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Palladio's architectural orders

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[1] Palladio's theoretical presentation of the five architectural orders – Tuscan, Doric, Ionic, Corinthian and Composite – is set out in the opening book of his treatise, the *Quattro libri dell'architettura* of 1570. There, each individual order is given a specific proportion of diameter to height, ranging form 1:9 for Tuscan to 1:10 for Composite, and each is also given a distinctive formal configuration for its constituent column and entablature. Palladio's hierarchical schema in some ways follows those of earlier theorists, including Sebastiano Serlio (in Book 4 of his treatise of 1537) and especially Jacopo Barozzi da Vignola (in his treatise, the *Regola*, of 1562), and in many respects it closely matches Vignola's in its presentation. This, In Palladio's treatise, has each order represented by one plate showing a colonnade and another illustrating an arcade, and these are then accompanied by further plates of details.

It has been said of Palladio's schema that it is indicative of an 'undogmatic stance' towards the antique, being little more than a reformulation of previously established ideas and ideals, and just a detailed exposition of the dimensions of the orders and their constituent parts. But this is far from the case. The orders, in the *Quattro libri*, are very much a distillation of a theoretical understanding of the orders that Palladio had applied to all his work over the course of the previous three decades, and which was very much his own. What we will do here is to draw attention, succinctly, to some of the more distinctive features of Palladio's orders, and we will then attempt to come to some understanding of how Palladio's conception of the orders relates to those of previous architects, and of how it was initially formulated before being modified and, ultimately, re-addressed for the *Quattro libri*.

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[2] Palladio's proportions for the orders are in some ways unprecedented, although his system, inescapably, has something in common with those given by Vitruvius and recent theorist predecessors, among whom there was surprisingly little consensus. Thus, the proportions of, say, Palladio's Tuscan order tally with those recommended by Vitruvius and certain other earlier theorists, as do those of his other orders, albeit with some minor discrepancies. Of particular note and to be discussed later, however, is that Palladio gave two recommendations for the Doric order, and that he allocated the Corinthian order the unusual proportions of 1:9½, and in that way distinguished it from the Composite order.

[3] As regards its formal composition, Palladio's Tuscan order is represented in the treatise by two alternatives, one in the colonnade plate and the other in the arcade plate. The first version is very plain and simple, and it generally corresponds with a theoretical consensus founded on Vitruvius, **[4]** and already being formed in the time of Serlio. **[5]** The second version is very different in its particulars and it is partly based on actual works of ancient architecture, such as the Amphitheatre in Verona, which was viewed by some to be Tuscan, and it incorporates such features as an S-profiled base and a capital with an S-profiled echinus, as well as having a more elaborate entablature that is more comparable with the entablatures of Palladio's other orders. **[6]** In his practice, Palladio appears to have used the Tuscan order only once, for the barns of the Villa Trissino at Meledo, which has columns and an entablature that tally with the colonnade illustration very closely.

[7] Palladio's Doric order is represented in the *Quattro libri* again through two main alternatives, and these are different in their proportions. The example in the colonnade plate lacks a base, **[8]** in keeping with Vitruvius and antique prototypes

such as the Theatre of Marcellus, and Palladio stipulates proportions for these baseless columns in the range of 1:7½-8. **[9]** The specimen in the arcade plate is identical except that it has a base of the usual Attic variety, and a flair at the bottom of the shaft – **[10]** like certain other esteemed ancient prototypes including the Basilica Amelia – and, *as a result*, it has the more attenuated proportions of 1:8⅔. Otherwise the two specimens are identical, **[11]** but they are more ornamented than examples seen in executed schemes such as Vicenza's Basilica. Palladio's practice also differs in that most of his Doric orders, *whether they have bases or not,* have proportions falling into the 1:7½-8 range – including the orders of the Basilica and Palazzo Chiericati (which both have bases); **[12]** but there are some notable exceptions, such as the pilasters seen on the Villas Pisani at Bagnolo and Thiene at Quinto which have proportions of around 1:9. **[13]** Regarding the formulation of Palladio's Doric entablatures, there is some variation in, but most are comparable to the *Quattro libri* arrangement, which lacks mutules, and is more elaborate than the Doric entablatures specified by Vitruvius or seen in the illustrations of other theorists, although in that way it is more akin to the entablatures of Palladio's other orders.

[14] Palladio's Ionic order, in the two main *Quattro libri* plates, is identical, with proportions of 1:9 and featuring a capital without a neck; this is similar to example offered by the Theatre of Marcellus **[15]** but modelled, more exactingly, on those of the Temple of Portumnus. **[16]** The base shown in the main illustrations is of the Attic variety, but Palladio also supplied an alternative, included in a plate of details, which has a torus above a pair of scotias separated by twin astragals, a type described by Vitruvius but, as Palladio indicates, unknown from any extant antique examples. **[17]** The entablature features a frieze that is pulvinated (i.e. bulging), an option recommended previously by both Serlio and Vignola, and a row of modillions in the cornice; but a striking theoretical oddity is that it departs from Vitruvius, and from the weight of ancient precedent, in lacking a row of dentils. The order seen in Palladio's practice largely follows suit. **[18]** Palladio, however, never employed the 'Vitruvian' Ionic base, and the only exception to his use of the Attic base was for the façade of Palazzo Porto Festa, where the bases are of similar but not identical design, in that they have an extra pair of astragals at the bottom. **[19]** He used the Portumnus capitals with great consistency (although usually with reduced ornamentation), and he turned to the same ancient building again for corner-capitals, seen in the Basilica and elsewhere, with abutting volutes. **[20]** It may be that it was the Ionic colonnade of a temple embedded into the flank of Rome's church of S. Nicola in Carcere, where there are the ends of projecting lintels above the columns, that inspired the unusual frieze incorporating projecting blocks seen in the courtyard of Palazzo Valmarana. **[21]** Palladio's Ionic entablatures are often comparable with the *Quattro libri* illustrations, **[22]** although they can often include, as in the case of Palazzo Chiericati, a plain and projecting ledge in the position normally occupied by a band of dentils, on the model of such ancient buildings as the Pantheon. **[23]** Otherwise, like in the *Quattro libri* plates, they often include a pulvinated frieze, as is seen on the Basilica, and also a row of modillions in the cornice. It may well be that this last feature, as established by Palladio in his Palazzo Porto Festa, Basilica and Palazzo Chiericati, obviated a need for dentils, and this then led , ultimately, to the omission of dentils in the *Quattro libri* plates.

[24] Palladio's Corinthian order, in the *Quattro libri*, is one of consistent design but unusual proportions. The proportions, at 1:9½, are more slender than those proposed, for example, by Serlio (who stipulated 1:9) but they are strikingly out of line with ancient practice, as witnessed the many antique examples of the Corinthian order, and especially the portico columns of temples, that Palladio himself illustrated in Book Four, which almost all have the proportions of around 1:10. The proportions Palladio chose in his practice often corroborate the *Quattro libri*'s 1:9½ recommendation, but not with a constancy that would suggest that this was a persistent ideal. **[25]** Several works, in fact, including the fairly early Villa Cornaro at Piombino Dese, and the later S. Giorgio Maggiore and Redentore in Venice, have Corinthian orders with proportions in the region of 1:10, the recommendation in the treatise for the Composite order. **[26]** As regards the order's composition, the base illustrated in the main *Quattro libri* plates is of the Attic variety with an additional astragal, like the

base of the Temple of Hadrian that Palladio illustrated in Book 4; but in his practice Palladio also resorted to many other varieties, especially when coupling together orders of different heights, a common recourse in his later career; [27]for the façade of S. Francesco della Vigna, for example, he used a type similar to that employed for the Pantheon but with an additional astragal, and for the interior of the Redentore an even more complex variety, where a further astragal is inserted above the lower torus. **[28]** The capitals illustrated in the treatise are of the standard type, but with foliage of a distinctive kind, which, as Palladio remarked in connection with the Temple of Minerva, is carved with 'olive leaves' and arranged in fives 'like the fingers of men's hands'; and this variety formed the basis for Palladio's practice. **[29]** The entablature shown in the treatise includes a plain frieze and a cornice with modillions beneath the corona, a combination not mentioned by Vitruvius but frequently seen, as Serlio had observed, in ancient practice, while the precise sequence of mouldings, which includes a plain ledge, is virtually identical to that of the main internal and external cornices of the Pantheon. **[30]** In Palladio's practice, however, the frieze is often of the pulvinated variety, a type also employed for the Corinthian Temple of Hadrian and the Composite Lateran Baptistery, **[31]** while the corona is frequently supported upon block-like modillions, which are sometimes of the more unusual double-tiered variety seen in certain temples, such as, again, that of Hadrian.

[32] The Composite order, in the *Quattro libri*, is differentiated from the Corinthian in both its formal composition and its more attenuated proportions. Its proportions, of 1:10, are in line with the recommendations of previous theorists, but not with ancient practice, or at least as represented in the treatise's Book Four, where all three examples of the Composite order have proportions in the vicinity of 1:9½ or below. **[33]** However, similarly slender proportions recur, with remarkable consistency, in Palladio's practice. **[34]** As regards the order's formal repertory, the *Quattro libri* features, again, the Attic type of base with an additional astragal, but Palladio's practice saw a much wider variety, which includes the 'Pantheon' type with an additional astragal, as employed for the giant orders inside S. Giorgio, and an Attic variant with three extra astragals, as used for the Loggia del Capitaniato. The capital type illustrated in the treatise, with its canted volutes, is firmly based on the example of the Arch of Titus, and this accords with Palladio's practice, **[35]** although sometimes, as in the case of Palazzo Thiene, the foliage is left uncarved, like that of the capitals from the Lateran Baptistery that are shown in the treatise's Book Four. **[36]** The featured entablature, in having an architrave with two just fascias and a pulvinated frieze, also accords with the Composite entablature of the Lateran Baptistery, although it is even more like the entablature of the Corinthian Temple of Hadrian, which also has a cornice with the same kind of unusual double-tier modillions. **[37]** The entablatures in Palladio's practice, however, are notably varied, with friezes that can be pulvinated or plain, and cornices that sometimes include plain ledges as well as rows of modillions. These variations to the entablature, and to the design of the Composite order as a whole, are indicative not just of Palladio's approach towards the orders in general but also of a tendency to think of the Composite and Corinthian orders in particular as having elements that were often closely analogous or even interchangeable.

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[38] From what has now been established, it may have already become clear that Palladio was already conceiving the architectural orders in a notably systematic manner at a very early stage in his career. This systematic approach involved according some respect to ancient precedent, and to the writings of Vitruvius, but, as we have seen, it was by no means slavishly dependent on antique authority. It permitted much variation but allowed each individual order to be distinguishable while having a strong comparability or even interchangeability with the others; and it also relied on a formal vocabulary which was fixed and limited, and actually much more restricted than the wealth of riches that Antiquity had on offer. Palladio's vocabulary can, up to a point, be thought of as a reflection simply of his personal preference. Yet it can also be seen as a considered response – as can his notion of system more generally – to ideas about the

architectural orders developed by previous architects from the recent past. In fact, Palladio's understanding of the orders, which as first formulated in the 1540s appears to have been profoundly indebted to the ideas of certain previous practitioners, came thereafter to form the basis for an approach that he applied, with a remarkable consistency, to all his many major schemes.

The young Palladio was very well versed in recent architectural developments not only in the Veneto region where he lived and worked but also in Rome. He spent a considerable amount of time in Rome during stays there in 1541, 1545-46, 1546-47, 1549 and 1554, when he would have acquired detailed and first-hand knowledge not only of ancient architecture but also of the works there of his illustrious predecessors and elder contemporaries. These, of course, included Bramante and Raphael, the architects responsible for introducing the new 'High Renaissance' style, as well as for laying the foundations for a modern usage of the architectural orders, and employing a great number of different varieties in their works. In particular, they did much to establish future norms for both the Doric order, used by Bramante's for his Tempietto (a building featured in the *Quattro libri*) and his now-destroyed Palazzo Caprini, and [39]the Corinthian order, used by Bramante (although modified by Raphael) for the interior of St Peter's (designed from 1505) and by Raphael for his Cappella Chigi in S. Maria del Popolo (1513), which in both cases is allocated the 'Pantheon' type of base. **[40]** Raphael's approach also has something in common with Palladio's in the way he sometimes devised an architectural order on the basis of assembling together a range of components of diverse origin, as is notably the case with the Ionic order of his Villa Madama. These particular exemplars, however, may well have had only a limited direct bearing on Palladio's future approach.

[41] An especially eminent architect who was still living when Palladio first went to Rome and who, by contrast, appears to have made a very deep impression on him, and particularly so with regard to his conception and usage of the orders, was Antonio da Sangallo the Younger. Sangallo was not only the dominant architect in Rome following the death of Raphael in 1520; he was also the leading authority of his day on ancient architecture. Palladio could well have encountered him in person, particularly during the almost uninterrupted period he spent in Rome from 1545, and he may have been as awed by his knowledge as Serlio had been, who describes himself as having 'sat' at Sangallo's 'feet'. Palladio, moreover, would inevitably have come into contact with the members of Sangallo's extensive entourage, who were employed to assist Sangallo in the designing of St Peter's and the realisation of numerous other projects, and who also participated in the painstaking studies of many of Rome's ancient monuments, which are recorded in so many of their surviving drawings.

[42] In fact, Palladio's own investigations into ancient architecture carried out during this time would appear to have been informed to a much greater extent than has usually been recognised by the antiquarian researches carried out by Sangallo and his circle. This applies to Palladio's drawings both of entire buildings and of their details, many of which were later recast for the illustrations in Book Four of his *Quattro libri*, and it is hence at odds with Palladio's strong implication there that he alone was responsible for the illustrated reconstructions, and that, as far as the details were concerned, that he had measured them all himself 'with the greatest care'. **[43]** Palladio's early drawings of details include a great many sheets showing capitals, entablatures and other details, which would provide him with reliable reference material for his own constitutions of the orders, but which can often be shown to be closely related, in subject and representational technique, to those of details produced previously in the Sangallo circle. This very clearly applies, for example, to Palladio's drawing of the entablature of the long-demolished Basilica Aemilia, which bears a clear family relationship to earlier renditions of it produced by both Sangallo and his brother Giovanni Francesco, and it is demonstrably true of several other drawings as well.

Palladio was also, it seems very clear, especially attentive to Sangallo's usage of the orders in his numerous schemes in Rome, and to have even perceived Sangallo as the preeminent modern-day authority in this regard. In fact, there are many notable features of Sangallo's orders which, subsequently, are equally distinctive – or even leitmotifs – of Palladio's. **[44]** Sangallo, for instance, used various different types of base, including the Attic base with an additional astragal for his Porta di S. Spirito, and the variant with two extra astragals for his Zecca, and thus established a practice similar to that taken up subsequently by Palladio. **[45]** In fact, Sangallo actually pioneered the unusual Ionic base with twin scotias and a pair of astragals, using the type in the courtyard of his Palazzo Farnese, having previously seen and drawn an antique example of similar design, and this was exactly the same type that Palladio employed for his Palazzo Porto Festa. **[46]** In the same courtyard, moreover, Sangallo used the neckless type of Ionic capital which was the one generally preferred by Palladio; **[47]** and Sangallo also reaffirmed the usage of Composite capitals of the Arch of Titus type, as well as turning to the variant with uncarved foliage for several of his churches, the kind that Palladio used for the façade of Palazzo Thiene and elsewhere. **[48]** Significantly too, Sangallo opted for a cornice without dentils for the Ionic middle storey of the Palazzo Farnese courtyard) and the Ionic upper storey of the courtyard of his earlier Palazzo Baldassini, and in this way he had anticipated Palladio's choice of cornice for his Palazzo Porto Festa, Basilica and other schemes. **[49]** For his Zecca and elsewhere, moreover, Sangallo chose an entablature that incorporates an unadorned ledge beneath the corona, just as Palladio did on many occasions, whilst for the façade of S. Maria in Porta Paradisi and elsewhere he included double-tier modillions, a practice which Palladio would then follow in several of his own schemes.

Palladio, in addition, would appear to have been unusually receptive to certain theoretical approaches towards the usage of the orders underpinning Sangallo's practice. Rather than viewing the orders as fundamentally different from one another, Sangallo tended to blur distinctions between them. **[50]** He took a view, for example, that even the three main capital types – Doric, Ionic and Corinthian – could be regarded as having basic characteristics in common, providing diagrams of them on a surviving drawing accompanied by the comment that they 'are born one from the other' (*nascono l'uno dall'altro*). **[51]** He certainly upheld a comparable position when, for example, choosing a type of base, or a component of an entablature such as the unadorned ledge or double-tier modillion, for a particular order that was derived from an antique example of differing order, and, in doing so, employing many of the same base types and entablature components for different orders, much as Palladio did subsequently. Sangallo also followed a practice, in his usage of bases and entablatures, of selecting a particular type in the context of the design as a whole. **[52]** Thus he would sometimes choose a base so as to form a harmonious composition with a base or moulding next to it, as can be seen, for example in S. Maria in Monserrato where the bases have additional astragals that correspond with the base mouldings of the adjacent arch imposts, just as Palladio would later do in, say, his Cappella Valmarana in Vicenza's S. Corona; **[53]** and, in certain unexecuted projects, Sangallo sometimes coupled together orders of different sizes, occasionally bringing, like Palladio subsequently, their bases together to form unified compositions. **[54]** In a similar spirit, Sangallo sometimes designed his entablatures in accordance with their position in an overall composition, for instance giving those of tall orders or top stories, such as the upper storey the Palazzo Baldassini courtyard, the emphatic termination of a row of modillions, in much the same way that Palladio would do subsequently. **[55]** In addition to all this, Sangallo may have guided Palladio too in establishing a vocabulary for the orders of constituent elements that were not just standardised but were also simply made and often of minimal ornamentation, and therefore well suited to cost-efficient construction.

[56] As well as profiting from his experience of Rome, Palladio took great account of recent architectural development in the Venetian territories. He must have paid particular attention to the works of Jacopo Sansovino in Venice, who was singled out for special praise in the *Quattro libri*; but this esteemed architect appears to have had much less of an impact on Palladio than Giovanni Maria Falconetto based in nearby Padua and, especially, Michele Sanmicheli in nearby

Verona, the pioneers in the region in establishing, as Giorgio Vasari was to note, the 'true proportions of the columns or the orders'. **[57]** Both these architects had explored an extensive usage of different orders in their many schemes, but Falconetto possibly played a discernible role in establishing Palladio's early approach, such as in making the cornices of all his orders very similar, and designing them sometimes to include projecting ledges. **[58]** Sanmicheli, however, would appear to have affected Palladio's early approach in ways that were far more profound.

Sanmicheli was perhaps the greatest influence not only on Palladio's early conception of the orders but also on his early architecture in general. **[59]** It was, for instance, Sanmicheli who had pioneered a modern usage of a Tuscan order of the kind closely informed by the recommendations of Vitruvius, when employing it for the circular chapel of his Lazzaretto complex just outside Verona (designed in 1540-41}; and Sanmicheli who, earlier, may have also introduced the baseless Doric order to modern practice in his scheme for Verona's Porta Nuova. It was Sanmicheli, too, who appears to have to have conceived of the three main orders – Doric, Ionic and Corinthian – not simply as a set of different formal assemblages but very much as manifestations of a coherent overall system. This system was rather different from Palladio's understanding of the orders in various particulars, but it represents a way of looking at them which could well have provided Palladio with an especially important precedent.

[60] Sanmicheli's system, in its coherence and rigour, was unlike any followed by other practicing architects of the period and, and it appears to have been followed unerringly for almost all his works in Verona and, later, in Venice, from the moment he resettled in northern Italy in 1526. According to this system, each of the three orders had different proportions, and each was conceived as an assemblage of closely comparable components. The proportions of the Doric order range from a very sturdy 1:6½ (for the Porta Nuova) up to around 1:8½ (for Verona's Porta Palio), those of the Ionic order are of around 1:9 but can even reach 1:10, while those of the Corinthian order are of around 1:10 or even as slender as 1:11 (such as for his Cappella Pellegrini in Verona). The capitals he chose were of standard types and were used consistently in all his schemes, and the types were comparable each other, in rather the way that Sangallo had described, in that Sanmicheli's Ionic capital has a pronounced neck, and hence proportions that are intermediate between those of his Doric and Corinthian capitals. **[61]** The bases he used were of several different types, and these include, in addition to the ubiquitous Attic variety, the Attic base with an additional astragal, the 'Vitruvian' Ionic base for the portal of Palazzo del Podestà) and the 'Pantheon' base (in Cappella Pellegrini), which were sometimes chosen in conjunction with a particular order (the two latter types with the Ionic and Corinthian orders), although they were also selected to suit the richness and elaboration of the design as a whole. **[62]** The entablatures Sanmicheli employed, were likewise standardised, but were of an ingeniously flexible conception in that, for all the orders, their formulation follows a comparable pattern but one that could then be varied in accordance with the richness and elaboration of the overall design. Thus the simplest Doric entablature (as used for Porta Nuova), has an architrave with one fascia and a cornice with a corona but just plain mouldings beneath it, whereas the most elaborate (used for Porta Palio) has, again, a single-fascia architrave but a cornice now with a band of dentils and also a row of mutules beneath the corona; a typical Ionic entablature has an architrave this time with three fascias and a cornice always with a band of dentils beneath the corona; and the simplest Corinthian entablature has an architrave with two fascias and a cornice again with a corona and plain mouldings beneath it, whereas the most elaborate (used for Cappella Pellegrini) has an architrave with three fascias and a cornice with a band of dentils and a row of modillions beneath the corona. The relevance of all this to Palladio, therefore, is that he, like Sanmicheli, restricted himself to a finite and fixed formal vocabulary for his orders, while conceiving each individual order in an analogous way, and as part of an overall system of notable coherence but considerable flexibility.

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[63]Palladio's system for the orders – or more specifically the Doric, Ionic and Corinthian orders – was already well established by the mid-1540s, and it formed the blueprint for his subsequent practice as it was gradually elaborated before the writing and publication of his *Quattro libri*. His initial system, which can be identified and will now be briefly summarised, was such that each individual order had its own fixed proportions, and each had constituent elements that were different from, although comparable with, those of the others. It was decided at a moment when such systems were most unusual for practicing architects, Sanmicheli aside, and it remained substantially unchanged regardless of the momentous innovations brought by Palladio to his conception of the orders in other respects. Thus the system remained largely unaltered even despite Palladio moving away from the hitherto well-established usage of small-scale pilasters or half-columns. **[64]** In its place there would be a far greater employment of free-standing columns, and a frequent recourse to giant orders, whether applied and coupled with smaller orders (a further debt to Sangallo), **[65]** or free-standing and joined with smaller, abutting (or 'parastatic') pilasters, a formal innovation suggested to Palladio, it seems, by Vitruvius's description of his scheme for a basilica at Fano.

[66] The proportions of orders used by Palladio right from the start of his practice were evidently set, like Sanmicheli's, as a series of ranges, even if distinctions were not quite so rigorously observed. Palladio's Doric order, early on, was subject to particularly wide variations, but after some initial experiments (in particular the much attenuated pilasters of the early Villas Pisani and Thiene) most examples, whether they have bases or not, fall into the range of around 1:7½-8½. His Ionic order tends, with some exceptions, to have proportions in the range of around 1: 8½-9½, which, like his Doric order, is therefore generally in line with Vitruvius. **[67]** The Corinthian order was much more rarely used at this stage but the pilasters of the early Casa Civena have proportions in excess of 1:9½, perhaps indicating a more slender ideal, and possibly an envisaged range from around 1:9½ upwards, which would have been broadly consistent with ancient precedent, and this is rather confirmed by the order's more slender proportions in certain subsequent schemes, starting with the Villa Cornaro at Piombino Dese.

[68] The formal makeup of the orders in Palladio's system was, again, largely established right from the start of his career, as is abundantly clear from his choices of preferred capital types what are mainly all established very early on. His aim, in this regard, was to select capital designs that were not just sanctioned by Antiquity but, unlike those chosen by many of his contemporaries, were found on the most highly esteemed ancient buildings. Thus his Doric capitals, like those generally favoured by Sangallo and other modern architects, were based specifically on the type used for the Theatre of Marcellus, the prominent ancient exemplar that comes close to the design specified by Vitruvius; other favoured models, such as the more ornate capitals of the Basilica Aemilia, which were imitated by Sanmicheli and others, were at this stage rejected. **[69]** Palladio's Ionic capitals, like those used by Sangallo for the Palazzo Farnese courtyard, were of a similar type to those from, again, the Theatre of Marcellus, although they were more assiduously modelled on the capitals of the Temple of Portumnus, which likewise conform closely to the design described by Vitruvius; other possibilities such as the more elaborate types with necks that were used by Sanmicheli and other architects were again discounted. **[70]** Palladio's Corinthian capitals were modelled as closely as possible on the antique prototypes provided by the Pantheon and the Temple of Minerva; and his Composite capitals were based, in their composition, on those from the Arch of Titus, rather than any other ancient monument, this being the general type championed again by Sangallo.

[71] In selecting the other components of the orders for his schemes – their bases and the elements of their entablatures – Palladio again based his approach on the practices of his predecessors. He thus followed the examples of Sangallo and Sanmicheli in using an extensive range of base types modelled on antique prototypes, although he avoided the theoretical 'Vitruvian' Ionic base despite this being a well-established option; and, like his predecessors, he tended to use

different types of base, increasingly after around 1560, in accordance with specific orders or with distinctions between different orders. He conceived his entablatures in a way that utilised many antique-derived features established previously by Sangallo, and in a way that would allow great flexibility of choice and, when desired, a possible distinction between different orders, while allowing, rather as in Sanmicheli's practice, the entablatures of one order to be highly comparable to those of another. Thus architraves with single or doubled fascias tended to be used for the Doric order whereas those with three fascias are usually associated with the Ionic, Corinthian and, sometimes, the Composite orders. **[72]** Although friezes with triglyphs and metopes were reserved for the Doric order, the triglyphs and metopes were sometimes omitted; while pulvinated friezes were not used just for the Ionic order since they were also chosen for the Corinthian and Composite orders. Cornices could either be simple, in which case a Doric cornice could be compositionally very similar to simpler cornices employed for the other orders, or else they could be more complex, such as by including unadorned ledges, or, as in the cases of the Ionic, Corinthian and Composite orders, rows of modillions beneath the corona. It would thus have been for reasons partly of comparability that Palladio made the cornices of his Doric entablatures more elaborate than the one specified by Vitruvius, and for reasons partly of comparability (as well as cost) that he avoided Doric mutules, and chose to omit the usual bands of dentils from the cornices of his Ionic, Corinthian and Composite orders.

[73] It may well be that, initially, Palladio followed Sanmicheli by envisaging a system that encompassed just the Doric, Ionic and Corinthian orders, and that he adapted this system only later to include the Tuscan and Composite. It would have been relatively straightforward for him to add the Tuscan order to his previous system, in that Vitruvius had specified proportions of 1:7; and Palladio may have simply decided on a proportional range of, say, 1:7-7½, which, as put into practice in the early 1550s for his Villa Trissino at Meledo, fitted very conveniently with his chosen range of 1:7½-8½ for the Doric order. **[74]** It was far more problematic, however, to accommodate the Composite. Palladio's solution, seen in some of his schemes from around 1560, and perhaps beginning with S. Maria della Carità, was to limit the proportions of the Corinthian order to around 1:9½, and thereby allow the Composite to have the more slender proportions of 1:10.

[75] In conceiving of the Composite in this new way, and thus at the top of a hierarchy of the orders, Palladio was now departing from his own earlier practice, which saw the Composite orders of his Palazzo Thiene and Villa Gazzotti being given very plain and simple forms, as well as from the practices of his mentors Sangallo and Sanmicheli. **[76]** Sangallo had apparently viewed the Composite as a variant of the Corinthian, whilst Sanmicheli evidently saw it as being subservient, for example by using it, for his Cappella Pellegrini, as a minor pilaster order coupled with a taller order of Corinthian half-columns. **[77]** Nor was Palladio's characterisation of the Composite as the supreme order, as finally codified in the *Quattro libri*, decisively shared by other theoreticians of his time. Vignola, for example, had given both the Composite and the Corinthian the same proportions of 1:10, and did not otherwise differentiate between the two in any clear manner; and, later, Vincenzo Scamozzi was to reverse Palladio's hierarchy (in one of his two main illustrations) by placing the Composite, which was now given the proportions of 1:9¾, below and not above the Corinthian, which was instead allocated the proportions of 1:10. That said, Palladio's ennoblement of the Composite order – even despite the contradictions seen in his own practice – was certainly anticipated by Serlio, as well as by the theoretical prescriptions expressed previously by others regarding a five-order hierarchy. **[78]** To an extent, too, it may have reflected previous debates in Northern Italy, which saw Falconetto, for example, giving his Porta Savonarola a Composite order and thereby distinguishing it from the earlier Porta S. Giovanni which has a Corinthian order; **[79]** and it was perhaps influenced, too, by a long established vogue for the Composite order in Venice which is reflected in its conspicuous usage there in various schemes from the earlier sixteenth century, including Sansovino's Loggetta in nearby Piazza S. Marco, where the order is executed in especially rich materials to match with the highly lavish handling of the design as a whole.

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[80] In deciding to write is treatise and begin it with a book largely devoted to the architectural orders, Palladio's parameters were now altered, and he had to adapt his well established system accordingly. It is hardly surprising, therefore, that the system explicated in the *Quattro libri* not only differs from the previous formulations of Serlio and Vignola but also departs, in a number of significant respects, from his own earlier practice, because he was now faced with such conflicting pressures. On the one hand, he presumably intended somehow to encapsulate the theoretical outlook underpinning his practice but, on the other, he needed to present his schema for the orders to best advantage and in such a way as to impart it with the greatest authority. **[81]** To this end, he brazenly decided to appropriate the illustrative formula devised by Vignola, who had similarly represented the orders through sets of plates showing colonnades and arcades along with additional plates of details. In some respects, moreover, he improved upon Vignola's engraved illustrations by deciding on woodcut plates that promoted greater simplicity and clarity, and having his specimen designs accompanied by often highly technical commentaries so as to endow them with a strongly theoretical dimension, and suit theoretical ends geared in good part to the presentation elsewhere in the treatise of his own schemes.

[82] For the *Quattro libri*, Palladio had to allocate to the orders his own set of 'ideal' proportions, in a way that he knew would inevitably differ from those ordained by previous theorists, but in a way that needed to appear to be theoretically sound, even if this meant skating over certain inevitable difficulties. He thus specified proportions for the Tuscan order (1:7) that tallied with Vitruvius, and he indicated a theoretically reasonable norm, broadly founded on his own practice and again consistent with Vitruvius, for the Doric order (1: 7½ or 1:8), although he then fudged the matter – but rather endorsed his own practice – by explaining that a Doric order without a base was differently proportioned from one having a base (the latter 1:8⅔); and then, in much the same vein, he proposed a theoretically justifiable norm for the Ionic order (1:9), likewise founded on his own practice and consistent with Vitruvius, before simply asserting the recently decided distinction, seen only intermittently in his practice, between the proportions of Corinthian order (1:9½), and those of the Composite order (1:10). The resulting sequence was perhaps not perfect but it still managed to incorporate a degree of internal logic, and so could accrue all the benefits following from this.

[83] Deciding on the formal compositions for his specimen orders required them to be representative of his practice, but it often forced Palladio into making rather arbitrary choices over preferred forms. He also needed to devise specimens that were eye-catching by virtue of their ornamentation, which meant that, contrary to his practice, columns are normally given flutes, and capitals and entablatures are often also embellished. **[84]** For his Tuscan order, moreover, he departed from strict Vitruvian orthodoxy by conceiving one of his main plates, as we have previously noted, as a theoretical exercise drawing on elements that may have been associated with the Tuscan order, but which also constituted a more elaborate alternative to the other specimen, with an entablature largely comparable with those of Palladio's other orders. Otherwise, Palladio used the treatise principally as a means for parading his preferred capital types, and for illustrating a selection of the bases he habitually employed in his practice, and a range of the distinctive elements that made up his entablatures, even though might suggest differences between the orders rather than, as in his executed work, communalities. From this perspective, therefore, the main discrepancies from his practice, and the main choices he had to make, are as follow: **[85]** as regards the Doric order, the capital departs from Palladio's practice in having a neck enriched with rosettes (like the Doric order of the Basilica Aemilia), while the entablature, although not identical to any executed example, is still comparable to many in its basic disposition; **[86]** for the Ionic order, the 'Vitruvian' base he never used is given as an alternative to the Attic, perhaps in the interests of theoretical completeness, while the entablature is again typical of his practice in general, but features Palladio's favoured options of the pulvinated frieze and

the row of modillions; **[87]** for the Corinthian order, the bases illustrated (one in a plate of details) are just two of the many varieties found in Palladio's work, both being Attic types with additional astragals, while the entablature with its row of modillions is again generally typical of his practice; **[88]** and for the Composite order, the bases chosen (one again in a plate of details) are likewise just two of several possibilities, while the entablature takes up the occasional options seen in Palladio's work of the architrave with just two fascias, the pulvinated frieze and the double-tier modillions, with the result that it is much more clearly differentiated from the Corinthian entablature than normally in his practice.

[89] The *Quattro libri* formulation of the orders was then made dimensionally consistent, up to a point, with the treatise's illustrations of Palladio's own schemes. In other words, the schemes appear to have been redrafted with dimensions that make their orders more consistent with Palladio's theoretical ideals than they were in reality. Thus, the many Doric orders in these illustrated schemes (a good many never realised), usually have proportions in the range of 1:7½-8 (even if some examples have bases), and they often the proportions are very nearly or even precisely of the 'ideal' 1:7½ or 1:8. The Doric pilasters of Villa Thiene at Quinto are still unusually slender in the illustration, but they are given adjusted dimensions that make less slim than they are in reality, and closely in line with the Palladio's 'ideal' proportion of 1:82/3. **[90]** The Ionic orders often have proportions that are precisely of 1:9 or very close in this ratio. In accordance with this ideal, the Ionic half-columns of the Basilica are made more slender than in reality, while the orders of Villa Barbaro and Villa Sarego at S. Sofia are made much less attenuated. **[91]** The Corinthian orders are often given proportions of 1:9½ or thereabouts, which entailed some considerable adjustment in the case of Villa Cornaro at Piombino Dese, although there are two schemes, Villa Trissino at Meledo and the unexecuted Palazzo Garzadori in Vicenza, where the Corinthian orders are tellingly in the proportion of 1:10. **[92]** The Composite orders, by contrast, which mostly belong to schemes from the latter part of Palladio's career, concur with reality by being given proportions very consistently of 1:10.

[93] Palladio even made decisions, in the *Quattro libri*, about the depiction of the orders in his schemes, thereby making them concur with his later thinking. Especially striking is the fact that he expunged the unorthodox Ionic bases from his façade illustration of Palazzo Porto Festa and replaced them with the standard Attic type, presumably because he now considered them to be insufficiently grounded in distinguished precedent. Certain other wayward features he simply avoided illustrating, such as the blocks in the Ionic entablature of the Palazzo Valmarana courtyard, which is not specifically featured in the *Quattro libri*; **[94]** or else he avoided placing much emphasis on them, as with the blocks in the Ionic entablatures of the Palazzo della Torre courtyards, which are barely noticeable in the *Quattro libri* illustration.

[95] The *Quattro libri* plates of the orders also embodied other principles and systems, which, again, tallied in part with considerations previously explored in Palladio's practice, but which made his work far more sophisticated and ambitious than the presentations of his theoretician predecessors. In the arcade plates, for example, Palladio indicated a system for the sizing of pedestals, which become progressively more slender over the five-order sequence, an idea also set out by Serlio and Vignola in their treatises, and one occasionally respected by Palladio in some of his own schemes. In both the main sets of illustrations, albeit with the exception of the first of the Tuscan plates, Palladio also suggested a principle for the sizing of entablatures, which become proportionally shorter over the sequence, just as the diameter of the columns or half-columns becomes incrementally narrower, a principle enunciated by neither Serlio nor Vignola, but seen in Palladio's executed schemes, and one that perhaps helps explain why Palladio's Composite orders often have architraves with just two fascias rather than three. Palladio, in addition, set out guidelines in the two main sets of plates for the spacing of the orders, an idea that had been previously mooted by Vignola in his colonnade plates, but not with the sense of purpose that is inherent in Palladio's approach to the matter. In the arcade plates, the spacing, together with the width of the framed arches, becomes ever narrower in relation to the order's height, while, in the colonnade plates, the spacing or intercolumniation becomes similarly narrower and, moreover, the different spacings were matched in Palladio's

commentary (albeit not precisely) with Vitruvius's rules for the different spacings of columns for temples. This same principle had similarly been addressed by Palladio in his previous practice, insofar as he tended to space, say, his Doric columns more widely than his Ionic or Corinthian columns, and for façades or elevations featuring the Corinthian or Composite orders he often spaced his columns, half-columns or pilasters very closely together indeed.

[96] Palladio's architectural orders, in the final analysis, turn out to be far more than just of passing interest, and in the *Quattro libri* they are hardly a mere a 'paper' exercise – even if this is how, to some, they have come to be viewed. They are hardly indicative, which as we noted before has also been claimed, of an 'undogmatic stance' towards the antique, and they are far from being little more than a reformulation of previously established ideas and ideals, and just a detailed exposition of the dimensions of the orders and their constituent parts. Instead, as we have now seen, they are the final product of thirty-years-worth of thought and, almost certainly, fiercely held conviction. In fact, the *Quattro libri* presentation is rather like a palimpsest preserving the indelible imprint of an outlook towards the orders, which was conceived long before and was remarkable for its time, an outlook which was then overlain by revised perspectives before being ingeniously redrafted, and invested with further theoretical concerns, so as to be eminently well suited to an architectural publication. As thus formulated, therefore, the *Quattro libri* orders are not just a distillation of Palladio's previous practice since they are, in effect, the quintessence of his entire outlook towards classical architecture.