or *Breath-hole* made of *Topbus*  $2\frac{1}{2}$  foot square: and is sustein'd by square Piles of Brick, 8 foot thick, well cemented and inwardly polisht; and cover'd with an Arc of the same matter 12 foot over.

2 The second Dissertation, which treats of *Aqua Marcia* and *Claudia*, is opportunely prefac't with the measure of the *Old Roman Foot*: which this Learned Italian asserts to be the *Pes Capitolinus*, that *L. Papius* procur'd, more than an hundred years since, to be express'd on a marble Table in the Capitol, together with the *Roman Palm* of nine inches, and the *Canna Architectonica* of ten Palms, and the *Decempeda* or Rod of ten Foot. Our Author comparing the two last together, found the *Modern* or *Architectonic Palm* to make near  $9\frac{1}{11}$  inches of the *Ancient Roman Foot*, the *Canna Architectonica* reaching to  $7\frac{3}{4}$  Foot of the old *Decempeda*: and consequently that a *Roman Mile*, or 5000 Foot, contains near  $660\frac{1}{2}$  of the *modern Canne*; not 667 *Canne*, as *L. Holstenius* estimates in his Discourse *De miliaribus Aureo*, mistaking the *modern Roman Palm* for just  $\frac{3}{4}$  of the *Antique Roman Foot*. Much less will 650. *Canne* of the *Later Surveyors* extend to the length of an *old Roman mile*, as *L. Papius* computed. But the measure of the *Pes Capitolinus* on the marble Table foremention'd, (and not the Print of it p. 88 *L. Papi de mensuris*, too scanty by  $\frac{3}{4}$  of an inch,) is sufficiently confirmed by three *jointed Brass-Feet* found in different places, and by several Bricks, carrying one Foot in length, and an half in breadth, taken up from the Ruins in *Via Ostiensi* and in divers other places.

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Wherefore this *Capitol Foot* ought to be preferred unto the rude Draughts on the Monuments of the ancient Architects, *M. Abutius*, *T. Statilius*, and (*n. Cossutius* ; which last is taken for the very Roman Foot by the honor of our Nation *Dr. John Greaves*. Yet this, as well as the *Statilian*, falls short of the *Capitol-Foot* by near  $\frac{1}{8}$  part of an inch, whereas the *Abutian* is about as much too large. Moreover the *Villalpandine Module*, argued loosely and inverfly from the Content of the *Vespasian-Congius*, exceeds by  $\frac{1}{2}$  of an Inch the *Capitoline* or *True Roman Foot* : for to this do precisely agree, says our wise and experienced Author, the numerous Patterns and Remains of ancient Architecture, that are daily dug up about the City. Soon after he gives a public Example of the *Capitoline Foot*, telling us it futes exactly with the 73. of those cxxv. spaces into which *Villalpandus* divides his *Semicircular Instrument* p. 3 : 6. *Comment in Ezech.* Lastly, the Foot which *Ricciolus* offers us for *Roman* in his *Abnagest.* p. 58 surpasseth the *Capitoline* by a full Digit, or  $\frac{1}{16}$  of the whole : and his other measure *Geograph. Reform. f. 34.* by  $\frac{1}{8}$  part. But to return to our *Aqueduct*, highly extoll'd by *Pliny*, *Plutarch*, *Arrian*, *Frontinus*. and in this Clause of *Propertius*, *Aeternum Marcium humor opus*. This *Water* taking its name from King *Ancus*, and as deservedly from *Publius* and *Quimus*, in the same *Marcian Family*, οἱ πλείστον ὕδαρ καὶ γάρρλιον ἐν Ρώμῃ καὶ ταχαγόντες, &c. ariseth not from the *Lacus Fucinus* (whence *Pliny* and *Statius* would fetch it) but in the *Cross-path* between the *Via Valeria* and *Sublacensis*, two miles short of *Cæculus* and *Curcius*, the Fountains of *Aqua Claudia* : but observes the same Level with the *Claudian* ; because it descends more precipitate from the Origine. Yet within 5 miles of *Rome* the *Aqua Marcia* runs 20 Foot lower than the *Aqua Claudia*. But at 7 miles distance from *Rome*, and at a mile and an half from the midway to *Marino*, as *Fabretti* after *Frontinus* exactly measur'd, the *Aqua Marcia* is both purified and moduled, by falling into, and soon after rising up from a long square *Piscina* or *Cistern*, 6 foot deep, made of *Flint*, and cover'd with a *Net work*, by order of *Hadrian* the Emperor. Now the latter use of these *Ponds* or *Cisterns*, that sufflaminate the Current of the *Aqueducts*, is frequently taken notice of by *Frontinus* : so that Signior *Castelli* his belov'd Probleme, *Ex celebritate aqua modum ejus variare*, is not so new as he pretends.

3. The third Dissertation concerning *Aqueducts*, the best Argument, by the confession of *Dionysius*, *Strabo*, *Pliny* and others, of the Magnificence of *Rome*, remarques that of the fourteen *Aqueducts* which *Procopius* found at the City in his time, ten are now quite lost; and the other four, namely *Aqua Crabra* or *Damnata*, *Trajana*, *Alexandrina*, and *Virgo* much corrupted. The last so much fam'd in Antiquity, arising near *Rivus Herculaneus*, is deriv'd unto *Porta Flaminia* at the length of *LXIII. Acres* or *3024. Roman Paces*. For to the *Ports* of *Rome*, and not (as the Incomparable *Holstenius* contends) from the gilded *Miliarium*, the conduets of *Ways* and *Waters* are precisely to be estimated. Upon this occasion Signior *Fabretti* ingeniously acknowledges, against the Exorbitance of *J. Lusius* and others, that the compass of *Rome* (*ambitus Urbis*) by its Ancient *Ports*, should be reduc'd in *Plinies* numbers from *XIII.* by an easie change unto *VIII Miles*; to accord to the the magnitude of *Athens*, which is the Assertion of *Strato*: as also to the limits of *Dionysius*, within the ridge of the *Hills*, the *Timuli*, the *Tibur*, and the *Agger*. Yet (*Rom. amplitudo*) *Rome* taken with all its *Suburbs*, according to the same *Pliny* and to this *Dissertator*, made a wide Circuit of *LXX. Miles*. This in brief from the three Learned Discourses of Signior *Raphael Fabretti*.

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