

PEGASUS

Berliner Beiträge
zum Nachleben der Antike
Heft 11 · 2009

Census of Antique Works of Art
and Architecture Known in the Renaissance
Berlin-Brandenburgische Akademie der Wissenschaften
Humboldt-Universität zu Berlin

www.census.de

Census of Antique Works of Art
and Architecture Known in the Renaissance
Berlin-Brandenburgische Akademie der Wissenschaften
Humboldt-Universität zu Berlin

Herausgeber: Horst Bredekamp, Arnold Nesselrath

Redaktion: Vera Goldschmidt, Barbara Lück, Birte Rubach, Timo Strauch

Institut für Kunst- und Bildgeschichte
Unter den Linden 6
10099 Berlin

© 2009 Census of Antique Works of Art
and Architecture Known in the Renaissance

Satz: Susanne Werner (Lukas Verlag)
Druck: Elbe Druckerei Wittenberg

ISBN: 978-3-86732-074-0
ISSN: 1436-3461

In memory of Arnaldo Bruschi (1928–2009)

HOWARD BURNS

The scope of this paper is to consider what Palladio means by the word >ornamenti<, that is architectural details (and to some extent ornamentation in general) and the role they occupy in his architectural theory and practice. My aim is to examine a neglected but important aspect of his architecture which illuminates both his approach as a designer and his idea of the orders. The topic is closely linked to Palladio's discussion and use of the orders, but also relates to other matters: his study of ancient architectural detail, and the conclusions he drew from it; his general ideas about the role of ornament; and the weight he gave to >varietas<, invention and visual and architectural judgment (>giudizio<) in architectural design. As my purpose is to discuss Palladio's attitude towards the use and design of details, I will not examine the importance of the column for Palladio's theory and practice, nor the way in which for Palladio the architectural order is not simply a vertical sequence of forms (as the orders are presented by Serlio and Vignola), but a way of articulating space, regulated by rules determining the intercolumniation.¹

Palladio repeatedly cites Vitruvius and Alberti as his principal written sources.² For Vitruvius »ornamenta«, always used in the plural, is a technical term which simply means architectural details; the word appears 13 times in his book.³ Except in two passages, Vitruvius uses it to refer specifically to the architectural members of the entablature – usually those placed above the architrave, as in the phrase »epistylia et ornamenta earum columnarum altitudinis quinta parte« (5.6.6).⁴ Vitruvius uses the term in a more general sense in the well-known passage where he indicates the importance of history to the architect, as explaining the origins of architectural motifs, like Persians and Caryatids.⁵ He also applies it to a specifically honorific form of decoration, the »ornamenta« of the »imagines«, that is the insignia indicating the offices held by those portrayed in the masks preserved in the atrium of the Roman house.⁶ Only once does he use the term outside an architectural context, where he refers to the »honours and ornaments« conferred on Diognetus by the Rhodians (10.16.8).

Alberti uses the words »ornamentum« and »ornamenta« no less than 144 times.⁷ In many passages Alberti follows Vitruvius' use of the word to mean architectural details. Elsewhere, however, he considerably extends the range of contexts and meanings linked to the word, introducing the modern connotation of ornament or adornment, on the basis of both ancient and modern usage. Significantly, he also adopts Cicero's usage of the word in the »De Oratore« and elsewhere. Cicero does use the word »ornamenta« in the architectural sense, as when he writes »ornamenta fanorum«, the ornaments of temples.⁸ Alberti, however, clearly paid particular attention to what Cicero had to say about »ornamenta dicendi«, literary or rhetorical ornament, as when he gives an example of the use of metaphors in ornamenting a speech, concluding: »Est hoc magnum ornamentum orationis, in quo obscuritas fugienda est.«⁹

Alberti thus speaks of streets or buildings which are ornaments of the city (again a Ciceronian concept),¹⁰ the ornaments of different classes of buildings and, in a famous passage, of the column: »In the whole art of building« he writes, »the column is certainly the principal ornament« (»In tota re aedificatoria primum certe ornamentum in columnis est«).¹¹ The passage is echoed by Palladio: »Hora c' habbiamo parlato de' muri semplici; è convenevole che passiamo à gli ornamenti, de' quali niuno maggiore riceve la fabrica di quello, che le danno le colonne, quando sono situate ne' luoghi convenevoli, e con bella proportione à tutto l'edificio.«¹² Alberti's discussion of the »ornamenta« is not only nourished by Cicero, who introduced considerations both of appropriateness and of moral rigour into the discussion of ornament, but by his own extremely wide knowledge of architecture and construction – for instance the use of veneers and revetments, which may have prompted his comparison of architectural decoration to make-up on the face of the building.¹³ Alberti was also concerned with philosophical definitions and distinctions relating to ornament, like that of the difference between Beauty and Ornamentation.¹⁴ All these matters, and all the ways in which Alberti uses the word, are analysed in Veronica Biermann's book »Ornamentum«, on ornament and ornaments in Alberti's treatise.¹⁵

Palladio followed Vitruvius and Alberti in his adherence to the project he resolutely pursued throughout his working life, devoting himself on the one hand to a career as a working architect attentive to the practical aspects of building and on the other to developing general ideas about architecture and design, in the form of an architectural treatise, the »Quattro Libri dell' Architettura«, published in 1570. Palladio was thus faithful to what Vitruvius writes of architecture: »Ea nascitur e fabrica et ratiocinatione« translated by Daniele Barbaro as »essa nasce

da fabrica, & da discorso»;¹⁶ he achieved a mastery of building and construction, and also elaborated general principles and formulae with which he justified and explained his designs, both in his exchanges with patrons and in his book.

Everything that Vitruvius and Alberti had written on ›ornamenti‹ and architectural decoration was familiar to Palladio, not least because of his intensive collaboration with Daniele Barbaro in the preparation of the illustrated ›Vitruvio‹ of 1556.¹⁷ Palladio however is at pains to keep his ›Quattro Libri‹ short, clear and accessible to a wide readership, as he underlines in his introduction.¹⁸ He avoids repeating what can be easily found in Barbaro's Vitruvius, or in Alberti, in Cosimo Bartoli's excellent illustrated translation of 1550.¹⁹

His treatment of ›ornamento‹ and ›ornamenti‹ is therefore not as explicitly theoretical as Alberti's. Sometimes he uses the words in their general sense of ornament and decoration: ›questa bella machina del Mondo di quanti meravigliosi ornamenti ella sia ripiena.«²⁰ He declares of Palazzo Valmarana (fig. 41): ›non mancano di tutti quegli ornamenti, che se le ricercano, come stucchi e pitture.«²¹ Palladio's principal use of the term ›ornamenti‹ however is Vitruvian, and refers to the details of the orders, and above all to the details of entablatures, of doors and of windows. For Palladio ›ornamenti‹ primarily indicates what we call architectural details, as one can see by the captions to his plates in Book IV of the ›Quattro Libri‹, when he writes ›Gli ornamenti de i Tabernacoli‹ of the Maison Carrée at Nîmes, or simply ›I membri particolari, cioè gli ornamenti.«²² Palladio in Book I devotes a chapter which, with its illustrations, occupies more than four pages, to the ›Ornamenti delle Porte, e Delle Finestre‹ (fig. 1).²³ He states simply that ›Gli ornamenti, che si danno alle porte, e finestre; sono l' Architrave, il Fregio, e la Cornice«. After referring the reader to Vitruvius and the illustrations of doors which he had himself provided for the Barbaro translation, he writes: ›porrò solamente alcune sacome de gli ornamenti delle porte, e delle finestre delle stanze, secondo che diversamente si ponno fare, e dimostrerò à segnare ciascuno membro particolarmente c' habbia gratia, & il suo debito sporto.«²⁴

Palladio presents four basic profiles for the cornice, frieze and architrave of doors and windows, of the sort which he himself used hundreds of times in his buildings. In his plates the proportions of the members – the ›ornamenti‹ – are clearly indicated, as well as their projections. The diagrammatic illustration of how to construct the curves of cavetto and gola mouldings would have been extremely useful to architects and masons not familiar with details of this type and difficult to grasp from merely observing built examples. Palladio here reveals

*1 Andrea Palladio:
Illustration to the
chapter »De gli
Ornamenti delle
Porte, e Delle
Finestre«, Quattro
Libri 1570, I, p. 57*

to a general readership both the geometrical basis of the stonemason's art, and also his personal formulae for »sacome« (profiles) ensuring a standardised and elegant all'antica architectural vocabulary. Vincenzo Scamozzi, following the lesson offered by Palladio was to write that the »sagome« of a building constituted »il marco e sigillo dell' opera stessa, dalle quali ne risulta la perfezzione, ò imperfettione del tutto«. ²⁵

Many ›ornamenti‹ are described and illustrated by Palladio in large scale in the plates in Book I devoted to the orders (fig. 2). Further ›ornamenti‹ are

² *Andrea Palladio: Capital and entablature of the Corinthian order, Quattro Libri 1570, I, p. 43*

³ *Andrea Palladio: Elevation of the Basilica in Vicenza, Quattro Libri 1570, III, p. 43 (detail)*

shown in a smaller scale, in the plates of palaces in Book II, and in those of the Basilica (fig. 3) and certain ancient building types in Book III. The close examination of these illustrations, and comparison with those of the orders in Book I could well provoke a certain confusion in the reader. Unexpected variations in the orders start appearing: in the forms of bases, but above all in those of entablatures. It becomes unclear just which entablatures (and above all cornices) should be used with the Ionic, Corinthian and Composite orders. The suspicion grows that everything is not as simple as it appears from Book I, or from reading Vignola's recent »Regola delli Cinque Ordini« of 1562 (fig. 4), in many ways the model and starting point for Palladio's treatment of the orders in Book I of the »Quattro Libri«, and for the layout of his plates.²⁶ To put the matter differently, Palladio does not explicitly spell out (though the attentive reader can decipher his real attitude) his position on the use of the orders. He provides in the »Libro Primo« (which like all of his »Quattro Libri« has no real title apart from its number), what he or his publisher describes on the title page as »un breve trattato de' cinque ordini«, which gives an account of each order, its main proportions and plates illustrating its details and the order in its

*4 Jacopo Vignola:
Ionic Order, in: G.B.
de' Rossi (ed.): Regola
delli Cinque Ordini,
Roma 1620 (?), pl.
XVIII*

entirety. If we restrict our attention to the cornices of the three more ornate orders, we see the following:

Ionic: a cornice supported on plain, flat-headed modillions (fig. 5).

Corinthian: a cornice supported on ornate, scroll-like modillions (fig. 2).

Composite: Palladio writes that »si può fare simile à quello [the Corinthian] in tutte le parti, fuor che nel capitello« (I, p. 44). He does not follow this rec-

ommendation in his plate (I, p. 50; fig. 11), as the cornice is supported by chunky blocks, following the model provided by two important ancient buildings, both of them Corinthian, which he publishes in Book IV: the giant temple on the Quirinal,²⁷ and the Temple of Hadrian (fig. 12).²⁸

An examination of Palladio's own works confirms that Palladio favoured much greater flexibility in the forms used for the orders than he indicates in the »Libro Primo«. Without entering into questions of proportion, or discussing the smaller details, one can note that Palladio uses with the Ionic, Corinthian, and Composite orders four main types of cornice:²⁹

5 *Andrea Palladio: Capital and entablature of the Ionic order, Quattro Libri 1570, I, p. 36 (detail)*

1) Cornices without any form of modillion (fig. 10): following examples like the cornice of the Temple of Antoninus and Faustina and the entablature above the paired columns in Santa Costanza in Rome, used with the Ionic (Palazzo Porto, Palazzo Antonini, the smaller Ionic order of the Basilica), and with the Corinthian (the smaller interior order of San Giorgio Maggiore).

2) Cornices with plain, smooth modillions: without carved decoration, where the under surface is only slightly curved, following the example of the Temple of Saturn in the Forum (fig. 9). Palladio writes of this cornice: »La cornice è schietta, cioè senza intagli.«³⁰ Palladio probably does not depend exclusively on the Temple of Saturn, but also follows Serlio, who publishes a cornice of this type in his initial preview of the orders, and in his chapter on the Ionic order offers two alternative entablatures: one with a flat frieze and large dentils below the corona, and the other with a pulvinated frieze and modillions (fig. 6); he adds that »una simile cornice fu trovata a santa Sabina in Roma ad un ordine Ionico«.³¹ Serlio also publishes an antique example of a smooth modillion of the Temple of Saturn type (fig. 7), stating that »La cornice con li modigliani segnata, A, fu trovata fra Santo Adriano, & san Lorenzo [San Lorenzo in Miranda, i.e. the Temple of Antoninus and Faustina] in Roma«.³² Serlio was thus attentive to this antique form, which he associates with the Ionic order, probably

6 *Sebastiano Serlio: Alternative entablatures for the Ionic order, Regole generali 1537, fol. XXXIXv (detail)*

7 *Sebastiano Serlio: Antique entablature with smooth modillions, Regole generali 1537, fol. XXXXr (detail)*

on the basis of its use in the Temple of Saturn (fig. 9). He neither publishes or mentions this temple however, perhaps because he considered it »barbarous« and »licentious« (like the Porta dei Borsari in Verona) because of its unusual capitals.³³ Palladio's contemporaries appear not to have taken up Serlio's suggestion in their built works.³⁴ Palladio however did (an instance of the importance of Serlio as a source for his architectural language), and employed the cornice very frequently in his mature works: with the Ionic (the Rotonda, the upper order of the Basilica, fig. 8) and in numbers of villas. He also employed it with the Corinthian order (the Tempietto at Maser, the smaller order of the façade of San Francesco della Vigna, fig. 14) and even with the Composite order in the Loggia del Capitaniato. Palladio's unexecuted project for the façade of the Scuola Grande di San Marco in Venice (Vicenza, Museo Civico, D. 18), where a cornice of the Pantheon type is used in both the Corinthian and the Composite orders, is thus an exception in Palladio's work.³⁵

3) Cornices with scroll modillions: following the example of the Pantheon, used with the Corinthian (the external »Almerico«) side portal to the Cathedral of Vicenza (fig. 15), over the altar in the Valmarana chapel at Santa Corona and in the monument to Doge Alvise Mocenigo in the church of Santi Giovanni e Paolo in Venice.³⁶ Though the monument is large, it is still not a real building: the absence from Palladio's villas, palaces and churches of the cornice which appears in the Pantheon, and was used by Bramante in St Peter's is surprising.

4) Cornices with »chunky« modillions: of the sort indicated above. These are used with both the Corinthian (the main order of the façade of San Francesco della Vigna, the minor order of the façade of the Redentore), and with the Composite (the interior of San Giorgio Maggiore, the façades of Palazzo Valmarana, figs. 13, 41, the Loggia del Capitaniato, the Palazzo Porto Breganze and the Redentore).

8 *Andrea Palladio: Cornice of the Ionic order, Basilica, Vicenza*

9 *Temple of Saturn, entablature and capitals, 42 B. C., Rome*

10 *Andrea Palladio: Cornice (without modillions) of an Ionic temple, in: Vitruvio-Barbaro 1556 (note 4), insert to fols. 78–79 (detail)*

11 *Andrea Palladio: Composite entablature, Quattro Libri 1570, I, p. 50 (detail)*

This very summary account of Palladio's cornices furnishes surprising results. His tendency to »vary« moving elements from order to order, is closer to the actual practice of ancient Roman architects, than to that of sixteenth-century vendors of »rules«, such as Serlio's »Regole generali« of 1537 and Vignola's »Regola« of 1562. His sense of the variety present in the cornices (and other details) of ancient buildings is reflected already in his illustrations to the »Vitruvio« of 1556. Palladio completely excludes »chunky« modillions from the Vitruvius illustrations, probably because he recognised that they belonged to a period after the writer's death. For each of the three orders considered – Ionic, Corinthian, Composite – Pal-

12 *Andrea Palladio: Entablature of the Temple of Hadrian in Rome, Vicenza, Museo Civico, inv. D. 6v*

ladio shows three different possibilities for the cornice. In all three orders the option of not using modillions at all is the commonest solution, present in 19 out of a total of 28 cases. For the Ionic Palladio shows one cornice with large

13 *Andrea Palladio: Entablature of the Composite order of the façade, Palazzo Valmarana, Vicenza*

dentils, two with plain modillions, five with no modillions, for the Corinthian one with plain modillions, two with scroll modillions, and eleven without modillions, and for the Composite three cornices without modillions, two with scroll modillions, while one (the theatre exterior) follows the Colosseum, with massive brackets in the frieze to support the cornice.³⁷ Among the column bases, Attic ones predominate, and those of the Pantheon type are wholly absent. It is interesting to note that while in two cases Palladio shows elevations with the Vitruvian Ionic base,³⁸ the hexastyle Ionic temple (pp. 78–79) has Ionic bases of the type known to Palladio from ancient examples (quoted by him on the façade of Palazzo Porto), and moreover – the only instance in the book – capitals of the Temple of Saturn type.

Palladio built an architectural language on distinguished but limited foundations: a single example of a smooth modillion in an Ionic cornice (of the Temple of Saturn), and only two examples of cornices with »chunky« modil-

*14 Andrea Palladio: Major and minor
Corinthian orders of the façade, San Francesco
della Vigna, Venice*

*15 Andrea Palladio: Northern portal, Cathedral,
Vicenza*

lions, formed the basis for most of the cornices with modillions accompanying Ionic, Corinthian or Composite capitals in his built work.³⁹

Palladio in the »Libro Primo« does not give an adequate account of either his own practice or of the freedom he allowed himself. This failure is probably the result of lack of space and of the desire to offer a product competitively similar to the best-selling books of Serlio and Vignola. His approach cannot be entirely dismissed as disingenuous, because the creative variety

16 *Andrea Palladio after Pirro Ligorio: Detail of the main entablature of the »Tempietto del Clitunno«, Vicenza, Museo Civico, inv. D. 22*

of his employment of the orders comes across clearly in the rest of the »Quattro Libri«. It is above all the result of a tension – or conflict – between two aspects of the »Quattro Libri«: on the one hand the desire to present a balanced and accurate account of ancient architecture, as represented by the principal monu-

17 *Andrea Palladio: Redrawn façade elevation of the »Tempietto del Clitunno«, showing the cornice as it really is (left), and »corrected« in the overall elevation, Quattro Libri 1570, IV, p. 100 (detail)*

18 *Andrea Palladio: Ionic base, following Vitruvius, Quattro Libri 1570, I, p. 34 (detail)*

19 *Giangiorgio Trissino (?): Vitruvian Ionic base, Villa Trissino, Cricoli (Vicenza)*

ments of Rome and the text of Vitruvius (sources which as he well knew were themselves not always in agreement), and on the other to present his own version of antique architecture, adapted to modern needs and coloured by his ideas, taste and preferences. Palladio the scholar and investigator of antiquities, who presents Vitruvius' Ionic base (fig. 18) and writes concerning the architectural details of Roman temples »non vi ho posto alcuna cosa del mio« (IV, p. 3), predominates in all the books of the »Quattro Libri«, except, obviously, the »Libro Secondo«, dedicated to his own works. However the architect's preferences and vision are always present throughout the work, in both plates and comments.

A clear case is that of the Ionic base (fig. 18). Palladio gives, as he writes »le misure della basa Ionica, secondo Vitruvio: Ma perche in molti edificij Antichi si veggono à quest' ordine base Attiche, & à me più piacciono; sopra il piedestilo ho disegnato l' Attica con quel bastoncino sotto la Cimbria«.⁴⁰ Though Palladio does publish Vitruvius' Ionic base, unlike Sansovino, Sanmicheli, Vignola and even his mentor Giangiorgio Trissino in his villa at Cricoli (fig. 19) – he never used it in any of his own built works.⁴¹ Palladio in his buildings employs the Attic base with Ionic columns. The story however does not end here, for on the façade of one building, the Palazzo Porto, Palladio employs another type of Ionic base (fig. 20), an antique example of which he himself had drawn (fig. 21), differing from both the Attic and the Vitruvian base.⁴² The quotation of this base must have been explained by Palladio and discussed in erudite and artistic circles: the interest it aroused probably prompted Paolo Veronese, always attentive to architectural elements, to include it in his portrait of the owner of the new Palazzo Porto, Iseppo Porto (fig. 23).⁴³

20 *Andrea Palladio:*
Ionic base, Palazzo
Porto, Vicenza

21 *Andrea Palladio:*
Measured drawing of
an antique Ionic base
at Frascati, London,
RIBA, inv. XV/11r
(detail)

Thus Palladio reconstructs the Vitruvian Ionic base, but indicates that he preferred Attic bases (»in molti edificij Antichi si veggono à quest' ordine base Attiche, & à me più piacciono«).⁴⁴ He goes further than this in practice, criticising Vitruvius by implication, by using the »true« ancient Ionic base in a built work, Palazzo Porto in Vicenza, and, as we have seen, even inserting the »true«, un-Vitruvian Ionic base into one of the temple reconstructions in the Barbaro Vitruvius (fig. 22).⁴⁵

If the case of the Ionic base is revealing, that of the Corinthian cornice with scroll modillions, in the work of an architect revered for centuries as the modern embodiment of the best in ancient architecture, can be considered astonishing. Palladio publishes the Corinthian entablature (I, p. 43; fig. 2) with a cornice which has a projection equal to its height, and the upper, jutting members supported by elegant scroll modillions, following the example of the Pantheon (IV, pp. 78, 83; fig. 40) and other well-known ancient monuments. The surprise however lies in the fact that, as we have seen, with the exception of smaller scale works (funerary monuments, portals, tabernacles framing altarpieces), Palladio

never himself uses a motif present in an ancient masterpiece all of whose parts, he writes, are »notabilissime« (IV, p. 73).

Why should this be so? In part it must have been a question of cost.⁴⁶ Scroll modillions were more costly than either the plain ones derived from the Temple of Saturn, or the »chunky« modillions of the Hadrianeum, which in fact have no curved surfaces. They required carving of foliage, rosettes and, ideally, demanding undercutting: all of which needed a skilled stone carver, not a simple mason, and time. Palladio, moreover, constantly urges his readers to avoid extravagant and unnecessary expense. Economy however is probably not the only reason for Palladio's surprising departure from the practice of the best ancient architects and what he himself proposes in the »Libro Primo«. Some of his patrons, like Giovanni Grimani at San Francesco della Vigna, could certainly have afforded a few scroll modillions to accompany Corinthian capitals. The likelihood is therefore that Palladio decided against this usage not only to save his patrons' money, but because he actually did not like the motif. One can recall that, when he redraws Ligorio's survey of the Tempietto del Clitunno (fig. 16), he replaces the scroll modillions with plain ones, which in consequence appear in the overall façade elevation in the »Quattro Libri« plates (IV, pp. 100–102; fig. 17). This is a deliberate change, made to improve the building as it appears on paper, though one can note that Palladio, demonstrating a desire both to document and improve, shows the actual cornice in the detail.

Palladio in his chapter on the Corinthian order expresses no reservations about the use of scroll modillions. However his doubts – or antipathy – concern-

22 *Andrea Palladio: Ionic base, following surviving ancient examples, in: Vitruvio-Barbaro 1556 (note 4), p. 78 (detail)*

23 *Paolo Veronese: Detail of portrait of Iseppo da Porto and his son (1551–52) showing an Ionic base similar to that of the façade of Palazzo Porto in Vicenza, Florence, Uffizi*

ing the motif does seem to emerge in his important chapter »De Gli Abusi« (I, pp. 51–52).⁴⁷ It is not an explicit condemnation and as with his somewhat veiled criticisms of Vitruvius, Palladio displays an unwillingness to state his intimate convictions too baldly, so as not to incur criticism by frontally offending general reverence for Vitruvius. Serlio, one can recall, had written that those who criticised Vitruvius »saranno heretici ne l' architettura«.⁴⁸ It should also be remembered that in the society in which Palladio lived and worked politeness, avoidance of unnecessary conflict and disagreement, and hence a measure of dissimulation, were instinctive and often essential strategies of self-protection, above all for those – like Palladio – who had exposed public roles and perhaps held religious convictions which could lead to Inquisition proceedings.⁴⁹

Palladio refers in the chapter on architectural abuses to the origin of modillions in wooden beams.⁵⁰ He expresses an opposition to the unnatural use of »cartocci, che sono certi involgimenti« as supporting members and writes:

»Medesimamente non si farà nascer fuori dalle cornici alcuni di questi cartocci: perciocché essendo di bisogno, che tutte le parti della cornice à qualche effetto siano fatte; & siano come dimostratrici di quello, che si vederebbe, quando l'opera fosse di legname; & oltre à ciò essendo convenevole che à sostentare un carico; si richiegga una cosa dura, & atta à resistere al peso; non è dubbio che questi tali cartocci non siano del tutto superflui: perche impossibile è che traue, ò legno alcuno faccia l'effetto, che essi rappresentano: & fingendosi teneri, & molli; non so con qual ragione si possano metter sotto ad una cosa dura, & greve.«⁵¹

Palladio does not explicitly mention the Pantheon, or his own Corinthian entablature: but what else can he be intending if not the elegant, curvilinear but hardly robust forms of scroll modillions. The presence of his plate of the Composite entablature on the facing page (fig. 11), with robust chunky modillions supporting the cornice, serves to reinforce his message. Palladio makes clear that it is not only structural realities which count, but the way in which sound structure is represented: »& siano come dimostratrici di quello, che si vederebbe, quando l'opera fosse di legname.« This is not for Palladio merely a matter of architectural theory, but one of not frightening those in the vicinity by the presence of apparently unsafe structures: »Circa le progettature ancora delle cornici, & altri ornamenti; è non picciolo abuso il farli che porgano molto in fuori: [...] mettono spavento à quelli, che ui stanno sotto: perché sempre minacciano di cascare.«⁵²

It is in the »Libro Quarto«, the longest of the Four Books, that Palladio's real attitude to »ornamenti« and, by implication, to the orders emerges. The title page announces that the book describes and illustrates »I Tempij Antichi« in Rome, Italy and outside Italy.⁵³ The book is an extraordinarily precise and historically and architecturally critical presentation of 25 ancient buildings and of one modern one, Bramante's Tempietto. It represents a major innovatory achievement in the fields of antiquarian and architectural scholarship. The project obviously has its roots in Francesco di Giorgio's »book« of drawings of ancient buildings now in Turin, in Raphael's project for a corpus of ancient Roman buildings, and in the even more sophisticated projects of Claudio Tolomei's academy.⁵⁴ Peruzzi may have planned a book of drawings and comments on ancient temples: a list of Roman temples by him and his surviving drawings (and copies after them) might suggest this.⁵⁵ Both Serlio and Antonio Labacco made use of his material, but failed notably to achieve the overall conspectus of ancient temples which Palladio realises in the »Libro Quarto«, and neither of them made use of the essential guide to temple schemes provided by Vitruvius. Vitruvius was already effectively used by Antonio da Sangallo and his brother Giovan Battista to understand and reconstruct ancient temples: Battista's recently discovered corpus of reconstructed drawings of Roman buildings and twelve temples, close in its approach to Palladio's book, suggests that Palladio may have been influenced not only by knowledge of the discussions of Tolomei's circle and by Pirro Ligorio's antiquarian labours, but by the studies of the Sangallo brothers, with their concentration on recovering the appearance of Roman temples and representing them clearly in plan and orthogonal elevation, together with some of their details.⁵⁶

Palladio not only describes the site, history and overall design of each building, but also gives a perceptive and often detailed account of its architectural details, with observations on their design, workmanship and sometimes likely date. Thus in the case of the Basilica of Maxentius, which like his contemporaries he mistakenly identified with the »Tempio della Pace«, he recognises the workmanship of the details as being later than that of the period of Vespasian:

»Dicono gli scrittori che questo Tempio si brugìò al tempo di Commodo Imperatore, il che non veggo come possa esser vero, non vi essendo parte alcuna di legname, ma potria essere facilmente ch'egli fusse stato ruinato per terremoto ò per altro simile accidente, e poi ristaurato in altro tempo

24 *Andrea Palladio: Entablature of the Maison Carrée in Nîmes, Quattro Libri 1570, IV, p. 116 (detail)*

che le cose dell'Architettura non si intendevano così bene, come al tempo di Vespasiano: il che mi fa credere il vedere che gli intagli non sono così ben fatti, & con quella diligenza lavorati, che si veggono quelli dell'Arco di Tito, e d'altri edificij, che furono fatti a i buoni tempi.«⁵⁷

By publishing in the »Libro Quarto« 45 full page plates dedicated in whole or in part to large scale illustrations of details, Palladio deliberately both enriches and subverts the basic formulae offered in his »Libro Primo«. The great variety of ancient motifs is suggested, and even the fact that in ancient times every city had its own individual style. Thus Palladio writes of the two temples of Nîmes (fig. 24): »Io ho usato grandissima diligenza in questi due Tempij [di Nîmes], perche mi sono parsi edificij degni di molta consideratione, e da quali si conosce che fu come proprio di quella età l' intendersi in ciascun luogo il buon modo di fabricare.«⁵⁸

Palladio is sometimes concerned with identifying norms and standard solutions among ancient works. He writes that the frames round the rosettes between

25 *Andrea Palladio: Plan of the corner capital of the Temple of Portunus in Rome, Quattro Libri 1570, IV, p. 51 (detail)*

26 *Temple of Portunus, corner capital of the cella, late 2nd – early 1st cent. B. C., Rome*

27 *Andrea Palladio: Corner capital of the portico, Villa Chiericati, Vancimuglio*

28 *Andrea Palladio: Capital of one of the four columns in the lower floor sala, Villa Cornaro, Piombino Dese*

29 *Temple of Saturn, capital, 42 B. C., Rome*

30 *Andrea Palladio: Ionic capital of the Temple of Saturn in Rome, Quattro Libri 1570, IV, p. 117 (detail)*

31 *Andrea Palladio:
Atrium, Palazzo
Barbaran, Vicenza*

the modillions of the Basilica of Maxentius »sono quadre, & così si devono fare, come ho osservato in tutti gli edificij antichi«. But more frequently it is the outstanding or unique motif which attracts his attention. He writes of the pier capitals of the second temple at Nîmes: »non so di haver veduto capitelli di tal sorte meglio, e più giudiciosamente fatti.«⁵⁹ He records the temple in the piazza of Assisi as being unique in having pedestals under the columns: »nè io ne ho veduto alcun' altro che habbia i piedistalli.«⁶⁰ Unique too for Palladio are the corner Ionic capitals of the façade of the Temple of Portunus in the Foro Boario (figs. 25, 26): »I capitelli, che sono ne gli angoli del portico, & del tempio fanno fronte da due parti: il che non sò d' haver veduto altrove, e perche mi è paruta bella e gratiosa inventione io me ne son servito in molte fabriche, [...]«⁶¹ Similarly Palladio quotes the unusual Ionic capital, with its four volutes projecting diagonally, which he found on the Temple of Saturn (figs. 29, 30) in the Forum, describing it as »mescolati di Dorico e Ionico«.⁶² The capital appears, for instance, in the atrium of Palazzo Barbaran in Vicenza, where the diagonal placing of the volutes emphasises and harmonises with the diagonal thrust of the cross-vaults (fig. 31). As noted above, this temple provided the model for the plain and solid modillions associated with the Ionic order in the »Libro Primo«, and was imitated many times by Palladio in his Ionic and Corinthian cornices.

Palladio did not only single out unusual and rare motifs for praise, publication and imitation. He also drew general conclusions from them. After describing the unusual intertwined central volutes of the Temple of Castor and Pollux at Naples he continues: »Onde così da questo, come da molti altri

esempi sparsi per questo libro si conosce che non è vietato all' Architetto partirsi alcuna volta dall' uso commune, pur che tal variatione sia gratiosa, & habbia del naturale.«⁶³

These examples reinforce the picture that already emerges when one considers Palladio's comments on the Ionic base and his unwillingness to use a Corinthian cornice with scroll modillions: the Palladio of Book I does not fully represent either Palladio the theorist or Palladio the designer. The architectural writer who is generally considered as being the most normative of sixteenth-century architects, whose formulae were followed by generations of later architects, in fact founded his architectural vocabulary not on standard antique details, but often on unique examples, chosen simply because he liked them: the systematic character of Palladio's architecture was partly founded on unsystematic procedures, and often on intuitive and impulsive choices, not dissimilar to a painter's choice of figures to imitate, or his early mentor Trissino's montage of words and phrases lifted from the masterpieces of ancient and modern literature to serve in his own poetical works.

What were Palladio's criteria for singling out a particular motif for comment, or for incorporating it into his vocabulary to form one of the >words< of his architectural language?⁶⁴ In attempting to answer this question the »Quattro Libri«, and above all Book IV are invaluable.

Palladio frequently states simply that he likes a particular >ornamento<, or likes one motif more than another. As we have seen in Book I he writes: »queste sono le misure della basa Ionica, secondo Vitruvio [fig. 18]: Ma perche in molti edificij Antichi si veggono à quest' ordine base Attiche, & à me più piacciono; sopra il piedistilo ho disegnato l' Attica [...].«⁶⁵ He is even more explicit elsewhere: »non si trova in alcuno edificio, che gli Antichi si servissero della Ionica descritta da Vitruvio.«⁶⁶ His choice of the Attic base is both subjective and based on standard antique usage. In his built works he always employs the Attic base with the Ionic order, and never the Vitruvian Ionic base.⁶⁷

We can extend our enquiry by grouping Palladio's comments on architectural details under headings, roughly coinciding with Vitruvian categories, while remembering that for Palladio, as for Alberti before him, the components of the Vitruvian triad of >firmitas<, >utilitas< and >venustas< are mutually supportive, and that they also interlock with other requisites, like those of >decorum< and >appropriateness<, and also with restraint and economy, the latter consideration having a particular importance in Palladio's thinking and practice.

The unusually high and richly decorated base of the portico of the Lateran Baptistery (fig. 32) is eye-catching. Palladio explains its practical usefulness:

»Sopra la base della loggia vi sono foglie, che sostengono i fusti delle colonne; il che è degno di avvertenza, & è da lodare il giudizio di quell' Architetto, il quale si seppe così bene accomodare, non havendo i fusti delle colonne lunghi quanto faceva bisogno; [...] Di questa invention mi son servito ancor io, nelle colonne c'ho posto per ornamento alla porta della Chiesa di San Giorgio Maggiore in Venetia [fig. 33]: le quali non giungevano con la loro lunghezza fin dove faceva di mestieri; [...].«⁶⁸

Palladio is also attentive to the structural properties of certain details. He follows Alberti in regarding columns both as the principal ornament of building, and as often also essential structural components.⁶⁹ Thus he mentions the »colonne poste per ornamento«, adorning the façade loggia of the Basilica of Maxentius. But he also writes of the columns of the vestibule of Palazzo Thiene that »vi sono poste non tanto per ornamento, quanto per rendere il luogo di sopra sicuro, e proportionare la larghezza all' altezza«. ⁷⁰

Palladio saw the bulging form of column bases (fig. 35) as an expression of the weight placed above them: »paiono per lo sopraposto peso schizzarsi.«⁷¹ However, he considers the details of bases and the lower part of the columns joined to them as sometimes the result of the need to reinforce them structurally. He writes of the bases of the Hadrianeum (fig. 34):

»La basa è Attica, & ha un bastoncino sotto la cimbia della colonna [a rounded moulding, itself part of the column shaft]; la cimbia, ò listello e sottile molto, e così riesce molto gratiosa; & si fa così sottile ogni volta che è congiunta con un bastoncino [...] perché non è pericolo che si spezzi.«⁷²

For Palladio and other Renaissance architects the structural aspect of architectural details is not limited to their role as supporting or supported components, but extends to the way in which structure is expressed in the building. For Palladio building components needed not only to be solid and stable, but also to >seem< to be so: »perciòche essendo di bisogno, che tutte le parti della cornice à qualche effetto siano fatte; & siano come dimostratrici di quello, che

32 *Andrea Palladio: Base of the portico of the Lateran Baptistery in Rome, Quattro Libri 1570, IV, p. 63 (detail)*

33 *Andrea Palladio: Base of the small columns in the interior, San Giorgio Maggiore, Venice*

34 *Andrea Palladio: Base of the Temple of Hadrian in Rome, Quattro Libri 1570, IV, p. 52 (detail)*

35 *Andrea Palladio: Base of the giant order, Loggia del Capitaniato, Vicenza*

si vederebbe, quando l'opera fosse di legname.⁷³ His polemic was obviously encouraged by Vitruvius' famous chapter (7.5.1–4) denouncing painted and stucco representations of slender forms supporting entablatures, but could well have been reinforced by knowledge and possibly direct experience of structural collapse, possibly resulting in death or injury, and probable disgrace for the architect and craftsmen. He even writes that a function of his book is to enable his readers to avoid the collapse of buildings: »(quel lo che più importa) à schifare le varie, e continoue rovine, che in molte fabbriche si sono vedute.«⁷⁴ Palladio, again following Vitruvius, instead of using brackets to support balconies and projecting walkways, prefers to use massive projecting blocks which imitate wooden beams in stone. At the Loggia del Capitaniato (fig. 36), in homage to Vitruvius'

36 *Andrea Palladio: Balcony, Loggia del Capitaniato, Vicenza*

37 *Detail of Roman wall painting with a projecting balcony represented in the <cubiculum> from the villa of P. Fannius Synistor at Boscoreale, 40–30 B. C., New York, Metropolitan Museum of Art, inv. 03.14.13a–g*

passage on the origins of the Doric frieze, he even decorates the ends of such blocks with triglyphs.⁷⁵ It is striking that the projecting wooden balconies represented in the famous frescoes from the villa of P. Fannius Synistor at Boscoreale (dated to 40–30 B. C., fig. 37), now in the Metropolitan Museum in New York, are actually supported by similar projecting beams, their ends painted to show that they are of wood, in a fashion which

(probably unintentionally) evokes triglyphs.⁷⁶ The similarity of the Capitaniato balconies is probably to be accounted for by Palladio's familiarity with Vitruvius, rather than by his direct knowledge of similar ancient paintings.

>UTILITAS< AND FUNCTION

A functional preoccupation which emerges from Palladio's discussion of details is that of unimpeded passage. This affects the width of doors, but also column bases: those without plinths, like the bases of the round temple at Tivoli and those of the round temple in the Foro Boario in Rome (fig. 38), are singled out for comment. Of the latter he writes: »Le base sono senza Zoccolo, over Dado, ma il grado ove posano, serve per quello: il che fece l' Architetto, che l' ordinò, accioche l' entrata nel portico fusse manco impedita, [...].«⁷⁷ A drawing by Peruzzi for the improvement of the Palazzo Lambertini in Bologna also addresses the matter of commodious passage between the columns of a palace loggia: Peruzzi writes that in his solution for the cortile loggia »ne sono però tanto angustj l' intercolumnij che nelj quatro più stretj non passino comodamente due hominj al paro, e ancora tre non sendo molto invilippati in veste nuptialj«. ⁷⁸ Similar considerations must have influenced Palladio's choice of a simple cylinder, without plinth, for the bases of the small columns at the Basilica (fig. 39). A reason for choosing this »Tuscan« form was to eliminate a plinth, a possible hazard in the way of those entering or leaving Vicenza's main public building, not only shopping mall and law courts, but a place for meeting friends or doing business protected from sun or rain.⁷⁹

38 *Temple of Hercules Victor, steps and column bases, 2nd cent. B. C., Forum Boarium, Rome*

39 *Andrea Palladio: Base of the Doric minor order, Basilica, Vicenza*

The Basilica base also had the virtue of not creating visual confusion in the overall design, and of avoiding the problem of aligning its smaller elements with the mouldings of the large column bases: Palladio tends to simplify secondary and smaller details, so as to give more emphasis to larger ornamental features in the design: in the case of the Basilica the bases of the principal orders.

Palladio tells us that in many of his buildings he had imitated the capital on the corner of the Ionic temple of the Forum Boarium (figs. 25, 26): »i capitelli, che sono ne gli angoli del portico, & del tempio fanno fronte da due parti: il che non sò d'haver veduto altroue, e perche mi è paruta bella, e gratiosa inventione io me ne son servito in molte fabbriche.«⁸¹ The reason for his frequent use of the motif is clear: the capital provided a symmetrical solution for the corners of porticoes, like that of the Villa Chiericati at Vancimuglio (fig. 27), as it presented identical faces on each side of the corner. It appears on the Ionic corner capitals of the Basilica. It could also provide a small but forceful accent pointing towards the central of interior spaces, as in the capitals of the four columns in the lower »sala« of the Villa Cornaro at Piombino Dese (fig. 28). Attention to capitals of this type and their role in corners seems to begin with Serlio, who writes that »di tai capitelli ne fu trovato uno in Roma lo qual dava a pensar à molti ne si potea comprendere a che fine fusse fatto, di maniera che lo dicevano il capitel della confusione pur dipoi molte dispute fu concluso, esser stato in opera ad un' Angulo interiore di un colonnato come ho detto«.⁸²

Palladio particularly praises the treatment of the details of the aedicules in the interior of the Pantheon (fig. 40) »ne i quali è da avertire il bel giudicio, c' hebbe l' Architetto, il quale nel far ricingere l' Architrave, il fregio, & la cornice di questi Tabernacoli, non essendo i pilastri delle cappelle tanto fuori del muro, che potesser capire tutta la proiettura de quella cornice, fece solamente la Gola diritta, & il rimanente de i membri converti in una fascia«.⁸³ In the Pantheon, as Palladio explains and shows in his illustration (IV, p. 84), the cornice of the entablature of the interior tabernacles is continued on the wall to left and right, but its cornice is reduced to a flat band, topped only by the projection of its uppermost gola moulding. This lesson of the Pantheon, which had already been grasped by Raphael and is discussed by Serlio in 1540,⁸⁴ was frequently applied by Palladio in his buildings, for instance on the façade of Palazzo Valmarana (fig. 41), the Casa Cogollo and San Francesco della Vigna, in the interior of San Giorgio Maggiore and in the rear elevation of Palazzo

40 *Pantheon, interior, tabernacle and the wall elevation flanking it, Rome*

41 *Andrea Palladio: Façade, Palazzo Valmarana, Vicenza*

Chiericati. In this way he avoids excessive projections creating a heavy effect, as well as unnecessary cost. Palladio also applies this approach effectively on the exterior of the Villa Rotonda, where a flattened cornice continues the horizontal emphasis established by the projecting cornices of the four porticoes. The flattened entablature visually binds the four elevations together, while at the same time emphasising the porticoes with their fully developed cornices.⁸⁵ In other villas Palladio flattens the whole entablature, with the exception of the crowning moulding (Badoer, Cornaro in the upper order, Pisani at Montagnana, Chiericati at Vancimuglio).

Questions of visibility and scale constantly inform Palladio's judgment of ancient buildings and his approach to the design of details. He praises Bartolomeo Genga's project for a new port at Pesaro, because it will be »visibile«. ⁸⁶ Following examples of Imperial date, he often gives a much greater relative height to his entablatures than Vitruvius assigns to them, taking account both of the overall dimensions of the work and the way in which it will be seen. High, scenographically jutting entablatures can be seen for instance on the

façades of Palazzo Porto, the Basilica and Palazzo Valmarana (fig. 41): in all three buildings Palladio takes account of the fact that they could be seen from a distance, in a raking view. An awareness of the importance of the scale of a building and the way in which it would be seen already appears in Daniele Barbaro's commentary on Vitruvius. One can imagine that Barbaro's attitude was formed in exchanges with Palladio, in some instances perhaps in front of the antiquities themselves during their visit to Rome in 1554. The height of the Doric cornice of the Theatre of Marcellus (fig. 42) had been forcefully criticised by Sebastiano Serlio in his book of 1540, in what he himself terms »questo discorso«:

»Ma la cornice Dorica, quantunque ella sia ricchissima di membri, e di tanta altezza e ben lavorata; nondimeno io la trovai molto lontana da la dottrina di Vitruvio, & assai licentiosa di membri, e di tanta altezza che a la proportion de l' architrave, e del fregio, i due terzi di tale altezza sariano a bastanza. Ne mi pare perciò, che con la licentia de l' essemplio di questa, o di altre cose antiche alcuno Architetto moderno debbia errare (errare intendo il fare contra i precetti di Vitruvio) nè essere di tanta prosuntione che faccia una cornice, o altra cosa appunto di quella proportion, che egli l' ha veduta misurata, e poi metterla in opera: percioché non basta dire io lo posso fare, che anche l' antico l'ha fatto, senza considerare altramente se ella sia proportionata al rimanente de l'edificio. Oltre di ciò se quello Architetto antico fu licentioso; non dobbiamo essere noi, i quali, mentre la ragione non ci persuade altrimenti, havemo da tenere la dottrina di Vitruvio come guida e regola infallibile: percioche da i buoni antiqui perfino a la nostra età niuno si vede che de l' architettura habbia scritto meglio e più dottamente di lui. E se in ciascun' altra arte nobile veggiamo essere un primo, al quale è attribuita [sic] tanta autorità, che a i suoi detti si presta piena & indubitata fede; chi negherà, se non è temerario & ignorante, che Vitruvio nell' architettura non sia nel supremo grado: e che i suoi scritti (dove altra ragione non ci sia) debbiano essere sacrosante et inviolabili e credergli più che ad alcune opere de i Romani: i quali benché da i Greci imparassero il vero ordine de l' edificare; nondimeno poi come de i Greci dominatori forse alcuni di loro ne divennero licentiosi, e certamente chi potesse vedere le maravigliose opere che fecero i Greci, le quali sono quasi tutte estinte & abbattute dal tempo e da le guerre; giudicherebbe le cose greche di gran lunga superare le Romane. Si che tutti quegli Architetti che dannaranno i scritti di Vitruvio, e massima-

42 *Theatre of
Marcellus, two
bays of the Doric
order, 44–13 B. C.,
Rome*

mente quelle parti che s' intendono chiaramente, come l' ordine Dorico, di ch' io parla; saranno heretici ne l' architettura negando quell' autore, che da tanti anni in qua è stato approbato, & anchora da gli huomini sapienti.⁸⁷

Daniele Barbaro does not let this attack on the magnificent ancient building – so important for Palladio and his Basilica design – pass in silence. He does not mention Serlio by name, but no architect or connoisseur of the time would miss the allusion. He writes in a long passage, which becomes a sort of manifesto for the primacy of Vitruvian principles over an unthinking rule-bound Vitruvianism:

»[...] & di più si deprime l' arroganza di molti, che misurano molte membra, & molte parti, nelle ruine di Roma, & non trovando quelle rispondere alle misure di Vitruvio subito le biasimano dicendo, che Vitruvio non la intendeva, la dove imitando nelle fabbriche le cose, che hanno misurato fuori de i luoghi loro, come ferma regola sempre allo istesso modo si governano, & non hanno considerazione à quello, che Vitruvio ha detto di sopra, & molto più chiaramente dice nel presente luogo, cioè che non sempre si deve servare

le istesse regole, e Simmetrie, perché la natura del luogo richiede spesso altra ragione di misure, & la necessità ci astringe à dare, ò levare di quelle, che proposte havevamo. Però in quel caso dice Vitruvio che si vede molto la sottigliezza, & giudizio dello Architetto, il quale togliendo, ò dando di più alle misure, lo fa in modo, che l' occhio ha la parte sua, & regge la necessità con bella e sottile Ragione. Et se noi troviamo la Cornice del Theatro di Marcello alquanto diversa dalle regole di Vitruvio & il restante esser benissimo inteso, non dovemo biasimare quel grande Architetto, che fece il Theatro. Imperoché chi havesse veduto tutta l' opera insieme forse haverebbe fatto miglior giudizio, & però ben dice Vitruvio che se bene la maggior cura, che ha l'Architetto, sia d' intorno le misure, & proportioni, però grande acquisto fa di valore, quando egli è forzato partirsi dalle proposte Simmetrie, & niente lieva alla bellezza dello aspetto, ne può essere incolpato perché con ragione habbia medicato il male della necessità. E qui si vede quanto sia necessaria la prospettiva allo Architetto, e dimostra la forza sua, quando sia, che la vista nostra meravigliosamente ingannata sia dalle pitture ne i piani, che per ragione di prospettiva regolata da un sol punto fa parere le cose di rilievo, & non si può certificarsi, che non siano di rilievo se l' huomo non le tocca, o non se le avvicina. E gli inganni della vista sono, ò per la diversità de i mezzi, per li quali si vedono le cose che essendo intiere paiono spezzate, essendo piccole paiono grande, essendo lontane paiono vicine. La troppo luce impedisce, la poca non è bastevole alle cose minute. Le distanze mutano le figure, però le cose quadrate da lontano pareno tonde, & Vitruvio di tal cosa in molti luoghi, ci ha fatto avvertiti. Gli scorzi de i corpi non lascino vedere tutte le parti loro, il veloce movimento fa parere una fiamma continua, quando velocemente si move una verga affocata. La infermità à dell' occhio partorisce ancho diversi errori; però à molte cose delle sopra dette il valente Architetto può rimediare. Dapoi che adunque l' Architetto haverà molto ben considerato la ragion delle misure, & à quel tutto, che fa la cosa bella sia di che genere esser si voglia, ò sodo per sostener i pesi, ò svelto per dilettere, come il Corinthio, ò tramezzo per l' uno, e l' altro come il Ionico, & egli haverà avvertito al numero, del quale la natura si compiace nelle colonne, & nelle aperture, & che le cose alte nascono dalle basse, & che quelle proportioni, che danno diletto alle orecchie nelle voci, le istesse applicate à i corpi diletano à gli occhi, dapoi dico, che tutte queste cose seranno previste, bisognerà, che egli sottilissimamente preveda, à quello, che serà necessario à quella parte, che Eurithmia è chiamata nel primo libro.«⁸⁸

43 *Twin temples of Augustus and Roma, entablature, 2 B.C.–14 A.D., Pola*

44 *Andrea Palladio: Architrave of the twin temples of Augustus and Roma in Pola, Quattro Libri 1570, IV, p. 109 (detail)*

The cornice of the Theatre of Marcellus could teach a proportional relativism, based on Vitruvius. The details of the building also offered more specific lessons, for instance as to the way in which different moulding profiles created different effects of light and shade: for instance the concave cavetto of the Doric cornice of the ancient theatre, creates a strong thin strip of illumination along its flat upper face, below which is deep black shade, which only lightens gradually into a bright zone at the bottom of the moulding. Palladio uses the cavetto in the cornice of the Doric order of the Basilica.

Palladio observes the details of ancient buildings closely, not only for their workmanship and likely date, but in terms of the >giudicio< shown in their design (as at the Pantheon) and the reasons for the solutions adopted. He comments on the architrave of the twin temples at Pola (figs. 43, 44): »Lo Architrave è

45 Andrea Palladio: Entablature of the smaller Ionic order, Basilica, Vicenza

46 Andrea Palladio: Upper order, Basilica, Vicenza

diverso [...] dalla maggior parte de gli altri« as the fasciae of the architrave go from small at the top to large at the bottom; and furthermore they are inclined, »il che fu fatto accioché l' Architrave venisse ad haver poco sporto, & cosi non occupasse le lettere, che sono nel fregio nella fronte, [...]«.⁸⁹ Here Palladio sees the containment of the projection of the architrave as being determined by the need to maximalise the visibility of the inscription in the frieze, which would have been partially covered by a projecting architrave when seen from the ground at a normal viewing distance. Fasciae which lean backwards in an architrave, create projections at the bottom of each band sufficient to create a strip of shade below. They save stone and prevent the architrave stepping outwards in an unsightly or structurally unsatisfactory way. Such architraves were already a common feature of Quattrocento architecture in the Veneto, and probably already owe

47 *Amphitheatre, 80–100 A.D., Pola*

something to a knowledge of the monuments of Pola. Palladio himself resorts to this device in the architrave above the small Ionic columns of the Basilica, where the upper fascia is clearly inclined (fig. 45) to create a satisfactory light and shade effect without the architrave and the cornice above it encroaching too much on the adjoining column (fig. 46).

>DECORUM<, APPROPRIATENESS, COST AND THE QUESTION OF
>INTAGLI<

When Palladio writes that the architraves, friezes and cornices of the Pantheon »hanno bellissime sacome, ò modani, e sono con pochi intagli« one begins to see that considerations of economy – achieved by restraint in the use of carved detail – enter into what at first sight seem to be purely aesthetic appreciations of ancient buildings.⁹⁰

Economy of time, materials and expense are frequently referred to in the »Quattro Libri«. Palladio criticises not only the »strani abusi, le Barbare inventioni« of the architecture of earlier generations, but also the »superflue spese« which they entailed.⁹¹ He admires the ancient Romans and their architects

both for the magnificence of their temples and their ›ornamenti‹, indicating, as Peruzzi had done, the Temple of Castor and Pollux in the Forum as the finest example of Roman architectural decoration: »io non ho veduto opera alcuna meglio, e più delicatamente lavorata; tutti i membri hanno bellissima forma, [...].«⁹² However, he also praised the ancients because of their judicious economy, for instance in increasing the size of the temple cella (in the Maison Carrée and in the Temple of Portunus; fig. 26) and reducing the cost while maintaining the general aspect of a peripteral temple by using half columns, not freestanding columns, around the cella.⁹³

Concern with economy permeates all Palladio's discussion of architectural detail. It leads him to formulate the idea that the smaller the building, the more easily and justifiably the detail can be costly, that is richly decorated with ›intagli‹ whereas he approves the Romans' use of rustication in very large structures, where the blocks were merely roughed out by the masons: »gli Antichi in simil sorte di edificij, e massime ne i piccioli, posero grandissima diligenza nel polire ciascuna parte, e far loro tutti quegli ornamenti, che fossero possibili, e che stessero bene; ma che nelle fabbriche grandi come Anfiteatri [fig. 47], e simili, polirono solamente alcune particelle, lasciando il rimanente rozo per schifare la spesa, & il tempo [...].«⁹⁴

Palladio is obviously not against costly decoration, but it needs to be in the right context. His praise of Sansovino's Library »la quale è il più ricco, & ornato edificio, che forse sia stato fatto da gli Antichi in qua« is probably sincere.⁹⁵ Architectural details, parts of the orders and of doors and windows,

*48 Andrea Palladio:
Column base of the portal
of the Ante-Collegio,
Doge's Palace, Sala delle
Quattro Colonne, Venice*

49 *Andrea Palladio: Sketch for the stucco (?) ornament of a fireplace* (?), London, Westminster Abbey Library, inv. CN 4.II.46r

were necessary in most buildings of any importance. What added massively to cost and time was not the basic ›ornamenti‹, but carved decoration applied to them, that is ›intagli‹. In most of his works Palladio had to do without these: even within the interior of San Giorgio Maggiore in Venice the ›intagli‹ of the small column bases (fig. 33), are exceptional.⁹⁶ It is only in the interior of the Palazzo Ducale itself that Palladio was able, from 1574 onwards, for instance in the Sala delle Quattro Porte (fig. 48), to add the sort of carved decoration which he had recorded in the temples and baths of Rome. One can add, as far as the design of ›ornamenti‹ with ›intagli‹ goes, in smaller scale works, like tombs, altarpieces or fireplaces, the limited dimensions of the work made such carved decoration possible. Here and there on his drawings Palladio sketches designs for such works, like the sketch probably for a fireplace decoration, possibly to be executed in stucco and not in stone, which appears on his drawing preserved at Westminster Abbey (fig. 49).⁹⁷ Palladio, like his godfather Vincenzo Grandi obviously commanded a whole repertoire of all'antica decorative motifs, which appears in part in the plates of Book IV.⁹⁸ But he does not explicitly address the question of ›intagli‹, only that of architectural details, ›ornamenti‹, which as we have seen are not decoration, but an essential part of the design, often

with a structural or micro-structural role. The ›ornamenti‹ in fact are seen by Palladio as an integral part of the design, and not an applied decoration. This represents a shift in emphasis from Alberti's position, characterised by an awareness of the ambiguous role of the column in Roman architecture, part structure, part decoration. Palladio, instead, though noting (and not disapproving) the ornamental use of columns by the Romans, was drawn to a more Hellenistic approach, through his understanding of Vitruvius and his attention to buildings of pre-Imperial date. As a result, both in his theory and in buildings like Palazzo Chiericati, he recovered the column as a central architectural protagonist, with a basically structural, not a decorative role. Just as Palladio writes that large buildings should have larger doors, so the ›ornamenti‹, in form and size needed to be adjusted to the appearance and character of the whole building: the window frames of the Villa Rotonda (fig. 50), for instance are unique to that building, and are designed by Palladio to contribute to its overall exterior appearance. With the flat band of their sills (a feature which only appears in the famous villa) they echo and reinforce the system of horizontal bands, which from the flattened cornice at the top of the building down to the stepped bands which set it firmly on the ground, bind the four façades together and confer unity on its external appearance.

CONCLUSIONS

Palladio's ›ornamenti‹ are a fundamental element in his architecture, the words forming the sentences which are the entire order from pedestal to cornice, or a complete elevation. A limited selection of ›ornamenti‹, appropriate for beginners, is presented in ›Quattro Libri‹ Book I, and extended in the plates of palaces in Books II and III, though without much explanation. At first sight Book IV of the ›Quattro Libri‹ is principally an extraordinary work of archaeology and architectural history, remarkable even today for its judgment, mastery of the sources and close knowledge of the buildings, but not a guide to architectural design. At the start however he clarifies the architectural value of his publication:

»E non dubito che coloro, che leggeranno questo libro, e considereranno diligentemente i disegni; non siano per prendere intelligenza di molti luoghi, che in Vitruuio sono riputati difficilissimi, & per indirizzar l'intelletto al conoscer le belle, & proportionate forme de Tempij, & per cavarne molte nobili e varie inuentioni, delle quali à luogo, e tempo servendosi possano far conoscere nelle opere loro, come si debba, e possa variare senza partirsi da' precetti dell'arte, & quanto simil variatione sia laudabile, e gratiosa.«⁹⁹

Palladio on the basis of his (and sometimes other architects') surveys, offers a critical, architectural reading of ancient temple structures, in which he devotes considerable space to the publication and discussion of their architectural details. He discusses the ›ornamenti‹ in terms of cost, workmanship, structure, function and general appearance.

A close reading of the ›Libro Quarto‹ establishes:

- 1) the essential role for Palladio of architectural details.
- 2) his full recognition of the richness and variety of ancient architecture, seen by him as an encouragement to modern architects to ›vary‹ and invent in their own works.
- 3) Palladio's implied critique of the Renaissance view (represented by Serlio and Vignola) of the ancient architectural orders as a basically fixed and standardised system. Palladio achieved a different and more historically accurate idea of ancient architectural detail as a flexible system, where column proportions and capital types were more or less fixed, but many other elements (above all cornices) could be used with either Ionic, Corinthian or Composite capitals,

allowing for variety, inventiveness and mixtures of different types. His actual practice is more flexible than the system he presents in the »Libro Primo«. He sets out no »Regola« for the orders, and unlike Serlio and Vignola does not apply the word specifically to the orders.¹⁰⁰

4) Palladio's reading and understanding of architectural details in relation to a variety of criteria and requisites, and in relation to the historical moment in which they were created.

5) the fact that Palladio built a highly personal architectural vocabulary of »ornamenti«, based on his preferences and often on a single antique example which had caught his eye. Though Palladio is indebted to Raphael for his revival of the Quirinal temple and Hadrianeum modillion type, he is a bold innovator; in terms of sixteenth-century use of the orders, he could even be seen as a coherent but eccentric designer. Only his book, his fame and his largely posthumous influence have created the impression that Palladio represents some sort of norm, or »correctness«. In reality he never uses the Corinthian cornice with scroll modillions (seen in the Pantheon and employed for instance by Bramante at St Peter's), while his Ionic cornice with plain modillions, derived from that of the Temple of Saturn, so important in his work and that of his imitators, though proposed by Serlio for the Ionic order, seems not to have been employed by any other architect of the time.¹⁰¹

An investigation of Palladio's use of the orders which starts not from the standard schemes in Book I, or from the concept of the orders, but from his discussion of architectural details – »ornamenti« – takes us closer both to the architect's ideas and to his architectural practice. It brings into sharper focus his long endeavours to build, component by component, a personal poetics of architecture, founded on proportions and a flexible but controlled vocabulary of »ornamenti«. It shows that, as for Daniele Barbaro, Palladio was a convinced Vitruvian, in the sense, however, of giving much greater weight to Vitruvius' principles and »avvertimenti«, than to his proportional specifications. Palladio was thus able to take a middle course between Serlio's view of Vitruvius as an absolute authority, and the radical criticisms of him made by Cellini or by those who took Michelangelo as their inspiration.¹⁰² Palladio's choice and use of architectural detail depended both on an attachment to standardisation and on a liking for variety and even novelty; on an appreciation of beauty and a constant attention to functionality, on a former stone carver's eye for fine workmanship, and on a realistic appreciation of the need to contain costs. He also had a violent antipathy to any structures, great or small, which were or

51 *Giacomo Quarenghi: Entablature and capital, Anichkov palace on the corner between the Nevsky Prospect and the Mojka, St Petersburg*

even merely appeared to be unsafe, including the standard Roman Corinthian cornice with scroll modillions. For him the proportions of columns were more or less fixed, but in practice allowed for considerable flexibility. Capitals and bases could be »varied«, usually on the basis of a small number of preferred ancient examples. The cornices of his Ionic, Corinthian and Composite orders (unlike those in Vignola's book and buildings), were interchangeable. In this Palladio was closer to the ancient architects whose work he had studied with such acumen, than to Vignola or his own later followers – except those among them who had read the »Quattro Libri« with real attention, including, obviously, Inigo Jones and Giacomo Quarenghi (fig. 51).¹⁰³

NOTES

- 1 This article is a revised version of a paper delivered at the symposium »Andrea Palladio (1508–80), Quattro relazioni a cinquecento anni dalla nascita«, held at Villa I Tatti, The Harvard University Center for Italian Renaissance Studies, 2 October 2008. I am grateful to the Director, Professor Joseph Connors, for having organised this event and for the discussion which it generated. I would also like to thank Arnold Nesselrath for his encouragement and Birte Rubach for her help and close and constructive attention to the text. Note that in quotations here from Andrea Palladio: *I Quattro Libri dell' Architettura Di Andrea Palladio* [...], In Venetia, Appresso Dominico de' Franceschi, 1570, and from other printed and manuscript texts of the time accents have been added and abbreviations expanded, while the original spelling has always been preserved. In citation of titles of sixteenth-century books, the convention is observed whereby the colophon is transcribed in brackets.
For a general discussion of Palladio and the orders, see Hubertus Günther: *Palladio e gli ordini di colonne*, in: *Andrea Palladio: nuovi contributi*, ed. by André Chastel, Renato Cevese, Milan 1990, pp. 182–197; Branko Mitrović: *Palladio's Theory of the Classical Orders and the First Book of »I quattro libri dell'architettura«*, in: *Architectural History* 42 (1999), pp. 110–140.
- 2 The two architectural writers are mentioned frequently, from the opening pages of the »Quattro Libri« onwards: »mi proposi per maestro, e guida Vitruvio: il quale è solo antico scrittore di quest'arte; [...]« (I, p. 3); »La onde veggendo, quanto questo commune uso di fabricare, sia lontano dalle osservationi da me fatte ne i detti edificij, & lette in Vitruvio, & in Leon Battista Alberti, & in altri eccellenti scrittori che dopo Vitruvio sono stati, [...]« (I, p. 5); »E benché Vitruvio, Leon Battista Alberti, & altri eccellenti scrittori habbiano dato quegli avvertimenti, che si debbono hauere nell'elegger essa materia; [...]« (I, p. 7).
- 3 Vitruvius: *De architectura*, 1.1.5; 1.1.6; 4.1.2; 4.2.1; 5.1.10; 5.6.6 (two occurrences); 5.9.2; 6.3.6; 6.3.9; 7.Praef.15; 7.5.4; 10.16.8.
- 4 For comment on the passage see Antonio Corso, in: *Vitruvio: De Architectura*, a cura di Pierre Gros, traduzione e commento di Antonio Corso e Elisa Romano, 2 vols., Turin 1997, vol. 1, pp. 716–717, note 237. Palladio follows this passage not only in his reconstruction of the theatre in the 1556 *Vitruvius (I Dieci Libri dell'Architettura di M. Vitruvio tradutti e commentati da Monsignor Barbaro Eletto Patriarca d'Aquilegia*, In Vinegia, per Francesco Marcolini con Privileggi MDLVI, pp. 153–155, cited below as *Vitruvio-Barbaro 1556*), but in his sketches for the reconstruction of the Vitruvian Roman theatre, where he duly assigns one fifth of column height to the height of the entablature, see Howard Burns, in: *Palladio*, exhibition catalogue, Vicenza, London, ed. by Guido Beltramini; Howard Burns, London 2008, pp. 251–254.
- 5 Vitruvius, 1.1.5: »Historias autem plures novisse oportet, quod multa ornamenta saepe in operibus architecti designant, de quibus argumenti rationem cur fecerint quaerentibus reddere debent.«
- 6 Vitruvius, ed. Gros (note 4), vol. 2, pp. 923–924, notes 127; 128.
- 7 See Leon Battista Alberti: *De re aedificatoria: a lemmatized concordance*, compiled by Javier Fresnillo Núñez, Hildesheim/New York, 1996, 3 vols.
- 8 Cicero: *In Verrem*, 2.4.97, speaks of Verres carrying off the »decora atque ornamenta fano- rum«. See Thomas D. Frazel: *The Rhetoric of Cicero's »In Verrem«*, Göttingen 2009, pp. 107–108; Peter Stewart: *Statues in Roman Society, Representation and Response*,

- Oxford 2004, pp. 140–141. On Verres' thefts see now Margaret M. Miles: *Art as plunder. The ancient origins of debate about cultural property*, Cambridge 2009 (reviewed by Mary Beard, in: *The Times Literary Supplement*, no. 5557, 2 October 2009, pp. 3–4).
- 9 Cicero: *De Oratore*, 2.122; 3.167.
- 10 See Stewart 2004 (note 8).
- 11 Alberti: *De re aedificatoria*, 6, 13; Leon Battista Alberti: *L'architettura (De re aedificatoria)*, testo latino e traduzione a cura di Giovanni Orlandi, introduzione e note di Paolo Portoghesi, 2 vols., Milan 1966, vol. 2, p. 521. Cosimo Bartoli in: *L'architettura di Leonbattista Alberti tradotta in lingua fiorentina da Cosimo Bartoli, gentiluomo, & academico fiorentino. Con la aggiunta de' disegni*. In *Venetia: appresso Francesco Franceschi, sanese, 1565* (a new edition of Bartoli's 1550 translation), p. 196 translates the passage as »In tutta l'Architettura il principale adornamento certo consiste nelle colonne, [...]«.
- 12 Palladio 1570, I, p. 14.
- 13 Alberti 1966 (note 11), vol. 2, p. 449: »ornamentum autem afficti et compacti naturam sapere magis quam innati«. Bartoli 1565 (note 11), p. 163 translates this key passage, making use of the expressive resources of the Florentine tongue: »la bellezza è un certo che di bello, quasi come di se stesso proprio, & naturale diffuso per tutto il corpo bello, dove lo ornamento pare che sia un certo che di appiccaticcio, & di attaccaticcio, più tosto che naturale, o suo proprio.«
- 14 Alberti: *De re aedificatoria*, 6, 2; Alberti 1966 (note 11), vol. 2, pp. 447–449. On the question of the relationship between Beauty and Ornamentation in Alberti see also Veronica Biermann: *Ornamentum. Studien zum Traktat »De re aedificatoria« des Leon Battista Alberti*, Hildesheim 1997, pp. 134–150.
- 15 Biermann 1997 (note 14); ead.: »Ornamentum« und seine rhetorischen Grundlagen in Albertis Architekturtraktat, in: *Leon Battista Alberti. Humanist, Architekt, Kunsttheoretiker*, ed. by Joachim Poeschke, Candida Syndikus, Münster 2008, pp. 227–242. See also Candida Syndikus: *Leon Battista Alberti: das Bauornament*, Münster 1996 (*Beiträge zur Kunstgeschichte des Mittelalters und der Renaissance* 4).
- 16 Vitruvio-Barbaro 1556 (note 4), p. 8.
- 17 The literature on Barbaro's »Vitruvio« and Palladio's role in it is substantial. Among important contributions are: Vitruvio, *I dieci libri dell'architettura. Tradotti e commentati da Daniele Barbaro. Con un saggio di Manfredo Tafuri e uno studio di Manuela Morresi*. (Facsimile of the Venice edition of 1567), Milan 1987; Manfredo Tafuri: *Daniele Barbaro e la cultura scientifica veneziana del >500<* in: *Cultura, scienze e tecniche nella Venezia del Cinquecento, Atti del Convegno Internazionale di Studio Giovan Giovanni Battista Benedetti e il Suo Tempo*, ed. by Antonio Manno, Venice 1987, pp. 55–81; Margaret D'Evelyn: *Venice as Vitruvius's city in Daniele Barbaro's »Commentaries«*, in: *Studi veneziani* 32 (1996), pp. 83–104; ead.: *Varietà and the Caryatid Portico in Daniele Barbaro's Commentaries on Vitruvius*, in: *Annali di architettura* 10/11 (1998/1999), pp. 157–174; Branko Mitrović: *Paduan aristotelianism and Daniele Barbaro's commentary on Vitruvius' De architectura*, in: *The sixteenth century journal* 29 (1998), pp. 667–688. To these should be added the studies of Louis Cellauro: *Disegni di Palladio e di Daniele Barbaro nei manoscritti preparatori delle edizioni del 1556 e del 1567 di Vitruvio*, in: *Arte veneta* 56 (2000), pp. 52–63; id.: *Daniele Barbaro and his Venetian editions of Vitruvius of 1556 and 1567*, in: *Studi veneziani* 40 (2000), pp. 87–134; id.: *Daniele Barbaro and Vitruvius: the architectural theory of a Renaissance humanist and patron*, in: *Papers of the British School at Rome* 72 (2004), pp. 293–329.

- 18 Palladio 1570, I, p. 6.
- 19 Though Palladio may have used the Lauro translation of Alberti of 1546 (*I dieci libri de l'architettura di Leon Battista de gli Alberti fiorentino, huomo in ogni altra dottrina eccellente, ma in questa singolare; da la cui prefazione breuemente si comprende la commodita, l'utilita, la necessita, e la dignita di tale opera, [...] Novamente da la latina ne la volgar lingua con molta diligenza tradotti*. In Vinegia: appresso Vincenzo Vaugris, 1546), he probably subsequently used Bartoli's far superior illustrated translation of 1550. In the years in which he was completing the »Quattro Libri«, the most convenient edition was the 1565 reissue of Bartoli's translation, cited above (note 11).
- 20 Palladio 1570, IV, p. 3
- 21 Palladio 1570, II, p. 16.
- 22 Palladio 1570, IV, p. 128.
- 23 Palladio 1570, I, pp. 55–59.
- 24 *Ibid.*, I, p. 55.
- 25 *L'idea della architettura uniuersale*, di Vincenzo Scamozzi architetto veneto diuisa in 10 libri. Parte prima–seconda. Venetiis: expensis auctoris, 1615 (In Venetia: per Giorgio Valentino, 1615), Parte Prima, I, cap. XXX, p. 141.
- 26 See Scott Opler: Palladio and Vignola on the Orders, in: *Coming about ... : a Festschrift for John Shearman*, ed. by Lars R. Jones, Louisa C. Matthew, Cambridge, Mass. 2001, pp. 255–265; Howard Burns: Palladio and the planning and writing of the *Quattro Libri*, in: *Saggi di letteratura architettonica*, da Vitruvio a Winckelmann, vol. III, ed. by Howard Burns, Giorgio Bacci, Florence 2009, pp. 69–96.
- 27 Palladio 1570, IV, pp. 41–47. See on the Temple of Serapis on the Quirinal as it appears in Renaissance views and reconstructions, Cammy Brothers: *Reconstruction as design: Giuliano da Sangallo and the »palazzo di mecenate« on the Quirinal Hill*, in: *Annali di architettura* 14 (2002), pp. 55–72. For a summary of the development of Roman Corinthian cornices and modillions, see Mark Wilson Jones: *Principles of Roman Architecture*, New Haven/London, pp. 141–142; on the »chunky« modillion, see the fundamental study of Donald E. Strong: *Late Hadrianic Architectural Ornament in Rome*, in: *Papers of the British School at Rome* 21 (1953), pp. 118–151; Peter Liljenstolpe: »De Ornamentis Templi Urbis«. Reconstructing the main order of the Temple of Venus and Roma in Rome, in: *Opuscula Romana* 20 (1996), pp. 47–67.
- 28 Palladio 1570, IV, pp. 55–61. On the Hadrianeum see Lucos Cozza: *Tempio di Adriano*, Rome 1982 (*Lavori e studi di Archeologia* 1); for a bibliography on this ancient cornice type see pp. 18–23. Before Palladio, it was employed (with Ionic capitals) at the Villa Madama, by Baccio d'Agnolo in the main cornice of Palazzo Bartolini in Florence, by Antonio da Sangallo in the Ionic order of the cortile of Palazzo Baldassini and on the façade of Santa Maria in Porta Paradisi. See Pier Nicola Pagliara: *Antonio da Sangallo e gli ordini*, in: *L'emploi des ordres dans l'architecture de la Renaissance, actes du colloque tenu a Tours du 9 au 14 juin 1986*, Université de Tours, Centre National de la Recherche Scientifique, Centre d'Études Supérieures de la Renaissance, ed. by Jean Guillaume, Paris 1992, pp. 137–156 (especially p. 145).
- 29 In what follows I have taken the liberty of using expressive and I hope clear descriptive terms for the main types of modillions: »smooth« or »plain« for the type Palladio often uses with the Ionic order; »scroll modillion« for the »S«-shaped modillions found in the Pantheon and many other major temples of Imperial date, and »chunky« for the block-like modillions which first appear in Hadrianic buildings.

- 30 Palladio 1570, IV, pp. 124–127. Palladio mistakenly considers the temple to have been the nearby Temple of Concordia Augusta. Palladio, unlike Giovan Battista da Sangallo who offers a fairly accurate reconstruction of the plan of the temple, not only extends the cella, but adds a further column at the side of the portico; on Battista's drawings in the ex-Codex Stosch, now Codex Rootstein-Hopkins at the RIBA Library, Drawings and Archives Collection in London, see Ian Campbell, Arnold Nesselrath: *The Codex Stosch: surveys of ancient buildings by Giovanni Battista da Sangallo*, in: *Pegasus. Berliner Beiträge zum Nachleben der Antike* 8 (2006), pp. 9–90 (the Temple of Saturn is drawn on fols. 18v and 19r of the codex, reproduced on pp. 80–81). Palladio had already recorded the temple in a drawing of the 1540s, RIBA XI/11r, which on the recto shows the portico plan alone (with three columns at the side of the portico), an elevation of the façade, and perspectival renderings of the cornice with modillions and the column base. On the verso is the overall plan of the temple. This sheet seems to have been the basis for his drawings – probably of the 1560s – RIBA XI/20r (left half), which shows the façade elevation, and RIBA XI/20v (right half), with the plan, again with a portico three columns deep. These drawings are the immediate sources for the plan and elevation in the »Quattro Libri«. On the temple, of late date, but incorporating much earlier elements, see Patrizio Pensabene: *Tempio di Saturno*, Rome 1984 (*Lavori e studi di Archeologia* 5); for the cornice and its modillions, pp. 47–48. On the temple's modillions and related examples see also Pierre Gros: *Aurea Templi. Recherches sur l'architecture religieuse de Rome à l'époque d'Auguste*, Rome 1976, pp. 221–234.
- 31 [Sebastiano Serlio]: *Regole generali di architettura sopra le cinque maniere de gli edifici, cioe, thoscano, dorico, ionico, corinthio, et composito, con gli essempli dell'antiquita, che, per la magior parte concordano con la dottrina di Vitruvio*. In Venetia: per Francesco Marcolini da Forli (Impresso in Venetia: per Francesco Marcolini da Forli apresso la chiesa di la Trinita, 1537, il mese di settembre) [fol.], fols. VI, XXXIXv.
- 32 Serlio 1537 (note 31), fol. XXXXr.
- 33 Il terzo libro di Sabastiano Serlio bolognese, nel qual si figurano, e descrivono le antiquita di Roma, e le altre che sono in Italia, e fuori d'Italia. (Impresso in Venetia: per Francesco Marcolino da Forli. apresso la chiesa de la Trinita, 1540. del mese di marzo) [fol.], p. CXLI, writes: »Di molte altre cose che sono in Verona io non tratterò, per esservi de le antiquità molto licentiose, e massimamente l' arco triumphale che si dice de i Borsari: e per esser cosa barbara; io non l' ho voluto mettere fra queste cose belle, e bene intese.«
- 34 Bramante, Raphael, Peruzzi, Antonio da Sangallo il Giovane, Sanmicheli, Sansovino and Vignola all seem to have avoided cornices of this sort, even though Serlio's text shows that at least by the 1530s numbers of examples of it were known and had – surely – been discussed; the Temple of Saturn had always been prominently visible. See Giovan Battista da Sangallo's drawing in the Codex now at the RIBA Library, Drawings and Archives Collection, fols. 18v and 19r, Campbell, Nesselrath 2006 (note 30), pp. 80–81 and Arnold Nesselrath, in: *Palladio* 2008 (note 4), pp. 280–281, cat. 129. On the orders of major sixteenth-century architects, see on Bramante, Christiane Denker Nesselrath: *Bramante e l'ordine corinzio*, in: *L'emploi des ordres* 1992 (note 28), pp. 83–96; on Raphael, Christoph Luitpold Frommel: *Raffaello e gli ordini architettonici*, in: *ibid.*, pp. 119–136; on Sangallo see Pagliara 1992 (note 28); on Sanmicheli, Pier Nicola Pagliara: *Sanmicheli e gli ordini*, in: *Michele Sanmicheli: architettura, linguaggio e cultura artistica nel Cinquecento*, Centro Internazionale di Studi di Architettura »Andrea Palladio« di Vicenza, Milan 1995, pp. 134–153. On Vignola see Jacopo Barozzi da Vignola, ed. by Richard J. Tuttle, Bruno Adorni, Christoph Luitpold Frommel, Christof Thoenes, Milan 2002, *passim* and above all the

- contribution of Arnaldo Bruschi: *Introduzione a Vignola: ornamenti »antichi« – architetture »moderne«*, pp. 9–23.
- 35 The best reproduction of the drawing is to be found in Lionello Puppi: *Palladio, Corpus dei Disegni*, Milan 1989, pl. 49. See now on the drawing Lionello Puppi, in: *I disegni di Andrea Palladio*, ed. by Maria Elisa Avagnina, Giovanni Carlo Federico Villa, *Gabinetto Disegni e Stampe dei Musei Civici di Vicenza*, Cinisello Balsamo 2007 (Catalogo scientifico delle collezioni Museo Civico Vicenza 1), pp. 154–155.
- 36 On these works see Andrea Palladio. *Atlante delle architetture*, ed. by Guido Beltramini, Antonio Padoana, Venice 2000: the Almerico portal on pp. 51; 261; the Cappella Valmarana on pp. 92–95; 265. On the Mocenigo tomb see Tracy E. Cooper: *Palladio's Venice, Architecture and Society in a Renaissance Republic*, New Haven/London 2005, pp. 191–195.
- 37 As these are shown only frontally, and there is no shading of mouldings in the illustrations, these might indicate projecting blocks, like those present in the Palazzo Valmarana cortile. My sample includes the detail of the Ionic entablature, and all the major and minor orders illustrated in the book. The Corinthian arch of the title page, which I have excluded from the sample, has a cornice with scroll modillions. I have not included the two Composite orders which appear in the streets of the scene of the theatre (pp. 156–157), and have cornices without modillions.
- 38 Vitruvio-Barbaro 1556 (note 4), pp. 22–23; 86–87.
- 39 Palladio shows smooth modillions on the façade of the *Tempietto del Clitunno* (Palladio 1570, IV, pp. 98–102), a precedent therefore for the employment of a cornice of this type with Corinthian capitals. However this is a deliberate »textual emendation« of the building, introduced when he copied Pirro Ligorio's drawing, where the existing scroll modillions are clearly visible. Compare the illustrations of Ligorio's and Palladio's drawings in: Palladio 2008 (note 4), pp. 131; 134; 135 and a detail of the actual *Tempietto* in Judson J. Emerick: *The Tempietto del Clitunno near Spoleto*, 2 vols., University Park, Penns. 1998, vol. 2 (Illustrations), fig. 16.
- 40 Palladio 1570, I, p. 31.
- 41 On the question of the Ionic base in Renaissance theory and practice see Howard Burns: *Baldassare Peruzzi and sixteenth-century architectural theory*, in: *Les Traités d'architecture de la Renaissance, actes du colloque tenu à Tours du 1er au 11 juillet 1981*, Université de Tours, Centre d'Études Supérieures de la Renaissance, ed. by Jean Guillaume, Paris 1988, pp. 207–226; Frédérique Lemerle, Yves Pauwels: *L'ionique: un ordre en quête de base*, in: *Annali di architettura* 3 (1991), pp. 7–13. For illustrations and comment on the Ionic base of Palazzo Porto see Guido Beltramini: *Palazzo Porto*, in: Palladio 2008 (note 4), pp. 70–79; at pp. 74–75.
- 42 London, RIBA XV/111: the freehand profile of the base is accompanied with measurements, and labelled »questa base sie a frascati«, on a sheet that carries sketches of three other bases. Lemerle, Pauwels 1991 (note 41), pp. 7–13.
- 43 On Veronese's fine portrait of Iseppo and his son Leonida (now in the Uffizi), see Guido Beltramini, in: Palladio 2008 (note 4), pp. 78–79, cat. 36.
- 44 Palladio 1570, I, p. 31.
- 45 Vitruvio-Barbaro (note 4), III, cap. II, p. 78, where Palladio shows the façade elevation of a hexastyle Ionic temple, with capitals based on those of the Temple of Saturn.
- 46 Cosimo Bartoli explains that he used the Doric order in the Florentine palace of the bishop of Cortona, Giovan Battista Ricasoli, for two reasons, the first of which was the limited resources of the bishop: »L'una il volere haver rispetto alla borsa del Cortona che non era

- molto gagliarda; et l'altra fu che io ho havuto sempre in venerazione le cose di Michelagnolo Buonarroti.« The passage is quoted by Charles Davis: *Cosimo Bartoli and the Portal of Sant'Apollonia by Michelangelo*, in: *Mitteilungen des Kunsthistorischen Institutes in Florenz* 19 (1975), pp. 262–276, at p. 275, from *Ragionamenti accademici di Cosimo Bartoli gentil'huomo et academico fiorentino, sopra alcuni luoghi difficili di Dante*. Con alcune inuentioni & significati, & la tauola di piu cose notabili. In Venetia: appresso Francesco de Franceschi Senese, 1567, pp. 1b–2b.
- 47 On this chapter's references to the example of Nature, see Bruce Boucher: *Nature and the antique in the work of Andrea Palladio*, in: *The Journal of the Society of Architectural Historians* 59 (2000), pp. 296–311.
- 48 See below for the »discorso« as Serlio calls it, directed at those who follow the antiquities rather than Vitruvius.
- 49 Palladio's religious views, unlike those of a few of his friends and patrons, are not known. For comments on the Vicentine religious world, and its possible impact on Palladio's villa architecture, see now Andrea del Meo: *L'Olimpo in villa*, in: *Saggi di letteratura architettonica*, vol. III, 2009 (note 26), pp. 147–168.
- 50 Palladio 1570, I, p. 51: »così ancho nelle cornici introdussero i Triglifi, i Modiglioni, & i Dentelli: i quali rappresentano le teste di quelle travi, che ne i palchi, e per sustentamento de i coperti si pongono.«
- 51 Palladio 1570, I, pp. 51–52.
- 52 *Ibid.*, p. 52.
- 53 »IL QUARTO LIBRO DELL' ARCHITETTURA Di Andrea Palladio nel qual si descrivono, e si figurano i Tempij Antichi, che sono in Roma. Et alcuni altri, che sono in Italia, e fuori d' Italia.«
- 54 The aims and »research goals« of the academy are set out in Claudio Tolomei's famous letter of 1542 to Conte Agostino de' Landi, first published in Claudio Tolomei: *De le lettere di M. Claudio Tolomei lib. sette, con una breve dichiarazione in fine di tutto l'ordine de l'ortografia di questa opera*, Vinegia: Appresso Gabriel Giolito de Ferrari, 1547, fols 81r–85v. The letter is reprinted in *Trattati: con l'aggiunta degli scritti di architettura di Alvise Cornaro, Francesco Giorgio, Claudio Tolomei, Giangiorgio Trissino, Giorgio Vasari*, ed. by Elena Bassi, Sandro Benedetti, Milan 1985.
- 55 The list, in Latin, appears on the margin of U 489 Ar, published in Heinrich Wurm: *Baldassare Peruzzi: Architekturzeichnungen*, Tübingen 1984, pl. 337. It includes 19 temples, of which two, the Temple of Apollo at Terracina and the Temple of Castor and Pollux in Naples, are outside Rome. The list is headed by the Pantheon and the »templum pacis«, indicating a rough listing by order of importance. Rather than a project for a book, it may well be a list of temples which Peruzzi had already drawn.
- 56 Campbell, Nesselrath 2006 (note 30).
- 57 Palladio 1570, IV, p. 11.
- 58 *Ibid.*, p. 118.
- 59 *Ibid.*
- 60 *Ibid.*, p. 103.
- 61 *Ibid.*, p. 48. Palladio punctiliously observes that these capitals are used both in the corners of the portico and of the main body of the temple. See on the temple Jean-Pierre Adam: *Le Temple de Portunus au Forum Boarium*, Paris 1994 (Collection de l'École Française de Rome 199).
- 62 Palladio 1570, IV, p. 124.

- 63 Ibid., p. 95.
- 64 On Palladio's architectural system, conceived and elaborated on the model provided by his mentor Giangiorgio Trissino in his writings on grammar, language and poetics, as a poetics founded on a grammar (of proportions) and a controlled vocabulary, see Howard Burns: Making a new architecture, in: Palladio 2008 (note 4), pp. 270–272.
- 65 Palladio 1570, I, p. 31.
- 66 Palladio 1570, IV, p. 48 (the chapter on the »Tempio della Fortuna Virile«).
- 67 Palladio's quotation of an antique Ionic base type, rare in Roman Italy, is discussed above.
- 68 Palladio 1570, IV, p. 53.
- 69 See above, and also Alberti, *De re aedificatoria*, I, 10; Alberti 1966 (note 11), vol. 1, p. 71: »ipsi ordines columnarum haud aliud sunt quam pluribus in locis perfixus adaptusque paries.«
- 70 Palladio 1570, II, p. 12.
- 71 Palladio 1570, I, p. 51.
- 72 Palladio 1570, IV, p. 55.
- 73 Palladio 1570, I, pp. 51–52. The whole passage, which depends on Palladio's idea, derived from Vitruvius, that modillions and triglyphs have their origin in wooden structures, is discussed above.
- 74 Palladio 1570, I, p. 5.
- 75 On the Loggia del Capitaniato see Guido Beltramini, in: Palladio 2008 (note 4), pp. 202–205, and specifically on the balconies Howard Burns, *ibid.* pp. 260–261.
- 76 Basic information on the villa and its frescoes, together with bibliography, is provided on the site of the Metropolitan Museum, New York: »Boscoreale: Frescoes from the Villa of P. Fannius Synistor«, in Heilbrunn Timeline of Art History [http://www.metmuseum.org/toah/hd/cubi/hd_cubi.htm (dated October 2004)]. Bettina Bergmann, Stefano De Caro, Joan R. Mertens, Rudolf Meyer: Roman Frescoes from Boscoreale: The Villa of P. Fannius Synistor in Reality and Virtual Reality, New Haven, will appear in 2010.
- 77 Palladio 1570, IV, p. 52. Compare Alberti's comment on the round temple by the Tiber, *De re aedificatoria*, 7, 7; Alberti 1966 (note 11), vol. 2, pp. 572–573, which stresses the aesthetic, not the functional aspect of the solution: see Howard Burns: Leon Battista Alberti a Roma: il recupero della cultura architettonica antica, in: *La Roma di Leon Battista Alberti: umanisti, architetti e artisti alla scoperta dell'antico nella città del Quattrocento*, ed. by Francesco Paolo Fiore, Milan 2005, p. 37.
- 78 Florence, Gabinetto Disegni Stampe degli Uffizi, inv. U 352A r, reproduced in Wurm 1984 (note 55), pl. 134. On this lost work of Peruzzi see Maurizio Ricci: Peruzzi felsineo: lo scomparso Palazzo Lambertini in via degli Orefici e l'architettura bolognese del primo Cinquecento, in: *Bollettino d'arte* 85 (2000), pp. 79–102.
- 79 Similar simple cylindrical bases appear in Palladio's reconstruction of the terrace structures above the Roman theatre at Verona (RIBA X/13r and v). It is likely that these elements result from a conjectural restoration by Palladio.
- 80 Vitruvio-Barbaro 1556 (note 4), p. 171. The whole passage is quoted below.
- 81 Palladio 1570, IV, p. 48.
- 82 Serlio 1537 (note 31), fol. XXXVIIIv. Serlio introduces the matter thus: »Et perche tal volta potrebbe accadere a l' Architetto, di fare un Chostro quadrato con colonne Ioniche, o vero un cortile di un palazzo, che s' egli non sarà avvertito alle colonne angolari, parte di esse colonne haveranno la fronte de le volute verso il cortile & parte haveranno i fianche delle volute pur verso il cortile & questo è intervenuto ad alcuno Architetto Moderno, ma per

non cascare in tal errore gli sarà necessario di far li capitelli angulari come è qui sotto ne la pianta.« The capital which Serlio shows below this text is in fact like the Ionic capital in the corner of Palladio's Palazzo Barbaran in Vicenza, see Palladio, *Atlante 2000* (note 36), photograph on p. 71. Serlio makes no reference to the corner capital of the Temple of Portunus.

- 83 Palladio 1570, IV, p. 74.
- 84 Serlio 1540 (note 33), p. XVI: »Questa figura dimostra uno di quei tabernacoli [del Pantheon], che sono fra le capelle, e le colonne da le bande rappresentano le colonne quadre de le capelle, e qui si vede il bel giudicio, che hebbe l' Architetto, il quale volendo far recingere l' architrave, il fregio, e la cornice, e non essendo la colonna quadra tanto fuori del muro, che ci potesse capire tutta la proiettura d' essa cornice, fece solamente la gola dritta, & il restante de i membri converse in una fascia; onde tal opera è molto gratiosa, & accompagna l' ordine.«
- 85 A similar solution is employed at Palladio's Villa Foscari.
- 86 Howard Burns, in: Palladio 2008 (note 4), pp. 169–170, cat. 86b (RIBA XVI/9v) and Burns 2009 (note 26), pp. 90–94.
- 87 Serlio 1540 (note 33), p. XLVI. Serlio returns to the theme, in somewhat milder tone, on p. XLVIII: »la qual cornice è veramente per la metà piu che non deveria se a la dottrina di Vitruvio vogliamo prestar fede. Ma ti prego discreto lettore che non mi vogli imputare di prosuntione, ne istimarmi temerario ne severo reprehensore, e castigatore delle cose antiche, da le quali tanto se impara, perche l' intento mio è di far conoscere le cose bene intese da le male intese, e non come da me, ma con le autorità di Vitruvuo, & ancho de le buone antiqità, le quali sono quelle, che si conformano piu con la dottrina di esso autore.«
- 88 Vitruvio-Barbaro 1556 (note 4), p. 171. The passage already displays Barbaro's interest in perspective, which resulted in his book of 1567.
- 89 Palladio 1570, IV, pp. 107; 109.
- 90 *Ibid.*, p. 73.
- 91 Palladio 1570, I, p. 5.
- 92 Palladio 1570, IV, pp. 67–69. Peruzzi writes on U 631A r »Questa è la più bella e meglio lavorata opera di Roma«, Wurm 1984 (note 55), pl. 459. See Burns 1988 (note 41), pp. 212–213.
- 93 Palladio 1570, IV, p. 8.
- 94 *Ibid.*, p. 98. See also the similar passage in Palladio 1570, I, p. 14: »E s'era qualche edificio molto grande, com'è l'Arena di Verona, l'Anfiteatro di Pola, e simili, per fuggir la spesa e tempo, che vi sarebbe andato; lavoravano solamente l'imposte de' volti, i capitelli, e le cornici, & il resto lasciavano rustico, tenendo solamente conto della bella forma dell'edificio.«
- 95 Palladio 1570, I, p. 5.
- 96 These bases, imitated from those of the portico of the Lateran Baptistery, are mentioned by Palladio in Book IV, pp. 53, 55: »Sopra le base della loggia vi sono foglie, che sostengono i fusti delle colonne; il che è degno di avvertenza, & è da lodare il giudicio di quell'Architetto, il quale si seppe così bene accomodare, non havendo i fusti delle colonne lunghi quanto faceva bisogno; senza levare all'opera alcuna parte della sua bellezza, & maestà. Di questa invention mi son servito ancor io, nelle colonne c' ho posto per ornamento alla porta della Chiesa di San Giorgio Maggiore in Venetia: le quali non giugnevano con la loro lunghezza fin dove faceva di mestieri; e sono di così bel marmo, che non meritavano di esser lasciate fuori di opera.«
- 97 Howard Burns, in: Palladio 2008 (note 4), pp. 251–252, cat. 127a.

- 98 On Vincenzo Grandi's knowledge of all'antica decorative motifs and themes, see now Jeremy Warren: *Nato a Padova*, in: *Palladio 2008* (note 4), pp. 16–23; at 20–22, cat. 4 and 5.
- 99 *Palladio 1570*, IV, p. 72.
- 100 Palladio uses the word »regola«/»regole« only four times in his »Libro Primo«. He uses it twice in a very general sense, writing that in his book he will present »quelle regole, che nel fabricare ho osseruate, & osseruo« (*Palladio 1570*, I, p. 5), and that »onde si uede che ancho gli Antichi variarono: nè però si partirono mai da alcune regole uniuersali, & necessarie dell'Arte, come si vederà ne' miei libri dell'Antichità« (*Palladio 1570*, I, p. 52). In the two other instances where Palladio uses the word in his book on the orders, it is to state that no fixed rules are applicable. Thus he writes of ceiling decoration: »Altri vi vogliono compartimenti di stucchi, ò di legname, ne' quali si mettano delle pitture: e così secondo le diuerse intentioni s'adornano: e però non si può dare in ciò certa, e determinata regola« (*Palladio 1570*, I, p. 53). And in relation to the proportions of doors and windows (*Palladio 1570*, I, p. 55) he recommends flexibility: »Non si può dare certa, e determinata regola circa le altezze, e le larghezze delle porte principali delle fabbriche, e circa le porte, e finestre delle stanze. Percioche à far le porte principali si deve l'Architetto accommodare alla grandezza della fabrica, alla qualità del padrone, & alle cose, che per quelle deono essere condotte, e portate.«
- 101 On Bramante's use not just of the capitals, but in an approximate fashion of the order of the Pantheon in the interior of St Peter's, with the exclusion of the »Composite« bases, see Christiane Denker Nesselrath: *Die Säulenordnungen bei Bramante*, Worms 1990, pp. 86–90 and Denker Nesselrath 1992 (note 34).
- 102 Cellini's criticisms of Vitruvius are contained in his brief »Dell' Architettura«; *Vita di Benvenuto Cellini, orefice e scultore fiorentino, scritta da lui medesimo*, ed. by Francesco Tassi, 3 vols., Florence 1829, vol. 3, pp. 346–373.
- 103 Quarenghi displays a certain flexibility and liberty, clearly learned from Palladio, in his cornices and other details. He even combines Ionic capitals with a Doric frieze in his addition to the Anichkov palace at St Petersburg, on the corner between the Nevsky Prospect and the Mojka: see Howard Burns: *La città bianca: continuità e innovazione nell'architettura di San Pietroburgo, 1762–1825*, in: *Dal mito al progetto. La cultura architettonica dei maestri italiani e ticinesi nella Russia neoclassica*, ed. by Nicola Navone, Letizia Tedeschi, 2 vols., Lugano and Mendrisio 2003, vol. 2, pp. 486–492.

PHOTOGRAPHIC CREDITS

Figs. 1–11, 13–15, 17–20, 22, 24–36, 38–48, 50–51: Archive Burns. – Figs. 12, 16: Puppi 1989 (note 35), p. 99, fig. 4, p. 102, fig. 12. – Figs. 21, 49: *Palladio 2008* (note 4), p. 75, fig. 11, p. 252, no. 127A. – Fig. 23: Mina Gregori: *Uffizien und Palazzo Pitti. Die Gemäldesammlungen von Florenz*, Munich 1994, p. 280, fig. 372. – Fig. 37: Carlos A. Picón (ed.): *Art of the Classical World in the Metropolitan Museum of Art*, New York 2007, p. 322, fig. 375c.

Much of architectural theory, from Alberti to Palladio, and from Perrault to Blondel, observes a straightforward Vitruvian homage to the orders and classicism as a whole. While current practice informs their theories, they are one step removed from a "pure" maker's knowledge. Their design thinking, while reflective of their own works, also borrows heavily on classic theoretical works and Vitruvius in particular. By utilizing these aspects, the ornamentation and unnecessary forms of designs were obliterated and instead replaced by a plainer but functional look. Despite the growing movement of functionalism and machine aesthetics during the early 20th century, there still lie the differences and comparisons between the utilizations, views, and ideas about them from America and Europe. Machine purity was a reaction against the ornamentation of previous decades and even the Moderns. Honesty in use and materials was sought " functions should not be concealed beneath a covering, and items shouldn't be presented as something they were not. Simplicity and sterility championed the pure white of the hospital and lab.