



A parallel of the ancient architecture with the modern, in a collection of ten principal authors who have written upon the five orders, viz. Palladio and Scamozzi, Serlio and Vignola, D. Barbaro and Cataneo, L. B. Alberti and Viola, Bullant and De Lorme, compared with one another : the three Greek orders, Doric, Ionic, and Corinthian, comprise the first part of this treatise, and the two Latin, Tuscan and Composita, the latter

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[FRÉART]

Sept 1807.

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PARALLEL

OF THE

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WITH THE

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The Three Greek Orders, DORIC, IONIC, and CORINTHIAN, comprise the *First Part* of this Treatise.

And the two Latin, TUSCAN and COMPOSITA, the *Latter*.

Written in *French* by ROLAND FREART, *Sieur de Chambray*.

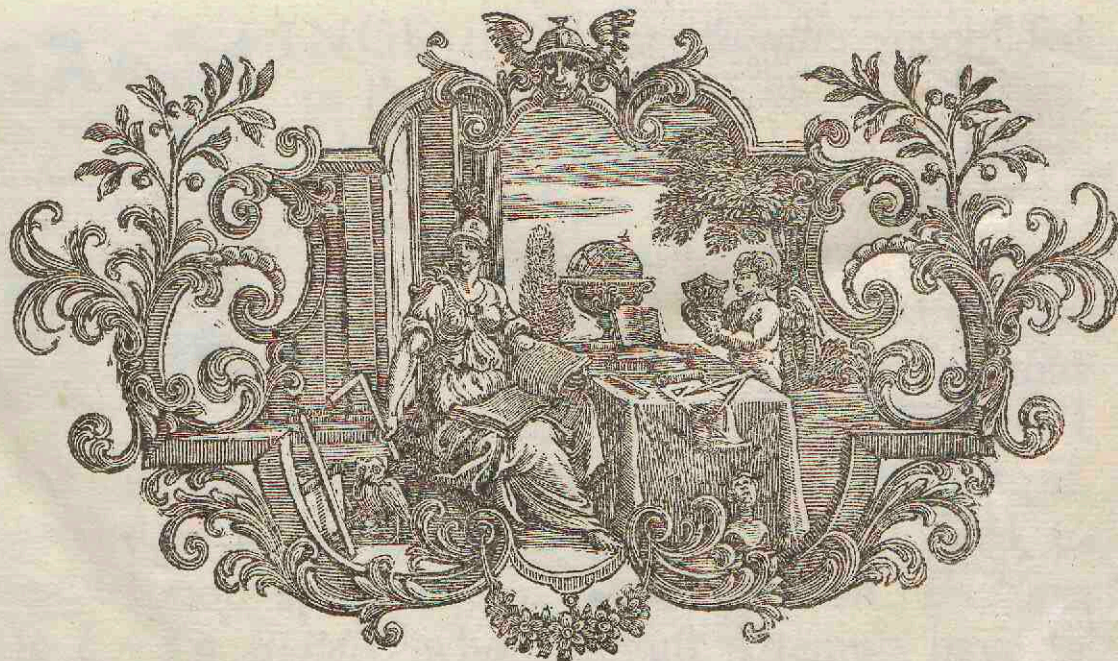
Made *English* for the Benefit of BUILDERS.

To which is added, *An Account of ARCHITECTS and ARCHITECTURE*, in an *Historical* and *Etymological* Explanation of certain *Terms* particularly affected by *Architects*.

With LEON BAPTISTA ALBERTI's *Treatise of STATUES*.

By JOHN EVELYN, Esq; Fellow of the ROYAL SOCIETY.

The Fourth Edition, with the Addition of THE ELEMENTS OF ARCHITECTURE:
Collected by Sir HENRY WOTTON, Knt. from the best Authors and Examples; and
also other large Additions.



L O N D O N :

Printed by T. W. for J. WALTHOE, D. MIDWINTER, and A. WARD; W. MEARS,
F. CLAY, B. MOTTE, and D. BROWNE.

MDCCXXXIII.





TO THE
Most Serene MAJESTY
OF
CHARLES II.



SINCE the Great *Augustus* vouchsafed to Patronize a *Work* of this Nature, which was Dedicated to him by *Vitruvius*, I had no reason to apprehend, Your Majesty would reprove these *Addresses* of mine, if, in presenting You with those *Antiquities* on which that Excellent *Master* formed his *Studies*, I intituled Your Majesty to a *Work*, so little inferior to it, and so worthy to go in paragon with it. And, indeed, to whom could I more aptly *Inscribe* a *Discourse* of *Building*, than to so *Royal* a *Builder*, whose August Attempts have already

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ready given so great a *Splendor* to our *Imperial City*, and so *Illustrious* an *Example* to the *Nation*! It is from this *Contemplation*, *Sir*, that after I had (by the *Commands* of the *Royal Society*) endeavoured the *Improvement* of *Timber*, and the *Planting* of *Trees*, I have advanced to that of *Building*, as its proper and natural *Consequent*: Not with a *Presumption* to *Incite* or *Instruct* Your *Majesty*, which were a *Vanity* unpardonable; but by it to take occasion of celebrating Your *Majesty's* great *Example*, who use Your *Empire* and *Authority* so worthily, as *Fortune* seems to have consulted her *Reason* when she poured her *Favours* upon You; so as I never cast my *Eyes* on that generous *Designation* in the *Epigram*,

-----*Ut donem, Pastor, & Ædificem,*

Credis ab hoc me Pastor opes
fortasse rogare
Propter quod vulgus, crassa-
que turba rogat? &c.
Est nihil existis: Superos, ac
sidera testor.
Ergo quid? Ut donem, Pa-
stor, & Ædificem.
MART. Ep. Lib. IX.

without immediate *Reflections* on Your *Majesty*, who seems only to value those *Royal Advantages* You have above others, but *that You may oblige, and that You may Build*. And certainly, *Sir*, Your *Majesty* has consulted the *Noblest Way* of *Establishing* Your *Greatness*, and of *Perpetuating* Your *Memory*; since, whilst *Stones* can preserve *Inscriptions*, Your *Name* will be famous to *Posterity*; and when those *Materials* fail, the *Benefits* that are engraven in our *Hearts*, will outlast those of *Marble*. It would be no *Paradox*, but a *Truth*, to affirm, That Your *Majesty* has already *Built* and *Repaired* more in *three* or *four* *Years* (notwithstanding the *Difficulties*, and the *Necessity* of an extraordinary *Oeconomy* for the *Publick Concernment*) than all Your *Enemies* have *Destroy'd* in *Twenty*, nay, than all Your *Majesty's* *Predecessors* have *Advanc'd* in an *Hundred*; as I could easily make out, not only by what Your *Majesty* has so magnificently designed and carried on at that Your ancient *Honour* of *Greenwich*, under the *Conduct* of Your most *Industrious* and *Worthy Surveyor*; but in those splendid *Appartments*, and other useful *Reformations* for *Security* and *Delight*, about Your *Majesty's* *Palace* at *White-Hall*; the chargeable

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chargeable *Covering*, first *Paving* and *Reformation* of *Westminster-Hall*; Care and Preparation for *St. Paul's*, by the Impiety and Iniquity of the late Confusions almost *Dilapidated*: With what Her Majesty the *Queen-Mother* has added to her *Palace* at *Somerset-House*, in a *Structure* becoming her Royal Grandeur, and the due Veneration of all Your Majesty's Subjects for the Honour *She* has done both this Your Native *City* and the whole *Nation*. Nor may I here omit (what I so much desire to transmit to *Posterity*) those noble and profitable *Amenities* of Your Majesty's *Plantations*, wherein You most resemble the *Divine Architect*; because Your Majesty has proposed in it such a *Pattern* to Your Subjects, as merit their Imitation and profoundest Acknowledgments, in one of the most Worthy and Kingly *Improvements* that *Nature* is capable of. I know not what they talk of former *Ages*, and of the now contemporary *Princes* with Your Majesty; these Things are *visible*: and should I here descend to more Particulars, which yet were not foreign to the *Subject* of this *Discourse*, I would provoke the whole World to produce me an *Example* parallel with Your Majesty for Your exact Judgment, and marvellous Ability in all that belongs to the *Naval Architecture*, both as to its proper *Terms*, and more solid *Use*; in which Your Majesty is *Master* of one of the most noble and profitable *Arts* that can be wished in a *Prince*, to whom *God* has designed the *Dominion* of the Ocean, which renders Your Majesty's *Empire Universal*; when by exercising Your Royal Talent and Knowledge that Way, You can bring even the *Antipodes* to meet, and the Poles to kiss each other; for so likewise (not in a *metaphorical*, but *natural* Sense) Your equal and prudent *Government* of this *Nation* has made it good, whilst Your Majesty has so prosperously guided this giddy *Bark* through such a *Storm*, as no Hand, save Your Majesty's, could touch the *Helm*, but at the Price of their Temerity. But to return to that of *Architecture* again (for it is hard not to slide into the *Panegyrick*, when once one begins to speak of Your Majesty)

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jefty) I am Witness not only how pertinently You *discourse* of the *Art*, but how judiciously You *contrive*: and as in all other Princely and Magnificent Things, Your *Notices* are extraordinary, so I cannot but augure of their *Effects*, and that Your *Majesty* was designed of *God* for a Blessing to this *Nation* in all that can render it happy, if we can have the Grace but to discern it, and be thankful for it.

This is, *Sir*, the glorious *Idea* which I have conceived of Your *Serene Majesty*, and which I propose for as emulous an *Example* as any *Age* has hitherto produced; nor can there any thing be added more, but that Permanency, which the rest of Your *Virtues* do promise us. If such were those Glorious *Heroes* of Old, who first brought Men out of *Wildernesses* into walled and well-built *Cities*, that chased *Barbarity*, introduced *Civility*, gave *Laws* to *Republicks*, and to whose rare *Examples* and *Industry* we are accountable for all that we possess of *useful* in the *Arts*, and that we enjoy of *Benefit* to the *Publick*; How much Cause have We in these *Nations* to rejoice, that whilst Your *Majesty* pursues these laudable *Undertakings*, that *Race* of *Demy-Gods* is not altogether extinct! And if after the Support of *Religion*, and the Establishment of *Laws*, the Perfection of *Sciences* be the next in order to the Well-being of a State, *This* of *Architecture* (as one of the most *beneficial* and *useful* to *Mankind*) owes her *Renascecy* amongst *Us* to Your *Majesty's* Encouragements, and to as many of those *Illustrious* Persons, as by their large and magnificent *Structures* transcribe Your Royal *Example*; in particular, my *Lord* High *Chancellor* of *England*, my *Lord* High *Treasurer*, and my *Lord* the *Earl* of *St. Albans*, whose *Memoories* deserve this Consecration.

I have now but *one* thing more to speak, *Sir*, and that is for the *Reputation* of the *Piece* I present to Your *Serene Majesty*: It is indeed a *Translation*; but it is withal the *Marrow* and very *Substance* of no less than *Ten* judicious *Authors*, and
of

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of almost *twice* as many the most Noble *Antiquities* now extant upon the Bosom of the *Earth*: 'twere else a difficult Province to conceive how one should entertain Your Majesty without a *Spirit* and a *Subject* worthy Your Application. There is something yet of *Addition* to it, which is *New*, and of mine own, the Defects whereof do supplicate Your Majesty's Pardon; to say nothing of the Difficulty of rendring a *Work* of this *Nature* intelligible to the *Vulgar*, and not unworthy the *Stile* of a *Gentleman*; seeing it is not the Talent of every one who understands a *Language*, unless he also understand the Art. But these may seem to defer to my own Glory, which is conspicuous in nothing so much, as in laying it at Your Majesty's Feet, and the Permission of that *Sacred Name* to protect,

Says-Court,
20 Aug. 1664.

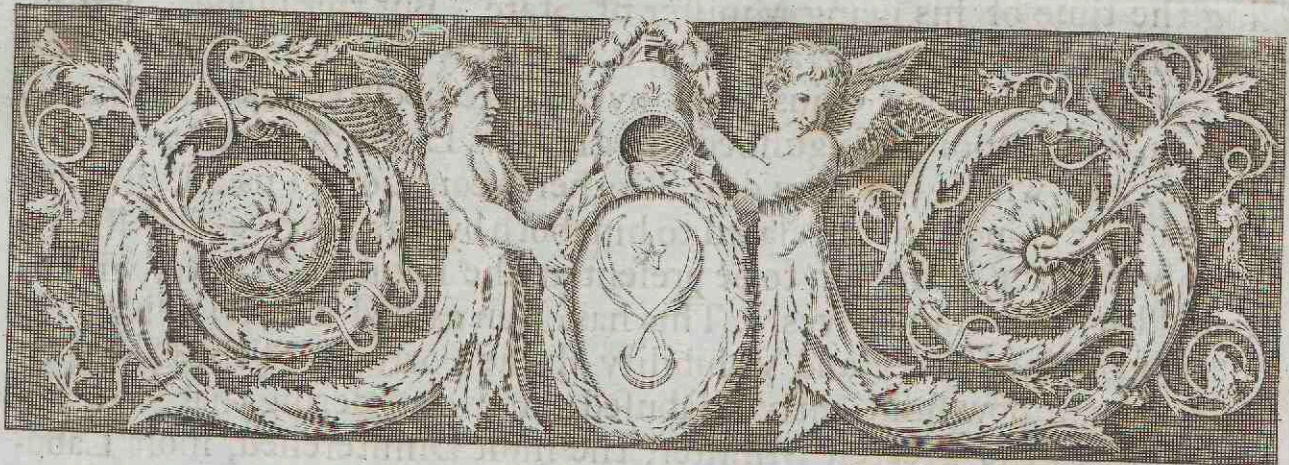
S I R,

Your Majesty's ever Loyal,

Most Obedient, and

Faithful Subject,

J. EVELYN.



To my most Dear BROTHERS,
JOHN FREART, Esq;
SIEUR De CHANTELOU,
Counsellor to the KING, and Provincial Commis-
sary in *Champagne, Alsatia, Lorraine, and Germany.*

A N D

PAUL FREART, Esq;
SIEUR De CHANTELOU,
Counsellor and Master of the Household in Ordinary to
the KING.

My Dearest Brothers,



IT is by your Commands that I have finished this Treatise of the *Ancient Architecture* compared with the *Modern*, which I had altogether laid aside, and even effac'd out of Mind since the Decease of *Monsieur de Noyers*, to whom I had devoted it, as to the *Mecenas* of the Age, and more particularly, for being indeed the true Author of this Book; since I had never taken it in Hand, but by his special Order, and to afford him some little Entertainment during his Solitude of *Dangu*, where he was pleas'd, and indeed desired, I should follow him after his Retreat from the Court, there to enjoy with him that Sweetness and Tranquillity of Life, which we were never before acquainted with dur-

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ing the time of his being Minister of State. But this blessed Leisure, which you so often congratulated, was quickly interrupted by I know not what unlucky Genius, and by an intempestive and precipitous Death, which soon extinguished this glorious Light of Vertue. In this great Loss (which was, my dear Brothers, common to us all, since we all had the Honour to be related to him both by our Services and Birth) I only had the Affliction to be present at the lugubrious Object, and to behold it with mine Eyes. This has often caused me seriously to reflect upon the Vanity and Volubility of the Fortunes of the Court, of which I am now sufficiently disabused: For considering that so rare a Personage, the greatest Minister, the most Disintereffed, most Laborious, most Successful, of so extraordinary and approved a Probity, so universal in all Sorts of excellent Qualities, and, in a word, so extraordinary, after twenty Years Service and Employment in the greatest Offices of State, that a Subject (I say) of so great Merit, should come to conclude his Days in the Country like an Exile: I confess, my dearest Brothers, whilst I think of this, all Things appear so transitory and uncertain in Greatness, that I find the Retreat of the Disgrac'd (provided they are honest Men) infinitely preferable to their Favour. Could Merit and considerable Services have for ever fixed and establish'd a Man at Court, or been a Rampart against that Envy and Jealousy, which are the immortal Enemies and Pests of Vertue, unhappily reigning in that Climate, the late *Monseigneur de Noyers* was the most worthy to have finished his Days gloriously in his high Employments; since he alone performed more in less than Ten Years space, than all his Predecessors together had done in an Hundred; whether we have regard to Works which are necessary for the Conservation and Good of the State, or consider Those only which gave Splendour and Magnificence to the Kingdom. It is not my Design to repeat them here for your Instruction, because you know them much better than myself; only that I may leave some Memorials to the Publick, I shall mention a few of them. It may be affirmed in general, that he had in his time exalted the noblest Arts to the supreamest Degree of Perfection that was ever seen in *France*: As *Architecture*, both Civil and Military, *Painting*, *Sculpture*, and *Printing*, which he then made truly Royal, when he lodged it at the *Louvre*; the very first Production whereof, were not only unparallel'd Master-pieces, but, as one may say, Libraries compleat; for in two Years there were published threescore and ten great Volumes, in *Greek*, *Latin*, *French* and *Italian*; from one part of which one may judge of the rest, *viz.* that general Collection of all the *Councils*, set forth in seven and thirty Volumes, which is certainly the most Noble, most Useful, and Royal Work that ever saw Light to this Hour. This incomparable Stamp was accompany'd with another very rich one, I mean the new Money, which *Monseigneur de Noyers* placed also in the same Apartment of the *Louvre*, that he might allie together two of the most universal and most permanent Monuments of *Kings*, spreading themselves over all Nations, and

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and remaining for so many Successions of Ages. The excessive Abuses which were found in the Year 1638, and 1639, both in the Title and Weight of the greatest part of the Monies, as well of this Kingdom as of others, which had almost all of them been changed or disfigured, stood in need of this excellent Man to reform them, whose Affection and Zeal to the Publick might produce so extraordinary Effects. But as it was impossible to remedy it on the sudden, without putting Commerce into very great Disorder, he, from the ill Course of those Monies, which for some time they were forced to connive at, well knew how to derive the greatest Advantages of State, and most signal Honour to the King. And in effect, 'twas none of the least Pieces of Politicks, to permit and even authorise this Abuse by an Edict, which could not else have been so easily opposed; whilst, in the mean time, it invited the People of the neighbouring States, in hopes of Gain, to transport into *France* all the light Gold and Silver which they had, and which remained there by reason of its being decayed a few Months after, bearing now the Arms of *France*, with the Name and Effigies of *Louis le Juste*, by that noble Conversion which he ordered to be made of it. Whilst this strange *Matter* was united to ours, he sought out and discovered prompt and easy Expedients of giving it that excellent Form, which it now bears; curing at the same Instant, and by the same Remedy, both the present Inconvenience, and that to come. Thus we see, that its just and equal Roundness, the *Grenetis*, or Graining, which is about it, and the Politure, which is on the Flat of every Piece, not only defends it from the Clipping, the File, and Operation of Strong-Waters, but even renders its Imitation in a manner impossible to our false Coiners; so as one may affirm of this Money, that it is the most artfully contrived, and the most commodious that ever was used in Commerce. He caused to be coined in less than four Years above an hundred and twenty Millions, and that after fifteen or sixteen Years, that the War had lasted, and the State seemed to have been utterly exhausted by the great and continual Expences which were incessantly made, laid out in fortifying of Places, paying of Armies, and the Assistance of the Allies of the Crown, at the same time was the *Louvre* seen to augment, and the Royal House of *Fontainebleau*, which owe not only a part of their Ornaments to the Care of this great Minister, but their Conservation also, and absolute Restoration; since, but for him, they had been at present but one vast Ruin, a very Carcass of Building, desolate and uninhabitable. The Castles of *St. Germain* and *Versailles*, which were then the ordinary Residence and Delices of the King, carry on some Marks of the same Hand: the first by the Construction of the noblest Stables and Manege which is in *France*, with diverse other Accommodations necessary for the lodging of a Royal Court; and the other, by a *Terrasse de Grefferie*, which is of the kind an incomparable Work, with a Circle of an hundred and twenty Yards Diameter. But whilst he thus worthily acquitted himself in the Charge of Superintendent of

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of the Royal Houses and Buildings of *France* (with which the King was pleased to gratify him for four or five Years) he employed in the mean time his chiefest Cares for the Safety and Enlargement of the Kingdom, dispensing all necessary Orders for the Armies both of Sea and Land; providing and furnishing the Magazines and Garrisons of Places, and a good part of the Provinces: But as Things useful and necessary are to be preferr'd before Splendor and Magnificence, he first began with *Military Architecture*, which he caus'd to march before the Civil: All our Frontiers are full of his Works: In *Picardy*, the *Port-Royal* of *Calais*, composed of two of the greatest Bastions of *Masonry*, the most regular and noble that are in *Europe*: All the Fortifications of *Ardes*; most of the Bastions of *Peronne*, of *S. Quintin*, of *Han*, of *La Fere*, *Dourlans*, *Amiens*, and of *Montreuil*, especially an Horn-Work also of *Masonry* of extraordinary Beauty and Magnitude; not to omit that Half-Moon of *Abbeville*, where the Inhabitants not prevailing with him to have his Arms set on it, in Acknowledgement of the Favour which they had by this Means received (permitting it in no Place built by him, from a particular Sentiment of Honour to the King, and out of a most singular Modesty) planted two Rows of Walnut-Trees, that under that Pretext they might call it by his Name. In *Champagne*, the Fortress of *Mount Olympus*, which serves *Charleville* for a Citadel; several other Works at *Stenay*, at *Mezieres*, *Mozon*, and *Rocroy*. Then, in *Lorraine*, the Citadel of *Nancy*; the Places de *Vic*, *Moyenvic*, and *Marsal*. In *Normandy*, *Havre de Grace*; where (besides the Fortifications of the Place) he excavated a large Basin of *Masons* Works in the Port, near two hundred Yards long, and above sixscore wide, to contain Vessels always afloat: Also at *Bourage* in the Isles of *Xaintong*, which are two Maritime Keys of the Kingdom. In *Italy*, *Pignerol*, and all the new Fortifications of *Cazal*. Now for Works and Curiosities of *Painting* and *Sculpture* (which are as 'twere the two Sisters of the Art I am now to treat of) it would require a large Discourse to particularize them one after another; besides that, one could not well do it, without a little Reproach to our Nation, which (by reflecting on the sudden Cessation of so many excellent Things) one would almost believe had but one only Person capable of those rare Productions. It shall suffice then to say in general, that he made the *Louvre* the Center of the Arts, whose Concourse thither in a few Years began to render it the most Noble and Magnificent Structure of the World. It was for this glorious Design, and for the Decoration of other Royal Houses, that the famous *Monsieur le Poussin* had the Honour to be sent for by the King at the beginning of the Year 1640. It was then that the late *M. de Noyres* dispatched us, You and my Self (*dear Brother*) towards his *Holiness* about an important Affair, with Order at our Return to make way for *France* to all the greatest Vertuosi of *Italy*; and as he was their Loadstone, we easily drew a considerable Number after him, whereof the Chief was that renowned and singular Painter *M. le Poussin*,

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fin, the Glory of the *French* in his Profession, and, as it were, the *Raphael* of our Age: To this Effect we likewise used great Diligence to get made, and collect together, all that the Leisure and Opportunity of our Voyage could furnish us, of the most excellent Antiquities, as well in *Architecture* as *Sculpture*; the chief Pieces whereof were two huge Capitals, the one of a Column, and the other of an angular Pilaster from within the *Rotunda*, which we chose as the most Noble *Corinthian* Models remaining of Antiquity: Two Modules of eleven Palms Diameter, taken from the Triumphal Arch of *Constantine*; threescore and ten Bas-Reliefs moulded from *Trajan's* Column, and several other of particular Histories, some of which were the next Year cast in Brass, others were employed in manner of Incrustation about the Compartment of the arched Ceiling of the *Louvre* great Gallery, in which *M. le Poussin* most ingeniously introduced them, and that with an extraordinary Address and Consideration, to answer a certain Design, which was then required of him, not as the most magnificent and superb he could have compos'd, but for an Ornament, which should be speedily executed, and of moderate Cost, with regard to the Time and impatient Humour of our Nation. A little while after that, you returned (my dear Brother) to obtain the Pope's Blessing of the two Crowns of Diamonds, and the Golden Babe carried by an Angel, which their Majesties sent you to present our Lady of *Loretto* in Acknowledgment, and as a Token of Gratitude which they rendred to the Virgin, for the most happy, and almost miraculous Birth of our *Dauphin*, the King which now reigns: You continued to have diverse Figures and *Bas-Relievs* wrought off, particularly the *Flora* and the *Hercules* in *Farnese's* Palace, of which there is now one cast at *Paris*: Two other Modules from the same Arch of *Constantine*, and both the *Colosses* of *Montecavallo* with their Horses, the greatest, and the most celebrated Works of Antiquity, which *M. de Noyers* designed to have also cast in Copper, to place them at the principal Entry of the *Louvre*. You beheld the Splendor which all this great Provision made in *Rome*, and how every Body wonder'd that the *French*, who who were 'till now renown'd only for their Valour and invincible Courage in War, and seem'd to be affected only to the Arts Military, should shew so much Passion for These, which assum'd the Reputation of being the most Glorious, by a Prerogative above others; as if the Hemisphere of *France* had been lately chang'd, and *Mercury*, in Conjunction with *Mars*, began now to pour down new Influences upon her. For my own part, I can testifie how the Report of it spread as far as *Constantinople*, whither *Fame* had born the Name of *Monseigneur de Noyers* with so much Glory, that the Patriarch of that renowned City writ him Letters full of profound Admiration, which he address'd to *Monsieur de Villeroy*, a noble *Athenian*, Resident in *France* for the Duke of *Parma*, delivering them to my Lord at *Dangu* after his Retreat from the Court, and where I have had and kept them a great while, and read them to several of my Friends. They take notice chiefly,

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how new and unheard of a Thing it was, that there should be found a Grand Vizier of our Nation, so transcendent in all Excellencies; of which some Marks he had seen, easily perswaded him to believe all the other Marvels which were reported of him: (these Exemplars were the Books of the Royal Press, and some Pieces of Coin) his Letter was somewhat prolix, and written in a more polite Style than the vulgar *Greek* now spoken in that Country. It were great Pity that a Thing so memorable and signal should be buried in Oblivion, and therefore I take Notice of it with more Circumstances than many others. But during all these mighty Projects, there happen'd a strange Revolution, which in less than six Months changed the whole Face of the State, by the Death of that superlative Minister, the great Cardinal *de Rich-lieu*, the very Column and Ornament of Monarchy; and a short Space after that, by the Recess of *Monseigneur de Noyers*; and immediately upon this, by that Loss to all *France*, the King himself; so as all these noble Beginnings had none that followed them, there remaining not one of those which enter'd afterwards into the Management of the publick Affairs, who had, with their Affections, the Knowledge and the Talents which were requisite for the Continuation of those great Designs. We then presently beheld the Work of the *Louvre* abandoned, the finishing of the great Gallery to cease, and generally all the Fortifications in *France*, without Hopes of seeing the Work reassumed and taken in hand again of a long Time, it being necessary, for such an Enterprize, to find assembled in the same Person (as it was seen in that of *M. de Noyers*) Virtues and Qualities, both rare and extraordinary. Besides, to produce such a one as he was, of an universal Genius and Capacity, that loved Arts with Judgment, and cultivated them; that would neglect his proper Interest, to preserve that of the State and of the Publick; who, amidst an Authority and exceeding Favour, retaining still the Modesty of a private Man, thinks not of establishing his House, against the ordinary Course so natural to all Men, should refuse to augment and heap up Riches, or seek Titles and Dignities for it, and that never took Thought, or laboured, as did he during an Employment of twenty Years (for the latter Six of which he had almost the universal Management of State Affairs) but for the Safety, Enlargement, and Splendor of the Kingdom: For such a Masterpiece of Nature, I say, there needs the Efforts of many Ages: The Recompence of so many Virtues was very small on Man's Part, but great and inestimable on God's, who crown'd this illustrious Life with a most happy Death. I reserve, as a Treasure inestimable, a certain small Collection of the Sayings of this holy Courtier, our most dear Master, during the Continuance of his Sicknes, which was assisted by his Director, the R. F. *de Saint Jure*, who was with him to the last: And as I have had the sad Consolation of being present at this last Act of his Life, during which I remember to have heard from his own Mouth all that is contain'd in this Recital, I am not able to read them without a great deal of Tenderness, and indeed without Tears. He died

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died in his Castle of *Dangu*, on *Friday* the twentieth of *October*, at One a Clock after Noon, in the Year 1645, and in the six and fiftieth of his Age, two Years and a half after his Recess from Court, his Body being transported to the Church of the *Novitiat* belonging to the Jesuits, which he had built in Honour of *St. Xaverius*, and destin'd for his Sepulchre. This Church is look'd upon as the most regular Piece of *Architecture* in *Paris*; and tho' it be not so exceedingly charg'd with Ornaments as some others are, yet it appears very noble in the Eyes of intelligent Persons, all that is there being done with an Intention and Care so extraordinary. But that which in it excels all the rest, is a Picture of one of the Miracles wrought by *St. Xavier*, which was painted here at the same Time with that admirable Supper of the Apostles (which he caused to be plac'd at the Altar of the Chapel-Royal of the Castle of *St. Germain*s, where all the Figures exceed the Natural) both of them the Works of our famous Master *le Poussin*, and indeed worthy his Pencil, tho' the first of them was painted with extraordinary Haste, and during the Winter.

You see (dear Brothers) a small Draught of a Part of the Life of our most precious and most honour'd defunct *M. de Noyers*, that incomparable Genius of *France*, never to be sufficiently praised, never enough regretted, because comparable to the greatest Examples of Antiquity. I would by all means place him in the Front of this Book of mine, to let the World see that I had no other Object in the finishing of this Work (of which he honour'd me with the Charge) than to render the same Service and Veneration to his Memory, being dead, I could perform to his Person, were he yet alive. However, in resuming it at your Request, my first Ardour being much alloy'd, what was heretofore a liberal and divertising Study, during the Presence of my late Lord and Master, is now become a Difficulty, and a kind of Constraint; since I have been forc'd to alter, and even retrench diverse Particulars which were then very essential to my Design, but would now have been altogether useles and unseasonable. Receive then (my dear Brother) this Fragment of a Book, so much at least as remains of it; and if there occurs any thing which may prove yet considerable in such clear and discerning Eyes as your's are, and that my Designs seems worthy of any Place amongst your other Curiosities, you owe the Obligation of it to our common Friend *Monsieur Errard*, who was pleased to take a great deal of Pains to see it perfected; and has not only perswaded me (as well as you) to publish it to the World; but has, more than this, contributed likewise to it of his own Labour and particular Elucubrations.

From *Paris*, the
22 of *May*, 1650.

Amico

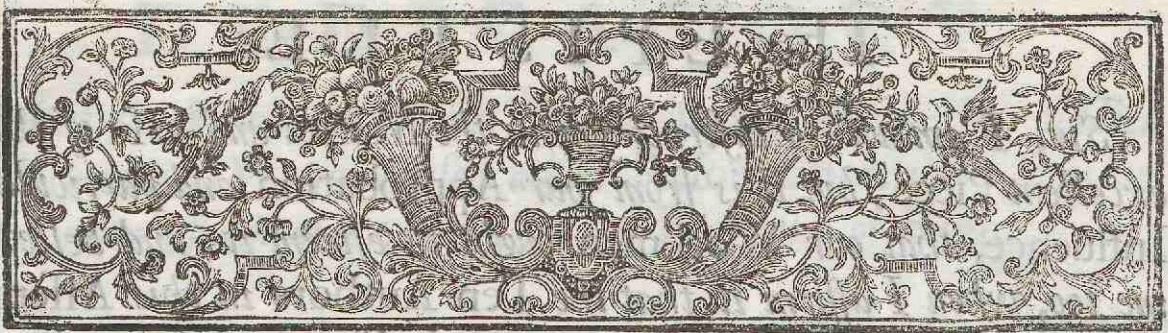
Amico Optimo & Charissimo

JOHANNI EVELYNO, Armig.
E Societ. Regali Lond. &c.

J. O. B E A L E, S. P. D.

In ARCHITECTURAM ab ipso Anglicè redditam, &
Graphicè exornatam.

SIC, ubi de Cælo quondam primordia rerum
 Effulsere, Chaos discutiente Deo,
 Hortus erat primus: Tunc Tecta, & Mœnia, & Urbes:
 Tandem & Pyramidum nobile surgit opus.
 His aliquis molem subjungit: In aëre pendet
 Hortus; & unde venit, quærere jure licet.
 Nec satis est vitam ducamus in Arce beatam
 Qualem agit æthereâ Juppiter ipse domo;
 Sed Talis superesse juvat post funera longa,
 (Quamvis hîc cineres urnula parva capit)
 Mausolea ex in cœlos tactura sepulchra
 Inscriptum Herois nomen ad astra vehunt.
 Stat quoque, si favit Victoria, grande Tropæum;
 Attollensque apicem tunc Obeliscus ovat.
 Mox spirare trucem poteris jurare Colossum,
 Sic movet, ut trepident, & mihi membra labent.
 Sunt quibus excidium laudi est, & lata ruina;
 Atqui exornandi gratia major erit.
 Parcite Mortales, famam prohibete Nepotes;
 Ni scelus in causa deteriore cadit.
 Sunt quoque Tanariis quibus est suffulta columnis
 Alta & larga nimis, sed minus apta domus:
 Sumptibus hîc turgent operosa palatia vanis;
 Materia exsuperat; splendor, & ordo deest.
 Ecce Avibus nidos, Apibus compingere cordi est,
 Pastor Aristeus quos stupet ipse, favos.
 Aurea sic textrix subter laquearia Arachne
 Divini Artificis provocat ingenium.
 Hospitium sibi quæque parant animalcula gratum;
 Solus Homo impensis plectitur ipse suis.
 Machina quid præstet Thuscis tractanda peritis,
 Angligenæ ut discant, Clare Evelyne, facis.
 Nec tantum debent Volsæo pristina sæcla,
 Quantum debebunt posteriora tibi.
 Creditur Amphion molimina saxea quondam
 Thebarum in muros concinuisse Lyrâ:
 Tu Saxa & Silvas (nam sic decet Orphea) plectro
 Aurato in Regnum Tecta coire doces.



T O

Sir JOHN DENHAM,

*Knight of the Honourable ORDER of the
BATH,*

Superintendant and Surveyor of his Majesty's
BUILDINGS and WORKS.

S I R,



*T is now some Ten Years since, that to gratify
a Friend of mine in the Country, I began to in-
terpret this Parallel (which I think I first
brought out of France) but other things inter-
vening, it was laid aside, and had so conti-
nued without Thoughts of Reassumption, had
not the Passion of my worthy Friend, Mr. Hugh May, to oblige
the Publick, and in Commiseration of the few Assurances which
our Workmen have of this Nature (compared to what are ex-
tant in other Countries) found out an Expedient, and by procur-
ing a most accurate Edition of the Plates, encouraged me to finish
what I had begun; and to make a willing Present of my La-
bour, and of whatever else I was able to contribute to so gene-
rous a Design.*

(c)

Sir,

The E P I S T L E

Sir, I am not to instruct you in the Merits and Use of this excellent Piece; but it is from your Approbation and particular Influence, that our Workmen ought to esteem it; and believe me too, when I affirm it, that the Ten Authors in this Assembly, which compose both so many and (for not being vulgar) unintelligible Volumes, will neither afford them so full Instructions in the Art, nor so well enable them to judge and pronounce concerning the true Rules and Maxims of it as this one little, but incomparable Collection. You well know, that all the Mischiefs and Absurdities in the Modern Structures proceed chiefly from our busy and Gothick Triflings in the Compositions of the Five Orders; and that an able Workman, who is Master of his Art, and has a true Relish indeed, carries on all his Undertakings with Applause and Satisfaction: That there is not in the whole Catalogue of Authors who have written on this Subject, a more safe, expedite and perfect Guide than this Parallel; where, from the noblest Remains of Antiquity accurately measured, and perspicuously demonstrated, the Rules are laid down; and from a solid, judicious, and mature Comparison of Modern Examples, their Errors are detected; so that were but a little more Pains taken by our young Architects and their Subsidiaries, about the easier Principles of Geometry, the Rudiments of Perspective, and a ready Address of well Designing, we might by the Conversation of this Author alone, promise our Country, and the Age to come, a miraculous Improvement of their Buildings in a short time. Nor would this be in the least to the Augmentation of their Expences, since there is nothing costs dearer, and displeases more, than our undigested Contrivances, and those intollerable Defects which we have enumerated. It is from the Asymmetry of our Buildings, want of Decorum and Proportion in our Houses, that the Irregularity of our Humours and Affections may be shrewdly discerned: But it is from his Majesty's great Genius, and the Choice he has made of such an Instrument, that we may hope to see it all reformed, it being in so worthy an Imitation of that magnificent Emperor, that, touch'd with the like Indignation

tion

DEDICATORY.

tion at the Encroachments and Deformities of the publick Edifices and Ways, caused a like Reformation also; so as we may now affirm of London, as the Poet once of Rome,

Nunc Roma est, nuper magna taberna fuit.

That it now begins to have the Face of a City indeed. And truly it is an Improvement so extraordinary, which it has received since his Majesty's gracious Influence upon it, that should I have been silent in his Praises, I might justly apprehend mox lapides clamaturos, that the very Stones would cry out and become vocal.

But neither here must I forget what is alone due to you, Sir, for the Reformation of a Thousand Deformities in the Streets; as by your introducing that incomparable Form of Paving to an incredible Advantage of the Publick; when that which is begun in Holbourn shall become universal, for the saving of Wheels and Carriages, the Cure of noisome Gutters, the Destruction of Encounters, the Dispatch of Business, the Cleanness of the Way, the Beauty of the Object, the Ease of the Infirm, and the preserving of both the Mother and the Babe; so many of the Fair Sex and their Off-spring having perished by Mischances (as I am credibly inform'd) from the Ruggedness of the unequal Streets, &c.

Note, that these Directions were Printed two Years before the Conflagration.

But I know not, Sir, how these Instances may be relished and valued amongst the Vulgar, nor am I much solicitous; sure I am, that more has been done for the Ornament and Benefit of the Publick in two Years Time, than your Self, with the Commissi-

*Abstulerat totam temerarius institor urbem,
Inque suo nullum limine limen erat.
Fussisti tenues Germanice, crescere vicos;
Et modo quæ fuerat semita, facta via est,
Nulla catenatis pila est præcincta lagenis;
Nec Prætor medio cogitur ire luto.
Stringitur in densa nec cæca novacula turba,
Occupat aut totas nigra popina vias.
Tonsor, Caupo, Coquus, Lanius sua limina servant.
Nunc Roma est, nuper magna taberna fuit.*
MART. Lib. vii, Epig. 60.

The Particulars of that Reformation in Rome, so much resembling what his Majesty has commanded for the Cleansing and Enlarging the Streets, the Demolition of Bulks and other Obstacles, that the whole Epigram merits the Application.

The E P I S T L E, &c.

Commissioners who undertook the Inspection, have acted, than in Five hundred before: They were not a foolish or impolitick People, who from the very Principles of Humanity, destin'd for the Ease of their Subjects so many spacious Ways, cool Fountains, shady Walks, refreshing Gardens, and Places of publick Recreation, as well as stately Temples, and Courts of Justice, that Religion and the Laws might be published with the more Pomp and Veneration: And if his Majesty, with your Pains and Industry, hath contributed to something of all this, it is that for which the whole Nation becomes obliged; as the promoting of such publick and useful Works (and especially that of Building) a certain Indication of a prudent Government, of a flourishing and happy People: So that if there remain but one Thing more to be desired, in order to the Consummation of its perfect Felicity, how infinitely were it to be wished, that whilst the Beauty and Benefit of the City increased in one part, the Deformity and apparent Ruin of it might cease on the other: But this we are to hope for, when, to bring this monstrous Body into Shape, and scatter these ungovernable Enormities, either the Restraint of Building irregularly shall polish the Suburbs, or (which I rather could wish) some Royal Purchase contract and demolish them. But, Sir, I have done, and I know you will pardon this Zeal, and accept of this Expression of my profound Respects from,

S I R,

Your most humble Servant,

J. EVELYN.



THE
 ELEMENTS
 OF
 ARCHITECTURE.

Collected by Sir HENRY WOTTON, Knt.
from the best AUTHORS and EXAMPLES.





THE
P R E F A C E.



I shall not need (like the most part of Writers) to celebrate the Subject which I deliver; in that Point I am at Ease: For Architecture can want no Commendation, where there are noble Men, or noble Minds: I will therefore spend this Preface rather about those from whom I have gathered my Knowledge: For I am but a Gatherer and Disposer of other Mens Stuff at my best Value.

*Our principal Master is Vitruvius, and so I shall often call him, who had this Felicity, that he wrote when the Roman Empire was near the Pitch; or at least, when Augustus (who favoured his Endeavours) had some Meaning (if he were not mistaken) to bound the * Monarchy: This, I say, was his good hap, for in growing and enlarging Times, Arts are commonly drowned in Action: But on the other side, it was in truth an Unhappiness to express himself so ill, especially writing (as he did) in a Season of the ablest Pens; and his Obscurity had this strange Fortune, that though he were best practised and best followed by his own Countrymen, yet after the reviving and repolishing of good Literature (which the Combustions and Tumults of the middle Age had uncivilized) he was best, or at least, first understood by Strangers: For of the Italians that took him in hand, those that were Grammarians seem to have wanted Mathematical Knowledge, and the Mathematicians perhaps wanted Grammar, 'till both were sufficiently conjoined in LeonBaptista Alberti theFlorentine, whom I repute the first learned Architect beyond the Alps; but he studied more indeed to make himself an Author, than to illustrate his Master: Therefore among his Commenters, I must (for my private Conceit) yield the chief Praise unto the French, in Philander; and to the High-Germans, in Gualterus Rivius, who, besides his Notes, hath likewise published the most elaborate Translation that I think is extant in any vulgar Speech of the World, though not without bewailing, now and then, some Defect of artificial Terms in his own, as I must likewise; for if the Saxon (our Mother Tongue) did complain; as justly (I doubt)*

* Tacit. Lib. 1. Annal.

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The P R E F A C E.

doubt) in this Point may the Daughter: Languages for the most part, in Terms of Art and Erudition, retaining their original Poverty, and rather growing rich and abundant in complemental Phrases, and such Froth. Touching diverse modern Men, that have written out of meer Practice, I shall give them their Due upon Occasion.

And now, after this short Censure of others, I would fain satisfy an Objection or two, which seem to lie somewhat heavily upon my self: It will be said that I handle an Art no way suitable either to my Employments, or to my Fortune; and so I shall stand charged both with Intrusion and with Impertinency.

To the First I answer, That though by the ever-acknowledged Goodness of my most dear and gracious Sovereign, and by his long indulgent Toleration of my Defects, I have born Abroad some part of his Civil Service; yet when I came Home, and was again resolved into my own Simplicity, I found it fitter for my Pen (at least in this first publick Adventure) to deal with these plain Compilements, and tractable Materials, than with the Labyrinths and Mysteries of Courts and States; and less Presumption for me, who have long contemplated a famous Republick, to write now of Architecture, than it was anciently for * Hippodamus the Milesian to write of Republicks, who was himself but an Architect.

To the Second, I must shrink up my Shoulders, as I have learned Abroad, and confess indeed, that my Fortune is very unable to exemplify and actuate my Speculations in this Art, which yet, in truth, made me rather, even from my very Disability, take Encouragement to hope that my present Labour would find the more Favour with others, since it was undertaken for no Man's sake less than mine own: And with that Confidence I fell into these Thoughts, of which there were two Ways to be delivered: The one Historical, by Description of the principal Works performed already in good part by Giorgio Vassari, in the Lives of Architects: The other Logical, by casting the Rules and Cautions of this Art into some comfortable Method, whereof I have made choice, not only as the shortest and most elemental, but indeed as the foundest: For though in practical Knowledges every compleat Example may bear the Credit of a Rule, yet, peradventure, Rules should precede, that we may by them be made fit to judge of Examples. Therefore to the Purpose, for I will Preface no longer.

* Aristot. 2. Lib. Polit. Cap. 6.





THE
ELEMENTS
OF
ARCHITECTURE.

PART I.



IN *Architecture*, as in all other Operative Arts, the End must direct the Operation.

The End is to Build well.

Well Building hath three Conditions; *Commodity*, *Firmness*, and *Delight*.

A common Division among the Deliverers of this Art, though I know not how somewhat misplaced by *Vitruvius* himself, *Lib. 1. Cap. 3.* whom I shall be willing to follow, as a Master of Proportion than of Method.

Now, for the attaining of these Intentions, we may consider the whole Subject under two General Heads:

The Seat, and the Work.

Therefore, first touching Scituation.

The Precepts thereunto belonging, do either concern the Total Posture, (as I may term it) or the placing of the Parts: Whereof the first Sort, howsoever usually set down by *Architects* as a Piece of their Profession, yet are in truth borrowed from other Learnings; there being between Arts and Sciences, as well as between Men, a kind of good Fellowship, and Communication of their Principles.

For you shall find some of them to be meerly Physical, touching the Quality and Temper of the Air; which being a perpetual Ambient and Ingredient, and the Defects thereof incorrigible in single Habitations (which I most intend) doth in those Respects require the more exquisite Caution: That it be not too gross, nor too penetratious, nor subject to any foggy Noisomeness from Fens or Marshes near adjoining, nor to mineral Exhalations from the Soil itself; not undigested for want of Sun; not unexercised for want of Wind; which were to live (as it were) in a Lake, or standing Pool of Air, as *Alberti*, the *Florentine Architect*, doth ingeniously compare it.

ij *The Elements of Architecture.*

Some do rather seem a little Astrological, as when they warn us from Places of malign Influence, where Earthquakes, Contagions, Prodigious Births, or the like, are frequent, without any evident Cause; whereof the Consideration is, peradventure, not altogether vain: Some are plainly Oeconomical; as that the Seat be well watered and well fuelled; that it be not of too steepy and incommodious Access, to the Trouble both of Friends and Family; that it lie not too far from some Navigable River, or Arm of the Sea, for more Ease of Provision, and such other Domestick Notes.

Some again may be said to be Optical; such I mean, as concern the Properties of a well-chosen Prospect, which I will call the Royalty of Sight: For as there is a Lordship (as it were) of the Feet, wherein the Master doth much joy when he walketh about the Line of his own Possessions; so there is a Lordship likewise of the Eye, which being a ranging, and imperious, and (I might say) an usurping Sense, can endure no narrow Circumscription, but must be fed both with Extent and Variety: Yet on the other side, I find vast and indefinite Views, which drown all Apprehensions of the uttermost Objects, condemned by good Authors, as if thereby, some part of the Pleasure (whereof we speak) did perish. Lastly, I remember a private Caution, which I know not well how to sort, unless I should call it Political, by no means to build too near a great Neighbour; which were, in truth, to be as unfortunately seated on the Earth, as *Mercury* is in the Heavens, for the most part ever in Combustion or Obscurity, under brighter Beams than his own.

From these several Knowledges, as I have said, * and perhaps from some other, *Architects* do derive their Doctrine about Election of Seats, wherein I have not been so severe as a great Scholar of our Time, who precisely restraineth a perfect Scituation, at least for the main Point of Health, *Ad locum contra quem Sol radios suos fundit cum sub Ariete oritur*; that is, in a word, He would have the first Salutation of the Spring. But such Notes as these, wheresoever we find them in grave or slight Authors, are, to my Conceit, rather Wishes than Precepts; and in that Quality I will pass them over. Yet I must withal say, that in the Seating our selves (which is a kind of Marriage to a Place) Builders should be as circumspect as Wooers, lest, when all is done, that Doom befall us, † which our Master doth lay upon *Mytelene*: *A Town, in truth, (saith he) finely built, but foolishly planted.* And so much touching that which I termed the Total Posture.

The next in Order, is the placing of the Parts; about which (to leave as little as I may in my present Labour, unto Fancy, which is wild and irregular) I will propound a Rule of mine own Collection, upon which I fell in this manner: I had noted, that all Art was then in truest Perfection, when it might be reduced to some natural Principle: For what are the most judicious Artizans, but the Mimicks of Nature? This led me to contemplate the Fabrick of our own Bodies, wherein the *High Architect* of the World hath displayed such Skill, as did stupify all humane Reason: There I found the Heart, as the Fountain of Life, placed about the Middle, for the

* *Joannes Heurnius Instit. Medicin. Lib. 7. Cap. 2.* † *Oppidum quidem ædificatum eleganter sed imprudenter positum.*

the more equal Communication of the vital Spirits; the Eyes seated aloft, that they might describe the greater Circle within their View; the Arms projected on each Side, for ease of Reaching: Briefly (not to lose ourselves in this sweet Speculation) it plainly appeareth as a Maxim drawn from the divine Light, that the Place of every Part is to be determined by the Use.

So then from natural Structure to proceed to artificial, and in the rudest Things, to preserve some Image of the excellentest, let all the principal Chambers of Delight, all Studies and Libraries be towards the *East*; for the Morning is a Friend to the Muses. All Offices that require Heat, as Kitchens, Stillatories, Stoves, Rooms for Baking, Brewing, Washing or the like, would be *Meridional*. All that need a cool and fresh Temper, as Cellars, Pantries, Butteries, Granaries, to the *North*: To the same side likewise, all that are appointed for gentle Motion, as Galleries, especially in warm Climes, or that otherwise require a steady and unvariable Light, as *Pinacothecia* (saith *Vitruvius*) by which he intendeth (if I may guess at his *Greek*, as we must do often even at his *Latin*) certain Repositories for Works of Rarity, in Picture or other Arts, by the *Italians* called *Studioli*, which at any other Quarter, where the Course of the Sun doth diversify, the Shadows would lose much of their Grace: And by this Rule, having always regard to the Use, any other Part may be fitly accommodated.

I must here not omit to note, that the ancient *Grecians* and the *Romans*, by their Example in their Buildings abroad, where the Seat was free, did almost religiously scituate the Front of their Houses towards the *South*, perhaps that the Master's Eye, when he came home, might not be dazzled, or that being illustrated by the Sun, it might yield the more graceful Aspect, or some such Reason. But from this the modern *Italians* do vary, whereof I shall speak more in another Place. Let thus much suffice at the present, for the Position of the several Members, wherein must be had, as our Author doth often insinuate, and especially, *Lib. 6. Cap. 10.* a singular regard to the Nature of the Region: Every Nation being tied above all Rules whatsoever, to a Discretion of providing against their own Inconveniencies; and therefore a good Parlour in *Egypt*, would perchance make a good Cellar in *England*.

There now followeth the second Branch of the general Section touching the Work.

In the Work I will first consider the principal Parts, and afterwards the Accessory, or Ornaments: And in the Principal, first the Preparation of the Materials, and then the Disposition, which is the Form.

Now concerning the Material Part, although, surely, it cannot disgrace an *Architect*, which doth so well become a Philosopher, to look into the Properties of Stone and Wood; as that Fir-Trees, Cypresses, Cedars, and such other aëreal aspiring Plants, being by a kind of natural Rigour (which in a Man I would call Pride) inflexible downwards, are thereby fittest for Posts or Pillars, or such upright Use; that on the other Side, Oak and the like true hearty Timber, being strong in all Positions, may be better trusted in cross and traverse Work, for Summers, or girding and binding Beams, as they term them. And so likewise to observe of Stone, that some are bet-

ter within, and other to bear Weather : Nay, to descend lower, even to examine Sand and Lime, and Clay, (of all which Things *Vitruvius* hath discoursed, without any Dainties, and the most of new Writers) I say, though the Speculative Part of such Knowledge be liberal, yet to redeem this Profession, and my present Pains from Indignity, I must here remember, that to chuse and sort the Materials for every part of the Fabrick, is a Duty more proper to a second Superintendant over all the under Artizans, called (as I take it) by our Author, *Officinator*, *Lib. 6. Cap. 11.* and in that Place expressly distinguished from the *Architect*, whose Glory doth more consist in the Designment and Idea of the whole Work; and his truest Ambition should be to make the Form, which is the nobler Part (as it were) triumph over the Matter; whereof I cannot but mention, by the way, a foreign Pattern, namely, the Church of *Santa Giustina* in *Padua*. In truth, a sound Piece of good Art, where the Materials being but ordinary Stone, without any Garnishment of Sculpture, do yet ravish the Beholder (and he knows not how) by a secret Harmony in the Proportions. And this, indeed, is that End, which, in some degree, we should aim even in the privatest Works; whereunto, though I make haste, yet let me first collect a few of the least trivial Cautions belonging to the Material Provision.

Leon Baptista Alberti is so curious, as to wish all the Timber cut out of the same Forest, and all the Stone out of the same Quarry.

Philibert de l'Orme, the *French Architect*, goes yet somewhat farther, and would have the Lime made of the very same Stone which we intend to employ in the Work, as, belike, imagining that they will sympathize and join the better by a kind of original Kindred. But such Conceits as these seem somewhat too fine among this Rubbish, though I do not produce them in Sport; for surely the like Agreements of Nature may have oftentimes a discreet Application to Art: Always it must be confessed, that to make Lime without any great Choice of Refuse-Stuff, as we commonly do, is an *English Error* of no small Moment in our Buildings: Whereas the *Italians* at this Day, and much more the *Ancients*, did burn their firmest Stone, and even Fragments of Marble, where it was copious, which in Time became almost Marble again, or at least of indissoluble Durity, as appeareth in the standing Theatres. I must not here omit, while I am speaking of this Part, a certain Form of Brick, described by *Daniel Barbaro*, Patriarch of *Aquileia*, in the largest Edition of his Commentary upon *Vitruvius*: The Figure triangular, every Side a foot long, and some Inch and a half thick, which he doth commend unto us for many good Conditions; as that they are more commodious in the Management, of less Expence, of fairer Show, adding much Beauty and Strength to the mural Angles, where they fall gracefully into an indented Work; so as I should wonder that we have not taken them into Use, being propounded by a Man of good Authority in this Knowledge, but that all Nations do start at Novelties, and are indeed married to their own Molds. Into this Place might aptly fall a Doubt, which some have well moved, whether the ancient *Italians* did burn their Brick or no; which a Passage or two in *Vitruvius* hath left ambiguous. Surely, where the natural Heat is strong enough to supply the artificial, it were but a curious Folly to multiply both Labour and Expence. And it is besides very probable, that

that those Materials, with a kindly and temperate Heat, would prove fairer, smoother, and less distorted than with a violent : Only they suffer two Exceptions, First, that they are likely by such a gentle drying, to be the more ponderous, an important Circumstance to the main of the Work in the Compilement. The next is of no less moment, That they will want a certain sucking and soaking Thirstiness, or a fiery Appetite to drink in the Lime which must knit the Fabrick. But this Question is to be confined to the *South*, where there is more Sun and Patience : I will therefore not hinder my Course with this incident Scruple, but close that Part which I have now in hand about the Materials, with this principal Caution, that sufficient Stuff and Money be ready before we begin ; for when we build now a Piece, and then another, by Fits, the Work dries and sinks unequally, whereby the Walls grow full of Chinks and Crevices ; wherefore such a pausing Humour is well reprov'd by *Palladio, Lib. 1. Cap. 1.* and by all other. And so having gleaned these few Remembrances touching the Preparation of the Matter, I may now proceed to the Disposition thereof, which must form the Work. In the Form, as I did it in the Seat, I will first consider the general Figuration, and then the several Members.

Figures are either simple or mix'd ; the simple be either circular or angular : And of circular, either compleat or deficient, as Ovals ; with which Kinds I will be contented, tho' the Distribution might be more curious.

Now the exact Circle is in truth a Figure, which for our Purpose hath many fit and eminent Properties, as Fitness for Commodity and Receipt, being the most capable ; Fitness for Strength and Duration, being the most united in his Parts ; Fitness for Beauty and Delight, as imitating the Celestial Orbs, and the Universal Form : And it seems, besides, to have the Approbation of Nature, when she worketh by Instinct, which is her secret School ; for Birds do build their Nests spherically : But notwithstanding these Attributes, it is in truth a very unprofitable Figure in private Fabricks, as being of all other the most chargeable, and much Room lost in the bending of the Walls when it comes to be divided, besides an ill Distribution of Light, except from the Center of the Roof : So as anciently it was not usual, save in their Temples and Amphitheatres, which needed no Compartitions. The Ovals and other imperfect circular Forms, have the same Exceptions, and less Benefit of Capacity : So as there remains to be considered in this general Survey of Figures, the angular and the mixed of both. Touching the angular, it may perchance sound somewhat strangely, but it is a true Observation, that this Art doth neither love many Angles, nor few. For, first, the Triangle, which hath the fewest Sides and Corners, is of all other the most condemned, as being indeed both incapable and infirm (whereof the Reason shall be afterwards render'd) and likewise unresolvable into any other regular Form than it self in the inward Partitions.

As for Figures, of five, six, seven, or more Angles, they are surely fitter for *Military Architecture*, where the Bulworks may be laid out at the Corners, and the Sides serve for Curtains, than for Civil Use, tho' I am not ignorant of that famous Piece at *Caprarola*, belonging to the House of *Farnese*, cast by *Baroccio* into the Form of a Pentagon, with a Circle inscribed, where the *Architect* did ingeniously wrestle with diverse Inconveniencies in disposing

of the Lights, and in saving the Vacuities. But as Designs of such nature do more aim at Rarity than Commodity; so, for my part, I had rather admire them than commend them.

These things considered, we are both by the Precepts and by the Practice of the best Builders, to resolve upon rectangular Squares, as a Mean between too few, and too many Angles; and through the equal Inclination of the Sides (which make the right Angle) stronger than the Rhombe, or Lozenge, or any other irregular Square. But whether the exact Quadrat, or the long Square be the better, I find not well determined, though in my own Conceit I must prefer the latter, provided that the Length do not exceed the Latitude above one third part, which would diminish the Beauty of the Aspect, as shall appear when I come to speak of Symmetry and Proportion.

Of mixed Figures, partly circular, and partly angular, I shall need to say nothing, because having handled the simple already, the mixed, according to their Composition, do participate of the same Respects: Only against these there is a proper Objection, that they offend Uniformity, whereof I am therefore opportunely induced to say somewhat, as far as shall concern the outward Aspect, which is now in Discourse.

In *Architecture* there may seem to be two opposite Affectations, Uniformity and Variety, which yet will very well suffer a good Reconcilement, as we may see in the great Pattern of Nature, to which I must often resort: For surely there can be no Structure more uniform than our Bodies in the whole Figuration, each Side agreeing with the other both in the Number, in the Quality, and in the Measure of the Parts: and yet some are round, as the Arms; some flat, as the Hands; some prominent, and some more retired; so as upon the Matter we see that Diversity does not destroy Uniformity, and that the Limbs of a noble Fabrick may be correspondent enough, though they be various; provided always that we do not run into certain extravagant Inventions, whereof I shall speak more largely when I come to the parting and casting of the whole Work. We ought likewise to avoid enormous Heights of six or seven Stories, as well as irregular Forms; and the contrary Fault of low distended Fronts is as unseemly: Or again, when the Face of the Building is narrow, and the Flank deep, to all which Extremes some particular Nations or Towns are subject, whose Names may be civilly spared: And so much for the general Figuration or Aspect of the Work.

Now concerning the Parts in Severalty: All the Parts of every Fabrick may be comprised under five Heads, which Division I receive from *Bapista Alberti*, to do him right; and they be these:

The *Foundation*.

The *Walls*.

The *Apertions, or Overtures*.

The *Compartition*.

And the *Cover*.

About all which I purpose to gather the principal Cautions; and as I pass along, I will touch also the natural Reasons of Art, that my Discourse may be the less mechanical.

First,

First, then, concerning the Foundation, which requireth the exactest Care; for if that happen to dance, it will mar all the Mirth in the House: Therefore, that we may found our Habitation firmly, we must first examine the Bed of Earth (as I may term it) upon which we will build; and then the Underfilings or Substruction, as the Ancients did call it: For the former, we have a general Precept in *Vitruvius*, twice precisely repeated by him, as a Point indeed of main consequence; first *Lib. 1. Cap. 5.* And again more fitly, *Lib. 3. Cap. 3.* in these Words, as *Philander* doth well correct the vulgar Copies.

Substructionis Foundationes fodiantur (saith he) si queant inveniri ad solidum, & in solido. By which Words I conceive him to commend unto us, not only a diligent, but even a jealous Examination what the Soil will bear, advising us not to rest upon any appearing Solidity, unless the whole Mold through which we cut, have likewise been solid; but how deep we should go in this Search, he has no where to my remembrance determined, as perhaps depending more upon Discretion than Regularity, according to the Weight of the Work; yet *Andrea Palladio* hath fairly adventured to reduce it into Rule, allowing for that * *Cavazione* (as he calleth it) a sixth part of the Height of the whole Fabrick, unless the Cellars be under Ground, in which Case he would have us (as it should seem) to sound somewhat lower.

Some *Italians* do prescribe, that when they have chosen the Floor, or Plot, and laid out the Limits of the Work, we should first of all dig Wells and Cisterns, and other Under-Conducts and Conveyances for the Suillage of the House, whence may arise a double Benefit, for both the Nature of the Mold or Soil would thereby be safely searched; and moreover, those open Vents will serve to discharge such Vapours, as having otherwise no issue, might peradventure shake the Building. This is enough for the natural Grounding, which though it be not a Part of the solid Fabrick, yet here was the fittest place to handle it.

There followeth the Substruction or Ground-work of the whole Edifice, which must sustain the Walls; and this is a kind of artificial Foundation, as the other was natural, about which these are the chief Remembrances: First, that the Bottom be precisely level, where the *Italians* therefore commonly lay a Platform of good Board; then that the lowest Ledge or Row be meerly of Stone, and the broader the better, closely laid without Mortar, which is a general Caution for all Parts in Building that are contiguous to Board or Timber, because Lime and Wood are insociable, and if any where unfit Confiners, then most especially in the Foundation. Thirdly, that the Breadth of the Substruction be at least double to the insistent Wall, and more or less, as the Weight of the Fabrick shall require; for as I must again repeat, Discretion may be freer than Art. Lastly, I find in some a curious Precept, that the Materials below be laid as they grew in the Quarry, supposing them, belike, to have most Strength in their natural and habitual Posture. For as *Philippe de l'Orme* observeth, the breaking or yielding of a Stone in this Part but the breadth of the Back of a Knife, will make a Cleft of more than half a Foot in the Fabrick aloft, so important are fundamental Errors; among which Notes I have said nothing of Pallification, or plying of the Ground-plot, commanded by *Vitruvius*

* Under-digging, or Hollowing of the Earth.

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travius when we build upon a moist or marshy Soil, because that were an Error in the first Choice; and therefore all Seats that must use such Provision below (as *Venice*, for an eminent Example) would, perhaps, upon good Enquiry, be found to have been at first chosen by the Counsel of Necessity.

Now the Foundation being searched, and the Substruction laid, we must next speak of the Walls.

Walls are either entire and continual, or intermitted, and the Intermissions be either Pillars or Pilasters, for here I had rather handle them than, as some others do, among Ornaments.

The entire *Muring*, is by Writers diversly distinguished: By some, according to the Quality of the Materials, as either Stone or Brick, &c. where, by the way, let me note, that to build Walls and greater Works of Flint, whereof we want not Example in our Island, and particularly in the Province of *Kent*, was (as I conceive) meerly unknown to the Ancients, who observing in that Material a kind of metalick Nature, or at least a Fusibility, seem to have resolved it into nobler Use, an Art now utterly lost, or perchance kept up by a few Chymicks. Some again do not so much consider the Quality, as the Position of the said Materials; as when Brick or squared Stones are laid in their Lengths, with Sides and Heads together, or their Points conjoined like a Network (for so *Vitruvius* doth call it, *Reticulatum Opus*) of familiar Use, as it should seem, in his Age, tho' afterwards grown out of request, even perhaps for that subtil Speculation which he himself toucheth; because so laid, they are more apt in swagging down, to pierce with their Points, than in the adjacent Posture, and so to crevice the Wall. But to leave such Cares to the meaner Artificers; the more essential are these:

That the Walls be most exactly perpendicular to the Groundwork; for the Right Angle, thereon depending, is the true Cause of all Stability both in artificial and natural Positions, a Man likewise standing firmest when he stands uprightest. That the massiest and heaviest Materials be the lowest, as fitter to bear than to be born; that the Work as it riseth diminish in Thickness proportionally, for ease both of Weight and of Expence; that certain Courses or Ledges of more Strength than the rest, be interlaid like Bones, to sustain the Fabrick from total Ruin, if the under Parts should decay. Lastly, that the Angles be firmly bound, which are the Nerves of the whole Edifice, and are therefore commonly fortified by the *Italians*, even in their Brick Buildings, on each side of the Corners, with well squared Stone, yielding both Strength and Grace: And so much touching the entire or solid Wall.

The Intermissions (as hath been said) are either by Pillars or Pilasters.

Pillars, which we may likewise call Columns (for the Word among Artificers is almost naturalized) I could distinguish into simple and compound. But (to tread the beaten and plainest way) there are five Orders of Pillars, according to their Dignity and Perfection, thus marshalled:

The *Tuscan*.

The *Dorick*.

The *Ionick*.

The *Corinthian*.

And

And the *Compound Order*, or, as some call it, the *Roman*, others more generally, the *Italian*.

In which five Orders I will first consider their Communities, and then their Properties.

Their Communities (as far as I observe) are principally Three: *First*, They are all round, for though some conceive *Columna Atticurges*, mentioned by *Vitruvius*, *L. 3. Cap. 3.* to have been a squared Pillar, yet we must pass it over as irregular, never received among these Orders, no more than certain other licentious Inventions of wreathed, and vined, and figured Columns, which our Author himself condemneth, being in his whole Book a professed Enemy to Fancies.

Secondly, They are all diminished or contracted insensibly, more or less, according to the Proportion of their Heights, from one third Part of the whole Shaft upwards, which *Philander* doth prescribe by his own precise measuring of the ancient Remainders, as the most graceful Diminution. And here I must take leave to blame a Practice grown (I know not how) in certain Places too familiar, of making Pillars swell in the middle, as if they were sick of some Tympany or Dropsy, without any authentick Pattern or Rule, to my Knowledge, and unseemly to the very Judgement of Sight. True it is, that in *Vitruvius*, *Lib. 3. Cap. 2.* we find these Words, *De adjectione, quæ adjicitur in mediis Columnis; quæ apud Grecos ΕΥΤΑΘΙΣ appellatur, in extremo libro erit formatio ejus;* which Passage seemeth to have given some countenance to this Error. But of the Promise there made, as of diverse other elsewhere, our Master hath failed us, either by slip of Memory, or injury of Time, and so we are left in the Dark. Always sure I am, that besides the Authority of Example, which it wanteth, it is likewise contrary to the original and natural Type in Trees, which at first was imitated in Pillars, as *Vitruvius* himself observeth, *Lib. 5. Cap. 1.* For whoever saw any Cypress or Pine (which are there alledged) small below and above, and tumerous in the middle, unless it were some diseased Plant, as Nature (though otherwise the comliest Mistress) hath now and then her Deformities and Irregularities.

Thirdly, They have all their Undersettings or Pedestals, in Height a third part of the whole Column, comprehending the Base and Capital, and their upper Adjuncts, as Architrave, Frize, and Cornice, a fourth part of the said Pillar; which Rule, of singular Use and Facility, I find settled by *Jacobo Baroccio*, and hold him a more credible Author, as a Man that most intended this Piece, than any that vary from him in those Dimensions.

These are their most considerable Communities and Agreements.

Their Properties or Distinctions will best appear by some reasonable Description of them all, together with their Architraves, Frizes, and Cornices, as they are usually handled.

First, therefore the *Tuscan* is a plain, massy, rural Pillar, resembling some sturdy well-limbed Labourer, homely clad, in which kind of Comparisons *Vitruvius* himself seemeth to take Pleasure, *Lib. 4. Cap. 1.* The Length thereof shall be six Diameters, of the grossest of the Pillar below, of all Proportions in truth the most natural; for our Author tells us, *Lib. 3. Cap. 1.* that the Foot of a Man is the sixth Part of his Body in ordinary Measure, and Man himself, according to the Saying of *Protagoras* (which *Aristotle*

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Stotle doth sometimes vouchsafe to celebrate) is τὸ πρῶτον ἀπαιτῶν χρημῶν μέτρον, as it were the Prototype of all exact Symmetry, which we have had other Occasion to touch before: This Column I have by good warrant called Rural, *Vitr. Lib. 3. Cap. 2.* and therefore we need not consider his Rank among the rest. The Distance or Intercolumniation (which word Artificers do usually borrow) may be near four of his own Diameters, because the Materials commonly laid over this Pillar, were rather of Wood than Stone, through the Lightness whereof the *Architrave* could not suffer, tho' thinly supported, nor the *Column* it self, being so substantial. The Contraction aloft shall be (according to the most received Practice) one fourth part of his Thickness below. To conclude (for I intend only as much as shall serve for a due Distinguishment, and not to delineate every petty Member) the *Tuscan* is of all the rudest Pillar, and his principal Character, Simplicity.

The *Dorick* Order is the gravest that hath been received into civil use, preserving, in comparison of those that follow, a more masculine Aspect, and little trimmer than the *Tuscan* that went before, save a sober Garnishment now and then of Lions Heads in the Cornice, and of Triglyphs and Metopes always in the Frize: Sometimes likewise, but rarely, channelled, and a little slight Sculpture about the Hypotrachelion, or Neck, under the Capital. The Length seven Diameters. His Rank or Degree is the lowest by all Congruity, as being more massy than the other three, and consequently abler to support. The Intercolumniation thrice as much as his Thickness below. The Contraction aloft, one fifth of the same measure. To discern him, will be a piece rather of good *Heraldry* than of *Architecture*; for he is best known by his Place, when he is in Company, and by the peculiar Ornament of his Frize, before-mentioned, when he is alone.

The *Ionick* Order doth represent a kind of feminine Slenderness, yet, saith *Vitruvius*, not like a light Housewife, but in a decent Dressing, hath much of the Matron. The Length eight Diameters. In Degree, as in Substantialness, next above the *Dorick*, sustaining the third, and adorning the second Story. The Intercolumniation, two of his own Diameters. The Contraction, one sixth part, best known by his Trimmings; for the Body of this Column is perpetually channelled, like a thick plaited Gown. The Capital dressed on each side, not much unlike Womens Wires, in a spiral Wreathing, which they call the *Ionian Voluta*. The Cornice indented. The Frize swelling like a Pillow, and therefore by *Vitruvius* not unelegantly term'd *Pulvinata*. These are his best Characters.

The *Corinthian*, is a Column laciviously deck'd like a Courtezan, and therein much participating (as all Inventions do) of the Place where they were first born, *Corinth* having been, without controversy, one of the wantonest Towns in the World. This Order is of nine Diameters. His Degree one Stage above the *Ionick*, and always the highest of the simple Orders. The Intercolumniation, two of his Diameters, and a fourth part more, which is of all other the comliest Distance. The Contraction one seventh Part. In the Cornice, both *Dentelli* and *Modigliani* *. The Frize adorned with all kinds of Figures

* Our Artizans call them Teeth and Cartouxes.

Figures and various Compartments at Pleasure. The Capital cut into the beautifullest Leaf that Nature doth yield, which surely next the *Aconitum Pardalianches* (rejected perchance as an ominous Plant) is the *Acanthus* or *Branca Ursini*, though *Vitruvius* do impute the Choice thereof unto Chance, and we must be contented to believe him: In short, as Plainness did characterize the *Tuscan*, so must Delicacy and Variety the *Corinthian* Pillar, besides the Height of his Rank.

The last is the Compounded Order; his Name being a Brief of his Nature: For this Pillar is nothing in effect but a Medley, or an Amass of all the precedent Ornaments, making a new Kind by stealth; and though the most richly tricked, yet the poorest in this, that he is a Borrower of all his Beauty. His Length (that he may have somewhat of his own) shall be of ten Diameters. His Degree should, no doubt, be the highest, by Reasons before yielded: But few Palaces, ancient or modern, exceed the third of the Civil Orders. The Intercolumniation but a Diameter and an half, or always somewhat less than two. The Contraction of this Pillar must be one eighth Part less above than below. To know him, will be easy by the very mixture of his Ornaments and Cloathing.

And so much touching the five Orders of Columns, which I will conclude with two or three not impertinent Cautions.

First, That where more of these Orders than one shall be set in several Stories or Contignations, there must be an exquisite care to place the Columns precisely one over another, that so the Solid may answer to the Solid, and the Vacuities to the Vacuities, as well for Beauty as Strength of the Fabrick; and by this Caution the Consequence is plain, that when we speak of the Intercolumniation or Distance which is due to each Order, we mean in a *Dorick*, *Ionical*, *Corinthian* Porch or Cloyster, or the like of one Contignation, and not in Storied Buildings.

Secondly, Let the Columns above be a fourth Part less than those below, saith *Vitruvius*, *Lib. 5. Cap. 15.* A strange Precept, in my Opinion, and so strange, that peradventure it were more suitable even to his own Principles, to make them rather a fourth Part greater; for *Lib. 3. Cap. 2.* where our Master handleth the Contraction of Pillars, we have an Optick Rule, that the higher they are, the less should be always their Diminution aloft, because the Eye itself doth naturally contract all Objects, more or less, according to the Distance; which Consideration may, at first Sight, seem to have been forgotten in the Caution we have now given; but *Vitruvius* (the best Interpreter of himself) hath in the same Place of his fifth Book, well acquitted his Memory by these Words; *Columnæ superiores quarta parte minores, quàm inferiores, sunt constituendæ propterea quòd, operi ferendo quæ sunt inferiora, firmiora esse debent*; preferring, like a wise Mechanick, the natural Reason before the Mathematical, and sensible Conceits before abstracted: And yet, *Lib. 4. Cap. 4.* he seemeth again to affect Subtilty, allowing Pillars the more they are channelled to be the more slender, because while our Eye (saith he) doth as it were distinctly measure the eminent and the hollowed Parts, the total Object appeareth the bigger, and so as much as those Excavations do subtract, is supplied by a Fallacy of the Sight: But here, methinks, our Master should likewise have rather consider'd the natural Inconvenience; for though Pil-

lars by channelling, be seemingly ingrossed to our Sight, yet they are truly weakened in themselves, and therefore ought perchance in sound Reason, not to be the more slender, but the more corpulent, unless Appearances preponder Truths; but *Contra Magistrum, non est Disputandum.*

A *Third* Caution shall be, that all the projected or jutting Parts (as they are termed) be very moderate, especially the Cornices of the lower Orders; for whilst some think to give them a beautiful and royal Aspect, by their Largeness, they sometimes hinder both the Light within (whereof I shall speak more in due Place) and likewise detract much from the View of the Front without, as well appeareth in one of the principal Fabricks at *Venice*, namely the Palace of the Duke *Grimani* on the *Canal Grande*, which by this magnificent Error is somewhat disgraced. I need now say no more concerning Columns and their Adjuncts, about which Architects make such a Noise in their Books, as if the very Terms of Architraves, and Friezes, and Cornices, and the like, were enough to graduate a Master of this Art; yet let me, before I pass to other Matter, prevent a familiar Objection. It will perchance be said, that all this Doctrine touching the five Orders were fitter for the Quarries of *Asia*, which yielded One hundred and twenty-seven Columns of sixty Foot high, to the *Ephesian* Temple; or for *Numidia*, where Marbles abound, than for the Spirits of *England*, who must be contented with more ignoble Materials. To which I answer, That this need not discourage us; for I have often at *Venice* viewed with much Pleasure, an *Atrium Græcum* (we may translate it an Anti-Porch, after the *Greek* manner) raised by *Andrea Palladio*, upon eight Columns of the Compounded Order; the Bases of Stone, without Pedestals; the Shafts or Bodies of mere Brick, three Foot and an half thick in the Diameter below, and consequently thirty-five Foot high, as himself hath described them in his Second Book, than which mine Eye hath never yet beheld any Columns more stately of Stone or Marble, for the Bricks having first been formed in a circular Mould, and then cut before their burning into four Quarters or more, the Sides afterwards join so closely, and the Points concenter so exactly, that the Pillars appear one entire Piece; which short Description I could not omit, that thereby may appear how in truth we want rather Art than Stuff to satisfy our greatest Fancies.

After Pillars, the next in my Distribution, are Pilasters, mentioned by *Vitruvius*, *Lib. 5. Cap. 1.* and scant any where else, under the Name of *Parastates*, as *Philander* conceiveth; which *Grammatical* Point (though perchance not very clear) I am contented to examine no farther. Always, what we mean by the Thing it self, is plain enough in our own Vulgar, touching which, I will briefly collect the most considerable Notes.

Pilasters must nor be too tall and slender, least they resemble Pillars; nor too dwarfish and gross, least they imitate Piles or Peirs of Bridges: Smoothness doth not so naturally become them, as a rustick Superficies, for they aim more at State and Strength than Elegancy. In private Buildings they ought not to be narrower than one Third, nor broader than two Parts of the whole Vacuity between Pilaster and Pilaster; but to those that stand at the Corners, may be allowed a little more Latitude by Discretion, for Strength of the Angles. In Theatres and Amphi-Theatres, and such weighty Works,

Palladio observeth them to have been as broad as the Half, and now and then as the whole Vacuity. He noteth likewise (and others consent with him) that their true Proportion should be an exact Square; but for lessening of Expence, and enlarging of Room, they are commonly narrower in Flank than in Front: Their principal Grace doth consist in half or whole Pillars applied unto them; in which case it is well noted by Authors, that the Columns may be allowed somewhat above their ordinary Length, because they lean unto so good Supporters. And thus much shall suffice touching Pillasters, which is a cheap, and a strong, and a noble Kind of Structure.

Now, because they are oftner, both for Beauty and Majesty, found arched than otherwise, I am here orderly led to speak of Arches, and under the same Head of Vaults, for an Arch is nothing indeed but a contracted Vault, and a Vault is but a dilated Arch; therefore to handle this Piece both compendiously and fundamentally, I will resolve the whole Business into a few *Theorems*.

T H E O R E M I.

All solid Materials free from Impediment, do descend perpendicularly downwards, because Ponderosity is a natural Inclination to the Center of the World, and Nature performeth her Motions by the shortest Lines.

T H E O R E M II.

Bricks moulded in their ordinary Rectangular Form, if they shall be laid one by another in a level Row, between any Supporters sustaining the two Ends, then all the Pieces between, will necessary sink, even by their own natural Gravity, and much more if they suffer any Depression by other Weight above them, because their Sides being parallel, they have room to descend perpendicularly, without Impeachment, according to the former Theorem; therefore to make them stand, we must either change their Posture, or their Figure, or both.

T H E O R E M III.

If Bricks moulded, or Stones squared *Cuneatim* (that is, Wedge-wise, broader above than below) shall be laid in a Row level, with their Ends supported as in the precedent Theorem, pointing all to one Center; then none of the Pieces between can sink 'till the Supporters give way, because they want room in that Figuration to descend perpendicularly. But this is yet a weak Piece of Structure, because the Supporters are subject to much Impulsion, especially if the Line be long; for which Reason this Form is seldom used, but over Windows or narrow Doors. Therefore to fortify the Work, as in this Third Theorem, we have supposed the Figure of all the Materials different from those in the Second: So likewise we must now change the Posture, as will appear in the Theorem following.

T H E O R E M IV.

If the Materials figured as before Wedge-wise, shall not be disposed levelly, but in Form of some Arch or Proportion of a Circle, pointing all to the same Center: In this Case, neither the Pieces of the said Arch can sink
e
downwards,

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downwards, through want of room to descend * perpendicularly; nor the Supporters or Butments (as they are termed) of the said Arch can suffer so much Violence, as in the precedent flat Posture, for the Roundness will always make the incumbent Weight rather to rest upon the Supporters than to shove them. Whence may be drawn an evident *Corollary*; that the safest of all Arches is the Semicircular, and of all Vaults the Hemisphere, though not absolutely exempted from some natural Weakness, † as *Barnardino Baldi*, Abbot of *Guaftalla*, in his *Commentary upon Aristotle's Mechanicks*, doth very well prove; where let me note, by the way, that when any thing is mathematically demonstrated weak, it is much more mechanically weak, Errors ever occurring more easily in the Management of gross Materials, than lineal Designs.

T H E O R E M V.

As Semicircular Arches, or Hemispherical Vaults, being raised upon the total Diameter, be of all other the roundest and, consequently, the securest by the precedent *Theorem*; so those are the gracefullest, which keeping precisely the same Height, shall yet be distended one fourteenth Part longer than the said entire Diameter; which Addition of Distent will confer much to their Beauty, and detract but little from their Strength.

This Observation I find in *Leon Baptista Alberti*; but the Practice how to preserve the same Height, and yet distend the Arms or Ends of the Arch, is in *Alberti Durer's Geometry*, who taught the *Italians* many an excellent Line, of great use in this Art.

Upon these five *Theorems* all the Skill of Arching and Vaulting is grounded: As for those Arches, which our Artizans call of the third and fourth Point, and the *Tuscan Writers* *di terzo* and *di quarto acuto*; because they always concur in an acute Angle, and do spring from Division of the Diameter, into three, four, or more Parts at pleasure; I say, such as these both from the natural Imbecility of the sharp Angle itself, and likewise for their very Uncomeliness, ought to be exiled from judicious Eyes, and left to their first Inventors, the *Goths* or *Lombards*, amongst other Reliques of that barbarous Age.

Thus of my first Partition of the Parts of every Fabrick into five Heads, having gone through the two former, and been incidently carried into this last Doctrine touching Arches and Vaults. The next now in order are the Apertions, under which Term I do comprehend Doors, Windows, Stair-Cases, Chimnies, or other Conducts; in short, all Inlets or Out-lets, to which belong two general Cautions.

First, That they be as few in Number, and as moderate in Dimension, as may possibly consist with other due Respects; for in a word, all Openings are Weakenings.

Secondly, That they do not approach too near the Angles of the Walls; for it were indeed a most essential Solecism to weaken that Part which must strengthen all the rest: A Precept well recorded, but ill practised by the *Italians* themselves, particularly at *Venice*, where I have observed diverse *Pergoli*,

* By the First Theorem.

† Which is the sole Prerogative of Perpendicular Lines and Right Angles.

or *Meniana* (as *Vitruvius* seemeth to call them, which are certain ballised Outstandings to satisfy Curiosity of Sight) very dangerously set forth upon the very Point itself of the Mural Angle.

Now, albeit I make haste to the casting and comparing of the whole Work (being indeed the very definitive Sum of this Art, to distribute usefully and gracefully a well-chosen Plot) yet I will first under their several Heads, collect briefly some of the choicest Notes belonging to these particular Overtures.

Of DOORS and WINDOWS.

These Inlets of Men and of Light, I couple together, because I find their due Dimensions brought under one Rule, by *Leon Alberti* (a learned Searcher) who from the School of *Pythagoras* (where it was a fundamental Maxim, That the Images of all Things are latent in Numbers) doth determine the comliest Proportion between Breadths and Heighths, reducing Symmetry to Symphony, and the Harmony of Sound, to a kind of Harmony in Sight, after this manner: The two principal Consonances that most ravish the Ear, are, by consent of all Nature, the *Fifth* and the *Octave*; whereof the first riseth radically, from the Proportion between two and three. The other from the double Interval, between one and two, or between two and four, &c. Now, if we shall transport these Proportions from audible to visible Objects, and apply them as they shall fall fittest (the Nature of the Place considered) namely in some Windows and Doors, the Symmetry of two to three in their Breadth and Length, in others, the double, as aforesaid, there will indubitably result from either a graceful and harmonious Contentment to the Eye; which Speculation, though it may appear unto vulgar Artizans, perhaps, too subtile and too sublime, yet we must remember that *Vitruvius* himself doth determine many Things in his Profession by Musical Grounds, and much commendeth in an *Architect*, a Philosophical Spirit; that is, he would have him (as I conceive it) to be no superficial and floating Artificer, but a Diver into Causes, and into the Mysteries of Proportion. Of the Ornaments belonging both to Doors and Windows, I shall speak in another Place; but let me here add one Observation, That our Master (as appeareth by diverse Passages, and particularly, *Lib. 6. Cap. 9.*) seems to have been an extreme Lover of luminous Rooms: And indeed, I must confess, that a frank Light can misbecome no Edifice whatsoever, Temples only excepted, which were anciently Dark, as they are likewise at this Day in some Proportion; *Devotion more requiring collected than diffused Spirits* *. Yet on the other Side, we must take heed to make a House (though but for civil Use) all Eyes, like *Argus*, which in Northern Climes would be too cold, in Southern too hot: And therefore the Matter indeed importeth more than a merry Comparison. Besides, there is no part of Structure either more expenceful than Windows, or more ruinous, not only for that vulgar Reason, as being exposed to all Violence of Weather, but

* *Lumen est diffusum sui & alieni.*

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because consisting of so different and unsociable Pieces, as Wood, Iron, Lead, and Glass, and those small and weak, they are easily shaken. I must likewise remember one Thing (though it be but a *Grammatical Note*) touching Doors; some were *Fores*, and some were *Valve*; those (as the very Word may seem to import) did open outwards, these inward, and were commonly of two Leaves or Panes (as we call them) thereby requiring indeed a lesser Circuit in their unfolding, and therefore much in Use among *Italians* at this Day: But I must charge them with an Imperfection, for though they let in as well as the former, yet they keep out worse.

Of STAIR-CASES.

To make a compleat Stair-Case is a curious Piece of *Architecture*: The vulgar Cautions are these:

That it have a very liberal Light, against all Casualty of Slips and Falls.

That the Space above the Head be large and airy, which the *Italians* use to call *Un bel-sfogolo*, as it were good Ventilation, because a Man doth spend much Breath in mounting.

That the half Paces be well distributed, at competent Distances, for reposing on the Way.

That to avoid Encounters, and besides to gratify the Beholder, the whole Stair-Case have no niggard Latitude, that is, for the principal Ascent, at least ten Foot in Royal Buildings.

That the Breadth of every single Step or Stair, be never less than one Foot, nor more than eighteen Inches.

That they exceed by no means half a Foot in their Height or Thickness, for our Legs do labour more in Elevation than in Distention: These, I say, are familiar Remembrances; to which let me add

That the Steps be laid where they join *Con un tantino di scarpa*; we may translate it somewhat sloping, that so the Foot may in a sort both ascend and descend together, which though observed by few, is a secret and delicate Deception of the Pains in mounting.

Lastly, To reduce this Doctrine to some natural, or at least mathematical Ground (our Master, as we see, *Lib. 9. Cap. 2.*) borroweth those Proportions that make the Sides of a rectangular Triangle, which the ancient School did express in lowest Terms, by the Numbers of Three, Four, and Five; that is, Three for the Perpendicular, from the Stair-Head to the Ground, Four for the Ground-Line itself, or Recession from the Wall; and Five for the whole Inclination or Slopeness in the Ascent; which Proportion, *saieth he*, will make *Temperatas graduum liberationes*. Hitherto of Stair-Cases which are direct: There are likewise Spiral, or Cockle Stairs, either circular or oval, and sometimes running about a Pillar, sometimes vacant, wherein *Palladio* (a Man in this Point of singular Felicity) was wont to divide the Diameter of the first Sort into three Parts, yielding one to the Pillar, and two to the Steps: Of the second into four, whereof he gave two to the Stairs, and two to the Vacuity, which had all their Light from above; and this in exact Ovals, is a Masterpiece.

Of CHIMNIES.

In the present Business, *Italians* (who make very frugal Fires) are perchance not the best Counsellors. Therefore from them we may better learn both how to raise fair *Mantels* within the Rooms, and how to disguise gracefully the Shafts of Chimnies abroad (as they use) in sundry Forms (which I shall handle in the latter Part of my Labour) and the rest I will extract from *Philippe de l'Orme*, in this Part of his Work more diligent than in any other, or, to do him right, than any Man else.

First, He observeth very soberly, that who in the Disposition of any Building will consider the Nature of the Region, and the Winds that ordinarily blow from this or that Quarter, might so cast the Rooms which shall most need Fire, that he should little fear the Incommodity of Smoak; and therefore he thinks that Inconvenience for the most Part to proceed from some inconsiderate Beginning. Or if the Error lay not in the Disposition, but in the Structure itself, then he makes a Logical Enquiry, That either the Wind is too much let in above, at the Mouth of the Shaft, or the Smoak stifled below: If none of these, then there is a Repulsion of the Fume by some higher Hill or Fabrick, that shall over-top the Chimney, and work the former Effect: If likewise not this, then he concludes, That the Room which is infested, must be necessarily both little and close, so as the Smoak cannot issue by a natural Principle, wanting a Succession and Supply of new Air.

Now, in these Cases he suggesteth diverse artificial Remedies, of which I will allow one a little Description, because it savoureth of Philosophy, and was touched by *Vitruvius* himself, *Lib. 1. Cap. 6.* but by this Man ingeniously applied to the present Use: He will have us provide two hollow Bras Balls of reasonable Capacity, with little Holes open in both for Reception of Water, when the Air shall be first sucked out: One of these we must place with the Hole upwards, upon an Iron Wire, that shall traverse the Chimney a little above the *Mantel*, at the ordinary Height of the sharpest Heat or Flames, whereof the Water within being rarified, and by Rarification resolved into Wind, will break out, and so force up the Smoak, which otherwise might linger in the Tunnel by the Way, and oftentimes revert: With the other (*saieth he*) we may supply the Place of the former, when it is exhausted, or for a need, blow the Fire in the mean while; which Invention I have interposed for some little Entertainment of the Reader. I will conclude with a Note from *Palladio*, who observeth, that the Ancients did warm their Rooms with certain secret Pipes, that came through the Walls, transporting Heat (as I conceive it) to sundry Parts of the House, from one common Furnace; I am ready to baptize them *Caliducts*, as well as they are termed *Ventiducts* and *Aqueducts*, that convey Wind and Water; which whether it were a Custom or a Delicacy, was surely both for Thrift and for Use, far beyond the *German Stoves*; and I should prefer it likewise before our own Fashion, if the very Sight of a Fire did not add to the Room a kind of Reputation, as old * *Homer* doth teach us in a Verse, sufficient to prove that himself was not blind, as some would lay to his Charge.

* Αἰδοῦνός ἐστι πνεῦς νεαρῶτερος αἰνῶν ἰδῶναι. Hom. Epig.

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Touching Conducts for the Suillage, and other Necessities of the House (which how base soever in Use, yet for Health of the Inhabitants are as considerable, and perhaps more than the rest) I find in our Authors this Counsel, That Art should imitate Nature in those ignoble Conveyances, and separate them from Sight (where their wants a running Water) into the most remote, and lowest, and thickest Part of the Foundation, with secret Vents passing up through the Walls like a Tunnel to the wild Air aloft, which all *Italian* Artizans commend for the Discharge of noisome Vapours though elsewhere, to my knowledge, little practised.

Thus having considered the precedent Appertions, or Overtures, in Severalty, according to their particular Requisites, I am now come to the Casting and Contexture of the whole Work, comprehended under the Term of Compartition; into which (being the mainest Piece) I cannot enter without a few general Precautions, as I have done in other Parts.

First, Therefore, let no Man that intendeth to build, settle his Fancy upon a Draught of the Work in Paper, how exactly soever measured, or neatly set off in Perspective; and much less upon a bare Plant thereof, as they call the *Schiographia*, or Ground-Lines, without a Model or Type of the whole Structure, and of every Parcel and Partition in Pastboard or Wood.

Next, that the said Model be as plain as may be, without Colours or other Beautifying, lest the Pleasure of the Eye preoccupate the Judgment; which advice, omitted by the *Italian Architects*, I find in *Philippe de l'Orme*, and therefore (though *France* be not the Theatre of best Buildings) it did merit some mention of his Name.

Lastly, The bigger that this Type be, it is still the better; not that I will perswade a Man to such an Enormity, as that Model made by *Antonio Labaco*, of *St. Peter's Church* in *Rome*, containing twenty-two Foot in Length, Sixteen in Breadth, and Thirteen in Heighth, and costing four Thousand one Hundred and eighty four Crowns, the Price in truth of a reasonable Chapel. Yet in a Fabrick of some forty or fifty Thousand Pounds Charge, I wish thirty Pounds at least laid out before-hand in an exact Model; for a little Misery in the Premises, may easily breed some Absurdity of greater Charge in the Conclusion.

Now, after these Premonishments, I will come to the Compartition itself, by which the Authors of this Art (as hath been touched before) do understand a graceful and useful Distribution of the whole Ground-Plot, both for Rooms of Office, and of Reception or Entertainment, as far as the Capacity thereof, and the Nature of the Country will comport. Which Circumstances in the present Subject, are all of main Consideration, and might yield more Discourse than an elemental Rhapsody will permit. Therefore (to anatomize briefly this Definition) the Gracefulness, whereof we speak, will consist in double Analogy or Correspondency. *First*, between the Parts and the Whole, whereby a great Fabrick should have great Partitions, great Lights, great Entrances, great Pillars or Pilasters; in sum, all the Members great. The next, between the Parts themselves, not only considering their Breadths and Lengths, as before, when we speak of Doors and Windows; but here likewise enters a third respect of Height, a Point (I must confess) hardly reduceable to any general Precept.

True it is, that the Ancients did determine the Longitude of all Rooms which were longer than broad, by the Double of their Latitude. *Vitruvius Lib. 6. Cap. 5.* And the Height by the half of the Breadth and Length summed together. But when the Room was precisely Square, they made the Height half as much more as the Latitude; which Dimensions the modern *Architects* have taken leave to vary upon Discretion; sometimes squaring the Latitude, and then making the *Diagonal*, or overthwart Line, from Angle to Angle, of the said Square, the Measure of the Height; sometimes more, but seldom lower than the full Breadth itself; which Boldness of quitting the old Proportions, some attribute first to *Michael Angelo da Buonarroti*, perchance upon the Credit he had before gotten in two other Arts.

The second Point is Usefulness, which will consist in a sufficient Number of Rooms of all Sorts, and in their apt Coherence, without Distraction, without Confusion; so as the Beholder may not only call it *Una Fabrica ben raccolta*, as *Italians* use to speak of well-united Works, but likewise that it may appear airy and spirituous, and fit for the Welcome of cheerful Guests; about which the principal Difficulty will be in contriving the Lights and Stair-Cases, whereof I will touch a Note or two: For the First, I observe, that the ancient *Architects* were at much Ease; for both the *Greeks* and *Romans* (of whose private Dwellings *Vitruvius* hath left us some Description) had commonly two cloistered open Courts, one serving for the Womens Side, and the other for the Men; who yet, perchance, now-a-days would take so much Separation unkindly. Howsoever, by this Means the Reception of Light into the Body of the Building was very prompt, both from without and from within; which we must now supply, either by some open Form of the Fabrick, or among graceful Refuges, by Tarrassing any Story which is in danger of Darknes; or lastly, by perpendicular Lights from the Roof, of all other the most natural, as shall be shewed anon. For the second Difficulty, which is casting of the Stair-Cases, that being in itself no hard Point, but only as they are Incumbrances of Room for other Use (which Lights were not) I am therefore aptly moved here to speak of them. And first of Offices.

I have marked a Willingness in the *Italian* Artizans to distribute the Kitchen, Pantry, Bakehouse, Washing-Rooms, and even the Buttery likewise, under Ground, next above the Foundation, and sometimes level with the Plain or Floor of the Cellar, raising the first Ascent into the House fifteen Foot or more for that End, which, besides the Benefit of removing such Annoys out of Sight, and the gaining of so much more Room above, doth also, by Elevation of the Front, add Majesty to the whole Aspect. And with such a Disposition of the principal Stair-Case, which commonly doth deliver us into the Plain of the second Story, there may be Wonders done with a little Room, whereof I could alledge brave Examples Abroad, and none more artificial and delicious than a House built by *Daniel Barbaro*, Patriarch of *Aquileia*, before-mentioned, among the memorable Commentators upon *Vitruvius*. But the Definition (above-determined) doth call us to some Consideration of our own Country, where, though all the other Petty-Offices (before rehearsed) may well enough be so remote, yet by the natural Hospitality of *England*, the Buttery must be more visible, and we need, perchance;

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chance for our Ranges, a more spacious and luminous Kitchen than the foresaid Compartment will bear, with a more competent nearness likewise to the Dining-Room; or else, besides other Inconveniencies, perhaps some of the Dishes may straggle by the Way. Here let me note a common Defect that we have of a very useful Room, called by the *Italians*, *Il Tinello*; and familiar, nay, almost essential, in all their great Families: It is a Place properly appointed to conserve the Meat that is taken from the Table, till the Waiters eat, which with us, by an old Fashion, is more unseemly set by in the mean while.

Now touching the Distribution of Lodging-Chambers; I must here take leave to reprove a Fashion, which I know not how hath prevailed through *Italy*, though without ancient Examples, as far as I can perceive by *Vitruvius*. The Thing I mean, is, that they so cast their Partitions, as when all Doors are open, a Man may see through the whole House; which doth necessarily put an intolerable Servitude upon all the Chambers, save the inmost, where none can arrive but through the rest; or else the Walls must be extream thick for secret Passages. And yet this also will not serve the Turn, without at least three Doors to every Room; a Thing most insufferable in cold and windy Regions, and every where no small weakening to the whole Work: Therefore with us, that want no cooling, I cannot commend the direct Opposition of such Overtures, being indeed merely grounded upon the fond Ambition of displaying to a Stranger all our Furniture at one Sight, which therefore is most maintained by them that mean to harbour but a few; whereby they make only Advantage of the Vanity, and seldom prove the Inconvenience. There is likewise another Defect (as Absurdities are seldom solitary) which will necessarily follow upon such a servile disposing of inward Chambers, that they must be forced to make as many common great Rooms as there shall be several Stories; which (besides that they are usually dark, a Point hardly avoided, running as they do, through the middle of the whole House) do likewise devour so much Place, that thereby they want other Galleries and Rooms of Retreat, which I have often considered among them (I must confess) with no small Wonder; for I observe no Nation in the World by Nature more private and reserved than the *Italian*, and on the other side, in no Habitations less Privacy; so as there is a kind of Conflict between their Dwelling and their Being. It might here perchance be expected, that I should at least describe (which others have done in Draughts and Designs) diverse Forms of Plants and Partitions, and Varieties of Inventions. But speculative Writers, as I am, are not bound to comprise all particular Cases within the Latitude of the Subject which they handle, general Lights and Directions, and Pointings at some Faults is sufficient: The rest must be committed to the Sagacity of the *Architect*, who will be often put to diverse ingenious Shifts, when he is to wrestle with Scarcity of Ground: As sometimes * to damn one Room (though of special Use) for the Benefit and Beauty of all the rest; another while, to make those fairest, which are most in Sight; and

* *The Italians call it Una stanza dannata, as when a Buttery is cast under a Stair-Case or the like.*

and to leave the other (like a cunning Painter) in Shadow, *cum multis aliis*, which it were infinite to pursue. I will therefore close this Part, touching Compartition, as cheerfully as I can, with a short Description of a Feasting or Entertaining Room, after the *Egyptian* Manner, who seem, at the least 'till the Time of *Vitruvius*, from the ancient *Hebrews* and *Phœnicians* (whence all Knowledge did flow) to have retained with other Sciences, in a high Degree, also the Principles and Practice of this magnificent Art. For as far as I may conjecture by our Master's Text, *Lib. 6. Cap. 5.* where (as in many other Places he hath tortured his Interpreters) there could no Form, for such a Royal Use, be comparably imagined, like that of the aforesaid Nation, which I shall adventure to explain.

Let us conceive a Floor or *Area* of goodly Length (for Example, at least of One hundred and twenty Foot) with the Breadth somewhat more than the half of the Longitude, whereof the Reason shall be afterwards rendred. About the two longest Sides, and Head of the said Room, shall run an Order of Pillars, which *Palladio* doth suppose *Corinthian* (as I see by his Design) supplying that Point out of *Greece*, because we know no Order proper to *Egypt*. The fourth Side I will leave free for the Entrance. On the aforesaid Pillars was laid an Architrave, which *Vitruvius* mentioneth alone: *Palladio* adds thereunto (and with Reason) both Freeze and Cornice, over which went up a continued Wall, and therein half or three quarter Pillars, answering directly to the Order below, but a fourth Part less, and between these half Columns above, the whole Room was Windowed round about.

Now, from the lowest Pillars there was laid over a Contignation or Floor, born upon the outward Wall, and the Head of the Columns with Terrass and Pavement, *sub dio* (saith our Master) and so indeed he might safely determine the Matter in *Egypt*, where they fear no Clouds: Therefore *Palladio* (who leaveth this Terrass uncovered in the Middle, and balised about) did perchance construe him rightly, though therein discording from others: Always we must understand a sufficient Breadth of Pavement left between the open Part and the Windows, for some Delight of Spectators that might look down into the Room: The Latitude I have supposed contrary to some former Positions, a little more than the half of the Length; because the Pillars standing at a competent Distance from the outmost Wall, will, by Interception of the Sight, somewhat in Appearance diminish the Breadth; in which Cases, as I have touched once or twice before, Discretion may be more licentious than Art. This is the Description of an *Egyptian* Room, for Feasts and other Jollities: About the Walls whereof we must imagine entire Statues, placed below, and illuminated by the descending Light from the Terrass, as likewise from the Windows between the half Pillars above: So as this Room had abundant and advantagious Light; and besides other Garnishing, must needs receive much State by the very Height of the Roof, that lay over two Orders of Columns. And so having run through the four Parts of my first general Division, namely, *Foundation, Walls, Appertions, and Compartition*, the House may now have leave to put on his Hat, having hitherto been uncovered itself, and consequently unfit to cover others. Which Point, though it be

the last of this Art in Execution, yet it is always in Intention the first, for who would build, but for Shelter? Therefore obtaining both the Place and the Dignity of a final Cause, it hath been diligently handled by diverse, but by none more learnedly than *Bernardino Baldi*, Abbot of *Guastalla* (before cited upon other Occasion) who doth fundamentally and mathematically demonstrate the firmest Knittings of the uper Timbers which make the Roof. But it hath been rather my Scope, in these *Elements*, to fetch the Ground of all from Nature herself, which indeed is the simplest Mother of Art. Therefore I will now only deliver a few of the properest, and, as I may say, of the most natural Considerations that belong to this remaining Piece.

There are two Extremities to be avoided in the Cover or Roof; that it be not too heavy, nor too light. The first will suffer a vulgar Objection of pressing too much the under Work. The other containeth a more secret Inconvenience; for the Cover is not only a bare Defence, but likewise a kind of Band or Ligature to the whole Fabrick, and therefore would require some reasonable Weight. But of the two Extremes, a House top-heavy is the worst. Next there must be a Care of Equality, that the Edifice be not pressed on the one Side more than on the other: And here *Palladio* doth wish (like a cautelous Artizan) that the inward Walls might bear some good Share in the Burthen, and the outward be the less charged.

Thirdly, The *Italians* are very precise in giving the Cover a graceful Pendency or Slopeness, dividing the whole Breadth into nine Parts, whereof two shall serve for the Elevation of the highest Top or Ridge from the lowest. But in this Point the Quality of the Region is considerable: For (as our *Vitruvius* insinuateth) those Climes that fear the falling and lying of much Snow, ought to provide more inclining *Pentices*; and Comeliness must yield to Necessity.

These are the usefulest Cautions which I find in Authors, touching the last Head of our Division, wherewith I will conclude the first Part of my present Travail. The second remaineth, concerning Ornaments within, or without the Fabrick; a Piece not so dry as the meer Contemplation of Proportions: And therefore I hope therein somewhat to refresh both the Reader and myself.





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PART II.



VERY Man's proper Mansion-House and Home being the Theatre of his Hospitality, the Seat of Self-Fruition, the comfortablest Part of his own Life, the noblest of his Son's Inheritance, a kind of private Princedom, nay, to the Possessors thereof, an Epitomy of the whole World, may well deserve by these Attributes, according to the Degree of the Master, to be decently and delightfully adorned. For which End there are two Arts attending on *Architecture*, like two of her principal Gentlewomen to dress and trim their Mistress, *Picture* and *Sculpture*; between whom, before I proceed any farther, I will venture to determine an ancient Quarrel about their Precedency, with this Distinction, that in the Garnishing of Fabricks, *Sculpture* no doubt must have the Pre-eminence, as being indeed of nearer Affinity to *Architecture* itself, and consequently the more natural and more suitable Ornament. But on the other Side (to consider these two Arts, as I shall do, philosophically, and not mechanically) an excellent Piece of Painting is, to my Judgment, the more admirable Object, because it comes near an artificial Miracle, to make diverse distinct Eminencies appear upon a Flat by force of Shadows, and yet the Shadows themselves not to appear; which I conceive to be the uttermost Value and Vertue of a Painter, and to which very few have arrived in all Ages.

In these two Arts (as they are applicable to the Subject which I handle) it shall be fit, first, to consider how to choose them; and next, how to dispose them. To guide us in the Choice, we have a Rule somewhere (I well remember) in *Pliny*, and it is a pretty Observation, That they do mutually help to censure one another. For *Picture* is best, when it standeth off, as if it were carved; and *Sculpture* is best, when it appeareth so tender, as if it were painted, I mean, when there is such a seeming Softness in the Limbs, as if not a Chissel had hewed them out of Stone, or other Material;

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terial, but a Pencil had drawn and stroaked them in Oil, which the judicious Poet took well to his Fancy :

Excudent alij spirantia mollius æra.

But this Generality is not sufficient to make a good Chooser, without a more particular Contraction of his Judgment. Therefore, when a Piece of Art is set before us, let the first Caution be, not to ask who made it, lest the Fame of the Author do captivate the Fancy of the Buyer: For, that excellent Men do always excellently, is a false Conclusion; whereupon I observe among *Italian* Artizans three notable Phrases, which well decipher the Degrees of their Works.

They will tell you, that a Thing was done *Con diligenza*, *Con studio*, and *Con amore*: The first is but a bare and ordinary Diligence; the second is a learned Diligence; the third is much more, even a loving Diligence; they mean not with Love to the Bespeaker of the Work, but with a Love and Delight in the Work itself, upon some special Fancy to this or that Story; and when all these concur (particularly the last) in an eminent Author, then perchance *Titianus Fecit*, or *ἐπίδειξαι ἐποίησεν*, will serve the turn, without farther Inquisition: Otherwise, Artizans have not only their Growths and Perfections, but likewise their *Vains* and Times.

The next Caution must be (to proceed logically) that in judging of the Work itself we be not distracted with too many Things at once: Therefore first (to begin with Picture) we are to observe whether it be well drawn (or as more elegant Artizans term it) well design'd; then whether it be well coloured, which be the two general Heads; and each of them hath two principal Requisites; for in well Designing there must be Truth and Grace; in well Colouring, Force and Affection: all other Praises are but Consequences of these.

Truth (as we metaphorically take it in this Art) is a just and natural Proportion in every Part of the determined Figure. Grace is a certain free Disposition in the whole Draught, answerable to that unaffected Frankness of Fashion in a living Body, Man or Woman, which doth animate Beauty where it is, and supply it where it is not.

Force consisteth in the Roundings and Raisings of the Work, according as the Limbs do more or less require it; so as the Beholder shall spy no Sharpness in the bordering Lines; as when Taylors cut out a Suit, which *Italians* do aptly term, according to that Comparison, *Contorni taglianti*; nor any Flatness within the Body of the Figure, which how it is done, we must fetch from a higher Discipline; for the Opticks teach us, that a Plane will appear prominent, and, as it were, embossed, if the Parts farthest from the Axeltree, or middle Beam of the Eye, shall be the most shadowed; because in all Darkness there is a kind of Deepness. But as in the Art of Perswasion, one of the most fundamental Precepts is, the Concealment of Art, so here likewise the Sight must be sweetly deceived by an insensible Passage, from brighter Colours to dimmer, which *Italian* Artizans call the middle Tinctures, that is, not as the Whites and Yolks of Eggs lie in the Shell, with visible Distinction, but as when they are beaten and blended in a Dish; which is the nearest Comparison that I can suddenly conceive.

Lastly,

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Lastly, Affection is the lively Representment of any Passion whatsoever, as if the Figures stood not upon a Cloth or Board, but as if they were acting upon a Stage: And here I must remember, in truth, with much marvel, a Note which I have received from excellent Artizans, that though Gladness and Grief be Opposites in Nature, yet they are such Neighbours and Confiners in Art, that the least Touch of a Pencil will translate a *, Crying into a Laughing Face; which Instance, besides diverse other, doth often reduce unto my Memory, that ingenious Speculation of the Cardinal Cusanus, extant in his Works, touching the Coincidence of Extremes. And thus much of the four Requisites and Perfections in Picture.

In Sculpture likewise, the two first are absolutely necessary, the third impertinent; for Solid Figures need no Elevation by Force of Lights or Shadows: Therefore in the Room of this, we may put (as hath been before touched) a kind of Tenderness, by the Italians termed *Morbidezza*, wherein the Chissel, I must confess, hath more Glory than the Pencil, that being so hard an Instrument, and working upon so unpliant Stuff, can yet leave Strokes of so gentle Appearance.

The fourth, which is the expressing of Affection (as far as it doth depend upon the Activity and Gesture of the Figure) is as proper to the Carver as to the Painter, though Colours, no doubt, have therein the greatest Power; whereupon, perchance, did first grow with us the Fashion of Colouring even Regal Statues, which I must take leave to call an *English* Barbarism.

Now in these four Requisites already rehearsed, it is strange to note, that no Artizan, having ever been blamed for Excess in any of the three last, only *Truth* (which should seem the most innocent) hath suffered some Objection, and all Ages have yielded some one or two Artificers so prodigiously exquisite, that they have been reputed too natural in their Draughts, which will well appear by a famous Passage in *Quintilian*, touching the Characters of the ancient Artizans, falling now so aptly into my Memory, that I must needs translate it, as in truth it may well deserve.

The Place which I intend, is extant in the last Chapter save one of his whole Work, beginning thus in *Latin*:

Primi, quorum quidem opera non vetustates modo gratia visenda sunt clari Pictores fuisse dicuntur, Polygnotus atque Aglaophon, &c.

The whole Passage in *English* standeth thus:

THE first Painters of Name, whose Works be considerable for any thing more than only Antiquity, are said to have been *Polygnotus* and *Aglaophon*, whose bare Colourings (he means I think in White and Black) hath even yet so many Followers, that those rude and first Elements, as it were of that which within a while became an Art, are preferred before the greatest Painters that have been extant after them, out of a certain Competition (as I

(h) conceive

Ι Α Ι Α Δ Ζ.
*Ως ἐπὶ τὸν ἀλόχοιο φίλης ἐν χερσὶν ἔθηκε,
Παῖδός, ἠδ' ἄρα τὴν κηάδι δέχεται κόλπῳ
Ἀκρῶς γελᾶσασα.—That is,
She took her Son into her Arms, weepingly laughing.

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conceive it) in Point of Judgment. After these, *Zeuxes* and *Parafius*, not far distant in Age, both about the Time of the *Peloponnesian* War (for in *Xenophon* we have a Dialogue between *Parafius* and *Socrates*) did add much to this Art: Of which the first is said to have invented the due Disposition of Lights and Shadows; the second, to have more subtilly examined the Truth of Lines in the Draught; for *Zeuxes* did make Limbs bigger than the Life, deeming his Figures thereby the more stately and majestic, and therein (as some think) imitating *Homer*, whom the stoutest Form doth please, even in Women. On the other Side, *Parafius* did exactly limit all the Proportions so, as they call him the Law-giver, because in the Images of the Gods, and of Heroical Personages, others have followed his Patterns like a Decree; but *Picture* did most flourish about the Days of *Philip*, and even to the Successors of *Alexander*, yet by sundry Habilities; for *Protopogenes* did excel in Diligence; *Pamphilus* and *Melanthius*, in due Proportion; *Antiphilus*, in a frank Facility; *Theon* of *Samos*, in Strength of Fantasie and conceiving of Passions; *Apelles*, in Invention and Grace, whereof he doth himself most vaunt; *Euphranor* deserves Admiration, that being in other excellent Studies a principal Man, he was likewise a wondrous Artizan both in *Painting* and *Sculpture*. The like Difference we may observe among the Statuaries; for the Works of *Calon* and *Egefas* were somewhat stiff, like the *Tusean* Manner; those of *Calamis*, not done with so bold Stroaks; and *Myron*, more tender than the former; a diligent Decency in *Polycletus* above others, to whom though the highest Praise be attributed by the most, yet least he should go free from Exception, some think he wanted Solemnness; for as he may perchance be said to have added a comely Dimension to humane Shape somewhat above the Truth, so, on the other Side he seemed not to have fully expressed the Majesty of the Gods; moreover, he is said not to have meddled willingly with the graver Age, as not adventuring beyond smooth Cheeks: But these Vertues that were wanting in *Polycletus* were supplied by *Phidias* and *Alcmenes*; yet *Phidias* was a better Artizan in the representing of Gods than of Men; and in his Works of Ivory, beyond all Emulation, even though he had left nothing behind him but his *Minerva* at *Athens*, or the *Olympian Jupiter* in *Elis*, whose Beauty seems to have added somewhat even to the received Religion, the Majesty of the Work as it were equalling the Deity. To Truth they affirm *Lysippus* and *Praxiteles* to have made the nearest Approach; for *Demetrius* is therein reprehended, as rather exceeding than deficient, having been a greater Aimer at Likeness than at Loveliness.

This is that witty Censure of the ancient Artizans, which *Quintilian* hath left us, where the last Character of *Demetrius* doth require a little Philosophical Examination, how an Artificer, whose End is the Imitation of Nature, can be too natural; which likewise in our Days was either the Fault, or (to speak more gently) the too much Perfection of *Albert Durer*, and perhaps also of *Michael Angelo de Buonaroti*, between whom I have heard noted by an ingenious Artizan, a pretty nice Difference, that the *German* did too much express that which was, and the *Italian*, that which should be: Which severe Observation of Nature, by the one in her commonest, and by the other in her absolute Forms, must needs produce in both a kind of *Rigidity*, and consequently more Naturalness than Gracefulness. This is the clearest Reason,

son, why some exact Symmetrists have been blamed for being too true, as near as I can deliver my Conceit. And so much touching the Choice of Picture and Sculpture: The next is, the Application of both to the beautifying of Fabricks.

First, therefore, touching Picture, there doth occur a very pertinent Doubt, which hath been passed over too slightly not only by some Men, but by some Nations; namely, whether this Ornament can well become the Outside of Houses; wherein the Germans have made so little Scruple, that their best Towns are the most painted, as *Augusta* and *Noremberg*. To determine this Question in a Word: It is true, that a Story well set out with a good Hand, will every where take a judicious Eye: But yet withal it is as true, that various Colours on the Out-Walls of Buildings have always in them more Delight than Dignity: Therefore I would there admit no Paintings but in Black and White, nor even in that kind any Figures (if the Room be capable, under nine or ten Foot high, which will require no ordinary Artizan; because the Faults are more visible than in small Designs. In unfigured Paintings, the noblest is the Imitation of Marbles, and of Architecture it self, as *Arches*, *Freezes*, *Columns*, and the like.

Now for the Inside, here grows another Doubt, whether *Grotesca* (as the *Italians*) or *Antique Work* (as we call it) should be received against the express Authority of *Vitruvius* himself, *Lib. 7. Cap. 5.* where *Pictura* (saith he) *fit ejus, quod est, seu potest esse;* excluding by this severe Definition, all Figures composed of different Natures or Sexes; so as a *Syrene* or a *Centaur* had been intolerable in his Eye: But in this we must take leave to depart from our Master, and the rather, because he spake out of his own Profession, allowing *Painters* (who have ever been as little limited as *Poets*) a less Scope in their Imaginations even than the gravest *Philosophers*, who sometimes do serve themselves of Instances that have no Existence in Nature; as we see in *Plato's Amphibæna*, and *Aristotle's Hirco-Cervus*. And (to settle this Point) what was indeed more common and familiar among the *Romans* themselves, than the Picture and Statue of *Terminus*, even one of their Deities? which yet, if we will consider, is but a Piece of *Grotesca*. I am for these Reasons unwilling to impoverish that Art, though I could wish such medly and motly Designs confined only to the Ornament of Freezes and Borders, their properest Place. As for other storied Works upon Walls, I doubt our Clime is too yielding and moist for such Garnishment; therefore leaving it to the Dweller's Discretion, according to the Quality of his Seat, I will only add a Caution or two about the disposing of Pictures within.

First, That no Room be furnished with too many, which, in truth, were a Surfeit of Ornament, unless they be Galleries, or some peculiar Repository for Rarities of Art.

Next, that the best Pieces be placed not where there is the least, but where there are the fewest Lights; therefore not only Rooms windowed on both Ends, which we call thorough-lighted, but with two or more Windows on the same Side, are Enemies to this Art; and sure it is, that no Painting can be seen in full Perfection, but (as all Nature is illuminated) by a single Light.

Thirdly,

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Thirdly, That in the placing there be also some Care also taken, how the *Painter* did stand in the Working, which an intelligent Eye will easily discover, and that Posture is the most natural; so as *Italian* Pieces will appear best in a Room where the Windows are high, because they are commonly made to a descending Light, which of all other doth set off Men's Faces in their truest Spirit.

Lastly, That they be as properly bestowed for their Quality, as fitly for their Grace; that is, cheerful Paintings in Feasting and Banqueting-Rooms; graver Stories in Galleries; Landscips, and Boscage, and such wild Works, in open Terrasses, or in Summer-Houses (as we call them) and the like.

And thus much of *Picture*, which let me close with this Note, That though my former Discourse may serve, perchance, for some reasonable Leading in the Choice of such Delights, yet let no Man hope by such a speculative Erudition, to discern the masterly and mysterious Touches of Art, but an Artizan himself; to whom therefore we must leave the Prerogative to censure the manner and handling, as he himself must likewise leave some Points, perchance of no less value, to others; as for Example, whether the Story be rightly represented, the Figures in true Action, the Persons suited to their several Qualities, the Affections proper and strong, and such like Observations.

Now for *Sculpture*, I must likewise begin with a Controversy, as before, (falling into this Place) or let me rather call it a very meer Fancy, strangely taken by *Palladio*, who having noted in an old Arch or two at *Verona* some part of the Materials already cut in fine Forms, and some unpolished, doth conclude (according to his Logick) upon this Particular, that the Ancients did leave the outward Face of their Marbles or Free-Stone without any Sculpture, 'till they were laid and cemented in the Body of the Building; for which likewise he findeth a Reason (as many do now and then very wittily, even before the thing it self be true) that the Materials being left rough, were more manageable in the *Mason's* Hand than if they had been smooth; and that so the Sides might be laid together the more exactly; which Conceit, once taken, he seems to have farther imprinted, by marking in certain storied *Sculptures* of old Time, how precisely the Parts and Lines of the Figures, that pass from one Stone another, do meet; which he thinks could hardly fall out so right (forgetting while he speaks of ancient Things, the ancient Diligence) unless they had been cut after the joining of the Materials. But all these Inducements cannot countervail the sole Inconvenience of shaking and disjointing the *Commissures* with so many Strokes of the Chissel, besides an incommodious Working on Scaffolds, especially having no Testimony to confirm it, that I have yet seen, among the Records of Art: Nay, it is indeed rather true, that they did square, and carve, and polish their Stone and Marble Works even in the very Cave of the Quarry, before it was hardened by open Air: But (to leave Disputation) I will set down a few positive Notes, for the placing of *Sculpture*, because the *chusing* hath been handled before.

That first of all it be not too general and abundant, which would make a House look like a Cabinet; and in this Point, Moral Philosophy, which tempereth Fancies, is the Superintendant of Art.

That

That especially, there be a due Moderation of this Ornament in the first Approach; where our Authors do more commend (I mean about the principal Entrance) a *Dorick*, than a *Corinthian* Garnishment; so as if the great Door be arched, with some brave Head cut in fine Stone or Marble for the Key of the Arch, and two incumbent Figures gracefully leaning upon it, towards one another, as if they meant to confer; I should think this a sufficient Entertainment for the first Reception of any judicious Sight, which I could wish seconded with two great standing Statues on each side of a paved Way, that shall lead up into the Fabrick, so as the Beholder at the first entrance may pass his Eye between them.

That the Niches, if they contain Figures of white Stone or Marble, be not coloured in their Concavity too black; for though *Contraria juxta se posita magis illucescunt* (by an old Rule) yet it hath been subtilly, and indeed truly, noted, that our Sight is not well contented with those sudden Departments from one Extream to another; therefore let them have rather a dusky Tincture, than an absolute Black.

That fine and delicate *Sculptures* be helped with Nearness, and Gross with Distance; which was well seen in the old Controversy between *Phidias* and *Alcmenes* about the Statue of *Venus*: Wherein the first did shew Discretion, and save Labour; because the Work was to be viewed at good Height, which did drown the sweet and diligent Strokes of his Adversary: A famous Emulation of two principal *Artizans*, celebrated even by the *Greek* Poets.

That in the placing of standing Figures aloft, we must set them in a Posture somewhat bowing forward; because (saith our Master, *Lib. 3. Cap. 3.* out of a better Art than his own) the visual Beam of our Eye, extended to the Head of the said Figures, being longer than to the Foot, must necessarily make that Part appear farther; so as to reduce it to an erect or upright Position, there must be allowed a due Advantage of stooping towards us; which *Albert Durer* hath exactly taught, in his fore-mentioned *Geometry*. Our *Vitruvius* calleth this Affection in the Eye, a *Resupination* of the Figure: For which Word (being in truth his own, for ought I know) we are almost as much beholding to him, as for the Observation it self: And let thus much summarily suffice, touching the Choice and Use of these adorning Arts. For to speak of garnishing the Fabrick with a Row of erected Statues about the Cornice of every Contignation or Story, were Discourse more proper for *Athens* or *Rome*, in the time of their true Greatness, when (as *Pliny* recordeth of his own Age) there were near as many carved Images as living Men; like a noble Contention, even in point of Fertility, between Art and Nature; which Passage doth not only argue an infinite abundance both of Artizans and Materials, but likewise of magnificent and majestic Desires in every common Person of those Times, more or less according to their Fortunes. And true it is indeed, that the Marble Monuments and Memories of well-deserving Men, wherewith the very Highways were strewed on each side, was not a bare and transitory Entertainment of the Eye, or only a gentle Deception of Time to the Traveller, but had also a secret and strong Influence, even into the advancement of the Monarchy,

narchy, by continual Representation of virtuous Examples; so as in that Point, Art became a Piece of State.

Now, as I have before subordinated *Picture* and *Sculpture* to *Architecture*, as their Mistress; so there are certain inferior Arts likewise subordinate to them: As under *Picture*, *Mosaic*; under *Sculpture*, *Plastick*; which two I only nominate, as the fittest to garnish Fabricks.

Mosaick is a kind of Painting in small Pebbles, Cockles, and Shells of sundry Colours; and of late Days, likewise with pieces of Glass, figured at pleasure; an Ornament, in truth, of much Beauty, and long Life, but of most use in Pavements and Floorings.

Plastick is not only under *Sculpture*, but indeed very *Sculpture* itself; but with this difference, that the Plaisterer doth make his Figures by Addition, and the Carver by Substraction: whereupon *Michael Angelo* was wont to say somewhat pleasantly, that *Sculpture* was nothing but a Purgation of Superfluities: For take away from a piece of Wood, or Stone, all that is superfluous, and the Remainder is the intended Figure. Of this *Plastick* Art, the chief use with us is in the graceful fretting of Roofs; but the *Italians* apply it to the mantelling of Chimneys, with great Figures; a cheap piece of Magnificence, and as durable almost within-doors, as harder Forms in the Weather. And here, though it be a little Excursion, I cannot pass unremembered again, their manner of disguising the Shapes of Chimneys in various Fashions, whereof the noblest is the Pyramidal; being in truth, a piece of polite and civil Discretion, to convert even the Conduits of Soot and Smoak into Ornaments; whereof I have hitherto spoken as far as may concern the Body of the Building.

Now there are Ornaments also without, as Gardens, Fountains, Groves, Conservatories of rare Beasts, Birds, and Fishes: Of which ignobler kind of Creatures, *We ought not* (saith our greatest † Master among the Sons of Nature) *childishly to despise the Contemplation; for in all things that are natural, there is ever something that is admirable.* Of these external Delights, a Word or two.

First, I must note a certain Contrariety between Building and Gardening: For as Fabricks should be regular, so Gardens should be irregular, or at least cast into a very wild Regularity. To exemplify my Conceit, I have seen a Garden (for the Manner perchance incomparable) into which the first access was a high Walk like a Terrace, from whence might be taken a general View of the whole Plot below; but rather in a delightful Confusion, than with any plain Distinction of the Pieces. From this the Beholder descending many Steps, was afterwards conveyed again by several Mountains and Valings, to various Entertainments of Scent and Sight, which I shall not need to describe (for that were poetical) let me only note this, that every one of these Diversities was as if he had been magically transported into a new Garden.

But though other Countries have more benefit of the Sun than we, and thereby more properly tied to contemplate this Delight, yet have I seen

† Arist. lib. 1. Cap. 5. de part. Anim. Δει μὴ δοξάζειν παιδικῶς τὴν περὶ τῶ ἀκριστοτέρων ζῶων ἐπίσκεψιν. Ἐν πᾶσι δὲ τοῖς φυσικοῖς ἐστὶ τι θαυμάσιον.

seen in our own, a delicate and diligent Curiosity, surely without parallel among foreign Nations; namely, in the Garden of Sir *Henry Fanshawe*, at his Seat in *Ware-Park*, where I well remember he did so precisely examine the Tinctures and Seasons of his Flowers, that in their setting, the inwardest of those which were to come up at the same time, should be always a little darker than the outmost, and so serve them for a kind of gentle Shadow, like a Piece not of Nature, but of Art: Which mention (incident to this Place) I have willingly made of his Name, for the dear Friendship that was long between us: Though I must confess, with much wrong to his other Virtues, which deserve a more solid Memorial, than among these vacant Observations. So much of *Gardens*.

Fountains are figured, or only plain Water'd-Works: Of either of which, I will describe a matchless Pattern.

The *First* done by the famous Hand of *Michael Angelo da Buonaroti*, in the Figure of a sturdy Woman, washing and winding of Linnen Cloaths; in which Act she wrings out the Water that made the Fountain: which was a graceful and natural Conceit in the Artificer, implying this Rule, That all Designs of this kind should be proper.

The other doth merit some larger Expression: There went a long, straight, mossy Walk of competent breadth, green and soft under foot, list'd on both sides with an *Aqueduct* of white Stone, Breast high, which had a hollow Channel on the Top, where ran a pretty trickling Stream; on the Edge whereof were couched very thick all along, certain small Pipes of Lead, in little holes, so neatly, that they could not be well perceived 'till by the turning of a Cock, they did spurt over interchangeably from side to side, above Man's height, in form of Arches, without any Interfection or meeting aloft, because the Pipes were not exactly opposite; so as the Beholder, besides that which was fluent in the *Aqueducts* on both hands in his view, did walk as it were under a continual Bower or Hemisphere of Water, without any drop falling on him. An Invention for Refreshment, surely far excelling all the *Alexandrian* Delicacies, and Pneumaticks of *Hero*.

Groves and artificial Devices under-ground, are of great Expence, and little Dignity; which, for my part, I could wish converted here into those *Crypteria*, whereof mention is made among the curious Provisions of *Tycho Brahe* the *Danish Ptolemy*, as I may well call him; which were deep Concaves in Gardens, where the Stars might be observed even at Noon. For (by the way) to think that the brightness of the Sun's Body above, doth drown our discerning of the lesser Lights, is a popular Error; the sole Impediment being that Lustre, which by Reflexion doth spread about us from the Face of the Earth; so as the Caves before touched, may well conduce, not to a delicious, but to a learned Pleasure.

In *Aviaries* of Wire, to keep Birds of all sorts, the *Italians* (though no wastful Nation) do in some Places bestow vast Expence; including great scope of Ground, variety of Bushes, Trees of good height, running Waters, and sometimes a Stove annexed, to contemper the Air in Winter: So as those Chanteresses, unless they be such as perhaps delight as
much

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much in their Wing as in their Voice, may live long among so good Provisions and Room, before they know that they are Prisoners; reducing often to Memory that Conceit of the Roman Stoick, who in comparison of his own free Contemplations, did think divers great and splendid Fortunes of his Time, little more than commodious Captivities.

Concerning *Ponds of Pleasure* near the Habitation, I will refer my self to a grave Author of our own (though more illustrious by his other * Work) namely, *Sarisburiensis de Piscinâ.*

And here I will end a second Part, touching *Ornaments* both within and without the Fabrick.

Now as almost all those which have delivered the Elements of *Logick*, do usually conclude with a Chapter touching *Method*; so I am here seized with a kind of critical Spirit, and desirous to shut up these building Elements with some methodical Direction how to censure Fabricks already raised. For indeed without some Way to contract our Judgment, which among so many Particulars would be lost by Diffusion, I should think it almost harder to be a good Censurer than a good Architect; because the working Part may be helped with Deliberation, but the judging must flow from an extemporal Habit. Therefore (not to leave this last Piece without some Light) I could wish him that cometh to examine any noble Work, first of all to examine himself, whether perchance the sight of many brave Things before (which remain like impressed Forms) have not made him apt to think nothing good but that which is the best, for this Humour were too sowre. Next, before he come to settle any imaginable Opinion, let him by all means seek to inform himself precisely of the Age of the Work upon which he must pass his Doom. And if he shall find the apparent Decays to exceed the Proportion of Time, then let him conclude without farther Inquisition, as an absolute Decree, that either the Materials were too slight, or the Seat is nought. Now after these Premises if the House be found to bear his Years well (which is always a Token of sound Constitution) then let him suddenly run backwards (for the Method of Censuring is contrary to the Method of Composing) from the Ornaments (which first allure the Eye) to the more essential Members; 'till at last he be able to form this Conclusion, that the Work is commodious, firm and delightful; which (as I said in the Beginning) are the three capital Conditions required in good Buildings, by all Authors both ancient and modern. And this is, as I may term it, the most scientificall way of censuring. There are two other, which I must not forget: The first in *Georgio Vassario*, before his laborious Work of the Lives of *Architects*, which is to pass a running Examination over the whole Edifice, according to the Properties of a well-shapen'd Man: As whether the Walls stand upright upon clean Footing and Foundation: Whether the Fabrick be of a beautiful Stature: Whether for the Breadth it appear well burnished: Whether the principal Entrance be on the middle Line of the Front or Face, like our Mouths: Whether the Windows, as our Eyes, be

* De Nugis Curial, &c.

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set in equal number and distance on both Sides; whether the Offices, like the Veins in our Bodies, be usefully distributed, and so forth: For this Allegorical Review may be driven as far as any Wit will, that is at leisure.

The second Way is in *Vitruvius* himself, *Lib. 1. Cap. 2.* where he summarily determineth six Considerations, which accomplish this whole Art:

- | | |
|--------------------|---------------------|
| <i>Ordinatio.</i> | <i>Symmetria.</i> |
| <i>Dispositio.</i> | <i>Decor, and</i> |
| <i>Eurythmia.</i> | <i>Distributio.</i> |

Whereof (in my conceit) we may spare him the first two; for as far as I can perceive, either by his Interpreters, or by his own Text (which in that very Place, where perchance he should be clearest, is of all other the cloudiest) he meaneth nothing by *Ordination*, but a well settling of the *Model* or *Scale* of the whole *Work*: Nor by *Disposition*, more than a neat and full Expression of the first Idea or Designment thereof; which, perchance, do more belong to the *Artificer*, than to the *Censurer*. The other four are enough to condemn, or absolve any *Fabrick* whatsoever. Whereof *Eurythmia* is that agreeable Harmony between the Breadth, Length, and Height of all the Rooms of the *Fabrick*, which suddenly, where it is, taketh every Beholder, by the secret Power of Proportion: Wherein let me note this, That though the least Error or Offence, that can be committed against Sight, is Excess of Height; yet that Fault is no where of small Importance, because it is the greatest Offence against the Purse.

Symmetria, is the Conveniency that runneth between the Parts and the Whole, whereof I have formerly spoken.

Decor, is the keeping of a due Respect between the Inhabitant and the Habitation. Whence *Palladius* did conclude, that the principal Entrance was never to be regulated by any certain Dimensions, but by the Dignity of the Master; yet to exceed rather in the *More*, than in the *Less*, is a Mark of Generosity, and may always be excused with some noble Emblem, or Inscription, as that of the *Conte di Bevilacqua*, over his large Gate at *Verona*; where, perchance, had been committed a little Disproportion.

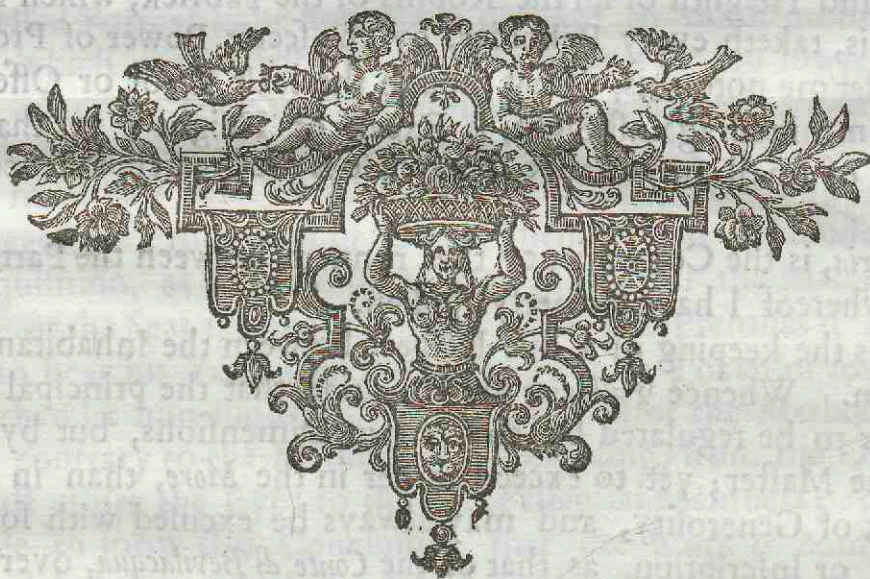
Patet Janua: Cor magis.

And here likewise I must remember our ever memorable Sir *Philip Sidney* (whose Wit was in truth the very Rule of Congruity) who well knowing that *Basilus* (as he had painted the State of his Mind) did rather want some extraordinary Forms to entertain his Fancy, than Room for Courtiers, was contented to place him in a Star-like Lodge; which otherwise, in severe Judgment of Art, had been an incommodious Figure.

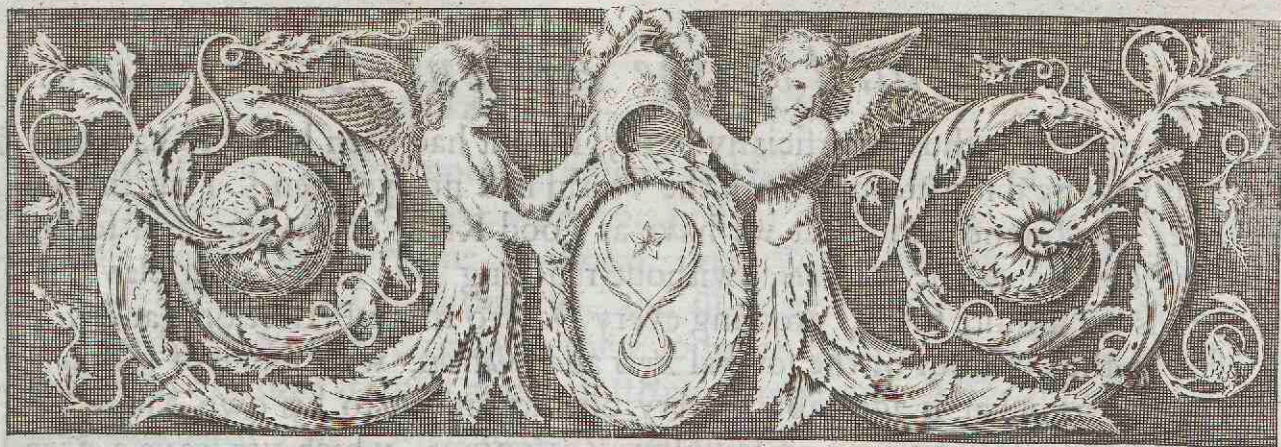
Distributio, is that useful casting of all Rooms for *Office*, *Entertainment*, or *Pleasure*, which I have handled before at more length than any other Piece.

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These are the four Heads which every Man should run over, before he pass any determinate Censure on the Works that he shall view; where-with I will close this last Part, touching *Ornaments*. Against which (methinks) I hear an Objection, even from some well-meaning Man, That these delightful Crafts may be diverse Ways ill applied in a Land. I must confess, indeed, there may be a lascivious, and there may be likewise a superstitious Use, both of *Picture*, and of *Sculpture*: To which Possibility of Misapplication, not only these Semi-liberal Arts are subject, but even the highest Perfections, and Endowments of Nature: As *Beauty* in a light Woman; *Eloquence* in a mutinous Man; *Resolution* in an Assassin; prudent *Observation* of Hours and Humours in a corrupt Courtier; *Sharpness* of Wit and Argument in a seducing Scholar, and the like. Nay, finally, let me ask, What Art can be more pernicious, than even *Religion* itself, if itself be converted into an Instrument of Art? Therefore, *Ab abuti ad non uti, negatur consequentia.*



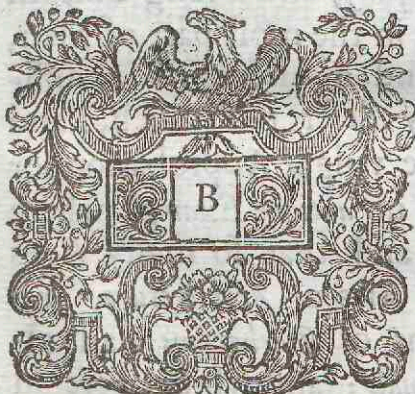
A P A R-



A
P A R A L L E L
 OF THE
ANCIENT ARCHITECTURE
 WITH THE
M O D E R N.

The P R E F A C E.

READER,



BEFORE I do altogether resign this *Book* to thy Judgment, I advertise thee, that 'twas not my Design in compiling it to teach any Man, much less yet to satisfy those *Critical Spirits* which the World so much abounds with: Nor is the Publick at all beholden to me; I have no Thought of obliging it, an envious, and evil Judge: In a Word, being nothing inclin'd to give them Satisfaction, I have easily gratified my Labour with the desired

Success. My principal Drift was, First, to satisfy myself; nor has it cost me much Trouble; though we sometimes find certain Humours that are more averse, and difficult to themselves, than they would prove to others: For my part, I do not so use to treat myself: We have Enemies enough besides; and whatever I were able to do, I expect that Men should presently say of me, all that Jealousy does commonly suggest in reproach of Novelty: That being no *Artisan*, it did not become me to prescribe to others the Rules of their *Mystery*: That I teach nothing particular and extraordinary here: That the *Books* from whence I have gather'd all that I say, being common, and much ampler than mine, there was no need to have

B scumm'd

2 *A Parallel of the Ancient Architecture*

scumm'd them thus superficially over; That it had been better to have search'd, and produc'd something which the World had not yet seen: That the Mind is free, not bound, and that we have as good Right to invent, and follow our own *Genius*, as the *Ancients*, without rendring our selves their Slaves; since *Art* is an infinite thing, growing every Day to more Perfection, and suiting it self to the Humour of the several *Ages* and *Nations*, who judge of it differently, and define what is agreeable, every one according to his own Mode, with a world of such like vain and frivolous Reasonings, which yet leave a deep Impression on the Minds of certain half-knowing People, whom the Practice of *Arts* has not yet disabus'd; and on simple *Workmen*, whose *Trade* dwells all upon their Fingers Ends only: But we shall not appeal to such *Arbiters* as these. There are others to be found (though truly very rarely) that having their first Studies well founded on the *Principles* of *Geometry* before they adventur'd to work, do afterward easily, and with Assurance arrive to the Knowledge of the Perfection of the *Art*. It is to such only that I address my self, and to whom I willingly communicate the Thoughts which I have had of separating in two Branches the *Five Orders* of *Architecture*, and forming a *Body*, a part of the *Three* which are deriv'd to us from the *Greeks*; to wit, the *Dorick*, *Ionick*, and the *Corinthian*, which one may with Reason call the very Flower and Perfection of the *Orders*; since they not only contain whatsoever is excellent, but likewise all that is necessary of *Architecture*; there being but three Manners of *Building*, the *Solid*, the *Mean*, and the *Delicate*; all of them accurately express'd in these three *Orders* here, that have therefore no need of the other two (*Tuscan* and *Composite*) which being purely of *Latin* Extraction, and but Foreigners in respect to them, seem as it were of another *Species*; so as being mingled, they do never well together, as those to whom I discourse will soon perceive, when they shall have once put off a certain blind Respect and Reverence, which *Antiquity*, and a long Custom (even of the greatest Abuses) does commonly imprint in the most part of Men, whose Judgments they so pre-occupate, that they find it afterwards a difficult matter to undeceive themselves; because they defer too much, and hardly dare to examine what has been receiv'd by the vulgar Approbation for so long a time: Let them but consider, that we find no *antique Example* where the *Greek Orders* are employ'd amongst the *Latin*, and that so many Ages of Ignorance have pass'd over us, especially in the Arts of *Architecture*, and *Painting*, which the War, and frequent Inundations of *Barbarians* had almost extinguish'd in the very Country of their *Originals*; and which were in a manner new born again but a few Years since, when those great Modern *Masters*, *Michael Angelo*, and *Raphael*, did, as it were, raise them from the Sepulchers of their ancient Ruins, under which these poor *Sciences* lay buried; and I shall have fair Hopes of their Conversion, and to see them of my Opinion. It is the very least of my Thoughts to broach *Novelties*: On the contrary, I would (were it possible) ascend even to the very Source of the *Orders* themselves, and derive from thence the *Images*, and pure *Ideas* of these incomparable *Masters*, who were indeed their first *Inventors*, and be instructed from their own Mouths; since doubtless the farther Men have wander'd from their *Principles*, transplanting them as it were into a strange Soil,

Soil, the more they are become degenerate, and scarce cognoscible to their very *Authors*. For to say Truth, have we at this present any Reason in the World to call those *Three* by the Name of *Orders*, viz. *Dorick*, *Ionick* and *Corinthian*, which we daily behold so disfigured, and ill treated by the *Workmen* of this Age? To speak seriously, remains there so much as a simple *Member*, which has not receiv'd some strange and monstrous Alteration? Nay, things are arriv'd to that pass, that a Man shall hardly find an *Architect* who disdains not to follow the best and most approved *Examples* of *Antiquity*. Every Man will now forsooth compose after his own Fancy, and conceives, that to imitate *Them*, were to become an *Apprentice* again; and that to be *Masters* indeed, they must of necessity produce something of New: Poor Men that they are, to believe that in fantastically Designing some one kind of particular *Cornice*, or like *Member*, they are presently the *Inventors* of a New Order, as if in that only consisted what is call'd *Invention*; as if the *Pantheon*, that same stupendious and incomparable Structure which is yet to be seen at *Rome*, were not the *Invention* of the *Architect* who built it, because he has vary'd nothing from the *Corinthian Order*, of which it is intirely compos'd? 'Tis not in the *Retail* of the *minuter Portions*, that the Talent of an *Architect* appears: This is to be judg'd from the general Distribution of the *Whole Work*. These low and reptile *Souls*, who never arrive to the universal Knowledge of the *Art*, and embrace her in all her Dimensions, are constrain'd to stop there for want of Abilities, incessantly crawling after these poor little Things; and as their *Studies* have no other Objects, being already empty and barren of themselves; their *Ideas* are so base and miserable, that they produce nothing save *Mascarons*, wretched *Cartouches*, and the like idle and impertinent *Grotesque*, with which they have even infected all our *Modern Architecture*. As for those others to whom Nature has been more propitious, who are indu'd with a clearer Imagination, they very well perceive that the true and essential Beauty of *Architecture* consists not simply in the minute Separation of every Member *apart*; but does rather principally result from the *Symmetry* and *Oeconomy* of the *Whole*, which is the Union and Concourse of them all together, producing as it were a visible Harmony and Consent, which those Eyes that are clear'd and enlightened by the real Intelligence of *Art*, contemplate and behold with Excess of Delectation. The Misery is, that these noble *Genius's* are in very small Numbers, whereas the vulgar *Workmen*, like to *Ants*, swarm prodigiously in all Places. Would but our *Grandees* once devest themselves of that Prejudice and Disdain which they conceive of the *Arts*, and of those who apply themselves unto them, and but consider the Necessity which they, above all others, particularly have of this of *Architecture*, there would be great Hopes we should yet see them re-flourish, and be born again as 'twere from *New* to *Antique*. We have had fresh Experience of this under the *Reign* of *Francis* the First, one of the most *Illustrious Princes* that *History* has recorded; and who from an Affection extraordinary which he bore to *Virtue* and great *Attempts*, Peopled his *State* with *Persons* the most Rare and Accomplish'd of the Age wherein he liv'd, who erected those glorious *Monuments* to the Memory of this incomparable *Monarch*. It is, in my Opinion, the only Expedient to re-establish all the *Arts* in that primitive Splendor from

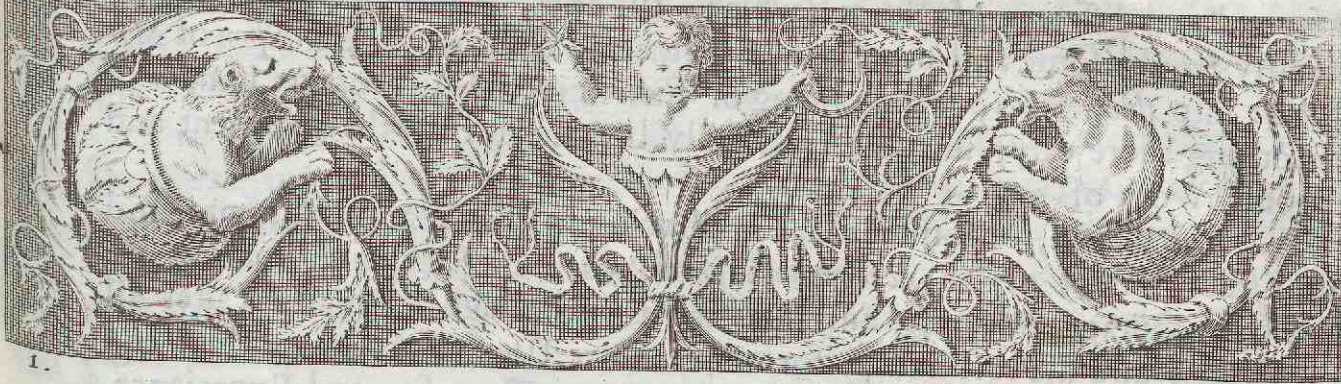
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from whence this unworthy Neglect has precipitated them. The *Greeks* who were the first Inventors of them, and with whom alone they happily arriv'd to their supreamest Perfection, preserv'd them in so high Esteem amongst them, that the *Greatest Personages* of their *Common-wealths* were not ashamed to make open Profession of them, but after a manner nothing *Mercenary*. Their Works were pay'd with Honour; and as they propos'd to themselves the Glory only, and Immortality of their *Name* for Recompence; so, nor did they make any thing save what was truly Great and Magnificent. It would appear incredulous, to relate only what we read of this *Nation*, were not the Credit of their *Ancestors* altogether irreproachable, and that there did not remain, even to this very Day, the most visible Marks of what is reported. There is not in the whole *Universe* any thing worthy of Renown, which that *Divine Country* did not once produce in its height of Excellency. Those great *Captains*, so many *Philosophers* of all Sects, *Poets*, *Orators*, *Geometricians*, *Painters*, *Sculptors*, *Architects*, and in sum, whatsoever hath stamp'd on it the Character of *Virtue*, proceeded first from thence. Would we now do worthily? Let us not then forsake the Paths which these excellent Guides have trac'd before us; but pursue their Footsteps, and generously avow, that the few gallant things which have yet reached down to us, are due only as deriv'd from them. This is the *Subject* that has invited me to assemble and begin this *Collection* by the *Greek Orders*, which I had first drawn out of *Antiquity* her self, before I so much as examined the Writings of our *Modern Authors*. For even the very best *Books* extant on this *Argument*, are the *Works* of these old *Masters*, which remain to this Day, and whose Beauty is so perfect, and so universally receiv'd, as has for almost two thousand Years been admired by the whole World. It is to them we should repair, to learn to accustom the Eyes, and to conform the Imagination of Young Men to the *Ideas* of those excellent *Spirits*, who being born in the midst of the Light and Serenity of the Fairest *Climate* under Heaven, were so Defecate and Inlightened, that they discern'd those things as 'twere naturally, which we discover with so much Pain, after a long and laborious In-dagation. I know 'tis for every one to esteem what pleases him best in the mix'd *Arts*, such as is *this*, whose *Principles* being solely founded upon *Observation*, and the Authority of *Examples*, can challenge no precise *Demonstration*; and therefore I shall make bold to assume the same Priviledge which I leave to others, of judging according to their Fancy: For my part, I find so excellent and particular a Beauty in the three *Greek Orders*, that I am hardly at all concern'd with the other *two* of the *Latin* in Comparison; and the Station which has been assign'd them, sufficiently demonstrates that there was no Place for them, but after all the rest, as if indeed they had been refus'd by them both: The Rusticity and Meanness of the *Tuscan* having exiled it from the *Cities*, has sent it to the *Country Cottages*; and as unworthy of entering into *Temples* and *Palaces*, 'tis become the very last, as even destitute of Employment: For the *other*, which would pretend to exceed, and refine upon the *Corinthian*, and what they name the *Composite*, 'tis in my Apprehension yet more irrational, and truly, methinks, altogether unworthy to be call'd an *Order*, as having been the Source of all that Confusion

sion which has been brought into *Architecture*, since *Workmen* have taken the Liberty to dispense with *those* which the *Ancients* had prescrib'd us, to *engothish* (as one may say) after their own capricious Humour, an infinite Number, which do all pass under this Appellation. Honest *Vitruvius* in his Time well foresaw the ill Consequence which those of the *Profession* would introduce out of their Love of *Novelty*, which already began it seems to incline them to *Libertinism*, and the Disdain of the *Rules* of that *Art*, which ought to remain most Sacred and Inviolable: so that we must look on this as on a Grey-headed Evil, which grows worse and worse daily, and is become now almost incurable. Notwithstanding, would our modern *Architects* but yet fix any Limits to the Freedom they have taken, and keep themselves within the Precincts of the *Roman Order*, which is the legitimate and true *Composite*, and which has likewise its *Canons* and *Rules* as well as the rest, I should find no Cause of Complaint, since we see Instances of it among the *Vestigia*, and Footsteps of the most flourishing Ages; as in particular, that of *Titus Vespasianus*, to whom the *Senate* (after the Sack of *Jerusalem*) erected a most magnificent *Arch Triumphant*, composed of this *Order*: But then it should never be employ'd without mature Advice, and always alone by itself; for so we find the *Inventors* of this *Order* used it, who well knowing its Defects (compar'd with the rest) did ever forbear to *paragon* them together: But our *Architects* never entering into this Consideration, have fallen into an *Error* which admits of no Excuse, by forcing the Weaker to support the Stronger. *Scamozzi* is the first that has spoken of this in his *Treatise* of the five *Orders*, where he assigns to the *Corinthian* the most eminent Place: However, to avoid all Contest, I find it safest, never to mix them together at any Time, seeing it was never practis'd by the *Ancients*; though *Philibert de Lorme*, and *Sebastian Serlio*, fancy to have both of them seen it in the *Coliseum*, and produce likewise a *Design* for an *Example* of their *Composed Order*. But believe it, the Observation is very erroneous; for they are indeed two *Corinthians*, the one over the other: And albeit in the uppermost, which forms the *Corona* of this great *Coloss* of Building, the *Cornice* resembles not the other, as being very particular; yet are the *Capitals* for all that of the same *Order*, as *Scamozzi* has not forgotten to observe. This may therefore suffice to advertise us, not lightly to credit what is deliver'd to us out of *Books*, when we have the Opportunity of repairing to the *Fountain*, and to be satisfied of the Truth from thence: For having oftentimes diligently examined the *Designs* of sundry *Masters*, on the same Subject, and made an exact Calculation of the *Measures* which they establish; we seldom find them to agree amongst themselves, notwithstanding that all of them profess to have accurately observ'd them. But that we may wound no Man's Reputation, since every one does the best he is able, and that we have ever some Obligation to those who have so freely imparted their Labours to us, I will forbear to exemplify. Let it suffice to have given you this *Caution*: Those who shall be so curious as to try, and which will, I assure them, be no fruitless Attempt, shall soon find Difficulty enough in the extraordinary Confusion of the different Manners of those *Architects*, who instead of Working upon the Account of the *Models*

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of *Columns* (which is the most natural *Method*, and particularly affected to the *Proportions* of *Architecture*) amuse us with *Palms*, *Feet*, and other general *Measures*, as meer *Masons* would do, which so confounds the *Imagination*, that 'tis extream difficult to disentangle one's self out of them, and costs a world of *Time* e'er one comes at last to reduce and apply them to the *Scale* of the *Model*; without which, all their *Industry* becomes fruitless, and to no *Purpose*. To this I have principally endeavoured to apply a timely *Remedy*, reducing all the *Designs* of this *Treatise* to one *Common Model*, namely, to the *Semidiameter* of the *Column* divided into thirty *Minutes*, that so I may approach the *precise Measures* as near as is possible. There are haply some *Workmen* who upon the sudden will not approve of it, as being not accustomed to so exact an *Examen* of the *Particulars* which concern their *Employment*: However, to prevent their *Censure*, I shall refer them to the *Writings* of *Andrea Palladio*, and *Scamozzi*, two of the greatest *Masters* which we have of the *Profession*; who in their *Treatises* of the *five Orders*, taking the entire *Diameter* for *Model*, have assigned it no less than *Sixty Minutes*; which yet they frequently subdivide into *Halves*, *Thirds*, and *Fourths*, according as they conceive it necessary, and as will appear in this *Collection*, where I have punctually reported their *Designs*, parallel'd one with the other by a *Method* so perspicuous, that one may instantly perceive both in *what*, and *how much* they differ among themselves: so that by help of this *Comparison*, every Man has the *Liberty* of pleasing his own *Fancy*, and following whether of the *Authors* I propose, as being all of them within the common *Approbation*. But to the end we may proceed solidly, and make a judicious *Election*, it will first be requisite to be throughly instructed in the *Principles* of *Architecture*, and to have applied our *Studies* to *Antiquities*, which are the very *Maxims* and *Rules* of this *Art*: Not as if generally the *Ancients* were to be imitated indifferently; on the contrary, there are but very few of *them* good, and an infinite Number of them bad, which is *that* has produced this confused *Variety* amongst our *Authors*, who treating of the *Orders*, and their *Measures*, have differed so strangely from one another. It is therefore undoubtedly the safest *Way* to have *Access* to the *Sources* themselves, and to follow precisely the *Models* and *Proportions* of such ancient *Structures* as have the *Universal Consent* and *Approbation* of those of the *Profession*. Such *Examples* we have at *Rome* in the *Theatre* of *Marcellus*, the *Temple* of the *Rotunda*, the three *Columns* near the *Capitol*, and some others of this sort, whose several *Profiles* I shall produce on every of the *Orders*, and after them, those of our more *Modern Architects*; that so in confronting them to these glorious *Examples*, which are the *Originals* of the *Art*, they may, as to an impartial *Touchstone*, have recourse to *them* for the *Trial* and *Examination* of their *Works*, as I myself have done with extraordinary *Satisfaction* in compiling of this present *Treatise*, and which every one may do as well as I, and at a far less *Expence*, by all that *Time* I have spent in opening and preparing for them the *Way*. This is, *Reader*, what I thought fitting to inform *Thee* of concerning my *Labour*, to the End thou mayest have a sincere and judicious *Estimation* of it.



ADVERTISEMENT

CONCERNING THIS

EDITION.

IN revising the *Parallel*, and preparing it for a New Impression, I once had Thoughts of subjoining the exact and critical Measures of Monsieur de Gaudete; who reckoning from the Diameter of the *Base of the Column*, divided into Sixty equal Parts, on two *Models*, subdivides every Part so minutely, and those Parts and Subdivisions again into yet lesser Parts, that upon so very nice and scrupulous an Examination of not only the several more *Essential Members*; but even of the lesser *Accessaries* of all the *Greek Orders* yet extant, and of undeniable Antiquity (which the most Skilful and Famous of our Modern *Architects* have taken their Measures from, and proposed for their Examples) he seems to call for, and exact a *New Account* of all that has hitherto been done. This falling chiefly on *Palladio*, *Serlio*, and the rest, I think myself concerned only for Monsieur de *Cambray*, Author of this Excellent Work. Not that I esteem those Scruples, and hardly, if at all to be discerned Exceptions mentioned in their Places, to be very material, considering the Modest Liberty which has frequently been taken by even the Ancients themselves upon Occasion; but to take off the Prejudice which some haply may conceive, who might otherwise think them of more Importance than perhaps they really are; especially since, beside many other, we have the Suffrage of that able and knowing *Architect*, the late Monsieur *Blouel*; who in his *Recension* of the most Famous *Architects*, *Ancient and Modern*, has this Passage, speaking of the *Parallel*, “ That most Incomparable and Judicious Work, says he, of Monsieur de
 “ *Chambray* I can never sufficiently commend, filled and enriched as it is
 “ with a Thousand learned and judicious Remarks: Having compared the
 “ several Manners of the Chief and Principal of our Modern *Architects* one
 “ with the other, and assigned them their respective *Classes*; that which
 “ is of infinite Advantage, is also his having reduced all their heretofore
 “ several

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“ several and different Measures (which, ’till now, render’d them so exceedingly troublesome and perplexing) to *one* and the *same single Division* of *Modules* into *thirty Parts*; which being of such universal Advantage, I know of nothing more easy, useful, and highly beneficial, than that excellent and noble Work of his.

’Tis true indeed, Monsieur Colbert, having in the Year 1674, procur’d the Establishment of an *Academy* for *Architecture* in *Paris*, and sparing no Cost to encourage, advance, and carry it on to the highest Pinnacle (after all that *Palladio* and the rest had perform’d of more Use and Accuracy than had ever yet been done; and by their Instructions, Travels, and Experience, publish’d and approv’d of with such Applause) to send *Des Godetz*, a Student in the *Academy*, with other Artists, to *Rome*, to perfect and improve themselves in *Architecture*, *Painting* and *Sculpture*, subservient to it; where he made a more exact and nice *Research* among the *Antiquities* of that City, re-measuring and recalling to a new *Calculation* what had been before so often done; and bringing back his new Designs, with the Admeasurements, and a Precision so delicate, and even to a *Hair’s breadth*, as they say, so scrupulously nice, as reaches not only to single *Feet*, *Inches* and *Lines* alone, but even to the minutest *Part* of a *Part* of a *Line*, curiously engraven at the *French King’s* Charge, and pompously set forth under the *Title* of the *Ancient Buildings of Rome*, with Discourses upon them.

But now, whether after all this critical and elaborate Scrutiny, they amount to any considerable Advantage in the main, is left to the Judicious, and those who shall think it worth the while to examine and collate them with the *Plates* and *Figures*, where one shall meet several other Designs and Descriptions of ancient Buildings, besides what are extant at *Rome*, perform’d, as to the Graving Part, with extraordinary Accuracy by the *Burines* of *Marot*, *Le Cler*, *Boissiere*, *Chastillon*, *Pautus*, *Guerard*, *Bonart*, *Tournier*, &c. all of them incomparable Artists, and of *Paris* alone, where they abound with excellent *Gravers*; whilst our whole Nation hardly affords us *One* comparable to any I have named, or indeed, that’s almost tolerable.

This I mention to stir up an *Emulation*, and, if possible, to encourage our Country-Men, whose *Genius* may lead them to so laudable a Quality and Address, by applying themselves more seriously to it: And that we may not for ever be out-done by the *French* and *Dutch*, to the Reproach of those shameless Bunglers of ours, who daily disgrace so noble and ingenious an Art with their wretched *Sculps* of *Frontispieces*, lame *Figures*, *Landskips* and *Prospects*, without *Design*, *Symmetry*, or any regard to *Perspective*.

One thing more I cannot but applaud before I have done with Monsieur *Des Godetz*, which is this; That whereas other *Architects* have generally represented those venerable and famous *Ruines* of the Ancients as entire as when first erected, or rather such as they fancied them before their Demolition (when all this while there perhaps remains not standing above two or three *Columns*, broken *Capitols*, *Busts*, *Bates*, *Cornices*, and other miserable Fragments of collapsed *Temples*, *Theatres*, *Aqueducts*, *Amphitheatres*, *Triumphal Arches*, &c. and other heretofore glorious Structures) Monsieur *Des Godetz* has design’d and given us them as they are at present, or with very little Restoration, unless

where

with the Modern. 9

where some principal Member was defective in the *Foliage* or *Voluta* of a *Capital*, &c. whilst what remained sound and entire, left no Occasion of doubting, that what he supplied was really the same when perfect.

That yet our *Parallel* may not suffer through any material Oversight, where *Des Godetz* more finished *Researches* may in any Sort contribute to its Perfection, I have not spared the giving notice of them, that when our Workmen shall well consider of how small Importance the Particulars consist, and how easily reformed where necessary, they may proceed, and with the more Courage and Assurance rely upon our *Parallel*.

This Admonition, together with what of my own may attend it, I leave, out of the great *Affection* as well as the *Relation* I have to the Prosperity of that *August* and truly *Glorious Foundation*, which is now erected at *Greenwich*, to be a standing Seminary for the Supply, Entertainment, Relief, and Encouragement of *emerited* and *deserving Seamen*, next under *God alone*, the *Guardians* and *Protection* of these *Dominions*.

NON NOBIS SOLUM NATI SUMUS: SED PARTIM PATRIÆ.

EXCEPTIONS.

M. Des Gaudetz.

M. De Chambray.

Page	Plate	Page	Plate
28 29	— VIII —	66	67 Portico of the Pantheon.
31 32	— IX —	As before	—
55 56	— XX —	84 85	Altar of the Pantheon.
101 102	— IX —	38	39 Fortuna Virilis.
148 149 & 150	— III —	68	69 Torre di Nerone.
182 183	— IV 2 —	124 125	125 Arch of Titus.
184 185	— V —	16	17 Altar of Marcellus.
294 295	— III —	As before	—
296 297	— IV —	40	41 The same.
298 299	— V —		

OBSERVATIONS.

As to the *Measures*; Would one in earnest think it much worth the Pains, or to any great Prejudice of Monsieur de Chambray, that some few Members and *Membretti*, were by a 20th Part, and 25th Part of a Part too high or too low? A 19th Part and 24th Part of a Part too narrow or broad? Or eleven 36th Parts of a Part too long or too short? A *Projecture* too far *Salian* by 1 1/2. The *Gutta* under a *Triglyph* too broad by 1 1/2 Parts of a Part? That an *Astragal* beneath the Eggs, was too low by 1 1/2 Parts of a Part? or that among the *Ornaments* and *Accessories*, a plain *Water Leaf* was put instead

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instead of an indented one? That in a *Chaplet*, the *Beads* did not fall exactly under the *Eggs*, with *Darts* between the *Foliage*, where other *Leaves* should have been carved? *Acanthus* in a *Capital*, instead of *Olive* or *Parsley*, and a small slender *Caulicle*, between the larger *Foliage* of a *composite Capital*? Making the *Hollow* of the *Voluta* plain, and without *Ornament*; and embellishing the *Edges* of another with a *Fret*? Sticking a *Rose* in the *Middle* of the *Plinth*? A *Cyma Recta* in Place of an *Ovolo*? Extending the *List* with a *Return* above the *Architrave*, and over the *Triglyphs*, which should be even and straight; and the upper Part of the half *Channel Chamfer'd*, &c.

Such in Truth, and the like, are frequently the *Minutiae* and *Animadversions* so nicely insisted on (though I do not say there are none more material) but whether worth his travelling so far, and suffering so much to bring Home, after his being redeemed from the *barbarous Pyrates* and *Corfairs* (into whose Hands he fell at his Return) I leave to others. What his *Observations* and *Exceptions* are on those of *Palladio*, *Serlio* and their *Companions* in the *Parallel*, I am not much solicitous about; since the *curious* may consult and confront the *Designs* and *Plates* themselves. Those in the mean time, which concern *Monfieur De Chambray* (not exceeding a *Dozen*) would have been less chargeable to have been added by the *Book seller* than by the *Buyer*: But he despairing to meet with any tolerable *Graver* among us (capable of approaching those whom *Monfieur Des Gaudetz* employed) I could not impose it on him: Nor was it thought of so great Importance, considering, as already noted, the modest *Liberty* which it is known has now and then been taken, even by the *Ancients* themselves. Let therefore our *Students* in *Architecture*, and *industrious Workmen* proceed with good *Assurance*, that following the *Author* of our *Parallel*, they copy after an excellent and approved *Master*.



PART



P A R T I.

CHAP. I.

Of the ORDERS in General.

IT is sufficiently difficult to determine precisely what the Name of *Order* may signify amongst our *Architects*, though it be indeed very necessary to understand it well. Of all the *Moderns* who have written upon the *Five Orders*, there is none, save *Scamozzi*, who has once remembered to give us the Definition; and it is in the 1st Chapter of his *second Part*, Line 42. where he saith, That it is a kind of Excellency which infinitely adds to the Shape and Beauty of Buildings, *sacred or prophane*. But in my Opinion, he had even as good have held his Peace, as the rest have done, as to have spoken in such wandering Terms, and with so little Solidity. The Father *Virtruvius* in C. 2. L. 1. calls it *Ordonance*, and the Term is at present in huge Vogue amongst our *Painters*: When they would express the elegant Composition of a *Piece*, or the Distribution of *Figures* in a *History*, they say, that the *Ordonance* is good: Notwithstanding, this is not yet exactly the Intention of *Architects*; and *Vitruvius*, in Pain to express it to us, adds, That it is an apt, and regular Disposition of the Members of a Work separately; and a Comparison of the universal Proportion with Symmetry. *Perault* translates it, An apt and regular Disposition of the Members of a Work separately, with respect to the Proportion or Symmetry of the whole. Another, peradventure more subtile and penetrant than I am, might find out the Mystery of these Words, which I confess I comprehend not; and therefore it is, that I have translated them purely from the *Latin Text* Word for Word, that I may the more naturally propose them to those who shall desire to profit by them. *Daniel Barbaro*, who hath given us two excellent *Commentaries* upon this *Author*, has been very industrious to clear this Passage, which yet is not without some Difficulty. *Philander*, on the same Chapter, found out a shorter Way, to say nothing at all, and amuses himself upon other Matters far more unnecessary: So that to get out of this *Labyrinth*, we must even take it in Pieces, and consider the Things apart; that so it may, as it were, touch our *Imagination*, and distinctly form its *Ideas* in us, which is the Business we are to enquire after: For the *Art of Architecture* does not consist in *Words*; the *Demonstration* ought to be sensible and ocular. It is very perspicuous to all those

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those of this *Mystery*, that the principal Piece of an *Order* is the *Column*, and that its *Entablature* being once placed on the *Capital*, produces the entire *Composition*. If therefore we will define it exactly, and give the most express Meaning of it, we must, as it were, make a very *Anatomy* of the *Parts*, and say, that the *Column*, with its *Base*, and *Chapiter*, crowned with an *Architrave*, *Frize* and *Cornice*, forms that kind of *Building* which Men call an *Order*; seeing all these individual *Parts* do generally encounter, and are found through all the *Orders*; the Difference amongst them consisting in no other Particular, than in the Proportion of those *Parts*, and the Figure of their *Capitals*. They have yet indeed some peculiar *Ornaments*, as *Triglyphs*, the *Dorick*; *Dentelli*, or *Teeth*, the *Ionick*; and the *Corinthian* her *Modillions*: But they are none of them of so general and indispensable Obligation, but that even the most regular of the *Ancients* themselves have, upon some Considerations, frequently dispensed with them. For *Ornaments* are but *Accessories* in the *Orders*, and may be diversly introduced as *Occasion* requires; principally in that of the *Corinthian*, where *Artists* being to represent an effeminate and virginal Beauty (as we may easily deduce from what *Vitruvius* has recounted to us of *Callimachus*, *Chap. 1. Book 4.*) ought to omit nothing which may contribute to the Perfection and Embellishment of the *Work*: And the *Ancients* have prescribed us so many Examples of this *Order*, in which they have been so profuse and luxurious in *Ornaments*, that one would swear, they had drawn their *Imagination* quite dry to crown this *Master-piece* of *Architecture*. But it is not with the other *Orders* after this sort, where there is a more masculine Beauty required; especially in the *Dorick*, the *Solidity* whereof is totally repugnant to the *Delicateness* of these *Ornaments*; since it succeeds so much better in the plain and simple *Regularity* of its *Proportions*. *Garlands* and *Posies* suit not with *Hercules*; he is best adorned with a *Rough-hewn* and *massy Club*: For there are *Beauties* of several *Kinds*, and those oftentimes so unlike, as what is agreeable to the *one*, is quite contrary to the *other*. As for the *Ionick Order*, it is, as it were, in the Middle of the two *Extreams*, holding in a *Manner* the *Balance* betwixt the *Dorick Solidity* and *Genteelness* of the *Corinthian*; for which Reason we find it diversely employed in ancient *Buildings*, simple and plain, according to the *Genius* of the *Architect*, or *Quality* of the *Structure*. So as these *three Orders* may very well furnish all the *Manners* of *Building*, without being at all obliged to have Recourse to the *Tuscan Order*, or that which is *composed*; both which I have therefore expressly reserved for the *Conclusion* of this *Treatise*, and separated from the rest, as in *Truth* but *Supernumeraries* and almost *inutile*. For the *Excellency* and *Perfection* of an *Art* consists not in the *Multiplicity* of her *Principles*; but contrarily, the more simple they are and few in *Number*, the more worthy they are of our *Admiration*. This we see manifested in those of *Geometry*, which is in *Truth* the very *Foundation* and *universal Magazine* of all those *Arts* from whence *this* has been extracted, and without whose *Aid* it were impossible it should subsist. Well therefore may we conclude, that the *Orders* being no other than the very *Elements* of *Architecture*, and these *three first*, which we have deduced from the *Greeks*, comprehending all the *Species* of *Building*; it were but a *superfluous thing* we should pretend to augment their *Number*.

C H A P. II.

Of the DORICK Order.

IT is no small Advantage for the *Dorick Order*, to demonstrate that it has been the very first regular *Idea of Architecture*; and that, as the First-born and Heir of this *Queen of Arts*, it has had the Honour also to have been the first Builder both of *Temples* and *Palaces*.

The Antiquity of its Original, according to all those who have written thereof, is, in a manner, immemorial; notwithstanding *Vitruvius* refers it, and that with sufficient Appearance, to a Prince of *Achaia*, named *Dorus*, who being Sovereign of *Peloponnesus*, built in the famous City of *Argos* a magnificent *Temple* to the Goddess *Juno*, which was the very first *Model* of this *Order*: In Imitation whereof, the neighbouring People erected diverse others; amongst which, the most renowned was that which the Inhabitants of the City *Olympia* dedicated to *Jupiter*, whom they surnamed *Olympicus*. The Island of *Delos* built another very famous one to the God *Apollo*, in Memory of his Birth in that Place, and of whom there are to this Day some *Vestigia* remaining. And in this it was that the first *Triglyphs* were made in the Form which we now behold them, representing the Figure of an antique *Lyre*, of which Instrument this *God* had been the Inventor. In *Elis*, a City of the same Country, there were diverse memorable *Fabricks*, consisting all of this *Order*, whereof the principal were a large *Peristyle*, or *Porch*, serving for a publick Place, having about it a triple Range of *Portico's* built on Columns, and three magnificent *Temples*, as *Pausanias* in his fifth Book makes mention; the one consecrated to the Goddess *Juno*, environed with huge marble Pillars; the other to *Dindymene*, the Mother of the Gods; and a third to *Minerva*, which bore the Name of their City: And this last was without doubt a most incomparable Master-piece, having been built by the famous *Scopas*, Competitor with *Praxiteles* in the Structure of that stupendious *Mausoleum*, which the Queen *Artemisia* erected in Memory of her Husband. In his Preface to the seventh Book, *Vitruvius* makes mention of others, amongst which he celebrates those of *Ceres* and *Proserpine* in the City of *Eleusis*, as a Work of prodigious Grandeur. But it would be but unprofitable for us to make any further Disquisition concerning these Edifices, since those who have treated of them, have left us no particular Remarks touching their Form, from whence we might derive any thing of Advantage for our Imitation. They talk much also of the Names of many great *Architects* of this Age, who themselves writ the *Rules* of their Profession, amongst whom, one named *Silenus*, had generally treated of the *Dorick Proportion*; and a certain *Theodorus* made the Description of a *Temple* of the same *Order*, erected to the Goddess

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Juno by the Inhabitants of the Isle of *Samos*, with sundry others mentioned in the same Place, whose Books and Works are not now to be found; so that after the loss of so many incomparable *Authors*, who were the very Source and Fountain of the *Art* whence we might at present extract the Purity of its *Original*, we must of Necessity content ourselves with the Observations and Conjectures which the *Moderns* have made upon certain Tracks and Footsteps of *Antiquity*, which in this Conjunction serve us instead of *Books*, and wherein all those *Masters*, which I have here assembled, as to an *Oecumenical* and General Council of *Architecture*, have finished and performed their Studies.

But for as much as naturally every Man abounds in his own Sense, and dresses up a Beauty after his particular Mode, I conceived it expedient from the Designs which they have left us for *Rules*, to have continual recourse to the *Ancients*, as to the best and most invariable *Compass* which we can possibly steer by; amongst whom we shall find sufficient Variety reasonably to satisfy the *Gust* of such as are desirous of Choice. And for this purpose, I shall upon every *Order* exhibit two or three *Examples* drawn from the *Originals* themselves, and very accurately measured by the Account of the *Module* of the *Column*, with the very *Division* which I have observed in the *Designs* of other *Masters*; that so all concurring in one Uniformity, and under the same *Scale*, the Comparison and Examen may become the more easy and intelligible: For the multiplying of *Operations* is ever disadvantageous, by reason of the Confusion which it ordinarily produces in the Minds of those who work, and that it also wastes more Time; both which Inconveniencies are of very great Importance. And when all the Fruit of my Travail in this Assembly of *Authors* should be of no further Profit to the Studious in this *Art*, than to have thus adjusted them together, I conceive they ought to be very well satisfied.

But let us return to the *Dorick Order*, and consider its *Form*, *Proprieties*, and *Difference* from the others in *Gross*, before we enter into the *Parcels* of its Proportions, since general *Rules* are ever to precede particular. Having then proposed for a Foundation, that this *Order* represents *Solidity* to us, as its *specifick* and principal Quality, we ought not to employ it but in great massy Buildings and Edifices of the like Nature, as for *Ports* of *Cittadels*, and *Fortresses* of *Towns*, the Outside of *Churches* or *publick Places*, and the like, where the Delicateness of the Ornament is neither convenient nor profitable; for as much as the heroic and gigantine Manner of this *Order* does excellently well in those Places, discovering a certain *masculine* and natural Beauty, which is properly what the *French* call *La grand Maniere*.

Upon this Subject I am observing a thing which in my Opinion is very curious, touching the Beginning of the Difference of *Manieres*; whence it proceeds, that in the same Quantity of *Superficies*, the one seems great and magnificent, and the other appears poor and but trifling. The Reason of which is very pretty and not ordinary. I say then, that to introduce into *Architecture* this *Grandeur* of *Maniere* of which we speak, we ought so to proceed, that the *Division* of the principal Members of the *Orders* consist
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but of few Parts ; that they be all *Great* and of a bold and ample *Relievo* and Swelling ; that the *Eye* beholding nothing which is little and mean, the *Imagination* may be more vigorously touched and concerned with it : For Example, in a *Cornice*, if the *Gola*, or *Cymatium* of the *Corona*, the *Coping*, the *Modillions*, or *Dentelli*, make a noble Shew by their graceful *Projectures*, and that we see none of that ordinary *Confusion* which is the Result of those little *Cavities*, *Quarter-rounds* of the *Astragal*, and I know not how many other intermingled *Particulars*, which produce no Effect in great and massy Works, and which very unprofitably take up Place to the Prejudice of the principal Members, it is most certain, that *this* Manner will appear solemn and great, and *that*, on the contrary, become pitiful and mean, by reason of the Multitude of these smaller *Ornaments*, which divide and scatter the *Angles* of the *Sight* into so many *Beams*, and so pressed together, that the *Whole* appears but a *Confusion*. And though one would judge upon the sudden, that the *Multiplicity* of *Parts* should contribute something to the Appearance of the *Grandeur* and *State* ; yet notwithstanding it happens quite otherwise, as we may easily perceive in examining it by *Examples*, and in the *Designs* of the *Masters* which I have here collected together ; where in the same Instant a Man may discern both the *Quality* of their *Genius's*, and the *Variety* of their *Judgments* : For some of them esteem *that* to be delicate and rich, which others term mean and confused ; and *that* which seems to us of the *Grand Maniere*, in their *Eyes* appears to be but gross and heavy ; and indeed it would so prove if one should exceed the *Terms* of *Proportion*, and did incline too much to either *Extreme* : But be this only spoken *en passant*. We proceed now to our *Orders* in general.

The *Columns* of the *Dorick Order* have this remarkable amongst the rest, that in the fairest Works of *Antiquity* in which they have been employed, we find them without *Bases* ; as in the *Theatre* of *Marcellus* at *Rome*, in that at *Vicenza*, and in a very magnificent *Triumphal Arch* at *Verona* ; and *Vitruvius* having treated of this very *Order* more exactly than of any other, speaks not so much as a *Word* of its *Basis*, albeit he hath sufficiently described the *Measures* of the *Ionick*, and of the *Attick* for the *Corinthian*, without having so much as omitted that of the *Tuscan* ; though there is not one of our *Modern Architects* but make some *Cavil* at it, forming *one* to themselves after their own *Invention*.

For my part, I should make a great *Scruple* to condemn these old *Masters*, who did all with so much *Circumspection* : One had much better endeavour to discover their *Intention*, who did certainly proceed with great *Judgment*, than to add any thing preposterously to this *Order*, and which may prove repugnant to its *Principles*.

Let us take therefore the thing from its *Original*, and consider upon what *Account* they added *Bases* to the *Feet* of *Columns*, and what *there* they represent, that thence we may infer whether they are likewise as proper to these we speak of here, as they be to the other.

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Vitruvius tells it us in the first Chapter of his fourth Book, and had not it seems so much as once spoken of it, but upon occasion of the *Ionick*, which he affirms to have been compos'd after the *Module* of a feminine Beauty, to which he suits all the rest of the Parts; as the *Voluta's* of the *Capital* to the Mode of the *Head-tire* and *Tresses* of Womens Hair: The *Vivo*, or Shaft of the *Column*, to their airy and delicate Shape: The *Flutings* and Channelling, to the Plaits of their Robes: And the *Base*, to the *buskin'd* Ornament of their Legs and Feet.

In the same Place he compares our *Dorick* to a robust and strong Man, such as an *Hercules* might be, whom we never represent but on his bare Feet: So as from hence we may reasonably judge, that to the *Dorick Order* also *Bases* are no ways proper.

But the Custom which has licentiously been introduced among so many Examples as we find among the *Antiques*, has so strangely debauched and possessed the Imagination, by I know not what false Appearance of Beauty, that it now transports it quite besides Reason: Nevertheless, such as are clear-sighted, being advertised of this Abuse, will soon rectify, and undeceive themselves: And, as what seems most *likely*, is then detected to be erroneous when 'tis diligently examined; so also the Appearances of Beauty, when they are against Reason, become in fine but the more extravagant.

This Observation being established upon those great Examples which I have cited, and Reason serving for its Guide, let it pass for *Demonstration*.

But we will now consider the rest of the Order.

His *Entablature* is more massy and tall than any of the following Orders; because the Strength of the *Column* being greater, prepares him also for the greater Burthen. It has ordinarily one fourth Part of the *Column*; whereas in the other, he has very often but a fifth; and sometimes less. The *Cor-nice* would not be deck'd with any *Foliage*, or like Trimming; but in case you allow him *Modillions*, they should be square and very plain. The *Freeze* has a regular Ornament, which are the *Triglyphs*, the *Compartment* whereof obliges one to a very great Inconvenience, and which was heretofore so cumbersome, that even the skilfullest *Masters* had much ado to disengage themselves. But *Vitruvius* has found a very sufficient Expedient, as may be seen in his fourth Book, *Cap. 3.* In the Interim let it suffice to affirm here, that all the Inconveniency consists in so contriving the Matter, that the *Triglyph* be precisely placed over the Middle of the *Column* which it encounters; and that the *Metops*, that is to say, the Spaces betwixt the *Triglyphs*, be perfectly square; for that is so essential in this *Order*, that one should never dispense with it. That which renders the Execution difficult, proceeds from the Distribution of the *Intercolumniations*, which have also their Distances regular and determin'd, which does not justly quadrate and suit with those of the *Triglyphs*. See *Cap. 2.* of the *Third Book* of *Vitruvius*, commented by the Reverend *Daniel Barbaro*, where all this is rarely well explained, both by Discourse and Figure.

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The *Architrave* hath also its Ornament particular, which consists in certain pendent *Drops* under the *Triglyphs*, that seem after a sort to be fastened to it, as if they were all of a Piece; for that one never sees the one without the other.

The entire Body of the *Architrave* ought to appear solid and very substantial; for which Effect I would not have it exceed one full *Face*, least parting it in two, it appear feeble and weak, according to the Principle which we have newly established upon the Diversity of *Manners*: Nevertheless this is but of small Consequence *here*, provided one be careful not to break it in three *Faces*, as in the other *Orders* they do; in which Case the Fault would be remarkable.

Behold then in gross as it were a rough Draught of the *Dorick Order*, upon which one may with Ease find out all the several Parts of its Members in particular, with their respective Measures, which is by this Expedient found always within the regular Terms of its Extent.

I shall touch some of the Principal only, that I may facilitate the Way, referring you for the rest to the *Designs*, where every thing is so clear and punctual, that having once conceived the *Module*, which I make use of throughout, to be the *Semidiameter* of the *Column*, divided into thirty *Minutes*; and, that I continually begin to measure the *Projectures* of every *Profile* from the *Central Line* of the *Column*, to have, in the mean time, with the Proportion of the Members, the right Position and just Level of the *Pillar*, all the rest admits not of the least imaginable Difficulty: For presently you will find, that thirty *Minutes* making the *Semidiameter*, sixty must compose the whole *Diameter*, and forty-five, *three Quarters*; forty, *two Thirds*; twenty, *one Third*; fifteen, *a Quarter*, and so of the rest, as I have expressly observed it, that I may by the same means make you comprehend how I have reduced all the Measures of my *Designs* by *Minutes*, without making use of the Terms of *Module*, *Diameter*, *Thirds*, *Quarters*, or the like Proportions, to avoid Perplexity, and cumbering the *Designs* with so much writing; and indeed, for that they are not precise enough, and would have often obliged me to super-add the *Minutes*, and to repeat one *Module* and three *Minutes*, two *Thirds* of a *Module* and four *Minutes*, a *Quarter* of a *Minute*, Half a *Module* and two *Minutes*, with a Number of such like Fractions, which would have created much unprofitable Labour, and bred infinite Confusion.

This established, let us proceed to the Application, and take our *Dorick Order* again in Pieces. But lest the Variety which we frequently encounter amongst the *Designs* of the modern Authors that I have here collected, should hinder us from resolving upon something fixed and determined, I will only pursue that ancient Example taken out of the *Theatre* of *Marcellus*, as being the most regular of all the rest, by the universal Suffrage of those of the Profession; and so conformable to what *Vitruvius* has written concerning the general Proportions of this *Order*, that some are of Opinion he was himself the *Architect* of this magnificent Work: But I must confess, I am not of their Faith, because of the *Dentelli* which are cut in the *Cornice*; for *Vitruvius* in the *second Chapter* of his *first Book*, plainly interdicts them

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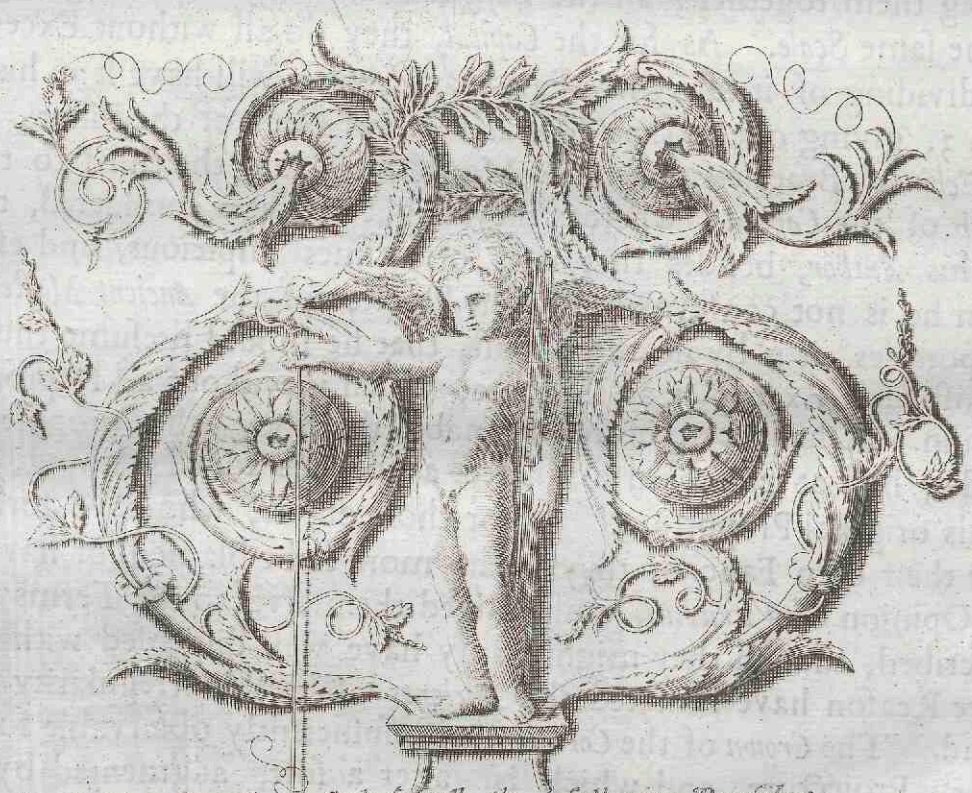
the Dorick Order, as being naturally affected to the Ionick: But this *Question* concerns not our present Discourse. I find then, that the whole *Shaft* of the *Column* has in Length *seven times* its *Diameter*; which on the Foot of the Division of the half *Diameter* in *thirty Minutes* (for in all this Treatise I ever take the *Semidiameter* of the *Column* for the *Module* of the *Orders*) make *four hundred and twenty Minutes*, which amounts to *fourteen Modules*. The Height of the *Chapter* contains *thirty Minutes*; which make *one Module*; as does likewise the *Architrave*: The *Freeze* with its *Fillet* (which is that flat and thin *Band* or *List* which separates it from the *Cornice*) has *one Module* and a *Quarter*, which are *thirty-seven Minutes* and a *half*; so that all these *Modules* computed together, and the Number of their *Minutes* reduced to a *Total Sum*, the Altitude of the entire *Order* amounts to *eighteen Modules* and *three Quarters*, which make up *five hundred sixty-two Minutes* and a *half*; and the *Entablature*, which is the *Architrave*, *Freeze* and *Cornice*, being to contain one quarter Part of the *Column*, which is its regular Proportion, comprehends just an *hundred twelve Minutes* and a *half*, which are *three Modules* and *three Quarters*; and which I expressly repeat, that I may yet add, that though all the *Examples* of this *Order*, which may be as well found amongst the *Ancients* as the *Moderns*, have not always the *Entablature* comprehended within the same Terms of *Modules* that *this* has here, they may yet notwithstanding be according to Rule in the general Proportion; provided that the *Entablature* contain a quarter of the *Column*; which is neither limited to *fourteen Modules*, nor yet to *fifteen*; but may sometimes advance even to *sixteen*, and more, as Occasion presents itself: So that a *Column* of *sixteen Modules* shall have a higher *Entablature* than one of *fourteen*. But then it is necessary, that all this Difference of one *Entablature* to the other, happen only in the *Cornice*, in regard that the *Freeze* and the *Architrave* have always their precise and determinate *Measures*: The one has a *Module*, the other a *Module* and an *half*, without any respect to the different Height of the *Columns*. Now the *Cornice* being to supply what is deficient to arrive to the fourth Part of the *Column*, 'tis evident that its particular Proportion must depend on that of the *Column*; and that the *Cornice* of one *Profile* can never serve for another, though it be of the same *Order*, unless the Height of the *Columns* be likewise equal in them both, which thing ought very diligently to be considered: That from this Observation a Man may arrive to a good and judicious Examen of all those *Profiles* which the *Moderns* have given us of this *Order*; and understand such as are worthy the being followed: For the general Proportion being once defectuous, it is in vain to search for it in the *Retail*, or *minuter* Parts; because that is necessarily relative, and that the one cannot possibly subsist without the other.

But to the end we may render what we have discussed easy to the Reader, who haply, for want of Practice, may find himself at a Loss, I am going to deliver him a *Method* extraordinary short and expedite, by means whereof he may instantly make it without the least Disorder or Confusion.

He must take the whole Height of the *Entablature* of the *Design* which he would examine, and thereof make a *Multiplication* conformable to the Proportion

portion which it ought to bear with its *Column*, having still a *Regard* to the *Order* which it represents. Put *Case*, for *Example*, one *Quarter*, as in this of the *Dorick*; he must multiply the *Entablature* by four; if it be a *fifth*, as we shall see in some of the following *Examples* of the *Corinthian*, he must multiply it by *five*, and so of the rest: For the *Total* of this *Multiplication* ought to give us precisely the *Height* of the *Column*; and wherever this does not *quadrate*, certain it is, the *Profile* is *irregular*.

I should be too *prolix* if I pretended to *decypher* thus by smaller *Scruples* and *Minutes* all that belongs to these *Principles*; and while I think to render myself *intelligible* by a *tedious Discourse* and *Calculations*, become in fine both *confused* and *troublesome* to my *Reader*, who doubtless will sooner comprehend it all by seeing my *Designs*, since *Words* are never so express as *Figures*.

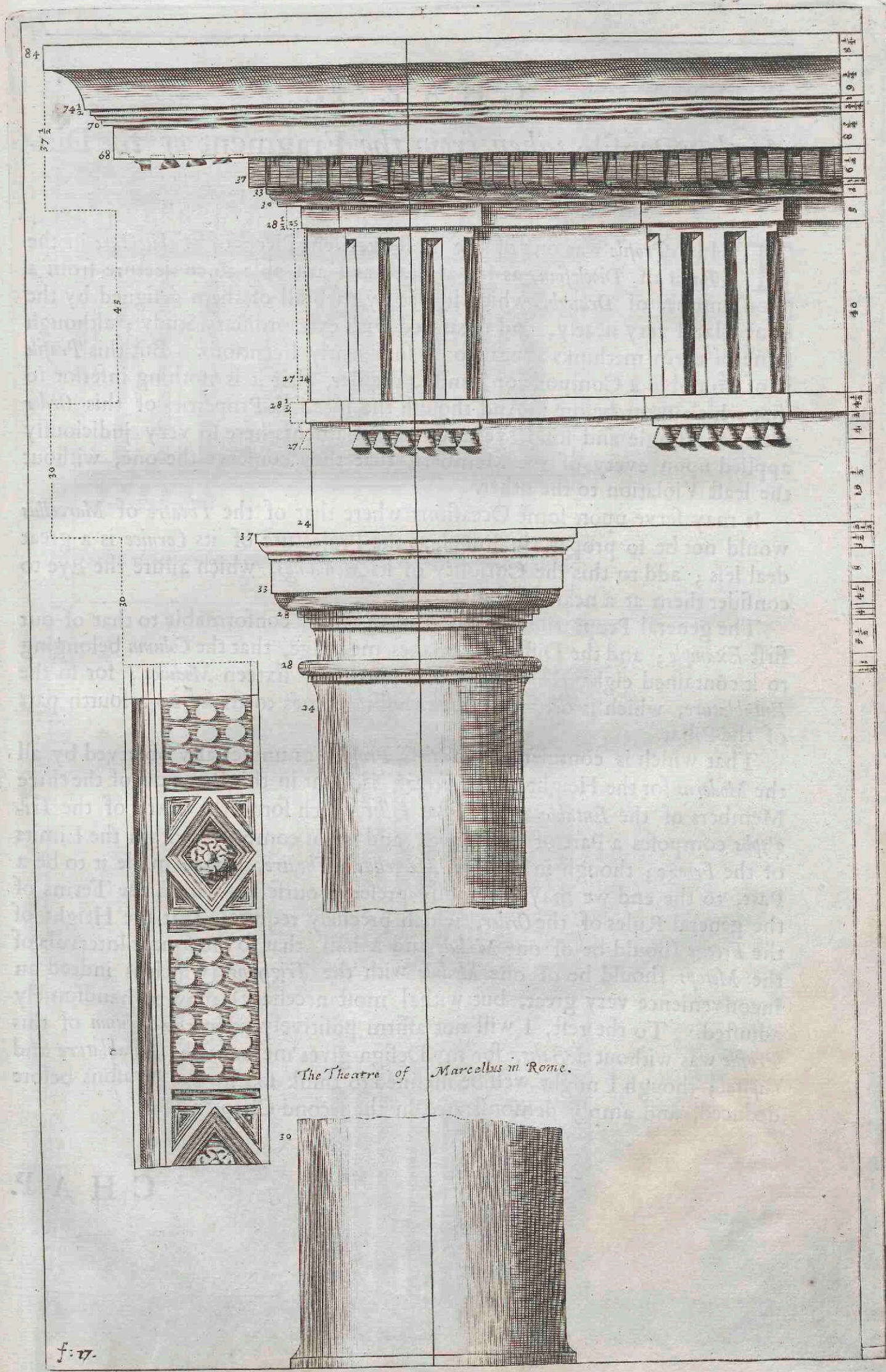


The Module or General Scale for all the following Profiles. f. 15.

C H A P. III.

*A Particular remarkable in the Profile, drawn from
the Theatre of Marcellus.*

I Admire, that of all our modern *Architects*, the greatest Part whereof have seen, and spoken of *this Example*, as of the most excellent *Dorick Model* which has been left us by the Ancients, there is not so much as one of them who has followed, or perhaps well observed in the Original the just *Compartiment* of the Members of the *Capital*, nor the Height of the *Freeze*, the which I find *here* visibly less than that which they allow to their *Designs*; though some of them, particularly *Vignola*, have proposed the very same *Profile* for the Rule of the *Order*; but with so much Alteration in its Members, that there is not one of them remains entire: A Man shall easily find it by conferring them together; all the *Designs* of this *Assembly* being therefore fitted to the same *Scale*. As for the *Capital*, they do all without Exception affect the dividing of it into three Parts, as *Vitruvius* will have it in his *fourth Book, Chap. 3.* giving one to the *Hypotrachelion*, or Neck of the Pillar; the other to the *Echinus*, Bracelets, or small Mouldings; and the third to the *Abacus* or *Plinth* of the *Capital*; whereas they ought to have considered, that the *Text* of this *Author*, besides that it is oftentimes suspicious, and especially then when he is not conformable to the Practice of the *Ancient Masters*, his Contemporaries, it is by no means just, that he should presume thus to carry it against such Examples as this here, which is without all Reproach and Exception. It had been more reasonable that they who propose it for their Model, had at least been so discreet as to have added nothing, but left him in his original Proportion. As for those others, who have formed *Designs* after their own Fancies, they are no more to be blamed for having followed the Opinion of *Vitruvius*, and obliged themselves to the Terms which he has prescribed, though they might haply have well dispensed with it, and with more Reason have imitated the *Ancients* where this Irregularity is not to be found. The *Crown* of the *Cornice* is also sufficiently observable for its extraordinary Projecture, and which is, after a sort, augmented by the Sloops which the *Architect* has given to the *Drops* which compose the Ornament of the nether Face, and which fall on the *Triglyphs*. Now albeit this Piece of *Opticks* be admirable in this huge *Coloss* of *Building*, yet is it by no means to be indifferently used every where, and upon all Occasions; for in Places much inclosed, where there is not ample Space and Freedom for the Eye, as the Inside of *Churches*, &c. it would produce but an ill Effect. Wherefore I have thought it necessary to propose *here* diverse *ancient Examples* upon each *Order*, that I may thereby give Opportunity to those of the *Profession* to make use of them judiciously, Regard being duly had to the Place, and the Occasion.



The Theatre of Marcellus in Rome.

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C H A P. IV.

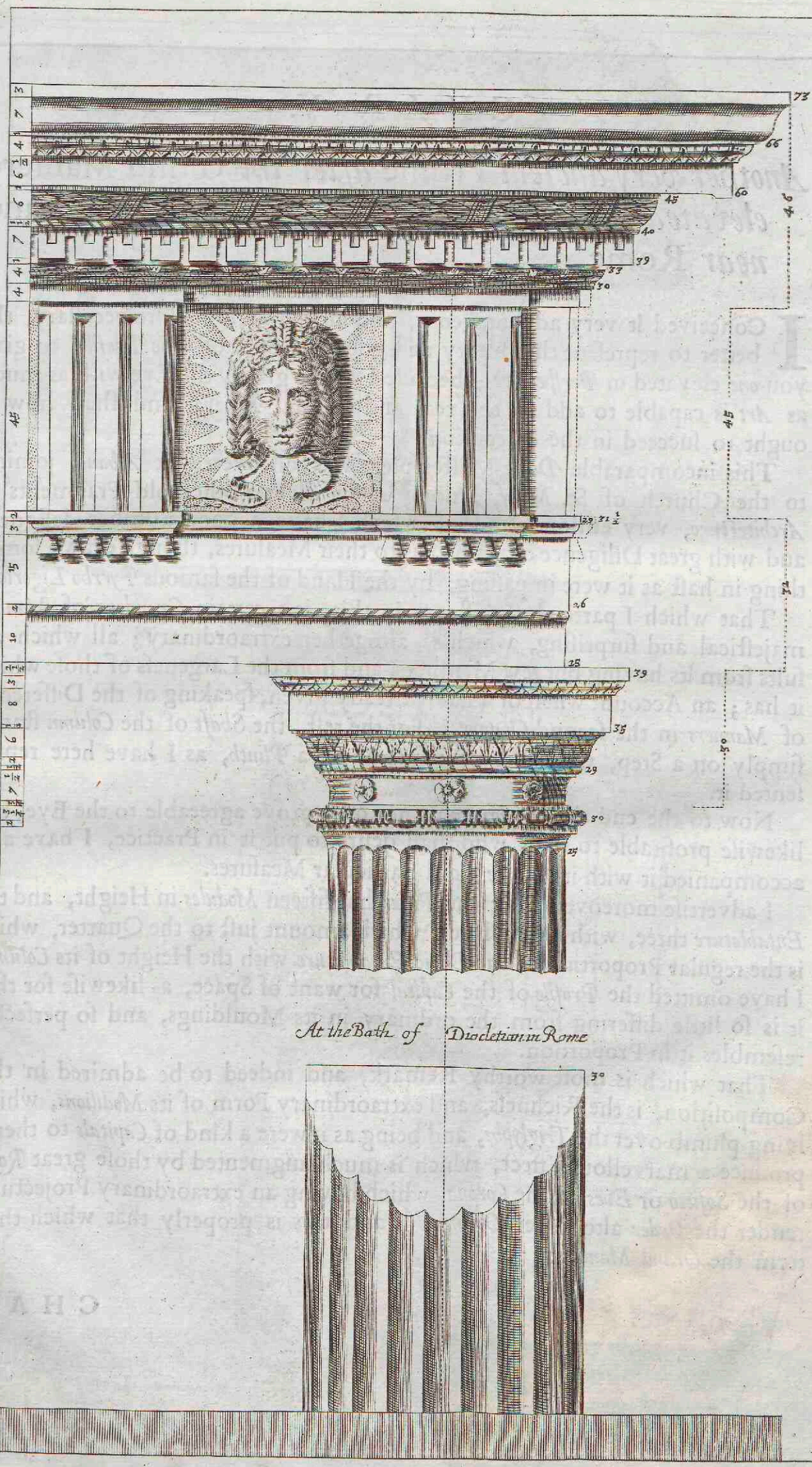
Another Profile taken from the Fragment of the Dioclesian Baths at Rome.

THIS Profile was one of the most excellent Pieces of *Architecture* in the Baths of *Dioclesian*, as far at least as I am able to conjecture from a good number of *Draughts* which lie yet by me, all of them designed by the same Hand very neatly, and measured with extraordinary Study; although some of them methinks appear to be sufficiently licentious. But this Profile is of so noble a Composition, and so regular, that it is nothing inferior to that which went before: And though the specifick Properties of this Order are to be single and solid, yet are the Ornaments here so very judiciously applied upon every of the Members, that they conserve the one, without the least Violation to the other.

It may serve upon some Occasions where that of the *Theatre of Marcellus* would not be so proper, inasmuch as the Projecture of its *Cornice* is a great deal less; add to this the Curiosity of its *Mouldings*, which allure the Eye to consider them at a nearer distance.

The general Proportion of it is not absolutely conformable to that of our first *Example*; and the Difference makes me judge, that the *Column* belonging to it contained eight *Diameters*; that is to say, sixteen *Modules*; for so the *Entablature*, which is of four *Modules* high, comes to make up a fourth part of the *Pillar*.

That which is considerable in this Profile, as universally observed by all the *Moderns* for the Height of the *Freeze*, is, that in this Partition of the three Members of the *Entablature*, the flat *Fillet* which forms the *Capital* of the *Triglyphs* composes a Part of the *Cornice*, and is not comprised within the Limits of the *Freeze*; though in that of *Marcellus's Theatre*, I have made it to be a Part, to the end we may religiously preserve ourselves within the Terms of the general Rules of the Order, which precisely requires, that the Height of the *Freeze* should be of one *Module* and a half, that so the square Intervals of the *Metops* should be of one *Module* with the *Triglyphs* (which is indeed an Inconvenience very great, but withal most necessary) may be handsomely adjusted. To the rest, I will not affirm positively, that the *Column* of this Profile was without a *Basis*, for my Design gives me only the *Entablature* and *Capital*; though I might well be inclined to think so, for the Reasons before deduced, and amply demonstrated in the second Chapter.



At the Bath of Diocletian in Rome

C H A P. V.

Another very ancient Profile after the Grand Maniere elevated in Perspective, and now extant at Albano near Rome.

I conceived it very advantageous, and indeed in some sort necessary, the better to represent the Beauty and goodly Effect of this *Profile*, to give you one elevated in *Perspective*; because I would gratify the Eye with as much as *Art* is capable to add to the real and natural *Relievo*, and shew how it ought to succeed in the Execution.

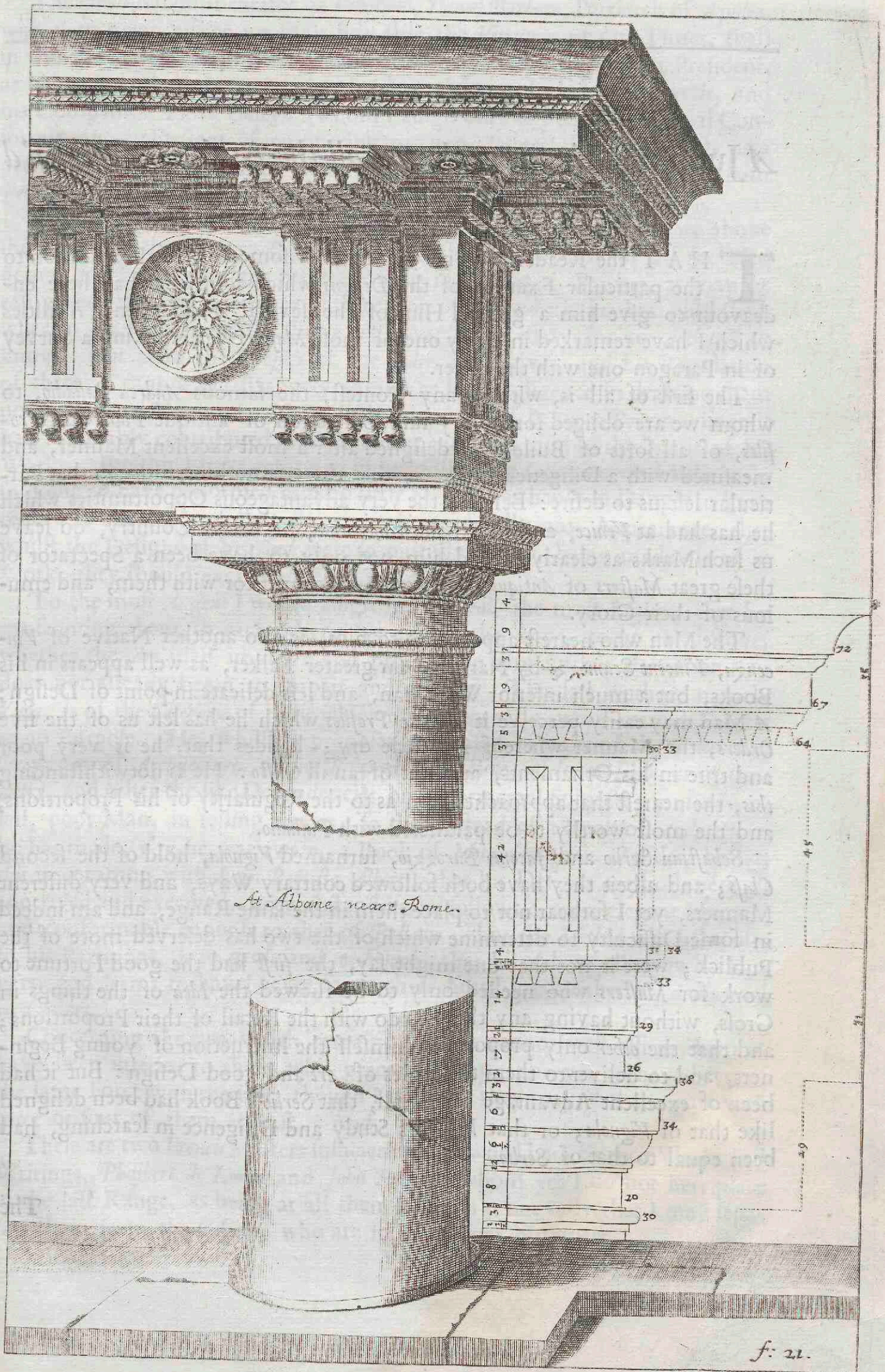
This incomparable *Doric* Master-piece was discovered at *Albano*, joining to the Church of *St. Mary*, among which diverse other old Fragments of *Architecture*, very curious, and of which I have a good number designed, and with great Diligence examined as to their Measures, though drawn something in hast as it were in passing, by the Hand of the famous *Pyrrho Ligorio*.

That which I particularly esteem in this, is a certain *Grandeur* of *Manner* majestic and surprising, which is altogether extraordinary; all which results from its having but few Members, and from the Largeness of those which it has; an Account whereof I have already given, speaking of the Difference of *Manners* in the second *Chapter*. For the rest, the *Shaft* of the *Column* stands simply on a *Step*, which serves it instead of a *Plinth*, as I have here represented it.

Now to the end this *Design* may not only prove agreeable to the Eye, but likewise profitable to those who shall desire to put it in Practice, I have also accompanied it with its *Profile*, and particular Measures.

I advertise moreover, that the *Pillar* has fifteen *Modules* in Height, and the *Entablature* three, with two Thirds, which amount just to the Quarter, which is the regular Proportion of the *Doric Entablature* with the Height of its *Column*. I have omitted the *Profile* of the *Capital* for want of Space, as likewise for that it is so little differing from the ordinary in its Mouldings, and so perfectly resembles it in Proportion.

That which is most worthy Remark, and indeed to be admired in this Composition, is the Richness, and extraordinary Form of its *Modillions*, which lying plumb over the *Triglyphs*, and being as it were a kind of *Capitals* to them, produce a marvellous Effect, which is much augmented by those great *Roses* of the *Sofitto* or *Eaves* of the *Corona*, which having an extraordinary Projecture, render the *Order* altogether *Gigantick*; and this is properly that which they term the *Grand Maniere*.



At Albane near Rome.

26 *A Parallel of the Ancient Architecture*

C H A P. VI.

A Judgment in general upon all the Authors summon'd together in this Collection.

THAT the Reader may now come with some kind of Preparation to the particular Examen of the *Designs* which follow, I shall here endeavour to give him a general Hint of the several Talents and Abilities which I have remarked in every one of those *Masters* we are taking a Survey of in Paragon one with the other.

The first of all is, without any Contest, the famous *Andrea Palladio*, to whom we are obliged for a very rare Collection of antique *Plans* and *Profiles*, of all sorts of Buildings, designed after a most excellent Manner, and measured with a Diligence so exact, that there is nothing more in that Particular left us to desire: Besides, the very advantageous Opportunities which he has had at *Venice*, and in all the *Vincentine*, his native Country, do leave us such Marks as clearly shew'd him not only to have been a Spectator of these great *Masters* of *Antiquity*, but even a Competitor with them, and emulous of their Glory.

The Man who nearest approaches to him, is also another Native of *Vincenza*, *Vincent Scamozzi* by Name, a far greater Talker, as well appears in his Books, but a much inferior Workman, and less delicate in point of Design: A Man may easily perceive it by the *Profiles* which he has left us of the five *Orders*, the Manner whereof is a little dry; besides that, he is very poor and trite in his Ornaments, and but of an ill *Gusto*: He is notwithstanding *this*, the nearest that approaches him as to the Regularity of his Proportions, and the most worthy to be paralleled with *Palladio*.

Sebastian Serlio and *Jacomo Barozzio*, surnamed *Vignola*, hold of the second *Class*; and albeit they have both followed contrary Ways, and very different Manners, yet I forbear not to place them in the same Range, and am indeed in some Difficulty to determine which of the two has deserved more of the Publick; were it not that one might say, the *first* had the good Fortune to work for *Masters* who needed only to be shewed the *Idea* of the things in *Gross*, without having any thing to do with the Retail of their Proportions; and that the *other* only propos'd to himself the Instruction of young *Beginners*, and to deliver to them the Rules of *Art* and good Design: But it had been of excellent Advantage for us all, that *Serlio's* Book had been designed like that of *Vignola*; or that *Vignola's* Study and Diligence in searching, had been equal to that of *Serlio*.

The famous Commentator of *Vitruvius*, Daniel Barbaro, Patriarch of *Aquilea*, with very great Justice we may fitly stile the *Vitruvius* of our Times, shall in this Place be seated in the middle of all the *Masters* to be their President, as being indeed the *Interpreter* and *Oracle* of the very Father of *Architects*, and his Companion *Pietro Cataneo* (whom I assign only to preserve an equal Conformity in my Designs of comparing modern *Authors*) shall serve only as a petty *Chaplain* in the Retinue of this great *Prelate*, though he might well claim *Peerage* even with the most part of the rest.

Among the other latter four, I have a particular Esteem for one above the rest, and that is *Leon Baptista Alberti*, the most ancient of all the *Moderns*, and haply too, the most knowing in the *Art* of *Building*, as may be easily collected by a large and excellent *Volume* which he has published, wherein he fundamentally shews whatever is necessary for an *Architect* to know. But as to the *Profiles* of the *Orders* themselves, and his Regulation of them, I cannot but strangely admire at his Negligence in drawing them no more correctly, and with so little *Art*, himself being a *Painter*; since it had so notably contributed to its Recommendation, and to the Merit of his Works. But this I have reformed in our following *Collection*, and believe in so doing to have performed him no little Service, as haply in Danger to have otherwise never been followed; there being hardly any Appearance, that whilst the Designs of his *Book* were so pitifully drawn, being made use of in Work, they should ever produce so good Effect.

To the most *Ancient* I would assign for *Co-rival*, the most *Modern*, that by confronting them to each other, we might the better come to discover whether the *Art* itself improve and proceeds to any further Perfection, or does not already begin to impair and decline. This last Author, namely *Viola*, is of the *Categorie* of those which the *Italians* call *Cicaloni*, eternal Talkers to no Purpose. He, whilst he proposes to himself to write of the *Orders* and *Proportions* of *Architecture*, of the *Rules* of *Perspective*, of some *Elements* of *Geometry*, and other the like Dependencies on his principal Subject, amuses himself, poor Man, in telling Stories; so that instead of a *Book* of *Architecture*, he has made, ere he was aware, a *Book* of *Metamorphoses*. Besides, he has this in common with *Leon Baptista Alberti*, that his Designs are both very ill contrived and executed, notwithstanding he follows a more elegant Manner, and conformable enough to that of *Palladio*; but the *Method* which he uses in his Partitions, is so gross and *mechanick*, that he reckons all upon his Fingers, and seems to have never so much as heard speak either of *Arithmetick* or *Cyphers*.

Concerning the two which remain, a Man cannot well affirm them to have been inferior to those who preceded them, nor yet to have been of the same Force with the first, though I conceive they may well compare with three or four of them at least. And,

These are two *French* Masters sufficiently renowned both by their Works and Writings, *Philibert de Lorme* and *John Bullant*, whom yet I do not here place in the last Range, as being at all their Inferiors; but only that I may separate them from the *Italians*, who are in far greater Numbers.

C H A P. VII.

Palladio and Scamozzi upon the DORIC Order.

LET us now then pass to the ocular Demonstration of the precedent Chapter by the *Parallel of the Architects*, which I have there assembled together, and whose *Designs* I am hastening to examine, by comparing them with our three *antique Designs*, that according to their more or less Conformity with these original *Modules*, we may pronounce concerning their Merit, and see what Esteem they indeed deserve. From this Consideration it is, that of all the *Choice* of the other *Masters*, I have extracted *Palladio* and *Scamozzi*, who having proposed to themselves the Imitation of the *ancient Architects*, by studying those admirable Monuments yet remaining in the City of *Rome*, have followed a *Manner* infinitely more noble, and *Proportions* more elegant than those of the School of *Vitruvius*.

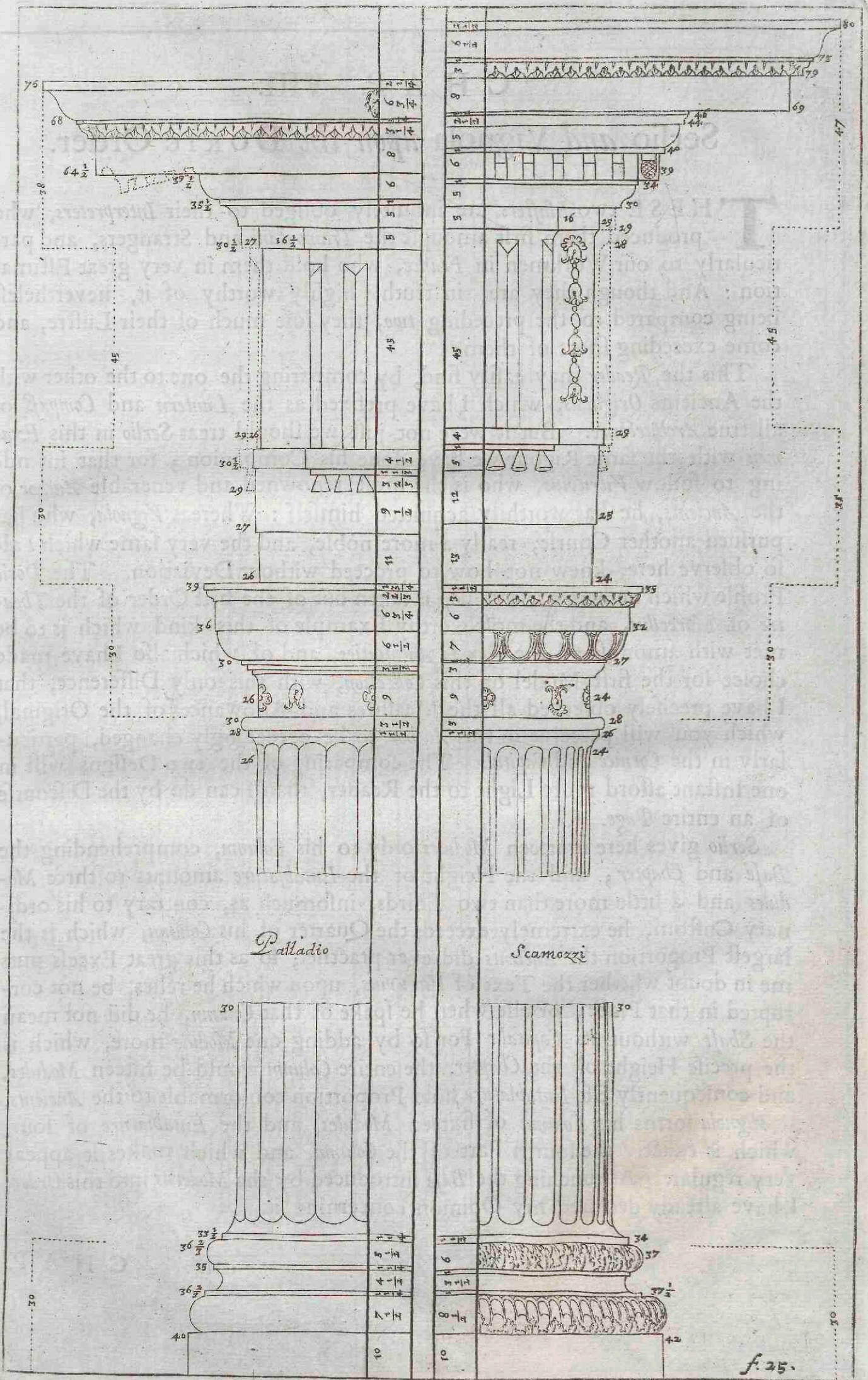
The first *Profile* of *Palladio* hath a great Affinity with our second *antique Example*, taken out of *Dioclesian's Baths*; for excepting only the *Dentelli* which he may have with Reason omitted, all the rest of the *Entablature* is upon the matter the same.

He has likewise been so discreet (being peradventure obliged to follow the vulgar Error, which will have the *Base* of a *Column* of this *Order* to be one with the others) to advertise before-hand by an *Example*, which was none at all, that the *Ancients* did never use it after this manner.

He allows but fifteen *Modules* to the *Column* without *Base*, and with its *Base* he makes it of sixteen, and sometimes proceeds even to seventeen and a Third. The rest of the *Measures* are so distinctly marked upon the *Profile*, that it were superfluous to explain them.

Scamozzi gives ever precisely seventeen *Modules* to his *Columns*, accommodating it with the same *Base* that *Palladio* does; but to a great deal less Purpose, inasmuch as he thinks fit to deck the *Tore's* with I know not what delicate *Foliages*, which does not at all become the *Order*, no more than does the *Ionic Fluting*, which is abusively employ'd in this Place instead of the natural *Doric*. His *Entablature*, as well as that of *Palladio*, sufficiently resembles our second *Module*, to which he has only added a small Cavity betwixt the *Corona* and the greater *Round*, a thing not at all considerable.

The Composition of his *Profile* taken in gross, and altogether simple, appears of a very great *Idea*, but the *Ornaments* are to be rejected.



C H A P. VIII.

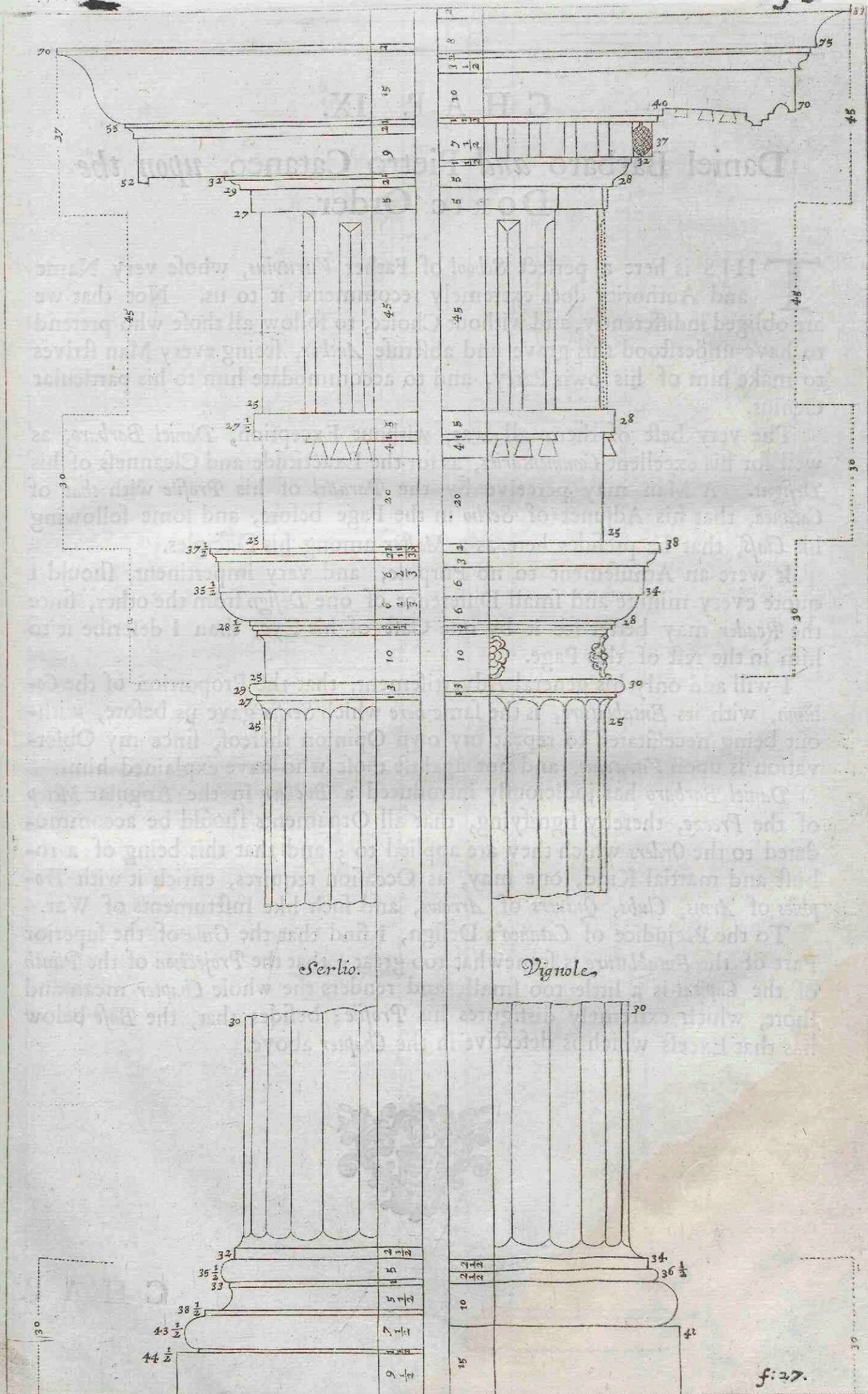
Serlio and Vignola upon the DORIC Order.

THESE two *Masters* are infinitely obliged to their *Interpreters*, who produced them first amongst the *Tramontani* and Strangers, and particularly to our Workmen in *France*, who hold them in very great Estimation: And though they are, in truth, highly worthy of it, nevertheless being compared to the preceding two, they lose much of their Lustre, and come exceeding short of them.

This the *Reader* may easily find, by comparing the one to the other with the *Ancients Originals*, which I have prefixed as the *Lantern and Compass* of all true *Architecture*. But it were not just we should treat *Serlio* in this *Examen* with the same Rigour we have done his Companion; for that intending to follow *Vitruvius*, who is the most renowned and venerable *Author* of the *Ancients*, he has worthily acquitted himself: Whereas *Vignola*, who has pursued another Course, really a more noble, and the very same which I also observe here, knew not how to proceed without Deviation. The *Doric Profile* which he here presents us, is taken out of the first Order of the *Theatre of Marcellus*, and the most worthy Example of this kind which is to be met with amongst all the *Roman Antiquities*, and of which also I have made choice for the first Model of this *Collection*, with this only Difference, that I have precisely observed all the Measures and Allowances of the Original, which you will perceive in this *Author* to be exceedingly changed, particularly in the *Cornice and Capital*. The comparing of the two Designs will in one Instant afford more Light to the *Reader*, than I can do by the Discourse of an entire *Page*.

Serlio gives here fourteen *Modules* only to his *Column*, comprehending the *Base and Chapter*; and the Height of the *Entablature* amounts to three *Modules* and a little more than two Thirds, insomuch as, contrary to his ordinary Custom, he extremely exceeds the Quarter of his *Column*, which is the largest Proportion the *Ancients* did ever practise; so as this great Excess puts me in doubt whether the Text of *Vitruvius*, upon which he relies, be not corrupted in that Place; or else when he spake of that *Column*, he did not mean the *Shaft* without its *Capital*: For so by adding one *Module* more, which is the precise Height of the *Chapter*, the entire *Column* would be fifteen *Modules*, and consequently the *Entablature* hold Proportion conformable to the *Ancients*.

Vignola forms his *Column* of sixteen *Modules*, and the *Entablature* of four, which is exactly the fourth Part of the *Column*, and which makes it appear very regular. As touching the *Base* introduced by the *Moderns* into this *Order*, I have already declared my Opinion concerning it.



Serlio.

Vignole.

C H A P. IX.

Daniel Barbaro *and* Pietro Cataneo, upon the
D O R I C Order.

THIS is here a perfect *School* of Father *Vitruvius*, whose very Name and Authority does extremely recommend it to us. Not that we are obliged indifferently, and without Choice, to follow all those who pretend to have understood this grave and abstruse *Author*, seeing every Man strives to make him of his own Party, and to accommodate him to his particular Genius.

The very best of them all was, without Exception, *Daniel Barbaro*, as well for his excellent *Commentaries*, as for the Exactitude and Cleanness of his *Designs*. A Man may perceive by the *Parallel* of his *Profile* with that of *Cataneo*, that his *Adjunct* of *Serlio* in the Page before, and some following his *Class*, that he presides here as a *Master* among his *Disciples*.

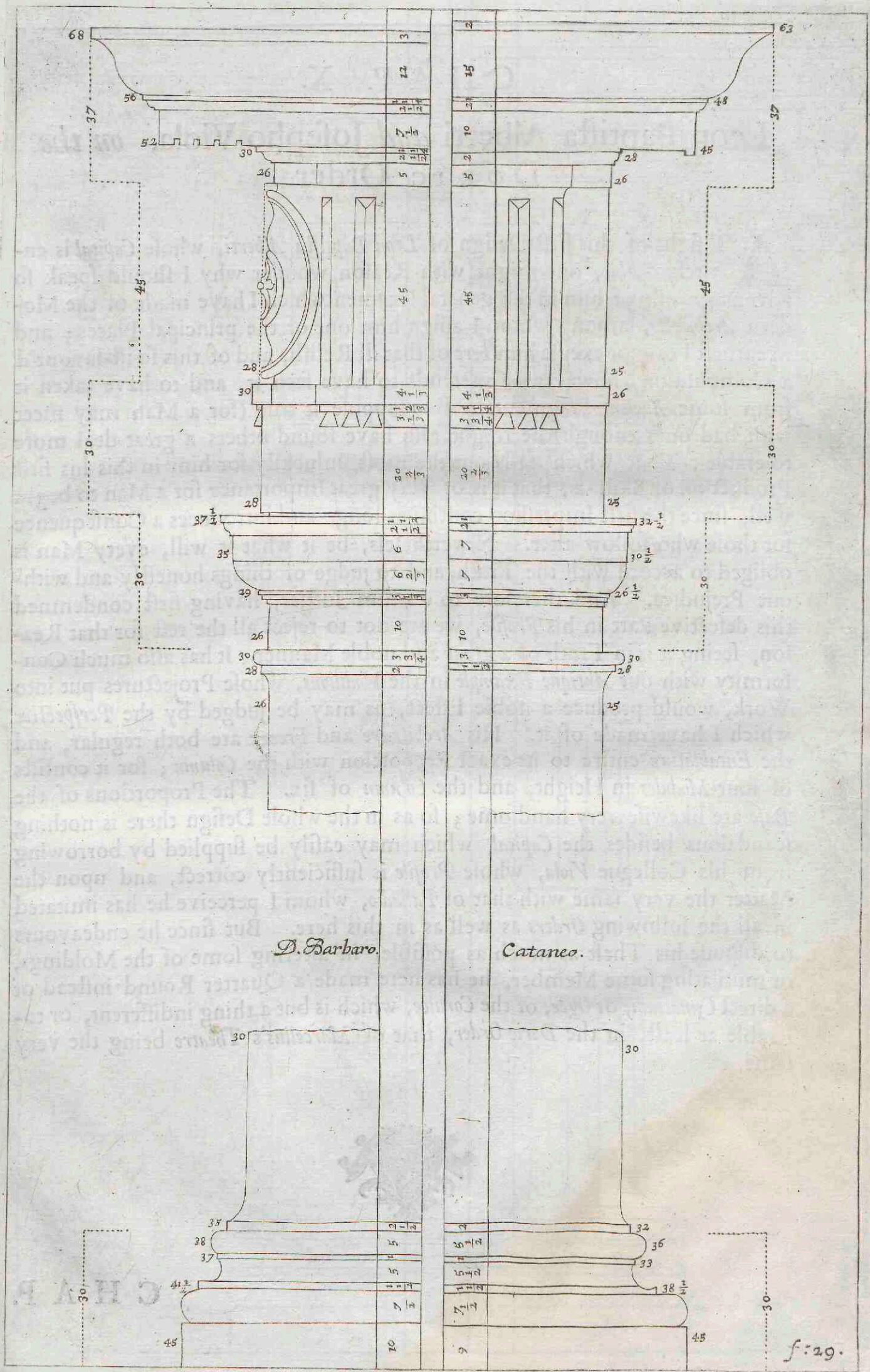
It were an Amusement to no Purpose, and very impertinent, should I quote every minute and small Difference of one *Design* from the other, since the *Reader* may better see it by one Cast of his Eye, than I describe it to him in the rest of this Page.

I will add only his general Advertisement, that the Proportion of the *Column*, with its *Entablature*, is the same here which *Serlio* gave us before, without being necessitated to repeat my own Opinion thereof, since my Observation is upon *Vitruvius*, and not against those who have explained him.

Daniel Barbaro has judiciously introduced a *Buckler* in the Angular *Metop* of the *Freeze*, thereby signifying, that all Ornaments should be accommodated to the *Orders* which they are applied to; and that this being of a robust and martial Kind, one may, as Occasion requires, enrich it with *Trophies* of *Arms*, *Clubs*, *Quivers* of *Arrows*, and such like Instruments of War.

To the Prejudice of *Cataneo's* Design, I find that the *Gula* of the superior Part of the *Entablature* is somewhat too great; that the *Projection* of the *Plinth* of the *Capital* is a little too small, and renders the whole *Chapter* mean and short, which extremely disfigures his *Profile*; besides that, the *Base* below has that Excess which is defective in the *Chapter* above.





D. Barbaro.

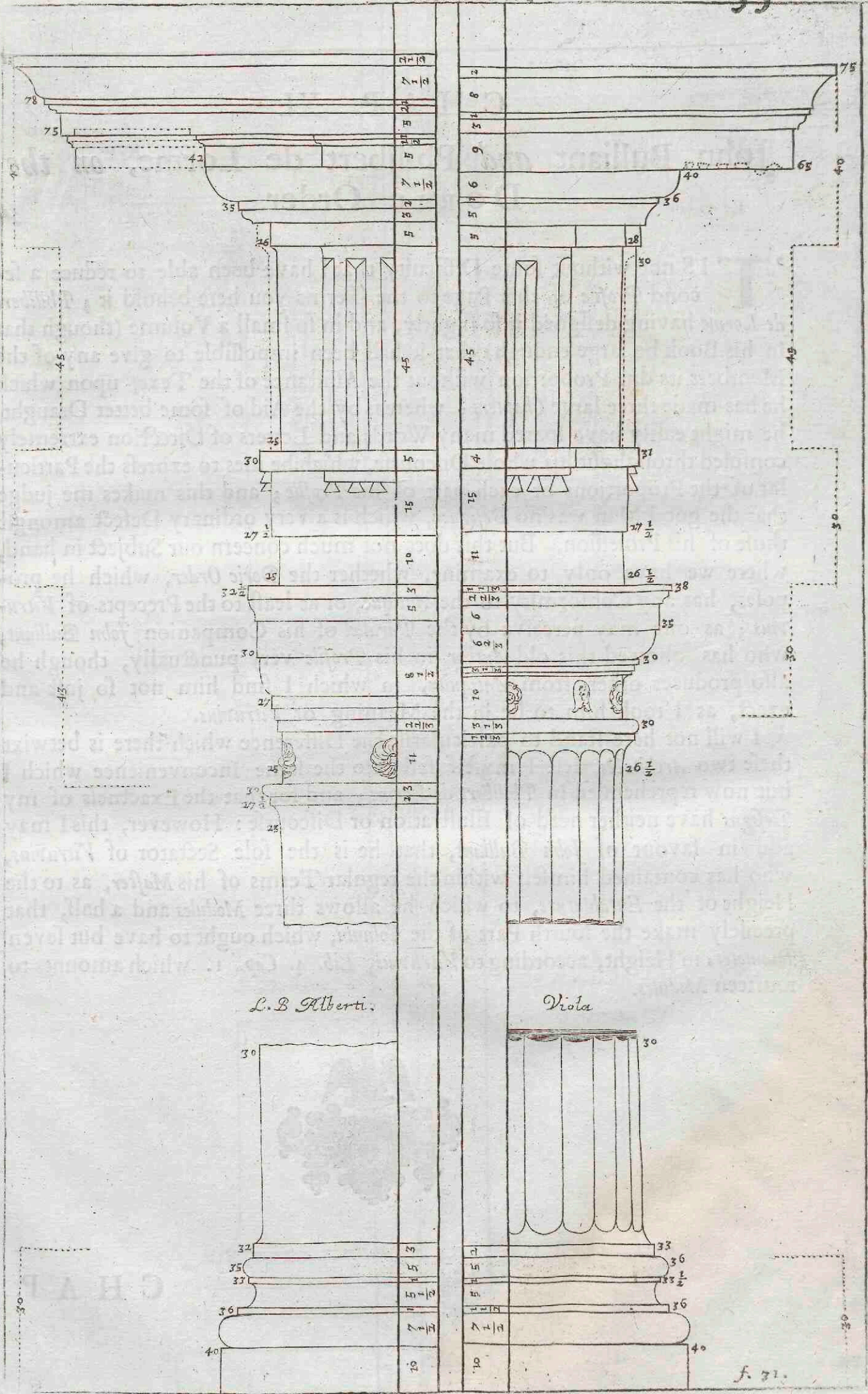
Cataneo.

C H A P. X.

Leon Baptista Alberti *and* Josepho Viola, *on the*
D O R I C Order.

AT sight of this first Design of *Leon Baptista Alberti*, whose *Capital* is entirely *Gothic*, one might with Reason wonder why I should speak so advantageously of him in the general Examen which I have made of the Modern *Architects*, among whom I assign him one of the principal Places; and in earnest I cannot excuse him *here* of that ill Relish, and of this so ill-favour'd a Composition, however he pretends to have seen it, and to have taken it from some *Ancient* Fragments: But suppose it true (for a Man may meet with bad ones enough) he might also have found others a great deal more tolerable: That which falls out the most unluckily for him in this his first Production of Skill is, that it is of very great Importance for a Man to begin well, since the first Impression continues long, and introduces a Consequence for those who follow after. Nevertheless, be it what it will, every Man is obliged to accord with the Truth, and to judge of things honestly and without Prejudice. And therefore to do him Justice, having first condemned this defective Part in his *Profile*, we are not to reject all the rest for that Reason, seeing it is in Truth of a great and noble Manner. It has also much Conformity with our *Antique Example* in the *Modillions*, whose Projectures put into Work, would produce a noble Effect, as may be judged by the *Perspective* which I have made of it. His *Architrave* and *Freeze* are both regular, and the *Entablature* entire to its exact Proportion with the *Column*; for it consists of four *Modules* in Height, and the *Column* of six. The Proportions of the *Base* are likewise very handsome; so as in the whole Design there is nothing scandalous besides the *Capital*, which may easily be supplied by borrowing from his Colleague *Viola*, whose *Profile* is sufficiently correct, and upon the Matter the very same with that of *Palladio*, whom I perceive he has imitated in all the following *Orders* as well as in this here. But since he endeavours to disguise his Theft as much as possible, in altering some of the Moldings, or mutilating some Member, he has here made a Quarter Round instead of a direct *Cymatium*, or *Ogee*, of the *Cornice*, which is but a thing indifferent, or tolerable at least, in the *Doric Order*, that of *Marcellus's Theatre* being the very same.





L.B. Alberti.

Viola

C H A P. XI.

John Bulliant and Philibert de Lorme, on the
D O R I C Order.

'T IS not without some Difficulty that I have been able to reduce a second *Profile* of this Page to the Terms you here behold it ; *Philibert de Lorme* having designed it so slightly, and in so small a Volume (though that in his Book be large enough) that it had been impossible to give any of the Members its due Proportion without the Assistance of the Text, upon which he has made three large *Chapters* ; whereas by the Aid of some better Draught, he might easily have spared many Words and Letters of Direction extremely confused throughout his whole Discourse, which he uses to express the Particular of the Proportions of each part of his *Profile* ; and this makes me judge that the good Man was no *Designer*, which is a very ordinary Defect amongst those of his Profession. But this does not much concern our Subject in hand, where we have only to examine, whether the *Doric Order*, which he proposes, has any Conformity to the *Antique*, or at least to the Precepts of *Vitruvius* ; as one may perceive by the *Parallel* of his Companion *John Bulliant*, who has followed this old *Author* in his *Profile* very punctually, though he also produces others from *Antiquity*, in which I find him not so just and exact, as I took him to be in the Meaning of *Vitruvius*.

I will not here stand to particularise the Difference which there is betwixt these two *Architects*, lest I myself fall into the same Inconvenience which I but now reprehended in *Philibert de Lorme* ; and for that the Exactness of my *Designs* have neither need of Illustration or Discourse : However, this I may add in favour of *John Bulliant*, that he is the sole Sectator of *Vitruvius*, who has contained himself within the regular Terms of his *Master*, as to the Height of the *Entablature*, to which he allows three *Modules* and a half, that precisely make the fourth Part of the *Column*, which ought to have but seven *Diameters* in Height, according to *Vitruvius*, *Lib. 4. Cap. 1.* which amounts to fourteen *Modules*.



C H A P. XII.

*A very ancient Sepulchre to be seen near Terracina,
on the Side of the High-way leading towards Naples.*

AT *Terracina*, upon the Confines of the *Ecclesiastick State*, there is yet extant the *Vestigia* and Foot-steps of this small *Mausoleum*, sufficiently entire, joining to the *Appian Way*, where that diligent Observer of all these ancient Monuments, *Pirro Ligorio*, having discovered, and, as one may say, disinterred it (for it was almost buried amongst the Brambles of a wild and uncultivated Place, as himself reports, at the Foot of the Design which he has made of it) took the *Plan* most exactly, and the Elevation of the *Profile*; upon which I have taken my Directions to reduce it to that *Ichnographical Form* which I here present you. I was extremely glad to encounter an Example so express and convincing against the Abuse of the *Moderns*, who have very inconsiderably introduced *Bases* to the *Columns* of this *Order*, of which I have formerly discoursed sufficiently.

The four *Faces* of the Edifice appear to have been all alike; and on that which respects the *West*, there has been some kind of *Inscription* upon the *Architrave*; but there now remains nothing legible.

The *Masonry* is of a huge square *Brick*, and the *Columns*, with their *Entablature*, are made of *Tiburine Stone*, the *Pyramid* being also of the same Material.

The *Diameter* of the *Columns* is near upon two *Palms*, the *Entablature* makes a fifth of the entire *Order*; that is to say, a fourth Part of the *Column*, which was but seven *Diameters* in Height.

This *Sepulchre* seems to be full as ancient as the very *Appian Way* it self.





C H A P. XIII.

Of the IONIC Order.

THE first Productions of *Arts* have always been exceedingly rare, because it is so difficult to invent; but it is not the same of Imitation: For after Men had once seen regular Structures, and those famous *Temples* of the *Doric Order* mentioned by *Vitruvius* and some others, *Architecture* did not long remain in its Infancy; the Concurrence and Emulation of the neighbouring People advanced its Growth, and made it soon arrive to its Perfection. The *Ionians* were the first Competitors with the *Dorians* in its Divine Art, which seemed to be descended from the *Gods* themselves, to gratify Mankind with more Opportunity of honouring them: and though these had neither the Advantage nor the Glory to be Inventors of it, they endeavoured yet to improve and raise it even above the very Authors. Considering therefore that the Figure of a Man's Body, on which the *Doric Order* had been formed, was of a Shape too robust and massy to fit Holy Places, and become the Representation of *Celestial* Things, they would needs compose an *Order* after their own Mode, and chose a *Model* of a more elegant Proportion, wherein they had more Regard to the Beauty than to the Solidity of the Work; which gave the first Occasion of calling it the *Feminine Order*, as indeed degenerating towards an effeminate Softness. And the Truth is, the *Order* of the *Caryatides* quickly sprung up after it, which was an extraordinary Affront to this poor Sex, and a very Shame to *Architecture* itself, for having so irrationally employed a feeble and delicate Thing to perform an Office where Strength and Solidity were the only Necessaries. *Vitruvius* and diverse of the *Moderns* since him, mention the Original of this *Order*, and tell us, that the Inhabitants of a certain City of *Peloponnesus*, named *Carya*, having made a League with the *Persians* against their own Nation the *Greeks*, after the Rout of the *Persians*, were afterwards besieged by the Conquerours, and so barbarously Saccaged, that putting every Man to the Sword, consuming the City to Ashes, and carrying the Women away captive, their Vengeance being not yet extinct, they resolved to eternise their Resentment, by causing publick Edifices to be erected, wherein for a Mark of the Servitude of these Captives, they engraved their Images instead of *Columns*, that so they might overwhelm them likewise under the weight of the Punishment which they had merited by the Guilt of their Husbands, and leave an everlasting Memory thereof to future Ages. This is the Example which *Vitruvius* has made use of to prove how necessary it is that an *Architect* should be knowing in History, to the end he introduce nothing impertinently in his Works, and without good Reason. The *Gothic Order*, which is the Folly and very Ape of *Architecture*, in Imitation of the *Caryatides* has composed certain lame Figured *Mutills*, or *Corbells*, instead of *Cartouzes*, sustained by I know not what *Chimeras* and ridiculous *Monkeys*, to be met with in every Corner of our old *Churches*; but some of the *Moderns* having, with very good Reason, found fault that such Extravagances should be seen in Holy Places, where Reverence and Modesty are so essential, and considering how much more decent it were to fit those Places with some devout Representations,

ons, without any respect at all to their Profession, or for want rather of understanding the Propriety of the Orders of *Architecture*, have amused themselves to place the Figures of *Angels* and other *Saints* instead of the *Caryatides*; making them like so many *Slaves*, to carry huge *Cornices*, and even entire *Altars* upon their Shoulders; testifying thereby how preposterously and without Judgment they consulted *Vitruvius* upon the occasion of the Original of the *Caryatides*: For they would otherwise have understood that this Order cannot be employed, or indifferently enter into all sorts of Buildings, and that it requires no small Discretion to be aptly and discreetly placed: Above all, that it should never be used in *Churches*, which are the Houses of *God*, and *Assylums* of Mercy, where Servitude and Revenge ought never to appear. They had proceeded much better to have only used the plain *Regular Order*, which we are now going to describe according to an excellent *Antique Example*, taken from the Temple of *Fortuna Virilis*, at present the Church of *St. Mary the Egyptian* in *Rome*, the *Profile* whereof has been fortunately met with amongst some Papers of mine of that great Antiquary *Phyrrro Ligorio*, whose *Manuscripts* and *Designs* are conserved as a very rare Treasure in the *Bibliothique* of the *Duke of Savoy*, which has furnished me with a Means to examine and verify diverse Measures, that at present a Man would hardly know where to take; and to repair the *Cornice* with its proper Ornaments, which are now so impaired through Age, that it is extremely difficult to discern them. This is then the Model I shall follow, and which shall here serve for the *Rule* of this Order; having with mature Consideration, and for diverse Reasons, preferred it before that which is in the *Theatre* of *Marcellus*, from whence I have taken the *Doric*; which nevertheless I shall propose in what follows, remitting others who concur not with my Opinion to their own Affection and Fancy.

But before I enter upon the Retail of its Proportions (for Recommendation of this Order, and the Curiosity of the Reader) I will here recount to you the Names of some famous *Temples* built by the People of *Ionia*, whose Antiquity is at least of *Two Thousand Years*. The most Memorable, though not most Ancient, is that Renowned Temple of *Diana*, erected, as some think, by the *Amazons* in *Ephesus*. This was a Work of so stupendious a Grandure, that there was spent above *Two Hundred Years* in finishing it, all *Asia* contributing to this inestimable Expence. *Vitruvius* in his *Third Book*, *Cap. 1.* says, it was of the *Dipteric* Figure; that is, invironed with a two-fold Range of *Columns* in Form of a double *Portico*: It was in Length *425 Foot* upon *220*. All these *Columns* were of *Marble* *70 Foot* in Height. The *Architect* of this proud Edifice, according to the same *Vitruvius*, was one named *Ctesiphon*, whom he mentions in his *Tenth Book*, where he speaks of an excellent *Machine* that he invented to transport the *Columns* of this Temple; which for being of so prodigious a Length that no ordinary Force was able to move and bring from their Quarries, had been all to no Purpose had not this extraordinary *Genius* discovered some artificial Forces to supply the Defect of others. This Structure is esteemed for one of the *World's Seven Wonders*. There were yet in the same City of *Ephesus* many other *Temples* of this Order; whereof two, one dedicated to *Apollo*, the other to *Bacchus*, are principally remarkable, as having been in some sort comparable to this first, had they received their ultimate Perfection; but they were left off unfinished, by reason of the Wars against the *Persians*, who were in Conclusion the utter Ruin and Subversion of this People: For *Cyrus* having subjugated

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Asia, plundered all this Country, sacked their *Cities*, demolished the *Temple*, and made so universal and barbarous a Devastation, that there hardly remained any thing of such an Infinity of stupendous Monuments, which this noble Nation had erected throughout all *Greece*. Notwithstanding this, he spared that of *Diana* of *Ephesus*, whose astonishing Beauty served as a *Bulwark* to the Fury and Rage of this mighty Conqueror. In *Athens*, one of the most flourishing *Cities* of the World, there was also of the same *Ionic Order* a very great Number of *Temples*, amongst which that of the *Delphic Apollo*, and his Son *Æsculapius*, were highly celebrated. There is yet to be seen in the same Place certain *Vestigia* reduced to the Form of a *Citadel*, which they report to have been heretofore the *Temple* of the *Goddess Juno Attica*. I could enumerate diverse others like these, of which the *Antiquaries* we have cited report Marvels; but in general Terms, and without any Benefit to the *Studious* of the *Art*, who stand in need of some more essential Remarks and Instructions; I will therefore manage the rest of his *Discourse* in describing the *Composition* and the Parts of this *Order*, conformable to the *Profile* which I have chosen for our *Model*, and which is precisely taken from the *Antique*.

C H A P. XIV.

The Ionic Profile taken from the Temple of Fortuna Virilis at Rome, which is at present the Church of St. Mary the Ægyptian.

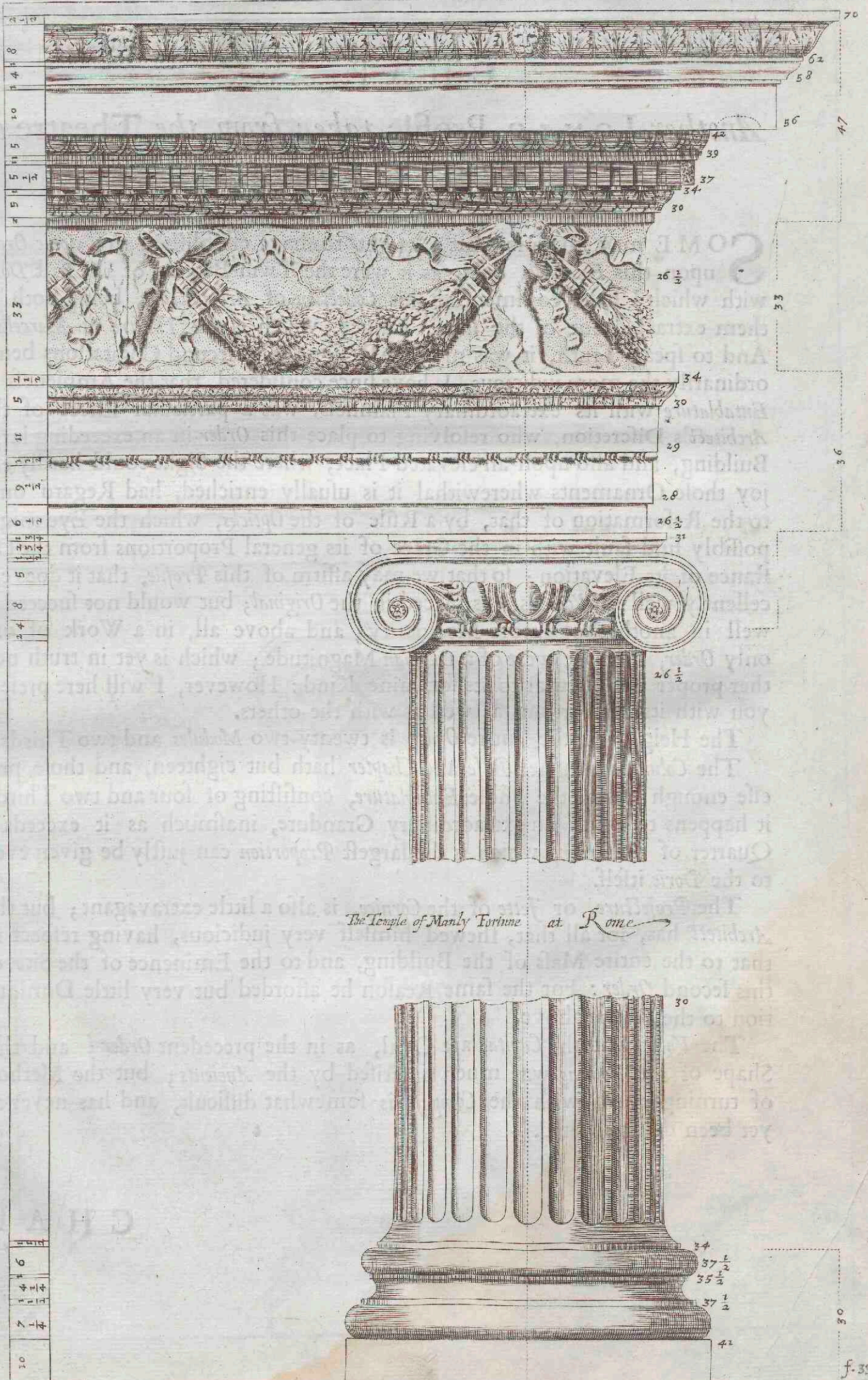
According to the Opinion of that threefold grand *Antiquary*, *Painter* and *Architect*, *Phyro Ligorio*, of whom I have heretofore spoken, and from whom I have borrowed this *Profile*, I may safely propose it for one of the most regular Examples of the whole *Ionic Order*, which is now extant of ancient *Architecture*: Add to this, the Instance which *Palladio* makes of it in his fourth *Book*, and thirteenth *Chapter*, being the only one of this *Order*, which he has inserted amongst the whole *Collection* of his *Studies*; so as these two great *Masters* approving the Election and Judgment I have made thereof, it is not to be doubted for a *Master-piece* of supreme Perfection. I will therefore make the general Description thereof, deducing the principal Members and Proportions in *Gross*, without amusing my self with the smaller Retail of the Measures of each particular Part, which the *Design* ought to supply.

The entire *Order* from the Superficies of the *Area* to the *Cornice*, contains eleven *Diameters* of the whole *Column*, which amounts to twenty-two *Modules*.

The *Column* with the *Base* and *Chapter* has eighteen *Modules*.

The *Entablature*, that is to say, *Architrave*, *Freeze* and *Cornice*, contain four *Modules*, lacking four *Minutes*, which are not considerable upon the Total; and this Height making two Nincths of the *Column*, produces a proportionate Mediocrity betwixt that of the *Doric Order* before described, whereof the *Entablature* composes one Quarter, and that of the *Corinthian*, as we shall see hereafter, to which the *Moderns* do ordinarily attribute a fifth Part.

The *Voluta* of the *Capital* is after an oval Form, producing a very noble Effect, notwithstanding that none of our *Architects* have put it in Practice; but the Reason in my Opinion, is, the Difficulty of turning it with a Grace, and for that they are generally accustomed to do all with *Rule* and *Compass*, which are here in a manner useless.



The Temple of Manly Fortuna at Rome

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C H A P. XV.

Another IONIC Profile taken from the Theatre of Marcellus at Rome.

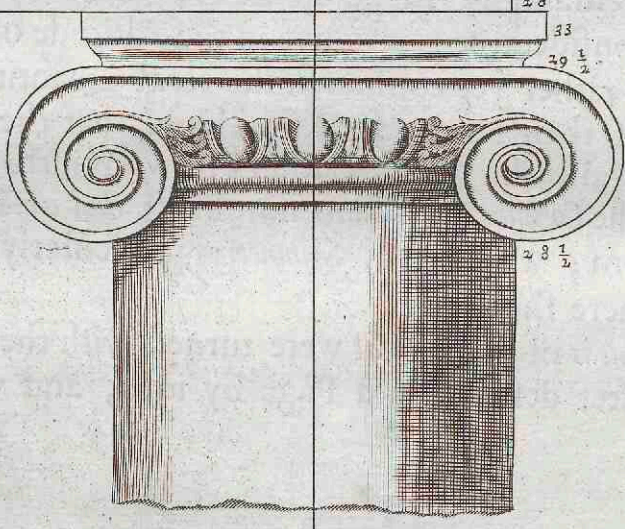
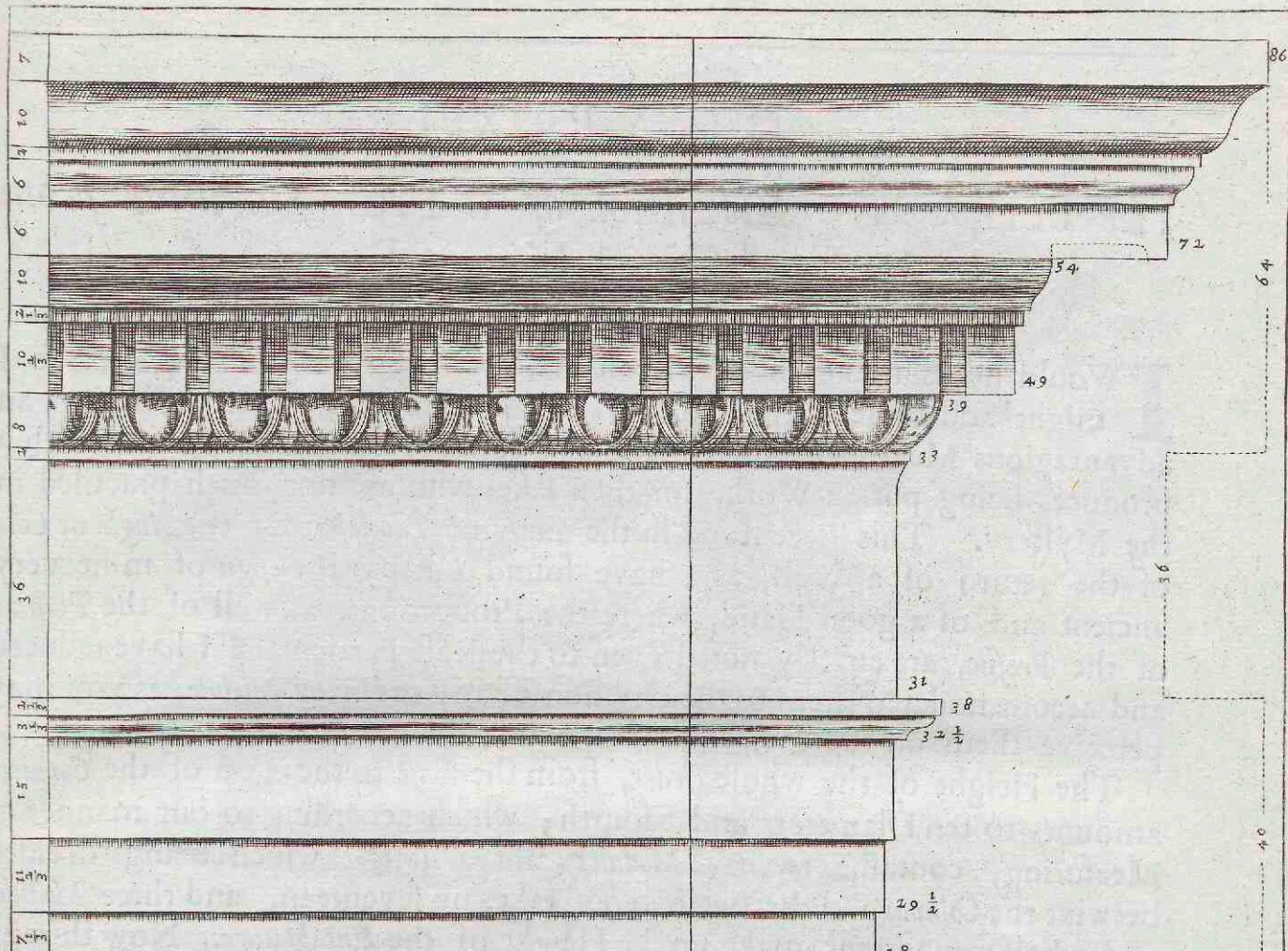
SOME may imagine that I ought to have established my *Ionic Order* upon this *Example*, being as it were the *Twin-Brother* of the first *Doric* with which I have commenced this *Collection of Architecture*, being both of them extracted out of the same *Edifice*, which is the *Theatre of Marcellus*. And to speak *Truth*, it was my first *Design*: But second *Cogitations* being ordinarily the more judicious, I have since considered, that the *Ampleness* of *Entablature* with its extraordinary *Plainness*, was a particular *Effect* of the *Architect's* *Discretion*, who resolving to place this *Order* in an exceeding large *Building*, and also upon an elevated *Place*, where the *Sight* could hardly enjoy those *Ornaments* wherewithal it is usually enriched, had *Regard* only to the *Reformation* of that, by a *Rule* of the *Opticks*, which the *Eye* might possibly find fault with in the *Grace* of its general *Proportions* from the *Distance* of its *Elevation*; so that we may affirm of this *Profile*, that it does excellently well in *Work* as it is placed in the *Original*; but would not succeed so well in another of more *Mediocrity*; and above all, in a *Work* of one only *Order*, unless it were of a *Colossian* *Magnitude*; which is yet in truth neither proper nor natural to its feminine *Kind*: However, I will here present you with its *Proportions* as well as with the others.

The *Height* of the entire *Order* is twenty-two *Modules* and two *Thirds*.

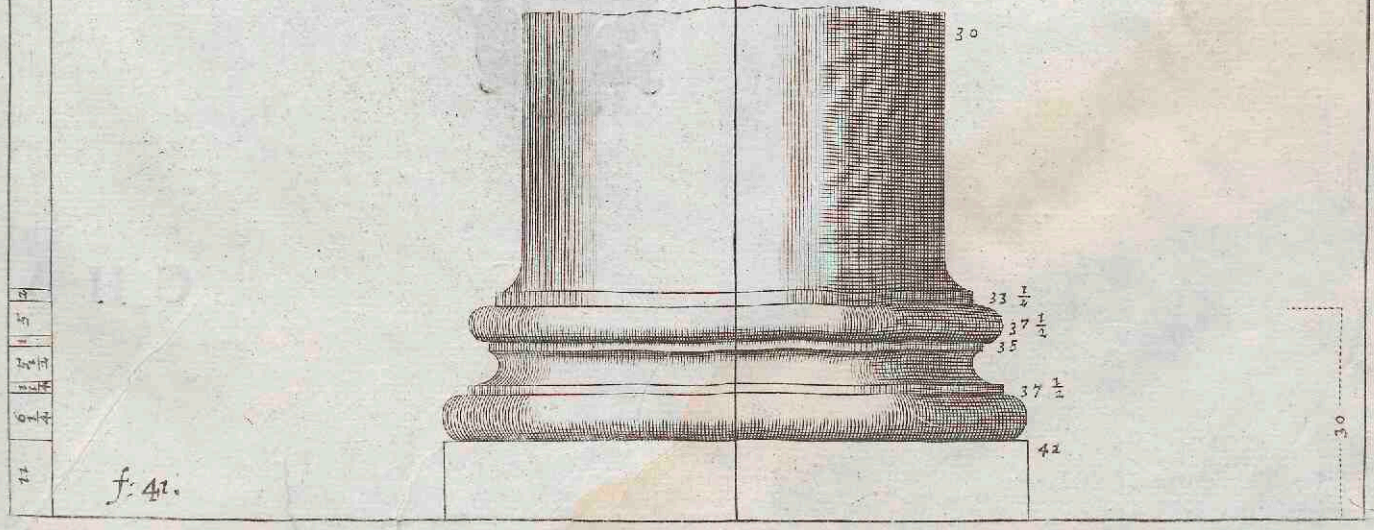
The *Column* with her *Base* and *Chapter* hath but eighteen, and those precise enough; so as the whole *Entablature*, consisting of four and two *Thirds*, it happens to be of an extraordinary *Grandure*, inasmuch as it exceeds a *Quarter* of the *Order*, which is the largest *Proportion* can justly be given even to the *Doric* itself.

The *Projecture*, or *Fette* of the *Cornice*, is also a little extravagant; but the *Architect* has, for all that, shewed himself very judicious, having respect in that to the entire *Mass* of the *Building*, and to the *Eminence* of the *Site* of this second *Order*: For the same *Reason* he afforded but very little *Diminution* to the *Column* above.

The *Volutas* of the *Capital* are *Oval*, as in the precedent *Order*; and this *Shape* of the *Volutas* was much practised by the *Ancients*; but the *Method* of turning them with the *Compass* is somewhat difficult, and has never as yet been demonstrated.



The Theater of Marcellus at Rome.



f. 41.

C H A P. XVI.

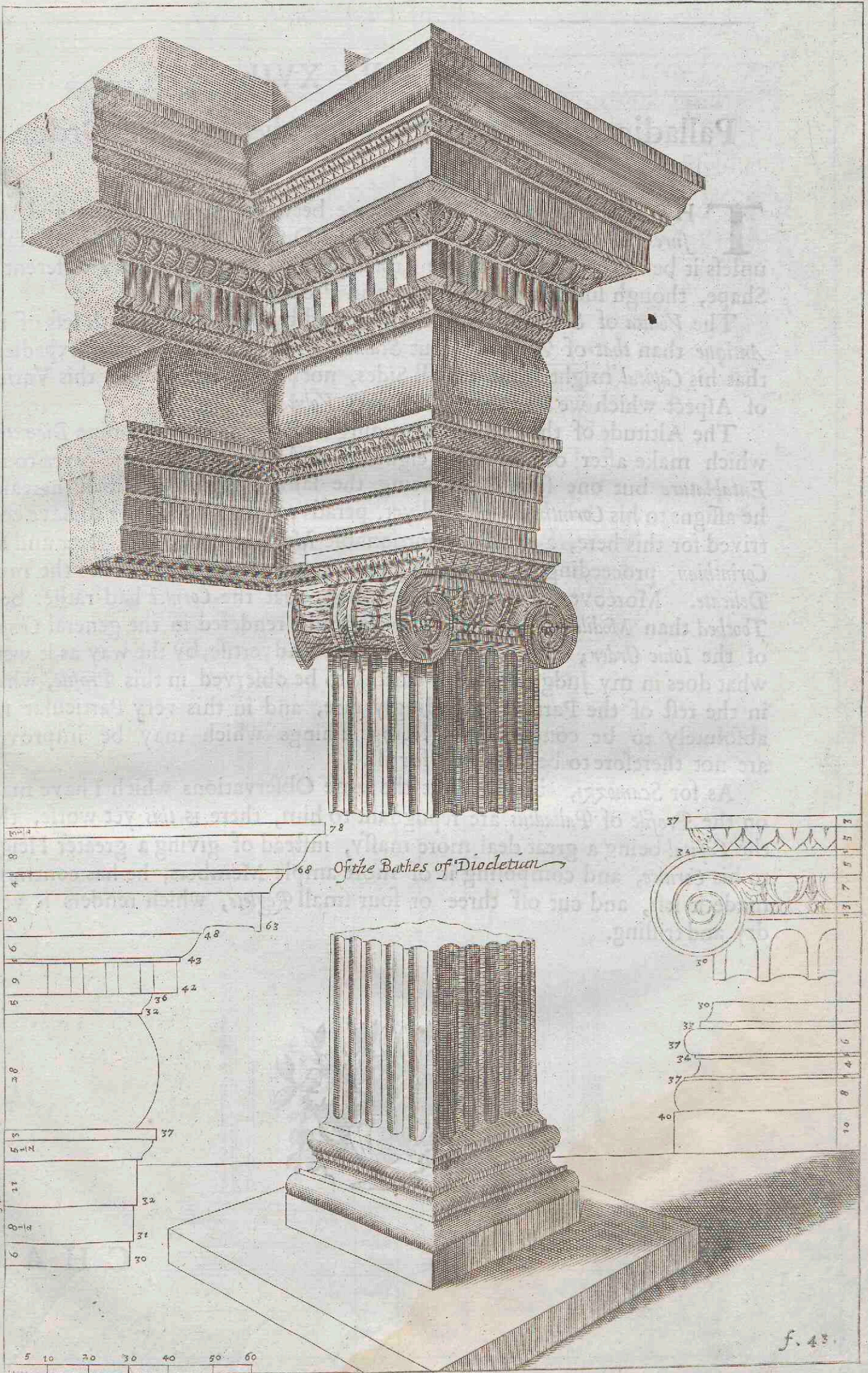
The Perspective Elevation of a Profile drawn from the Baths of Dioclesian at Rome.

I Would needs make an Elevation in *Perspective* of this *Profile*, that so I might add some Variety to my Designs, and for that likewise it is an advantagious Means to represent the *Idea* of an *Order*, and the Effect which it produces being put in Work, for their sakes who are not much practised in the Mystery. This Piece stood in the *Baths* of *Dioclesian*, at the *Angle* or *Coin* of the return of a Wall, as I have found out by a *Design* of mine very ancient and of a good Hand, where the Proportions, as well of the *Plan* as of the *Profile*, are exactly noted even to the least Particulars. I have reduced and accommodated them to the Division of my ordinary *Module*, as you may perceive them on the *Profile* which is under the *Perspective Entablature*.

The Height of the whole *Order*, from the *Base* to the Top of the *Cornice*, amounts to ten Diameters and a fourth; which according to our manner of Measuring, contains twenty *Modules* and a half; which being divided betwixt the *Column* and the *Entablature*, takes up seventeen, and three *Modules* and a half remaining, make up the Height of the *Entablature*. Now though there be a considerable Difference in the Altitude of our first *Ionic Example*, and this *here*, it rather yet consists in the total Quantity of the *Order*, than in the Proportion of their Parts; for I find here, that the *Entablature* compared to its *Column*, has also the same relation of two Nincths; which is to say, that the Height of the *Column* divided in nine Parts, that of the *Entablature* comprehends two of them; which is a *Symmetry* particularly affected to this *Order*, as I have elsewhere shewed.

The *Volutas* of the *Capital* were turned with the *Compass*, after the manner I shall hereafter describe in a Page by itself, and with which I shall conclude this *Order*.





C H A P. XVII.

Palladio and Scamozzi upon the IONIC Order.

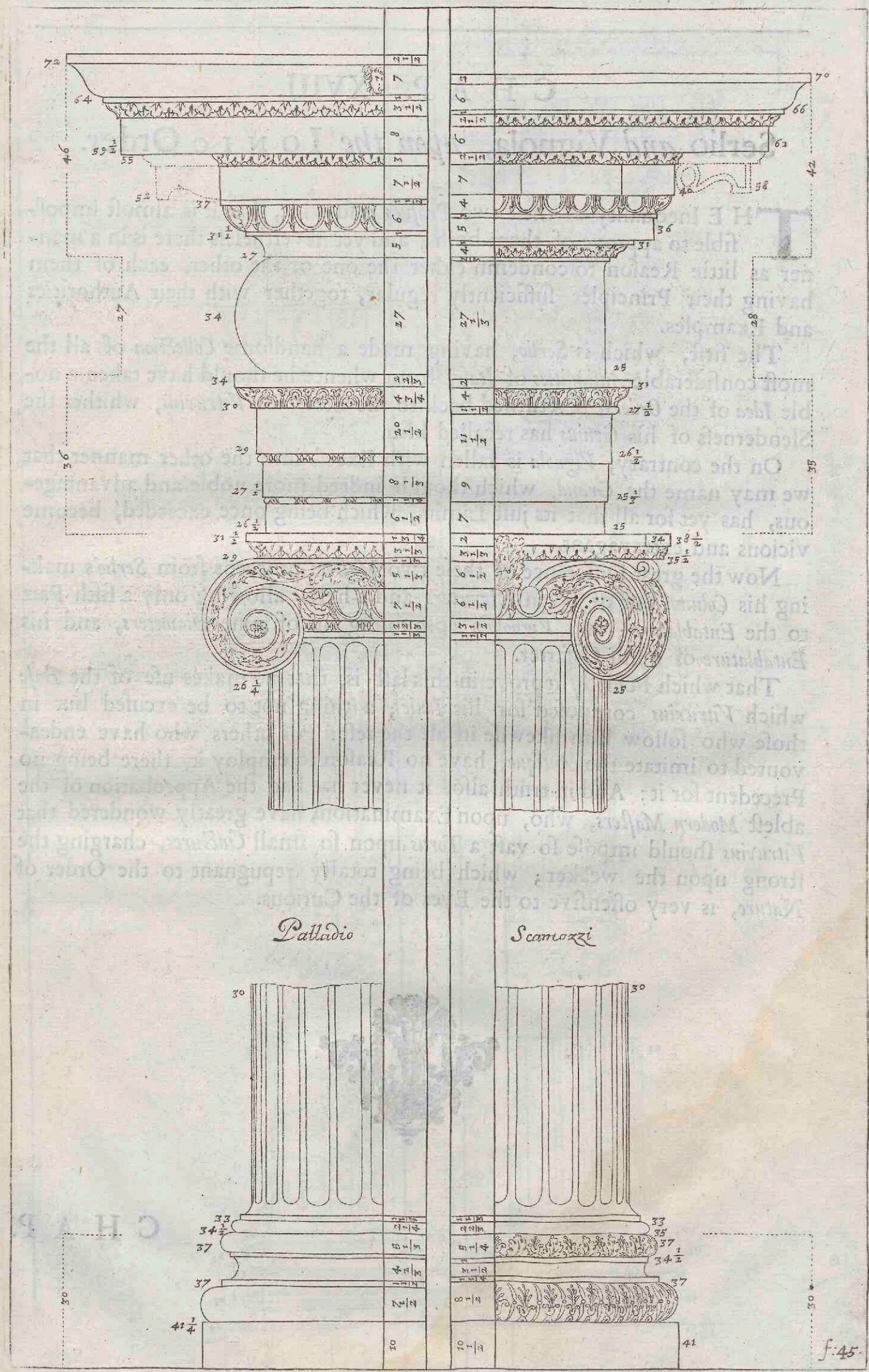
TH E R E is so great a Resemblance betwixt the *Mouldings* and the *Measures* of these two *Profiles*, that the Difference is hardly considerable unless it be in the Figure of the *Capitals*, which in truth is very different in Shape, though sufficiently resembling in Proportion.

The *Voluta* of *Scamozzi* in particular, and by consequence hath less of the *Antique* than that of *Palladio*. But *Scamozzi* has excogitated this Expedient, that his *Capital* might front on all Sides, not liking, it may be, this Variety of Aspect which we find in the ordinary *Volutas*.

The Altitude of the *Column*, according to *Palladio*, contains nine *Diameters*, which make after our Measure eighteen *Modules*; of which he gives to the *Entablature* but one fifth Part, being the same Proportion which hereafter he assigns to his *Corinthian*: He had yet, peradventure, done better to have contrived for this here, a more proportionable *Medium* betwixt the *Doric* and the *Corinthian*, proceeding by a certain Gradation from the *Solid* kind to the more *Delicate*. Moreover, I could have wished, that the *Cornice* had rather been *Toothed* than *Modilioned*, for the Reason already rendered in the general *Chapter* of the *Ionic Order*; which I mention only to Advertise, by the way as it were, what does in my Judgment seem worthy to be observed in this *Profile*, which in the rest of the Parts is exceedingly rare, and in this very Particular not absolutely to be condemned; seeing Things which may be improved, are not therefore to be esteemed for ill.

As for *Scamozzi*, besides that the same Observations which I have made on the *Profile* of *Palladius* are repugnant to him, there is *this* yet worse, that the *Capital* being a great deal more massy, instead of giving a greater Height to his *Cornice*, and composing it of more ample Members, he has contrarily made it less, and cut off three or four small *Reglets*, which renders it very dry and trifling.





C H A P. XVIII.

Serlio and Vignola, upon the I O N I C Order.

TH E Inequality of these two *Profiles* is so wide, that it is almost impossible to approve of them both ; and yet nevertheless there is in a manner as little Reason to condemn either the one or the other, each of them having their Principles sufficiently regular, together with their Authorities and Examples.

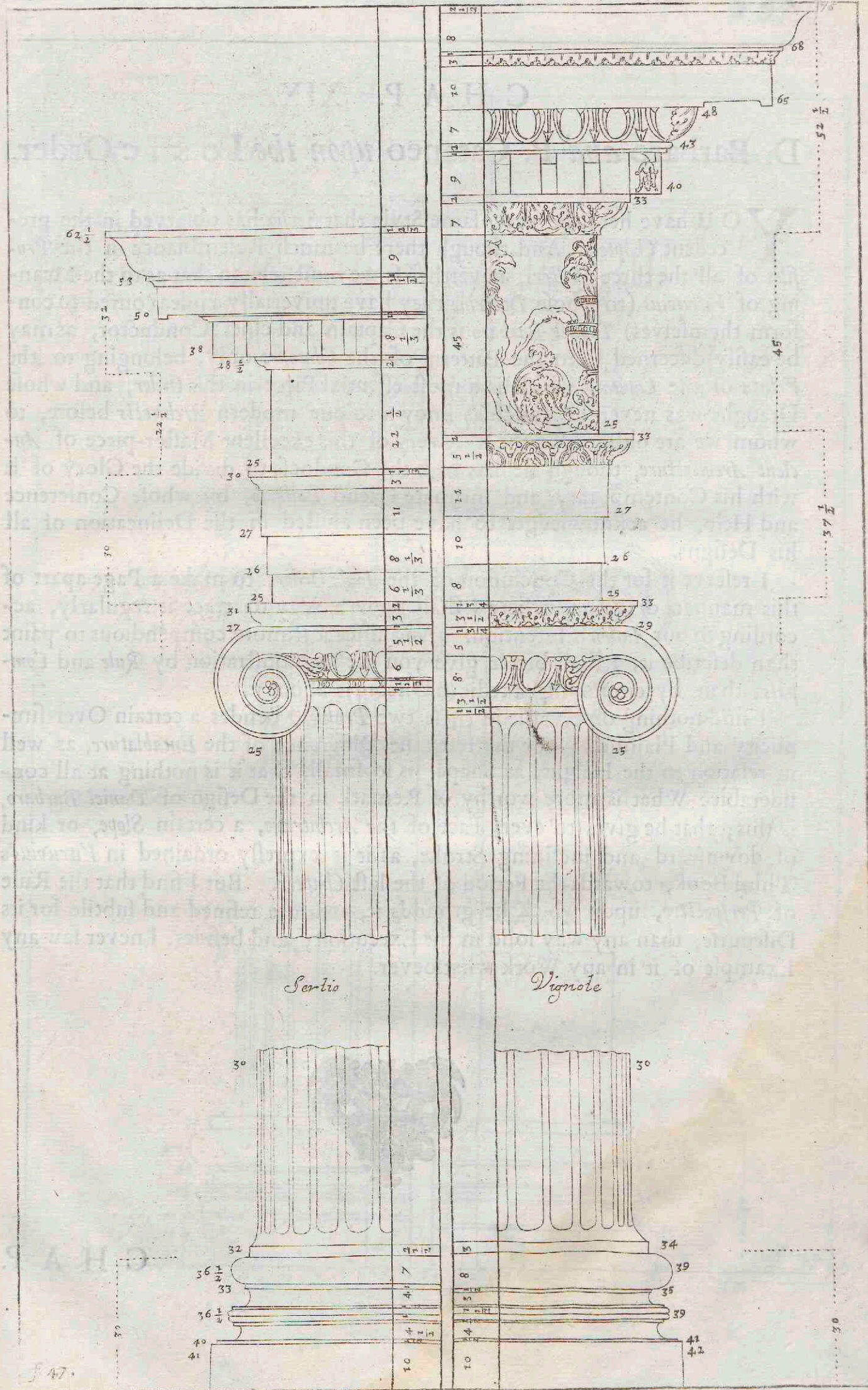
The first, which is *Serlio*, having made a handsome *Collection* of all the most considerable *Antiquities* of *Italy*, from whence he should have taken a noble *Idea* of the *Orders*, is returned back to the *School* of *Vitruvius*, whither the Slenderness of his *Genius* has recalled him.

On the contrary, *Vignola* is fallen with Excess into the other manner that we may name the *Grand*, which though indeed more noble and advantageous, has yet for all that its just Limits, which being once exceeded, become vicious and extravagant.

Now the great Difference of these two *Masters* proceeds from *Serlio's* making his *Column* but of seven *Diameters* and a half, allowing only a fifth Part to the *Entablature* ; and *Vignola's* composing his of nine *Diameters*, and his *Entablature* of a full Quarter.

That which I chiefly reprove in this last is, that he makes use of the *Base* which *Vitruvius* composed for his *Ionic* ; a thing not to be excused but in those who follow him likewise in all the rest : For others who have endeavoured to imitate the *Antique*, have no Reason to employ it, there being no Precedent for it : And in truth also, it never has had the Approbation of the ablest *Modern Masters*, who, upon Examination, have greatly wondered that *Vitruvius* should impose so vast a *Torus* upon so small *Cinctures*, charging the strong upon the weaker ; which being totally repugnant to the Order of *Nature*, is very offensive to the Eyes of the Curious.





Sertio

Vignole

f. 47.

C H A P. XIX.

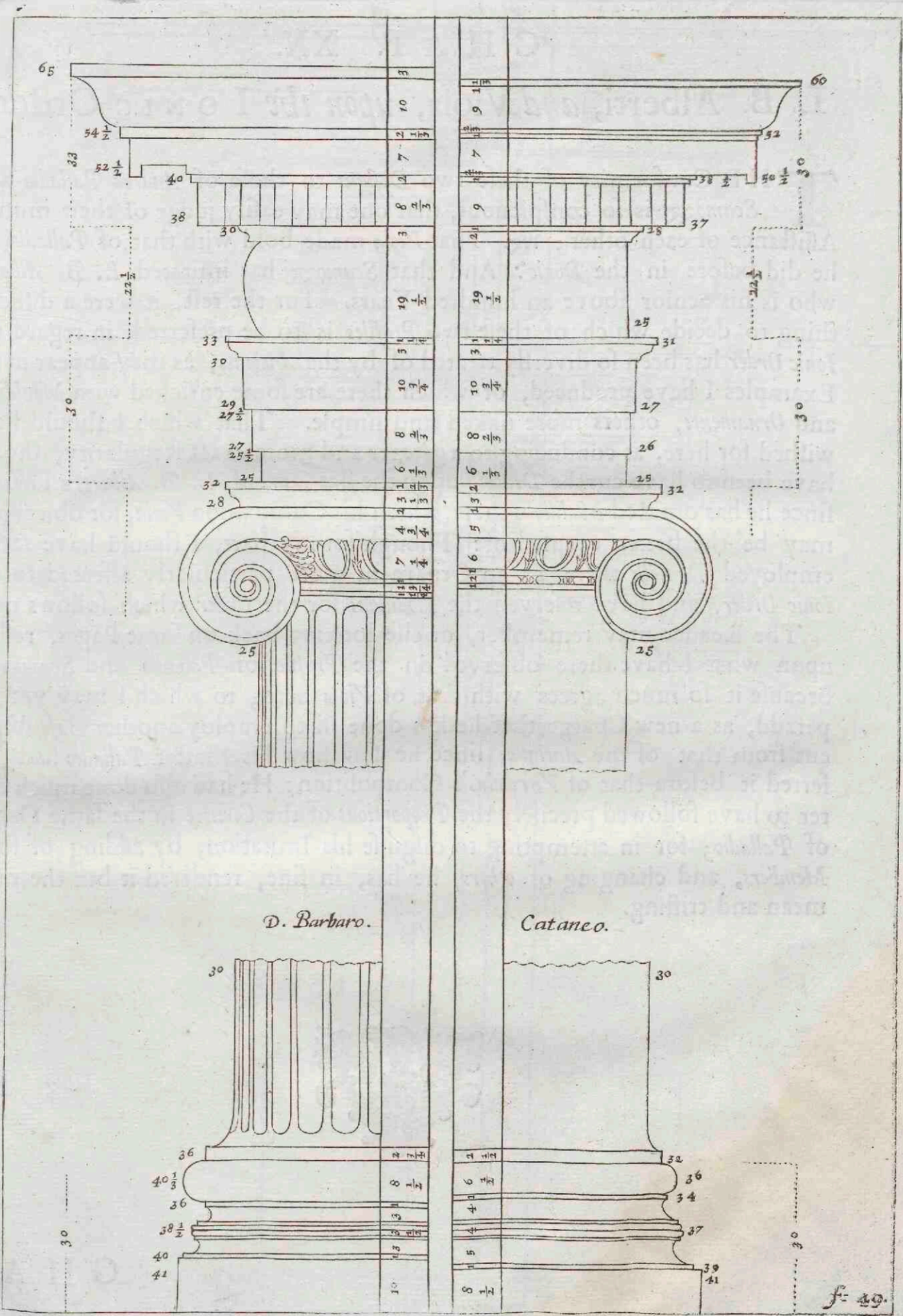
D. Barbaro and P. Cataneo upon the I O N I C Order.

YOU have here the very same Style that *Serlio* has observed in the precedent *Chapter*: And though there be much Resemblance in the *Profiles* of all the three *Masters*, nevertheless we must reckon that as to the Meaning of *Vitruvius* (to whose *Doctrine* they have universally endeavoured to conform themselves) *Daniel Barbaro* is the Captain and chief Conductor, as may be easily discerned from the Pattern of the *Contours* only, belonging to the *Voluta* of the *Capital*, which is a most essential Piece in this *Order*, and whose Draught was never so much as known to our modern *Architects* before, to whom we are obliged for the Recovery of this excellent Master-piece of *Ancient Architecture*, though he has had the Goodness to divide the Glory of it with his Contemporary and intimate Friend *Palladio*, by whose Conference and Help, he acknowledges to have been assisted in the Delineation of all his Designs.

I reserve it for the Conclusion of the *Ionic Order*, to make a Page apart of this manner of *Voluta*, where I shall shew a Way to trace it regularly, according to our *Author's* Intention. And since it is more compendious to paint than describe it, I shall better give you the Demonstration by *Rule* and *Compass*, than by employing a tedious Discourse about it.

I find nothing observable in these two *Profiles*, besides a certain Over-simplicity and Plainness: For the rest, the Difference of the *Entablature*, as well in relation to the Height, as Shape, is so small, that it is nothing at all considerable: What is more worthy of Remark in the Design of *Daniel Barbaro*, is this; that he gives to every Face of the *Architrave*, a certain *Slope*, or kind of downward and inclining Stroke, as it is expressly ordained in *Vitruvius's* Third Book, towards the Period of the last *Chapter*. But I find that the Rule of *Perspective*, upon which he grounds it, is more refined and subtile for its Discourse, than any way solid in the Execution; and besides, I never saw any Example of it in any Work whatsoever.





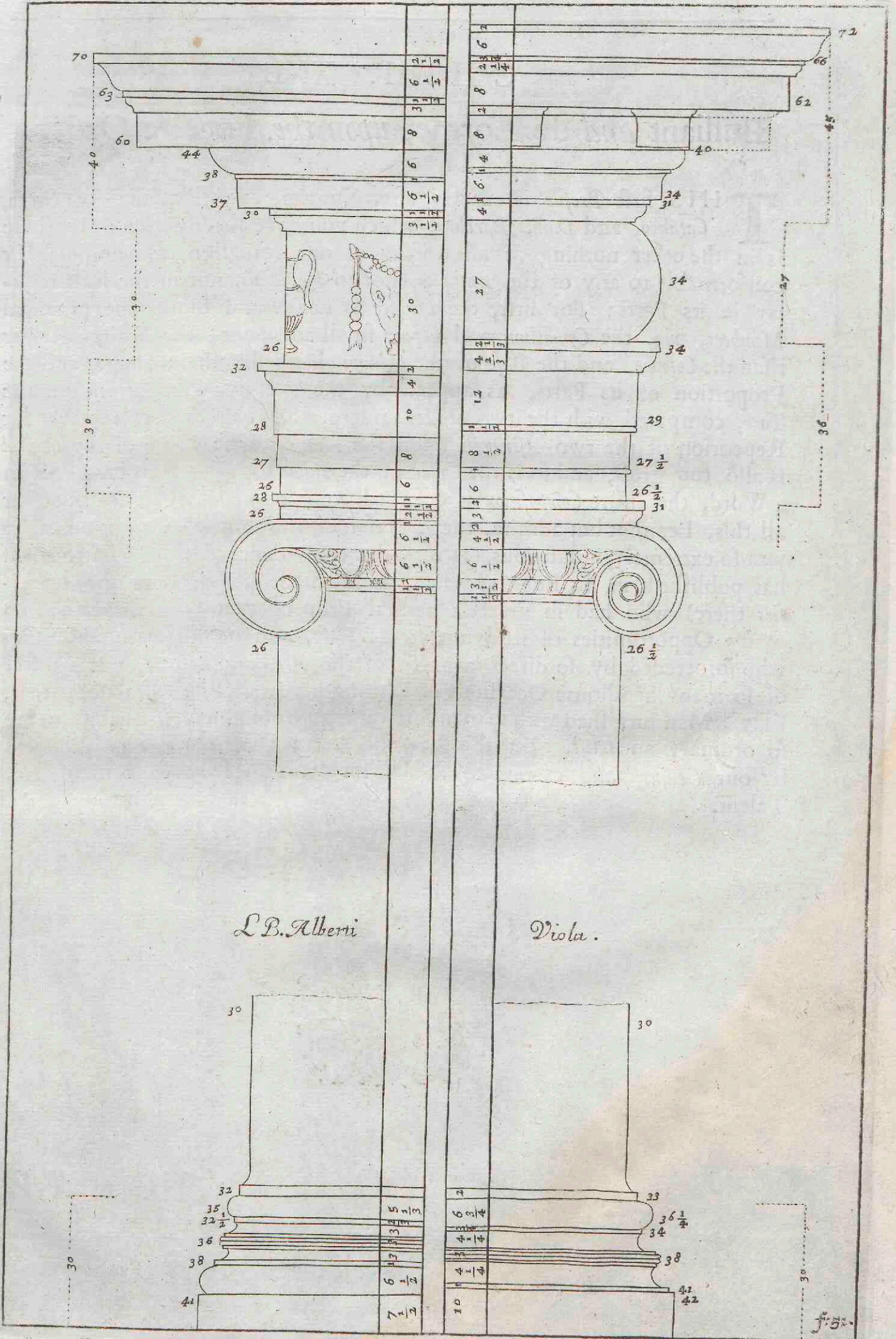
C H A P. XX.

L. B. Alberti, and Viola, upon the I O N I C Order.

THE Conformity of these two *Designs* to those of *Andrea Palladio* and *Scamozzi* is so conspicuous, that one may easily judge of their mutual Assistance of each other; viz. That *Viola* made bold with that of *Palladio*, as he did before in the *Doric*: And that *Scamozzi* has imitated *L. B. Alberti*, who is his Senior above an hundred Years. For the rest, it were a difficult thing to decide which of these two *Profiles* is to be preferred, in regard the *Ionic Order* has been so diversly treated of by the *Ancients*, as may appear in the Examples I have produced, of which there are some enriched with *Mouldings* and *Ornaments*, others more naked and simple. That which I should have wished for here, as conducing to a greater and more exact Regularity, should have been to have cut the *Dentelli* upon the flat *Band* of *L. B. Alberti's* Design, since he has omitted *Modillions* there, which his Companion *Viola*, for observing, may be the better excused of: Though for my part, I should have rather employed *Dentelli* there, as an Ornament more particularly affected to the *Ionic Order*, and have reserved the *Modillions* for the *Order* which follows next.

The Reader may remember, or else looking back on some Pages, reflect upon what I have there observed on the *Profiles* of *Palladio* and *Scamozzi*; because it so much agrees with that of *Viola* here; to which I may yet superadd, as a new Charge, that he has done ill to employ another *Base* different from that of the *Antique*, since he saw how his Master *Palladio* had preferred it before that of *Vitruvius's* Composition: He had also done much better to have followed precisely the *Proportions* of the *Cornice* in the same Design of *Palladio*; for in attempting to disguise his Imitation, by adding of some *Members*, and changing of others, he has, in fine, rendered it but the more mean and trifling.





L.B. Alberti

Viola.

C H A P. XXI.

Bulliant and de Lorme, upon the IONIC Order.

THIS first Profile is exactly after *Vitruvius*, as well as that of *Serlio*, *Cataneo*, and *Daniel Barbaro*, which you have already seen: But there is in the other nothing at all worthy of our Imitation, as being neither conformable to any of the *Antiques*, nor to *Vitruvius*, nor in the least regular in its Parts: For first, the *Cornice* is *camuse* and blunt, the principal Members, viz. the *Cymatium* and *Coping* small and poor; the *Freeze* is larger than the *Cornice*, and the *Base* of the *Column* changed both in Shape, and the Proportion of its Parts, as appears by the excessive Dimensions of the *Tore*, compared with the two *Scotias* underneath; besides that extravagant Repetition of the two *Astragals* upon the *Plinth*. The *Voluta* of the *Capital* is also too gross, and so is the *Collar* of the *Pillar* together with its *List*: In a Word, the entire *Composition* is deservedly ranged in this Place. But after all this, I cannot but admire, that a Person of this *Author's* Condition, who was so extremely industrious (as may be easily deduced from what himself has published in his Book of Observations made at *Rome* upon the *Antiquities* there) who had so great a natural Propensity to *Architecture*, and so many Opportunities of studying at his Ease, and of instructing himself; who proceeded by so direct a *Method* of the *Art*, and in fine, was Master of so many handsome Occasions of putting his Studies into Practice; that, I say, a Man furnished with so many Advantages, should nevertheless immerge so ordinary an *Artist*. But this shews us, that we are many times deceived by our *Genius*, and carried to things for which we have no manner of Talent.





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C H A P. XXII.

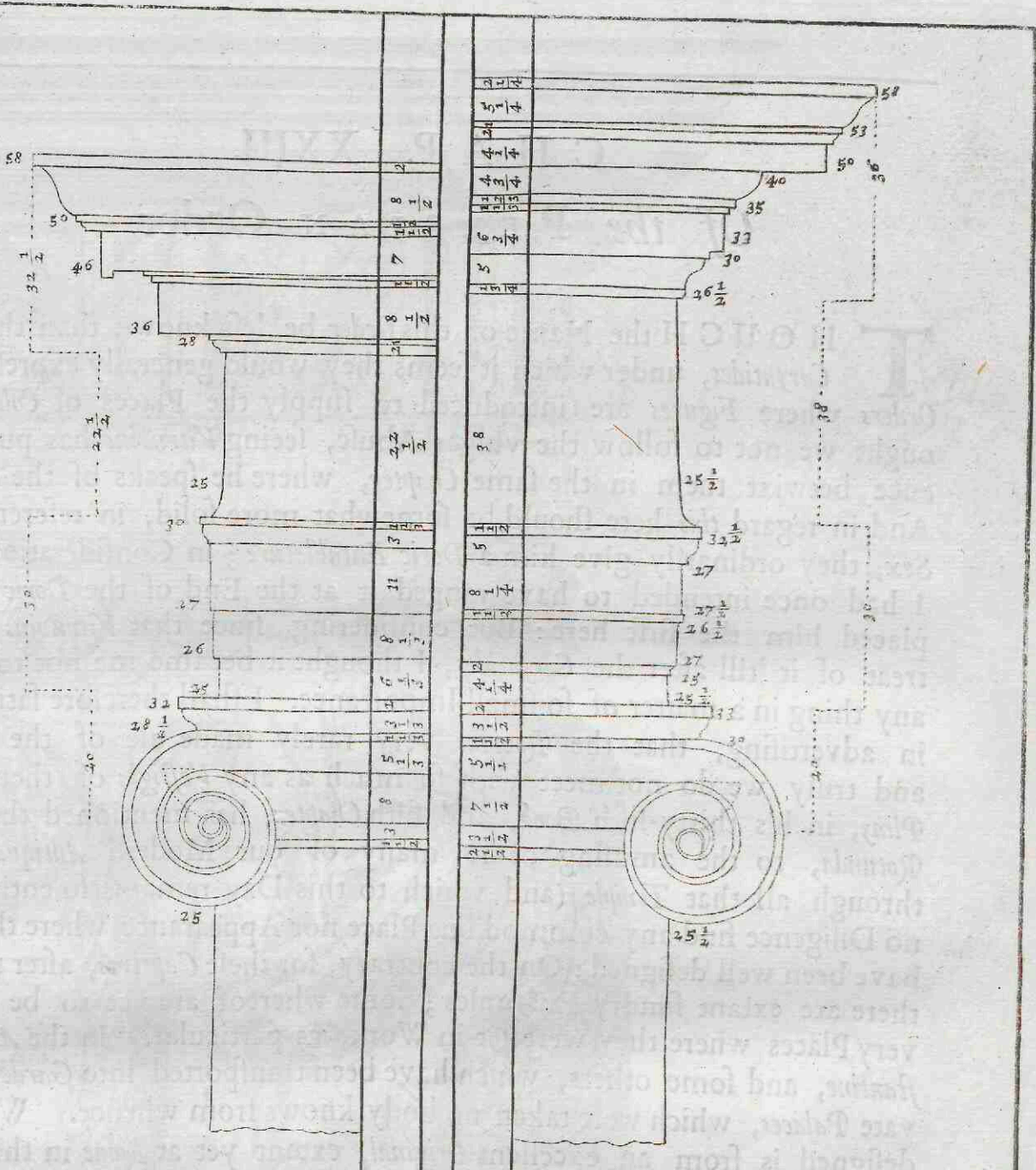
The Order of the CARYATIDES.

I Intend not here to repeat the *History* from whence this *Order* has derived its *Original*, having already so amply deduced it in the general Chapter of the *Ionic Order*, whereof this is here but a *Species*; all the Difference consisting in the sole Alteration of the *Column*, metamorphos'd into the Figure of a *Woman*, which for appearing sometimes incommodious to *Architects*, from the extreme over-largeness of the *Vests* and *Garments* cumbering and disordering the *Passage* and *Symmetry* of the *Intercolumniation*, caused them to reduce it only to the carving of *Heads* in place of the *Capitals* where they adjusted and compos'd the *Dressing* and *Tyre* to the Resemblance of *Volutas*, without any Alteration in the rest of the *Column*, unless where they cut *Channels* or *Flutings* on it, to represent after a Sort the *Plaitings* and *Folds* of these *Matrons* *Garments*; since this Ornament is found to change neither the *Diameter* nor *Height* of the *Shaft*, which are the *Bases*, and as it were *Foundations* of *Architectonical* Proportions.

That which I asserted before concerning the *Caryatides* in the general Chapter of the *Ionic Order*, sufficiently discovers how few the Occasions are where they can be employed judiciously; notwithstanding so many of our modern *Architects* take so great a Liberty of introducing them indifferently into all sorts of Works: For not only the *Palaces* of great *Princes* without and within, but even the *Houses* of private *Persons*, *Churches* and *Sepulchres* themselves are filled with them, without any regard either to the *Reason* of the *History*, or to just *Decorum*: Nay oftentimes, out of an insupportable Extravagance, in lieu of these poor and miserable *Captives*, they set the venerable Figures of the *Virtues*, *Muses*, *Graces*, and *Angels* themselves; whereas they should in Truth rather chain and confine the *Vices* there.

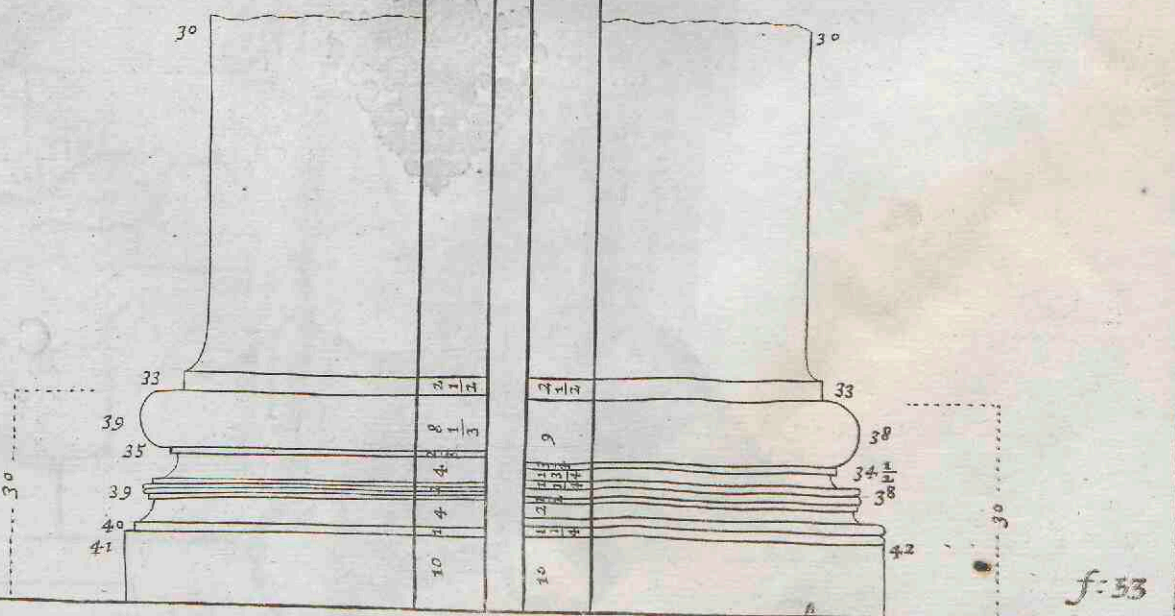
But it is sufficient to have advertised you of this Abuse, without any further declaiming against it.





J. Bullant.

Philibert de Lorme.

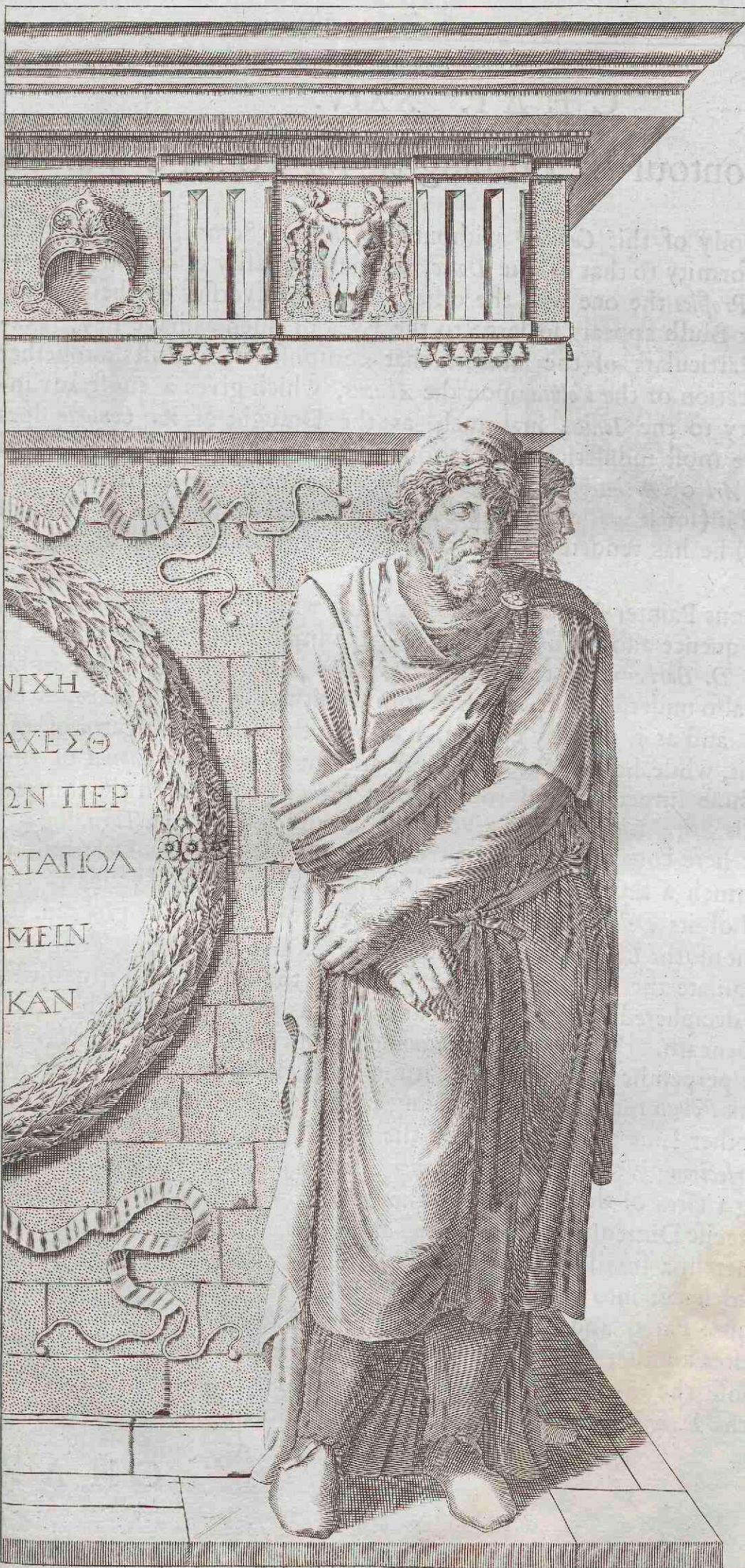


C H A P. XXIII.

Of the PERSIAN Order.

THOUGH the Name of this *Order* be less known than that of the *Caryatides*, under which it seems they would generally express all those *Orders* where *Figures* are introduced to supply the Places of *Columns*; yet ought we not to follow the vulgar Abuse, seeing *Vitruvius* has put a Difference betwixt them in the same *Chapter*, where he speaks of the *Caryatides*: And in regard *this* here should be somewhat more solid, in reference to the *Sex*, they ordinarily give him a *Doric Entablature*; in Consideration whereof I had once intended to have ranged it at the End of the *Doric Order*, or placed him the first here: But considering, since that *Vitruvius* does not treat of it 'till after the *Caryatides*, I thought it became me not to innovate any thing in a matter of so small Importance. I shall therefore satisfy myself in advertising, that the *Romans* very rarely made use of the *Caryatides*; and truly we do not meet with so much as any *Vestigia* of them, though *Pliny*, in his thirty-fifth *Book*, and fifth *Chapter*, has mentioned those of the *Rotunda*, to the amusing of so many of our Modern *Antiquaries*, who, through all that *Temple* (and which to this Day remains so entire) can by no Diligence find any commodious Place nor Appearance where they should have been well designed: On the contrary, for these *Captives*, after the *Persian*, there are extant sundry Examples; some whereof are yet to be seen in the very Places where they were set in Work, as particularly in the *Arch of Constantine*, and some others, which have been transported into *Gardens* and private *Palaces*, which were taken no body knows from whence. What is here designed is from an excellent *Original*, extant yet at *Rome* in the *Palace of Farnesi*.





Of the Contour
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C H A P. XXIV.

Of the Contour or Turning of the IONIC Voluta.

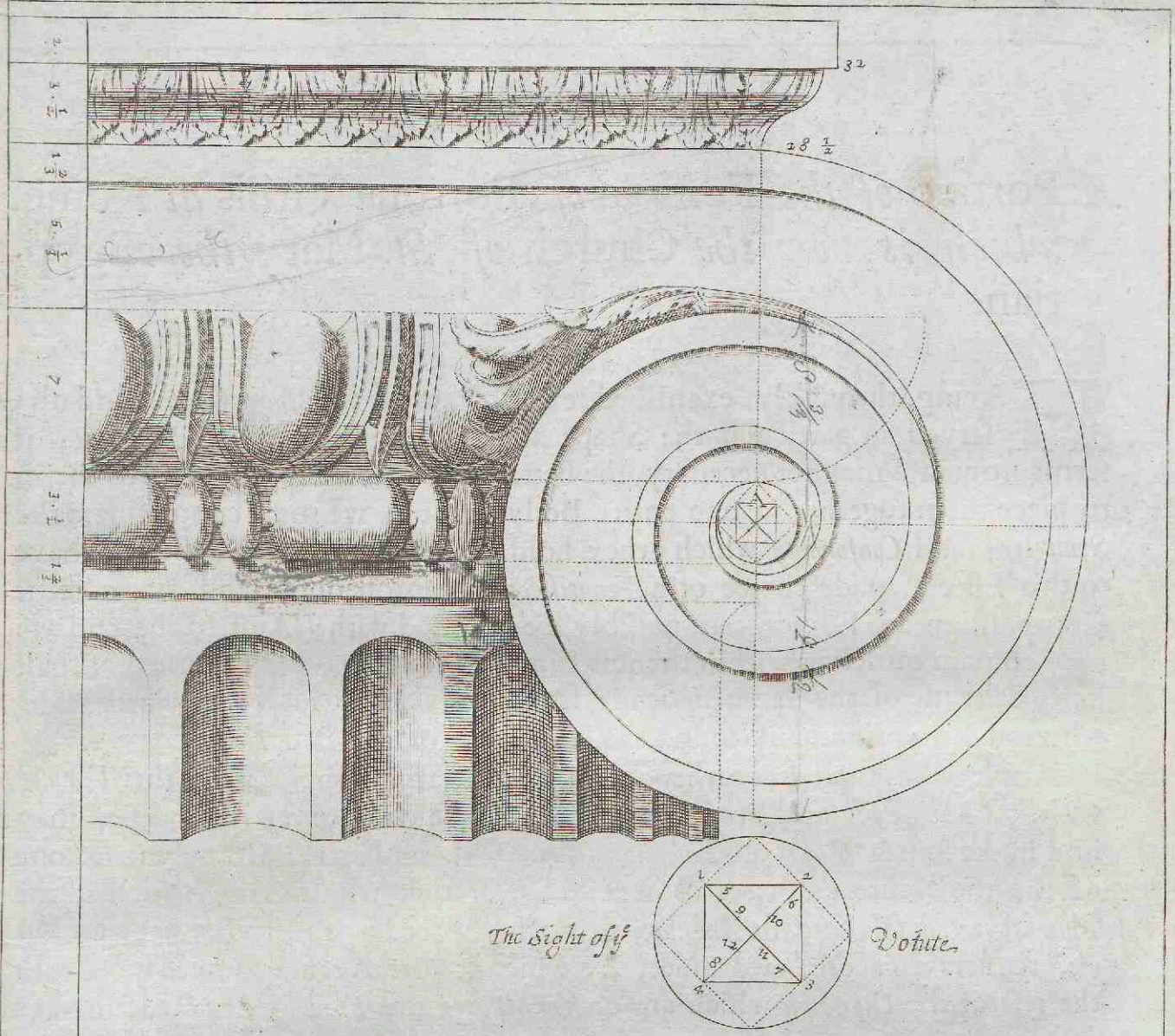
THE Body of this *Capital*, without its *Voluta* or *Scroul*, bears a great Conformity to that of the *Doric*, as may be easily discerned by conferring their *Profiles* the one with the other: For the Diversity of their Form, which at first Blush appears so large to the Eyes of such as have never examined the Particulars of the *Members* that compose it, consists altogether in the Application of the *Voluta* upon the *Abacus*, which gives a most advantageous Variety to the *Ionic*; inasmuch as the Draught of its *Contour* does consist of the most industrious Operation of the *Compass* which is practised in the whole *Art of Architecture*; so as whoever of our modern *Masters* he were that retrieved it (for it was a long time lost, and totally unknown to those of the *Profession*) he has rendered doubtless a very considerable Piece of Service to the *Art*.

That famous Painter *Salviati*, Contemporary with the R. *Daniel Barbaro*, and by consequence also with *Palladio*, printed a small loose Sheet, which he dedicated to *D. Barbaro*, as to the most famous *Arbiter of Architecture* in his Time, who also understood it, and had communicated it with *Palladio*, who accidentally, and as it were by chance, had been the first Investigator of the Practice of it, while he met amongst some ancient *Fragments* a *Capital* of this Order, on whose imperfect and rough-hewn *Voluta* he observed the thirteen Centers of this *Spiral Line*, which gives so noble and ingenious a *Turn*.

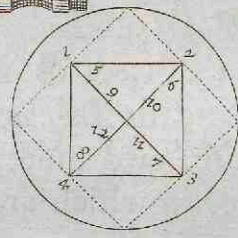
I will not here engage myself on a tedious Discourse about its Description, it being so much a shorter and more demonstrative Way to advance to the direct *Method* of its *Delineation*: Thus then in general you are to proceed.

The Height of the *Chapter*, and Partition of each Member being designed, one must regulate the Extent and Proportion of the *Abacus* conformable to the Measure deciphered upon the *Profile* at the Point of 32, and at the Point 28½ a little beneath. Where the *Cymatium* encounters the *List* of the *Scroul*, make a little perpendicular Line, so as it may pass through the very Center of the *Eye* of this *Voluta* marked A, 'till falling upon a *Right Angle* by the Coincidence of another Line proceeding from the Middle of *Collerine* or *Chaplet*, the Point of *Interfection* gives you the just Center of the *Eye*: Then about this Center describing a *Circle* of the Wideness of the *Collerine* (which *Circle*, as was said, points the precise Dimensions of the *Eye*, and its true Place of Position) you shall form therein a small *Square*, through whose *Angles*, having drawn two *Diagonals*, which cut into four *Triangles*, divide each *Moiety* of the *Diagonals* into three equal Parts, and each of these Points shall serve for consecutive Centers one after another, by which to form those several Quarters of *Circles* which compose the *Spiral Line* of the *Voluta*. They are distinguished by *Numbers* on the *Design*, according to the Order by which you are to proceed.

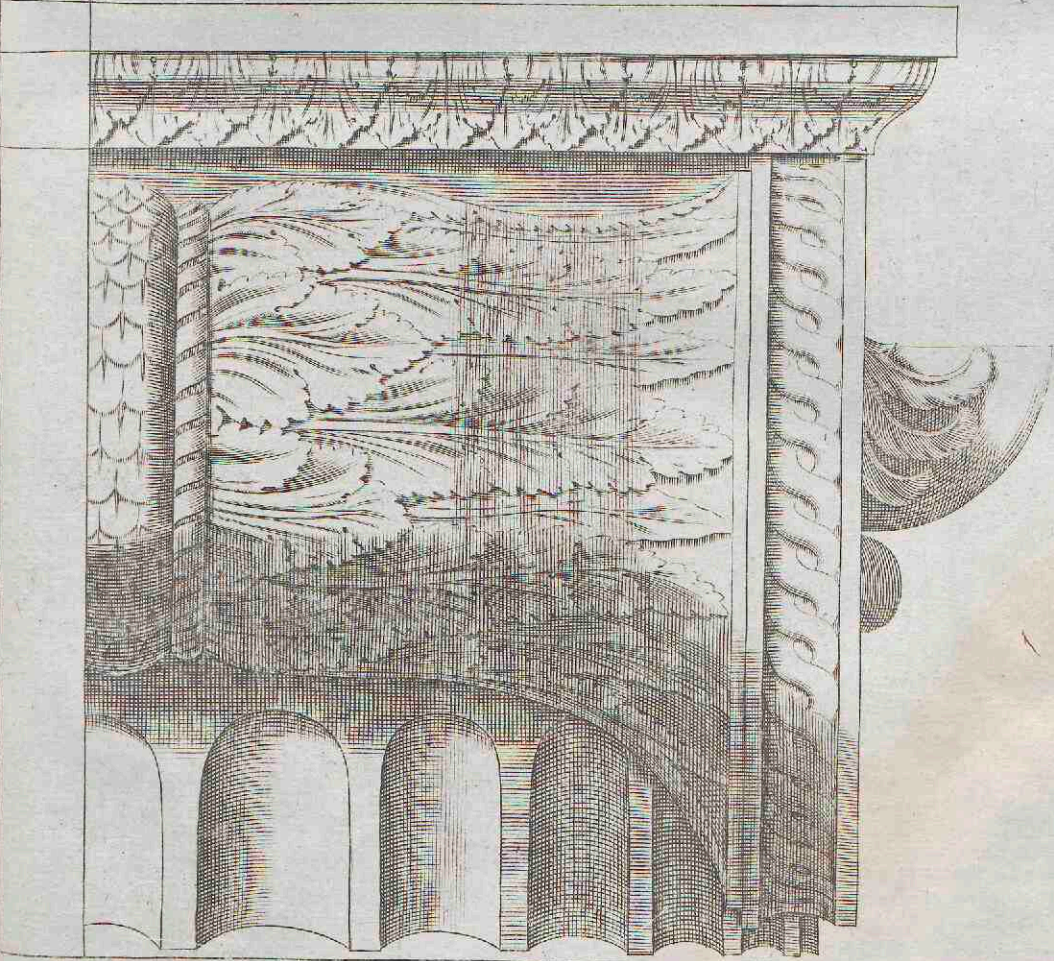
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The Sight of



Volute



C H A P. XXV.

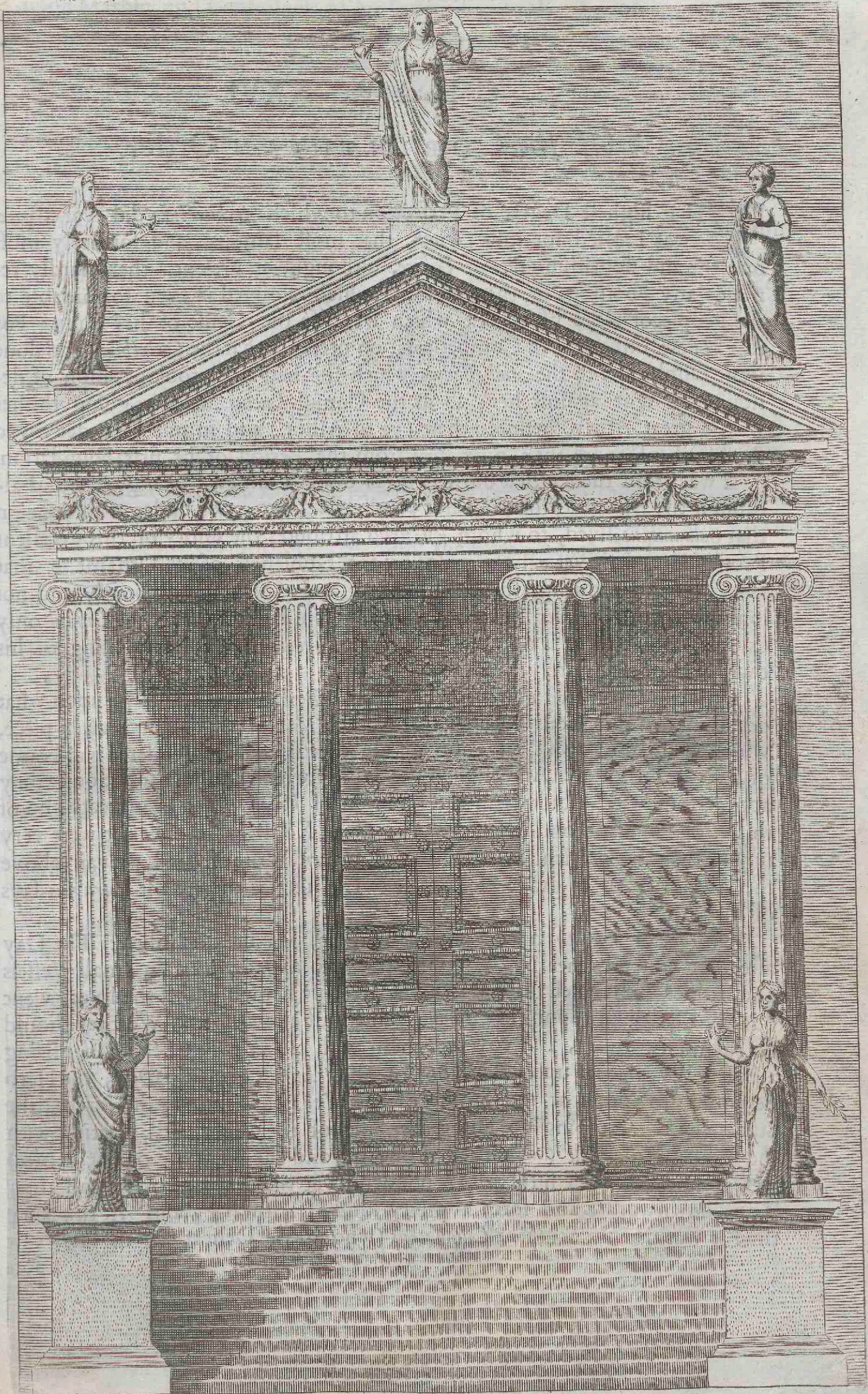
A Portico of the Temple of Fortuna Virilis at Rome, which is now the Church of St. Mary the Ægyptian.

HAVING thoroughly examined every Part of the *Ionic Order*, and observed in particular the Shape and Proportion of all its *Members*; it seems now in a manner necessary, the better to conceive a perfect *Idea* of them, to place them together in one entire Body, that so we may contemplate the *Symmetry* and *Conformity* which they hold mutually to each other: I have to this Effect, made choice of a *Frontispiece* the most noble and magnificent Composition an Edifice can possibly be adorned with: And to the end we may contain ourselves within the just Limits which I have established, I shall here make use of the same *Antiquity* from whence I extracted my first *Model*, whereon I do principally found the Regularity of the *Doric Order*.

Those who shall have the Curiosity to examine the *Plan* of this *Temple*, with its Measures and *Profile* of the *Door*, which is exceeding noble, may find in the fourth *Book* of *Palladio*, *Chap. XIII.* and at the same time see one of the most curious Pieces of *Architecture* of that whole *Book*, which is the *Plan* of a *Capital* he calls *Angular*, that being placed upon the *Column* of an *Angle*, renders a *Face* of two *Sides*, by which it preserves the same *Aspect* with the rest of the *Capitals*, which are on the *Wings* and *Front* of the *Structure*.



C H A P.



C H A P. XXVI.

Of the CORINTHIAN Order.

THE highest Degree of Perfection to which *Architecture* did ever aspire, was erected for it at *Corinth*, that most famous, and formerly most opulent and flourishing City of *Greece*, although, at present, there hardly remains any Footsteps of the Grandure which rendered it even formidable to the People of *Rome* itself, but which was also the Cause of her Ruin: For this Nation, impatient of Competitors, on pretence that the *Corinthians* had done some Displeasure to the *Ambassadors* which she had sent, took occasion of denouncing War against her; so as the Consul *Lucius Mummius* going thither with a great Army, reduced their City to Ashes, and in one Day destroyed the Work of more than nine Ages from the Period of its first Foundation.

It was from thence that our *Corinthian Order* assumed its Original; and although the Antiquity of it be not precisely known, nor under whose Reign that *Callimachus* lived, to whom *Vitruvius* attributes the Glory of this excellent Production; it is yet easy to judge by the Nobleness of its Ornament, that it was invented during the Magnificence and Splendor of *Corinth*, and not long after the *Ionic Order*, to which it hath much Resemblance, the *Capital* only excepted; for there is no mention that *Callimachus* added any thing of his own besides that stately Member.

Vitruvius, in the first Chapter of his Fourth Book, reports at large upon what occasion this ingenious *Architect* formed the Idea of this great Master-piece, which hath born away the Palm of all *Architecture*, and rendered the Name of *Corinth* immortal: And though the *History* which he there mentions, may appear somewhat fabulous in the Opinion of *Villalpandus*, who treats also of this *Capital* in his second Tome, Lib. V. Chap. XXIII. nevertheless it were very unjust that the particular Conceit of a *Modern Writer* should prevail above the Authority of so grave an *Author*. Let us see then what *Vitruvius* says of it.

A *Virgin* of *Corinth* being now grown up, fell sick and died: The Day after her Funeral, her *Nurse* having put into a *Basket* certain small Vessels and Trifles with which she was wont to divertise her self whilst she lived, went out and set them upon her *Tomb*; and lest the Air and Weather should do them any Injury, she covered them with a *Tyle*: Now the *Basket* being accidentally placed upon the Root of an *Acanthus*, or great *Dock*, the Herb beginning to sprout at the Spring of the Year, and put forth Leaves, the Stalks thereof creeping up along the Sides of the *Basket*, and meeting with the Edge of the *Tyle* (which jetted out beyond the Margine of the *Basket*) were found, being a little more ponderous at the Extremes, to bend their Tops downwards, and form a pretty kind of natural *Voluta*. At this very time it was that the Sculptor *Callimachus* (who for the Delicateness of his Work
upon

upon Marble, and Genteelness of his Invention, was by the *Athenians* surnamed *Catatechnos*, that is to say *Industrious*) passing near this Monument, began to cast an Eye upon this *Basket*, and to consider the pretty Tenderness of that ornamental *Foliage* which grew about it, the Manner and Form whereof so much pleased him for the Novelty, that he shortly after made *Columns* at *Corinth* resembling this *Model*, and ordained its *Symmetries*, distributing afterwards in his Works Proportions agreeable to each of its other Members in Conformity to this *Corinthian* Mode.

You see what *Vitruvius* reports: But *Villalpandus*, who will needs give this *Capital* a more illustrious and ancient Original, pretends that the *Corinthians* took it first from the Temple of *Solomon*, of which *God* himself had been the *Architect*; and the better to elude what *Vitruvius* but now taught us, would make us believe, that the *Capitals* of the *Acanthus* were rarely used by the *Ancients*, who were wont ordinarily to carve them with *Olive-leaves*; and proves in that which follows by *Texts* out of the *Bible*, and some other *Historians* who have given us the Description of this Divine *Architecture*, that the true Originals of the Temple were of *Palm-Branches* bearing *Fruit*, to which the *Leaves* of the *Olive* have a nearer Correspondence. The Design which we shall hereafter describe, with the whole *Entablature* of the Order, drawn precisely according to the Measures which *Villalpandus* has collected, and which I expressly followed, without regarding the *Profile* which he has caused to be Engraven, will better discover that I know not how to decry the Beauty of this Composition: In the mean time, to be constant and preserve myself within the Terms of the *Corinthian Architecture*, which has been practised by those great *Masters* of Antiquity, as well *Greeks* as *Romans*, and of whom there yet remain such wonderful Footsteps, and even entire *Temples*, which may serve as so many express and demonstrable Lectures of the Proportions of this Order; I have made choice of one of the most famous amongst them, to which I totally conform myself, without any respect to the Opinion of the *modern* Authors; seeing they ought to have pursued the same Paths, and regulated themselves with me upon these *Original* Examples.

The *Rotunda*, heretofore called the *Pantheon*, having ever obtained the universal Approbation of knowing Persons, as being the most regular *Corinthian* Work, and indeed the most famous among all the Remainders of *Ancient Rome*, appears to me to be the very best *Model* which I could possibly make choice of, though there are indeed others to be found which are much richer in Ornaments, and of a Beauty more elegant: But as our *Gusts* do generally differ, I have preferred my own, which rather affects things *Solid* and a little *Plain*, for that indeed to me they appear fullest of Majesty. Nevertheless, forasmuch as it is necessary that an *Architect* accomode himself to the Person's *Humour* which employs him; and for that one meets with Occasions where Magnificence is proper, as in *Triumphal Arches*, *King's Palaces*, *Temples*, and publick *Baths*, which were much in use among the *Ancients*, and in diverse the like ample Structures, where Splendour and Profusion are chiefly considered, I will produce some Examples of the most renowned of *Antiquity*, the first whereof shall be that great Relique of the *Frontispiece* of the *Torre di Nerone*, so called, which has been demolished within these last
thirty

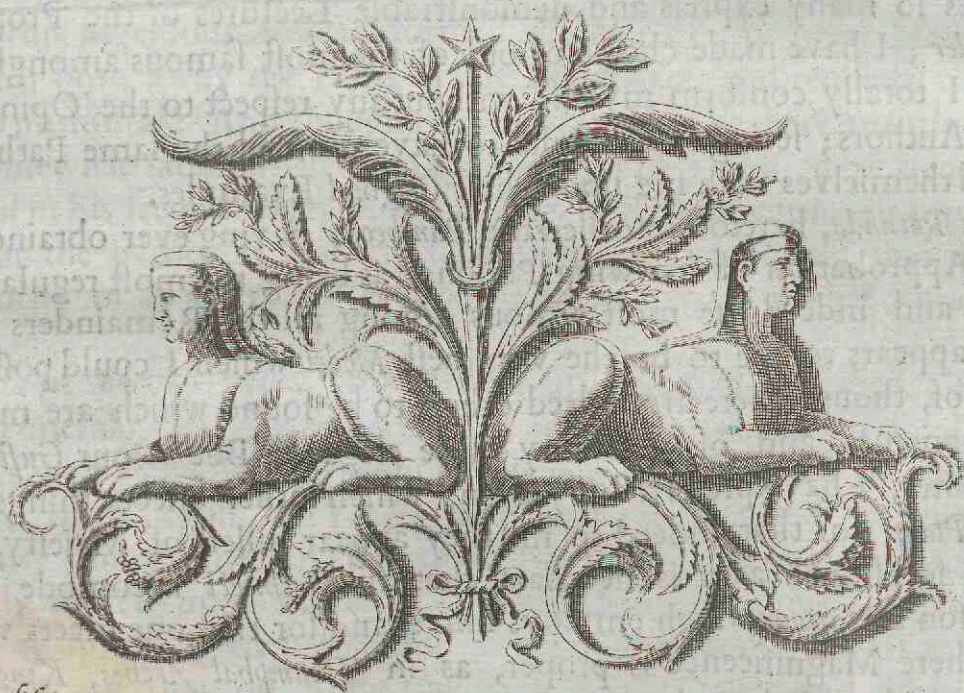
68 *A Parallel of the Ancient Architecture*

thirty Years, to the great Reproach of this Age, by the Avarice of some particular Persons.

This was one of the rarest Pieces of *Antiquity*, as well for the Beauty and Richness of its Ornaments, as for the Composures of the Members of the Order, which even in *Paper* itself appears bold and terrible; the judicious *Architect* of this Work very well understanding how to introduce a *Grandure* of *Manner* into his Design, which should equal that Mass of Stones he heaped up and contrived into the Structure of this *Gigantic* Edifice, whereof the *Columns* contained six Foot Diameter.

It is not precisely known who it was that caused it to be built, nor yet to what Purpose it served: Some imagine it was a *Temple* erected by the *Emperor Aurelianus*, and dedicated to the *Sun*: Others, that it was only a particular *Palace*. The *Vulgar* have a *Tradition*, that *Nero* raised it of that Height, to behold the *Conflagration* of *Rome*; which is very improbable, as being too great a Work to have been accomplished in so short a Time: But whatever it were, certain it is, that it has been the most magnificent and goodliest Order of *Corinthian* Work which all *Rome* could boast of, as one may well perceive by the Design which I shall present you of it after that of the *Profile* of the *Portico* belonging to the *Rotunda*, being the *Model* on which I regulate the *Proportions* of the *Corinthian*.

The ensuing *Design* is a simple Representation of the *History* of *Callimachus*, which I but now reported, and is placed here only for Ornament sake.



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C H A P. XXVII.

A CORINTHIAN Profile taken from the Portico of the Rotunda at ROME.

TH E whole Height of the *Order*, from the *Base* to the *Cornice*, amounts to three and twenty *Modules* and two thirds; whereof the *Column* with its *Base* and *Chapter*, contains nineteen, and the *Entablature* four and two thirds: so as the whole *Entablature*, which is the *Architrave*, *Freeze* and *Cornice*, makes a quarter of the *Column*. And albeit it may seem reasonable to follow the Opinion of some *Authors*, who allow it but a fifth; yet we find, that the most famous of the *Antique*, for Example, this Frontispiece of *Nero*, and the three Pillars of *Campo Vaccino* at *Rome*, which in the Judgment of *Architects* pass for the noblest Reliques of *Antiquity*, challenge an entire fourth Part for their *Entablature*. upon this Account, I conceive it safest to preserve ourselves within the Limits of our Example from the *Rotunda*, lest endeavouring to render this *Order* more spruce and finical, it become in fine but the more contemptible.

Behold here its Composition in general, and the Proportions of the principal Members, of which the *Module* is ever the *Semidiameter* of the *Column*, divided into thirty *Minutes*.

The entire Height of the *Order* contains twenty-three *Modules* and two thirds, which amount in *Minutes* to ————— 710

The *Base* has one *Module* precisely ————— 30

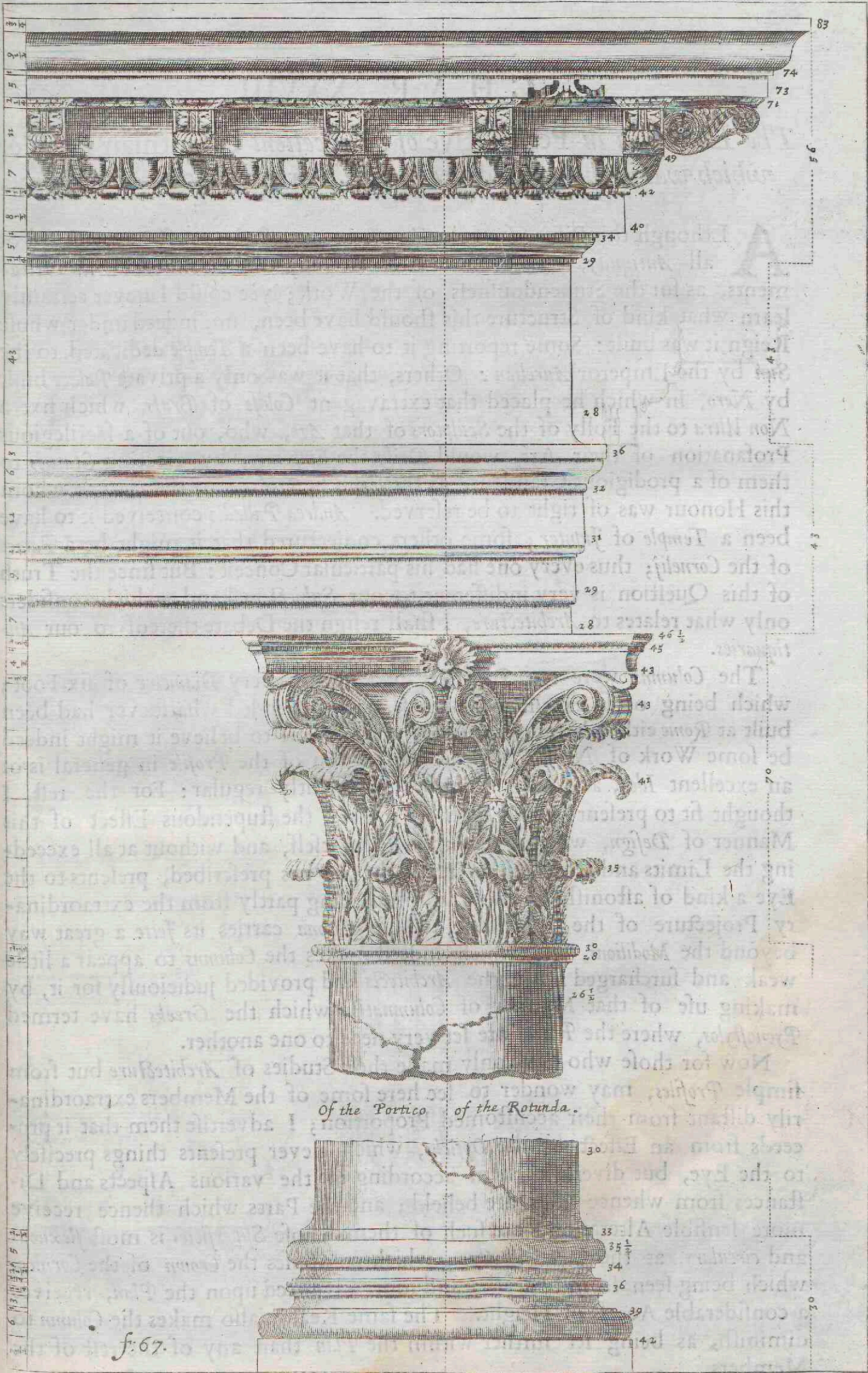
The *Shaft* of the *Column* fifteen *Modules* and two thirds, wanting two *Minutes* ————— 468

The *Chapter* contains two *Modules* and a third only ————— 70

The *Entablature*, viz. *Architrave*, *Freeze* and *Cornice*, four *Modules* and two thirds, two *Minutes* over ————— 142

Concerning the small Divisions of each Part, it would be too tedious, and indeed superfluous, to specify them here, since the Design demonstrates them more intelligibly.

I have towards the End of the Second *Chapter* of this *Book*, taught how one should make the *Calculation* of an *Order* for the examining the Proportion which the *Entablature* bears with its *Column*, and thereby to see if it hold regular: It would be no Loss of Time to the Reader, did he make Proof of his Skill upon every *Profile*. But I advise him before hand, that there are three different Proportions, all of them beautiful, and which may very well agree with this *Corinthian Order*: That is to say, the *Fourth*, as in this and the following *Profile*: The two *Ninths*, which are the mean Proportions of the *Fourth* to the *Fifth*, as in the third *Profile* taken from the *Baths* of *Dioclesian*: And lastly, the *Fifth*, as in the *Profiles* of *Palladio* and *Scamozzi*, not so frequently encountered among the *Ancients*.



Of the Portico of the Rotunda.

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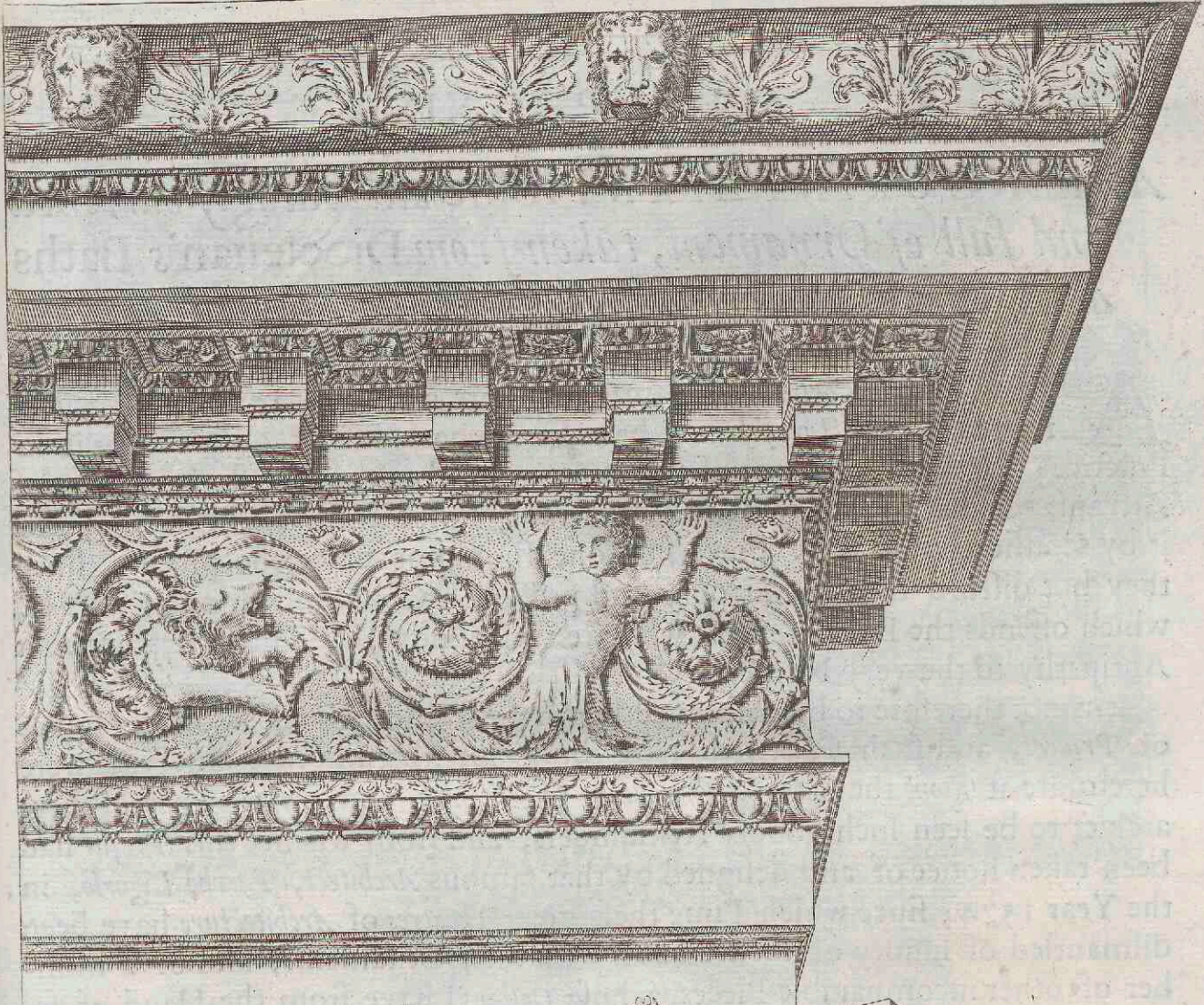
C H A P. XXVIII.

The Elevation in Perspective of an excellent Corinthian Profile, which was in the Frontispiece of the Torre di Nerone at Rome.

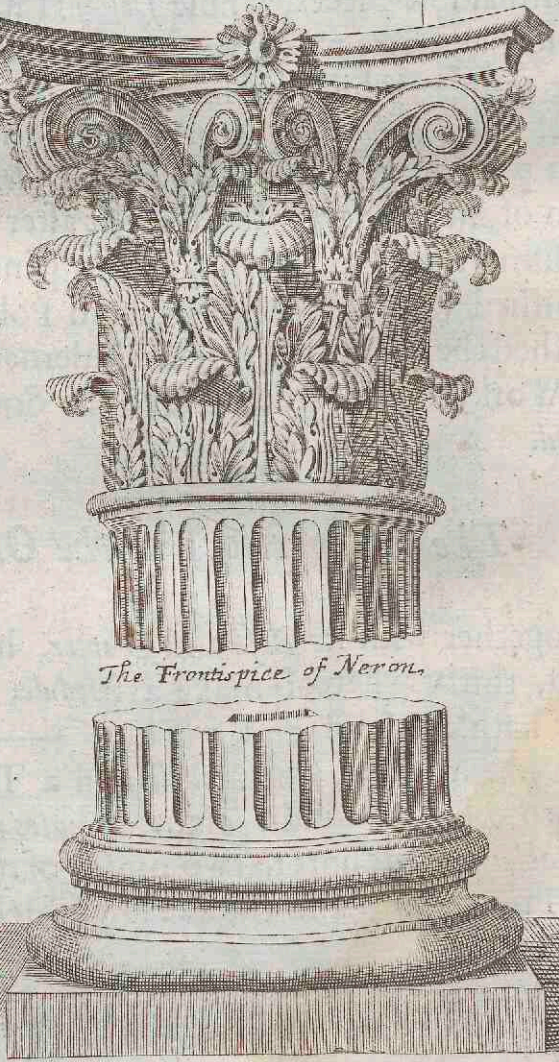
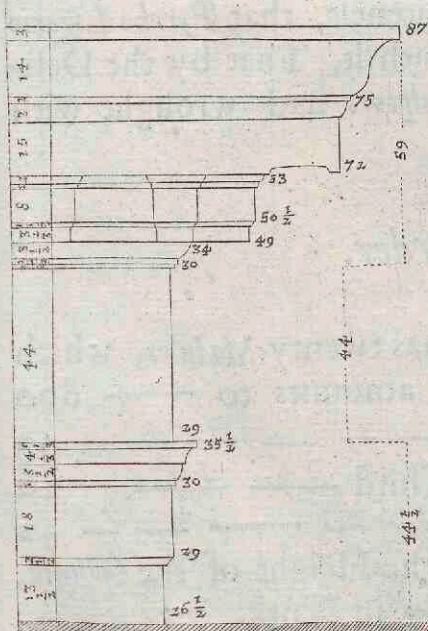
Although this Piece of *Architecture* was one of the most Magnificent of all *Antiquity*, as well for the Excellency and Richness of its Ornaments, as for the Stupendousness of the Work; yet could I never certainly learn what kind of Structure this should have been, nor indeed under whose Reign it was built: Some reporting it to have been a *Temple* dedicated to the *Sun* by the Emperor *Aurelian*: Others, that it was only a private *Palace* built by *Nero*, in which he placed that extravagant *Coloss* of *Brass*, which fixt a *Non Ultra* to the Folly of the *Sculptors* of that *Age*, who, out of a sacrilegious Profanation of their Art, would *Deify* the *Emperors*, by erecting *Statues* to them of a prodigious Grandeur, as they did heretofore to the *Gods* to whom this Honour was of right to be reserved. *Andrea Palladio* conceived it to have been a *Temple* of *Jupiter*; some others conjectured that it might be a *Palace* of the *Cornelij*; thus every one had his particular Conceit: But since the Truth of this Question is very indifferent to our *Subject* in hand, which considers only what relates to *Architecture*, I shall resign the Debate thereof to our *Antiquaries*.

The *Columns* were ten *Diameters* in Height, every *Diameter* of six Foot; which being of so excessive a Bigness, as transcended whatsoever had been built at *Rome* either before or since, it inclines me to believe it might indeed be some Work of *Nero's*. The Composition of the *Profile* in general is of an excellent *Idea*, and each Member sufficiently regular: For the rest, I thought fit to present it in *Perspective*, to shew the stupendous Effect of this Manner of *Design*, which even upon *Paper* itself, and without at all exceeding the Limits and Proportions which the *Art* has prescribed, presents to the Eye a kind of astonishing Grandeur, proceeding partly from the extraordinary Projecture of the *Entablature*, whose *Corona* carries its *Fette* a great way beyond the *Modillions*, and which indeed makes the *Columns* to appear a little weak and surcharged: But the *Architects* had provided judiciously for it, by making use of that Manner of *Columnation* which the *Greeks* have termed *Pycnostylos*, where the *Pillars* are set very near to one another.

Now for those who have only made their Studies of *Architecture* but from simple *Profiles*, may wonder to see here some of the Members extraordinarily distant from their accustomed Proportion; I advertise them that it proceeds from an Effect of the *Opticks*, which never presents things precisely to the Eye, but diversifies them according to the various Aspects and Distances from whence they are beheld; and the Parts which thence receive more sensible Alteration, are such of them whose *Superficies* is most *flexuous* and *circulary*, as the *Gula*, or *Ogee*, which composes the *Crown* of the *Cornice*, which being seen from beneath, and more advanced upon the *Plan*, receives a considerable Access of Height. The same Reason also makes the *Column* to diminish, as being set further within the *Plan* than any of the rest of the Members.



a Scale of three Modells for this Profile,



The Frontispice of Neron.

C H A P. XXIX.

Another CORINTHIAN Profile exceedingly enriched and full of Ornament, taken from Dioclesian's Baths at R O M E.

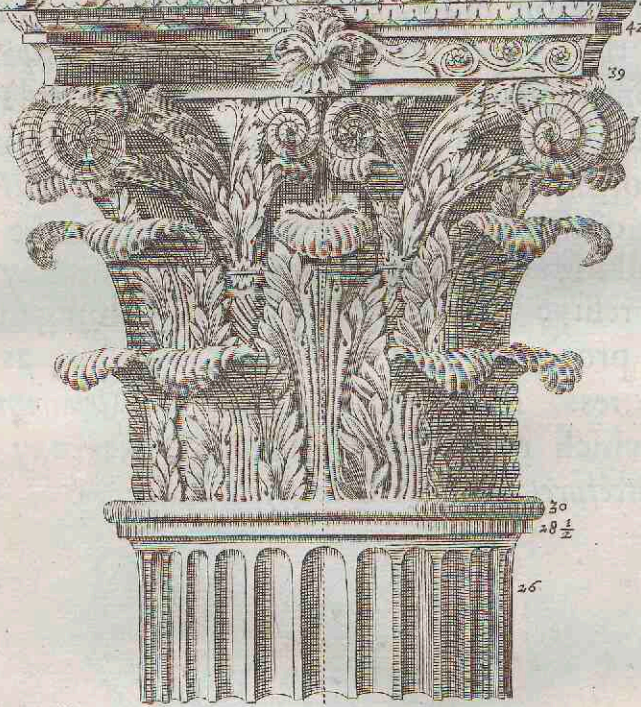
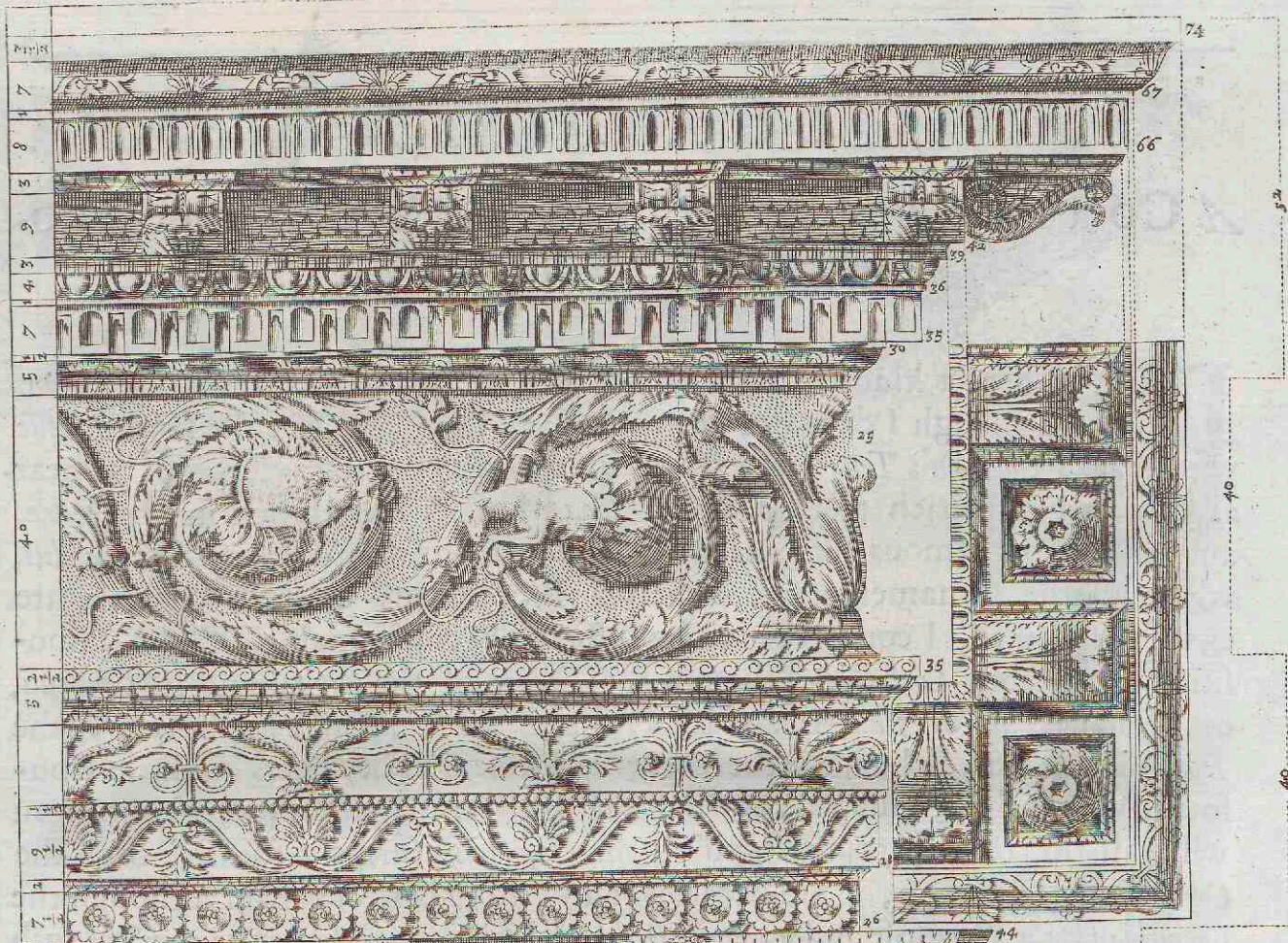
A F T E R this Corinthian Example, we are no more to expect any thing rich in Architecture, but it belongs to the judicious only to put it in Practice; for the Abundance of Ornaments is not always to be esteemed, nor of Advantage to a Building: On the contrary, unless the Subject oblige one to it by Considerations very powerful, one should never be too profuse, since they but disturb the Proportions, and produce a Confusion among the Parts, which offends the Eyes of those who are truly knowing, and carries a certain Antipathy to the very Name of Order.

It is not therefore to be employed but in great and publick Works, Houses of Princes, and such Palaces that are built for Magnificence only; as were heretofore at Rome the Baths of Dioclesian, of Antonius, and Trajan, whereof there are yet to be seen such goodly Remainers, and from whence this Profile had been taken notice of and designed by that famous Architect, Pyrrho Ligorio, in the Year 1574; since which Time these great Theatres of Architecture have been dismantled of sundry of their Columns with their Ornaments, and of a number of other incomparable Pieces, whose Designs I have from the Hand of several Masters, who had there made very curious and profitable Observations from many noble things, which are now no more to be found.

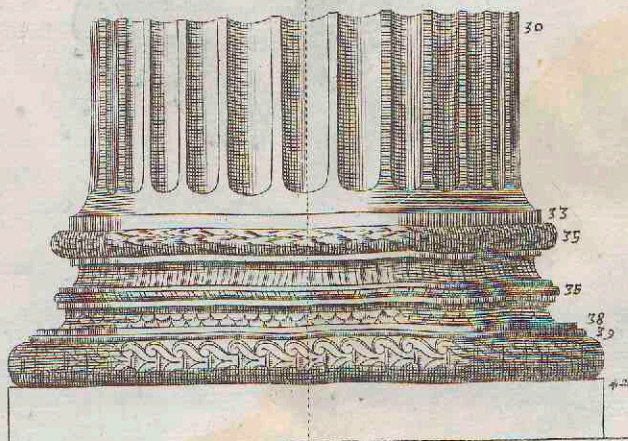
The Diameter of the Columns of this Profile amounted to four Palms: The Chapter had this in particular, that its Stalks and Flexures of the Leaves were made in the Form of Rams Horns, but the rest after the ordinary Proportions and Foliage. In sum, the whole Ornament in general was so artificially elaborated, and finished with that Affection and Politeness, that Pyrrho Ligorio having accomplished the Design, writ this underneath it, That by the Delicateness of the Work, one would believe the Sculptors had wrought with their Tools perfumed.

The Proportions of the Order.

- The Column, together with its Base and Chapter, has twenty Modules, which reduced to Minutes, thirty whereof make a Module, amounts to ——— 600
- The Architrave hath a Module and a Third ——— ——— ——— 40
- The Freeze, in like manner, one Module and a Third ——— ——— ——— 40
- The Cornice two Modules within eight Minutes ——— ——— ——— 52
- The whole Entablature amounts to two ninths of the Height of the Column, which is a noble Proportion, and shews handsomely in Work.



Of the Bathes of Diocletian



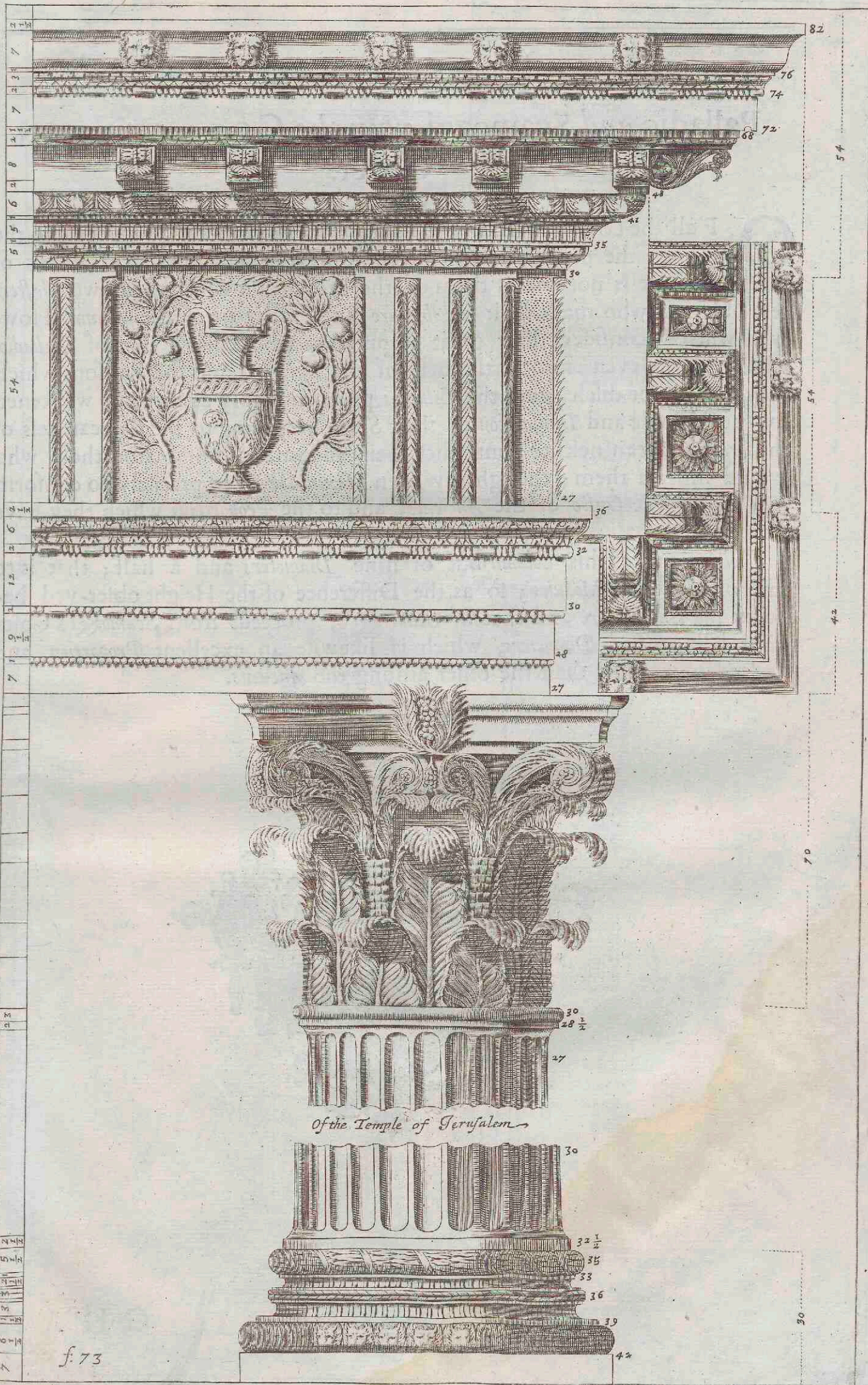
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C H A P. XXX.

A CORINTHIAN Profile of the Temple of Solomon, out of Villalpandus.

BEhold here a kind of particular *Order*, but of an excellent *Composition*, which though I dare not affirm to have been precisely the same *Profile* with that of *Solomon's Temple*, the *Model* which I propose to myself, yet as near as one can approach to that divine *Idea* from its Description in the *Bible*, and some other famous *Histories* mentioned in that great Work of *Villalpandus*, where all the *Ornaments* and principal *Proportions* of each Member are exactly specified, I conceive it to be sufficiently conformable. The *Composition* is perfectly *Corinthian*, though the *Foliage* of the *Capital* and its *Cauliculi*, or *Branches*, are of *Palmes*, and the *Freeze* of the *Entablature* has borrowed the *Doric Ornament*, which are the *Triglyphs*, whose *Solidity* bears but little Conformity with the *Tenderness* of the *Corinthian*. But by whatever Name you will call this *Order* (notwithstanding that *Josephus* affirms it to have been the *Corinthian*) certain it is, there was never any more perfect: And although the *Corinthian* be a very soft and maidenly *Order*, which does not require the *Strength* and *Virility* of the *Doric*, symbolized by the *Triglyphs*; yet may one, upon certain Occasions, introduce it with that Address and Reason, as will not only render it excusable, but very judicious. For Instance, suppose one were to build *Churches* or *Altars* in memory of those generous *Virgins*, who from their tender Age vanquished the Cruelty of *Tyrants* for the Defence of *Christianity*; surmounting all sorts of *Torments* by their *Constancy*; what could we imagine more expressive and suitable to their *Courage* than this *Divine Order*? It may also be proper on some profane Occasions, as in *Triumphal Arches* and the like Structures. In a Word, since it gave *Ornament* to that famous *Temple* of *Jerusalem*, which never yet had Equal, we may with Reason call it the *Flower of Architecture*, and the *Order of Orders*.





Of the Temple of Jerusalem

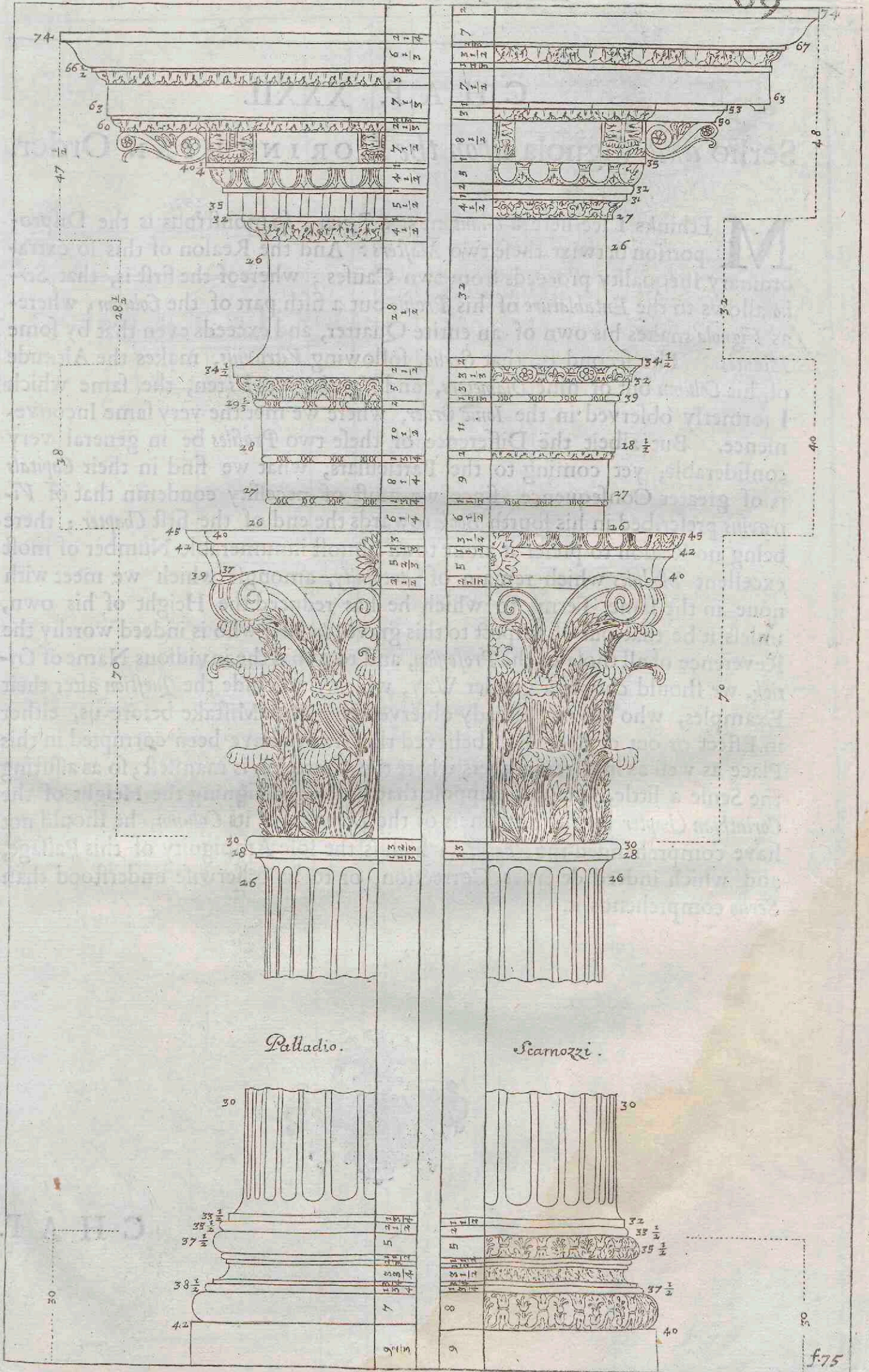
C H A P. XXXI.

Palladio and Scamozzi upon the CORINTHIAN Order.

OF all the *Corinthian* Examples which I have formerly produced for the *Rule* of the *Order* expressly chosen from the most excellent Pieces of *Antiquity*, there is not one of them of the *Proportion* which these two *Masters* here observe, who make their *Entablature* but a fifth part of the *Column*. However when I consider their great *Reputation* (particularly that of *Palladio*, whose Works even emulate the best of the *Ancients*) and the *Reasons* which they alledge for discharging the *Columns* proportionably as they are weakened by the *Altitude* and *Diminution* of their *Shaft*, according to the *Delicateness* of the *Orders*, I can neither contradict their *Judgment*, nor blame those who would imitate them; though my own *Maxim* be ever precisely to conform myself to the *Gusto* of the *Ancients*, and to the *Proportions* which they have established.

Palladio makes his *Column* but of nine *Diameters* and a half; that is to say, of nineteen *Modules*; so as the *Difference* of the *Height* observed betwixt his *Entablature* and that of *Scamozzi's*, proceeds from *Scamozzi's* *Columns* being often *Diameters*, which is likewise an excellent *Proportion*, and indeed more usual than the other among the *Ancients*.

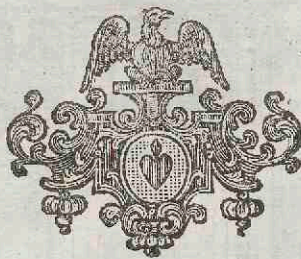




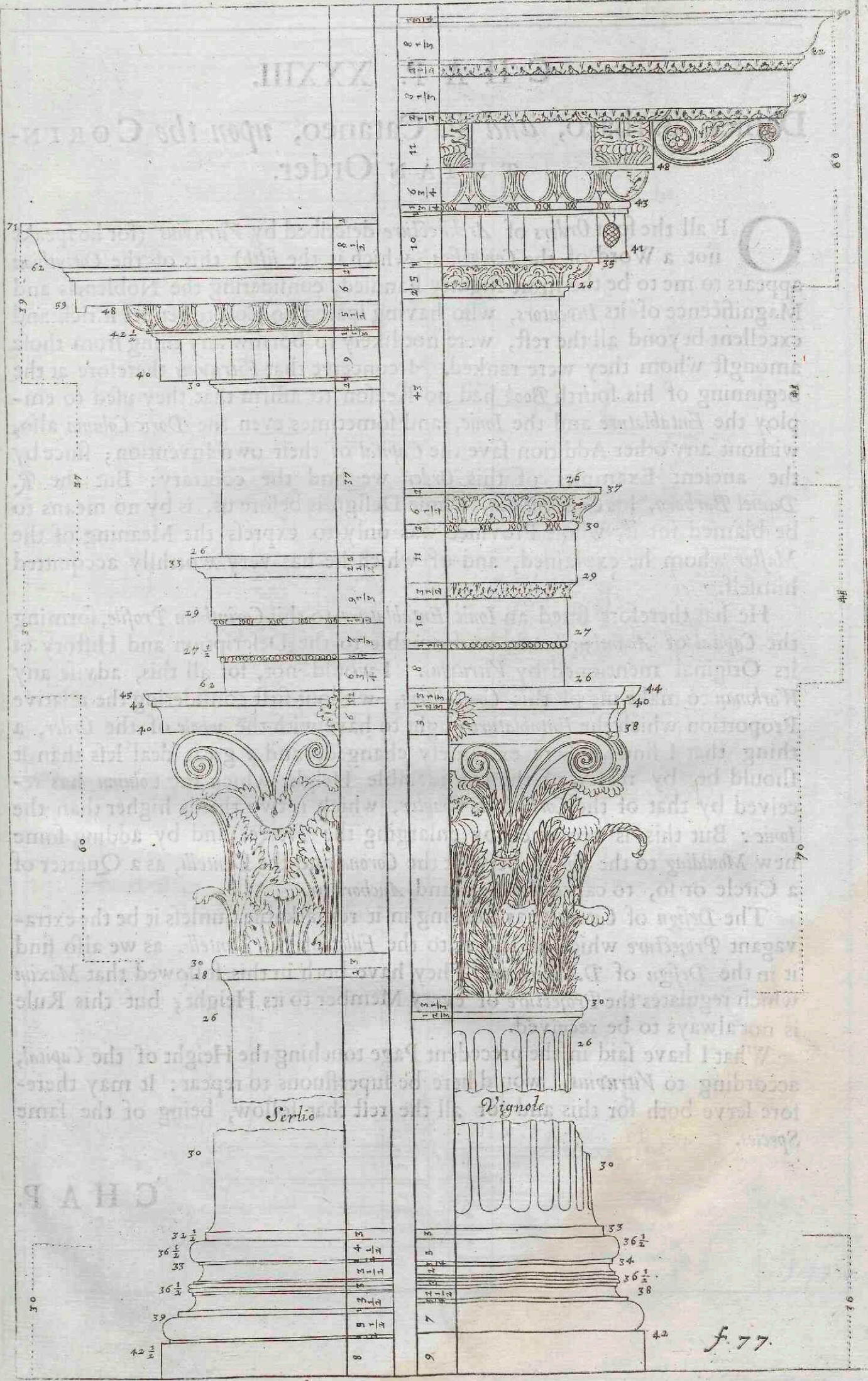
C H A P. XXXII.

Serlio and Vignola upon the CORINTHIAN Order.

ME thinks I see here a *Giant* next a *Pigmy*; so monstrous is the Disproportion betwixt these two *Masters*: And the Reason of this so extraordinary Inequality proceeds from two Causes; whereof the first is, that *Serlio* allows to the *Entablature* of his *Profile* but a fifth part of the *Column*; whereas *Vignola* makes his own of an entire *Quarter*, and exceeds even that by some *Minutes*. The second is, that *Serlio*, following *Vitruvius*, makes the *Altitude* of his *Column* but of nine *Diameters*, and *Vignola* gives his ten, the same which I formerly observed in the *Ionic Order*, where we met the very same Inconvenience. But albeit the Difference of these two *Profiles* be in general very considerable, yet coming to the Particulars, what we find in their *Capitals* is of greater Consequence, since we must of necessity condemn that of *Vitruvius* prescribed in his fourth *Book* towards the end of the first *Chapter*; there being no Reason to prefer it alone to an almost innumerable Number of most excellent *Modules* which remain of *Antiquity*, amongst which we meet with none in the same Terms to which he has reduced the Height of his own, unless it be that out of respect to this grave *Author*, who is indeed worthy the Reverence of all those of the *Profession*, and to avoid the invidious Name of *Critic*, we should choose a gentler Way, which is to elude the *Question* after their Examples, who having already observed the same Mistake before us, either in Effect or out of Modesty, believed the *Text* to have been corrupted in this Place as well as in diverse others where the Alteration is manifest; so as assisting the Sense a little, one may suppose that *Vitruvius* designing the Height of the *Corinthian Chapter* by the Largeness of the *Diameter* of its *Column*, he should not have comprehended the *Abacus*, which is the sole Ambiguity of this Passage, and which indeed deserves Correction, or to be otherwise understood than *Serlio* comprehends it.



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f. 77

C H A P. XXXIII.

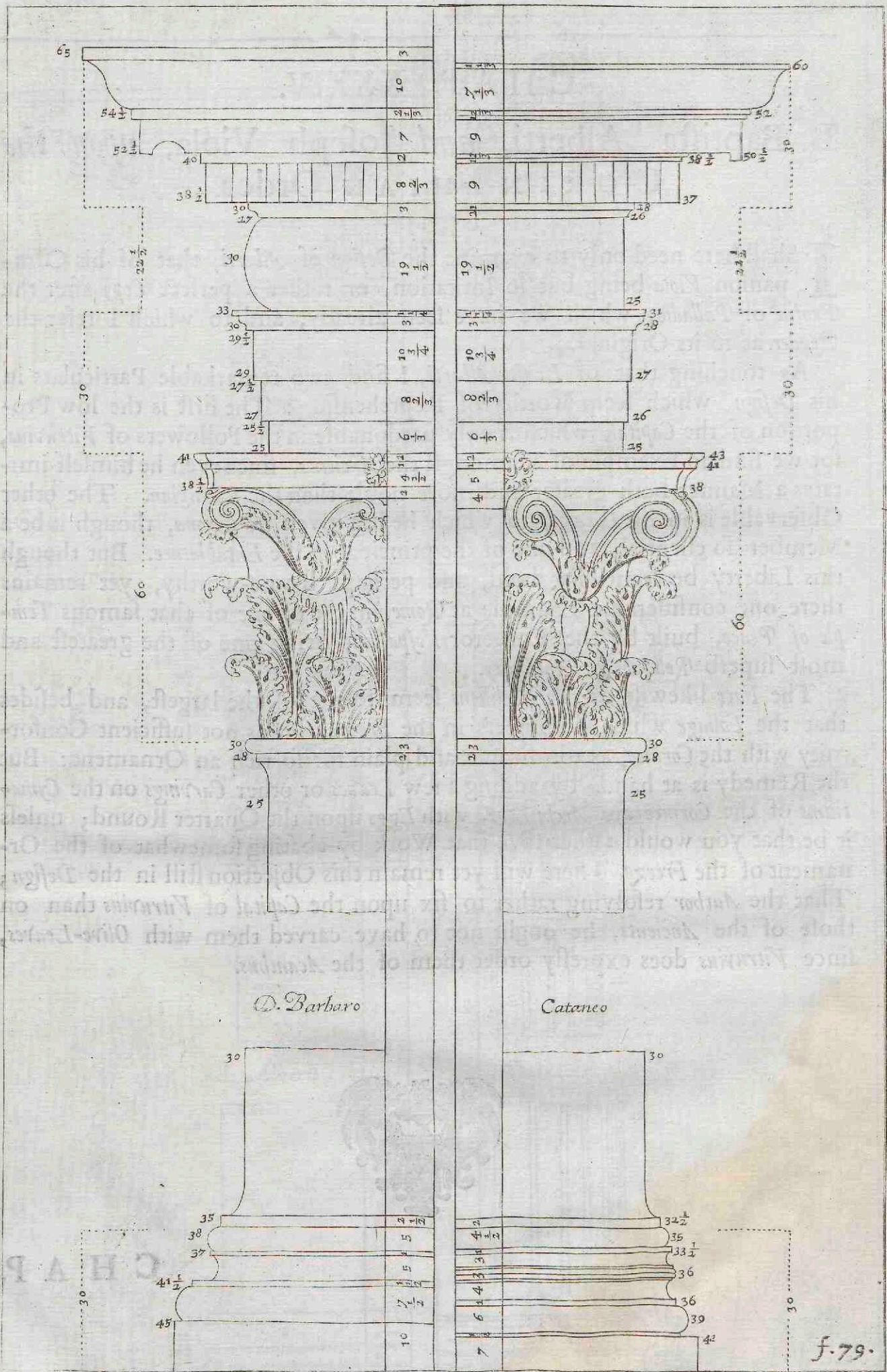
Daniel Barbaro, and P. Cataneo, upon the CORINTHIAN Order.

OF all the four *Orders* of *Architecture* described by *Vitruvius* (for he speaks not a Word of the *Composita*, which is the *fifth*) this of the *Corinthian* appears to me to be the most slightly handled, considering the Nobleness and Magnificence of its *Inventors*, who having spared no Cost to render it rich and excellent beyond all the rest, were not likely to borrow any thing from those amongst whom they were ranked. I conceive that *Vitruvius* therefore at the beginning of his fourth *Book* had no Reason to affirm that they used to employ the *Entablature* and the *Ionic*, and sometimes even the *Doric Column* also, without any other Addition save the *Capital* of their own Invention; since by the ancient Examples of this *Order* we find the contrary: But the *R. Daniel Barbaro*, his *Commentator*, whose *Design* is before us, is by no means to be blamed for it, whose Province was only to express the Meaning of the *Master* whom he explained, and of which he has very worthily acquitted himself.

He has therefore fitted an *Ionic Entablature* to this *Corinthian Profile*, forming the *Capital* of *Acanthus-leaves*, conformable to the Description and History of its Original mentioned by *Vitruvius*. I would not, for all this, advise any *Workman* to make use of this *Composition*, without first considering the relative Proportion which the *Entablature* ought to have with the whole of the *Order*, a thing that I find is here extremely changed, and a great deal less than it should be, by reason of the considerable Height which the *Column* has received by that of the *Corinthian Chapter*, which is two thirds higher than the *Ionic*: But this is remedied by enlarging the *Freeze*, and by adding some new *Moulding* to the *Cornice* betwixt the *Corona* and the *Dentelli*, as a Quarter of a Circle or so, to carve the *Eggs* and *Anchors* in.

The *Design* of *Cataneo* has nothing in it remarkable, unless it be the extravagant *Projecture* which he allows to the *Fillet* of his *Dentelli*, as we also find it in the *Design* of *D. Barbaro*. They have both in this followed that *Maxim* which regulates the *Projecture* of every Member to its Height; but this Rule is not always to be received.

What I have said in the precedent Page touching the Height of the *Capital*, according to *Vitruvius*, would here be superfluous to repeat: It may therefore serve both for this and for all the rest that follow, being of the same *Species*.



C H A P. XXXIV.

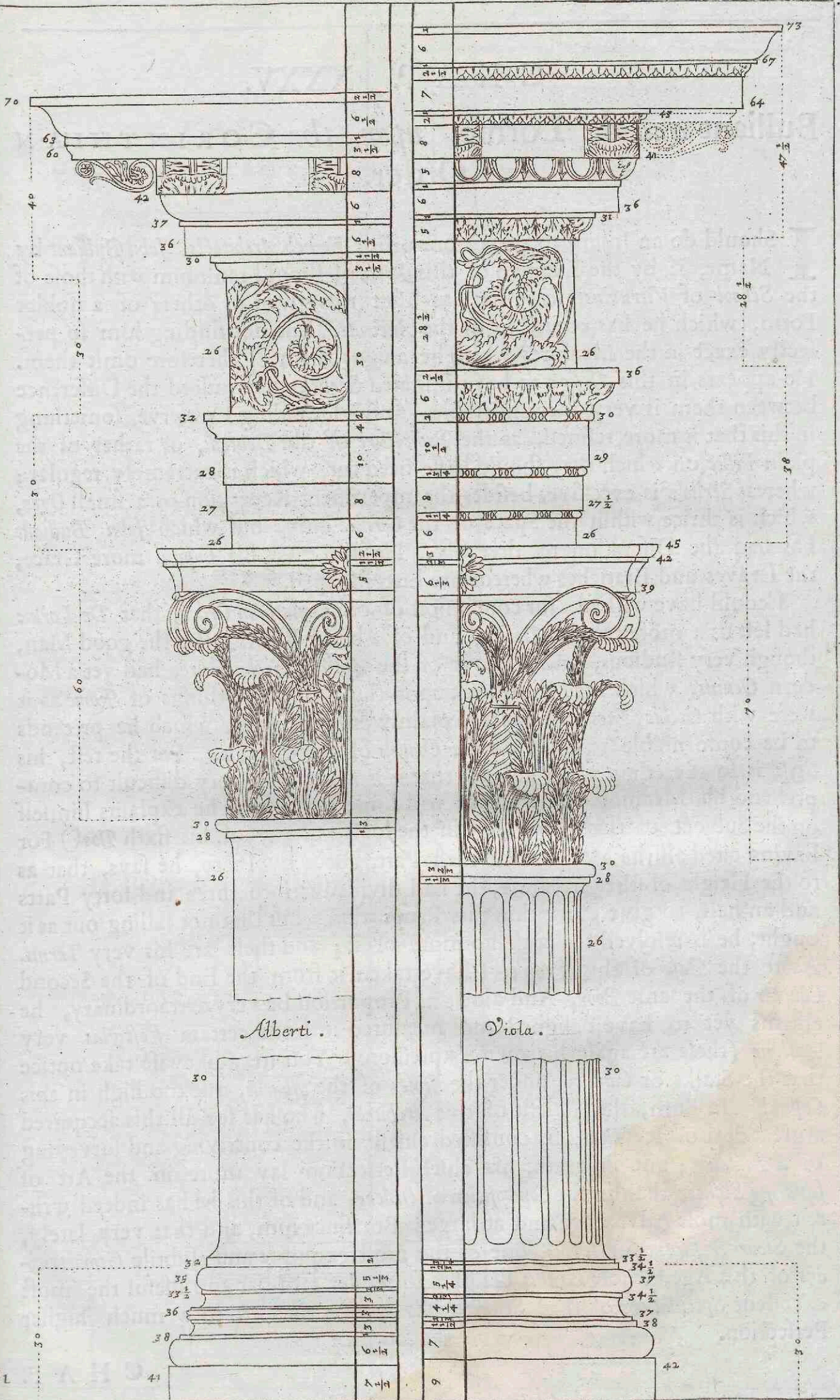
L. Baptista Alberti, and Joseph Viola, upon the
C O R I N T H I A N Order.

I Shall here need only to examine the *Design* of *Alberti*, that of his Companion *Viola* being but in Imitation, or rather a perfect *Copy* after the *Profile* of *Palladio*, which we have seen already, and to which I refer the *Reader* as to its *Original*.

As touching that of *L. B. Alberti*, I find two remarkable Particulars in his *Design*, which seem worthy of *Reprehension*: The first is the low *Proportion* of the *Capital*, which is only pardonable in the Followers of *Vitruvius*, for we find no Example of it amongst the *Ancients*, since even he himself imitates a Manner both greater and more noble than the *Vitruvian*. The other *Observable* is in his *Cornice*, to which he has given no *Corona*, though it be a Member so essential, and one of the principal in the *Entablature*. But though this *Liberty* be somewhat bold, and perhaps blame-worthy, yet remains there one considerable Example at *Rome*, in the *Cornice* of that famous *Temple of Peace*, built by the Emperor *Vespasian*, being one of the greatest and most superb *Reliques* of *Antiquity*.

The *Face* likewise of the *Modillions* seems to me of the largest, and besides that the *Foliage* which domineers in the *Freeze*, holds not sufficient *Conformity* with the *Cornice*, as too simple and plain for so rich an *Ornament*: But the *Remedy* is at hand, by adding a few *Leaves* or other *Carvings* on the *Cymatiums* of the *Cornice* and *Architrave*, with *Eggs* upon the *Quarter Round*; unless it be that you would rather save that *Work* by abating somewhat of the *Ornament* of the *Freeze*. There will yet remain this *Objection* still in the *Design*; That the *Author* resolving rather to fix upon the *Capital* of *Vitruvius* than on those of the *Ancients*, he ought not to have carved them with *Olive-Leaves*, since *Vitruvius* does expressly order them of the *Acanthus*.



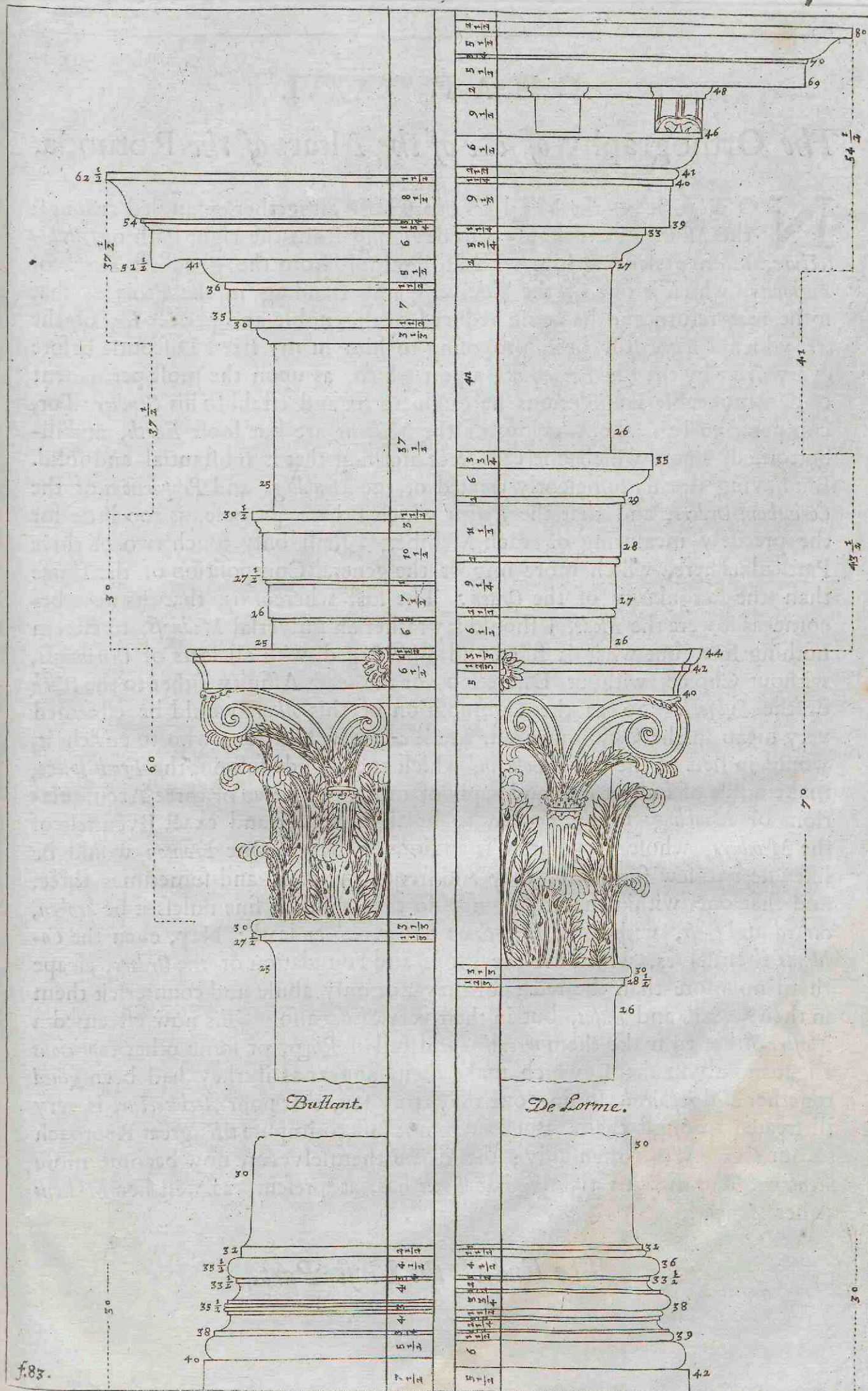


C H A P. XXXV.

Bulliant and de Lorme, upon the CORINTHIAN Order.

I should do an Injury to one of our prime *French Architects*, *John Bulliant* by Name, if by the Examen of this *Profile* I should rank him with those of the *School of Vitruvius*, since he has after this given us others of a nobler Form, which he has copied from the *Ancients*. But not finding him so perfectly exact in the Measures which he assigns them, I therefore omit them. He appears in this *Design* to have imitated *Serlio*; and indeed the Difference between them is very inconsiderable; notwithstanding I observe something in this that is more refined, as the *Projecture* of the *Dentelli*, or rather of the plain *Fillet* on which they should have been cut, which is extremely regular; whereas *Serlio's* is excessive, besides the impertinent Repetition of a small *Ogee*, which is thrice within the Space of the *Cornice* only, but which *John Bulliant* has had the Discretion to diversify. He also gives his *Capital* more Grace, the Leaves and Branches whereof are better shaped.

I could have wished, for conclusion of our *Corinthian Order*, that *De Lorme* had left us a more regular *Design*, and of a better Relish: But the good Man, though very studious, and a Lover of the *Antique Architecture*, had yet a *Modern Genius*, which made him look upon those excellent things of *Rome* as it were with *Gothic Eyes*; as appears plainly in this *Profile*, which he pretends to be conformable to those of the *Chapels* of the *Rotunda*. For the rest, his *Style* is so exceedingly perplexed, that it is oftentimes very difficult to comprehend his Meaning. The *Reader* will smile to see how he explains himself on the Subject of this *Cornice* (it is in the fourth *Chapter* of his sixth *Book*) For having cited all the Measures of each Part, Piece by Piece, he says, that as to the Height of the *Architrave*, he had divided it into three and forty Parts and an half, to give every thing its Proportion; but that not falling out as it ought, he is resolved to speak no more of it; and these are his very *Terms*. As to the *Base* of this *Profile*, I have taken it from the End of the Second *Chapter* of the same *Book*. And albeit its Proportion be very extraordinary, he affirms yet to have designed and measured it from certain *Vestigias* very *Antique* (these are again his own Expressions) You may likewise take notice that the *Stalks* or *Cauliculi* under the *Roses* of the *Abacus*, rise too high in this *Capital*. In Sum, the Talent of this *Architect*, who has for all this acquired a great deal of Reputation, consisted chiefly in the contriving and surveying of a *Building*; and in truth, his chief Perfection lay more in the Art of *Squaring Stones*, than in the *Composition* of *Orders*; and of this he has indeed written with most Advantage and at large: But since him, and that very lately, the *Sieur Desargues* of *Lyons*, one of the most exquisite and subtile *Geometricians* of this Age, whose *Genius* delights to render familiar and useful the most excellent *Speculations* of that Science, has exalted that *Art* to a much higher Perfection.



f. 85.

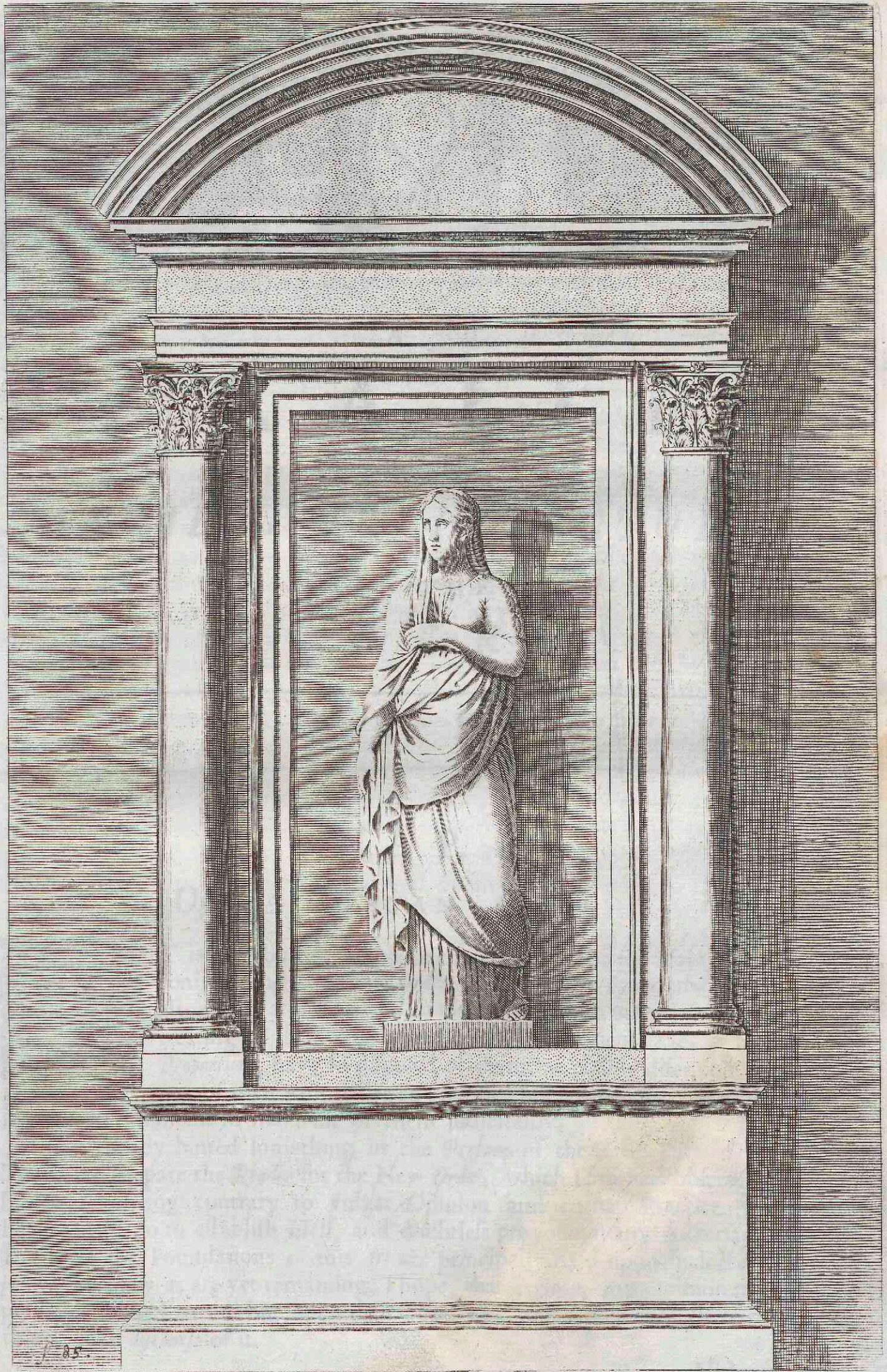
C H A P. XXXVI.

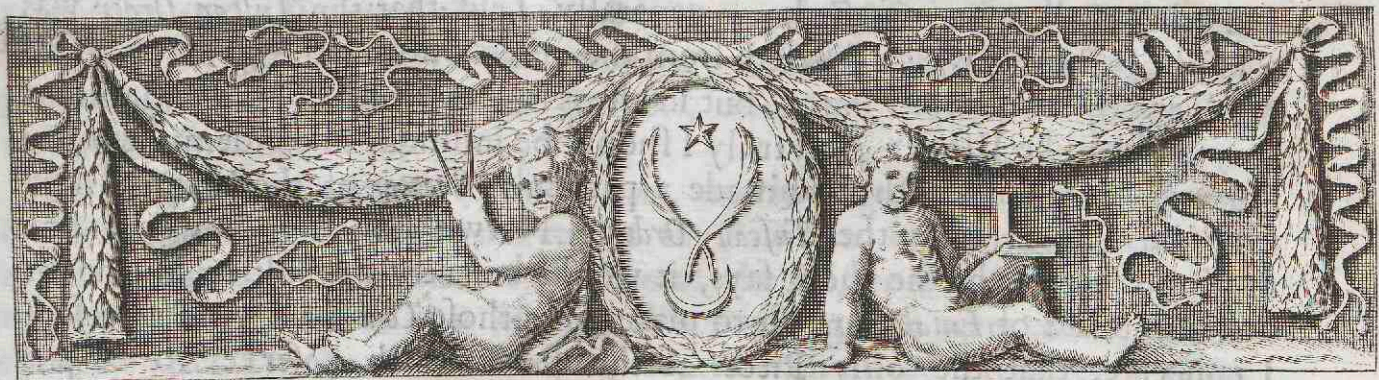
The Orthography of one of the Altars of the Rotunda.

NO T to leave the Mind of our Reader altogether entangled amongst the *Moderns*, and haply also deviating from the right Path of *Architecture*, I am presenting him with an Example from the goodliest Temple of *Antiquity*, which is one of the *Tabernacles* now standing in the *Rotunda*; that so he may return and be again reduced to this noble and perfect *Idea* of the *Art* which I have still been proposing to him in my fixed Discourse before every *Order* by the like *Examples*; upon which, as upon the most permanent and immoveable Foundations he ought to fix and establish his *Studies*: For, compared to this, the Writings of the *Moderns* are but loose *Earth*, and ill-bottomed, upon which one can erect nothing that is substantial and solid. But having already sufficiently treated of the *Mouldings* and *Proportions* of the *Corinthian Orders*, and that the *Design* which I here propose, is too little for the precisely measuring of each Member, I shall only touch two or three Particulars here, which more import the general Composition of the *Design* than the Regularity of the *Order*: The first whereof is, that its now become as it were the *Mode*, I should say rather an universal *Madness*, to esteem nothing fine, but what is filled and surcharged with all sorts of *Ornaments*, without Choice, without Discretion, or the least *Affinity* either to the *Work* or the *Subject*. So as the Composition of this *Altar* would be esteemed very mean in the Opinion of our small *a-la-mode* Masters; who to enrich it, would in lieu of the single *Column*, which at each side sustains the *Frontispiece*, make a Pile of four or six, and haply of more, with two or three Accumulations of *Mouldings* in the *Cornice*, to break the Order and exact Evenness of the *Members*, whose Regularity is anxious to them: One *Fronton* would be likewise two few for them; they add frequently two, and sometimes three, and that one within the other; nor do they think it fine unless it be *broken*, *carved* and *frett*, with some *Escutcheon* or *Cartouch* at least: Nay, even the *Columns* themselves, which are the Props and Foundation of the *Orders*, escape them no more than the rest; for they not only abuse and counterfeit them in their *Capitals* and *Bases*, but in their very *Shafts* also. 'Tis now esteemed a *Master-stroke* to make them *wreathed* and full of *Rings*, or some other *capricious* *Ligatures* about them, which make them appear as if they had been *glued* together and *repaired*. In fine, one may truly say, that poor *Architecture* is very ill treated amongst them. But it were not just to impute this great Reproach to our *French* Work-men only; the *Italians* themselves are now become more *licentious*, and shew us plainly that *Rome* has, at present, as well her *Moderns* as her *Antiques*.

2

The End of the First Part.





f.87

A

P A R A L L E L

OF THE

ANCIENT ARCHITECTURE

WITH THE

M O D E R N.

P A R T II.

C H A P. I.

Of the T U S C A N Order.



IT is an Abuse so visible in the *Architecture* of the *Moderns*, their confounding the *Greek Orders* amongst the *Latin*, that I am astonished at the general Inadvertency of so many *Authors*, as treating of their *Symmetries*, and the Particularities of their *Proportions*, have so disposed of them, as plainly discovers how ignorant they were of their Proprieties and *specific Differences*, without which it is so very difficult to make use of them judiciously.

I had already hinted something in the *Preface* of the First Part of this *Treatise*, to prepare the *Reader* for the *New Order*, which I am here observing; but which being contrary to vulgar Opinion and current Practice, will have much ado to establish itself, and doubtless provoke many *Adversaries*. But since the Foundations of this *Art* are principally fix'd upon such *Examples* of *Antiquity* as are yet remaining, I hope, that in time, my Opinion may prevail, seeing I tread but upon their *Footsteps*, and rather *demonstrate* the thing, than *discourse* of it.

Hicherto

92 *A Parallel of the Ancient Architecture*

Hitherto all our *Architects* have generally held that the *Tuscan Order* was a kind of *Building* which differed from the others only in the plainness of its *Mouldings*, solidity of its *Parts*, but in the rest, consisting of the same *Members*, and of like *Usage*: And truly I should be injurious to condemn it, since *Vitruvius* has in his fourth *Book* made a particular *Chapter* of the Manner how to build *Temples* after the *Tuscan Order*. Notwithstanding, however one might interpret what he there says, it would be very difficult to invent an handsome *Idea* of *Entablature*, fit to place upon those *Columns*. And therefore I conceive, that the only *Piece* of this *Order* which deserves to be put in *Work*, and that can properly recommend it to us, is the simple *Column* it self without any *Architrave* at all, as we find it employed by the *Ancients*. For whereas by the ordinary *Usage* of it, it is ever ranged in the last *Place*; these great *Masters* have assigned it one wholly independant from the others, and treated it so advantagiouly, that it may for its *Beauty* and *Nobleness* stand in competition with all the rest of the *Orders*: Nor will this I presume be denied, when they shall have considered that renowned *Example* which I am producing of the *Column Trajan*, one of the most superb *Remainders* of the *Roman Magnificence* to be now seen standing, and which has more immortalized the *Emperor of Trajan*, than all the *Pens* of *Historians*. This *Mausoleum*, if so we may call it, was erected to him by the *Senate* and *People* of *Rome*, in recognition of those great *Services* he had rendered his *Country*; and to the End the *Memory* of it might remain to all succeeding *Ages*, and continue as long as the very *Empire* itself, they ordered them to be engraven on *Marble*, and that by the richest *Touch* that was ever yet employed. It was *Architecture* herself which was here the *Historiographer* of this new kind of *History*; and who, since it was to celebrate a *Roman*, chose none of the *Greek Orders* (though they were incomparably the more perfect and in use even in *Italy* itself, than the two other *Originals* of the *Country*) lest the *Glory* of this renowned *Monument* should seem to be divided; and to instruct us also, that there is nothing so plain and simple but what *Art* knows how to bring to *Perfection*: She chose therefore a *Column* of the *Tuscan Order*, which 'till that time was never admitted but in *Gross* and *Rustic Works*; and of this rude and inform *Mass* made to emerge the richest and most noble *Master-piece* of the *World*, which *Time*, that devours all things, has preserved and kept entire to this very *Day* in the midst of an infinity of *Ruins* which even fill the *City* of *Rome*. And it is indeed a kind of *Miracle* to see that the *Coliseum*, the *Theatre* of *Marcellus*, those great *Circus's*, the *Baths* of *Dioclesian*, of *Caracalla*, and of *Antonius*, that proud *Mole* of *Adrian's Sepulture*, the *Septizonium* of *Severus*, the *Amphitheatre* of *Augustus*, and innumerable other *Structures*, which seem to have been built for *Eternity*, should be at present so *ruinous* and *delapidated*, that it's hard even to divine what their original *Forms* were; whilst yet this *Column* of *Trajan* (whose *Structure* seemed much less durable) remains extant and entire, by a secret of *Providence*, which has destined this stupendious *Obelisk* to the greatest *Monarch* that ever *Rome* enjoyed, the *Chief* of the *Church St. Peter*, who possesses now the *Seat* of that *Emperor* to whom it hath been created. But to preserve my self within the *Limits* of my *Subject*, which is only to give you its *Description* according

according to the Design of the Architect who was the Author of it, I shall leave to such as are contemplative, the moralizing on this so wonderful Vicissitude; since it would be heer from our Purpose, and very impertinent to the Art we are illustrating.

Let us then again return to our Column, and its singular use among all the Orders of Architecture, where the rest of the Pillars do, in comparison of this, appear but as so many Servants and Slaves of the Edifices which they support; while ours is a Queen of that Majesty, that reigning as it were alone, she is exalted on the Throne of her Pedestal, decked with all the Treasures of Glory, and from whence she as freely imparts her Magnificence to all those whom she vouchsafes to look upon: The first and most illustrious of her Favourites was Trajan, upon whose Monument I am now forming an Idea of the Order which I would call Tuscan, without troubling myself with what all the Moderns have written of it, who making no difference betwixt it and the Rustic, do no great honour to the Tuscan, while they gratifie him with so poor an Invention: But lest our Criticks take it ill we should name that a Tuscan Order, which had its first Original at Rome, let them, if they please, call it the Roman Order; since they may with much more reason do it, than those who so name the Composita, of which we shall speak hereafter. For my part I regulate myself upon the Profiles of the Capital and Base, which I here find to be the same which Vitruvius attributes to the Tuscan Column. The most important Difficulty, in my Opinion, would be how our Column, having no Entablature, could be properly reckoned in the Catalogue of Orders, that being so principal a Member, and, in some Degree, the very Head of the Order. But the Architect of this our Model well foresaw, that something was to be substituted in its place, and so contrived it after a most excellent manner: He propos'd doubtless to himself the Imitation of those miraculous Memphytic Pyramids, which the Egyptians (those divine Wits to whom we are so much obliged for many excellent Arts) had formerly erected to the Memory and Ashes of their Kings; who from the immense and prodigious greatness of their Tombs, one would believe had been Giants, and as it were Gods amongst Men: Their Urns and Statues crowned the Summities of these artificial Mountains, from whence, as from some august and terrible Throne, they seem'd to the People to reign after their Death, and that with more Majesty than when they lived. Our prudent Architect being to render the same Honour to Trajan, the worthiest Prince that 'till then had borne the Title of Emperor, and whom the City of Rome did strive to immortalize, reflected seriously upon those stupendous Works whence he drew this high and sublime Imitation, which we so much admire, and which has since become a Rule, and been followed on sundry other Occasions: Two most renowned Examples of this are yet remaining, the Column of Antoninus at Rome, and also that at Constantinople, erected to the Emperor Theodosius after his Victory against the Scythians; which sufficiently testify by their resemblance to that of our Trajan, that this kind of Architecture pass'd currently for an Order amongst the Masters of the Art, seeing they always employ'd it ever since upon the same Occasions, together with Tuscan Profiles both at the Base and Capital. This established, the rest will easily follow, so as not to subject it henceforward to the Opinion and Diversity of the Gusto's of those of the Profession, since

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we have the *Original* for our *Model*, to which we ought of necessity to conform, lest we transgress the *Terms* and *Regularity* of the *Order*. Now suppose an *Architect* be on some occasion obliged to introduce or change any thing in it, as the *Time* and *Quality* of this *Design* may require; he is yet to proceed with extraordinary circumspection, and without in the least altering the *Form* of the principal *Members*; in which one shall perceive the Address of his *Spirit*, and the Gallantry of his *Invention*. This is a *Maxim* so universal through the *Orders*, that without it one should never pretend to give *Rules*, nor propose indeed any *Example* for *Imitation*; so naturally obnoxious indeed are our *Inclinations* to *Novelty*, and so blind in our own *Productions*. See then from what *Source* the *Confusion* of that *Order* sprung, which they name the *Composita*, and which the presumption and ignorance of *Workmen* has begotten, like an extravagant *Monster* blended with so many *Natures*, and sometimes so averse and contrary, that it is impossible to distinguish their *Species*: I have reserved their full *Examen* for the *Conclusion* of this *Treatise*, where I shall make choice of what I meet with of most conformity to the *Rules* of *Art* and of good *Architecture*, and where I shall produce some of the most famous *Examples* of *Antiquity*, that at least Men may have faithful *Guides* through this *Labyrinth* of *Confusion*.

Our *Trajan Column*, which we hear substitute instead of the *Tuscan Order*, by the Prerogative of its excellent *Composition*, has this advantage above the other *Orders*, that there seldom happening *Occasions* worthy of it; that is to say, such as are particular and noble enough to merit the putting it in practice; our *small Masters*, incapable of so high an *Employment*, have spoken nothing of it, and by this means she has remained in her original purity: But the first which was ever made in *Imitation* of it, and that exceedingly confirmed the Establishment of this new *Order*, was the *Column* of *Antoninus*, which is yet very entire, and the only *Paragon* to ours, though it concede somewhat to it in the execution and *magisterial* handling; but in recompence of this, it surpasses it in the greatness of its *Mass*, a thing very considerable in this *Order*, whose *specifick* Beauty consists in being vast, and of a manner *Colossal*. For the rest, the *Composition* and *Ordinance* of the whole *Design* are very alike.

I will now shew in general, the Effect and Form of the principal *Members*, and of what one ought to be careful in the Application of *Ornaments*, which are to be disposed with great *Discretion*, as being of the very *Essence* and *Body* of the *Order*. The first, and as it were the *Foundation* of the whole *Structure*, is the *Pedestal*, which is here no less necessary than is the *Cornice* to the *Columns* of the other *Orders*; and its *Proportion*, though square and solid, requires an enrichment of handsome *Modenatures*, and of all other sorts of *Ornaments* at the *Plinth* and *Cymatium*, but above all in its four *Faces*, which are, as it were, the *Tables* of *Renown*, where she paints the *Victories* of those *Heroes* to whom she erects such glorious *Trophies*. It is there that we behold all the *Military Spoils* of the vanquished, their *Arms*, the *Machines* they made use of in fight, their *Ensigns*, *Shields*, *Cymeters*, the *Harness* of their *Horses* and of their *Chariots*, their *Habiliments* of *War*, the *Marks* of their *Religion*, and, in a word, whatever could contribute to the pomp and magnificence of a *Triumph*. Upon this glorious *Booty*, our *Column*, as on a *Throne*, is erected and vested with

with the most rich and splendid Apparel which *Art* can invent; and indeed, provided the *Architect* be a judicious Person, it cannot be too glorious: I repeat it again, that this ought in no sort to alter or in the least confound the *Proportions* and *Tuscan Profiles* of the *Base* and *Capital*, as being the very *Keys* of the *Consort* and *Harmony* of the whole *Order*. The last, but principal thing, because it sets the *Crown* upon the whole *Work*, is the *Statue* of the *Person* to whom we erect this superb and magnificent *Structure*; this hath an *Urn* under his *Feet*, as intimating a *Renascency* from his own *Ashes*, like the *Phoenix*, and that the *Vertue* of great *Men* triumphs over *Destiny*, which has a power only over the *Vulgar*.

As to what concerns the regular *Proportion* of this *Figure* and *Urn*, with the *Altitude* of the *Column*, I can here conclude nothing precisely, this part being repaired in the *Original*, and that in a manner too modern and wide of the the first intention of the *Architect*, to derive any advantage thence for our *Subject*. It may yet be said with likelihood enough, that since it is as it were the *Entablature* of the *Order*, one should allow it a fourth part of the *Column*, as to the *Trabeation* of the *Doric Order*, to which this bears a very great resemblance. I conceive also, that the *Figure* ought so to be proportioned by the *Rules* of *Opticks*, that it may appear of a *Size* somewhat exceeding the *Natural*, and of an elegant *Symmetry*, that so it may be taken notice of above all the rest; but with this *Discretion* yet, that being of necessity to stand on its *Feet*, it appear of a firm *Position*, and that the *Mass* of the *Urn* which serves it for a *Pedestal*, have a *solidness* agreeable to this effect: For it is a thing greatly obliging in *Architecture*, to make every thing not only *solid* and *durable*, but that it likewise so appear, and thereby avoid that *Gothic Indecorum* which affects it as a *Beauty*; the making of their *Works* seem as it were hanging in the *Air*, and ready to fall upon one's head, which is an *Extravagance* too visible for us to spend any time in confuting.

By this time I think I have left nothing unsaid which concerns the general *Composition* of our *Column*. As for the lesser retail of the *Proportions* and *Profiles* of each *Member*, the *Design* shews them so perspicuously, that it were but a childish and impertinent *Labour* to name them over one by one, as those first *Inventors* of *Painting* did, who, to supply the weakness of the *Art*, not yet arrived to so natural a representation of the things they imitated, were forced to write under them, This is an *Ox*, a *Tree*, a *Horse*, a *Mountain*, &c. There will be no need of this here, the *Effect* of the *Design* having so far exceeded the *Expression* of all *Words*, that it shews us more things in an instant, and that with infinite more preciseness, than could have been described by discourse in a very long time. I will therefore conclude by this rare kind of *Language*, which has neither need of *Ears* nor *Tongue*, and which is indeed the most *divine Invention* that was ever yet found out by *Man*.

For the rest, you will, in my *Profile* of the *Trajan Column*, perceive with what diligence and exactitude all these things conform to the *Original*, even to the very least *Ornaments*, and thereby judge how exceedingly careful I have been in other things of greater consequence. If the *Reader* be intelligent, and that he have attentively viewed, and with a masterly *Eye*, this rich and incomparable *Piece* which I describe, the *Satisfaction* he will derive from
the

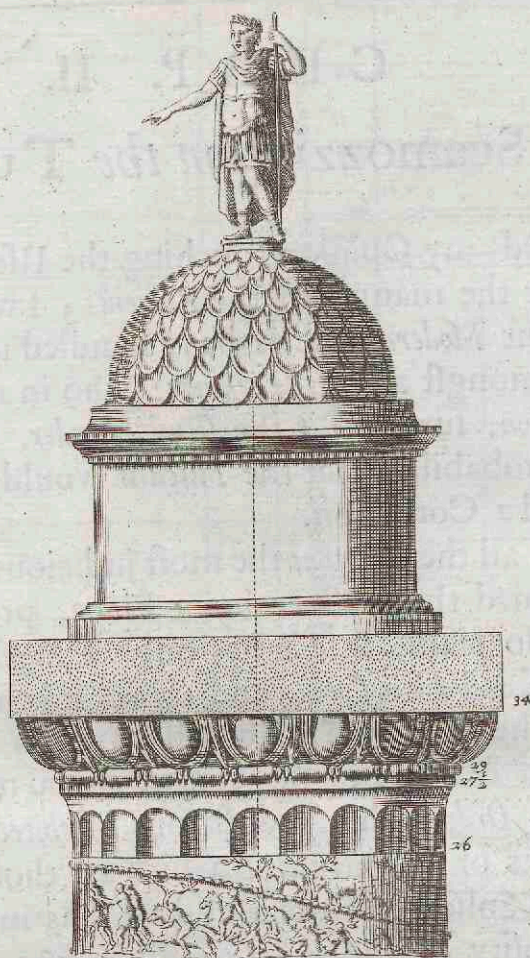
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the accurate Observations I have made, and here present him, will be proportioned to his Ability: For in these Particulars our Eyes see no farther than our Understanding purges them; nor do their admirable Beauties reveal themselves at once, nor to all the World in general; they will be curiously observed and discovered with industry. There are likewise several kinds which every one considers according to the force of his Wit, and as they conform to his *Genius*. Some there are who seek only the Grace and Neatness of *Ornaments*; others consider the Nobleness of the *Work*, and Novelty of the *Invention*; the most knowing have regard to the *Proportions* chiefly, and the regularity of the Whole with its Parts, to the judicious Composition, the greatness and solidity of the *Design*, and such essential Beauties as are only visible to the Eyes of the most intelligent *Architects*; from whence it often falls out, that the same Work in which all these Parts are not equally perfect, is variously esteemed by those of the *Profession*; (for there are but few like this of ours so qualified as to merit a universal Approbation) and the misery of it is, that the best things have for the most part many fewer *Admirers* than the *indifferent*, because there are more *Dunces* than *able Men*.

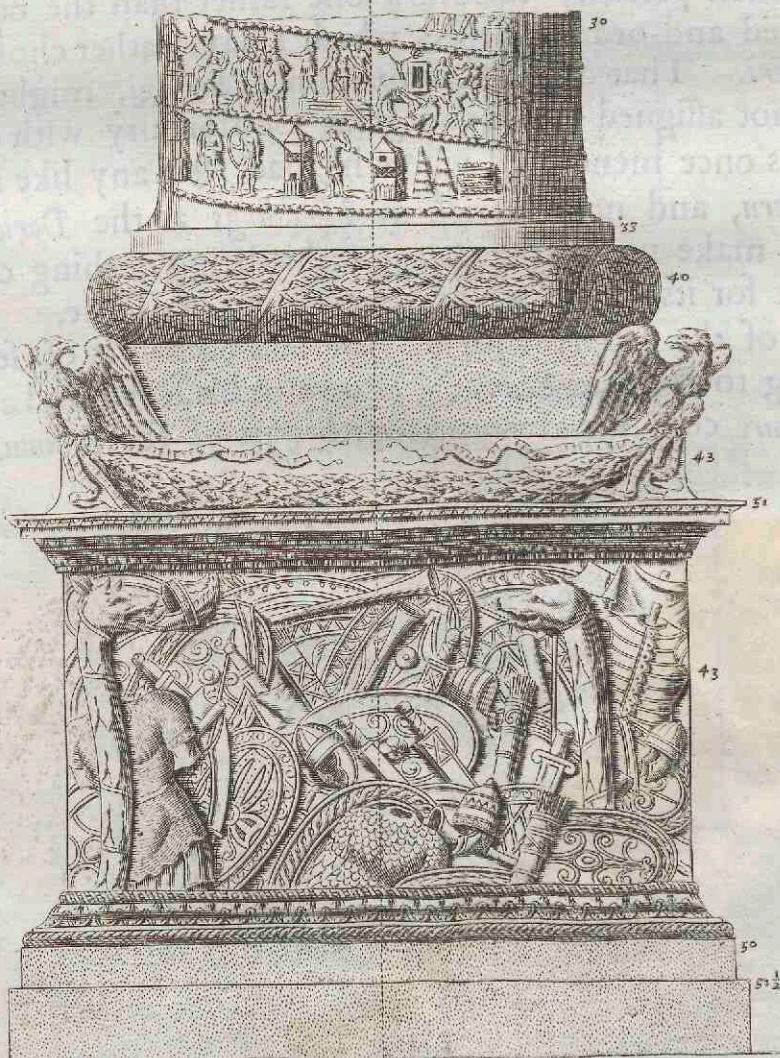
The Module of the following *Design*, and the Method of *decyphering*, is the same with what went before; *viz.* That passing a *Perpendicular* through the *Centre* of the *Column* the whole Height of the *Order*, I divide the *Semidiameter* of the *Pillar* at the foot into thirty *Minutes*, which compose the *Module*, upon which I afterwards regulate all the *Members* as well for their Height as *Sailings* over, and *Projecture* of their *Profiles*, still beginning by this *Central Line* of the *Column*, that so the Position of each individual Part be exactly adjusted and precisely in its place. This is so perspicuous, and has been so oft repeated, that there can remain no possible *Difficulty*.

As to what now concerns the whole *Maß*, the *Column* contains seventeen *Modules*, comprehending the *Base* and *Capital*. The *Pedestal* with its entire *Bassament*, *Cymatium*, and that *Zocolo* or *Plynth* above wrought with a *Festoon* (which in my judgment makes a part of it, as rendering it a perfect *Cube*, of all *Geometrical* Proportions the most regular and solid, and consequently most agreeable to this Structure) has in Height three *Modules*, or a very little less: The *Base* of the *Column* precisely one, and the *Capital* two thirds of a *Module*.





Trajan's Column.



C H A P. II.

Palladio and Scamozzi upon the T U S C A N Order.

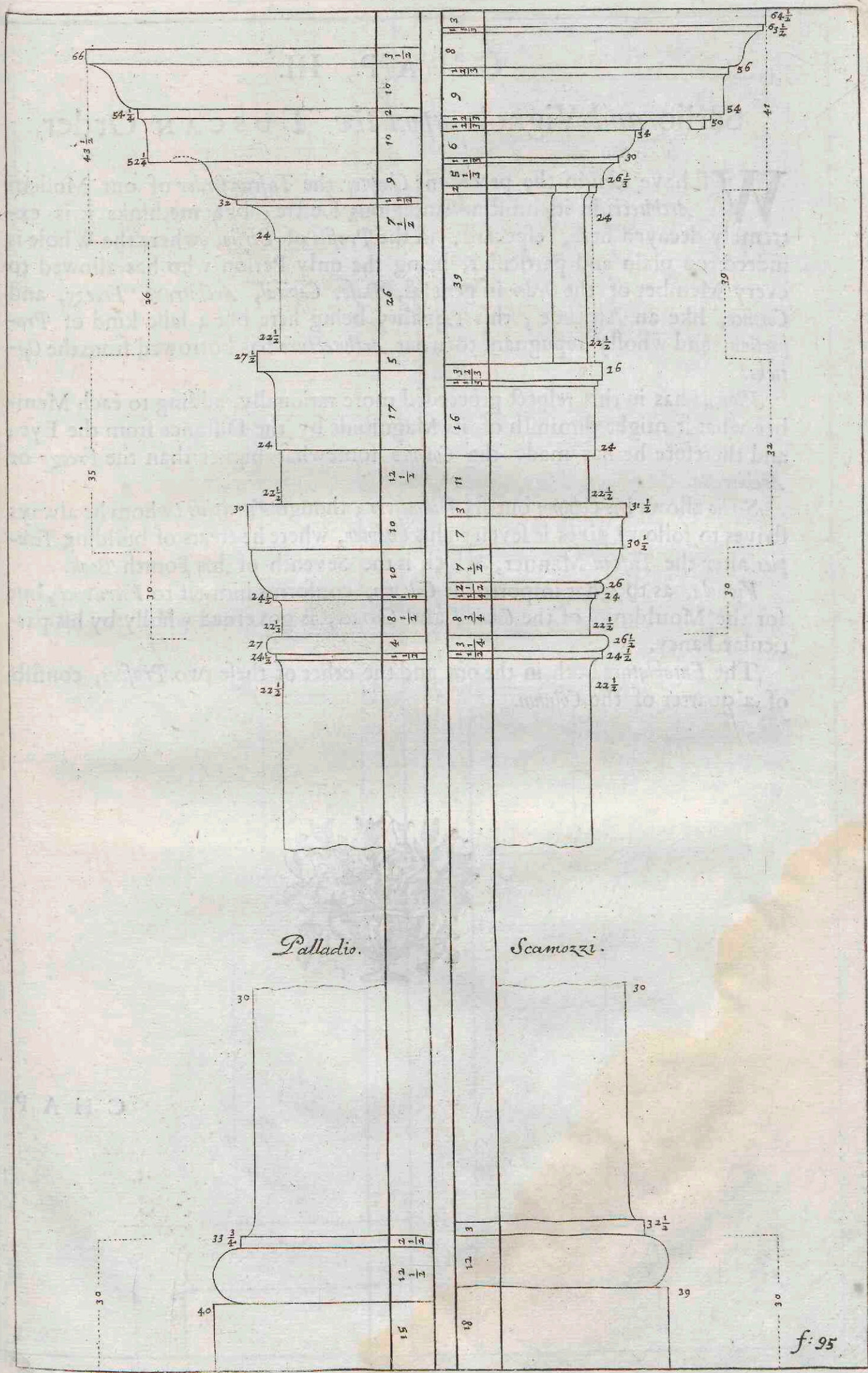
HAVING declared my Opinion touching the Use and Form of the *Tuscan Order* after the manner of the *Ancients*; I will now describe to you after what Fashion our *Modern Masters* have handled it, and in what Reputation it is at present amongst all our *Workmen*, who in regard of the meanness of so poor a *Composition*, surname it the *Rustic Order*, and that with Reason, there being so little Probability that the *Tuscans* would ever own or acknowledge it in so wretched a Condition.

Andrew Palladio, of all the *Moderns* the most judicious, and to whom in this *Collection* we have assigned the most eminent Place, presents us with two *Profiles*; one whereof is so plain, that it has only a *Summer of Timber* covered with another piece instead of a *Coping* and *Corona* for the *Entablature* of the *Column*; and I conceive he imagined it should have no other, from what *Vitruvius* has written of it. But finding this *Composition* too meanly handled to merit the Honour of an *Order*, this industrious *Architect* went and searched amongst the old Relicks of *Amphitheatres*, which are those enormous Masses of *Architecture*, where the Solidity of the Building was more requisite than the Spruceness, and Curiosity of the *Orders*; 'till, in fine, he discovered in the *Arena's* of *Verona*, *Polo*, and other Places, a certain *Order*, which he conceived one might call the *Tuscan*, in imitation whereof he composed this: For he did not tie himself precisely to follow one rather than the other; but from many he formed and ordained this, which I have rather chosen than any of the other *Masters*. That of his Companion *Scamozzi*, might pass tolerably well, had he not assigned him a too great Conformity with the *Doric*, and not so much as once mentioned where he had seen any like it; so as being altogether *Modern*, and near as rich in *Mouldings* as the *Doric* itself, it were much better to make use of the *Antique*; this being nothing considerable for a Building, but for its Cheapness and the saving of Time.

The Height of the *Column* with its *Base* and *Capitals* is of seven *Diameters*, only, according to *Palladio*. *Scamozzi* allows to his seven and an half.

The *Entablature* contains always a fourth part of the *Column*.





C H A P. III.

Serlio and Vignola upon the T U S C A N Order.

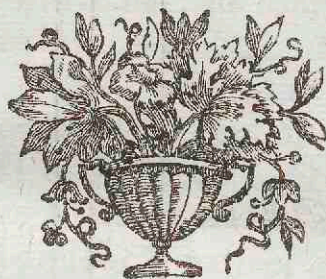
WE have seen in the precedent *Chapter* the *Tuscan Order* of our Modern *Architects* in its most advantageous Lustre; but methinks it is extremely decayed here, especially in the *Profile* of *Serlio*, where the Whole is indeed too plain and particular, being the only Person who has allowed to every Member of the *Order* in general, *Base*, *Capital*, *Architrave*, *Freeze*, and *Cornice*, like an Altitude; this Equality being here but a false kind of *Proportion*, and wholly repugnant to what *Architecture* has borrowed from the *Opticks*.

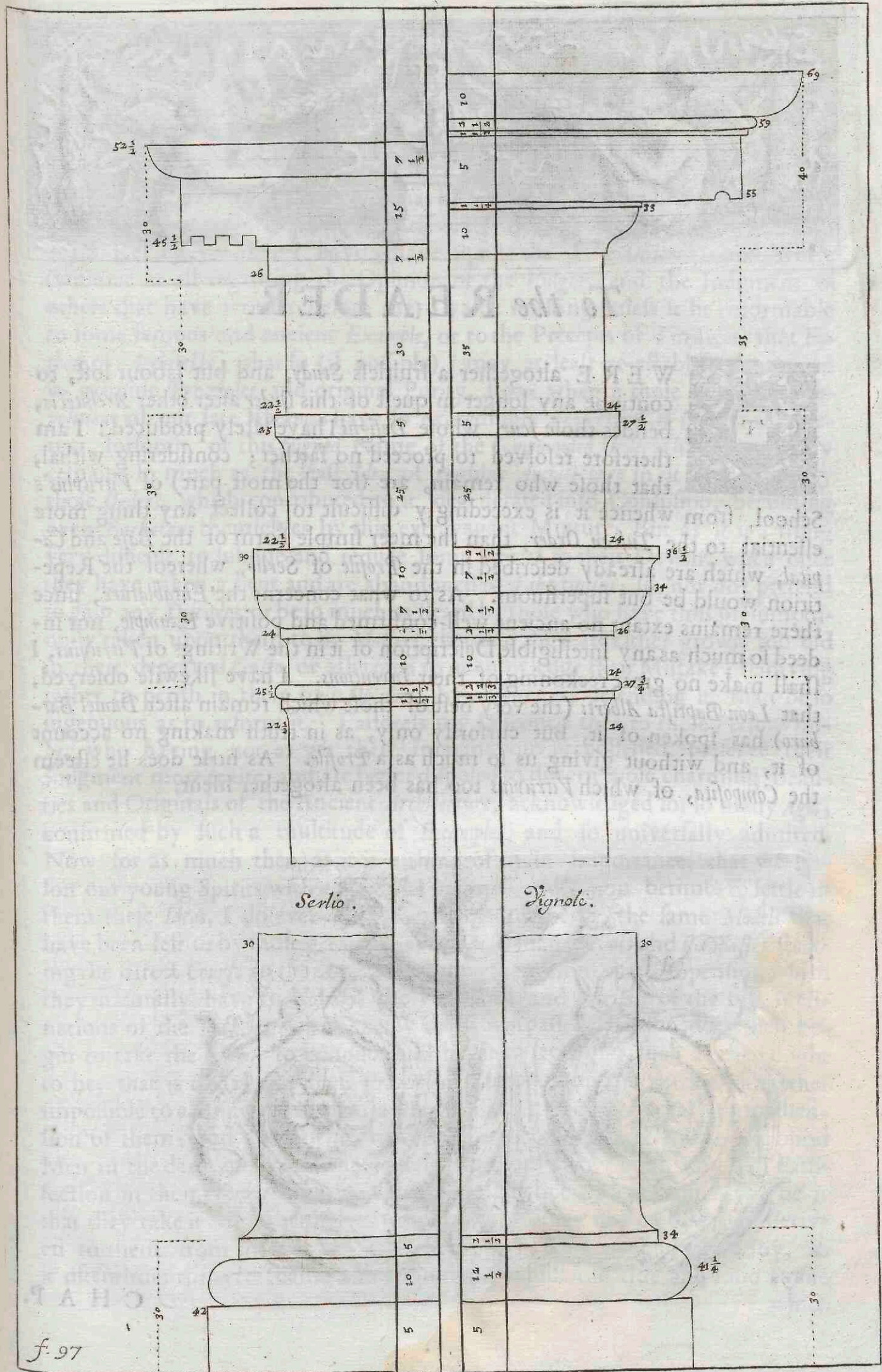
Vignola has in this respect proceeded more rationally, adding to each Member what it might diminish of its Magnitude by the Distance from the Eye; and therefore he has made the *Cornice* somewhat higher than the *Freeze* or *Architrave*.

Serlio allows his *Column* but six *Diameters*; though *Vitruvius* (whom he always strives to follow) gives it seven in his *Chapter*, where he treats of building *Temples* after the *Tuscan Manner*, which is the Seventh of his Fourth *Book*.

Vignola, as to what imports the *Column*, conforms himself to *Vitruvius*; but for the Mouldings of the *Capital* and *Cornice*, is governed wholly by his particular *Fancy*.

The *Entablature* both in the one and the other of these two *Profiles*, consists of a quarter of the *Column*.



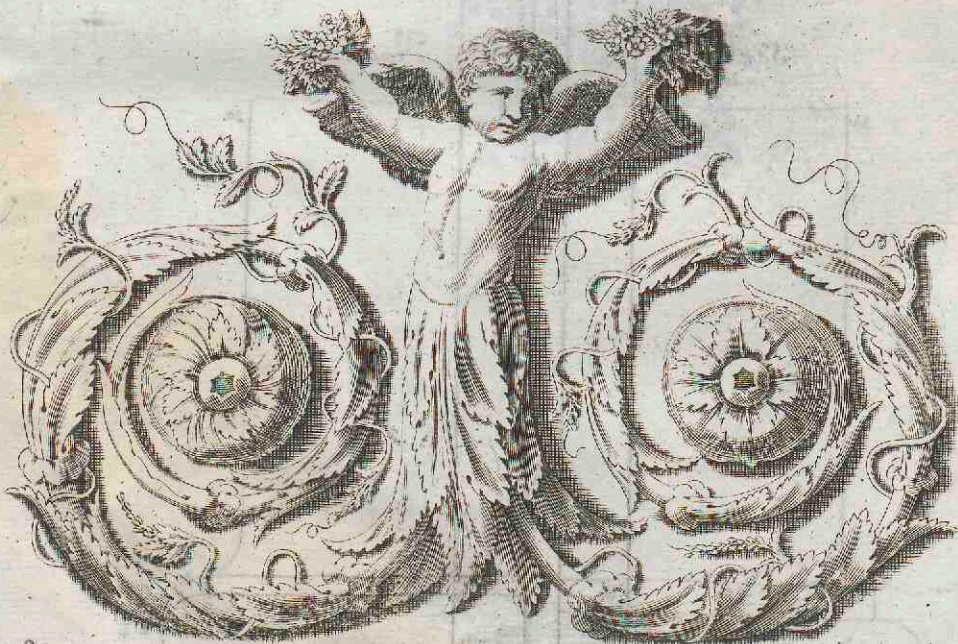




To the READER.



WERE altogether a fruitless Study, and but labour lost, to continue any longer in quest of this Order after other Architects, besides those four, whose Designs I have lately produced: I am therefore resolved to proceed no farther; considering withal, that those who remain, are (for the most part) of Vitruvius's School, from whence it is exceedingly difficult to collect any thing more essential to the Tuscan Order, than the meer simple Form of the Base and Capital, which are already described in the Profile of Serlio, whereof the Repetition would be but superfluous. As to what concerns the Entablature, since there remains extant no ancient well-confirmed and positive Example, nor indeed so much as any intelligible Description of it in the Writings of Vitruvius, I shall make no great reckoning of their Inventions. I have likewise observed, that Leon Baptista Alberti (the very best of those which remain after Daniel Barbaro) has spoken of it, but cursorily only, as in truth making no account of it, and without giving us so much as a Profile. As little does he esteem the Composita, of which Vitruvius too has been altogether silent.



C H A P. IV.

Of the Compounded Order.

THE *Compounded Order*, which has hitherto obtained the first rank amongst the *Moderns*, will find itself extremely debased in this severe and exact Review, which I have made upon the *Five Orders*; and where (without at all regarding the Opinion of the *Vulgar*, and the Judgment of others that have written before me) I value nothing unless it be conformable to some famous and ancient *Example*, or to the Precepts of *Vitruvius*, that *Father* of *Architects*; that so (if possible) I may at least re-establish the *Art* on its genuine *Principles* and original Purity, from whence those licentious *Compositions* of our late *Workmen* have so exceedingly perverted it (under the pretext, forsooth, of this feigned Name of the *Compounded Order*) that there hardly remains so much as the least *Idea* of regular *Architecture* in it; so strangely those *Orders*, which contributed to it, degenerated into Confusion, becoming even *Barbarous* themselves by this extravagant Mixture. But as it is a thing very difficult to subdue and reduce some Spirits to their Devoir, when once they have taken a bent and are abandoned to *Libertinism*; so, nor do I pretend to gain any *Disciples*, or be so much as heard by those who have thus presumptuously taken upon them to be *Masters*, because they are either grown too old in their depraved *Gusto*, or ashamed to acknowledge their Mistake; resolving rather to perish in their own *Opinion*, by obstinately defending it, than be so ingenuous as to reform it. I address my Discourse then to those Persons only, who having not as yet their Imaginations prepossessed, preserve their Judgment more entire, and are better disposed to discern those charming Beauties and Originals of the Ancient *Architecture*, acknowledged for so many *Ages*; confirmed by such a multitude of *Examples*, and so universally admired. Now for as much then as it is a thing of main importance, that we season our young Spirits with an early Tincture, and begin betimes to settle in them these *Ideas*, I do ever at first propose to them the same *Models* that have been left us by those great *Genius's*, as so many *Pilots* and *Compasses* steering the direct *Course* to the *Art*, and saving them from that Propension which they naturally have to *Novelty*, the very *Rock* and *Precipice* of the first Inclinations of the *French*; which being once overpassed, Reason does then begin to take the *Helm*, to conduct and let them see things such as they ought to be, that is to say, in their *Principles*, without which it will be altogether impossible to acquire more than a very ordinary and superficial comprehension of them; and those who travel by any other Path, grope like blind Men in the dark, and walk unsecurely, without ever finding any real Satisfaction in their *Work*: For the vain Complaisance of ignorant Men, be it that they take it from themselves (as commonly they do) or that it be derived to them from such as are like them, it is so empty and false a Joy, as it oftentimes turns to shame and confusion; whilst the true and solid Praise which

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which is attributed to the Merit of knowing *Masters*, and the Excellency of their *Workmanship*, is never obnoxious to this Self-deception. Now how little soever it be a Man possesses of the *Idea* of this high *Manner* of the *Ancients*, and the Greatness of their Thoughts, he should soon perceive the Meanness and Impertinency of our *Modern Composition*, when in the midst of so many *Examples* of the incomparable and only *Architecture* of the *Greeks*, which was the Ornament and Splendor of the *Ancient Rome* (whose very *Ruins* and *Vestias* render her yet *august* above all the *Cities* of the *World*) these wretched and trifling Spirits, indigent in the midst of so great abundance, depart from the right way which these great *Masters* have opened to them, taking a devious Path to pursue an Abortive of *Architecture*, or the evil *Genius* of the Art rather, which has introduced itself amongst the *Orders* under the Title of *Composita*, the favour of Mens Ignorance, and the indiscreet Presumption of I know not what pitiful new *Architects*, who have made it their *Fools Bauble*, and clad it in so many *Apish* and *Capricious* Modes, that it is now become a ridiculous *Chimera*, and, like a *Proteus*, not to be fixt to any constant Form; so as it would be altogether labour in vain, an idle and foolish Enterprize for us to search after it here through all its wild and unlimited Extent, since it has neither *Rules* nor *Measures*, *Principles*, *Species*, nor particular *Propriety*, and so by consequence not to be comprehended under the name of an *Order*.

It would in truth (in my Opinion) be necessary for the good of the *Art*, and the Reputation of *Architecture*, that this *Monster* were altogether smothered and that some more pertinent and specifick name were given to those excellent *Profiles*, which we encounter amongst some *Antiquities* of the grand *Design* which (from I know not what *Tradition*) are called of the *Compounded Order*; a Name altogether novel, not so much as once mentioned by *Vitruvius*, and which is in earnest too general and uncertain to suit with a regular *Order*; and that since they refer the Glory of its Invention to the *Romans*, it were much more proper to call it the *Roman* or *Latin Order*, as *Scamozzi* has judiciously enough done, and moreover observed, that its *Capital* (by which alone it differs from the *Corinthian*) is of a more massy and less elegant *Composition*, whence he conceives this *Order* should not be placed upon the *Corinthian*, lest the weak be burthend with the stronger: To which he might also add, that they can never consist in the same Work together, as I have elsewhere demonstrated, and that this is so perspicuous, that it admits of no possible Extenuation: However, those who would take advantage of this evil Practice and Abuse of the *Moderns* to do the contrary, might have a way to escape by by this *Asinine-Bridge*. For the Importance is very inconsiderable in comparison to that unbridled Licence which now a-days reigns amongst our *Compositers* of the *Composita*, who not only change the Rank of the *Orders*, but reverse and overturn even all their *Principles*, undermining the Foundations of true *Architecture* to introduce a new *Tramontane* more barbarous and unsightly than even the *Gothic* itself. But to all this let us reply (in confusion of its *Inventers*) that an *Architect* should no more employ his Industry and Study in finding out new *Orders*, to set a value upon his *Works*, and render himself an able Man, than should an *Orator*, to acquire the reputation of being *Eloquent*, invent and coin new *Words* that were yet never spoken; or

a Poet compose Verse of another Cadence and Measure than what are prescribed and are in use; this Affectation being altogether puerile and impertinent; or, admit one would upon some Occasion take any such Liberty, it ought to be with such Discretion, and so to the Purpose, that the Reason thereof should to any one appear immediately. Thus it was the Ancients made use of it, but with so great Caution, as that they have confined their entire Licence to the sole Form of the Capital, of which they have devised an hundred gentle Compositions, and to some Subjects peculiar, where they succeeded incomparably, and out of whose Limits one cannot (without manifest Impertinency) employ it in any Work whatsoever. I will therefore choose two or three Examples amongst a good number of Designs, which lie by me, of that most famous Pyrrho Ligorio, found out and observed by him in several Places of Italy with a Diligence inestimable. But let us first conclude our prime Subject, which is to form the Roman Composita, and make of it here as regular and precise an Order as any of the former Four. I propose, for this effect, two antique Profiles, both of them excellent in their Kinds; one very rich and full of Ornaments, taken from the Arch of Titus at Rome; and the other much plainer indeed, but great and proud, being that of the Arco de Leoni at Verona.

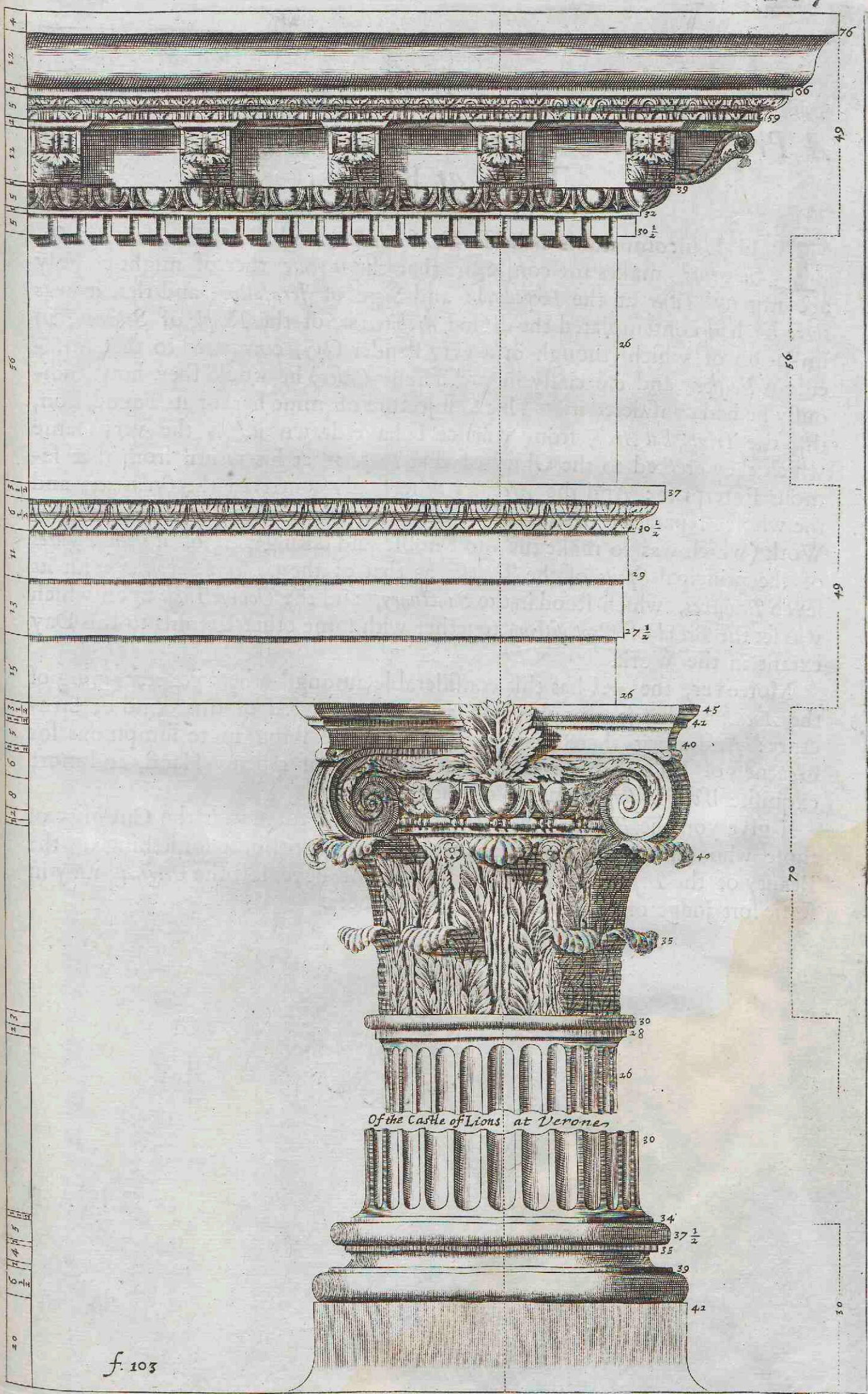
If these two Instances suffice not our Reader, he may make his Election of others more to his liking, or fix upon any of those who best pleases him of the Author's following, which I have therefore expressly collected together, and amongst which I acknowledge my particular esteem for Palladio.



C H A P. V.

A Profile Composita taken from the Arco de Leoni at Verona.

BEfore I propose this *Composita* for *Model*, I shall first endeavour to prevent and elude certain *Objections* which our *Criticks* possibly raise, lest they impute it to my *Inadvertency*, should I pass them by in silence. The first is, that the *Cornice* is defective for want of the *Corona*. The other is the naked placing of the *Dentelli*, without any separation on the *Freeze*. Thirdly, the excessive Height of the *Freeze*. And lastly, that the three *Faces* of the *Architrave* are all inverted from the ordinary Position. And finally, that the *Plinth* of the *Base* is a great deal too high, being compared to the rest. To all these *Objections* I might reply in a word, That in a Business of *Architecture* the Reason is allowable, since I produce an antique Example, universally approved, and such as this is: Besides, I add, that the very name of *Compounded* seems to infer a kind of *Liberty*, and that therefore an *Architect* might sometimes be justly permitted to take it, as occasion may suggest, either by introducing into the *Order*, or retrenching from it what he thinks most conducive and proper to his *Design*; provided it be discreetly managed, as it has been judiciously observed in the *Profile*, where the *Author* being to make an extraordinary large *Freeze* for the more commodious placing of many *Figures* which concerned his Subject, would spare from the *Cornice* what he had usurped of more than the regular Proportion of the *Freeze* did permit him. To this purpose it was, he cut off and abated the *Corona*, though in truth a considerable Member, but which is yet (as far as I can collect from other Instances) not absolutely necessary; since in the *Temple of Peace* at *Rome* (one of the most stupendious Works of *Antiquity*) the *Cornice*, though *Corinthian*, has no *Corona* at all, notwithstanding that the *Architect* had the Field so open before him. And *L. Baptista Alberti* (whose Authority is greatly prevalent amongst our modern Masters) without any other reason for it, than that of his own *Gusto*, has given none to this *Corinthian Order*. Now as concerning the *Compartment* of the *Swaths* and *Fasciæ* of the *Architrave*, whose Position here seems somewhat preposterous, it is (to speak seriously) a little extraordinary, however I well remember to have seen others which were like it, and *Palladio* produces us one Example of it towards the end of his Fourth *Book*, taken from a *Temple of Polo* in *Dalmatia*, of the *Corinthian Order*, the *Architecture* whereof is exceedingly rare and antique; and there I also find that the *Base* of the *Column* hath a *Plinth* likewise of an excessive thickness, as indeed ours has, which supply the place of a *Zocolo*. Thus you have both *Reason* and *Example* sufficient for the Answer of every *Objection*. But from hence one may also judge, that this *Profile* should not be employed in Work without extraordinary Discretion, and indeed some kind of *Necessity*. That which I shall produce in the following Instance is more regular to Particulars, and by consequence more agreeable to all sorts of Works. But the general Proportion both of the one and other is sufficiently equal. The *Column* itself has ten *Diameters*, and the Altitude of the *Entablature* amounts to a fourth part of the *Column*.



Of the Castle of Lions at Verona

C H A P. VI.

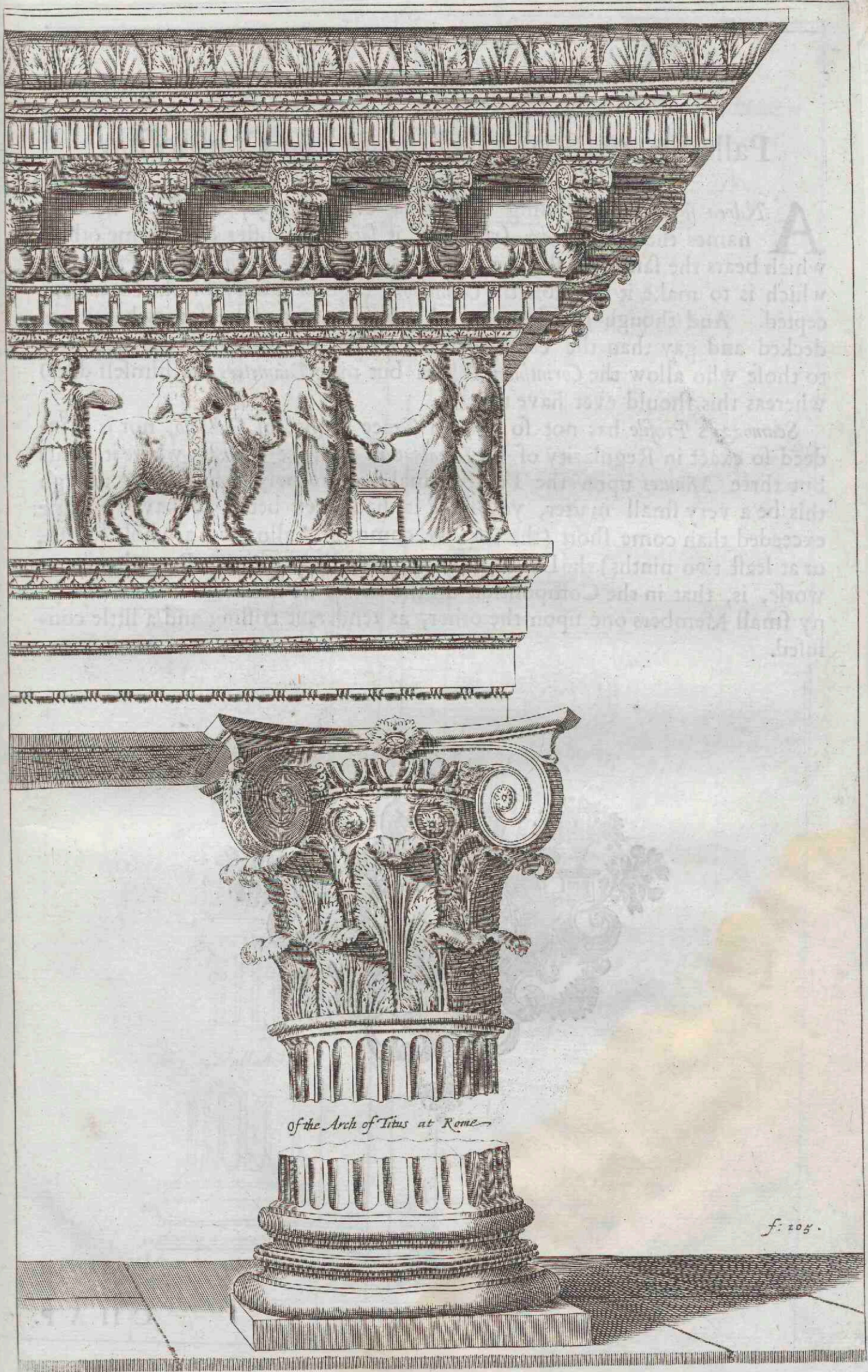
A Profile of the Composita, taken from the Arch of Titus at ROME.

TH E incomparable *Idea* of this *Composita*, and the Richness of its *Ornaments*, makes me conjecture that the *Inventer* thereof might possibly accompany *Titus* at the *Expedition* and *Siege* of *Jerusalem*; and that it was there he had contemplated the divine *Architecture* of the *Temple* of *Solomon*, in imitation of which (though in a very slender *Copy*, compared to that miraculous *Edifice*, and especially in a different *Order*) he would shew how studiously he had considered it. This Conjecture of mine has for its *Foundation*, that the *Triumphal Arch*, from whence I have drawn it, is the very same which they erected to the *Glory* of that *Emperor* at his return from that famous *Enterprize*: And the *Architect* who haply contrived the *Ordinance*, and the whole *Preparation* of the *Day* of *Triumph*, judiciously introduced into his *Work* (which was to make the most noble and lasting part of it) the *Figures* of the principal *Spoils* of the *Temple*, as that of the *Golden Candlestick* with its seven *Branches*, which stood in the *Sanctuary*, and the *Golden Table* upon which was set the *Bread of Proposition*, together with some other *Utensils* to this *Day* extant in the *Work*.

Moreover, the *Arch* has this considerable amongst others yet remaining of the *Ancients*, that it was the first and very *Original* of this kind of *Structure*: And albeit there have been since made some more sumptuous for greatness of *Bulk* and *Magnificence*, this is yet of a better *Hand*, and more exquisite *Workmanship* than any of them.

I give you the *Elevation* in *Perspective*, as well to gratifie the *Curiosity* of those who affect this *Art*, as that I may also contribute something to the *Beauty* of the *Design*; and besides, that such as never saw the *Original*, may in some sort judge of the *Effect* which it produces.





of the Arch of Titus at Rome

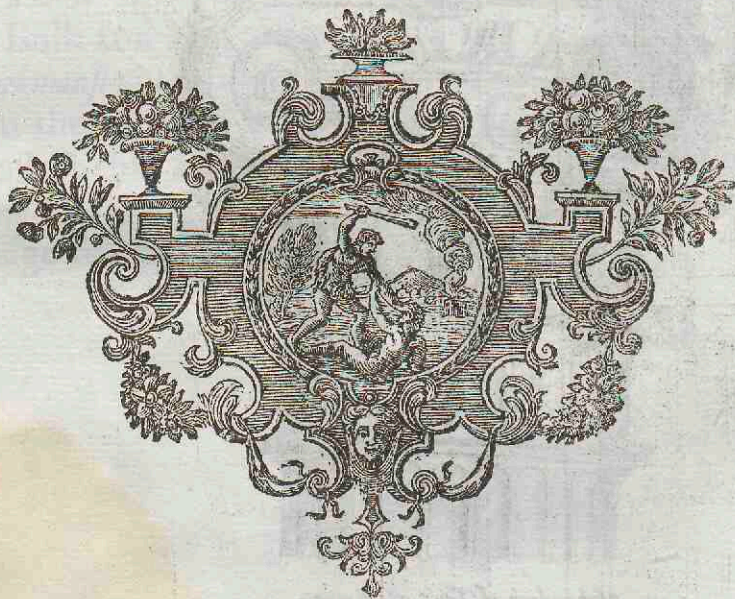
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C H A P. VII.

Palladio and Scamozzi, upon the Composita.

Andrea Palladio proposing this Profile of the *Composita*, which he also names the *Latin Order* (to make it specifically differ from some others which bears the same Appellation) gives us a general *Maxim* for its *Proportion*, which is to make it resemble the *Corinthian*, the Form only of the *Capital* excepted. And though he add, that this *Order* ought to be somewhat more decked and gay than the *Corinthian*, it is to be understood in reference only to those who allow the *Corinthian Column* but nine *Diameters* (as himself does) whereas this should ever have ten.

Scamozzi's Profile has not so good a Grace as that of Palladio, nor is it indeed so exact in Regularity of its *Entablature* with the *Column*, where it wants but three *Minutes* upon the *Total* to make it precisely a fifth: for though this be a very small matter, yet since it had been better to have a little exceeded than come short (the *Ancients* commonly allowing a whole fourth, or at least two ninths) the Defect is the more easily perceived. But what is yet worse, is, that in the Composition of the *Cornice* he has accumulated so many small Members one upon the other, as renders it trifling and a little confused.

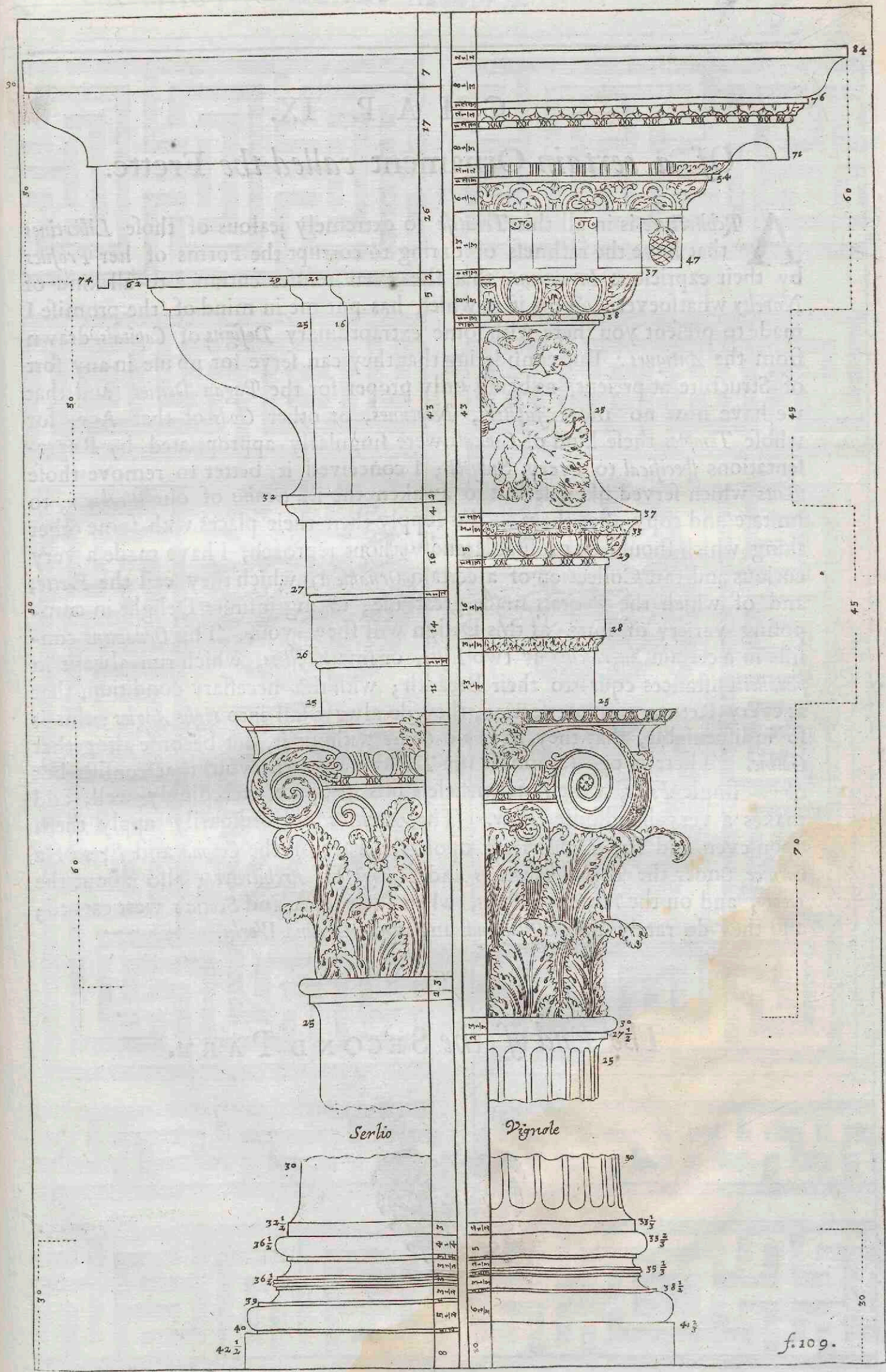


C H A P. VIII.

Serlio and Vignola, upon the Composita.

I Am astonished at this last Production of poor Serlio, who having 'till now reasonably well conducted the first *Orders* of *Architecture* under the Direction and Government of *Vitruvius*, fails miserably at the very Port just as his *Pilot* has deserted him: And what does most of all surprize me, is, that the Man's *Genius* (which was to intimate a mean and trifling Manner) should revolt in such an Instant, and change into so strange an Excess. I was at first resolv'd to have suppress'd this *Profile* (for the Credit of the Person) had it not been to wrong his Competitor *Vignola*, and so frustrate him of the great Advantage, which, upon this Occasion, he has over him; since in the precedent *Orders* I have sometimes conceived him his Inferior. I shall not dwell long upon the Particulars, which in this *Composition* to me seem defective; because I shall sooner have finish'd in saying once for all, that there is nothing as it should be, though the *Cornice* be taken from, and (as the *Author* pretends) followed stroak for stroak after that of the fourth *Order* of the *Colosseum*, which is indeed one of the most renowned *Vestigia's* of *Antiquity*, and an admirable Piece of *Architecture*. But one had need of a very steady Head to be able to climb such an Height without shaking ones judgment. He should have considered, that this *Colossean* Structure being a *Mass* of a prodigious Altitude, had need of some *Sophistications* from the *Opticks*, to make it appear regular to the Eye; and that therefore there would be an Error and Mistake in summing up the Dimensions and *Æquipondium* of its Members at a more moderate Distance with the same Measures and Proportions. This inadvertency has made him slip into another Fault much more gross and unpardonable; for he places upon a small and pitiful *Capital* (after his own Mode) the whole weight of the *Colosseum*, that is to say, a *Gigantick Entablature*, which composes the *Corona* of this prodigious Edifice. This so monstrous a Medly appears more here than in the *Author*; because he has designed it very slightly, and in so small a Volume (in his fourth *Book* and ninth *Chapter*, where he explains this last *Order*) that one can hardly discern the Form of the principal Members.

Vignola has proceeded with a great deal more exactness and judgment in his *Designs*, which he has also *Profiled* very neatly, and in a large *Volume*, that renders it commendable and of use to *Workmen*. He allows in this *Composition* the same Measures and Proportions that he does to the *Corinthian*.



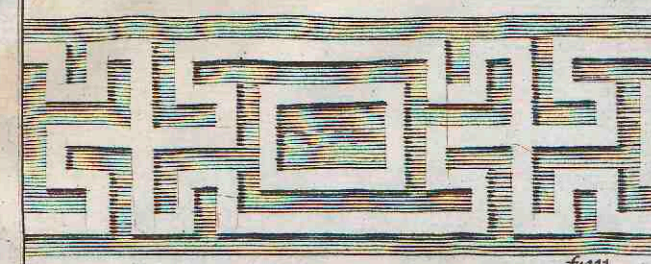
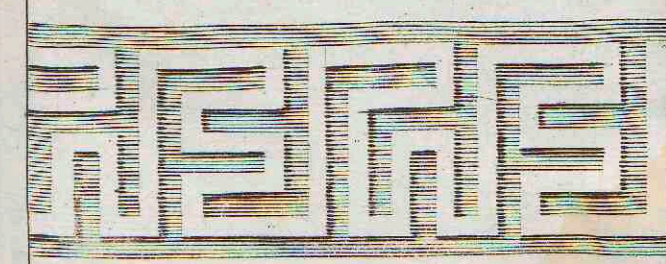
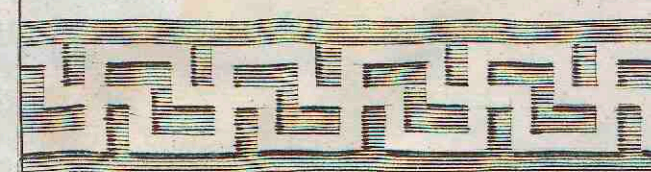
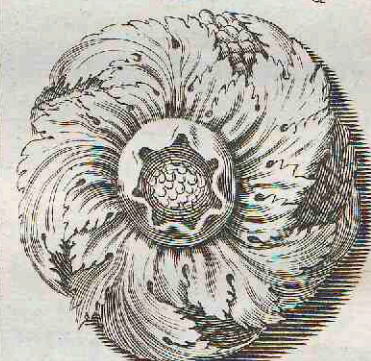
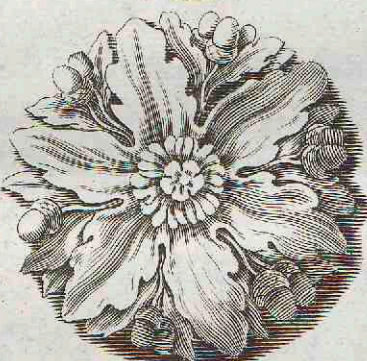
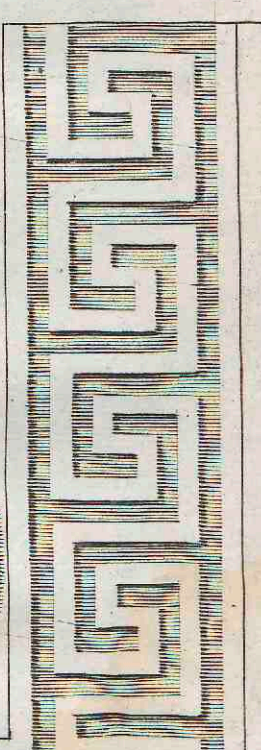
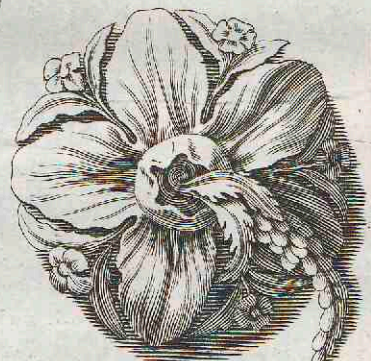
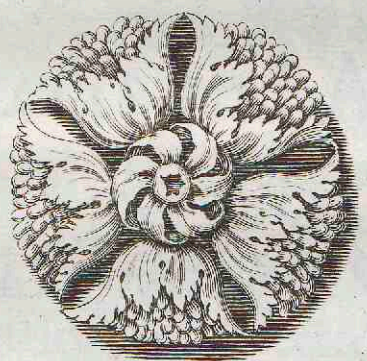
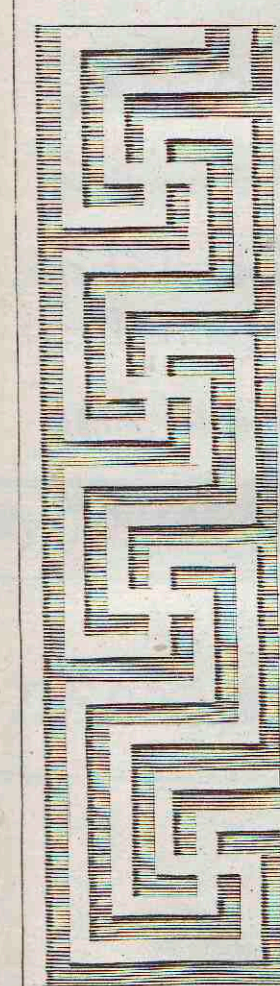
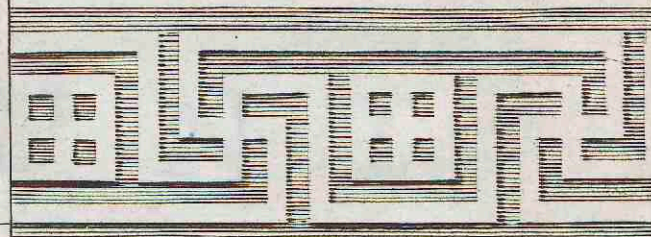
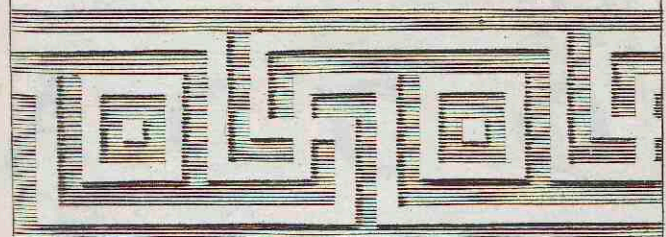
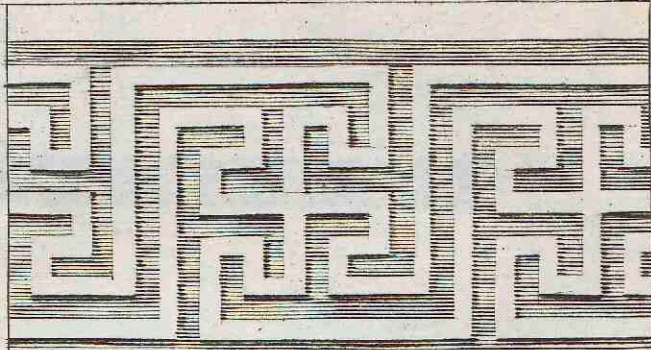
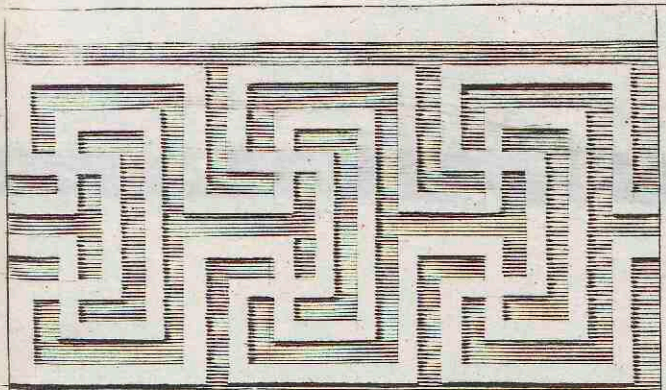
C H A P. IX.

Of a certain Ornament called the Frette.

Architecture is in all this *Treatise* so extremely jealous of those *Libertines* that have the rashness of daring to corrupt the Forms of her *Profiles* by their capricious *Inventions*, that she even refuses entrance to all kind of *Novelty* whatsoever. This it is which has put me in mind of the promise I made to present you here with some extraordinary *Designs* of *Capitals* drawn from the *Antiques*: But considering that they can serve for no use in any sort of *Structure* at present, as being only proper for the *Pagan Deities*, and that we have now no more *Jupiters*, *Neptunes*, or other *Gods* of that Age, for whose *Temples* these kind of *Capitals* were singularly appropriated, by Representations *specific* to every *Subject*; I conceived it better to remove those *Baits* which served likewise but to awaken the ill *Genius* of our *Workmen*, to imitate and copy after them. To supply then their places with some other thing which should be profitable and without reproach, I have made a very curious and rare *Collection* of a certain *Ornament*, which they call the *Frette*, and of which the *Ancients* made great use; taking infinite *Delight* in composing variety of sorts, as this *Design* will shew you. This *Ornament* consists in a certain *interlacing* of two *Lists*, or small *Fillets*, which run always in *parallel* Distances equal to their *Breadth*; with this necessary condition, that at every *Return* and *Interfection*, they do always fall into *right Angles*; this is so indispensable, that they have no *Grace* without it, but become altogether *Gothic*. There is one (amongst the *Ten* I here present you) that consists but of a single *Fillet*, which nevertheless fills its *Space* exceedingly well, and makes a very handsome show. The *Ancients* did ordinarily apply them upon even and flat *Members*, as upon the *Face* of the *Corona* and *Eves* of a *Cornice* under the *Roofs*, *Planceres* and *Ceilings* of *Architraves*; also about the *Doors*, and on the *Plinths* of *Bases*, when their *Torus* and *Scotia's* were carved; also they do rarely about *Plafonds* and upon *Ground Works*.

The End of the SECOND PART.







A N
A C C O U N T

O F

Architects and Architecture,

TOGETHER WITH

An Historical, Etymological Explanation of certain
Terms particularly Affected by ARCHITECTS.

Much Enlarged and Improved since the former Impression.

By JOHN EVELYN, Esq; Fellow of the ROYAL SOCIETY.

TOGETHER WITH

LEON BAPTIST ALBERTI of STATUES.





T O

My most Honoured Friend,

Sir CHRISTOPHER WREN, K^t.

Surveyor of His Majesty's Buildings and Works.

S I R,

I H A T I take the Boldness to adorn this *Little Work* with the Name of the *Master of the Works* (whose Patronage alone can give it Reputation) I have no Excuse for; but an Ambition of Publickly Declaring the great Esteem I have ever had of Your Virtues and Accomplishments, not only in the *Art of Building*, but through all the Learned *Cycle* of the most *Useful Knowledge* and *Abstruser Sciences*, as well as of the most *Polite and Shining*: All which is so justly to be allowed You, that You need no *Panegyric*, or other *History* to Eternize them than the *greatest City of the Universe*, which You have *Rebuilt and Beautified*, and are still improving: Witness the *Churches*, the *Royal Courts*, *Stately Halls*, *Magazines*, *Palaces*, and other *Publick Structures*; besides what You have Built of Great and Magnificent in both the *Universities*, at *Chelsey*, and in the *Country*; and are now advancing of the *Royal Marine Hospital* at *Greenwich*, &c. All of them so many *Trophies of Your Skill and Industry*, and Conducted with that Success, that if the whole *Art of Building* were lost, it might be *recovered and found* again in *St. Paul's*, the *Historical Pillar*, and those other *Monuments of Your Happy Talent and extraordinary Genius*.

I have Named *St. Paul's*, and truly, not without Admiration, as oft as I recall to Mind (as frequently I do) the sad and deplorable Condition it was in, when (after it had been made a *Stable of Horses*, and a *Den of Thieves*) You (with other Gentlemen and myself) were by the late *King Charles*, named *Commissioners*

to

The DEDICATION.

to Survey the *Dilapidations*, and to make Report to his *Majesty*, in order to a speedy *Reparation*: You will not, I am sure, forget the *Struggle* we had with some, who were for patching it up any how (so the *Steeple* might stand) instead of New-Building, which it altogether needed: When (to put an End to the Contest) five Days after that *Dreadful Conflagration* happened, out of whose *Ashes* this *Phoenix* is Risen, and was by *Providence* Design'd for You: The *Circumstance* is too *Remarkable*, that I could not pass it over without Notice. I will now add no more, but beg Your Pardon for this Confidence of mine; after I have acquainted You, that the *Parallel* (to which this was Annexed) being out of Print, I was Importun'd by the *Bookseller*, to add something to a *New Impression*; but to which I was no way inclin'd, 'till not long since, going to *St. Paul's*, to Contemplate that *August Pile*, and the Progress You have made, some of Your *Chief Workmen* gratefully acknowledging the Assistance it had afforded them; I took this Opportunity of doing my self this Honour, who am,

S I R,

Your most Humble Servant,

Wotton. 21
Feb. 1697.

J. EVELYN.

Bombard
6-2-1940

27 Aug.
2 Sept.
1666.

The Parallel

T O T H E
R E A D E R.

THE Author of the Parallel of the Ancient Architecture with the Modern (which many Years since I made English) had at the end of his Treatise begun to explain a few of the hard Words, Technical Terms belonging to the Art; the Etymologies whereof he thought necessary to interpret: And, as I said, they are but a few indeed, compared to those which remain, about a Dozen at the most; nor was it necessary he should exceed that Number, in a Country where Workmen are generally more intelligent in the proper Expressions of the Terms of the Arts unto which they addict themselves, than ours for the most part are; and therefore, if waving the formal Translation of that Page (for it exceeds very little more) I have in lieu thereof considerably enlarg'd upon this Occasion, by a more finish'd and compleat Enumeration of the several Parts and Members of the Orders, as they gradually succeed one another in Work, illustrated with more full and exact Definitions (than by any has yet been attempted for the Benefit of our Countrymen) I hope my Adventure may find both Pardon and Acceptance. Nor let any Man imagine we do at all obscure this Design by adorning it with now and then a refin'd, and Philological Research; since whilst I seek to gratify the politer Students of this Magnificent Art, I am not in the least disdainful of the lowest Condescensions, to the Capacities of the most Vulgar Understandings; as far at least as the Defects, and Narrowness of our Language will extend, which rather grows, and abounds in Complemental and Impertinent Phrases, and such Froth (as Sir H. Wotton well observes from Gualterus Rivius's incomparable Version of Vitruvius in the German Tongue, and is now so far out-done by the Learned Perault) than in the solid Improvements of it; by either

The P R E F A C E.

preserving or introducing what were truly needful: And really, those who are a little conversant in the Saxon Writers, clearly discovered by what they find Innovated, or now grown Obsolete, that we have lost more than we have gain'd; and as to Terms of useful Arts in particular, forgotten and lost a World of most apt and proper Expressions which our Forefathers made use of, without being oblig'd to other Nations: And what Care the French have taken upon this Account only, may in part be judg'd from that pretty, though brief Essay des Merveilles de Nature, & des plus Nobles Artifices, &c. but especially by the late Dictionaries, wherein the proper Terms of the most Vulgar, as well as more Polish'd Arts, are industriously delivered, whilst (to speak ingenuously) I find very little Improvement in the most pretending Lexicons and Nomenclators yet extant; that of Bernardinus Baldus only upon Vitruvius excepted; which yet is neither after my Method, nor for our Workmens Turn, being a Book of Price, and written in the most Learned Tongue. It is a very great Deficient indeed, and to be deplor'd, that those industrious Compilers did make it no more their Business to gratify the World with the Interpretation of the Terms of so many useful Arts, I mean the Mechanical: Adrianus Junius has deserved well on this Occasion, to his great Commendation; and much it were to be wished, that some universal and practical Genius would consummate what he has so happily begun, and that not only in the Arts Illiberal (as they are distinguished) and Things Artificial; but furnish us likewise with more exact Notices of the several and distinct Species of Natural Things; such as are the True Names of Birds, Fishes, Insects, Stones, Colours, &c. in which diverse worthy * Members of the Royal Society, have already made so considerable a Progress; since it is then, and not till then, our Lexicons will have arrived to their desired Perfection, and that Men will be taught to speak (like Orators indeed) properly on all Subjects, and obliged to celebrate their Labours.

* Mr. Willoughby, D. D. Merel, Charleton, Waller, Ray, &c. and Mr. Harris, in his late most useful Lexicon Technicum.

J. EVELYN.

A N
A C C O U N T
O F

Architects and Architecture,

TOGETHER WITH

*An Historical, and Etymological Explanation of certain
TERMS particularly affected by ARCHITECTS, &c.*

THE Knowledge of this Sumptuous, Magnificent and Use-
ful *Art*, for having been first deriv'd to us from the *Greeks*,
we should not without infinite Ingratitude either slight,
or innovate those *Terms* which it has pleased them to impose
upon the particular *Members* and *Ornaments* belonging to the
several *Orders*; and that as well for the Veneration which is due to
Antiquity, as that by comprehending the Signification of them, we
may with the more Facility and Address, attain to the Intelligence
and Genuine Meaning of what the *Masters* in this *Profession* have de-
liver'd to us in their several Writings and Works; not to insist up-
on (what is yet not to be despis'd) the Decorum of speaking *pro-*
perly, in an *Art* which the greatest *Princes* and *Potentates* of the *Earth*
have vouchsafed to honour by so many Signal and Illustrious Monu-
ments, as do to this Day consecrate their Memories to Posterity.

Since the *Agent* does always precede the *Action*, and the *Person* or *Architectus*
Workman is by Natural Order before his *Work*; we are by an *Architect*
to understand, *A Person skilful in the Art of Building*: The Word
is *Ἀρχιτέκτων*, a Compound in the Original, and signifies *Fabrum præ-*
fectus, or if you will, *Informator*, which the *President*, *Superintendent*,
or *Surveyor* of the *Works*, does fully express, his *Ἀρχὴ* being relative
to the *Fabri* that are under him, as the *Operæ* or *Labourers* are
subservient to them.

Budæus calls him, *Structorum Princeps*; and such a Person as is capa-
ble of rendering a Rational and Satisfactory Account of what he
takes in Hand. *Ratiocinatio autem est, quæ res fabricatas solertia, ac*
ratione proportionis demonstrare atque explicare potest. Vitr. l. 1. c. 1.
So our *Master*; and such a one it seems was that *Philo* the *Athenian*
Architect, of whom the *Orator*, *Neque enim si Philonem illum Ar-*
chitectum, qui Atheniensibus Armamentarium fecit, constat perdiserte po-
pulo rationem operis sui reddidisse, existimandum est Architecti potius
ar-

Account of Architects

artificio disertum, quam Oratoris fuisse, de Orat. 1. Seeing his Knowledge and Ability in this Faculty did not at all eclipse and diminish his Eloquence and other excellent Parts, but rather added to them; and this I urge to shew that it was no mean thing for a Man to arrive to the Talents of an accomplish'd *Architect*; as he that shall take his *Character* out of *Vitruvius* will easily conclude; *Itaque Architecti*, says he, *qui sine literis contenderunt, ut manibus essent exercitati, non potuerant efficere ut haberent pro laboribus Authoritatem*; as if *Hands* could do little in this *Art* for their Credit without *Letters*: Nay, so Universal will this great *Dictator* have him; that in those *Duodecim necessaria*, he sums up no less than Twelve rare Qualities which he would have him furnish'd withal; *Itaque eum & Ingeniosum, &c.* I will but only touch them: 1. He must be *Docil* and *Ingenious*. 2. He must be *Literate*. 3. Skilful in *Designing* and *Drawing*. 4. In *Geometry*. 5. *Opticks*. 6. *Arithmetick*. 7. *History*. 8. *Philosophy*. 9. *Musick*. 10. *Medicine*. 11. Nay, in *Law*; and 12. *Astrology*; and really, when (as in the following Chapter) he there assembles his Reasons for all this, you will be both satisfied with them, and justify his Curiosity. Not that an *Architect* is obliged to be an accurate *Aristarchus* in *Grammar*, or an *Aristoxenus* in *Musick*, an *Apelles* or a *Raphael* for *Designing*; in sum, an exact *Professor* in all these Faculties, *sed in his non Imperitus*: Sufficient it is he be not totally a Stranger to them; since without *Letters* he cannot consult with *Authors*: Without *Geometry* and the *Graphical Arts*, he will never be able to measure out, and cast the *Area*; draw the *Plot* and make the *Scale*: Being ignorant of the *Opticks*, he can never well understand the due placing of his *Lights*, *Distance*, *Magnitude* and *Dimensions* of *Ornaments*: By the Assistance of *Arithmetick* he calculates the Proportions of the several *Orders*, sums up his *Accompts*, and makes an Estimate of the Charge: Being Read in *History* he comes to discourse of the Reasons, and Original of many particular *Members* and *Decorations*, the Height, Improvement, and Decay of this *Art*; why the *Greeks* instituted the Order of the *Caryatides*, and the *Persian Entablatures* were supported by *Slaves*; how the *Corinthian Capitals* came to be adorn'd with *Foliage*, the *Ionic* with a *Matron-like Voluta*, &c. By the Study of *Philosophy* he arrives to the Knowledge of Natural Things, and is able to discern the Quality of the *Elements*, and the Materials which he makes use of: From some Insight in *Medicine* he can reason of the Temperature and Salubrity of the *Air*, and Situation: *Musick* will assist him in contriving how in *Churches*, *Tribunals* and publick *Theatres*, Men may with best Advantage hear the *Preachers*, *Magistrates* and *Actors* Voices: Without some Tincture in the *Laws*, he cannot be secure of his *Title*; and being wholly ignorant of *Astrology*, Position and Influences of the *Celestial Bodies*, the *Days*, *Winds*, *Weather*, *Equinoxes*, and Course of the heavenly *Orbs* (as to Brutes) pass over without Observation, Benefit, or Prevention of their Effects. To this

this Purpose, though much more at large, *Vitruvius*: But by this you may see how necessary it is, that an accomplished *Master-Builders* should be furnished beyond the *Vulgar*; and I have been the longer in the *Repetition*, not only that I may advance his *Reputation*, and for *Encouragement*; but to shew that in the proper *Notion* (and as the great *Plato* has somewhere designed him) *Nullus Architectus utitur manuum Opera, sed utentibus præest.* An *Architect* is not to be taken for the commonly illiterate *Mechanick*, which may bring it into *Contempt*, but for the Person who *superintends* and *presides* over him with so many *Advantages*: Yet neither is this to the *Dishonour* of the meanest of those excellent *Workmen*, who make use of their *Hands* and *Tools* in the grosser *Materials*, since *God* himself and *Nature*, the universal *Builders*, are by *Translation* truly stiled *Architects*, both as to what they have excogitated so wisely, and wrought so artificially.

Be this then spoken of the *Superintendent* in particular, whom for *Distinction* sake, and the *Character* assigned him, we may name *Architectus Ingenio*: For since to the *Perfection* of an accomplished *Building* there were three *Transcendencies* required: 1. *Strength*, 2. *Utility*, and 3. *Beauty*, for the apt *Distribution*, *Decor* and *Fitness*, *Symmetry* and *Proportion*, there was likewise necessary as many *Capacities*, and that besides the judicious *Head*, there should be a skilful *Hand*; to which let us add, *Architectus Sumptuarius*, a full and overflowing *Purse*; since he who bears this may justly be also stiled a *Builder*, and that a *Master one* too; as being the Person at whose *Charge*, and for whose *Benefit* the *Fabrick* is erected; and it is indeed the *primum mobile* which both begins, and consummates all *Designs* of this *Nature*; for if that *Ingredient* come once to fall short, Men build their *Monuments* instead of their *Houses*, and leave Marks of *Dishonour* for *Tables* of *Renown*, *Homo iste cepit ædificare & nequirit perficere*: 'Tis Man began to build, and was not able to finish. Yet thus have I known some excellent Persons abused, who trusting to the *Computation* of either dishonest, or unskilful *Artists*, have been forced to desist, sit down by the *Loss*, and submit to the *Reproach*. But so it seems would not the *Greeks* suffer themselves to be over-reached; when those great *Builders* of the *Ephesians*, who knew sufficiently what a *Mischief* it was to the *Publick*, as well as *Private Men*, ordained it for a *Law*, That if a *Clerk* undertook a *Work*, and spent more than by his *Calculation* it amounted to, he should be obliged to make it good out of his own *Estate*; whilst they most liberally and honourably rewarded him, if either he came within what was first designed, or did not much exceed it. And this was esteemed so reasonable, upon *Consideration* how many noble Persons had been undone, and magnificent *Structures* left imperfect, that *Vitruvius* writing to the great *Augustus* concerning this Subject, wishes the same *Constitution* were in *Force* at *Rome* also. But thus I have done with our *Architectus Sumptuarius*. I come to the

Dial. de Regno. See also his Philebus.

See 27. Ecclef. 8.

Vitr. in Pract. lib. 10.

2 Reg. 22. 7.

Account of Architects

Manuarius, the third and last, but not the least of our *Subsidiaries*, for in him I comprehend the several *Artisans* and *Workmen*, as *Masons*, *Stone cutters*, *Quarry-men*, *Sculptors*, *Plasterers*, *Painters*, *Carpenters*, *Joiners*, *Smiths*, *Glasiers*, and as many as are necessary for carrying on of a *Building* till it be arrived to the *Perfection* of its first *Idea*. But tho' it is not, as I said, expected that these should trouble themselves with much *Learning*, or have any thing to do with the *Accomplishments* of our *Master Superintendent*: Yet, since an exact and irreproachable Piece of *Architecture* should be *κολονον* totius *Mathesews*, the Flower and Crown as it were of all the *Sciences Mathematical*, it were infinitely desirable that even every vulgar *Workman*, whose Calling is conversant about *Building*, had attained to some Degree of competent Knowledge in the more easy and useful Principles of those *Lineary Arts*, before they were admitted to their *Freedom*, or employed in *Designs* of Moment. And truly, if a thorough Insight of all these, as undoubtedly they are, be necessary to a good *Artist*, I know no Reason but such a Person, however it hath pleased our *Universities* to employ and decree their *Chairs*, might with very just Reason be also numbered *inter liberalium disciplinarum Professores*, and not thrust out as purely *Mechanical*, *inter opificis*, a Conversation hitherto only admitted them; as if *Talking*, *Speculation* and *Theories* were comparable to useful *Demonstrations* and *Experimental Knowledge*: In a Word, the very Name imports an Excellency above other *Sciences*; so as when the * *Orator* would express a Superiority above them, for its vast Extent and Comprehension, he mentions *Architecture* with the *First*, distinct from the *Illiberal*. Great Pity then I say it is, that amongst the *Professors* of *Humanity*, as they call it, there should not be some *Lectures* and *Schools* endowed and furnished with *Books*, *Instruments*, *Plots*, *Types* and *Models* of the most excellent *Fabricks* both in *Civil* and *Military Architecture*, where these most noble and necessary *Arts* might be taught in the *English* and *Vulgar Tongue*, retrieved to their proper and genuine Significations. And it is to be hoped, that when his Majesty shall perfect his *Royal Palace* of *Whitehall* according to the *Design*, he will, in Emulation of those *Heroes Francis the First*, *Henry the Fourth*, *Cosimo de Medices*, the *Dukes of Urbin*, *Richlieu*, and other munificent *Spirits*, destine some *Apartments* for the *Ease* and *Encouragement* of the ablest *Workmen* in this, as in all other *useful*, *princely* and *sumptuous Arts*; I mean for *Printers*, *Painters*, *Sculptors*, *Architects*, &c. by such liberal *Honoraries* as may draw them from all *Parts* of the *World* to celebrate his Majesty, by their *Works*, to *Posterity*, and to improve the *Nation*. From such a *Bounty* and *Provision* as this it appears to have been, which made *Vitruvius* to leave us those his incomparable *Books*, that we have now enjoyed for so many *Ages*: for so he acknowledges it to the Great *Augustus*, *Cum ergo eo beneficio essem Obligatus, ut ad exitum Vitæ non haberem inopie timorem, &c.*

* Office
L. 2.

Vitruv. in
Præfat. ad
Lib. 1.

I might

I might upon this Occasion speak something here concerning the *Matter* and *Form* of Buildings, which, after the *Persons* who undertake them, are their most solid and internal *Principles*; but I purposely pass them over at present, because they do not properly belong to this Discourse, but to some more entire Treatise of the whole *Art* than is yet extant among us; and to be delivered by some industrious Person, who shall oblige the *Nation* with a thorough Examination of what has already been written by *Vitruvius*, l. 2. c. 3 and 9. *Palladio*, l. 1. c. 2. *Leon Alberti*, l. 2. c. 45, 46. *Don Barbaro*, l. 11. *Sir H. Wotton* in his concise and useful *Theorems*, *Desgodes*, *D'Avillar*, *Perault*, *Blondel* and others; and in what shall be found most beneficial for our *Climate*: It were, I say, becoming our great Needs that some ingenious Person did take this in Hand, and advance upon the *Principles* already established, and not so acquiesce in them as if there were a *Non Ultra* engraven upon our *Columns* like those of *Hercules*, after which there remained no more to be discovered, at least in the Apprehension of our vulgar Workmen, who for want of some more solid Directions, faithful and easy Rules in this Nature, fill as well whole *Cities* as *private Dwellings* with Rubbish and a thousand Infirmities, as by their want of Skill in the Profession, with the most shameful Incongruities and Inconveniencies in all they take in Hand; and all this for want of *Canons* to proceed by, and *Humility* to learn; there being hardly a Nation under Heaven more conceited of their Understandings and Abilities, and more impatient of Direction than our ordinary *Mechanicks*: For let one find never so just a Fault with a *Workman*, be the same of what *Mystery* soever, immediately he shall reply, *Sir*, I do not come hither to be taught my *Trade*, I have served an *Apprenticeship*, and have wrought e'er now with *Gentlemen* that have been satisfied with my Work, and sometimes not without Language of Reproach, or casting down his Tools, and going away in Wrath; for such I have frequently met withal. I do not speak this to diminish in the least from the Capacity and Apprehension of our *Nation* who addict themselves to any of the most polite and ingenious *Professions*, but to court them to more Civility, and to humble the Ignorant: For we daily find that when once they arrive to a thorough Inspection and Address in their *Trades*, they paragon, if not exceed, even the most exquisite of other Countries, as we may see in that late Reformation and Improvement of our *Lock-Smiths* Work, *Joyners*, *Cabinet-makers*, and the like, who, from very vulgar and pitiful *Artists*, are now come to produce *Works* as curious for the *Filing*, and admirable for their Dexterity in *Contriving*, as any we meet with Abroad, and in particular to our *Smiths* and *Joiners*, they excel all other Nations whatsoever.

But as little supportable are another Sort of *Workmen*, who from a good Conceit of their Abilities, and some lucky *Jobb*, as they call it, do generally engross all the Work they can hear of, while in the mean time they disdain almost to put their own Hands to the
 Tool,

Account of Architects

Tool, but for the most part employ their *Apprentices*, or some other ignorant *Journey-men*; as if the Fame of their *Masters* Abilities did any thing contribute to the well Performance of Work undertaken, whilst in the Interim *He* hardly appears himself till all the Faults be flubbered over, the Remedy either impossible or expensive, and our *Master* ready to receive his Money, which such *Gentlemen Mechanics* commonly consume on Ease and Bravery, being puffed up with an empty Conceit of their own Abilities, which, God knows, is very indifferent, and the less for want of Exercise and Humility: A Practice contrary to the Usage of all other Nations, that even such as by their Knowledge in this Kind have meritoriously attained to the Titles of *Military* Dignity, have, notwithstanding, pursued their Employments and Callings in personal Cares and assiduous Labours, to their eternal Fame, so long as one Stone shall lie upon another in this World; as I could abundantly exemply in the Works of *Cavalieri Fontane, Bramanti, Sanfovino, Baglione, Bernini, Fiamingo, &c.* whose egregious Labours, both before and since the Accumulation of their Honours, do sufficiently justify what I report concerning them. And that all such may know I reproach no Man out of Spleen or the least Animosity to their Persons (for such as are not guilty will never be offended at my Plainness, or take this for a *Satyr*) I cannot but exceedingly redargue the Want of more Acquaintance in these so necessary and becoming *Arts* even in most of our *Nobility* and *Gentry*, who either imagine the Study of *Architecture* an absolute *Non-necessary*, or, forsooth, a Diminution to the rest of their *Education*; from whence proceeds that miserable Loss of so many irrecoverable Advantages during their *Travels* in other *Countries*, as appears at their Return: Whereas, if they were truly considered, there is nothing which does more properly concern them, as it contributes to their external Honour, than the Effects of this illustrious *Art*. Besides, these being Persons of better Parts, are most likely to be furnished with the best Abilities to learn, and so consequently enabled to examine and direct such as they shall set on Work, without Reproach either to their Conveniency or Expence, when they at any Time build, not forgetting the Ornament and Lustre which by this Means rich and opulent Structures do add to the *Commonwealth*; there remaining at this Day no one Particular for which *Egypt, Syria, Greece, nay Rome* herself, beheld in all their *State, Wisdom* and *Splendor*, have been more admired and celebrated, than for the *Glory, Strength* and *Magnificence* of their incomparable *Buildings*; and even at present the most noble *Youth* of *Italy* are generally so well furnished with Instructions touching this laudable *Art*, that the Knowledge of *Architecture*, and to speak properly in its *Terms, &c.* is universal, and so cherished, even in Men of obscure Extraction, that, as is already instanced, *Architects* (I mean the *Manuary* as well as *Ingeniary*) have been, and are yet often rewarded with *Knighthood*, and the *Art* professed as a most becoming
and

and necessary Accomplishment in diverse of their *Academies*: Add to this the *Examples* of so many great and illustrious Persons as (without mentioning those our *Master* has recorded in the *Preface* to his seventh Book) I might here bring upon this *Theatre*, famous for their Skill and Encouragement of this sumptuous Art: *Emperors, Kings, Popes, Cardinals* and *Princes* innumerable, who have all of them left us the permanent Monuments of it in the several Places of their Dominions, besides the infinite Advantage of well managing of great and *publick* Expences, as well as the most *private* and *Oeconomical* and handsome and well contrived House, being built at a far less Charge than commonly those irregular *Congestions*, rude and brutish Inventions, which generally so deform and incommode the several Habitations of our *Gentry* both in *City* and *Country*.

But I have done, and I hope all that love and cherish these *Arts*, and particularly that of *Architecture*, will not be offended at this *Zeal* of mine in bespeaking their Esteem of it; since if I have said any thing in Reproof of the *Errors* either of the *Persons* who pretend to it, or of the *Works* which they do to its Disgrace, I have only spoken it that both may be reformed and made the better. But least whilst I thus discourse of the *Accomplishments* of our *Artists*, and Defects of the *Pretenders*, I myself be found *Logodædalus*, and as they say, *Architectus Verborum* only, I proceed from the *Person* to the *Thing*.

Architecture, considered as an *Art*, was doubtless, as all others were, very mean and imperfect at first; when from dark *Caverns*, hollow *Trees*, despicable and sorry *Hovels* and *Cabanes*, made with their rude *Trunks*, covered with *Sods* of *Turf* or *Sedge*, to protect themselves from the Injuries of the *Weather* and wild *Beasts*, as at present savage *People* do, Men lived not much better accommodated than *Beasts* themselves, wandering from *Place* to *Place*, either to hunt, and in quest of *Food*, or to find *Pasture*; where, like the *Nomades*, with little *Care* or *Labour*, they make them *Huts* again to shelter themselves as before; 'till coming into some more fertile and fruitful *Country*, and finding no more *Necessity* of straying farther, or removing so often; they then, it is likely, begun to build more substantially and commodiously; and as *Plenty*, their *Families* and *Civility* increased, began to inlarge, and make their Habitations as well less rudely as more convenient; proceeding in *Tract* of *Time* to great *Politeness*, and to that *Height* of *Splendor* and *Magnificence*, as at last, ingenious *Men*, from long *Experience* still advancing in *Improvements*, began to frame such *Rules* and *Precepts* for *Building*, as should answer to all those *Perfections* desirable in a *Building*, namely, *Solidity*, *Use*, and *Beauty*; and this *Art* was called,

Architectura, a Term deriv'd from the *Greek* Substantive *Ἀρχιτεκτόνεια*, Architectura. and which is by some taken for the *Art* it self, by others for the *Work*, *ædificio ipso & Opera* (by us for both) is thus defined; *Scientia pluribus disciplinis, & variis eruditionibus ornata, cujus judicio probantur, omnia quæ a cæteris artibus perficiuntur, opera.* *Architecture*, says our *Master Vitruvius*, is

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a Science

a Science qualified with sundry other *Arts*, and adorned with Variety of *Learning*, to whose Judgment and Approbation all other Works of *Art* submit themselves. Or rather in short, and as effectual, *ejus præceptis diriguntur, & judicio probantur, &c.* for so it seems to be more explicit; since in a *Geometrical Problem* there are both the *Construction*, or *Direction Operis faciendi*, which these *Præcepta* define; and also, the *Demonstration* or *Probation Operis jam facti*, which is specified by the *Judicium* in the *Vitruvian Definition*. I conceive therefore the *first Part* to be the more essential and inseparable; the *latter* to be but the *Result* of the *former*, and no more *Ingredient* into the *Art* than the *Image* of one's *Face* in a *Glass* is constitutive of the *Man*.

Demon-
stratio.

But to forbear any farther *Gloss*, you see what a large Dominion it has, and I might go on: *Ea nascitur ex fabrica & ratiocinatione*, to shew that she is the *Daughter* of *Building*, and *Demonstration*: Then (for so I affect to render it) that *Building* is the *Result* of an *assiduous* and *manual Practice* or *Operation* upon apt *Materials*, according to the *Model* propounded; and lastly, That our *Ratiocination* is an *Ability* of *explicating* what we have done by an *Account* of the *just Proportions*: In a *Word*, it is the *Art of Building well*, which, taken in the largest *Sense*, comprehends all the *Sorts* and *Kinds* of *Buildings* whatsoever, of which there are more especially *Three*; which though differing in their *Application*, *Design* and *Purpose*, are yet of near *Relation* to one another, and therefore not improperly under the same *Denomination* with their respective *Adjuncts* of *Distinction*: For Instance, the *Building* of *Ships*, and other *Vessels* for sailing, *War* and *Commerce, &c.* is called *Naval Architecture*: The *Art* of *Fortification* and *Defence* of *Places*, *Military Architecture*; which, though under the same *Rules* and *general Principles*, whereby to work and proceed (but indeed making use of different *Terms of Art*) yet pass they under the same *general Name* of *Architecture*. Now forasmuch as there's only *one* of these which properly concerns the present *Subject* (as being indeed the most eminent, and *First* in *Order*) we are here to understand by *Architecture*, the *Art* and *Skill* of *Civil Building* for *Dwelling-houses*, *commodious Habitations*, and more *publick Edifices*.

What Pretence this Part of *Architecture* has to both the other *Kinds*, namely, the *Naval* and *Military*, the *Foundation* and *Building* of *Cities*, *Walls*, *Towers*, *Magazines*, *Bridges*, *Ports*, *Moles*, and *Havens*, abundantly shew; together with what our great *Master Vitruvius* has taught in the *Construction* of diverse *Machines*, and warlike *Engines*, as well for *Offence* as *Defence*: And to shew how reconcilable all these different *Sorts* of *Building* are to one another, we have a *Modern*, but an illustrious Instance, in that surprisngly magnificent *Piece* of *Art*, the *Pentagonal Palace* erected for *Cardinal Alexander Farnese* at *Caprarola*, within twenty *Miles* of *Rome*, by that Excellent and skilful *Architect Vignola*, one of the first *Rank* and *Class* of *Artists* in the foregoing *Parallel*.

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With Reason therefore as well as Right, has the Surveyor of his Majesty's Works and Buildings, both the Military as well as Civil Architecture properly under his Intendency and Inspection, by a Grant, as I have heard, of many hundred Years past. But,

To enlarge on the several Heads of Civil Architecture, of which there are very many, would be to extend this Discourse to a Length not so proportionable to that which is designed: Let it then suffice to take Notice, that it is the ancient Greek and Roman Architecture only which is here intended, as most entirely answering all those Perfections required in a faultless and accomplished Building; such as for so many Ages were so renowned and reputed by the universal Suffrages of the civilized World, and would doubtless have still subsisted, and made good their Claim, and what is recorded of them, had not the Goths, Vandals, and other barbarous Nations subverted and demolished them, together with that glorious Empire, where those stately and pompous Monuments stood; introducing in their stead, a certain fantastical and licentious Manner of Building, which we have since called Modern (or Gothic rather) Congestions of heavy, dark, melancholy and Monkish Piles, without any just Proportion, Use or Beauty, compared with the truly Ancient: So as when we meet with the greatest Industry, and expensive Carving, full of Fret and lamentable Imagery, sparing neither of Pains nor Cost, a judicious Spectator is rather distracted and quite confounded, than touched with that Admiration which results from the true and just Symmetry, regular Proportion, Union and Disposition, great and noble Manner, which those August and Glorious Fabricks of the Ancients still produce.

It was after the Irruption and Swarms of those truculent People from the North, the Moors and Arabs from the South and East, over-running the Civilized World, that wherever they fixed themselves, they soon began to debauch this noble and useful Art; when, instead of those beautiful Orders, so majestic and proper for their Stations, becoming Variety, and other ornamental Accessories, they set up those slender and misquine Pillars, or rather Bundles of Staves, and other incongruous Props to support incumbent Weights, and pondrous arched Roofs, without Entablature; and though not without great Industry, as M. D'Aviler well observes, nor altogether naked of gaudy Sculpture, trite and busy Carvings, it is such as rather gluts the Eye, than gratifies and pleases it with any reasonable Satisfaction: For Proof of this, without traveling far abroad, I dare report my self to any Man of Judgment, and that has the least Taste of Order and Magnificence, if after he has looked a while upon King Henry the Seventh's Chappel at Westminster, gazed on its sharp Angles, Jetties, narrow Lights, lame Statues, Lace, and other Cut-work and Crinkle Crankle; and shall then turn his Eyes on the Banqueting-house built at White-hall by Inego Jones after the ancient Manner; or on what his Majesty's Surveyor,

Sir *Christopher Wren*, has lately advanced at *St. Paul's*; and consider what a glorious Object the designed *Cupola*, *Portico*, *Colonades* and other (yet unfinished) Parts will then present the Beholder; or compare the *Schools* and *Library* at *Oxford* with the *Theatre* there, or what he has lately built at *Trinity College* in *Cambridge*, and since all these at *Greenwich* and other Places (by which Time our *Home-traveller* will begin to have a just *Idea* of the *Ancient* and *Modern Architecture*) I say, let him well consider and compare them judiciously, without *Partiality* and *Prejudice*, and then pronounce which of the two *Manners* strikes the *Understanding* as well as the *Eye* with the more *Majesty* and solemn *Greatness*, though in so much a plainer and simple *Dress*, conform to the respective *Orders* and *Entablature*, and accordingly determine, to whom the *Preference* is due: Not as we said, that there is not something of solid, and oddly artificial too, after a Sort: But then the universal and unreasonable *Thicknes* of the *Walls*, clumsy *Buttresses*, *Towers*, sharp-pointed *Arches*, *Doors* and other *Apertures*, without *Proportion*; nonsensical *Insertions* of various *Marbles* impertinently placed; *Turrets* and *Pinacles* thick set with *Monkies* and *Chymeras* (and abundance of busy *Work* and other *Incongruities*) dissipate and break the *Angles* of the *Sight*, and so confound it, that one cannot consider it with any *Steadiness*, where to begin or end; taking off from that noble *Air* and *Grandure*, bold and graceful *Manner*, which the *Ancients* had so well and judiciously established: But in this Sort have they and their *Followers* ever since filled not all *Europe* alone, but *Asia* and *Africa* besides, with *Mountains* of *Stone*; vast and gigantick *Buildings* indeed, but not worthy the *Name* of *Architecture*; witness (besides frequent *Erections* in these *Kingdoms*, inferior to none for their utmost *Performances*) what are yet standing at *Westminster*, *Canterbury*, *Salisbury*, *Peterborough*, *Ely*, *Wells*, *Beverley*, *Lincoln*, *Gloucester*, *York*, *Durham*, and other *Cathedrals* and *Minsters*: What at *Utrecht*, *Harlem*, *Antwerp*, *Strasburg*, *Basil*, in the *Lower* and *Upper Germany*; at *Amiens*, *Paris*, *Roan*, *Tours*, *Lyons*, &c. in *France*; at *Milan*, *Venice*, *Florence*, nay, in *Rome* herself: In *Spain*, at *Burges* and *Seville*, with what the *Moors* have left in *Athambrant*, *Granada*, the *Santa Sophia* at *Constantinople*, that of the *Temple* of the *Sepulchre* at *Jerusalem* (at the *Decadence* at least of the *Art*) the *Zerif's Palace* at *Morocco*, &c. besides the innumerable *Monasteries* and gloomy *Cells*, built in all these Places by the *Christians*, *Greeks*, *Latins*, *Armenians*, *Moors*, and others since the *Ruin* of the *Empire*, and compare them, almost numberless as they are, with *One*, *St. Peter's* at *Rome*, only, which, with the rest of those venerable *Churches*, superb and stately *Palaces* there and at *Naples*, *Florence*, *Genoa*, *Escuriat*, *Paris*, *Amsterdam*, &c. were yet all but sorry *Buildings*, till *Bramante*, *Raphael*, *Michael Angelo*, *Palladio*, *Bernini*, and other *Heroes* and *Masters* of our *Parallel*, recovered and even raised this *Art* to *Life* again, and restored her to her *pristine Splendor* and *Magnificence*, after so tedious

dious and dismal a Night of Ignorance and Superstition, in which *Architecture* had lain buried in Rubbish, and sadly deformed for so many Ages: The same may likewise be affirmed of all those other *Arts* attendant upon her, *Sculpture* and *Painting* especially, and indeed of *Letters*, and all good Learning too, which had about this time their *Resuscitation* also: In a Word, and after all that has been said of *Architecture*, ancient or modern, 'tis not we see enough to build for *Strength* alone; for so those *Gothic Piles* we find stand their Ground, and the *Pyramids* of *Egypt* have out-last'd all that Art and Labour have to shew; or indeed for bare *Accommodation* only, without due *Proportion*, *Order* and *Beauty*, and those other *Agreements*, and genuine *Characters* of a perfect and consummate Building; and therefore an *Art* not so easily attained by every Pretender, nor in truth at all, without a more than ordinary *Disposition*, accompanied with Judgment, Industry and Application, due Instruction, and the Rules of Art subservient to it. Thus accomplished, an *Architect* is perfectly qualified to answer all the *Transcendencies* of this noble *Art*, which is to build handsomely, solidly, and usefully.

We have already spoken of *Workmen* and *Manuary Assistants*, in the foregoing *Paragraphs*, without whose more than ordinary Skill and Diligence, the learnedst *Architect* mistakes the Shadow for Substance, *umbram, non rem consecutus videtur*, and may serve to rear a *Tabernacle*, not build a *Temple*, there being as much Difference between *Speculation* and *Practice* in this *Art*, as there is between a *Shadow* and a *Substance*; but with what Advantages those Persons proceed who both know and can apply, I have already demonstrated: And when we consider that the whole *Art* consists in the most exact and elegant Order imaginable, it is not to be wondered there have been so few able Men of the *Profession*. Sir *H. Wotton*, who reckons those two Parts for one, that is, the fixing of the *Model* to a full Expression of the first *Idea*, passes, with our *Master*, to the *Species* or *Kinds* of this *Disposition*.

Taxis, or, as *Architects* call it, *Ordonance*, as defined by our *Master* to be that which gives to every Part of a Building the just *Dimension* relating to its Uses: Mr. *Perault* supposes neither so explicit, nor as the Thing itself requires, or answerable to the Intention; which he takes to consist in the *Division* of the *Plan* or Spot of Ground on which one intends to build, so to be apportioned and laid out (as to the *Dimension* of the respective Parts referring to their Use) as consists with the *Proportion* of the whole and entire *Fabrick*; which, in fewer Words, I conceive differs little from the determinate Measures of what's assigned to compose the several *Appartments*; to which some add, that which gives the utmost Perfection to all the Parts and Members of the Building: But, to proceed with the learned Commentator, it is the judicious Contrivance of the *Plan* or *Model*, which he means by *Ordonance* here: As when, for Instance, the *Court*, the *Hall*, *Lodgings*, and other Rooms, are

neither too large, or too little: v. g. That the *Court* afford convenient Light to the Apartments about it, and be large enough for usual Access; that the *Hall* be of fit Capacity to receive Company; the *Bed-Chambers* for Persons of *Quality*, and others; or else when these Divisions are either too great, or too small, with respect to the Place, as a very large *Court* would be to a little *House*, or a little *Chamber* in a great and noble *Palace*: Whereas *Diatheſis*, Disposition, is where all the Parts and Members of a Building are assigned their just and proper Places, according to their Quality, Nature, Office, Rank, and genuine Collocation, without regard to the Dimension or *Quantity*, which is another Consideration, as Parts of *Architecture*; though still with relation to its Perfection. Thus the *Vestibule*, or *Porch*, should precede the *Hall*; the *Hall* the *Parlour*, next the *Withdrawing-Room*, which are of Ceremony, I speak (as with us in *England*) where the *First Floor* is commonly so composed of: The *Anti-Chambers*, *Bed-Chambers*, *Cabinets*, *Galleries* and Rooms of *Parade* and State in the second Stage, suitable to the Expence and Dignity of the Owner: I say nothing of the *Height*, and other Dimensions, because there are established *Rules*: But it is what I have generally observed, Gentlemen (who are many times at considerable Charges in otherwise handsome and convenient Houses) most of all to fail in; not allowing decent *Pitch* to the respective Rooms and Apartments, which I find they constantly repent when 'tis too late. One should seldom therefore allow less than *fourteen Feet* to the *First Floor*; *twelve* or *thirteen* to the *Second*, in a Dwelling-House of any considerable *Quality*; to greater *Fabricks*, and such as approach to *Palaces*, *sixteen*, *eighteen*, *twenty*, &c. with regard to other Capacities: Nor let the less benign Temper of the *Clime*, compared with other Countries, be any longer the Pretence; since if the Building and Finishing be stanch, the *Floors* well laid, *Appertures* of *Doors* and *Windows* close, that Objection is answered. The same *Rules*, as to the Consequence of Rooms and *Oeconomy*, is to be observed in the Distribution of the other *Offices*, even the most inferior, in which the Curious consult their *Health* above all Conveniency, by designing their best Lodging-Chambers towards the *Sun-rising*; and so *Libraries*, *Cabinets* of *Curiosities* and *Galleries*, more to the *North*, affording the less glazing and fittest *Light* of all other to *Pictures*, &c. unless where some unavoidable Inconvenience forbid it. Another great *Mistake* I likewise have observed to be the Cause of many Errors as incurable; namely, a fond, avaricious, or obstinate Resolution of many, who having choice of Situations, for the sparing of an old *Kitchen*, *Out-House*, *Lodge*, or vulgar Office, nay, and sometimes of an ancient *Wall*, a fine *Quick-set Hedge*, particular *Tree* or two, or the like, continue to place the *New Building* upon the *Old Foundation*, though never so much awry and out of all Square, and, as often I have seen, near some Bank of Earth, which cannot be moved; pleased with *Front* or gaudy *Out-side*, whilst all is gloomy

gloomy and melancholy *within*, and gives Occasion of Censure to the Judicious, and Reproach to others: In a Word, I have very rarely, or as seldom found a new Building joined with any tolerable Decency or Advantage to an old one, as a young and beautiful *Virgin* to an old, decayed, and doating *Husband*. I might almost affirm as much concerning *Repairs*, where there are great Dilapidations; since by that time they have calculated all Expences of pulling down and patching up, they might have built entirely new from the Ground, with the same, and oftentimes with less Charge, but with abundance more Beauty and Conveniency: Frequent Instances of like Nature might I produce, and of such as have too late repented; but I am to beg Pardon for this *Transgression*, for which I have no other *Apology*, than that since another *Edition* of this Piece is never likely to come under my Hand again, I have taken the Liberty of *this*, to speak my Thoughts the more freely, not without Hope, that some may be edified by it, and have Cause to thank me for it.

To return therefore whence I diverted: I now proceed to the proper Argument and Design of this Discourse, which concerns the *Terms* of *Architecture*, with such Improvements as fall in with the Subject; not that our *politer Workmen* do not understand them well, but for the Benefit and Instruction of the less knowing; or such, who, though learned and knowing in other *Arts*, may haply not have much considered this: And the first is

Ichnography, by which we are to understand the very first *Design* and *Ordinance* of a Work or Edifice, together with every *Partition* and *Opening*, drawn by *Rule* and *Compass* upon the *Area* or *Floor*, by *Artists* often called the *Geometrical Plan* or *Platform*, as in our *Reddition* of the *Parallel*: The *Greeks* would name it *ἰχθυογραφία*, *Vestigii Descriptio*, or rather *Vestigium Operis*, the superficial Efformation of the future Work, which our *Ground-plot* does fully interpret. This is properly the Talent and Work of the chief *Architect* or *Surveyor* himself, and indeed the most abstruse and difficult, by which he expresses his Conception and *Idea* for the judicious Collocation, idoneous and apt Disposition, right Casting and Contrivement of the several *Parts* and *Rooms* according to their distinct *Offices* and *Uses*; for as *Ordonation* imports the *Quantity*, so does *this* the *Quality* of the *Building*: But of this already. To this succeeds

Orthography, or the erect Elevation of the same in *Face* or *Front*, described in Measure upon the former *Idea*, where all the *Horizontal Lines* are *Parallels*: Some do by this comprehend the *Sides* likewise (but so will not I) to be seen as well within as without the *Model*. It is in truth but the simple Representation of that Part opposite to the Eye of the Beholder, and thence by *Italian* *l'Alzato* or *l'Impiedi*, *Facciata* and *Frontispiece*, without *Shadows* or other Deceptions, and the second *Species* of *Disposition*. The last is

Scenogra-
phia.

Profile.

Euryth-
mia.Symme-
tria.

Decor.

Scenography, or, as some, Sciography, which is the same Object elevated upon the same Draught and Center in all its Optical Flexures, Diminutions and Shadows, together with a fore-shortning of a third Side, so as the whole Solid of the Edifice becomes visible in Perspective, as they say, because composed of the three principal Lines used in that Art; viz. that of the Plan, or Plot, belonging to the first Idea; that of the Horizon, or Eye-line, which denotes the second; and the Line of Distance, which makes the third, with all its Adumbrations and Shadowings, which distinguishes it from what they call the Profile, signified by the Edging-strokes, by some called Out-lines, and Contours only, without any of this solid finishing. From all which it appears, that not the bare Idea or Species, as the Term is in Vitruvius, or as others, the various Kinds of Disposition is to be understood; but the several Designs and Representations of the Division: Seeing, in truth, these three Draughts upon Paper, belong as much to the Ordonance as the Disposition, shewing and describing the Measures and Dimensions of the inspective Parts, Order and Position. From these three Ideas then it is, that same Eurythmia, majestic and Venusta species Edificii, does result, which creates that agreeable Harmony between the several Dimensions; so as nothing seems disproportionate, too long for this, or too broad for that; but corresponds in a just and regular Symmetry and Consent of the Parts with the Whole: For Symmetry is the Parity and Equality between the Parts opposite; so as one be not bigger, higher, longer, shorter, closer, or wider than the other: Suppose a Column swelling more at one Side than the other, and not as those who thought it to consist in the Proportion of some principal Part or Member only, Capital or Cornice, grosser or projecting farther than the Order permits, which seem two different Things; whilst Proportion among Architects consists in such an Agreement and Consent as we find in every well-limb'd and composed living Animal, of whatever Species or Kind soever, where the due Make of each Member of the Body denominates the Compleatness of the Figure, be it Statue or the Life, and the same in Building and the Parts thereof: In a Word, where Convenience, Strength and Beauty meet, and render it accomplished. Lastly,

Decor, which is not only where the Inhabitant and Habitation suit, seeing that is many times accidental; but where a Building, and particularly the Ornaments thereof, become the Station and Occasion, as Vitruvius expressly shews in appropriating the several Orders to their natural Affections; so as he would not have set a Corinthian Column at the Entrance of a Prison, nor a Tuscan before the Portico of a Church, as some have done among us, with no great regard to the Decorum. Here therefore it is that the Judgment of an Architect ought to be consulted, since even in the Disposition of the Offices of our most private Houses, we find no where greater Absurdities committed, whilst we many times find the Kitchen where the Parlour should have been,

been, and that in the first and best Story, which should have been damned to the lowermost and the worst.

Philander seems to be in some Doubt whether the *Architect* did after all this make a *Model* of his future Work, but at last resolves it in the *Affirmative* for many Reasons, *ita enim futura deprehenduntur errata, & minimo impendio, nulloque incommodo, &c.* for so, says he, future *Errors* may be timely prevented, with little Cost, and without any Trouble, before the Remedy proves incorrigible. Now though perhaps an accomplished *Architect* needs it not, yet as there is nothing certainly spared to less Purpose, and more to the Detriment of Builders than the small Expence of making this *Prototype*; so it has been known that some excellent *Masters* have, without Re-proach, caused several to be made of the same Building, and for the better, and which should be framed with all its *Orders* and *Dimensions*, by the Assistance of some skilful *Joiner*, or other ingenious *Artist* in some slight Material, which may be to remove, uncover and take in pieces, for the Intuition of every *Contignation*, *Partition*, *Passage*, and *Aperture*, without other Adulteration by *Painting* or gaudy Artifice, but in the most simple Manner, as Sir *H. Wotton* prudently advises, for Reasons most material and unanswerable: This is by some supplied with a *perpendicular Section* of the *orthographical Elevation*, which lets the Eye into the Rooms in Front only; the *Model* into the whole; but from all which we may deduce how absolutely necessary it is, that an *Architect* have more than a vulgar Dexterity in the Art of *Designing* and *Drawing*, *Quæ autem conferant, imo, quæ sint Architecto penitus necessaria ex artibus, hæc sunt, Pictura & Mathematica; in cæteris doctusne sit, non laboro:* So the *Patriarch*, lib. 9. upon that of our *Master*, lib. 1. c. 1. *Peritus Graphidos, &c.* and then concludes, *Necessaria igitur est Architecto Graphidis; i. e. designationis ut Itali dicunt peritia*, as being a thing altogether indispensable; but of this already: For by the *Method* of a compleat *Course* or *Body* of *Architecture*, one should proceed to the more particular *Distributions* of this *Art*, whether in respect to private or publick Buildings; but I leave it for some perfect Edition of what remains of the incomparable *Palladio*; when either by the same it is begun, or by some other charitable Hand, that, or our *Master*, *Vitruvius* himself, as published by the learned *Perault*, shall be taught to speak *English*; and the *Title* of this *Discourse*, which minds me of a thorough *Explanation* of the more difficult *Terms* of this *Art*, for being principally, if not only conversant about the five *Orders* and their *Ornaments*, the Subject of our learned *Parallel*, calls me back to a distinct Survey of them, and I will begin at the *Founda-*

tion. Now though all that is buried in the Ground to the *Area* be so called, yet properly *Foundation* is the very *Coffer* or *Ground-bed* searched *ad solidum, & in solido*, as our *Master* advises, and upon which a wise Man would only build and raise the *Proto-substruction*, or first *Begin-*

ning of his Wall, and ought commonly to be double the Thickness of the Superstruction. This the Greeks called

Stereobata. *Stereobata* στερεοβάτης, *solidum fulcimentum*, for its artificial Firmness, as immediately succeeding the underfilling of the former; for so we name those dry Materials upon the Surface to be the Basis of the whole Edifice. I am not ignorant that some contend about this Office, confounding it with the *Stylobata* and *Pedestals* of Columns, assigning them a regular Thickness of half as much more as the Orders they support; and then the *Italians* call it the *Zoccolo*, *Pillow* or *Die*, because of its cubique and solid Figure: But I rather take it for the *Basamento* of the whole, which I would therefore rather augment than contract to that stinted Dimension. The reverend *Daniel Barbaro*, c. 8. l. 2. describes us all the Kinds of them, and calls this in particular, and which confirms this Division, the concealed Part, or *fundatio in imo*: And then by this elegant Distinction defines *Structura* to be that of *Fronts*; *Instruction* that of the middle Parts; and *Substruction* of the lower; though this last Notion does likewise many times import some vast and magnificent Building; for so *Baldus* has cited that Passage in *Liv.* l. 6. where he names the stately *Capital* a *Substruction* only, and other Authors *Substructiones insanas*, for such vast and enormous *Fabrickes*. But that we may not omit the *Pedestal*, though of rarer Use amongst the *Ancients*, I come next to the

structura.
Instructio.
Substruction.

Stylobatum.
Pedestal.

Stylobata; for our *Pedestal* is *Vox Hybrida*, a very Mungril, not a *Stylo*, as some imagine, but a *Stando*, and is taken for that solid *Cube*, or *Square*, which we already mentioned to be that to the *Column* imposed, which the *Superstructure* is to this, *Fulcimentum Columnæ*: It is likewise called *Truncus* the *Trunk*, though more properly taken for the *Shaft* or *Body* of an *Order*, contained between the *Cornice* and *Base*, for *Pedestals* have likewise those *Ornaments* inseparably, also *Abacus*, *Dado*, *Zocco*, &c. which is sometimes carved with *Bass-relievo* in historical *Emblems*, as that of *Trajan's* at *Rome*, and ours on *Fish-street Hill*: But as it was rarely used among the *Ancients*; so they were all *square* alike to all the *Orders*; 'till from good Examples by later *Architects*, and especially *Palladio*, reduced to Proportion and very graceful. Those which are more large than high, are called *double Pedestals* supporting *double Columns*, and some which are continued through the whole Building. Also *Poggio*, from its Office of supporting; and then it is constantly adorn'd with a *Cornice* consisting of a *Cymatium* on a *Corona* with *Lists*, and sometimes *Scotia*, or shallow *Cavities*, and an Addition of an upper *Zocco* or *Plinth* of a smaller *Hollow*, and part of the *Cymatium*, upon which the *Scamilli impares Vitruviani* were set, if designed for *Statues*: Or, if without, for *Columns*. The *Base* has likewise an *Ornament* of a *Cymatium* inverted upon a *Plinth*, as may be seen in the *Corinthian Stylobata*: The general Rule is to divide the whole into nineteen Parts; the *Pedestal* shall have four, the *Intablature* three; but if a *Column* be without *Pedestal*,

divide

divide the Height but into five equal Parts, four to the *Column*, and to the *Entablature* one: But, as we affirmed, the *Ancients* did seldom use *Pedestals* at all, unless where *Rails* and *Balusters* were requisite, and *Parapet Walls* for *Meniana*, *Pergolas* and *Balconies*, and where they served for *Podia* or *Posaries* of a leaning Height, for which they had a slight *Cornice* assigned them; and this minds me of the $\epsilon\tilde{\nu}\lambda\alpha\iota$ among the *Greeks*, as indeed seeming to have been derived from the Eastern רצוצות used, and to the *Jews*, we read, enjoined upon their flat-roofed Houses, these *Balusters* being in truth but a kind of petty *Columns* under the *Rails* or *Architrave*, between *Pedestal* and *Pedestal*, for that moral Reason, the Security of the Walkers, especially at what time they used to spread *Tents* upon them, as frequently they did: But if, as we said, for the better Eminence of *Figures*, then with the Imposition of

Scamilli impares, of which there is so much Contention amongst our *Hypercritical* Architects, though in fine they prove to be but certain Benches, *Zoccos* or Blocks elevating the rest of the Members of an *Order*, *Column*, *Signum* or *Statue*, from being drowned or lost to the *Eye*, which may chance to be placed below their *Horizon*; that is, beneath the Projectures of the *Stylobata* *Cornices* and other *Sail-lies*, by an agreeable Reconciliation of *Geometry* with the *Opticks*. In a Word, the *Pedestals* of *Statues* do well express them, and those half-round Elevations, or other unequal Eminences upon the *Stylobata*, be they one or more *Plinths*, like so many Steps succeeding one another for the Advantage of what stands upon them: In the mean time, we find no *Proportions* or Form assigned for the placing *Statues*, *Busts* or other *Figures*, which seems to be left arbitrary, with regard to the Subject: The lower *Pedestals* best suiting with the higher, contrary to *Busts*, or where more than one together, as *Groups* sitting, and *cumbent* *Figures*, which require longer, &c. with such Ornament and Decoration as best becomes them; as to *Nymphs*, *Tritons*, *Sea-Gods*, *Escalop-Shells*, &c. to *Deesses*, the more delicate to *Satyrs*, *Rustic Work*, &c. But to proceed to the *Orders* and their several *Members*, as they naturally rise in Work.

The *Base*, derived from the *Greek* Verb $\beta\alpha\iota\upsilon\epsilon\upsilon$, imports the Sustain, *Basis*, Prop or Foot of a Thing, and is in *Architecture* taken not for the lowermost Member of an *Order*, but for all the several Ornaments and Mouldings from the *Apothyges* or Rising of the *Columns* Shaft, to the *Plinth*: Sometimes also for the *Spire*; which lying on the *Plinth* like the *Coile* of a *Cable*, derives thence its Name, though something improperly methinks, considering these Members do not run spiral, but obliquely rather and *in orbem*: In Sum, the *Basis* is to the *Column* and its *Entablature* what the *Stylobata* is to the *Basis*, and the *Stereobata* to the *Pedestal*. Here note, that when a *Cornice* is added to a *Base*, it becomes a *Pedestal*, and that to the *Corinthian* or *Composita* the *Attic Base*, and though fairest of all, and used

used in other Orders, by no means so properly: It is often enriched with Sculpture, especially in the *Composita*; for *Bases* differ according to the Order: *Tuscan* has a *Torus* only; the *Doric* an *Astragal* more, by some esteemed a modern Addition: The *Ionics* *Torus* is larger on a double *Scotia*, betwixt which are two *Astragals*: The *Composita* an *Astragal* fewer than the *Corinthian*. The *Attic Base*, or as some, the *Attic-Curgi*, consists of a *Plinth*, two *Torus's* and *Scotia*, properly placed under the *Ionic* and *Composita*, and indeed, as was said, to all, *Tuscan* excepted, which has its peculiar *Base*: But to proceed to other Particulars;

Plinthus. The *Plinth* is the first, and very lowest Member of the *Base*. The Word denotes a *Brick* or square *Tyle*, of which haply they were usually made, but rather for the Resemblance; because of the Weight it was to bear, and therefore more probably of something more solid to preserve the Foot of the *Column* from rotting, when first *Pillars* were made but of the tapering Bodies of *Trees*, as we shew hereafter. *Plinth* is likewise taken for a like Member about the *Capital*, but then always with its Adjunct, the *Plinth of the Capital*, &c. because placed just above the *Echinus*, as in the *Dorick*, *Ovolo* or quarter Round in the other Orders. The *Italians* familiarly name it *Orlo*, which importing a round Welt, Hem, or Brim, methinks is not so properly applied to it. By *Plinth* is also to be understood any flat, thick *Moulding* in the Fore-Walls of any Building, ranging like a broad *List* with the several *Floors* or *Stages*. The next is,

Torus. *Torus*, the third Member of the *Base*, of which there is superior and inferior in the *Bases* of all the Orders, the *Tuscan* excepted, comes from $\tau\acute{o}\rho\omicron$, denoting the Roundness and Smoothness of it: *Torus enim quicquid rotundum*; or rather as *Scaliger*, *quod artificialiter elaboratur & tornetur*, because artificially made so; but why not from its Swelling and Brawniness? It much resembles the Shape of a round Cushion, *Torques* or *Wreath*, thence $\tau\acute{o}\rho\omicron$, and the imposed Weight makes it seem to swell out as if indeed it were stuffed, and that with Reason say the *Critics*, for the more easy and safe Position of the

Trochile. *Trochile*, from $\tau\rho\acute{o}\chi\omega$ or $\tau\rho\acute{o}\chi\alpha$, a Rundle or Pully-Wheel, which it much resembles, and is that Cavity appearing next to the *Torus*: The *Italians* name it *Bastone*, or more properly *Cavetto*, and *Cortice*, *tanquam baculi cortex*, the hollow Rind of a Tree, as *Barbaro*. Our Workmen retain the ancient *Scotia*, from $\sigma\kappa\omicron\lambda\iota\alpha$, its Obscurity proceeding from the Shade of the Hollowness, but more vulgarly they call it the *Casement*, and it is ever the Cavity between the former *Torus's*, and also beneath the *Doric* *Cornice*, separated from the plain Margin or *Regula* called *Mentum* and *Corona* by a small *Cymatium*, or sometimes a *List* only: The Capital Letter C is almost a perfect Resemblance of this *Moulding*, and it is indeed frequently bordered, or rather shut in with *Lists*. Lastly,

Astragalus. The *Astragal*, which besides diverse other Things, as the *Septem Spinae Vertebrae* near the Neck, has here its Analogy from that Bone a little

little above the *Heel*; whence the *French* name it the *Talon* or *Heel* itself, as our *Author* of the *Parallel*, not improperly; but by the *Italians*, *il Tondino*, being a kind of half *Torus*, sometimes wrought in the richer *Orders* like an *Over-cast Hem* or *Edge* to the larger *Tore*, which frequently is placed between, as in the *Ionic* *Base* with two *Scotias*, and sometimes, though rarely, just about the *Plinth* of the *Base*, as some marshal it: Otherwhiles again it is taken for the *Hoop*, *Cincture* or *Collar* next the *Hypotrachelium* and *Diminution* of a *Column* lifted on both *Edges*; and it runs also under the *Echinus* of the *Ionic*. Our *Englisser* of *Hans Bloome* names it a *Boltell*, or *Fillet* in any Part of a *Pillar*; but I take a *Fillet* to be more flat, this more swelling, and, as I say, *Torus*-like. Moreover, we sometimes find it dividing the *Fascia* of the *Corinthian Architrave*, where it is wrought in *Chaplets* and *Beads*, *Olives* or *Berries*; and finally, in two Places, both above and beneath the *Lists* joining immediately to the *Square* or *Die* of a *Pedestal* where *Stylobata* is introduced; and so we have done with the *Ornaments* and *Mouldings* of the *Base*: We come now to the *Column* itself.

Σύλ. nakedly, and strictly taken, is that Part of an *Order* only, which is the *Prop* or *Columen*, placed to support something superior Columna! to it, and is here properly that round and long *Cylinder* diversly named by *Authors*, *Scapus*, *Vivo*, *Tige*, *Shaft*, *Fust*, *Trunke*, &c. containing the *Body* thereof from the *Spire* of the *Base*, or lately mentioned *Astragal*, to the *Capital*: Sometimes for the *Substance* and *Thickness* of the *Bottom* of the *Pillar*, and in *Authors* for the *Checks* of a *Door*, *secundum Cardines* & *Antepagmenta*; of which consult the learned *Baldus* in the Word *Reple de Sig Voc. Vitr.* also the perpendicular *Post* of a *Winding-stairs*; but for the most part for that *Solid* of a *Column*, which being divided into three *Parts*, has (as some delight to form them, but without any *Reason* or good *Authority*) an *Entasis* or *Swelling*, and under the *Collerine* or *Cimba* Entasis! of the *Capital*, a *Contracture* and comely *Diminution*, by *Workmen* called the *breaking* of the *Pillar*; which in *Imitation* of the natural *Tapering* of *Trees*, is sometimes too much contracted, in others excessively swelled. The manner of *Operation* by applying a thin flat flexible *Rule*, of the *Length* of the whole *Column*, divided into three equal *Parts*, beginning at the *Perpendicular* of the lowest, is so well known, that I need say nothing more of it, than that there is hardly any sensible *Swelling* to be perceived in the best *Examples*, and therefore to be sparingly used, and with *Discretion*, if at all; or as *Disgradet* and some affect, tapering very insensibly all the *Way*. *Monsieur Perault* prescribes another *Method* for this *Diminution*, speaking of *Nicomedes's* first *Conchoid*, in his learned *Comment*, l. 3. cap. 2. But, returning to where we left, the primary *Issue* or *Rise* of the *Shaft* next the *Astragal* and neather *Cincture* is called the *Apophyses* from the *Greek* Word *Ἀποφυγή*; because in that Part Apophyses the *Column* taking as it were a *Rise*, seems to emerge and fly from the

the *Bases* like the *Processus* of a Bone in a Man's Leg; and so it is now and then applied to the Square of *Pedestals* likewise. In short, 'tis no more than an Imitation of the *Rings* or *Feruls* heretofore used at the Extremities of *Wooden Pillars*, when formerly they were made of that Material, to preserve them from splitting, afterward imitated in Stone-Work as an inseparable Part thereof; and thence doubtless it is they took their original Contraction: Such Trees as grew in the most upright Tenor and comely Diminution, being chosen for this Employment.

These being resembled in Stone, that is of one entire one, by *Solida* were distinguished from the *Structiles*, or were such *Pillars* as were compounded of many.

But it is not here only that these *Rings* have Place, but next the above described *Astragal* likewise, and wherever encountered by the Names of *Annulus*, *Cincta*, *Cimbria*, *Listello*, *Fillets*, *Regula*, &c. broader or more narrow, as best suits with the consecutive Member; like those very small *Listellos* or *Annulets* under the *Echinus* of the *Doric Capital*, by the *Italians* called *Gradetti*, Degrees, and by the Interpreters of *P. Lomazzo*, Rulers; and so in like manner the *Cimbria* beneath the *Astragal* immediately above the *Contraction*. But *Regula* and *Fillets* are somewhat larger in Places where they edge and shut in the *Cymatium* of a *Cornice*, *Abacus*, or *Voluta*: Moreover I note, That *Listello* and *Cincta* are broader than *Annulets*, which I take to be the very least of all the *Mouldings* in an *Order*.

Capital.

The *Capital*, with its *Ornaments*, comes now to be the next collective Member.

We have already shewed what we are to understand by a *Column*, which nakedly considered, does not assume the Name of *Order*, 'till it be dressed and habited with its distinguishing *Ornaments*, the *Capital*, &c. For though by *Ornament Architects*, in one Word, signify *Architrave*, *Frieze* and *Cornice*, which ever accompany and compleat the *Order*; yet it is the *Capital* only which gives its Distinction and Denomination: And albeit their Differences may indeed be also taken from the Height, Shape and Substance, yet hardly without their *Heads*, as the *Ionica* and *Corinthian*. We proceed therefore to the second Member towards the upper Part or *Diminution* of a *Column*, which is always the less abated if very tall, because the Distance affects that in them which *Art* produces in the lower, is the

Hypotrachelium, which from the Greek *ὑποτραχήλιον*, *colli pars infra cervicem*, denotes the Neck of the *Column*, being that Part of *Scapus* below the *Astragal*: It is as it were the *Frieze* of the *Capital*, and so by some termed; as also the *Collar* and *Gorgerin*, where the *Pillar* is most contracted, and seems as if it were strangled, and may well be taken for a Part of the *Capital* itself, having both in the *Tuscan* and *Doric* another *Annulus* or *Cincta* about it next to the

Echinus, a *Bottle cut* with an Edge, as in our *Bloome* it is rudely explained. It is indeed a *Quarter round*, and sometimes more, swelling

swelling above the *Cinctures*, and commonly next to the *Abacus*, carved with *Ovals* and *Darts* (by our Workmen called *Eggs* and *Ankers* as little politely) which is frequently shut up with a smaller *Ovolo* of *Beads* and *Chaplets*, or like Ornament; but so adorned, it commonly runs under the *Ionic Voluta*, and that of the *Composita*, and next the *Doric Abacus*; as in that singular Example of the *Trajan Column* it creeps under the *Plinth* of the *Capital*. Such as pretend to *Etymologies* for every thing they hear, will have it ἐχίνος, πρὸς τὸ ἔχειν, or συνέχειν ἑαυτὸν, because of a kind of Self-contraction; others more rationally from the Resemblance and Roughness in the Carving, ἐχίνος τεραχύνουσι, as bristling with its *Darts* like a *Hedge-Hog*, or rather the thorny Husk of a *Chest-nut*, which being opened discovers a kind of oval-figured Kernel, which dented a little at the Top, the *Latins* call *Decacuminata Ova*. Under this, as we said, is a smaller *Bracelet* again which encircles the *Capital* under the *Voluta* in the *Composita*, taken for the *Fuserole*; and so likewise in the other *Orders* where the *Ovolo* or *Echinus* properly enter, having a small Moulding beneath it, by *Palladio* named *Gradetto*; but of this already: In the *Corinthian* an *Echinus* frequently comes in betwixt the *Corona* and *Dentilli*.

The *Voluta*, or as we term it properly enough, the *Scroul*, is not the Derivative of any *Greek Word*, but the *Latin, Voluta, a Volvendo*; for that indeed seems to be rolled upon an *Axis* or *Staff*; *Alberti* calls them *Snails-shells* from their *Spiral Turn*: It is the principal, and only appropriate Member of the *Ionic Capital*, which has four, in Imitation of a female Ornament, as both our *Master Vitruvius*, and the Author of the *Parallel* have learnedly illustrated. The *Face* of it is called *Frons*, the *Fore-head*, a little hollowed between the *Edge* or *List*, and the *Return, Pulvin* or *Pillow* betwixt the *Abacus* and *Echinus* resembles the side-plaited *Tresses* of *Womens Hair*, to defend as it were the *Ovolo* from the *Weight* of the *Abacus*, over which the *Voluta* hangs, and superior Members, for the same Reason as was intimated in the *Torus* of the *Base*.

There are also *Voluta's* in the *Corinthian* and *compounded Capitals*, whereof the first hath eight, which are angular, the rest consisting rather of certain large *Stalks* after a more *Grotesco Design*, as may be gathered from those *Rams Horns* in the *Capital* of the *Columns* taken out of the *Baths* of *Dioclesian*: And in truth they are only the pretty *Flexures* and *Scrowlings* of *Vitici*, like the *Tendrils* of *Vines*, whereof the four larger ones bend under the *Horns* or *Corners* of the *Abacus*, the other four of lesser Size, just under the middle of the *Arch* thereof, beneath the *Flower*: Then the *Bottom* or *Foot* of the *Calathus* or *Panier* (for that is divided into three equal Parts, as will hereafter appear) shews in *Front* two entire *Leaves*, and as many half ones; viz. at the *Angles*, and betwixt those again two *Stalks*, which, with a tall one in the middle (that touches in the midst of the *Arch*, as we said, it puts forth a *Flower* upon the *Brim* of the *Abacus*)
make

make in all sixteen in number. To be yet as accurate as may be in so nice and florid an Ornament, these Leaves did of old resemble either the *Acanthus*, though a little more indented and disguised, from the Inventor *Callimachus*, or, as some, the *Olive* and *Palm*; for so it is warranted by *Villalpandus* from that *Capital* of his Description standing in the *Temple* of *Solomon*. At the Extreams of these Leaves do issue the *Caules*, and *Codds*, breaking with the *Helices*, the rest of the *Stalks* adorned and furnished with Buds and tender Foliage by the Discretion and Invention of the ingenious *Carver*. But the domineering *Tendrels* and *Flexures* consist of greater, or smaller *Volutas*, emerging from between the *Abacus* and *Echinus* in smaller Leaves and *Stalks*, middling and inferior Foliage, as they are distinguished by Workmen in the three above-named Divisions of the *Calathus*; but instead of those *Helices*, at our *Corinthian* Horns, the *Composita* has her *Voluta* much more resembling the *Ionica*, and in lieu of those, diverse capricious Fancies, as *Horses Heads*, *Eagles*, and the like; *sed ea doctis non probantur*, they are rejected by all good Architects, says *Philander*. *Voluta* is likewise among the Ornaments of *Mutuli*, *Curtauses*, &c.

Now the Center or Eye of the *Ionic Voluta* is made by Artists with a *Cathetus*, which (not over nicely to distinguish from perpendicular, because the Operation of them proceeds from distinct Terms) is meant by a Line let down from above, intersecting the Line of the *Collar* (as it is demonstrated in *Chap. 24.* of the *Parallel*, with the *History* of its Investigation) and that small Circle at this Point of Intersection is metaphorically *Oculus*, the *Eye*, from whence the perfect turning of the *Voluta* has been after an exquisite Manner (though by few observed and practised) found out; it being here indeed that our *Workman* will be put to the Exercise of his *Arithmetic*, as appears by that accurate Calculation in *Nicholas Goldmanus's* Restitution of this becoming Ornament. Lastly,

The *Abacus*, from ἀβάξ or ἀβάκιον, which signifies a square Trencher, or Table, is that quadrangular Piece commonly accompanied with a *Cymatium*, except in the *Tuscan*, and serving instead of a *Corona* or *Drip* to the *Capital*, whereof it is the *Plinth* and Superior, as has already been noted. This it is which supports the neather Face of the *Architrave*, and whole *Trabeation*: In the *Corinthian* and *Composita* the Corners of it are named the *Horns*, and are somewhat blunted and hollowed, the intermedial Sweep and Curvature with the *Arch*, has commonly a *Rose*, or some pretty Flower, carved in the middle of it.

Thus we have finished that *Head* of our *Column*, which being taken in general for all these *Members* together, is commonly distinguished by the Name of *Capital*, an essential Member of every Order, taken, I say, for the entire Ornament from the *Astragal* and first *Cincture* of it, to the *Plinth* which bears up the *Architrave*: But it is not to be omitted, that the main Body of the *Corinthian*

Chapiter, of which we have given a large Description under the Title of *Voluta*, consists of a *Bell*, or *Basket* rather, which is that plain and solid Part under the *Cauliculi* and *Stalks*, and out of which they are carved with *Helices*, *Tendrels* and *Flowers* already mentioned, and which in order to their triple *Series* of *Foliage*, which seems to include and shadow the Body of it, as it is represented in that curious Design of *Callimachus's* Invention, is divided into three equal Parts: But of this hereafter. There is likewise another *Capital*, or rather a Diminutive of it, by the *Greeks* called *νεπαλιδιον*, which does not only signify, as sometimes, the former *Calathus* and *Basket*, but more properly that *Braid* or *List* above the *Triglyph* in the *Freeze*.

Moreover, to the Bodies or *Shafts* of some *Columns* appertain

Striges, which (not to insist upon what the learned *Vossius* and other *Critics* have contended) are those excavated *Channels*, by our Workmen called *Flutings* and *Grooves*: These are particularly affected to the *Ionic* Order, rarely the *Doric*, *uti stolarum rugæ*, in Imitation of the *Plaits* of *Womens Robes*, as our *Master* resembles them; and some of these *Channels* we find to go winding about *Pillars*, &c. but it is not approved. Between these are the *Stria*, we may properly *English* them *Rays* or *Lists*, which being twenty in the *Doric*, in the *Ionic* twenty-four in Number, are those plain Spaces between the *Flutings* in the *Ionic*, *Doric*, *Corinthian* and *Composed* Orders; which Ornament the three last have, with some small Difference, borrowed from the *Ionic*. And in some of those, as in that *Dioclesian Doric* Example, they are so made, as to reduce the *Rays* to a sharp Edge only, by their Contiguity, without any Spaces at all. But sometimes we find the *Striges* to be filled up with a Swelling, a third Part from the *Base*, and these we may call *staved*, or *cabled Columns*; for so I think fit to interpret the *French Embastone*, and *Alberti's Rudens*. Thus we find some *Corinthian Pillars* often treated; the *Stria* being commonly a third or fourth Part of the Wideness of the *Flutings*, in the *Doric* not too deep, and diminishing with the *Contraction* of the *Scapus*, unless the *Shaft* be very high, in which Case the Distance does it without the Aid of the Workman; sometimes also we have seen them totally filled, and sometimes wrought, but better plain: Note, that where they exceed twenty or twenty-four they make the *Columns* appear gouty. We should now come to the *Entablature*; but a Word of

Pilasters, or square *Columns*, called by the *Greeks*, if standing single, *Parastata*, or by the *Italians* *Membretti*, observing the same *Module* and Ornament in *Base* and *Capital*, if alone, with that of the entire *Column*; but so they do not for their *Prominency*, which being to gain Room and to strengthen Works, fortify and uphold capacious *Vaults*, reduces them sometimes to the *Square*, whereof one of the Sides is frequently applied to *Walls*, by which alone some will only have them to differ from *Columns* themselves; but that ought to be understood of such as have no *Imposts* and *Arches*, upon

which Occasions the *Lights* they let in do much govern their Proportions, as *Palladio* has judiciously shewed in l. 1: c. 13, &c. Likewise, where they happen to be at *Angles*, and according to the surcharg'd Weight; and therefore a *rustic* Superficies, as Sir *H. Wotton* has discreetly observed, does best become them, as well as a greater Latitude, for so they have sometimes been enlarged to almost a whole *Vacuity*; unless where, for their better fortifying, we find *half*, and sometimes whole *Columns* applied to them. As to the Extancy, engaged in the Thickness of the Walls, for so we must suppose them to be, they sometimes shew above a fourth, fifth or sixth Part of their Square; but this is regulated according to the Nature and Difference of the Work, which not seldom reduces it to an *Eighth*, without any nice Regards to what were requisite if they stood alone, seeing they are often destined to Stations which require the most substantial Props. For the rest, they carry the same Proportion with their respective Orders, and are very rarely contracted, unless where they are placed behind whole *Columns*; if *fluted*, with not above Seven or Nine at most: Be this also observed; That as in the *Fronts* of large and noble Buildings, they shew very gracefully, being placed one over the other before the first and second *Stories*; so in lesser *Fronts* and *Houſes* they look but poorly. Lastly, be this farther noted; That though we find the *Doric Pilaster* with *Triglyph* and *Metap* placed about the *Cupola*, it is by no means to be broken in any sort, to humour the Angle of an *upright Wall*, though there happen to be a *Cornice* above it, as we frequently find, allowing half to one *Face*, and as much to the other.

Pilasters are likewise smaller or shorter applied to *Balconies*, &c. with now and then *Bases*, *Plinth*, and *Capital*, and so in *Rails* upon *Stairs*, *Battlements*, &c. They also do properly and handsomely where they are set to support *Cornices* and *Freezes* in *wainscoted Rooms*, provided their due Proportion be observed, without those ridiculous *Disguisements* of *Pedestals* and idle *Fancies* commonly wrought about them: They also well adorn *Door-Cases*, *Chimney-Pieces*, *Gallery-Fronts*, and other Places, whence they are called

Antæ, not improperly, as *Monſ. Perault* shews, from the *Latin Antæ*, for their being placed before the ancient *Temple Walls*, and *Coines* standing out to secure them, and so at the sides of *Doors*: In short, they are generally own'd among *Pilasters*, observing the same Rule in advancing out of the Work, as *Columns* themselves also do; otherwise, as was said, *Pilasters* used to appear very little beyond the Perpendicular of the Wall or Work, where there happened to be no *Ornament* above, which sallied farther; in which Case, the Projecture of both ought to be alike, or rather comply with that of the *Pilaster*. The

Incumbæ. *Impoſts*, by *Vitruvius* called *Incumbæ*, which I mentioned, are nothing but their *Capitals* or more protuberant Heads, upon which rest the Ends of the *Arches*; which also must conform to their *Orders*; so

as the *Tuscan* has a *Plinth* only; the *Doric*, two *Faces* around; the *Ionic* a *Plancere* or *Cavity* betwixt the two *Faces*, with now and then carved *Mouldings*, as has likewise the *Corinthian* and *Composita* a *Freeze*; so as the *Sallies* of the *Imposts* exceed not the *Body* of the *Pilaster*: Sometimes again the *Entablature* of the *Order* serves for the *Impost* of the *Arch*, which is very *Stately*, as we see in diverse *Churches*, to which the *Height* exceedingly contributes, where the *Projecture* is suitable; in the mean time where they exceeded the *Square* and regular *Thick-ness*, they were nam'd

Pile, and their *Quadra's* or *Tables* (as we yet see them in ancient *Pila* *Altars* and *Monuments*) were employ'd for *Inscriptions*; but if shorter, and more massy, they serve for the *Arches* of *Bridges*, for *Buttresses* and the *Sustentation* of more solid *Works*, as indeed they need to be, standing in the *Water*, and gradually built as far as its *Level*; nor ought their *Breadth* to be less than a *sixth* Part of the *Wideness* of the *Arch*, nor more than a *Fourth*: They were sometimes made half *Circular*; but the *Ancients* preferr'd the pointed at *right Angles*, as better to resist the impetuous *Current*, before the more acute and sharper.

Arches or *Vaults* consisting generally of simple *Half-Circles*, and now and then of some lesser *Point*, of all other, require the *Conduct* of an able *Architect* well skill'd in *Geometry*: I shall not need to criticize on the several *Species* of *Fornices* and *Cradle Works*, as of late sub-divided into more than we find among the *Ancients*, which were not above three or four: The simple *Fornix*, or *Hemicircular*, *Strait* or *Turning*: The *Testudo* or more circular, and that which by the *French* is called *Cul de Four* and *Oven-like*; and the *Concha*, which like a *Trumpet* grows wider as it lengthens, &c. Of these some are single, some double, cross, *diagonal*, *horizontally* on the *Plain*, others ascending and descending, angular, oblique, pendent; some that sally out suspending an incumbent *Burden*, of which there are both concave and convex, as for the giving *Passage* under upon *Occasion*: But of whatever *Form*, or *Portion* of the *Circle*, *Care* must be had, that where they cross, the *Reins* or *Branches* springing from the same *Point*, and their *Moulding* alike, they neither crowd too near one another, nor entangle confusedly; but meeting from *Angle* to *Angle*, unite at the *Key-stone*, which is commonly carved with a *Rose*, or some other *Ornament*; it being in this *Disposition* of the *Nerves* and *Branches*, wherein consists the *Artist's* great *Address*, and that the *concamerated* *Spaces* be exceeding close jointed, needing no *Pegs* or *Fillings* up with *Mortar*; and above all, that the *Butments* be substantial: As now in *Cellars*, *Churches*, &c. *Vault* and *Arch-Work* in warmer *Climates*, both in the first and second *Stories*, not without frequent and costly *Sculpture*, various *Frets* and *Compartments*, of which we have *Examples* ancient and modern, far more rich, grave, and stately, than those *Gothic Soffits*, gross and heavy, or miserably trifling: Another great *Address* in *Vault-Work* is to render them light and cheerful, where *Lacunar* they

they are raised above Ground, as well as solid ; especially, where there is Occasion to contrive them as flat as possible ; such as are to be seen in many *Bridges*, especially at *Pisa* over the *Arno*, so flat as the *Curvature* is hardly discernable ; and though it consists of three *Arches*, yet they are very large ; and there are many at *Venice*, but not near of that Length : That of the famous *Rialto* over the *Grand-Canale*, is more exalted, being in the *Base* near 200 Foot, the *Chord* much less than half the *Diameter*, *Arches* being ever strongest, as they approach the half Circle : The *Masonry* at the Front of these being cut by a peculiar Slope of the Stone, is called *pennanted*, 'till it come to join with the

Mensula.

Mensula, which, *quasi μέσση*, seems to be locked to the *Pennants* in Guize of a *Wedge*, and therefore by our Artists named the *Key-stone* : We have shewed their Use where two *Arches* intersect, which is the

Camerati.

Scala.

strongest Manner of *Cameration*. Under the Title of *Arch-Work*, may not improperly come in those *Scale Cochliedes*, *Spiral*, *annular*, *oval*, and of whatsoever Shape, *Pensile*, and as it were, hanging with or without *Column*, receiving Sight from above ; all of them requiring the skilful *Geometrician*, as well as a *Master-Mason* ; Stairs in general being one of the most useful and absolutely necessary Parts of an House ; and therefore to be contrived with good Judgment, whether of Stone or Timber ; and so as with *Ease* and *Cheerfulness* one may be led to all the Upper Rooms. With *Ease* I mean, that the *Flights* be not too long, before one arrives to the *Reposes* and *Landings*, without criticizing concerning the Number of Steps, which the Ancients made to be odd, provided they exceed not five Inches in *Height*, or be less than fifteen in *Breadth*, one Foot being scarcely tolerable : And albeit the Length cannot so positively be determined, but should answer the Quality and Capacity of the Building, it ought not to be shorter than *five and a half*, or *six* Foot ; that two Persons may commodiously ascend together ; I speak not of those, *Scale occulta*, *Back-Stairs*, which sometimes require much Contraction, and are more obnoxious to *Winding-Steps* : But a noble and ample House may extend even from eight to twelve Foot in Length. And here I think not amiss to note, That the Ancients very seldom made use of *arched Doors* or *Windows*, unless at the Entrance of *Castles*, *Cities*, and *Triumphal Intercolumnations*, for the more commodious Ingress of *Horse-Men* armed with *Spears*, and *Ensigns*, &c. This *Barbarity* therefore we may look upon as purely *Gothic*, who considering nothing with *Reason*, have introduced it into private Houses, and been imitated but by too many of our late *Architects* also, to the no small Diminution of the rest, which is better conducted. By *Intercolumnations* I do likewise comprehend all *terrased* and *cloistered Buildings*, *Porticos*, *Galleries*, *Atria's*, &c. as before, contiguous to, or standing out from the Body of *Edifices* ; in which Cases they are becomingly proper : And this does naturally lead me to our *Pillars* again, and to consider the *Spaces* between them.

Inter-

Intercolumnation (anciently much the same in all the Orders with out *Arches*, where Spaces may be wider than betwixt single Columns) signifies the Distance or Void between *Pillar* and *Pillar*; but this not sufficiently explaining the various Distance of the several Orders in Work, renders it, even in diverse of our *English* Authors where they treat of this *Art*, of sundry Denominations: For thus it was usually called,

Insulata Columna, where a *Pillar* stood alone like an *Island* or *Rock* in the *Sea*, the one invironed with *Air*, as the other with *Water*.

Areostylos belonging chiefly to the *Tuscan Order*, was where the *Intercolumnation* is very wide, as at the entrance of great *Cities*, *Forts*, &c. upon which occasions at the least four or five *Modules* (taken for the whole *Diameter*) may be allowed, and commonly requires a *Timber Architrave*. Others almost contrary, when they stand at only a moderate Distance.

Diastylos, though sometimes improperly taken for any *Intercolumnation*, is most natural to the *Doric*, and may have three or four *Diameters*, nay sometimes more in the *Ionic*, as fittest for *Gates*, *Galleries*, and *Porches* of *Palaces* or lesser Buildings, and thence were called *Tetrastylos* and *Hexastylos*.

The *Systylos* named also *Pycnostylos* (as much as to say thick of Pillars) because seldom allowed above a *Module* and an half, though some distinguish the first by an half *Module* more for the *Corinthian*) belongs chiefly to the *Composita*, and it was used before *Temples*, and other Public and Magnificent Works of that Nature: As at present in the *Peristyle* of *St. Peter's* at *Rome*, consisting of near 300 *Columns*; and as yet remain of the Ancients, among the late discovered *Ruins* of *Palmyra*. But where in such Structures the *Intercolumnation* did not exceed two *Diameters*, or very little more (as in the *Corinthian*, and especially the *Ionic*) the Proportion of Distance was so esteemed for its Beauty and other Perfections, that it was by a particular Eminence termed *Eustylos*, as being of all other the most Graceful: But it is not now so frequent as of old, to be at that vast Charge, as the Number and Multitude of *Columns* (which were usually of one entire Stone exceeding all the other Parts and Ornaments of Building) would engage the most opulent Prince: Whilst we find those enormous Structures of *Temples*, *Amphitheatres*, *Naumachia*, *Circus*, *Baths*, *Porches*, *Tribunals*, *Courts* (and other Places of public Convention) were built and advanced not only by the general Contribution of the People, or out of the *Fisc* and Charge of the State; but very often by the *Munificence* of *Emperors*, who (glorying in nothing more than in that of beautifying and adorning of the most famous *Cities* in the several Provinces) used to employ *Thousands* of their *Slaves*, to hew and work in the *Quarries*, abounding with all sorts of the richest *Marbles*, or with *Serpentins*, *Ophites*, *Prophyris*, and such as for hardness and difficulty of Polishing, our Tools will now hardly enter: And when the *Pillars*, and *Attire* about them, were finished, to send and bestow them

I

Gratis,

Gratis, towards the Encouragement and Advancement of those Publick Works, &c. But after this *Constantine the Great*, meditating the Translation of the *Imperial Seat*, from the *West* to the *East*, took another Course, tho' by no means so laudable; causing most of the most Magnificent Buildings to be deprived of their *Columns*, *Statues*, *Inscriptions*, and Noblest Antiquities, to be taken away, and carried to *Byzantium*, now *Constantinople*, to adorn his new City with the Spoils of *Rome*; whilst what Ruins and Fragments were left (and had escaped the Savage *Goths* and *Vandals*) were stripped of all that yet remained of venerable and useful Antiquity, by the succeeding *Pontiffs*, for the Building of stately *Palaces*, *Villas* and *Country-Houses* of the Up-start *Nepotisme*, as are standing both at present in the *Cities*, and the sweetest and most delicious Parts of the Country about it; proud of what yet stood of the miserable Demolition of *Temples*, *Arches*, *Mausoleas*, &c. So justly perstringed in that *Sarcasme*, *Quod non facerunt Barbari, facerunt Barbarini*, and indeed, the superl *Palaces* of *Card. Antonio*, *Panfilio*, &c. Nephews to *Pope Urban* the VIIIth and his Successors are instances of this: So as I hardly can tell of any one ancient Structure (not excepting the *Pantheon*) but what has suffered such ignominious Marks and Disguises, as that the Learned *Author* of the *Parallel*, together with all the Assembly of the most skilful *Artists* (which he has brought together) have hardly been able (with infinite Pains, Charge and Industry) to recover the just Proportions, and necessary *Adjuncts* of the *Ancient Orders*. But to return where we left speaking of *Columns*; we are not there obliged to reckon any of them, as meaning different *Orders*, *Kind* or *Species* of Building (as in the following Enumeration) but as relating to the several Dispositions of them, agreeable to their *Intercolumnation*. For where the Sides had Ranges of *Columns*, as in those large *Xystas*, *Temples*, *Porticos*, *Atrias*, and *Vestibula* of the *Greeks* and *Romans* (which were certain arched or plainly *architruved* Buildings in Form of *Cloisters* and *Galleries*, commonly standing out from the rest of the *Edifice*, and now and then alone, and within also) the *Ancients* named no fewer than *Seven*; according as they were applied to the several *Species*, *Disposition* or *Composition* of the *Fabric*; or more plainly, such as were more proper for a *Temple*, according as it was built and placed designedly for more or fewer Ranks of *Columns*, at the Entrance only, on every Side about it, without or within; not regarding their Proportion or Ornament, which is a different Consideration (for so I think *Vitruvius* may be taken.) Of these the First is,

1. *Antes*, of which we have already spoken.
2. The *Prostyle*, whose Station being at the Front, consisted of only four *Columns*.
3. *Amphiprostyle*, where the Building had a double *Pronaos* or *Porch*, consisted but of four at each.
4. *Periptere*, where the *Columns* range quite about the Building: Six in Front, the *Intercolumnation* two *Diameters* of whatever Order it consist; the *Pillars* standing downward.
5. *Pseu-*

5. *Pseudodiptere* (Bastard or Imperfect) as consisting of a single Rank only, yet of eight *Columns* in Front at two *Diameters* distance; so as left Space enough for another Row from the main Building: Whereas the

6. *Diptere* has a double Row of as many quite about, and *Octostyle* in Front also, at the Distance of *Eustyle*, that is, two *Diameters* and a Quarter: This made as it were a double *Portico*, which we call *Isles*. Lastly, the

7. *Hypethre*, consists of two Ranks of *Columns* all about, with Ten at each Face of the Building, and a *Perystile* within of single *Columns*; the rest being exposed to the Air, that is not walled in (and placed as the *Pycnostyle* closer to one another) we have called *Peristyle*, which though importing a *Colonnade*, or Series of *Columns* ranging quite about; yet are not all which are so placed to be called so, unless standing *within* the Walls, which is essential to their Denomination; since otherwise, as well the *Periptere* as *Monoptere* (both consisting but of a single Range or Wing a-piece) should then be *Peristyles*, which they are not: Besides, the *Monoptere* is only where a *Roof* is supported without any Wall or Closure whatsoever, as in that Example of *Vitruvius*, Lib. 4. Cap. 7. All which I have only mentioned for the Benefit of our Country *Workmen*, who do frequently, even amongst our *English* Translators of *Architectonical* Treatises, meet with those hard Names without their Interpretation, when the Discourse of these open and airy *Ornaments*, whether adjoining to, and supporting more *Contignations* and *Stories*; or invironing them, and prominent from them; and because it is for this, that our Master *Vitruvius* so passionately wishes that his *Architect* should be, as of old, styled *Callimachus*, *Philotechnos*, an industrious Searcher of the *Sciences*, which is the same that a good *Philologer* is amongst our *Literati*.

Moreover, instead of *Columns* the *Ancients* (as now the *Modern* but too often) used to place the whole Figures of *Men* and *Women* to support and bear up entire *Cornices*, and even huge *Masses* of Buildings; but of this at large in *Cap. 22, 23*, of the *Parallel*, Part 1. These they also named *Telamones* or *Atlas's*; the *French*, *Consoles*, where they usually set them to sustain the *Architrave*, which for being the next *Architrave*. Member in order to the *Capital* we come next to explain.

The *Greeks* named that *Epistilium*, which we from a *mungril* Compound of two Languages *αρχη*---*Trabs* (as much as to say the principal Beam and Summer, or rather from *Arcus* and *Trabs*) call *Architrave*; *Ut velint trabem hanc Arcus vices sustinere qui a Columna ad Columnam sinuari solet*, as *Baldus* with Reason, from its Position upon the *Column*, or rather indeed the *Abacus* of the *Capital*. It is the very first Member of that which we call *Entablature* in our Translation of the *Parallel*; and formerly in the *Tuscan* Order framed for the most part of *Timber* in regard of the distant *Intercolumnation*: It is also frequently broken into two or three Divisions, called by Artists

Fascias,

Fascia.

Fascias, or rather plain *Faces*, a little prominent, the lowest being ever the narrowest: These *Breaks* arriving sometimes to 17, sometimes to 18 *Minutes* in breadth, some rather choose to call *Faces* than *Fascias*, *Swathes*, *Fillets* or *Bands*, by which they are usually distinguished into *First*, *Second* and *Third*, especially in the three latter *Orders*; for in the *Tuscan* and *Doric* they do not so properly enter, though our *Parallel* yield us two approved *Examples*: These are frequently, and indeed for the most part, separated with a small *Astragal* cut into *Heads*, or some such slight *Carving*; the *Fascias* of the *Architrave* likewise curiously wrought, as in that wonderful Instance of a *Corinthian Entablature* taken out of *Dioclesian's* Bathes. *Fascia*, in the Notion I would rather take it, should be for that narrower *Band* about the *Tuscan* and other *Basis* as some call it; or rather the square *List* under the superior *Torus* in some *Pedestals* named *Supercilium*, and not properly the *Torus* itself, as in diverse *English Profiles* they erroneously make it; for *Supercilium* seems to be a kind of *Corona* or *Drip* to the subjacent Members. In *Chimneys* the *Architrave* is the *Mantle*; and over the *Antepagmenta* or *Jambes* of *Doors* and *Lintels* of *Windows* the *Hyperthyron*, which the *Italians* call *Sopra frontale*, and our *Carpenters* the *King-piece*, immediately under the *Corona*, as a large *Table* to supply the *Freeze*, especially in the *Doric Order*, and chiefly over *Porticos* and *Doors*; whilst as to the precise *Rule* for the *Fillet* of the *Architrave*, the *Tuscan* challenges one; the *Doric* and *Composita* two; the *Corinthian* three; sometimes interrupted to let in a *Table* for an *Inscription*.

Supercilium.

Antepagmenta.

Hyperthyron.

Lysis.

Cymatium.

Sima.

The uppermost *Fascia* of the *Architrave* for the most part is, and indeed always should be (the *Tuscan* only excepted) adorned with a *Lysis*, or

Cymatium inverted, which is no more than a wrought or plain *O-gee*, as our *Workmen* barbarously name it: The term is *Κυματίον*, *undula*, and signifies a *rolling Wave*, to the resemblance whereof it is moulded. By some it is called the *Throat*, as from the *Italian* and *French*, *Gola*, *Geule*, or *Doucine*, and of these there are two kinds, the *First* and *Principal* hath always its *Cavity* above, and doth constantly jett over the *Corona* or *Drip* like a *Wave* ready to fall, and then is properly called *Sima*; the other has its *Hollow* below, and is named *Inversa*; the one *Convex*, the other *Concave*: The Letters \int thus placed do reasonably well express these kind of *Mouldings*, which not only enter into the Member of the *Architrave* where it is ever inverted, but (as we said) perpetually above the *Corona*, where they do frequently encounter and meet together with a small *Regula* between them, which as it were separate the *Parts*, as the *Freeze* from the *Cornice* and the like; but then the neither is the *Lesbyan* ever reversed, and very narrow; though oft-times both of them *Carved* and *Adorned* with *Foliage*, &c. In the *Doric Order* the upmost *Cymatium* of the *Entablature* is somewhat different, as consisting but of a single *Hollow* only under the *List*: in the mean time, there is no small *Nicety* among *Architects* about this necessary *Ornament*, both as to the *Name* and *Placing*; giving to the *Larger* the *Name* of *Cymatium* reversed, or *Doucine*;

to the *Smaller*, that of *Simus*, or Flat-nosed; commonly placed beneath the other, under a small *Fillet*; yet not so essentially, but that it has been supplied by the *Astragal*: However, the most natural Place of the great *Cymatium* is upon the superior *Cornice*, where our *Master* gives it the Name of *Epietheates*, and should ever cover the sloping sides of *Frontons* or *Tympanum*.

Cymatium is also about the Heads of *Modillions* and constitutes part of them, as likewise it enters into *Abacus*, and on *Pedestals*, as in *Stylobata Corona*, and the *Base* thereof, where we find them both *inverted*; though I remember to have seen the upmost with the *Recta* also in the *Cornice* above-mentioned. But instead of *Cymatium* separating the *Architrave* and *Freeze*, *Tenia* oftentimes supplies the room.

Tenia is properly *Diadema*, a *Bandlet* or small *Fillet* with which they ^{*Tenia*} used to bind the Head; and rather those *Lemnisci* and *Rubans* which we see Carved and dangling at the ends of *Gyrlands*. The Interpreter of *Hans Bloome* names it the top of a *Pillar*, but very insolently; it being indeed the small *Fascia* part of the *Doric Architrave* (or as *Perault*, strictly belonging to the *Cornice* alone) sometimes, but seldom, with a narrow *Cymatium*, or *Regula* under it, as that runs under the *Triglyphs* as a kind of *Base*: Some call it the neather *Tenia* (as *Philander* frequently) to distinguish it from the *Bandage* which composes the *Capitelli* of the *Triglyphs* and continues between them over the *Metops*, and not seldom under a *Cavetto* or small *Cymatium*, with which *Suidas* and other learned *Critics* many times confound it. In a Word, it is that in the *Doric Architrave* which *Cymatium* is in the other Order, and separates the *Epistylum* or *Architrave* from the

Freeze, the Word in *Greek* is Ζωοφόρος, and does genuinely import the ^{*Freeze.*} ^{*Zophorus.*} imaginary *Circle* of the *Zodiac* depicted with the twelve *Signs*; but by our *Architects* it is taken for the *Second Division* of the *Entablature* above the *Columns*, being like a *Fair and Ample Table* between the former *Tenia*, and which though oftentimes plain should be *Pulvinatus*, pillowed, or swelling in the *Ionic Order*; but in the *Doric* enriched with the *Triglyph* and *Metops*, and with a *Thousand Historical Symbolic, Grottes.* and other flored *Inventions* in the rest of the *Orders* (*Tuscan* excepted) especially the *Corinthian* and *Composita*, and sometimes with *Inscriptions*. Our term is derived either from the *Latin Phrygio* a *Border*, or from the *Italian Freggio*, which denotes any *Fringed* or *Embroidered Belt*: *Philander* says à *Phrygionibus*, not from the *Phryges* a *People* of the *Minor Asia*, as some erroneously; but *Phrygiones*, a certain *Broidery* or flowered *Needle-Work*, as one should say *Troy-stitch* (whence haply our *True-stitch*) in imitation whereof they wrought *Flowers* and *Compartments* upon the *Freeze*; which is commonly no broader than the *Architrave*: In the *Ionic*, if plain, a fourth Part less; if wrought, a fourth larger, of which see more where we spake of *Ornaments*.

Besides this of the *Entablature*, the *Capitals* of both *Tuscan* and *Doric* have the *Freeze* likewise commonly adorned with four *Roses* and as many smaller *Flowers*, for which cause it is called the *Freeze* of the *Capital*

also, as we noted, to distinguish it from the other; likewise *Hypotrachelium*, from its Posture between the *Astragal* and the *Regula* or *Annulus* of the *Echinus*: This *Tuscan Freeze* is plain and very simple; but in the rest of the *Orders* it is employed with the *Echinus*, as in the *Ionica*, and the *Capital Cauliculi* or *Stalks* in the other two: These *Roses* are also sometimes *Insculped* under the prominent *Horns* or *Angles* of the *Doric Abacus*.

Triglyphus.

The *Triglyphs* which I affirmed to be charged on the *Doric Freeze*, is a most inseparable Ornament of it. The Word $\tau\rho\iota\gamma\lambda\upsilon\phi\omicron\varsigma$ in *Greek* imports a three Sculptured Piece, *quasi tres habens Glyphas*: By their *Triangular Furrows*, or *Gutters* rather, they seem to me as if they were meant to convey the *Gutta* or *Drops*, which hang a little under them; though there are who fancy them to have been made in imitation of *Apollo's Lyre*, because first put in Work as (they affirm) at the *Delphic Temple*: You are to note that the two angular *Hollows* are but half *Chanelled*, whence they are called *Semicalaniculae*, to distinguish them from the *Canaliculi*, whose *Flutings* are perfect, and make up the *three* with their *Interstices* or *Spaces*, being as many flat and slender *Shanks*, for so we may interpret the *Latin Femora*: One of these is ever placed betwixt two *Columns*, and should be about the Breadth of half its *Diameter* below: The *Italians* name them *Pianetti*, *small Plains*, and so do we; and they constantly reach the whole *Diameter* of the *Freeze*, being crowned with the formerly mentioned *Capital*, part of the upper *Tenia*, and determining with the *neather*, where it intercepts them from the *Prominent*.

Gutta.

Gutta or *Drops*. It is certainly the most conspicuous Part of the *Doric Freeze*, supposed to have been at first so Carved upon *Boards* only that had been clapped on the *Extremities* of the *Cantheru*, *Joists* or *Rafters* ends which bore upon the upper *Fascia* of the *Architrave*, to take off from the Deformity, as also were the *Triglyphs*. How indispensably necessary they are both to be placed in a just and due *Square* from each other, and *Perpendicularly* over their *Columns*, the Author of the *Parallel* has shewed, *Chap. 2. Part 1.* as in that of the *Temple of Solomon* according to *Villalpandus's* Design, how they have been admitted into the *Corinthian Freeze*, but without the *Gutta*; and so in the *Persique*. These *Gutta* are as I said those six *Appendant Drops* or *Tears* affected only to the *Doric Order*, seeming as it were to trickle down and flow from the *Channels* and *Shanks* of the *Triglyphs* through the *neather Tenia*, and *small Reglet* or *Moulding* under it.

Gutta are sometimes made in Shape of *Flat Triangles*, sometimes swelling like the *Section* of a *Cone* or *Bell* (but square at the bottom) and therefore so called by the *French Architects*. They are also under the *Planton* and the *Modillions* which support the *Cornice* eighteen in Number, exactly over the *Triglyphs*, as in that most conspicuous *Elevation* of the *Profile* after the stately *Relique* at *Albano* near *Rome*, than which nothing can be imagined more *Noble* and *Magnificent*. *Alberti* calls these *Gutta*, *Clavos*, as conceiving them to be in resemblance of *Nails*, but without any Reason for his *Conjecture*.

Metopa.

Metopa are the next in Order, and are nothing else save those empty *Spaces* in the *Freeze* betwixt the *Triglyphs* in the *Doric Order*, either *Puræ* and *Plain*,

or

or Figured, for that is not necessary always, to the great ease of Architects, who oftentimes find it so difficult to place them at just distances, that except in Church-Works, they frequently leave them out: The Word is derived of *foramen*, *intervallum inter Sculpturæ cava*, or if you will, *Intertignum*, as importing here rather the forenamed Spaces, than what those pretend who will fetch it from the *Métron* or Forehead of the Beasts whose Sculls (remaining after the Sacrifices) were usually carved in these Intervals; because in these Vacuities were the Passages for the Ends of the Joists, Timbers and Rasters which rested upon the *Architrave*, and were to fill up that Deformity, they usually made it up with some Ornaments, suppose of Sculls, Dishes, and other Vessels, nay sometimes with Jupiter's Squib or Thunderbolt, Targets, Battle-Axes, Roses, and such other Trophies, as was found most apposite to the Occasion, and not preposterously filled them (as our Workmen too often do) without any relation to the Subject; so as I have frequently seen Oxes Heads Carved on the Freeze of an House of Pleasure in a Garden, where Roses and Flowers would have been more proper. There are sundry other Ornaments likewise belonging to the Freeze; such as *Encarpa*, *Festoons*, and *Frutages* tied to the Horns of the Sculls with *Tæniæ* and Ribbands tenderly flowing about this Member, and sometimes carried by little Puti, Boys, Cupids, and a Thousand other Rich Inventions to be found in good Examples: But we are now arrived to the third and last Member of the *Entablature* separated from the Freeze by the superior *Tænia*, the *Cornice*.

The *Cornice*, *Coronis*, or as it is collectively taken for its several and distinct Mouldings and Ornaments, comprehends a small 1. *Regula*, 2. *Cymatium*, 3. *Dentelli*, 4. *Ovolo* or *Echinus*, 5. *Modillions* or *Bedding-mouldings* which support the *Corona*, 6. *Sima recta* and *inversa* (rarely a *Cavetto*) 7. and lastly, another *Regula* which concludes the whole Order. We will begin with the First, being sometimes a small *Scotia* consisting of an half or quarter round, that now and then also both in the *Tuscan* and *Doric* divides the *Freeze* from the *Cornice* in place of the *Tænia*, as does the *Cymatium* in the rest of the Orders. The

Ovolo is next in the plainer Orders; but it is enriched in the *Corinthian* like the *Echinus*, which (if you please) you may take for the same thing in an Italian Dress, some like Eggs, some like Hearts with Darts Symbolizing Love, &c. In the *Tuscan* and *Doric* 'tis turned like a *Scima* or *Cymatium*, and is substituted for support of the *Corona*; but in the last, 'tis usually accompanied with a slender *Regula* above it, and in the *Corinthian* both above and beneath, where it is likewise frequently carved and adorned with a broad *Welt* like a *Plinth*.

Dentelli are the Teeth (a Member of the *Cornice*) immediately above the *Cymatium* of the *Freeze*, by some named also *Asseri* from their square Form; I say in the *Corinthian* and *Ionic*, &c. for in the *Doric* Order they were not anciently admitted, or rather not Properly, according to the Opinion of our Master, though we must needs acknowledge to have found them in the most Authentical Pieces extant: As for their Dimensions

sions they kept to no certain Rule, but made them sometimes thicker, sometimes thinner, square, or long, and more in number; but commonly the Spaces less by an half, sometimes by a third part than the Teeth, which were themselves twice as High as their Breadth, and frequently (especially in the more polite Orders) beginning with the Cone of a Pine, pendent at the very point over the Angular Column: *Lomatus* is yet more precise in this particular, and gives them as much height as the middle *Fascia* of the *Architrave*, *Projecture*, equal (somewhat too much) *Front* twice the Breadth of their Height, and a third part less than their Breadth for *Vacuity*. The *Dentelli* have oftentimes a small *Regula*, and now and then more than one, as usually in the *Ionica*, where it has likewise an *Ovolo* or *Echinus* for the bedding of the *Corona*; but if enriched, and that two of them encounter, one should be simple and plain, as where it happens to be inserted beneath it: Next to this superior *Echinus* are the *Modillions*; but instead of them *Dentelli* are thought to have been first instituted, and for that Reason superfluously joined where *Mutules* are; and therefore where we find *Tænia* under *Modillions*, it is not properly divided into *Teeth*, nor is it rashly to be imitated, though we have some great Examples to countenance it. That of the *Pantheon* may safely guide us herein, where it is left Plain, for this very Cause, and that the Reason of the Thing does not in Truth allow it: However, it must be acknowledged, nothing has been more grossly abused even amongst our most renowned *Masters*.

Modillions.

Modillions, being certain Supports in form of *Corbells*, *Cortouzes* and *Mutules* are a kind of *Bragets* to the *Corona*, and in those Orders where they enter, supply the part of the *Bedding-moulding* as our Workmen style the *Ovolo* in this place; for so they frequently do in the *Doric* and *Ionic*, but then without any other Ornament than a slight *Cymatium* to edge them, and to be always placed over the *Triglyphs*: In the *Corinthian* and *Composita*, which is their true place, they are enriched with all the delicateness and curiosity imaginable, especially in the *Corinthian*, capped, as I said, with a curiously carved small *Cymatium*, where they are contiguous to the *Plancere* or Roof of the *Corona*. Our ordinary *Workmen* make some distinction between *Modillions* and those other sorts of *Bragets* which they call *Cartells* and *Mutules*, usually Carved like the handles of Vessels scrolled, flowered, and sometimes sculptured with the *Triglyph*; and such were the *Ancones* amongst the *Greeks*: And such are often found supporting little *Tables* for *Inscriptions*; the *Stools* of *Windows*, which jet out, and *Shields*, and *Compartments* for *Coats of Arms*, &c. That there should be no *Gutta* under *Mutules*, or *Dentelli* under *Modillions*, is the Opinion of diverse learned *Architects*, though as was said, we frequently find them *Chanelled* like the *Triglyph*, and that in authentick Examples: *Philander* is for it, and pronounces them more proper than even under the purest *Triglyph*, for signifying, says he, *Canteriorum Capita, unde stillicidium fieri certum est*, Drops and *Isicles* commonly hanging at the ends of our *Rafters* upon every weeping Shower, whereas *Triglyphi* import only the *Projectures* of the *Beams* and
Timbers

Timbers nothing so much exposed : But this I leave to the more judicious : Whilst as to their Shape, they should be square under the *Corona* at double their Breadth the Interval, and just over the middle of the *Columns*, how otherwise used, see in *Tympanum*, *Mutules*.

Mutules quasi μωτιλιαι (a kind of *Modillions* also, or rather the same under an *Italian* term) have their Name from their Defect, as being made thinner, and more abated below than above, and therefore naturally and discreetly destined to Places where they are but little burthened with Weight, as here under that little remainder of the *Cornice*, are to bear up, little *Statues*, *Busts*, *Vasas*, &c. and so where they are set under the *Pedaments* and *Lintels* of *Doors* and *Windows* : Most preposterous therefore and improper is our frequent assigning such weak Supporters to such monstrous *Fetties* and excessive *Superstructures* as we many times find under *Balconies*, *Bay-Windows* and long *Galleries* ; where instead of *Mutules* the *Ancients* would have placed some stout Order of *Columns* : But by these unreasonable *Projectures* (obscuring the Lights of the Rooms under them) it comes to pass, that in time our strongest Houses are destroyed, and drawn to their irrecoverable Ruin. For the Proportion of *Mutules*, I commonly find them a Fourth Part higher than their Breadth, their *Intervals* being as wide as two ; but neither do I find these so constantly regular, only that there be ever one placed at the *Corners* and returns of the *Corona* ; and then if they interchangeably differ as to the Spaces, and as the *Rafters* direct, there are Examples abundant for their Justification : After all, they little differ from *Modillions*, save that they are most proper to the *Doric Cornice*, representing and covering the Ends of the *Rafters*, whereas *Modillion* serves for any Order.

I shall not need to define what is meant by *Projectures*, when I have said it is the same our *English* Authors call the *Sailings* over and *Out-Jetings* of any *Moulding* beyond the upright Wall : The *Italians* name them *Sporti*, the *Greeks* *Echphoras*, and for the same Reason all *Margins* whatsoever which hang over beyond the *Scapus* of a *Column* are *Projectures* ; and for a general Rule it should be equal to the Breadth of what projects, relation being discreetly had to the Height which best determines it.

Corona is next the last considerable Member remaining of the intire *Entablature*, and (tho' but a part only of the *Cornice*) seems indeed to set the *Crown* upon the whole Work : I say *Considerable*, because being regularly placed so near the uppermost *Ovolo*, or *Mutules*, it serves to defend all the rest of the *Edifice* from the *Rain* and *Injuries* of the *Weather*, and therefore has its *Projectures* accordingly, and should be one of the strongest square Members of the *Cornice* : It is sometimes taken for the intire *Cornix* or *Cornice* with all its *Ornaments*, but strictly, for that part of it above the *Modillions*, *Ovolo*, *Echinus*, or *O-gee* by a turn under the *Planceere*. We find the *Corona* omitted and quite left out of that stately *Arco di Leoni*, but it is worthily reprov'd by our *Author* of the *Parallel*, as being a Member of indispensable use.

Supercilium. is by some called *Supercilium*, but rather I conceive *Stillicidium* the Drip (*Corona elycollata Vite*) and with more Reason, so the *French Larmier*, *Gocciolatoio* and *Ventale* by the *Italians*, to denote its double Office of protecting both from *Water* and *Wind*: For this reason likewise have our *Latin Authors* named this broad *Plinth*, *Mentum a Chin*; because it carries off the Wet from falling on the rest of the *Entablature*, as the Prominency of that part in *Mens Faces* keeps the Sweat of the Brows, and other liquid Distillations, from trickling into the *Neck*; and in imitation hereof the ancient *Potters* invented the brimming of their *Vessels*, by turning over some of the Ductile Matter when the *Work* was on the *Wheel*. Sometimes there have been two *Coronas* in a *Cornice*, as in that *Corinthian Instance* of the *Rotunda*; and so it is frequently used in the *Stylobata* under *Gula Inversa*; and truly it may be justly repeated, as the Exposure and Occasion requires, so it be not too near one another, all *Projectures* being but a kind of *Corona* to the subjacent Members; and therefore their *Projectures* are accordingly to be assigned, and by no means be cut and divided to let in *Window*, or *Tables*: *Corona* is also taken for the interior and exterior *Curvature* of an *Arch* or *Vault*.

Planceeres.
Cofers.

The under part of the *Roofs* of *Coronas* (which are commonly wrought hollow, by sometimes, as we said, making part of the *Cymatium*) are by our *Artists* called *Planceeres*, and those the *Cofers* wherein are cut the *Roses*, *Pomgranades*, *Flowers* or *Frets*, which adorn the Spaces betwixt the Heads of the *Modillions* and *Mutules*. This *Ceiling* the *Italians* name *Soffito*, and it signifies not only that part of *Corona* which sallies over, but the *Lacunar*, *Lacus* or *Plain* of all other *Roofs* made of *Tabulations* and *Boards* appearing between the *Joists*, and which (as now, especially in other Countries) were also formerly *Gilded*, *Carved* and most magnificently embossed with *Frets* of wonderful *Relievo*; nay, sometimes to the Excess of *Inlayings* with *Ivory*, *Mosaique* and other rich and chargeable Works. *Pliny l. 35. cap. 11.* tells us of one *Pamphilius* the *Master* of *Apelles*, to have been the first which brought this *Roof-painting* into vogue: But I refer the Reader who thirsts after more of this, to the Learned *Salmasius* on *Solinus*, p. 1215. Nor is yet the *Corona* perpetually plain, as we commonly see it; sometimes, though rarely indeed, I find it *Carved* also, as in that incomparable *Composita* of *Titus's Arch*, and that of *Dioclesian's Baths* in the *Corinthian Order*, and as is indeed every individual Member of that intire *Entablature* to the utmost Excess of *Art*; but how far this may be imitable, consult the judicious *Parallel*; while it is yet considerable that it is there but with a kind of *Sulcus* or *Channel*, in imitation of *Triglyph*, or a short *Fluting* rather, being indeed more proper for the carrying off the *Water*, than any other *Work* could have been devised. *Corona* has over it a small *Regula*, or an *Inrichment* of some slight *Chaplet* in the *Corinthian*, &c. after which *Cymatium*, as in that of *Titus's Arch* before rehearsed; sometimes likewise with an *Ovolo* or *Echinus* cut with *Ovals* and *Darts* (or as we call them *Eggs* and *Ankers*) as in that Example of *Nero's Frontispiece*; and upon this again the double *Cymatium*, whereof
the

the first is inverted, and ever the *neathermost* and most narrow, the other *Recta*, very large and prominent, being now and then adorned with *Lions Heads* placed just opposite to the *Modillions* (of which see that curious Research of the Learned Dr. *Brown* in his *Vulgar Errors*) though sometimes they are adorned with *Foliage* only. Lastly, for a final *Entablature* or *Super-Imposition* (if I may be indulged so to name it) we are now climbed to the most supream *Projecture*, and ultimate part of the whole *Cornice*, namely the

Regula, which some make a part of the *Sima* or *Gula Recta*, by *Paladio* the *Intavolato*, and which I think to be the sole Member which I never remember to have seen any where Carved, but always Plain, though in some of the *Orders* of near eight *Minutes* in breadth. It is very true, that *Scotia* (which I now and then call *Cavetto* or small *Hollow*) does in some laudable Examples support this Member instead of *Cymatium*, but not so frequently; and that the *Tuscan Cornice* terminates in a *Cymatium* without this *Regula*, or rather in an *Ovolo*, as in those Examples after *Sebastian*, *Serlio*, &c. but it is not after a true *Gusto*, and the Fancy is particular. *Regula*, called also *Listello*, *Cincta*, &c. (of which something already hath been spoken) is always that *Supercilium* or superior Member of the *Cornice*, though it be likewise taken for that which is by some called *Quadra*, being those two Lists commonly including *Scotia*, as we find it in the *Ionic Spira*, both above and beneath: Sometimes also it signifies the *Rings* or small *Feruls* be-girring the *Scapus* of a *Column* near the *Apophyges*, or the *Plinth* of a *Pedestal*: Therefore I distinguish them, though yet they may be accounted the same, seeing they usually import any small plain *Fillet* dividing greater Members; for so *Philander* calls almost all simple parts broader or narrower, which like *Fillets* encompass the rest; or rather as *Scycis*, separates the Members from Contiguity, both for Variety and Distinction, as in the *Doric Trabeation*, *Regula*, *Sima*, *Cymatium*, &c. In the *Capital*, *Regula*, *Cymatium*, *Plinthus*: In the *Cornice* of the *Stylobata* also *Regula*, *Cymatium*, *Astragalus*: But where it is no less conspicuous, is in that part of the *Triglyph*, which jets out under the *Taniae*, and from which the *Guttae* depend, where it seems to be a part of the very *Architrave* itself. Lastly, before I altogether leave the *Cornice* (which is indeed the top of all, and may be called the *Crown* of the *Corona* itself) it may not be amiss to add this short Note, for *Joiners* and such as make *Cornices* of *Wainscot*, or *Fret Work*, concerning the *Projectures*, which having relation to the Height, an Inch allowed to every Foot suffices for a Room of 15 Foot pitch, which is one Foot three Inches, where there is *Freeze* and *Cornice*, if much higher, and that there be the whole *Entablature*, each shall require a tenth part. To conclude, the very meanest Building, *Farm*, or *Out-house*, deserves a Moulding, *Cornice* with a *quarter round* or *Ovolo*, a *Cymatium* and *Fillet*.

And may thus much suffice to have been spoken of the *Cornice* or *Trabeatio*, upper Member of the *Trabeation*, which we mean by the *Entablature*; for

for both these Terms signify but one and the same thing, viz. The *Architrave*, *Freeze*, and *Cornice*: which I therefore the more precisely note, because some Writers apply it only to the very Cover and upmost Top of the *Orders*; but so does not our Country-man *John Shute* whose Book being printed Anno 1584, and one of the first that was published of *Architecture* in the *English* Tongue, keeps rather to the Ancient Terms, than by mixing them with such barbarous ones as were afterwards introduced, indanger the Confusion of Young Students, and such as applied themselves to the Art. Finally, to reform another Mistake, I think good to note that where we find *Coronix* in our Authors, it is rather meant for all that *Moulding* projecting over the Dye or square of the *Pedestal*, by some called also *Cima*, than this conclusive superior Member of the *Entablature* which we name the *Cornice*. But I have done, nor needs there more be added for the perfect Intelligence of the most minute Member and Ornament mentioned in this Parallel, or, as I conceive, in any other Author whatsoever treating concerning this Art, and naturally applicable to the Order, by which we are all along to understand certain Rules and Members agreed on for the Proportions and Differences of Columns, the Characters, Figures and Ornaments belonging to every Part and Member, whether bigger or lesser, plain or enrich'd; or as others, a regular Arrangement of the principal and constituent Parts of a Column, from whence there results that Composition which gives it Usefulness with Grace and Beauty. This for consisting then of the several Shapes and Measures, obliges us to say something more of Proportion, as being indeed the very Foundation of Architecture itself; rising, as we shew, from the Representation of natural Things: Nor is it in this Art only applicable to the Dispositions and Kinds of those Edifices (which we have already spoken of) but to every individual Member of an Order, which *Vitruvius* will have taken from the regular Dimensions and Proportions of the Parts of the *Humane* Body, in relation to any one moderate Measure of the same Body, differently multiplied in several Parts: As for Instance, the Head for an eighth part of the whole; twice from the point of one Shoulder to the other Extream, &c. twice in the Arm; four times from the Hip downwards, &c. Or as *Albert Durer*, by multiplying the Face from the bottom of the Chin, to the upper part of the Forehead, reckons the whole Length to be ten, & sic de cæteris; according to which the Diameter of a Column shall be ten times in the Height of the *Corinthian*; the *Intercolumnation Eustyle*, two and a quarter, &c. of which let the curious consult our learned Master Interpreter, lib. 3. cap. 1. where he discourses of positive and unalterable Establishments; whilst that which we mean by Proportion here, is the Scale by which all the Parts are regulated as to their just Measures and Projectures; and this has by Artists been called the

Modulus. Modul, or as *Vitruvius* (and some will have it) *Ordonation*; explained by *Modica commoditas*, to be taken for the Parts or Quantities by which the several Members of an Order are calculated and adjusted in their Composition.

position. In the mean time to avoid all Uncertainties and Perplexity of Measures differing in most Countries, some dividing into more, others into fewer Parts, to the great Ease of both Architects and Workmen; by * Modules is to be understood the Diameter or Semidiameter of a Column of whatever Order, taken from the Rise of the Shaft or Superior Member of the Base, namely, at the thickest, and most inferior Part of the Cylinder, from whence Monsieur de Chambray (following Palladio and Scamozzi) taking the Semidiameter divided into 30 equal Parts or Minutes, make it to be the Universal Scale: Now tho' Architects generally measure by the whole Diameter excepting only in the Doric, which they reckon by the half, it makes no alteration here, so as the Workman may take which he pleases. We proceed next to the Orders themselves: Nor let it be thought a needless Repetition, if having given the Learner, for to such I only speak, so minute and full a Description of all those Parts and Members whereof the several Orders are composed and distinguished, I go on to shew how they are put together in Work by what they have in common, or peculiar to denominate the Species, and bring the hitherto scattered and dispersed Limbs into their respective Bodies.

* Note, that to distinguish it from Model, by which is signified the Type, or Geometrical Representation of a Building, this is to be read with the fifth Vowel, that by the Second.

We have already shewed (speaking of Capitals) that a Column, which is strictly the naked Post or Cylinder only, does not assume the Name and Dignity of any Order, till compleatly qualified with those Parts and Accessories, which give it Name, Pre-eminence and Rank; but being so distinguished, they are to Architects what the several Modes are in Musick, and the Carminum genere among the Poets: All Buildings whatsoever coming properly under the Regiment of some one or other of them, or at least ought to do, and they are Five (according to the Vulgar Account) namely, Tuscan, Doric, Ionic, Corinthian and Composita. But since the First and Last of these are not admitted by our great Masters as Legitimate Orders (to which indeed the ancient Greeks claim only Title) we might with Vitruvius, and our Author of the Parallel, leave them to bring up the Rear, did not Custom, as we said, and common Use sufficiently justify our assigning this Place for the

Tuscan, Rustic, or by whatever Name dignified or disgraced; for being seldom found in the ancient Fabrics of the Romans themselves, by which Name it is also called; it seems yet to challenge some regard from its resemblance to those plain and simple Rudiments of those primitive Buildings, where they laid a Beam on the top of two forked Posts, newly cut and brought out of the Forest, to support that which gave Covering and Shade to the first Architects, such as they were, and we have described; till Time and Experience, which mature and perfect all things, brought it into better Form and Shape; when the Asiatic, Lydians, who are said first to have Peopled Italy, brought it into that part of it, called Tuscany: Nor let it altogether be despis'd because of its native Plainness, which rarely admits it into Buildings where Ornament its expected, since besides its Strength and Sufficiency

(which might commute for its want of other Beauty, and give place at the Ports and Entrances of great Cities, Munitions, Magazines, Amphitheatres, Bridges, Prisons, &c. that require Strength and Solidity) we find it capable also of such illustrious and majestic Decorations as may challenge all the *Grecian Orders* to shew any thing approaching it, so long as those three famous *Columns*, those of *Trajan* and *Antoninus's* at *Rome*, and a third of *Theodosius's* at *Constantinople*, stand yet triumphant, and braving so many Thousands of the other *Orders* which lie prostrate, buried in their Dust and Ruins. Nor is this the first Example, as some pretend, as appears by that ancient *Pillar* erected to *Valerius Maximus*, surnamed *Corvinus*; on which was placed a *Raven*, in Memory of what happened in the famous *Duel* between that *Hero* and the *Gygantic Gaul*: Thus whilst the rest of the *Orders* are assisted to support their Charge and heavy Burdens by their Fellows, and a Conjugation of *Entablature*, not allowed to this, the *Tuscan* stands alone like an *Island* steady, and as immoveable as a *Rock*.

This *Column* with its *Base* and *Capital*, is in Length seven *Diameters*, taken at the thickest part of the *Shaft* below; the *Pedestal* one; the *Base* one *Module*, or half *Diameter*, which divided into two equal parts, one shall be the *Plinth*, the other for the *Torus* and *Cincture*, which being but a fourth part of the breadth in this *Order*, only makes a part of the *Base* (peculiar to itself alone) as in the other it does of the *Shaft* itself.

The *Capital* is one *Module*, which divided into three equal parts, one shall be for the *Abacus*, the other the *Ovolo*, the third parted into seven, whereof one is the *List*, and the remaining six for the *Column*. The lower *Astragal* is double the height of the *List* under the *Ovolo*. Note, That *Vitruvius* makes no difference betwixt the *Capital* of this *Order* from the *Doric*, as to *Proportions*, tho' *Artists* dispute it; who (as was said) allow it a *Semidiameter*.

Now, tho' they have not granted it any fix'd and certain *Entablature*, but chosen what they thought fit out of other *Orders*; yet they seldom give it less than a fourth part of the *Height* of the *Shaft*, like the *Doric*, which commonly, and very properly, supplies the place of the *Tuscan*, and that with a great deal of more *Grace*, where they stand in *Confort*, as in *Arches*, and the like: The *Distance*, or *Intercolumniation* of this *Order* sometimes amounting to four *Diameters*, sometimes requires an *Architrave* of *Timber*; or if of *Stone*, to be placed much nearer, unless (as we said) in *Vaulting* and *underground Work*, to which some almost wholly condemn it.

Doric.

The *Doric*, so named from *Dorus King* of *Achasis*, reported to have been the first who at *Argos* built and dedicated a *Temple* to *Juno* of this *Order*, is esteemed one of the most *Noble*, as well as the *First* of the *Greeks*, for its *masculine*, and, as *Scamozzi* calls it, *Herculean Aspect*, not for its *Height* and *Stature*, but its excellent *Proportion*, which fits it in all respects, and with advantage, for any *Work* where-

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in the *Tuscan* is made use of, and renders that Column (among the Learned) a Supernumerary, as well as the *Composita*.

The *Doric*, *Base* and *Capital*, challenges eight Diameters set alone; but not so many by one, in *Porticos* and *Mural Work*.

The *Capital* one *Module*, with its *Abacus*, *Ovolo*, *Annulets*, *Hypotrachelium*, *Astragal* and *List* beneath the *Capital*, making a part of the Shaft or Column.

The *Entablature* being more substantial than in the rest of the *Greek Orders*, requires a fourth part of the Height of the Columns; whereas the others have commonly but a fifth.

The *Architrave* one *Module*, composed but of a single *Fascia*, as best approved, though the modern sometimes add a second, with a *Tenia* or *Band* which crowns it.

The *Freeze* with its *List*, which separates it from the *Cornice*, is one *Module* $\frac{1}{4}$. The *Cornice* holds the same Proportion with this Note, That when the Column is above 7 Diameters, both *Freeze* and *Architrave* have their regulated Measure, one being of a single *Module*, the other being *Three Quarters*, and the remainder being a fourth part of the Column, is cast into the *Cornice*.

This Order had of Old no *Pedestal* at all, and indeed stands handsomely without it; but where it is used, *Palladio* allows it two Diameters and a third of the Column, and is often placed upon the *Attic-Base*; for anciently it had none: We find it sometimes *Fluted* with a short Edge without *Interstice*, as there is in other Orders: But that which is indeed the proper and genuine Character of the *Doric*, is (with very moderate Enrichment besides) the *Triglyph* and *Metop* in the *Freeze*, with *Gutta* in the *Architrave* beneath; the due Collocation and Placing of which often subjects our Architects to more difficulty than any other Accessory in the other Orders; because of the *Intercolumnation*, which obliges them to leave such a space betwixt two Columns, as may not be less than for one *Triglyph* to five, counting what falls just on the Head of the Columns; which if placed at the entrance of a Building, the distance must be for *Three*; which to adjust is not very easy, seeing the *Intercolumnation* ought to correspond with the distance of the Spaces of the *Triglyphs* and *Metops*; which point of Criticism is the Cause we often find them quite left out in this Order, which suits so well in the *Pycnostyle* and *Acrostyle*.

The *Ionic*, invented or introduced by *Ion*, sent by those of *Athens* *Ionica* with a Colony into that Part of *Greece* bearing his Name (and where he erected a Temple to *Diana*) consists of Proportions between the solid and manly *Doric* the delicate and more feminine *Corinthian*, from which it but little differs, save in the matron-like *Capital*: It contains Eighteen *Modules* or Nine *Diameters* (tho' by one less at first) together with the *Capital* and *Base*, which last was added to give it Stature.

The *Entablature* is allowed a fifth part of the height of the Column of which the *Base* takes one *Module* (with sometimes a small Moulding of twenty *Minutes*) the *Capital* very little exceeding a third: But

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its distinguishing *Characteristic* is the *Voluta*; concerning which sundry Architects have recommended their peculiar Methods for the tracing and turning that Ornament; especially *Vignola* and *Goldman*: The Famous *Mich. Angelo* had one after his own mode, and so others; but that which has been chiefly followed, is what *Philip d' L'Orme* contends to be of his own Invention.

This *Column* is *Fluted* with four and twenty *Plaits*; the *Spaces* or *Interstices* not sharp and edged like the *Doric* (which is allowed but twenty) tho' of the same depth, and hollow to about a third part downward, where they are convexly *staved*, and thence named *Radiant*, by some *Rudent*, tho' of old we find them *Fluted* the whole length: Thus as the *Capital* resembled the modest *Tresses* of a *Matron*, so did the *Fluting*, the *Folds* and *Plaits* of their *Garments*.

The *Pedestal* is of two *Diameters* and as many thirds: Several other *Observations* pretend to this *Order*, to render it elegant, which are left to the *Curious*, but these are the more essential.

Corinthian.

The *Corinthian* had her *Birth* from that luxurious *City*; tricked up and adorned like the wanton *Sex*, and is the *Pride* and *Top* of all the other *Orders*: For the rest it agrees with the *Proportion* of the *Ionic*, excepting only in the *Capital*: In a *Word*, it takes with its *Base* *Nine Diameters* and three *Quarters*, and sometimes *Ten*: if *Fluted*, with as many as the *Ionic*, half as deep as large; the *Listel* or *Space* between the *Groves*, a third of the *Depth*, yet not so precisely, but that according to the *Compass* and *Station* of the *Column*, the *Flutes* may be augmented to thirty and above.

Our modern *Architects* for the most part allow but one *fifth* of the *Height* of this *Column* to the *Entablature*, comprehending *Base* and *Capital*: I say for the most part; but in the noblest and most entire *Examples* of *Antiquity*, which is that of the *Roman Pantheon*, the *Entablature* is indeed somewhat deeper; but with this *Circumspection* to be imitated, that the *Fabric* to which it is applied be great and magnificent, as that famous *Temple* is, and which will depend on the *Judgment* of the *Architect*.

The *Capital* is of one *Diameter* or two *Modules* in height; the *Abacus* a *Sixth* or *Seventh* part of the *Diameter* taken at the bigger *End* of the *Column*, which is universally to be understood in the *Measure* of all the *Orders*: The rest shall be divided into *Three* equal parts; *One* for the first *Border* or *Toure* of *Leaves*; the other for a *Second*; the third part divided in *Two*, and of that which is next the *Abacus* the *Volutas* are formed, of the other the *Cauliculi*: The *Bell* or *Furst* under the *Leaves* resembling *Callimachus's Basket*, under which they are carved, fall exactly with the *Hollow* of the *Flutings*. In the mean time, there is no small *Inquiry* about the *Foliage* of what *Species* of *Thistle* the *Ancients* formed this florid *Ornament*; which is generally attributed to the *Branchæ Ursinæ*; but of a tender, more indented and flexible kind than the wild and prickly, which we see used in the *Gothic Buildings*; whilst the *Composita Capitals* stuck it with *Laurel* and *Olive Leaves*, emerg-

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ging out of the Vessel, with the *Voluta* above the *Echinus*, and, as *Palladio* would have it (especially of the *Olive*) the Sprigs placed from Five to Five like the Fingers of one's Hand, as becoming it better than *Four*, and commends some *Capitals* he had seen, whose *Cauliculi* were faced with oaken Leaves. Note, that the Scrolls seeming to be form'd out of the *Cauliculi*, the *Roses* in the middle of the *Abacus*, was sometimes by the Antients of the same breadth, which since they make to bend on the middle *Voluta*.

The *Base* of this Order is fifteen *Minutes* of a *Module*: The *Pedestal* requires a fourth part of the height of the *Columns*, and shall be divided into eight parts; one to the *Cymatium*; two for the *Base* (which is the *Attic*) the rest for the *Zoccole* or *Die*. And thus do the three *Greek Orders* represent those three Species of Building, the *Solid*, the *modest Mean*, and the *Delicate*, between the *simple Plain*, the *Gay* and *Wanton*, which are the *Latin Extreams*; whilst the *Gothic* is risen from the Corruption of them all. For after all, there's none has been more grossly abused, than this flourishing and noble Order, by such as with their *Impertinence*, have sometimes rendered it neither *Corinthian* nor *Composita*, which is the Fifth and Last.

The *Composita*, being the *Junior* of all the rest, and *Foreigner* to the *Greek*, is of a *Roman* Extraction, and therefore by some called *Italian*; and tho' not without sufficient *Insolence*, taking place of the *Corinthian*, between whom and the *Ionic* she is but a *Spawn* and *Mungrel*, as well as the *Tuscan*, and so reckoned among *Judicious Architects*, and by our *Master* himself, not so much as owned an *Order*, as not thinking it possible to invent a more noble and compleat than the *Corinthian*: They would fain, it seems, have one to bear the *Country's Name*, and that, as they insulted over and braved the rest of the *World*, should sit triumphant over the rest of the *Orders*, from whom they have plucked their fine and gawdy *Plumage* priding it over the *Corinthian*, from whom and the *Ionic*, she only differs one *Diameter* more in *Height*.

The *Capitals* four angular *Scrolls*, take up all that *Space*, which in the *Corinthian* is partly filled with the *Cauliculi* and *Stalks*, and now and then an *Eagle* or *Griphon* is found to nestle among the *Foliage* of which it has a *Series* of two *Rows*, and under the *Ovolo* the *Ionic* *Necklace*; whilst others affirm, that the variety of the *Capital* changes not the *Species*, which consists (as *Perault* will have it) in the length of the *Shaft* only; so as no body is to wonder at the prodigious *Licentiousness*, which some we find have run into, to gratify their *Ambition*. The *French* (of all the *Nations* under *Heaven* being the fondest of their own *Inventions*, how *extravagant* soever, and to impose them on all the *World* beside) call it, forsooth, the *Gallic Order*, and with a *Confidence* peculiar to themselves, to alter and change what, for almost *Two Thousand Years*, none has been so bold to attempt with that *Exorbitance*: For they have garnished this *Capital* with *Cocks-Feathers* and *Cocks-Combs* too among the *Flower-de-luces*, ridiculously enough; hanging the *Leaves* and *Stalks* about with the

Chains and Ribbons of the Orders of the St. Esprit and St. Michael, with its dangling Cockle-Shells; in Imitation doubtless of Xerxes's tying the Scarfs and Garters of his Concubines and Misses among the Boughs of the Famous Platan, whilst one would think we might be content with what the Romans have already set for a Pattern on those ancient Columns of this Order; as I am sure the Judicious Author of the *Parallel* would have been, who, contrary to the Genius of his Countrymen, had the greatest aversion to the least Innovation in this Profession; what, as we said, the Romans have left us being abundantly more graceful, and rather in excess: Wherefore by another nice distinction, this learned Commentator calls that the *Composita*, which keeps to its fixed Rules and stated Proportions; and that which others every Day invent, the *De Composit*, or, as his term is, *Compo-Composit*, and so sets it up for a Sixth Order. But to proceed.

The *Entablature* has by some been allowed a fourth Part of the Column, but by *Palladio* only five, as to the *Corinthian*.

The *Base* is as the *Attic*, or a Compound of it and the *Ionic*. The *Pedestal* has a third of the Height of the Shaft: Not but that any of these Proportions so established (as sometimes, and upon just Occasion) may be varied according to the Quality and Grandeur of the Building, as to the enlarging or diminishing of a Member, if the judicious Architect see Cause, and to be more graceful, which is a good Rule in all such Cases in the other Orders; and for which *Vitruvius* gives excellent Precepts, as he likewise does to their Number and Placing in single or double Ranks, with their different Application, as whether close to the Wall, or to the Angle and Extremes, where, if *Insulat* and without touching, more thickness is allowable; since being surrounded by the Air only, it is made to appear so much the slenderer, as that some which have been found but of seven *Diameters* only, have become their Stations better than if they had held their intire Dimensions. There now remains the

Caryatides.

Caryatides, of which, and of the *Persian*, we have an ample Account in the *Parallel* out of *Vitruvius*, introduced as a Mark of Triumph over the *Caryans* of *Peloponnesus*; whom the *Greeks* having vanquished with their Confederates, they caused the Images and Resemblances of both Sexes and Nations (as *Slaves*, *Atlantes*, and *Talamones*) to be placed and stand under massy Weight and Superstructure instead of Columns: The *Women* to signify those of *Carya*, whom they only spared; and the *Men* as *Captive Persians*, which gave Denomination to the Order, if at least they may be called so for distinction sake only; since they differ in nothing either of Height, Substance, or *Entablament* from the Feminine *Ionic*, and Masculine *Doric*: But how or where they had originally been employed in any remarkable Building, is not so perspicuous, from any ancient *Vestigia* at present remaining; but as they seem most properly to be placed at Entrances, and before *Arches* and *Porticos* instead of *Pillasters*, so doubtless they gave occasion to many *Gothic* Absurdities, and extravagant Postures of *Men*, *Monkeys*, *Satyrs*, &c. for the bearing

bearing up of *Cornices*, in place of *Mutuls*, and *Cartouzes*, to that shameful Impudence, as we see them not seldom in our very Churches.

There remain yet of *Columns* diverse other Sorts (to mention only the *Duilian*, *Rostral*, *Mural*, *Obsidional*, *Funeral*, *Astronomial*, and other Symbolical Monuments, which may upon some particular occasions have their Places) but no more that can honestly derive a legitimate Pedigree; for some are *Wreathed*, others *Spiral*, and the like: But as we meet them not in any approved Author, or ancient Fabric; so are they very sparingly to be made use of, if at all: Indeed the Famous Architect, *Cavalier Bernini*, has cast a set of these *Torsed Columns* of a vast height; twisted about again with Branches, among which are *Puti*, little *Angels*, *Pope Urban's Bees*, and other imbossed Sculptures, all of gilded *Copper*, to sustain the *Baldacchino* or sacred Canopy over the high *Altar* under the *Cupola* at *St. Peter's*, which are exceedingly magnificent: But it does not always succeed so well where it is practised: 'Tis yet reported that there was an ancient *Wreathed Column* found somewhere, wound about with a *Serpent*, as *Painters* represent the *Tree* in *Paradise*, taking nothing away from the straitness of the Shaft; for so the Ancients preferred the Solid and Substantial in all their Works, admitting nothing to bear any Weight that should seem in the least to plie, yield or shrink under it, as those sorts of *Columns* appear to do: But as the great *Masters*, and such as *Mich. Angelo*, &c. invented certain new *Corbells*, *Scrolls*, and *Modillions*, which were brought into use; so their Followers, animated by their Example (but with much less Judgment) have presumed to introduce sundry Baubles and trifling Decorations (as they fancy) in their Works; ambitious of being thought *Inventers*, to the great Reproach of this noble Study; so dangerous a thing it is to innovate either in Art or Government, when once the *Laws* and *Rules* are prudently settled and established, without great consideration and necessity: And therefore, tho' such *Devises* and *Inventions* may seem pretty in *Cabinet-Work*, *Tables*, *Frames* and other *Joyners-Work*, for Variety, to place *China-Dishes* upon; one would by no means encourage or admit them in great and noble Buildings. Lastly,

As to the *Placing* of the *Orders* and *Stations* of *Columns* in *Work*, the simplest, strongest, and most substantial, are ever to be assigned to support the weaker. The *Romans* indeed sometimes set the *Composita* above the *Corinthian*; but it was not approved of by the Judicious, nor in truth should they appear together in the same Building: Generally then, the *Rule* is this, to place the highest and richest *Order* over the more solid and plain, especially where they are to decorate the *Face* and *Fronts* of Buildings, consisting of two or three Stages: But whether at all, or not, their *Proportions* should be changed or abated, is nicely disputed by our *Architects*, of which see *Monsieur Perault* on *Vitruvius*, *Lib. VII. Cap. 7.* speaking of *Scenes*; concluding, that it ought to be done very sparingly, and with great Consideration: In the mean time, *Columns* placed over *Arches*, produce this Inconvenience, that the *Arches* of any of the five *Orders*, if well proportioned
(suppose

(suppose for Instance, *Doric*) it will become defective in the *Ionic* and *Corinthian*, by Reason of the *Intercolumnation*; the distance hindring their Collocation so exactly over one another, as become them. There is after all, a *Lesser* sort of *Column* than any we have spoken of, which now and then we find placed over a much *Greater*, next the *Roof*, or rather a kind of *Pillaster* after the *Attic* Mode. To conclude,

The Position of double *Columns*, upon the same *Pedestal*, I find quite condemned by *M. Blondel* as intollerable, accounting it *licentious* ever among the *Ancients*; which, as great *Artists* do not always agree, *Monsieur Perault* as learnedly defends, and vindicates; and that one is not so precisely obliged to Rules and Examples, but that in some Cases, they may safely be departed from for the better; since it were to put a stop to the Improvements of all *Arts* and *Inventions* whatsoever, none of which were consummately perfect at the first; besides, that there is nothing *Positive* in the Case: However, as to this particular, the *Ancients* did frequently use to join *Columns*, two and two, very near to one another upon the same *Pedestal*, leaving a distance of two *Intercolumnations* in one; which tho' *Perault* holds to be a little *Gothic* and much affected by his Country-men the *French* (as they do all *Novelties*) so they would have it pass for a peculiar Manner of *Disposition*: The *Pseudostyle* is yet we find made use of by great *Architects*, and therefore to be refer'd to able Judges.

Notwithstanding, inasmuch as there do yet happen some *Superstructures* which both in *Works* and *Books* of this magnificent *Science* have likewise *Names* of doubtful Signification, and to satisfy all that may be farther desir'd for the rendring of this Undertaking more useful and instructive, I will in brief proceed to what is used to appear further in *Buildings*, where they did not flatten the *Roofs* and *Covers* of *Edifices*, and which, tho' certainly of all other the most graceful, is of *Necessity* alterable according to the *Climate*.

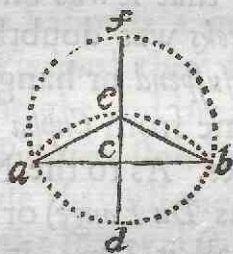
Those *Roofs* which exalted themselves above the *Cornices* had usually in *Face* a *Triangular Plain* or *Gabel* within the *Mouldings* (that when our *Workmen* make not so acute and pointed they call a *Pedament*) which the *Ancients* named

Tympanum.

Tympanum, but this is to be taken now and then for the whole *Frontispiece*, from the *Cornice* to the utmost part of the *Fastigium* or superior Angle of it, and is commonly circumscribed with the same *Cornice* that the subjacent *Order* is of. It is properly placed at the *Front* and *Entrance*, and over the *Porches*, *Windows*, *Niches*, &c. to protect them from the *Injuries* of the *Weather*; and therefore very impertinently broken, or flatted by some, which exposes all that is under to many *Inconveniencies*; nor should it be at all allowed, save where an absolute necessity of setting in sight (not otherwise to be had) pleads for it. Now tho' they are commonly made *Triangular*, we frequently find *Semi-circular* (or of some other *Section*) whereof the *Base* is the *Diameter*: Some again have a double *Tympanum*, as in that *Tuscan* Example described by *Perault*, *Vitr.* l. 3. where the standing out of the *Porch*

from

from the rest of the main Wall of a Temple of that Order, requires it; I say, before a Temple, since they were never made in the Fronts of any other Buildings; the Ancients Dwelling-Houses being generally flat at the top, *Julius Cæsar* being the first whom they indulged to raise his Palace in this *Fastigious* manner, as *Salmasius* tells us in *Solin*. I need not add, that the *Die* of a *Pedestal* and other flat and naked Parts in out-side Work and Pannels of *Wainscot*, is sometimes called *Tympana*; since it may be to better purpose, to give some Directions about the Proportion and Accessories belonging to it; it being much disputed; *Vitruvius* allowing neither of *Dentelli* or *Modilion*, but a simple *Cornice* only; tho we find them both very ornamentally applied; some affecting to place them according to the *Slope*, others perpendicular to the *Horizon*, and not to the *Cornice*, which they seem to support, as well as beautify; or rather to the Posture of the *Rafter-ends*, which they represent. We sometimes find *Dentelli* under the *Modilion*, but by none approved; a single Row of *Teeth*, or a plain *List* only, more becoming on those Occasions, as well as for the Height of the *Drum* or *Tympan* (by which some distinguish the *Round* from the *Pointed*, which they name *Frontons*) which some noble *Statue*, or *Bas-relieve*, may require a more than ordinary Elevation of: In the mean time, *D'Aviler's* Figure following may give some Direction to Workmen.



Divide the Line *ab* (which suppose the *Hypothenuse* of the *Base*) into two equal Parts at the Point *c*, let down the *Perpendicular* *fed* indefinite, in which *ed* being equal to *ab* from *d* as the Centre, describe the Arch *ae*, and where it intersects the *Perpendicular*, as at *e*, there shall be the *Fastigium*, or Point of the *Tympane*.

There are other Methods in *Serlio*, and the *Masters*; some *Isocele*, whose Angles opposite to the *Base* are more obtuse; others yet lower, and higher even to a full *Diameter*, as were those *Pliny* called *Plastæ*, for *Statues* and taller Figures, as also at the *Cima* or Point, and at each *Angle*, there stood of those smaller *Pedestals*, we spake of, for the placing of *Statues*, *Busts*, *Urns*, *Lamps* of *Fire*, *Pine-Cones*, *Bowles*, or the like *Ornaments*, and these *Stylobata* were called

Acroteria, from *ἀκρον* *summa pars*, we may properly name them *Pinacles*, for so *Pinnae* and *Battlements* were made sometimes more sharp, trowing or spiry, as pleased the Workman; but where they stood in *Ranges* (as not unfrequently) with *Rail* and *Balausters* upon flat Buildings, they still retained their Name, with this only Difference, that such as were placed between the *Angular* Points were like *Ranges* of *Pillars*, stiled the *Median* or middle *Acroteria*: For the most part a small

small *Die* without any *Base*, in Proportion somewhat less than the Breadth of the Neck of the *Column* (if there stand any directly under it) and equal in Height to the middle of the *Middle Tympane*; and that at the very *Fastigium* may be allowed an eighth Part more.

They did likewise sometimes cover (especially *Temples*, and such Magnificent and Sacred Buildings) with a *Cupola*, which is that *Dome* or *Hemispherical Concave* made in resemblance of the *Heavens*, and admitting the Light at the top *Center* or *Navil* only, without any *Lantern*, as is to be seen in that incomparable piece of the *Pantheon* yet extant: This is much in Vogue yet in *Italy*, and of late in *France*, especially at *Rome* and *Florence*, but it is commonly with the *Lantern* and other *Apertures* to let in Day without exposure to the Weather, as appears by that on the Summit of *Saint Peter's*; but it takes away, in my poor Judgment, something from the Solemnness, and natural Resemblance of the *other*, which yet are happily better to be endured in the more *Eastern Countries* where the Weather is constant; as we see it practised in what the pious *Helena* erected in the *Holy Land*, and her Son *Constantine the Great*, or rather, that at present, by the Emperor *Justinian*, (one *Anthemius* of *Trales*, and *Isidor* the *Miletan* being the Architects) upon that magnificent Structure of *Santa Sophia* yet remaining at *Constantinople*. and to this Day imitated by the *Turks* for the Covering of their *Mosques*; and that it was an *Oriental* Covering and Invention, the $\Theta\upsilon\lambda\omicron$ of the *Greeks* was doubtless derived from the *Hebrew* תְּהָלָה *Thala*, signifying to suspend or hang as it were in the *Air*; but the *Italian* Name seems to come from *Cuppa* a *Cyue*, or great *Washing-Bowl*, which it much resembles. As to the Name *Dome*, whether from the *Greek* $\delta\acute{o}\mu\omicron\alpha$, a *Covering* (as *Du Lange*) or as *Vossius*, *Domus*, I am not concerned; but when they call it *Dome*, it ever signifies the *Cathedral*; 'tis commonly erected over the middle of the Building where the *Isles* cross, and ought to be in Height half the *Diameter* of the *Church*, meaning the *Cuppa*, only (by some named the *Pyramis*) and not the *Lantern* or *Flos*, by Architects so called, from some *Flower* or like Ornament which was placed upon it: In the mean time, we find some of these Coverings in other Shapes, and *Multangular*, not exceeding *Eight*; but they are nothing so graceful as the *Dome-Spheroid*: Sometimes also they are made to let in greater Light by a sort of *Lucar* Windows; by which are meant those *Subtegularian* Windows that appear in our Roofs above the *Cornices*; of which some are square with *Pedaments*, others round or oval and *Oxe-eyed* as they term them, most accommodate to the *Cupola*, and had need have twice and an half the Height of Breadth, by Reason of the Distance, with circular *Frontoons*, whilst *Windows* in upright Walls ought not to be above a fifth Part less wide than those beneath them, which are ever to be even with the *Cornices* of the Ceiling: Anciently, *Windows* were open to the very *Floor*, or only closed with a *Ballustre* and *Rail*, much safer, and as commodious altogether to look into Streets or enjoy the Prospect as our late *Meniana* and *Balconies* are, which jettie

out,

out, and rest only upon Scrolls and *Mutules* for Reasons already mentioned. *Arched Vaults* in Cellars should have *Arched Aberture* and Windows.

Other *Accessories* and *Ornaments* are also used in Buildings, which I will only touch.

Niches, *quasi Nidi*, Nests of old *Concha*, are a kind of *Pluteus* or smaller *Tribunals* (as they are yet called in *Italy*) wherein *Statues* are placed to protect them from the down-right Injuries of the *Weather*, as well as for Ornament to plain and simple *Walls*: As to their regular Sections (tho' as we have already noted, there be nothing determined, one may allow them double; half, or quarter more of their Breadth, and half for the Cavity, whether circular or square: The rest suitable to the *Character* of the main Building, and Proportion of the *Statue* designed, and therefore in placing an *Hercules*, *Commodus*, or larger Figure, a *Rustic*, or *Doric* Work and Ornament would become them better than the *Corinthian* or *Composit* Delicacy, fitter for the less robust, and more effeminate, whether naked, as the *Greeks* *Statues*, or clad, as were the *Roman*: And so in respect to Situation; if low, or even to the *Area*, or much higher, the statelier and taller *Figures* should be placed in the lower *Niches*; the shorter, over those, and their *Niches*, thrice the Height of the Breadth, tho' the *Figure* exceed not that of the *Imposts*. Square *Niches* have a *third* of their Largeness in Depth, and twice the Height: When there happens a very large *Peere*, or Square (as sometimes between the *Windows*) they should observe the Proportion of the *Aperture* both for height and breadth, with suitable Decoration: But between *Columns* or *Pillasters* standing one upon the other, *Niches* are not so proper, because they fill the Spaces too much; and where more than one is placed, the Interval should be equal to their Breadth; and never to admit them at the *Coinces* of a Building, as frequently we see them abroad to inshrine some *Saint*, that the Image may be seen in several Streets: In a Word, the too thick, and frequent *Niches* becomes no Building, and are unsufferable where a *Cornice* is broken to let them into *Groups*, and *Assemblies* of more *Figures*, as the *Action* may require. The *Niche* is to be suited, and should begin at the Floor or Pavement, with *Plinth* or *Pedestal* higher than for a standing *Figure*, which is ever to be allowed the first: And if placed in a spacious Court or Garden, the *Pedestal* should be higher; so as the *Statue* may be viewed round about: As to farther Decoration, it were absurd to carve a *Mask*, *Satyr's* or *Lyon's* Head, as we sometimes see them upon the *Key-stone*; least *Standers-by*, take the *Statue* for some two-headed Monster; nothing more becoming it within, than the usual *Esculop*, whether wrought in the Stone or Plaster: Indeed *Niches* shew best without much Ornament, *Columns* or *Pillasters*; unless placed at the end of some long *Gallery*, *Portic*, *Vestibule* of *Church*, *Exchange* or *Courts* of *Justice*, &c. *Oval Niches* do handsomely for *Busts* and *Vasas*, if not set in too deep; and therefore may be allowed to stand on a *Scroll* or *Mutule*: Lastly, when *Niches* are made ve-

ry much larger and higher, beginning from the Pavement, they were called

Tribunal.

Tribunals, as of old it seems applied to all high and eminent Places, where the *Tribunes* of the People used to sit as Judges: We have a noble resemblance of *this* in that magnificent *Throne* described 1 Reg. x. 19. built by *Solomon*, which seems to me to have been such an ample *Nich*, in which a *Principal* Person might sit, as it were half *Canopied* over within the thickness of the Wall.

Relievo.

In Walls likewise did they insert many noble and most exquisite *Sculptures* and *Historical Fables*, half wrought up, *embossed* and swelling, and sometimes more than half, which *Eminences* they now call in *Italy* by the Name of *Basse*, and *Mezzo relievo*: These were sometimes wrought in *Marble*, as in that famous *Abacus* and *Stylobata*, yet extant, of *Trajan's Pillar*. Their ordinary placing was in the *Fronts* of *Edifices*, as is yet to be seen in diverse *Palaces* at *Rome*, and especially in their *Villas* and *Retirements* of *Pleasure*, which are frequently incrusted with them, but vilely imitated in our exposed *Fretworks* about *London*, to the *Reproach* of *Sculpture*, especially where it pretends to *Figures* on the outsides of our *Citizens Houses*. I well remember there was in one of the *Courts* of *Non-such*, several large *Squares* of *Historical Relieve* moulded off, or wrought in *Stucco* by no ill *Artist* (I think *Italian*) which, upon the *Demolition* of that *Royal Fabrick*, I hear have been translated, and ornamentally placed by the late most *Honourable Earl* of *Berkley*, at his delicious *Villa*, *Durdens* in *Surrey*, not far from *Non-such*; which is thus described by *Camden* (as lately published by the very learned *Mr. Gibson*) where, speaking of that *Kingly Palace*, he calls it *Magnificent* to so high a pitch of *Ostentation*, as one would think the whole *Art of Architects* were crowded into this *simple Work*: And then, as to the *Relievo* (which appears to have stood exposed there ever since the *Reign* of *Henry VIII*, who built the *House*) so many *Images to the Life*, upon the *Walls* thereof, so many *Wonders* of an accomplished *Workmanship*, as even vie with the *Remains* of *Roman Antiquity*. Indeed this sort of *Decoration* has of late been supplied by *Painting* in *Fresco*, and that by very able *Hands*, especially *Signor Varrio*, &c. as it is frequently in *Italy* by the most famous *Masters*; which I wish the *Inclemency* of our severer *Climate* were as favourable to as the *Work* deserves.

Ornaments, however gay and fine they appear to the *Eye*, and are in many *Cases* vere laudable and necessary, there is yet no small *Judgment* required, how, and when to place them appositely; so as they do not rather detract from the *Beauty* of the *Work*, than at all contribute to it. Now by *Ornament* we understand whatsoever of *Sculpture* and *Carving* is not of constant use, or absolutely necessary in all *Members*; such as *Frutages*, *Festoons*, *Chaplets*, *Wreaths* and other *Coronary Works*: *Frets*, *Guilloches*, *Modillions*, *Mutuls*, *Chartoches*, *Dentelli*, *Metops*, *Tryglyphs*, *Ovola*, *Pine-Cones*, *Niches*, *Statues*, *Busts*, *Relievos*, *Urns*, &c. In a *Word*, all sorts of *Mouldings*; *Vitruvius*, under the Name of *Ornament*, reckoning the whole *Entablature*; in which the *Frize* seems

seems to be the most proper Field for Decoration, as the most conspicuous place, and where, tho' the *Sculptor* shewed his Address and Invention, the Ancients (who spared nothing which might accomplish the publick Buildings) were not at all so lavish, in over-frequent and unnecessary Gayeties: Their *Temples*, *Amphitheatres*, *Circus's*, Courts of *Justice*, *Fora*, *Ports* and Entries of *Cities*, *Prisons*, *Bridges*, *Basilica*, *Royal Palaces*, and other Buildings of State, where grave and solid Structures void of those little *Membrets*, trifling *Mouldings*, and superfluous *Carvings*, which takes away from that Majestic and *Grand Manner* that most becomes them; reserving those richer *Accessories* and costly *Finishings*, for *Theatres*, *Triumphal Arches*, *Historical Columns*, and other ostentous *Pomps*: Nor even in these did they use them promiscuously, but with great Judgment, symbolical to the Subject and Occasion. And therefore those ancient Ornaments would not suit so properly with the Ages since, and may, I conceive, lawfully be changed, without Presumption or Injury to any essential Member: As if (for Instance) instead of *Sphinges* and *Griphons* placed before the Pagan *Temples* (Guardians of *Treasure* which was kept in those sacred Buildings) *Angels* should be set before our *Churches*; and in the *Doric Frizes*, instead of *Ox-Sculls*, the Priests *Secespita*, *Gutta*, *Acerra*, *Simpula* and other sacrificing Utensils, we changed them in our *Churches* (where that Order best befits them) into *Cherubs*, *Flaming Hearts*, *Books* laid open, the *Patin*, *Chalice*, *Mitre*, *Crosier*, &c. The Frontons of *Magazines* and *Publick Munitions* had the Sculps of *Antique Casks*, *Targets*, *Battle-Axes*, *Thunderbolts*, the *Battering-Ram*, *Catapults*, &c. which we may answer with our Modern Artillery of *Cannon*, *Bombs*, *Mortars*, *Drums*, *Trumpets* and other warlike Engines. And to their *Rostrum*, *Rudders*, *Anchors*, *Tridents*, *Scalops*, &c. the wonder-working *Nautic-Box*, with whatever else of Useful and Conspicuous has improved our *Navigation*. The *Tympan* before Courts of *Justice* may become her *Statue* sitting upon a *Cube*, with *Fasces*, *Axes* and other Emblems of *Magistracy*.

Thermae were adorned with *Jars*, *Ampullae*, *Strigils* in the *Frizes*. The *Mausolea*, *Urns*, *Lamps* and *Smoking Tapers*. *Hippodroms*, *Circus's* had the Statues of *Horses* on the Fronts, *Metæ Obolises*, &c. The *Publick Fountains* were seldom without the *River Gods*, *Nymphs*, *Naiades*, *Tritons*, *Hippopotoms*, *Crocodiles*, &c. *Theatres* were set out with *Mascara*, *Satyrs Heads*, *Mercury's Caduceus*, the Statues of *Apollo*, *Pegasus*, the *Muses*, little *Cupids* and *Genij*, *Laureat Busts*, &c. *Arches Triumphal* with *Relievo* of the *Conqueror's Expedition*, *Trophies*, *Spoils* and *Harness*, *Palms* and *Crowns*. And where *Tables* for *Inscriptions* were inserted to continue, or but only for a shorter time, as to celebrate some solemn *Entry*, a *Prince's Coronation*, *Royal Nuptials*, adorned with *Devises* and *Compartments* for *Pomp* and *Show*, the Contrivance was under the Direction of the *Architectus Scenicus*, and required a particular Talent and Address, *Poetic* and *Inventive*. In Sum, all Ornaments and Decorations in general, should be agreeable to the Subject, with due and just

Regard to the *Order*, which the *Ancients* religiously observed; tho' where (as we said) it was not absolutely essential; leaving out or putting in as they thought convenient; for, excepting the *Dress* and *Tire* of the *Ionica*, *Corinthian* and *Composita Capitals*, they were not obliged to charge the other Members with costly *Ornaments*; so as they frequently left out the *Metors* and *Tryglyph* in the *Frizes* of the *First* (as we have already noted) the *Dentelli*, *Ovolo* and quarter *Round*, in the *Grand Cornice* of the *Latter*, plain and without carving; neither did they often fill the *Pedestals* with *Relievo*, nor the *Staves* in the *Flutings*; and rarely ever allow the *Corona* any *Enrichment* at all, or so much as rounded; and were free to leave the *Doric Plancere* naked, or with simple *Gutta* only. They were careful not to multiply larger *Mouldings*, which sometimes they altered, and now and then would separate them with a smaller *List* or simple *Fillet*; sometimes using the carved *Astragal*, and at another, the plain; always leaving the *List* of the superior *Cornice* flat, to shew us, that the safest *Rule* to go by, is to follow the *Character* of each respective *Order*: And indeed how oddly would the *Tuscan* or *Doric* become the *Corinthian Coifure*, or the spruce and florid *Corinthian* a *Tuscan Entablature*. The same is to be considered in the *Key-Stone* of *Arches*; plain in the *Tuscan* and *Dorica*, with a moderate *Projecture*: The *Ionica* *Scroll* serving as a *Prothiredes*, on such *Occasions* may be richly flowered and carved in a *Corinthian* or *Composit* *Entrance*, and where they susquert *Tables* and *Mensulae* for some *Inscription*. *Roses*, *Lyons-Heads*, *Escalops* and other *Decorations* are allowable under the *Corona*, with this *Rule*, that whether here, or under any *Roof* or *Ceiling* interlacing *Fretts*, be ever made as *Right-Angles*. Lastly, as to *Poclie*, *Rails*, and *Balusters*, so to humour the *Order*, that the *Tuscan* be plain, but not too gouty, or too close to one another, or far asunder, that is, not exceeding twice the *Diameter* of the *Necks*; nor are they obliged to a constant *Shape*; for some swell below, others above; and some are made like *Termes*, all of them having their peculiar *Grace* and *Beauty*. What is said of *Tuscan* is to be understood of the rest; so as the *Corinthian* and *Composita* may be carved and enriched without any *Scruple*, for any thing that appears to the contrary among the *Ancients*, or our ablest *Masters*. To conclude, not only the *Roofs* of *Houses*, and their *Fronts*, had their *Adornments*, but the *Floors* also were inlaid with *Pavements* of the most precious *Materials*, as of several coloured *Stones* and *Woods*; and this they called

Emblema.

Emblema, continued to this Day by the *Italians* in their *Pietra Comessa*; of which the most magnificent and stupendious *Chapel* of *Saint Lawrence* at *Florence*, *Paul the First* at *Sancta Maria Maggiore* in *Rome*, are particular and amazing *Instances*, where not only the *Pavement*, but likewise all the *Walls* are most richly incrusted with all sorts of precious *Marbles*, *Serpentine*, *Porphirie*, *Ophitis*, *Achat*, *Rants*, *Coral*, *Cornelian*, *Lazuli*, &c. of which one may number near thirty sorts, cut and laid into a *Fonds* or *Ground* of *Black-Marble* (as our *Cabinet-Makers* do their variegated *Woods*) in the *Shape* of *Birds*, *Flowers*, *Landskips*, *Grotesks* and other

other *Compartiments*, most admirably polished, a glorious and everlasting Magnificence: But where it is made of lesser *Stones*, or rather morsels of them, assisted with small *Squares* of thick *Glass*, of which some are gilded, or cemented in the *Stuc* or *Plaster*, it is called *Mosaic-Work*, *Mosaic.* *opus Musivum*, and it does naturally represent the most curious and accurate sort of *Painting*, even to the *Life*, nor less durable than the former, as is most conspicuous in that *Front* of *St Mark's Church* at *Venice*, the *Nave* or *Ship* of *Giotto* under the *Cupola* of *Saint Peter's* at *Rome*, and the *Altar-piece* of *Saint Michael* near it: These are the *Tessellata* and *Vermiculata*, or *Pavimenta Osarota*, of the *Ancients*, which no *Age* or *Exposure* impairs, but of which I do not remember to have seen any publick *Work* in our *Country*. In the mean time, not to be forgotten are the *Floorings* of *Wood* which her Majesty the *Queen-Mother* has first brought into use in *England* at her *Palace* of *Somerset-House*, the like whereof I directed to be made in a *Bed-Chamber* at *Berkley-House*: the *French* call it *Parquetage*, a kind of *Segmentatam opus*, and which has some resemblance to these Magnificencies; because it is exceeding beautiful, and very lasting. And this puts me in mind of that most useful *Appendix* joined to *Mr. Richard's* late *Translation* of the first *Book* of *Palladio*, and those other *Pieces* of *la Muet* the *French Architect*, wherein, besides what he has published concerning these *Kinds* of *Timber-Floors*, &c. you have at the *Conclusion* of that *Treatise* a most accurate *Account* of their *Contignations* and *Timberings* of all sorts of *Stories*, *Roofings*, and other *Erections*, with their *Use*, *Scantlings* and proper *Names*, which, for being so perspicuously described, deserves our *Commendation* and *Encouragement*.

May this then suffice, not only for the *Interpretation* of the *Terms* affected to this *Noble Art*, but to justify the *Title*, and, in some measure, also for the *Instruction* and *Aid* of diverse *Builders*, on some *Occasions*, wherein they not seldom fail; especially in the *Country* (where, for the saving a little *Charge*, they seldom consult an experienced *Artist*, besides the *Neighbour Brick-layer* and *Carpenter*) 'till some more dextrous and able *Hand*, and at greater *Leisure*, oblige the *Publick*, and our *Country-Men*, with such a *Body* and *Course* of *Architecture*, as with others, *Monsieur Blondel*, *D'Avilar* (and *instar Omnium* the *Learned Perault*, by his *Version* and useful *Comments* on *Vitruvius*) have done for theirs.

Eum Architectum oportet usu esse peritum & solertem, qui demere aut adicere prescriptis velit.

J. E.

C O S I M O

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C O S I M O B A R T O L I

To the most Excellent *Architect* and *Sculptor*,

B A R T O L O M E O A M M A N T I.

Although I am perfectly assur'd (my most ingenious *Bartolomeo*) that You, who are so universally accomplished, and in particular, so skilful, and well versed in *Architecture* and *Sculpture* have no need of those *Rules* and *Precepts* which the most Judicious *Leon Baptista Alberti* has Publish'd concerning *Statues*; yet I easily perswaded my self that this Address of them to You, would not be a thing unacceptable, as being to a Person so well able to judge of that rare Fancy, and incomparable Worth of the said *Leon Baptista*, who in a time wherein little or nothing of *Sculpture* was known (all good *Arts* and *Sciences* being then in a manner annihilated and wholly extinct throughout *Italy*, by reason of the many Inundations of *Barbarians*) employ'd the utmost of his Abilities to open an easy and secure Way for our Youth; who tho' unexperienced themselves, delighted in this most noble *Art*; and to incite them to join diligent Practice with the Observation of sure and unerring Rules. No wonder therefore, if from that time forward such wonderful Progress has been made in this *Art*, as has brought it to that Perfection wherein it is seen flourishing at this Day: So as in this Age of ours, we have no need to envy those so much admired *Statues* of the most celebrated Sculptors of the ancient *Romans*, when we well consider what has been performed by our Countryman *Donato*, and not many Years since the divine *Michael Angelo Buonaroti*; as after him, by *Baccio Bandinelli*, *Benvenuto Cellini*; and lastly, by Yourself; whereof, that I may produce some Instances (besides those many *Statues* which are extant of all your Hands) proclaiming your singular Merits to the Admiration of all Men, there are to be seen in the *Piazza* of their *Highnesses* Royal Palace, the most beautiful *Judith*; the most stupendious *Colosso* of *David*, the robust and fierce *Hercules*; the most masterly handled *Perseus*, together with all his rare and curious Adornments; and which is indeed the greatest of all the rest, Your own *Neptune*, with the other three *Statues* accompanying it, cut out of one intire Piece of *Marble*, and fram'd with so magisterial a height of Art, as not only produces Wonder in all that attentively behold it, but does at it were wholly astonish them to contemplate the *Ingenuity*, the *Science*, the *Industry*, the *Diligence*, the *Affection*, and, in fine, the never to be sufficiently celebrated Skill of the *Artists*. Vouchsafe therefore that these (however impolish'd) Instructions, so much conducing to the Information of unexperienced Youth, be recommended to the publick View under Your Name and Protection; and as it has ever been Your Custom heretofore, love your *Friends*, among whom I conjure You to esteem me none of the least.

R

Farewell.

T O T H E
R E A D E R.

THere is no Man pretending to this Art, or indeed to any other whatsoever, who does not greedily embrace all that bears the Name of Leon Baptist Alberti, who was a Florentine Gentleman of illustrious Birth, great Learning, and extraordinary Abilities in all the politer Sciences, as he stands celebrated by Paulus Jovius, and for which he became so dear to that great Mecenas Lorenzo di Medici, who chose him, with Marfilus Ficinus, Christopherus Landinus, and other the most refined Wits of that Age, to entertain his Academic Retirements and Solitude of Camaldoli: You have an ample Catalogue of his learned Works, Latin and Italian, published at the End of his Life by Rafael du Fresne, that great French Virtuoso, together with the History of those many incomparable Structures designed and conducted by this rare Genius, extant at this Day in Florence, Mantua, Rimini, and other Cities of Italy; as being indeed one of the very first that polished the now almost utterly lost and extinguished Art of Architecture; in which how successfully he join'd Practice to Speculation, there are abundance of Examples, some whereof are wrought by his own Hands. He Composed three Books, De Pictura, full of incomparable Researches appertaining to that Noble Art: This of Statues was first Written in Latin, but it having never been my hap to find it (and I think it was never Printed) I made use of this Version out of the Italian, as it was long since Published by that Ingenious Person Cosimo Bartoli, and have subjoined it to this Discourse of Architecture, not only because they cannot well be separated, but for that the Author (being one of our Parallel) the Argument appeared so apposite and full of profitable Instruction to our Workmen, who for want of these or the like Rules, can neither securely Work after the Life, or their own Inventions, to the immense Disgrace of that Divine Art. This brief Account I thought fit to present thee, Reader, concerning this Piece of Alberti's, it being the very First of the Kind which ever spoke our Language.

J. EVELYN.

LEON BAPTISTA ALBERTI
OF
STATUES.

I Have often thought with myself that the several Arts, whereby Men at first industriously set themselves to express, and represent by Work of Hand, the Shapes and Similitudes of Bodies, springing from natural Procreation, took their Beginning from the accidental Observation of certain Lineaments either in *Wood*, or *Earth*, or some other sorts of Materials, by Nature so disposed, that by Altering or Inverting something or other in their Form, they appeared capable of being made to resemble the Figures and Shapes of Living Creatures; and thereupon having seriously considered and examined what Course was best to take, they began with utmost Diligence and Industry to try and make experiment, what was necessary to be added or taken away, or in any other kind performed, for the bringing of their Work to such Perfection as might cause it exactly to resemble the intended Form, appearing, as it were, the very same thing; ever marking as they wrought, to see if they had fail'd in any thing, and still mending as they found Occasion, sometimes the *Lines*, sometimes the *Superfices*, *Polishing* and *Repolishing*, 'till at length (not without much Pleasure and Satisfaction) they had accomplished their Desire: So that it is not a thing so much to be admired, that by frequent Practice in Works of this Nature, the *Fancies* and *Ingenuities* of Men have been from Time to Time improved, and advanced to that Height, that at last (without taking Notice of any rude *Draughts* in the Material they wrought upon, to help them in their intended *Designs*) they became able by their Skill to *design* and express upon it whatsoever Form they pleased, though in a different Manner, some one way and some another; forasmuch as all were not taught, or applied themselves to proceed by the same Rule or Method. The Course that many take to bring their intended *Figures* to Perfection, is both by adding to, and taking from the Material; and this is the way of those that work in *Wax*, *Plaster* or *Clay*, who are therefore termed *Maestri de stucco*, others proceed by taking away, and carving out of the Material that which is superfluous, whereby it comes to pass that they produce out of whatsoever Mass of *Marble*, the perfect Shape and Figure of a Man which was there hiddenly but potentially before; and those that work this way, we call *Sculptors*: next of Kin to whom are they that grave in *Seals* the Proportions of Faces, that before lay hid in the Matter out of which they were raised. The Third Sort is of those that perform their Work, by only adding to the Material; as
Silver-

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Silver-Smiths, who beating the *Silver* with Mallets, and distending it into thin *Plates* of what Fashion or Size they think fit, lay thereupon their *Superstructure*, adding and inlarging 'till they have fashioned and brought to Perfection their intended *Design*. And here perhaps some may imagine, that in the Number of this last Sort of Artists *Painters* are to be reckoned as those who proceed by way of adding, namely, by laying on of *Colours*; but to this they answer, that they do not strive so much to imitate those *Lights* and *Shadows* in Bodies which they discern by the Eye, by the adding or taking away of any thing, as by some other *Artifice* proper and peculiar to their way of Working: But of the *Painter* and his Art we shall take Occasion to speak elsewhere. Now, as to those several Kinds of *Designers* which we have here before mentioned, though they go several ways to work, nevertheless they all direct their Aims to this End, namely, that their Labours may appear to him that shall well observe them, as Natural, and as like the Life as may be: For the bringing of which to effect, it is most evident, that by how much the more exquisitely they follow some certain determined Rule or Method (which *Rule* we shall afterwards describe) so much the fewer *Defects* will they be guilty of, so much the fewer *Errors* commit, and in all manner of Accounts their Works will succeed and come off with the greater Advantage. What shall we say of *Carpenters*? What would they perform to any purpose, if it were not for the *Square*, the *Plummet*, the *Line*, the *Perpendicular*, and the *Compasses* for the making of *Circles*, and by the means of which Instruments they Design their *Angles* their *Streight Lines*, their *Levels*, and other their Proportions, thereby finishing and compleating all they take in Hand with the greater Exactness, and without which they would be able to do nothing substantially? Or can we rationally imagine, that the *Statuary* could perform such excellent and admirable Works by chance, rather than by the help of some certain and infallible *Rule* or *Guide*, drawn from *Reason* and *Experience*? Wherefore this we shall lay down for a *Maxim*; That from all *Arts* and *Sciences* whatsoever, there are drawn certain *Principles*, *Rules*, or natural *Conclusions*, which if we shall apply ourselves with all Care and Diligence to examine and make use of, we shall undoubtedly find the Benefit of, by the perfect Accomplishment of whatsoever we take in Hand: For as we were first instructed by Nature, that from those Lineaments which are found in pieces of Wood, Earth, Stone, or other Materials, may be drawn (as we said before) the Forms of whatsoever Body or Creature the Concourses of these Lines resemble; so also the same Nature has taught us certain Helps and Means, by which we are guided to proceed securely and regularly in what we undertake, and by the constant observing and use whereof we shall most easily, and with the greatest Advantage, arrive at the utmost perfection of the Art or Faculty we strive to attain. It now remains that we declare what those Helps are which Statuaries are chiefly to make use of; and because their Principal Part is to make one Thing to imitate and resemble another, it will be requisite to speak first of *Resemblance*, a Subject our Discourse might be abundantly Ample in, since Resemblance is a Thing so natural and obvious, that it offers itself to our View and Observation

variation in each visible Object ; not only every Animal, but even all things whatsoever, that are of the same Species, being in some respect or other correspondent and alike : On the other side, there are not in the whole Race of Mankind, any two to be found so exquisitely resembling each other, as not to differ some one Tittle in the Tone of the Voice, or the Fashion of the Nose, or of some other Part ; to which we may add, that those Persons whom having first beheld Infants, we come to see Children of some Growth, and afterwards at the Age of Manhood, if at length we meet them when grown Old, we shall find them so chang'd and alter'd by Time, that we shall not be able to know them ; for as much as the Aptitude and Position of those numerous Lines and Features in the Countenance still alters and varies from Time to Time, as Age comes on ; nevertheless, in the same Visage there remains a certain natural and peculiar Form, which maintains and keeps up the Resemblance inherent to the Species. But we shall wave these things, as belonging rather to a particular Discourse, and return to pursue what we first took in hand to treat of.

The Design and Intention of making Resemblances among *Statuaries*, I take to be twofold : The first is, that the Design or Work intended for the Resemblance of any sort of Creature (for example, suppose it a Man) be so framed, that it come as near in Similitude as may be to the said Species, without regarding whether it represent the Image of *Socrates* more than that of *Plato*, or any other known individual Person, since it is enough, that the Work resembles a Man in general. The other Intention proceeds farther, and aims not only at the representing the Likeness of *Man* in general, but of this or that particular *Man* ; as namely, of *Cæsar* or *Cato*, not omitting to describe the very Habit he wore, the Posture he affected, and the Action he used ; whether sitting in his Tribunal, or making Speeches to the People : It being the proper Business of those who addict themselves to this last Way of Representation, to imitate and express every Habit, Posture and Air peculiar to the Body of that known Person whom we intend to represent. Answerable to these two Intentions (that we may handle the Matter as briefly as is possible) there are especially required two Things ; that is to say, Proportion, and Limitation. In treating therefore of these Two Particulars, that which we have to do, is to declare, First, what they are : Besides which, I cannot but by the way, take Notice of the wonderful and almost incredible Effects which they produce ; insomuch, that whosoever shall be well instructed in them, shall be able, by the Help, of some certain infallible Marks, exactly to observe and point out the Lineaments, Situation and Positure of the Parts of any Body, though it were a Thousand Years after, so as not to fail to place it exactly at his Pleasure in the very same Direction and Posture it should have happen'd to have stood in before, and in such Sort, as there should not be the least Part of the said Body, which should not be reduced and resituated toward the very same Point of *Heaven* against which it was originally directed : As if, for Example, you would point out the Place with your Finger where the Star of *Mercury* or the *New Moon* would rise, and it should happen to

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rise

rise in a direct Angle overagainst the Point of the *Knee*, *Elbow*, *Finger*, or any other Part; most certain it is, that by these Means and Helps, all this may be done, and that so precisely, that there should not follow the least Failing or Error imaginable; nor need there any Doubt be made of the Certainty hereof. Besides this, suppose I should take one of the Statues of *Phidias*, and so cover it over with *Wax* or *Earth*, that none of the Work could be discern'd, and that it should appear to be only a meer shapeless Trunk, you might by these *Rules* and *Helps* certainly know how to find out in one Place, by boring with a Wimble, the *Pupil* of the *Eye*, without doing it any harm by touching it; and in another Place the *Navel*, and finally in another the *Great Toe*, and so other Parts in like manner; by which means you will gain a perfect Knowledge of all the Angles and Lines, whether far distant one from another, or nearly concurring together. You may also, beginning which way you will, and whether following the *Original* or the *Copy*, not only *Draw* or *Paint*, but also put down in *Writing*, the various Course of the *Lines*, the *Circumferences* of the *Circles*, the *Positions* of the *Parts*, in such sort, that by the aforesaid Helps and Means, you need not doubt the being able to produce with ease such another Figure, perfectly resembling, and of what Size you please, either less, or just of the same Magnitude, or of an hundred Fathoms in length; nay, I dare be bold to say, that were there but Instruments to be had, answerable to so great a Design, it were not only not impossible, but even no hard matter, to make one as big as the Mountain *Caucasus*; and that which perhaps you may most wonder at is, that according as the matter might be order'd, one half of this Statue might be made in the Island of *Pharos*, and the other half wrought and finish'd in the Mountains of *Carrara*, and that with such exact Correspondence, that the Jointures and Commissures of both Parts perfectly fitting each other, they may be united into one compleat Statue, resembling either the *Life*, or the *Copy* after which it shall have been figured. And for the performing of this so stupendious a Work, the *Manner* and *Method* will appear so easy, so perspicuous and expedite, that for my part I conceive it almost impossible for any to err, but those that shall industriously (to make trial of the Proof of this Assertion) work contrary to the *Rules* and *Method* enjoin'd. We do not hereby undertake to teach the Way of making all kind of Resemblances in Bodies, or the expressing of all those various Aspects which result from several differing and contrary *Passions* and *Affections*; since it is not the Thing which we profess to shew, how to represent the Countenance of *Hercules* when he combats with *Antæus*, with all the Height of Magnanimity and Fierceness which would be requisite upon such an Occasion; or casting an obliging, chearful and smiling Air, when he courts his *Deianira*; so as that the Countenance of the same *Hercules* should upon several Occasions be represented with as various Aspects: But our Purpose is rather to take Notice of all the different Figures and Postures that are incident to a Body from the diverse Situations, Gestures or Motions of the several Members or Parts thereof; forasmuch as the Proportion and outward Lines are one way terminated in a Body that stands upright,

another

another way in him that sits, another way in one that is lying down, another way in those that turn or incline themselves towards this or that Side; and so in like Manner, in all other Gestures and Motions of the Body, of which way of Representation our Intention is at this Time; that is to say, in what Manner, and by what certain and infallible Rules, these Gestures and various Dispositions of the Body may be imitated and represented; which Rules, as we said before, are reduced to two Principal Heads, namely, *Proportion* and *Limitation*: And first we shall treat of *Proportion*, which is indeed no other than a constant and certain Observation, by examining the just Number and Measures, what Habitude, Symmetry, and Correspondence all the Parts of the Body have one towards another, and that in respect of every Dimension of the Body, both as to *Length*, *Breadth*, and *Thicknes*.

This Observation is made by two sorts of Instruments, a large Ruler, and two movable Squares; with the Ruler we take the Lengths of the Parts, and with the Squares we take their Diameters, and all the other Proportions of the said Measures. Upon this Ruler then let there be a Line drawn of the Length of the Body which you would measure, that is to say, from the Crown of the Head to the Sole of the Foot: Whence note by the way, that to measure a Man of a short Stature, you are to use a shorter Ruler, and for one of a longer Stature, a longer Ruler: But whatsoever the Length of the Ruler be, it is to be divided into six equal Parts, which Parts we will name Feet, from whence we call it the Foot-Measure; and each of these Feet shall again be divided into ten equal Parts, which we may term Inches.

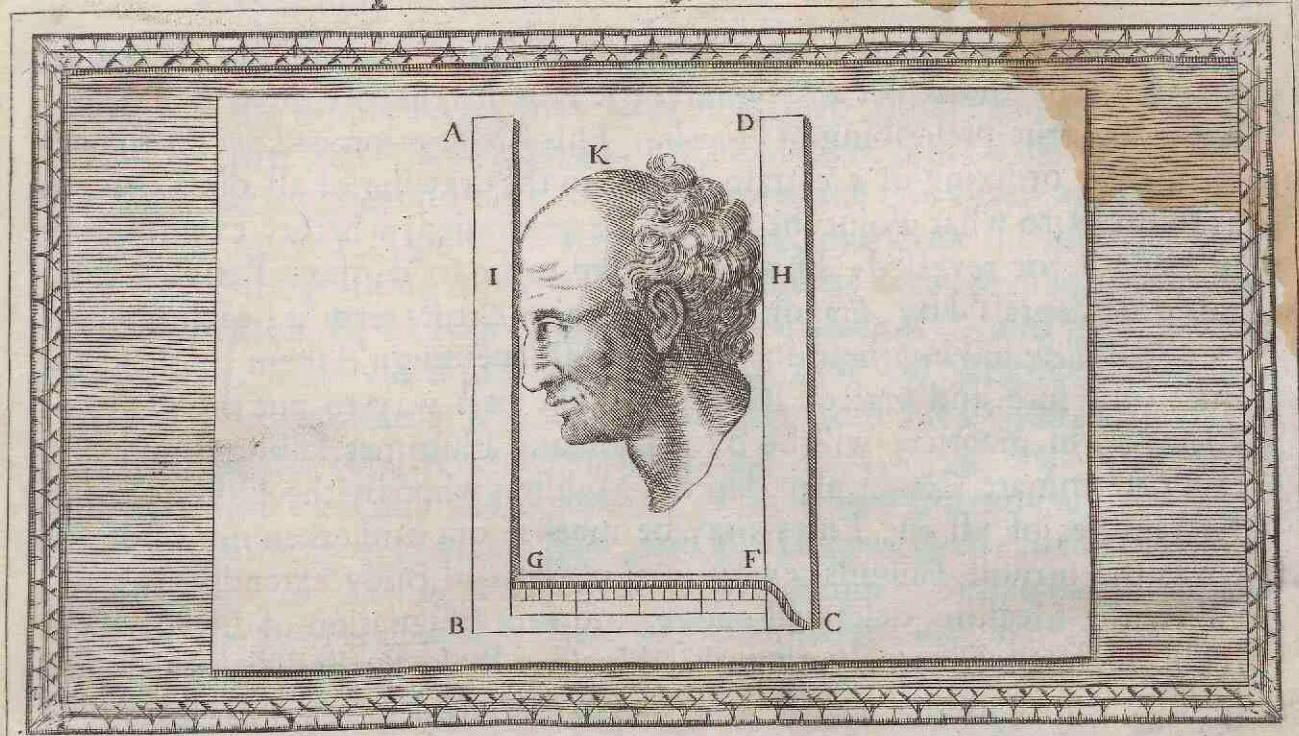
The whole Length therefore of this Model or Foot-measure will consist of 60 Inches; every one of which is again to be subdivided into 10 equal Parts, which lesser Parts I call Minutes; so that thro' this Division of our Measure into Feet, Inches, and Minutes, the Total of the Minutes will amount to the Number of 600, there being in each of the 6 Feet 100. Now, for the measuring of a Man's Body by this Instrument we are thus to proceed: Having divided our Ruler according to the aforesaid Manner, we are to measure and observe by the Application thereof the Distances of the Parts of the said Body; as for Instance, how high it may be from the Sole of the Foot to the Crown of the Head, or how far distant any one Member is from another: As, how many Inches and Minutes it may be from the Knee to the Navel, or to the Cannel Bone of the Throat and so in like manner any other Parts: Nor is this Course to be at all slighted or derided either by *Sculptors* or *Painters*, since it is a thing most profitable and absolutely necessary; forasmuch as the certain Measure of all the Parts being once known, we shall have gain'd a most easy and speedy Determination how to proceed in our Work with any of the said Parts or Members, without committing the least Error: Never think it a Matter worth Regard or Notice, if any capricious Humourist shall peradventure find Fault that this Member is too long, or that too short; since your Model or Foot-measure (which is the Rule that must always direct and govern your Work, and than which you cannot go by a more infallible Guide) will soon determine whether you have proceeded well or ill; and doubtless

doubtless when you shall have maturely considered and examined these Things, you will not be to seek in those infinite other Advantages wherein this Foot-measure will prove serviceable, especially in knowing how with absolute Certainty to limit and determine the Longitude of the Parts in a Statue of a greater Magnitude, as well as in one of a lesser.

So as if it should happen that you were to make a Statue of ten Cubits, or whatever other Dimension, it would be requisite to have your Ruler, Model, or Foot-measure likewise of ten Cubits, and divided into six equal Parts, which should have the same Correspondence one with another as those of the lesser Ruler: In like Manner should the Inches and Minutes be proportioned, whence also the Use and Manner of Working would be the same with the other; since half the Numbers of the greater have the same Proportion to the Whole intire, as half the Numbers of the lesser have to the Whole intire of the lesser. Wherefore, according as the Size of your Work happens to fall out, your Ruler is to be made proportionably.

We come next to treat of the Squares, which are to be two; the first of which shall be made after this Manner: Let two Rulers in the nature of streight Lines, *i.e.* A. B. and B. C. be joined together so as to make a Right Angle; the first Ruler, A. B. falling perpendicular, the other B. C. serving for the Base: The Bigness of these Squares is to be so ordered, that their Bases consist of at least fifteen Inches, according to the Proportion of your main Ruler, which, as we have said before, is to be made bigger, or lesser, answerable to the Proportion of the Body you would measure. These Inches, therefore, with their Points and Minutes (however they may fall out) being taken exactly from the said Ruler, you must set down upon your Base, beginning to reckon from the Point of the Angle B. and so proceeding on towards C.

The Square being thus marked and divided, as is to be seen in the Example A. B. C. there is to be adjoined unto it another Square made after the same Manner, according as it is demonstrated by the Letters D. F. G. so as that G. F. may serve both for streight Line and Base to both. Now to shew the Use of these Instruments, I undertake to measure the Diameter of the thickest part of the Head H. I. K. by bringing the two streight Rulers A. B. and D. F. of each Square exactly opposite to each other, to touch the two opposite Points of the thickest Part of the Head; and, by applying interchangeably to one and the same Level, the Base-Lines of the said Squares, by which means from the Points H. I. which are touched by the streight Rulers of the said Squares, we shall discover the exact Diameter of the Head.



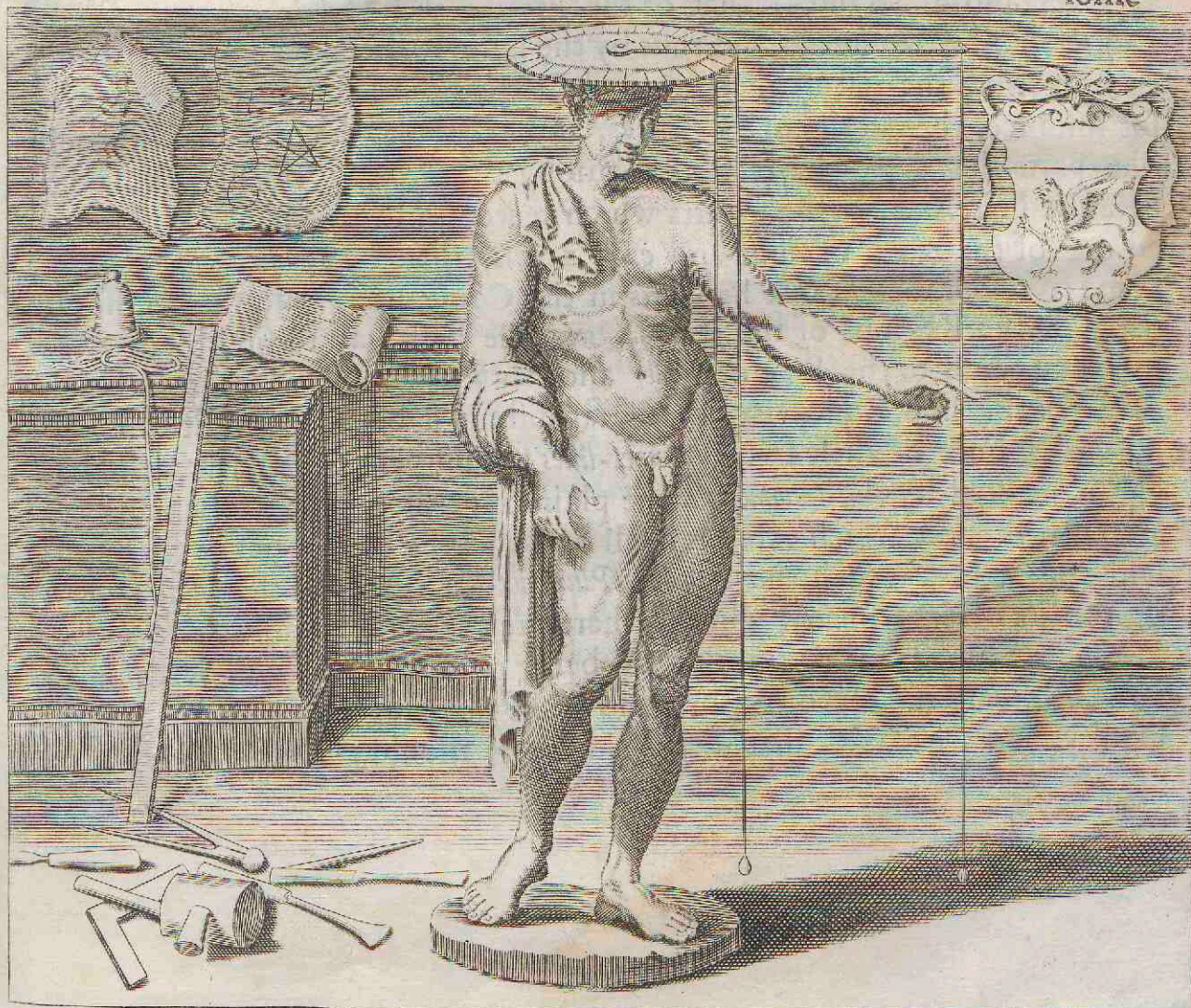
And after this manner, the Thickness and Bigness of any Part of the Body whatsoever may with great Ease and Accuracy be found out: Many Uses and Advantages we could reckon up, which might be made of this Ruler and these Squares, were it needful to insist now upon them; there being several other Ways, much after the same manner, which the meanest Capacity may of himself find out, for the measuring of the Diameter of any Part; as for example, suppose one would know how much the Diameter is from one Ear to the other, and whereabouts it intersects the other Diameter which passes from the Head to the *Nuca*, or the like. Lastly, our Workman may safely make use of this Ruler and these Squares as most faithful Guides and Counsellors, not only for the performing of any part of his Work, but also at the very first, and before he sets upon it, he will receive much Light by the help of these Instruments, how to begin and go about it; insomuch, that there will not be the least part of the Statue he is to make, which he will not before have examin'd and consider'd and render'd most easy and familiar to him. For example, Who but a very arrogant Person would take upon him to be a Master Shipwright, that had not the perfect Knowledge of all the several Parts of a Ship, and how one kind of Ship differs from another, and what those particular Parts are which belong to one Ship more than to another? And yet who is there of our Sculptors, let him be a Man never so subtil and experienced in his Art, who, if it should be demanded of him, upon what Ground or Consideration he has made this Member after this Manner, or what may be the Proportion of this or that Member to the whole Structure of the Body? I say, who is there so diligent and accurate to have well consider'd and observ'd all that is requisite, and which becomes that Person to know, who would perform as he should do the Art whereof he makes Profession? Whereas, doubtless, all Arts and Faculties are most advantageously learn'd by Rule and Method, and by the Knowledge of some demonstrable Operation that is to be perform'd: Nor shall any one attain to the Perfection of any Art whatsoever, who hath not first comprehend every several Part and Branch of the said Art. But thus having sufficiently

ciently treated of *Measure* and *Proportion*, and after what manner it is to be found out by the Ruler and Squares; it remains that we speak next of *Limitation*, or the prescribing of *Bounds*. This Prescription of *Limits* is the determining or fixing of a certain Period in the drawing of all our Lines, so as to direct to what Point they are to be continued, whether extended out in Length, or reversed; how Angles are to be fix'd; how Parts are to be rais'd or depress'd by *Alto*, or *Basso Relievo*, as Artists term it; each *Line*, *Angle* and *Relieve* having their due and certain Places assign'd them by the Conduct of a sure and perfect Rule: And the best way to put this Rule of *Limitation* in practice, will be by a Line and Plummet falling from a certain determinate Center placed in the Middle, whereby the Distances and Extremities of all the Lines may be marked out and taken notice of, as far as the utmost Bounds every way of the said Body extends: But between the Measure, described above, and this Assignment of *Limits*, there is this Difference, namely, that that Measure looks farther backward, and springs from a more native and original Consideration, as grounded upon more common and universal Principles, which are by Nature more firmly and substantially inherent in all Bodies; as the *Length*, *Largeness* and *Thicknes* of the Parts; whereas the prescribing of *Bounds* is grounded upon the present and accidental variety of Postures, resulting from the different Dispositions and Motions of the several Parts of the Body, shewing the Manner how to limit and fashion those Postures, according to the *Maxims* of Rule and Art.

Now, for the better Performance of this last Part of regular Operation, we shall recommend this following Instrument, which is to consist of three Parts or Branches; that is to say, an *Horizon*, a *Style*, and a *Plumb*: The *Horizon* is a *Plane* designed upon a Circle, which Circle is to be divided into equal Parts marked with their several Members, and their Subdivisions set over against each Part: The *Style* is a streight Ruler, one end whereof is fix'd in the Center of the said Circle, the other end moves about at pleasure, so as it may be easily transferred and directed from one Division of the Circle to another: The *Plumb*, or *Plummet*, is a Line or Thread which falls parallel from the Top of the *Style* down to the Floor or Plane, upon which the Statue or Figure stands, whose Members and Lineatures are to be measured and limited. For the Manner of making this Instrument, let it be thus; Take a Board well plained and smoothed, upon which let a Circle be drawn, having three Foot Diameter, and let the Extremity of the said Circle's Circumference be divided into equal parts, according as *Astrologers* divide their *Astrolabes*, which Parts we will call *Degrees*; and let every of these *Degrees* be subdivided again into as many other Parts as shall be thought fit; as for Example, suppose every *Degree* be subdivided into six lesser parts, which we may call *Minutes*; to all which *Degrees* adjoin the several Numbers, viz. 1. 2. 3. 4. with the rest in order, till the Numbers belonging to all the *Degrees* be set down. This Circle, thus made and ordered, we called the *Horizon*, to which we are to fit our moveable *Style*, being also to be made after this manner: Take a thin streight Ruler, three Foot in Length, and fasten one of the Ends thereof (with a Peg) to the Center of its *Horizon* or Circle in such a manner, that tho' the said End is not to be

be moved from the Center, yet the Peg that fastens it is so far to be relax'd that the whole Ruler may have liberty to move and play about from one part of the Circle to another, whilst the other Extream extends it self a good way beyond the Circumference of the said Circle about which it is to be moved: Upon this Ruler, or *Style*, mark out the Inches it is to contain, distinguishing them with severall Points between, after the manner of the Module, or Foot-measure, above-mention'd; and these Inches must also be subdivided into lesser equal Parts, as was likewise done in the foresaid Foot-measure; and then beginning from the Center, adjoyn to the Inches also their severall Numbers, viz. 1, 2, 3, 4, &c. Lastly, to this *Style* annex a Line and *Plummet*. This whole Instrument, thus describ'd, consisting of *Horizon*, *Ruler*, and *Plummet*, we shall call our *Defnitor*.

This *Defnitor* is to be made use of in this manner: Suppose the *Original*, or *Copy*, the Limits of whose Parts we would determine, were a Statue of *Phidias*, holding with the left Hand, on one Side of a *Chariot*, the Reins of a Horse's Bridle: This *Defnitor* is to be set upon the Head of the Statue in such sort, that it may lie exactly level upon the Plane of the Center, being placed just upon the very midst of the Head of the Statue, where it is to be made fast with a Peg: Then note that Point where it is fastned upon the Head of the Statue, and mark it, by setting up a Needle or Pin for the Center of the *Circle*: Next, by turning the Instrument about from the determined Place in the *Horizon*, make out the first designed Degree, so as you may know from whence it is moved: Which may best be done after this following manner: Bring about the moveable *Ruler*, which is the *Style* upon which the *Thread* and *Plummet* hangs, till it arrive at that Place of the *Horizon* where the first Degree of the *Horizon* is to be set down; and holding it fast there, turn it about together with the whole *Circle* thereof until the Line of the *Plummet* touch some principal Part of the *Statue*, that is to say,
some



some Member particularly noted above all the rest, as the Finger of the right Hand, or so.

Which may serve as the appointed Place from whence upon every new occasion the whole *Definitor* may be moved, and afterwards brought back again to the same place where it stood at first upon the said *Statue*; yet so, that by the turning of the *Style* about the Pin, which pierceth from the top of the Head of the *Statue* through the *Centre* of the *Definitor*, the *Plummet*, which before fell from the first Degree of the *Horizon*, may return to touch the foresaid Finger of the right Hand. These Things thus ordered and designed, suppose that we would take the Angle of the right Elbow, so as to keep the Knowledge of it in mind, or to write it down, the Way is as followeth: Fix the *Definitor* with its *Centre*, which is upon the Head of the *Statue*, in the place and manner aforesaid, in such sort, that the Plane whereon the *Horizon* is design'd, may stand firm and immoveable; then turn about the moveable *Style*, till the Line of the *Plummet* come to touch the left Elbow of the *Statue* which we would measure. But in the performing of this sort of Operation there are three Things to be observed, which will much conduce to our Purpose: The First is, that we mark how far the *Style* in the *Horizon* comes to be distant from the Place where it shall have been first moved, taking notice upon what Degree of the *Horizon* the *Style* lies, whether on the twentieth, thirtieth, or whatsoever other: Secondly, observe by the Inches and Minutes mark'd in the *Style*, how far distant the Elbow shall be from the *Centre* of the Circle. Lastly, take notice, by placing the Module or Foot-measure perpendicularly upon the Plane whereon the *Statue* stands, how many Inches and Minutes the said Elbow is raised above the said Plane, and write down these Measures in a Book or piece of Paper: For Example, thus, the Angle of the left Elbow is found in the *Horizon* to be 10 Degrees and 5 Minutes; in the *Style* or *Ruler* 7 Degrees and 3 Minutes; that of the *Plane* in the *Module* amounts to 40 Degrees and 4 Minutes: and thus by the same Rule may be measured and computed all the rest of the principal Parts of the said *Statue* or *Copy*: As for instance, the Angles of the Knees, and of the Shoulders, and other such like parts that are to be reckoned among the *Relievi*: But if you would measure *Concavities*, or those parts which recede inward, and are so removed out of the reach of sight and easy access, that the *Plummet-line* cannot come to touch them (as it happens in the *Concavities* beneath the Shoulders, in the Regions of the Reins, &c.) the best way to find them is as follows: Add to the *Style* or *Ruler* another *Plummet-line* which may reach as far as the said *Concavity*; how far distant it be from the first, is not material, since by these two *Plummet-lines* falling perpendicularly, and being intersected by the *Gnomon* of the plain Superficies above to which they are fastned, and which extends it self as far as the *Centre* of the *Statue*, it will appear how much the second *Plummet-line* is nearer than the first to the *Centre* of the *Definitor*, which is therefore called the middle *Perpendicular*.

These Things thus demonstrated, being once sufficiently understood, it will be an easy matter to comprehend what we before commended to your Observation; namely, that if the said *Statue* should chance to have been

covered

covered over to a certain thickness with *Wax* or *Earth*, you might yet by a Piercer, with great ease, readiness and certainty come to find out whatsoever Point or Term you would desire to find in the said Statue; for as much as it may be clearly demonstrated, that by the turning about of this *Gnomon*, the Level makes a circular Line like the Superficies of a *Cylinder*, with which sort of Figure the Statue so superinduced as aforesaid, seems to be inclosed and incircled: This Position established, you may safely infer, that as by making way through the Air (the Statue not being covered with *Wax* or *Earth*) you guide your Piercer directly towards the Point *T*, which, for Example's sake, we will suppose to be the *Relievo* of the *Chin*, by the same Reason, if the Statue were covered over with *Wax* or *Earth*, might you by boring through the said *Wax* or *Earth* attain the point aim'd at, the *Wax* or *Earth* possessing but the same place which otherwise the Air would have done. From what has been thus discoursed concerning these things, it may be concluded that the Effect we mentioned before concerning the making of one Half of the Statue in the Isle of *Pharos*, and finishing the other Half in the Mountains of *Carrara*, is a thing not only not impossible, but very easy to be performed: For let the said Statue or Model of *Phidias* be divided into two Segments, and suppose, for example, this Section of a plain Superficies be made in the Waiste or Girdling-place, doubtless by the assistance only of our *Definitor* it will be easy to mark out in the *Circle* of the Instrument whatsoever Points shall be thought fit, belonging to the divided Superficies. These things granted to be feasible, you shall not need to make any question of being able to find out at pleasure in the Model, any Part whatsoever you shall desire to find; and that only by drawing a small red Line in the *Model*, which serves instead of an Intersection of the Horizon, in the place where the Segment should terminate, if the Statue were divided; and the Points so mark'd will direct you the way how the Work may be finished: And in like manner may other things be done, as hath been said before. Finally, by the whole Discourse here made concerning all these Particulars, it is sufficiently evident, that all *Measures*, *Proportions*, and *Limitations* are to be taken, whether in the Life, or Copy, by a most certain and infallible Rule for the bringing of any Work to perfection in this Art; and we could wish that this way of proceeding were more seriously intended by all our *Painters* and *Sculptors*, since, if it were, they would soon come to find the extraordinary Benefit of it. But because all things are most illustrated by Example, and that the pains we have already taken in this matter may conduce to the greater advantage, we have thought fit to bestow yet a little farther Labour in describing the Measures of all the principal Parts in Man's Body; and not only the Parts of this or that particular Man, but as far as was possible, even the very Perfection of all beautiful and excellent *Proportions*; the several Parts whereof having observed in several humane Bodies, some excelling chiefly in this, some in that external Gift of Nature, we have thought material to set down in writing; following the Example of him, who being employed by the *Crotoniati* to make the Statue of their *Goddeß*, went about collecting from the most beautiful Virgins (whom, among many,

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he with great diligence searched out) those Proportions and handsome Features wherein each of them principally excelled, and apply'd them to his own Statue. Since much after the same manner, we having taken the Draught from those Bodies that of diverse others were judged, by the most Sagacious in this Inquiry, to be the most exactly built and composed, with all their several Measures and Proportions; and comparing them exactly together, to observe wherein they excelled, or were excelled each by the other, have made choice out of this variety of Models and Examples, of those middle Proportions which seemed to us most agreeable, and which we have here set down by the Lengths, Bignesses and Thicknesses of all the principal and most noted Parts; and in the first place the Lengths are these following.

<i>The Heights from the Ground.</i>	<i>Feet. Deg. Min.</i>
The greatest Height from the Ground to the Instep of the Foot.	0 3 0
The Height up to the Ankle-bone on the outside of the Leg.	0 2 2
The Height up to the Ankle-bone on the inside of the Leg.	0 3 1
The Height up to the Recess which is under the Calf of the Leg.	0 8 5
The Height up to the Recess which is under the <i>Relievo</i> of the Knee-bone within.	1 4 3
The Height up to the Muscle on the out-side of the Knee.	1 7 0
The Height up to the Buttocks and Testicles.	2 6 9
The Height up to the <i>Os Sacrum</i> .	3 0 0
The Height up to the Joint of the Hips.	3 1 1
The Height up to the Navel.	3 6 0
The Height up to the Waist.	3 7 9
The Height up to the Teats and Blade-bone of the Stomach.	4 3 5
The Height up to that Part of the Throat where the Weezle-pipe beginneth.	5 0 0
The Height up to the Knot of the Neck where the Head is set on.	5 1 0
The Height up to the Chin.	5 2 0
The Height up to the Ear.	5 5 0
The Height up to the Roots of the Hairs in the Forehead.	5 9 0
The Height up to the middle Finger of a Hand that hangs down.	2 3 0
The Height up to the Joint of the Wrist of the said Hand.	3 0 0
The Height up to the Joint of the Elbow of the said Hand.	3 8 5
The Height up to the highest Angle of the Shoulder.	5 1 8

The Amplitude or Largenesses of the Parts are measured from the Right Hand to the Left.

	Feet.	Deg.	Min.
The greatest Breadth of the Foot.	0	4	2
The greatest Breadth of the Heel.	0	2	3
The Breadth of the fullest Part beneath the Jettings out of the Ankle-bones.	0	2	4
The Recess or Falling-in above the Ankles.	0	1	5
The Recess of the Mid-leg under the Muscle or Calf.	0	2	5
The greatest Thickness of the Calf.	0	3	5
The Falling-in under the <i>Relievo</i> of the Knee-bone.	0	3	5
The greatest Breadth of the Knee-bone.	0	4	0
The Falling-in of the Thigh above the Knee.	0	3	5
The Breadth of the middle or biggest Part of the Thigh.	0	5	5
The greatest Breadth among the Muscles of the Joint of the Thigh.	1	1	1
The greatest Breadth between the two Flanks above the Joints of the Thigh.	0	0	0
The Breadth of the largest Part of the Breast beneath the Arm-pits.	1	1	5
The Breadth of the largest Part between the Shoulders.	1	5	0
The Breadth of the Neck.	0	0	0
The Breadth between the Checks.	0	4	8
The Breadth of the Palm of the Hand.	0	0	0

The Breadth and Thickness of the Arms differ according to the several Motions thereof, but the most common are these following.

The Breadth of the Arm at the Wrist.	0	2	3
The Breadth of the brawny Part of the Arm under the Elbow.	0	3	2
The Breadth of the brawny Part of the Arm above, between the Elbow and the Shoulder.	0	4	0

The Thickness from the Fore-Parts to the Hinder-Parts.

The Length from the great Toe to the Heel.	1	0	0
The Thickness from the Instep to the Angle or Corner of the Heel,	0	4	3
The Falling-in of the Instep.	0	3	0
From the Falling-in under the Calf to the Middle of the Shin.	0	3	6
The Out-side of the Calf of the Leg.	0	4	0
The Out-side of the Pan of the Knee.	0	4	0
The Thickness of the biggest Part of the Thigh.	0	6	0
From the Genitals to the highest rising of the Buttocks.	0	7	5
From the Navel to the Reins.	0	7	0
The Thickness of the Waist.	0	6	6
From the Teats to the highest Rising of the Reins of the Back.	0	7	5
From the Weezle-pipe to the Knot or Jointure of the Neck.	0	4	0

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From the Forehead to the hinder part of the Head.	o	6	4
From the Forehead to the Hole of the Ear.	o	o	o
The Thckness of the Arm at the Wrist of the Hand.	o	o	o
The Thickness of the Brawn of the Arm under the Elbow.	o	o	o
The Thickness of the Brawn of the Arm between the El- bow and the Shoulder.	o	o	o
The greatest Thickness of the Hand.	o	o	o
The Thickness of the Shoulders.	o	3	4

By means of these Measures it may be easily computed what Proportions all the Parts and Members of the Body have one by one to the whole Length of the Body; and what Agreement and Symmetry they have among themselves, as also how they vary or differ one from another; which Things we certainly conclude most profitable and fit to be known: Nor were it from the Purpose to particularize how the Parts vary and alter, according to the several Gestures incident to humane Bodies, as, whether they be fitting or inclining to this, or that Side: But we shall leave the more curious Disquisition into these Things, to the Diligence and Industry of our *Artist*: It would also be of very much conducement, to be well informed of the Number of the Bones, the Muscles, and Risings of the Nerves; and especially to know how, by certain Rules, to take the Circumferences of particular Divisions of Bodies separately considered from the rest, by an Inspection into those Parts which are not outwardly expos'd to Sight: In like manner as if a Cylinder should be cut down right through the Middle, so as out of that Part of the Cylinder which is visible throughout, there should be separated, by a circular Section through the whole Length of the Figures, an inward consimiliar Part, which was before unseen, so as to make of the same Cylinder two Bodies, whose Bases should be alike, and of the same Form, as being indeed wholly comprized within the same Lines and Circles throughout: By the Observation of which sort of Section is to be understood the Manner of Separation of the Parts and Bodies before intimated; forasmuch as the Design of the Line by which the Figure is terminated, and by which the visible Superficies is to be separated from that which lies hid from the Sight, is to be drawn just in the same manner; and this Design being delineated on a Wall, would represent such a figure as would be much like a Shadow projected thereupon from some interposing Light, and which should illuminate it from the same Point of the *Ayr*, where at first the Beholder's Eye was placed: But this kin of Division or Separation, and the Way of Designing Things after this Manner, belongs more properly to the *Painter* than the *Sculptor*, and in that Capacity we shall treat of them more largely elsewhere. Moreover, it is of main Concernment to whatsoever Person would be eminent in this Art, to know how far each *Relievo* or *Recess* of any Member whatsoever distant from some determined Position of Lines.

F I N I S.