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PERFECTION IN RULE OR A LICENSE TO INNOVATE? EARLY MODERN ARCHITECTS READ VITRUVIUS BOOK 3.1

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For the historian of early modern Italian architecture, Vitruvius is unavoidable. In fifteenth- and sixteenth-century Italy, the study of Vitruvius, in conjunction with the surviving physical models of ancient buildings, was a project that united architects. With the difficult tract as their guide, architects teamed together, often with learned aides, to understand the principles of ancient design.[1] Comparing Vitruvian *dicta* with antiquarian fragments, architects endeavored to recreate the forms, numbers, and proportional rules prescribed by the ancient author. And using pencil, charcoal, and ink, they created images, filling in the voids of the famously unillustrated text.

The relative popularity of *De architectura* in the early modern period is attested to in its widespread dissemination in manuscript form; still today, there are more than forty fifteenth-century manuscripts containing the text. No two copies are alike. As the product of manual reproduction, each copy of the treatise is its own unique version, with its own lacunae, errors, and additions.[2] Circulation of the treatise became even more widespread in 1486 when Giovanni Sulpizio, in his own words, 'observed that it could be of great significance … if the divine work of Vitruvius were distributed in a great number of copies' (*cum diuinu*[*m*] *opus Victruuii … si in exemplaria innumera diffunderetur: multum conferre posse animaduerterem*).[3] Following Sulpizio's *editio princeps* of 1486 there were the canonical printed editions of Fra Giocondo (1511) and Cesare Cesariano (1521), in Latin and Italian respectively, both with illustrations, as well as the authoritative commentaries of Giovanni Caporali (1536), Guillaume Philander (1544), and Daniele Barbaro (1567), not to mention numerous other intermediary versions and secondary editions. One can fairly say that in early modern Italy it was not terribly difficult to gain access to some version of *De architectura*.[4]

Vitruvius' book 3.1 on the principles of symmetry in temple design was one of the passages most poured over by early modern architects. The Vitruvian analogy between the human figure and architecture—the idea that a building should adhere to rules of symmetry and proportion, just as the members of a well-formed body are found in perfect agreement—tapped into a theory of proportions that extended back

1. The French architect Philibert de l'Orme notes that in measuring ancient monuments, 'There were numerous men who helped me every day, some for pay, some to learn, as excavators, sculptors, carvers and others …' (Pérouse de Montclos [1988], 131r).
2. Clarke (2002), 320–8, and (2003), 283–90; di Teodoro (2016), 116.
3. Long (1979), 117.
4. Marder (2017).

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to Greek antiquity.[5] According to this tradition, proportions—magnitudes with the same ratio—were all-pervading organizational principles of the universe. In the medieval period, the analogy between the universe, as a macrocosm of divine creation and the microcosm of man, was visualized in images of God the architect. In the age of humanism, which brought greater attention to the individual, systemization, and reason, proportions took on even greater importance.[6] In this period, the Vitruvian analogy between the body and architecture upheld the idea that proportions should comply to conceptions of a higher order, and that the proportions of man, as the image of God, provided the basis for ideal forms and beauty.[7]

This paper examines early modern architects' study and illustration of Vitruvius' book 3.1, relating this process to coeval architectural practice, and, more specifically, to the perceived need for a clearly delineated system of rules and proportions. The spate of architectural treatises and commentaries produced in early modern Italy—and indeed, also editions of *De architectura*—may be directly related to the ad hoc role of the architect. In the fifteenth and sixteenth centuries, the architect followed no explicitly systematized course of training and pursued a practice that was much different from the codified, accredited profession we know today. It is not surprising, therefore, that the text of Vitruvius, which promised not only to elucidate the principles of 'superior' *all'antica* architecture, but also represented a prescriptive approach to the discipline, had an enormous appeal. The text, moreover, gained authority in its antiquity, and an allure in its esotericism. But these same qualities—the text's vagueness and imprecision, and its circulation in varied versions—also encouraged its revision. It is telling that one of the most authoritative editions of the text, that of Fra Giocondo, was composed with an eye more toward contemporary utility than philological accuracy. Explaining his methodology, Fra Giocondo emphasized his consultation of both books and ruins. His reading of this evidence was broad, and he readily admitted that he had reformed and corrected the text where he deemed it necessary.[8] Taken up for the purpose of uncovering fixed rules, *De architectura* ultimately spurred innovation more than it delineated doctrine. For fifteenth- and sixteenth-century architects, Vitruvius' treatise paradoxically legitimized new theories and unprecedented combinations. Ample evidence of this is revealed in the early modern translations, commentaries, and illustrations of book 3.1.

Assessing Ancient Authority

The historian needs only to open one of the dozens of surviving early modern model books of antiquities to witness the period architect's overt concern with

5. Kruft (1994), 66; Daniel Anderson in this issue.
6. Weber and Larner (1993), 148.
7. Wittkower (1998).
8. Ciapponi (1984), 76f. n.27.

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measures and proportions. In copying a canonical building plan, entablature, or column capital, it was not enough for the architect to record the structure's forms. He was careful to include the monument's dimensions, frequently given according to local units of measure, along with notes regarding its name, location, and condition. One might interpret this practice as epitomizing the stereotypic notion of the architect's 'attention to detail'. But in fact, there are a great many architectural drawings from the early modern period—for example, the widely circulated drawings of building machinery—that contain no such annotations.[9] Certainly, the realization of such technical constructions required attention to detail. But an explanation for the absence of measures in machine drawings may be ascertained in the theoretical nature of the drawings, and of the subjects they depict. For the early modern architect, the pumps, hoists, mills, and windlasses displayed in a volume like the *Opusculum de architectura* represented an interface between existing and envisioned constructions (fig. 5.1).[10] These were devices that still needed to be specified and calibrated according to the contours of a particular environment. The antique column bases and entablatures meticulously recorded in a book like the Codex Mellon (c. 1513), by contrast, were valued as standard prototypes, exempla taken from the field that could be directly applied in practice (fig. 5.2). The measures documented on such folios connected the model to a specific monument and site, thereby endowing it with an authority that might be transferred in its re-appropriation.

For the early modern architect, the 'stupendous ruins' of Rome were tangible proof of the unsurpassable greatness of antiquity and offered legitimacy to a design practice that was wanting standard guidelines.[11] Vitruvius' *De architectura* was deemed an essential authority for understanding the remnants of Rome and deciphering their measures. The antiquity of the text and erudition also securely situated its subject—the art of building—among the *artes liberales*. The theory of Leon Battista Alberti (1404–1472), whose *De re aedificatoria* became the modern equivalent of Vitruvius, bears the earliest evidence of this.[12] *De re aedificatoria*, conceivably born out of an attempt to edit Vitruvius, harshly criticizes the 'unrefined' nature of the ancient text and asserts that it was virtually incomprehensible. On the ancient author, Alberti famously complained that 'for the Greeks he seemed to write in Latin, and for the Latins Greek, and for us he may as well not have written at all since we cannot understand him'.[13] All the same, Alberti's dependence on the Vitruvian model is undeniable. As underscored by Krautheimer, among others, Alberti's tract bears debt to *De*

9. The consummate study on early modern machine drawings remains that of Lefèvre (2004).

10. The *Opusculum de architectura* was first formulated in an autograph version by Francesco di Giorgio c. 1475. A comprehensive study of the *Opusculum de architectura* and its manual reproduction in the fifteenth and sixteenth centuries is forthcoming by the author. For a partial catalogue of *Opusculum* copies, see Scaglia (1992).

11. Palladio as cited in Tavernor and Schofield (1997), 3, 5.

12. Clarke (2002), 325f.

13. Rykwert, Leach, and Tavernor (1988), 154.

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architectura in its title and ten-book form, as well as in reliance on Vitruvian terminology, technical information, and historical facts.[14]

Alberti was not alone in his reliance on the Vitruvian template in creating a new theory. Lorenzo Ghiberti incorporated passages from his own translation of *De architectura* in his *Commentari*.[15] Around this same time, Antonio Averlino 'Filarete' (c. 1400–1469) completed his Italian treatise on architecture, which opens with a scene of a mealtime discussion, in which the classical tradition and the authority of Vitruvius is openly debated.[16] Although Filarete seldom cites Vitruvius directly in the ensuing text, he stays close to Vitruvian thought on a number of key issues, including the definition of the classical orders, proportional theory, and decorum.

Francesco di Giorgio Martini (1439–1501) was the first to most fully embrace *De architectura* for both the principles that it promised to elucidate and for the possibilities of innovation that its inscrutability would eventually allow. Introducing the second rendition of his *Trattato di architettura*, as conserved in the codex Magliabechiano II.I.141, Francesco explains his desire to study the architecture of the ancients, and to 'provide images with the text—giving new force to the words of ancient authors—most of all Vitruvius, the most acclaimed of all'.[17] The guidance Andrea Palladio (1508–1580) took from Vitruvius several decades later was much the same. Although he diverged from Vitruvius on a number of matters, he still advised architects to 'apply themselves to reading Vitruvius' and was keen to note that his own buildings followed Vitruvian teaching in their most noteworthy parts.[18] Sebastiano Serlio (1475–1554) was equally reverential to the ancient author. Appealing to good practitioners in his *Extraordinario libro di architettura* (1551), he affirms that such individuals are 'grounded in the doctrine of Vitruvius (which I praise to the highest and from which I do not intend to stray far)'.[19] For these theorists, Vitruvius' *De architectura*—as the sole remaining architectural treatise from antiquity—was the key link in the chain that connected the disparate, tangible remains of ancient Rome to the creation of coherent theory for contemporary practice.

All the same, as editions of *De architectura* became ever more available in the sixteenth century, and the text became increasingly comprehensible to architects, the authority granted to Vitruvius was likewise qualified. Raphael (1483–1520), who commissioned a translation of *De architectura* from the humanist Fabio

14. Krautheimer (1969), 323f.; Pagliara (1986), 17f.; Betts (2000), 244f.

15. Scaglia (1979); Pagliara (1986), 19.

16. Finoli and Grassi (1972), 5; Clarke (2000), 99; Kanerva (2006), 51.

17. Martini (1967), 2:295. Translation by the author. The codex Magliabechiano is conserved at the Biblioteca Nazionale Centrale, Florence. Scholars typically speak of two principal 'versions' of Francesco di Giorgio's *Trattato*, although there is no evidence that the architect saw his treatise project in this way. Numerous manuscript copies of the *Trattato* exist, no two alike, which may be generally linked to one of two renditions. See the commentary of Maltese in Martini (1967), 1. On the treatise and its dating, see also Betts (1971); Mussini (1993).

18. Tavernor and Schofield (1997), 5f., 217.

19. Hart and Hicks (2001), 461.

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Calvo (1450–1527) so as 'to find the beautiful forms of ancient buildings', tellingly concluded that the book 'sheds light, but not enough'.[20] *I quattro primi libri di architettura* (1554) of Pietro Cataneo (c. 1505–1569) repeatedly cites the authority of Vitruvius, but also points out his errors and notes those instances when he 'gave poor advice'.[21] Even Palladio and Serlio, who held *De architectura* as an essential guide, did not fail to identify his flaws. Palladio noted that the text was frequently misunderstood by architects due to 'a lack of investigation of the ancient monuments'. His own diligence in this regard, along with the illustrations he composed, were to 'provide demonstrations of what he [Vitruvius] teaches'.[22] Serlio similarly warned of the 'great discrepancy' that was evident 'between the buildings in Rome … and the writings of Vitruvius'.[23] This was true. Even had *De architectura* proved readily legible for early modern architects, its use as a pattern book for ancient architecture would have been problematic. For one, the fragmentary remains of antiquity that were accessible in the fifteenth and sixteenth centuries were just that—fragments. What is more, that which was visible was not necessarily constructed according to Vitruvian rules. Vitruvius wrote at the end of the first century B.C.E., before many of the ancient buildings known by early modernists were even constructed. Equally critical, just like the early modern writers he inspired, Vitruvius too wrote in response to a perceived dearth of commendable buildings and traditions.[24]

The comments of Jacopo Strada (1507–1588) on Serlio's theoretical contribution vis-à-vis the Vitruvian model speak more generally to architects' uncertain relationship with the ancient authority. The theory of Serlio, Strada pronounced, 'cuts a straight path to the abstruse secrets of architecture which until now have lain hidden in the books of Vitruvius, obscure and almost unintelligible'. What was more, according to Strada, Serlio had himself augmented knowledge of ancient building by means of his own on-site study, amassing models and measures that 'are not to be found either in Vitruvius or in other authors'.[25] What follows is both an encomium to Serlio and a justification of his deviation from Vitruvian rule. Serlio, Strada asserted, 'did more with his books than even Vitruvius had done before him'.[26] Despite all expectations, *De architectura* was alone insufficient to help delineate the professional contours of the early modern architect. It would fall to new theories—which benefitted from ample illustrations and,

20. Fontana and Morachiello (1975), 20. The original passage reads: '… trovar le belle forme degli edifici antichi … porge una gran luce Vitruvio, ma non tanto che basti.'

21. Cataneo (1554), book 1.3. On the selection of a site for the construction of a new city, Cataneo submits: 'Ma, parlando prima dello inhabitato, è da considerare: che non sempre si deve volar la città, ne la sua edificatione à un medesimo aspettto del cielo. quantunque questo da Vetruvio sia stato male avvertito.'

22. Tavernor and Schofield (1997), 5f., 217.

23. Hart and Hicks (1998b), 146.

24. Betts (2000), 244f.; Clarke (2003), 87.

25. Hart and Hicks (2001), 160.

26. Hart and Hicks (2001), 162.

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from the early sixteenth century onward, immutable printed text— to provide the architect with clear rules and a prescribed job profile.

The Vitruvian Man?

> And so, if Nature has composed the human body so that in its proportions the separate individual elements answer to the total form, then the ancients seem to have had reason to decide that bringing their creations to full completion likewise required a correspondence between the measure of individual elements and the appearance of the work as a whole.
>
> (Vitr. *De arch.* 3.1.4)[27]

In book 3.1 of *De architectura* Vitruvius employs the human body as an *analogy* for the principle of *symmetria* found in temple design. The rule of symmetry is shown to be closely related to 'proportion', or the use of the module and a scale-based system. Vitruvius tells us that just as the members of the human body correspond to one another, and to the body as a whole, so too should the parts of temples. Pure geometries, the circle and the square, are used to illustrate symmetry, and are related to the human form.[28]

Within the context of book 3, the purpose of the human analogy is to justify Vitruvius' specifications for the design of temples. Although his model is the human body—a common and relatively consistent form of reference—he is not concerned with the body itself.[29] In fact, within *De architectura*, the man is treated in the passive. He is merely the instrument of a demonstration, laid on his back, the compass placed at his navel, his fingers and toes encircled.[30]

The canonical early modern image of this passage—and, one might well argue, of Vitruvius as a whole—is that created by Leonardo da Vinci (1452–1519), which is accompanied by an Italian version of the Latin text (fig. 5.3). The so-called *Vitruvian Man*—habitually employed in a wealth of contexts to demonstrate a host of stereotypical 'Renaissance' ideas—illustrates and extends the principles of Vitruvian symmetry and proportion. It has also come to epitomize Leonardo himself, his excellence in all artistic media, and his stature as the Renaissance man par excellence. But in fact, the image has little to do with architecture. It is more closely related to Leonardo's study of anatomy and human measures and critically, the proportions it records, in both the image and the text, diverge from those cited by Vitruvius. Although the drawing does offer a solution as to how the outstretched figure might be inscribed in both a circle and a square, as given in *De architectura*, the strongest

27. As translated at Rowland, Howe, and Dewar (1999), 47.
28. Scholfield (1958), 16–32.
29. Pollali (2011), 70f.
30. McEwen (2003), 157.

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associations it draws are to contemporary intellectual thought. Leonardo's figure is a celebration of the perfection of man in the form of God the Creator. The circle, centered on his navel, and the square, centered on his penis, speak to man's regenerative capacity, his position as both an agent and a result of procreation.[31] More broadly, the drawing speaks to early modern fascination with proportions and the harmonies they exhibit. As underscored by Panofsky, 'The Italian Renaissance … looked upon the theory of proportions with unbounded reverence'.[32] Vitruvius was one pillar upon which this devotion was based.

The proportional relationship of the parts—the ideal cited in *De architectura* 3.1—found resonance with the early modern concern with order, rule, and geometry. This was an era in which a preliminary education typically began with practical mathematics (*abaco*), in which double-entry bookkeeping was developed, and in which a mathematically exact theory of perspective was codified in print. In this period, cosmological and philosophical interpretations of the theory of proportions—derived from the writings of Plato and Cicero, Augustine and Thomas Aquinas—were fused with the classical notion of 'symmetry' as the fundamental principle of aesthetic perfection.[33] For many architects the idea that correct architectural proportions were derived from the human body was tied to Christian thought, not Vitruvius. For Filarete, measurements stemmed from the body of Adam, who was considered the most beautiful creation of God: 'Therefore it is likely that they [the first designers] took from the form of Adam and from his head made the first measurement'.[34] The theory of Francesco di Giorgio, which owes much to Vitruvius, likewise bears traces of Christian theology. Early renditions of Francesco's text specify that the measures and symmetries of architecture owe their origin not just to the human form, but to the bones of the body.[35] The genesis of architecture in the literal body of man is further hinted at in the skeleton that appears in the codex Saluzziano 148 version of the *Trattato di architettura*, directly following Francesco's Vitruvian-guided exposition on the proportions and measures of the columnar orders (fig. 5.4). Palladio likewise appears to be looking to another source when he compared the human body to a building in book 2 of his treatise on residential architecture and distribution of different spaces. He notes that just as certain parts of the body are less attractive than others, and are therefore naturally concealed, so

31. Lugli (2019), 69–80.
32. Panofsky (1955), 88.
33. Panofsky (1955), 89; Lowic (1983), 362.
34. The original text of Filarete reads: 'I primi inventori, come si sia, è da credere che guardassero alla più degna e alla più bella forma, fusse chi volesse, perché quella di Adamo, come è detto, per più ragioni era la più bella. Adunque da essa è verisimile la pigliassero e colla testa sua facessero la prima misura e dalla testa principiassero, come era degna cosa' (Finoli and Grassi [1972], 18); (partial) translation by the author. On this passage, see also Kanerva (2006), 173.
35. Codex Spencer, 129, New York Public Library, folio 7v–8r: 'capitelli e cornice et tutte altre misure et simitrie che habiano havuto origine da i membri & ossa del corpo humano.' As demonstrated by Kolb (1988), 154f., the Zichy codex, which is believed to be copied after an early version of the *Trattato di architettura*, also refers to the 'bones of the body' in the discussion of measures.

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too in architecture the most beautiful places are those that should be the most visible.[36]

This is to say, for the early modern architect, Vitruvius' *De architectura* presented one point of reference on the theory of proportions, but there were numerous other texts in which the human body was employed in discussions of formal and theoretical order. It is imperative to situate the early modern reading of Vitruvius in its contemporary context: one of a consummately Christian worldview. Architects apprehended Vitruvius' comments on the human body in light of an existing framework of prevalent religious connotations.[37] The idea of man as a microcosm, which can be traced back to Platonic philosophy, was deeply embedded in Christian thought. For the twelfth-century theologian Alain de Lille, God was not only the 'world's architect, … the skillful architect of a stupendous production', but also the human architect, as the creator of man.[38] In the iconography, the superimposition of man within a circle, at times embraced by a larger God figure, literally shows man as a microcosm of the universe, with both man and the universe owing to God's design.[39] Although images like those of Hildegard of Bingen (1098–1179) were not specifically *architectural*, they were *architectonic*, as illustrations of the art of system making (fig. 5.5).[40] For early modern practitioners who sought to make known their social importance, such images were consequential.

Within early modern literature, the idea of God-the-architect is often presented within texts that are clearly adapted from *De architectura* 3.1, albeit without reference to the Roman author.[41] The *Composizione del Mondo* of the thirteenth-century Italian monk Restoro d'Arezzo is particularly indicative:

> the body of the world, with its powers, which it has from the highest God, should all be proportioned according to reason … and the wise artists to whom nature gave and granted the power to devise and to draw the things of the world, when they draw the figure of man, divide the measurement in ten equal parts. And from the highest part they make the face and from there nine parts below are counted, and by the face they proportioned the hands, the feet, the chest and the whole body. The well-proportioned form and figure was seen and known by them. And this happened by the nobility and the imagination of the intellectual soul, which was founded in man.[42]

36. Palladio (1570), book 2.2.1; Kanerva (2006), 105.

37. Lugli (2015), 348, underscores the importance of examining Francesco di Giorgio's architectural theory in a religious context.

38. Kemp (2006), 95.

39. Rykwert (1996), 76–82.

40. Kant uses the term architectonic to refer to the art of constructing systems; cf. the English translation by Guyer and Wood (1998), 691–701.

41. Pagliara (1986), 12f.

42. Rykwert (1996), 77.

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Running parallel to such explicitly theological treatments of the well-proportioned figure, we find specifically architectural drawings that use human forms as a mnemonic device for the geometric building frameworks. The well-known figures of Villard d'Honnecourt (1200–1250) are exemplary of the latter. Although Villard makes no reference to Vitruvius, *De architectura* was known and copied in this period, particularly book 3.1 on the proportions of the human body. It is likewise uncertain whether Jacopo Mariano Taccola (1382–1453) composed his Vitruvian image (fig. 5.6) using a copy of *De architectura*, or if he appropriated the Vitruvian content from an intermediary source.[43] Certainly, there already existed a rich literary and iconographic tradition in which correspondence was drawn between formal and theoretical order, and, more specifically, between the human body, as a complete and perfect form, and the model construction or state.

While the humanist Poggio Bracciolini did not actually 'rediscover' Vitruvius in 1416—the text had never been lost—his identification of *De architectura* as a text dedicated specifically to architecture was of crucial importance. Early modern architects might well have adopted the Vitruvian proportional ideals without *De architectura*, but the knowledge of the elusive, ancient architectural text that presented these ideas made them all the more intriguing. The connection made between the human body and building in *De architectura* 3.1 not only affirmed the association between architectural practice and a higher order, it also allowed the architect to relate his own body to his ability to produce great buildings.[44] The passive nature of the model man described by Vitruvius—placed on his back with outstretched arms—was thus made active. What was presented as an analogy in ancient theory was transformed by rule-seeking architects into a dynamic model that could be applied in practice.

Bending the Rules

Early modern architects approached Vitruvius as an authority, but freely selected from and interpreted his text. Nowhere is this more evident than in passages derived from book 3.1 of *De architectura*. Francesco di Giorgio's literal reading of the human analogy, employed to undergird other components of his design practice, is exemplary of this trend. In a notable elaboration on Vitruvian theory, Francesco opens the early version of his *Trattato di architettura* (codex Saluzziano 148): 'According to Vitruvius, all art and measure are to be derived from the well-composed and well-proportioned human body.'[45] In the

43. Rykwert (1996), 85f.

44. Kemp (2006), 97; Lowic (1983), 363; compare Kathrin Winter's discussion, in this issue, of *De architectura*'s appeal to the sensorimotor system.

45. 'Siccome dice Vetruvio tutta l'arte e la ragione tratta essere dal corpo umano ben composto e proporzionato.' (Martini [1967], 1:3); translation by the author.

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discussions that follow, Francesco applied the idea of man as a proportional template, and the essential manner of the Vitruvian analogy, in his expositions on churches, fortifications, cities, and the columnar orders. The resulting theory (fig. 5.7, 5.8) substantially elaborates upon *De architectura*.[46] On religious architecture, Francesco writes:

> Since the basilica has the form and dimensions of the human body, and because the head is the main part of the body, so the great chapel [apse] is to be designed as the principal part and head of the temple. And given that it [the head] has five lines and divisions, it [the apse] must have five chapels. … Similarly, the quadrature of the wide chest is to be associated with the crossing; the arms [form] the cross; the palms of the hands [form] the opposite chapels; the fingers [form] the five semicircles that go around them [the palms]. The rest of the six parts are to be given to the body of the church. … And given that the chest measures the width of two heads, the same square formation is to be followed both in the body and the crossing.[47]

This exposition, which essentially claims that the basilica should mirror the form and composition of the human figure, in fact owes little to Vitruvius. It is possible that Francesco was influenced, directly or indirectly, by contemporary commentaries, such as Giannozzo Manetti's 1436 *Oratio* of the consecration ceremony of Santa Maria del Fiore in Florence, in which the basilica plan church was compared to the human body.[48] Although Francesco's citation to the human figure bestows a mantle of authority, the model is vague. More so than providing the basis for a new mode of practice, the text and illustrations proposed by Francesco justify an established mode of planning.[49] This is again evident in Francesco's discourse on city planning, where he adapts Vitruvius to say something that is quite basic: that the city plan may be circular or square, or some variation thereof, but should be well proportioned.

46. Pollali (2011), 64, 71–3; Lowic (1983), 361.

47. Martini (1967), 1:45: 'Ed avendo le basiliche misura e forma del corpo umano, siccome el capo dell'omo è principal membro d'esso, così la maggiore cappella formar si debba come principale membro e capo del tempio. E come ha cinque linie e partimenti, così cinque cappelle avere debba. … Similmente la quadratura dell'amprio petto alla trebuna s'attribuischi, le braccia la croce d'esso, le palme delle mani le due conferenti cappelle, le liniari dita gli cinque emicicri ch'entorno a esse vanno, e l'altre parti sei al corpo della chiesa dato sia. … E siccome el petto è larghezza di due teste, quella medesima quadrata disegnazione al corpo e alla croce osservar si debba.'; Pollali (2011), 71f.

48. Eck (1998), 462f., quoting and translating the *Oratio de secularibus et pontificalibus pompis in consecratione basilicae Florentinae*, book II, 50–6, based on ms. Vat. Lat. 6303. There is no evidence that Francesco di Giorgio knew Manetti's *Oratio*. However, as noted by Eck, the analogy between the human body and the form of the church was commonplace by the fifteenth century.

49. Betts (2000), 252; Pollali (2011), 71f.

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> As cities have the measure, dimensions, and form of the human body, I will now precisely describe the circumference and location of their parts. To begin, it is important to know that, if the human body is laid out on the ground and a thread is placed at the navel, a circular form will be drawn around its extremities. Similarly, a square form can be drawn. Therefore, considering that the body has all parts and members with perfect measure and proportions, the same [model] should be observed in cities and in other buildings.[50]

Whether Francesco misunderstood the ancient author, or knowingly misconstrued the text, is uncertain.[51] Whereas Vitruvius used the human body as a formal example of symmetry and proportion, Francesco argued that the human body—because of its symmetry and proportion—itself provided a formal model in the design of architecture. Unquestionable, however, is the didactic efficacy of Francesco's illustrative theory, and his literal mapping of the human body on architecture. Not only were the ideograms he provided widely copied, but the methodology he expounded, which cited Vitruvius but ultimately said something else, was echoed by subsequent authors. Pietro Cataneo, who, as previously noted, was critical of Vitruvius, followed Francesco in his discussion of cities: 'Now, departing for the many errors which have been shown …, and not following all the rules of Vitruvius, we … with the help of Jesus Christ might engineer to give those specific features to the parts of our city, as one [likewise] wishes in a beautiful and well-proportioned human body'.[52]

The idea that all design should derive from 'a well-proportioned human body' became a common dictate, repeated by early modern architects and theorists. The edition of *De architectura* of Giovanni Antonio Rusconi (1520–1587), which is essentially a commentary on Vitruvius, in fact introduces the latter's book 3 in these terms: 'The First Chapter of the Third Book contains the rule of measures, taken from the human body, all the members of which have correspondence with one another.'[53] Only after reviewing the ideal proportions of man does the author

50. Martini (1967), 1:20: 'Avendo le città ragion, misura e forma del corpo umano, ora delle circunferenzie e partizioni loro precisamente descriverò. In prima è da sapere steso in terra el corpo umano, posto un filo a l'imbellico, alle stremità d'esso tirata circulare forma sirà. Similmente quadrata ed angolata disegnazione sirà. Adunque è da considerare, come el corpo ha tutte le partizioni e membri con perfetta misura e conferenzie, el medesimo in nelle città e altri [e]difizi osservar si debba.'; translation by the author.

51. Betts (2000); Lowic (1983); Pollali (2011).

52. Cataneo (1554), book 1.6: 'Hor lassando noi da parte molti errori, che oltre à i detti si potrebbeno mostrare, cosi d'altre città come di Roma, ne seguendo in tutto le regole di Vetruvio, c'ingegneremo con lo aiuto di Giesu Cristo, per quanto il nostro poco discorso si distende, dar quei particulari compartimenti à i membri della nostra città, che si desiderassero in un bello & ben proportionato corpo humano'; (partial) translation by the author.

53. Rusconi (1590), 45: 'Il Primo Capitolo del Terzo Libro contien l'ordine delle misure, cavate dal corpo humano, il quale hà tutte le membra sue corrispondenti l'uno all'altro.'; author's translation. On Rusconi's treatise, see Bedon (1996).

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make the transition to architecture, citing Vitruvius in this progression of thought. The fact that Rusconi did not fully agree with Vitruvius, or with his contemporary commentators, on the ideal proportions of man was no great matter. The written theories prove that in regard to the columnar orders, multiple, slightly different systems were used. In architecture, it seems that every practitioner (or theorist) developed a 'correct' system of proportions according to his own understanding, and more critically, in accordance with his own practice.[54] In short, the desire for rules and a codified design system, which is directly traced in the abundance of architectural theory produced in this period, did not equate to definitive, rigid systems.[55] For the early modern architect, the ability to be flexible, to adapt and modify as the situation demanded, remained integral to his practice.

The idea that rules could, and should, be adjustable is in fact fundamental to *De architectura*, and one might argue that the conditionality of Vitruvius' *dicta* was internalized by early modern architects. Although Vitruvius relays his intention to lay down 'all the principles of the art' (*omnes disciplinae rationes*, *De arch.* 1.praef.1), he is ultimately very summary and lenient in his rules.[56] The language of book 3.1, as the treatise as a whole, is far from dogmatic. Vitruvius opens with what the architects 'ought' to do (*tenere debent*), and on several occasions qualifies his rules with *quemadmodum* ('to whatever extent'). Elsewhere in the treatise, Vitruvius is even explicit that rules and symmetries should not always be observed, because site conditions and architectural necessities often require the architect to add and subtract measures according to his own judgement.[57]

In accordance, the overwhelming ethos among early modern architects still prized the individual's *invenzione* and *giudizio* ('invention' and 'judgement') above all else.[58] This is evident in Alberti's commentary on beauty in *De re aedificatoria*, which derives from Vitruvian statements of proportion. According to Alberti, beauty is that which displays a 'reasoned harmony of all the parts within a body, so that nothing may be added, taken away, or altered, but for worse'. He follows to say how difficult it is, even for Nature, to achieve perfect beauty, requiring 'all our resources of skill and ingenuity'.[59] Although he does not say that beauty is subjective, he submits that it is not easily defined. The creation of beauty is itself a skill, an art, achieved through practice, observation, experiment, and knowledge.

54. Kanerva (2003), 138–42, 174.

55. On this idea, in relation to architectural ornament, see Waters (2012).

56. Krautheimer (1969), 326.

57. In reference here to Vitr. *De arch.* 6.2. Daniele Barbaro was one of the first to emphasize the importance of judgement in the application of Vitruvian theory; see Cellauro (2004), 304.

58. Antonio da Sangallo the Younger, for example, commented that 'Vitruvio è goffo'— 'Vitruvius is clumsy'—on UA 981 (Gabinetto dei Disegni e delle Stampe degli Uffizi), a page of studies that examines antiquarian remains according to Vitruvius. Peruzzi was also said to be critical of Vitruvius. See Cellauro (2004), 303, from where this citation is taken.

59. Alberti, *De re aedificatoria* book 6.2; see Rykwert, Leach, and Tavernor (1988), 156, from where this citation is taken.

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The idea that the architect should follow Vitruvian rules, but take license to deviate according to his own talent and judgement, became a conciliatory stance adopted by architects. Daniele Barbaro (1514–1570), for example, considered the relative freedom of the ancient architect, as described by Vitruvius, to be an essential condition of his excellence.[60] He allowed that 'it is the power of the careful and cautious architect to make up many other forms with the principles of measure'.[61] The advice of Serlio follows a similar thinking. 'We should uphold the doctrines of Vitruvius as an infallible guide and rule', he wrote, before adding, 'provided that reason does not persuade us to do otherwise'.[62] Theoretical appeals to the architect's reason, which was closely connected to his capacities of judgement and invention, thus came to support a great range of interpretations of the ancient text.

Illustrating the Ideal

In early modern Italy, the open, individual reading of *De architectura* became integral to the text itself. The insertion of illustrations was a key component of this, traceable in both manuscript and printed copies, as well as early modern treatises and commentaries on the text. The loss of the eleven images originally included by Vitruvius in the treatise presented a major stumbling block for architects who were determined to understand ancient architecture.[63] But the absence of images also pointed to drawing—*disegno*—the intellectual process by which ideas were translated into legible designs. It was through drawing, above all else, that architects grappled with *De architectura*, comparing the text with the antiquities they surveyed, and drafting out alternative solutions. What was seen as one of the biggest flaws of *De architectura* as it came down to the early modern period—the lack of images—thus became a catalyst for the generation of new ideas, forms, and theories.

The early Sulpizio printed edition of 1486 included no images, but it was not that the editor saw that images were unnecessary. Rather, Sulpizio encouraged the reader to use the wide margins of the printed book to insert his own notes and visual reconstructions.[64] Annotation was part and parcel of the reading process. Francesco di Giorgio drafted his translation of Vitruvius on folios with wide margins that offered ample space for the insertion of manicules and illustrations.[65] The far rougher, working translation of Fabio Calvo (1450–

60. Cellauro (2004), 328.
61. Long (1979), 158f.
62. Serlio (1540), 69v; Hart and Hicks (1998b), 147f.
63. Serlio (1537) lamented the loss of the figures, which he said made Vitruvius' text particularly difficult to understand (as quoted by Hart [1998], 170).
64. Ciaponni (1984), 73; Rowland (2003), 1.
65. Given the considerable margins, it is possible that Francesco intended to add more illustration. For a transcription of the translation, with notes and reproductions of several folios, see Martini (2002).

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1527) contains more annotations, rendered by Calvo himself and Raphael, along with notes as to where illustrations were to be added.[66] There are also manuscript copies of the text, which, although lacking illustrations, include blank spaces where images were to be added.[67] Printed versions of *De architectura*—both with and without illustrations—were likewise liberally emended by architects. Prominent examples included a copy of Fra Giocondo's 1513 edition, which was owned and annotated by Antonio da Sangallo the Younger (1484–1546); the so-called Corsini Incunabulum, with notes and illustrations by Giovanni Battista da Sangallo (1496–1548); and a copy of the Latin edition of Guillaume Philander (1552), with copious annotations by Giorgio Agricola (1494–1555).[68]

The degree to which architects saw images as essential to understanding *De architectura* is fully evident in the number of printed versions of the text that contained illustrations. In regard to book 3.1, the figures were often similar, but never identical. Fifteenth- and early-sixteenth-century copies and commentaries of *De architectura* routinely feature the so-called 'Vitruvian man'. Most commonly, this figure was circumscribed in a circle or square—or both (fig. 5.3, 5.8, 5.9). But few, if any, of these images are purely illustrations of Vitruvius. Like Leonardo's iconic drawing, those of Francesco di Giorgio (fig. 5.8) and Fra Giocondo (fig. 5.9) suggest a liberal reading of the text. They present the Vitruvian idea of the model figure inscribed in a circle and a square, but their adherence to *De architectura* extends little beyond this. The illustration of Fra Giocondo is essentially an illustration of Vitruvius' method, or geometrical idea. The symmetry of the body, and the proportions and measures of the human figure, are not detailed.

Other architects' illustrations of book 3.1 speak to the importance of proportions within an artistic curriculum, something that was officially realized with the creation of the first art academies in the late-sixteenth century. The illustrations of Giovanni Antonio Rusconi and Giovanni Battista da Sangallo use the Vitruvian model to chart the ideal man, considering in detail the symmetry and proportions of the human form (fig. 5.10, 5.11). Taken out of context, these figures might be deemed to show how the focus on the body detracted from actual architecture. But in fact, they speak to the close relationship that existed in this period between the arts. The study of anatomy was just as appropriate for the painter as it was for the architect interested in the 'human analogy'. What is more, by underscoring the connections between architecture and other scientific pursuits, individuals like Giovanni Antonio Rusconi and Giovanni

66. Fontana and Morachiello (1975); Pollali (2012), 177–9.

67. A significant example is the codex Ott. Lat. 1653, which dates to c. 1500. See Scaglia (1985), 59f.

68. The Fra Giocondo and Philander editions are both held at the Metropolitan Museum of Art in New York, Accession Numbers 41.100.556 and 41.100.503, respectively. The Corsini Incunabulum (ms. 50.F.1, Biblioteca dell'Accademia Nazionale dei Lincei e Corsiniana, Rome) has been published in a facsimile version, Rowland (2003).

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Battista da Sangallo bolstered the theoretical apparatus of their discipline. Far from mere handcraft and labor, architecture was a profession of the *artes liberales*.

There are also early modern illustrations of book 3.1 that do not feature the human form. For example, Daniele Barbaro omitted an image of the proportional man in his Italian edition of Vitruvius, citing its frequent production by others.[69] Instead, he provided a table of ideal numbers, and generously illustrated sample temple plans and façades.[70]

It was in the practical application of the Vitruvian rule that early modern architects took the most liberties. As previously discussed, Francesco di Giorgio reinterpreted Vitruvius using the revised design concept to buttress his plans for centralized palaces, radial cities, and pedimented church façades. Francesco's image of the man inscribed within a temple plan is in direct dialogue with *De architectura* but is not actually an illustration of Vitruvius (fig. 5.7). The illustrations Cesariano executed for his edition might be classified similarly. It is enough to cite his decidedly unclassical illustration of Vitruvius' *ichnographia*, *ortographia*, and *scaenographia* using the Duomo of Milan, with all of its distinctly Gothic details.[71] The illustrations of Giovanni Battista da Sangallo in the Corsini Incunabulum are analogous in the sense that they reflect an early modern vision of antiquity. In book 5, for example, the architect employs a contemporary study of the Colosseum—a cutaway view that was reproduced in variation in numerous early modern model books—to illustrate Vitruvius' discussion of theaters and amphitheaters.[72] Without question, the Colosseum was a powerful emblem of ancient Rome and its monumental architecture; but the structure itself was erected after Vitruvius wrote *De architectura*.

A small group of drawings attributed to Bastiano da Sangallo (1481–1551) for a never-completed edition of *De architectura* are comparable in how they adapt the ancient theory, using it as a means to uphold an early modern vision of classicism. One of the eight folios, conserved today at The Metropolitan Museum of Art in New York, reveals how the architect drew on his personal knowledge of antique and contemporary architecture, and his imagination, to illustrate Vitruvius book 3.2 (fig. 5.12a–b).[73] Here, as with the other folios of the set, Bastiano was faithful to the Latin original in his translation. But in visualizing the different temple types he only generally followed the model prescribed by Vitruvius. On the folio's recto side, he presented in plan the temple in antis, alongside a

69. D'Evelyn (2012), 317f., 389 n.15.

70. In his 1556 Italian edition of Vitruvius, Barbaro gave: 'ci dimostra Vitr. & le figure fatte da gli altri' ('as Vitruvius shows us and the figures made by others', 64). On the illustration of the Barbaro editions of Vitruvius, see Cellauro (1998).

71. Fane-Saunders (2011); Gritti (2013).

72. For the image in question, see Rowland (2003), 112. This section drawing of the Colosseum is comparable to that included in the Codex Mellon, folio 48v–49r (c. 1513).

73. Another folio that was unquestionably part of the project is conserved today in the Drawing Matter collection in Somerset, England. This has been published by Page (2019).

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perspectival elevation of the prostyle temple. For the latter, he omitted the corner columns specified by Vitruvius. The structure's façade is fashioned in a decidedly Renaissance manner, with a double pediment, a layered Doric order, extended pedestals, and heavy, square-corner pilasters. On the verso, the plan of the peripteral temple appears as an exemplar of perfect proportions. The potential embodied in the plan's pure geometries is reflected in the fantastical environment Bastiano stages around it. Two amazed onlookers examine the temple's contours, precisely sketched in the soil, almost as if divinely sanctioned. One carries a measuring rod, and leads an elder, bearded sage, who sits atop a steed. The trees sway in the background and, in a distant harbor, the ship of fortune enters the port. In effect, Bastiano has not only given form to Vitruvius' esoteric categorization of temples but has also brought them to life in a fictive narrative, open to interpretation.

An Authority for All

Examples of the appropriation and re-interpretation of *De architectura* in the early modern period are nearly endless. Artists and architects, as well as political theorists, humanists, and historians, granted the ancient author immense authority.[74] Vitruvian theory was rich and broad enough to allow for a wealth of interpretations and applications. In the fifteenth and sixteenth centuries, each generation of readers came to the text with a new set of questions. Where some looked to Vitruvius for insight on the ancient theater, others consulted his text for information on machinery, the form of the Roman *domus*, or the measures of the columnar orders.[75]

A final example of the appropriation and conspicuous adaptation of Vitruvian theory speaks to the degree to which the ancient text infiltrated early modern culture. In the first decade of the sixteenth century, *De architectura*—and more specifically, the discourse on ideal proportions—was utilized by typographers who looked to formulate a classically inspired typeface (fig. 5.13, 5.14). The revival of ancient letterforms was complementary to that of architecture. Lapidary inscriptions were frequently important features of buildings, monuments, and portals, and the early modern antiquarians and architects who endeavored to document the remnants of ancient building were often those who were charged with recording inscriptions.[76] The mathematician Luca Pacioli (c. 1447–1517) included extensive instructions for a Roman typeface in his treatise *De divina proportione* (1509) in terms that closely echo Vitruvius' book 3.1. In laying

74. Pagliara (1986), 28–31.
75. Pagliara (1986), 55.
76. The definitive example here is Raphael, who was appointed by Leo X to ensure the conservation of ancient Roman marbles and stones bearing inscriptions, and from this came to undertake a project that would document the entirety of the city's ancient built fabric.

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out the font's parameters, Pacioli instructs his reader to first describe a circle with a compass and then mark the diagonals with a straight edge and compass to define a square. The square is divided into nine parts, and sections of the letter derive from a ninth of the square.[77]

The project for *De divina proportione* is not only another example of the early modern applications of *De architectura*; it also speaks to the degree to which the study of the ancient text was approached as a 'team sport' that engaged individuals with a broad range of expertise and enthusiasm.[78] In composing his theory, Pacioli relied heavily on Alberti. Settled in Milan at the court of Ludovico Sforza, he participated in a prolonged dialogue on Vitruvian theory that engaged Fra Giocondo, Bramante, Leonardo, and Cesariano. It was Leonardo who produced the illustrations for Pacioli's book.[79]

As a literary genre, the treatise was an emblematic preoccupation of early modern humanists, and *De architectura* was among the most prominent models.[80] The spirit of Vitruvius—beyond the specific content of *De architectura*—may be considered a defining attribute of early modern culture and thought. It has been said, and with good reason, that Vitruvius was more a creation of the fifteenth and sixteenth centuries than he was of his own time.[81]

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77. Saiber (2017), 63–7, 70, 95; Tavernor (1998), 116–19.
78. Huppert (2015), 55–7.
79. Rovetta (2002).
80. Burkhardt (1954), 177, considers the treatise a definitive creation of Renaissance culture, which, like all humanist creations, 'were all, to a greater or less extent, reproductions of antiquity'.
81. Clarke (2002), 346.

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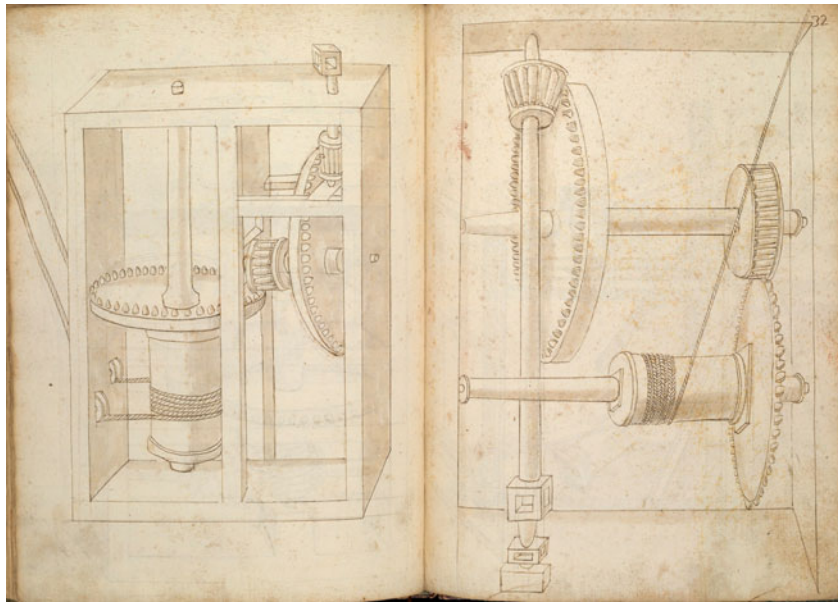

Figure 5.1. Anonymous copyist, *Opusculum de architectura* of Francesco di Giorgio, fols. 31v–32r, c. 1515–1520. Pencil, pen, and ink on paper. The Getty Research Institute, Los Angeles, Reference Number 870439. Courtesy of The Getty Research Institute.

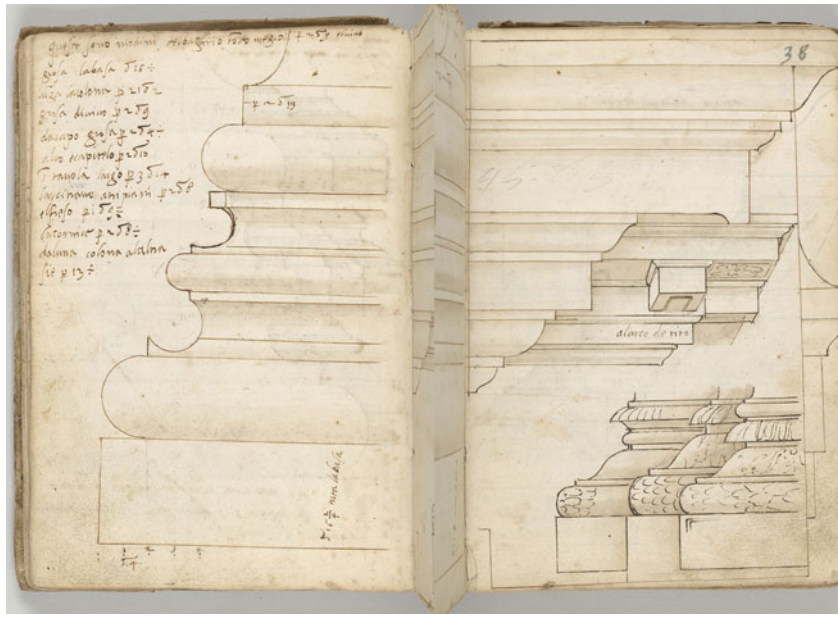

Figure 5.2. Domenico Aino da Varignana (c. 1470–1539), molding profiles from ancient architectural monuments, Codex Mellon, fols. 28v–29r, c. 1513. Pen and brown ink and brown wash. The Morgan Library & Museum, New York, Accession Number 1978.44. Photographic credit: The Morgan Library & Museum, New York.

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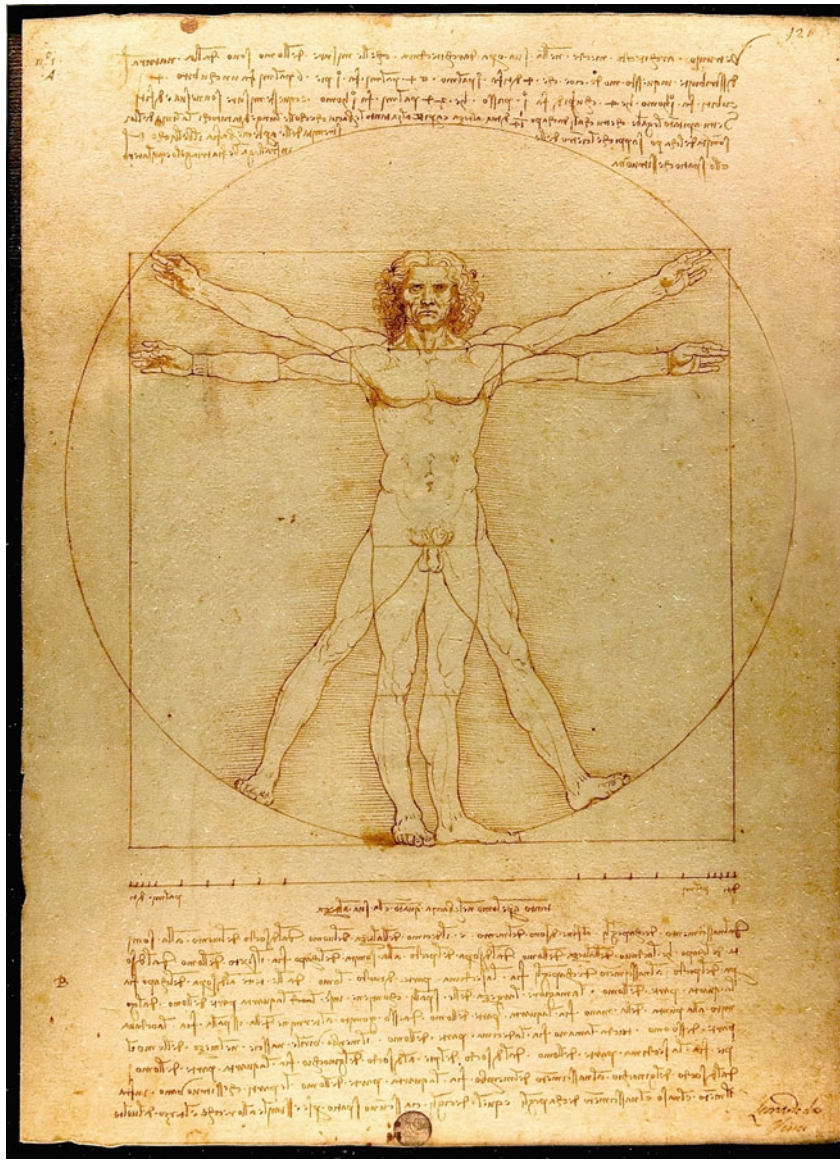

Figure 5.3. Leonardo da Vinci (1452–1519), study of the proportions of the human body, known as the Vitruvian Man, c. 1490. Metal point, pen and ink, touches of watercolour on paper. Gallerie dell'Accademia, Venice, Catalogue Number 228. Photo by Luc Viatour, Wikimedia Commons, Public Domain.

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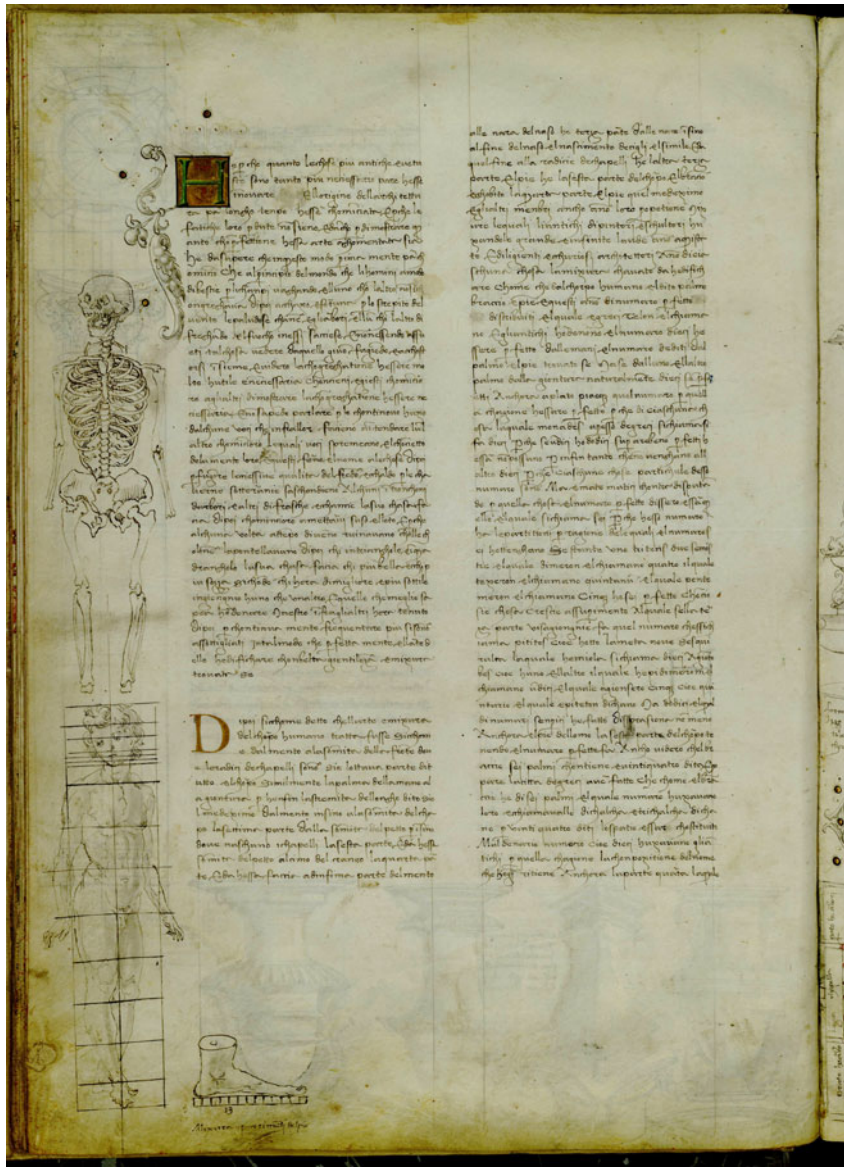

Figure 5.4. Francesco di Giorgio Martini (1439–1501), study drawing of a skeleton alongside an image of a man inscribed within a column, *Trattato di architettura*, ms. Saluzziano 148, fol. 16v, c. 1480. Pen and ink with illuminated letters on vellum. Biblioteca Reale, Turin. By permission of the Italian Ministry of Cultural Heritage and Activities and Tourism.

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Figure 5.5. Illustration of Man and his Creator from Hildegard of Bingen's *Liber divinorum operum*, ms. 1942, fol. 9r, c. 1200. Illuminated manuscript. Biblioteca Statale, Lucca. Retrieved from the Library of Congress, www.loc.gov/item/2021668244/.

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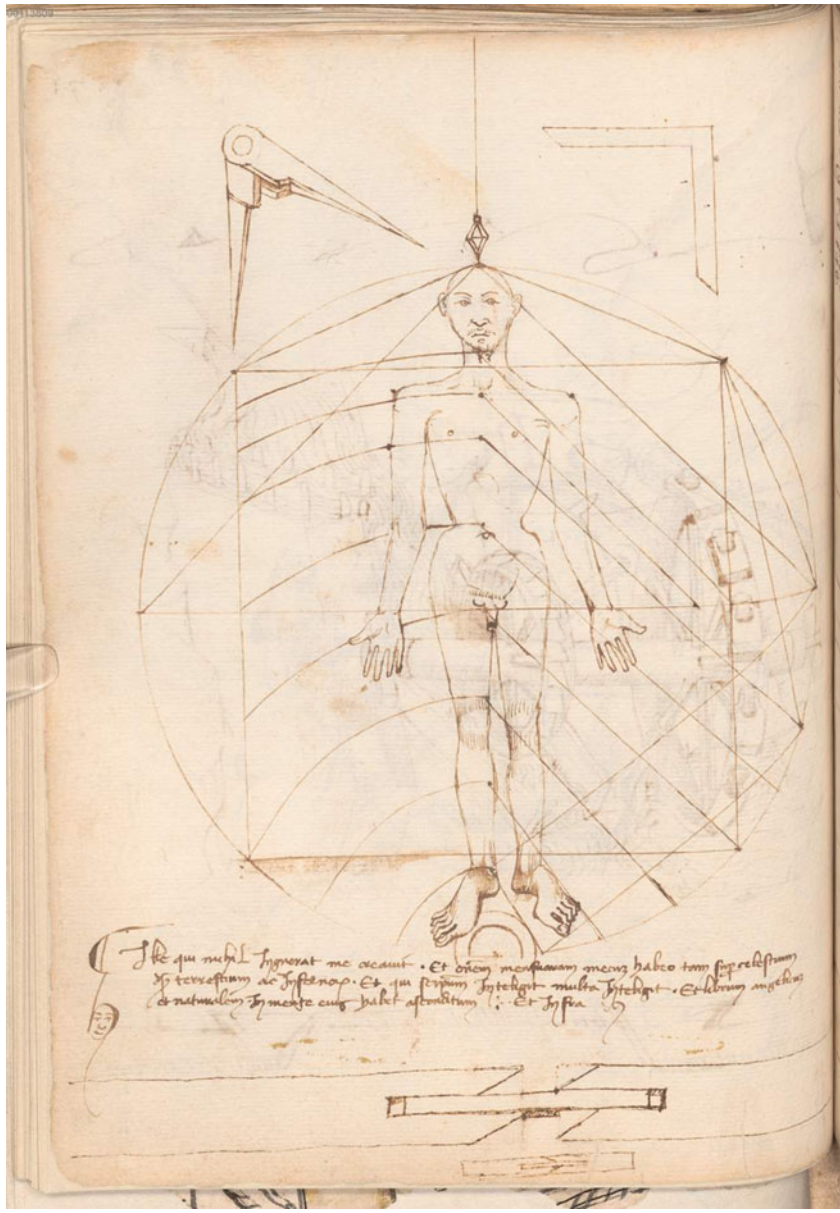

Figure 5.6. Jacopo Mariano Taccola (1382–c. 1453), the proportionate man, *De Ingeneis*, Clm 197, II, fol. 31v, c. 1430. Pen and ink on paper. Bayerische Staatsbibliothek, Munich. Courtesy of the Bayerische Staatsbibliothek.

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Figure 5.7. Francesco di Giorgio Martini (1439–1501), the human form as a model for the basilica plan, *Trattato di architettura*, ms. Saluzziano 148, fol. 11v, c. 1480. Pen and ink with coloured wash on vellum. Biblioteca Reale, Turin. By permission of the Italian Ministry of Cultural Heritage and Activities and Tourism.

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Figure 5.8. Francesco di Giorgio Martini (1439–1501), the human form in perfect proportions as an analogy for the design of the city, *Trattato di architettura*, ms. Saluzziano 148, fol. 6v, c. 1480. Pen and ink with illuminated letters on vellum. Biblioteca Reale, Turin. By permission of the Italian Ministry of Cultural Heritage and Activities and Tourism.

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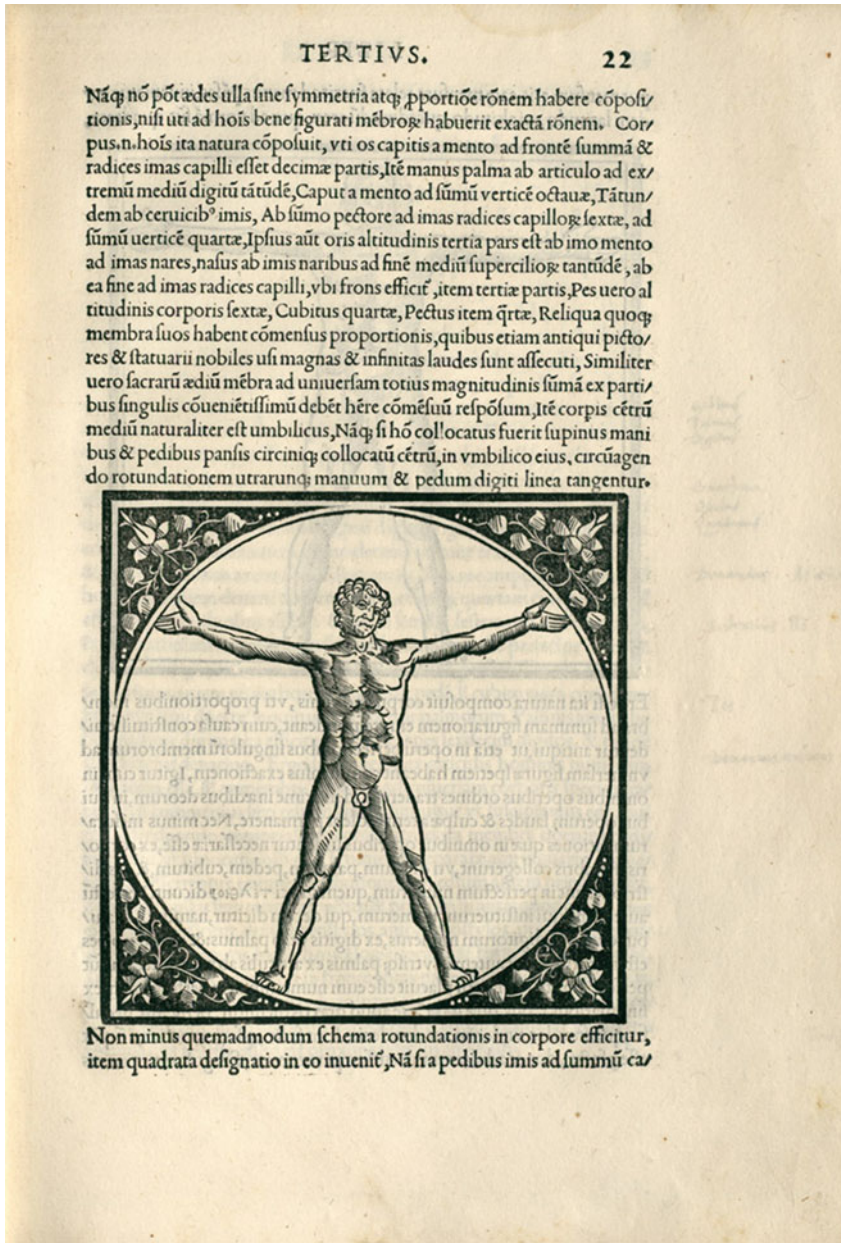
TERTIVS. 22

Nāq; nō pōt ædes ulla ſine ſymmetria atq; ꝓportiōe rōnem habere cōpoſitionis, niſi uti ad hoīs bene figurati mēbroꝝ habuerit exactā rōnem. Corpus.n. hoīs ita natura cōpoſuit, vti os capitis a mento ad frontē ſummā & radices imas capilli eſſet decimæ partis, Itē manus palma ab articulo ad extremū mediū digitū tātūdē, Caput a mento ad ſūmū verticē octauæ, Tātundem ab ceruicib⁹ imis, Ab ſūmo pectore ad imas radices capilloꝝ ſextæ, ad ſūmū uerticē quartæ, Ipſius aūt oris altitudinis tertia pars eſt ab imo mento ad imas nares, naſus ab imis naribus ad finē mediū ſupercilioꝝ tantūdē, ab ea fine ad imas radices capilli, vbi frons efficit, item tertiæ partis, Pes uero altitudinis corporis ſextæ, Cubitus quartæ, Pectus item q̄rtæ, Reliqua quoq; membra ſuos habent cōmenſus proportionis, quibus etiam antiqui picto/res & ſtatuarii nobiles uſi magnas & infinitas laudes ſunt aſſecuti, Similiter uero ſacrarū ædiū mēbra ad uniuerſam totius magnitudinis ſūmā ex partibus ſingulis cōueniētiſſimū debēt hēre cōmēſuū reſpōſum, Itē corpis cētrū mediū naturaliter eſt umbilicus, Nāq; ſi hō collocatus fuerit ſupinus manibus & pedibus panſis circiniq; collocatū cētrū, in vmbilico eius, circūagendo rotundationem utrarunq; manuum & pedum digiti linea tangentur.

Non minus quemadmodum ſchema rotundationis in corpore efficitur, item quadrata deſignatio in eo inuenit, Nā ſi a pedibus imis ad ſummū ca/

Figure 5.9. Fra Giocondo (1433–1515), The Vitruvian Man, *M. Vitruvius per Jocundum solito castigatior factus cum figuris et tabula*, fol. 22v, Venice, 1511. Tours, CESR, SR/8B (2994). © CESR Architectura.

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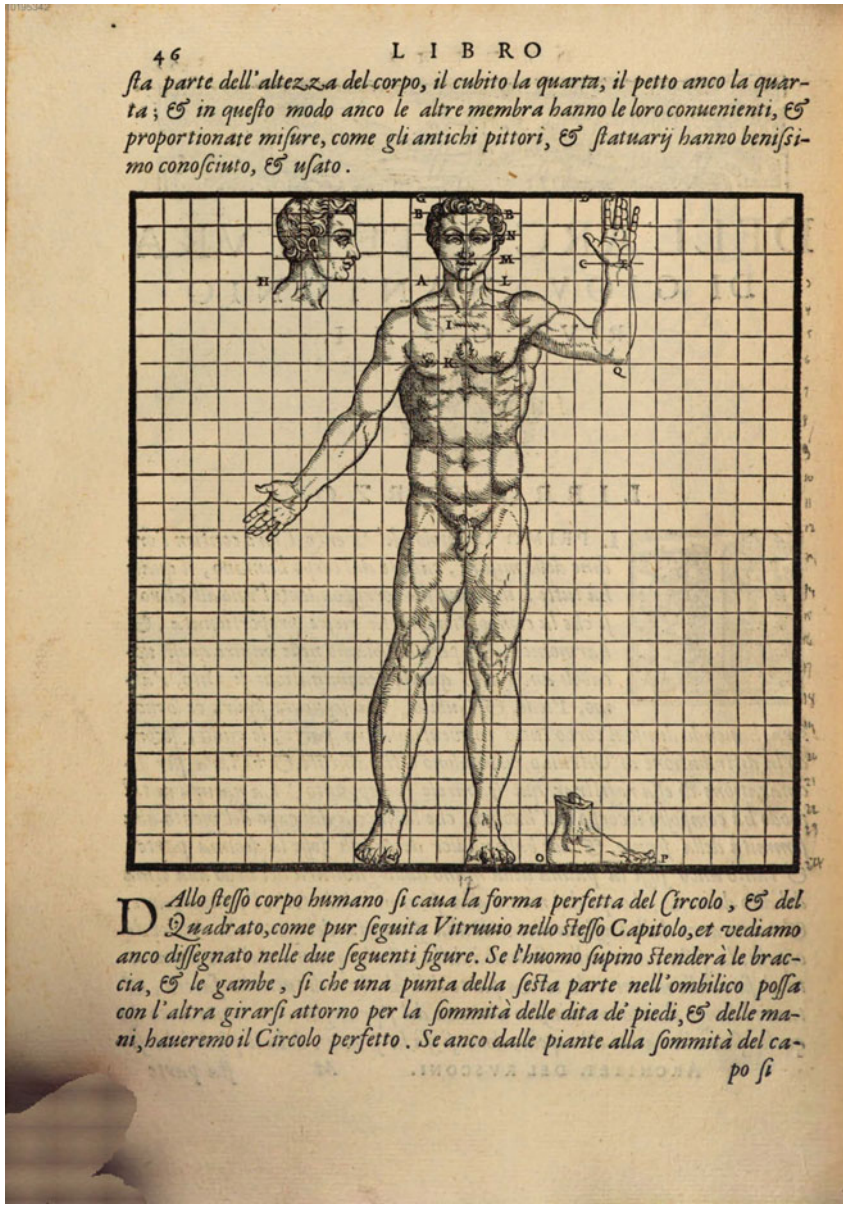

Figure 5.10. Giovanni Antonio Rusconi (c. 1500–1578), illustration of the proportionate man, *Della architettura*, fol. 46v, Venice, 1590. Bayerische Staatsbibliothek, Munich. Courtesy of the Bayerische Staatsbibliothek.

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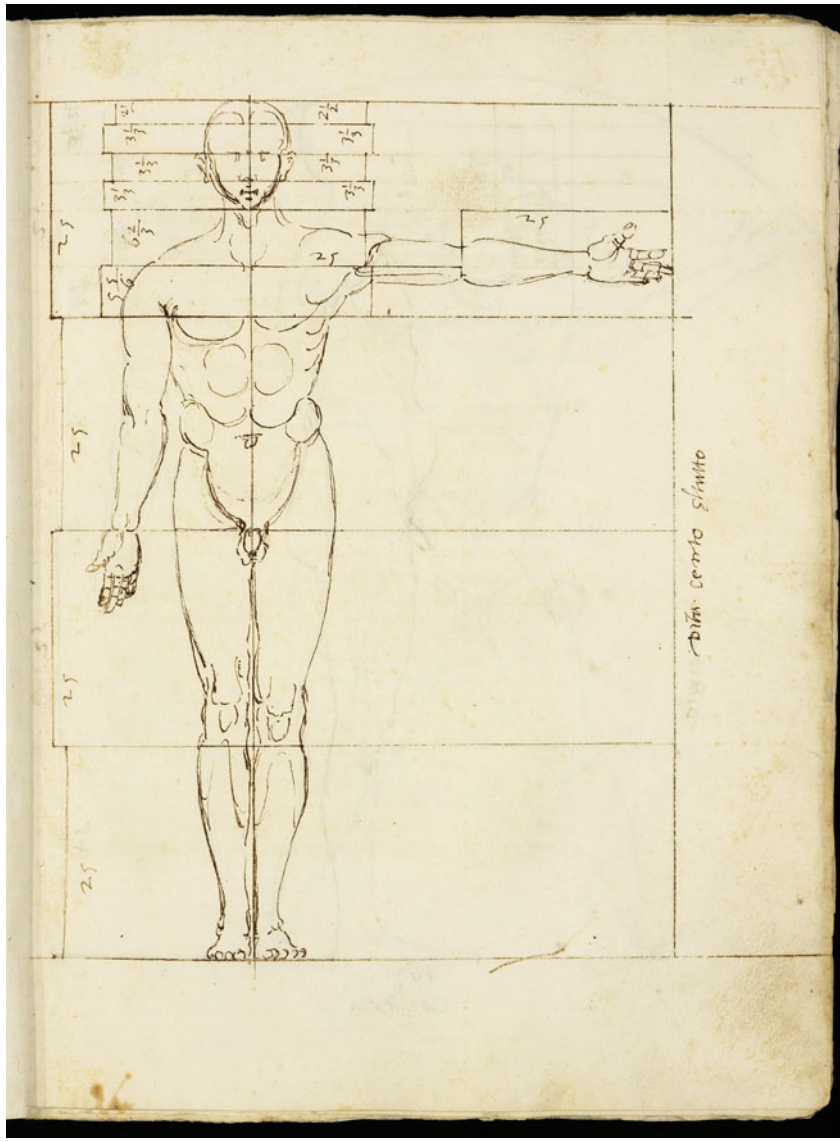

Figure 5.11. Giovanni Battista da Sangallo (1496–1548), illustration of the proportionate man for Vitruvius' *De architectura*, ms. Corsini F.50.1, fol. 28v, c. 1520–1540. Pen and ink. Accademia dei Lincei, Rome. By permission of the Italian Ministry of Cultural Heritage and Activities and Tourism.

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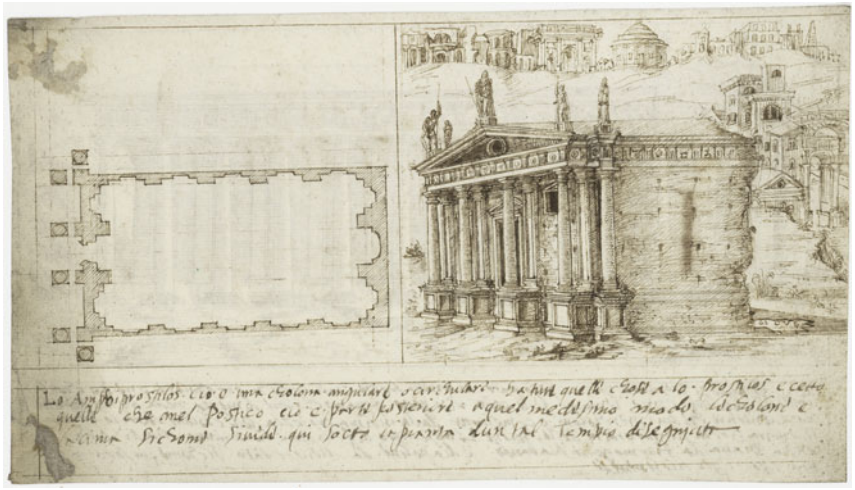

Figure 5.12a. Bastiano da Sangallo (1481–1551), attrib., temple types: in antis and prostyle (Vitruvius 3.2.2f.), recto, 1530–1545. Pen and dark brown ink. The Metropolitan Museum of Art, Accession Number 2008.105.2. 2024@Photo Scala, Florence.

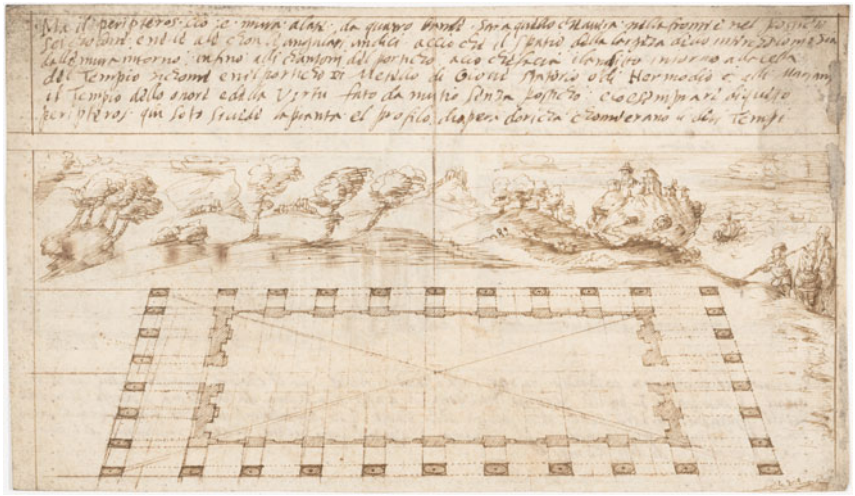

Figure 5.12b. Bastiano da Sangallo (1481–1551), attrib., temple types: peripteral (Vitruvius 3.2.5), verso, 1530–1545. Pen and dark brown ink. The Metropolitan Museum of Art, Accession Number 2008.105.2. Photo by The Metropolitan Museum of Art, Wikimedia Commons, Public Domain.

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Figure 5.13. Luca Pacioli (c. 1447–1517), design for the letter 'A', *De divina proportione,* Venice, 1509. Royal Collection Trust, RCIN 1057902. © His Majesty King Charles III 2024.

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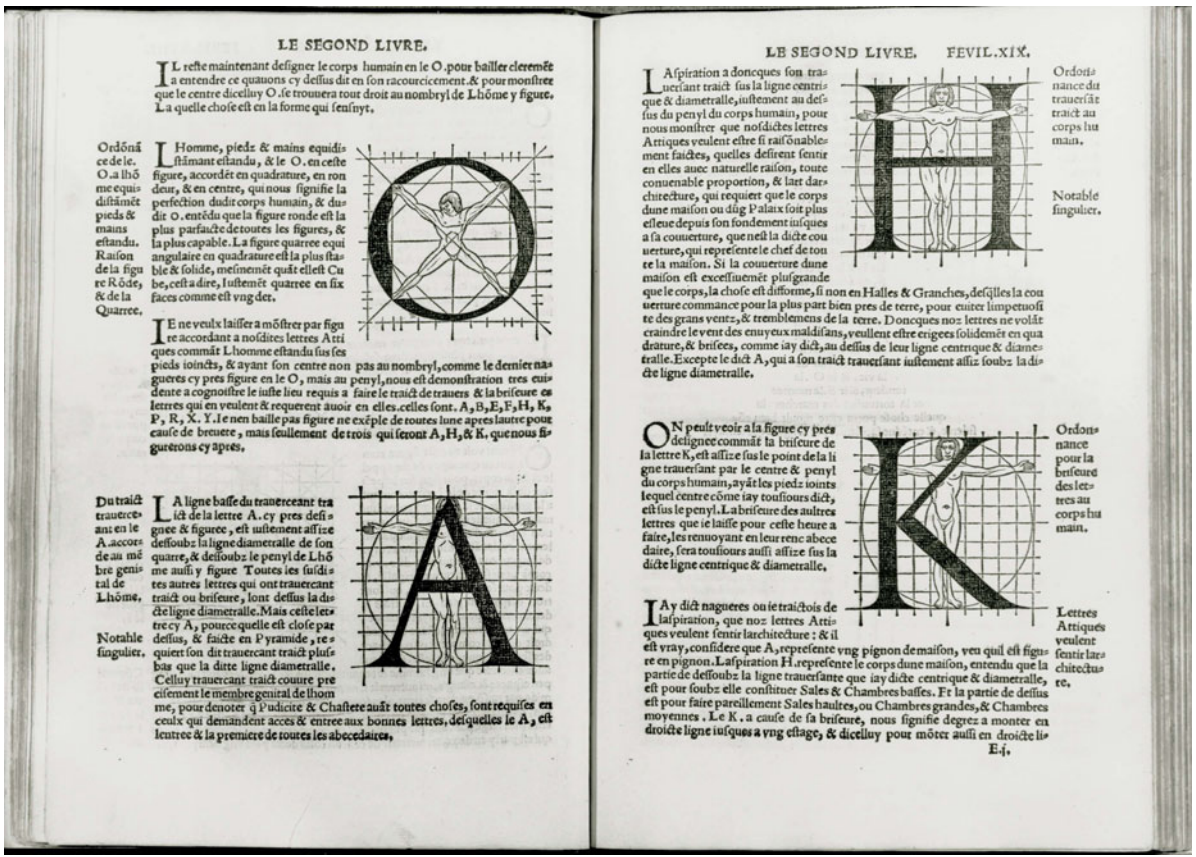

LE SEGOND LIVRE.

IL reſte maintenant deſigner le corps humain en le O. pour bailler cleremẽt a entendre ce quauons cy deſſus dit en ſon racourcicement. & pour monſtrer que le centre dicelluy O. ſe trouuera tout droit au nombryl de Lhõme y figure. La quelle choſe eſt en la forme qui ſenſuyt.

Ordõnãce de le. O. a lhõme equidiſtãmẽt pieds & mains eſtandu. Raiſon de la figure Rõde, & de la Quarree.

LHomme, piedz & mains equidiſtãmant eſtandu, & le O. en ceſte figure, accordẽt en quadrature, en rondeur, & en centre, qui nous ſignifie la perfection dudit corps humain, & dudit O. entẽdu que la figure ronde eſt la plus parfaicte de toutes les figures, & la plus capable. La figure quarree equiangulaire en quadrature eſt la plus ſtable & ſolide, meſmemẽt quãt elleeſt Cube, ceſt a dire, iuſtemẽt quarree en ſix faces comme eſt vng det.

IE ne veulx laiſſer a mõſtrer par figure accordant a noſdites lettres Attiques commãt Lhomme eſtandu ſus ſes pieds ioinctz, & ayant ſon centre non pas au nombryl, comme le dernier nagueres cy pres figure en le O, mais au penyl, nous eſt demonſtration tres euidente a cognoiſtre le iuſte lieu requis a faire le traict de trauers & la briſeure es lettres qui en veulent & requerent auoir en elles. celles ſont. A, B, E, F, H, K, P, R, X. Y. Ie nen bailleray pas figure ne exẽple de toutes lune apres lautre pour cauſe de breuete, mais ſeullement de trois qui ſeront A, H, & K. que nous figurerons cy apres.

Du traict trauerceant en le A. accorde au mẽbre genital de Lhõme.

LA ligne baſſe du trauerceant traict de la lettre A. cy pres deſignee & figuree, eſt iuſtement aſſize deſſoubz la ligne diametralle de ſon quarre, & deſſoubz le penyl de Lhõme auſſi y figure. Toutes les ſuſdites autres lettres qui ont trauercant traict ou briſeure, lont deſſus la dicte ligne diametralle. Mais ceſte lettre cy A, pource quelle eſt cloſe par deſſus, & faicte en Pyramide, requiert ſon dit trauercant traict pluſbas que la dicte ligne diametralle. Celluy trauercant traict couure preciſement le membre genital de lhõme, pour denoter q Pudicite & Chaſtete auãt toutes choſes, ſont requiſes en ceulx qui demandent acces & entree aux bonnes lettres, deſquelles le A, eſt lentree & la premiere de toutes les abecedaires.

Notable ſinguler.

LE SEGOND LIVRE. FEVIL. XIX.

LAſpiration a doncques ſon traict traueſſant traict ſus la ligne centrique & diametralle, iuſtement au deſſus du penyl du corps humain, pour nous monſtrer que noſdictes lettres Attiques veulent eſtre ſi raiſõnablement faictes, quelles deſirent ſentir en elles auec naturelle raiſon, toute conuenable proportion, & laet darchitecture, qui requiert que le corps dune maiſon ou dũg Palaix ſoit plus eſleue depuis ſon fondement iuſques a ſa couuerture, que neſt la dicte couuerture, qui repreſente le chef de toute la maiſon. Si la couuerture dune maiſon eſt exceſſiuemẽt pluſgrande que le corps, la choſe eſt difforme, ſi non en Halles & Granches, deſquelles la couuerture commance pour la plus part bien pres de terre, pour euiter limpetuoſite des grans ventz, & tremblemens de la terre. Doncques nos lettres ne volãt craindre le vent des enuyeux maldiſans, veullent eſtre erigees ſolidemẽt en quadrature, & briſees, comme iay dict, au deſſus de leur ligne centrique & diametralle. Excepte le dict A, qui a ſon traict trauerſant iuſtement aſſiz ſoubz la dicte ligne diametralle.

Ordonnance du trauerſãt traict au corps humain.

Notable ſinguler.

ON peult veoir a la figure cy pres deſignee commãt la briſeure de la lettre K, eſt aſſize ſus le point de la ligne trauerſant par le centre & penyl du corps humain, ayãt les piedz ioints lequel centre cõme iay touſiours dict, eſt ſus le penyl. La briſeure des aultres lettres que ie laiſſe pour ceſte heure a faire, les renuoyant en leur rencabecedaire, ſera touſiours auſſi aſſize ſus la dicte ligne centrique & diametralle.

Ordonnance pour la briſeure des lettres au corps humain.

IAy dict nagueres ou ie traictois de laſpiration, que noz lettres Attiques veulent ſentir larchitecture : & il eſt vray, conſidere que A, repreſente vng pignon de maiſon, veu quil eſt figure en pignon. Laſpiration H. repreſente le corps dune maiſon, entendu que la partie de deſſoubz la ligne trauerſante que iay dicte centrique & diametralle, eſt pour ſoubz elle conſtituer Sales & Chambres baſſes. Et la partie de deſſus eſt pour faire pareillement Sales haultes, ou Chambres grandes, & Chambres moyennes. Le K. a cauſe de ſa briſeure, nous ſignifie degrez a monter en droicte ligne iuſques a vng eſtage, & dicelluy pour mõter auſſi en droicte ligne

Lettres Attiques veulent ſentir larchitecture.

Figure 5.14. Geoffroy Tory (1480–1533), design for proportionate letters, *Champ fleury*, Paris, 1529. Courtesy of the Grolier Club, New York.