RESEARCH ARTICLE

# Scamozzi's Orders and Proportions: An End to Illusions or a Visionary Harbinger?

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While many studies have addressed the issue of proportions in the work of Palladio, both in the orders and in the forms and dimensions of architecture, very little interest has been shown in Vincenzo Scamozzi's handling of this theme. This article examines Scamozzi's influential published commentary regarding the proportions of the orders, rooms, and entire buildings, and draws numerous comparisons with Palladio. It interprets Scamozzi as a bridge linking the Renaissance with Enlightenment thinking.

## Introduction

While many studies have addressed in various ways the issue of proportions in Palladio's work, both in the orders and in the forms and dimensions of architecture, very little interest has been shown in Vincenzo Scamozzi's handling of this theme. After Francesco Milizia's broad but generic treatment during the eighteenth-century Enlightenment (Milizia 1781, 1785), we basically have to wait until the present day and Pier Nicola Pagliara's catalogue entries describing Scamozzi's drawings of the orders, accompanied by some important remarks, often technical in nature (Pagliara 2004: 515–518).[1] Rudolf Wittkower in particular — who was determined, as Sir Kenneth Clark commented in the *Architectural Review,* 'to dispose, once and for all, of the hedonist, or purely aesthetic, theory of Renaissance architecture' (Wittkower 1971: 3) — made some detailed remarks on the subject in his *Architectural Principles in the Age of Humanism* (1971: 109 n.1). He reached the conclusion that, compared to his predecessors and even more so than Palladio himself, Scamozzi ultimately simplified measurements and ratios. We can generally agree with this conclusion since, for example, in the types of rooms that he deems to be perfect, the height turns out to be the arithmetical mean of the width and length.

We must bear in mind that Scamozzi argued for an architecture of an 'anthropomorphic character' on one hand, and was a strenuous advocate of 'mathematics' and 'mechanics' on the other. Indeed, he explored those disciplines on his long Roman sojourn (1578–1579) by attending the lectures of Father Christopher Clavius, who disseminated 'many ideas essential for the development of the sciences contained in the works of the Greek mathematicians', primarily the Alexandrians Pappus and Heron (Basili 2003). Scamozzi thus devoted the whole of

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Book VI in the second part of his treatise to the orders, a total of 174 pages, compared to the 37 pages given over to the subject by Palladio in the first of his *Quattro Libri.* Thus emerges a picture of Scamozzi as a convinced rationalist not indifferent to the echoes of Galilean scientism.[2] After meticulously reviewing the evidence, he closely scrutinises the various opinions on the subject, from Vitruvius to his contemporaries, and arrives at his interpretation of the 'truth' through a coherent, imperturbable deductive method.

Palladio, on the other hand, 'imitating Vitruvius, who divided up the Doric order with the unit of measurement derived from the thickness [*grossezza*] of the column', which is universally applicable and called by him a 'module', simply states that 'I too will make use of such a unit for all the orders; the module will be the diameter of the column at the bottom divided into sixty minutes' (Palladio 1997: 18 = Book I, Ch. XIII, p. 16). Scamozzi accepts these notions but debates them. He reminds us of the etymology in Vitruvius' premise ('this word module is Latin; in Greek it is *metros* or *embate*, a term meaning "measurement"') and logically explains its derivation from the 'crassitudine columnarum' (column thickness): the columns were in fact 'the main bodies of the orders and a great ornament to them'. To corroborate his argument, he turns to other illustrious authors who had dealt with the subject, from the jurists Julius Paulus to Ulpianus, with reference to aqueducts, and Pliny, on the subject of roads, as well as historians such as Suetonius or poets like Horace, without neglecting those who made use of the module in their specific roles as 'inventors of music' ('Lidios Modulos Amphion, Dorios Modulos Thamirafthrax, Phrygios Marsias Phryx invenit'). But over and above the weight of authority and tradition, he believed the supreme arbiter was still the architect's discretion: because ultimately the module 'is not, as many have claimed, of a fixed, predetermined size like a palm, a foot, a *braccio* or other similar units of measurement, but rather a ratio or uniform standard measure'. It is, thus, 'either increased or reduced

according to judgement', and therefore at 'the discretion of the architect'. He even invokes and finds confirmation in Aristotle: 'Mensura dividitur secundum mensurans et accipitur a Matematico in abstracto, a Naturale in concreto' (Scamozzi 1616: P. II, Bk. VI, Ch. II, p. 4, ll. 1–50; English translations of Scamozzi's text throughout this paper follow Scamozzi 2003 and 2008).

What comes into play, then, is individual judgement and subjective discernment, since the main principle is 'the suitability, uniformity and concordance of character, form and proportion for each part of an order' (Pagliara 2003: 510). This conviction is in line with an anti-dogmatic and in some ways historicist vision. We clearly note here the effects of a sudden but resolute 'temporal' framing of the adored Vitruvius, thus removing him from the abstraction of myth and inserting him into the flow of history. 'This does not mean, however, that all of the professors should not be deeply grateful to Vitruvius', who was truly unique 'among the many ancient architects who wrote' on their subject, and who handed down to us 'most of the fundamental principles for this noble field of knowledge'. Nonetheless, we must consider that 'Vitruvius himself (judging from his own writings) never saw the works of the ancient Greeks' and, even more significantly, was writing at the time of the 'fortunate Emperor Augustus' — that is, when 'architecture was barely a newborn plant' and only beginning 'to thrive in Rome'. Vitruvius could not 'see' or 'enjoy' the 'many marvels that came after him'. But we, on the other hand, are fortunate to know precisely these marvels and the contribution of 'many excellent men' that must be taken into account because they subsequently 'wrote with sound scholarship' and thus deserve 'to be believed in many matters' (Scamozzi 1616: P. II, Bk. VI, Ch. V, p. 14, ll. 44–56 and p. 15, ll. 1–3).

Consequently, in Book VI, which is far from being the longest in Scamozzi's hefty treatise, so much space is given over to a dialectical comparison with models of the past and to ideas updated in order to work out the exact rule for the orders and proportions. Therefore, in addition to the lofty Roman examples, other architects are also continually referred to: Alberti, Cataneo, Serlio, Sansovino, Vignola, and Palladio. At least one of the more meaningful examples of his free-wheeling but scrupulous approach deserves to be mentioned. Scamozzi notes that 'more than once Vitruvius describes Doric columns without bases', and that some of the modern architects, although 'worthy of some praise', slavishly followed his example 'citing as evidence a few examples from the Theatre of Marcellus' and 'the small six-column temple in front of Tullius' prison, and other locations in Rome'. It could be argued, however, that Vitruvius, was merely adopting an expedient and that the columns were 'made this way to avoid rubbish gathering there'; in any case, on the other hand, Doric column bases were very often found 'in many of the foremost ancient buildings', typical examples being 'the first order in the Colosseum' or 'the temple near S. Adriano in Tre Fori and the Temple of Antonius and Faustina'. An awareness of this situation should

have been sufficient enough reason to 'to stop this malpractice', even if it had not received the crucial, essential support of an obvious naturalistic and anthropomorphic idea founded on pure common sense: and this in itself 'weighed' against the recent opposition and even 'the authority of Vitruvius'. In fact, 'the columns of the other orders have their own bases' not out of whim but to follow intelligently the logic of nature, since the bases appear to be in full accord with 'the start of the growing plant' or 'the foot of a man or other animal'. He thus remonstrates, 'what on earth could persuade me to make only Doric columns without them [the bases]?', especially since — and this is an even stronger argument — they are 'placed on pedestals', and the objectors themselves 'admit to having to put a base out of necessity' (Scamozzi 1616: P. II, Bk. VI, Ch. VI, p. 18, ll. 30–45).[3]

Proceeding in this way, the bold approach of the 'Scamozzi method' led to an inversion in the *disposizio* (arrangement) of the orders. Contrary to the commonly used sequence, after the Tuscan, Doric, and Ionian, Scamozzi places what he calls the 'Roman order', thus 'disregarding the common opinion of Architects, who call it Composite and place it above the Corinthian'.[4] He wanted the Roman to precede the Corinthian which, therefore, was the last in the renewed series. This solution seems to contradict history: in an initial stage Italy only had one order — the Tuscan; later the Greeks 'remained for some time' with the Doric before 'gradually growing into the Ionic and similarly also the Corinthian'; lastly the Romans, conquerors of the whole world, reached this 'quinary number' (Scamozzi 1616, P. II, Bk. V, Ch. V, p. 15, ll. 53–55 and p. 16, l. 1), giving rise to the Roman order. In the latter order 'from the Corinthian capital, the height and form of the vase and the abacus were borrowed' with the 'leaves', while from the Ionic came the large corner volutes (Scamozzi 1616: P. II, Bk. V, Ch. XXIV, p. 103, ll. 14–17). At this point the principal criterion is utility, however, which when combined with motives of taste (*gusto*), became the rule which 'should satisfy expert opinion'. This was because it may be said that the Roman order among all the 'capitals … [is] the one with the most regular parts and harmonious shape'. It is almost 'the beautiful offspring of grafts' between 'the matronly sobriety' of the Ionic capitals and the 'virginal delicacy' of the Corinthians (Scamozzi 1616: P. II, Bk. VI, Ch. XXIV, p. 104, ll. 21–28). In short, it was deemed to be undoubtedly 'delicate and virginal' (Scamozzi 1616: P. II, Bk. VI, Ch. X, p. 33, l. 10).

As regards proportions and measurements in general, a more immediate and significant comparison is with Palladio. Scamozzi makes this comparison easier for us by providing complete plates illustrating all five orders, both in the example of single free-standing columns (**Fig. 1**) and with columns backed onto piers at the sides of an arch. The members are given a sculptural feel through the clever shading used to highlight them, typical of Scamozzi's very sensitive handling of light (Davies 2003; Barbieri 2003a: 9). As far as Palladio is concerned, we need to make a patient excursus into the *Quattro Libri* to collate the various scattered drawings in a separate chapter
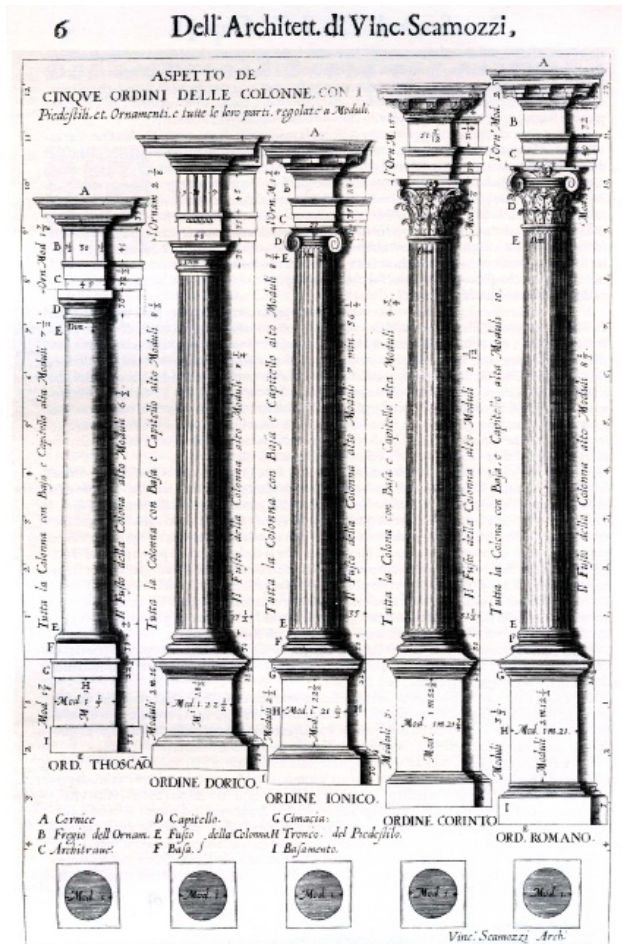
**Figure 1:** *Aspetto de' cinque ordini delle colonne.* Reprinted from Scamozzi, *L'Idea dell'architettura universale* (Venice, 1616), P. II, Bk. VI, Ch. II, p. 6.

on the individual orders,[5] which are mainly depicted on plates in clear, strictly two-dimensional drawings.

## Palladio vs. Scamozzi: The Proportions of the Orders

Maintaining Scamozzi's sequence when considering three distinct situations yields the following results:

I   Tuscan order
· Column (in its standard unit of shaft, base and capital): Palladio 7 modules; Scamozzi 7 1/2 modules.
· Pedestal (Scamozzi's *piedistili*): Palladio 1 module; Scamozzi 1 7/8 modules.
· Architrave, frieze and cornice: Palladio 1 7/8 modules; Scamozzi 1 7/8 modules.
II   Doric order[6]
· Column: Palladio 8 1/2 modules plus 1/6; Scamozzi 8 1/2 modules.
· Pedestal: Palladio 1 1/6 modules; Scamozzi 2 modules and 16 minutes.
· Architrave, frieze and cornice: Palladio 1 6/7 modules; Scamozzi 1 7/8 modules.
III   Ionic order
· Column: Palladio, 9 modules; Scamozzi: 8 3/4

modules.
· Pedestal: Palladio, 2 modules and 38 minutes; Scamozzi: 2 1/2 modules.
· Architrave, frieze and cornice: Palladio modules 1 8/10; Scamozzi 1 3/4 modules.
IV   Roman order
· Column: Palladio 10 modules; Scamozzi 10 modules.
· Pedestal: Palladio 3 1/3 modules; Scamozzi 3 1/3 modules.
· Architrave, frieze and cornice: Palladio 2 modules; Scamozzi 2 modules.
V   Corinthian order
· Column: Palladio 9 1/2 modules; Scamozzi 9 3/4 modules.
· Pedestal: Palladio 2 1/2 modules; Scamozzi 3 modules.
· Architrave frieze and cornice: Palladio 1 9/10 modules; Scamozzi 1 1/2 modules and 7 minutes.

This gives the following total sums (with the fractions converted to minutes, sixty per module):

I   Tuscan order
· Palladio 9 modules and 52 minutes.
· Scamozzi 11 modules and 15 minutes.
II   Doric order
· Palladio 11 modules and 41.42 minutes.
· Scamozzi 12 modules and 38.5 minutes.
III   Ionic order
· Palladio 12 modules and 26 minutes.
· Scamozzi 13 modules.
IV   Roman order
· Palladio 15 modules and 20 minutes.
· Scamozzi 15 modules and 20 minutes.
V   Corinthian order
· Palladio 13 modules and 54 minutes.
· Scamozzi 14 modules and 22 minutes.

Leaving aside the Roman order, i.e., what is commonly called the Composite order, which remains unchanged in the preceding comparisons, Scamozzi thus prefers taller more slender forms than Palladio and they are adapted to his own particular *Kunstwollen*. The elegantly refined results are not immune to a certain 'mannerist' tendency. Evidence of this preference can be found in a number of his buildings. In the Palazzo Trissino Baston (1588) in Vicenza the columns in the courtyard are in the Tuscan order and the columns in the portico on the façade are in the Ionic order. We can also find a kind of 'sampling' of orders in the six chapels (dating from 1605 to before 1611) along the 'Via Sacra' rising up to the Villa Duodo on the hill of Monselice.[7] To come back to the Ionic order, further examples are found in the façades of the Villa Ferretti (1596) at Sambruson di Dolo. In the new Palazzo Contarini degli Scrigni (1609) in Venice we note a kind of elastic tension allowing Scamozzi to adapt the arrangement of classically derived orders to accentuate the vertical thrust of the pre-existing apertures in the adjoining,
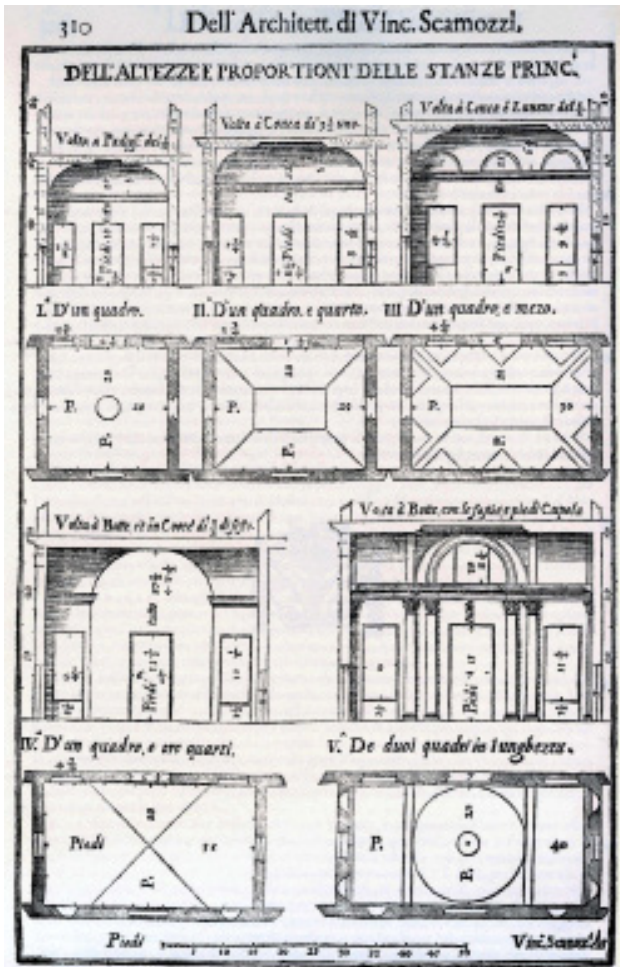
**Figure 2:** *Delle altezze e proporzioni delle stanze principali.* Reprinted from Scamozzi, *L'Idea dell'architettura universale* (Venice, 1616), P. I, Bk. III, Ch. XIX, p. 310.

fifteenth-century Venetian Gothic building. The result is a compact structural unit neatly slotted into the truly unique Venetian context of the Grand Canal.

### Proportionate Measurements of Rooms

Scamozzi devotes an elaborate, dense chapter to the 'arrangement of apartments of rooms and libraries, including their dimensions and heights' (Scamozzi 1616: P. I, Bk. III, Ch. XIX, pp. 306–312). The chapter has a summary table (**Fig. 2**) with plans, sections and detailed indications of measurements, very clearly set out, in keeping with his habitual working method and natural inclination.

The plate is made livelier by the presentation of the elevations and Scamozzi's predilection for careful studying the *lumi* (light effects) (Scamozzi 1616: P. I, Bk. III, Ch. XIX, p. 308, ll. 49–57, 309, 310); Palladio (1570: Bk. I, Ch. XXIII–XXIV) had only discussed this theme much more briefly, choosing to rely on demonstrations of abstract calculations accompanied by unadorned geometrical drawings. Although the patient average reader may admire his skill, the drawings are not very easy to follow. Scamozzi, on the other hand, does not hesitate to simplify and give practical examples. In this — without overlooking Vitruvius, whose opinion, however, he possibly 'narrows down' — Scamozzi

was guided, as we have seen, by his first-hand observation of the 'fabbriche antiche' (ancient buildings) during his 'long experience' acquired directly in the field.

'We adhere', he begins his discussion of rooms, 'to the five categories of proportionate measurements, particularly with regard to the main floors'. The initial situation is 'a perfectly square room' which 'should be at least 16 feet wide to accommodate beds, but no longer than 20 feet'. It may then be converted to 'an octagonal or round' form or 'with niches in the corners', but they are 'not very convenient' for beds. Next come rooms of one and a quarter, one and a half, one and three-quarters and, lastly, a room of two squares, but it is best not to exceed this length because they would result 'in halls, galleries or passageways rather than rooms to live in'. As far as use is concerned, 'the last two dimensions' (one and three-quarters and two squares) 'are suitable for antechambers'; the average size (one and a quarter and one and a half) for large rooms; the smaller one (one square) for 'back rooms or drawing rooms', especially 'when there are no small, private rooms'. On the subject of room heights, the 'dimensions' are determined so that no matter what the combination of the length and width of the rooms, the height of the rooms 'up to the ceiling or the start of the vaulting' is half of the sum of the two measurements; the smaller rooms of one square are 'equal in height and width' and 'thus the shape of a perfect cube'. The series continues with a room 'an eighth higher than wide; the medium-sized rooms a quarter higher; the penultimate rooms three eighths higher; and the largest, one and a half times their width'.

In this way, over and above the harmonious ratio of the measurements, we obtain a further benefit: 'Since these dimensions represent the arithmetic mean between the length and width of a room, this is also reflected in the quality of the forms they produce so that when one stands at one end of a room, there is an immediate and unimpeded view of its full height.' This particular feature can thus be checked by direct experience without resorting to abstract rules. Moreover, the heights of the rooms must be 'the same height within one floor', since otherwise there would be 'a most inconvenient and ugly occurrence in a house'. If the ceilings are not flat: 'There is a choice of six different types of vaulting for rooms, those being: barrel or fern; basic double curve (i.e., sail vault, *a vela*, or handkerchief vault); simple conch vaulting sail or; double curve with lunettes; cross vault; cloister vaulting or with more sides; and lastly, the flattened dome vaulting also called a basin vault.'

The areas of the rooms thus progress from 16 x 16 feet to 16 x 20, 16 x 24, 16 x 28, 16 x 32 or, at most (as, moreover, delineated in the summary table), from 20 x 20 to 20 x 25, 20 x 30, 20 x 35, and 20 x 40. On this subject, Palladio states a different preference which brings him at the same time to the heart of the question of windows: 'When calculating the dimensions of these windows I like very much those rooms which are two thirds longer than the breadth; that is, if the breadth is eighteen feet then the length should be thirty' (Palladio 1570: Bk. I, Ch. XXV, p. 55). These then, were much wider and shorter rooms

than those of 16 x 32 suggested by Scamozzi. This preference also yields different measurements and proportions in the windows. In fact Palladio notes that, having divided the breadth of the room 'in four and a half parts … with one part I establish the clear breadth of the windows and with the other two, adding a sixth of the breadth, I make all the windows of the other rooms the same size as these windows'. Scamozzi (1616: P. I, Bk. III, Ch. XXI, p. 319, ll. 44–57; p. 320, ll. 1–14) speaks out strongly against this practice. He wants the window height always to be 'determined from the height of the rooms' and 'certainly not the width or some other irrelevant measurement prescribed by some'. This general allusion is immediately specified in the margin by an unequivocal gloss referring to Palladio's exact quotation (Scamozzi 1616: P. I, Bk. III, Ch. XXI, p. 319, ll. 46–48). What he obtains, therefore, are taller and narrower windows than those recommended by Palladio, given that, according to Scamozzi, 'as a rule', except when one has 'colonnades on the front façade', the window 'should be half of the floor to ceiling (or beams or vaulting) measurement', that is to 'the imposts of the vaulting … or ceiling'. As regards the breadth, these windows should not be less than 'five feet' for the 'main rooms' and around 'three and a half' in the smaller rooms. With another adjustment in the 'more plain buildings … the heights of windows should be two and one-twelfth squares'; on the other hand, 'in buildings of a light and elegant architectural order, the windows should measure two and one-eighth squares'. Only when the need arose could they be extended to 'two and a half squares'. He points out, moreover, that whenever there were superimposed orders, the windows would be diminished in height proportionally to the orders, while their breadth would remain unchanged.

Scamozzi also distinguished himself from Palladio in the organisation and sequence of rooms. While Palladio preferred to group them round a central nucleus — the syntactic *Raumgruppierung* identified by twentieth-century German critics — he usually chose a free paratactic, or more improvisational, arrangement. Moreover, he usually rejected the typical Palladian arrangement whereby — albeit in various combinations — there was a sequence of large rectangular rooms, average-sized square rooms and small rectangular ones; and even on those rare occasions when Scamozzi did resort to this sequence, he inverted the last two elements.

## Conclusions

The always frank and honest Ottavio Bertotti Scamozzi, an outstanding figure in the Enlightenment climate of late eighteenth-century Vicenza, admitted to being disappointed on finding contradictions in Palladio's plates in the *Quattro Libri*, as well as in the buildings depicted in his drawings, and the rules he established in his theories and treatise.[8] We also find, in Vincenzo Scamozzi's plates for buildings designed by Palladio, collected in the *Idea* or published posthumously in the Leiden edition (Du Ry 1713), and in the buildings constructed from his own designs, that the measurements and proportions do
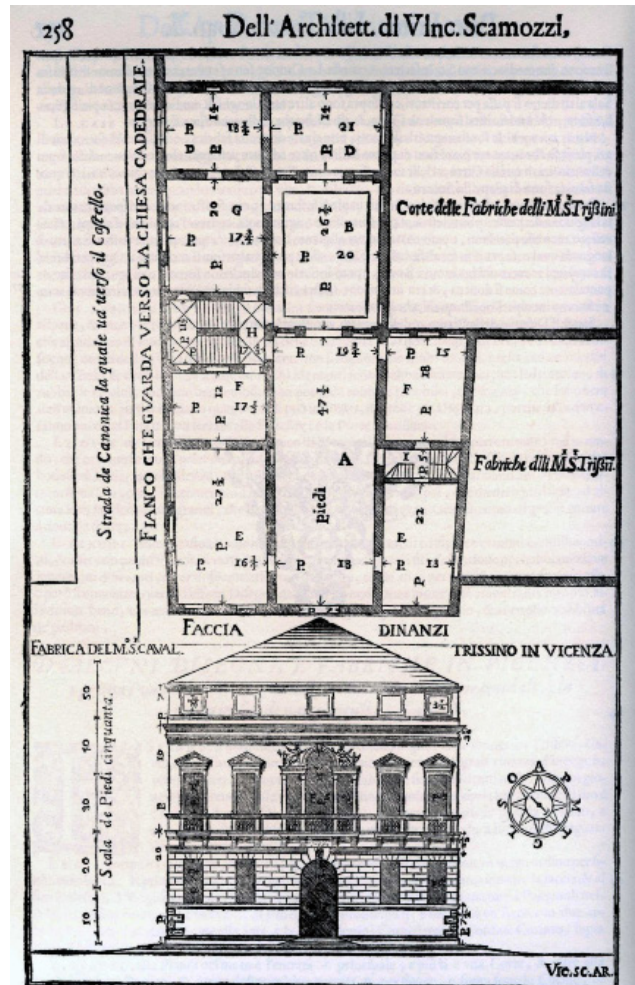


**Figure 3:** *Fabrica delli Chiarissimi Signori Pisani alla Rocca presso Lonigo.* Reprinted from Scamozzi, *L'Idea dell'architettura universale* (Venice, 1616), P. I, Bk. III, Ch. III, p. 27.

not agree with those that Scamozzi himself deemed to be perfect in theory. On the grounds of theory, Palladio and Scamozzi aspired to absolute perfection. The theory would be fatally neglected, however, in the inevitable contingent circumstances of 'creation that is achieved by overcoming practical and irregular circumstances'. Moreover, in the architect's creative procedure, as Scamozzi rightly asserts, it is 'not irregularity' that is 'the exception but the exact equivalence between the abstract rule and its physical realisation' (Pane 1956: 411).

However, some distinctions between the two architects must be made. Firstly, the gap between measurements of proportions deduced from theory and those indicated in the respective plates seems to be much less pronounced in Scamozzi's treatise than in Palladio's. An exemplary case is the plate for the Rocca Pisani (Villa of Vettor Pisani; **Fig. 3**), Scamozzi's masterpiece dominating the hills above Lonigo (Scamozzi 1616: P. I, Bk. III, Ch. XIII, p. 272). In the four square rooms the sides are fifteen feet instead of the at least sixteen required by the theory; in the rectangular rooms, they are 16 x 25, instead of 16 x 24 established by the perfect 'one and a half squares'; and in the façade loggia the sides are 15.5 x 28 instead
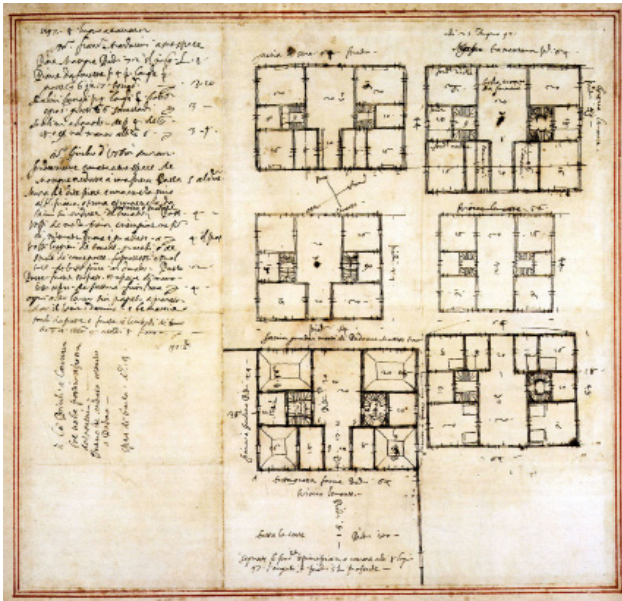
**Figure 4:** *Fabrica del Magnifico Signore Cavaliere Trissino in Vicenza.* Reprinted from Scamozzi, *L'Idea dell'architettura universale* (Venice, 1616), P. I, Bk. III, Ch. X, p. 258.



**Figure 5:** *Fabriche de' Clarissimi Signori Priuli a Carrara.* Reprinted from Du Ry, *Oeuvres d'architecture de Vincent Scamozzi* (Leiden, 1713), 71.

of the 16 x 28 of the prescribed 'one and three-quarters squares'. Secondly, and also very importantly, even when the inevitable arrangements of the rooms involve solutions that break with the rules, and thus with the dogma of perfect symmetry, the specific measurements and proportions adopted to meet the anomalous situations are not concealed by Scamozzi in the relevant plates in the *Idea*, but clearly stated.

A very striking example of this openness is found in the plate for the *palazzo* of Pier Francesco Trissino (**Fig. 4**) and the related comments (Scamozzi 1616: P. I, Bk. III, Ch. X, pp. 257–258). Going much further, in seeking a model for similar problems, Scamozzi even points to an absolutely heretical situation compared to the standard canons. In fact, since two sections of the façade flanking the entrance and the *serliana* (Venetian window) above appear to have conspicuous differences in width, he has no hesitation in producing a free-and-easy justification for this obvious transgression: because 'the length of the external, weight-bearing walls on the left side of the house are not the same as those on the right … disregarding the opinion of others, I have created the same number of windows on each side, remedying any problem of irregularity by shifting the main entrance slightly to the right of centre. This may serve as an example for similar problems'. Here he

is evidently defending himself from attacks by fervent conservative and traditional circles. At the time he was working on his project for Trissino and on opening the construction site for it, in 1577 (Pesavento 2003: 181), and thus when Palladio was still alive and active. In a similar situation, Palladio had to reckon with the completely irregular actual plan of his palace for Montano Barbarano to meet the constraint of maintaining the old walls. In this case he did not publish it — note the difference in behaviour – in the *Quattro Libri* (1570). To explain this omission — firmly convinced of the idea that he wanted to pass on not so much contingent 'solutions' as 'inventions' stripped of all contingency — Palladio advanced a clever pretext: 'I have not included the design of the plan which has just been completed and according to which the foundations have now been laid because I was not able to make the woodcut in time for it to be printed' (Palladio 1989: Bk. II, Ch. III, p. 22).

Where the ideal perfection theorised by Scamozzi does indeed correspond with his stipulated executive measurements is in the rooms of the Villa Priuli at Carrara, as deduced from the plate of the villa published by Du Ry (1713: 91) (**Fig. 5**): 16 x 16 feet for the small square rooms at the rear and 16 x 20 ('one and one-quarter squares') for the larger rectangular rooms in the front.

**Figure 6:** *Villa Priuli a Carrara.* Reprinted from a preliminary study now in Chatsworth, Dewonshire Collection, Drawings cod. 35, 70.

This exact correspondence is found again in the six ideas for plans for the Villa Priuli; they have come down to us on a precious sheet with a preliminary study now in Chatsworth (**Fig. 6**).[9]

What is striking about this sheet are the numerous autograph annotations that provide a picture of Scamozzi busy 'in the middle of the project' or 'inspecting the construction site'. On the sheet he even goes so far as to recommend 'the arrangements of the beds in the rooms, for a total of eight'. To ensure that only a minimum of space was occupied, he sets the beds in the corners and against the walls, a level of detailed consideration that according to Guido Beltramini, was 'not common in Renaissance designs'. In fact similar recommendations are rarely found in Peruzzi, Serlio, or Giangiorgio Trissino (Beltramini 2003: 365). In the middle of a specific case history of a technical nature and explorations for the purpose of devising rules, we come across a pertinent, realistic annotation, such as the observation that rooms, 'octagonal or round' or 'with niches in the corners' are 'not very convenient for beds' (Scamozzi 1616: P. I, Bk. III, Ch. XIX, p. 308, ll. 53–54). This uncommonly deep attention to the requirements of daily life also characterises the prolific Scamozzi's handling of other themes. For example, his reference to the Villa Priuli at Carrara, with its starkly austere and unadorned façade, far from being a smug hint at an 'antiquarian rendering' or decorative indulgences, addresses mainly functional criteria and is wholly in keeping with the design for the completed building.[10]

This discussion of Scamozzi's interest in practical exigencies leads us to one last consideration on the unusual nature of Scamozzi's life and career. Tirelessly pursuing his role as an architect and continually broadening his knowledge through his many journeys to the heart of Europe as a 'citizen of the world', he gradually reduced the presence and function of the canonical orders in his architecture. He whittled them down to simple linguistic elements, authentic semantic vestiges of a system that his imperturbable quest for rational functionalism was gradually, and perhaps inevitably, completely undermining. Scamozzi eventually took this tendency to the extreme by completely abandoning the use of the orders, after he had previously shown so much interest in them, and indeed after his studies of the orders had brought him considerable fame. He took to designing bare walls in which only the calculated arrangement of masses and voids revealed the attainment of 'proportional harmony'. As examples we need only mention the designs for the Villa Godi at Sarmego (1597–1598) and the Palazzo Podestarile in Vicenza (1610) or the — extreme in every way — *chiesetta* of San Carlo Borromeo at Lisiera (1613) (Barbieri 2003b; Abbondandolo and Beltramini 2003; Burns and Brutto 2003). The exterior of this church consists of the boldly direct juxtaposition of regular solids, characterised by clear, essential stereometry: an almost perfect cube surmounted by an octagonal drum. The interior is also completely stripped of any orders. In it we find nothing but an essential, almost ascetic 'evident geometric spatial composition', and indeed 'only the dome and the four semi-circular apses transform into architecture what otherwise would have simply been a square box of masonry' (Burns and Brutto 2003: 444).

This extreme restraint represents the deliberate refusal of that *publica magnificentia* which had been the dramatic climax of the Palladian parabola (see Ackerman 2010). Was this, then, an end to illusions or a prophetic harbinger?

## Notes
[1] The entries 83, 83a and 83b in Pagliara (2004: 515–518) are devoted to two drawings by Scamozzi, probably earlier (around 1615) than the related plates in his treatise.

[2] On this complex question, see the wide-ranging discussion in Puppi (1969), the summary in Barbieri (2003a: 6), and the new contributions in Puppi (2003) concerning 'a youthful assiduity', possibly as 'an external auditor' at the 'public lectures held by masters engaged by the Accademia Olimpica' in Vicenza (2003: 13–15), and the complex 'interweaving of relations with Paduan intellectual circles' in the 1580s to 1590s (2003: 20–21 n. 48). Galileo was to hold the chair at Padua University for as long as eighteen years, from 1592 to 1610.

[3] Here, in the gloss in the margin (l. 33), the only 'heretic' quoted is Palladio (Book I, Ch. 15, p. 22), who claims: 'This order does not have its own base'. What Scamozzi says about the 'necessity' forcing the 'objectors' to adopt a base in some circumstances is correct and also applies to Palladio, who draws a Doric column without a base in the plate on p. 23, while in the plates on pp. 24–25, setting the columns 'on pedestals', he shows them with their bases.

[4] As, Palladio unhesitatingly did. He preferred the more widely used term *Corinthio,* however (Palladio 1570:

Bk. I, Ch. XVII, p. 37), and, if anything, on the subject of the Composite (p. 44), he adds: 'also known as the Latin order'.

[5] Scamozzi (1616: P. II, Bk. VI, Ch. II, p. 6 and Ch. X, pp. 35–36); Palladio (1570: Bk. I, Ch. XIIII–XVIII). Scamozzi contradicts himself: in the first plate (Ch. II, p. 6), he arranges the orders in the usual sequence, with the last one, the Roman (Composite), after the Corinthian; this 'error' is remedied in the second plate (Ch. X, pp. 35–36).

[6] For Palladio the measurements are deduced from the plate with columns backed onto piers flanking an arch (Palladio 1570: Bk. I, Ch. XV, p. 24), whereas in the plate on p. 23 there are no bases, as Scamozzi complained, and no pedestals. Moreover, Palladio's measurements for the Doric order have been halved here to make them uniform with Scamozzi's usual measurements: Palladio believed the Doric module to be an exception and that 'it will be half the diameter of the column divided into thirty minutes, because that is more appropriate for the elements [compartimento] of this order' (Palladio 1997: Bk. I, Ch. XIII, p. 16).

[7] For this and any other of Scamozzi's buildings cited, the reference is the relevant entry in Barbieri and Beltramini (2003).

[8] On Bertotti Scamozzi, and for previous bibliography, see Barbieri (1972: 53–84), Olivato (1975), and Farinati (1996: 862, 864).

[9] Chatsworth, Devonshire Collections, Drawings vol. 35, 70: see Beltramini (2003). By starting from this drawing and the respective plate in Du Ry, and especially by making use of the recent meticulous surveys of the Villa Priuli by the Studio Antonio Draghi (whom I warmly thank for their courtesy of making them available), we can plausibly calculate an average of the measurements of the built interiors, if we posit the *piede* (foot) used by Scamozzi as approx. 34–35 cm. Moreover, some official nineteenth-century comparative tables establish that the old *piede vicentino* was 35 cm, 7.39 mm (*Tavole di ragguaglio fra le varie misure di lunghezza, capacità e peso della Provincia di Vicenza ed il sistema metrico-decimale posto in attività nelle Provincie Venete con Decreto Reale 11 Marzo 1869 N.4 941*, Vicenza 1869, p. 5, pl. 1).

[10] The Villa Priuli at Carrara (now Le due Carrare) has a mysterious history. Believed only to have been a project or presumed to exist without any certainty, it was eventually 'discovered' in 2003, at the time of the Scamozzi exhibition; see Barbieri (2006–2007: 173 and 185 n. 114).

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