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A

TREATISE

ON

Civil Architecture,

IN WHICH

The PRINCIPLES of that ART

Are laid down, and Illuſtrated by

A great Number of PLATES,

Accurately DESIGNED, and Elegantly ENGRAVED by the beſt HANDS.

BY

WILLIAM CHAMBERS,

Member of the Imperial Academy of Arts in Florence, and Architect to Their Royal Highneſſes

The Prince of WALES and Princeſs Dowager of WALES.

LONDON,

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M DCC LIX.

DUPLICATE
1937

TO THE

RIGHT HONOURABLE

JOHN EARL OF BUTE,

GROOM of the STOLE

TO

THE PRINCE,

This Book is humbly Dedicated

BY

His LORDSHIP'S

Moſt Obedient Servant,

WILLIAM CHAMBERS.

PREFACE.

AMONGST the various Arts cultivated by Men, ſome are calculated for the uſes of life, and adapted to ſupply our wants, or help our infirmities; ſome again are merely the inſtruments of luxury, being wholly contrived to flatter the vanity, or gratify the deſires of mankind: whilſt others are fitted to many purpoſes, contributing at the ſame time to the preſervation, the amuſement, and the grandeur of the human ſpecies.

ARCHITECTURE is of the latter kind; and, if conſidered in its whole extent, may be ſaid to have a ſhare in almoſt every convenience of life.

THE advantages ariſing to Society from Houſes, are alone very conſiderable; as they have an influence both on the body and mind: for in countries where Men live in woods, in caves, or in miſerable huts, expoſed to the inclemencies of ſeaſons, and under continual apprehenſions of heat, cold, tempeſts, rain, or ſnow, they are indolent, ſtupid, and abject; their faculties are benumbed, and all their views limited to the ſupplying their immediate wants: but in places where the inhabitants are provided with commodious dwellings, in which they may breathe a temperate air, amidſt the ſummer's heat and winter's cold; ſleep, when nature calls, at eaſe and in ſecurity; ſtudy unmoleſted, and taſte the ſweets of every ſocial enjoyment, we find them active, inventive, and enterpriſing, with bodies fit for labour, and minds turned to contemplation: Agriculture and Arts flouriſh among them, and they are plentifully provided with all the neceſſaries and conveniencies of life.

INVENTION facilitates labour; and what mere ſtrength and perſeverance obtains with difficulty, ingenious contrivances produce with eaſe, and in abundance. Hence domeſtic wants are conſtantly ſupplied, and ſtores provided for foreign markets.

Then Architecture prepares the way for Commerce: ſhe builds ſhips, with ports and piers for their reception and ſecurity; forms roads and cauſeways in marſhes, and other impracticable places; levels mountains; fills up vallies; throws bridges over deep and rapid rivers; turns the courſe of torrents; cuts canals; erects ſluices; and conquers every obſtacle that nature oppoſes to her progreſs; facilitating by theſe means the conveyance of Merchandize, and paſſage of travellers from one country to another.

COMMERCE brings wealth, and wealth introduces luxury. Pride and pleaſure give birth to a thouſand refinements; the greater part of which cannot ſubſiſt without the aſſiſtance of Architecture. Palaces, ſtately Dwelling-houſes, magnificent Temples, public Squares, Mauſoleums, triumphal Arches, and a number of ſimilar inventions, are all either neceſſary inſtruments of pleaſure, or ſtriking marks of preheminence. Nor is there any other branch of ſuperfluity ſo certainly productive of its deſign, ſo permanent in its effects, or ſo beneficial in its conſequences, as Building. Rich Furniture, magnificent Dreſſes, numerous Domeſtics, brilliant Equipages, and elegant Tables, are ſecondary objects of grandeur, which dazzle only vulgar capacities, and are no ſooner paſt than forgot: but the productions of Architecture are laſting monuments, command univerſal attention, and record to lateſt poſterity the greatneſs, wealth, dignity, virtues, and atchievements of thoſe they commemorate.

THE

THE immediate and the moſt obvious advantages of Building are its employing and maintaining the indigent, converting materials of ſmall value into the moſt ſtately productions of human skill, beautifying the face of a country, and multiplying the conveniences of life. But theſe, however great, are far from being the moſt conſiderable. The concourſe of ſtrangers, which is a certain conſequence of Building, and the numerous train of Manufactures that owe their birth to Architeure , being at firſt contrived and ſtill uſed to furniſh and adorn its productions, which occupy millions of perſons, and ſupply many lucrative branches of Commerce, are conſiderations of the utmoſt conſequence. The advantages of Building extend to the remoteſt ages, and at this day the very ruins of ANTIENT ROME in a great meaſure ſupport the preſent, by the numbers of travellers who viſit the remains of that famous city.

NOR is Architecture leſs dexterous in defending, than ingenious in beautifying countries. Riches and Grandeur are ſtrong incentives to invite the inroads of ambitious neighbours, or provoke the ravages of licentious banditti: but ſhips of war, batteries, fortified towns and paſſes, forts and citadels, controul diſturbers of domeſtick quiet, and fruſtrate the attempts of foreign powers.

THUS it appears that Architecture, by furniſhing Men with convenient habitations, procures them that eaſe of body, and vigour of mind, which are neceſſary for inventing and improving Arts; that when, by their induſtry or ingenuity, they have multiplied their productions ſo as to exceed domeſtick demands, ſhe ſupplies the means of tranſporting them to foreign markets; and when, by Commerce, Individuals or Communities are enriched, ſhe affords them a rational, noble, and benevolent method of enjoying their wealth, which will procure honour and pleaſure to themſelves and their deſcendants, dignity to the State, and profit both to their Contemporaries and to Poſterity. She farther teaches them to defend their properties, and to ſecure their liberties, lives, and fortunes, from the attempts of lawleſs rapine, and unbounded ambition.

AN Art ſo inſtrumental to the happineſs of Man, and ſo conducive to the wealth, fame, and ſecurity of kingdoms, naturally claims the protection and encouragement of good and wiſe Princes. In effect we find, that in all civilized Countries, and well-governed States, Architecture hath been attended to, and promoted with, the utmoſt aſſiduity. The progreſs of other Arts depends on that of Architecture. When Building is encouraged, Painting, Sculpture, Gardening, and all other decorative Arts flouriſh of courſe; and theſe have an influence on Manufactures, even on the minuteſt mechanic productions: for Deſign is of univerſal advantage, and ſtamps a value on the moſt trifling performances; the conſequences of which, to a trading people, are too obvious to require any illuſtration.

IT muſt not, however, be imagined, that Building, conſidered merely as heaping Stone upon Stone, can be of advantage, or reflect honour either on countries or particular perſons. Materials in Architecture are like words in Phraſeology; which ſingly have little or no power, and may be ſo arranged as to excite contempt; yet when combined with Art, and expreſſed with energy, they actuate the mind with unbounded ſway. A good Poet can move, even with homely language; and the artful diſpoſitions of an able Architect will give luſtre to the vileſt Materials, as the feeble efforts of an ignorant Pretender muſt render the moſt coſtly Enrichments deſpicable.

I HAVE hitherto conſidered Architecture under its different diviſions of Naval, Military, and Civil: I purpoſe, however, in the preſent Work to confine myſelf to the laſt of theſe Branches, as being of more general uſe; and ſhall endeavour to treat it in as accurate and ſatisfactory a manner as the nature of the Subject will permit; collecting from the Writings of others, or from my own Obſervations, whatever to me appears moſt intereſting, and propereſt to give a juſt and diſtinct Idea of this Noble Art.

IT is not natural to ſuppoſe, that ſo difficult and ſo extenſive a Science as Architecture could at once riſe from nothing to the height of perfection; or that the firſt Reſtorers of the antient manner of Building could immediately bring it to ſuch a degree of purity as to render it incapable of further improvement. With all poſſible reverence for the memory of thoſe illuſtrious Artiſts, it muſt be granted, that they have been guilty of many omiſſions, and taught many errors. Their deſigns are, generally ſpeaking, incorrectly drawn, and extremely ill engraved; and the want of method and preciſion in treating their Subject renders the ſtudy of it, in their works, perplexing and diſagreeable. But later Writers have in a great meaſure ſupplied their omiſſions, and rectified their faults: No Subject hath been more amply treated of than Architecture, nor any by perſons more capable; inſomuch that few things remain either to be diſcovered or improved, every branch of the Art having been maturely conſidered, and brought very near the utmoſt degree of certainty of which it is capable.

NEVERTHELESS one thing of very great Uſe remains ſtill to be done, at leaſt in our language; which is, to collect into one volume what now is diſperſed in a great many, and to ſelect, from mountains of promiſcuous Materials, a Series of ſound Precepts and good Deſigns.

WHOEVER has applied to the ſtudy of Architecture will readily grant, that there is no purſuit more perplexing. The vague foundation on which the more refined parts of the Art are built, hath given riſe to ſuch a multiplicity of contradictory opinions, all of them ſupported by plauſible arguments, that it is difficult to make a choice, or to diſtinguiſh the real from that which is merely ſpecious. The connections are frequently very diſtant, and it is neceſſary to trace a Precept through all the combinations, that can poſſibly exiſt in every Branch of the Art, before its truth or fallacy can be determined.

SUCH a Scrutiny implies an extent of Knowledge not eaſily attained, and which can only be the reſult of tedious and painful application. Hence moſt Men of Fortune, and even ſome Artiſts contenting themſelves with a ſuperficial tincture, are eaſily impoſed upon: for being unacquainted with any ſolid Principles, whereon to build their Judgment, they rate the merit of Performances by the reputation of their Authors, by the taſte of the Age in which they were produced, by common report, or ſome other ſtandard of equal invalidity.

A WORK of the kind above-mentioned, if properly conducted, would in a great meaſure obviate this inconveniency, and, leading to truth by eaſy and inviting paths, render the ſtudy of Architecture more frequent, and conſequently good Taſte more univerſal.

THE

THE preſent Undertaking is an attempt towards ſuch a Work. How far it will anſwer the deſign is not eaſy for me to determine: Men are but indifferent Judges of their own productions.

UNBIASSED by any private Intereſt, nor blindly attached to any ſingle Syſtem, I ſhall conſider, with Candour and Impartiality, what has been hitherto produced on the Subject of Architecture; extracting from thence what to me appears beſt. Particular times or perſons will have no influence on the Choice. Every Age hath afforded bad Artiſts, and all Men, however excellent, have ſometimes erred. Where Reaſon or Demonſtration take place, they ſhall be employed; but where they are deficient, the general received Opinion muſt prevail. Abſtruſe and fruitleſs arguments ſhall carefully be avoided; nor will I puzzle the Ignorant with a number of indiſcriminate examples; judging it more eligible to offer a few that are good. Perſpicuity, Preciſion, and Brevity will conſtantly be aimed at in the Style; and in the Deſigns, Simplicity, Symmetry, Character, and Beauty of Form. If I can keep up to this Plan, I ſhall have laboured to ſome End: If I fall ſhort of it, the difficulty and extent of the task muſt plead my excuſe.

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The Third sort of Huts which gave birth to the Doric Order.



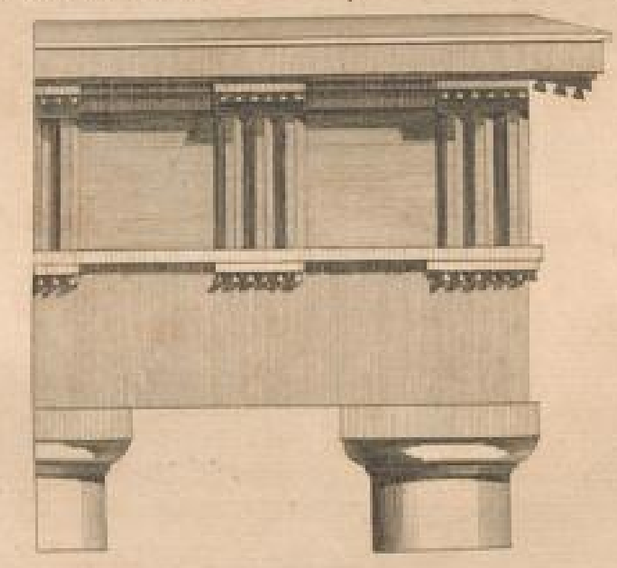
The Doric Order in its Improved State.



Origin of the Corinthian Capital.



The Doric Profile of the Temple of Theseus at Athens one of the most Antient Monuments of that Order now Existing.



A Plinth
B Lower Torus
C Fillet or Square
D Scotia
E Fillet
F Upper Torus
G Fillet or Lower Cincture
H Conge
I Shaft of the Column
K Conge
L Fillet or upper Cincture
M Astragal
N Neck or Frize of the Capital
O Fillets or Annulets
P Ovolo or Echinus
Q Abacus
R Inverted Cymae or Ogee
S Fillet
T Fascia of the Architrave
V Drops
W Fillet or Tenia
X Triglyphes
Y Capitals of the Triglyph
Z Ovolo or Quarter round
1 Mutule or Modillion Band
2 Mutules
3 Ogee
4 Corona or Drip
5 Ogee
6 Ovolo
7 Fillet

W. Hamilton

B. Mayo Sculp.

OF THE

ORIGIN OF BUILDINGS.

ANTIENTLY, ſays VITRUVIUS, Men lived in woods, and inhabited caves; but in time, taking perhaps example from birds, who with great induſtry build their neſts, they made themſelves huts. At firſt they made theſe huts, very probably, of a Conic Figure; becauſe that is a form of the ſimpleſt ſtructure; and, like the birds, whom they imitated, compoſed them of branches of trees, ſpreading them wide at the bottom, and joining them in a point at the top; covering the whole with reeds, leaves, and clay, to ſcreen them from tempeſts and rain.

BUT finding the Conic Figure inconvenient, on account of its inclined ſides, they changed both the form and conſtruction of their huts, giving them a Cubical Figure, and building them in the following manner:

HAVING marked out the ſpace to be occupied by the hut, they fixed in the ground ſeveral upright trunks of trees to form the ſides, filling the intervals between them with branches cloſely interwoven and covered with clay. The ſides being thus completed, four large beams were placed on the upright trunks, which being well joyned at the angles, kept the ſides firm; and likewiſe ſerved to ſupport the covering or roof of the building, compoſed of many joiſts, on which were laid ſeveral beds of reeds, leaves, and clay.

INSENSIBLY mankind improved in the Art of Building, and invented methods to make their huts laſting and handſome, as well as convenient. They took off the bark, and other unevenneſſes, from the trunks of trees that formed the ſides; raiſed them probably above the dirt and humidity on ſtones; and covered each of them with a flat ſtone or ſlate, to keep off the rain. The ſpaces between the ends of the joiſts were cloſed with clay, wax, or ſome other ſubſtance; and the ends of the joiſts covered with thin boards cut in the manner of triglyphs. The poſition of the roof was likewiſe altered: for being, on account of its flatneſs, unfit to throw off the rains that fell in great abundance during the winter ſeaſon, they raiſed it in the middle; giving it the form of a gable roof, by placing rafters on the joiſts, to ſupport the earth and other materials that compoſed the covering.

FROM this ſimple conſtruction the Orders of Architecture took their riſe. For when buildings of wood were ſet aſide, and Men began to erect ſolid and ſtately edifices of ſtone, they imitated the parts which neceſſity had introduced into the primitive huts; in ſo much that the upright trees, with the ſtones at each end of them, were the origin of Columns, Baſes, and Capitals; and the beams, joiſts, rafters, and ſtrata of materials, that formed the covering, gave birth to Architraves,

traves, Frizes, Triglyphs, and Cornices, with the Corona, the Mutules, the Modillions and the Dentils.

THE firſt buildings were in all likelihood rough and uncouth; as the men of thoſe times had neither experience nor tools: but when, by long experience and reaſoning upon it, the Artiſts had eſtabliſhed certain rules, had invented many inſtruments, and by great practice had acquired a facility in executing their ideas, they made quick advances towards perfection, and at length diſcovered certain manners of building, which ſucceeding ages have regarded with the higheſt veneration.

AT what time the Orders of Architecture, commonly called Grecian, were invented, or by whom, is not certainly known; but the account which VITRUVIUS gives of them is as follows:

DORUS, the ſon of Helenes and the Nymph Optica, king of Achaia and of all the Peloponneſus, having formerly built a temple to Juno in the ancient city of Argos, this temple happened to be in the manner which we call Doric; which manner was afterwards imitated in many other temples built in the ſeveral cities of Achaia.

ABOUT the ſame time the Athenians, after having conſulted the Oracle of Apollo at Delphos, by the common conſent of all Greece, ſent into Aſia thirteen Colonies, each under the command of a ſeparate Captain, but all under the general direction of Ion, ſon of Xuthus and Creuſa. Ion being arrived in Aſia, conquered all Caria, and founded thirteen large cities: the inhabitants whereof having expelled the Carians and Leleges, called the country Ionia, in honour of Ion their leader, and erected temples; of which the firſt, dedicated to Apollo Panionius, was built after the manner of thoſe they had ſeen in Achaia, which they called Doric, becauſe there had been temples of the ſame ſort built in the cities of the Dorians.

SOME time after they built a temple to Diana, in a manner different from the Doric; the ſtructure being more delicate, and formed upon the proportions of a Female body, as the Doric had been on thoſe of a robuſt Man. They adorned the Capital with Volutes, to repreſent the curls of a woman's hair, and cut flutings on the ſhaft of the Column, to expreſs the folds of her garment; giving to this ſecond manner of building the name of Ionic, becauſe the Ionians were the firſt inventors of it.

THE third ſort of Columns, which are called Corinthian, and repreſent the delicate figure of a young Girl, owe their birth to the following accident:

A young Girl of Corinth being dead, her nurſe placed on her tomb a baſket, containing certain trinkets in which ſhe delighted when alive, and covered it with a tyle to prevent the rain from ſpoiling them. The baſket chanced to be placed on a root of Acanthus, which in the ſpring, puſhing forth its leaves and ſprigs, covered the ſides of it; and ſome of them, that were longer than the reſt, being obſtructed by the corners of the tyle, were forced downwards, and curled in the manner of Volutes.

CALLI-

Regular Mouldings with their proper Ornaments.

Ornaments for the Astragal



Ornaments for the Torus



Ornament for flat members



Ornaments for the Ovolo



Ornaments for Ogees of different Sizes

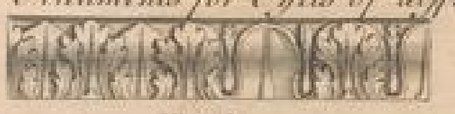


Fig. 1.







Ornaments for the Cyma



Ornaments of the Cavetto



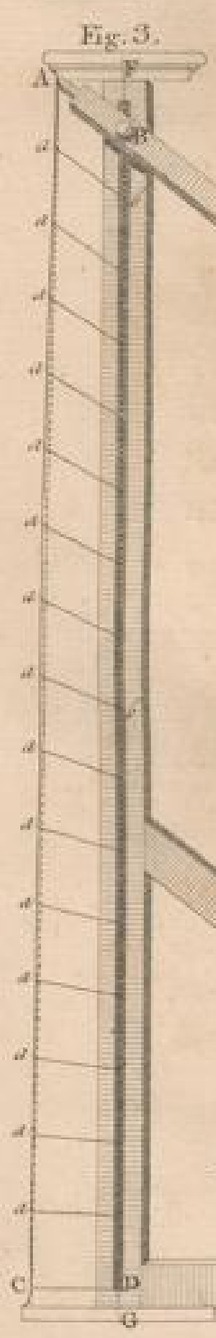
Ornaments for flat members



Ornaments for the Ogee



Fig. 3.



Button at B.



Groove in FG.

Fig. 2.

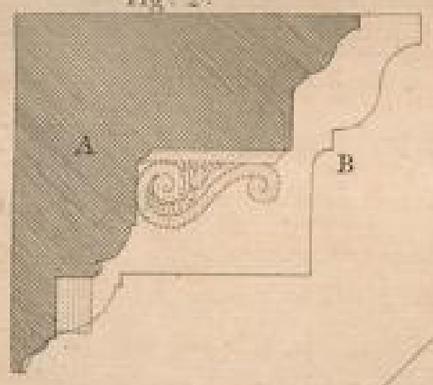
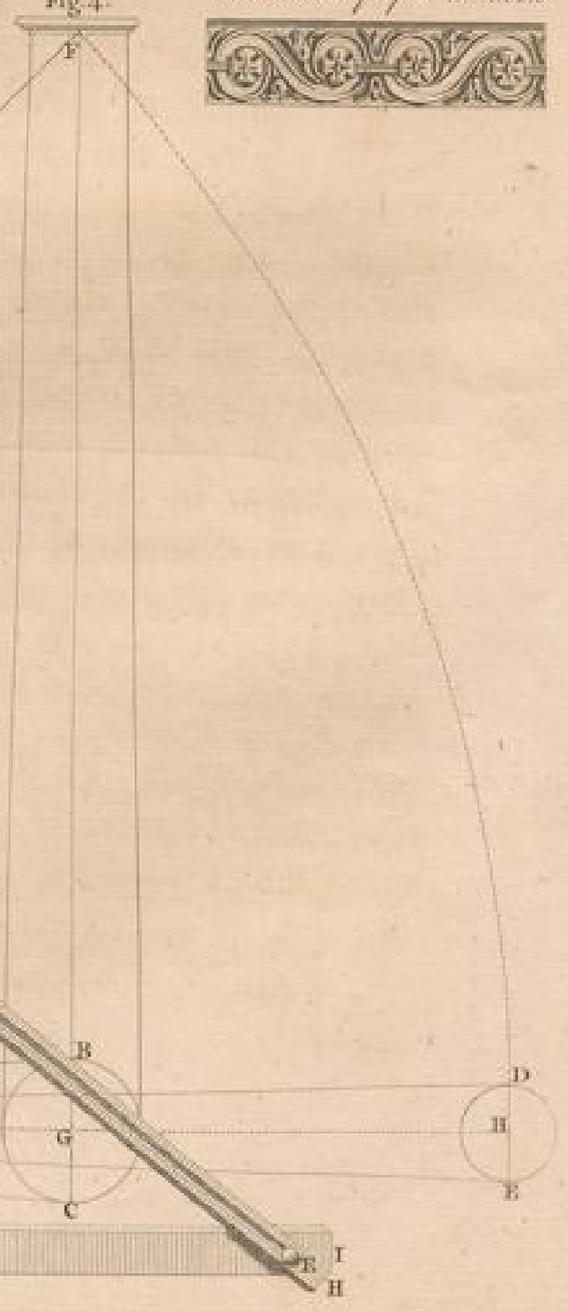


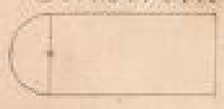
Fig. 4.



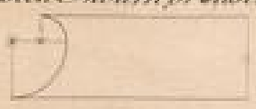
Fillet Listel or Square

Astragal or Bead

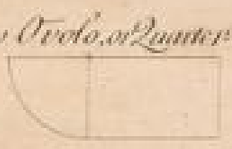
Torus or Tore



Scotia Mouth or Casement



Echinus Ovolo or Quarter round



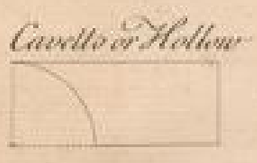
Inverted Cyma Talon or Ogee



Cyma Cyma Recta or Cymatium



Cavetto or Hollow



For the Cyma



Ornaments for flat members

W. Chambers

P. Sandrart Sculp.

CALLIMACHUS, the Sculptor, paſſing near the tomb, ſaw the baſket, and in what manner the leaves had encompaſſed it. This new form pleaſing him infinitely, he imitated it on columns which he afterwards made at Corinth, eſtabliſhing and regulating, by this model, the manner and proportions of the Corinthian Order.

VILLALPANDUS treats this ſtory of Callimachus as a fable, and maintains that the Corinthian Capital took its origin from an Order in Solomon's temple: and indeed it may be gathered from the Scriptures, that there were, in that building, Capitals formed upon the ſame principle with thoſe of the Corinthian Order; ſo that though it may be indebted to the Greeks for many improvements, its origin is in all probability of more antient date than that aſſigned by Vitruvius.

BESIDES the three Orders ſaid to be invented by the Grecians, there are two others of Italian origin; the firſt of which is thought to have been invented by the inhabitants of Tuſcany, long before the Italians had any intercourſe with the Greeks, from whence it is called the Tuſcan Order: the ſecond, though of Roman production, is but of modern adoption; the antients not having conſidered it as a diſtinct Order. It is compoſed of the Ionic and the Corinthian, and diſtinguiſhed by the name of the Roman, or Compoſite Order. Theſe are the five manner of Building invented by the Antients, which having been from time to time enriched with new improvements, were at laſt brought to the higheſt degree of perfection, and on account of the regularity and beauty of their forms called ORDERS.

Of the Parts that Compoſe an Order of Architecture,
and of their Enrichments.

THE parts that compoſe an Order may be diſtributed into two different claſſes; in the firſt of which may be ranged all that have any analogy to the primitive huts, and repreſent ſome part that was neceſſary in their conſtruction: * Such are the Shaft of the Column, with the Plinth of its Baſe, and the Abacus of its Capital, repreſenting the upright trees, with the ſtones on which they were placed, and thoſe that covered them; likewiſe the Architrave and Triglyphs, repreſenting the beams and joiſts; the Mutules, Modillions, or Dentils, which, all of them repreſent the Rafters; or ſome other pieces of Timber uſed to ſupport the covering; and the Corona repreſenting the beds of materials that compoſed the covering. All theſe may properly be diſtinguiſhed by the name of Eſſential Members. The ſubſervient parts, contrived for the uſe or ornament of the former, and commonly called Mouldings, may conſtitute the ſecond claſs.

† THE eſſential parts were moſt probably the only ones uſed, even in the firſt ſtone buildings: for the Architects of thoſe early times had certainly very imperfect Ideas of beauty in the productions of Art, and therefore contented themſelves with barely imitating the rude model before them; but coming in time to compare the works of their own hands with animal

* See Pl. of primitive buildings the third ſort of huts.
† Ibid the profile of the Temple of Theſeus.

and vegetable productions, each ſpecies of which is compoſed of a vaſt diverſity of forms, affording an inexhauſtible fund of amuſement to the mind, they could not but conceive a diſguſt at the frequent repetitions of ſquare figures in their buildings; and therefore thought of introducing certain intermediate parts, which might ſeem to be of ſome uſe, and at the ſame time be ſo formed as to give a more variegated, and a more pleaſing appearance to the whole compoſition: and this in all likelihood was the origin of Mouldings.

Of Regular Mouldings there are eight; which are the Ovolo, the Talon, the Cyma, the Cavetto, the Torus, the Aſtragal, the Scotia, and the Fillet.

The names of theſe are alluſive to their forms; and their forms are adapted to the uſes which they are intended to ſerve.

The Ovolo and Talon, as they are ſtrong at their extremities, are fit for ſupports; the Cyma and Cavetto, though improper for that purpoſe, being weak in their extreme parts, and terminating in a point, are well contrived for coverings to ſhelter other members: for the tendency of their contour is very oppoſite to the direction of falling water; which for that reaſon cannot glide along their ſurface, but muſt neceſſarily drop. The Torus and Aſtragal, being ſhaped like ropes, are intended to bind and fortify the parts on which they are employed: but the uſe of the Fillet and Scotia, is only to ſeparate and diſtinguiſh other mouldings, to give a graceful turn to the profile, and to prevent that confuſion which would be occaſioned by joyning ſeveral curved members together.

That the inventors of theſe Mouldings meant to expreſs ſomething by their different figures will ſcarcely be denied; and that theſe were their deſtinations may be deduced, not only from their figures, but from the practice of the Antients in their moſt eſteemed works: for if we examine the Panthæon, the Three Columns, the temple of Jupiter Tonans, the fragments of the Frontiſpiece of Nero, the Baſilica of Antoninus, the Forum of Nerva, the Arches of Titus and Septimius Severus, the Theatre of Marcellus, and indeed almoſt every antient building, either at Rome, or in other parts of Italy, and France, it will be found that, in all their profiles, the Cyma and the Cavetto are conſtantly uſed as finiſhings, and never applied where ſtrength is required; that the Ovolo and Talon are always employed as ſupporters to the eſſential members of the Compoſition, ſuch as the Modillions, Dentils, and Corona; that the chief uſe of the Torus and Aſtragal is to fortify the tops and bottoms of Columns, and ſometimes Pedeſtals, where they are frequently cut in the form of ropes; as on the Trajan Column, in the Temple of Concord, and on ſeveral fragments which I have ſeen both at Rome and at Niſmes in Languedoc; and that the Scotia is employed only to ſeparate the members of Baſes, for which purpoſe the Fillet is likewiſe uſed, not only in Baſes, but in all kinds of Profiles.

Hence it may be inferred that there is ſomething poſitive and natural in theſe primary forms of Architecture, and conſequently in the parts they compoſe; and that Palladio erred in employing the Cavetto under the Corona in three of his orders, and in making ſuch frequent uſe, through all his profiles, of the Cyma as a ſupporting member.

member. Nor has Vignola been more judicious in finiſhing his Tuſcan Cornice with an Ovolo; a Moulding extremely improper for that purpoſe, and productive of a very bad effect; for it gives a mutilated air to the whole Profile, which is the more ſtriking, as it reſembles exactly that part of the Ionic Cornice which is under the Corona.

OTHER Architects have been guilty of the like improprieties, and are therefore equally reprehenſible.

THERE are various manners of deſcribing the Contours of the Mouldings: but the ſimpleſt and beſt is to form them of † quadrants of circles, as in the annexed Deſigns; by which means the different depreſſions and ſwellings will be ſtrongly marked, the tranſitions made without any angle, and the projections be agreeable to the doctrine of Vitruvius, and the practice of the Antients; thoſe of the Ovolo, Talon, Cyma, and Cavetto, being equal to their height, that of the Scotia to one third thereof, and thoſe of the curved parts of the Torus and Aſtragal to one half of it.

ON particular occaſions, however, it may be neceſſary ſometimes to encreaſe and at other times to diminiſh theſe projections, according to the ſituation or other circumſtances attending the profile, as will hereafter appear. When it ſo happens the Ovolo, Talon, Cyma, and Cavetto, may either be deſcribed from the ſummits of equilateral triangles, or compoſed of quadrants of the Ellypſis; the latter of which is to be preferred, becauſe it produces a ſtronger oppoſition of light and ſhade, and by that means makes the figures more diſtinct. The Scotia may likewiſe be formed of Ellyptical portions, or of quadrants of the circle, differing more or leſs from each other than in the annexed deſigns; by which means its projection may either be encreaſed or diminiſhed: but the curved part of the Torus and Aſtragal muſt always be ſemicircular, and the encreaſe in their projection be by ſtreight lines.

IN ſome Antiques, and likewiſe in various modern buildings, where the parts are far removed from the eye, or where, from the extraordinary ſize of the ſtructure, it hath not been practicable to give every member its due projection, recourſe hath been had to artifice in order to produce the deſired effect. At St. Peter's of the Vatican this practice is very frequent, and I have given a ſection of the * Cornice that finiſhes the pendentives of the Dome, which may ſerve as a guide in caſes where the like is neceſſary.

IT will not, however, be improper to obſerve, that a too frequent uſe of this expedient is to be avoided; as it never ſucceeds, except where, by reaſon of the great diſtance, the artifice is undiſcoverable: for the inciſions and contorſions made in the Mouldings entirely deſtroy the natural beauty of their form.

AN Aſſemblage of Eſſential parts and Mouldings is termed a Profile; and on the choice, diſpoſition, and proportions of theſe depends the beauty or deformity of the Profile.

THE moſt perfect are ſuch as are compoſed of few Mouldings, varied both in form and ſize, fitly applied with regard to their uſes, and ſo diſpoſed that the ſtreight

† Pl. Mouldings.
* Pl. Mouldings, Fig. I.

and curved ones ſucceed each other alternately. In every Profile there ſhould be a predominant Member, to which all the others ought to be ſubſervient, and ſeem made either to ſupport, to fortify, or to ſhelter it from the injury of the weather: as in a Cornice, where the Corona is principal, the Cyma or Cavetto cover it, and the Modillions, Dentils, Ovolo, and Talon ſupport it.

WHEN Ornaments are employed to adorn the Mouldings, ſome of them ſhould be left plain, in order to form a proper repoſe: for, when all are enriched, the figure of the Profile is loſt. In a Cornice, the Corona ſhould not be ornamented, nor the Modillion Band; neither ſhould the different Faſcias of Architraves, the Plinths of Columns, Fillets, nor ſcarce any ſquare Members be carved: for they are, generally ſpeaking, either principal in the compoſition, or uſed as boundaries to other parts; in either of which caſes their figures ſhould be diſtinct and unembaraſſed. The Dentil Band ſhould remain uncut, where the Ovolo and Talon immediately above and below it are enriched; as in the Panthæon at Rome, and at St. Paul's in London: for when the Dentils are marked, particularly if they be ſmall, according to Palladio's Corinthian deſign, the three members are confounded together, and, being covered with ornaments, are much too rich for the reſt of the compoſition (as may be ſeen in ſeveral Antiques, and at the Manſion Houſe in the City of London:) a fault carefully to be avoided, as the juſt and equal diſtribution of enrichments is, on all occaſions, ſtrictly to be attended to.

SCAMOZZI obſerves that Ornaments ſhould neither be too frugally employed, nor diſtributed with too much profuſion: their value will encreaſe in proportion to the judgement and diſcretion ſhewn in their application. For, in effect, the Ornaments of Sculpture uſed in Architecture, are like Diamonds in a Lady's dreſs, with which it would be abſurd to cover her face, and other parts that in themſelves are beautiful.

VARIETY in Ornaments muſt not be carried to an exceſs. In Architecture they are only acceſſories; and therefore they ſhould not be too ſtriking, nor capable of long detaining the attention from the main object. Thoſe of the Mouldings in particular ſhould be ſimple and uniform, and never compoſed of more than two different repreſentations; which ought to be cut equally deep, formed of the ſame number of parts, and nearly of the ſame dimenſions, in order to produce one even uninterrupted tint through the whole, that ſo the eye may not be too ſtrongly attracted by any particular part.

WHEN Mouldings of the ſame form and ſize are employed in one profile, they ſhould be enriched with the ſame kind of ornaments; by which means the figure of the Profile will be better apprehended, and the artiſt will avoid the imputation of a puerile minuteneſs, neither to his own honour nor of any advantage to his building.

IT muſt be obſerved that all the ornaments of Mouldings are to be regularly diſpoſed, and anſwering perpendicularly above each other, as at the Three Columns in Campo Vaccino. Where Middles of the Modillions, Dentils, Oves, and other Ornaments are all in a line; for nothing is more confuſed and unſeemly than to diſtribute them without any kind of Order, as they are in moſt of the Antiques, and in moſt

moſt of the buildings of this city; where the middle of an Ove anſwers in ſome places to the edge of a Dentil, in ſome to its middle, and in others to the interval; the reſt of the Ornaments being likewiſe diſtributed in the ſame careleſs manner. The larger parts are to regulate the ſmaller: all the Ornaments in the Entablature are to be governed by the Modillions, and theſe are to be dependant on the Intervals of the Columns, and ſo diſpoſed that one of them may correſpond with the Axis of each Column. It is farther to be obſerved that the Ornaments muſt partake of the character of the Order which they enrich, and thoſe uſed in the Doric and Ionic Orders muſt be of a ſimpler kind, and groſſer make, than thoſe employed in the Compoſite and Corinthian.

When Frizes, or other large Members are to be enriched, the Ornaments may be ſignificant, and ſerve to indicate the Uſe of the Building, or the Qualities and Actions of the Owner: but it is a fooliſh cuſtom to crowd every part with Arms, Creſts, Cyphers, and Mottos: for the figures of theſe things are generally bad, and it betrays an unbecoming vanity in the Patron of the Structure.

In Sacred places all obſcene, groteſque, and heatheniſh repreſentations ought to be avoided: for lewd fables, extravagant conceits, or inſtruments and ſymbols of Pagan worſhip, are very improper ornaments in houſes conſecrated to Chriſtian purpoſes.

With regard to the manner of executing Ornaments, it is to be remembered, that, as in Sculpture a drapery is not eſtimable, unleſs its folds are contrived to indicate the parts and articulations of the body it covers, ſo in Architecture the moſt exquiſite Ornaments loſe all their value, if they alter or confound the form they enrich.

All Ornaments of Mouldings muſt therefore be cut into the ſolid, and never applied on their ſurface, as Davilere teaches; becauſe it alters both their figure and proportion. The Profile muſt firſt be finiſhed plain, and afterwards adorned; the moſt prominent parts of the Ornaments being equal with the ſurface of the Mouldings they enrich: and great care muſt be taken that the Angles, or Breaks, be kept perfect, and untouched with Sculpture; for which reaſon it is cuſtomary at the Angles of moſt Mouldings to place Leaves, the middle filament of which forms the angle.

The method of the Antient Sculptors in the execution of Architectonic Ornaments, was to aim at a perfect repreſentation of the object they choſe to imitate; ſo that the Cheſnuts, or Eggs, with which the Ovolo is commonly enriched in the Antiques, are cut round and almoſt entirely detached; as are likewiſe the Berries, or Beads, on the Aſtragal, which are generally as much hollowed into the ſolid of the body as the Moulding projects beyond it: but the Leaves, Shells, and Flowers, that adorn the Cavetto, Cyma, Talon, and Torus, are kept flat like the things they repreſent. In the application of their Ornaments they obſerved to uſe ſuch as required a conſiderable Relief on Mouldings that in themſelves are clumſy, as the Ovolo and Aſtragal; which, by means of the deep inciſions made in them to form theſe enrichments, acquired an extraordinary lightneſs: but on more elegant parts, as the Cavetto, and Cyma, they employed thin bodies, which could be repreſented without entering too far into the ſolid. The Ornaments of their Cornices were boldly marked, that they might be diſtinguiſhed from afar; but thoſe of the Baſes of Columns and Pedeſtals were ſlightly

expreſſed; both becauſe it would be improper to weaken theſe parts, and alſo with a view to keep them clean; which would not be practicable, if there were any deep cavities in them, to harbour duſt and filth.

When objects are near, and liable to a cloſe inſpection, every Part of the Ornament ſhould be expreſſed, and well finiſhed; but when they are much exalted, the Detail may be ſlightly touched, or entirely neglected: for it is ſufficient if the General Form be diſtinct, and the principal maſſes ſtrongly marked. A few rough ſtrokes, from the hand of a ſkilfull maſter, are much more effectual, than the moſt elaborate finiſhings of an artleſs imitator.

Of the Orders of Architecture in general.

An Order conſiſts of two principal Members, the Column and the Entablature; each of which is compoſed of three principal Parts. Thoſe of the Column are the Baſe, the Shaft, and the Capital; and thoſe of the Entablature are the Architrave, the Frize, and the Cornice. All theſe are ſubdivided into many leſſer parts, whoſe number, form, and dimenſions characterize each order, and expreſs the degree of ſtrength, delicacy, richneſs, or ſimplicity peculiar to it.

Of the Five Orders, three are called Grecian; to wit, the Doric, the Ionic, and the Corinthian; and two Latin, the Tuſcan, and the Compoſite.

The ſimpleſt and moſt ſolid of all theſe is the * Tuſcan. It is compoſed of few Parts, devoid of Ornaments, and of a Conſtruction ſo maſſive, that it ſeems capable of ſupporting the heavieſt burden; whence it is, by Sir H. Wotton, compared to a ſturdy labourer in homely apparel.

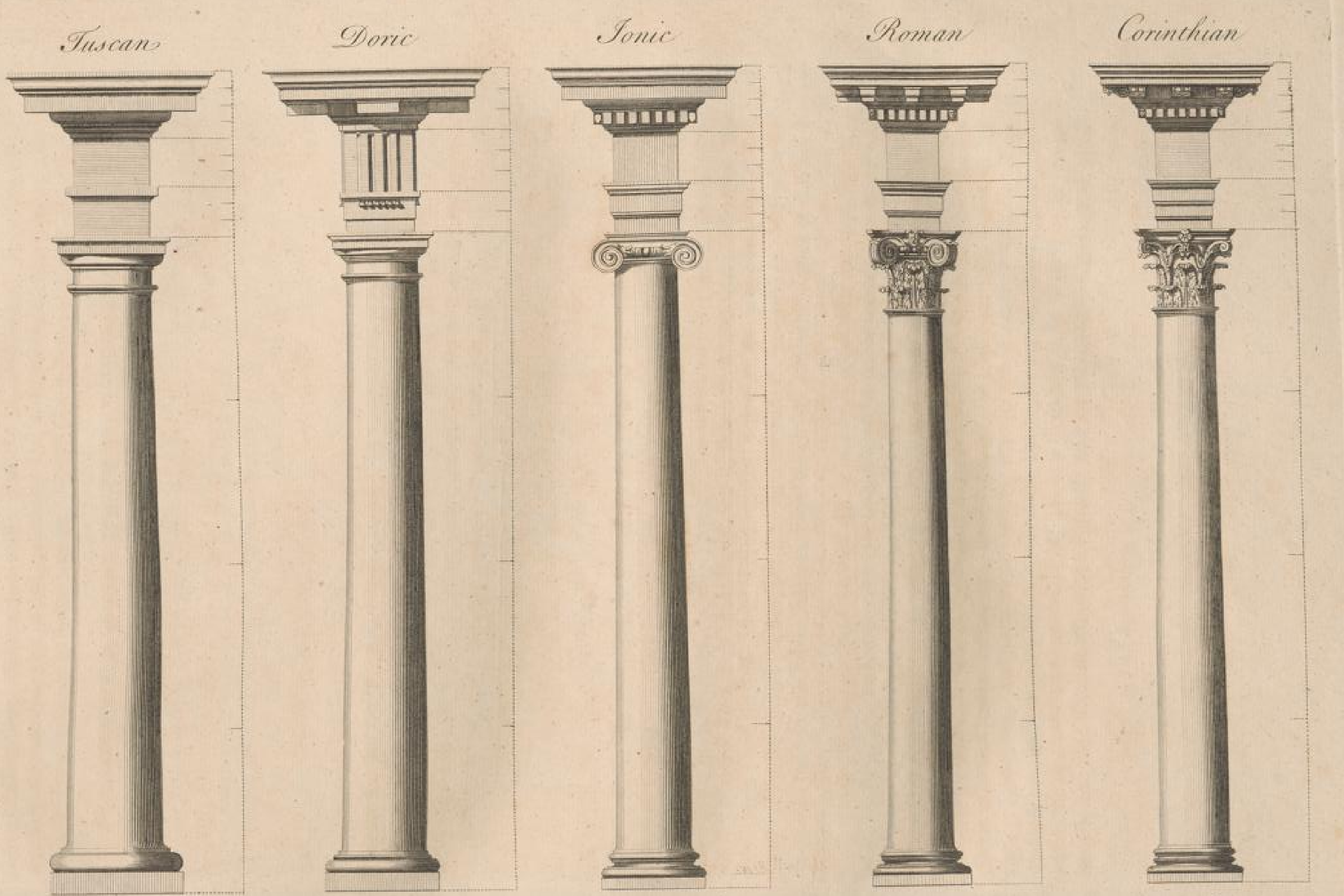
The Doric † is next in ſtrength to the Tuſcan; and, being of a grave, robuſt, and maſculine aſpect, is by Scamozzi called the Herculean. As it is the moſt antient of all the Orders, it retains more of the ſtructure of the primitive huts than any of the reſt; having Triglyphs in its Frize, to repreſent the ends of the Joyſts; and Mutules in its Cornice, to repreſent the Rafters; its Column being likewiſe, in various Antiques, executed without a Baſe, in imitation of the trees uſed in the firſt buildings, without any Plinths to raiſe them above the ground.

The Ionic § is of a more ſlender make than either of the abovementioned Orders. Its appearance is ſimple, yet graceful and majeſtic; its Ornaments are few, nor is there any thing exaggerated, or remarkably ſtriking, in any of its Parts: ſo that it is not improperly compared to a Sedate Matron, in decent rather than magnificent attire.

The Corinthian ‖, ſays Sir H. Wotton, is a Column laſciviouſly deckt, like a wanton curtezan. Its proportions are extremely elegant. It is divided into a great

* Pl. of Orders. † Pl. of Orders. § Pl. of Orders. ‖ Pl. of Orders.

variety



The Orders of the Antients.

T. Cranston delin.

Fourdrinier Sculp.

variety of Members, and enriched with a profuſion of Ornaments. Scamozzi calls it the Virginal: and indeed it has all the delicacy in its make, with all the gayety, gaudineſs, and affectation in its dreſs, peculiar to young Girls.

THE Compoſite * is, properly ſpeaking, only a ſpecies of the Corinthian; and therefore retains, in a great meaſure, the ſame character.

To give a ſtriking idea of theſe different properties, and to render the compariſon between the Orders more eaſy, I have repreſented them all of the ſame height; by which means the gradual encreaſe of delicacy and richneſs is eaſily perceivable; as are likewiſe the relations between the intercolumniations of the different Orders, and the proportions which their Pedeſtals, Impoſts, Archivolts, and other Parts with which they are accompanied, bear to each other.

THE proportions of the Orders were, by the Ancients, formed on thoſe of the Human Body; and conſequently it could not be their intention to make a Corinthian Column, (which, as Vitruvius obſerves, is to repreſent the delicacy of a young Girl), as thick and much taller than a Doric one, which is deſigned to repreſent the bulk and vigour of a full grown man.

VIGNOLA, Palladio, Scamozzi, Blondel, Perrault, and many others, have nevertheleſs conſidered them in this light: that is, they have made the Diameters of all their Orders the ſame, and conſequently their Heights encreaſing; which, beſides giving a wrong idea of the character of theſe different Compoſitions, hath occaſioned many of the errors and falſe reaſonings, with which their works abound.

COLUMNS, in the opinion of Scamozzi, ſhould not be leſs than ſeven of their diameters in height, nor more than ten; the former being a good proportion in the Tuſcan, and the latter in the Corinthian Order. The practice of the Ancients, in their beſt works, is conformable to this precept: for which reaſon I have, according to the doctrine of Vitruvius, made the Tuſcan Column ſeven diameters in height, the Doric eight, and the Ionic nine, (as Palladio and Vignola have done,) and the Corinthian and Compoſite ten; which laſt is a mean between the proportions obſerved in the Pantheon, and in the three Columns, both which are accounted excellent models of the Corinthian Order.

THE height of the Entablature, in all the Orders, I have made one quarter of the height of the Column; which was the common practice of the Antients, who, in all ſorts of Entablatures, ſeldom exceeded or fell much ſhort of that meaſure.

NEVERTHELESS Palladio, Scamozzi, Alberti, Barbaro, Cataneo, de L'Orme, and others of the Modern Architects, have made their Entablatures much leſs in the Ionic, Compoſite, and Corinthian Orders, than in the Tuſcan or Doric. This, on ſome occaſions, may be not only excuſable but highly commendable; particularly where the intercolumniations are large, (as in a ſecond or third Order,) or in private houſes, or inſide decorations, where lightneſs may be preferred to dignity, and where

* Pl. of Orders.

expence, and every impediment to the conveniency of the fabrick, is carefully to be avoided: but to ſet entirely aſide a proportion, which ſeems to have had the general approbation of the Antient Artiſts, is preſuming too far. The reaſon alledged, in favour of this practice, is the weakneſs of the Columns in the Delicate Orders, which renders them unfit for ſupporting heavy burdens. Where the Intervals are fixed, as in a Second Order, or in other places where wide Intercolumniations are abſolutely neceſſary, the reaſon is good; but, if the Artiſt is at liberty to diſpoſe his Columns at pleaſure, the ſimpleſt and moſt natural way of conquering that difficulty, is to employ more Columns by placing them nearer to each other, as was the cuſtom of the Antients. And it muſt be remembered, * that, though the height of the Entablature, in a Delicate Order, is made the ſame as in a Maſſive one, yet it will not, either in reality or in appearance, be ſo heavy: for the quantity of matter in the Corinthian Cornice A is conſiderably leſs than in the Tuſcan Cornice B, and the number of Parts that compoſe the former will make it appear far lighter than the latter.

With regard to the Parts of the Entablature, I have followed the method of Serlio in his Ionic and Corinthian Orders, and of Perrault, who in all his Orders, excepting the Doric, divides the whole height of the Entablature into ten equal parts; three of which he gives to the Architrave, three to the Frize, and four to the Cornice: and in the Doric Order he divides the height into eight parts; of which two are given to the Architrave, three to the Frize, and three to the Cornice.

These meaſures deviate very little from thoſe obſerved in the greateſt number of Antiques now extant at Rome, where they have ſtood the teſt of many Ages; and their ſimplicity renders them ſingularly uſeful in Compoſition, as they are eaſily remembered and eaſily applied.

Of two manners uſed by Architects to determine the Dimenſions of the Mouldings, and the leſſer Parts that compoſe an Order, I have choſen the ſimpleſt, readieſt, and moſt accurate; which is by the Module, or ſemi-diameter of the Column, taken at the bottom of the Shaft, and divided into thirty Minutes.

Yet there are many who prefer the method of meaſuring by equal parts; imagining that beauty depends on the ſimplicity and accuracy of the relations, between the whole body and its members, and alledging that dimenſions, which have evident affinities, are better remembered than thoſe, whoſe relations are too complicated to be immediately apprehended.

With regard to the former of theſe ſuppoſitions, it is evidently falſe: for the real relations, ſubſiſting between diſſimilar figures, have no connection with the apparent ones: and with regard to the latter, it may or may not be the caſe, according to the degree of accuracy with which the partition is made. For inſtance, in dividing the Attic Baſe, (which may be numbered among the ſimpleſt Compoſitions in Architecture) according to the different methods, it appears to me as eaſy to recollect the

* Fig. 2. of Mouldings.

numbers

numbers 10, 7 ½; 1, 4 ¾; 1, 5 ¾; as to remember that the whole height is to be divided into three equal parts, that two of theſe three are to be divided into four, that three of the four are to be divided into two, and that one of the two is to be divided into ſix, which are to be divided into three. But admitting it were eaſier to remember the one than the other, it doth not ſeem neceſſary, nor even adviſable, in a Science, where a vaſt diverſity of knowledge is required, to burden the memory with a thouſand trifling dimenſions. If the general proportions be known, it is all that is requiſite in compoſing; and when a deſign is to be executed, it is eaſy to have recourſe to figured drawings or prints.

THE trouble and loſs of time in meaſuring by equal parts are very conſiderable; ſeeing it is neceſſary to form almoſt as many ſcales as there are different members to be divided: whereas the uſe of the Module is univerſal throughout the Order, and all its combinations; and being ſuſceptbile of the minuteſt diviſions, the dimenſions may be ſpeedily determined, with the utmoſt accuracy; which, by the method of equal parts, cannot be done without great labour and expence of time.

COLUMNS, in imitation of trees, from which they drew their origin, are tapered in their Shafts. In the Antiques the diminution is variouſly performed; beginning ſometimes from the foot of the Shaft, and at others from one quarter, or one third of its height; the lower part being perfectly Cylindrical. The former of theſe was moſt in uſe amongſt the Antients, and being the moſt natural and graceful ought to have the preference, though the latter hath been more univerſally practiſed by Modern Artiſts.

THE firſt Architects, ſays Mr. Auzoult, probably made their Columns in ſtreight lines, in imitation of trees; ſo that their Shaft was a Fruſtum of a Cone: but finding this form abrupt and diſagreeable, they made uſe of ſome curve, which, ſpringing from the extremities of the ſuperiour and inferiour diameters of the Column, ſwelled beyond the ſides of the Cone, and by that means gave a more pleaſing figure to the Contour.

VITRUVIUS, in the ſecond chapter of his third book, mentions this practice, but in ſo obſcure and curſory a manner, that his meaning hath not been underſtood; and ſeveral of the modern Architects, intending to conform themſelves to his doctrine, have made the diameters of their Columns greater in the middle than at the foot of the Shaft. Leon Baptiſta, Alberti, and others of the Florentine and Roman Architects, have carried this to a very great exceſs; for which they have been juſtly blamed, as it is neither natural, reaſonable, nor beautiful.

MONSIEUR Auzoult obſerves that a Column, ſuppoſing its Shaft to be the Fruſtum of a Cone, may have an additional thickneſs in the middle, without being ſwelled there beyond the bulk of its inferiour parts, and ſuppoſes the addition mentioned by Vitruvius to ſignify nothing but the encreaſe towards the middle of the Column, occaſioned by changing the ſtreight line, which at firſt was in uſe, for a curve.

THIS ſuppoſition is extremely juſt, and founded on what is obſerved in the works of Antiquity; where there is no inſtance of Columns thicker in the middle than at the bottom,

all have the ſwelling hinted at by Vitruvius, all of them being terminated by curves; ſome Granite Columns excepted, which are bounded by ſtreight lines; a proof, perhaps, of their Antiquity, or of their having been wrought in the Quarries of Egypt, by bungling and unſkilful workmen.

Monsieur Blondel, in his book entitled *Reſolution des quatre principaux Problémes d'Architecture*, teaches various manners of diminiſhing Columns; the beſt and ſimpleſt of which is by means of the inſtrument which Nicomedes invented to deſcribe the Firſt Conchoid: for this, being applied at the Bottom of the Shaft, performs at one ſweep both the ſwelling and the diminution; giving ſuch a graceful form to the Column, that it is univerſally allowed to be the moſt perfect practice hitherto diſcovered. The Columns in the Panthæon, accounted the moſt beautiful among the Antiques, are made in this manner; as appears by the exact meaſures of one of them to be found in Desgodet's Antiquities of Rome.

To give an accurate idea of the operation, it will be neceſſary firſt to deſcribe Vignola's method of diminution, on which it is grounded. As to this ſecond method, ſays Vignola, it is a diſcovery of my own; and although it be leſs known than the former, it will be eaſily comprehended by the figure. Having therefore determined the meaſures of your Column, (that is to ſay, the Height of the Shaft, and its inferiour and ſuperiour Diameters), * draw a line indefinitely from C through D, perpendicular to the Axis of the Column: this done, ſet off the diſtance C D, which is the inferiour Semi-Diameter, from A, the extreme point of the ſuperiour Semi-Diameter, to B, a point in the Axis; then from A, through B, draw the line A B E, which will cut the indefinite line C D in E; and, from this point of interſection E, draw through the Axis of the Column any number of rays as E b a, on each of which, from the Axis towards the Circumference, ſetting off the interval C D, you may find any number of points, a, a, a, through which if a Curve be drawn, it will deſcribe the ſwelling and diminution of the Column.

Though this method be ſufficiently accurate for practice, eſpecially if a conſiderable number of points be found, yet, ſtrictly ſpeaking, it is defective; as the curve muſt either be drawn by hand, or by applying a flexible ruler to all the points; both of which are liable to variations. Blondel therefore, to obviate this objection, (after having proved the curve paſſing from A to C through the points a, a, to be of the ſame nature with the Firſt Conchoid of the Antients), employed the inſtrument of Nicomedes to deſcribe it; the conſtruction of which is as follows:

Having determined, as above, the Length of the Shaft, with the inferiour and ſuperiour Diameters of the Column, and having likewiſe found the length of the line C D E, take three rulers, either of wood or metal, as F G, I D, and A H; of which let F G and I D be faſtened together at right Angles in G. Cut a dove-tail groove in the middle of F G, from top to bottom; and at the point E on the ruler I D, (whoſe diſtance, from the middle of the groove in F G, is the ſame as that of the point of interſection from the Axis of the Column,) fix a pin; then on the ruler A H ſet off the diſtance A B, equal to C D the inferiour Semi-Diameter of the Column, and at the point B fix a button, whoſe head muſt be exactly fitted to the Groove made in F G, in which

* Fig. 3. Pl. of Mouldings.

it

it is to ſlide; and, at the other extremity of the ruler A H, cut a ſlit or canal from H to K, whoſe length muſt not be leſs than the difference of length between E B and E D, and whoſe breadth muſt be ſufficient to admit the pin fixed at E, which muſt paſs through the ſlit, that the ruler may ſlide thereon.

THE inſtrument being thus completed, if the middle of the groove, in the ruler F G, be placed exactly over the Axis of the Column, it is evident that the ruler A H in moving along the groove, will with the extremity A deſcribe the curve A a a C; which curve is the ſame as that produced by Vignola's method of diminution, ſuppoſing it done with the utmoſt accuracy: for the interval A B, a b is always the ſame; and the point E is the origin of an infinity of lines, of which the parts B A, ba, ba, extending from the Axis to the circumference, are equal to each other and to D C. And if the rulers be of an indefinite ſize, and the pins at E and B be made to move along their reſpective rulers, ſo that the intervals A B and D E may be augmented or diminiſhed at pleaſure, it is likewiſe evident that the ſame inſtrument may be thus applied to Columns of any ſize.

IN the remains of Antiquity the quantity of the diminution is various; but ſeldom leſs than one eight of the inferiour Diameter of the Column, nor more than one ſixth of it. The laſt of theſe is by Vitruvius eſteemed the moſt perfect. Vignola has employed it in four of his Orders, as I have done in all of them; there being no reaſon for diminiſhing the Tuſcan Column more, in proportion to its Diameter, than any of the reſt, though it be the doctrine of Vitruvius, and the practice of Palladio, Vignola, Scamozzi, and almoſt all the modern Architects. On the contrary, as Perrault obſerves, its diminution ought rather to be leſs; as it actually is in the Trajan Column, in which it is only one ninth. For even when the ſame proportion is kept through all the Orders, the abſolute quantity of the diminution in the Tuſcan Order, ſuppoſing the Columns of the ſame heighth, exceeds that in the Corinthian, in the ratio of ten to ſeven; and if, according to the common practice, the Tuſcan Column be leſs, by one quarter, at the top than at its foot the difference between the diminution in the Tuſcan and in the Corinthian Columns, will be as fifteen to ſeven; and in the Tuſcan and Doric nearly as fifteen to nine: ſo that notwithſtanding there is a very conſiderable difference between the lower Diameters of a Tuſcan and of a Doric Column, both being of the ſame heighth, yet the Diameters at their top will be very nearly equal; and conſequently the Tuſcan Column will in reality be no ſtronger than the Doric one, which is repugnant to the character of the Order.

VITRUVIUS allots different degrees of diminution to Columns of different heights; giving to thoſe of fifteen foot one ſixth of their Diameter; to ſuch as are from twenty to thirty foot one ſeventh; and when they are from forty to fifty foot high one eighth only; obſerving that as the eye is eaſily deceived in conſidering diſtant objects, which always ſeem leſs than they really are, it is neceſſary to remedy the deception by an encreaſe of their dimenſions, otherwiſe the work will appear ill conſtructed and diſagreeable.

MOST of the modern Architects have taught the ſame doctrine; but Perrault in his notes, both on this paſſage and on the ſecond chapter of the ſixth book, endeavours to prove the abſurdity thereof. In fact it is on moſt occaſions, if not on all, an evident errour, which Vitruvius and his followers have probably been led into through a neglect of combining circumſtances. For, if the validity of Perrault's arguments be not aſſented to, and it is required to judge according to the rigour of Optical laws, it muſt be remem-

bered that the proper point of view, for a Column of fifty foot high, is not the ſame as for one of fifteen; but on the contrary more diſtant, in the ſame proportion as the Column is higher; and that conſequently the apparent relation between the lower and upper diameters of the Column will be the ſame, whatever be its ſize: for if we ſuppoſe * A to be a point of view, whoſe reſpective diſtance from each of the Columns, f g, FG, is equal to the reſpective heights of each, the triangles f A g, F A G will be ſimilar, and A f or A h, which is the ſame, will be to A g, as A F, or its equal A H, is to A G: therefore, if d e, be in reality to b c, as D E is to B C, it will likewiſe be apparently ſo; for the angle d A e will then be to the angle b A c, as the angle D A E is to the angle B A C; and if the real relations differ, the apparent ones will likewiſe differ.

I HAVE ſuppoſed the eye of the ſpectator to be in a line perpendicular to the foot of the Shaft; but if the Columns be proportionably raiſed to any height above the eye, the argument will ſtill remain in force; as the point of view muſt of courſe be proportionably more diſtant: and even when Columns are placed immediately on the ground, which ſeldom is the caſe, the alteration occaſioned by that ſituation is too trifling to deſerve notice.

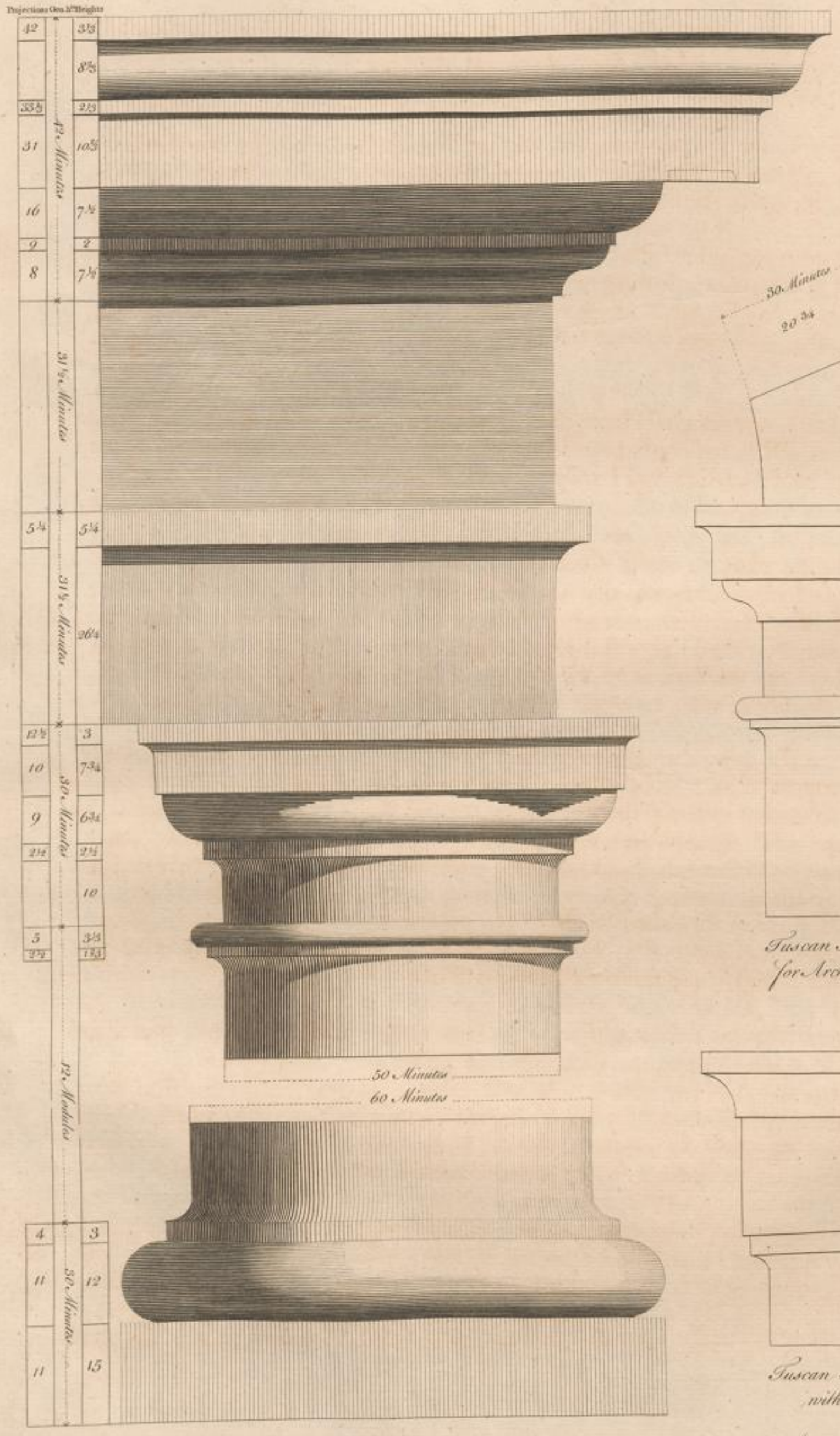
WHEN therefore a certain degree of diminution, which by experience is found pleaſing, hath been fixed upon, there will be no neceſſity for changing it, whatever be the height of the Column, provided the point of view is not limited: but in cloſe places, where the ſpectator is not at liberty to chuſe a proper diſtance for his point of ſight, the Architect, if he inclines to be ſcrupulouſly accurate, may vary: though it is in reality a matter of no importance; as the nearneſs of the object will render the image thereof indiſtinct, and conſequently any ſmall alteration inperceptible.

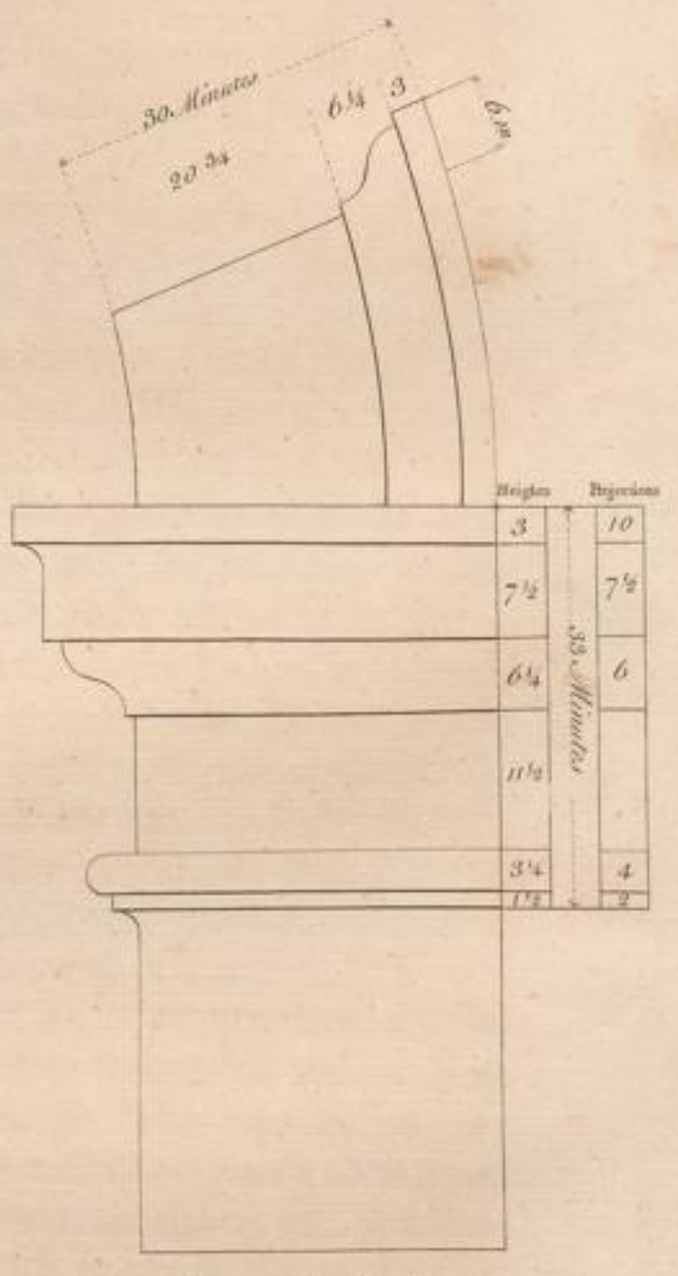
SCAMOZZI, who eſteems it an eſſential property of the delicate Orders, to exceed the maſſive ones in height, has applied the above cited precept of Vitruvius to the different Orders; having diminiſhed the Tuſcan Column one quarter of its diameter, the Doric one fifth, the Ionic one ſixth, the Roman one ſeventh, and the Corinthian one eight. In the foregoing part of this Chapter I have ſhewn the fallacy of his notion with regard to the heights of his Orders, and likewiſe endeavoured to prove the errour of diminiſhing the Tuſcan Column more than any of the others; ſo that it will be needleſs to ſay any more in this place: for, as the caſe is ſimilar, the ſame arguments may be here employed.

MY intention being to give an exact idea of the Orders of the Antients, I have repreſented them under ſuch figures and proportions as appear to have been moſt in uſe in the eſteemed works of the Romans; who, in the opinion of Leo. Bap. Alberti, and other eminent writers, carried Architecture to its perfection. It muſt not however be imagined that the ſame general proportions will on all occaſions ſucceed. They are chiefly collected from the Temples and Publick Structures of Antiquity, and may by us be employed in Churches, Palaces, and other Buildings of Magnificence, where Majeſty, and Grandeur of manner may be extended to their utmoſt limits, and where, the whole body being generally large, the parts require an extraordinary degree of boldneſs, to make them diſtinctly perceptible from the proper point of view; but in leſs conſiderable edifices, and under various circumſtances of which I ſhall hereafter give an accurate detail, more elegant proportions will be preferable.

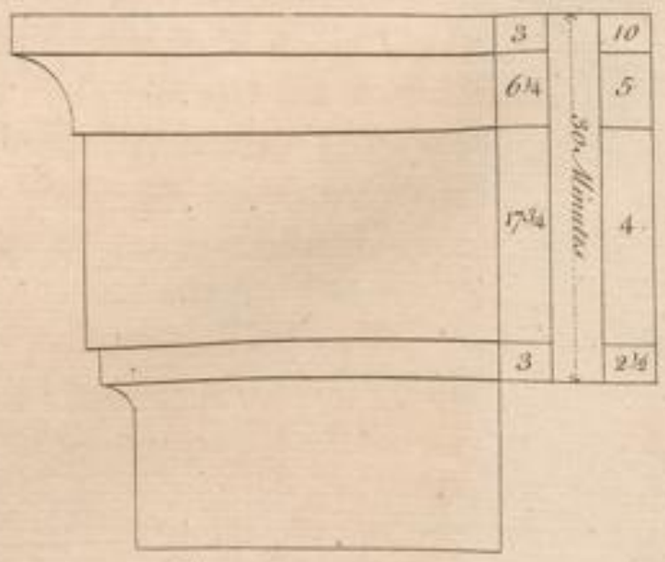
* Fig. 4. Pl. of Mouldings.

THE TUSCAN ORDER





Tuscan Archivolt and Impost; for Arches with Pedestals.



Tuscan Impost for Arches, without Pedestals.

W. Chambers

T. Patton Sculp.

Of the Tuſcan Order.

THERE are no remains of a regular Tuſcan Order among the Antiques: the doctrine of Vitruvius concerning it is obſcure; and the Profiles of Palladio, Scamozzi, Serlio, de l'Orme, and Vignola are all imperfect.

Of the two given us by Palladio, that taken from Vitruvius is too ruſtic, the other too rich, and ill compoſed; that of Scamozzi is yet richer, and too like the Doric; Serlio's is too plain; and Vignola's, though ſuperiour to the other, is faulty in the Cornice, which is clumſy, with regard to the reſt of the Order, ill proportioned in its parts, and ill profiled.

In the Deſign here annexed I have chiefly imitated Vignola's, who in this Order hath been almoſt univerſally followed; even Inigo Jones, who was ſo cloſe an adherer to Palladio, having employed Vignola's Profile in York Stairs, and others of his Buildings: but as the Cornice appears to me far inferiour to the reſt of the Compoſition, I have not ſcrupled to reject it, and in its place ſubſtitute that of Scamozzi, with ſuch alterations as were evidently neceſſary to render it perfect. The Height of the Column is fourteeen Modules, or ſeven Diameters, and that of the whole Entablature three and a half Modules: which being divided into ten equal parts, three of them are for the Height of the Architrave, three for the Frize, and the remaining four for the Cornice, the Capital is in Height one Module; the Baſe, including the lower Cincture of the Shaft, is alſo one Module. And the Shaft, with its upper Cincture and Aſtragal, twelve Modules.

Theſe are the general meaſures of the Order. As to the particular Dimenſions of the minuter parts, they may be collected from the Deſign, where the Heights and Projections are accurately marked; the latter being counted from perpendiculars raiſed at the extremities of the inferiour and ſuperiour Diameters of the Shaft: a method preferable to that of de Chambray and Deſgodetz, who count from the Axis of the Column; becauſe the relations between the eights and Projections are more perceptible, and whenever a Cornice or Entablature is to be executed without a Column, which very frequently happens, it requires no additional labour, as the trouble of deducting from each Dimenſions the Semi-Diameter of the Column is ſaved.

Scamozzi, that his Baſes might be of the ſame Height in all the Orders, has given the Tuſcan one, excluſive of the Cincture, half a Diameter. I have rather choſen to imitate Vignola and Palladio, who in this have deviated from the general rule: for as the Baſe of the Tuſcan Order is compoſed of two Members only, inſtead of ſix, which conſtitute the other Baſes, it becomes much too clumſy when the ſame general Proportion is obſerved.

The Tuſcan Order admits of no Ornaments of any kind: on the contrary it is ſometimes cuſtomary to repreſent, on the Shaft of its Column, ruſtic Cinctures; as at the Pitti of Florence, the Luxembourg at Paris, York-Stairs in London, and many other Buildings of note. This practice, however, though frequent, and to be found in the works of ſeveral celebrated Architects, is ſeldom excuſable, as it hides the natural figure of the Column, alters its

propor-

proportions, and deſtroys the ſimplicity of the whole compoſition. There are few examples of theſe Bandages in the remains of Antiquity; and, in general, it will be adviſable to avoid them in all large compoſitions; reſerving the ruſtic work for the intercolumniations, where it may be employed with great propriety, to produce an oppoſition, which will render the aſpect of the whole diſtinct and ſtriking. But in ſmaller works, whoſe parts are few, and therefore eaſily comprehended, they may be ſometimes tolerated. Le Clerc thinks they are proper for gates of Citadels and Priſons, whoſe entrance ſhould be dreadful; and they are likewiſe fit for gates of Gardens or Parks, Grottos, Fountains, and Baths, where elegance of form, and neatneſs of workmanſhip, would be out of character. De l'Orme, who was exceeding fond of theſe Cinctures, hath employed them in ſeveral parts of the Thuilleries, covered with Arms, Cyphers, and other enrichments. This is quite abſurd; for they can never be conſidered in any other light, than as parts which, to avoid expence and trouble, were left unfiniſhed. We likewiſe find, in different parts of the Louvre, vermiculated ruſtics of which the tracks repreſent flower de luces, and other regular figures: a practice more unnatural than the former; though Monſieur Daviler gravely tells us that it ſhould always be done with propriety, and expreſs a relation to the owner of the Structure; that is, the figures ſhould repreſent his Arms, Creſt, Mottos, Cyphers, &c.

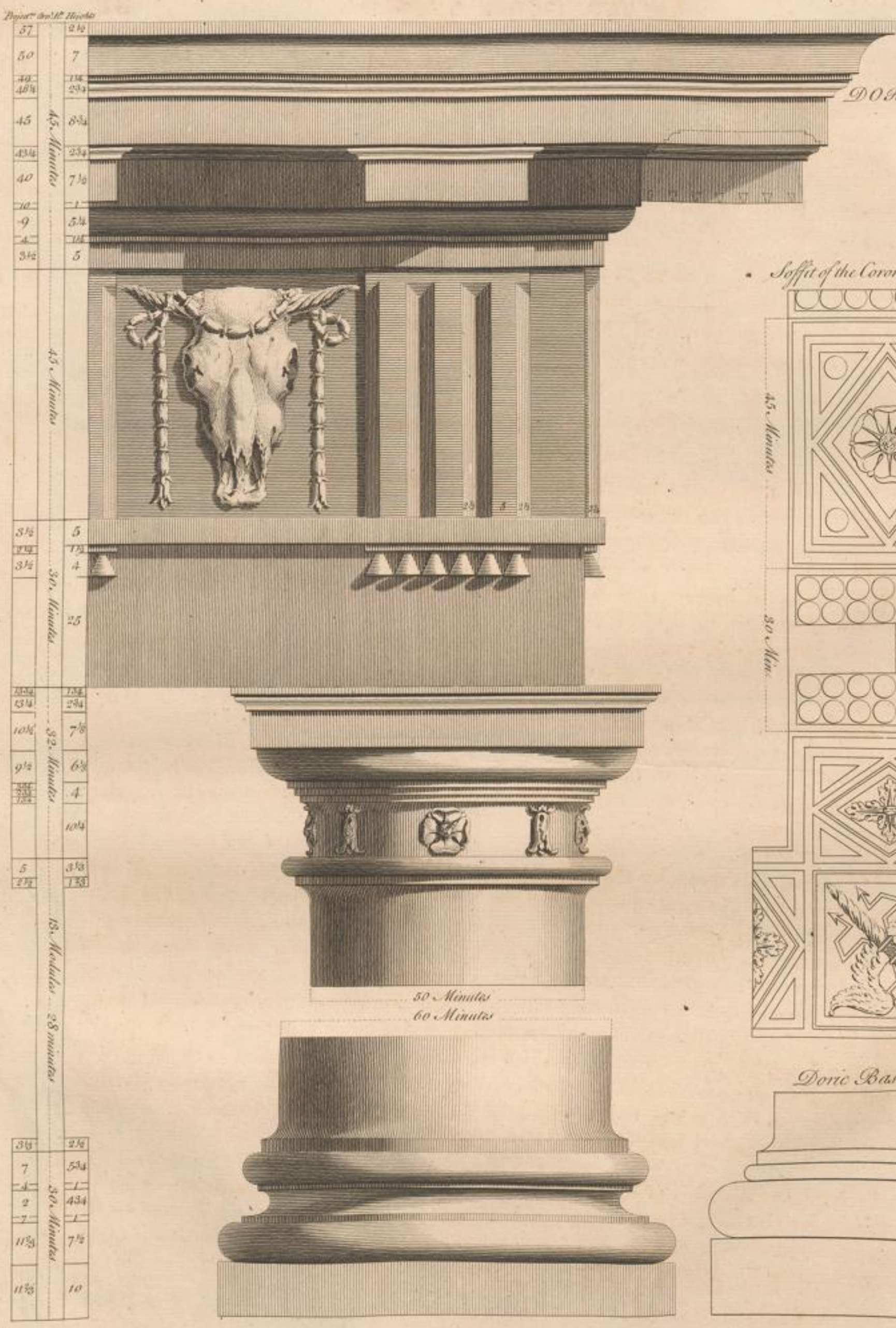
I have in the plate of Pediments given ſeveral Deſigns of ruſticated Columns, which are collected from buildings of note in different parts: and for the manner of executing them, as it cannot well be deſcribed, I refer to the Doric entrance of the King's ſtable at Charing-Croſs, the gate of Burlington-Houſe in Piccadilly, and that of Queensbury-Houſe in Burlington-garden: in all which places the different ſorts of ruſtic work are managed with judgement, and command of the chizel.

Monsieur de Chambray, in the Introduction to his Parallel, treats the Tuſcan Order with great contempt, and baniſhes it to the Country, as unworthy of a place either in Temples or Palaces: but in the latter part of his work he is more indulgent, and takes the Column again into favour, comparing it to a Queen ſeated on her throne, and diſtributing honours to her minions.

I ſhall not here diſpute the juſtneſs of Mr. de Chambray's remarks; but I will venture to affirm that not only the Tuſcan Column, but the whole Order, as repreſented in the annexed Deſign, (which being in fact the production of Vignola and Scamozzi, I may praiſe without the imputation of vanity), is extremely beautiful, and for its purpoſes inferiour to none of the reſt.

The Tuſcan Order, carrying with it an idea of ſtrength and ruſtic ſimplicity, is very proper for rural uſes, and may be employed in Farm houſes, Stables, Maneges, and Dog-Kennels, Green-houſes, Grottos, Fountains, gates of Parks and Gardens, and, in general, in all places where magnificence is not required, and expence is to be avoided. Serlio recommends the uſe of it in Priſons, Arſenals, Treaſuries, Sea-ports, and gates of fortified places; and Le Clerc obſerves, that though the Tuſcan Order, as treated by Vitruvius, Palladio, and ſome others, ought to be entirely rejected, yet according to the compoſition of Vignola, there is a beauty in its ſimplicity, which recommends it to eſteem, and entitles it to a place both in private and public buildings, even in Royal Palaces, to adorn the lower Apartments, Offices, Stables, and other places that require

THE DORIC ORDER



require ſtrength and ſimplicity, where richer and more delicate Orders would be improper.

In conformity to the doctrine of Vitruvius, and to the almoſt general practice of all the moderns, I have given to the Height of the Tuſcan Column ſeven Diameters, or fourteen Modules; a proportion which is very proper for rural or military works, where an appearance of extraordinary ſolidity is required: but in Town buildings, intended for civil purpoſes, or in interiour decorations, the Height of the Column may be fourteen and a half, or even fifteen Modules, as Scamozzi makes it; which augmentation may be made in the Shaft, without changing any meaſures either in the Baſe or Capital: nor need the Entablature be altered; for, as it is compoſed of few parts, it will be ſufficiently bold, though its Height be a little leſs than one quarter of the Height of the Column.

Of the Doric Order.

De Chambray, in his Parallel, gives three Profiles of the Doric Order; one taken from the Theatre of Marcellus, and the others copied by Pietro Ligorio from various fragments of Antiquity, in and near Rome. Vignola's ſecond Doric Profile bears a near reſemblance to the moſt beautiful of theſe, and was not improbably collected from the ſame Antique which Ligorio copied: though it muſt be owned that Vignola hath, in his compoſition, far exceeded the original; having omitted the many trivial and inſignificant mouldings, with which that is overloaded, and in many reſpects, amended both its form and proportions.

As this Profile of Vignola's is compoſed in a greater ſtyle, and in a manner more characteriſtic of the Order, than any other, I have made choice of it for my model; having, in the general form and proportions, adhered ſtrictly to the original; though in particular members I have not ſcrupled to vary, when obſervation taught me they might be improved.

Vignola, as appears by the preface to his Orders, imagined that the graceful and pleaſing aſpect of Architectonic objects, was occaſioned by the harmony and ſimplicity of the relations between their parts; and, in compoſing his Profiles, he conſtantly adjuſted his meaſures by theſe ſimple affinities, ſuppoſing the deviations from them, in his antique originals, to proceed rather from the inaccurate execution of the workmen, than from any premeditated deſign in the contriver. To this notion may be aſcribed many little defects, in the proportions of his mouldings, and minuter members; which, though trifling in themſelves, yet, from the ſmallneſs of the parts where they happen to be, are of conſequence, and eaſily perceivable by a judicious eye. Theſe I have therefore endeavoured to correct, not only in this, but in others of his Orders; which, from their conformity to the beſt Antiques, I have in the courſe of this work choſen to imitate.

It has been already obſerved, that the real relations, ſubſiſting between diſſimilar figures, have no connection with the apparent ones; and it is a truth too evident to require demonſtration. No one will deny, for inſtance, that the Ovolo, in the annexed Doric Cornice *, viewed in its proper elevation, will appear much larger than the Ca-

* Pl. Doric Order.

pital of the Triglyph under it; though, in reality, they are nearly of the ſame dimenſions: and, if the ſame Ovolo were placed as much below the level of the ſpectator's eye, as it is above it in the preſent caſe, it is likewiſe clear that it would appear conſiderably leſs than any flat member of the ſame ſize. Theſe things being ſo, a ſtrict attachment to harmonic relations ſeems to me unreaſonable; ſince what is really in perfect harmony, may in appearance produce the moſt jarring diſcord.

PERFECT proportion in Architecture, if conſidered only with regard to the relations between the different objects in a compoſition, and as far as it relates merely to the pleaſure of the ſight, ſeems to conſiſt in this, that thoſe parts, which are either principal or eſſential, ſhould be ſo contrived as to catch the eye ſucceſſively, from the moſt conſiderable to the leaſt, according to their degrees of importance in the compoſition, and impreſs their images on the mind before it is affected by any of the ſubſervient members; yet that theſe ſhould be ſo conditioned, as not to be intirely abſorbed by the former, but capable of raiſing diſtinct ideas likewiſe, and ſuch as may be adequate to the purpoſes for which theſe parts are deſigned. The different figures and ſituations of the parts may, in ſome degree, contribute toward this effect: for ſimple forms will operate more ſpeedily than thoſe that are complicated, and ſuch as project will be ſooner perceived than thoſe that are more retired. But dimenſion ſeems to be the predominant quality; or that which acts moſt powerfully on the ſenſe: and this, as far as I know, can only be diſcovered by experience; at leaſt to any degree of accuracy. When therefore any number of parts, arranged in a particular manner, and under particular proportions, excite, in the generality of judicious ſpectators, a pleaſing ſenſation, it will be prudent on every occaſion, where the ſame circumſtances ſubſiſt, to obſerve exactly the ſame proportions; notwithſtanding they may in themſelves appear irregular and unconnected.

IN compoſing the Orders and other Decorations, which are now offered to the public, I have conſtantly followed this method; having for that purpoſe meaſured, with the utmoſt accuracy, many antique and modern buildings, both at Rome, and in other parts; ſtrictly copying ſuch things as appeared to be perfect, and carefully correcting others, that ſeemed, in any degree, faulty: relying, not ſo much on my own judgment, in doubtful points, as on the opinion of ſeveral learned and ingenious artiſts, of different nations, with whom I had the advantage of being intimately connected when abroad.

I AM ſenſible that the extraordinary degree of accuracy, which hath been aimed at in theſe compoſitions, is of little conſequence to the generality of ſpectators. Nevertheleſs, as in Poetry, Muſic, Painting, and indeed in all the Arts, there are many delicacies, which, though they eſcape the vulgar, afford uncommon ſatisfaction to perſons of more enlightened conceptions; ſo, in Architecture, this kind of perfection is the ſource of a ſecondary pleaſure, which may be compared to that excited by the graces of language in Poetry, by the ſwell, inflection, and other artifices of the voice in Muſic, and in Painting, by the taſte of deſign, and the ſpirited, artful, touches of a maſterly pencil.

IT may perhaps be objected that the proportions here eſtabliſhed, though good on one occaſion, may on others be faulty. But this objection will be groundleſs, with regard to Capitals and Entablatures: their ſituation, with reſpect to the Order to which they

they belong, is conſtantly the ſame; and the point of view being more or leſs diſtant, according to the ſize or elevation of the order, the apparent magnitudes of their parts will conſtantly bear, nearly, the ſame proportion to each other; even though they ſhould be exalted to a ſecond or third ſtory. With regard to Baſes, indeed, their being placed on pedeſtals, or immediately on the ground, will occaſion ſome difference in their appearance; and, when they are raiſed to a ſecond ſtory, their figure and apparent proportions will be conſiderably altered. Nevertheleſs, it doth not ſeem neceſſary to vary their dimenſions in either of theſe caſes: for in the former of the two the alteration would be trifling; and, in the latter, the object is ſo far removed from the eye, that the ſpectator is rather occupied in conſidering the general maſs, than in examining it's particular parts, which, on account of their diſtance, are not diſtinctly perceptible.

The Height of the Doric Column, including it's Capital and Baſe, is ſixteen Modules, and the Height of the Entablature four Modules; the latter of which being divided into eight parts, two of them are for the Architrave, three for the Frize, and three for the Cornice.

In moſt of the Antiques, the Doric Column is executed without a Baſe: Vitruvius likewiſe makes it without one; the Baſe, according to that Author, having been firſt employed in the Ionic Order, to imitate the Sandal, or covering of a woman's foot. Scamozzi blames this practice; and moſt of the Moderns have been of his opinion; the greateſt part of them having employed the Attic Baſe in this Order. Monſieur de Chambray, however, whoſe blind attachment to the Antique is, on many occaſions, too evident, argues vehemently againſt this practice; which, as the Order is formed upon the model of a ſtrong man, who is conſtantly repreſented bare-footed, is, according to him, very improper; and though the cuſtom of employing a Baſe, in contempt of all ancient authority, hath, by ſome unaccountable and falſe notion of beauty, prevailed, he doubts not but the purer eye, when apprized of this errour, will eaſily be undeceived; and as what is merely plauſibly will, when examined, appear to be falſe, ſo apparent beauties, when not founded in reaſon, will of courſe be deemed extravagant.

Le Clerc's remarks on this paſſage are very judicious; and, as they will ſerve to deſtroy a notion, which is too prevalent among us, I ſhall, for the benefit of thoſe, who are unacquainted with the original, tranſlate the whole paſſage. "In the moſt ancient "monuments of this Order, ſays he, the Columns are without Baſes; for which "it is difficult to aſſign any ſatisfactory reaſon. Monſieur de Chambray, in "his Parallel, is of the ſame opinion with Vitruvius, and maintains that the "Doric Column, being compoſed upon the model of a naked, ſtrong, and "muſcular man, reſembling a Hercules, ſhould have no Baſe; pretending that "the Baſe to a Column is the ſame as a ſhoe to a man. But I muſt own I cannot "conſider a Column without a Baſe, in comparing it to a man, but I am at the ſame "time ſtruck with the idea of a perſon without feet rather than ſhoes: for which reaſon "I am inclinable to believe, either, that the Architects of Antiquity had not yet "thought of employing Baſes to their Columns or that they omitted them, in order to "leave the pavement clear; the Angles and Projections of Baſes being ſtumbling blocks to "paſſengers, and ſo much the more troubleſome, as the Architects of thoſe times frequently "placed their Columns very near each other: ſo that had they been made with Baſes, the "paſſages between them would have been extremely narrow and inconvenient: and it "was doubtleſs for the ſame reaſon that Vitruvius made the Plinth of his Tuſcan Co-"lumn round; that Order, according to his conſtruction, being particularly adapted to

" ſervile and commercial purpoſes, where conveniency is preferable to beauty. However " this be, perſons of good taſte will grant, that a Baſe not only gives a graceful turn " to the Column, but is likewiſe of real uſe; ſerving to keep it firm on its plan; and " that if Columns without Baſes are now ſet aſide, it is a mark of the wiſdom of our " Architects, rather than an indication of their being governed by prejudice, as ſome " adorers of Antiquity would inſinuate."

In imitation of Palladio, and all the modern Architects except Vignola, I have made uſe of the Attic Baſe in this Order: and it is the moſt beautiful of any, though for variety's ſake, when the Doric and Ionic Orders are employed together, the Baſe invented by Vignola, of which a Profile is annexed, may ſometimes be uſed: Bernini has uſed it in the Colonnades of St. Peter's, and it hath been ſucceſsfully applied in many other buildings.

The Antients ſometimes made the Shaft of the Doric Column priſmatic, as appears by a paſſage in the fourth book of Vitruvius; and at other times they adorned it with a particular kind of ſhallow Flutings, deſcribed from the center of a ſquare, no interval or fillet being left between them; of which ſort there are now ſome Columns to be ſeen at the Temples of Peſto near Naples, and in the church of St. Peter in Catenis at Rome. The former of theſe manners hath not, I believe, been imitated by any of the moderns: nor is the ſecond very frequent; Scamozzi blames it for its want of ſolidity, the projecting angles between the Flutings being eaſily broken, and very ſubject to moulder.

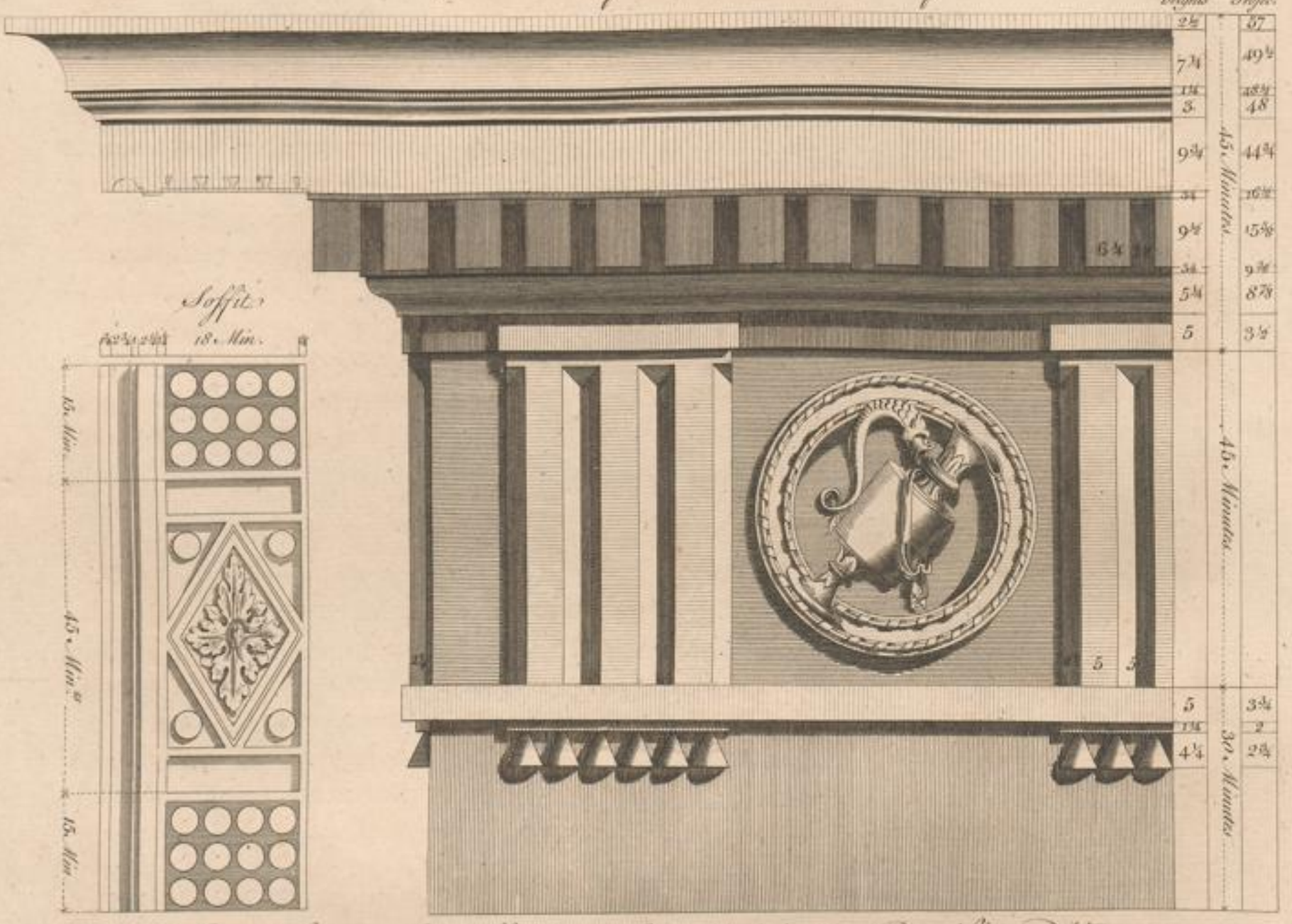
Vitruvius gives to the Height of the Doric Capital one Module, and all the moderns, except Alberti, have followed his example. Nevertheleſs, as it is of the ſame kind with the Tuſcan, they ſhould both bear nearly the ſame proportion to the Heights of their reſpective Columns; and conſequently the Doric Capital ought to be more than one Module, and accordingly it is ſo both at the Coliſeum, and in the Theatre of Marcellus; being in the former of theſe buildings upwards of thirty-eight Minutes, and in the latter thirty-three Minutes.

In the Deſign here offered, I have made the Height of the whole Capital thirty-two Minutes, and, in the Form and Dimenſions of the particular members, have deviated but little from the Profile of the Theatre of Marcellus. The Frize, or Neck, is enriched with Huſks and Roſes, as in Palladio's Deſign, and as it has been executed by Sangallo at the Farneſe, and by Cigoli in the Cortile of the Strozzi at Florence, as well as in ſeveral buildings of note in this city. The Projection of theſe Husks and Flowers muſt not exceed that of the upper Cincture of the Column.

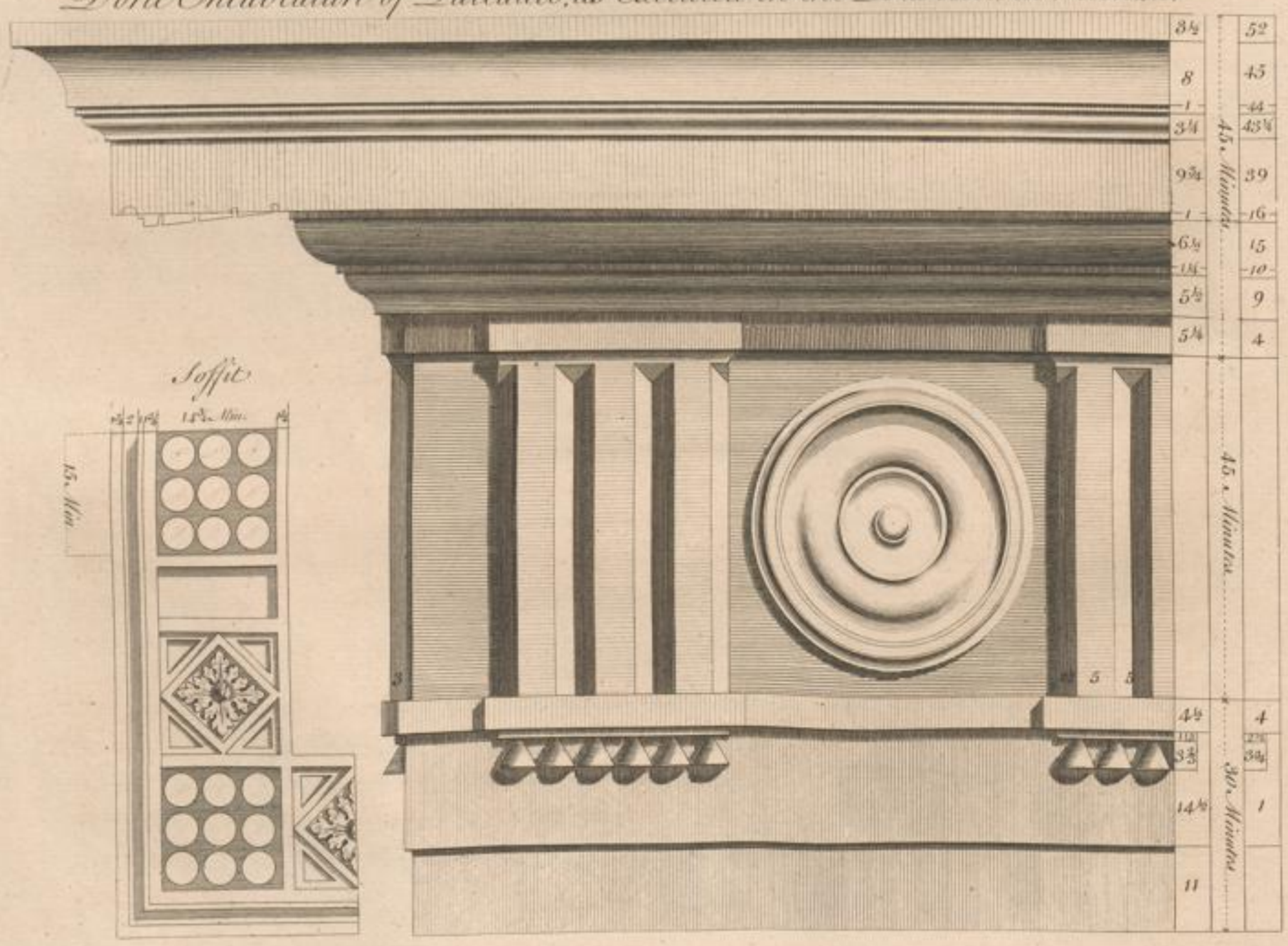
The Architrave is one Module in Height, and compoſed only of one Faſcia and a Fillet, as at the Theatre of Marcellus: the Drops are conical, as they are in all the Antiques; and not pyramidal, as they are very improperly made by moſt of our Engliſh workmen.

The Frize and Cornice are each of them one Module and a half in Height: the Metope is enriched with a Bull's skull, adorned with a Garland of Beads; in imitation of thoſe on the Temple of Jupiter Tonans, at the foot of the Capitol. In ſome Antique fragments, and in a great number of modern buildings, the Metopes are alternately enriched with theſe Ox skulls, and Pateras; but they may be filled with any other ornaments

Doric Entablature, Imitated from the Theatre of Marcellus.



Doric Entablature of Palladio, as Executed in the Basilica at Vicenza.



I. Gandon Delin. *F. Patton Sculp.*

ments of good forms, and frequently with greater propriety. Thus, in military ſtructures, Heads of Meduſa, or the Furies; Thunderbolts, and other ſymbols of Horrour, may be introduced: likewiſe Helmets, Daggers, and Garlands of Laurel, or Oak. But Spears, Swords, Quivers, Bows, Cuiraſſes, Shields, and the like, muſt be avoided; becauſe the real dimenſions of theſe things are too conſiderable to find admittance in ſuch ſmall compartments; and repreſentations in miniature always carry with them an idea of littleneſs. In Sacred Buildings, Cherubs, Chalices, and Garlands of Palm or Olive, may be employed: likewiſe Doves, or other Symbols of moral virtues; and in private houſes, Creſts and Badges of dignity, may ſometimes be ſuffered, though ſeldom; and indeed never, when they are of ſuch formal and inſipid figures, as Stars and Garters, Crowns, Coronets, Mitres, Truncheons, and the like; the bad effects of which may be ſeen at the Treaſury in St. James's Park.

Too much Variety in the Ornaments of the Metopes muſt be avoided, for fear of deſtroying the unity of the compoſition: and it is beſt never to introduce more than two different repreſentations, which ſhould not conſiſt of above one, or at moſt two objects, each, of ſimple forms, and not overcharged with Ornaments. In the diſpoſition of theſe care muſt be taken to place them with Symmetry; thoſe on the right correſponding with thoſe on the left: wherefore, when a Triglyph happens to be in the middle of a Front, it becomes neceſſary to couple the middle ones, by filling the two Metopes, on each ſide of the central Triglyph, with the ſame ſort of Ornaments; (as at the gate of Burlington-Houſe,) diſpoſing the reſt alternately throughout the whole Front, as uſual. It is likewiſe to be obſerved, that the Ornaments of the Metopes are not to project ſo much as at Bow-Church, and at General Wade's Houſe in Burlington-Garden; where they are far more ſtriking than the Triglyphs, which ought to be predominant; being Eſſential and Principal parts in the compoſition. Palladio, in the Baſilica of Vicenza, has given to the moſt elevated parts of the Ox-Skulls and Pateras very little more projection than that of the Triglyph, and in this he has copied the Antients, who ſeldom or never gave more projection to any Ornament than that of the border in which it was encloſed; as appears by thoſe inimitable fragments in the Villa Medici, and many others in different parts of Rome. The Channels of the Triglyph in their Plan commonly form a right angle; but, to give them more effect, a narrow channel may be cut in the inner angle from top to bottom, and quite to the ſolid of the Frize.

In the Cornice I have deviated very little from my Original. Le Clerc, who, in his Doric Profile, has imitated that of Vignola, makes the Mutules as broad as the Capital of the Triglyph. Mr. Gibbs hath followed his example; and they have been executed in this manner at a couple of doors to houſes on the North-Side of Lincoln's Inn Fields. But Vignola's method is preferable, who makes them only as broad as the Triglyph. The ornaments of the Soffit are nearly the ſame as thoſe of Vignola: they ſhould be entirely wrought in the ſolid of the Corona, and have no projection beyond it. There is no neceſſity for cutting them deep. In moſt of Palladio's buildings, they do not enter above two minutes, and that is ſufficient.

Vignola's other Doric Profile is an imitation of that of the Theatre of Marcellus; and in it he has very judiciouſly pointed out, and, in ſome meaſure, corrected the faults of the original: but his reverence for the Antique has made him rather too ſparing in his amendments. I have given a deſign of this Profile *, with ſuch farther corrections as

* Pl. Doric Entablatures.

appeared neceſſary; the moſt conſiderable of them conſiſting in the enlargement of the Dentils, which, both in the Antique and in Vignola's Profile, are too ſmall.

At the Theatre of Marcellus, the Ornaments of the Soffit are not in a horizontal poſition, but hang down towards the Front of the Corona; which, as it appears by Vitruvius, was a common practice amongſt the Antients, and done to imitate the inclination of the Rafters. Palladio and Vignola have both adopted this particularily; which Davilere ſuppoſes to have been firſt uſed in order to make the projection of the Entablature appear more conſiderable. It has an exceeding diſagreeable look: the whole Soffit ſeems to be falling; and ſo far is it from producing the effect which Monſieur Davilere ſuppoſes, that it actually makes the projection ſeem leſs than it really is.

Vignola's two Doric Entablatures, ſays Davilere, are both of them ſo elegantly compoſed, that it is ſcarce poſſible to determine which ought to have the preference. The firſt of his Profiles, which is entirely Antique, is the lighteſt, and conſequently the propereſt for interiour decorations, that are to be viewed near: the other, on the contrary, which was compoſed by Vignola, being bolder, ſeems intended for outſide works, and places where the point of view is not limited. In polygonal plans the Mutule Cornice muſt be avoided; becauſe the Soffits of the angular Mutules will form irregular and very diſagreable figures: neither ſhould it be employed in Concaves, of ſmall dimenſions, for the ſame reaſon; nor in places where frequent breaks are requiſite, becauſe it is extremely difficult, often impoſſible, to prevent the Mutules from penetrating each other. When the Mutule Cornice is uſed on a convex ſurface, the ſides of the Mutules muſt be parallel. For it would be diſagreable to ſee them broader in front than they are at the place where they ſpring out of the Mutule Band.

Palladio's Doric Entablature is likewiſe very beautiful: I mean as it is executed in the Baſilica at Vienna, which is widely different from the Profile in his book *. In the ſame plate with Vignola's Dentil Entablature, there is a Deſign of it accurately copied; which may ſerve as one inſtance of many, to ſhew how little the meaſures of his book are to be relyed upon.

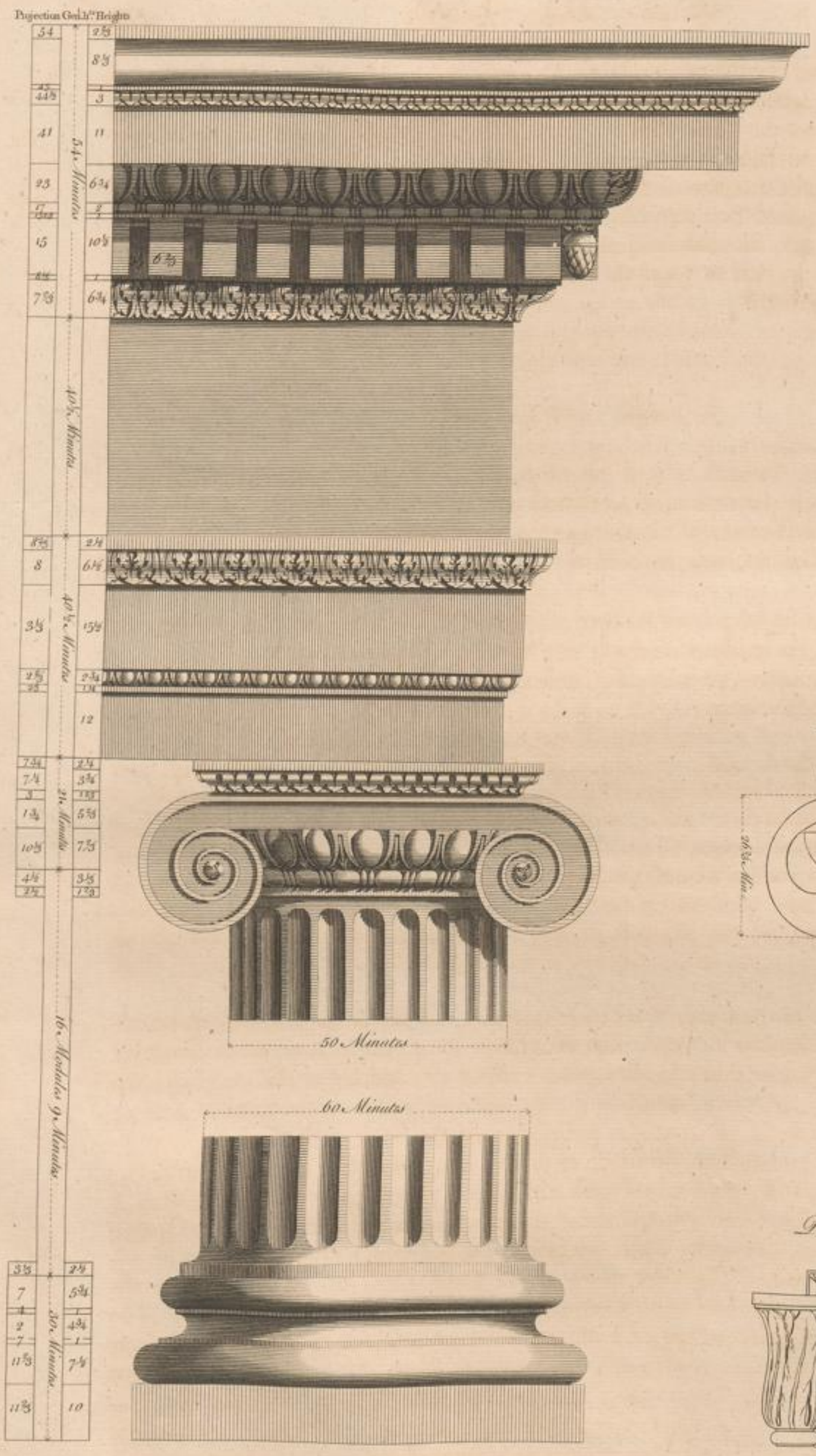
Of all the Orders the Doric is moſt difficult to diſtribute, on account of the large Intervals between the Triglyphs. At the Coliſeum they are omitted; and ſo they are in the Colonnades of St. Peter's, and in ſeveral other bnildings at Rome. This indeed obviates the difficulty; but it likewiſe deprives the Order of one of its principal Ornaments, without which it is very little preferable to the Tuſcan.

The Antients employed the Doric in Temples dedicated to Minerva, to Mars, and to Hercules; whoſe grave and manly diſpoſitions ſuited well with the character of this Order. Serlio ſays it is proper for Churches dedicated to Jeſus Chriſt, St. Paul, St. Peter, or any other Saints remarkable for their fortitude, in expoſing their lives for the Chriſtian faith. Le Clerc recommends the uſe of it in all kinds of Military Structures; as Arſenals, Gates of fortified places, Guard-houſes, &c. and it may likewiſe be employed in the Houſes of Generals, or other Martial men, in Mauſoleums erected to their memory, or in Triumphal Bridges and Arches built to celebrate their victories.

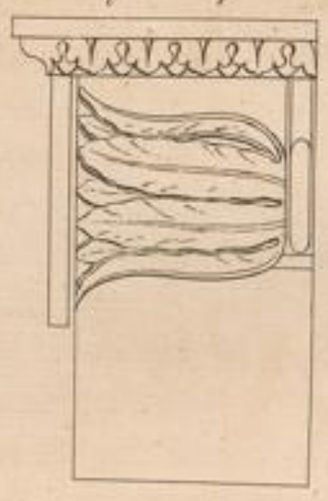
* Pl. Doric Entablatures.

I have

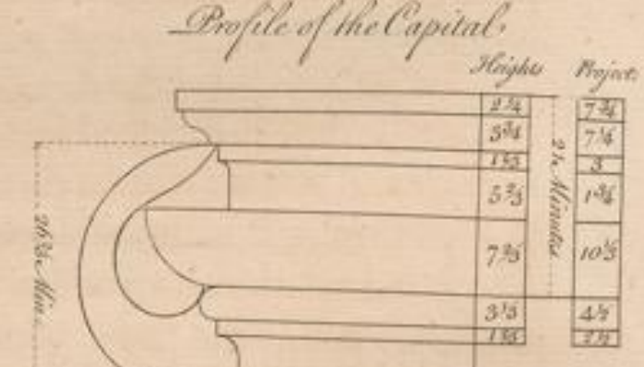
THE IONIC ORDER.



Side of the Capital

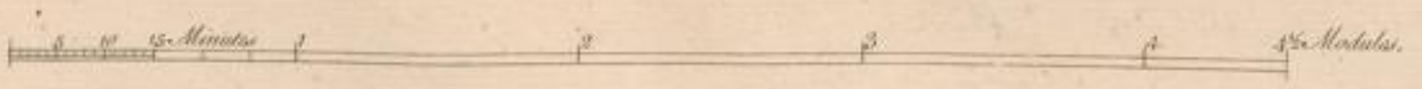


Profile of the Capital



Plan of the Capital





C.r Chambers Delin.t

E. Rooker Sculp.

I HAVE made the Height of the Doric Column ſixteen Modules; which, in buildings where Majeſty is required, is a good proportion: but in others it may be ſlenderer. Thus Vitruvius makes the Doric Column in Porticos higher by half a Diameter than in Temples; and moſt of the modern Architects have on ſome occaſions followed his example. In private houſes therefore it may be 16 $\frac{1}{3}$, 16 $\frac{1}{2}$, or 16 $\frac{2}{3}$ Modules high; and in interiour decorations even ſeventeen Modules, and ſometimes a trifle more; which encreaſe in the Height may be made entirely on the Shaft, as in the Tuſcan Order, without changing either the Baſe or Capital. The Entablature may remain unaltered: for it will be ſufficiently high.

Of the Ionic Order.

AMONG the Antients, the form of the Ionic Profile appears to have been more poſitively determined, than that of any other Order; for in all the Antiques at Rome (the Temple of Concord excepted) it is exactly the ſame, and agreeable to the deſcription Vitruvius hath given of it.

THE modern Artiſts have likewiſe been unanimous in their opinion; all of them, excepting Palladio and his imitators, having employed the Dentil, Cornice, and the other parts of the Profile, nearly as they are found in the Coliſeum, the Temple of Fortune, and the Theatre of Marcellus.

IN Palladio's works we meet with three different Ionic Entablatures, all of them very beautiful. The firſt is the true Antique, which he has made uſe of at the Palace of the Porti in Vicenza, and in ſeveral doors and windows of the Thieni, and Valmarano. The ſecond is a very judicious imitation of the Entablature in the Temple of Concord, and executed in the ſecond ſtory of the Baſilica at Vicenza. And the third, which is an invention of his own, being the ſame with that in his book, he hath employed with ſome little difference at the Chiericato, at the Rotonda of Marcheſi Capra, and in ſeveral others of his buildings.

IN the firſt Plate of the Ionic Order there is a Deſign of the Antique Profile, collected from different Antiquities at Rome. The Height of the Column is eighteen Modules, and that of the Entablature four Modules and a half, or one quarter of the Height of the Column, as in the other Orders; which is a trifle leſs than in any of the regular Antique Ionics. The Baſe is Attic, as in all the Antiques, and the Shaft of the Column may be plain, or fluted with twenty four Flutings, or twenty only, as at the Temple of Fortune; whoſe Plan may be a trifle more than a ſemi-circle, as at the Temple of Jupiter Tonans, and the Forum of Nerva, becauſe they then appear more diſtinct; and the Fillet, or Interval between them, muſt not be broader than one third of the breadth of a Fluting, nor narrower than one quarter thereof. The Ornaments of the Capital are to correſpond with the Flutings of the Shaft; and there muſt be an Ove above the middle of each Fluting. The Volutes are to be traced according to Goldman's method, which is the beſt. I have given a Deſign of it, with an exact deſcription upon the Plate. Perrault prefers de l'Orme's method of deſcribing it; yet certainly it is not ſo perfect. For in the latter, the circular portions that compoſe the Volute have their radii, at their junction, in one ſtreight line; ſo that they meet without forming an angle: whereas in that of de l'Orme, the radii

never coincide; and conſequently no two of the curves can joyn without forming an angle. The ſpace, in de l'Orme's Volute, between the firſt quadrants, in the firſt and ſecond revolution, is of the ſame breadth throughout; both the quadrants being deſcribed from the ſame center: in Goldman's the ſpace between the revolutions diminiſhes regularly from the very firſt. Moreover, de l'Orme hath given no directions for deſcribing the inner Spiral, which is to determine the breadth of the Fillet, and which in his Deſign is nearly of the ſame breadth from firſt to laſt; but Goldman hath taught the manner of deſcribing it, ſo as to diminiſh gradually, with the ſame accuracy as the outward Spiral. Palladio's Volute differs but little from that of de l'Orme, and hath therefore nearly the ſame defects: and though Mr. Gibbs hath, in ſome meaſure, mended it, yet his likewiſe is faulty in the breadth of the Fillet, which is equal through the greateſt part of the firſt revolution.

VIGNOLA and Scamozzi have, in their Architraves, imitated thoſe of the Theatre of Marcellus, and of the Coliſeum; having compoſed them of three Faſcias, which are only diſtinguiſhed from each other by a ſmall projection. This hath a bad effect; and Palladio's and de l'Orme's Architraves appear to me too rich, being compoſed of three Faſcias, and a good number of Mouldings: ſo that I have choſen rather to follow the Profile of the Temple of Antoninus and Fauſtina in this particular.

THE three parts of the Entablature bear the ſame proportion to each other, in this as in the Tuſcan Order. The Frize is plain, as being moſt ſuitable to the ſimplicity of the reſt; and the Cornice is almoſt an exact copy from Vignola's Deſign, in which there is a grandeur of ſtile, that none of his competitors have arrived at.

IF it be required to reduce this Entablature to two ninths of the Height of the Column, (which, on moſt occaſions, is a proportion preferable to that of one quarter; particularly to eyes habituated to trivial objects), it may eaſily be done, by making the Module for the Entablature leſs by one ninth than the ſemi-diameter of the Column, dividing it as uſual, and obſerving the ſame dimenſions that are figured in the Deſign. The diſtribution of the Dentil-Band will anſwer pretty nearly in all the regular Intercolumniations; and in the outer Angle there will be a Dentil, as in the Temple of Fortune.

IN interiour decorations, where much delicacy is required, the Height of the Entablature may be reduced even to one fifth of the Column, by obſerving the ſame method, and making the Module only four fifths of the ſemi-diameter.

OF Palladio's Profiles, that imitated from the Temple of Concord appears to me the beſt: it's Height is equal to one fifth of the Height of the Column. The Deſign, which I have given of it, is cloſely copied from the Baſilica at Vicenza: but it will be more perfect if the Frize be made flat, and it's Height augmented ſo as to equal that of the Architrave; by which means the proportion of the Entablature to the Column will be better; for the relation of one to five is, generally ſpeaking, too ſmall. In the Cornice it will likewiſe be well to add, between the Corona and Fillet an Oge, of the ſame ſize with that over the Modillions, that all the parts may be equally rich, as Scamozzi has done; whoſe Ionic Entablature may be conſidered as a copy from this compoſition of Palladio. The Fillet may, in that caſe, be diminiſhed a trifle. Palladio's other Profile I have copied from the Rotonda of Capra: it's Height is likewiſe one fifth of the Column. The Frize, as in the former Deſign, is low and ſwelled: but it will be better to raiſe it to the ſame Height with

Fig. 1.

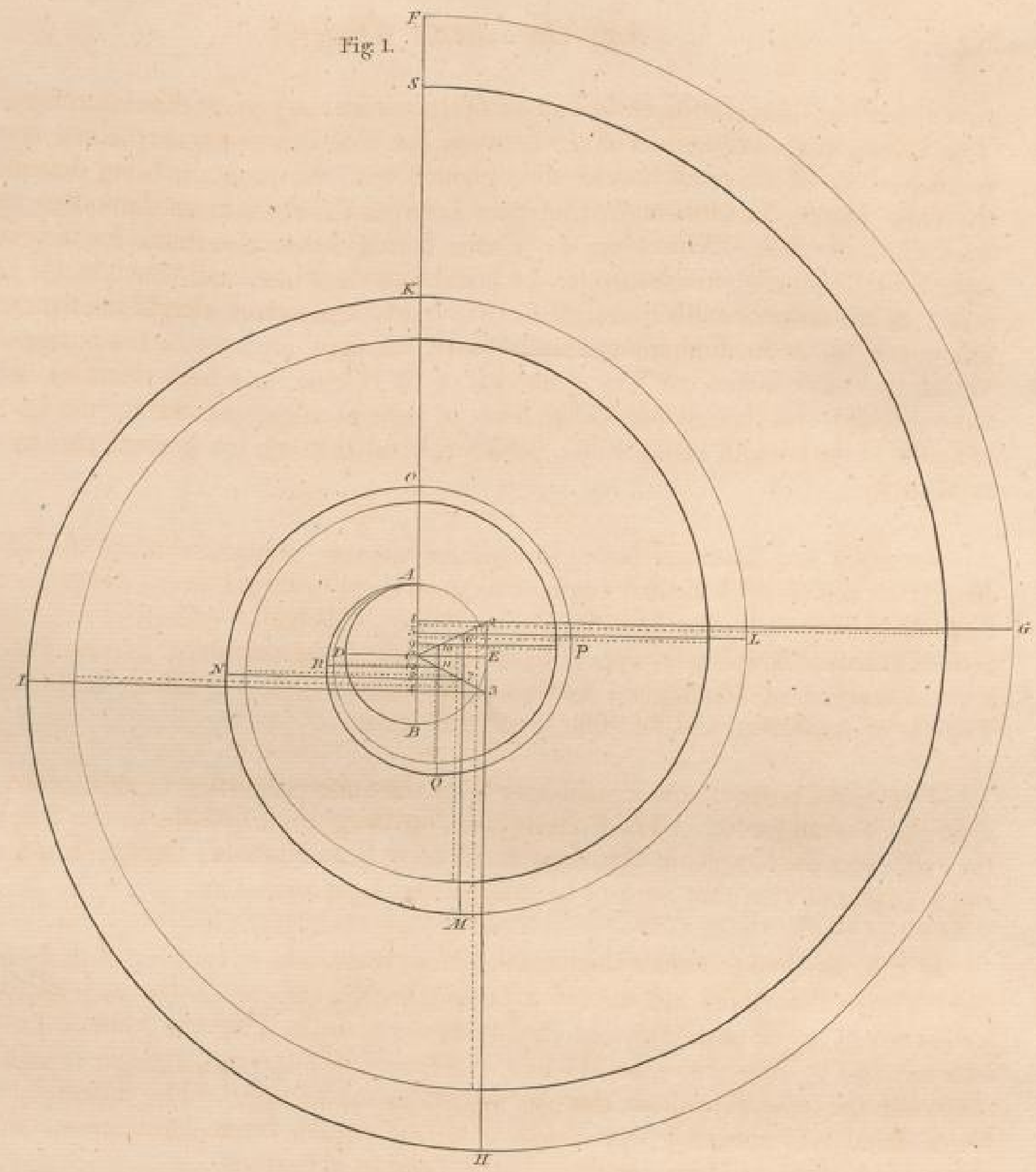
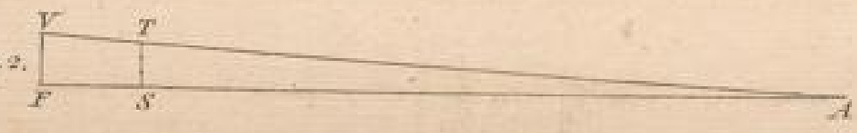


Fig. 2.

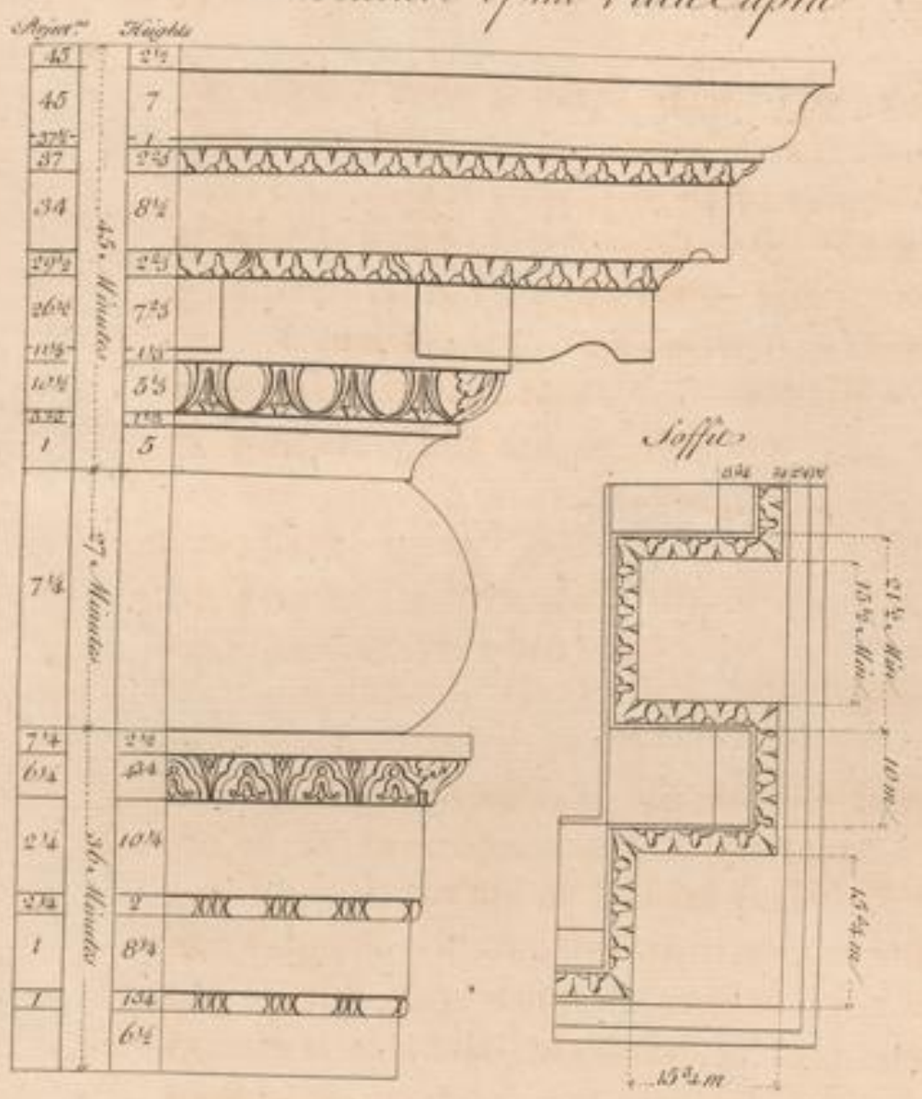


Goldman's Volute Described.

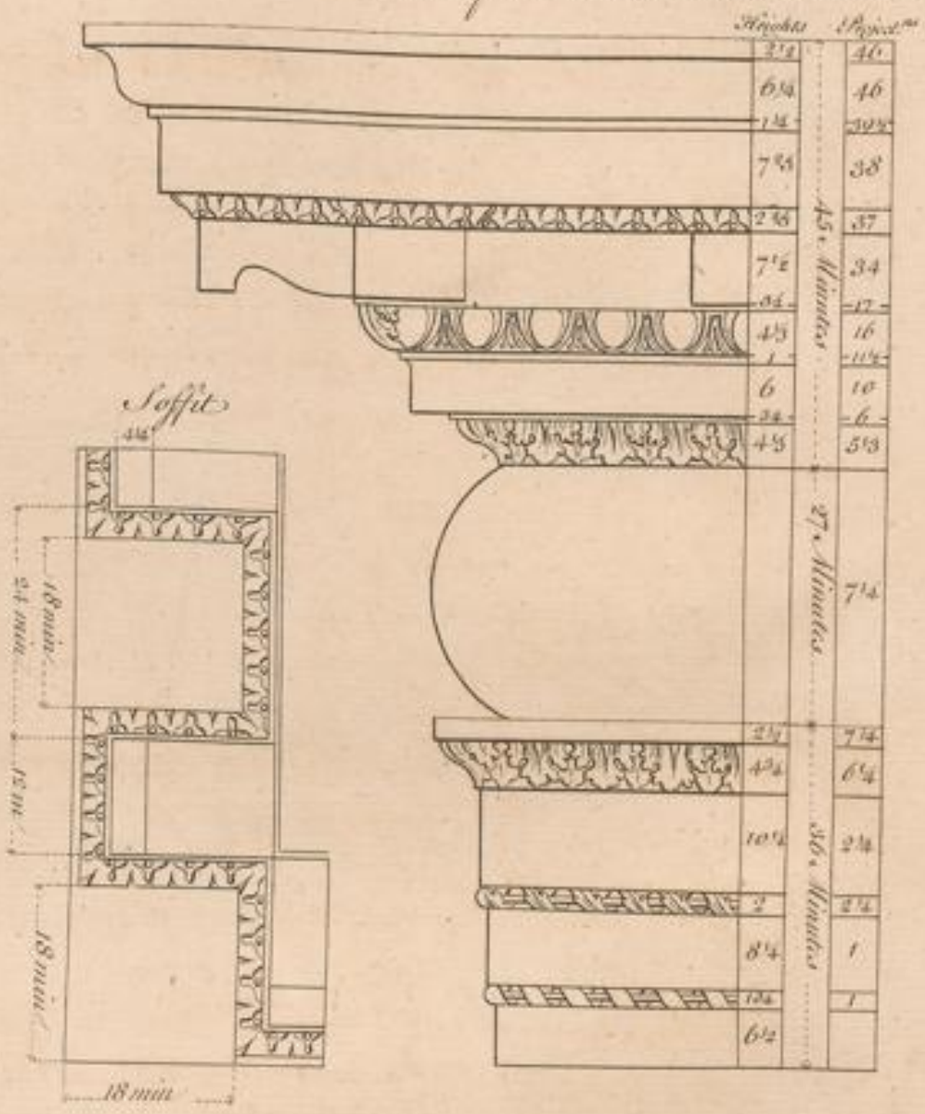
Fig. 1. *Draw the Cathetus F C whose length must be half a Module, and from the point C describe the Eye of the Volute A E B D, of which the Diameter is to be 3⅓ minutes, divide it into four equal Sectors by the Diameters A B, D E, Bisect the Radii C A, C B in 1 and 4, and on the line 1. 4 Construct a Square 1.2.3.4. from the Centre C to the Angles 2, 3 draw ye Diagonals C 2 C 3, and divide the side of the Square 1.4 into Six equal parts at 5.9.C 12.8. then through the points 5.9.12.8 draw the lines 5.6.9.10.12.11.8.7. parallel to the Diameter E D which will cut the Diagonals in 6 7 10 11. and ye points 1.2.3.4.5.6.7.8.9.10.11.12 will be the Centres of the Volute. From the first Centre 1 with the Interval 1 F describe ye Quadrant F G, from the second Centre 2 with the Interval 2 G describe the Quadrant G H, and continuing the same opperation from all the twelve Centres, the Contour of the Volute will be Completed.*

Fig. 2. *The Centres for describing the fillet are found in this manner. Construct a Triangle of which ye side A F is equal to the part of the Cathetus contained between A F, and the side F V equal to C 1. on the side A F place ye distance F S from F towards A, equal to F S the breadth of the fillet, and through the point S draw the line S T, which will be to C 1 in the same proportion as A S is to A F, place this line on each side of the Centre C on the Diameter of the Eye A B, divide it into three equal parts, and through the points of division draw lines parallel to the Diameter E D, which will cut the Diagonals C 2, C 3, and you will have twelve new Centres, from whence the interior Contour of ye fillet may be described, in the same manner as the exterior one was from the first Centres.*

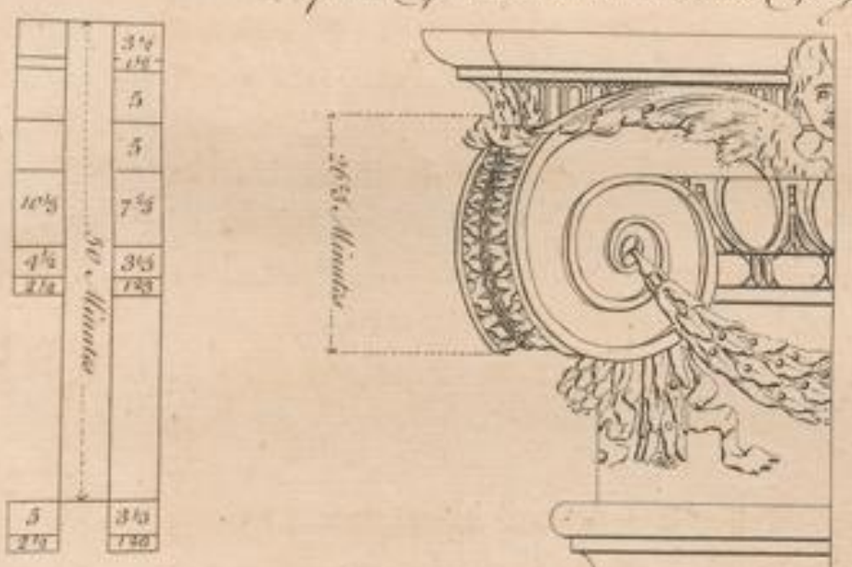
Ionic Entablature of the Villa Capra



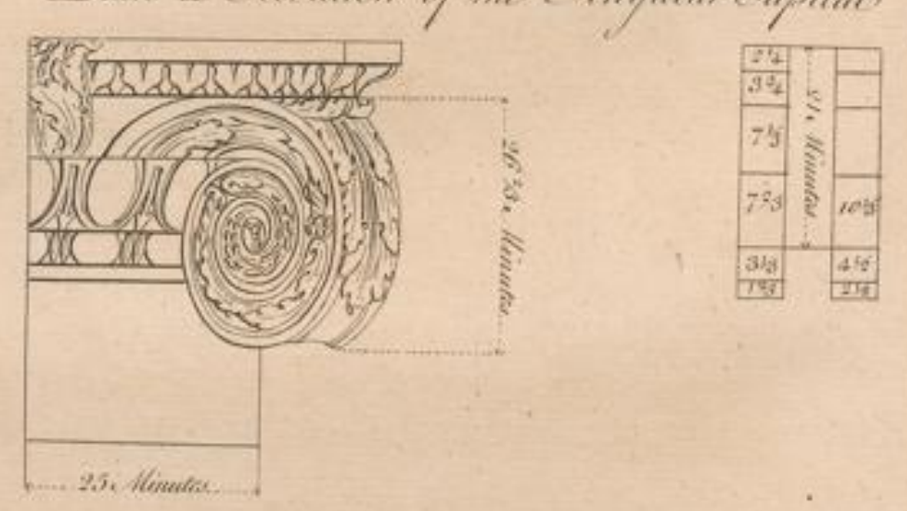
Ionic Entablature of the Basilica at Vicenza

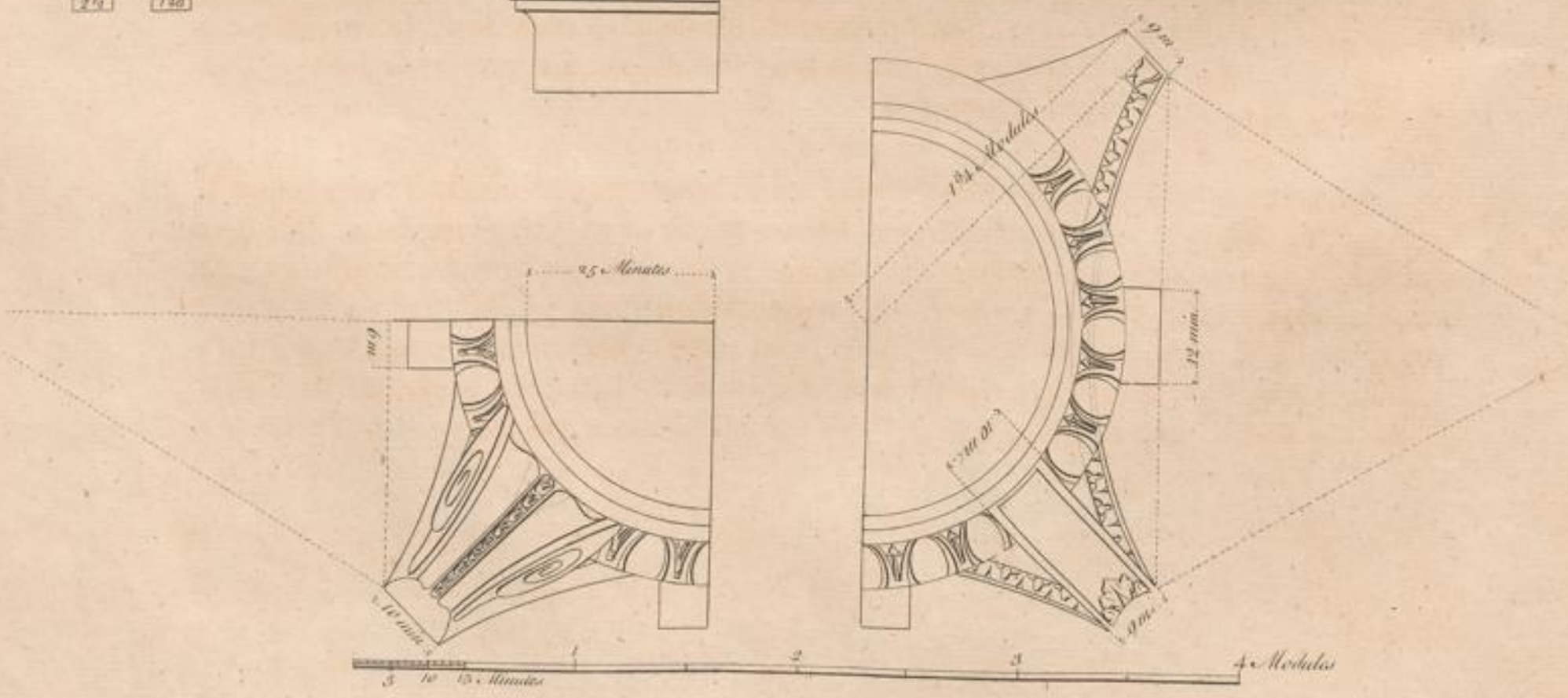


Plan & Elevation of the Capitals in the Roman College



Plan & Elevation of the Angular Capital





J. Chambers.

J. Patton Sculp.

with the Architrave, and keep it flat as before directed; for the ſwelling gives it a clumſy appearance, and renders the outline of the whole Entablature confuſed, and too abuudant in curves. In the Antiques there are few examples of theſe ſwelled Frizes; and they never ſucceed, but on doors or windows, where the Profile of the Architrave is not ſeen: there they form a good contraſt with the upright jambs; and have the farther advantage of contracting the breadth of the Cornice, (which in narrow intercolumniations is very convenient), and avoids the licentious practice of making the Frize and Cornice no broader than the aperture, ſupporting it on each ſide with a Scroll, as at the Sorbonne in Paris, and at the Manſion-Houſe in this City. Palladio, in both theſe Profiles, has enriched the Soffit of the Corona with Roſes; which are here omitted, as in moſt caſes they ſhould be. However, if the Column is fluted, and the reſt of the Compoſition much adorned, they may be employed; obſerving to proportion the Pannels and other parts, as in the Corinthian or Compoſite Order.

The Antique Ionic Capital differs from any of the others. Its Fronts and Sides are not alike. This particularity occaſions a very great difficulty, where ever there are any Breaks, or where the decoration is continued in Flank as well as in Front: for either all the Capitals in the Flank muſt have the Baluſter-ſide outwards, or the angular Capitals will have a different appearance from the reſt; neither of which is eligible. The Architect of the Temple of Fortune has fallen upon an expedient, that, in ſome degree, remedies the defect: the angular Capitals have the outward Volute in an oblique poſition, inclining equally to the Front and Side, and fronting both ways. Where perſons are violently attached to the Antique, and bent on rejecting all Modern inventions, however excellent, this is the only method that I know of: but when that is not the caſe, the angular Capital invented by Scamozzi, or rather imitated by him from the Temple of Concord, ought to be employed; for the diſtorted figure of the Antique Capital, with one Volute parallel and the other oblique, is very diſagreable to the ſight.

Annexed is a Deſign of Scamozzi's Capital, and another of a very beautiful one executed in St. Peter's of the Vatican, at the Church of the Roman College, and at ſome other places in Rome.

I have employed the Attic Baſe in this Order. Of the Antique Baſe deſcribed by Vitruvius, and uſed by Vignola and Philibert de l'Orme, in their Ionic Order, there is no example in the Antiques; and as it is univerſally eſteemed a very imperfect production, I have not given any Deſign of it.

As the Doric Order is particularly affected in buildings dedicated to male Saints, ſo the Ionic is uſed in ſuch as are erected to female Saints of the Matronal ſtate. It is likewiſe employed in Halls of Juſtice, in Libraries, Colleges, and other Structures that have any relation to Arts or Letters, in private Houſes and in Palaces, to adorn the Women's Apartments, and, ſays le Clerc, in all places conſecrated to peace and tranquillity. The Antients uſed it in Temples dedicated to Juno, to Bacchus, to Diana, and other Deities whoſe diſpoſitions held a medium between the ſevere and effeminate.

Of the Compoſite Order.

STRICTLY ſpeaking, the Antients had but four Orders: the Compoſite was not conſidered by them as a diſtinct production. Vitruvius expreſsly tells us, Book iv. Chap. 1., that on Corinthian Columns other Capitals of various kinds were employed; which nevertheleſs ought not to change the names of the Columns, becauſe their proportions remained ſtill the ſame.

THE Moderns, however, have ranked the Compoſite with the four Orders mentioned by Vitruvius; having, among the great number of Capitals to be met with in the remains of Antiquity, choſen for a Model that which hath been uſed in the Triumphal Arches, in the Temple of Bacchus, and the Baths of Dioclefian; rather, I believe, as agreeing more with the deſcription of Vitruvius, (who obſerves that they were compoſed of the Ionic, Doric, and Corinthian,) than from any preference in point of beauty to many others.

IT doth not appear that the Antients affected any particular form of Entablature to this Capital. Sometimes the Cornice is entirely plain, as in the Temple of Bacchus; at others, as in the Arch of Septimius Severus, it is enriched with Dentils differing very little from the Ionic: and in the Arch of Titus there are both Dentils and Modillions; the whole form of the Profile being the ſame with the Corinthian, as executed in the Antiques at Rome.

THE Modern Architects have varied more in this than in any other Order; abandoned, as de Chambray obſerves, by their guide Vitruvius, and left entirely at large, they have all taken different paths, each following the bent of his own particular fancy. Among them Serlio has been leaſt ſucceſsful; having choſen, for the Model of his Entablature, that of the fourth Order of the Coliſeum: a compoſition far too clumſy for a Tuſcan Order. De l'Orme, however, has followed his example, and miſtaken the Column of the fourth Order of the Coliſeum, which is Corinthian, for a Compoſite one.

PALLADIO, in his Profile, has imitated the Cornice of the Frontiſpiece of Nero, and corrected its defects with much judgement. His Architrave is likewiſe taken from the ſame building: but he has omitted its beautiful Frize, and in it's place ſubſtituted a ſwelled one, reſembling that of the Baſilica of Antoninus. His whole Entablature is too low; being only one fifth of the Height of the Column: and it is remarkable, that, though he has made the Column more delicate than in the Corinthian Order, yet the Entablature is far more maſſive, being compoſed of fewer and much larger parts. In the Deſign which I have given in the ſecond Plate of the Compoſite Order, Palladio's meaſures are cloſely obſerved: but if the Frize be augmented, ſo as to raiſe the Entablature to two ninths of the Column, made upright, and enriched with Ornaments, it will be more perfect, and may be employed in works of large dimenſions, which are to be ſeen at a good diſtance. But for interiour Decorations, and in all places where Delicacy is required, it is too clumſy; Palladio's Capital and Baſe are imitated from the Arch of Titus. The latter of them is deſigned without a Plinth, as in the Temple of Veſta at Tivoli, and joined to the Cornice of the Pedeſtal by a ſlope: which not only has a bad effect, but is in itſelf defective; becauſe the Baſe is diveſted of its moſt Eſſential Member.

VIGNOLA's Compoſite has nothing remarkable in it. The Architrave differs little from that of the Frontiſpiece of Nero, and the Cornice is nearly the ſame with his Ionic; the

THE ROMAN OR COMPOSITE ORDER.

Plan of the Capital

Soffit of the Corona

Angular View of the Capital

Composite Base

60 Minutes

45 Minutes

30 Minutes

50 Minutes

60 Minutes

1 2 3 4 Modulus

5 10 15 20 25 30 Minutes

E. Rooker sculp.

the greateſt difference conſiſting in the tranſpoſition of ſome of the Mouldings, and enlarging the Dentils; both of which are alterations for the worſe.

Scamozzi's Entablature being like Palladio's, only one fifth of the Column, and much divided, has a trifling appearance: but the Cornice is, upon the whole, well compoſed; being in a great meaſure imitated from the third Order of the Coliſeum. His Capital is like that of Palladio, and his Baſe is Attic, enriched with Aſtragals; as at the Baſilica of Antoninus.

The Deſign which I have given, in the firſt Plate of the Compoſite Order, is an invention of my own; in which I have endeavoured to avoid the faults, and aſſemble the perfections, of thoſe above mentioned. If I have ſucceeded, it is well: if not, recourſe may be had to Palladio, Scamozzi, or Vignola, as heretofore. The Height of the Column is twenty Modules, and that of the Entablature five: the Baſe is Attic, and its meaſures the ſame as in the Doric and Ionic Orders; but as the Module is leſs, all its parts are of courſe more delicate. The Shaft is enriched with Flutings, which may be to the number of twenty, or twenty four, as in the Ionic Order: for there is no reaſon why their number ſhould be augmented. The Module is leſs; the Flutings will therefore be leſs likewiſe, and correſpond exactly with the character of the reſt of the Compoſition.

The Capital is of the ſame kind that all the Moderns have employed in this Order, and enriched with leaves of the Acanthus, as all the Antique Capitals of this ſort are. With regard to the method of tracing it, few directions will ſuffice: for the Deſigns are all exactly figured. The Curvatures of the Abacus are deſcribed from the ſummits of equilateral triangles; the projection of the Volutes is determined by a line drawn from the extremity of the Aſtragal to the extremity of a horn of the Abacus; and the projection of the Leaves is determined by another line drawn from the Fillet below the Aſtragal, parallel to the former.

The manner of executing both theſe, and all other enriched Capitals, in this City, is generally ſpeaking bad. I do not, however, mean to accuſe our Engliſh workmen of wanting capacity: a great number of them are excellent, and in neatneſs of execution out-do, perhaps, thoſe of any other Country whatever: but, from the parſimony of their employers, and in ſome degree for want of perfect ſkill and facility in deſigning, their performances are often flat, without intention or effect; in ſhort to the laſt degree inſipid.

Many, even of our greateſt Architects, have too much neglected the detail; having employed their attention wholly on the general diſpoſition of their Compoſitions. This neglect, though authorized by great examples, ought by no means to be imitated: it is the buſineſs of the Architect to attend to the minuteſt object, as well as to the moſt conſiderable. If the entire execution of the fabric be left to his direction, the faults that are committed will be ſtated to his account: and therefore it will be prudent in him to chuſe good workmen, and to furniſh them with proper models, and preciſe inſtructions; in which he will ſhew the extent of his capacity, and diſtinguiſh himſelf from the common herd of thoſe who aſſume the title of Architects. The moſt maſterly diſpoſition, incorrectly executed, can only be conſidered as a sketch in Painting, or as an excellent piece of Muſic performed by Country Fidlers.

THE Foot of the Leaves of the Capital muſt not project beyond the upper part of the Shaft of the Column, as at St. Carlo in the Corſo at Rome, and at the Banqueting-Houſe in London; for nothing is uglier: neither is the lower row of them to bend forwards, as in many of the Antiques, and in ſome Modern Buildings, becauſe they then hide a great part of the upper Leaves, and give a diſagreeable form to the whole Capital. The different Bunches that compoſe the Leaves muſt be ſtrongly marked, and maſſed in a diſtinct manner. The Sprigs, that ſpring from between the upper ones, are to be kept flat upon the Vaſe; and the Ornaments of the Volutes are not to project beyond the Fillets that encloſe them. Theſe are all the directions that can well be given in writing: but thoſe who would excell in works of this kind muſt conſult Nature, and thoſe Buildings, Antient or Modern, in which they have been executed with care and judgement.

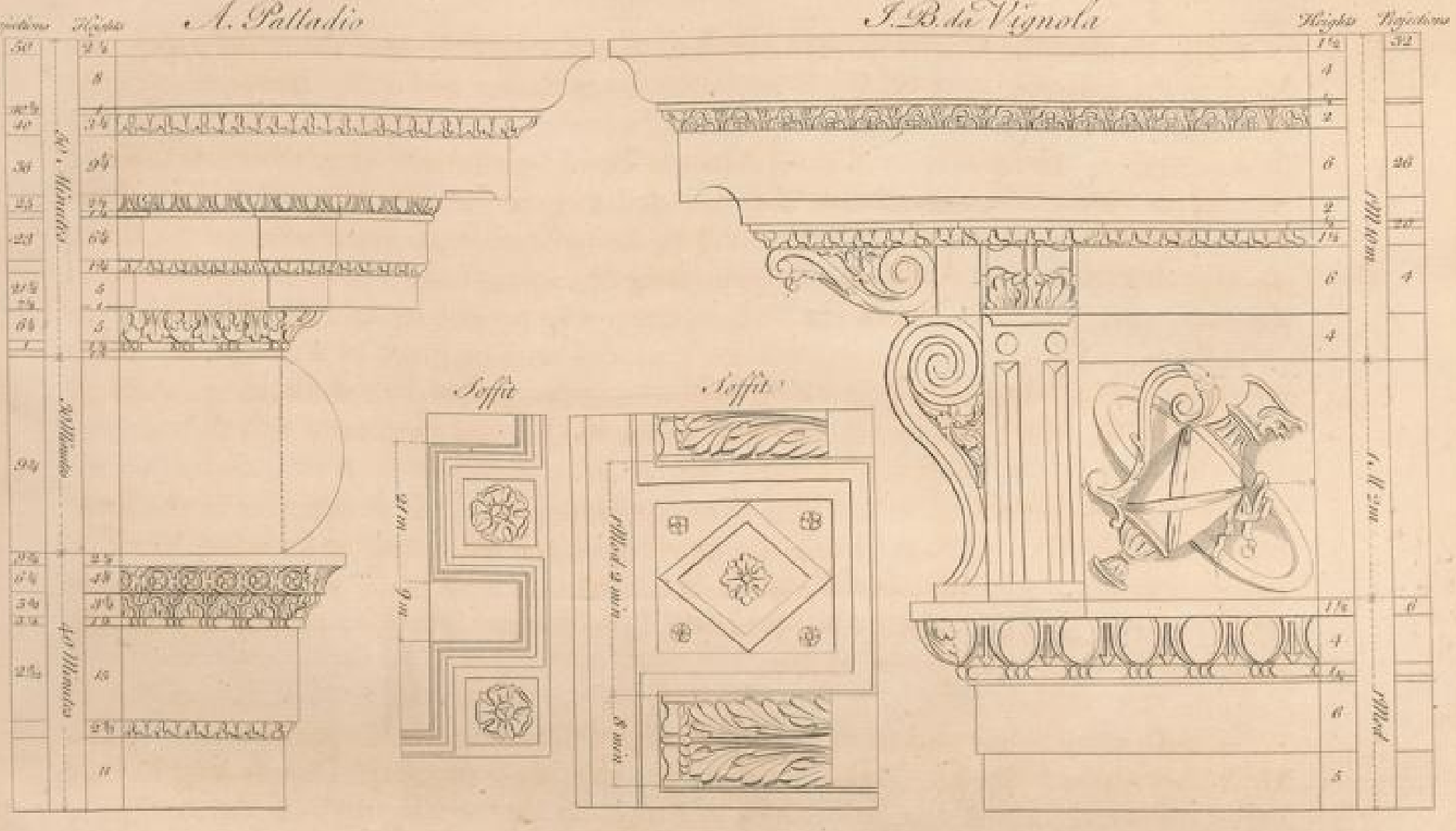
THE Parts of the Entablature bear the ſame proportion to each other, as in the Ionic and Tuſcan Orders. The Architrave is nearly the ſame with thoſe of Palladio, Vignola, and the Baſilica of Antoninus. The Frize is enriched with Foliages, in imitation of thoſe at Nero's Frontiſpiece; whoſe moſt prominent parts ought never to project beyond the uppermoſt Moulding of the Architrave.

The Cornice is imitated from Scamozzi, and differs from the Corinthian only in the Modillions; which are flat. The Soffit of the Intervals between the Dentils muſt be hollowed upwards, behind the little Fillet in Front, as they are in moſt of the Antiques; which occaſions a dark ſhade, that marks the Dentils more diſtinctly: and the ſame muſt be obſerved in the Ionic and Corinthian Orders. The Roſes in the Soffit of the Corona are not to project beyond its horizontal Surface; and care muſt be taken not to vary them ſo much as at St. Peter's of the Vatican, becauſe the Unity of the Compoſition ſuffers thereby. The Modillions or Dentils might with almoſt as much propriety be varied: it will be beſt therefore to make them all alike, as they are in moſt of the Antiques, and at Mr. Spencer's magnificent Houſe in the Green Park; that ſo they may not ſtrike the beholder as diſtinct objects, but as parts of one great whole. Or they may be of two kinds, which occaſions more variety, and no confuſion: for the ideas ſucceed each other ſo rapidly, that the third takes place before the firſt is in any degree obliterated; ſo that nearly the ſame effect is produced as by a continued ſucceſſion of the ſame object. But though this variety be allowable in ſmall objects, which the eye peruſes at a ſingle glance, and in ſuch as are merely acceſſory, and do not influence the general form of the Compoſition; yet it is by no means to be tolerated in Columns, and other large or eſſential parts, which, from the number of their conſtituent points, are not conveyed to the mind at once, either with eaſe or perfect clearneſs, and therefore, if varied, cannot fail of exciting confuſed ideas.

THE Romans uſed the Compoſite Order more frequently in their Triumphal Arches than in any other Buildings; meaning, as Serlio ſuppoſes, to expreſs their dominion over thoſe Nations that invented the Orders of which this was compoſed. It may, ſays le Clerc, be uſed with propriety, wherever Elegance and Magnificence are to be aſſembled; but it is more particularly adapted for Buildings intended to commemorate any ſignal Event, or to celebrate the Virtues and Actions of Conquerours or Legiſlators: becauſe the Capitals, and other Ornaments, may be compoſed of Emblems and alluſive Repreſentations; which is agreeable to the cuſtom of the Antients; as appears by multitudes of Fragments of Capitals, and other Members of Architecture, to be ſeen in different parts of Rome; ſome of which are repreſented in the ſecond Plate of the Compoſite Order.

THE

Composite Entablatures & Capitals.





Flora



Mars



Apollo



French Order



Venus

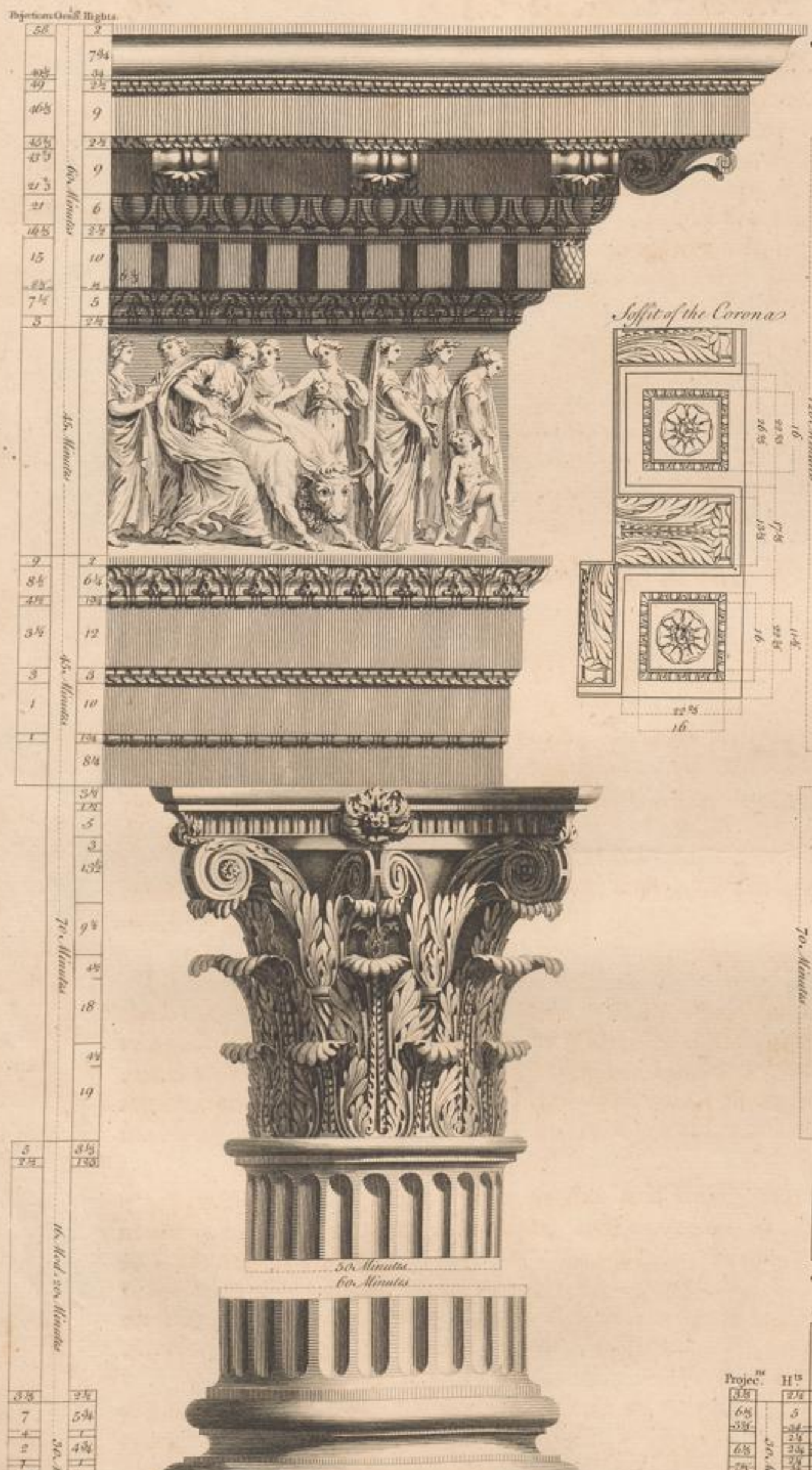


Jupiter

H. Thomson

P. Mazell imp.

THE CORINTHIAN ORDER



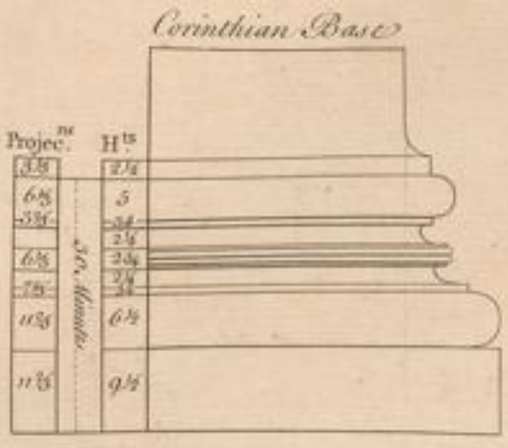
Soffit of the Corona

Plan of ij Capital



Angular View of the Capital

Corinthian Base





A.r Cambens Delin.r

E. Rooker Sculp.r

THE Compoſite Entablature may be reduced to two ninths of the Column, (which to avoid fractions I ſhall call four Modules and a half), by making the Module only nine tenths of the ſemi-diameter, and obſerving the meaſures as in the Deſign; and there will be a Dentil in the outer Angle, as in the Ionic Order. It may likewiſe, if required, be reduced to one fifth, by making the Module four fifths of the ſemi-diameter: though, in caſes where it is neceſſary to diminiſh it ſo much, it will be beſt to employ the Ionic Cornice; which, being compoſed of fewer parts, will ſtill retain an air of grandeur, notwithſtanding the ſmallneſs of the whole maſs.

MOST Authors give the laſt place to the Compoſite Order, as being the laſt invented, and a Compound, which of courſe ought to be preceded by all the Simples. I have followed Scamozzi's method; his arrangement appearing to me the moſt natural: for his Orders ſucceed each other according to their degrees of ſtrength, and in the progreſſion that muſt abſolutely be obſerved, whenever they are employed together.

Of the Corinthian Order.

THE moſt perfect Model of the Corinthian Order, among the Antiques at Rome, is generally allowed, upon the whole, to be the three Columns in the Campo Vaccino; the remains, as is thought, of the Temple of Jupiter Stator. Palladio, in his fourth Book, where he gives the whole Profile at large, acknowledges that he never had ſeen any work better executed, or more delicately finiſhed; that all its parts are beautifully formed, well proportioned, and artfully combined; which two laſt qualities I take to be ſignified by his *Beniſſimo Inteſi.*

WITH theſe favourable ſentiments it is remarkable, that, in his deſign of the Corinthian Order, he hath ſo far deviated from this excellent original, as ſcarcely to leave the ſmalleſt ſhadow of reſemblance to it.

VIGNOLA, in his Corinthian Profile, has chiefly imitated the above mentioned fragment, and the interiour Order of the Panthæon, another excellent Model. His Compoſition is extremely beautiful, and beyond diſpute ſuperiour to that of any other Maſter. He hath artfully collected all the perfections of his Originals, and formed a whole preferable to either of them.

THE Deſign which I have given differs little from that of Vignola. The Column is twenty Modules high, and the Entablature five; which proportions are a medium between thoſe of the Panthæon and of the Three Columns. The Baſe of the Column may either be Attic or Corinthian: they are both beautiful. Palladio and Scamozzi have employed the Attic Baſe, enriched with Aſtragals: but ſo frequent a repetition of the ſame form hath a bad effect, as may be ſeen at the Church of St. Martin's in the fields, and at the Bank.

IF the Entablature be enriched, the Shaft of the Column may be fluted; provided it be not compoſed of variegated Marble: for a diverſity of colours renders even ſmooth ſurfaces confuſed, and Ornaments of Sculpture only ſerve to make the confuſion greater.

The Flutings may be filled to one third of their Height with Cablings, as in the inſide of the Panthæon; which will ſtrengthen the lower part of the Column, and make it leſs liable to injury. But if the Columns are not within reach, or ſubject to be hurt by paſſengers, theſe are better omitted: for the general Hue of the Column will then be more even. In ſome very rich buildings, the Cablings are compoſed of Reeds, Ribands, Huſks, Flowers, &c. (at the Thuilleries in Paris there are ſome exquiſitely wrought by Jean Gougeon's own hand,) but it is better to reſerve ſuch niceties for interiour decorations. In the exteriour, whatever doth not contribute to the general effect of the whole building, is in a great meaſure uſeleſs, and an expence that might more judiciouſly be employed in places where it would be more attended to. In general, exceſſive Ornaments, though they encreaſe the Magnificence of a building, always deſtroy the Grandeur of its effect. The parts that in themſelves are large, and ſo formed and diſpoſed as to receive broad maſſes and ſtrong impreſſions of light and ſhade, will of courſe excite great ideas: but if they are broken into a number of ſmall diviſions, and their ſurface ſo varied as to catch a thouſand impreſſions of light, demi-tint, and darkneſs, the whole will be confuſed, trifling, and incapable of cauſing any grand emotions.

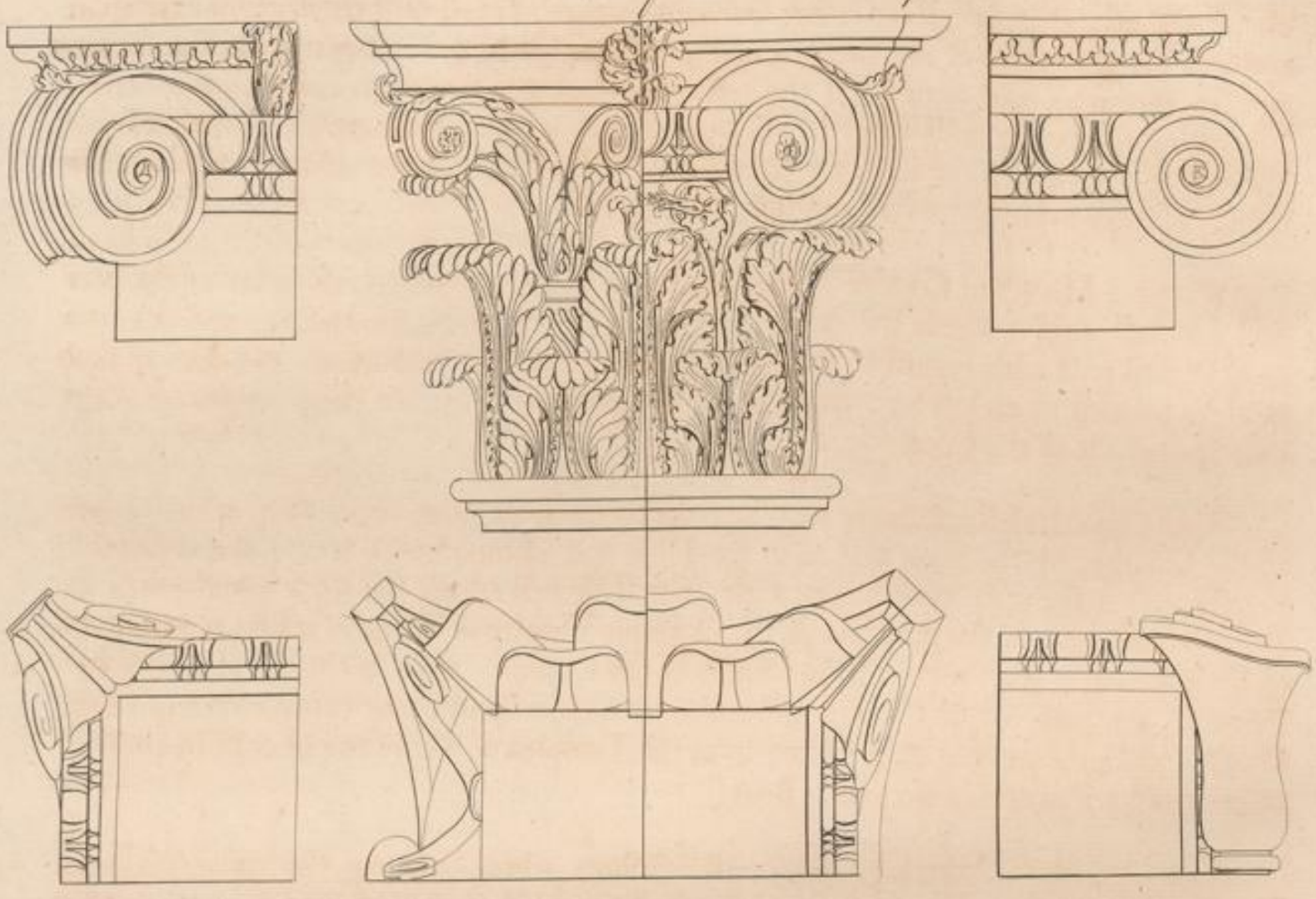
The Capital is enriched with Olive-Leaves, as almoſt all the Antiques at Rome of this Order are; the Acanthus being ſeldom employed but in the Compoſite. De Cordemoy, however, prefers the Acanthus; and obſerves that the flexible Sprigs, which accompany the Leaves of that plant, may more naturally be ſuppoſed to form the Contour of the Volutes, than the ſtiff branches of a Laurel or Olive. It is ſtrange, ſays he, that people ſoon ceaſe to eſteem what is natural: nature and reaſon muſt always be violated, and we prefer a confuſed jumble of little pointed leaves of the Olive or Laurel, to the ſimple and graceful Contours of the Acanthus.

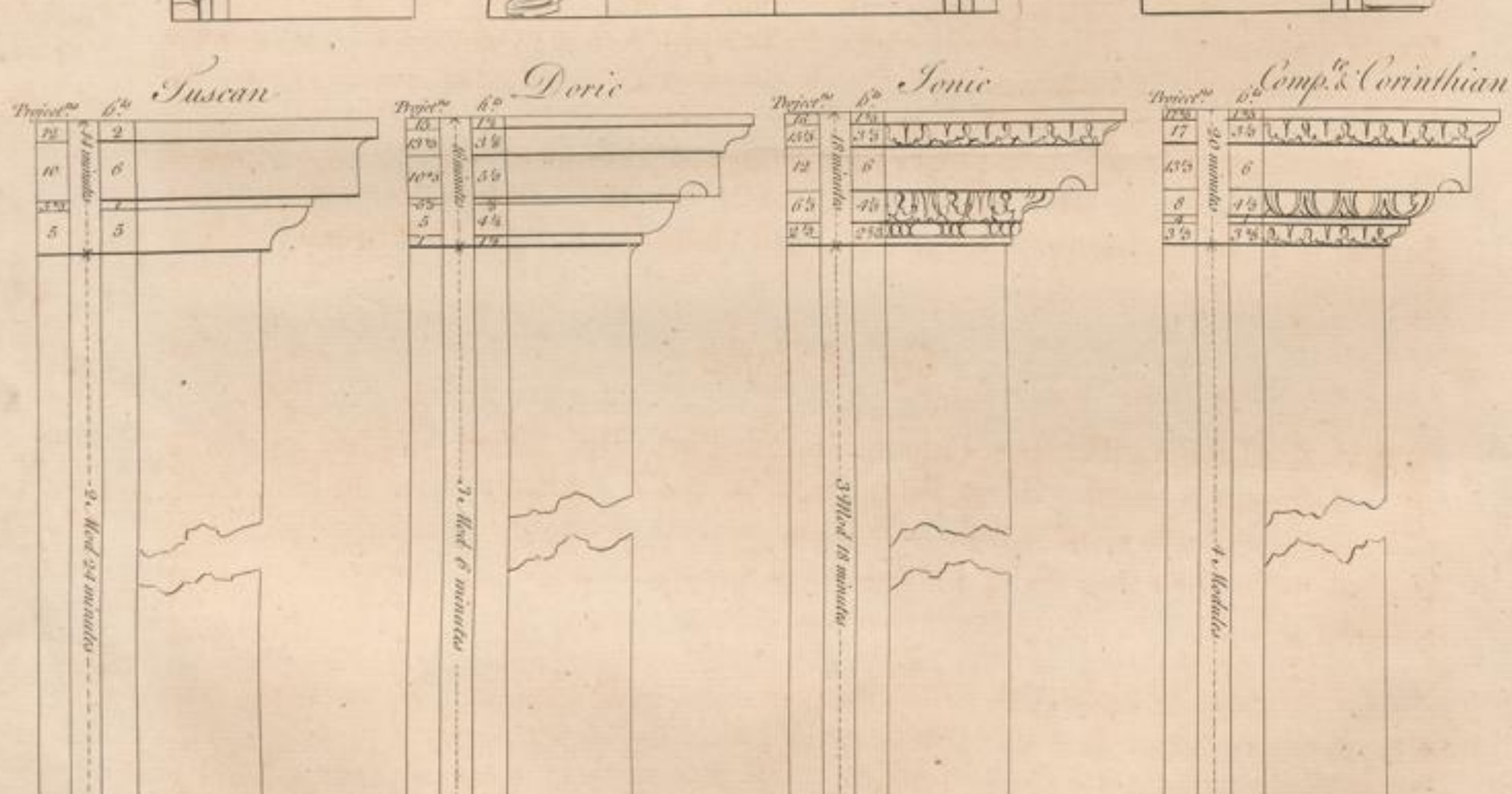
With regard to the manner of tracing and working the Capital, the Deſigns, together with what hath been ſaid on the ſame head under the Compoſite Order, will ſufficiently explain it.

The diviſions of the Entablature bear the ſame proportion to each other as in the Tuſcan, Ionic and Compoſite Orders. The Frize is enriched with a Bas Relief, compoſed from various fragments in the Villa Medici at Rome. The Parts and Ornaments of the Cornice are all regularly diſpoſed: the Coffers in the Soffit of the Corona are ſquare, and the borders round them alike on all ſides; as they are at the Arch of Titus, and as Palladio hath made them: a precaution which Vignola neglected.

The Antients frequently employed the Ionic Entablature in the Corinthian Order, as appears by many of their buildings, and, according to Vitruvius, ſometimes the Doric: though of the latter there is now no example extant. He obſerves that the Greeks never employed the Dentils under the Modillions in their works; becauſe the Rafters, which are repreſented by the Dentils, can never in reality be placed under the Principals, which are repreſented by the Modillions. However this may be, it is certain that the Romans were not ſo ſcrupulous; and in their moſt eſteemed works, ſuch as the Temple of Jupiter Stator, the Forum of Nerva, the Temple of Jupiter Tonans, and ſeveral others, we find the Dentils placed under the Modillions. Theſe examples will ſufficienly authoriſe the ſame practice. The origin and reaſon of things of this nature are remote, and known to few; but the general effect of a compoſition is obvious

Plans and Elevations of Pilaster Capitals.





Pedestals for the Orders.

B. Chambers *R. Mazell Sculp.*

obvious to all: therefore, if deviating from the former of these will remarkably contribute towards the perfection of the latter, it cannot be censured; providing the practice be generally approved, and hath stood the test of several ages. The example of a certain Florentine Architect must nevertheless be avoided; who, for variety's sake, hath in the Church of St. Romolo at Florence placed the Capitals at the feet of the Columns: for things, that are evidently absurd, no time can sanctify.

When a Modillion Cornice is employed on a Concave Surface, the sides of the Modillions must tend towards the center of the curve, as in the Panthæon; and the same must be observed with regard to the Dentils: but on a Convex Surface, the sides of both must be parallel to each other; for it would be disagreeable to see them narrowest where they spring out of the Cornice.

The Corinthian Entablature may be reduced to two ninths, or one fifth, of the Height of the Column, by the same rule as in the Ionic and Composite Orders. But when it is necessary to make it so small as one fifth, it will be best to use the Ionic Entablature, as Palladio hath done in the Peristyle of the Olympic Theatre at Vicenza, and in many others of his buildings; or to retrench the Dentils of the Cornice, as in Serlio's and Scamozzi's Profiles; the part of the Cornice under the Modillion-Band being composed only of the Ovolo and Oge separated by a Fillet; as at the Temples of Trevi and of Scisi in Umbria, mentioned by Palladio in his fourth Book.

The Corinthian Order is proper for all buildings, where Delicacy, Gayety, and Magnificence are required. The Antients used it in Temples dedicated to Venus, Flora, Proserpine, and Nymphs of Fountains; because the Flowers, Leaves, and Volutes, that adorned it, seemed well adapted to the Delicacy of these Deities. As it is the most Magnificent of all the Orders, it is extremely proper for Palaces, publick Squares, and Churches dedicated to the Virgin Mary, or other Virgin Saints; and on account of its Gayety it may likewise be used in Theatres, Banqueting-Rooms, and all Places consecrated to Mirth and Pleasure.

Of Pilasters.

PILASTERS differ from Columns in their Plan only; which is square, as that of Columns is round. Their Bases, Capitals, and Entablatures have the same Parts, with the same Heights and Projections, as those of Columns; and they are distinguished, in the same manner, by the Names of Tuscan, Doric, Ionic, Composite, and Corinthian.

Of the two the Column is, without doubt, the most perfect. Nevertheless there are various occasions, in which Pilasters may be employed with great propriety. I am not ignorant that several Authors are of a different opinion: a certain French Jesuit in particular; who a few years ago published an Essay on Architecture, wherein he inveighs vehemently against them.

His Objections are, that they have sharp and inconvenient Angles, which obstruct the View, indicate the confined State of Art, and deviate in a striking manner from the simplicity of Nature; that their Surfaces, having no roundness, give a flat appearance to the whole Order; that they are not susceptible of diminution, one of the greatest

beauties of Columns; and that they are never neceſſary, becauſe Columns will on all occaſions anſwer the ſame end.

It is indeed true that Pilaſters have angles, which may ſometimes obſtruct the view a little, but never ſo much as to be attended with any bad conſequences: nor do theſe angles occaſion any inconveniency at all; unleſs a paſſenger ſhould happen to run his head againſt them; in which caſe, the pain will probably be more acute, than if he had hit it againſt the Shaft of a Column. Why the angular form of a Pilaſter ſhould indicate any conſtraint in the Art, doth not appear to me, any more than that this form is a viſible deviation from the ſimplicity of nature. It is as difficult to execute, with the utmoſt accuracy, the Shaft of a Pilaſter, as the Shaft of a Column; and there are many forms in nature much more complicated than that of a Pilaſter, which differs but little from a ſquare Priſm, one of the ſimpleſt of regular ſolids. With regard to the flatneſs, which he ſuppoſes to be the reſult of employing Pilaſters, if he thereby means flatneſs in oppoſition to convexity, he is certainly right; but if he means that the effect of Pilaſters is leſs ſtriking than that of Columns, I believe he is in an errour: for the tranſition from light to ſhade in the Column is gradual and eaſy, but in the Pilaſter it is abrupt, and ſtrongly contraſted. The variations in the ſurface of the Column are flowing, and inſenſible; thoſe in the ſurface of the Pilaſter are rapid, and in directions very oppoſite; and conſequently more apt to produce ſudden and violent impreſſions on the imagination.

To aſſert that Pilaſters are not ſuſceptible of diminution, ſhews very little acquaintance either with books of Architecture, or with buildings. There are many inſtances, in the remains of Antiquity, of their being diminiſhed. Scamozzi always gave to his Pilaſters the ſame diminution as to his Columns: Palladio has diminiſhed them in the church of the Redentore at Venice, and in many others of his buildings; as Inigo Jones hath likewiſe done in many of his, particularly in the Banqueting-Houſe at Whitehall. And if we go back to the origin of things, and conſider Pilaſters, either as repreſenting the ends of the partition walls, or trunks of trees reduced to the diameter of the round trunks which they accompany, but left ſquare for greater ſtrength, the reaſons for diminiſhing them will, in either caſe, be ſtrong and evident. It is likewiſe an errour to aſſert that Pilaſters are never neceſſary; but that Columns will always anſwer the ſame end: for, at the Angles of all buildings, they are evidently neceſſary both for ſolidity and beauty; becauſe the angular ſupport, having a greater weight to bear than any of the reſt, ought to be ſo much the ſtronger; ſo that its diameter muſt either be encreaſed, or its plan altered from a circle to a ſquare; the latter of which is certainly the moſt reaſonable expedient, on ſeveral accounts; but chiefly as it obviates a very ſtriking defect, occaſioned by employing Columns at the Angles of a Building, which is that the Angle of the Entablature is left hanging in the air without any ſupport: a ſight very diſagreeable in ſome oblique views, and in itſelf very unſolid. It is, indeed, cuſtomary in Porches, and other detached Compoſitions, to employ Columns at the Angles; and it is judicious ſo to do: for of two defects the leaſt is to be preferred. And though Father Laugier, the writer whoſe objections I have juſt now cited, could ſee no reaſon for rejecting detached Pilaſters, when engaged ones were ſuffered; yet there is a very ſubſtantial one, viz. that a detached Pilaſter, in ſome oblique views, appears thicker than it does in Front, in the ratio of ſeven to five nearly; and conſequently if, when ſeen in Front, it appears well proportioned in itſelf, and with regard to the Columns it accompanies, it never can appear ſo when viewed upon the Angle; as may be ſeen in the Porticos of the Cortile

Cortile at Burlington-Houſe in Piccadilly, and in the Porch of St. George's Church, Hannover-Square.

PILASTERS are employed in Churches, Galleries, Halls, and other interiour Decorations, to ſave room: for as they ſeldom project beyond the ſolid of the walls more than one quarter of their diameter, they do not occupy near ſo much ſpace, even as engaged Columns. They are likewiſe employed in exteriour Decorations: ſometimes alone, inſtead of Columns, on account of their being leſs expenſive; as at the Duke of Queensbury's Houſe in Burlington-Garden, General Wade's Houſe in the ſame place, and in many other Buildings in London: at other times they accompany Columns, being placed behind them to ſupport the Architraves, where they enter the Building; as in the Panthæon at Rome, and in the Porch of St. Martin's in the Fields Weſtminſter; or on the ſame line with them, to fortify the Angles; as in the Portico of Septimius at Rome, in the Church of St. Laurence Jewry, and in a prety Houſe lately built in Lombard-Street by Mr. Taylor, for Sir Charles Asgill, late Lord Mayor of London. Blondel ſays they may likewiſe be employed inſtead of Columns, detached to form Periſtyles and Porticos: But there is no inſtance of this, that I remember, in all the remains of Antiquity; neither hath any Modern Architect, I believe, been ſo deſtitute of taſte as to put it in practice.

WHEN Pilaſters are uſed alone, as Principal in the Compoſition, they ſhould project one quarter of their diameter beyond the walls, as Scamozzi teaches, and as they do at the Banqueting-Houſe; which gives them a ſufficient boldneſs, and, in the Corinthian and Compoſite Orders, is likewiſe moſt regular; becauſe the Stalks of the Volutes, and the ſmall Leaves in Flank, are then cut exactly through their middles: but if the Cornice of the windows ſhould be continued in the Interpilaſters, as is ſometimes uſual, or if there ſhould be a Cornice to mark the ſeparation between the principal and ſecond Story, as at the Manſion-Houſe, or large Impoſts of Arches, the Projection muſt be encreaſed, provided it is not otherwiſe ſufficient to ſtop the moſt prominent parts of theſe Decorations; it being very diſagreeable, to ſee ſeveral of the uppermoſt Mouldings of an Impoſt or Cornice cut away, in order to make room for the Pilaſter, while the Cornice or Impoſt on each ſide projects conſiderably beyond it; as in St. Peter's of the Vatican, and ſeveral other Buildings at Rome.

WHEN Pilaſters are placed behind Columns, if they be very near them, they need not project above one eighth of their diameter, or even leſs; excepting there be Impoſts, or continued Cornices, in the Interpilaſter: in which caſe what hath been ſaid above muſt be attended to. But if they be far behind the Columns, as in Porticos, Porches, and Periſtyles, they ſhould project one ſixth of their diameter at leaſt; and, when they are on a line with Columns, their Projection is to be regulated by that of the Columns; and conſequently, it never can be leſs than a ſemi-diameter, even when the Columns are engaged as much as poſſible. This extraordinary Projection, however, will occaſion no very great diſformity; as the largeſt apparent breadth of the Pilaſter will exceed the leaſt, only in the ratio of eleven to ten, or there abouts. But if the Columns be detached, the Angular Pilaſter muſt always be coupled with a Column, to hide it's inner flank; as in the Porticos of Burlington-Houſe: becauſe the Pilaſters will otherwiſe appear very diſproportionate, when ſeen from the point of view proper for the whole building; eſpecially, if the fabric be ſmall, and the point of view near.

It is ſometimes cuſtomary to execute Pilaſters without any diminution. In the Antiques there are ſeveral inſtances thereof, as well as of the contrary practice; and Palladio, Vignola, Inigo Jones, and many of the greateſt Architects, have frequently done ſo. Nevertheleſs it is certain, that diminiſhed Pilaſters are, on many accounts, much preferable. There is more variety in their form; their Capitals are better proportioned, both in the whole, and in their parts, particularly in the Compoſite and Corinthian Orders; and the irregularities occaſioned by the paſſage of the Architraves, from diminiſhed Columns to undiminiſhed Pilaſters, are avoided, as are likewiſe the difficulties of regularly diſtributing the Modillions and other parts of the Entablature, either when the Pilaſters are alone, or accompanied with Columns.

Another diſagreeable effect of undiminiſhed Pilaſters is likewiſe obviated by rejecting them. Indeed, I am at a loſs to account for it; and as it is diametrically oppoſite to a received law in Optics, I imagined it might be the reſult of ſome defect in my own ſight, till by enquiry I found others were affected in the ſame manner. It is this: that the top of the Shaft appears broader than the bottom of it; as any one may experience by caſting a glance on the Pilaſters of St. Paul's, of St. George's Hannover-Square, or any others that are not diminiſhed. The Author of *l'Eſprit des Beaux-Arts* accounts for a ſimilar effect in a manner more ſubtile, I believe, than true. He makes it to be the reſult of a nice compariſon between the real and the apparent diſtance; which to me ſeems to have little or rather no ſhare at all in it. A late ingenious * writer of our own country obſerves, that the ſenſes, ſtrongly affected in ſome one manner, cannot quickly change their tenour, or adapt themſelves to other things; but continue in their old channel, untill the ſtrength of the firſt mover decays: whence it is not improbable, that the Capital, which is immediately above the Shaft, and conſiderably broader than the Shaft, may have an influence on it's apparent breadth, and occaſion the effect above mentioned. Perhaps too the light may in ſome meaſure contribute thereto, it being ſtronger at the foot of the Shaft than towards it's top.

The Shafts of Pilaſters are ſometimes adorned with Flutings, in the ſame manner as thoſe of Columns; the Plan of which may be a trifle above a ſemi-circle: and they muſt be to the number of ſeven on each face, which makes them nearly of the ſame ſize, as thoſe of the Columns. The Interval between them muſt be either one third, or one fourth, of the Fluting in breadth; and when the Pilaſter is placed on the pavement, and liable to be broken, the Angle may be rounded off, in the form of an Aſtragal; between which and the adjoyning Fluting there muſt be a Fillet, or Interval, of the ſame ſize with the reſt: as in the Porch of the Panthæon at Rome. The Flutings may like thoſe of Columns, be filled with Cablings, to one third of their Height; either plain and ſhaped like an Aſtragal, or enriched, according as the reſt of the Compoſition is ſimple, or much adorned. Scamozzi is of opinion that there ſhould be no Flutings on the ſides of engaged Pilaſters, but only in Front. When Cornices or Impoſts are continued quite home to the Pilaſter, this is particularly to be obſerved; becauſe the different Mouldings of theſe parts, entering upon the Cavities of the Flutings, are cut off in irregular and very diſagreeable figures: but if the Flanks of the Pilaſter are entirely free, it will be as well to enrich them in the ſame manner with the Front: provided the Flutings can be ſo diſtributed as to have a Fillet or Interval adjoyning to the wall; which is neceſſary to mark the true Shape of the Pilaſter diſtinctly.

The Capitals of Tuſcan or Doric Pilaſters are profiled in the ſame manner as thoſe of the reſpective Columns: but in the Capitals of the other Orders there are ſome trifling

* See Enquiry into the Origin of our Ideas of the Sublime and Beautiful.

differences

differences to be obſerved. In the Antique Ionic Capital, the extraordinary projection of the Ovolo makes it neceſſary, either to bend it inwards conſiderably towards the extremities, that it may paſs behind the Volutes, or inſtead of keeping the Volutes flat in Front, as they commonly are in the Antique, to twiſt them outwards for the ſame end. Le Clerc thinks the latter of theſe expedients the beſt; and, that the artifice may not be too ſtriking, the projection of the Ovolo may be conſiderably diminiſhed, as in the annexed Deſign *; which, as the Moulding can be ſeen in Front only, will occaſion no diſagreeable effect. The ſame difficulty ſubſiſts with regard to the paſſage of the Ovolo behind the Angular Ionic Volutes. Le Clerc therefore adviſes to open, or ſpread, the Volutes ſufficiently, to leave room for the Ovolo to paſs behind them, as in the Deſign † annexed; which may eaſily be done, if the projection of the Ovolo is diminiſhed. Inigo Jones hath, in the Banqueting-Houſe, made the two ſides of the Volutes parallel to each other, according to Scamozzi's manner; and at the ſame time hath continued the Ovolo in a ſtreight line under them: ſo that the Volutes have an enormous projection, and the whole Capital is of a very ugly figure.

WHAT hath been ſaid, with regard to the paſſage of the Ovolo behind the Volutes in the Ionic Order, muſt likewiſe be remembered in the Compoſite; and in the Corinthian, the lip or edge of the Vaſe, or Basket, may be bent a little inwards toward it's extremities; by which means it will eaſily paſs behind the Volutes. The Leaves, in the Corinthian and Compoſite Capitals, muſt not project beyond the top of the Shaft, as they do at St. Carlo in the Corſo at Rome, and in the Banqueting-Houſe at Whitehall; but the diameter of the Capital muſt be exactly the ſame as that of the top of the Shaft: and to make out the thickneſs of the ſmall Leaves, their edges may be bent a trifle outwards; and the large angular Leaves may be directed inwards, in their approach towards them, as in the annexed Deſign §, and as executed in the Church of the Roman College at Rome; where the ſmall Leaves have a conſiderable thickneſs, though the diameter of the Capital is exactly the ſame as that of the Shaft. In each Front of the Compoſite or Corinthian Pilaſter-Capital there muſt be two ſmall Leaves, with one entire, and two half large ones. They may be of Olive, Acanthus, Parſley, or Laurel, and be divided and wrought in the ſame manner as thoſe of the Columns are; the only difference being, that they will be ſomewhat broader.

THE employing half, or other parts, of Pilaſters, that meet, and as it were penetrate each other, in inward angles, ſhould as much as poſſible be avoided; becauſe it generally occaſions ſeveral irregularities in the Entablatures, and ſometimes in the Capitals. But particular care muſt be taken, never to introduce more than one of theſe Breaks in the ſame place; for more can never be neceſſary. In many of the Churches at Rome we ſee half a dozen of them together; which produces a long ſeries of undulated Capitals and Baſes, and a number of mutilated parts in the Entablature: than which nothing can be more confuſed or diſagreeable. Inſtead of Pilaſters it is ſometimes cuſtomary to employ Columns, that penetrate each other in the inward angle. There are ſeveral inſtances of this at Paris: but it is a practice univerſally condemned, and the bad effect thereof may be ſeen in the Front of the Royal Exchange towards Cornhill, and in the Banqueting-Houſe at Whitehall.

* Pl. of Pilaſters fig. 1. † Pl. of Pilaſters fig. 2. § Pl. of Pilaſters fig. 3.

Of Perſians and Caryatides.

BESIDES Columns and Pilaſters, it is ſometimes cuſtomary to employ repreſentations of the human figure, to ſupport Entablatures in Buildings. The Male figures are called Perſians, Telamones, or Atlantides; and the Females Carians, or Caryatides. The origin of this cuſtom Vitruvius tells us is as follows:

THE inhabitants of Caria, a city of the Peloponneſus, having joyned the Perſians in a war againſt the reſt of the Greeks, and that war being terminated by the defeat of the Perſians, the Greeks declared war againſt the Caryates, took their city, demoliſhed it, put all the Males to the ſword, carried the Females into captivity; and, to treat them with the greater ignominy, forbid the Ladies to divert themſelves of their robes, or any of their ornaments, that ſo they might not only be once led in triumph, but, in a manner, ſuffer the ſhame of it all their lives after, by appearing conſtantly in the ſame dreſs as on the day of triumph: and further, as an everlaſting teſtimony of the puniſhment inflicted on the Caryates, and to inform poſterity what had been the nature of their chaſtiſement, the Architects of that time, inſtead of Columns, employed the repreſentations of theſe Women to ſupport the Entablatures in their publick Buildings. The Lacedemonians did the ſame thing after the battle of Platea; erecting, with the ſpoils taken from the enemy, a gallery, which they called Perſian, wherein ſtatues, in the form of captive Perſians, in their uſual dreſſes, ſupported the vault; intending thereby to puniſh that nation in ſuch a manner as it's pride had merited, and leave to poſterity a monument of the valour and victories of the Lacedemonians.

AMONGST the Antiquities at Rome there are various fragments of Male figures, which from their attitudes, and ſome ornaments about them, may be conjectured to have ſerved as ſupports to the Entablatures of buildings: but there are no remains of the Female ſtatues of that kind, excepting the three Graces that ſupport an urn in the Villa Borgheſe; though Pliny mentions ſome that were in the Panthæon, which Fontana ſuppoſes were placed above the Columns, to ſupport the Cornice of the Attic. In the Antiquities of Athens, lately publiſhed by Mr. le Roy, (and of which we may ſoon hope to ſee another very perfect account, illuſtrated with a great number of beautiful Plates, by Meſſrs. Steward and Ryvet), there are five Caryatides that ſupport an Entablature, contiguous to the Temple of Erectheus, which Mr. le Roy ſays are very beautiful.

IT is not now cuſtomary, ſays le Clerc, as formerly, to repreſent Caryatides, with attributes of ſlavery and ſervitude. Such Characters are too injurious to the fair ſex. On the contrary they are, at preſent, conſidered as the richeſt and moſt valuable Ornaments of buildings; being repreſented under the figures of Prudence, Wisdom, Juſtice, Temperance, &c.

DE CHAMBRAY blames this practice, and conſiders it as the effect of inadvertency, in the Architects who firſt introduced it; obſerving that, if they had ſufficiently reflected on the text of Vitruvius, with regard to the origin of Caryatides, they would have perceived the impropriety of employing the repreſentations of Saints and Angels, loaded, like ſlaves, with Cornices, and other heavy burdens; and likewiſe that of employing the Caryatic Order promiſcuouſly, in all ſorts of buildings; particularly in Sacred Structures,

which

Persians and Caryatides



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3



4



5



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8



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12

I. B. Chipriani Delin.

C. Grignion sculp.

which are the Houſes of God, and Azylums of Mercy, where vengeance and ſlavery ought never to appear.

On the other hand Blondel obſerves, that, though this remark be juſt, if the origin of theſe Ornaments be rigorouſly attended to; yet, to ſerve in any ſhape in the Houſe of God, and in particular at the Altar, hath always appeared, in the minds of the Prophets, and the beſt of the Saints, ſo glorious and great, that not only Men, but Angels, ought to eſteem it a happineſs; and that conſequently it can be no indication of diſreſpect, to employ their repreſentations, in offices which they themſelves would execute with pleaſure.

The Antients, ſays Blondel, made frequent uſe of Caryatic and Perſian figures, and delighted in diverſifying them in a thouſand manners. The Modern Artiſts have followed their example: and there is a great variety of Compoſitions of this kind to be met with, in different parts of Europe; of ſome of which Deſigns are exhibited in the annexed Plate, and others may be invented, and adapted to different purpoſes with great propriety; provided the figures introduced be analogous to the ſubject, as Mr. Ware obſerves, and ſeem at leaſt a neceſſary part in the Compoſition. Thus, ſays le Clerc, if they are employed to ſupport the covering of a Throne, they may be repreſented under the figures and ſymbols of Heroic Virtues; if to adorn a Sacred Building, they muſt have an affinity to Religion; and when they are placed in Banqueting-Rooms, they muſt be of kinds proper to inſpire Mirth and Jollity.

In compoſing them particular care muſt be taken to avoid indecent attitudes, diſtorted features, and all kinds of monſtrous and horrid productions, of which there are ſuch frequent inſtances in the works of the Goths. On the contrary, the attitudes muſt be ſimple and graceful, the countenances always pleaſing, though varied, and ſtrongly marked with the expreſſion peculiar to the occaſion and object repreſented. There muſt be but little flutter in the drapery, which ought to ſit pretty cloſe to the body, and it's folds ſhould be contrived to expreſs diſtinctly both the action and ſhape. Le Clerc obſerves that they ſhould always have their legs cloſe together, and their arms cloſe to the body or head; that ſo they may have, as much as poſſible, the form of Columns, whoſe office they are to perform: and it may be added that, for the ſame reaſon, their attitude ſhould be as near a perpendicular as it can conveniently be, without giving a ſtiff and conſtrained air to the figure.

The ſame Author obſerves that Caryatides ought always to be of a moderate ſize; leſt, being too large, they ſhould appear hideous in the eyes of the Ladies: and indeed, as theſe figures are generally repreſented in endearing offices, and under the forms of amiable and benevolent Beings, the caution ſeems to be extremely proper; and it will therefore be judicious never to make them much larger than the human ſtature.

But the Male figures may, on the contrary, be of any ſize, and the larger the better; as they will then be fitter to ſtrike with awe and aſtoniſhment. There is not a nobler thought, in all the remains of Antiquity, than Inigo Jones's Perſian Court; the effect of which, if properly executed, would have been ſurpriſing and great, in the higheſt degree. Male figures may be introduced with great propriety in Arſenals, or Galleries of Armour, in Guard-Rooms, and other Military places, where they may be repreſented under the figures either of Captives, or of Martial Virtues; ſuch as Strength, Valour, &c. Their Entablature muſt be Doric, and bear the ſame proportion to them, as to Columns

of the ſame Height: and the proper Entablatures for Caryatides will be either Ionic, or Corinthian, according as the Character of the figures is more or leſs delicate. Perſian or Caryatic figures ought never to be employed to ſupport the ſame Entablature with Columns: for figures of Men or Women, as high as Columns, are conſiderably more bulky; and, when they are of an uncommon ſize, carry with them an idea of greatneſs that entirely deſtroys the effect of the Columns, making them appear very trifling: neither ſhould they be placed upon Columns, as in the Court of the Old Louvre at Paris, for the ſame reaſons.

It is ſometimes cuſtomary to employ Terms, inſtead of Caryatides or Perſians, to ſupport the Entablatures of Monuments, Chimney-Pieces, and ſuch like Compoſitions. Theſe figures owe their origin to the ſtones, uſed by the Antients to mark the limits of each particular perſons poſſeſſions. Numa Pompilius, to render theſe inviolable, and to prevent uſurpations, erected the Terminus into a Deity, inſtituted feſtivals and ſacrifices to his honour, and built a Temple on the Tarpejan Mount, which he dedicated to him, and in which he was repreſented under the figure of a ſtone.

In proceſs of time, however, the God Terminus was repreſented with a human head, placed on a poſt or ſtone, ſhaped like an inverted Obelisk; which being, on particular ſolemnities, adorned with Garlands, compoſed alltogether a very pleaſing form: to which may with great probability be attributed the introduction of theſe Ornaments into Buildings, where they have been varied into a vaſt diverſity of Shapes. I have occaſionally, in the courſe of this work, given ſome Deſigns of them; and others may be invented, relative to the particular purpoſes for which they ſhall be intended.

In conſideration of their origin, the Termini are proper Ornaments in Gardens, and in Fields; where the upper part of them may repreſent Jupiter, who, in the remoter ages of Antiquity, was Protector of Boundaries, or ſome of the Rural Deities, as Pan, Flora, Pomona, Vertumnus, Ceres, Priapus, Faunus, Sylvanus, Satyrs, &c.: and Mr. Ware recommends the uſe of them as Boundaries to Counties, where they may be enriched with Ornaments alluding to the Produce, Manufacture, and Commerce of each reſpective County.

The three firſt figures, in the annexed Plate of Perſians and Caryatides, are copied from Candelabres in St. Peter's of the Vatican. They are caſt from models of Michael Angelo Buonaroti, and repaired either by himſelf, or under his direction: for the workmanſhip is very perfect. Figure 2 may be employed in Buildings; but the other two are properer for the angles of coved Ceilings, or other ornamental works. No. 4 is a copy of one of the figures that ſurround the Choir, in the Cathedral of Milan, which are the work of Andrea Biffi, a celebrated Milaneſe ſculptor. No. 5 is executed in the Judgement-Hall, in the Town-Houſe of Amſterdam, by Artus Quellinus. No. 6 is an admired work of M. Angelo, now in the Villa Ludoviſi at Rome. No. 7 is, in part, by the ſame hand, and executed, from the waiſt upwards, in the Monument of Julius the Second in the Church of St. Pietro in Vincoli at Rome. No. 8 is a work of the celebrated Jean Goujon, in the Guard-Room of the Old Louvre, at Paris. No. 9 and 10 are taken from Paintings of Daniel da Volterra, in the Church of the Trinita del Monte, at Rome. No. 11 is a figure in a Baſſo Relievo on the Goldſmith's Arch; and No. 12 is copied from an original Deſign of Polidore da Caravaggio.

Of Pedeſtals.

MOST writers conſider the Pedeſtal as a neceſſary Part of the Order, without which it is not eſteemed complete. It is indeed a matter of ſmall importance, whether it be conſidered in that light, or as a diſtinct Compoſition. Nevertheleſs, ſeeing that in the particular deſcription, given by Vitruvius, of the Doric, Corinthian, and the Tuſcan Orders, no notice is taken of any Pedeſtal; and that, in the Ionic Order, he only mentions it as a neceſſary Part in the Conſtruction of a Temple, without ſignifying that it belongs to the Order, or aſſigning any particular proportions for it, as he doth for the Parts of the Column and the Entablature, I judged it more regular to treat of the Pedeſtal as a ſeparate body; having no more connection with the Order than an Attic, a Baſement, or any other Part with which it may, on ſome occaſions, be aſſociated.

A Pedeſtal is compoſed of three principal Parts; which are the Baſe, the Dye, and the Cornice. The Dye is always nearly of the ſame figure; being conſtantly either a Cube or a Parallelopiped; but the Baſe and Cornice are varied, and adorned with more or fewer Mouldings, according to the ſimplicity or richneſs of the Compoſition, in which the Pedeſtal is employed. Hence Pedeſtals are, like Columns, diſtinguiſhed by the names of Tuſcan, Doric, Ionic, Compoſite, and Corinthian.

SOME Authors are very averſe to Pedeſtals, and compare a Column raiſed on a Pedeſtal to a man mounted on ſtilts; imagining that they were at firſt introduced merely through neceſſity, and for want of Columns of a ſufficient length. It is indeed true that the Antients often made uſe of artifices to lengthen their Columns; as appears by ſome that are in the Baptiſtery of Conſtantine at Rome; the Shafts of which, being too ſhort for the building, were lengthened, and joined to their Baſes, by an undulated ſweep, adorned with Acanthus Leaves. And the ſame expedient hath been made uſe of in ſome fragments, which were diſcovered a few years ago at Nimes, contiguous to the Temple of Diana. Nevertheleſs it doth not ſeem proper to comprehend Pedeſtals in the number of theſe artifices; ſince there are many occaſions where they are evidently neceſſary, and ſome in which the Order, were it not ſo raiſed, would loſe much of it's beautiful appearance. Thus, in the inſides of our Churches, if the Columns that ſupport the Vault were placed immediately on the ground, the ſeats would hide their Baſes, and a good part of their Shafts; and, in the Theatres of the Antients, if the Columns of the Scene had been placed immediately on the Stage, the actors would have hid a part of them from the audience. For this reaſon it was uſual to raiſe them on very high Pedeſtals; which was likewiſe cuſtomary in their Triumphal Arches: and, in moſt of their Temples, the Columns were placed on a Baſement, or continued Pedeſtal; that ſo the whole Order might be expoſed to view, notwithſtanding the crouds of people with which theſe places were frequently ſurrounded: and the ſame reaſon will authoriſe the ſame practice in our Churches, and other publick buildings. In interiour decorations (where, in general, grandeur of ſtyle is not to be aimed at,) a Pedeſtal diminiſhes the parts of the Order, which otherwiſe might, perhaps, appear too clumſy, and hath the advantage of placing the Column in a more favourable view, by raiſing it's Baſe nearer to the level of the ſpectator's eye: and, in a ſecond Order of Arcades, there is no avoiding Pedeſtals; as without them it is impoſſible to give the Arches any tolerable proportion. Sometimes too the ſituation makes it neceſſary to employ them: an inſtance of which there is in the Luxembourg at Paris; where the body of the building ſtanding on higher ground than the wings, the Architect was

obliged to raiſe the firſt Order in the wings on a Pedeſtal, to bring it up on a level with that in the body of the building, which ſtands immediately upon the pavement.

THESE inſtances will ſufficiently ſhew the neceſſity of admitting Pedeſtals in Decorations of Architecture. With regard to the proportion that their Height ought to bear to that of the Columns which they are to ſupport, it is by no means fixed; the Antients, and Moderns too, having in their works varied greatly in this reſpect, and adapted their proportions to the reſpective purpoſes for which the Pedeſtals were intended. Thus, in the Amphitheatres of the Antients, the Pedeſtals in the ſuperiour Orders were generally low; becauſe in the intervals of the Arches they ſerved as rails to encloſe the Portico, and therefore were, for the conveniency of leaning over, made no higher than was juſt neceſſary to prevent accidents: and the caſe is the ſame in moſt of our modern houſes; where the Height of the Pedeſtals in the ſuperiour Orders is generally determined by the bottoms of the windows. The Antients, in their Theatres, made their Pedeſtals in the firſt Order of the Scene pretty high, for the reaſon mentioned in the beginning of this Chapter: but the Pedeſtals in the ſuperiour Orders were very low; as their principal uſe was to raiſe the Columns, ſo as to prevent any part of them from being hid by the projection of the Cornice under them. And thus, on different occaſions, they uſed different proportions; being chiefly guided by neceſſity in their choice. The Moderns have followed their example; as will appear to any one who examines the works of Palladio, Vignola, Michael Angelo, Scamozzi, &c.

YET the writers on Architecture have always thought it incumbent upon them to fix a certain determinate proportion for the Pedeſtal, as well as for the Parts of the Order. It will be needleſs to enumerate, in this place, their different opinions: but I muſt obſerve that Vignola's method is the only right one. His Pedeſtals are, in all the Orders, of the ſame Height, being one third of the Column; and as their breadth of courſe encreaſes or diminiſhes in the ſame degree as the diameters of their reſpective Columns do, the Character of the Order is always preſerved; which according to any other method is impoſſible.

IN the Deſigns which I have given of Arches with Pedeſtals, the Pedeſtals are all of the ſame Height; each of them being three tenths of the Height of the reſpective Columns. But it is not neceſſary to adhere always to this proportion: they may be higher or lower, as the occaſion ſhall require. It is, however, to be obſerved, that, when Pedeſtals are profiled under each Column, and the Dye is much leſs than a ſquare in Height, the Pedeſtal hath a clumſy figure; and when a Pedeſtal of the ſame kind exceeds one third of the Height of the Column, it hath a lean and unſolid appearance: but if they are continued without any Breaks, this need not be attended to; though indeed there are very few occaſions in which Pedeſtals higher than one third of the Column ought to be ſuffered, as they leſſen too much the Parts of the Order, and become themſelves too principal in the Compoſition.

WITH regard to the diviſions of the Pedeſtal, if the whole Height be divided into nine parts, one of them may be given to the Height of the Cornice, two to the Baſe, and the remaining ſix to the Dye; or if the Pedeſtal is lower than ordinary, it will be better to divide it's Height into eight parts only, giving one of them to the Cornice, two to the Baſe, and five to the Dye; as Palladio hath done in his Corinthian Order, and Perrault in all the Orders. The breadth of the Dye is always made equal to that of the Plinth of the Column: the projection of the Cornice may be made equal to it's Height, and the Baſe being

being divided into three parts, two of them will be for the Height of the Plinth, and one for the Mouldings, whoſe Projection muſt be leſs than that of the Cornice, that ſo the whole Baſe may be covered and ſheltered by it: a precaution which Scamozzi hath obſerved in all his Deſigns, though Palladio hath neglected it in the greateſt part of his; the Palace of the Porti, and one or two more buildings in the Vicentine excepted. Theſe meaſures are common to all Pedeſtals; and in the annexed Plate there are Deſigns of proper ones for each Order, in which the forms and dimenſions of the minuter parts are accurately drawn and figured.

It is ſometimes cuſtomary to adorn the Dyes of Pedeſtals with projecting Tablets, or Pannels ſunk in, and ſurrounded with Mouldings. The former of theſe ought ſeldom to be admitted of; as ſuch Tablets alter the general figure of the Pedeſtal, and, if they project much, give it a heavy look: and the latter ſhould be reſerved for very large Pedeſtals only, ſuch as thoſe that ſupport the Trajan and Antonin Columns at Rome, and the Monument in London; where they may be adorned with Bas-Reliefs, analogous to the occaſion on which the Column was erected. But in Buildings the Pedeſtals are too ſmall to admit of theſe Ornaments, which ſerve only to weaken them, and give them a trifling appearance.

With regard to the application of Pedeſtals, it muſt be obſerved, that, when Columns are entirely detached, and at a conſiderable diſtance from the wall, as when they are employed to form Porches, Periſtyles, or Porticos, they ſhould never be placed on detached Pedeſtals, as they are in Scamozzi's Deſigns, in the Temple of Sciſi mentioned by Palladio, and at Lord Archer's Houſe in Covent-Garden: for then they may indeed be compared to men mounted on ſtilts, as they have a very weak and tottering appearance. In general it is beſt, in Compoſitions of this kind, to place the Columns upon the pavement, which may either be raiſed on a continued ſolid Baſement, or aſcended to by a flight of fronting ſteps, as at St. Paul's, and St. George's Bloomsbury: but if it be abſolutely neceſſary to have a Baluſtrade, or Fence, in the Intercolumniations, (as in the caſe of Bridges, or other buildings on the water, and likewiſe in a ſecond Order,) the Columns may, in very large buildings, be raiſed on a continued Plinth, (as in the Porch of St. Paul's,) which will be ſufficiently high; and in ſmaller buildings, when it is not convenient or proper to place the Baluſtrade between the Shafts, the Columns may be raiſed on Pedeſtals; as in Palladio's Deſign for Signior Cornaro at Piombino, and at the Villa Arſieri, near Vicenza, a very beautiful Deſign by the ſame hand. It will be beſt to continue the Baſe and Cornice of theſe Pedeſtals in a ſtreight line throughout, without any breaks on the outſide: but the Dyes ought to be no broader than the Plinths of the Columns; and the intervals between them ſhould be filled with Baluſters: which is both really and apparently lighter than if they were continued.

It will be needleſs to caution our Engliſh Architects againſt employing Triangular, Circular, or Polygonal Pedeſtals in their buildings; or ſuch as are ſwelled, and have their Dye in the form of a Baluſter, or ſurrounded with Cinctures. Such extravagancies, though frequent in ſome foreign countries, are ſeldom to be met with in England, and are now laid aſide wherever good taſte prevails.

In my Deſigns of Pedeſtals * I have repreſented them under the proportions obſerved by me in Arches with Pedeſtals: but when it is neceſſary to vary the general Height, the meaſures of the particular members may eaſily be determined, by dividing the whole Height

* See Pl. of Pilaſters.

in the Tuſcan Order into $4\frac{1}{5}$ Parts, in the Doric into $4\frac{4}{5}$, in the Ionic into $5\frac{2}{5}$, and in the Compoſite and Corinthian into 6 Parts; making uſe of one of theſe Parts as the Module, and determining the Heights and Projections according to the figures in the Deſigns.

Of the Application of the Orders of Architecture.

AMONG the Antients the uſe of the Orders was very frequent: many parts of their Cities were provided with Spacious Porticos; their Temples were ſurrounded with Colonnades; and their Theatres, Baths, Baſilicas, and other publick Buildings, were profuſely enriched with Columns; as were likewiſe the Courts, Veſtibules, and Halls, of their private Houſes.

THE Moderns, in imitation of the Antients, have made the Orders of Architecture the principal ornaments of their ſtructures: and we find them employed in almoſt every building of note; where they are ſometimes merely ornamental, and at others of real uſe, ſerving to ſupport the covering, or other burdens, placed on them.

ON ſome occaſions they are employed alone: the whole Compoſition conſiſting only of one or more ranges of Columns, with their Entablature. At other times the Intervals between the Columns are filled up, and adorned with Arches, Doors, Windows, Niches, Statues, Bas-reliefs, and other ſimilar Inventions. The Columns are either placed immediately on the Pavement, or raiſed on Plinths, Pedeſtals, or Baſements; either engaged in the walls of the Building, or ſtanding detached at ſome diſtance from them; and frequently ſeveral Orders are placed one above another, or intermixed on the ſame level. In all theſe caſes there are particular meaſures and precautions to be obſerved, of which I ſhall give a detail in the following Chapters.

Of Intercolumniations.

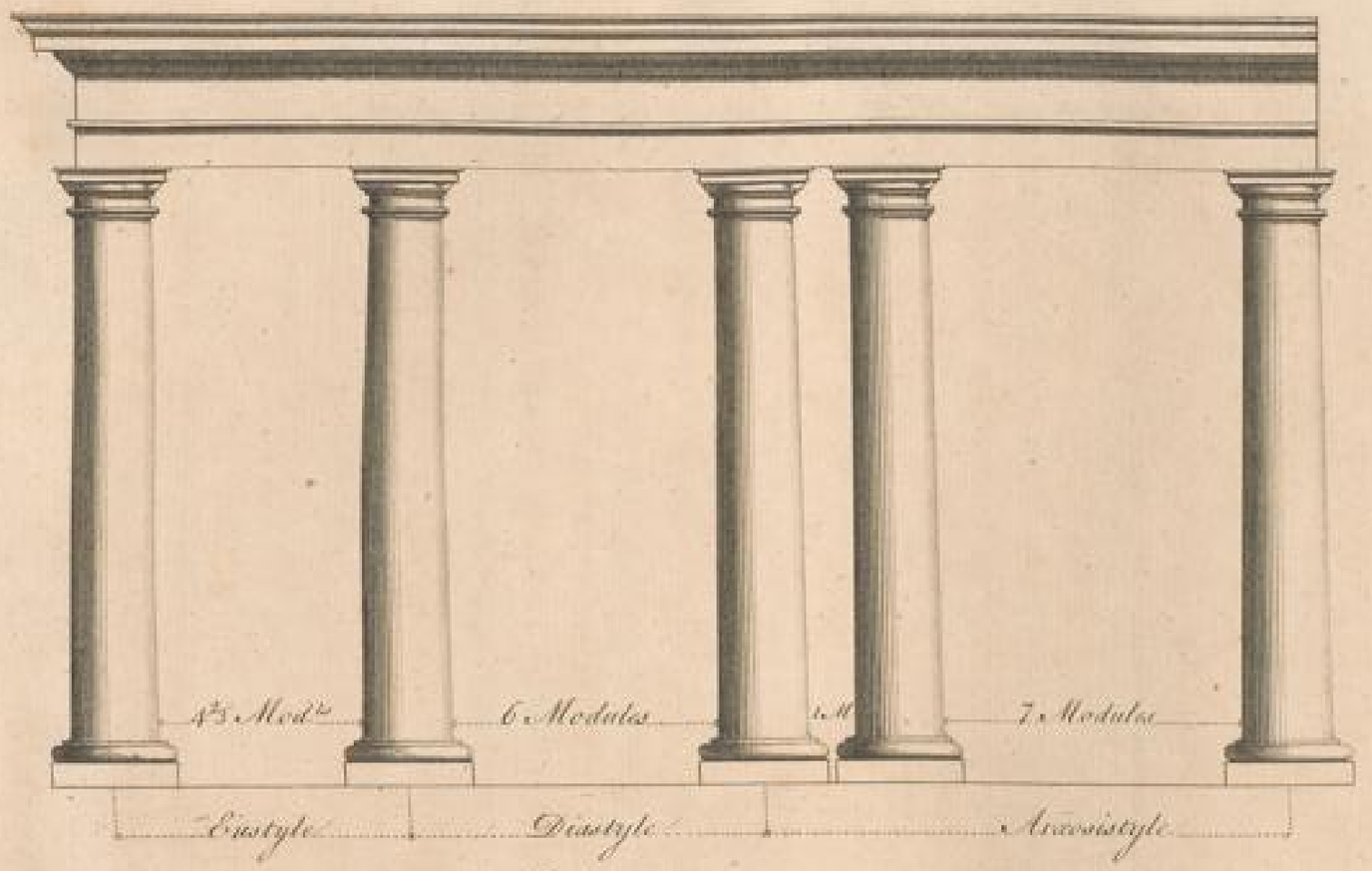
COLUMNS are either engaged, or inſulated; and when inſulated, are either very near the wall, or at a conſiderable diſtance from it. With regard to engaged Columns, or ſuch as are near the walls of a building, the Intercolumniations are not limited; as they depend on the breadths of the Arches, Windows, Niches, or other Decorations, placed in them. But Columns that are entirely detached, and perform alone the office of ſupporting the Entablature, as in Periſtyles, Porches, and Galleries, muſt be near each other, for the ſake both of real and apparent ſolidity.

THE Antients had ſeveral manners of ſpacing their Columns, wich are deſcribed by Vitruvius in his third and fourth Books. Thoſe practiſed in the Ionic and Corinthian Orders were the Pycnoſtyle, of which the Interval was equal to one diameter and a half of the Column; the Syſtyle, whoſe Interval was of two diameters; the Euſtyle of two and one quarter; the Diaſtyle of three, and the Araeoſtyle of four. In the Doric Order they uſed other Intercolumniations, regulating them by the Triglyphs; of which one was always placed directly over the middle of each Column: ſo that they were either Syſtyle Monotriglyph of one diameter and a half; Diaſtyle of two diameters and three quarters;

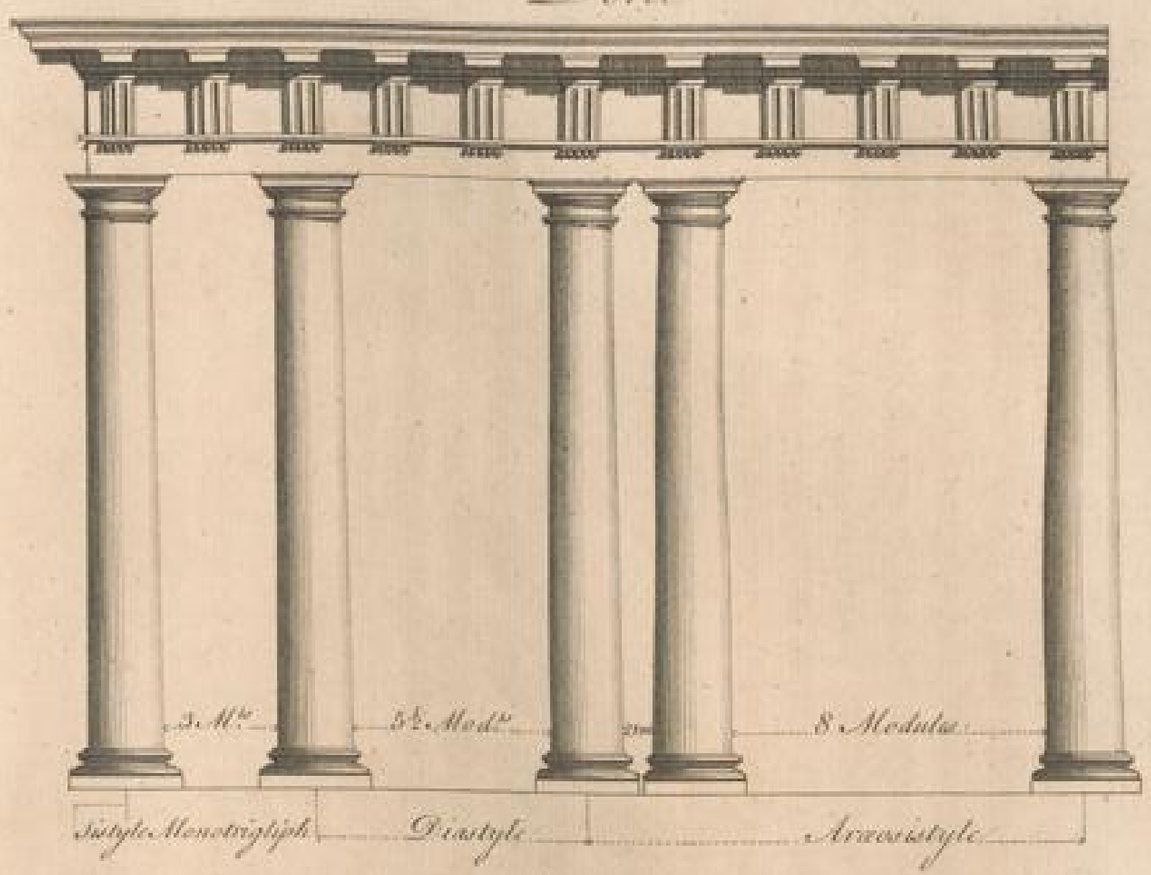
or

Intercolumniations

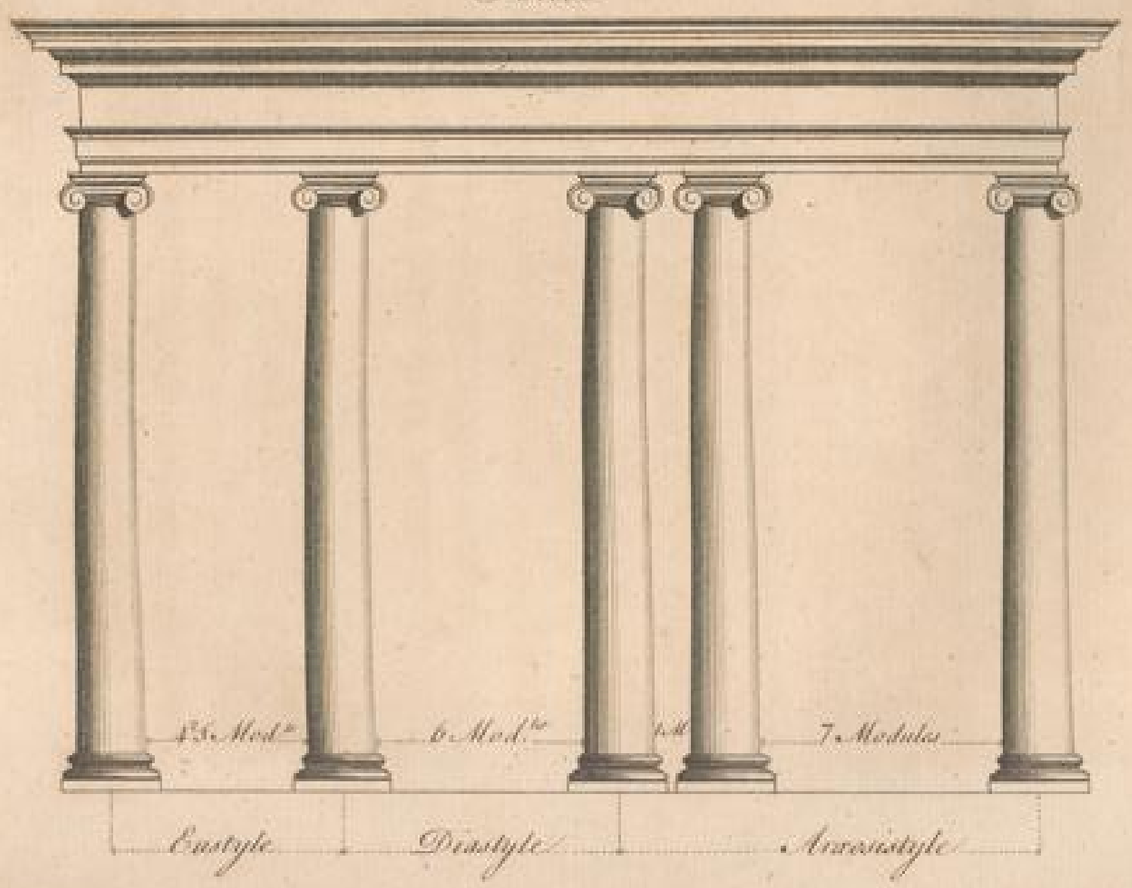
Tuscan



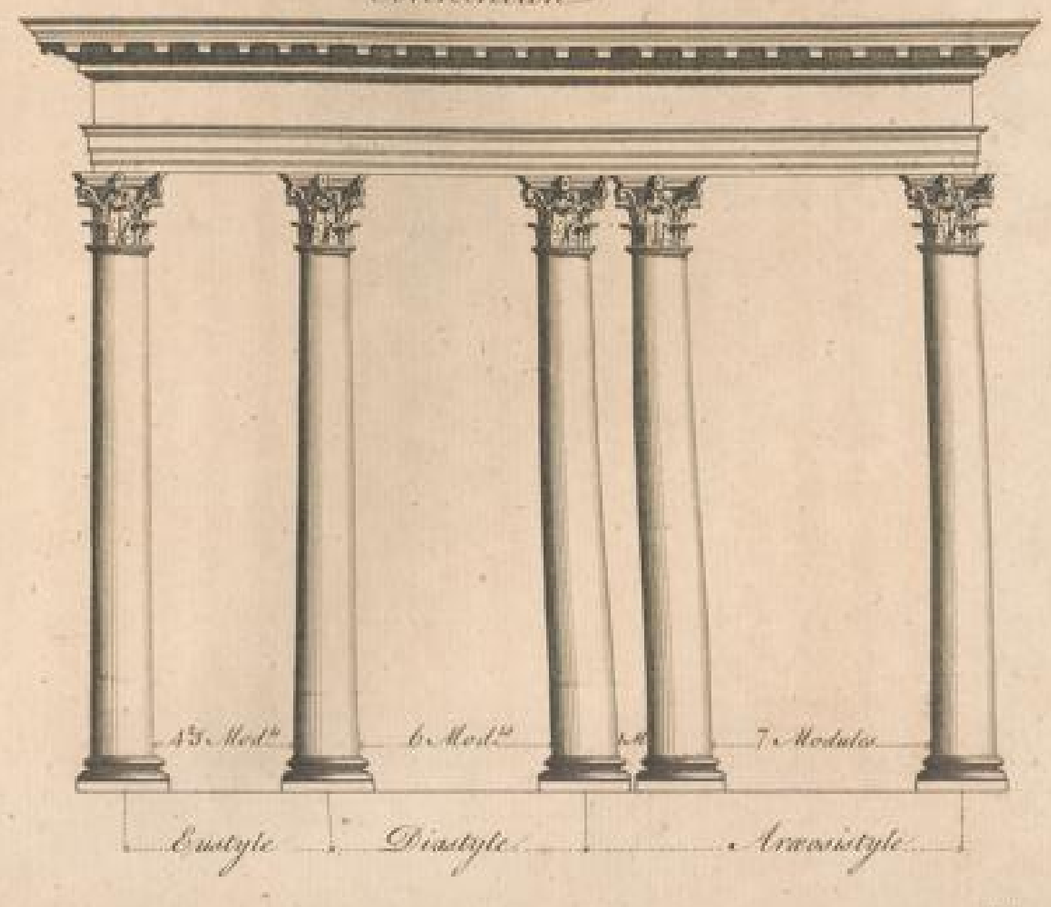
Doric



Ionic



Corinthian



I. Gwynn delin.

P. Pelton sculp.

or Aræoſtyle of four diameters; and the Tuſcan Intervals were exceeding wide, ſome of them being above ſeven diameters: which, as the Architraves were of wood, was practicable.

AMONG theſe different Intercolumniations, the Pycnoſtyle and Syſtyle are too narrow: and though Mr. Perrault imagines, from their frequency in the remains of Antiquity, that the Antients delighted more in them than in any of the others, yet, I believe, their uſe muſt be aſcribed rather to neceſſity than to choice. For as the Architraves were compoſed of ſingle ſtones, extending from the middle of one Column to the middle of another, it would have been difficult to find blocks of a ſufficient length for Diaſtyle Intervals, in large buildings. With regard to the Aræoſtyle & Tuſcan Intercolumniations, they are by much too wide, and can only be uſed in ruſtic buildings, where the Architraves are of wood; nor is the Diaſtyle ſufficiently ſolid in large Compoſitions. The Euſtyle is a medium between the narrow and broad Intervals; and being at the ſame time both ſpacious and ſolid, hath been preferred, by the Antients as well as the Moderns, to any of the reſt.

VITRUVIUS ſays, in the ſecond Chapter of his third Book, that the thickneſs of the Column ſhould be augmented, when the Intercolumniation is enlarged; ſo that if, in a Pycnoſtyle, the diameter is one tenth of the Height, it ſhould, in an Aræoſtyle, be one eight: for if, ſays he, in an Aræoſtyle, the thickneſs of the Columns do not exceed a ninth or tenth part of their Height, they will appear too ſlender and delicate; whereas if, in a Pycnoſtyle, the diameter of the Column be equal to one eighth of its Height, it will appear gouty, and be diſagreeable to the eye.

THE intention of Vitruvius was good; but the means by which he propoſes to compaſs it are inſufficient. His deſign was to ſtrengthen the ſupports, as the Intervals between them are enlarged; yet, according to the method laid down by him, it cannot poſſibly be effected: ſince one neceſſary conſequence of augmenting the diameter of the Column is the enlarging the Intercolumniation proportionally. Palladio and Scamozzi, however, admitted this precept as literally juſt; and by their manner of applying it have been guilty of a conſiderable abſurdity. It is evident that Vitruvius intended the five Intercolumniations, mentioned in his third Book, merely for the Ionic and Corinthian Orders; the latter of which, according to him, differed from the former only in it's Capital: for, in the ſecond and ſeventh Chapters of his fourth Book, he eſtabliſhes other Intervals for the Doric and Tuſcan Orders. Nevertheleſs they have employed theſe Intercolumniations in different Orders. For Palladio hath uſed the Syſtyle in the Corinthian, and the Aræoſtyle in the Tuſcan; by which means the Corinthian Periſtyle, whoſe character ſhould be extreme delicacy and lightneſs, becomes twice as ſtrong and material as the Tuſcan, whoſe diſtinguiſhing characteriſtic ought to be extreme ſolidity: and Scamozzi hath fallen into the ſame errour, though not to ſo great an exceſs; his Tuſcan Intercolumniation being only Diaſtyle.

IT may, perhaps, be alledged, in favour of this precept of Vitruvius, that, by following his doctrine, the ſolidity of the Column is encreaſed or diminiſhed in a greater degree than the breadth of the Interval; the difference of the latter, between Columns of eight or ten diameters in Height, being only as 80 to 100; whereas that of the former is as 64 to 100. But the apparent magnitudes of cylindrical bodies viewed in a vertical poſition are to each other nearly in the ſame ratio as their diameters, not as their ſolid contents: and as the bulk of the Architrave, &c. varies exactly in the ſame proportion as that of the Column does, the real ſtrength of the ſtructure is not in the leaſt affected by it.

VIGNOLA hath obſerved nearly one and the ſame proportion in all his Intercolumniations: which practice, though condemned by ſeveral eminent writers, is certainly preferable to any other; as it anſwers perfectly the intention of Vitruvius, preſerves the character of each Order, and maintains in all of them an equal degree of real ſolidity. Setting aſide therefore the Pycnoſtyle and Syſtyle diſpoſitions, on account of their want of ſpace, and the Araeoſtyle for it's deficiency in point of ſtrength, it may be eſtabliſhed, that the Dyaſtyle Intercolumniation and the Euſtyle, of which the latter ought, on moſt occaſions, to have the preference, may be employed without diſtinction in all the Orders, excepting the Doric; in which the moſt perfect Interval is the Ditriglyph; neither the Monotriglyph, nor the Araeoſtyle, being to be ſuffered but in caſes of neceſſity.

IT is, however, to be obſerved, that, if the meaſures of Vitruvius be ſcrupulouſly adhered to, with regard to the Euſtyle Interval, the Modillions in the Corinthian and Compoſite Cornices, and the Dentils in the Ionic, will not come regularly over the middle of each Column. The Antients, generally ſpeaking, were indifferent about theſe little accuracies: but the Moderns, taking example by ſome of the beſt remains of Antiquity, have with reaſon kept ſtrictly to them. A trifling alteration will remedy this defect, and, being attended with no inconveniency, it may without heſitation be allowed. I ſhall, therefore, in imitation of Vignola, inſtead of two diameters and a quarter, give two diameters and one third to the Euſtyle Intercolumniation, not only in the Ionic, Corinthian, and Compoſite Orders, but likewiſe in the Tuſcan: for I would endeavour to ſimplify the Art, and avoid an unneceſſary encreaſe of rules, in a Science already too much encumbered with them.

SOMETIMES, on account of the Windows, Doors, Niches, and other Decorations, which correſpond with the Intercolumniations of the Periſtyle or Gallery, it is not poſſible to make the Intervals ſo narrow as Euſtyle, or even as Diaſtyle: wherefore the Moderns, authorized by ſome few examples of Antiquity, where grouped Columns are employed, have invented a manner of diſpoſing them, by Perrault called Araeoſyſtyle, which admits of a larger Interval, without any detriment to the apparent ſolidity of the building. This kind of diſpoſition is compoſed of two Syſtyle Intercolumniations; the Column that ſeparates them being approached towards one of thoſe at the extremities, ſufficient room only being left between them for the Projection of the Capitals: ſo that the great Space is three diameters and a half wide, and the little one only half a diameter.

THIS manner hath been practiſed in the Porch of St. Paul's in London, and in the principal Front of the Old Louvre at Paris; in the laſt of which buildings the Decorations of the Niches required ſo wide an Intercolumniation, that it would never have been ſupportable, without coupled Columns.

MR. BLONDEL, in his *Cours d'Architecture*, employs ſeveral Chapters of his firſt Book Part 3. to prove the abſurdity of the Araeoſyſtyle diſpoſition. His principal objections to it are it's want of real ſolidity; it's extraordinary expenſiveneſs, (requiring near double the quantity of Columns that would be ſufficient in the Diaſtyle,) and the irregularities which it occaſions in the Doric, Corinthian, and Compoſite Entablatures.

THESE objections are too conſiderable not to deſerve attention; and it will always be beſt to avoid the grouping of Columns. Nevertheleſs, if on any occaſion, either to humour the particular fancy of ſome capricious patron, or to conquer an otherwiſe inſurmountable difficulty,

difficulty, it ſhould be neceſſary to employ them, it may doubtleſs be done; taking care, however, to uſe ſuch methods as will render the irregularities, occaſioned by this diſpoſition, the leaſt ſtriking and diſagreeable. In the Tuſcan or Ionic Orders no precautions are neceſſary; the Entablature in the former being entirely plain, and in the latter only enriched with Dentils, which admit of a regular diſtribution, in all Intervals that are diviſible by thirds of Modules. But in the Corinthian and Compoſite it muſt be obſerved, that, if the Modillions are regularly diſpoſed, and according to their juſt meaſures, they will not anſwer either in the large or little Intercolumniation, ſo as to have one of them over the middle of each Column. To remedy this defect the Architect of the Periſtyle of the Louvre hath enlarged both the Modillions and the Spaces between them; the diſtance from one center to another, in the broad Intervals, being one Module thirteen Minutes, and in the narrow ones one Module fifteen Minutes. This method, though tolerable in that building, where the Dentil-Band is not cut, and the Angles are terminated by undiminiſhed Pilaſters, will not do in other caſes: for, either the whole Cornice muſt be enlarged, and all it's proportions changed, or the Modillions will not fall regularly over the Dentils; the Coffers in the Soffit will be oblong inſtead of ſquare; and the Space, between the laſt Modillion and that over the Angular Column, leſs by much than any of the others: all which are irregularities too great to be tolerated. The ſimpleſt and beſt manner of proceeding is to obſerve a regular diſtribution in the Entablature, without any alteration in it's meaſures, beginning at the two extremities of the building: by which means the Modillions will anſwer to the middle of every other Column, and be ſo near the middle of the intermediate ones, that the difference will not eaſily be perceivable. The only inconvenience ariſing from this practice is, that the three central Intercolumniations of the building will be broader, by one third of a Module, than is neceſſary for eleven Modillions: but this is a trifling difference, eaſily divided, and rendered imperceptible, in ſo great a length. In the Doric Order grouped Columns are not ſo eaſily managed; and, though they have been employed in many conſiderable buildings, and by eminent Architects, yet, in very few of them, have they been properly treated. At the Church of St. Gervais, and ſeveral other buildings in Paris, the Metope between the coupled Columns is much broader than any of the others; at the Minims near the Place Royale, that the Metope may be ſquare, the Baſes are confounded together; at the Palace of Vincennes, the Height of the Frize is conſiderably augmented for the ſame reaſon: and Scamozzi, wherever he joins together two Doric Columns, or Pilaſters, omits the Baſe of one of them, ſubſtituting a Plinth in it's place; that ſo the Interval may not be too broad to admit of a regular Metope. None of theſe methods are good, nor equal to that of Palladio, which he hath practiſed at the Palace of Count Chiericato, and in the Baſilica of Vicenza. In the latter of theſe, every part whereof I meaſured, when at Vicenza, with great accuracy, the Interval between the coupled Columns is twenty one Minutes only: ſo that the diſtance, from the Axis of one Column to that of the other, is two Modules twenty one Minutes, or ſix Minutes more than is ſufficient for a regular Metope and two half Triglyphs. In order to hide this exceſs, each of the Triglyphs is thirty one Minutes broad, their centers are each of them removed one Minute within the Axis of the Column, and the Metope is three Minutes broader than the others: a difference ſo trifling that it cannot be perceived without great difficulty. And if the Entablature is continued without any Break, the irregularity will be ſtill leſs perceptible; becauſe the two Metopes on each ſide of the large one will, each of them, by removing the Triglyph within the Axis, be augmented one Minute; ſo that the difference between them and the large one will only be two Minutes. When, therefore, grouping of Columns cannot be avoided in the Doric Order, the Attic Baſe of Palladio muſt be employed, on account of it's ſmall projection; the great Interval muſt be Araeoſtyle, and the ſmall

one twenty one Minutes, which leaves a ſpace of one Minute between the Plinths of the Baſes.

In Periſtyles and Galleries, or Porticos, all the Intercolumniations muſt be equal: but in a Logia, or Porch, the middle Interval may be broader than the others, by a Triglyph, a Modillion, or three or four Dentils; unleſs the Columns at the Angles be coupled, or grouped with Pilaſters; in which caſe all the other Intervals ſhould be of the ſame dimenſions: for when they are of different breadths, as at the Sorbonne, and at the College Mazarin in Paris, the uniformity of the Compoſition is deſtroyed.

Mr. Blondel obſerves, that, when Periſtyles or Colonnades are compoſed of more than one row of Columns, as are thoſe of the Piazza of St. Peter's at Rome, they ſhould neither be of circular nor of polygonal figures, but continued, as much as poſſible, in ſtreight lines: becauſe, in either caſe, the regular diſpoſition of the Columns is perceivable only from the center of the figure, the whole appearing from all other points a diſagreeable heap of confuſion. The remark is juſt; and I have frequently obſerved the bad effects of a circular diſpoſition in the above-mentioned ſtructure. The ſame inconveniency ſubſiſts with regard to engaged Pilaſters, or half Columns, placed behind the detached Columns of circular or polygonal Periſtyles; as may be ſeen in thoſe of Burlington-Houſe: wherefore, in buildings of that kind, it will be better to decorate the Back-Wall of the Periſtyle only with Windows or Niches.

When buildings are very ſmall, as is frequently the caſe of Temples, and other inventions, uſed for the ornament of gardens, it will be neceſſary to make the Intercolumniations broader, in proportion to the diameter of the Columns, than uſual; becauſe, when they are nearer each other than three foot, there is not room for a bulky perſon to paſs between them.

Of Arches.

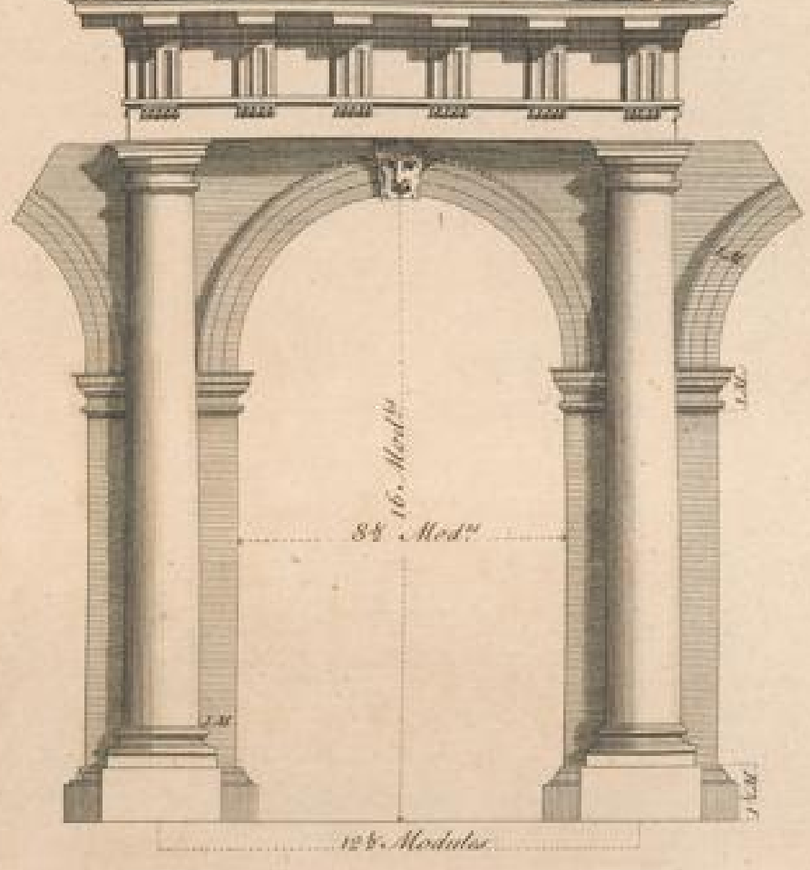
Arches are not ſo magnificent as Colonnades; but they are more ſolid, and leſs expenſive. They are proper for Triumphal Entrances, Gates of Cities, of Palaces, of Gardens, and of Parks; for Porticos round publick Squares, Markets, or large Courts; and, in general, for all Openings that require an extraordinary breadth. In Bologna, and ſome other cities of Italy, the ſtreets are on each ſide bordered with Arcades, like thoſe of Covent-Garden and the Royal Exchange; which add greatly to their magnificence, and, in hot or rainy climates, are exceeding convenient for paſſengers, affording them ſhade and ſhelter; though, on the other hand, they are a great nuſance to the inhabitants, as they darken their apartments, hinder a free circulation of air, and ſerve to harbour idle and noiſy perſons, who croud their entrances, and diſturb their quiet. At Rome, the Courts of the Vatican, thoſe of Monte Cavallo, of the Borgheſe, and of many other Palaces, are likewiſe ſurrounded with Arcades, where the equipages and domeſtics attend under cover; ſome of them being ſufficiently broad to admit two or three coaches abreaſt.

There are various manners of decorating Arches. Sometimes their Piers are ruſticated; at others they are adorned with Pilaſters, Columns, Terms, or Caryatides: and on ſome occaſions they are made ſufficiently broad to admit Niches, or Windows. The

circular

Arches without Pedestals.







Tuscan



Doric



Ionic



Corinthian

T. Sandrin delin.

S. Pitaro sculp.

circular Part of the Arch is either ſurrounded with ruſtic Key-ſtones, or with an Archivolt, enriched with Mouldings; which, in the middle, is ſometimes interrupted by a Conſole, a Maſk, or ſome other Ornament of ſculpture, ſerving, at the ſame time, as a Key to the Arch, and as a Support to the Architrave of the Order. The Archivolt is ſometimes ſupported by an Impoſt, at the head of the Pier; and at others, by Columns placed on each ſide of it, with a regular Entablature, or Architrave Cornice: and there are likewiſe inſtances of Arcades without Piers; the Arches being turned on ſingle Columns, as in the Temple of Faunus at Rome, and the Royal Exchange in London; which, nevertheleſs, is a practice ſeldom to be imitated, as it is neither ſolid, nor handſome.

When Arches are large, the Key-ſtone ſhould never be omitted, but cut in the form of a Conſole, and carried cloſe under the Soffit of the Architrave; which, by reaſon of its extraordinary length, requires a ſupport in the middle. And if the Columns, that adorn the Piers, are detached, as in the Triumphal Arches at Rome, it is neceſſary to break the Entablature over them; making its projection in the Interval no greater than if there were no Columns at all: for, though the Architrave might be made ſufficiently ſolid, yet it is diſagreeable to ſee ſo great a length of Entablature hanging in the air, without any prop or apparent ſupport. It is, however, to be remembered, that theſe Breaks in Entablatures are to be ſparingly employed, never indeed but to avoid ſome conſiderable deformity: for they deſtroy, in a great meaſure, the ſimplicity of the Compoſition, and can ſeldom be effectuated without ſome mutilation, or ſtriking irregularity in the Capitals and Cornices of the Orders, as may be obſerved in many parts of the inſide of St. Paul's. The Impoſts of Arches ſhould never be omitted; at leaſt, if they be, a Plat-Band ought to ſupply their place. If Columns are employed without Pedeſtals in Arcades, they ſhould always be raiſed on a Plinth; which will keep them dry and clean, and likewiſe prevent their Baſes from being broken. In all Arches it is to be obſerved, that the circular Part muſt not ſpring immediately from the Impoſt, but take its riſe at ſuch a diſtance above it, as is neceſſary in order to have the whole Curve ſeen at the proper point of view. When Archivolts are employed without a Key, or Conſole, in their middle, the ſame diſtance muſt be preſerved between the Top of the Archivolt, and the Architrave of the Order, as when there is a Key; or, at leaſt, half that diſtance: for, when they are cloſe to each other, their junction forms an acute and diſagreeable angle.

The Void, or Aperture of Arches, ſhould never be in height much more, nor much leſs, than double their breadth: the breadth of the Pier ſhould ſeldom exceed two thirds, nor be leſs than one third of the breadth of the Arch, according to the character of the Order; and the Angular Piers ought to be broader than the others, by one half, one third, or a fourth. The Archivolt and Impoſt are to be proportioned to the Arch; due care being taken, however, to keep them ſubſervient to the Cornice, the Architrave, and other principal Parts of the Order. For which reaſon the Impoſt ſhould not be more than one ſeventh, nor need it ever be leſs than one ninth of the Aperture; and the Archivolt muſt not be more than one eighth, nor leſs than one tenth of it. The breadth of the Conſole, or Maſk, which ſerves as a Key to the Arch, muſt at the bottom be equal to that of the Archivolt; and its ſides muſt be drawn from the center of the Arch. The length of it ought not to be leſs than one and a half of its ſmalleſt breadth, nor more than double. The thickneſs of the Pier depends on the breadth of the Portico; for it muſt be ſtrong enough to reſiſt the preſſure of its Vault. But, with regard to the beauty of the building, it ſhould not be leſs than one quarter of the breadth of the Arch, nor more than one third: and when the Arches are cloſed up, to receive Doors, Windows, or

Niches, the receſs ſhould be deep enough, at leaſt, to contain the moſt prominent parts of what is placed in them; otherwiſe the Architecture will appear flat, and the Cornice of the Nich, or Window, projecting before the Front of the Arch, will become too principal in the Compoſition; as we ſee it in the ſecond Order of the Farneſe at Rome. Theſe dimenſions are general: for a more accurate detail, the annexed Deſigns * may be conſulted, where the proper meaſures of every part are expreſſed in figures.

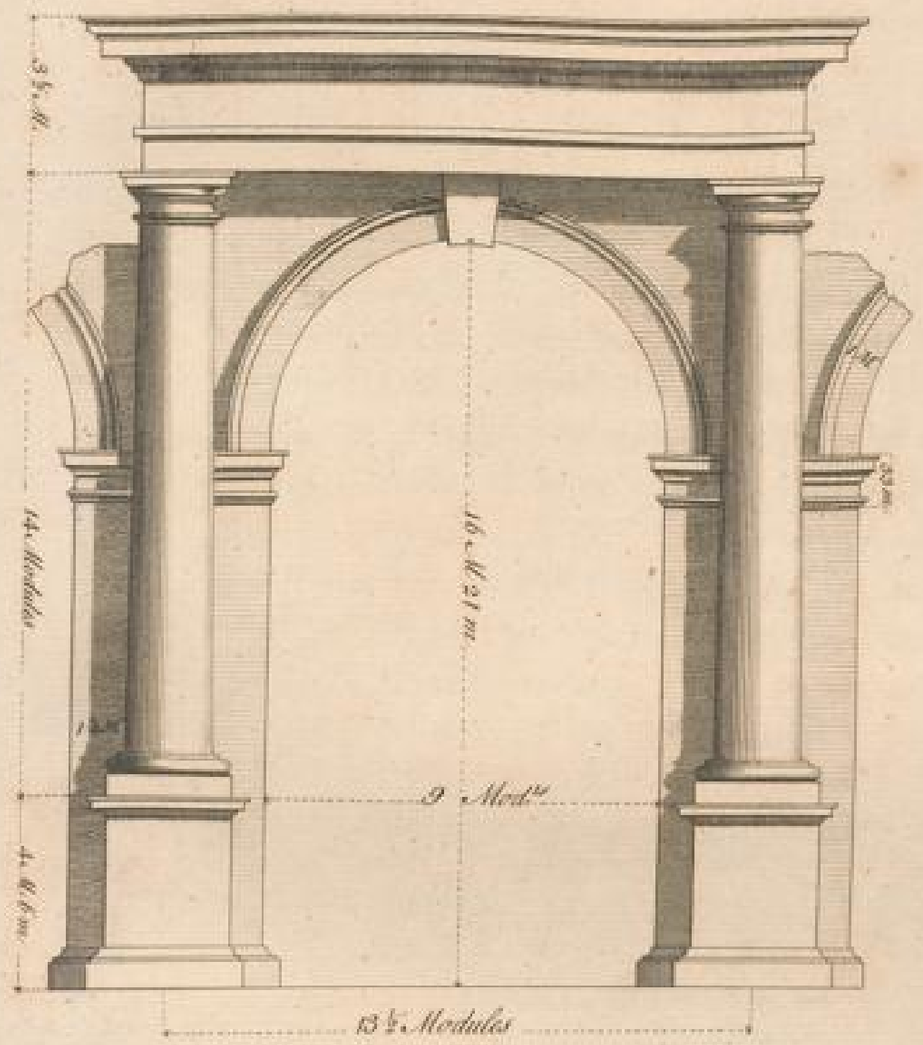
VIGNOLA, in all his Orders, excepting the Corinthian, makes the height of the Arch double its breadth: his Piers, when the Columns have no Pedeſtals, are always three Modules, and four, when they have Pedeſtals: his Impoſts are all of them one Module, and the Archivolts are either one Module, or a half, as they belong to Arches with or without Pedeſtals. Palladio hath given Deſigns only of Arches with Pedeſtals. Their height is from one and two thirds to two and a half of their breadth; and his Piers are all of them nearly three Modules and three quarters; excepting in the Compoſite Order, where they are four and four fifths. Scamozzi's Tuſcan Arch is, in height, ſomewhat leſs than double its breadth; which height encreaſes gradually, till, in the Corinthian Arch with Pedeſtals, it is nearly twice and one half the breadth. His Piers diminiſh in proportion to the encreaſe of delicacy in the Orders: his Tuſcan Pier, in Arches without Pedeſtals, being four Modules and a half; and his Corinthian only three Modules and three quarters: and, in Arches with Pedeſtals, his Tuſcan Pier is four Modules and two thirds; and his Corinthian only four Modules. His Impoſts and Archivolts are likewiſe varied; and their proportions are relative to the breadth of the Arch, and to the height of the Pier: ſo that they are conſiderably larger in Arches with Pedeſtals than in thoſe without.

VIGNOLA's Arches, being all of the ſame proportion, do not characteriſe the differences of the Orders. His Piers, in Arches without Pedeſtals, are too narrow, and his Archivolts too ſlight: in his Doric Arch without Pedeſtals, the diſtance between the Arch and the Architrave of the Order is too conſiderable; as indeed it is in ſeveral others of his Arches: and, in his Doric with Pedeſtals, the Piers are much too broad. Palladio makes too great a difference between the height of his Arches. His Tuſcan and Doric are too low, and his Corinthian and Compoſite much too high. His Piers bear a greater proportion to the Void of the Arch, in the delicate Orders than in the maſſive. His Archivolts are ſlender, and his Impoſts clumſy and ill profiled. The Apertures of Scamozzi's Arches are well proportioned; except in the Corinthian Order, where they are, like Palladio's, of an exceſſive height. His Piers bear a proper relation to the Arches; as do likewiſe his Impoſts and Archivolts: though the two laſt of theſe, in regard to other Parts of the Compoſition, are, in his Arches with Pedeſtals, much too predominant; and the members, of which they are compoſed, are larger than thoſe of the Cornice of the Order: a fault which Palladio hath likewiſe been guilty of, to a very great exceſs. At firſt ſight, it appears extremely reaſonnable to augment the ſize of the Impoſts and Archivolts of Arches, in proportion to the encreaſe of the Aperture; and, in caſes where no Orders are employed, it ought always to be done: but when the Arches are, not only adorned with Impoſts and Archivolts, but likewiſe ſurrounded with Pedeſtals, Columns, and Entablatures, it ſeems very improper to change conſiderably the proportions of any one of theſe Parts, while all the reſt remain unaltered; ſince the conſequence muſt be a diſparity between them, ſo much the more ſtriking, as they are near each other, and of ſimilar natures; both theſe circumſtances facilitating the compariſon; while a trifling diſproportion between the Aperture

* See firſt and ſecond Plates of Arches.

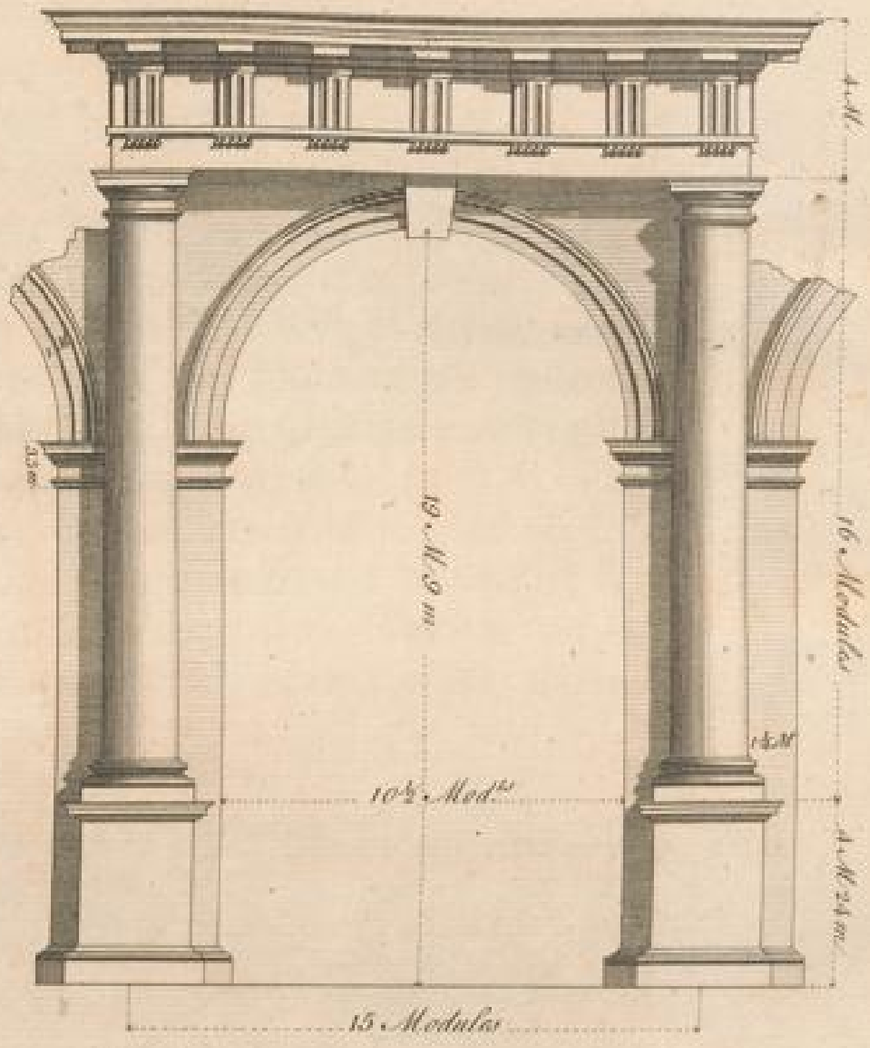
of

Arches with Pedestals.



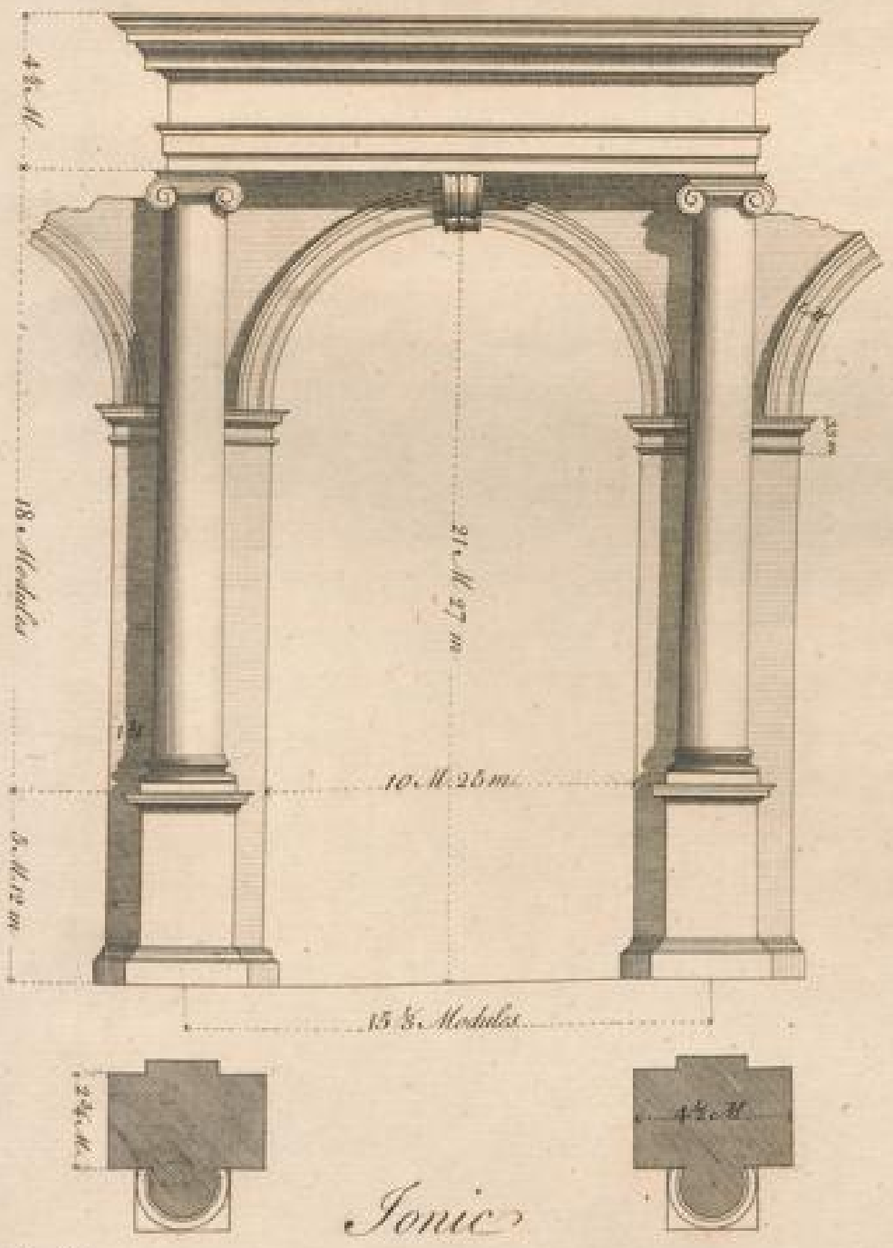


Tuscan



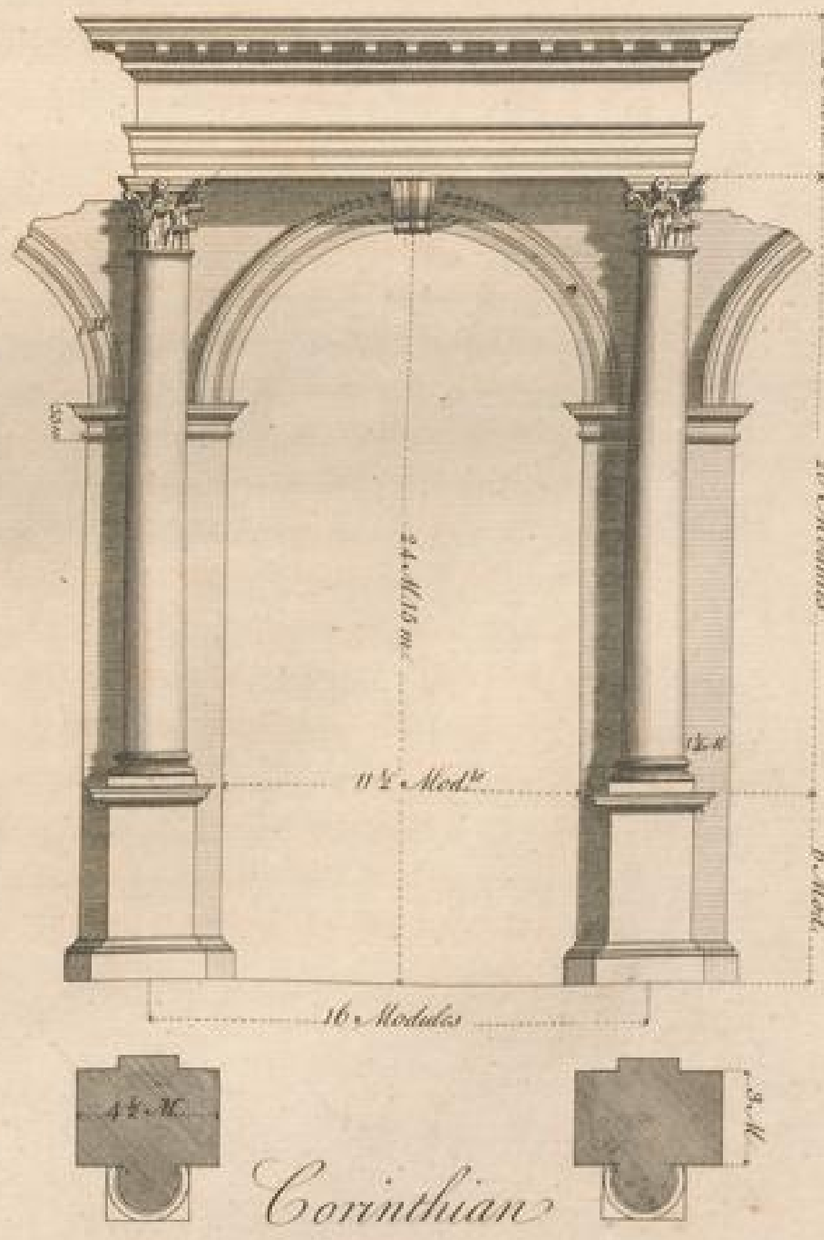


Doric





Ionic





Corinthian

T. Gandon delin.
W. Pitton Sculp.

of the Arch, and its Impoſt, or Archivolt, will ſeldom be perceived, and never can be very diſagreeable.

I have given Deſigns for Arches in all the Orders, wherein I have endeavoured to avoid the faults with which the above-mentioned Maſters are charged. In my Arches without Pedeſtals, the height of the Arch is, in every Order, equal to the length of the Column; which height, in the Tuſcan and Doric, is ſomething leſs than double the breadth, and, in the Corinthian, ſomething more than double: and, in thoſe with Pedeſtals, nearly the ſame proportions between the height and the breadth of the Aperture are obſerved. The difference of breadth in the Arches, (ſuppoſing the Orders to be all of the ſame height), not being conſiderable, I have conſtantly obſerved the ſame dimenſions, as well in the Piers, as in the Impoſts and Archivolts; which is done to avoid a troubleſome and needleſs detail; the characters of the different Orders being ſufficiently preſerved without it: for, though the Corinthian Pier contains the ſame number of Modules as the Tuſcan, yet, as theſe Modules diminiſh in proportion to the encreaſe of delicacy in the Orders, the real ſize of the one is to that of the other only as ſeven to ten.

In the Doric Order, the diſtribution of the Frize makes it difficult to proportion the Apertures of the Arches well, either with or without Pedeſtals: for the Intervals of three and four Triglyphs are too narrow, and thoſe of four and five rather too broad. With regard to Arches without Pedeſtals, Palladio, to conquer this difficulty, hath, at the Carita in Venice, omitted the uſual Ornaments of the Frize, and introduced, inſtead of them, an imitation of thoſe on the Frize of the Sybill's Temple at Tivoli; having made the diſtance between the Axis of the Columns only eleven Modules and a half, inſtead of twelve and a half. Le Clerc, in his Deſigns of the Doric Order, hath diminiſhed the breadth of the Metopes and Triglyphs; and Scamozzi hath made his Doric Columns ſeventeen Modules high, inſtead of ſixteen, and raiſed them on Plinths; which method Sangallo hath likewiſe obſerved in the lower Order of the Farneſe at Rome.

In imitation of Sangallo, I have, in the Doric Arch without Pedeſtals, raiſed the Columns on Plinths, but avoided augmenting their height; as I did not chuſe to change the eſtabliſhed proportions of the Order, where there appeared ſo little occaſion for it. However, if the lowneſs of the Arch ſhould be objected to, it may eaſily be remedied, either by encreaſing the height of the Column, as Palladio hath done in his Arch with Pedeſtals, or by diminiſhing the breadth of the Metopes and Triglyphs, according to le Clerc's method, or by employing both theſe artifices together; which laſt is to be preferred, as it will render the change in the proportions of each particular Part leſs conſiderable. The ſame expedients may be uſed in changing the meaſures of the Doric Arch with Pedeſtals, if they ſhould not pleaſe; obſerving to divide the alteration proportionably between the Pedeſtal, the Column, and the Frize of the Order: by which means the height of the Aperture may be brought to double its breadth, without detriment to any other Part. For many things, which, in the ſtrictneſs of Theory, may appear licentious, are in reality of no conſequence in the execution, becauſe they are not eaſily perceptible. The proportions of the Tuſcan Arches may likewiſe be changed, if required, and the height of the Apertures be made nearer double their breadth; which, as there are neither Modillions nor Dentils in the Cornice, may be done without changing the proportion of any Part of the Order.

If the breadths, which I have given to the Piers of all the above-mentioned Arches, ſhould, though they ſeem to me well proportioned, be thought too conſiderable, they may be diminiſhed, and, in Arches without Pedeſtals, reduced to three Modules and three quarters, like thoſe of Palladio; obſerving, in ſuch caſe, to reduce the Archivolts to twenty ſix Minutes, inſtead of thirty, which they have in the annexed Deſigns. The Piers of Arches with Pedeſtals may likewiſe be leſſened, and, inſtead of four Modules and a half, be only four; which may be done without changing the dimenſions of the Archivolts: nor need the Impoſts of any of the Arches be altered, though the Piers are.

When Columns are engaged in the Piers, their projection depends on that of the Impoſt, whoſe moſt prominent part muſt be in a line with the Axis of the Column; at leaſt in the Tuſcan and Doric Orders; but in the Ionic, Compoſite, and Corinthian, it may project ſomewhat beyond the Axis, as in the Redentore at Venice, one of Palladio's beſt works: becauſe, when the Columns in theſe Orders are diſengaged much above the half of their diameter, it occaſions very diſagreeable mutilations in their Capitals; as may be ſeen in the Porch of St. George's Bloomsbury, and at the Banqueting-Houſe.

I have encreaſed the thickneſs of the Piers a quarter of a Module in each Order. Scamozzi's practice is quite oppoſite to this: for he diminiſhes his Piers in thickneſs, as well as in breadth, in the delicate Orders; by which means the real ſolidity of the ſtructure is much affected; particularly, ſeeing the Columns, which may be conſidered as abuttments, are a great deal weaker, in the Compoſite and Corinthian, than in the Tuſcan or Doric Orders: whereas, according to the method here obſerved, the ſolidity of all the Piers is nearly the ſame; a circumſtance doubtleſs of more conſequence than any trifling diſproportion between the thickneſs of the Pier, and the diameter of the Column, which can never be diſcovered without a very nice examination.

With regard to the interiour Decoration of Arcades, the Portico may either have a flat Ceiling, or be arched in various manners. When the Ceiling is flat, there may be, on the backs of the Piers, Pilaſters of the ſame kind and dimenſions with the Columns in their Fronts; facing which there muſt be other Pilaſters againſt the wall, whoſe projection, as well as that of thoſe againſt the Piers, may be from one ſixth to one quarter of their diameter; and theſe Pilaſters may ſupport a continued Entablature, or only an Architrave and Frize; the Cornice being interrupted over each Pilaſter, and carried acroſs the Portico; its Mouldings ſerving to form the compartments of the Ceiling; as in the Veſtibule of the Maſſimi at Rome, and in the Great-Stable of the King's Mews, near Charing-Croſs. When the Portico is arched, if the Vault be either ſemi-circular, or ellyptical, the backs of the Piers and the wall may be decorated with Pilaſters, as above deſcribed, and a regular continued Entablature; the Vault taking its riſe from the top of the Cornice, or ſomething higher; as in the Veſtibule of St. John de Lateran at Rome: and it may be enriched with compartments of various regular figures, as hexagons, octagons, ſquares, &c. of which I have exhibited ſeveral examples among the Deſigns for Ceilings. But when it is Groined, or compoſed of Circular Coves with Pendentives, the Pilaſters may be as broad as the Columns in Front of the Piers: but they muſt mount no higher than the top of the Impoſt, whoſe Mouldings muſt finiſh them; and from thence the Groins and Pendentives take their riſe; as do likewiſe the Linings, or *Arcs Doubleaux*, that divide the Vault, whoſe breadth muſt be equal to the Pilaſter from which they ſpring.

In

Various Sorts of Arcades, taken from different Buildings at Rome, and in other parts of Italy.

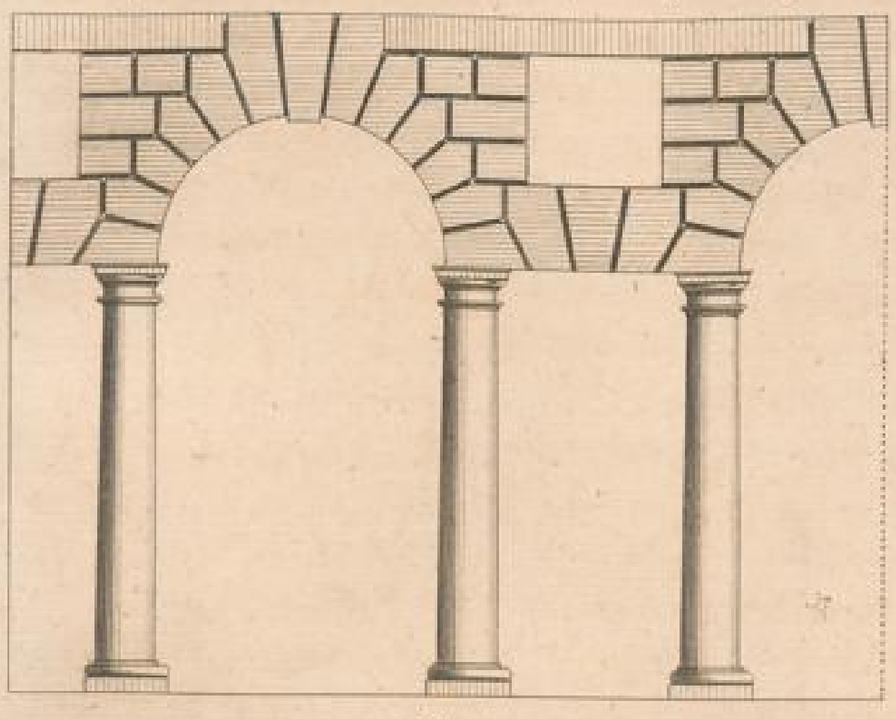


Fig. 1.

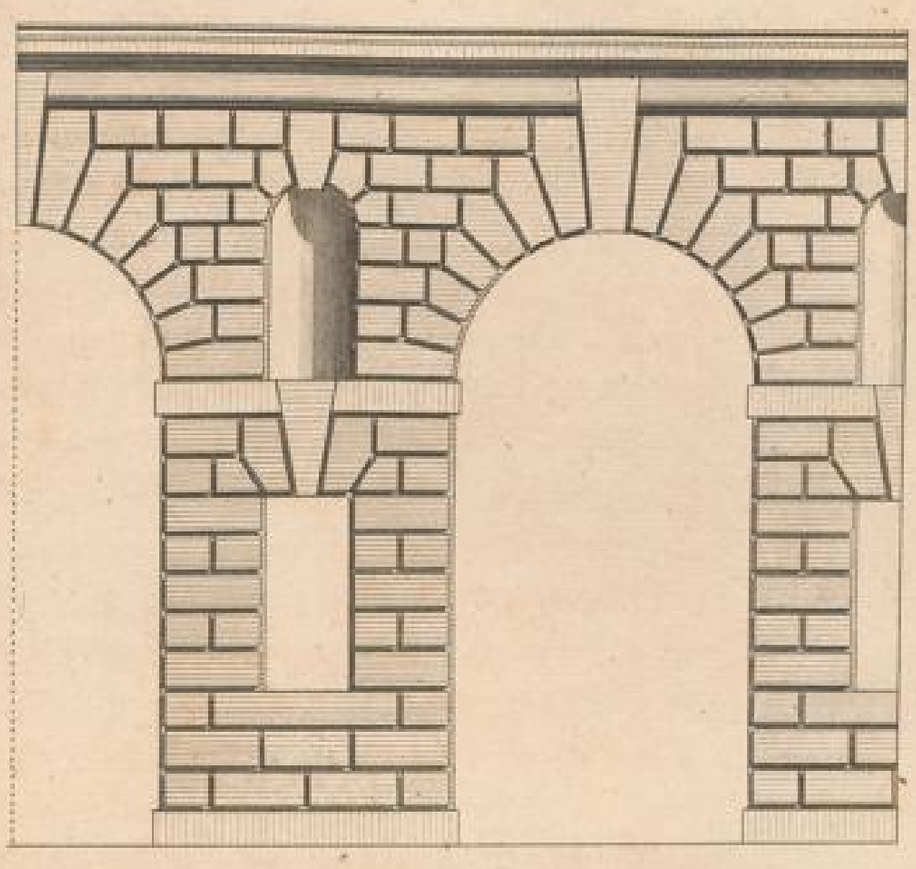


Fig. 2.

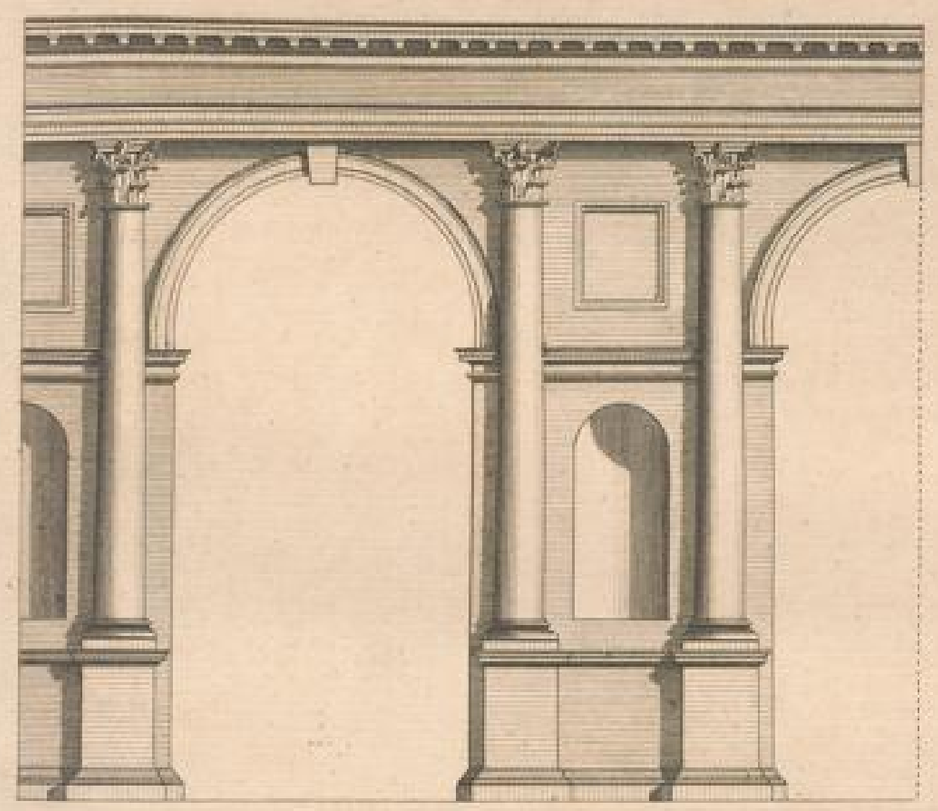


Fig. 3.

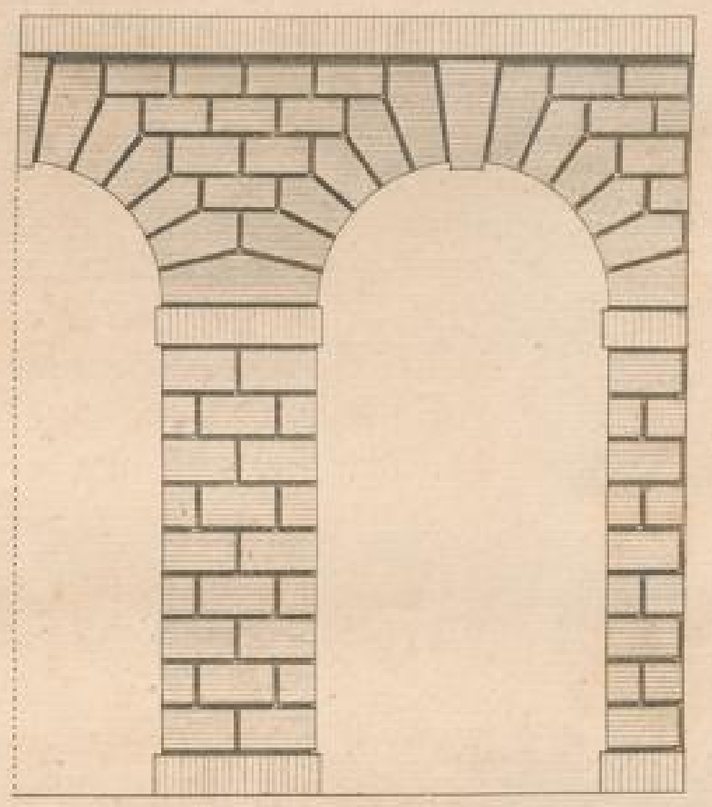


Fig. 4.

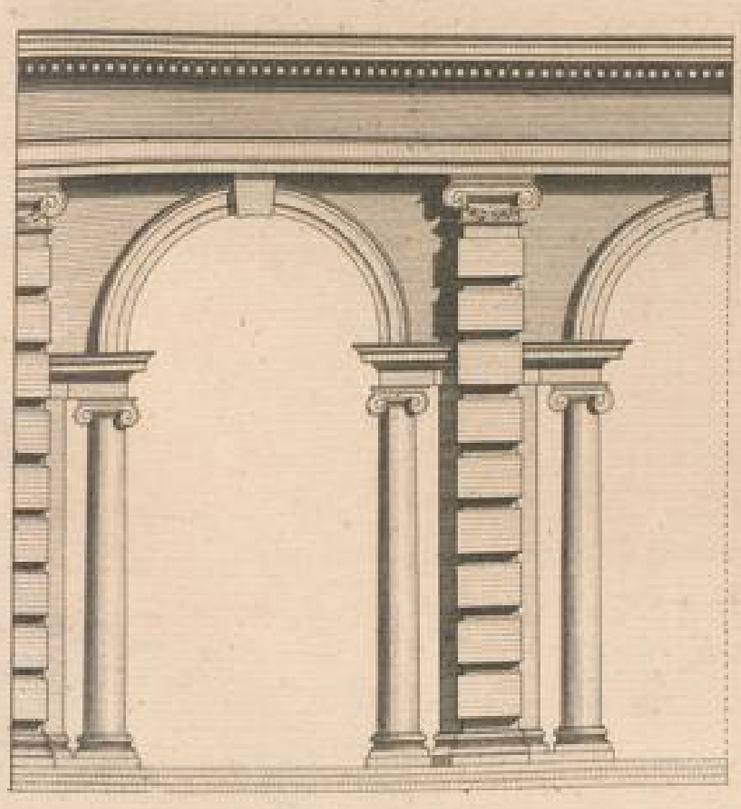


Fig. 5.

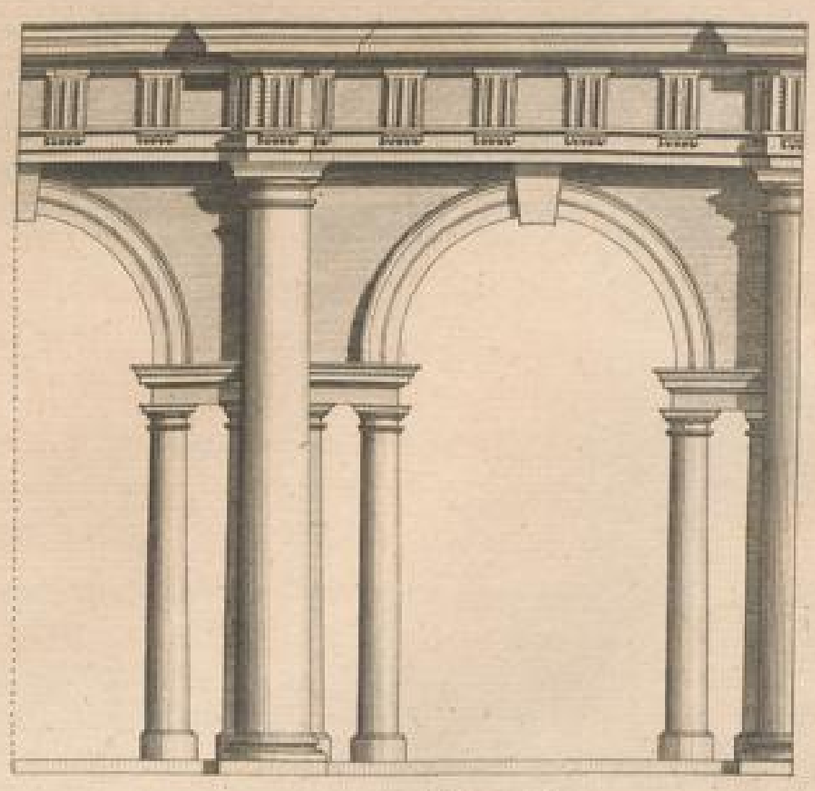
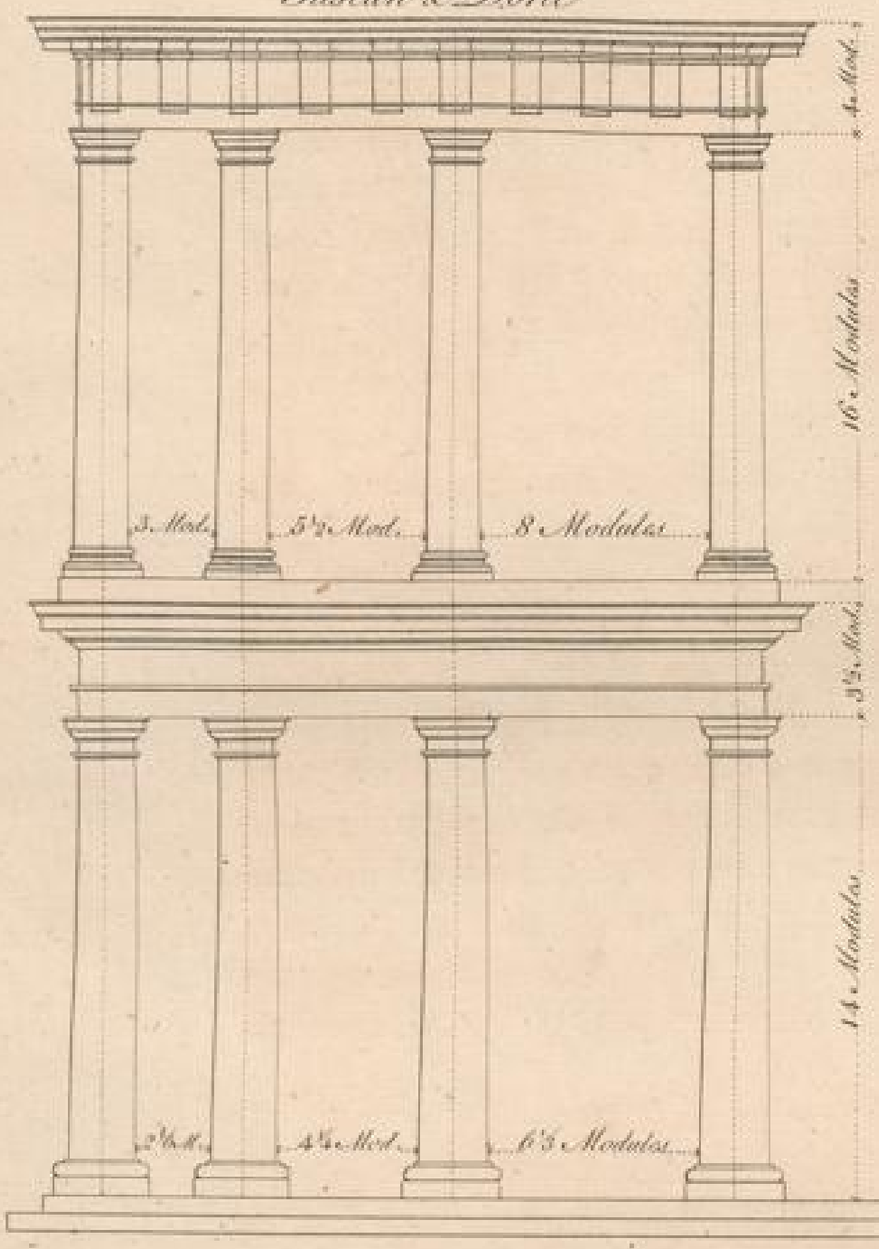


Fig. 6.

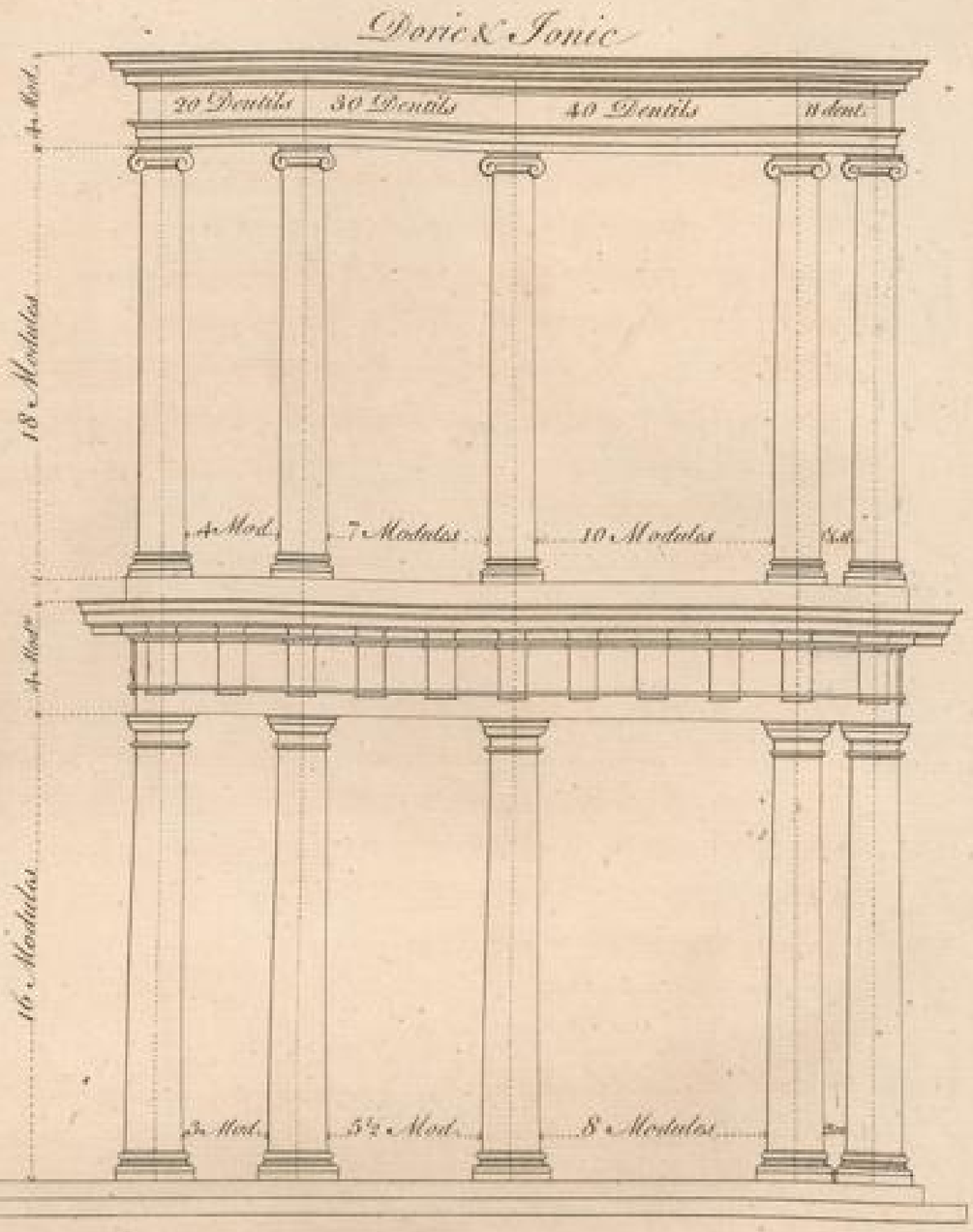
J. Gandon Delin. *E. Pattou Sculp.*

Columns upon Columns

Tuscan & Doric



Doric & Ionic



Ionic and Composite, or Corinthian

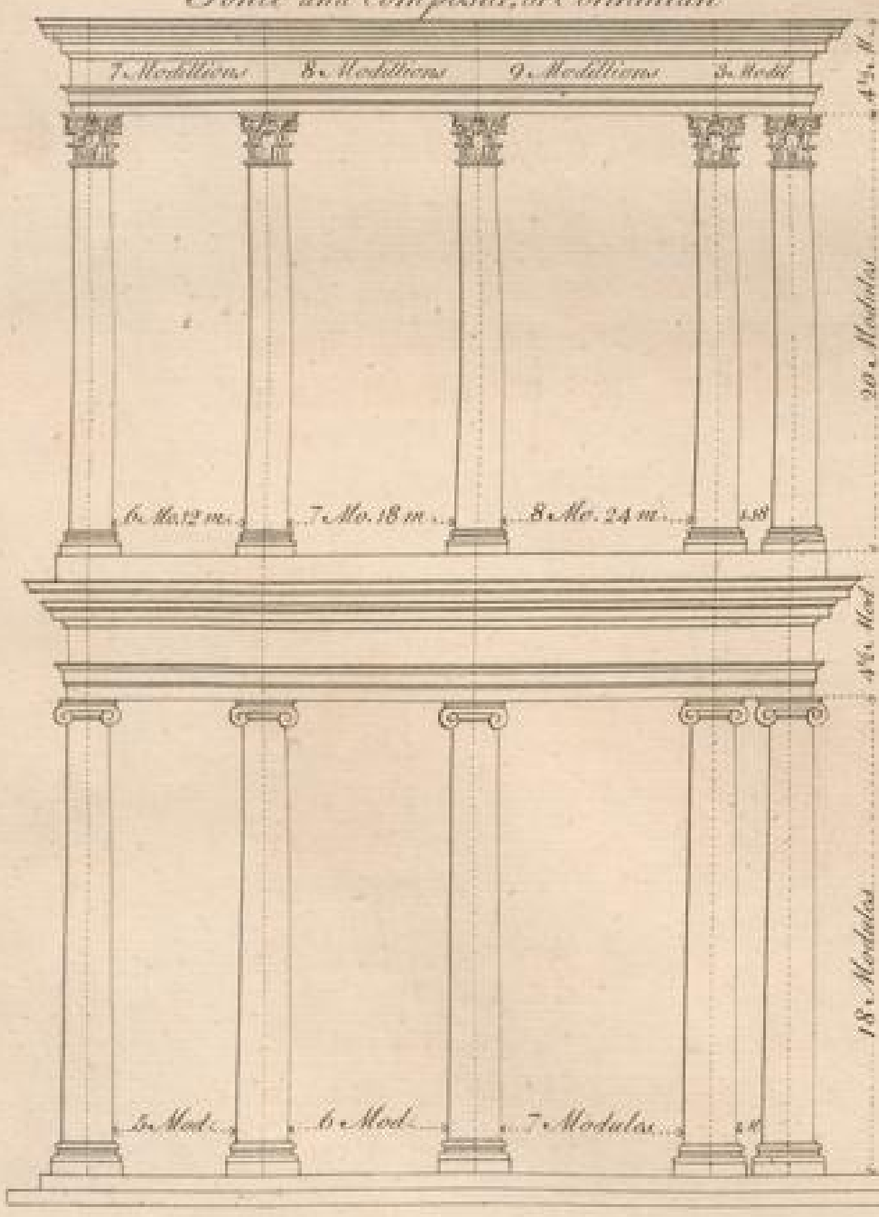
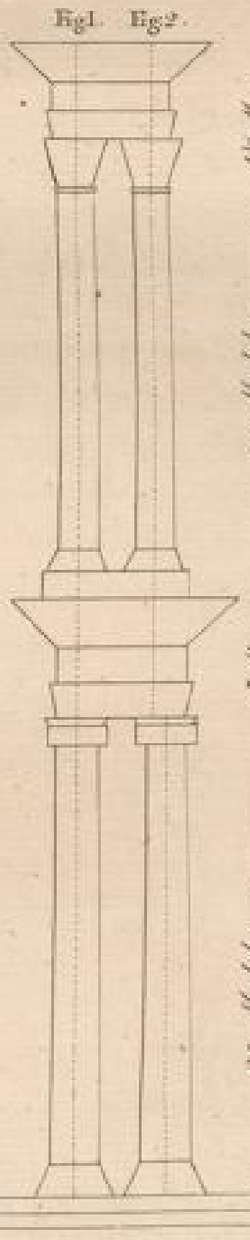
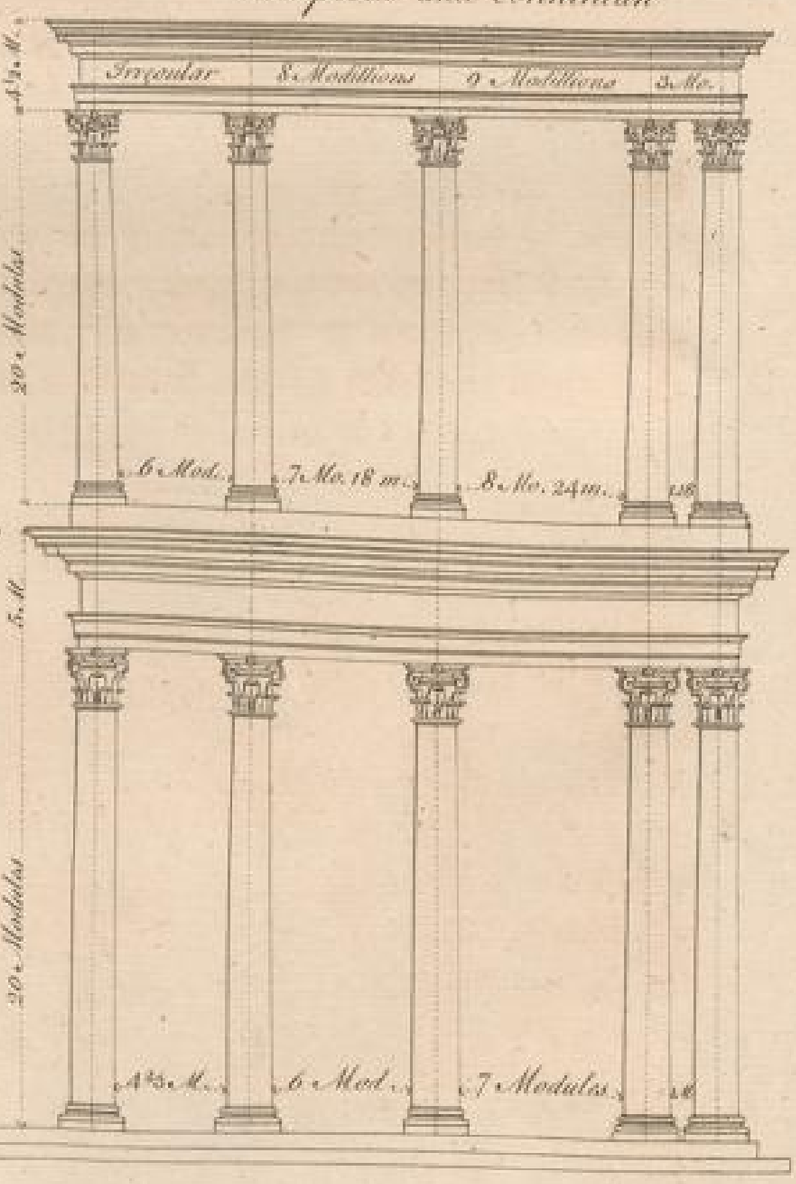


Fig1. Fig2.



Composite and Corinthian



L. Jansen Delin. -

T. Patton Sculp. -

In the third Plate of Arches are ſix different Deſigns, all of them very perfect in their kind. Fig. 1 is the invention of Serlio; who recommends that manner of arching, where Columns are already provided, (as it frequently happens in places abounding with Antiquities,) whoſe length is not ſufficient for the intended purpoſe: and he obſerves, that, where theſe Arches are uſed, it will be neceſſary to ſecure them with ſtrong abuttments at each end. The Aperture of the Arch may be from four to five diameters of the Column in breadth, and its height muſt be twice its breadth. The breadth of the ſmall Interval muſt not exceed two thirds of that of the large one, and its height is determined by the height of the Column. Fig. 2 is Vignola's invention, and executed by him in the Cortile of the Palace of Caprarola. The Arches are, in height, ſomewhat more than twice their breadth; the diſtance from the Arch to the top of the Cornice is equal to one third of the height of the Arch; the breadth of the Pier is equal to the breadth of the Arch; and the Aperture of the window occupies nearly one third of that breadth. Fig. 3 is the invention of Bramante, and executed in the garden of the Belvedere at Rome. The height of the Arch is a trifle more than twice its breadth. The breadth of the Pier is equal to that of the Arch, and, being divided into twelve parts, two of them are for the two parts of the Pier that ſupport the Archivolts, four for the two Columns, two for the Intervals between the Nich and Columns, and four for the Nich. The height of the Pedeſtal is half the diameter of the Arch. The Columns are ten diameters in height; and the height of the Entablature is one quarter of the height of the Columns. The Impoſt and Archivolt are, each of them, equal to half a diameter of the Column. Fig. 4 is very common in the works of Palladio and Inigo Jones. The height of the Arch may be about twice its breadth; and the breadth of the Pier from one to two thirds of the diameter of the Arch. Fig. 5 is a deſign of Vignola, executed at Monte Dragone, a ſeat of the Borgheſe, near Freſcati. The height of the Arch is ſomething more than twice its breadth; and the breadth of the Pier, including the Columns that ſupport the Arch, is a trifle leſs than the breadth of the Arch. Fig. 6 is an invention of Palladio, and executed by him in the Baſilica at Vicenza. The moſt beautiful proportion for Compoſitions of this kind is, that the Aperture of the Arch be in height twice its breadth; that the breadth of the Pier do not exceed that of the Arch, nor be much leſs; that the little Order be in height two thirds of the large Columns, which height being divided into nine parts: eight of them muſt be for the height of the Column, and the ninth for the height of the Architrave-Cornice; two fifths of which may be for the Architrave, and three for the Cornice: the breadth of the Archivolt may be equal to the ſuperiour diameter of the little Columns, and the Key-ſtone at its bottom muſt not exceed that breadth.

Of Orders above Orders.

WHEN two or more Orders are employed, one above the other, in a building, the laws of ſolidity require, that the ſtrongeſt ſhould be placed lowermoſt: wherefore the Tuſcan is to ſupport the Doric, the Doric the Ionic, the Ionic the Compoſite, or Corinthian, and the Compoſite the Corinthian only.

This rule, however, is not always ſtrictly adhered to. Moſt Authors place the Compoſite above the Corinthian; and we find it ſo diſpoſed in many Modern Buildings. There are likewiſe examples, where the ſame Order is repeated; as at the Theatre of Statilius Taurus, and the Coliſeum; and others where an intermediate Order is omitted, and the Ionic placed on the Tuſcan, or the Corinthian on the Doric. But none of theſe

practices are to be imitated: for the firſt is an evident trespaſs againſt the rules of ſolidity; the ſecond occaſions an irkſome uniformity; and the laſt cannot be effected without ſeveral diſagreeable irregularities. For if the diameter of the ſuperiour Order be in the ſame proportion to that of the inferiour, as if the ſucceſſion were regular, the upper Order will be higher than the lower one; and if the diameter be leſſened, in order to diminiſh the height, the Column will be too ſlender: the Intercolumniation, which at beſt is too wide, will be enlarged; and the Piers, if there are Arches, will be much too broad: beſides which, the characters of the Orders will be too oppoſite, to be employed in the ſame aſpect, without being connected by ſome preparatory decoration.

In placing Columns above one another, it is always to be obſerved, that the Axis of all the Columns muſt correſpond, and be in the ſame perpendicular line, in front at leaſt: in Flank, indeed, they may or not be ſo, as ſhall be moſt convenient; yet it is moſt regular and ſolid to place them in a line in Flank likewiſe. In the Theatre of Marcellus, the Axis of the Ionic Column is almoſt a foot within that of the Doric one below it; which, as the Columns are engaged, and the wall of the ſecond ſtory is conſiderably contracted, could not well be avoided: and in caſes of the like nature, where the ſolidity of the building is not affected by it, the ſame method may be taken; obſerving, however, never to make the retraction greater than at the Theatre of Marcellus, where the front of the Plinth, in the ſecond Order, is in a line with the top of the Shaft in the firſt.

But where the Columns are detached, it will always be beſt to put them exactly over each other, that ſo the Axis of all of them may form one continued perpendicular line: for then the ſtructure will be ſolid, which it cannot be, when the ſuperiour Column is placed a good deal within the inferiour one; a great part of it having then no other ſupport than the Entablature of the Order below it. It is indeed true, that, by ſo doing, the Baſes of the upper Order will have a falſe bearing in front, as well as on the ſides: but as there is no poſſibility of removing this inconveniency on the ſides, it would be a matter of no conſequence to remove it in front, where it is ſcarcely perceptible.

Vitruvius, in the firſt Chapter of his fifth Book, ſays, that the Columns in a ſecond ſtory ſhould be leſs than thoſe in a firſt by one quarter; for that the inferiour parts, being moſt loaded, ought to be ſtrongeſt: and, in the ſeventh Chapter of the ſame Book, he repeats the ſame precept; adding, that, if a third Order be placed upon the ſecond, its Column muſt likewiſe be leſs by one quarter than that of the ſecond Order: ſo that, according to this rule, the height of the Column in the third Order will only be nine ſixteenths of that in the firſt; and, if the Columns are placed on Pedeſtals, which, he ſays, are to be leſs by one half in a ſuperiour than in an inferiour Order, the height of the Pedeſtal and Column, in the ſecond Order, will be to their height in the firſt, as eleven to ſixteen; and the height of the Pedeſtal and Column, in the third Order, will be to their height in the firſt, nearly as fifteen to thirty two: that is, leſs by more than one half, which is a diſparity by no means to be allowed. Further, if three Orders of detached Columns be placed one above the other, as the Doric, Ionic, and Corinthian, and the lower Intercolumniation be Euſtyle, or of two diameters and one third, the ſecond Intercolumniation will be Araeoſtyle, or of four diameters; and the third will be nearly of ſix diameters and a half: a width of Intercolumniation extremely diſpleaſing to the eye; at any rate unſolid; and, according to Vitruvius's own doctrine, not practicable, but where the Architraves are of wood. And if three Orders of engaged Columns be placed above each other, either alone, or on Pedeſtals, and if the lower Intercolumniation be of a proper breadth to admit a well proportioned

portioned Nich, Window, Door, or Arch, it will be exceeding difficult to decorate the ſecond Intercolumniation, and abſolutely impoſſible to decorate the third; which, though conſiderably broader than the firſt, will be only about half as high.

I will not trouble the reader with the various opinions and practices of Architects, with regard to the proportions of Orders placed above each other: the curious may conſult Blondel's *Cours d'Architecture*, where the greateſt part of them are enumerated, and their merits nicely weighed; the whole diſcuſſion being ſpun out to the extent of ſeventy Folio-Pages. It will be ſufficient to obſerve, that Scamozzi's rule is univerſally eſteemed the beſt; being ſimple, natural, and attended with fewer inconveniencies than any other. It is built upon a paſſage in the fifth Book of Vitruvius, and import that the lower diameter of the ſuperiour Column ſhould conſtantly be equal to the upper diameter of the inferiour one; as if all the Columns were formed of one long tapering tree, cut into ſeveral pieces.

According to this rule, the Doric Column will be to the Tuſcan as thirteen and one third to fourteen; the Ionic to the Doric as fifteen to ſixteen; the Compoſite or Corinthian to the Ionic as ſixteen and two thirds to eighteen; and the Corinthian to the Compoſite as ſixteen and two thirds to twenty.

In this progreſſion it appears, that, when the Compoſite and Corinthian are employed together, the relations between them are more diſtant than between any of the other Orders. But this may be remedied by leſſening the diminution of the inferiour Column, making its upper diameter ſix ſevenths, or ſeven eighths, of the lower one, inſtead of five ſixths; which will of courſe encreaſe the diameter and height of the ſuperiour Column: though, indeed, the beſt expedient will be never to uſe theſe two Orders in the ſame aſpect; for they are ſo much alike, that it differs little from repeating the ſame Order.

It will probably be objected, that the inferiour Orders, according to the above mentioned proportions, will not be ſufficiently predominant. If both the Orders are continued throughout the Front, it is of no conſequence; there are many examples, where the difference between them is not greater, that ſucceed perfectly well. And if the ſuperiour Order only ſubſiſts in the middle; the Parts of the inferiour Order, extended on each ſide of it, are generally crowned with a Baluſtrade, levelling with the breaſts of the windows in the ſecond ſtory; which is ſufficient to give a proper degree of predominance to that Part of the Compoſition.

In England there are few examples of more than two ſtories of Columns, in the ſame aſpect: and though in Italy, and other parts of Europe, we frequently meet with three, and ſometimes more; yet it is a practice by no means to be imitated: for there is no poſſibility of avoiding many ſtriking inconſiſtencies, or of preſerving the character of each Order in its intercolumnial decorations. Palladio hath attempted it at the Carita in Venice; Sangallo in the Farneſe at Rome; Ammannati in the Cortile of the Pitti at Florence: but all unſucceſsfully. It is even difficult to adjuſt two Orders with any tolerable degree of regularity, for the reaſons already offered in the beginning of this Chapter; which will remain in force, even when Scamozzi's rule is obſerved, though the relations between the heights of the different Orders are then leſs diſtant than by any other method.

In the firſt Plate of Orders above each other, I have given Deſigns of double Colonnades in all the Orders; which are ſo diſpoſed, that the Modillions, Mutules, Triglyphs,

and other Ornaments of the Entablatures, fall regularly over the Axis of the Columns: except in the Compoſite and Corinthian combination, where, in the Euſtyle Interval, the Modillions of the ſecond Cornice do not anſwer. But the diſtance of the object, from the ſpectator's eye, makes this irregularity leſs important; more eſpecially, as a Modillion will fall exactly over the Axis of every third Column. Nevertheleſs, if a ſcrupulous accuracy be required, the Entablature may be augmented, and made full five Modules high; by which means the diſtribution will be perfectly regular.

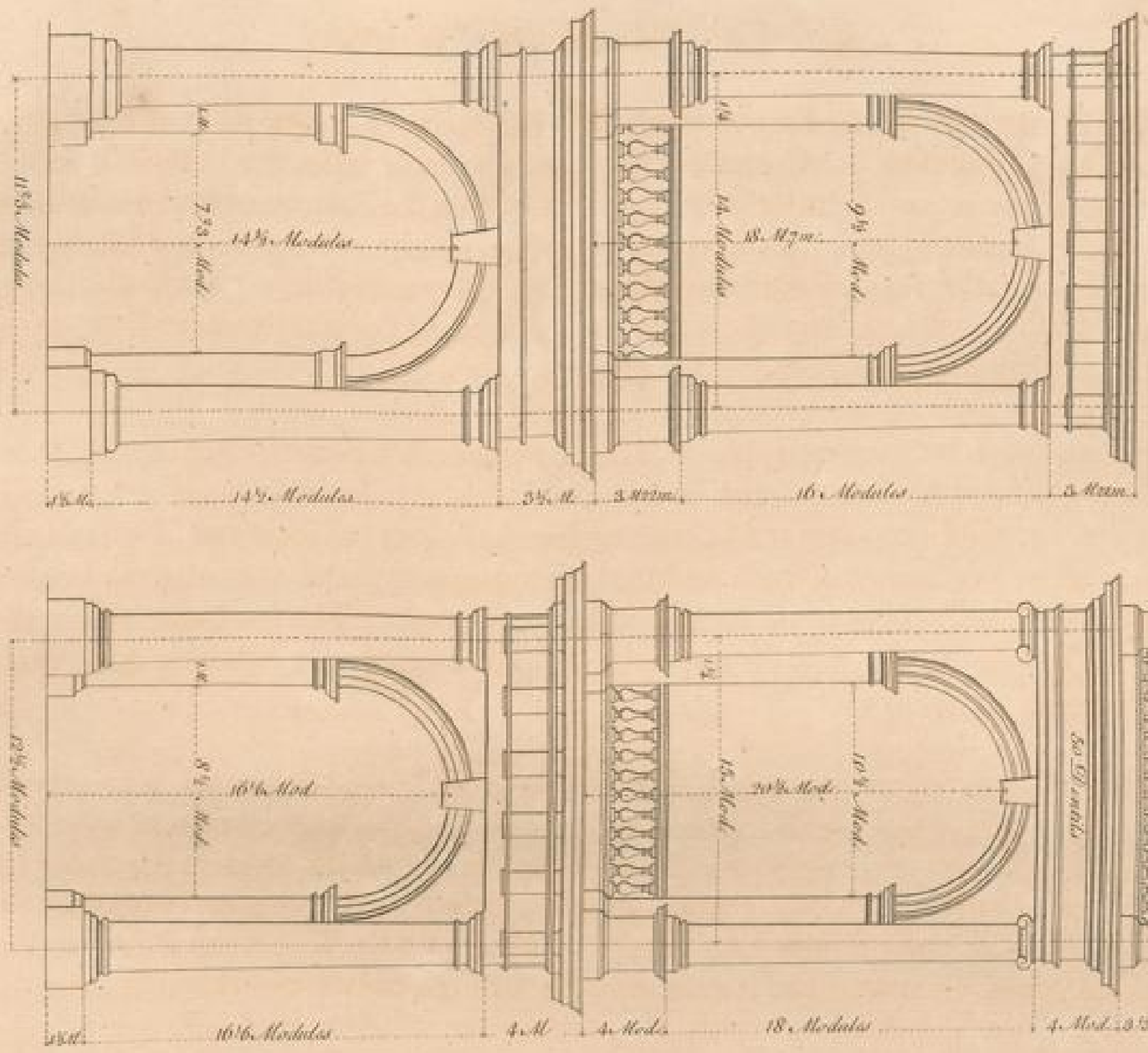
AMONG the Intercolumniations, exhibited in the above-mentioned Plate, there are ſome in the ſecond Orders extremely wide; ſuch as the Ionic Interval over the Doric Araeoſtyle, and the Compoſite and Corinthian Intervals over the Ionic and Compoſite Araeoſyſtyles: all which having a weak and meagre appearance, and not being ſufficiently ſolid, except in ſmall buildings, are ſeldom to be introduced. The moſt eligible are the Euſtyle and Diaſtyle for the firſt Order; which produce nearly the Diaſtyle and Araeoſtyle in the ſecond.

MANY Architects, among which number are Palladio and Scamozzi, place the ſecond Order of Columns on a Pedeſtal. In two ſtories of Arcades this cannot be avoided; but in Colonnades it may and ought: for the addition of the Pedeſtal renders the upper Ordonnance too predominant; and the projection of its Baſe is both diſagreeable to the eye, and too great a load on the inferiour Entablature. Palladio, in the Barbarano Palace at Vicenza, hath placed the Columns of the ſecond ſtory on a Plinth only: and this diſpoſition is beſt; the height of the Plinth being regulated by the point of view, and ſufficient to expoſe to ſight the whole Baſe of the Column. In this caſe the Baluſtrade muſt be without Pedeſtals; the Rail, or Tablet, being fixed to the Shafts of the Columns, and the Baſe of the Baluſtrade made to level with their Baſes; the upper Torus and Fillet being continued in the Interval, and ſerving as Mouldings to its Plinth, which is to occupy the remainder of the Space below them. The Rail and Baluſtres muſt not be clumſy: wherefore it is beſt to uſe double bellied Baluſtres, as Palladio hath done in moſt of his buildings, and to give the Rail very little projection, that ſo it may not advance too far upon the ſurface of the Column, and ſeem to cut into it. In large buildings, the middle of the Baluſtre may be in a line with the Axis of the Column: but in ſmall ones, it muſt be within it, for the reaſon juſt mentioned. And it is to be obſerved, that, in theſe Baluſtrades, there are to be no half Baluſtres at the extremities; becauſe they would alter the form of the Column.

THE height of the Baluſtrade is regulated, in a great meaſure, by its uſe; and therefore cannot well be lower than three foot. Nevertheleſs, it muſt bear ſome proportion to the reſt of the Architecture, and have nearly the ſame relation to the lower Order, as a Baluſtrade placed on the top of it, chiefly for ornament, would have: wherefore, if the Parts are large, the height of the Baluſtrade muſt be augmented; and if they are ſmall, it muſt be diminiſhed, as I have done in the Caſine at Wilton, where it is only two foot four inches high, which was the largeſt dimenſion that could poſſibly be given it, in ſo ſmall a building: but that it might, notwithſtanding its lowneſs, anſwer the intended purpoſe, the pavement of the Portico is ſix inches lower than the Baſes of the Columns, and on a level with the bottom of the Plat-Band that crowns the Baſement.

THE beſt, and indeed the only good, diſpoſition, for two ſtories of Arcades, is to raiſe the inferiour Order on a Plinth, and the ſuperiour one on a Pedeſtal, as Sangallo

Arches of Palaces.



Sangallo hath done at the Farneſe; making both the Ordonnances of an equal height, as Palladio hath done at the Baſilica of Vicenza. In the ſecond Plate of Orders above each other there are Deſigns for each Order, which are perfectly regular and well proportioned.

SCAMOZZI, in the thirteenth Chapter of his ſixth Book, ſays, that the Arches in the ſecond ſtory ſhould not only be lower, but alſo narrower, than thoſe in the firſt; ſupporting his doctrine by ſeveral ſpecious arguments, and by the practice of the Antient Architects, in ſundry buildings mentioned by him; in moſt of which, however, the ſuperiour Arches are ſo far from being narrower, that they are either equal to, or broader than the inferiour ones. In fact this is a very erroneous doctrine, againſt reaſon, and productive of ſeveral bad conſequences. For if the upper Arches be narrower than the lower ones, the Piers will of courſe be broader; which is contrary to all rules of ſolidity whatever, and exceeding ugly to the ſight. The extraordinary breadth of the Pier, on each ſide of the Column in the ſuperiour Order, is likewiſe a great deformity: even when the Arches are of equal widths, it is much too conſiderable. Palladio hath, at the Carita in Venice, and at the Thieni Palace in Vicenza, made his upper Arches broader than the lower ones; and I have followed his example: by which means the weight of the ſolid in the ſuperiour Order is ſomewhat diminiſhed, and the fronts of the Piers bear a good proportion to their Columns.

THERE is no avoiding Pedeſtals in a ſecond ſtory of Arcades. Palladio hath indeed omitted them at the Carita: but his Arches there are very ill proportioned. The extraordinary bulk and projection of theſe Pedeſtals is, as before obſerved, a conſiderable defect: to remedy which, in ſome meaſure, they have been frequently employed without Baſes; as in the Theatre of Marcellus, on the outſide of the Palazzo Thieni, and the Chiericato in Vicenza. This, however, helps the matter but very little; and it will be better to make them always with Baſes, whoſe projection muſt be as ſmall as poſſible; obſerving likewiſe to reduce the projection of the Baſes of the Columns to ten Minutes only, that the Dye may be no broader than is abſolutely neceſſary. And care muſt be taken, never to break the Entablature over each Column in the inferiour Order; becauſe the falſe bearing of the Pedeſtal, in the ſecond Order, is by that means rendered far more ſtriking, and in reality more faulty; having then no other ſupport, but the projecting Mouldings of the inferiour Cornice. There is no occaſion to raiſe the Pedeſtals of the ſecond Order on a Plinth: for, as they come very forward on the Cornice of the firſt Order, and as the point of view muſt neceſſarily be diſtant, a very ſmall part of their Baſes will be hid.

THE Baluſtrade muſt level with the Pedeſtals, and its Rail and Baſe be of equal dimenſions, and of the ſame Profiles with their Baſe and Cornice. It muſt be contained in the Arch, and ſet as far back as poſſible; that the form of the Arch may appear diſtinct, and uninterrupted from top to bottom: for which reaſon likewiſe the Cornice of the Pedeſtals muſt not profile upon the Piers, which are to be continued in ſtreight lines, from the Impoſts to the Baſes of the Pedeſtals. The back of the Rail may be made plain; for ſo it will be moſt convenient to lean on, and in a line with the back of the Piers; or, if the interiour part of the Arcade is much adorned, it may be a little within that line, and contained in the Arch, forming a Tablet ſurrounded with a Fillet and Oge. The back part of the Baſe of the Baluſtrade may be adorned with the ſame Mouldings, as the Baſes of the Piers; providing they have not too much projection:

which if they have, it will be beſt to compoſe it only of a Plinth crowned with the two uppermoſt Mouldings, that ſo the approach may be free.

In the Doric Arch above the Tuſcan, I have reduced the Entablature to three Modules twenty two Minutes; which was neceſſary, in order to have the Arches well proportioned: and, as its bearing is very conſiderable, this licence is the more excuſable. The parts bear the ſame proportion to each other as uſual; the only difference being, that, inſtead of determining their meaſures by the Module of the Column, they muſt be regulated by another Module, equal to one quarter of the height of the Entablature. The Pedeſtals and Baluſtrade are in this, as in the other Arches, equal to the height of the Entablature; which was done to preſerve the ſame general rule throughout: but, as the Entablature here bears a larger proportion to the Column than in the other Orders, the height of the Baluſtrade is rather too conſiderable, and may therefore be reduced to two ninths of the Column, as the others are; and what is deducted from its height, may be added to the height of the Column, which by that means will have a more elegant proportion. I have reduced the Ionic, Compoſite, and Corinthian Entablatures, in the ſecond Orders, to two ninths of the height of their reſpective Columns; and, having allowed to each Dentil with its Interval a breadth of nine Minutes of the regular Module of the Column, the Dentils and Modillions anſwer exactly to almoſt all the Intercolumniations. In the Deſign of Arches ſupported by Columns, the little Order in the ſecond ſtory is a trifle lower than uſual; which cannot be avoided: for, if it be made two thirds of the large Column, there will not be room above it for the circular Part of the Arch and the Archivolt.

Of Baſements and Attics.

INSTEAD of employing ſeveral Orders one above the other in a Compoſition, the Ground-Floor is ſometimes made in the form of a Baſement, on which the Order, that decorates the principal ſtory, is placed. The proportion of theſe Baſements is not fixed, but depends on the nature of the Rooms on the Ground-Floor. In Italy, where the Summer-Apartments are frequently on that Floor, they are ſometimes very high. At the Palace of the Porti, in Vicenza, the height of the Baſement is equal to that of the Order; and at the Thieni, in the ſame city, its height exceeds two thirds of that of the Order, which, nevertheleſs, is almoſt of a ſufficient ſize to comprehend two ſtories: but at the Villa Capra, and at the Loco Arſieri, both near Vicenza, the Baſement is only half the height of the Order; becauſe in both of them the Ground-Floor conſiſts of nothing, but Offices.

It will be needleſs to cite more examples of the diverſity of proportions, obſerved by Architects in this part of a building; as the four above mentioned, all of them eſtimable works of the great Palladio, will ſufficiently authorize any variations that it may be neceſſary to make. It will not, however, be adviſeable ever to make the Baſement higher than the Order it ſupports: for the Order being the richeſt part in the Compoſition, and indicating the principal part in the Fabric, ought to be predominant. Beſides, when the grand Apartment is raiſed ſo high, it loſes much of its merit; as the approach to it is rendered tedious and difficult. Neither ſhould a Baſement be lower than half the height of the Order, if it is to have Apartments, and conſequently Windows, in it: for when that is the caſe; the Rooms will be low, and the Windows very ill proportioned. But,

if

if the only uſe of the Baſement be to raiſe the Ground-Floor, it need not be above three, four, or at moſt five foot high.

THE uſual method of decorating a Baſement is, with Ruſtics of different kinds. The beſt, in buildings where neatneſs and finiſhing is aimed at, are ſuch as have a ſmooth ſurface. Their height, including the joint, ſhould never be leſs than one Module of the Order placed upon the Baſement, nor much more. Their figure may be from a triple ſquare to a ſeſquialtera; and their joints may either be ſquare or chamfered. The ſquare ones ſhould not be broader than one eighth of the height of the Ruſtic, nor narrower than one tenth; and their depth muſt be equal to their breadth: thoſe that are chamfered muſt form a rectangle, and the breadth of the whole joint may be from one fourth to one third of the height of the flat ſurface of the Ruſtic. In France we frequently ſee only the horizontal joints of Ruſtics marked; the vertical ones being entirely omitted; and, in Sr. John Vanbrugh's works, the like is alſo very common: but it hath a bad effect, and makes the building look as if it were compoſed of planks, rather than of ſtones. Palladio's method is preferable, who, in imitation of the Antients, always marked both the perpendicular and the horizontal joints; and, when the former of theſe are regularly and artfully diſpoſed, the Ruſtic work hath a very beautiful appearance. I have, in the courſe of this work, given various Deſigns of Ruſtic Baſements *, diſtributed in different manners, all of them collected from buildings of note.

THE Baſement, when high, is ſometimes finiſhed with a Cornice, as in the ſecond figure of the third Plate of Arches: but the uſual method is only to crown it with a Plat-Band, as in the fourth figure of the ſame Plate; whoſe height ſhould not exceed the height of a Ruſtic with its joint, nor ever be lower than the Ruſtic excluſive of the joint. The Zocholo, or Plinth at the foot of the Baſement, may be of the ſame height with the Plat-Band, or a trifle higher; and when there are Arches, the Plat-Band, which ſupplies the place of the Impoſt, muſt be of the height of a Ruſtic, excluſive of the joint.

IT is ſometimes uſual, inſtead of a ſecond Order, to crown the firſt with an Attic ſtory; as Palladio hath done at the Porti and Valmarana Palaces, in Vicenza, and Inigo Jones at Greenwich Hoſpital. Theſe Attics ſhould never exceed, in height, one third of the height of the Order, on which they are placed; nor be leſs than one quarter of it. Their figure is that of a Pedeſtal: the Baſe, Dye, and Cornice, of which they are compoſed, may bear the ſame proportions to each other as thoſe of Pedeſtals do, and the Baſe and Cornice be compoſed of the ſame Mouldings as thoſe of Pedeſtals are. Sometimes the Attic is continued throughout, without any breaks; at others it projects, and forms a Pilaſter over each Column of the Order. The breadth of this Pilaſter is ſeldom made narrower than the upper diameter of the Column below it, and never broader. Its projection may be equal to one quarter of its breadth. The fronts of theſe Pilaſters are ſometimes adorned with Pannels, let in and ſurrounded with Mouldings; as in the front of Powis-Houſe: but this looks like joiner's work, and ſhould therefore be avoided: neither ſhould they be adorned with Capitals, as is always the cuſtom in France; becauſe they then approach too near the figure of regular Pilaſters of the Orders, and being much broader, in proportion to their height, than the Pilaſters of any of the Orders are, always carry with them the Idea of a clumſy ill proportioned Compoſition.

* See Pl. 2. of Windows, and Pl. 3. of Arches.

Of Pediments.

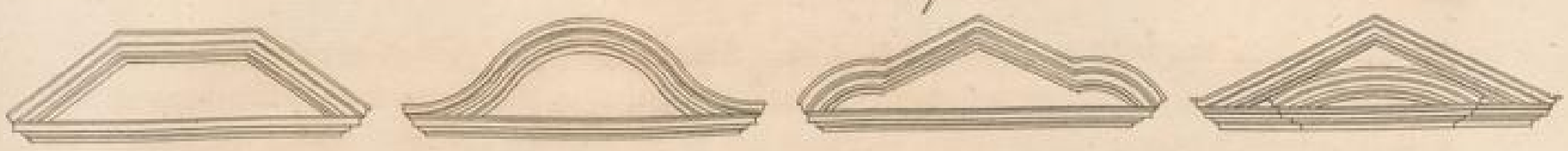
PEDIMENTS owe their origin, moſt probably, to the inclined Roofs of the primitive Huts. Among the Romans they were uſed only as Coverings to their Sacred Buildings; till Cæſar obtained leave to cover his houſe with a pointed Roof, after the manner of Temples. In the remains of Antiquity we meet with two kinds of them; viz. Triangular and Circular. The former of theſe are promiſcuouſly applied to cover ſmall or large bodies: but the latter, being of a heavier figure, are never employed but as Coverings to Doors, Niches, Windows, or Gates; where the ſmallneſs of their dimenſions compenſates for the clumſineſs of their make.

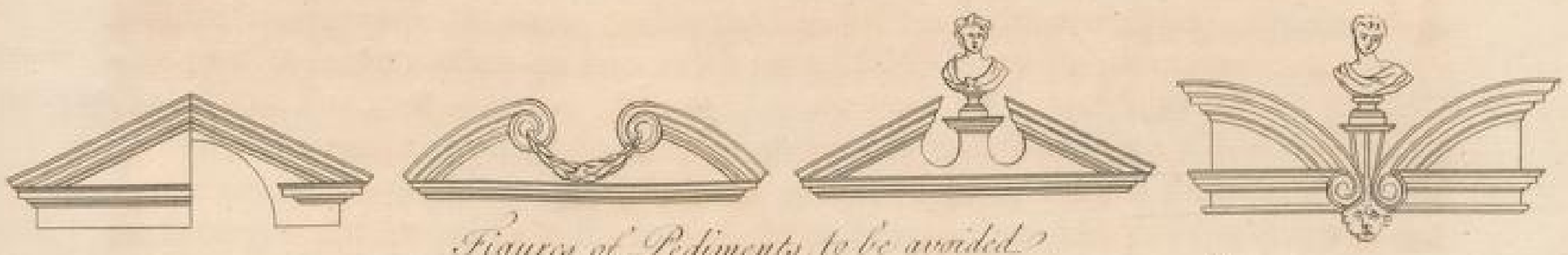
As a Pediment repreſents the Roof, it ſhould never be employed, but as a finiſhing to the whole Compoſition. In the Churches, at Rome and at Paris, we frequently ſee a Pediment uſed to finiſh the firſt Order of a Porch; another to finiſh the ſecond Order; and ſometimes a third above that: but this is a practice not to be imitated. Licinius, the Mathematician, formerly reprehended Apaturius, the Painter, merely for repreſenting an abſurdity of this kind in a Picture: for who, ſaid he, ever ſaw Houſes and Columns built upon the Roofs and upon the Tylings of other Houſes? Beſides, the inclined top of a Pediment is, in appearance, a very unſtable Baſement for a range of Columns, or other weighty bodies. Nor is it more reaſonable to place two or three Pediments, one within another; as on one of the Pavillions in the Court of the Old Louvre at Paris, and at St. Mary's in Campitelli, and the Great Jeſu at Rome; ſince the ſame Building can want but one Roof. On circular bodies Pediments ſhould never be applied, as at St. Thomas's in the Louvre at Paris; that kind of Roof being of a very improper conſtruction for covering them, and far from being pleaſing to the eye; as, in ſuch caſes, they always appear contorted and irregular. Some writers object to Pediments in interiour Decorations, where, the whole being covered and incloſed, there can be no occaſion for coverings to ſhelter each particular part. But in this they ſeem to carry their reaſoning rather too far; and a ſtep further would lead them into the ſame road with Father Laugier; who, having ſagaciouſly found out that the firſt buildings conſiſted of nothing but four ſtumps of trees and a covering, conſiders almoſt every part of Architecture, excepting the Column, the Entablature, and the Pediment, as licentious or faulty, and, in conſequence, very cavalierly baniſhes at once all Pedeſtals, Pilaſters, Niches, Arcades, Attics, Domes, &c. and it is only by ſpecial favour, that he tolerates Doors or Windows, or even Walls.

THERE are many favourers of this writer's ſyſtem, who, like him, concentrate all perfection in Propriety. It were, indeed, to be wiſhed that ſome invariable ſtandard could be diſcovered, whereby to decide the merit of every production of Art: but, certainly, Father Laugier hath not, as yet, hit the right nail on the head, and therefore muſt give himſelf the trouble to think again. Beauty and Fitneſs are qualities that have very little connection with each other: in Architecture they are ſometimes incompatible; as may be eaſily demonſtrated from ſome of the Father's own Compoſitions; with a detail of which he hath favoured the world in his book. And there are many things in that Art, which, though beautiful in the higheſt degree, yet, in their application, carry with them an evident abſurdity: one inſtance whereof is the Corinthian Capital; a form compoſed of a ſlight baſket ſurrounded with leaves and flowers. Can any thing be more unfit to ſupport a heavy load of Entablature, and ſuch other weights as are uſually placed upon it? Yet this hath been approved and admired for ſome thouſands of years, and will ſtill continue ſo to be, as long

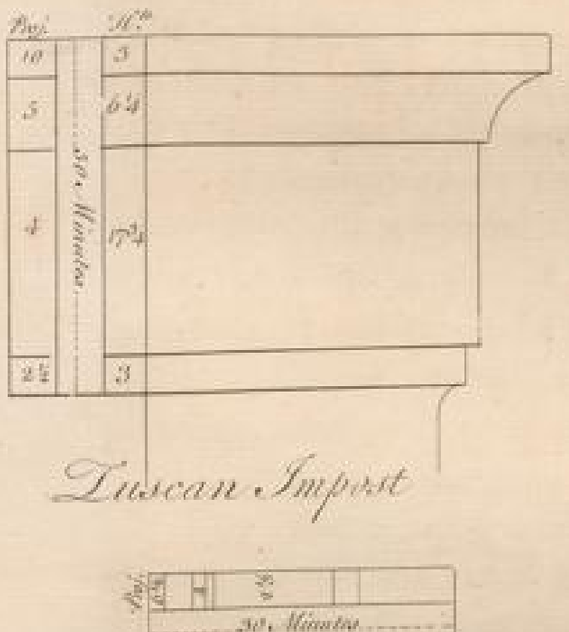
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Pediments and Imposts.

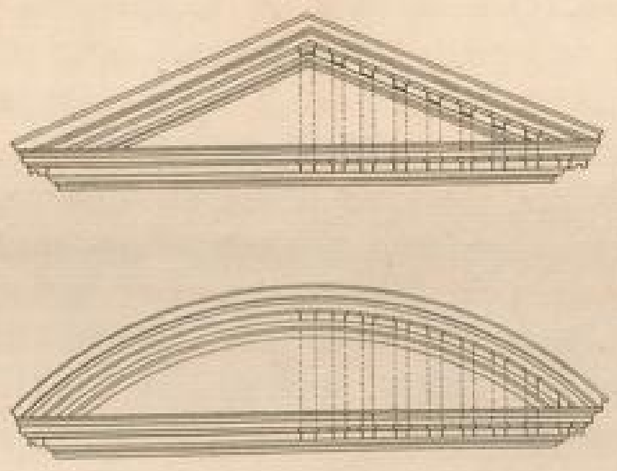




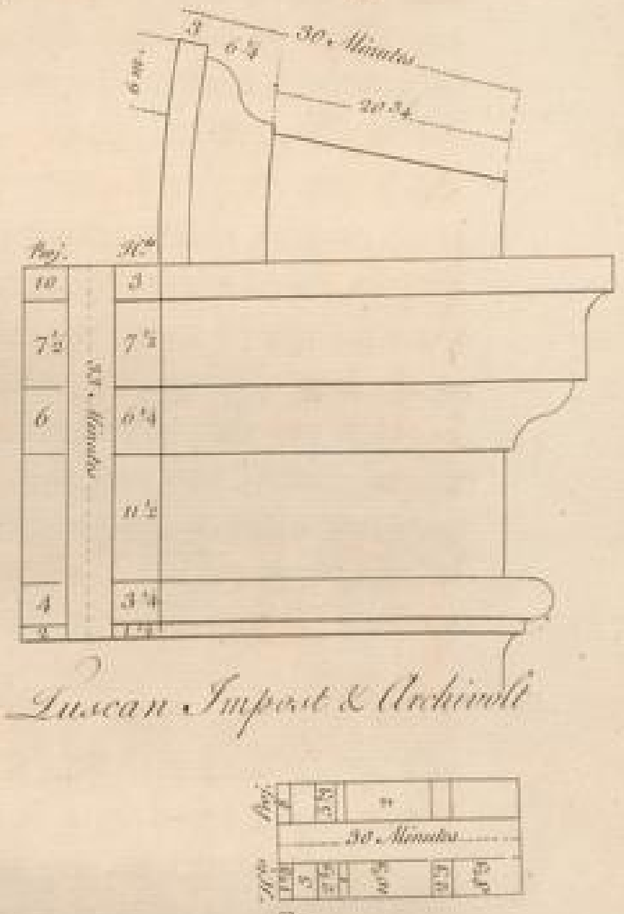
Figures of Pediments to be avoided.



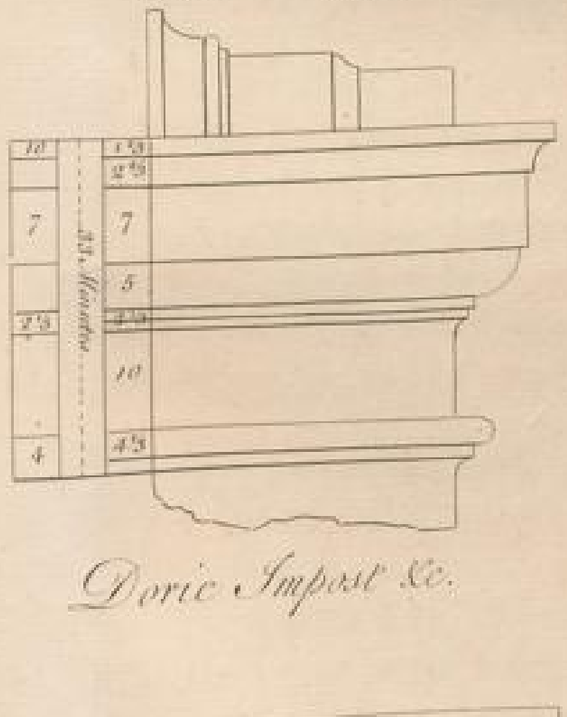
Tuscan Impost



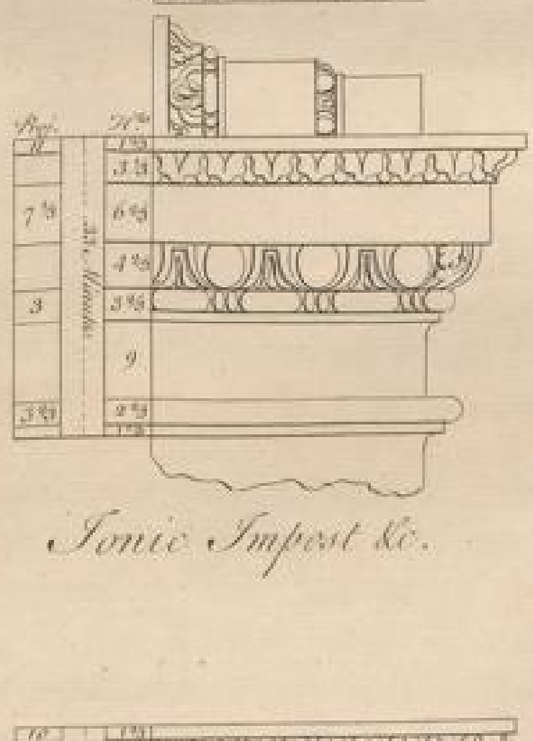
Regular Pediments



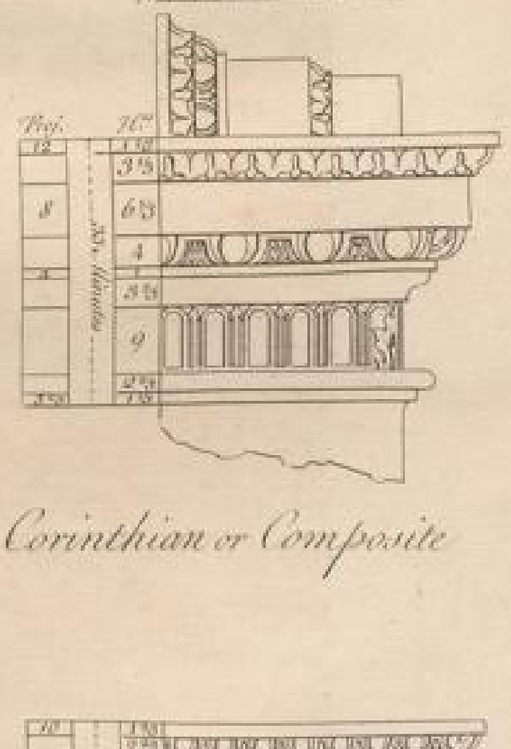
Tuscan Impost & Architrave



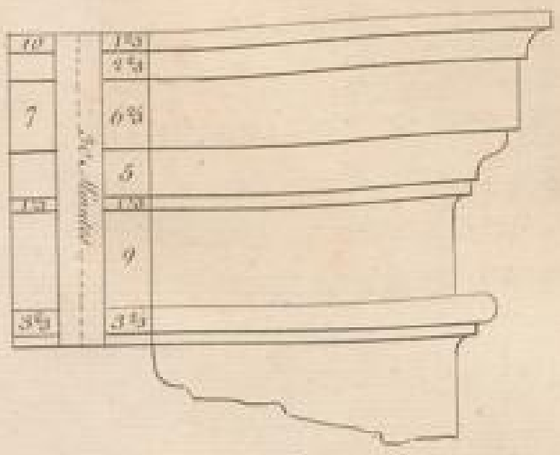
Doric Impost &c.



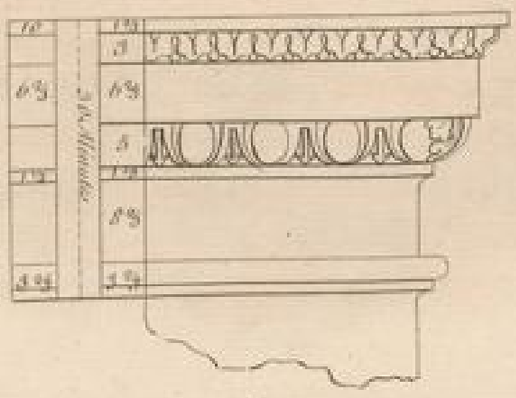
Ionic Impost &c.



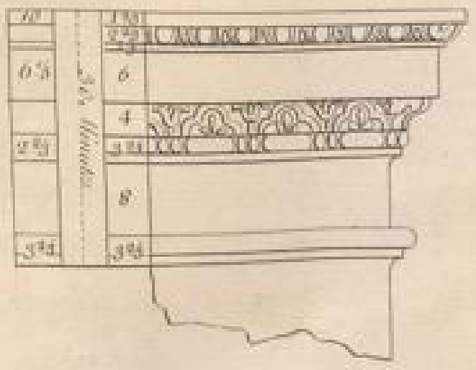
Corinthian or Composite



Doric Impost



Ionic Impost



Corinthian or Composite

W. Chambers

R. Hasell junr.

as men have eyes to ſee, and ſouls to feel. It is not, however, by any means, my intention entirely to lay aſide a regard to Propriety: on all occaſions it muſt be kept in view: in things intended for uſe, it is the primary conſideration; and therefore ſhould on no account whatever be treſpaſſed upon, but in objects merely ornamental, which are deſigned to captivate the ſenſes, rather than to ſatisfy the underſtanding. It ſeems unreaſonable to ſacrifice other qualities much more efficacious to Fitneſs alone.

THE Antients introduced but few Pediments into their buildings; uſually contenting themſelves with a ſingle one, to diſtinguiſh and adorn the middle, or principal part: but the Moderns, and particularly the Italians, have ſome of them been ſo immoderately fond of them, that their buildings frequently conſiſt of almoſt nothing elſe. At Rome the fronts of moſt of their Churches are covered with them; as are likewiſe many of their Palaces and private houſes, where they are ſeen of all ſizes and figures. For, beſides the triangular and round, they have ſome compoſed of both theſe forms; ſome of an undulated figure; ſome ſemi-hexagonal; ſome with the inclined Cornice, and Tympan open in the middle, to receive a Vaſe, a Buſt, a Nich with a Statue, or a Tablet for an Inſcription; and others where the Aperture is left void, and the two ends of the inclined Cornice finiſhed with a couple of Volutes, or Fleurons. There is likewiſe a ſort of Pediment compoſed of two half Pediments, which are not joined together to form a whole one, but reverſed; the ſummits being turned outwards. Of this kind there is one under the Porticos of the Gallery of Florence, with a Buſt wedged in between the two Sections. England is far from being free of theſe extravagancies. The buildings of London furniſh many examples of each kind, which, not to offend, I forbear pointing out.

THE Girder being a neceſſary part in the Conſtruction of a Roof, it is an impropriety to intermit the horizontal Entablature of a Pediment, by which it is repreſented, to make room for a Nich, as at St. John's, Weſtminſter; or for an Arch, as in the Cathedral of St. Paul's; or for a Window, as is the cuſtom in moſt of the new buildings in this city; where a ſemi-circular Window is generally introduced, between the inclined Cornice of the Pediment and the Door, to light the Hall or Paſſage: and this licence is ſo much the more reprehenſible, as it is extremely ugly; the two parts of the inclined Cornice thus untied and unſupported, always ſtriking the ſpectator with the idea of a couple of leavers applied to overturn the Columns on each ſide. The making ſeveral breaks in the horizontal Entablature, or Cornice, of a Pediment, as at the King's Mews, and on the Pediments in the Flanks of St. Paul's, is an impropriety of the ſame nature, and full as diſagreeable to the eye.

VITRUVIUS obſerves, that the Greeks never employed either Modillions, or Dentils, in the horizontal Cornices of their Pediments; both of them repreſenting parts in the conſtruction of a Roof, which cannot poſſibly appear in that view. There is an Antique inſtance of this practice in the Temple of Scifi, mentioned by Palladio, and a Modern one in the front of the Fueillants, near the Thuilleries at Paris, built by one of the Manſards. This is extremely Proper, and at the ſame time extremely ugly. The diſparity of figure and enrichment, between the horizontal and inclined Cornices, are defects by no means to be compenſated by any degree of Propriety whatever: and therefore to me it appears beſt, in imitation of the greateſt Roman and Modern Architects, always to make the two Cornices of the ſame Profile; committing a trifling impropriety to avoid a conſiderable deformity.

In regular Architecture, no other form of Pediments can be admitted, beſides the triangular and round. Both of them are beautiful: and when a conſiderable number of Pediments are introduced, as when a range of Windows are adorned with them, theſe two figures may be alternately employed; as in the Niches of the Panthæon, and in thoſe of the Temple of Diana at Nimes. It is to be obſerved, that the two uppermoſt Mouldings of the Cornice are always omitted in the horizontal one of a Pediment; and, that part of the Profile directed upwards, to finiſh the inclined Cornice, this difference of direction encreaſes the height of the Cyma very conſiderably, and makes it far too clumſy for the other Parts of the Entablature: to obviate which, ſome Architects have made a break in the Cyma and Fillet, as in the fourth figure, Pl. of Pediments. But this produces a conſiderable deformity: and therefore it will be better, when the whole building is covered with the Pediment, to make the Profile of the Cyma lower than uſual; by which means it may, notwithſtanding the encreaſe occaſioned by the difference of its direction, be made of a ſize ſuitable to the reſt of the Cornice. But, if the inclined Cornice of the Pediment be, on each ſide, joined to a horizontal one, as is the caſe when the middle Pavillion is flanked with buildings, the only good method of leſſening the above mentioned deformity, is to give very little projection to the Cyma; by which means the encreaſe in its height may be rendered very trifling. The Modillions, Mutules, Dentils, and other Ornaments of the inclined Cornice, muſt anſwer perpendicularly over thoſe in the horizontal Cornice, and their ſides be perpendicular to the Horizon.

The Antients always avoided introducing Pediments of different ſizes in the ſame Compoſition. In the chaſt remains of Antiquity I do not recollect any example of two different ſizes in the ſame aſpect. Neither do we find that they ever adorned their Niches, Doors, or Windows with Pediments, when the whole front, or any conſiderable part of it, was covered with one; juſtly judging that the immenſe diſparity, between the principal Pediment, and thoſe that ſhould cover the Parts, could not but produce a diſagreeable effect; in the ſame manner as a Pigmy and a Giant being expoſed to view at the ſame time, would both be made ridiculous by the contraſt.

These cautious proceedings of the Antient Artiſts are good leſſons to the Moderns, which they would do well to carry in their memories, in all ſorts of Compoſitions. For, wherever there is a conſiderable difference of dimenſion, in objects of the ſame figure, both will equally ſuffer by it: the largeſt will appear inſupportably heavy, and the ſmalleſt ridiculouſly trifling: and where the difference is ſmall, it will always ſtrike as the effect of inaccuracy in the workmen; as is the caſe with the Arches in the Baſement of the Horſe-Guards in St. James's Park. Beſides, this ſort of variety betrays ſuch a poverty of imagination, that an Artiſt ſacrifices all claim to Genius in employing it; as a Poet would do, who ſhould attempt to pleaſe by deſcribing the ſame kind of object ten times over, varying his deſcription only by ſaying that the ſecond was not above half as big as the firſt, and the third leſs than either of them, &c.

The proportion of Pediments depends upon their ſize: for the ſame proportions will not do in all caſes. When the Baſe of the Pediment is ſhort, its height muſt be encreaſed; and when it is long, it muſt be diminiſhed. For, if a ſmall Pediment be made low, the inclined Cornice, which is always of the ſame height, whatever be the dimenſions of the Pediment, will leave little or no ſpace for the Tympan: and if a large one be high, it will appear heavy. The beſt proportion for the height is from one fifth to one quarter of the Baſe, according to the extent of the Pediment, and the character of the

Ballusters &c.

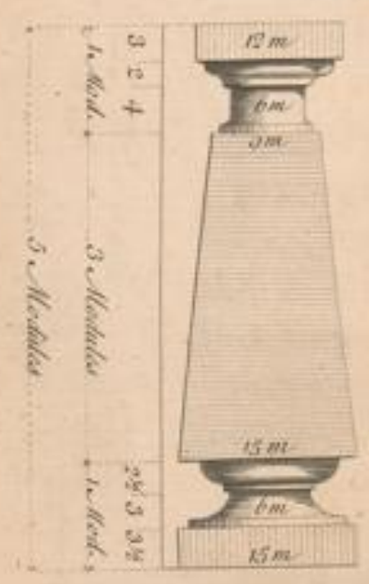








Fig. I.





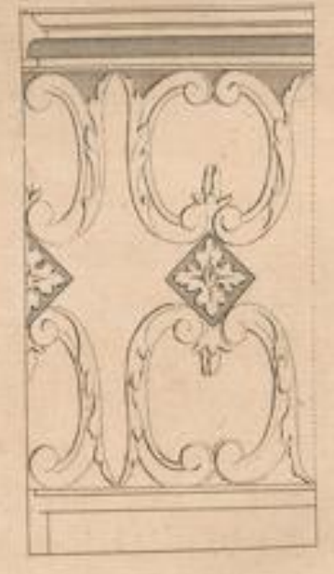




















W. Chambers

F. Patton Sculp.

the body it covers. The materials of the Roof muſt alſo be attended to: for, if it be covered with tiles, it will be neceſſary to raiſe it more than one quarter of the Baſe; as was the cuſtom of the Antients in their Tuſcan Temples.

THE Tympan is always on a line with the front of the Frize; and, when large, may be adorned with ſculptures, as at the Manſion-Houſe, repreſenting Arms, Cyphers, Trophies, or Subjects either allegorical or hiſtorical, according to the nature of the building. But when ſmall, it is much better to leave it plain. Vitruvius determines the height of the Acroters, or Acroterions, by the height of the Tympan; and Scamozzi by the projection of the Cornice, giving to the Dye as much height as the Cornice hath projection. Neither of theſe methods are well founded. When the building is terminated by a Baluſtrade, the Pedeſtals of the Baluſtrade ſerve for the ſide Acroters; and that at the ſummit muſt be ſuited to them. But when there is no Baluſtrade, the Acroters muſt be of a ſufficient height, to expoſe to view the whole Statue, or Vaſe, placed upon them, from the proper point of ſight for the building.

Of Baluſtrades.

BALUSTRADES are ſometimes of real uſe in buildings, and at other times they are merely ornamental. Such as are intended for Uſe, as when they are employed in Stair-caſes, before Windows, to encloſe Terraſſes, &c. muſt always be, nearly, of the ſame height; never exceeding three foot and a half, nor ever leſs than three: that ſo a perſon of an ordinary ſize may, with eaſe, lean over them, without being, at the ſame time, in danger of falling. But thoſe that are principally deſigned for Ornament, as when they finiſh a building, ſhould be proportioned to the Architecture they accompany; and their height ought never to exceed four fifths of the height of the Entablature, on which they are placed; nor ſhould it ever be leſs than two thirds thereof, without counting the Zocholo, or Plinth; the height of which muſt be ſufficient to leave the whole Baluſtrade expoſed to view, from the point of ſight for the building. Palladio hath, in ſome of his works, made the height of the Baluſtrade equal to that of the whole Entablature; and Inigo Jones hath followed his example in many of his buildings; particularly at the Banqueting-Houſe: where, beſides this extraordinary loftineſs, it is raiſed on a very high Plinth. I do not think either of theſe great Artiſts are to be imitated in this practice, as it renders the Baluſtrade much too predominant.

THERE are various figures of Baluſters; the moſt regular of which are delineated in the annexed Plate. The handſomeſt are the three in the firſt row: their profiles and dimenſions are all different: the ſimpleſt of them may ſerve to finiſh a Tuſcan Order; and the others may be employed in the Doric, Ionic, Compoſite, or Corinthian Orders, according to their degrees of richneſs. The beſt proportion, for Baluſtrades of this kind, is to divide the whole given height into thirteen equal parts; and to make the height of the Baluſter eight of thoſe parts, the height of the Baſe three, and that of the Cornice, or Rail, two: or into fourteen, (if it be required, to make the Baluſter leſs,) giving eight parts to the Baluſter, four to the Baſe, and two to the Rail. One of theſe parts may be called a Module; and, being divided into nine Minutes, may ſerve to determine the dimenſions of the particular Members, as in the annexed Deſigns.

THE other Deſigns of Baluſters, exhibited in the ſame Plate, are likewiſe very perfect in their kinds, and collected from the works of Palladio, and other great maſters. The double-bellied ones are the lighteſt, and therefore propereſt to accompany Windows, or other Compoſitions, whoſe parts are ſmall, and whoſe profiles are delicate. The Baſe and Rail of theſe Baluſters may be of the ſame profile as for the ſingle-bellied ones; but they muſt not be quite ſo large. Two ninths of the Baluſter will be a proper height for the Rail, and three for the Baſe. The proportions of the Baluſters may eaſily be gathered from the Deſigns, where they are marked in figures: the whole height of each being divided into ſuch a number of parts, as is moſt convenient for the diſtribution of the inferiour diviſions; one of which parts is the Module divided into nine Minutes.

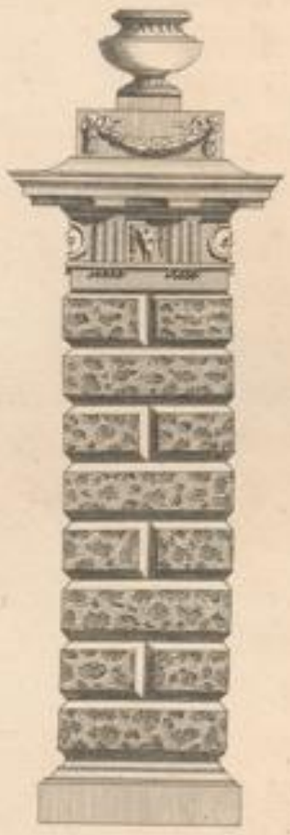
IN Baluſtrades, the diſtance between two Baluſters ſhould not exceed half the diameter of the Baluſter, meaſured in its thickeſt part; nor be leſs than one third of it. The Pedeſtals, that ſupport the Rail, ſhould be at a reaſonable diſtance from each other: if they be too frequent, the Baluſtrade will have a heavy look; and if they be far aſunder, it will be weak. The moſt eligible diſtance between them is, when room is left, in each Interval, for eight or nine whole Baluſters, beſides the two half ones engaged in the Flanks of the Pedeſtals. But as the diſpoſition of the Pedeſtals depends on the ſituation of the Piers, Pilaſters, or Columns in the front, it being cuſtomary to place a Pedeſtal directly over the middle of each of theſe, it frequently happens that the Intervals are ſufficient to contain ſixteen or eighteen Baluſters. In this caſe each range may be divided into two, by placing a Dye in the middle, flanked with two half Baluſters. The breadth of this Dye may be from one half to two thirds of the breadth of a Pedeſtal; and it will be beſt to continue the Rail and Baſe in a ſtreight line, without any Break round it: frequent Breaks, of any kind, being defective; and moſt ſo when they are of different dimenſions; becauſe they then render the confuſion greater.

THE breadth of the Pedeſtals, when they are placed on Columns, or Pilaſters, is regulated by them; the Dye never being made broader than the top of the Shaft, nor much narrower: and when there are neither Columns, nor Pilaſters, in the front, the Dye ſhould not be much lower than a ſquare, and ſeldom higher.

ON Stairs, or any other inclined Planes, the ſame proportions are to be obſerved as on horizontal ones. It is ſometimes cuſtomary to make the Mouldings of the Baluſters follow the inclination of the Plane: but this is difficult to execute, and not very handſome when done; ſo that it will be better to keep them horizontal, and make the Abacus and Plinth in form of wedges; as in figure 1, Pl. of Baluſters: making their height, at the Axis of the Baluſter, the ſame as uſual. The diſtance between two Baluſters, on inclined Planes, muſt not be quite ſo much as when they are in a horizontal ſituation; becauſe the thickeſt parts do not then come on the ſame level. Le Clerc thinks it beſt to finiſh the inclined Baluſtrades of Stairs, or Steps, with horizontal Pedeſtals, placed on the floor, or pavement, to which they deſcend. The method of joining the horizontal Mouldings of theſe to the inclined ones of the Rail and Baſe of the Baluſtrade, is expreſſed in figure 1 of the annexed Plate.

As the intention of Baluſtrades is properly to encloſe Terraſſes, and other heights where men reſort, in order to prevent accidents, it is an impropriety, as d'Aviler obſerves, to place them on the inclined Cornices of Pediments; (as at S^ta. Suſanna and S^ta. Maria della Vittoria, near Dioclefian's Baths at Rome;) or in any other places, where it is not apparently

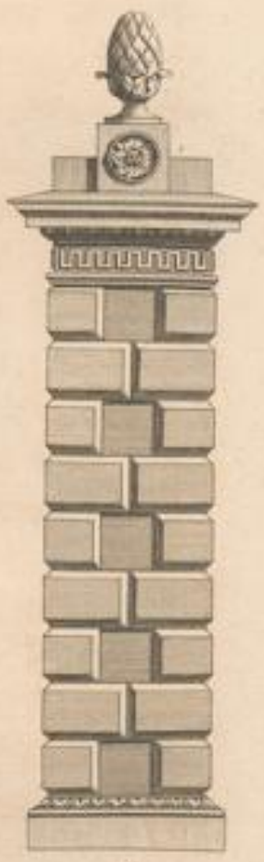
Designs for Gates & Piers.



1



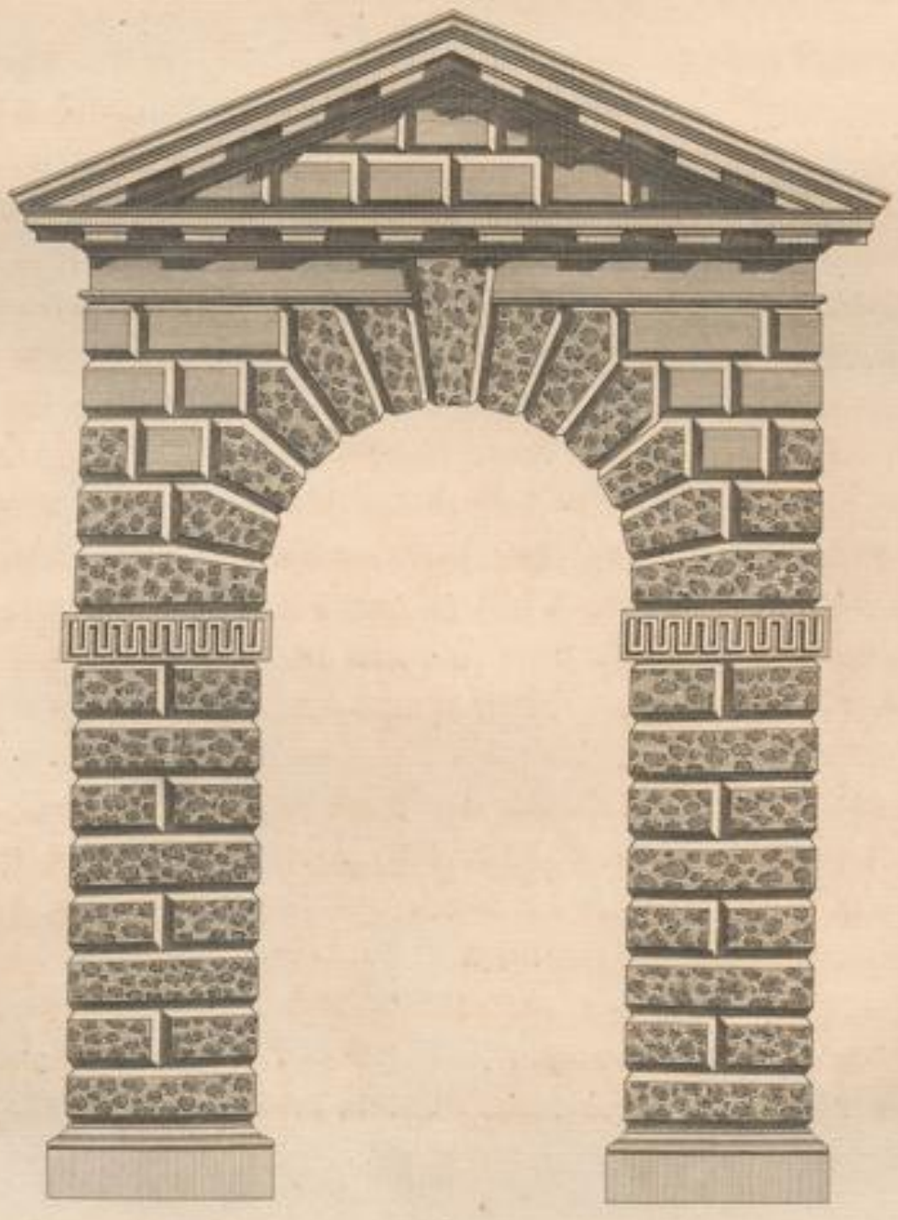
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6

W. Chambers.

S. Miller Sculp.

rently practicable, at leaſt, for men to walk. When Baluſtrades are uſed in interiour Decorations, as on Stairs, to encloſe Altars, Thrones, Tribunals, Alcoves, Buffets in public Aſſembly-Rooms, &c. or when, in Gardens, they encloſe Baſons of Water, Fountains, or any other Decoration, the figures of the Baluſters may be varied, and enriched with Ornaments proper to the place they adorn.

If Statues are placed upon a Baluſtrade, their height ſhould not exceed one quarter of the Column and Entablature, on which the Baluſtrade ſtands. Their Attitude muſt be upright; or, if any thing, bending a trifle forwards: but never inclined to either ſide. Their legs muſt be cloſe to each other; and the drapery cloſe to their bodies: for when they ſtand ſtradling, with their bodies tortured into half a dozen bends, and their draperies waving in the wind, as on the Colonnades of St. Peter's, they have a moſt diſagreeable effect; eſpecially at a diſtance: from whence they appear like lumps of unformed materials, ready to drop upon the heads of paſſengers. Thee three figures placed on the Pediment of Mr. Spencer's houſe, which are executed by the ingenious Mr. Spang, are well compoſed for the purpoſe. The height of Vaſes placed upon Baluſtrades ſhould not exceed two thirds of the height of Statues.

It is ſometimes cuſtomary, in interiour Decorations, to employ, inſtead of Baluſters, certain Ornaments, called Fretts, or *Guillochis*. I have, in the Plate of Baluſters, given ſome Deſigns of them, for the uſe of thoſe who ſhall incline to employ them. But it will be adviſeable to do it ſparingly: for repreſenting Leaves, Ribands, and Flowers, they do not carry with them an idea of ſtrength; and therefore are not fit for a Fence.

Of Gates, Doors, and Piers.

THERE are two kinds of Entrances; *Doors* and *Gates*. The former ſerve only for the Paſſage of Perſons on foot: but the latter are likewiſe contrived to admit Horſemen and Carriages. Doors are uſed as Entrances to Churches, and other public Buildings, to common Dwelling-Houſes, and Apartments: and Gates ſerve for Inlets to Cities, Fortreſſes, Parks, Gardens, Palaces, and all Places where there is a frequent Reſort of Coaches. The Apertures of Gates being always wide, they are generally made in the form of an Arch; that figure being the ſtrongeſt: but Doors, which are uſually of ſmall dimenſions, are commonly of a parallelogram figure, and cloſed horizontally. The Antients ſometimes made their Doors, and even Windows, narrower at the top than at the bottom. In the Temple of Veſta, at Tivoli, there are examples of both. But this oddity hath been very little practiſed by the Modern Artiſts. Scamozzi diſapproves of it: ſo do ſeveral other writers: and it is a matter of ſurprize, that a perſon of ſo refined a taſte, as the late Earl of Burlington, ſhould have introduced a couple of theſe ill-formed Doors in the Cortile of Burlington-Houſe.

The general proportion for the Apertures, both of Gates and Doors, whether arched or ſquare, is that the height be about double the breadth. It is probable that neceſſity firſt gave birth to this proportion, which habitude confirmed and rendered abſolute. In the primitive huts, the entries were doubtleſs ſmall; perhaps no larger than was juſt ſufficient for a man to creep through. For thoſe rude buildings being intended merely as retreats for the inhabitants at night, or in bad weather, it is natural to ſuppoſe they made them as cloſe as poſſible. But when Architecture improved, and methods were diſcovered of ſhutting the

Door occaſionally, they made it of ſuch a ſize as was neceſſary for giving admittance to a tall bulky man, without ſtooping, or turning aſide: that is, they made it about three foot wide, and ſix foot high; or twice as high as broad: which proportion, being become habitual, was preferred to any other, and obſerved even when the ſize of the entrance was conſiderably augmented, and other proportions would have been equally convenient.

We may look for the origin of many proportions in Architecture in the ſame ſource; particularly with relation to objects of real uſe: and the pleaſure or diſlike, excited in us at their ſight, muſt, I believe, be aſcribed either to prejudice, or to our habit of connecting other ideas with theſe figures, rather than to any particular charm inherent in them, as ſome people are apt to imagine. Thus, with regard to elevations, if the breadth be predominant, we are ſtruck with the ideas of majeſty and ſtrength; and, if the height predominates, with thoſe of elegance and delicacy: all which occaſion pleaſing ſenſations. An exceſs of the former degenerates into the heavy; and an exceſs of the latter into the meagre: either of which are equally diſguſtful. When objects are low, and much extended, we naturally conceive an idea of ſomething mean, abject, and unwieldy: and when they are extremely elevated and narrow, they ſeem fragile and unſtable. Perfect proportion conſiſts in a Medium between theſe Extremes: which Medium the rules of Architecture tend to fix.

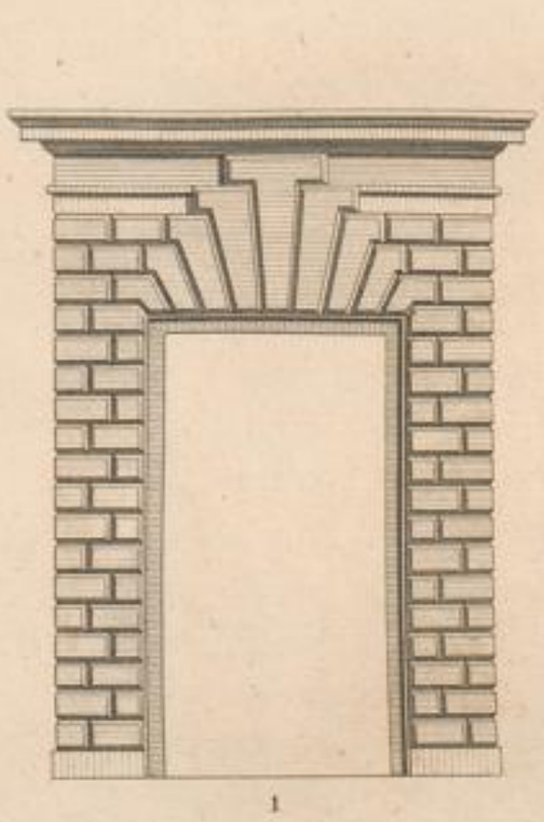
Sometimes too the aptitude of a figure to the purpoſe it was intended for endears it to us: and what at firſt only gained our approbation, in time commands our love; as we ſee men become enamoured of a woman's perſon, whoſe mind was at firſt the only attractive power. But this laſt is not a general rule; and ſeldom or ever can happen, either when there is any thing diſagreeable in the figure, or any thing remarkably defective or deformed in the perſon.

The uſual Ornaments of Gates conſiſt of Columns, Pilaſters, Entablatures, Pediments, Ruſtics of different ſorts, Impoſts, Archivolts, &c: and the moſt common method of adorning Doors is with an Architrave, ſurrounding the ſides and top of the Aperture; on which are placed a regular Frize and Cornice. Sometimes too the Cornice is ſupported by a couple of Conſoles, placed one on each ſide of the Door; and ſometimes, beſides an Architrave, the Aperture is adorned with Columns, Pilaſters, Caryatides, or Terms, and a regular Entablature with a Pediment. In the two annexed Plates I have given various Deſigns both of Gates and Doors.

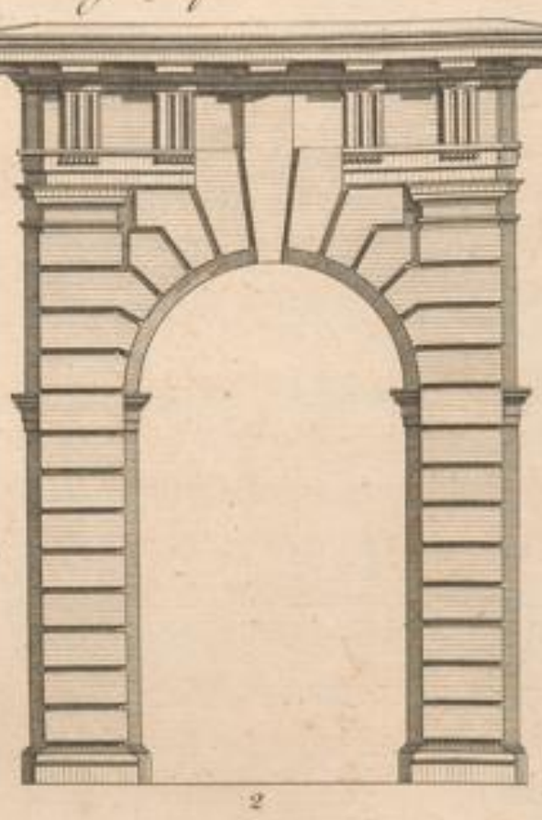
Figure 1. in the Plate of Doors is a Ruſtic Door, compoſed by the celebrated Vignola; in which the Aperture occupies two thirds of the whole height, and one half of the whole breadth; the figure thereof being a double ſquare. The Ruſtics may be either ſmooth or hatched: their joints muſt form a rectangle, and each joint may be, in breadth, one third, or two ſevenths, of the vertical ſurface of a Ruſtic: the joints of the *Claveaux*, or Key-ſtones, muſt be drawn to the ſummit of an equilateral Triangle, whoſe Baſe is the top of the Aperture. The Architrave ſurrounding the Aperture may be compoſed either of a large Oge and Fillet, or of a Plat-Band and Fillet: its whole breadth muſt be one tenth of the breadth of the Aperture; the remaining part of each Pier being for the Ruſtics. The Entablature is Tuſcan: the Cornice is to be one fifteenth of the whole height of the Door; and what remains below it, being divided into twenty one equal parts, the two uppermoſt of them will be for the Frize and Architrave, and the remaining nineteen for the Ruſtics and Plinth at the foot of the Door. Fig. 2. is another very beautiful compoſition of the ſame great Maſter, executed by him at the Palace of Caprarola in the Eccleſiaſtical State,

and

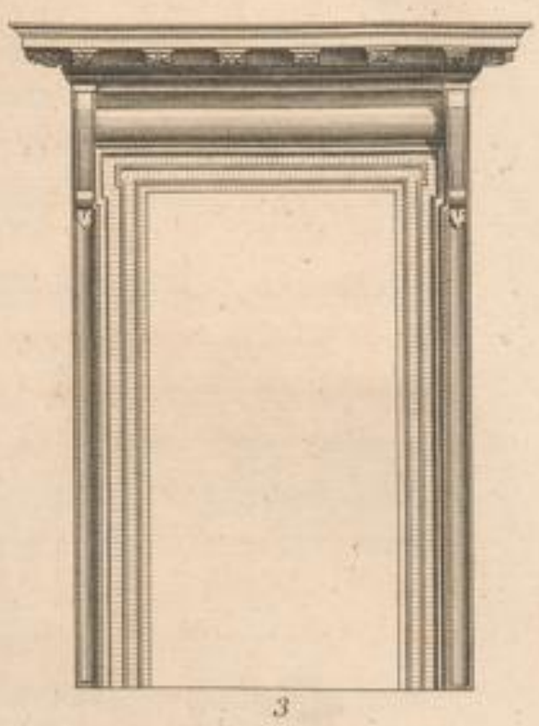
Designs for Doors.



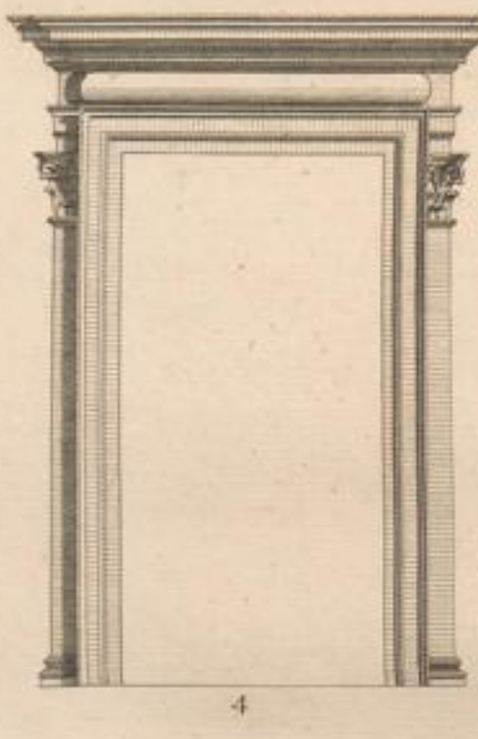
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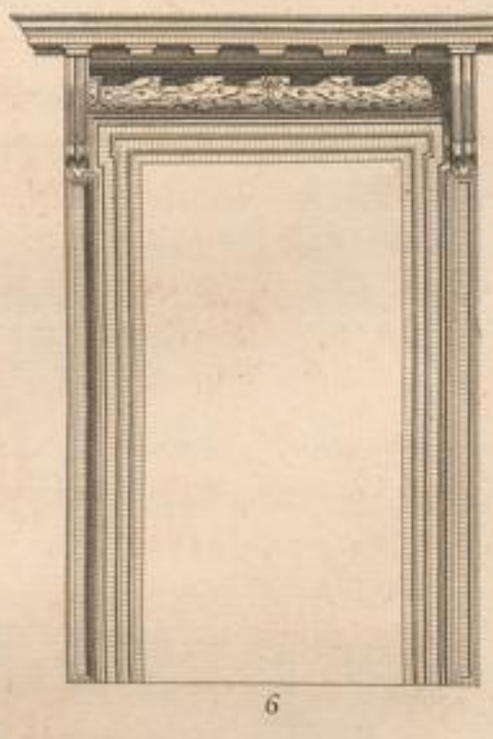
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W. Chambers delin.

P. Patten sculp.

and copied by Inigo Jones in the Hoſpital at Greenwich: a circumſtance which pleads ſtrongly in its favour. The Aperture is in the form of an Arch, and occupies ſomewhat more than two thirds of the whole height. It is adorned with two ruſticated Doric Pilaſters, and a regular Entablature: the height of the Pilaſters is ſixteen Modules; and that of the Entablature four: the breadth of the Aperture is ſeven Modules; its height is fourteen Modules; and the breadth of each Pier is three Modules. Fig. 3. is likewiſe a Deſign of Vignola's. It is of the Corinthian Order, and executed in the Cancellaria at Rome. The height is equal to double its breadth; and the whole Ornament at the top is equal to one third of the height of the Aperture. The Architrave is in breadth one fifth of the breadth of the Aperture; and the Pilaſters, that ſupport the Conſoles, are half as broad as the Architrave. The whole is well imagined, but rather heavy; and it will be beſt to reduce the Architrave to one ſixth of the Aperture, diminiſhing the whole Entablature proportionably: but the Pilaſters may remain of the breadth they now are, which is not too great. Fig. 4. is a Diſpoſition of Michael Angelo's. The Windows of the Capitol are of this kind; and Sr. Chriſtopher Wren hath executed Doors of this ſort, under the beautiful ſemi-circular Porches in the Flanks of St. Paul's. The figure of the Aperture may be a double ſquare; the Architrave one ſixth of the breadth of the Aperture; and the whole Entablature one quarter of its height. The front of the Pilaſters or Columns, on each ſide, muſt be on a line with the lower Faſcia of the Architrave; and their breadth muſt be a ſemi-diameter. Fig. 5. is imitated from a Deſign of Philibert de l'Orme. It may ſerve either for a Gate or Outſide-Door: obſerving, in the former of theſe caſes, to raiſe the Columns on Plinths; and, in the latter, on ſome ſteps, as all Outſide-Doors ought to be, both becauſe the lower apartments ſhould not be on a level with the ground, and becauſe this elevation will ſhew the Door, or indeed any other Compoſition, to more advantage. The Aperture may be, in height, twice its breadth. The Piers muſt be a little more than half the breadth of the Aperture; and the Columns muſt occupy half that breadth: their height may be eight diameters, or ſomewhat more; and the Architrave and Cornice muſt bear the uſual proportion to the Columns: the Frize is omitted: the Archivolt is in breadth a ſemi-diameter of the Column; and its whole extent being divided into thirteen equal parts, there will be room for ſeven *Claveaux*, and ſix Intervals; and the Shafts of the Columns, from the top of the Impoſt downwards, being divided into eight equal parts, there will be room for four Intervals, and for ruſtic Cinctures; whereof that which levels with the Impoſts may be ſquare, as in de l'Orme's Deſign; the reſt of them being made cylindrical. Fig. 6. is a Door in the Salon of the Farneſe at Rome, deſigned by Vignola. The Aperture forms a double ſquare: the Entablature is equal to three elevenths of its height, the Architrave being one of theſe elevenths; and the whole Ornament on the ſides, conſiſting of the Architrave and Pilaſters, is equal to two ſevenths of the breadth of the Aperture: the Cornice is compoſite, enriched with Mutules and Dentils; and the Frize is adorned with a Feſtoon of Laurel. Fig. 7. is copied from a Door at Florence, ſaid to be a Deſign of Cigoli's. The height of the Aperture is a trifle more than twice its breadth. It is arched; and the Impoſt is equal to half a diameter. The Columns are Ionic, ſomewhat above nine diameters high; and their Shafts are garniſhed, each with five ruſtic Cinctures. The Entablature is leſs than one quarter of the Column; and the breadth of the Tablet, in which there is an Inſcription, is equal to the breadth of the Aperture.

Fig. 8. is a Compoſition of Inigo Jones. The Aperture may be a double ſquare. The Architraves may be from one ſixth to one ſeventh of the breadth of the Aperture; and the top of it muſt level with the upper part of the Aſtragal of the Columns. The Columns are Corinthian, their height is ten diameter, and they muſt be at a ſufficient diſtance, from the Architrave, to leave room for the Baſes.

THE Entablature may be two ninths, or one fifth, of the Columns, according to the character of the Building in which the Door is employed; and the height of the Pediment may be one quarter of its Baſe. Fig. 9, is a Deſign of Serlio's. The Aperture may be either twice as high as broad, or a trifle leſs. The diameter of the Columns may be equal to one quarter of the breadth of the Aperture; and their height may be from eight diameters, to eight and a half. The Entablature muſt be ſomewhat leſs than one quarter of the height of the Columns; and the height of the Pediment may be one quarter of its Baſe.

FROM theſe Deſigns and Deſcriptions the manner of compoſing Doors may eaſily be gathered: and every man may invent a variety of other Deſigns, ſuitable to the occaſions in which they ſhall be wanted. Yet ſuch as are not endued with the talent of Invention, will do well to copy theſe; which are all very excellent in their kind: and for more variety they may recur to the Deſigns of Windows contained in this work, which will, moſt of them, anſwer equally well for Doors.

IN the plate of Gates and Piers, Fig. 1. is a Pier of my Compoſition. Its diameter may be one quarter of its height, excluſive of the Plinth and Vaſe; and the height of both theſe may be equal to one diameter of the Pier, or a trifle leſs. The Ruſtics may either be plain, hatched, or vermiculated: the height of each courſe may be one eleventh part of the height of the Pier, counting to the top of the Entablature; the Entablature two elevenths; and the Baſe of the Pier one eleventh part. Figure 2. is likewiſe a Compoſition of mine, imitated from M. Angelo Buonaroti's Deſign for Cardinal Sermonetti. The height of the Aperture is ſomewhat more than twice its breadth; which breadth occupies one third of the breadth of the whole Compoſition. The Order is Compoſite; and the height of the Entablature is equal to one quarter of the height of the Column. I have made a Break in it over each Column: but, unleſs the Column project conſiderably, it will be as well to carry the Entablature on in a ſtreight line. The Dimenſions of the particular parts may be meaſured on the Deſign. Fig. 3. is a Pier of my Compoſition, executed at Goodwood, the Seat of his Grace the Duke of Richmond, in Suſſex. The Diameter is one quarter of the height, excluſive of the finiſhing, which is equal to one Diameter; and the height of the Pier, from the top of the Entablature downwards, being divided into eleven and a half parts, one of theſe parts is given to the Baſe, one to each Ruſtic, and one and a half to the Aſtragal, Frize, and Cornice. Fig. 4. is a Compoſition of the late Earl of Burlington's, that great Architect and Patron of the fine Arts, which is executed at Chiſwick, and at Bedford-Houſe in Bloomſbury-Square with ſome little difference. Fig. 5. is an Invention of mine, and fig. 6. is one of Inigo Jones's; of which kind he hath executed a couple of Piers at Aimſbury in Wiltſhire, the Seat of his Grace the Duke of Queenſbury. Among the Deſigns at the end of this work, there are various other compoſitions for Gates; and any of the Arches, either with or without Pedeſtals, of which I have given Deſigns in treating of Arcades, may be employed as Gates likewiſe: obſerving however, where the Piers are weak, to fortify them, and make them at leaſt equal to half the breadth of the Aperture.

THE firſt conſideration, both in Gates and Doors, is the ſize of the Aperture; in the Dimenſions of which regard muſt be had to the ſize of the bodies that are to paſs through it. For this reaſon inſide Doors, however ſmall the building may be in which they are employed, ſhould never be narrower than two foot nine inches: nor need they ever, in private houſes, exceed three foot ſix inches in breadth, which is more than

than ſufficient to admit the bulkieſt perſon: and their height ſhould at the very leaſt be ſix foot three or four inches; otherwiſe a tall man cannot paſs without ſtooping. Alſo Doors of entrance, to private houſes, ſhould not be leſs than three foot ſix inches broad, nor more than ſix foot. In Churches, Palaces, and other public Structures, where there is a conſtant ingreſs and egreſs of people, and frequently great crouds, the Apertures muſt be larger; and their breadth, in the Apartments, cannot be leſs than four and a half, five and a half, or ſix foot; as outſide doors, muſt at leaſt, be ſix feet wide, and at moſt ten or twelve. The ſmalleſt breadth that can be given to the Aperture of a Gate is $8\frac{1}{2}$ or 9 foot; which is but juſt ſufficient for the paſſage of a Coach: but if Carts likewiſe are to paſs, it muſt not be narrower than 10 or 11 feet, and city Gates, and other entrances where carriages are liable to meet, ſhould not be narrower than 18 or 20 foot. The ſame breadths muſt likewiſe be obſerved in the Intervals between Piers, which are to anſwer the ſame purpoſes as Gates. In ſettling the dimenſions of the Apertures, regard muſt likewiſe be had to the Architecture, with which the Door is ſurrounded. If it be placed in the Intercolumniation of an Order, the height of the Aperture ſhould never exceed three quarters of the ſpace between the Pavement and the Architrave of the Order; otherwiſe there cannot be room for the Ornaments of the Door: nor ſhould it ever be much leſs than two thirds of that ſpace; for then there will be room to introduce both an Entablature and a Pediment, without crouding; whereas if it be leſs, it will appear trifling, and the Intercolumniation will not be ſufficiently filled. The Apertures of Doors, placed in Arches, are regulated by the Impoſts; the top of the Cornice being generally made to level with the top of the Impoſt. And when Doors are placed in the ſame line with Windows, the top of the Aperture muſt level with the tops of the Apertures of the Windows; or if that be not practicable, without making the Door much larger than is neceſſary, the Aperture may be lower than thoſe of the Windows, and the tops of all the Cornices made on the ſame level.

With regard to the ſituation of the principal Entrance, Palladio obſerves that it ſhould be ſo placed, as to allow an eaſy communication with every part of the building. Scamozzi compares it to the mouth of an Animal; and, as nature hath placed the one in the middle of the face, ſo the Architect ought to place the other in the middle of the front of the Edifice; that being the moſt noble, the moſt majeſtic, and the moſt convenient ſituation. In ſeveral of the Palaces at Rome, as thoſe of the Pamfilia in the Corſo, and of the Brachiano at the Santi Apoſtoli, there are two principal Entrances in the ſame aſpect: but this ought to be avoided; as it leaves ſtrangers in doubt where to ſeek for the State-Apartments, which ſhould always be contiguous to the principal Entrance. In interiour diſpoſitions, the Doors of communication muſt be ſituated, as much as poſſible, in a line; the advantages of which are, that the Decoration is by that means regular, the paſſage through the Apartments is eaſy, and, in Summer, when the Doors are left open, the air circulates freely. It likewiſe gives a much grander appearance to the Apartments, by expoſing to view at once the whole ſeries of rooms; which is more particularly ſtriking, when the Apartments are illuminated, as on occaſion of Balls, Routs, or other rejoycings. There ſhould, if poſſible, be a Window at each end of the building, directly facing the line of the Doors of communication; that ſo the view may be leſs limited, and take in, at once, not only the whole ſeries of rooms, but likewiſe part of the gardens, or other proſpects that ſurround the building: and, when this is not practicable, it will do well to place Mirrours at each end of the Apartment, or to counterfeit Doors, and fill them with Saſhes and ſquares of looking Glaſs, (as is the cuſtom in France;)

 which

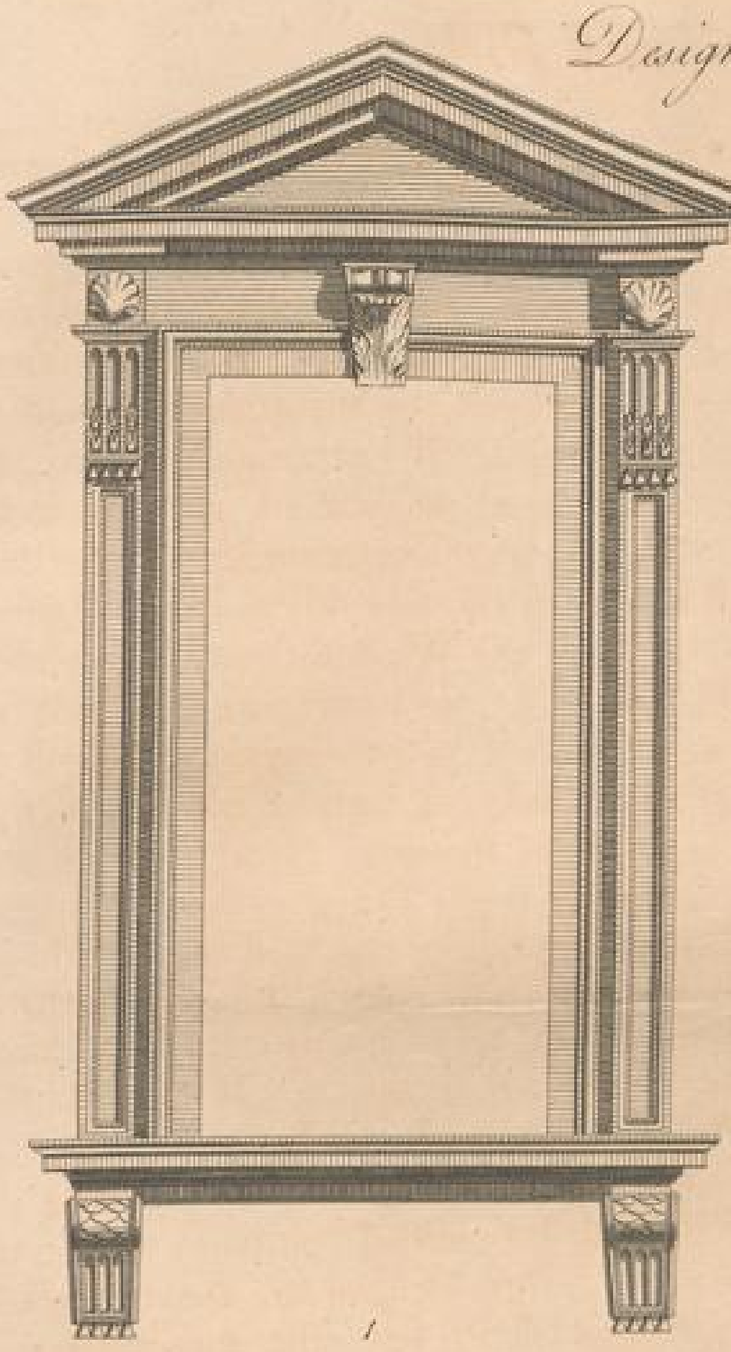
which by reflection multiply the Rooms, the Doors, and other objects, making an Apartment in itſelf ſmall, appear very conſiderable.

THE Door of Entrance from the Hall, Veſtibule, or Antichamber, either to the principal Apartment, or to any of the inferiour ones, ſhould be in the middle of the room, if poſſible, and facing a Window: thoſe that lead to Galleries, or any other long rooms, ſhould be in the middle of one of the ends: and, in general, all Entrances ſhould be ſo contrived, as to offer to view, at the firſt glance, the moſt magnificent, and the moſt extenſive proſpect of the place they open into. The Doors of communication, from one room to another, of the ſame Apartment, muſt be at leaſt two foot diſtant from the front walls; that the Tables placed againſt the Piers, between the Windows, or other pieces of furniture, may not ſtand in the way of thoſe that paſs. In bed-rooms, care muſt be taken to make no Doors on the ſides of the bed; unleſs it be to communicate with a water-cloſet, wardrobe, or other conveniency of that kind; as well on account of the draught of air, as of the noiſe attending their opening and ſhutting; both of which are troubleſome, and on ſome occaſions dangerous. Neither ought Doors to be placed near Chimneys; as the opening them will diſturb thoſe who ſit by the fire, and the draught of air, through the crevices of the Door, be apt to give them colds. In our northern climates, the fewer Doors a room hath, the better it will be to inhabit: for as we have much more cold weather than hot, it is neceſſary to make the rooms as cloſe as poſſible; otherwiſe they are not habitable for the greateſt part of the year. Wherefore it will be adviſeable never to make more Doors than are abſolutely neceſſary; and the feigning of Doors, to correſpond with the real ones, may likewiſe be omitted, on many occaſions. In England the real and feigned Doors of a room, with their Ornaments, frequently cover ſo great a part of the walls, that there is no place left for any other furniture: and I have ſeen a Salon, large enough to receive a company of fifty or ſixty perſons, furniſhed with ſix or eight Chairs, and a couple of Tables.

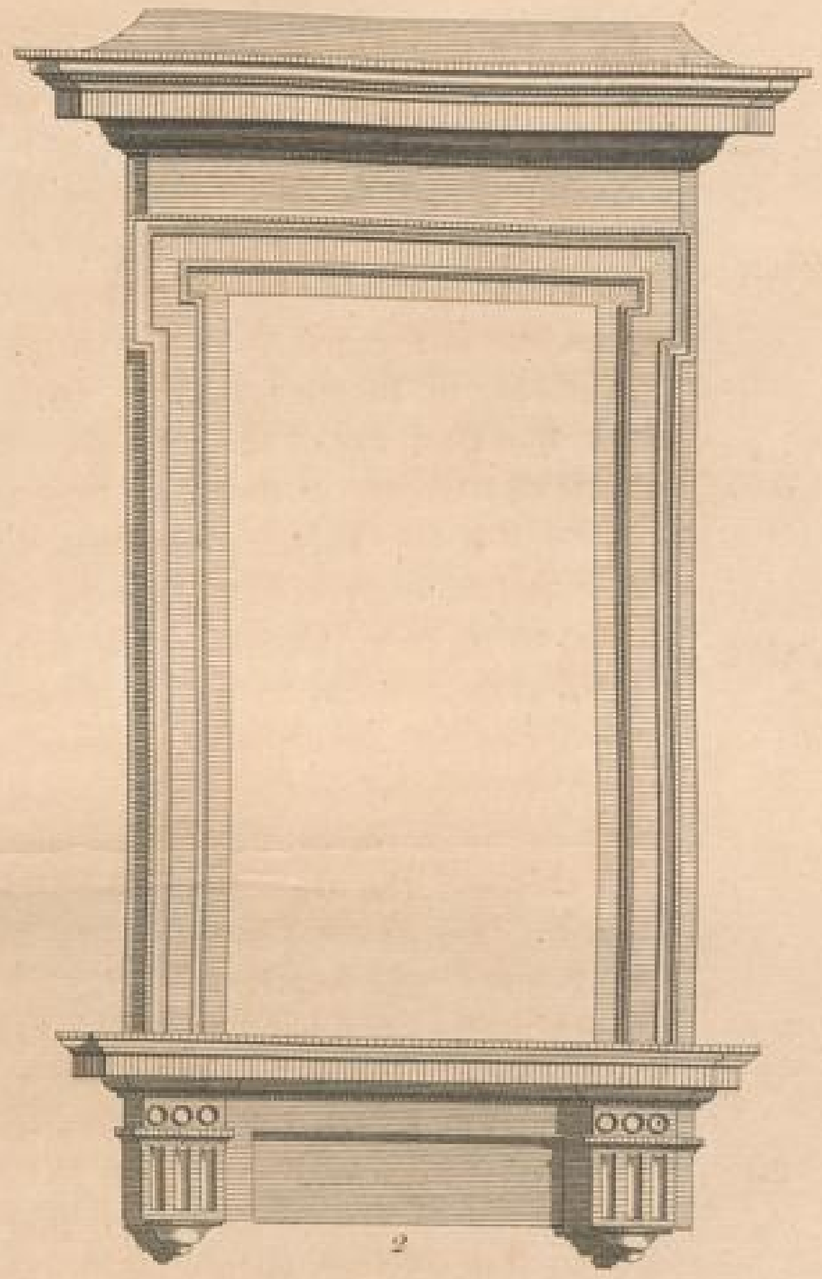
IN compoſing Doors, regard muſt be had, both in their ſize and their enrichments, to the place they lead to. Thoſe that give entrance to Palaces, Churches, State-Apartments, &c. muſt be large, and profuſely enriched: but ſuch as conduct to humbler habitations may be ſmall, unleſs the nature of the building ſhall require otherwiſe. And ſparingly ornamented, if ſeveral Doors are in the ſame aſpect, as in the inſide of a Hall, &c. they ſhould all be of the ſame ſize and figure: or if there be many, the principal ones, provided they ſtand in the middle of the rooms, may be larger, of a different form, and more adorned than the reſt: but more than two ſorts always breed confuſion. Gates muſt, in their compoſition, be characterized according to the nature of the place they open to; and by their dimenſions, give ſome idea of its extent and importance. Gates of Cities or of Fortreſſes, ſhould have an appearance of Strength and Majeſty; their parts ſhould be large, few in number, and of a bold relief. The ſame ought likewiſe to be obſerved in Gates of Parks, or Gardens; and it will be better to compoſe all theſe of Ruſtic work, and of the maſſive Orders, then to enrich them with Ornaments, and delicate Profiles. But Triumphal Arches, Entrances to Palaces, Magnificent Villas, &c. may be compoſed of the more delicate Orders, and adorned in the higheſt degree.

THE Gates of Parks and Gardens are commonly ſhut with an Iron Grate; and thoſe of Palaces ſhould likewiſe be ſo, or elſe left entirely open all day, as they are both in Italy and France: for the Grandeur of the Building, together with the Domeſtics, Horſes, and Carriages, with which the Courts are frequently filled, would give a magnificent idea of the

Designs for Windows.



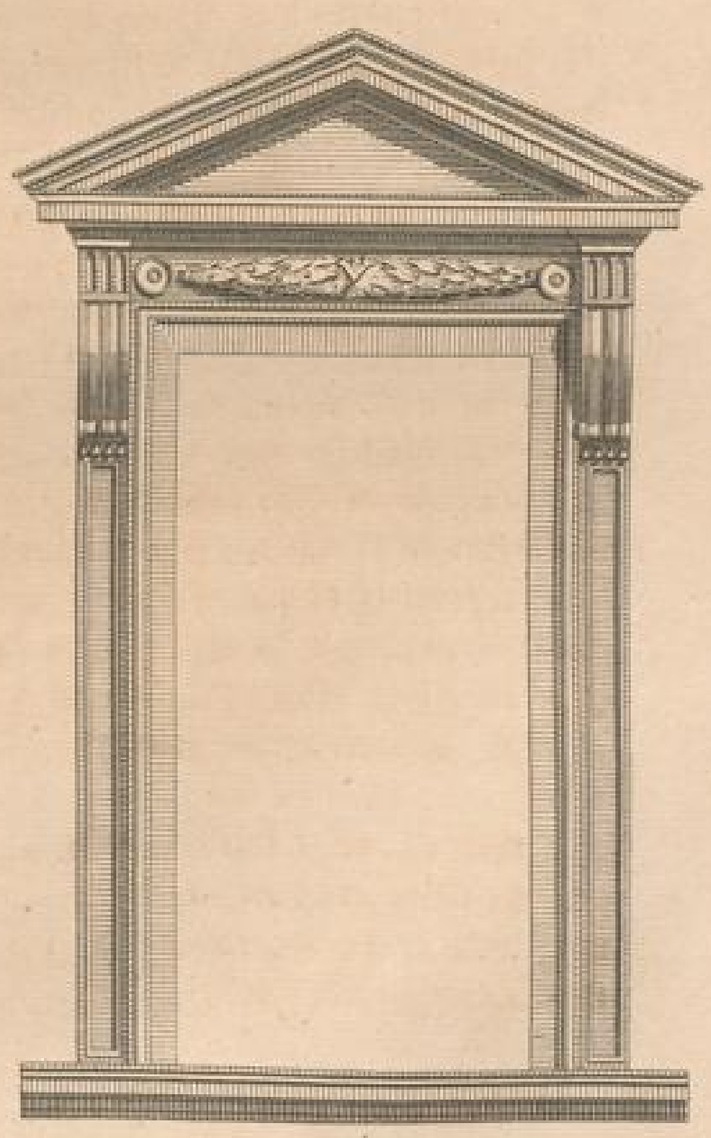
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4

M. Chambers

T. Patten sculp.

the Patron, and ſerve to enliven a City. In London, many of our Noblemen's Palaces, towards the ſtreet, look like Convents: nothing appears but a high Wall, with one or two large Gates, in which there is a hole for thoſe who chuſe to go in or out to creep through: if a coach arrives, the whole Gate is opened indeed; but this is an operation that requires time, and the Porter is very careful to ſhut it again immediately, for reaſons to him very weighty. Few in this vaſt city ſuſpect, I believe, that, behind an old brick wall in Piccadilly, there is one of the fineſt pieces of Architecture in Europe: and I could mention many very decent, and ſome even magnificent buildings, that were never ſeen by any body, but the friends of the families they belong to, and by ſome few inquiſitive people, who are curious enough to peep into every out of the way place.

THE Antients frequently covered the cloſures of their Doors with Plates, and Baſſo Relievos, of Bronze. There are ſome examples yet remaining of this practice, both at the Panthæon, and at St. John de Lateran; the Doors of which laſt building formerly belonged to the Temple of Saturn. The Doors of St. Peter's of the Vatican are likewiſe covered with Bronze; and at Florence thoſe of the Baptiſtery, fronting the Cathedral, adorned with a great number of figures by Lorenzo Ghiberti, are much eſteemed.

BUT the extraordinary expence and weight of theſe Doors have occaſioned their being laid aſide; and wood alone is now uſed. The commoneſt ſort are made of Deal, painted in various manners; and the better kind of them are of Wainſcot, Mahogany, or different ſorts of precious woods inlaid. With regard to their conſtruction, Mr. Ware obſerves that Strength, Beauty, and Straitneſs are to be conſidered; all which purpoſes are anſwered by compoſing them of ſeveral Pannels. The number of theſe muſt depend on the ſize of the Door; which ſhould likewiſe regulate the thickneſs both of the Pannels and the Framing. If the Doors be adorned with Ornaments of Sculpture, as is ſometimes uſual in very rich buildings, it muſt be kept very flat, both for the ſake of lightneſs, and to prevent its being broken. The Pannels may be ſurrounded with one or two little enriched Mouldings, contained in the thickneſs of the Framing, and not projecting beyond it, (as is ſometimes ſeen in old buildings,) which, as well as the Ornaments, may be gilt.

DOORS, that exceed three foot and a half in breadth, are generally compoſed of two Flaps; by which means each part is lighter, and when open doth not project ſo far into the room. It is to be obſerved that all Doors muſt open inwards; otherwiſe in opening the Door to let a perſon in, you may chance to knock him down.

Of Windows.

THE firſt conſideration, with regard to Windows, is their ſize; which depends on the Climate, and the Extent of the rooms they are to light. In hot Countries, where the Sun is ſeldom clouded, and where its rays dart more directly upon the earth, the light is more intenſe than in colder Climates; and therefore the Apertures may be leſs: and, in ſmall buildings, where the Apartments, generally ſpeaking, are likewiſe ſmall, there is no neceſſity for having Windows of the ſame ſize as in large ones, the rooms of which, being commonly ſpacious and high, require a conſiderable quantity of light. Palladio obſerves that the Windows ſhould not be broader than one quarter of the breadth of the room, nor narrower than one fifth of it; and that their

height ſhould be twice and one ſixth of their breadth. But, as in one houſe there are large, middling, and ſmall rooms, and all the Windows on one floor muſt nevertheleſs be of one ſize, he prefers thoſe rooms of which the length exceeds the breadth in the ratio of 5 to 3, for determining the dimenſions of the Windows. Thus, when the breadth of the room is eighteen foot, and the length thirty, he divides the breadth into four and a half parts, giving one of theſe parts to the breadth of each Window, and two and one ſixth of them to the height; making the Windows of the other rooms of the ſame ſize.

In England, the Windows of the ſmalleſt private houſe are, commonly, from three to three and a half foot broad; and being twice their breadth in height, or ſomewhat more in the principal Apartments, they generally mount to within a foot or two of the Ceilings of the rooms, which are ſometimes no higher than ten foot, and at moſt twelve or thirteen: but, in more conſiderable houſes, the Apartments are from fifteen to twenty foot high, or ſometimes more; and in theſe the Windows are from four to five, and five and a half foot broad, and high in proportion. Theſe dimenſions are ſufficient for dwelling houſes of any ſize in this Country: when they are larger they admit too much of the cold air in winter: but Churches, and other buildings of that kind, may have much larger Windows, and proportioned to the Architecture of which theſe Structures are compoſed, the parts of which are generally very large.

With regard to the beauty of exteriour Decorations, if an Order comprehends two ſtories, the Apertures of the Windows with which it is accompanied ſhould not much exceed three Modules in breadth; but when it contains only one ſtory, their breadth may be four and a half, or even five Modules. Windows contained in Arches may have from two fifths to three ſevenths of the Arch in breadth, and their height muſt be ſuch that the laſt horizontal Moulding of their Cornice may anſwer to the top of the Impoſt of the Arch: the whole Pediment being contained in the circular part, the Pediment muſt be triangular; for two Curves above each other, unleſs they be parallel, do not look well.

The proportions of the Apertures of Windows depend upon their ſituation. Their breadth in all the ſtories muſt be the ſame; but the different heights of the Apartments make it neceſſary to vary the height of the Windows likewiſe. In the principal floor it may be from two and one eighth of the breadth, to two and one third, according as the rooms have more or leſs elevation. In the ground ſtory, where the Apartments are lower, the Apertures of the Windows ſeldom exceed a double ſquare; and, when they are in a Ruſtic Baſement, they are frequently made much lower. The Windows of the ſecond floor may be, in heighth, from one and a half of their breadth, to one and four fifths; and thoſe of Attics, and Mezzanines, either a perfect ſquare, or ſomewhat lower. The character of the Order in which the Windows are employed, and that of the Profiles with which they are enriched, muſt likewiſe in ſome meaſure be conſulted and the Apertures made more or leſs elevated as the Order or the Ornaments of the Window are more or leſs delicate.

The Windows of the principal floor are generally moſt enriched. The ſimpleſt method of adorning them is, with an Architrave ſurrounding the Aperture, and crowned with a Frize and Cornice: but, when the Aperture is remarkably high with reſpect to its breadth, it is neceſſary to ſpread the Ornaments on the ſides of it, to give the whole compoſition an agreeable proportion. The Windows of the ground floor are ſometimes left entirely plain without any Ornament; and at other times they are ſurrounded with Ruſtics,

Designs for Windows.

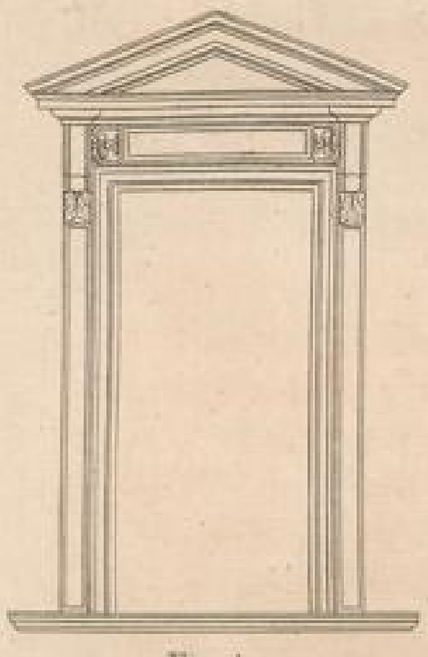


Fig. 1.

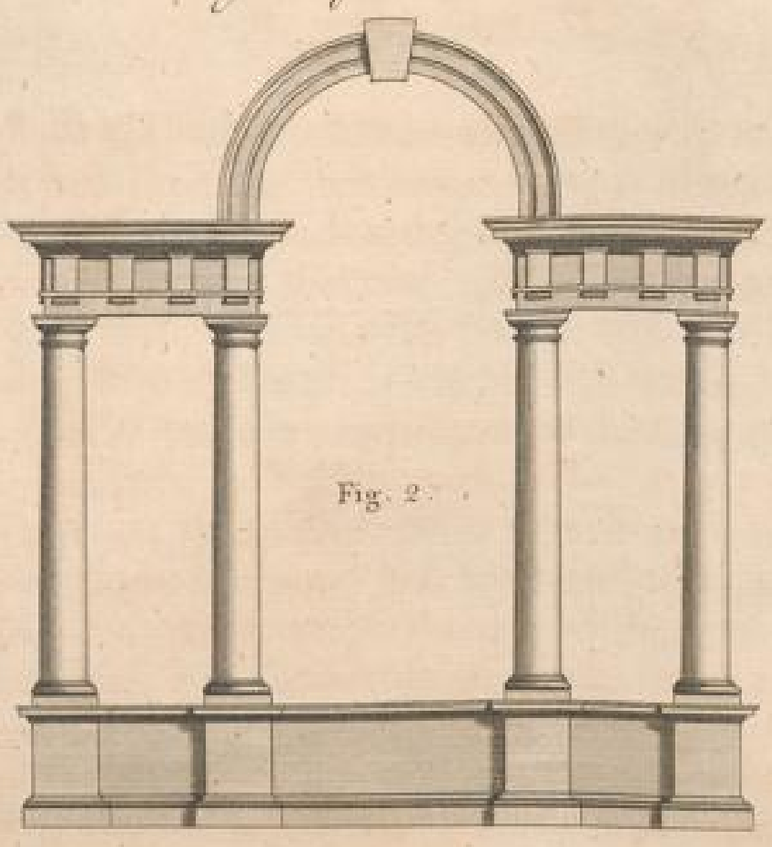


Fig. 2.



Fig. 3.

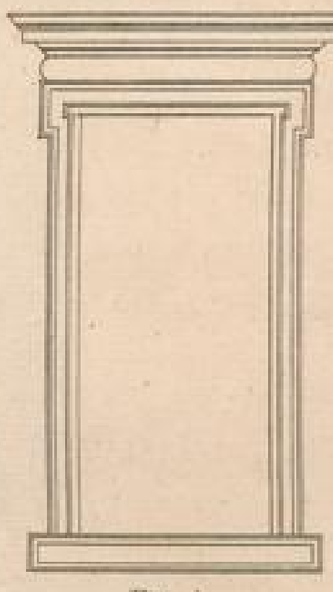


Fig. 4.

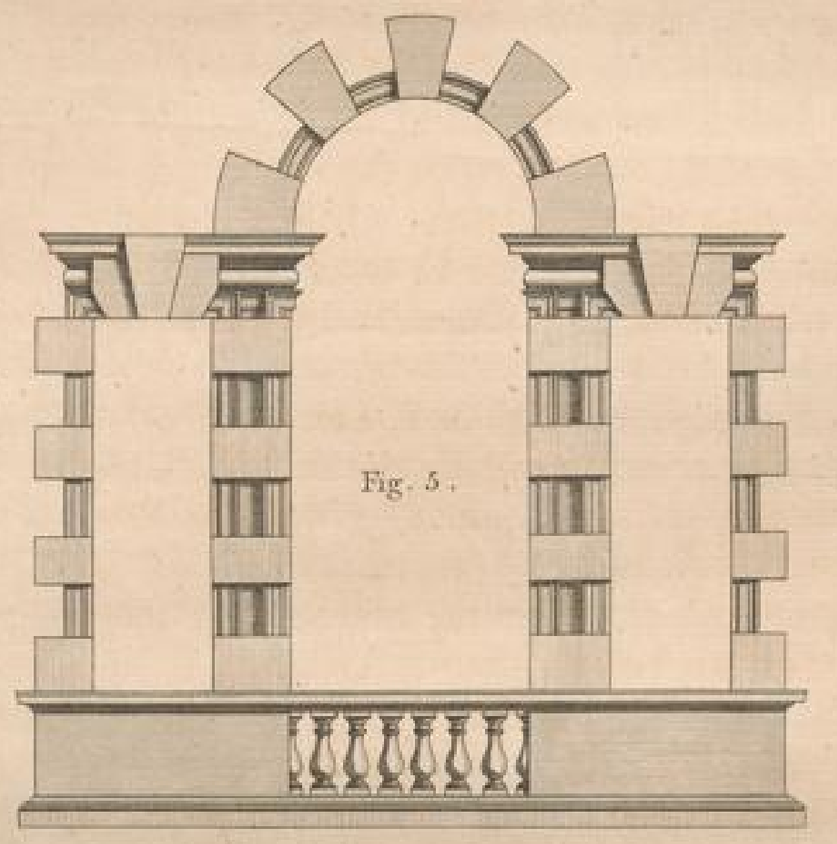


Fig. 5.

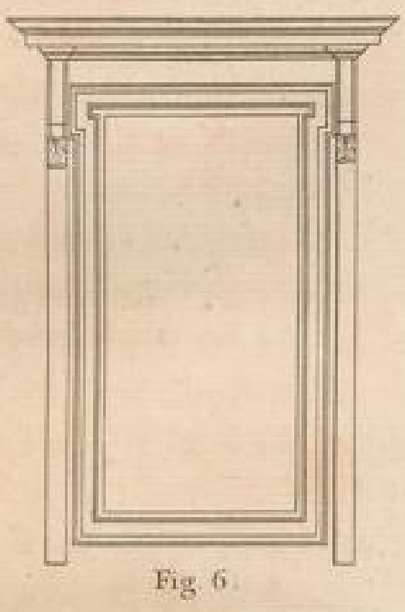


Fig. 6.

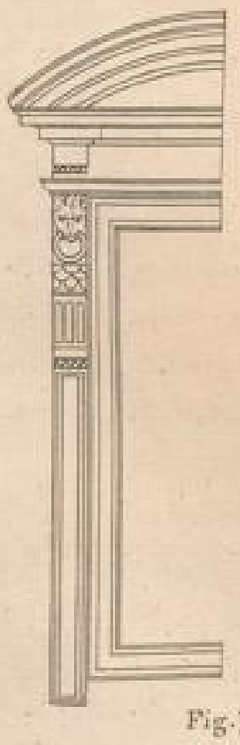


Fig. 7.

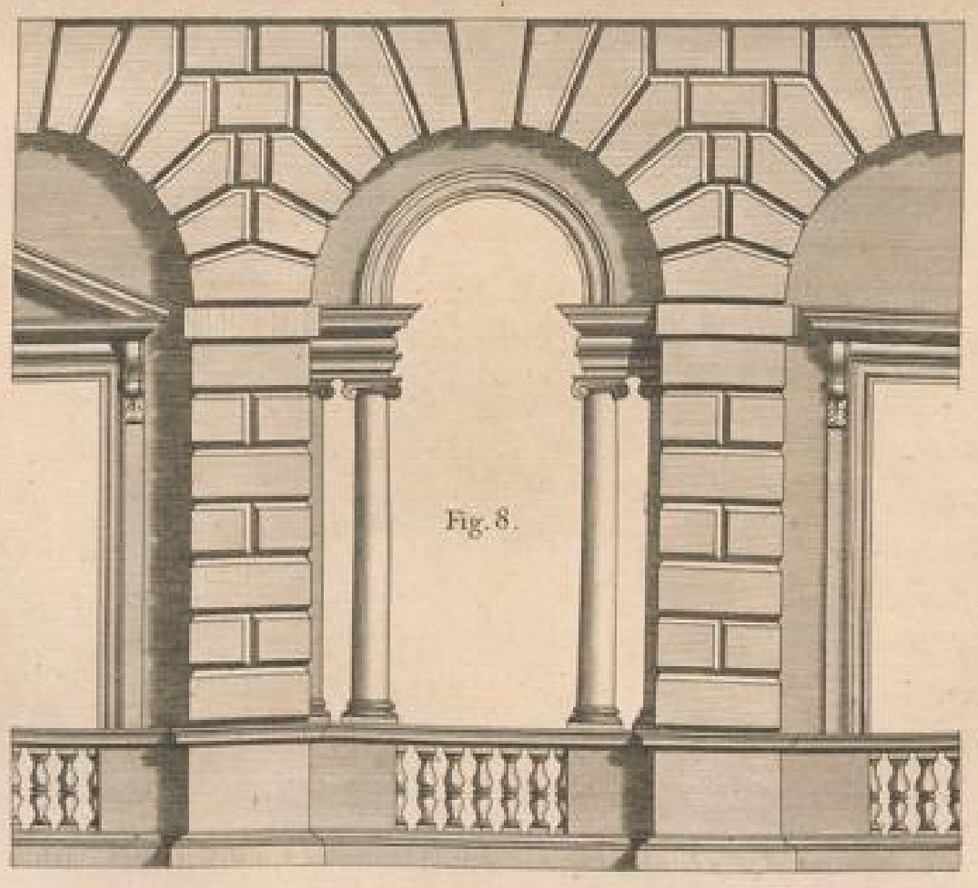


Fig. 8.

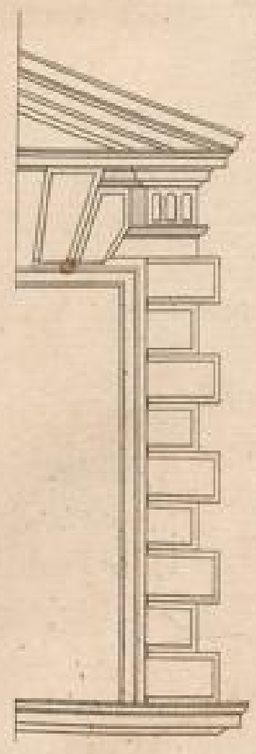


Fig. 9.

W. Wandesse.

T. Miller Sculpt.

tics, or a regular Architrave, with a Frize and Cornice. Thoſe of the ſecond floor have generally an Architrave, carried entirely round the Aperture; and the ſame is the method of adorning Attic and Mezzanin Windows: but theſe two laſt have ſeldom or ever either Frize or Cornice; whereas the ſecond floor Windows are often crowned with both.

In the three annexed plates of Windows, I have given a great variety of Deſigns. Fig. 1. in the firſt of theſe plates is imitated from the lower Windows of St. Peter's, compoſed by M. Angelo Buonaroti. The Aperture is ſomewhat more than a double ſquare in height: the Architrave is one ſeventh of the breadth of the Aperture; which is likewiſe the breadth of the Pilaſters: the Conſoles, both at the bottom and top of the Window, are, in length, one third of the breadth of the Aperture; and the whole Entablature is equal to one quarter of its height. Fig. 2. is a deſign of Bartolomeo Amanato, executed in the ground floor of the Mattei Palace at Rome. The lower part of it is well compoſed. But the whole is rather clumſy; and a Pediment would have done better than the ſlope at top. Fig. 3. and 4. are both of them compoſed by Bernardo Buontalenti, and executed in different Palaces at Florence. The Apertures of this ſort of Windows may be a double ſquare, or a trifle more; the Architrave from one ſixth to one ſeventh of the breadth of the Aperture; the Pilaſters equal to that breadth, when the Architrave is narrow; or leſs by one quarter, or by one fifth, when it is broad: the whole Entablature ſhould not exceed one quarter of the height of the Aperture, nor be much lower: the Conſoles may be equal in length to half the breadth of the Aperture at moſt, and to one third of it at leaſt.

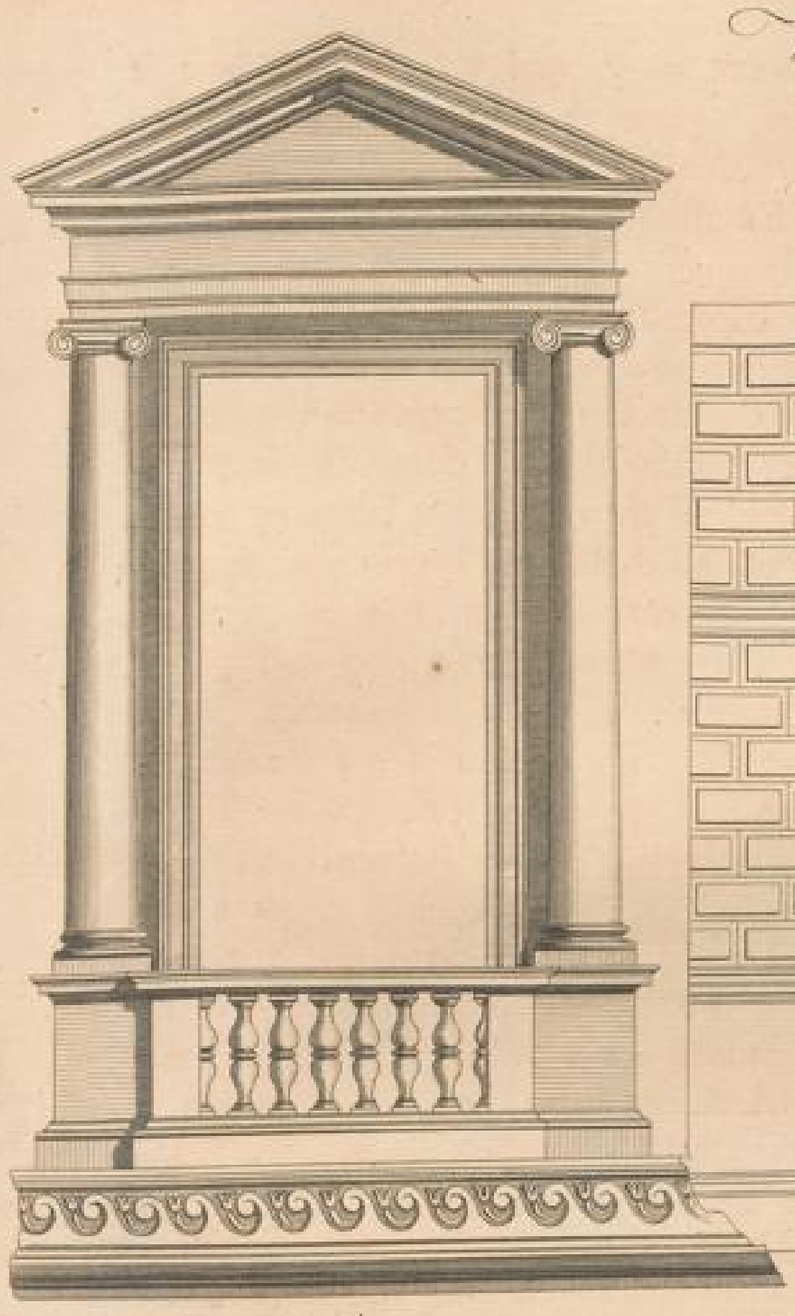
In the ſecond plate Fig. 1. is a Deſign of P. Leſcot, abbot of Clagny, executed in the Old Louvre at Paris. The proportions may be the ſame as in the two laſt mentioned ones. Fig. 2. is what we commonly call, in England, a Venetian Window. It is an invention of Scamozzi's. The height of the arched Aperture is twice and one half its breadth: thoſe on the ſides are half the breadth of that in the middle, and their height is regulated by the height of the Columns: the breadth of the Archivolt is equal to the ſuperiour diameter of the Columns. Fig 3. is a Deſign of Andrea Palladio's, executed by him in many of his buildings. The Aperture is a double ſquare: the breadth of the Architrave is one ſixth of the breadth of the Aperture; and the Frize and Cornice together are double the height of the Architrave: the breadth of the Conſoles is two thirds of the breadth of the Architrave. Fig. 4. is likewiſe a Deſign of Palladio's, executed at the Chiericato in Vicenza. Its proportions differ very little from the former: the Plat-band that ſupports the Window is equal to the breadth of the Architrave. Fig. 5. is a Venetian window, invented, I believe, by Mr. Campbell. Fig. 6. is a Deſign of Inigo Jones's, executed at the Banqueting-Houſe. I do not know exactly what proportions he hath obſerved, having never had an opportunity to meaſure the original: but the Aperture may be a double ſquare; the Architrave may be one ſixth of its breadth; the whole Entablature one quarter of its height; and the breadth of the Conſoles two thirds of the breadth of the Architrave. Fig. 7. is a Deſign of M. Angelo Buonaroti, executed at the Farneſe, with ſome difference. For the beautiful diſpoſition repreſented in fig. 8. we are indebted to the late Mr. Kent; and it is executed with ſome little difference at the Horſe-Guards, in St. James's Park. Its proportions may be collected from the Deſign. Fig. 9. is a Deſign of Ludovico Da Cigoli, and executed in the ground-floor of the Ranunchini Palace at Florence. In the third plate of Windows, fig. 1. is imitated from a Deſign of Raphael Sanzio da Urbino, executed in the principal floor of the Pandolfini Palace at Florence. The height of the Aperture is a trifle more than twice its breadth: the Architrave is equal to one ſe-

venth of the breadth of the Aperture: the Columns are Ionic, and will ſucceed beſt if they are entirely detached: yet that cannot well be, except on a ground floor: their height is nine diameters; their diſtance from the Architrave of the Window is a quarter of a diameter; which is likewiſe the diſtance of the Entablature from the top of the ſame Architrave. The height of the whole Entablature is equal to two ninths of the Column; and the height of the Pediment is one quarter of its Baſe, or a trifle leſs: the Pedeſtals and Baluſtrades are in height one quarter of the Column and Entablature taken together. Fig. 2. is an Invention of Andrea Palladio's, executed with ſome difference in the Porto-Barbarano Palace at Vicenza. Inigo Jones hath very judiciouſly introduced the ſame Deſign in the flanks of Greenwich Hoſpital, and managed all the parts of it far more gracefully than in the original. Fig. 3. is imitated from the Windows in the principal floor of the Bracciano Palace at Rome, deſigned by Cavaliero Lorenzo Bernini. Fig. 4. is an Invention of Palladio's, and the Deſign here given is very accurately meaſured and copied from the Thieni Palace at Vicenza; in the principal floor of which it is executed. The height of the Aperture is two and one tenth of its breadth: the Columns are Ionic, one quarter engaged in the Wall, and nine diameters high: the bottoms of the Capital are on a line with the top of the Aperture; they have angular Volutes, and an Aſtragal and Fillet below the Volutes: the Baſes are Tuſcan: there are five Dyes on the Shaft of each Column, which are all of an equal breadth; the inner ſides of them are on a line with the ſides of the Aperture; and their projection is equal to that of the Plinth of the Baſe, which is one fifth of a diameter of the Column: the Key-Stones are diſtributed in the manner repreſented in the Deſign; they encline forwards towards the top; their ſurface is rough, and hatched irregularly with long chops, as are likewiſe the Dyes on the Columns, their Angles alone being left ſmooth; which roughneſs is an agreeable oppoſition to the ſmooth finiſhing of the other parts. The Entablature is Ionic; the Architrave compoſed of two Faſcias only; the Frize ſwelled, and the Dentil-band placed immediately on the Frize, without any Ogee to ſupport it; a particularity which Palladio hath repeated in others of his Deſigns, though it hath but an indifferent effect. The Pedeſtals and Baluſtrade are a trifle higher than one third of the Columns: the Dyes and Baluſters are placed immediately on the Plat-band that finiſhes the Baſement; which is not ſo well as if there had been a Baſe: but it hath been done to diminiſh the projection. This Window is beautiful, different from the Deſign given of it in Palladio's Book, and ſuperiour to it. Fig. 5. is likewiſe a Deſign of Palladio's, copied from the Porti Palace at Vicenza; and fig. 6. is, I believe, an original Invention of Inigo Jones's, which hath been executed in many buildings in England. I have given, in all, nineteen different Deſigns for Windows: and for the greater variety, the figures 3, 4, 6, 7, 8, 9, in the Plate of Doors may be employed; they being equally proper either for Windows or Doors.

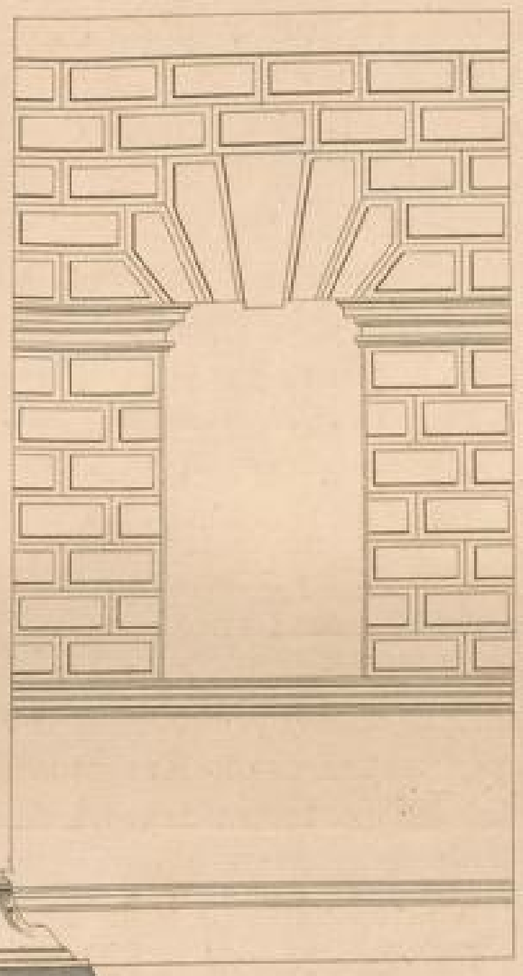
The Breaſts of all the Windows on the ſame floor ſhould be on the ſame level, and raiſed above the floor, from two foot nine inches, to three foot ſix, at the very moſt: when the walls are thich, they ſhould be reduced under the Apertures of the Windows for the conveniency of looking out; and Seats may be contrived in the thickneſs of the wall, as is the cuſtom in moſt Engliſh houſes. In France, the Windows are frequently carried quite down to the floor; and this, when the building is ſurrounded with Gardens, or other beautiful proſpects, renders the Apartments exceeding pleaſant. But the Iron-work, which, in that Country, is placed on the outſide, by way of a fence to prevent accidents when the Windows are thrown open, ought to be avoided: for all the gilding and flouriſhing in the world cannot make it tolerable. The beſt way is to compoſe the fence only of two or three plain Iron-bars, placed directly on a level with the

croſs

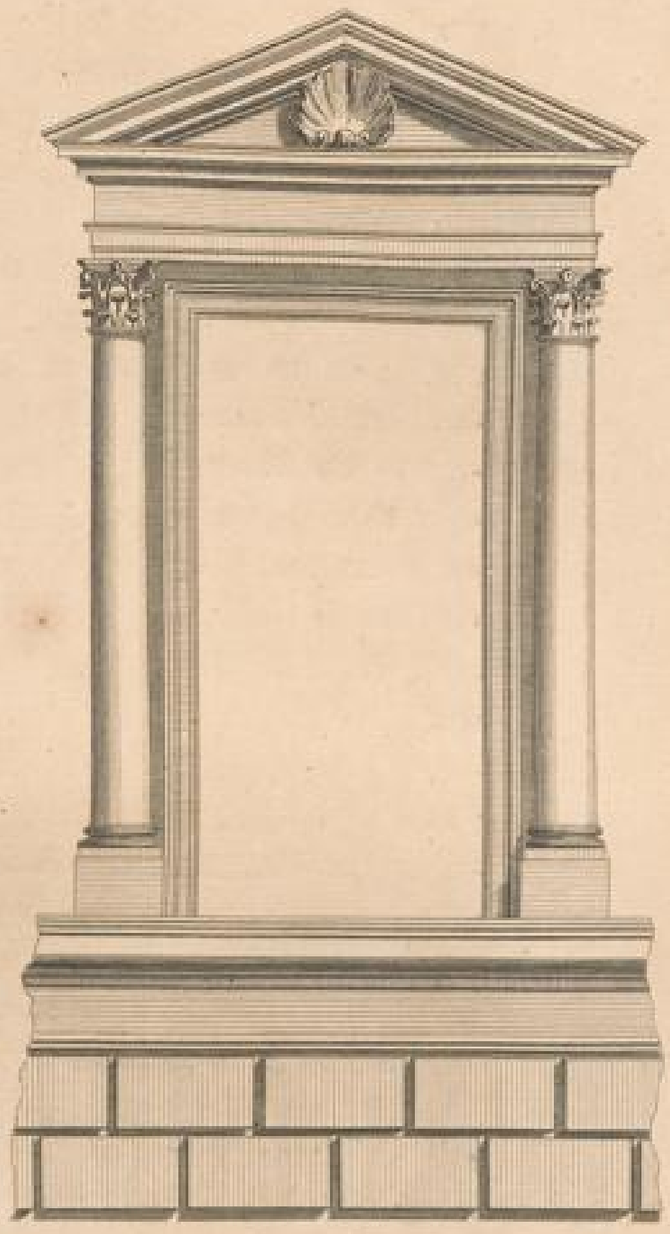
Windows.



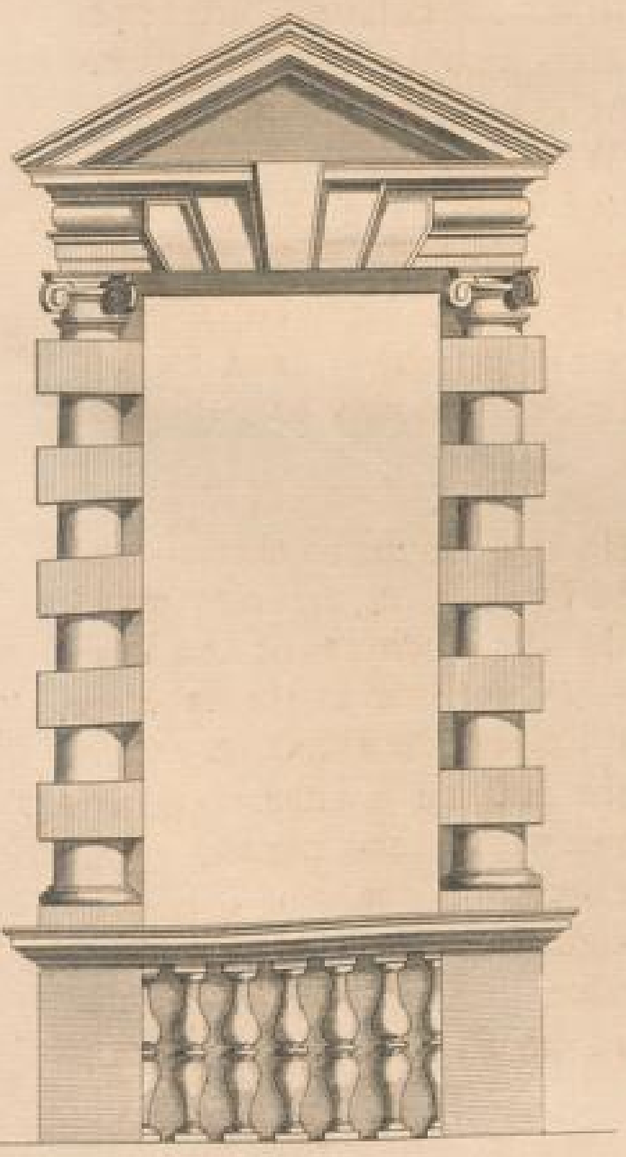
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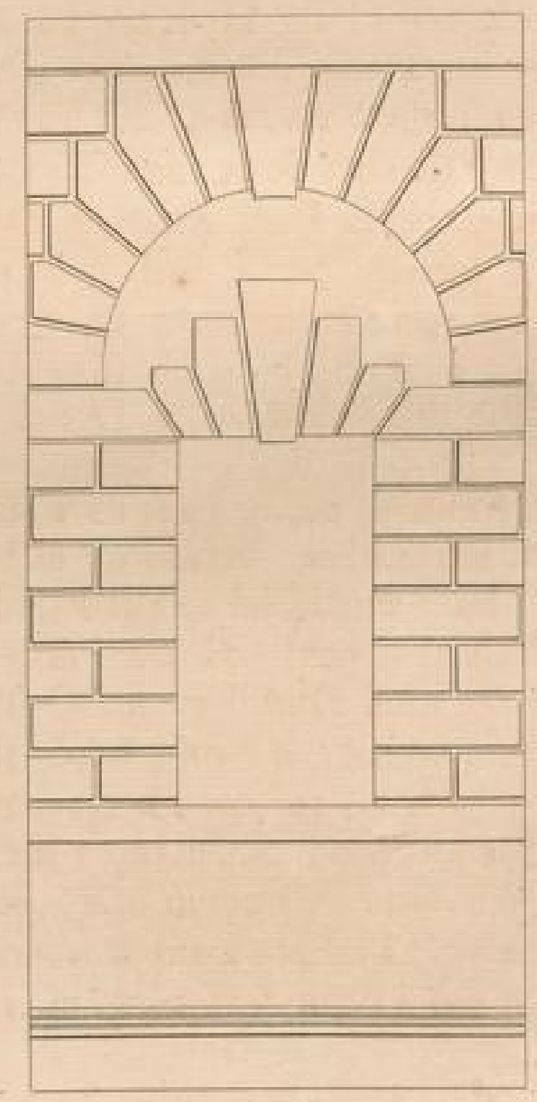
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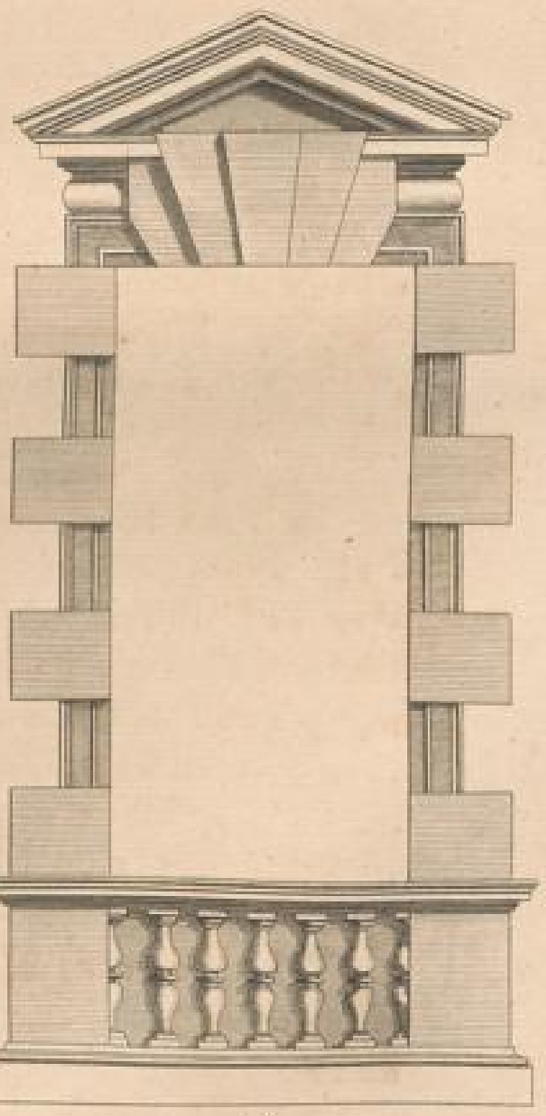
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6

croſs Bars of the Saſhes, cloſe to them, and of the ſame colour that they are, when the Window is ſhut, will by that means not be diſcovered.

In Houſes of State, the Breaſts of the Windows in the ground floor muſt be raiſed 6 foot above the Pavement on the outſide of the building, to hinder paſſengers from looking into the Apartments. But when this cannot be done, without raiſing the ground floor itſelf more than is neceſſary, the lower part of the Windows may be furniſhed with blinds. The tops of the Apertures of Windows, within the Apartments, ſhould never be carried cloſe to the Cornice of the room, but a ſufficient ſpace be left for introducing an Architrave, or at leaſt two or three Mouldings, round them, without crowding upon the Cornice.

The Interval between the Apertures of Windows depends, in a great meaſure, on their enrichments. The breadth of the Aperture is the leaſt diſtance that can be between them; and twice that breadth ſhould in dwelling houſes be the largeſt; otherwiſe the rooms will not be ſufficiently lighted, and the building will look more like a priſon, than a place calculated for the conveniencies and enjoyments of life. The purpoſe for which the building is intended ſhould likewiſe be conſidered, and regulate the quantity of light to be introduced. In dwelling-houſes, and all places where pleaſure is the main purpoſe, there cannot be too much: but in ſacred Structures, which ſhould affect the mind with awe and reverence, and wherever greatneſs is aimed at, it muſt be ſparingly diſtributed.

The Windows neareſt to outward angles muſt be at leaſt the breadth of the Aperture from them; and a larger diſtance will render the building ſtill more ſolid. The Windows in all the Stories of the ſame aſpect, muſt be placed exactly one above another; and thoſe to the left muſt ſymmetriſe with thoſe to the right, both in ſize, ſituation, number, and figure. The reaſons for all theſe things are obvious enough, and therefore it is needleſs to enumerate them. The licentious practice of intermitting the Architrave and Frize of an Order, in the Intervals between the Columns or Pilaſters, to make room for the Windows and their enrichments, which are brought cloſe to the Cornice, can on no account whatever be ſuffered in regular Architecture; it being in the higheſt degree abſurd to carry the Windows above the Ceiling, and a great want of judgement in an Architect to intermix, and croud together, ſuch a number of rich and complicated parts, as are thoſe of the Entablature of the Order and the Entablatures of the Windows. Beſides, the whole beauty of the Order, when ſo mutilated, is deſtroyed; its proportions and figure being entirely changed. The interrupting the whole Entablature, to make room for a Window, and converting it into an Impoſt to the Archivolt, as we ſee on the flanks of the Manſion-Houſe, is a licence equally unpardonable. Sir Chriſtopher Wren was extremely fond of theſe ſorts of mutilations; and every lover of Architecture muſt owe him a grudge for having ſo unmercifully mangled many parts of the inſide of St. Paul's.

The common ſort of Builders, in this Country, are extremely fond of variety in the Ornaments of Windows, and indeed in every other part of a building; imagining, probably, that it betrays a barrenneſs of Invention, to repeat the ſame object frequently. There is a Houſe near Berkley-Square, with eleven Windows only in the whole front; and yet they are of ſeven different ſorts. At Iron-Monger's-Hall in the City, the caſe is the ſame; there being ſeven or eight ſorts of Windows in the ſame aſpect: and the like is to be met with in many more buildings, both in Town and Coun-

try. Theſe inventive Gentlemen would do well to give their attention to ſome profeſſors of the mechanic arts, who, though exerciſing their talents on meaner objects, are nevertheleſs worthy of their imitation. No Taylor thinks of employing ſeven or eight kinds of Buttons on the ſame coat: a Cutler will not make ten different ſorts of Knives for the ſame ſet; and if a Cabinet-Maker be truſted to furniſh a room, he ſeldom introduces more than one ſort of Chairs. Their practice is founded on experience: the general approbation of mankind is the ſtandard they go by. We do not diſcover, either in the works of Antiquity, or in thoſe of the great Modern Architects, any traces of this fooliſh hankering after variety. The ſame object is frequently by them repeated a hundred times over: and this is one of the cauſes of that amazing greatneſs, and that noble ſimplicity, ſo much to be admired in their productions.

This ſameneſs muſt, however have its limits: for when carried too far, the imagination of the beholder ſtagnates for want of occupation. In the moſt admired works of Architecture, we find the ſame object generally continued throughout the ſame level. Thus one Order, and one ſort of Windows, or Niches, generally reigns throughout the ſtory: but in the other ſtories, where the eye and the imagination neceſſarily aſſume a freſh courſe, the decoration is altered. Scamozzi, and ſome other eminent Architects, both in their doctrine and practice, are fond of diſtinguiſhing the middle of every compoſition, by an object different from the reſt. Thus, in a range of Windows, the middle one is generally either Venetian, or in the form of an Arch; though all the reſt are ſquare. How this may affect others, I do not well know: but for my own part, I do not like it. Every one from his own experience muſt, I think, have felt a ſudden uneaſineſs ariſing on finding a Stile, a Ditch, or other impediment of that nature, in his way; and the mind is equally troubled when it is thus violently and unexpectedly interrupted in contemplating the parts of a building. Sometimes, however, it may be neceſſary to encreaſe the ſize, and vary the figures, of the Windows, in the middle, or ſome other part, of a front: as the Earl of Leiceſter hath done in his noble Palace at Holkham in Norfolk, in order to light a Salon, or Hall higher than the reſt of the rooms. But then it will be beſt to repeat the ſame form three, five, or more times, according to the extent of the plan; that ſo the mind may be in ſome degree ſatiated, before it is conducted to a new object. Venetian Windows, and Doors too, are on ſome occaſions neceſſary; particularly, in ſmall buildings, to light a Hall or Veſtibule, &c. But, where they can be avoided, it is beſt: for the Columns which ſeparate the large Interval, from thoſe on the ſides, form ſuch ſlender partitions, that, at a diſtance, they are ſcarcely perceived, and the whole looks like a large irregular breach made in the wall.

The Saſhes of Windows are generally made of Oak. The London Artificers excell in theſe works: they make them ſtrong, though in appearance ſlight, and extremely neat: the ſquares of glaſs are proportioned to the ſize of the Windows; there being commonly three in the breadth, and four in the height, whatever be the dimenſions of the Window: each Saſh is compoſed of two equal parts, placed one above the other; and either the lowermoſt or both of them, being hung on pullies, are moved up or down with great eaſe, the cords and the leads that counterpoiſe the Saſh being both concealed. Theſe Saſhes are much neater, and more convenient, than the French ones; which are compoſed of two vertical diviſions, turn on hinges, and are cloſed with an apparatus of Iron-work weighing a hundred weight or two. The ſhutters are always within the Apartments, wherever beauty is aimed at; thoſe on the outſide entirely deſtroying the beauty of the front. They are divided into ſeveral vertical ſlips, folding over each other, for

for the conveniency of ranging them in the thickneſs of the wall, each ſlip or fold is framed and compoſed of ſeveral Pannels; each of which may be ſurrounded with a ſmall Ogee, or Ovolo, contained in the thickneſs of the framing: and, when the Profiles in the room are enriched, theſe Mouldings muſt likewiſe be ſo; particularly on the fold that faces the Aperture, when the Shutters are folded back; the front of which muſt come flush with the inner edge of the Architrave round the Aperture, all the other folds being ranged behind it.

Of Niches, and Statues.

ARCHITECTURE, as Daviler obſerves, is indebted to Sculpture for a great part of its magnificence; and, as the human body is juſtly eſteemed the moſt perfect original, it hath been cuſtomary, in all times, to enrich different parts of buildings with repreſentations thereof. Thus the Antients adorned their Temples, Baſilicas, Baths, Theatres, &c. with Statues of their Deities, Heros, and Legiſlators: and the Moderns ſtill preſerve the ſame cuſtom; placing in their Churches, Palaces, &c. Statues of illuſtrious perſonages, and even Groupes compoſed of various figures, repreſenting occurrences collected from the Hiſtories, Fables, or Traditions of particular times. Sometimes theſe Statues, or Groupes, are detached, raiſed on Pedeſtals, and placed contiguous to the Walls of a building, or in the Middle of a room, a court, or a public ſquare: but moſt frequently they are diſpoſed in Cavities made in the Walls, and called Niches. Of theſe there are two ſorts: the one being formed like an Arch in its Elevation, and ſemicircular, or ſemi-elliptical in its plan; the other of a parallelogram figure, both in its Plan and Elevation.

THE Proportion of both theſe depends on the Characters of the Statues, or on the general Form of the Groupes placed in them. The loweſt are, at leaſt, a double ſquare in height; and the higheſt never exceed twice and one half their breadth.

WITH regard to the manner of decorating them, when they are alone in a compoſition of Architecture, as in the principal front of the old Louvre at Paris, they are generally encloſed in a Pannel, formed and proportioned like the Aperture of a Window, and adorned in the ſame manner. Theſe Pannels bear the ſame proportion to the Architecture which they accompany, as a regular Aperture of a Window would do: and the Nich contained in them is carried quite to the bottom; but on the ſides, and at the top, there is a ſmall ſpace left, between the Nich and the Architrave of the Pannel. And when Niches are intermixed with Windows, as in the front of Somerſet-Houſe towards the River, and at St. Paul's, they may be adorned in the ſame manner; provided the Ornaments be of the ſame figure and dimenſions as thoſe of the Windows. But when the ſpace between two Windows is not ſufficient to admit of this, it is much better to make the Niches entirely plain, than to contract the Aperture, and by that means make the decoration narrower than thoſe of the Windows, as Inigo Jones hath done at Somerſet-Houſe; or than to adorn the Niches in a different manner, as Sir Chriſtopher Wren hath done at St. Paul's: for both theſe expedients are irregular, and cauſe confuſion. The tops and bottoms of theſe plain Niches muſt level with the tops and bottoms of the Apertures of the Windows, and not be raiſed above or ſunk below them, as Daviler teaches: for on this, and on all other occaſions of the like nature, a continuity of ſtreight lines muſt conſtantly be aimed at; it being certain that whenever the eye of the ſpectator is obliged to dance up and down,

and hunt, if I may be allowed ſo to call it, for an outline, the images raiſed in the mind are always confuſed: and to this, in a great meaſure, may be attributed the general diſlike to the Horſe-Guards, which is a building of ſo complicated a figure, both in its Plan and Elevation, that it is almoſt impoſſible to form a diſtinct idea of the whole at once. The ſame kind of plain Niches may likewiſe be employed in narrow Intercolumniations: but care muſt withall be taken, not to ſqueeze them in between the Columns or Pilaſters; and therefore when the Interval is not ſufficient to afford room for a well proportioned Nich, and a ſpace on each ſide, between it and the Columns, of at leaſt two thirds of a Module, it will be better to have none at all.

THE ſize of the Statues depends on the dimenſions of the Niches. They ſhould neither be ſo large as to ſeem rammed into them, as at Santa Maria Majore at Rome; nor ſo ſmall as to ſeem loſt in them, as in the Panthæon, where they do not occupy above three quarters of the height of the Nich, and one half of its breadth. Palladio makes the chin of his Statues, in arched Niches, on a level with the top of the Impoſt: ſo that the whole head is in the coved part. In the nave of St. Peter's at Rome, the ſame proportion hath been obſerved; and it hath a very good effect. The diſtance on the ſides, between the outline of the Statue and the ſide of the Nich, ſhould never be leſs than one third of a head, nor more than one half; whether the Nich be ſquare or arched: and, when it is ſquare, the diſtance, from the top of the head to the ceiling of the Nich, ſhould not be greater than the diſtance on the ſides. The Statues are generally raiſed on a Plinth, the height of which may be from one third to one half of a head; and ſometimes, where the Niches are very large in proportion to the Architecture they accompany, as is the caſe when an Order comprehends but one ſtory, the Statues may be raiſed on ſmall Pedeſtals; by which means they may be made lower than uſual, and yet fill the Nich ſufficiently; it being to be feared leſt Statues, of a proper ſize to fill ſuch large Niches, ſhould make the Columns and Entablatures appear trifling. The ſame expedient muſt alſo be made uſe of, whenever the Statues in the Niches, according to their common proportion, come conſiderably larger than thoſe placed at the top of the building. A trifling diſparity will not be eaſily perceived, on account of the diſtance of their ſituation; but if it be great, it muſt have a bad effect: and therefore this muſt be attended to, and remedied, either by the above mentioned method, or by entirely omitting the Statues at the top of the building, leaving the Baluſtrade free, or placing upon it Vaſes, Trophies, &c. Some Writers, indeed, give theſe Ornaments the preference at all times, to Statues, or Animal Repreſentations on the tops of buildings, and eminences; alledging that it is abſurd to ſuppoſe Horſes and Men conſtantly ſtanding on the Roofs, or ſtuck up in the Niches of a ſecond or third ſtory, and very ſhocking and frightful to the imagination. De Cordemoy adviſes, by all means, to avoid placing Statues too far from the ground; and Le Clerc is for having nothing but Tutelar Angels on the tops of houſes. To me there appears ſomething ridiculous in this affectation of propriety; and, I believe, it may in general be eſtabliſhed, that, whenever the image is ſo different from the original it repreſents, as not to leave the leaſt probability of its being ever miſtaken for the real object, this ſtrict adherence to propriety is ſuperfluous.

THE Character of the Statue ſhould always correſpond with the Character of the Architecture, with which it is ſurrounded. Thus, if the Order be Doric, Hercules, Jupiter, Mars, Eſculapius, and all male Statues repreſenting beings of a Robuſt and Grave nature, may be introduced: if Ionic, then Apollo, Bacchus, &c. and if Corinthian, Venus, Flora, and others of a delicate kind and ſlender make, naturally take place.

Designs for Chimney Pieces.

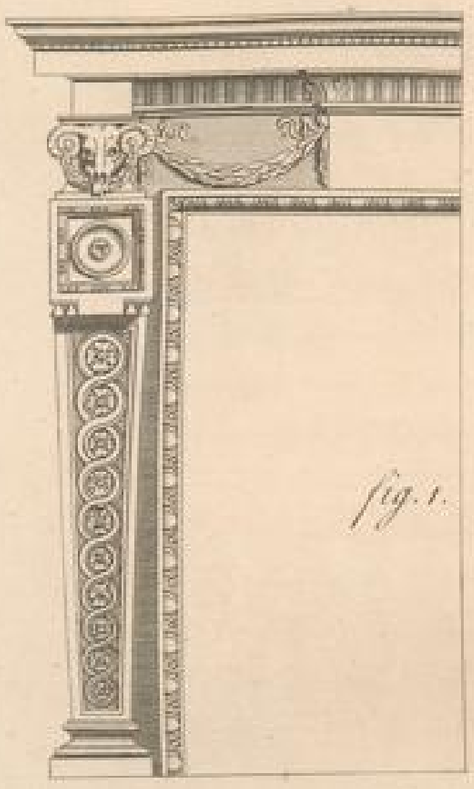


fig. 1.

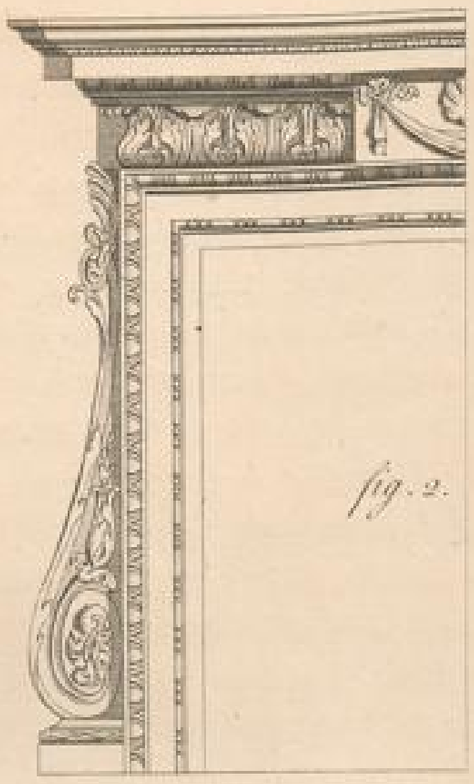


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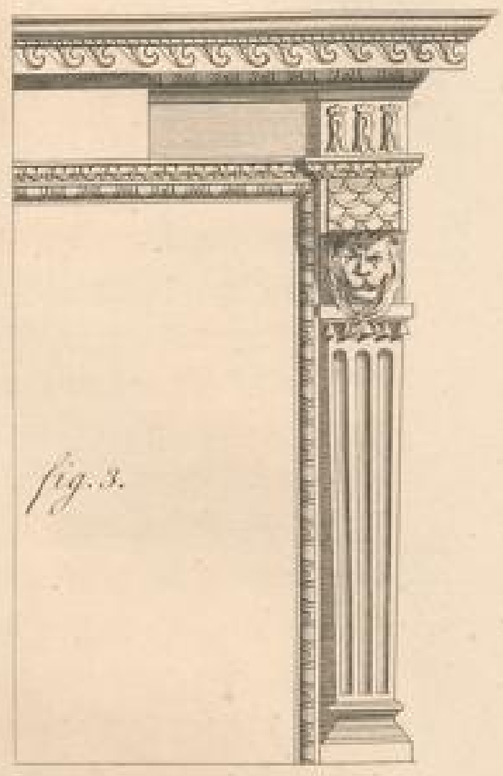


fig. 3.



fig. 4.

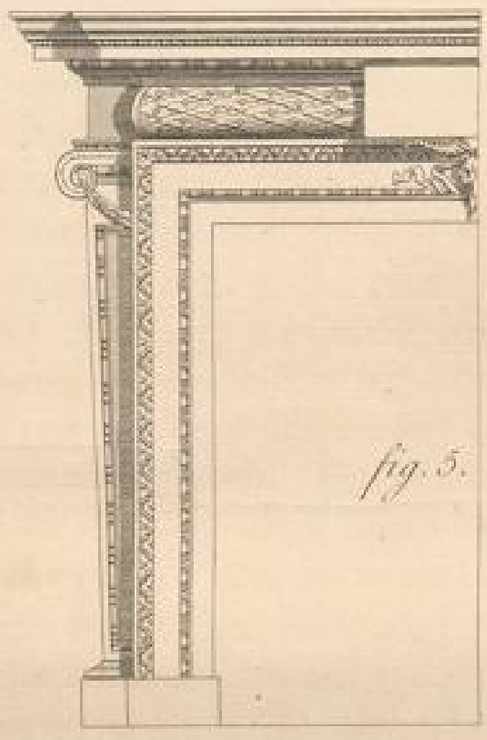


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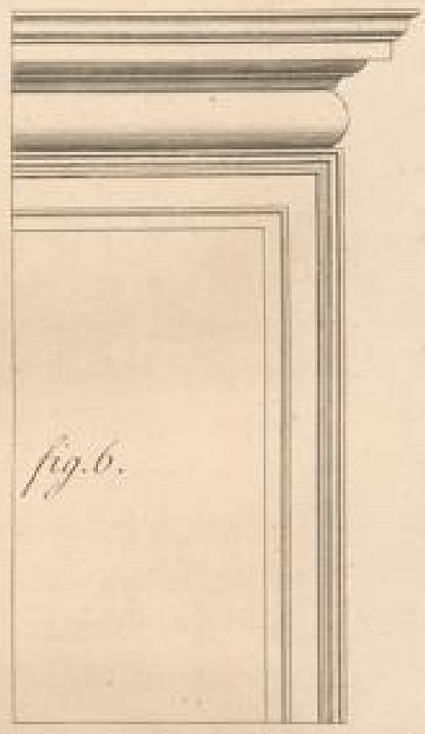


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fig. 7.

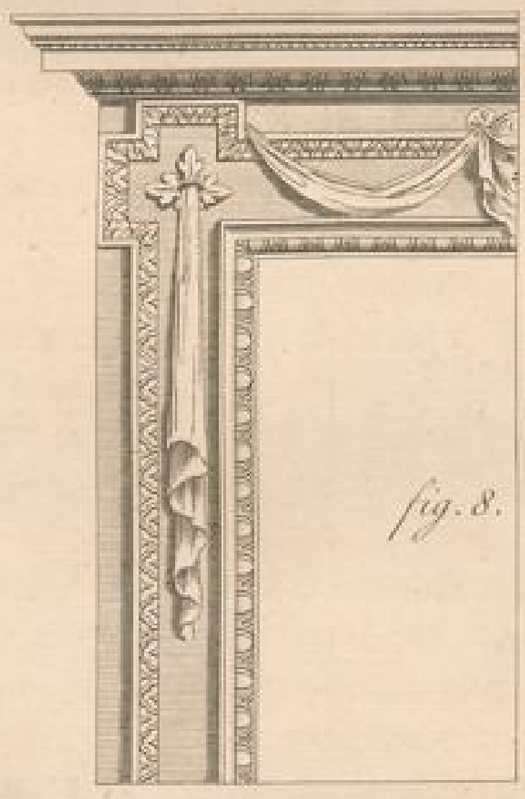


fig. 8.



fig. 9.

H. Chambers

C. Heller fculp.

NICHES being deſigned as repoſitories for Statues, Groupes, Vaſes, &c. they muſt be ſo contrived as to ſet off the things they are to contain to the beſt advantage. Therefore no Ornaments ſhould ever be employed within them, as is ſometimes practiſed, the Cove of the Nich being adorned with a large Scallop-Shell, or the whole inſide of it with Ruſtics, Compartments of Froſtwork, or of different coloured Marbles: for theſe things confoun'd the outline of the Statue, or Groupe; and it is even beſt not to employ an Impoſt within the Nich; even that being a conſiderable diſadvantage to the figures, which never appear ſo perfect as when detached on a ſmooth ſurface: an exceſs of Ornaments round the Nich ſhould likewiſe be avoided; and particularly Maſks, Buſts, Boys, or any repreſentations of the human figure; all which ſerve to divide the attention and divert it from the principal object. The depth of the Nich ſhould always be ſufficient to contain the whole Statue, &c. it being diſagreeable to ſee Statues, or any other weighty objects, have a falſe bearing, and ſupported on Conſoles; and, in the preſent caſe, the flank views are very uncouth: for in theſe, a leg, an arm, a head, in ſhort, thoſe parts alone which project beyond the Nich, appear, and look like ſo many fragments ſtuck irregularly in the Wall.

Of Chimney-Pieces.

AS the Egyptians, the Greeks, and the Romans, to whom Architecture is ſo much indebted in other reſpects, lived in warm climates, where fires in the Apartments were ſeldom or never neceſſary, they have thrown but few lights on this branch. Amongſt the Antiquities of Italy, I do not recollect any remains of Chimney-Pieces. Palladio indeed mentions two; the one at Baia, and the other near Civita Vechia; which ſtood in the middle of the rooms, and conſiſted of Columns ſupporting Architraves, whereon were placed the Pyramids, or Funnels, through which the ſmoke was conveyed, much after the manner of the Chimney-Piece of the Rotunda in Ranelagh Gardens. Scamozzi takes notice of three ſorts of Chimney-pieces, uſed in Italy in his time: one of theſe he calls the Roman, the Aperture of which is ſurrounded only with a clumſy Architrave; another he calls the Venetian, which is likewiſe adorned with an Architrave, crowned with a Frize and Cornice, having on the ſides of the Architrave Pilaſters and Conſoles; and the third ſort he calls a *Padiglione*.

THE laſt he particularly recommends, where the Walls are thin; it being not hollowed into the Wall, as the others are, but compoſed of a projecting Entablature, ſupported by Conſoles, Terms, Caryatides, &c. on which the Pyramid is placed. This ſort of Chimney-Piece is very common in Italy, and the figures 4 and 9, in the annexed Plate, are the lower parts of two of them, deſigned by Palladio, and executed, the one in the Caſa Treviſan in the Iſland of Murano, and the other in the Valmarani Palace at Vicenza.

NEITHER the Italians nor the French have excelled greatly in compoſitions of Chimney-Pieces. I believe we may juſtly conſider Inigo Jones as the firſt who arrived at any great degree of perfection, in this material branch of the Art. Others of our Architects, ſince his time, have wrought upon his ideas; and ſome of them, particularly the late Mr. Kent, have furniſhed good inventions of their own. England is at preſent poſſeſs'd of many able ſculptors, whoſe chief employment being to execute magnificent Chimney-Pieces, now happily much in vogue, it may be ſaid that, in this particular, we ſur-

paſs all other nations; not only in point of expence, but likewiſe in taſte of Deſign, and goodneſs of Workmanſhip. Scamozzi mentions a Chimney-Piece, in one of the Public Buildings at Venice, executed from his Deſigns, as a moſt uncommon piece of magnificence, having coſt upwards of a thouſand crowns. In this country a much larger expence is very frequent, and many private houſes are furniſhed with Chimneys, at leaſt as valuable.

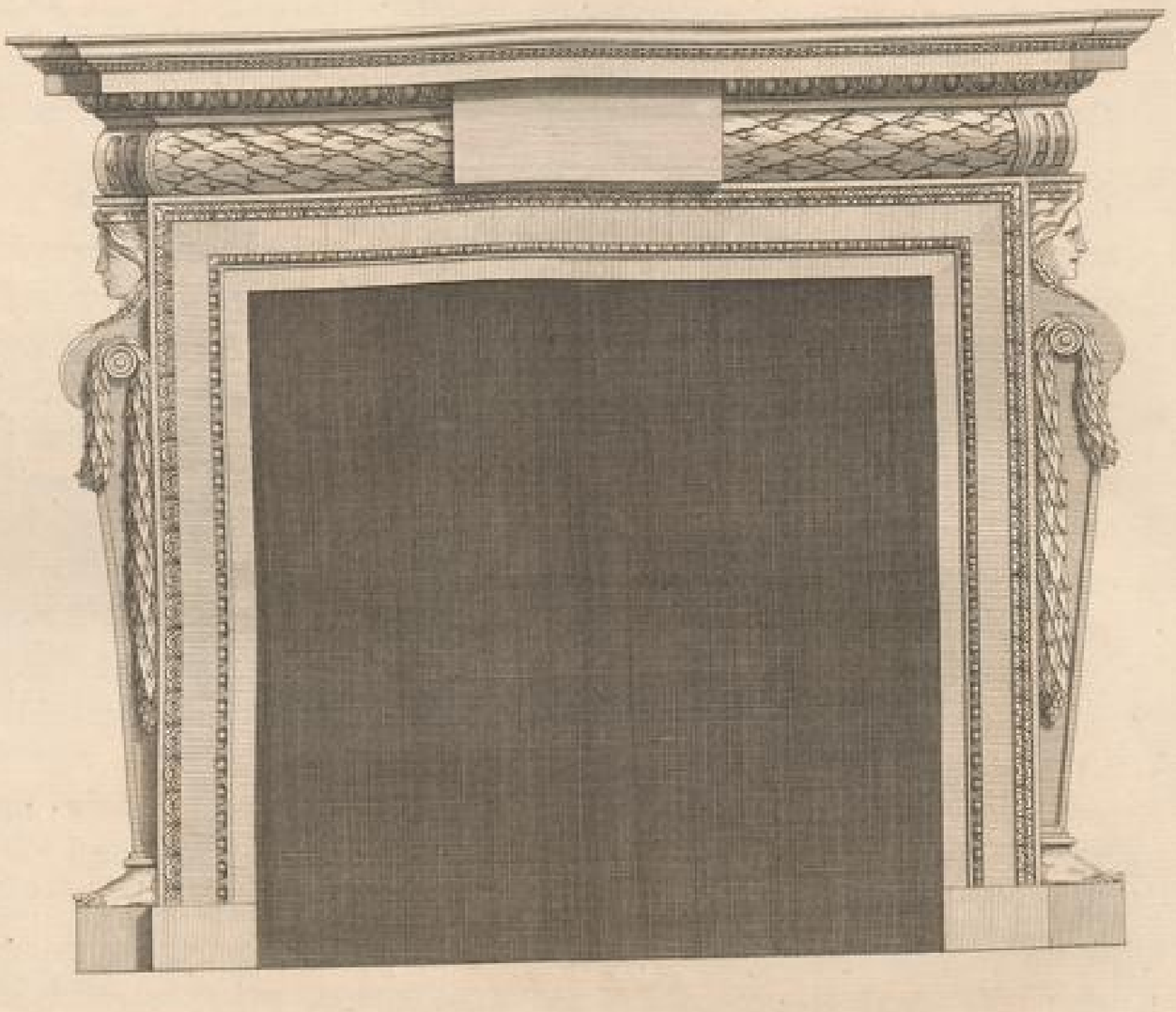
The ſize of the Chimney depends upon the dimenſions of the Room where it is placed. In the ſmalleſt Apartments, the breadth of the Aperture is never leſs than three foot, to three foot ſix inches: in rooms from 20 to 24 foot ſquare, or of equal ſuperficial dimenſions, it may be from four; to four and a half foot broad; in thoſe of 24 to 27, from four and a half to five, and in ſuch as exceed theſe dimenſions, the Aperture may even be extended to five and a half or ſix foot. But if the room be extremely large, as is frequently the caſe of Halls, Galleries, Salons, &c. and that a Chimney of this ſize affords neither ſufficient heat to warm the room, nor ſpace round it for the whole company, it is much more convenient and handſomer to have two Chimneys of a moderate ſize, than a ſingle one exceeding large, all the parts of which would be clumſy; and diſproportioned to the other Ornaments of the room.

The Chimney ſhould always be ſituated ſo as to be immediately ſeen by thoſe who enter; that they may not have the perſons already in the room, who are generally ſeated near the fire, to look for. The middle of the Partition Wall is the propereſt place in Halls, Salons, and other rooms of paſſage, to which the principal entrances are, commonly, in the middle of the front of the back Walls: but in Drawing-Rooms, Dreſſing-Rooms, and the like, the middle of the back-wall is the beſt ſituation; the Chimney being then far removed from the doors of communication. And the caſe is the ſame with reſpect to Galleries and Libraries, whoſe doors of Entrance are generally at one end. In Bed-Rooms the Chimney is always placed in the middle of one of the partition walls; and in Cloſets, and other very ſmall places, it is, to ſave room, put in a corner. Wherever two Chimneys are uſed in the ſame room, they muſt be regularly placed, either directly facing each other, if in different walls, or at equal diſtances from the center of the wall, in which they both are. The Italians frequently put their Chimneys in the front Walls, between the Windows: but this muſt be avoided; for by ſo doing that ſide of the room is crouded with Ornaments, and the reſt are left bard, the front Walls are much weakened, and the length of the Funnels at the top of the building, which muſt neceſſarily be carried above the ridge of the roof, have a very diſagreeable effect, and are far from being ſolid. In large buildings, where the Walls are of a conſiderable thickneſs, the Funnels are carried up in the thickneſs of the Wall: but in ſmall ones this cannot be done; and therefore the Chimneys advance conſiderably into the rooms, which hath a very bad effect; and, where room can be ſpared, it will always be beſt to make Cup-boards, or Cloſets, in the receſſes on each ſide of the Chimneys, with blind doors to them; the partitions being either of Wainſcot, with Pannels, hung with paper, or finiſhed in any manner ſuitable to the other part of the room. By this means, the Cornice, or Entablature, of the room may be carried round without any Breaks, the Ceiling be perfectly regular, and the Chimney have no more projection than is neceſſary to give its Ornaments a proper relief.

The proportion of the Apertures of Chimney-Pieces of a moderate ſize, is generally near a perfect ſquare; in ſmall ones it is a trifle higher; and in large ones a trifle lower

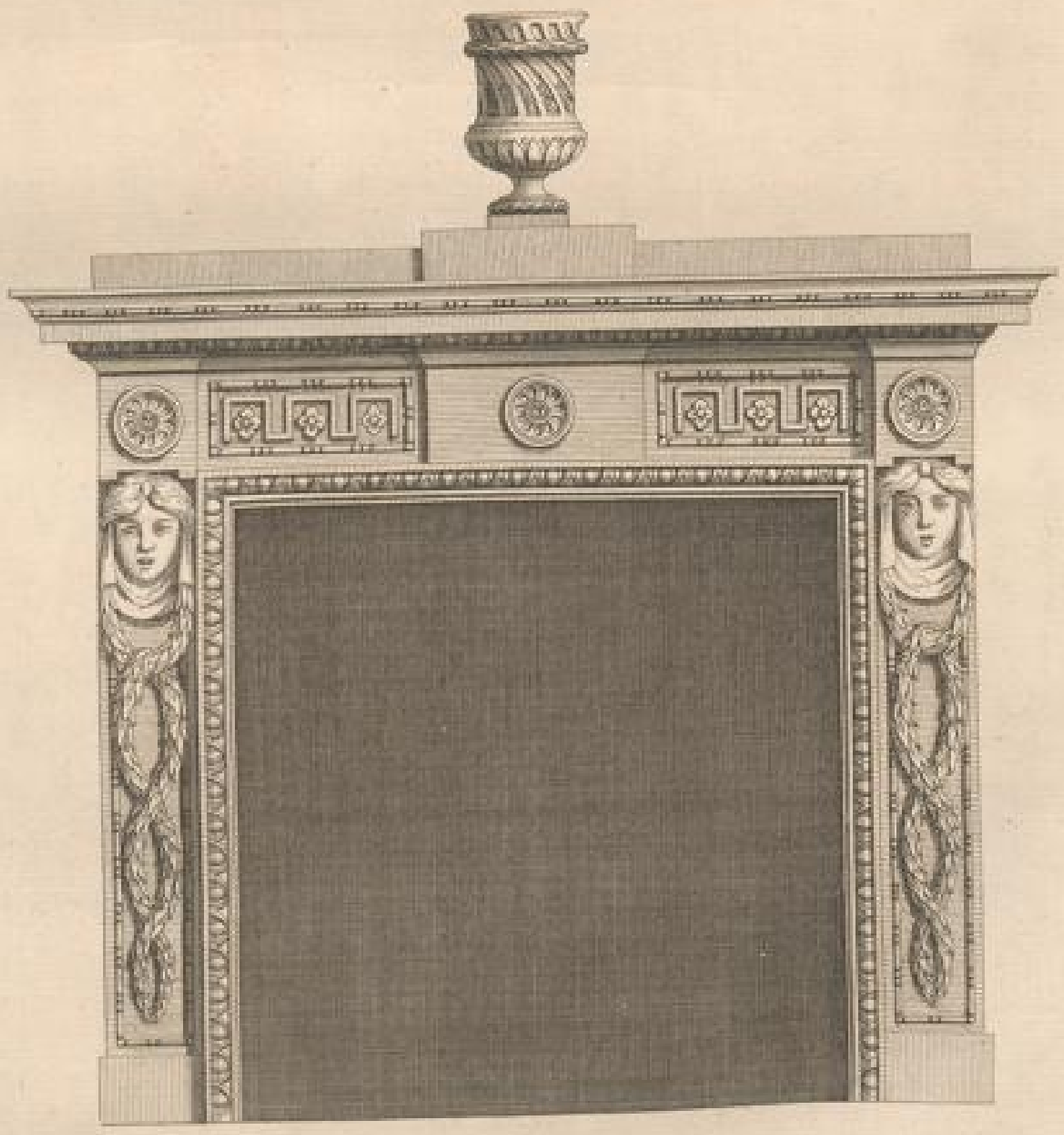
Chimney Pieces in the Lord Viscount Charlemont's Casine at Marino











W.m Chambers Architect.

P. Fourdrinier Sculp.

lower. Their Ornaments conſiſt in Architraves, Frizes, Cornices, Columns, Pilaſters, Terms, Caryatides, Conſoles, and all kinds of ornaments of Sculpture, repreſenting Animal and Vegetable productions; likewiſe Vaſes, Chalices, Trophies of Arms, and other Inſtruments and Symbols of Religion, Commerce, War, Arts, and Letters. In deſigning them, regard muſt be had to the nature of the place where they are to be employed. Such as are intended for Halls, Guard-Rooms, Salons, Galleries, and other large places, muſt be compoſed of large parts, few in number, of diſtinct and ſimple forms, and having a bold relief; but Chimney-Pieces for Drawing-Rooms, Dreſſing-Rooms, Bed-Rooms, &c. may be of a more delicate and complicated compoſition. The Workmanſhip of all Chimney-Pieces muſt be perfectly well finiſhed; like all other objects liable to a cloſe inſpection; and the Ornaments, Figures, and Profiles, both in form, proportions, and quantity, muſt be ſuited to the other parts of the room, and alluſive to the uſes for which it is intended. All nudities, and indecent repreſentations, muſt be avoided in Chimney-Pieces; and indeed, in every other Ornament of Apartments, to which Children, Ladies, and other modeſt and grave perſons, have conſtant recourſe; together with all repreſentations capable of exciting Horrour, Grief, Diſguſt, &c.

CHIMNEY-Pieces are compoſed of Wood, Stone, or Marble; the laſt of which is to be preferred. All Ornaments, Figures, or Profiles, are beſt when of the pure white ſort: but Frizes, Tablets, Pannels, Shafts of Columns, and other plain parts, may be made of Marbles of variegated Colours; ſuch as the yellow of Sienna, the Brocatello of Spain, the Diaſper of Sicily, and many others to be had in England. Feſtoons of Flowers, Trophies, &c. cut in white ſtatuary Marble, and fixed on a ground of theſe, have likewiſe a good effect: but there ſhould never be above two or three different ſorts of Marbles, at the utmoſt, in the ſame Chimney-Piece, all of brilliant Colours, and harmonizing with each other.

IN the two Plates annexed are eleven different Deſigns for Chimney-Pieces; ſome of them compoſed by Palladio and Inigo Jones, the reſt by myſelf. Their proportions may be gathered from the Deſigns, which are pretty accurately executed.

THE Funnels of the Chimneys muſt be regularly diſpoſed at the top of the building, and all of them made of the ſame height, breadth, and figure. They will be handſomeſt when made of Stone, of a cubical form, and finiſhed with a ſlight Cornice, compoſed of three or four Mouldings. Serlio hath given ſeveral Deſigns for the tops of Funnels, which reſemble Towers; and Sir John Vanbrugh frequently converted his into Caſtles. Neither the Italians nor the Engliſh have been very ſucceſsful in their Deſigns for this purpoſe: but upon the ſame principles good ones might be made, and on ſome occaſions applied with propriety, though ſeldom. Obelisks, or Vaſes, might likewiſe be ſometimes employed, as Scammozzi directs.

Of Profiles for Doors, Windows, Niches, Chimney-Pieces, &c.

and Cornices

WHEN any of the above mentioned objects are very large, the Profiles of the Orders are employed in their decoration: but if they are ſmall, as is more frequently the caſe, other Profiles, of a leſs complicated figure, are uſed. Palladio hath, in his firſt Book, given Deſigns of ſeveral; three of which are exhibited in the an-

nexed plate. Fig. 1. is the richeſt of the three, and very proper for Windows, &c. of the Corinthian Order. The account given by that Author of its proportions is as follows: viz. the Architrave being divided into four equal parts, let three and a half of theſe be given the height of the Frize, and five to the height of the Cornice: then dividing the whole Architrave into eight parts, five of them are for the Faſcia, and three for the Mouldings: which laſt being divided again into ſeven parts, one of them is for the Aſtragal, and the remaining ſix being once more divided into eight parts, three of them muſt be given to the Ogee, three to the Cavetto, and two to the Fillet. The height of the Cornice is to be divided into ſix parts and three quarters; three of which are given to the part under the Corona, compoſed of an Ogee, a Dentil-band, and an Ovolo; the projection of the Ogee being equal to its height, that of the Dentil to two thirds, and that of the Ovolo to three quarters of their reſpective heights: the three quarters of a part are given to the height of the Ogee between the Cyma and the Corona; and the remaining three parts, being divided into ſeventeen, nine of them are for the Cyma and Fillet, and eight of them for the Corona. The whole projection of the Cornice is equal to its height.

Fig. 2. may be employed in an Ionic, or rich Doric Order. Its Architrave is to be divided into four parts, and the Frize made equal to three and the Cornice to five of theſe. The Architrave muſt then be divided into three parts; two of which are to be divided into ſeven, three of them being for the lower, and four for the upper Faſcia: the remaining third part is to be divided into nine, two of which diviſions are given to the Aſtragal; and the other ſeven being divided into five, two of them are for the Fillet, and three for the Ogee. The height of the Cornice is to be divided into five parts and three quarters: one of theſe muſt be divided into ſix, and five of the ſix given to the Ogee, and one to the Fillet; the projection of both theſe members being equal to their height: another of the five and three quarter parts is given to the Ovolo, whoſe projection is three quarters of its height. The Fillet above the Ovolo is one ſixth of it in height, and its projection is equal to its height: the other three parts are to be divided into ſeventeen, and eight of theſe given to the height of the Corona, whoſe projection is equal to one and one third of its height; the other nine ſeventeenths are to be divided into four parts, and three of them given to the Cyma, and one to the Fillet: the remaining three quarters are to be divided into five parts and a half, one of which is for the Fillet under the Cyma, and the reſt is for the Ogee: the whole projection of the Cornice is equal to its height. Fig. 3. is proper in a Doric Order. Its diviſions are leſs complicated than the former two, and may eaſily be collected from the Deſign.

All Profiles of Doors, Windows, and in ſhort the Profiles of all the ſubſervient parts, muſt not only be leſs in the whole, but likewiſe in each particular member, than thoſe of the Orders employed in the ſame compoſition, or than the Cornice, or Entablature, which ſerves as a finiſhing to the whole: it being the groſſeſt of errours, to make any Ornaments belonging to the parts more predominant than thoſe that are particularly appropriated to the embelliſhment of the whole maſs; as Pretro da Cortona hath done at St. Carlo in the Corſo at Rome, where the Profiles of the great Door on the inſide are conſiderably larger than thoſe of the Order in which it is contained.

Block Cornices and Entablatures are frequently uſed to finiſh plain buildings, where none of the regular Orders have been employed. Of this kind there is a very beautiful one, compoſed by Vignola, much uſed in Italy, and employed by Sir Chriſtopher Wren

to

Profiles for Windows, Doors, Niches or Chimney Pieces.

Fig. 1.

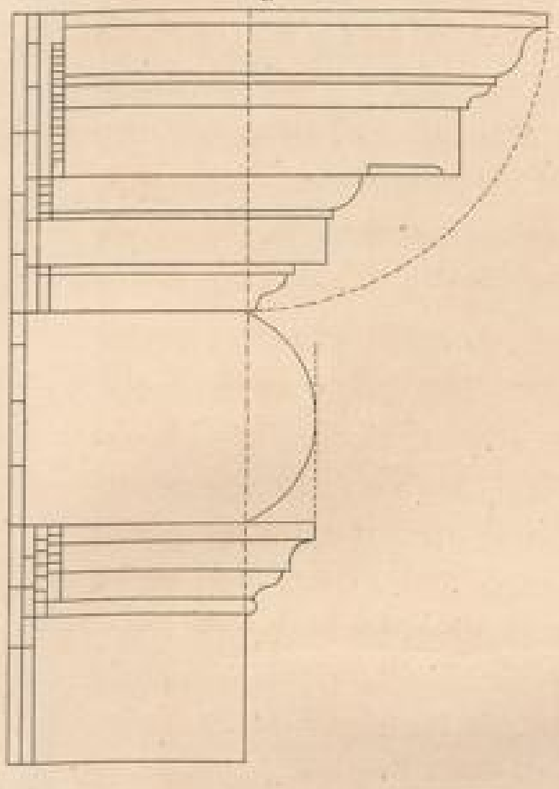


Fig. 2.

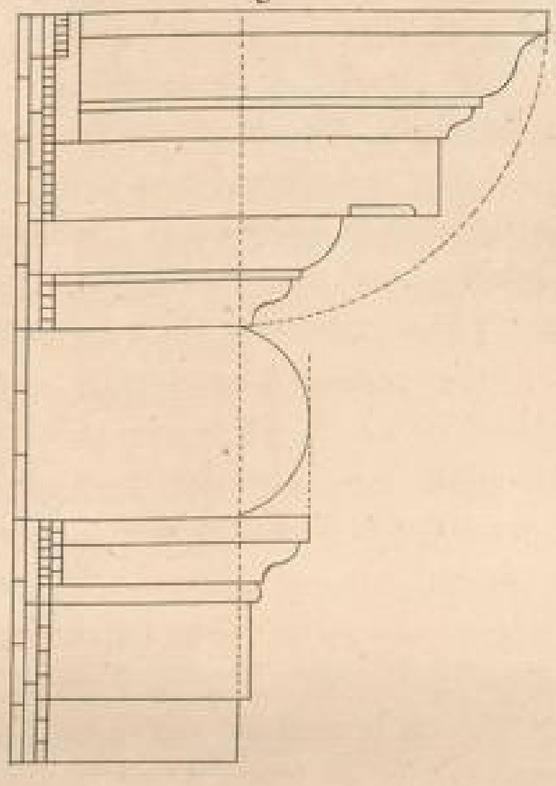


Fig. 3.

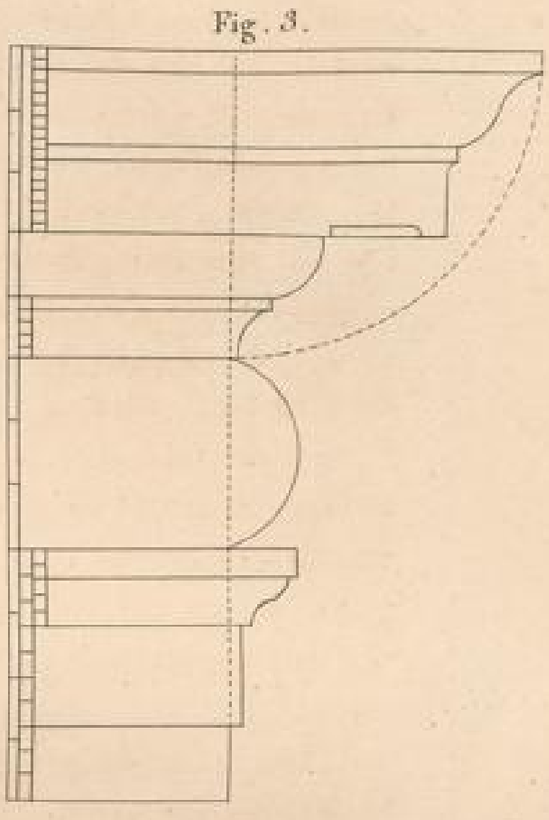


Fig. 4.

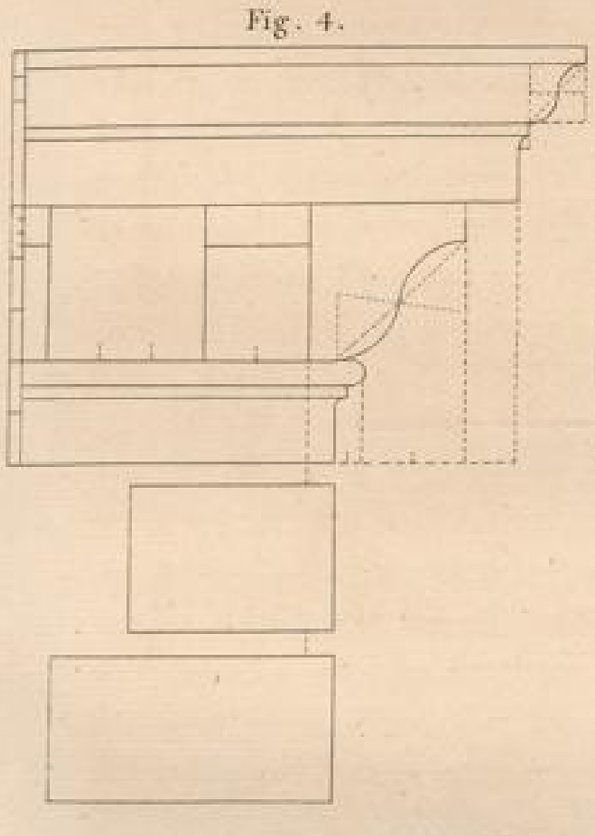


Fig. 5.

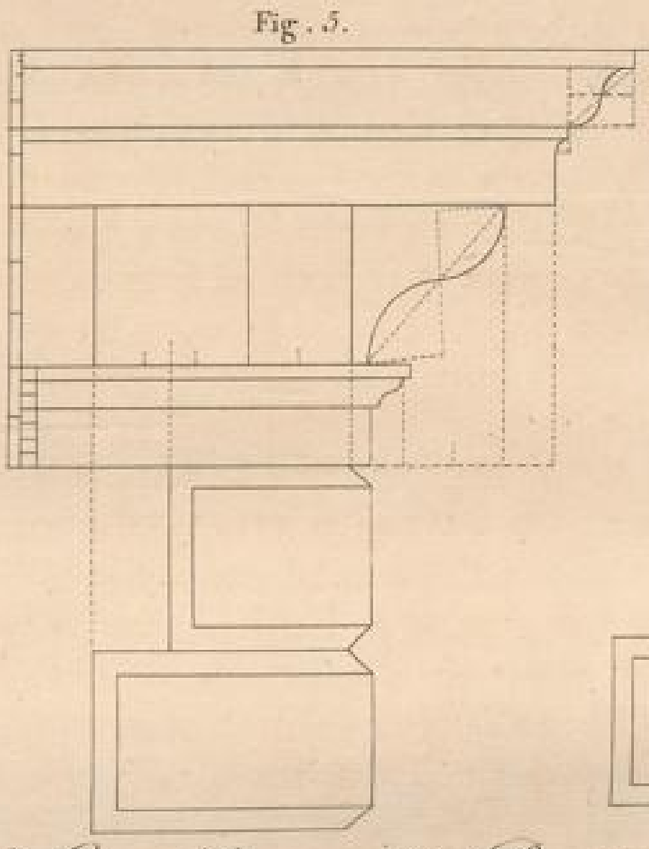
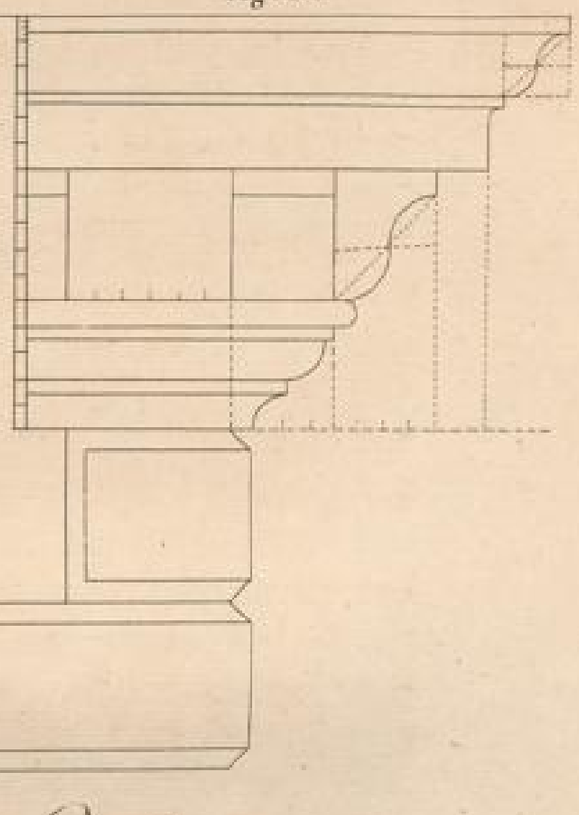


Fig. 6.



Block Entablatures & Rustic Quoins.

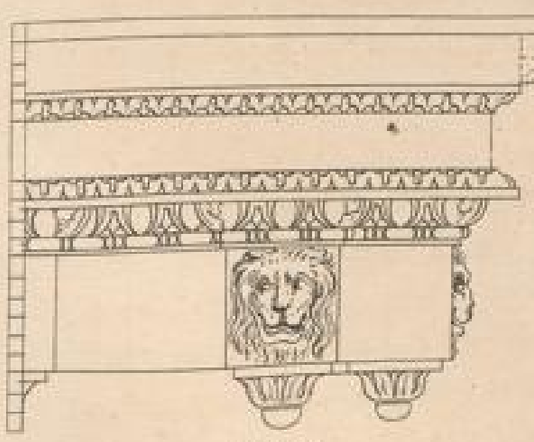


Fig. 7.

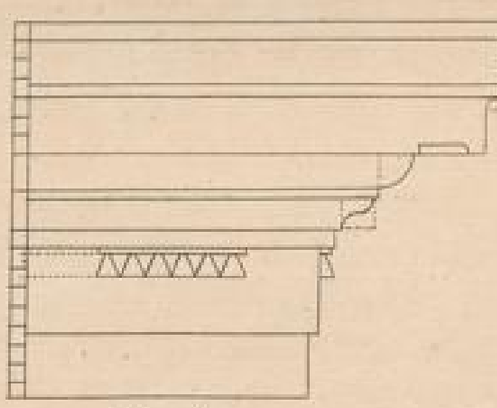


Fig. 8.

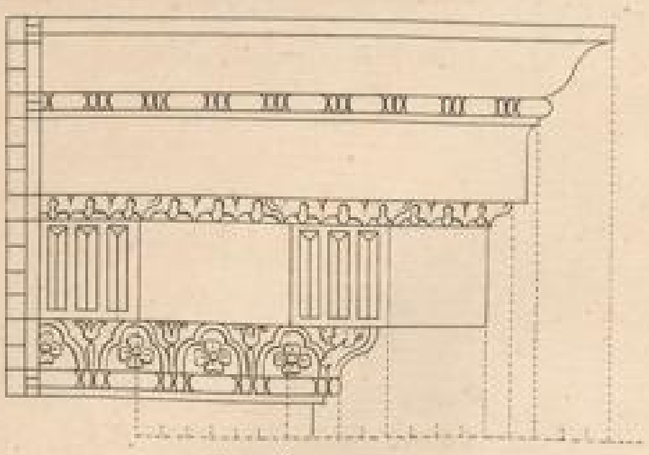


Fig. 9.

Block Cornice. Architrave Cornice. Block Cornice.

H. Gardiner Delin. J. C. Miller sculp.

to finiſh the ſecond Order of St. Paul's. I have given a Deſign of it in the ſecond Plate of the Compoſite Order, with the meaſures of all its parts, determined according to Vignola's method, by a Module divided into eighteen Minutes. When this Entablature is uſed to finiſh a plain building, the whole height is found by dividing the height of the whole front into eleven parts; one of which muſt be given to the Entablature, and the remaining ten to the reſt of the front: and when it is employed to finiſh an Order, which however may as well be let alone, it muſt be ſomewhat leſs in proportion to the Columns than a regular Entablature would be; becauſe its parts are larger. The Angles of the building, where this Entablature is uſed, may be adorned with Quoins; the ſhort ones about a Module broad, and the long ones a Module and a half; the height of both being about three quarters of a Module, including the joint.

Among the Profiles for Windows, &c. there are three other Block Entablatures, of a ſimpler make; the ſecond of which Palladio hath executed in a couple of houſes, the one at Vivaro, and the other at Monteccio, villages of the Vicentine: the other two are not very different from that: the meaſures of all of them are taken from Mr. Gibbs's Rules, and may eaſily be collected from the Deſigns. Theſe Entablatures need not exceed one thirteenth of the whole height of the front; nor ſhould they ever be much leſs. Fig. 7. and 9, in the ſame Plate are two block Cornices; the former of which is executed in a Palace at Milan, and the other by Raphael, at a houſe in the Lungara at Rome: the height of theſe need never exceed one ſixteenth part of the height of the whole front. Fig. 8. is an Architrave Cornice, which M. Angelo, Baldaſſar Peruzzi, and Palladio, have employed in ſome of their Compoſitions. This kind of Profile is a proper finiſhing for Columns ſupporting the Archivolts of Arches, as it approaches nearer the proportion of an Impoſt than a regular Entablature would do: its height may be one eighth of the height of the Column.

Of the Proportions of Rooms.

THE Proportions of Rooms depend, in a great meaſure, on their uſe, and actual dimenſions: but, with regard to beauty, all figures, from a ſquare to a ſeſquialteral, may be employed for the Plan. Inigo Jones, and other great Architects, have ſometimes even exceeded this proportion, and extended the Plan to a double ſquare: but the great diſparity, between the breadth and length of this figure, renders it impoſſible to ſuit the height to both: the end views will appear too high, or the ſide ones too low. It may, perhaps, to ſome appear abſurd to make this objection, when Galleries are frequently three, four, or five times as long as broad. But it muſt be obſerved, that, in this caſe, the extraordinary length renders it impoſſible for the eye to take in the whole extent at once; and therefore the compariſon between the height and length can never be made.

The height of Rooms depends upon their figure. Flat-Ceiled ones may be lower than thoſe that are Coved: if their Plan is a Square, their height ſhould not exceed five ſixths of the ſide, nor be leſs than four fifths; and when it is an Oblong, their height may be equal to their breadth. But Coved rooms, if Square, muſt be as high as broad; and when Oblong, they may have their height equal to the breadth, more one fifth, one quarter, or even one third, of the difference between the length and breadth: and Gal-

leries ſhould, at the very leaſt, be in height one and one third of their breadth, and at the moſt, one and a half, or one and three fifths. Theſe Proportions are all perfectly good, as they obviate any idea of confinement, and, at the ſame time, render it practicable, for thoſe who are in the room, to examine the Figure and Ornaments of the Ceiling without pain or difficulty.

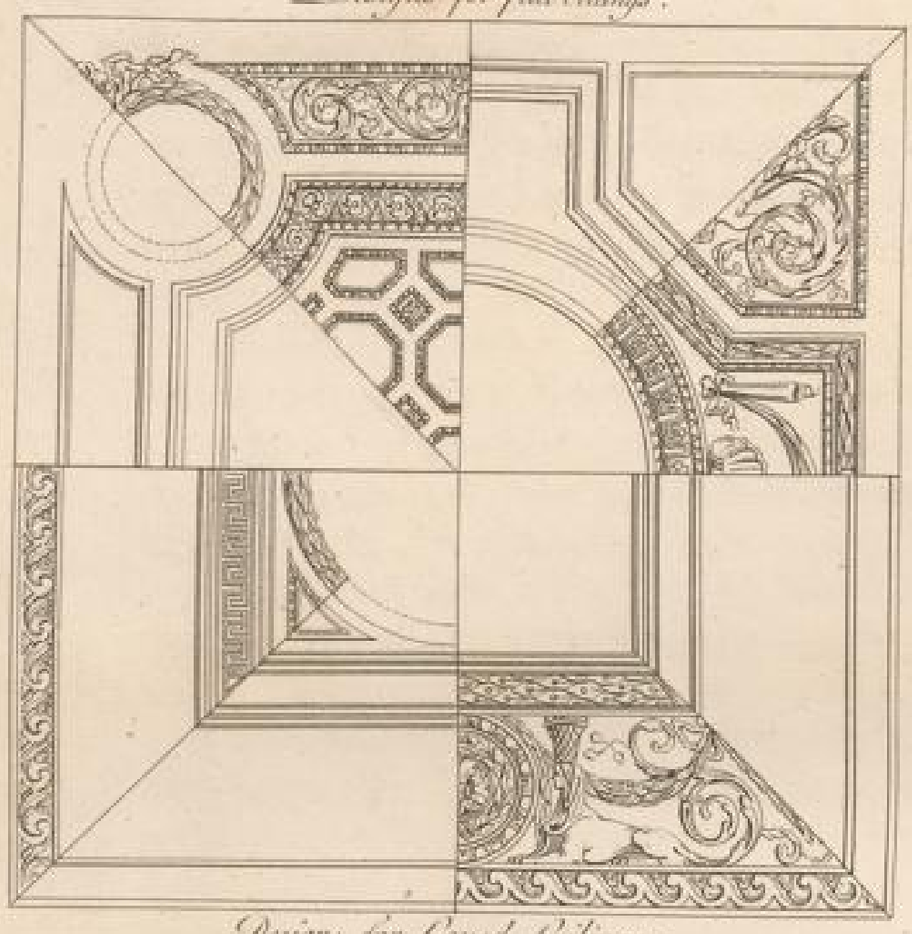
It is not, however, always poſſible to obſerve exactly theſe Proportions. In Dwelling-houſes, the height of all the rooms on the ſame floor is generally the ſame, though their extent be different; which renders it extremely difficult, in large buildings, where there are a great number of different ſized rooms, to proportion all of them well. The uſual method, in buildings where beauty and magnificence are preferred to œconomy, is to raiſe the Hall and Salon higher than the other rooms, and make them occupy two Stories; to make the Drawing-Rooms, with Flat Ceilings; to Cove the middle-ſized rooms one third, one quarter, or one fifth of their height, according as it is more or leſs exceſſive; and in the ſmalleſt Appartments, where even the higheſt Coves are not ſufficient to render the height tolerable, it is uſual to contrive Mezzanines above them; or, when there is not room enough for this, to conſtruct falſe Ceilings. The Earl of Leiceſter's houſe at Holkham is a maſter-piece in this reſpect, as well as in many others: the diſtribution of the Plan, in particular, is never enough to be admired; it being inimitably well contrived, both for ſtate and conveniency: and with regard to the whole interiour decoration, it may certainly vie in point either of magnificence or taſte, with any thing now ſubſiſting.

The coldneſs of our Engliſh climate, and the frugality of thoſe who build, are ſtrong objections to high rooms: ſo that we frequently ſee the moſt magnificent Apartments, not above fifteen, ſixteen, or at moſt eighteen foot high; though the extent of the rooms would require a much more conſiderable elevation. But this practice is not to be imitated, where beauty is aimed at. There are many good expedients for warming rooms, however ſpacious or lofty; and to conſider expence, in this particular alone, is an ill judged piece of parſimony; as it renders all other expence employed in the decoration of the room ineffectual.

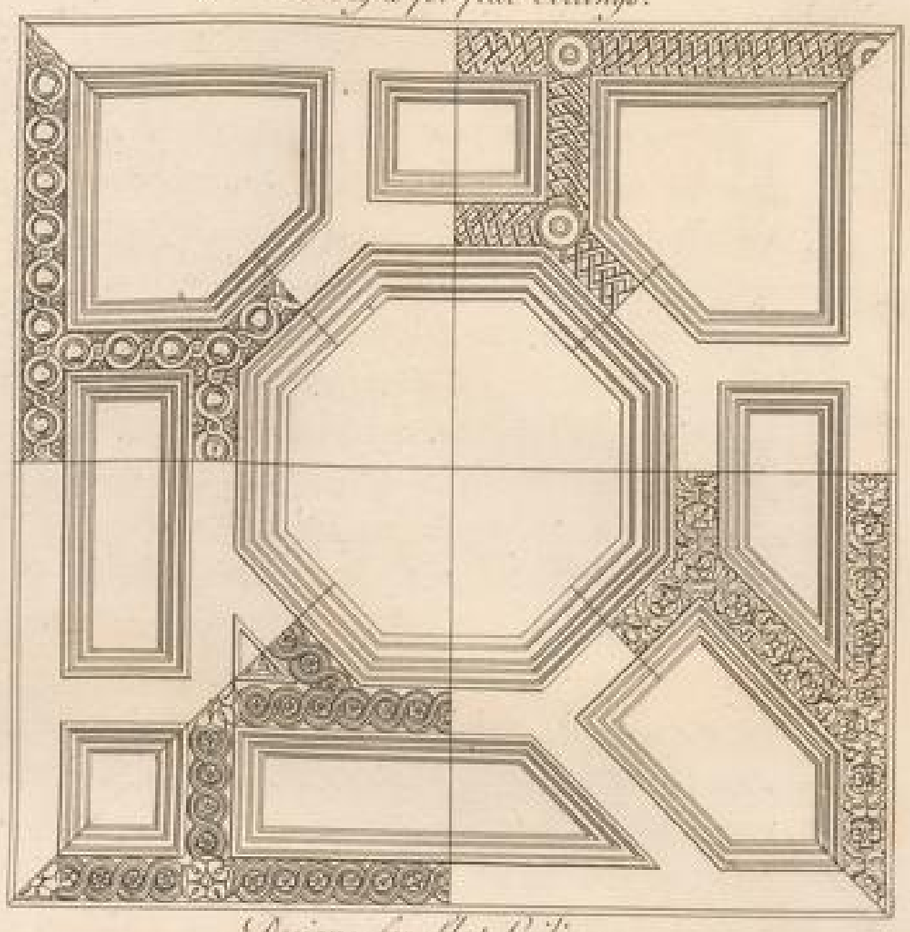
When rooms are adorned with an entire Order, the Entablature ſhould never exceed one ſixth of the whole height, in Flat-ceiled rooms, and one ſixth of the upright part in Coved ones; and, when there are neither Columns nor Pilaſters, but only an Entablature, its height ſhould not be above one ſeventh of theſe heights. If the rooms are finiſhed with a ſimple Cornice, it ſhould never exceed one fourteenth, nor ever be leſs than one fifteenth part of the above mentioned heights: and, when there is a Frize added to the Cornice, with an Aſtragal and Fillet under it, as is ſometimes cuſtomary, the whole height of theſe, together with the Cornice, ſhould not exceed one eighth of the upright height of the room. In general, all the Profiles within the building muſt be more delicate than thoſe on the outſide. The Architraves of the Doors and Windows ſhould never exceed one ſixth of the breadth of the Aperture; on moſt occaſions, one ſeventh will be ſufficient, and all the other parts muſt be diminiſhed proportionably.

Ornaments for Ceilings.

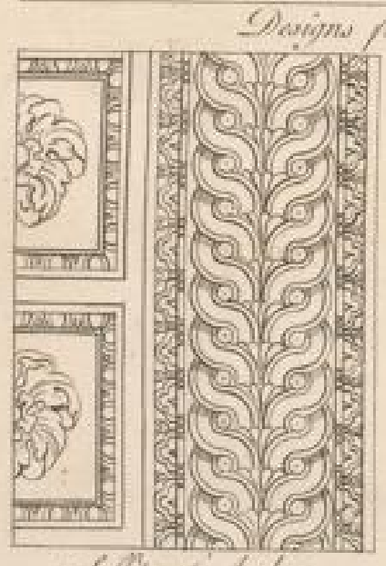
Designs for flat Ceilings.



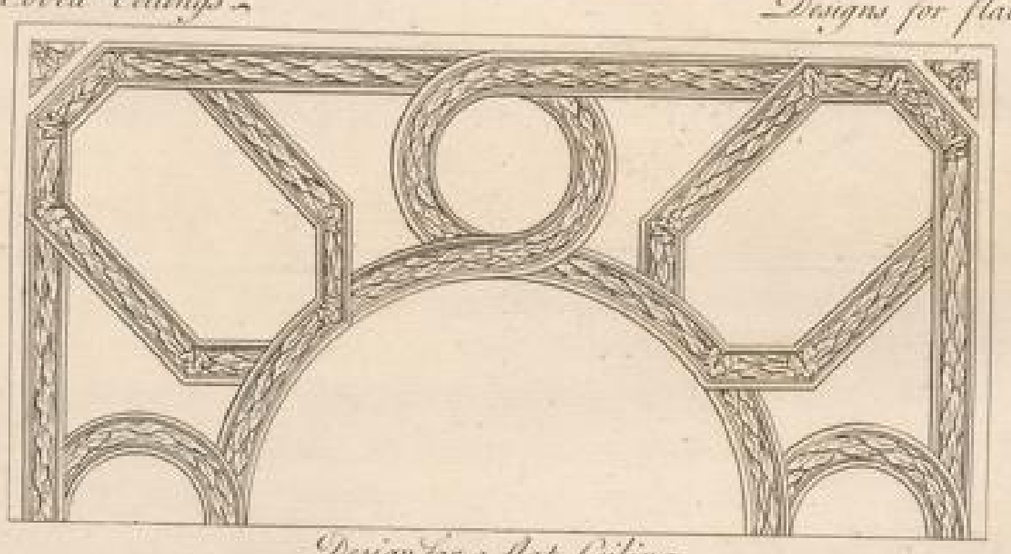
Designs for flat Ceilings.



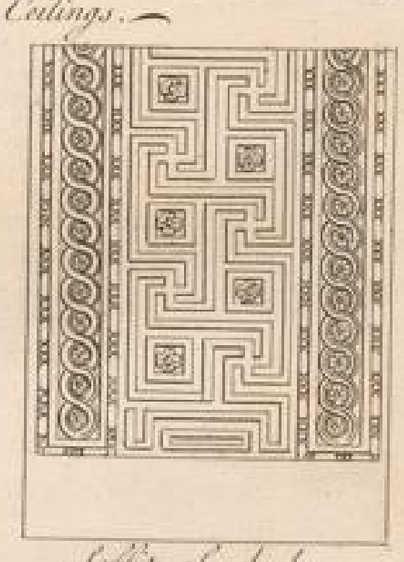
Designs for Coved Ceilings.



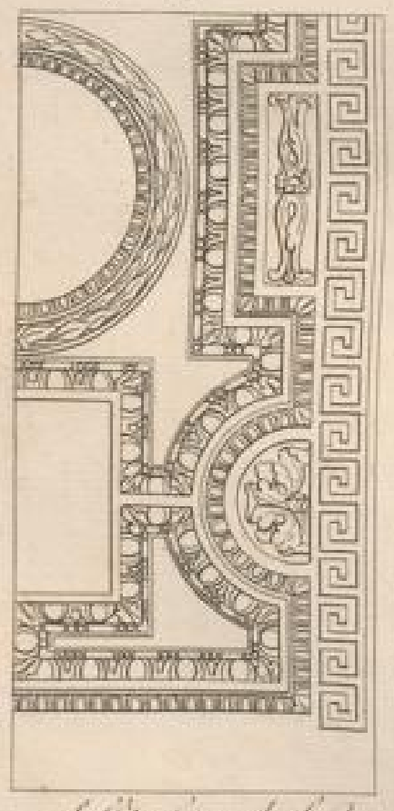
Soffits of Arches.



Design for a flat Ceiling.



Soffits of Arches.



Soffit of an Arch





Various Ornaments for the Compartments of Ceilings.

W. Chambers delin.

C. Grignion sculp.

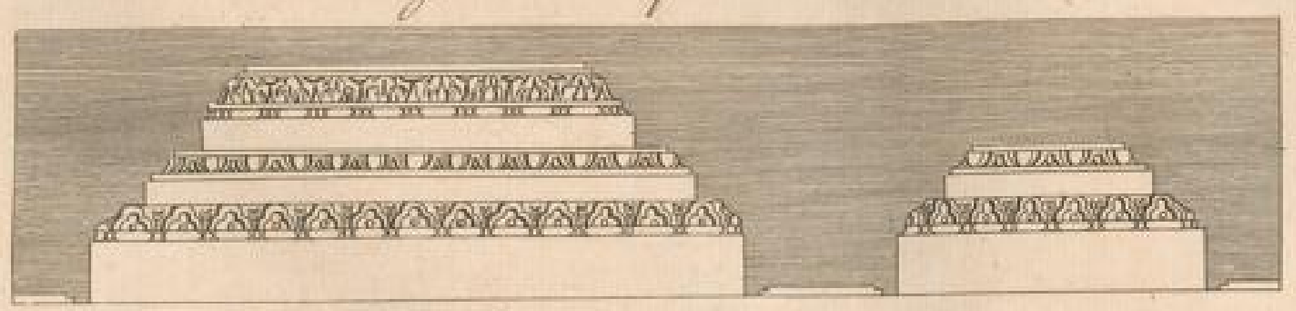
Ornaments for Ceilings.



Enrichments for a Flat Ceiling.



Frets, or Guillochis of Various Sorts.



Profile of the Ceiling above.





Enrichments for Soffits of Arches, or Arcs Doubleaux.

W. Chambers Delin.

C. Grignion Sculp.

Of Ceilings.

CEILINGS are either flat, or coved in different manners. The ſimpleſt of the flat kind are thoſe adorned with large compartments, ſurrounded with one, or ſeveral Mouldings, either let into the Ceiling, or projecting beyond its ſurface, as repreſented in the firſt, ſecond, and tenth figures, in the firſt plate of Ceilings: and when the Mouldings that form the Compartments are enriched, and ſome of the Compartments adorned with well executed Ornaments, ſuch Ceilings have a very good effect, and are very proper for common dwelling-houſes, and all low Apartments. Their Ornaments and Mouldings do not require a bold relief, but being near the eye, they muſt be finiſhed with taſte and neatneſs. For higher rooms, the kind of flat Ceilings repreſented in the third, fourth, ſeventh, and eighth figures, of the ſame plate, and in one of the figures of the ſecond plate, are more proper; as they have a much bolder relief. The uſe of theſe is frequent, both in Italy and England. They ſeem to be compoſed of various Joyſts, framed into each other, and forming Compartments of different geometrical figures. The deſigns which I have given are all for ſquare Ceilings: but oblong ones, or thoſe of any other form, may be comparted in the ſame manner; the figures of the Compartments being varied according to the fancy of the compoſer, and made either Polygonal, Circular, or Ellyptical. The ſides of the Joyſts, forming the Compartments, are generally adorned with Mouldings; and repreſent either a ſimple Architrave, or an Architrave-Cornice, according to the ſize of the Compartments, and the height of the Room: and ſometimes the larger Compartments are deeper than the ſmall ones, with which they are accompanied, and ſurrounded with a fuller Profile: as in the flat Ceiling in the ſecond plate; which is a Deſign of Baldaſſar Peruzzi, executed in the veſtibule of the Maſſimi Palace at Rome. The Soffits of the Joyſts are ſeldom left plain, but adorned with *Guillochis*, or Frets of various kinds; of which I have given a good number of Deſigns in the firſt and ſecond plates of Ceilings: and, when the utmoſt degree of richneſs in the decoration is aimed at, the bottom of the Compartments is likewiſe adorned, either with Paintings, or with Baſſo-relievos, repreſenting Groteſque figures, &c. of which there are ſome Deſigns in the firſt plate of Ceilings.

COVED Ceilings are more expenſive than flat ones; but they are likewiſe more beautiful: they are promiſcuouſly employed in large and in ſmall rooms, and occupy from one fifth to one third of the height of the Room, according as that height is more or leſs conſiderable. If the room is low, in proportion to its breadth, the Cove muſt likewiſe be low; and when it is high, the Cove muſt likewiſe be ſo: by which means the exceſs of height will be rendered leſs perceptible. But, where the Architect is at liberty to proportion the height of the room to its ſuperficial dimenſions, the moſt eligible proportion for the Cove is one quarter of the whole height. In Parallelogram figured rooms, the middle of the Ceiling is generally formed into a large flat Pannel; as in the fifth and ſixth figures of the firſt plate of Ceilings; which is either left plain, painted, or adorned with Compartments, or other Ornaments, according as the decoration is to be rich or ſimple. This Pannel, with the border that ſurrounds it, may occupy from one half to three fifths of the breadth of the room. The figure of the Cove is, generally, either a quadrant of a Circle or of an Ellypſis, taking its riſe a little above the Cornice, (that ſo the whole Curve may be ſeen from the end of the room,) and finiſhing at the border round the great Pannel in the center. The border projects ſomewhat beyond the Coves on the out ſide; and, on the ſide towards the Pannel, it is, generally, made of a ſufficient depth to ad-

mit the Ornaments of an Architrave, or an Architrave Cornice. The coved part of the Ceiling may either be left plain, as in one of the above mentioned Deſigns, or adorned, as in the other; either, in the manner there repreſented, or in any other of the ſame kind, or with Compartments, of which there is a great variety in the third Plate of Ceilings, very proper both for this purpoſe, and likewiſe to adorn flat Ceilings.

In England, circular rooms are not much in uſe: but they are nevertheleſs very beautiful. Their height muſt be the ſame as that of ſquare rooms: their Ceilings may be flat; but they are handſomer when coved, or of a concave form, whether of a ſemi-circular or ſemi-ellyptical Profile. In the fourth Plate of Ceilings I have given five different Deſigns for them, compoſed by M. Angelo, Bartolomeo Amanato, and Algardi, and executed in the Capitol, the Mattei Palace, and the Villa Pamphilia at Rome: Compartments are likewiſe very proper for theſe.

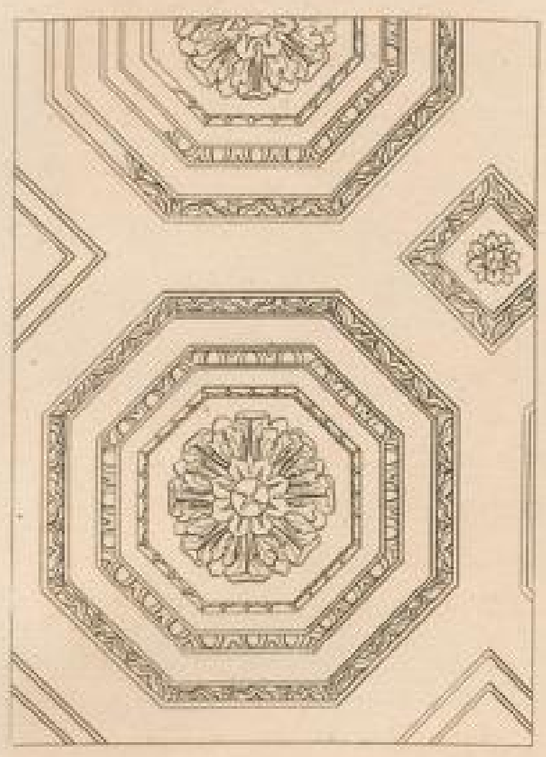
Arcs Doubleaux, or Soffits of Arches, as Mr. Gibbs calls them, are frequently enriched. When narrow, their Ornaments conſiſt of *Guillochis*, or Frets: but when broad, they are adorned in a different manner. I have given ſeveral Deſigns of them, compoſed by Raphael, Amanato, and M. Angelo, and executed at St. Peter's, the Palazzo Mattei, and the Villa Madama.

When the Profiles of the room are gilt, the Ceilings muſt likewiſe be ſo. The uſual method is to gild all the Ornaments, and to leave the grounds white, pearl colour, light blew, or of any other tint proper to ſet off the gilding to advantage. It requires a good deal of judgement to diſtribute the gilding properly: care muſt be taken not to leave ſome places bare, while others are ſo much covered that they appear like lumps of gold; and, in general, it is to be obſerved, that, wherever the gilding tends, in the leaſt, to confuſe the Deſign, or render the outline of any part indiſtinct, it is ill employed.

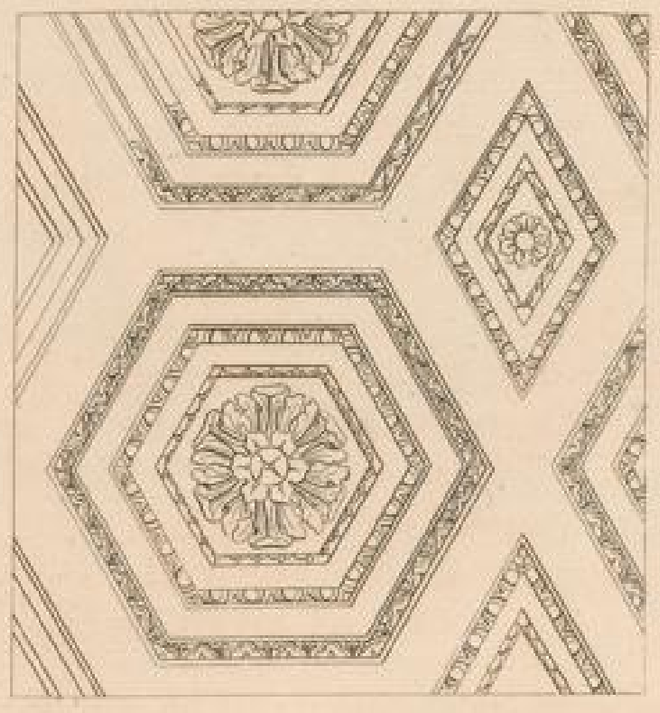
Painted Ceilings, which compoſe one of the great embelliſhmeuts of Italian and French ſtructures, are not at all in uſe among us. Should they come into faſhion, we might hope to ſee the noble branch of Hiſtory-painting flouriſh in England: and till then it cannot reaſonably be expected; as Religion hath baniſhed pictures from our Churches, and the Prejudices of our Connoiſſeurs hath excluded all modern performances in painting from our houſes.

I have now gone through the different branches of the Ornamental part of Architecture, which is all I purpoſe, at this time, to treat of; reſerving for a future work thoſe parts which relate to Conveniency, OEconomy and Strength. Not knowing how far I might be equal to the taſk, I did not chuſe to load the public with too bulky a performance, poſſibly of little merit, nor to riſque my own fortune in an enterpriſe, perhaps equally unprofitable to myſelf and others. The work now offered will ſerve as a ſpecimen of what I intend; and if it meets with an indulgent reception, I ſhall immediately proceed to compleat the whole. In the mean time, what is now publiſhed may be conſidered as a diſtinct performance, in all reſpects unconnected with any thing that is to follow: which method I choſe, both for my own ſecurity, and from a regard to the intereſt of my encouragers; many of whom have no occaſion for any other part of Architecture, than what is contained in the preſent work; the other branches, however important they may be to builders, being of little ſervice to the generality of men of fortune, who are deſirous of being enabled to judge of the Beauties of a building, without entering into the detail of it's Conſtruction.

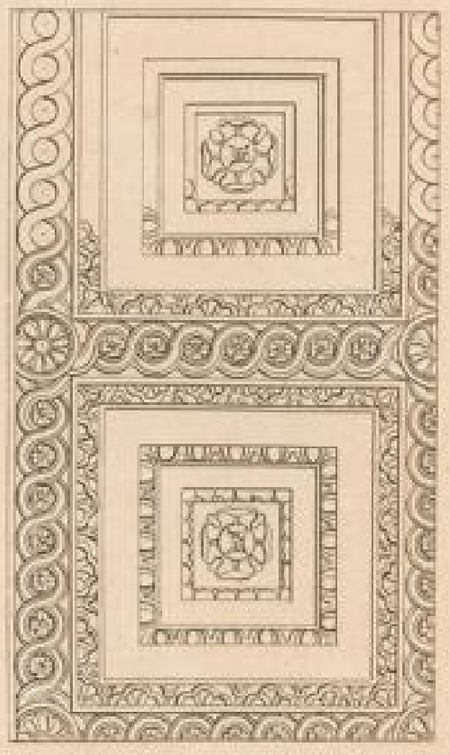
Compartments for Coved Ceilings.



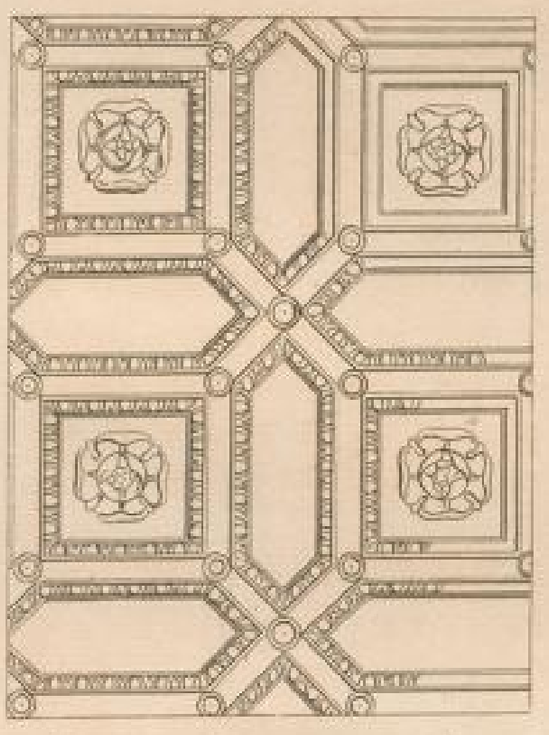
Octagons and Squares.



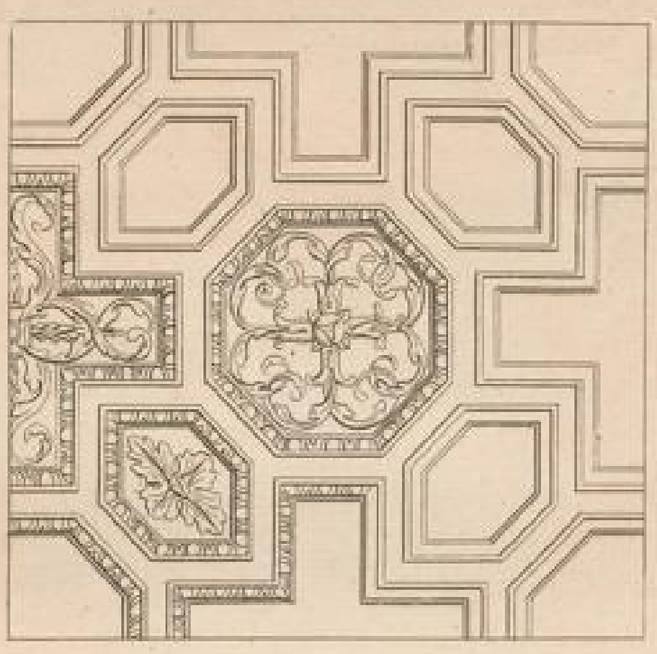
Hexagons and Lozenges.



Squares with Enriched Bordes.



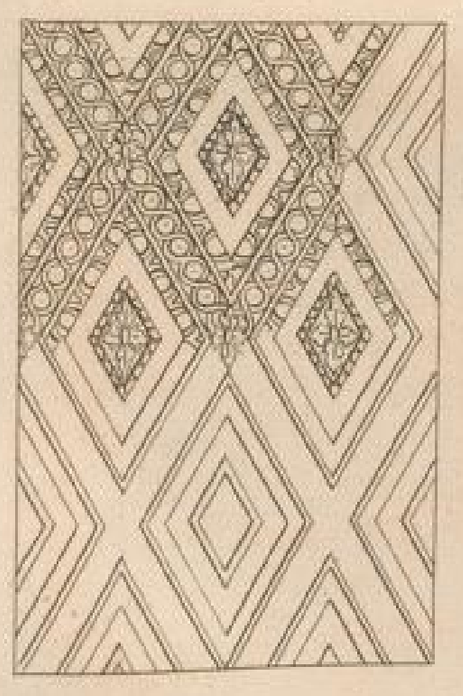
Squares Octagons & Hexagons.



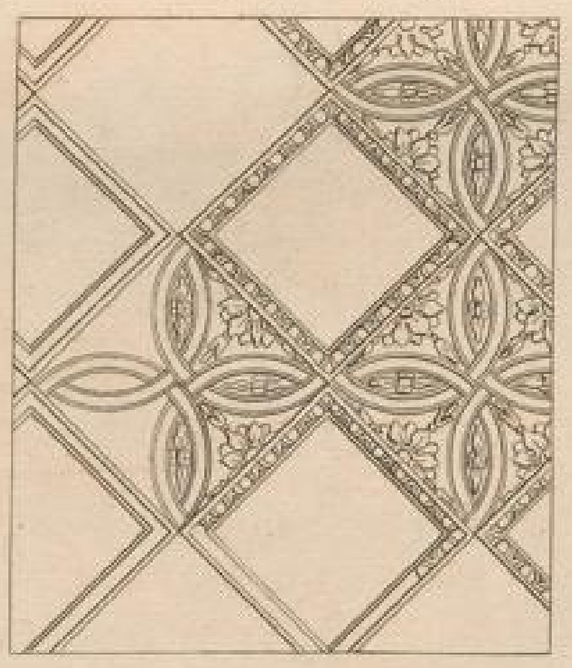
Octagons Hexagons and Crosses.



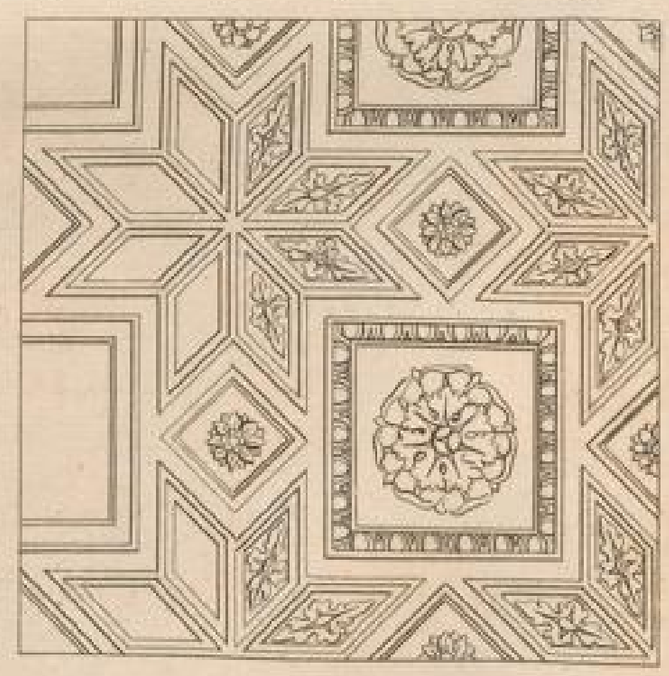
Hexagons & Triangles.



Lozenges with Enriched Bordes.



Squares & Enwreathed Circles.

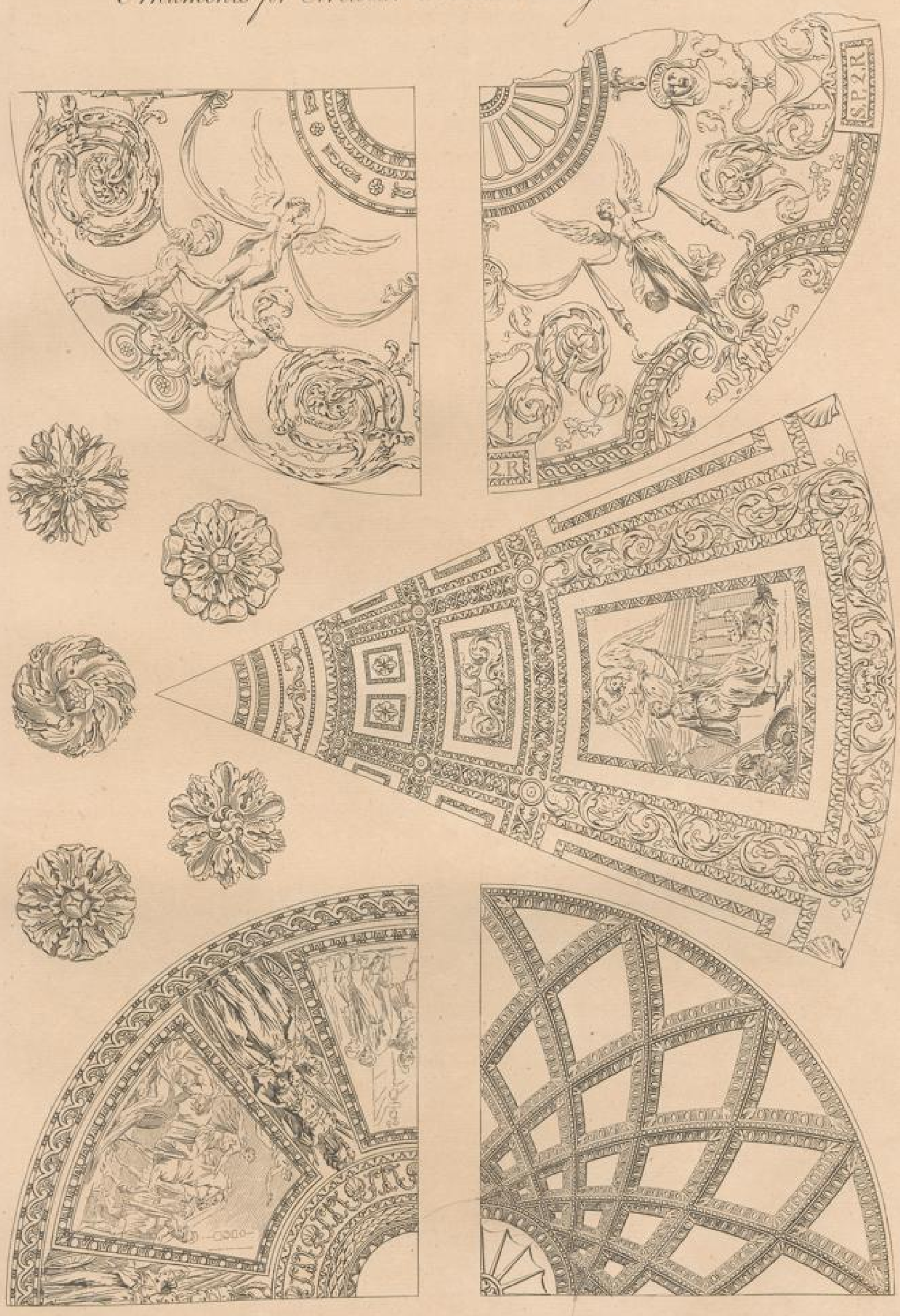


Squares & Stars with Flowers &c.

M. Chambers delin.

P. Mazel sculp.

Ornaments for Circular Coved Ceilings &c.



W. Chambers Delin.

C. Grignion Sculp.

THE conciſe manner in which I have treated my ſubject will, it is hoped, be ſome inducement to perſons of diſtinction to peruſe my performance: and, if the precepts are as clear and ſatisfactory as I intended, the book will be of ſome uſe, and open a new field of pleaſure, to travellers in particular; many of whom from an utter ignorance in Architecture, as well as in other Arts, have heretofore loſt half the fruits of their journeys, returned unacquainted with the moſt valuable productions of the countries they had viſited, and perfectly diſſatisfyed with an expedition, from which they had reaped very little either inſtruction or amuſement.

Deſigns for Caſines, Temples, Gates, &c.

IN the firſt Plate is the Elevation of a magnificent Caſine, now erecting from my Deſigns, at Marino, a Seat of the Lord Viſcount Charlemont's, near Dublin in Ireland.

IN the ſecond Plate are the Plans of the Cellar and principal Stories of the ſame Building. There is an Attick Story above the principal, conſiſting of two Bed-rooms: and over the Study there is a Mezzanin.

IN the third Plate are the Plans and Elevation of a Caſine compoſed by me, and now building under my direction, at Wilton, the Seat of the Earl of Pembroke in Wiltſhire.

IN the fourth Plate is an Elevation of the principal Front of a Caſine, deſigned by me for Lord Bruce, to be erected at Tanfield-Hall, his Lordſhips Seat in Yorkſhire.

IN the fifth Plate is a Plan of the principal Floor of the ſame Building; and another of a kind of Monopteros Temple, with a couple of rooms adjoining to it, deſigned by me for Henry Willoughby of Birdſhall Eſq.

IN the ſixth Plate is an Elevation of the principal Front of the ſame Temple.

IN the ſeventh Plate are the Plan and Elevation of a Doric Octagon Temple, deſigned by me, ſome years ago, for the Earl of Tilney, and propoſed to be erected at Wanſted.

THE eighth Plate exhibits the ſame diſpoſition, decorated in a different manner.

IN the ninth Plate are Deſigns of a Corinthian Proſtyle Temple.

IN the tenth Plate are the Plan and Elevation of a Deſign, made by me for Sr. Thomas Kennedy, to be erected at his Seat in Scotland.

IN the eleventh Plate are the Plan and Elevation of a Mauſoleum, to the Memory of Mr. Pope, deſigned by me.

IN the twelfth Plate are two Doors, deſigned by Palladio.

IN the thirteenth Plate is a Tuſcan Gate, imitated from one ſaid to be deſigned by Palladio, which ſerves as a back entrance to the public Garden at Vicenza.

IN the fourteenth Plate is a Triumphal Arch, compoſed by me, and executed under my inſpection at Wilton.

IN the fifteenth Plate is a Deſign of a Ruſtic Tuſcan Gate, imitated from Inigo Jones's York-Stairs. An Antique Inſcription was by miſtake, put into the Table, which could not be eraſed without ſpoiling the Plate.

IN the ſixteenth Plate is a Deſign of mine, made by order of his Grace the Duke of Richmond, for an Entrance to Privy-Garden.

Directions to the BINDER.

The PLATES Repreſenting

PRIMITIVE Buildings muſt front page 1. Regular Mouldings, &c. p. 3. Orders of the Antients, p. 8. Tuſcan Order, p. 15. Doric Order, p. 17. Doric Entablatures, p. 21. Ionic Oder, p. 23. Goldman's Volutes, p. 24. Ionic Entab'atures, p 25. Compoſite Order, p. 26. Compoſite Entablatures, and Capitals, p. 28. Corinthian Order, p. 29. Pilaſter Capitals, p. 31. Perſians and Caryatides, p. 36. Intercolumniations, p. 42. Arches without Pedeſtals, p. 46. Arches with Pedeſtals, p. 48. Various ſorts of Arcades, p. 50. Columns upon Columns, p. 51. Arches upon Arches, p. 54. Pediments, &c. p. 58. Baluſters, p. 61. Gates and Piers, p 63. Doors, p. 65. Four Windows, p. 69 Nine Windows, p. 71. Six Windows. p 72. Deſigns for Chimney Pieces, p. 77. Lord Charlemont's Chimney-Pieces, p 79. Profiles for Doors, &c. p. 80 83 Ornaments for Flat Ceilings, and for the Compartments of Ceilings, 84 Enrichments for a Flat Ceiling, and for Soffits of Arches, &c. After which the Plate of Compartments for Coved Ceilings; and then that of Ornaments for Circular Coved Ceilings.

Order of the Deſigns at the End of the Book.

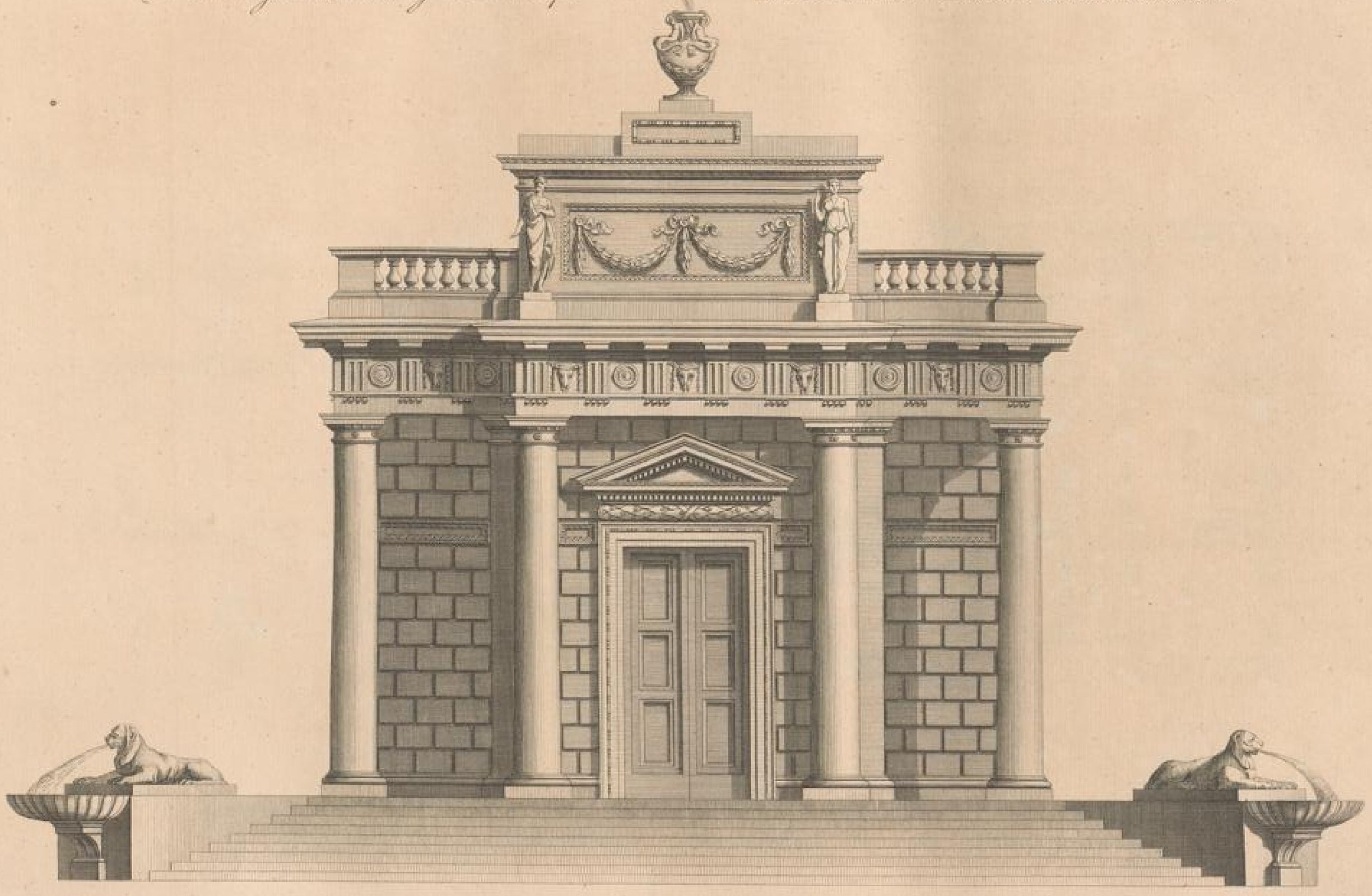
1ſt. Elevation of Lord Charlemont's Caſine. 2d. Plans of the ſame. 3d. Lord Pembroke's Caſine. 4th. Elevation of Lord Bruce's Caſine. 5th. Plan of the ſame, and of Mr. Willoughby's Temple. 6th. Elevation of Mr. Willoughby's Temple. 7th. Lord Tilney's Temple. 8th. Deſign Inſcribed to J Hall Stevenſon, Eſq; 9th. Deſign Inſcribed to T. Worſley, Eſq; 10th. Sir Thomas Kennedy's Deſign. 11th. Deſign Inſcribed to Sir Charles Hotham, Bart. 12th. Deſign Inſcribed to Robert Wood, Eſq; 13th Deſign Inſcribed to the Honourable Mr. Ward. 14th. Lord Pembrokes Triumphal Arch. 15th. Deſign Inſcribed to Thomas Brand, Eſq; 16th Deſign Inſcribed to his Grace the Duke of Richmond.

ERRATA:

PREFACE, page ii. l 6. for Architeure, read Architecture. P. 6. l. 40. for where middles, r. where the middles, p. 15. l. 25. for eights, r. heights. ib. l. 28. for demenſions, r. dimenſion. p. 19. l. 26. for plauſibly, r. plauſible. p. 33. l. 38. for difformity, read deformity. p. 36. l. 10. for divert, r. diveſt. p. 78. l 23. for of the Front of the Back walls: r. of the front, or of the Back walls: ib. l. 33. for bard, r. bare. p. 79. l. 34. for neither the Italians nor the Engliſh, r. neither the Italian nor the Engliſhman, p. 80. l. 40. for Pretro, r. Pietro, p. 84. l. 8. for whether r. either.

To the Lord Viscount Charlemont
is humbly Inscribed by his Lordship's

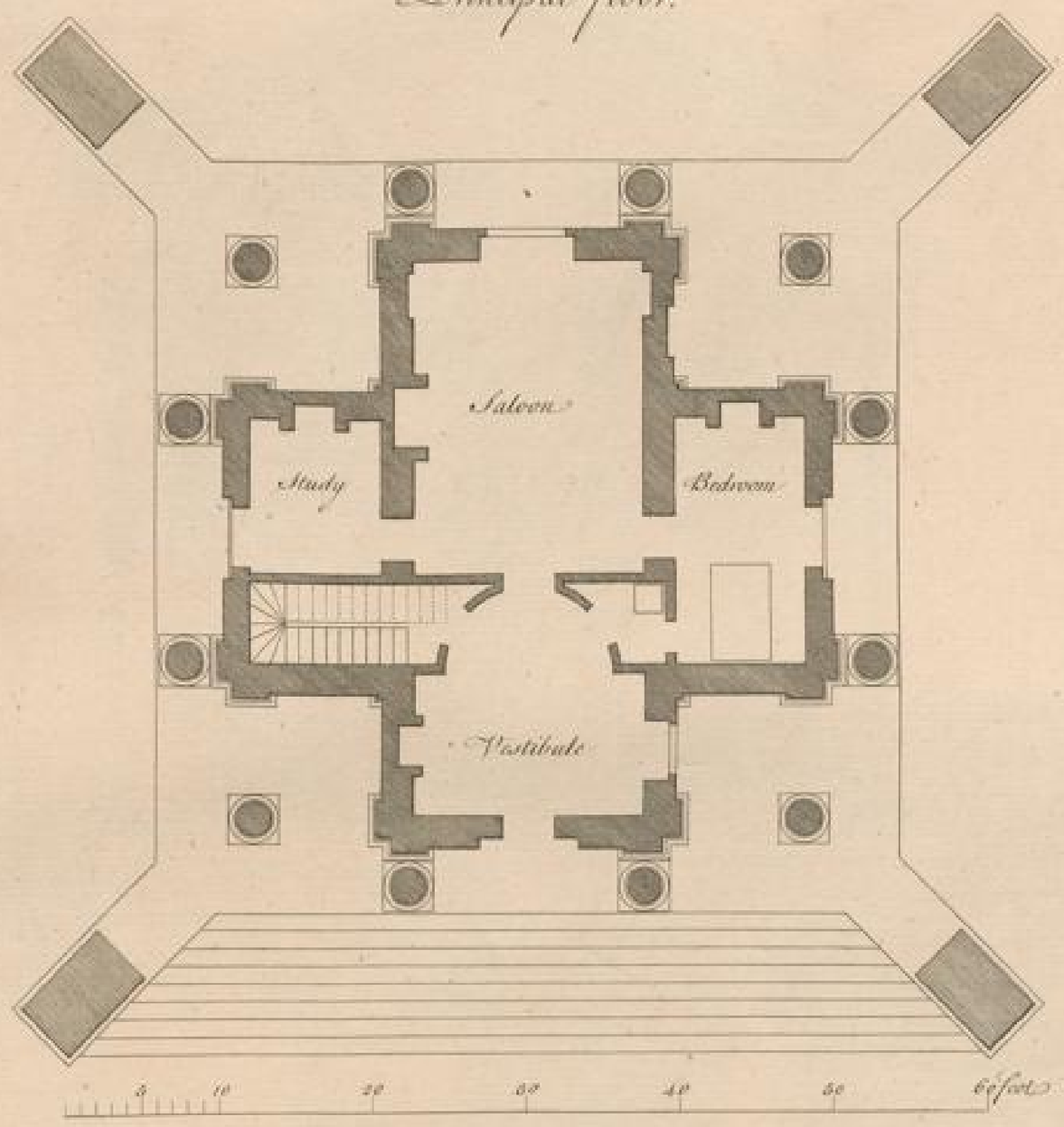
This Design of his Lordship's Casine at Marino
most Obedient Servant. William Chambers.



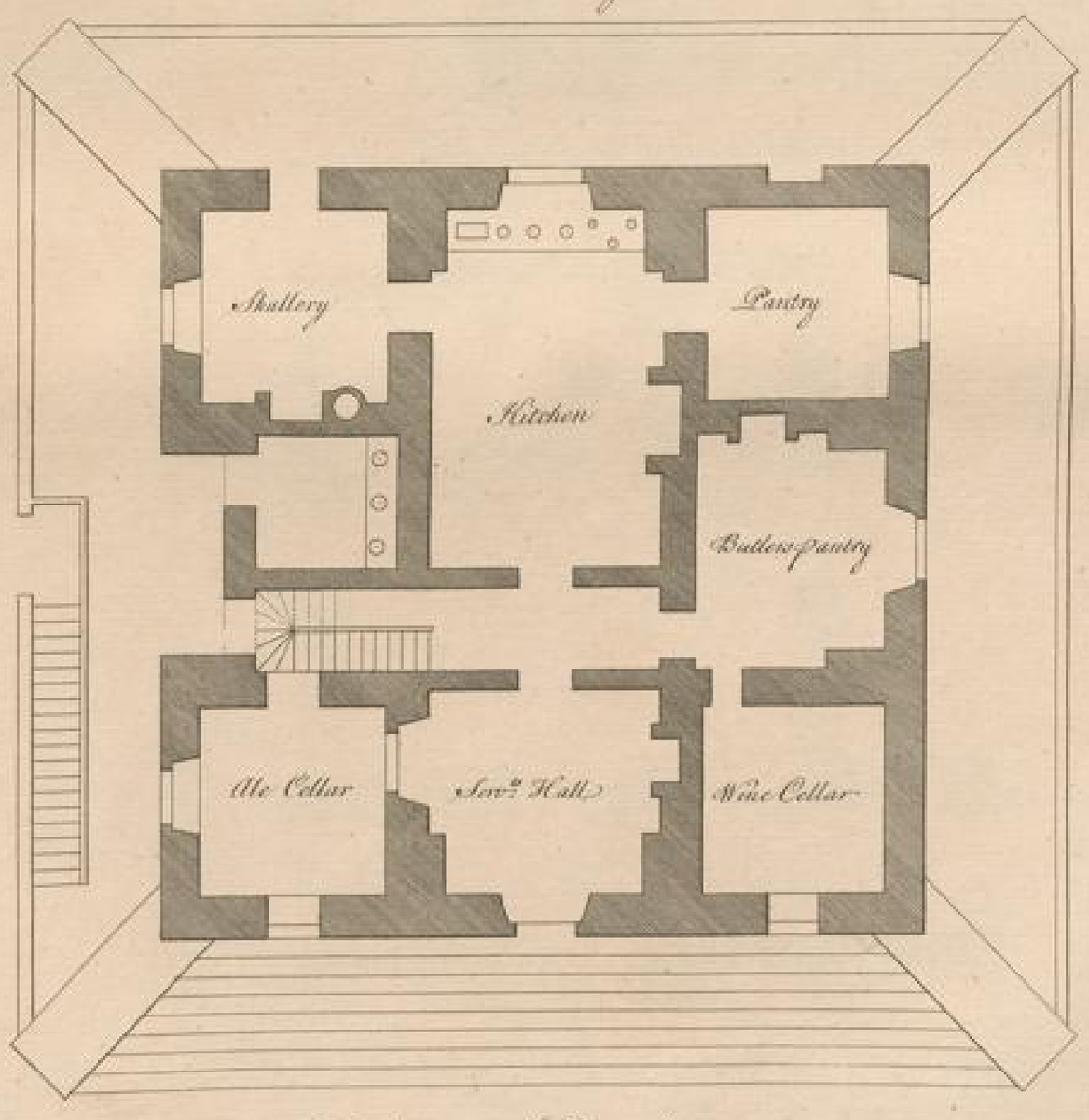
Wm. Chambers Architectus.

P. Pandrini Sculp.

Principal floor.

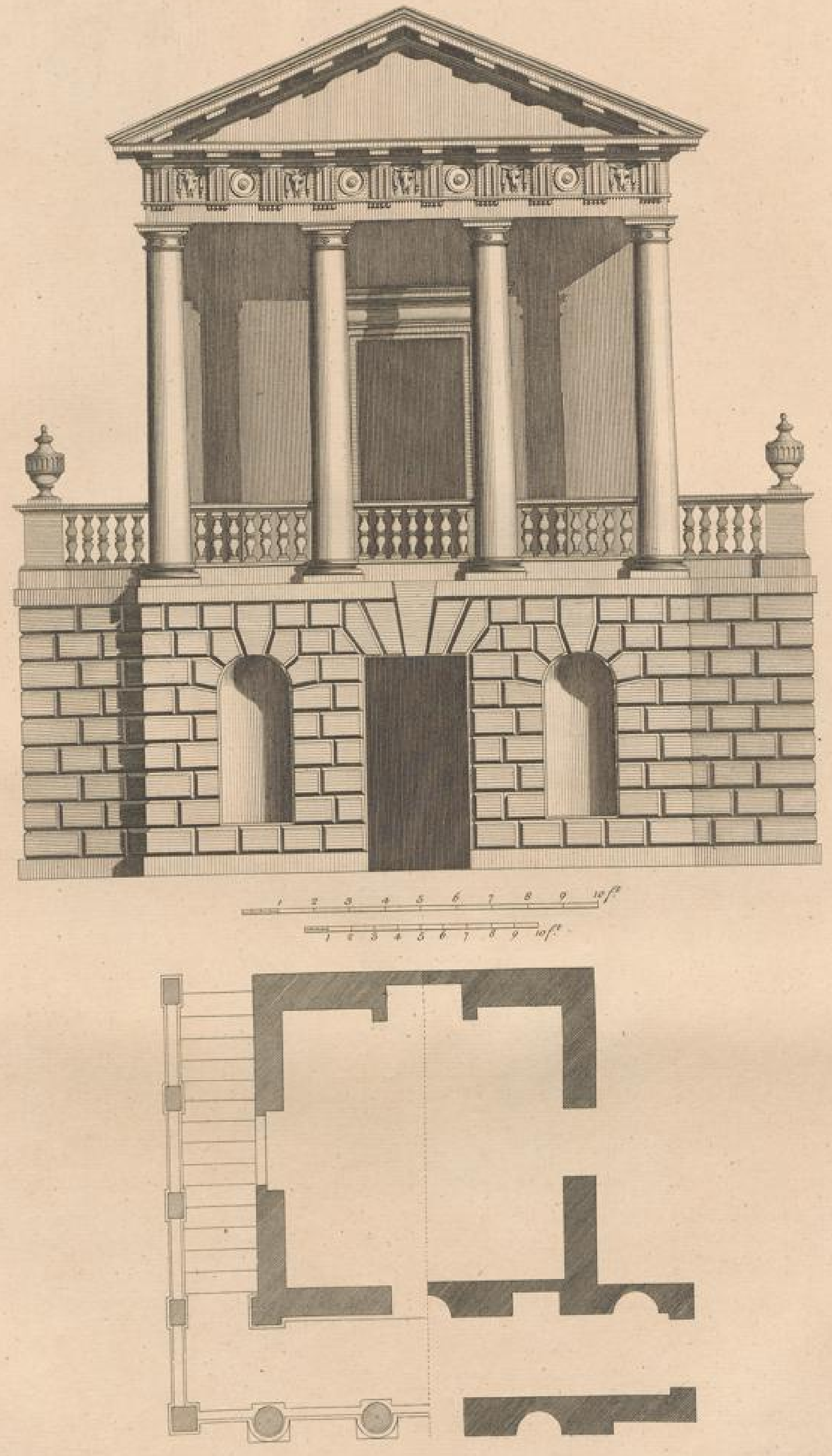


Cellar Story.



Plans of the Lord Viscount Charlemonts Casine at Marino.

W. Chambers Architect. *F. Chesham Sculp.*

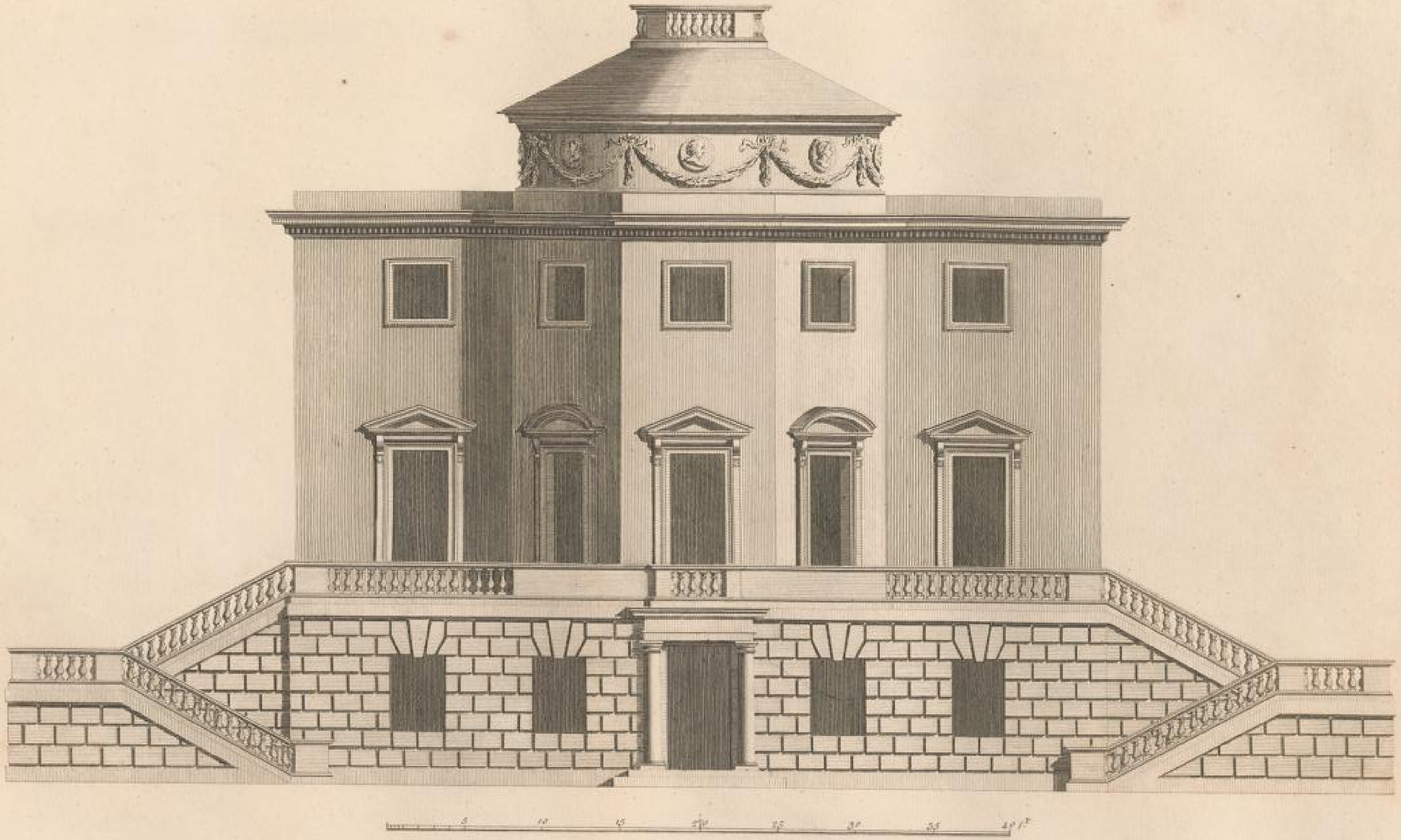


For the Countess of Pembroke, this Design of the Casine at Wilton, is humbly Inscribed,
By her Ladyships most obedient Servant, William Chambers.

W. Patten Sculp.

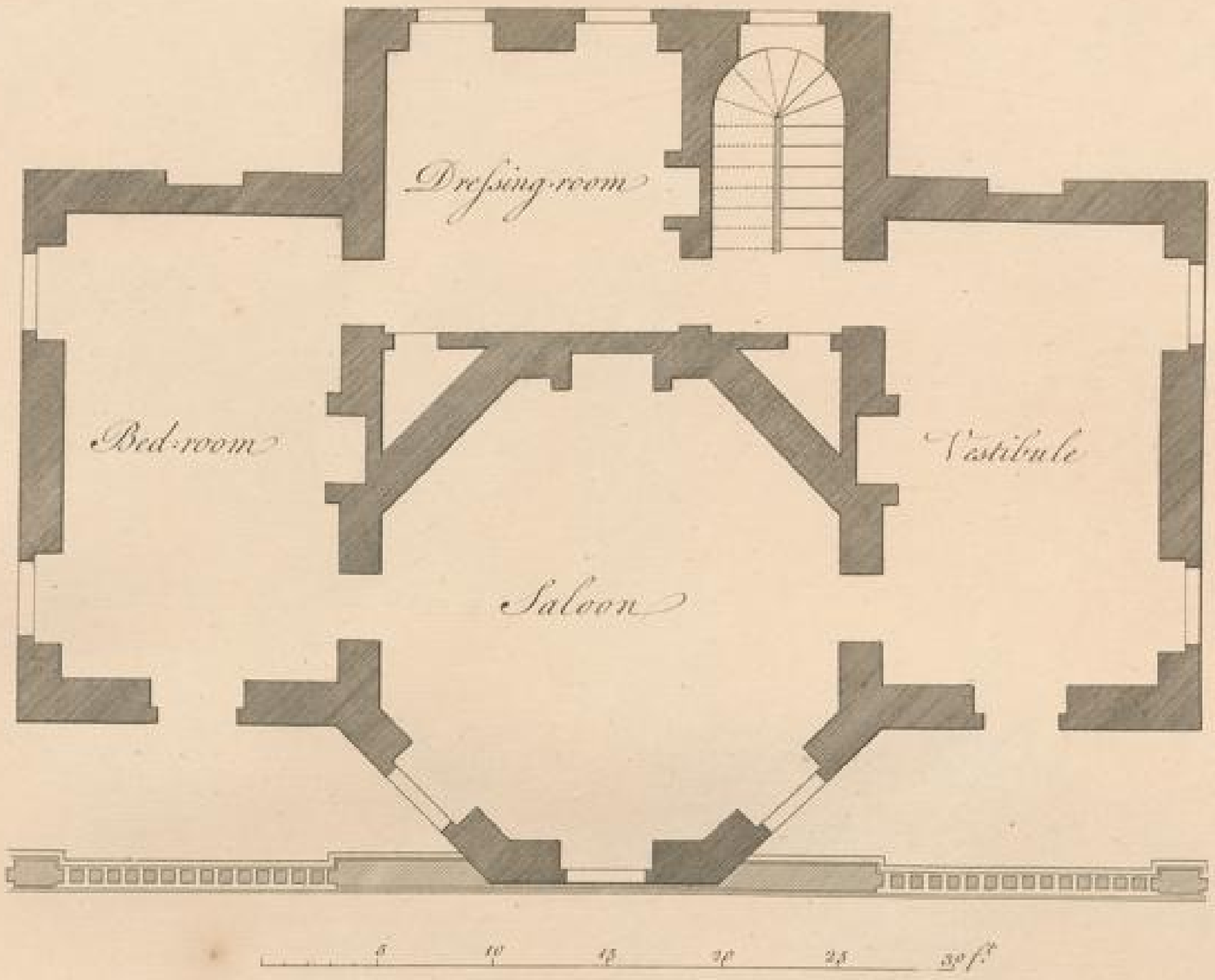
W. Chambers Architecture.

To Lord Bruce, this Design for the Casine at Tanfield Hall in Yorkshire, is humbly Inscribed by his Lordship's most Obedient Servant, William Chambers.



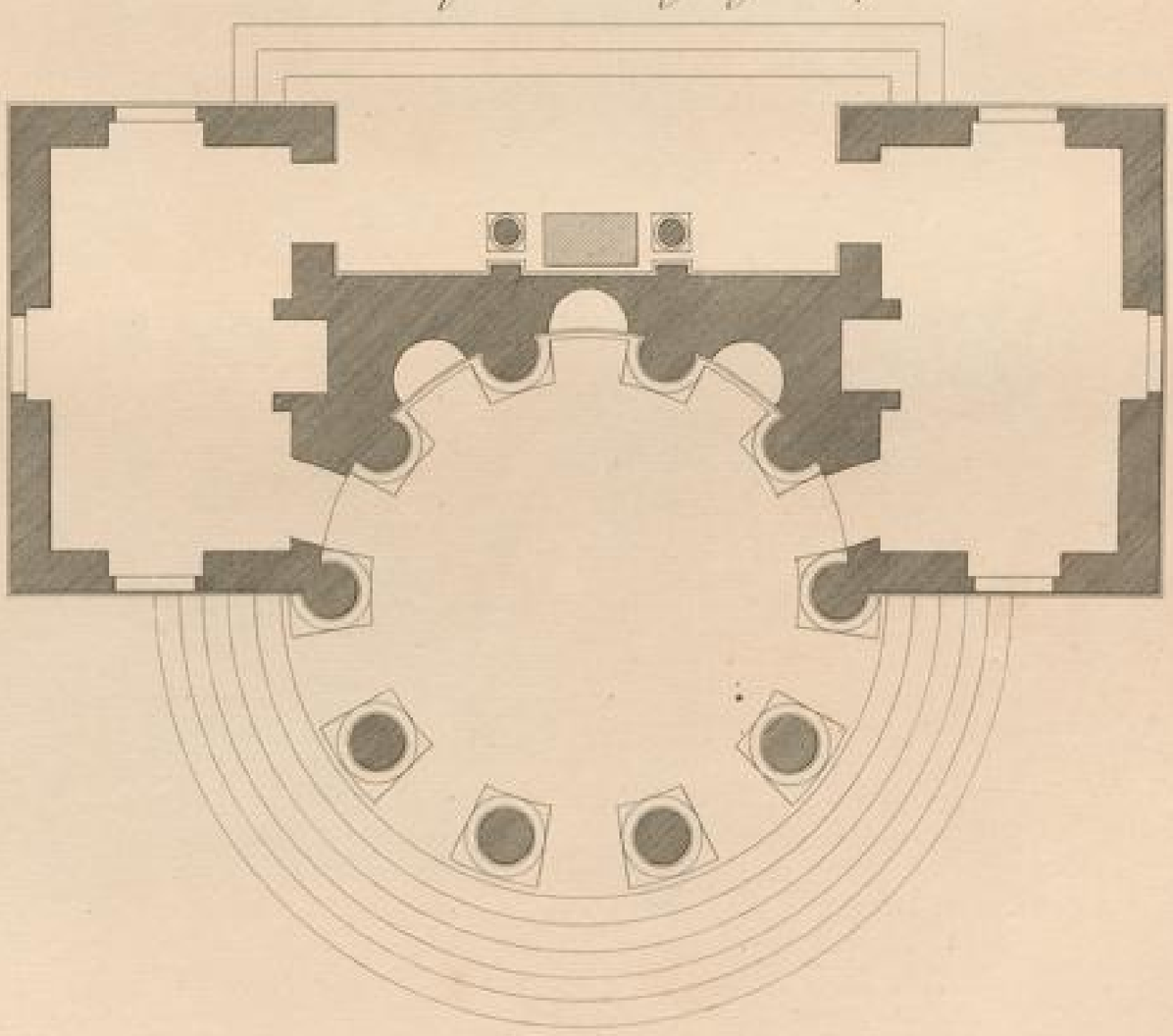
W. Chambers, -

E. Pattin Sculp. -



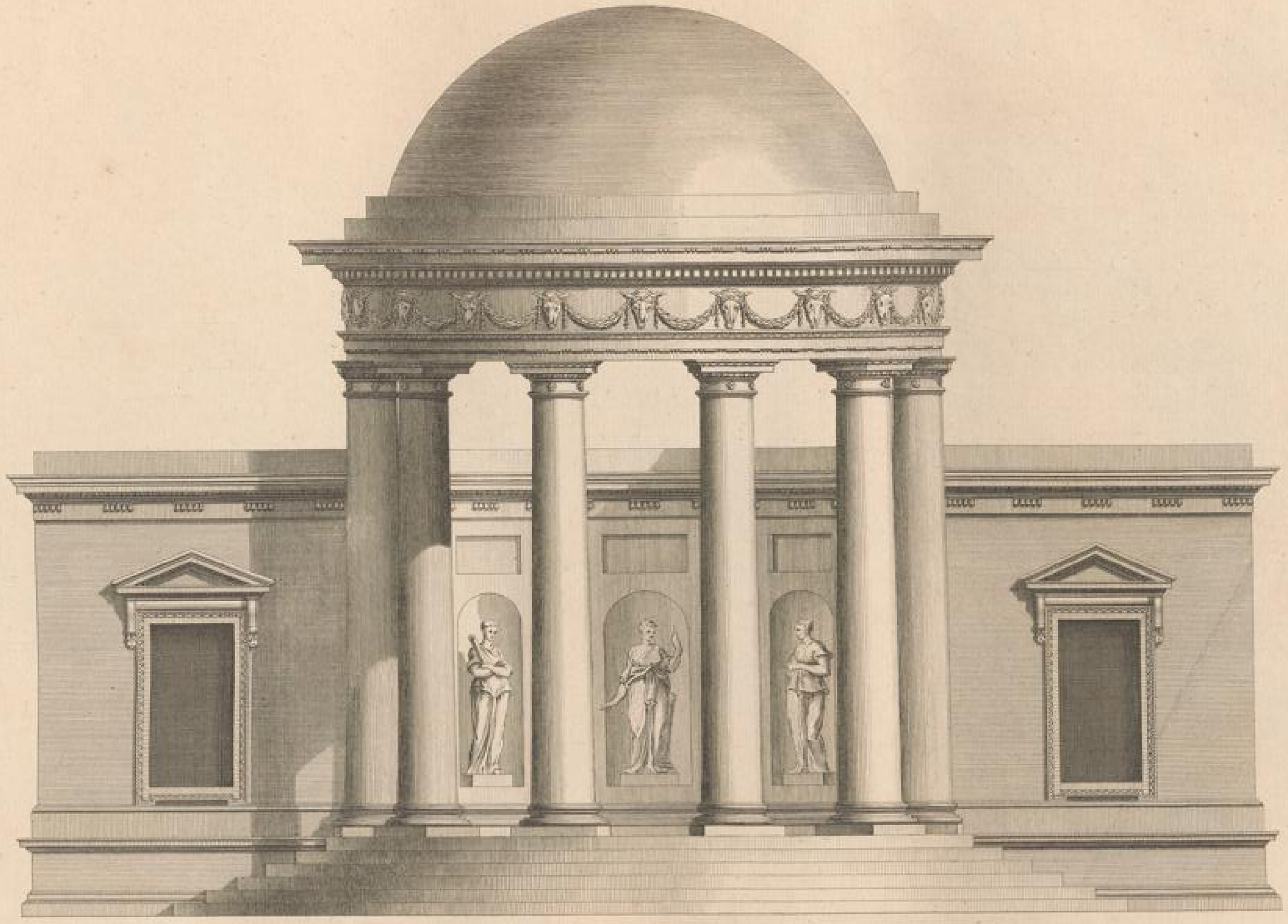
The principal Floor of Lord Bruce's Casine.

Plan of M.r Willoughby's Temple.

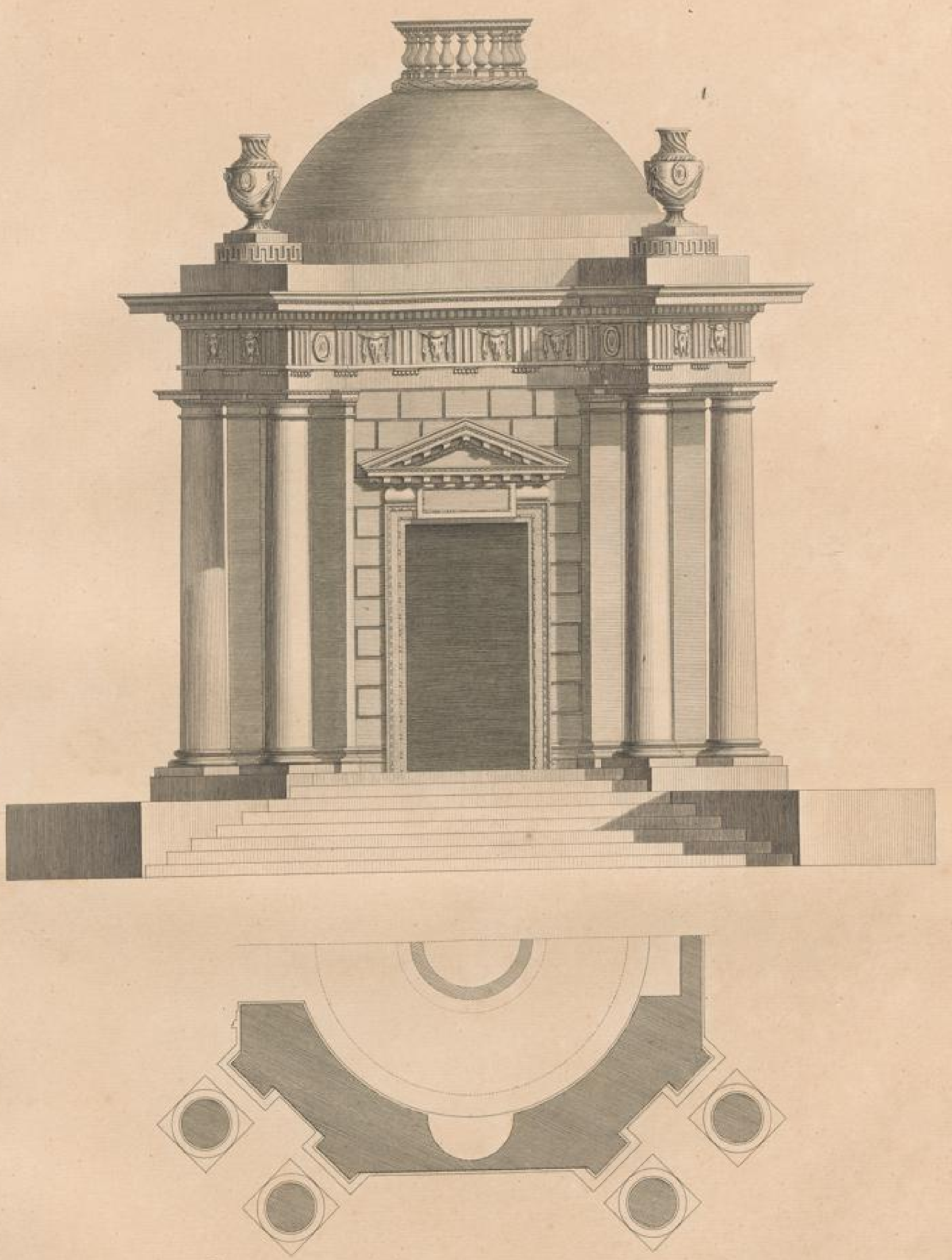


M.r Chambers

D. Patten sculp.



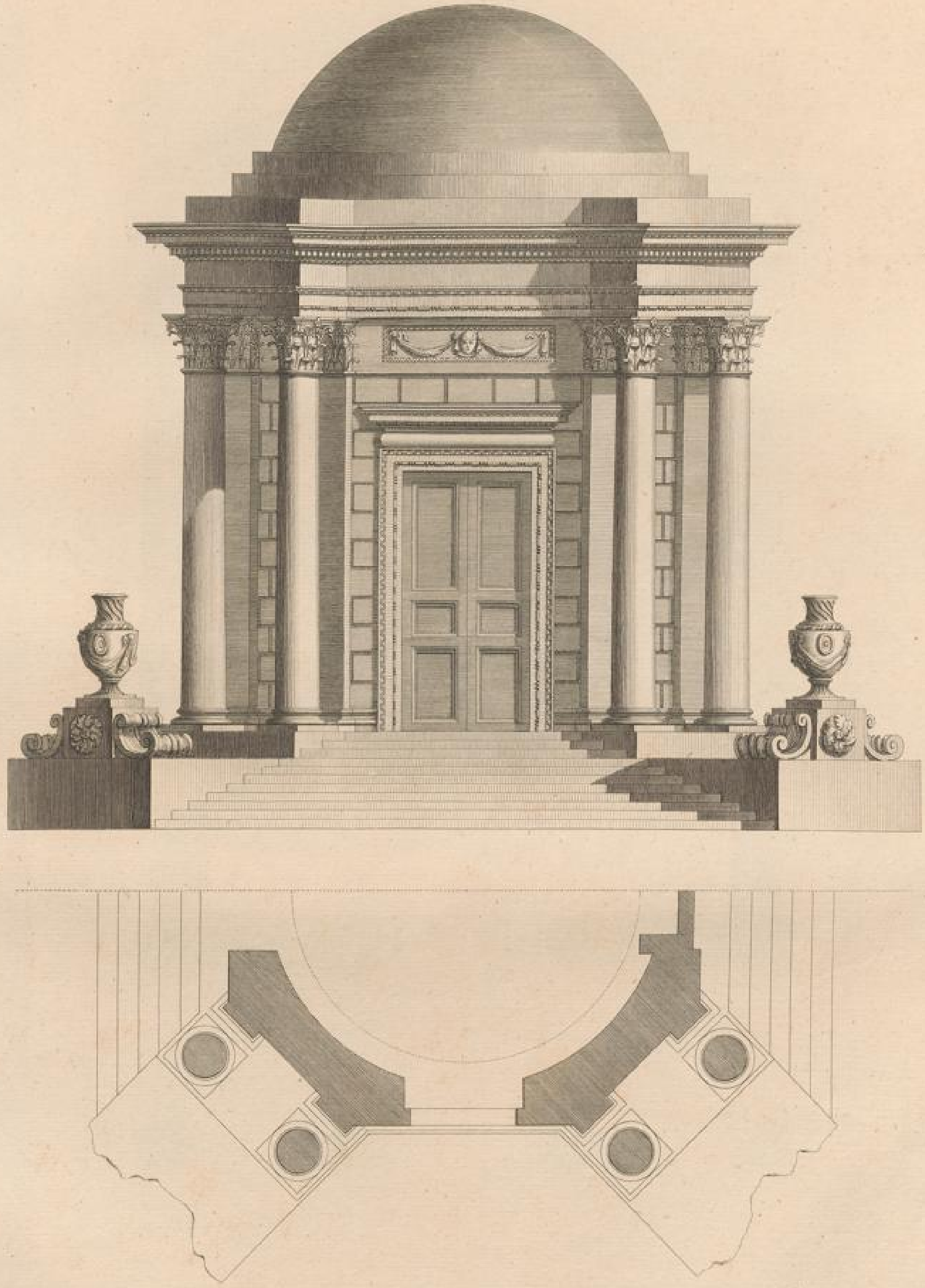
To Henry Willoughby Esq^r. This Design is humbly Inscribed
by his most Obedient Servant. William Chambers.



To the Earl of Tilney, this Design is humbly Inscribed
by his Lordships most Obedient Servant, William Chambers.

W. Chambers

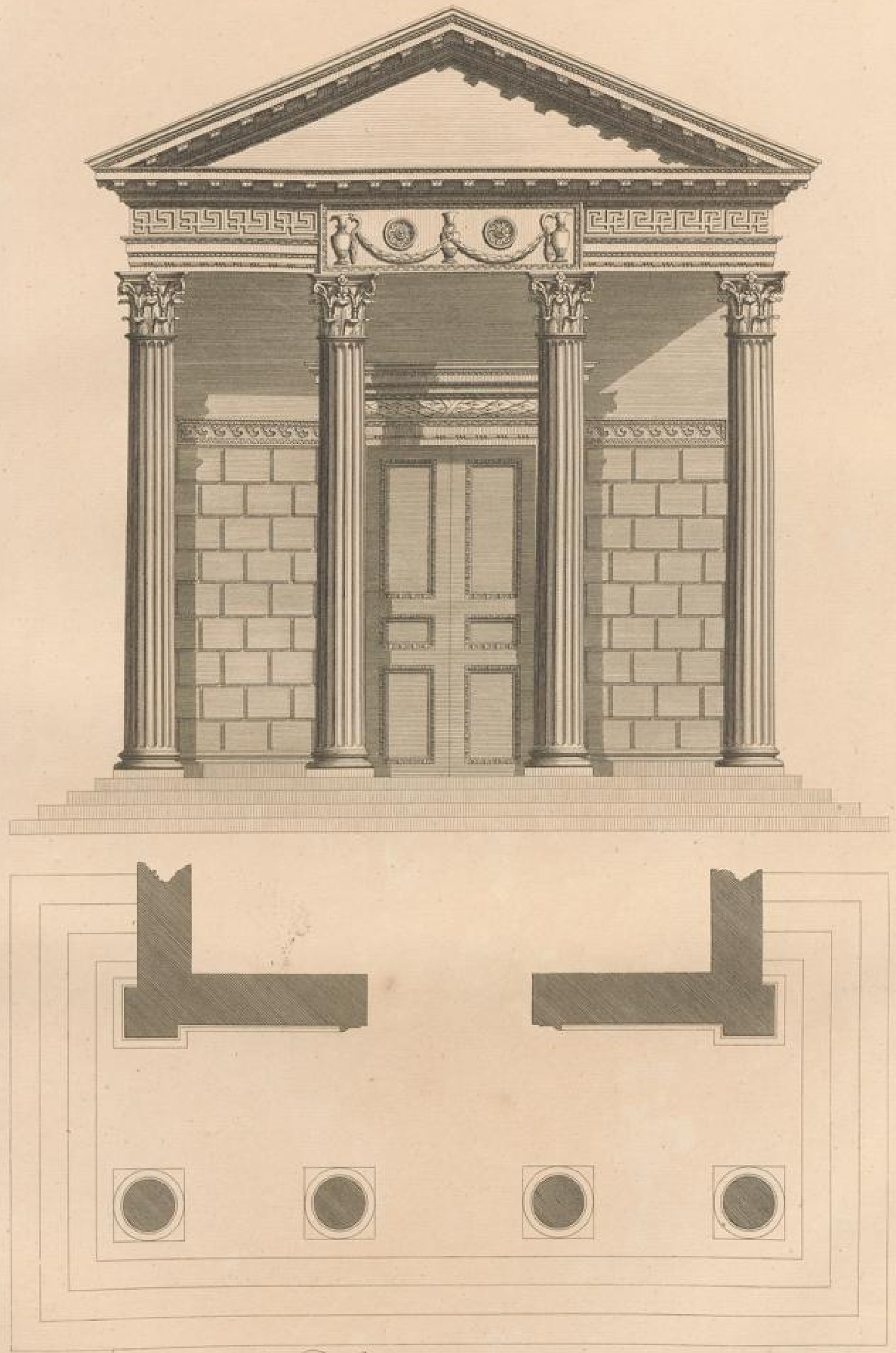
P. Fourdrinier sculp.



To John Hall Stevenson Esq.r this Design is humbly Inscribed
by his most Obedient Servant William Chambers.

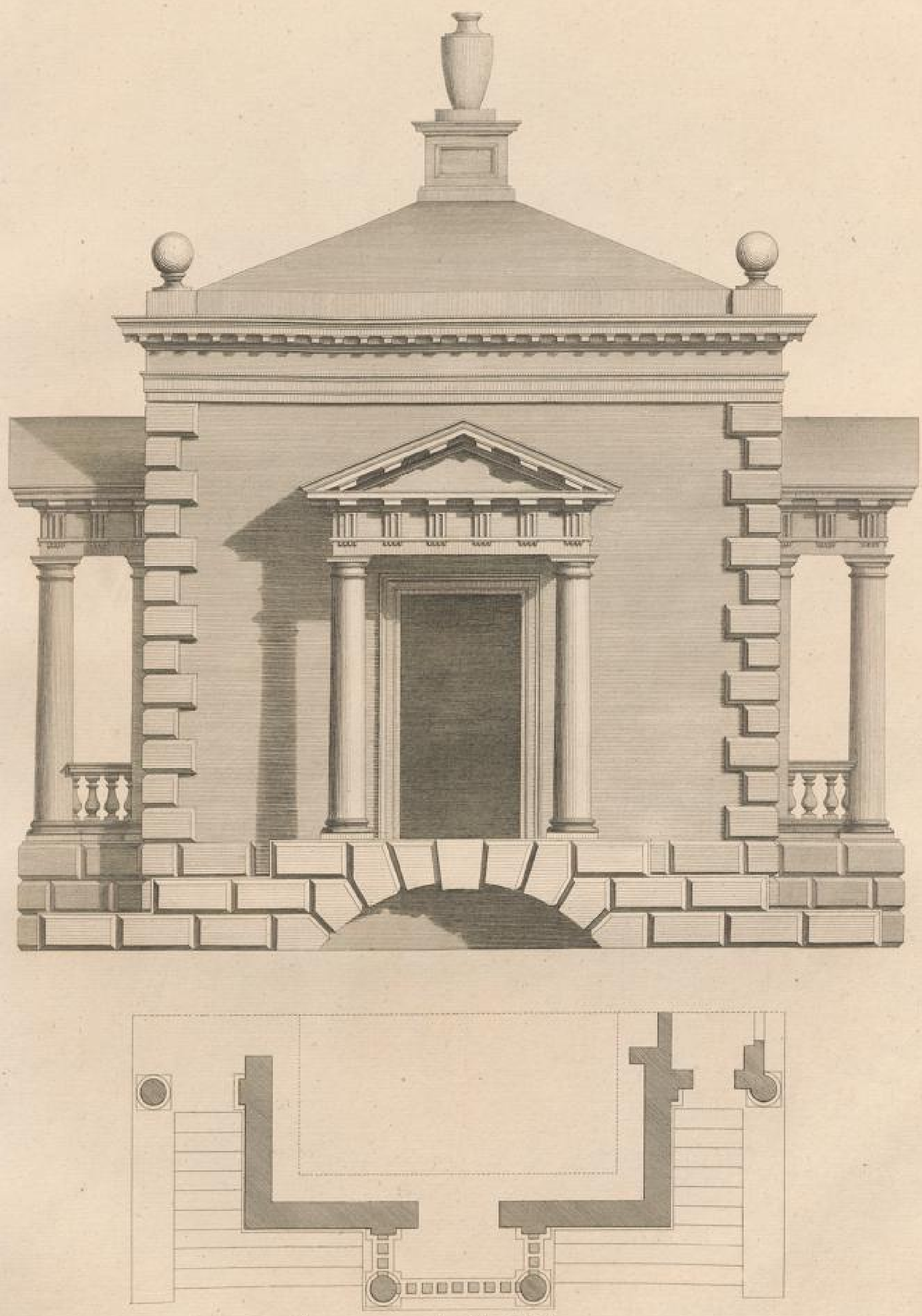
W.m Chambers

P.Fourdrinier Sculp.



To Thomas Worsley of Hovingham Esq^r. this Design is humbly Inscribed
by his most Obedient Servant. William Chambers.

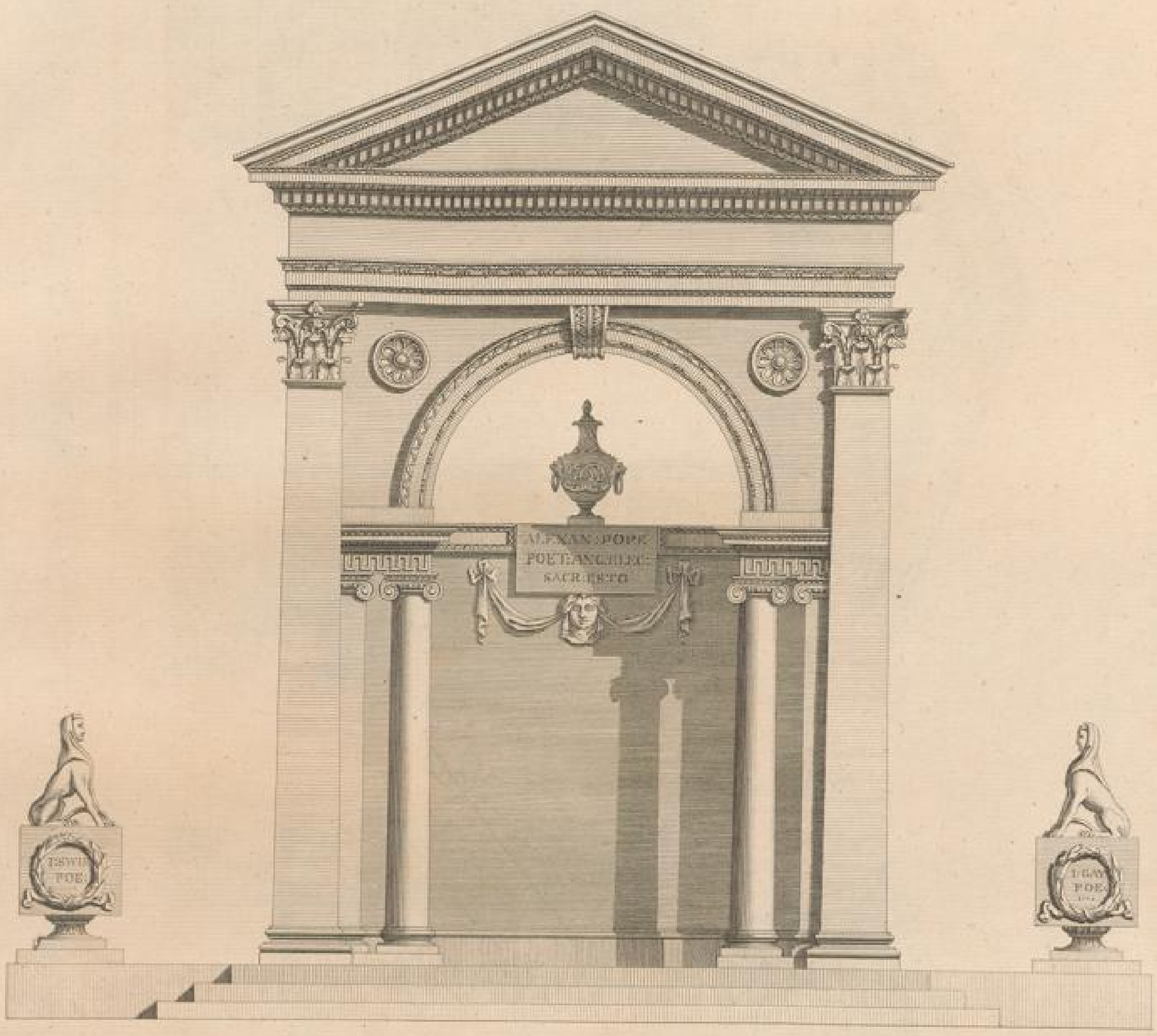
P. Sandoni sculp^t.

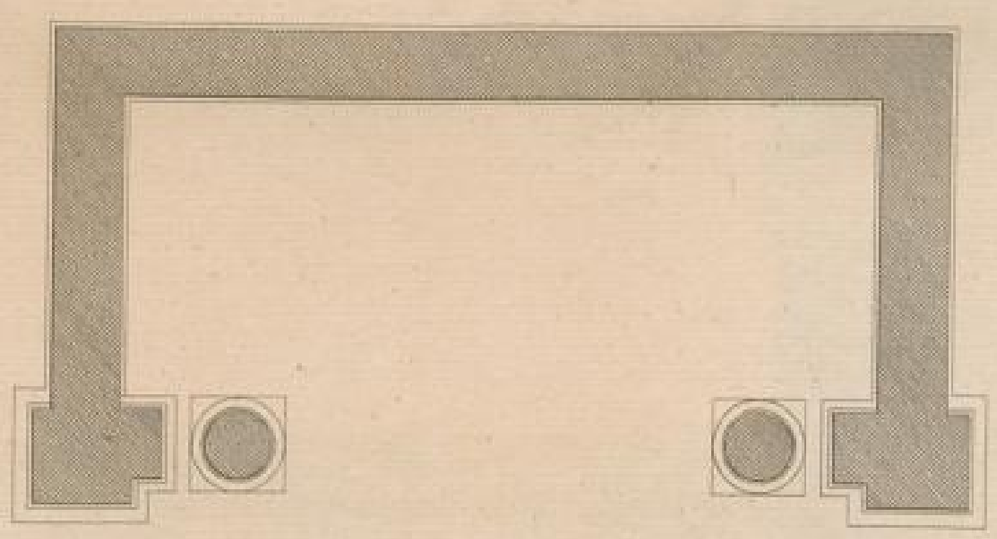


To S.r Thomas Kennedy of Cullean Bar.t this Design is humbly Inscribed
by his most Obedient Servant. William Chambers.

W. Chambers

P. Fourdrinier Sculp

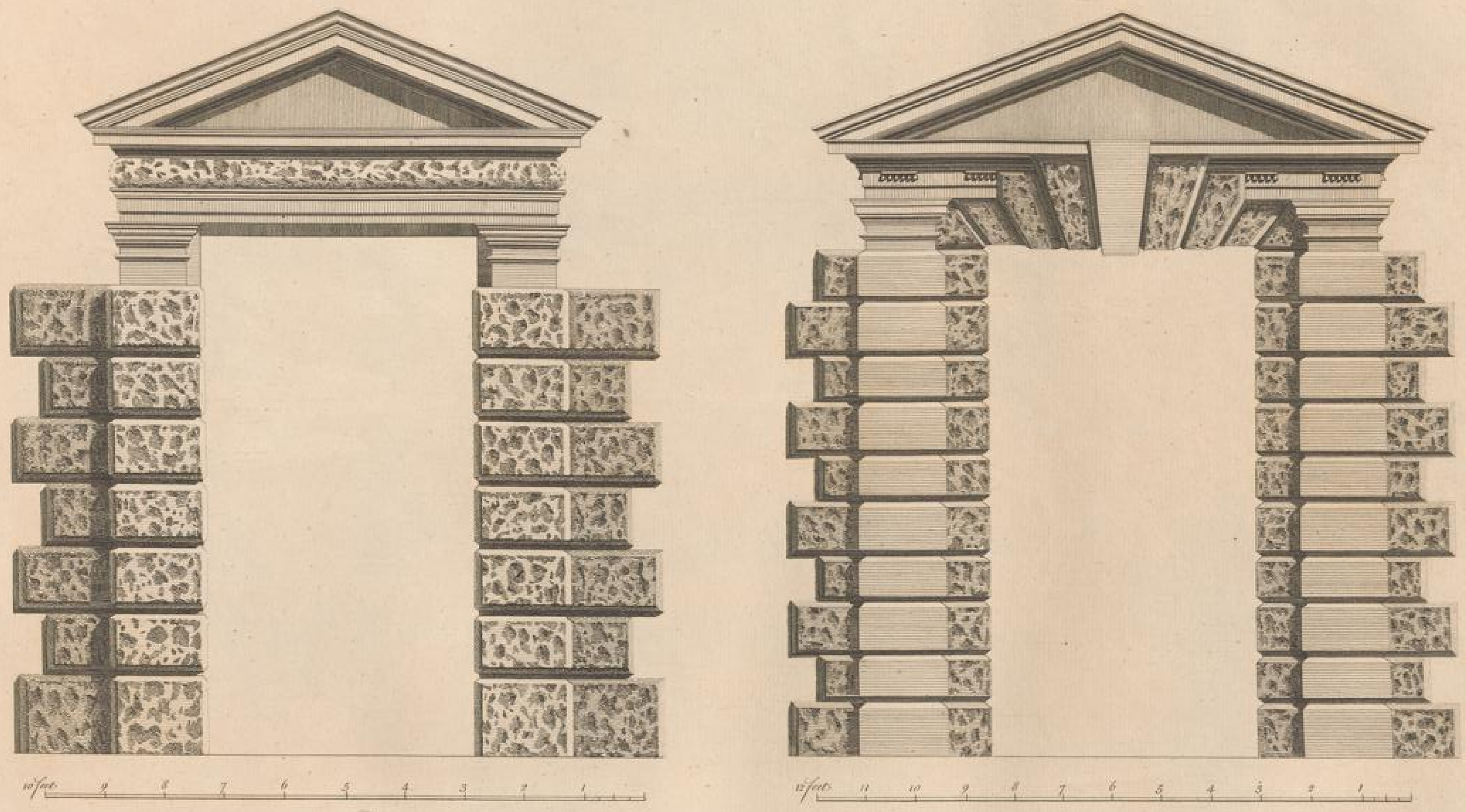




To Sr Charles Hotham Bart. this Design is humbly Inscribed
by his most Obedient Servant Wm. Chambers.

W. Chambers *P. Fourdrinier Sculp.*

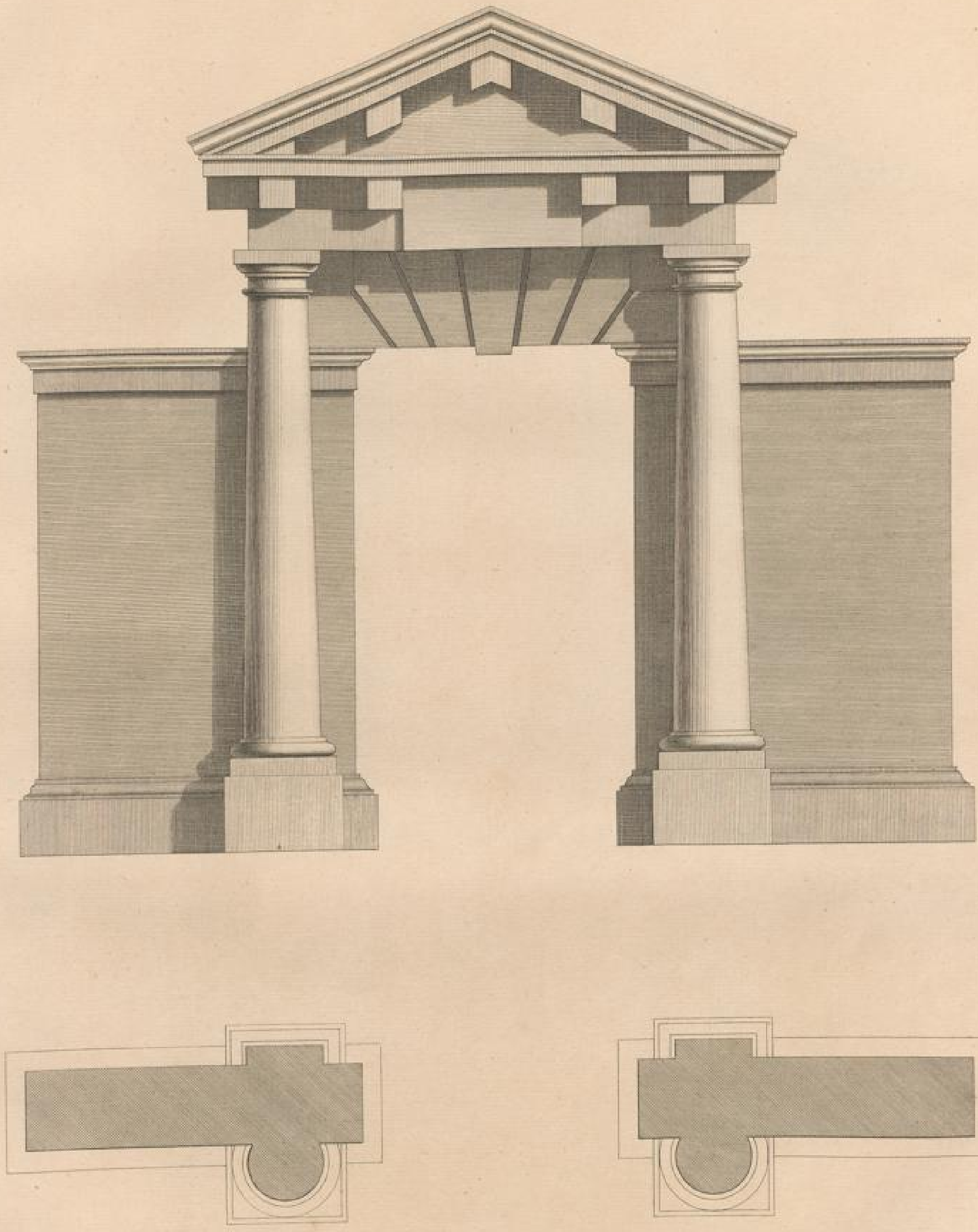
Rustick Doors to a Garden, near the great Theatre at Vicenza.
By Andrea Palladio.



To Robert Wood Esq.r these Designs are humbly Inscribed by
his most Obedient Servant William Chambers.

W.m Chambers Delin.

F. Patton Sculp.t

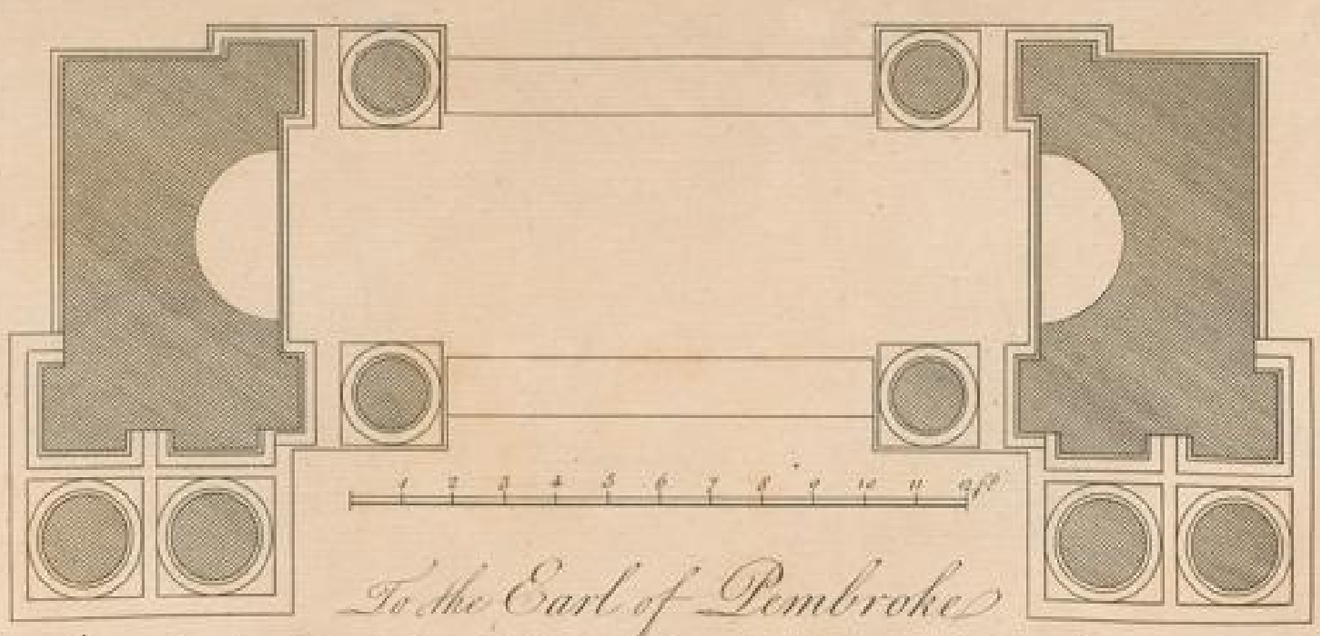


To the Honourable M.r Ward; this Design
is humbly Inscribed by his most Obedient Servant. W. Chambers.

W.m Chambers

P. Fourdrinier Sculp





To the Earl of Pembroke

This Design of the Triumphal Arch at Wilton is humbly Inscribed by his Lordships most Obed.t Serv.t W.m Chambers.

W. Chambers Architect.

B. Rocker Sculp.t





To Thomas Brand of the Hoo. in the County of Hertford Esq.r
This Plate is humbly Inscribed by his most obedient Servant. W.m Chambers. –

W. Chambers. *E. Rooker Sculp.*



To His Grace the Duke of Richmond, Lenox & Aubigney: this Design is humbly Inscribed
by his Grace's most Obedient Servant: William Chambers.

W. Chambers

E. Rooker Sculp.