

RESEARCH ARTICLE

'The Signature of Architecture': Compositional Ideas in the Theory of Profiles

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The theory of profiles from the fifteenth to the nineteenth century is subtly distinct from the theory of the architectural orders. Francesco di Giorgio initiated the topic with his analogy of cornice and facial profiles. Michelangelo further exploited the conceit, while also developing the formal, particularly skia-graphical, potential of mouldings. In the seventeenth century, Vincenzo Scamozzi set the archaeological findings of architects into a framework of rhetoric, which furnished terms for formal analysis, audience reception, and ornamental affects. Rhetoric also encouraged profiles to be understood in terms of symmetry and decorum, so that the composition befitted its place within the genre of the order and the building. If the rhetorical model was applied to profiles, it could also be applied to architecture as a whole, in which case profiles were the equivalent to the rhetorical category of *elocutio*, which was the context for Bof- frand's treatment of profiles in the eighteenth century. And if profiles spoke, they could have character, as Jacques François Blondel would so famously demonstrate soon after. In contrast, William Chambers saw mouldings in terms of the expression of weight, an idea so appealing to Francesco Milizia that he copied Chambers's entire account of the topic into his own *Principii*. Chambers's implicit structural rationalism, however, was not so much a message from the future as a statement of the desirability of coherence, with each part performing its allotted role, in keeping with the rhetorical principle that expression must both fit together and be fitted to its purpose. The paper argues that rather than being minor details, mouldings encapsulated wider theories of expression — 'the signature of architecture'.

Introduction

Whoever does not have, among other branches of knowledge, an understanding of the exceedingly important art of moulding cannot be called an architect.

—Martino Longhi the Younger
(1625: 19, cited in Connors 1990: 232)

One might suppose that by the verb *modinare* Longhi had in mind knowledge of the rules for the composition of mouldings into profiles, a recondite code that only an expert could know.¹ Indeed, from the mid-16th century, profiles were prescribed in theory as part of the canon of the orders of columns, so that a base or cornice could indicate an order no less than a capital; for example, two scotias was typical of the base used in the Composite Order, as recommended by Giacomo Barozzi da Vignola (1635: 3) and then François Blondel (1675: bk 6, 135). Yet there were so many exceptions that it was obvious that the rules were elastic. For example, Vincenzo Scamozzi (1615: vol. 2, bk 6, 90) proposed a single scotia base for the Roman (that is, Composite) Order, and while Francesco Borromini

followed Vignola's rule in Sant'Ivo alla Sapienza in Rome, Italy (**Fig. 1**), he ignored it in San Giovanni in Laterano (also in Rome; **Fig. 2**) (Roca de Amicis 2000).

Thus one aspect of the story of profiles would be the ongoing clarification in the Renaissance and beyond of what constitutes the canon of the orders. Such a history would trace the naming of parts (*cyma*, *torus*, and so on) and the evermore precise and nuanced proportional system governing their distribution, thereby explaining the progress from the rudimentary compositions of the early Renaissance (**Fig. 3**) to the definitive ones of the eighteenth century.

But Longhi meant more than rules. Profiles were aperçus into antiquity, which survived more in fragments than complete buildings. Moreover, it was assumed that there was a rationale behind their composition, one that spoke of the whole and indeed of architecture in general. This conceptual framework for profiles is subtly distinct from that of the orders of columns, unfolding before and after Longhi within three overlapping narratives: anthropomorphic, rhetorical, and structural. It is these ideas that concern the present article. The human likeness announces the topic in the Renaissance treatise of Francesco di Giorgio Martini, namely that profiles could be likened to the side-on representation of the face. In this sense, as Jacques François Blondel would demonstrate three centuries later, profiles cast an impression on the audience in the same way that the human figure conveyed temperament and morality.

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Figure 1: Francesco Borromini, interior Composite pilaster base. S. Ivo dalla Sapienza, Rome, Italy, 1640s. Photo by M. Hill.



Figure 2: Francesco Borromini, interior Composite pilaster base. S. Giovanni in Laterano, Rome, Italy, 1650s. Photo by M. Hill.



Figure 3: Leon Battista Alberti, interior pilaster base. Palazzo Rucellai, Florence, Italy, 1446–1451. Photo by M. Hill.

Rhetorical terms were never far away, and came to the fore in the work of Scamozzi, who considered the profile

the 'signature of architecture', an axiomatic composition that balanced straight and curved lines, along with shadowed recessions and lit projections. Germain Boffrand took Scamozzi's work further still and equated profiles with the sort of figures and devices used to embellish speech. Another branch of Scamozzi's work led to the structural reading by William Chambers, who thought individual mouldings had an original purpose that should be respected when assembling them into a vertical stack. Thus profiles could be understood as small weight-bearing systems and models of the constructional imperatives from which ornament derived. Profiles continued to be discussed as important parts of a building's expression until modernism, when they disappeared from architectural theory, so suddenly that their tradition is all but unknown today.

Cornice and Face

In the c. 1495 version of di Giorgio's unpublished treatise, a cornice profile is superimposed over a man's head and shoulders (**Fig. 4**).² From the top down: the *gola* (throat) corresponds to the crown of the head; the *scotio regolo* (a misnomer; scotia is a cavity, this is a fillet) is an interval; the *corona* or *gocciolatoio* (dripstone) fits the forehead; the *echino* or *ovolo* is placed over the nose; the *scotio* sits on the bridge between the nose and mouth; the *denticulo* stands for the teeth-bearing mouth; the *cimatio* (cymatium, or *cyma reversa*) is for the chin; and the *zophoro* (frieze) for the throat. This did not come from Vitruvius, nor did Leon Battista Alberti (1988: 7.7, 205) discuss mouldings in these terms, other than mentioning that the *cyma recta* was known as a 'gullet [*iugulum*] because of its resemblance to a man's throat'.³ However, while the *cyma* (wave in Greek) looks like the throat, in di Giorgio's drawing it refers to the

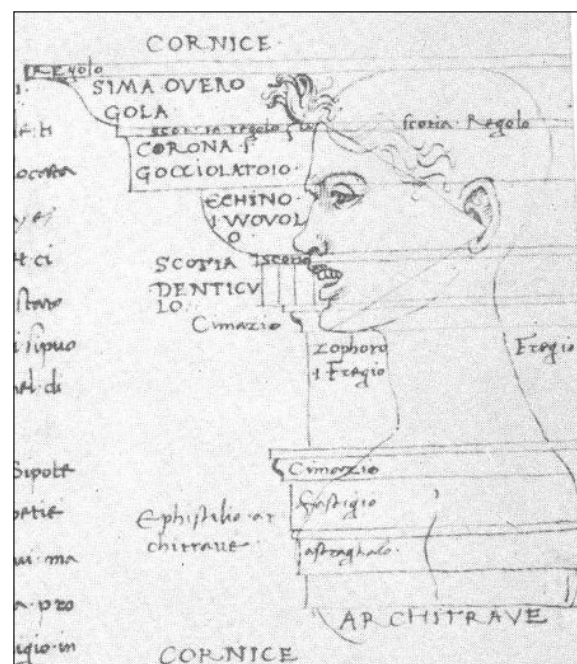


Figure 4: Francesco di Giorgio, cornice profile superimposed over a man's head and shoulders, detail. Biblioteca Nazionale Centrale di Firenze, Florence, Italy, ms. II.I.141, Fig. 37.

skullcap, while the human throat is matched to the frieze under the cornice. The code was not likeness but proportion. In the text accompanying the drawing, di Giorgio stated that the similarity of the head and cornice was a research proposition, tested by measurement:

As I recorded and investigated whether or not the symmetry and proportions of the cornice could be reduced to the head of man, I saw some cornices that had similarities in details, but without equivalent proportions. However, in many other cornices that I measured, I found proportions the same as the head. (Di Giorgio 1967: vol. 2, 390)⁴

Vitruvius (1931: 3.1) had asserted that architecture was derived from the symmetrical – that is, balanced and interdependent – analogy of the body. Di Giorgio (1967: 361) went further still: at the beginning of the treatise, he called man 'a little world, in whom are held all the general perfections of the whole world'. Man was both the example and the rule. Observations could thus be made according to the premise that the principles inherent in man are the same as those in the natural world; the corollary of the belief that man is a little world is that the world is a large man.⁵ The insertion of architecture into this scheme begs the question of architecture's derivation. Architecture is not the same as the small world of man, nor is it a larger world containing phenomena that, as it happens, are anthropomorphic. Rather it is a product of man, into which he has seen fit to apply his exemplary proportions. Di Giorgio's contention is thus that architecture might demonstrate a human-like symmetry. His 'discovery' that this was so in antiquity implies that the practice had since declined, and that profiles had become unnatural. Thus the historical observation that the cornice and face were analogous in antiquity was akin to following natural law, which allows man to project his microcosmic order onto his world.

The first published account of the facial profile is Diego de Sagredo's *Medidas del Romano* of 1526 (Fig. 5). De Sagredo (1526: 8–9) noted that the name of each moulding alluded to its figurative meaning; for example, the corona crowns the edifice, while the talon (cyma reversa) derives from the Latin *talus*, meaning a man's heel (De Sagredo 1526: 15–16).⁶ De Sagredo then proposed that the cornice was the fundamental detail of the building, with a pentad composition similar to the human face:

The ancients centred and erected the mouldings of their cornices upon the face of man. They placed five frames in five places on the said face. The first upon the forehead, the second upon the eyes, the third upon the nose, the fourth upon the mouth, the fifth upon the beard. [...] The four intervals that are found among these five frames were assigned by the ancients four main moldings, which are convenient to know. Upon the forehead, a cyma [recta]; Over the nose, a corona; over the mouth, an ovolo [bozel] (and may be that it is called a bozel [that is, muzzle] since it is used over the mouth); and upon

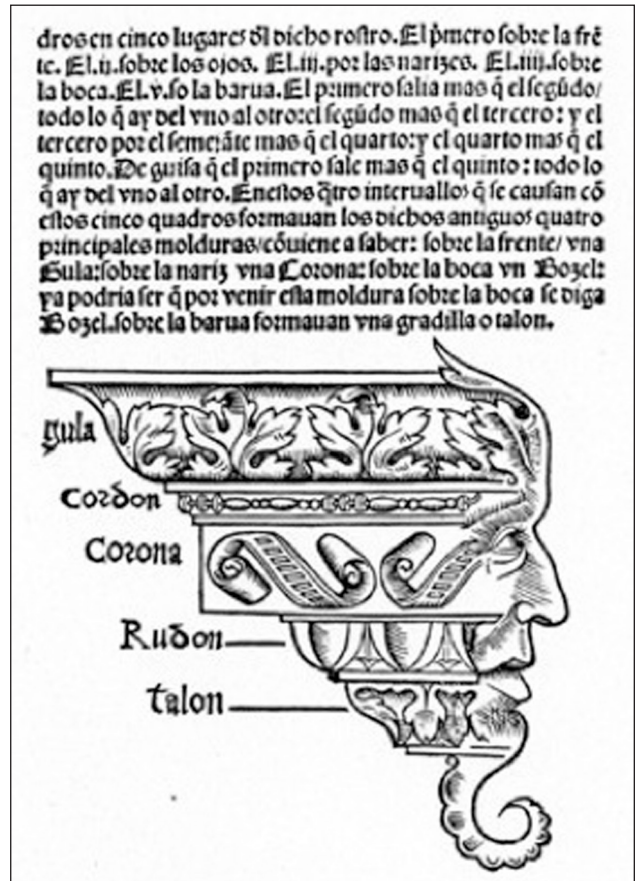


Figure 5: Diego de Sagredo, facial profile. From de Sagredo (1976: 19).



Figure 6: Diego de Sagredo, proportional basis of facial profile. From de Sagredo (1976: 18).

the beard, a fillet and talon. (De Sagredo 1526: unpaginated, but 19)⁷

Another image shows the proportional basis of the likeness (Fig. 6). De Sagredo's scheme is different from di Giorgio's, with a cyma on the forehead (not the skull cap), corona over the nose (not the forehead), and with no moulding to correspond to the teeth. Despite these differences, Di Giorgio and de Sagredo were driven by the same idea; namely, that man is a microcosm, and that because of this the first builders took their cue from the composition of the human body. For both theorists, the facial proportionality of the cornice confirmed that the human type should be embedded in the details of architecture.

Michelangelo: Body and Shadows

A different analogy of the profile and face occurs on Michelangelo's sheet (Fig. 7) of studies for the pilaster bases in the Medici Chapel in Florence, Italy (Fig. 8), in which an eye is sketched onto the bridge of ovolo and fillet, suggesting an aquiline nose over the gaping mouth of the scotia.⁸ Vitruvius (1931: 5.3) had noted that the Greeks called the scotia a *trochylos* (a bird such as wren), by which he meant the coupling of scotia and hooked fillet, hence the distinctively beaked profile (Perrault 1673: 86 n.8).⁹ It is significant that facial allusion is installed on the definitive version of the composition, a synthesis of the two beside it. Michelangelo's idea was to hover a projection over a shadow. The solution exaggerates the division, exploiting the flat underside of an ovolo to emphasise the

depth into which the scotia retreats, while elevating it above the projecting (and thus lit) torus with a cyma. Scotia means obscurity in Greek; that Michelangelo was working with shadow is confirmed by the diagonal hatching of the scotia on the base drawn to the left. The sketched eye thus exclaims that the conceit of yawning depth has been realised, as if to say: 'this is the one, a dark mouth'.

While other scholars have ventured a symbolic interpretation of the shadow in this drawing, it can also be appreciated as a means of suspending the shaft of the pilaster above its base.¹⁰ Given that mouldings run along parallel lines, profile composition was partly a matter of controlling the alternation of projecting lights and receding shades. This was known as *skiagraphy*, an art that allowed a building to be drawn in space so that wall mass,

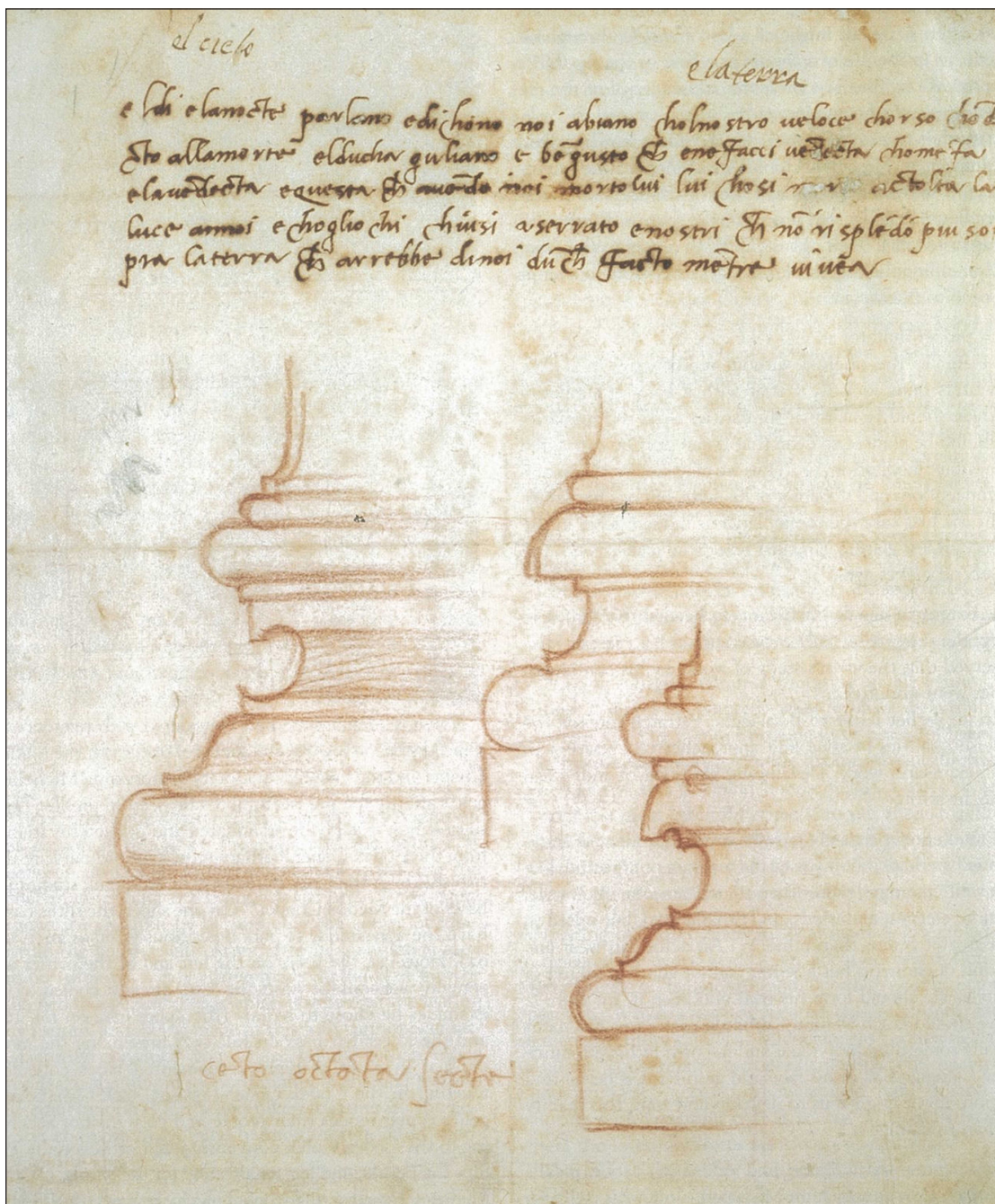


Figure 7: Michelangelo, drawings of base profiles. Casa Buonarroti, Florence, A10r, c. 1523.

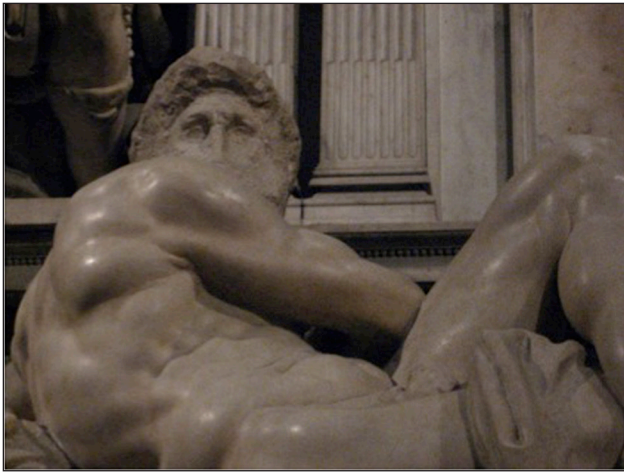


Figure 8: Michelangelo, base profile shown in Fig. 7, in the Medici Chapel, Florence, c. 1523. Photo by M. Hill.

columns, and apertures could be apprehended diagrammatically across the face of forms, rather than merely at their profiled edges. The following century, Scamozzi (1615: vol. 2, bk 6, 141) would recommend that profiles be made in white or monochrome marble, presumably because dark or mixed colours compromised the capacity of profiles to have their design written in shade.

Michelangelo was keenly aware of the way profiles could modulate the sculptural body of a building.¹¹ He drew profiles continuously and in freehand, absorbing them into an expressive mode continuous with his artistic practice at large.¹² His approach is on display in a sheet drawn around 1525 (**Fig. 9**), well known because it includes ideas for the Laurentian library stairway. Turning the drawing upside down shows that it was formerly dominated by two base profiles: one, an ink-wash template; the other in red chalk and pen, also ink-washed to bring it into relief. The profiles overlay earlier outlines, when the page was in horizontal format, of a sitting torso and a profiled head. In both life and architectural drawing, outlines are worked into definition and primary curves are punctuated with folds and abutments. The red chalk segments that comprise the torus and cyma have the back-and-forth rhythm of the hand, rather than the curve of the compass.

Likewise, the other side of the sheet (**Fig. 10**) has further drawings for column bases. The one in the centre shows a cyma reversa springing from a torus, the wavy curve elongated like the heel and arch of a foot, recalling the term often used for the cyma, *talus*. Two curvatures are depicted, just as the real foot faintly drawn near the left edge of the sheet has a doubled line, showing it both flattened and arched. The line of architecture and that of the body flex and contract along similar paths.

Scamozzi: The Signature of Architecture

The empirical and expressive work of Michelangelo and others was systemised by theorists like Vignola and Andrea Palladio in the second half of the 16th century. Both writers, however, offered scant conceptual explanation of

profiles, and it was not until Scamozzi's massive *L'idea dell'architettura universale* of 1615 that the discourse was significantly advanced beyond the accounts of di Giorgio and de Sagredo. Indeed, Scamozzi wrote an entire chapter on profiles, separate from the orders, and another on their component mouldings (Scamozzi 1615: vol. 2, bk 6, 139–149). For the first time, profiles were discussed in terms that went beyond the normal anthropomorphic allusions and proportional rules, with Scamozzi providing mouldings with both a functional rationale and a visual typology.

The word Scamozzi used for a profile is *sacoma* (1615: vol. 2, bk 6, 139), meaning counterpoise, and referring to the complex equilibrium of parts that must be formed by any composition of mouldings. For Scamozzi (1615: vol. 2, bk 6, 141), the profile was the signature of the whole; if the mouldings were wrong then the flaws would magnify into the building at large. That a building might be conjured from base elements suggests, conversely, that the distillation of architecture would leave only these curved and straight details. Scamozzi explored this in semantic terms, observing that 'moulding' (*il modono*) derives from the root word 'style' (*modo*), and even 'model' (*modello*), indicating they are the raw ingredients of expression and type (Scamozzi 1615: vol. 2, bk 6, 139).¹³ In short, profiles embodied the principle of architectural order. This provides a second reason, in addition to the one mentioned above regarding shadow lines, as to why Scamozzi recommended that they be made only in white marble: their architectonic priority deserved the clearest possible expression, which diversity of colour would compromise. (A third reason could be that precision undercutting of mouldings such as a scotia was difficult in coarse-grained stones.)

Once the critical importance of profiles was established, Scamozzi (1615: vol. 2, bk 6, 140) considered the way in which they are assembled. While rules were important, the judgement of the eye was also crucial, and he proposed enlarging or shrinking mouldings whenever circumstances dictate.¹⁴ Only in a perfect setting should the rules be applied to the letter. In a later chapter, Scamozzi (1615: vol. 2, bk 6, 150) described the composition of the Corinthian base (**Fig. 11**) and cornice (**Fig. 12**). In each ensemble there is a moulding assigned the value of one, against which other mouldings are fractions or multiplications. In other words, profile composition is symmetrical – that is, interdependent – around a module. The height of the base under the column shaft, for example, is half the width of the column and divided into six and one third parts, of which the upper torus is one. The other mouldings are then measured against this torus: the lower torus is one and a half, the lower astragal is five twelfths, the lower fillet is one sixth, the scotia three quarters, the upper fillet is one sixth, and the upper astragal is one third.

Scamozzi ventured that the function of mouldings was to protect walls and columns from weather and other injuries, which was achieved by virtue of their projection and curvature. Such reasoning led Scamozzi to see mouldings in terms of the vocabulary of natural design:

This is seen in the extremities of the shoulders, elbows, arms, knees, and heels, the ends of the



Figure 9: Michelangelo, sheet of architectural drawings (upside down), c. 1524. Casa Buonarroti, Florence, n.92v.

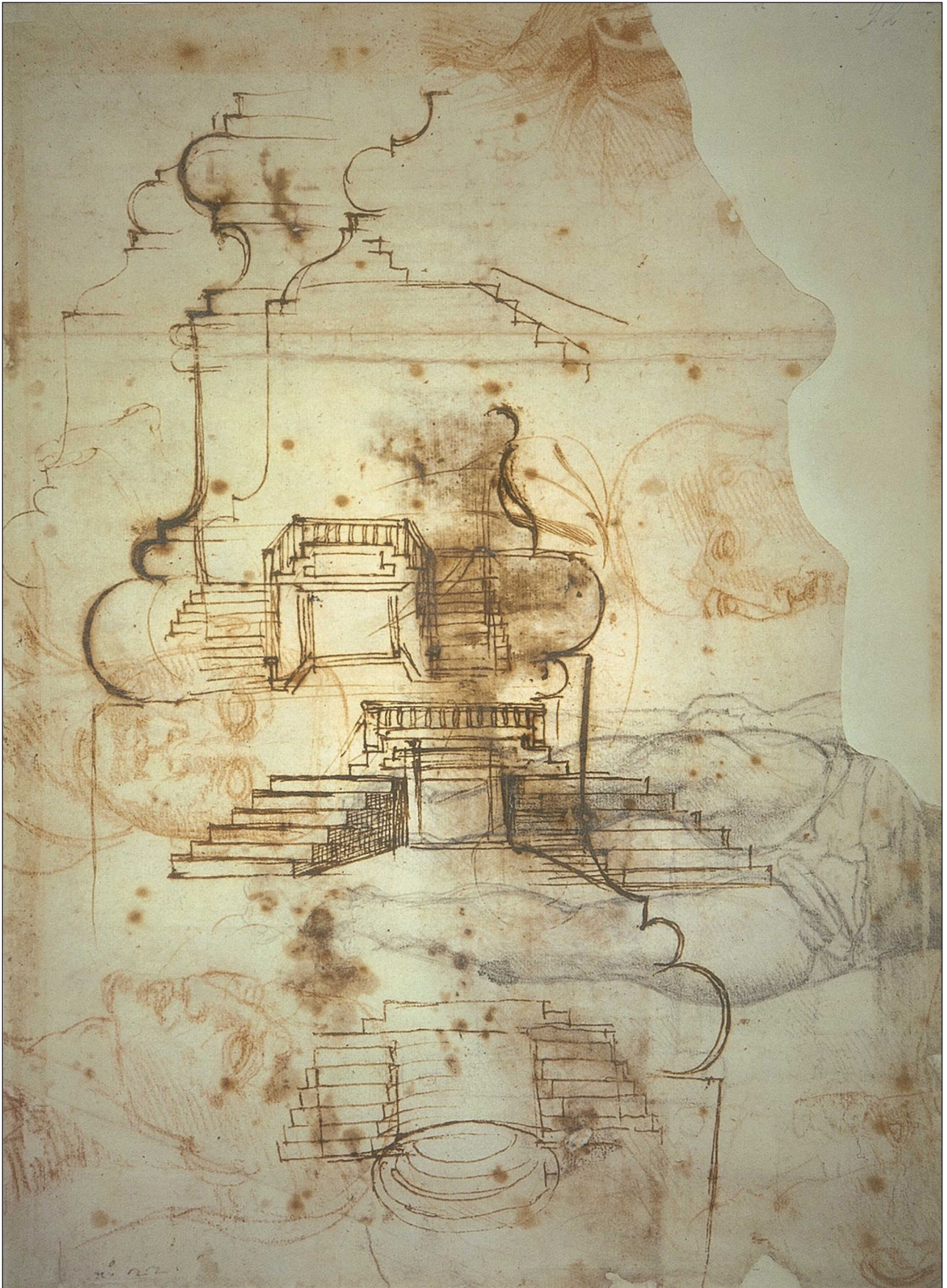


Figure 10: Michelangelo, sheet of architectural drawings (recto of Fig. 9), c. 1524. Casa Buonarroti, Florence, n.92r.

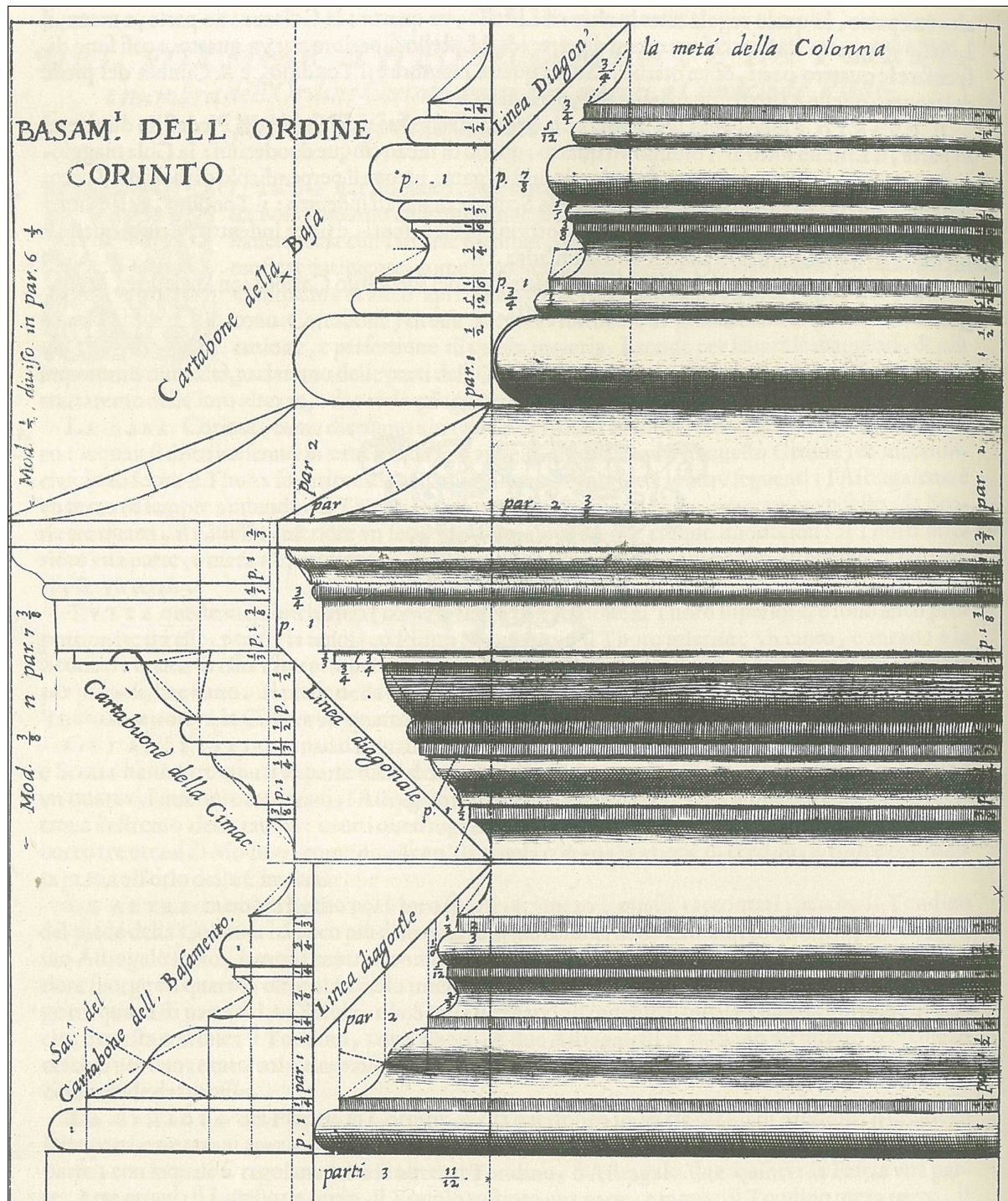


Figure 11: Vincenzo Scamozzi, base of Corinthian Order. From Scamozzi (1615: bk 6, part 2, 152).

fingers, the nose, and the ears, which all have roundish shapes, as is appropriate and lovely, while also being suited to resist and support weights. Cymas imitate the human throat, while cavetti and scotias are like the husks and rinds of various fruits; and we could find similar imitations in all the other members. (Scamozzi 1615: vol. 2, bk 6, 146)

Scamozzi thus implied that architecture was a type of artificial nature, one with the same sort of organisation that contemporary scientists were finding in the natural world itself.¹⁵ The reasoned basis of mouldings continued into

visual typology, which Scamozzi noted was divided into straight and curved:

Some parts and members are very flat, such as the friezes, fascias, [...] Some are almost square, like the coronas, dentils, and fillets; others are on slabs or plinths, like the larger part of the abacuses of capitals. Then there are the sections of a circle, such as the pulvinated frieze and likewise the ovoli. There are half circles, or a little more, like the tori, astragals, or tondini; others are concave, like the scotia, or the flutes that go from the feet to the tops of the

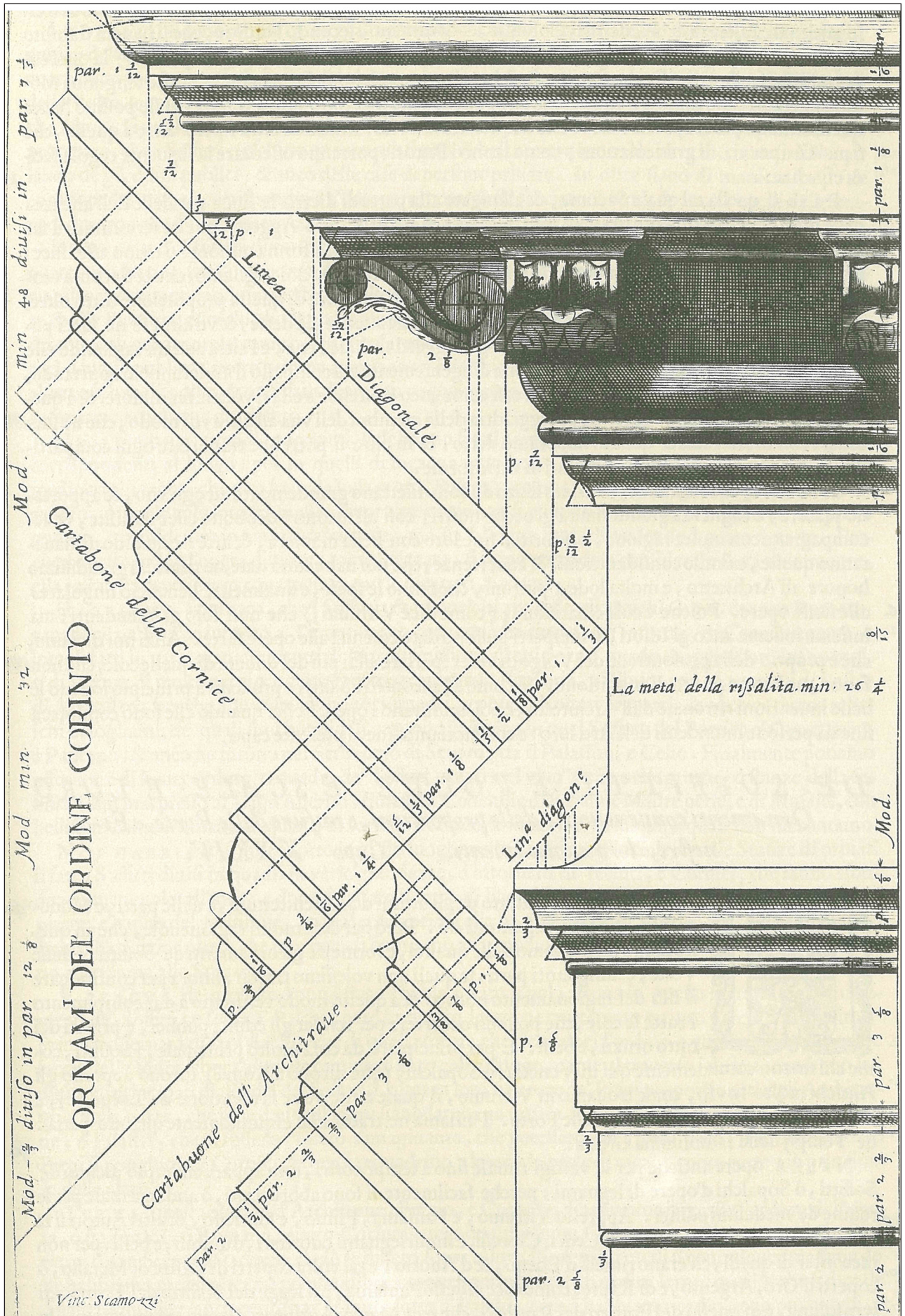


Figure 12: Vincenzo Scamozzi, cornice of Corinthian Order. From Scamozzi (1615: bk 6, part 2, 155).

columns, and also the cavetti. Finally, some are a mix of concave and convex, like the cyma recta and riversa. (Scamozzi 1615: vol. 2, bk 6, 146)

Given the natural rationale of architecture, the exemplum for profiles should be the human body (Scamozzi 1615: vol. 2, bk 6, 147). This is above all the case in relation to proportions, which must show the same agreement as is seen in the body between large and small parts, between projections and recessions, and between curves and straight lines. The corollary is that unfitting profiles were seen as monstrous. The union of the decorum (*convenienza* – from the Latin, *convenio*, meaning to fit together) of natural things with the fittingness of profiles was legitimised by the idea of the human body's balanced interconnectedness, long considered the presiding compositional model in rhetorical theory.¹⁶ Earlier in the treatise, Scamozzi (1615, vol. 1, bk 1, 38 and 47; bk 3, 220 and 225) described architecture as an artificial body, constructed of modules proportioned together. The design logic of profiles was understood the same way, proportioned according to an individual unit such as the torus, just as the body is proportioned according to a unit such as the head or the hand. Thus the idea of the profile was tangled with that of the body, beginning with its fitting symmetry: a profile had to have a proportionality like a body, while also being apt to the whole building, which was like a larger body (Scamozzi 1615: vol. 2, bk 6, 142).

Eloquence

While Scamozzi made a novel and valiant attempt to perceive the reasoned basis of profiles, he did so within the conventional framework of rhetoric, which established the terms of compositional and expressive process (Scamozzi 1615: vol. 1, bk 1, 43). This had long been a feature of humanist architectural theory, commenced by Alberti (1988) in the fifteenth century, whose *De re aedificatoria* was written over the template of Cicero's *De officiis*, and continuing among such humanist commentators as Daniele Barbaro (1556: 26), who equated the principles of oratory as described by Quintilian with those of architecture enumerated by Vitruvius (Onians 1988: 150–157; Smith 1992: 85–129; Van Eck 1998; Payne 1999: 53–56; Kohane and Hill 2001: 68–70; Van Eck 2007). By the end of the seventeenth century, architectural theory had become so thoroughly intertwined with literary concepts that it was natural to think about the function of something like a profile in terms of ornamental style, which rhetoricians argued raised mere expression into art.

In this context, Boffrand's *Livre d'architecture* of 1745 (first published in parallel columns of French and Latin) occupies a special place. Boffrand eschewed the normal description of the orders in favour of a general essay on architectural expression, and profiles in particular. He advanced the idea that profiles were equivalent to words in discourse, which he explained in the accompanying Latin text by saying that the architect can manipulate profiles just as the orator or poet commands words and syllables.¹⁷ A double analogy to linguistic construction and to rhetorical composition is suggested. Syllables are the

basis of words, words the basis of speech; likewise architecture, for the architect constructs profiles out of smaller mouldings (like syllables), then disposes the profiles (like words) to dress the whole building. Boffrand (1745: 22) further argued that profiles were an initiate's code of miniature composition, made from mouldings that consist of straight, convex, and concave lines, the basis of linear expression. Repetition should be avoided, for the eye prefers variety: not too curvy, not too straight, and not too small and mean (Boffrand 1745: 23).

Some of Boffrand's argument derived from Scamozzi, who said that the profile was the most basic of ensembles, while Augustin-Charles d'Aviler (1694; quoted by Van Eck, in Boffrand 2002: 99 n. 29) wrote in a commentary on Vignola: 'mouldings are to architecture what letters are to writing. Just as the combination of characters makes an infinite number of words in different languages, so by the mix of mouldings one can invent distinct profiles for each of the Orders'. Boffrand, however, elaborated and refined the issues, aware that the language of speech and that of architecture are similar but not the same; he changed letters to syllables, and harnessed the analogy to his broader purpose of expressing the range of feelings and subjects available to literature. Drawing from Horace's *De Arte Poetica*, Boffrand (1745: 22) urged the architect to design in the manner of an orator or poet, inventing and composing a building before articulating it with profiles. Thus while profiles are viewed as models of composition, the main thrust of the argument is that they are examples of elocution, that is to say, style.

Physiognomic Character

Boffrand was novel in his view that profiles can produce results in architecture comparable to word choice in poetry, but was short on detail of how this would work in practise.¹⁸ More effective was Jacques François Blondel, who in volume one of the *Cours d'architecture* (1771), united the rhetorical emphasis of Boffrand with the older analogy of profiles and faces, derived from de Sagredo and the obscure figure of le Blond (di Giorgio remained unknown to Blondel).¹⁹ This enabled Blondel to speak of a building's character, both as something typical of an institution and replete with commonplaces attached to physical types. Character should be installed where it is easily seen, at the level of the cornice:

Depending on the genre of the building, certain members can be augmented: for example, without upsetting the rules of good architecture, one could exaggerate the projection of the dripstone of the corona, which represents the nose of the head, or pull down the upper cyma representing the forehead; and fortify with corbels [the part] representing the chin, if one wants to give to the profile of a cornice a very rustic expression, following the Tuscan order. On the other hand, in noble architecture, one could give the upper cyma more height, with the intended meaning that it must be more elevated to represent the high forehead of a hero. One could also enlarge the dripstone to give

the idea of a more aquiline nose, and so on, which would then determine the expression of a profile of the Doric order. (Blondel 1771: vol. 1, 262)

Blondel argued that the facial resemblance enabled the spectator to quickly apprehend what is pleasing or otherwise about the cornice. This distinguishes his theory from that of the Renaissance, which rested on the convention that the human form was the natural proportional exemplum for architecture. For Blondel, the face was there for theatrical reasons, to be seen by the building's audience.

Blondel demonstrated this by comparing the Tuscan cornices of Scamozzi (Fig. 13), Palladio (Fig. 14), and Vignola (Fig. 15). Blondel here followed the seventeenth-century practice of Claude Perrault (1993: 102) and François Blondel (1675: bk 1, 27–36), who compared the same three Tuscan cornices and found all except Vignola's too delicate in their proportions. Jacques François Blondel went beyond measurement and provided figurative reasons for the verdict. He regarded the first two as ungainly specimens, with features taken from disparate sources; for example, Palladio's has a boy's nose atop an old man's chin and both Palladio's and Scamozzi's Tuscan profiles

culminate with a cyma, which suggests the high forehead of a hero. In contrast, that of Vignola is finished with an ovolo, a more emphatic cap suited to a man of the land, while his chin is made from the talon (cyma reversa), the moulding also assigned to the chin by de Sagredo. For Blondel, only Vignola's cornice could be configured into a man with a unified character.

Blondel's ideas derived from physiognomy, which combined celestial astrology with the four earthly humours (Rykwert 1996: 34–54; compare with Grignon and Maxim 1995). Physiognomy provided an image of what a character should look like, so that someone with a sanguine temperament, ruled by Jupiter and Venus, would be flush-complexioned, plump-lipped, and perhaps overweight (Della Porta 1652: 30). Portraitists in turn might understand their sitters according to such categories, steering their appearance to their typical particularities, thereby displaying them as they truly are. For example, Raphael's tight-lipped *Portrait of Pope Julius II* (1509, National Gallery, London) conveys the leonine and martial qualities of the Pope's choleric humour (Partridge and Starn 1980: 26–27; Summers 1987: 110–112). Another branch of physiognomy revealed emotions: this was the theory of the passions, which held that the movements of the soul were transmitted via the pineal gland to the body's surface,

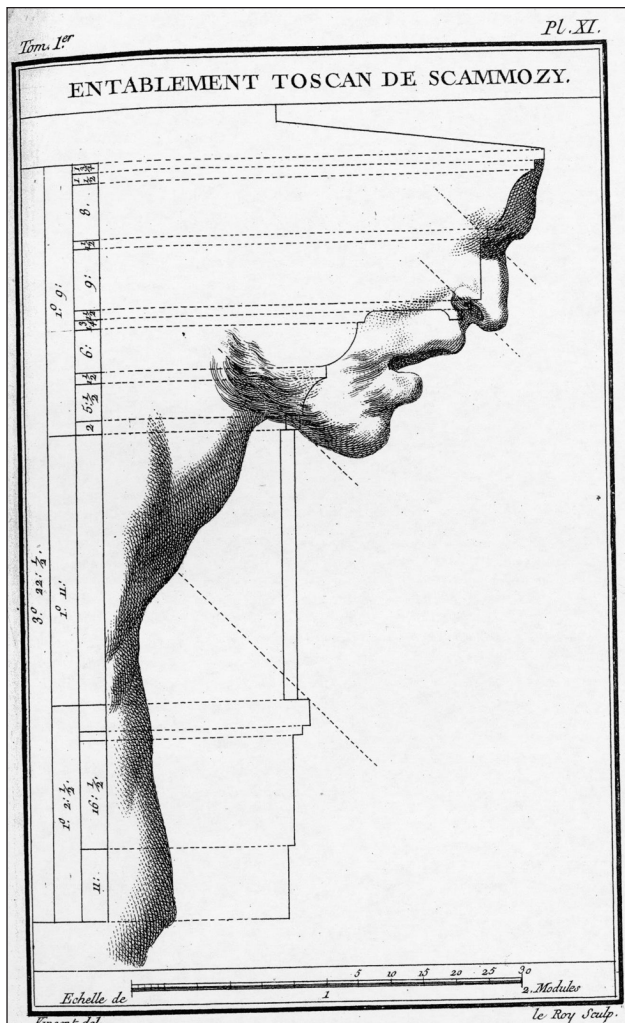


Figure 13: Jacques François Blondel, Tuscan profile according to Vincenzo Scamozzi. From Blondel (1771: vol. 1).

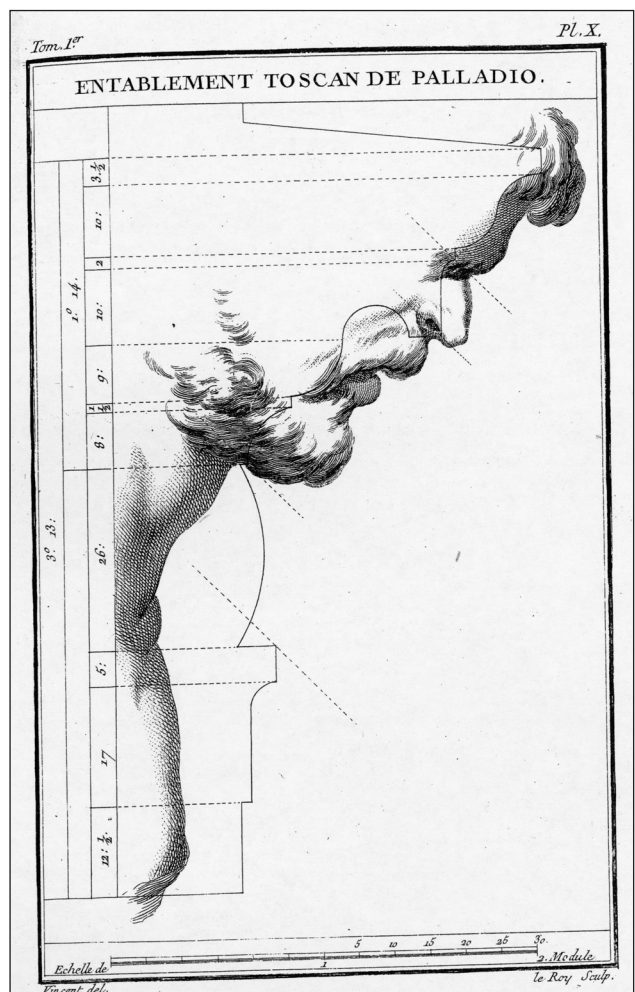


Figure 14: Jacques François Blondel, Tuscan profile according to Andrea Palladio. From Blondel (1771: vol. 1).

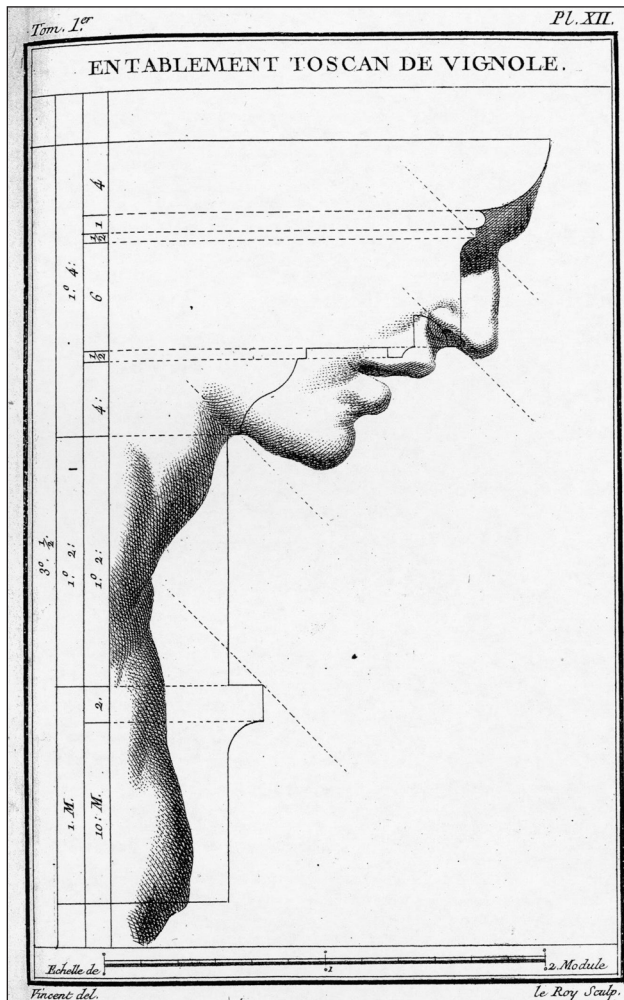


Figure 15: Jacques François Blondel, Tuscan profile according to Giacomo Barozzi da Vignola. From Blondel (1771: vol. 1).

where they appeared as physical gestures (Descartes 1985). In addition, physiognomy went beyond nature to include social types, so that facial features were evidence of rank; hence Blondel's reference to the large chins of men who worked the land. For Blondel, just as the physiognomy of a person was most obvious in the face, so the physiognomy of a building was condensed in the cornice profile, the detail bearing the clearest imprint of character. Although the medical doctrine of the temperaments was obsolete by the 1770s, the characterisations that it supported were so culturally embedded that Blondel could invoke its categories as a natural perceptual tool. This enabled the common spectator to understand the nature of the building by reading the physiognomy of the cornice, just as he or she might understand the individual via the physiognomic 'language' of the face. This continued into the nineteenth century, eventually becoming indicative of racial and historical taxonomy (Espérandieu 1872); for example, a bulbous column base, replete with tori, might suggest the intemperate swellings of a decadent culture like Turkey, while a base with a gentle balance of fillets and cavetti alluded to the agreeable moderation of ancient Greece.

The expressive counterpart of physiognomy was drama, whether stage-play or history painting, in which

individual characters stood for human traits such as vanity or humility, timidity or heroism. In art theory, it was a matter of decorum for the artist to match the representation of an historic personage to his or her emotional, moral, and dramatic character. Ludovico Dolce (1770: 74) gave the example of Moses, in whom the artist 'must represent [...] the majesty of sovereign, the dignity of a law-giver, the air of a commander'.²⁰ Dolce (1770: 75) referred to Horace's *De Arte Poetica* when he described the comparable principle in literature, where characters such as Achilles or Medea ought to speak in a language adapted to their heroic nature. Horace furnished the idea that poetry could be like painting, conveying emotional meaning in abstract words, just as painting was efficacious by virtue of its immediately understood language of 'natural' pictorial signs. So also could architecture; although here it should be pointed out that, for Horace, painting was the exemplum to which poetry aspired, and not the other way round, as had been implied by Boffrand's treatise. Blondel (1771: vol. 2, 230) is thus correctly Horatian when he argued that profiles are crucial devices in the architect's expressive repertoire, which enable affects comparable to those achieved by the painter (not, that is, the poet). Because they are small details that attract the eye, the emotions and types denoted by profiles can be immediately understood, just as a painter or sculptor can suggest the passions and morals of the protagonists by the attitude of their heads. In this manner, profiles, like heads in history painting or sculpture, are keys to the entire work.

[Profiles] allow the diverse characters of the different productions of architecture to be expressed, portraying in the eyes of the spectator something in the little details, which is the reason for the erection of the whole building. It is the same in a history painting or bas-relief by the painter or sculptor, where the airs of the heads of the figures indicate, by each of their expressions, the passions that characterise the personages represented in oil or marble. In this way in architecture the cornices, simple or composed, can help express in their decoration the determination of the order [...] As in sculpture or painting, the characters of the heads can express without difficulty and in a distinctive manner the different traits which are given to soldiers; and one may compare such heads with those of heroes or of gods which comprise the entire arrangement of a work of painting or sculpture. (Blondel 1771: vol. 1, 259–260)

Chambers and the Expression of Weight

While the main branch of Scamozzi's account of profiles led to the literary approach of Boffrand and Blondel, another part, where profiles were categorised in terms of physical form and functional role, pointed to a more far-reaching theory. In *A Treatise on Civil Architecture*, William Chambers defined mouldings as the subservient parts of the orders, compared to the essential members of architrave, dentil, corona, capital, abacus, column, plinth, and base (Chambers 1759) (Fig. 16).

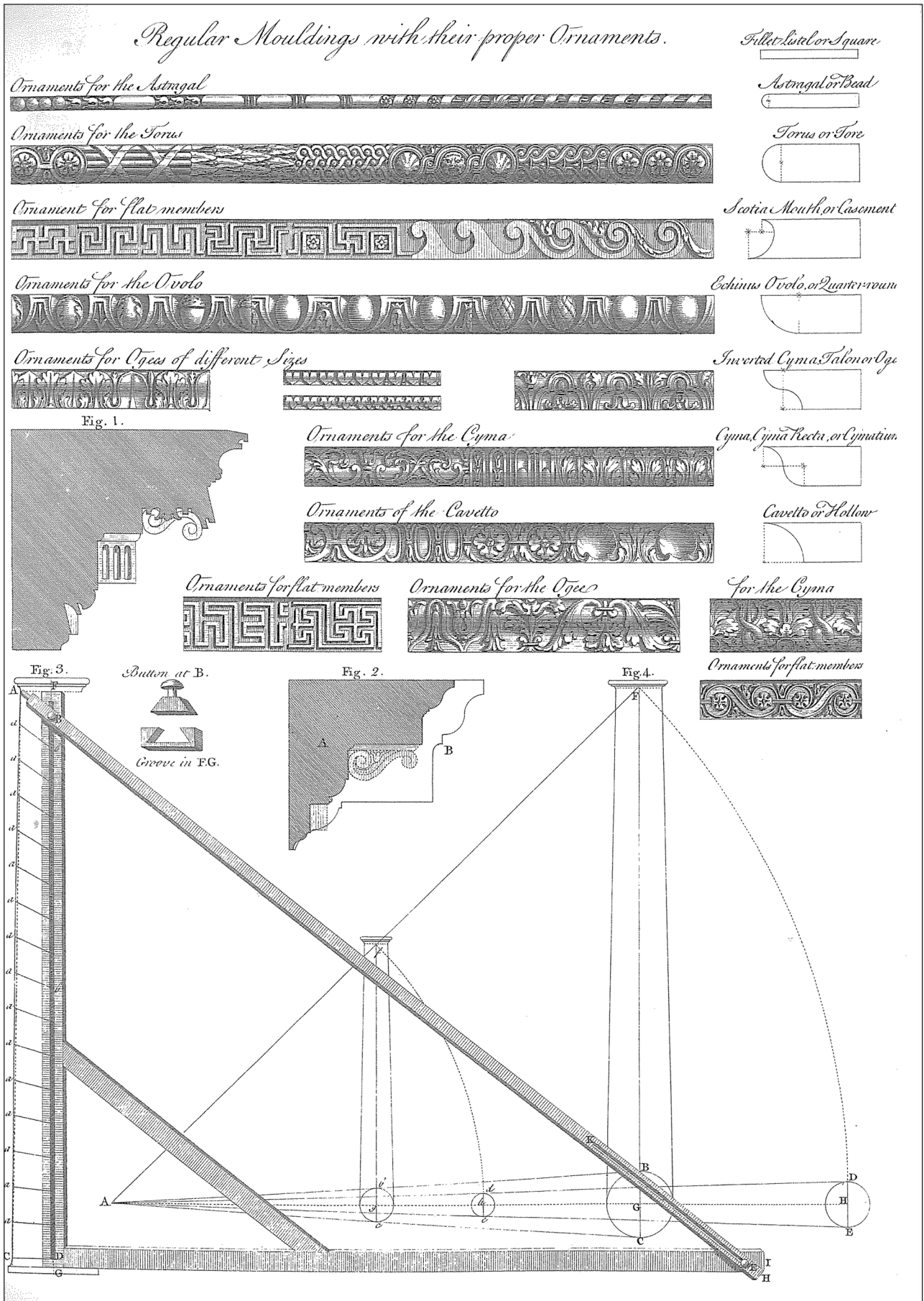


Figure 16: William Chambers, mouldings. From Chambers (1791: 2).

Originally, only these essential components were necessary, as the primitive cabin (the model for architectural imitation) was trabeated. Over time, however, architects imitated the variety found in natural species, and so introduced intermediate mouldings to punctuate the principal members and to underscore their structural purpose. Like Scamozzi, Chambers argued that mouldings must be understood in relation to their role and visual type (curved or straight):

The ovolo and talon, as they are strong at their extremities, are fit for supports; the cyma and cavetto, though improper for that purpose, being weak in their extreme parts, and terminating in a point, are well contrived for covering to shelter other members: for the tendency of their contour is very opposite to the direction of falling water; which for that reason cannot glide along their surface, but must necessarily drop. The torus and astragal, being shaped like ropes, are intended to bind and fortify the parts on which they are employed, but the use of the fillet and scotia, is only to separate and distinguish other mouldings, to give graceful turn to the profile, and to prevent that confusion which would be occasioned by joining several curved members together. (Chambers 1759: 3)

Chambers, however, went further than Scamozzi when he concluded that, based on the precedents of the ancients, profiles should convey an orderly expression of structure:

That the inventors of these mouldings meant to express something by their different figures will scarcely be denied; and that these were their destinations may be deduced, not only from their figures, but from the practice of the ancients in their most esteemed works: for if we examine the Pantheon, the Three Columns, the temple of Jupiter Tonans, the fragments of the Frontispiece of Nero, the Basilica of Antoninus, the Forum of Nerva, the Arches of Titus and Septimius Severus, the Theatre of Marcellus, and indeed almost every ancient building, either at Rome, or in other parts of Italy, and France, it will be found that, in all their profiles, the cyma and the cavetto are constantly used as finishings, and never applied where strength is required; that the ovolo and talon are always employed as supporters to the essential members of the composition, such as the modillions, dentils, and corona, that the chief use of the torus and astragal is to fortify the tops and bottoms of columns, sometimes pedestals, where they frequently cut in the form of ropes; as on the Trajan Column, in the Temple of Concord, and on several fragments which I have seen both at Rome and at Nimes in Languedoc; and that the scotia is employed only to separate the members of bases, for which purpose the fillet is likewise used, not

only in bases, but in all kinds of profiles. Hence it may be inferred that there is something positive and natural in these primary forms of architecture. (Chambers 1759: 3–4)

In contrast to antique architects, the moderns often erred in this respect, including Palladio, who 'employed the cavetto under the corona in three of his orders, and [made] frequent use [. . .] of the cyma [recta] as a supporting member' (Chambers 1759: 4). Vignola too is criticised for finishing his Tuscan cornice in an ovolo, which should be used as a supporting moulding and not a culminant one. Vignola's Tuscan profile is thus a leitmotif of profile theory: Blondel held that Vignola's was the paragon of Tuscan cornices, as it exhibited the physiognomic character appropriate to the order; for Chambers, who had been taught by Blondel in the 1740s (Barrier 1996: 19), the same profile was improper because the elements were not situated according to the structural logic of composition.

Chambers' suggestion for the Tuscan cornice (**Fig. 17**) exemplifies his recommendations for weight-bearing and curved/straight alternating profiles: the lowest moulding is the cyma reversa, with its convex upper part operating as a bracket to support the weight of the mouldings above; there follows a straight fillet, curved ovolo, straight corona, curved cavetto (a small hollow that creates a shadow line, separating two straight mouldings), straight fillet, and curved cyma recta, the last functioning as the dripstone. This is the most systematic statement yet of the idea (an observation, Chambers might say) that the disposition of component shapes ought to follow the pattern of weight distribution.²¹

Chambers stands between two traditions: while taking a grammarian's view of Vignola's supposedly unreasoned practice, he was nevertheless happy with the eurythmic adjustments to profiles typical of the Renaissance tradition, of the sort Perrault (1993: 158–165) had rejected as ill-founded. Moreover, later in the treatise Chambers was critical of the theory of Perrault's descendants, Jean-Louis de Cordemoy and Marc-Antoine Laugier, both of whom argued that ornament should respect the post and lintel constructional basis of architecture. Chambers felt that this was too fundamentalist and did not allow for any ornamental sophistication: like society, architecture had progressed beyond the primitive hut.²² Yet Chamber's treatment of mouldings from the perspective of weight-bearing would imply that he respected Laugier's underlying position that ornament should express structure. This may have been why Chambers' theories were so attractive to Laugier's disciple, Francesco Milizia (1813: vol. 1, 55–62), whose *Principi di architettura civile* of 1781 copies Chambers' text on mouldings verbatim and without acknowledgement.²³ Chambers' theory of profiles therefore entered the wider discourse in diverse ways: directly within his own book, which was sceptical of the 'primitivist' argument, while nevertheless sympathetic to the related structurally expressive theory of ornament; and indirectly, within Milizia's far more influential treatise that embraced whole-heartedly both sides of structural rationalism.

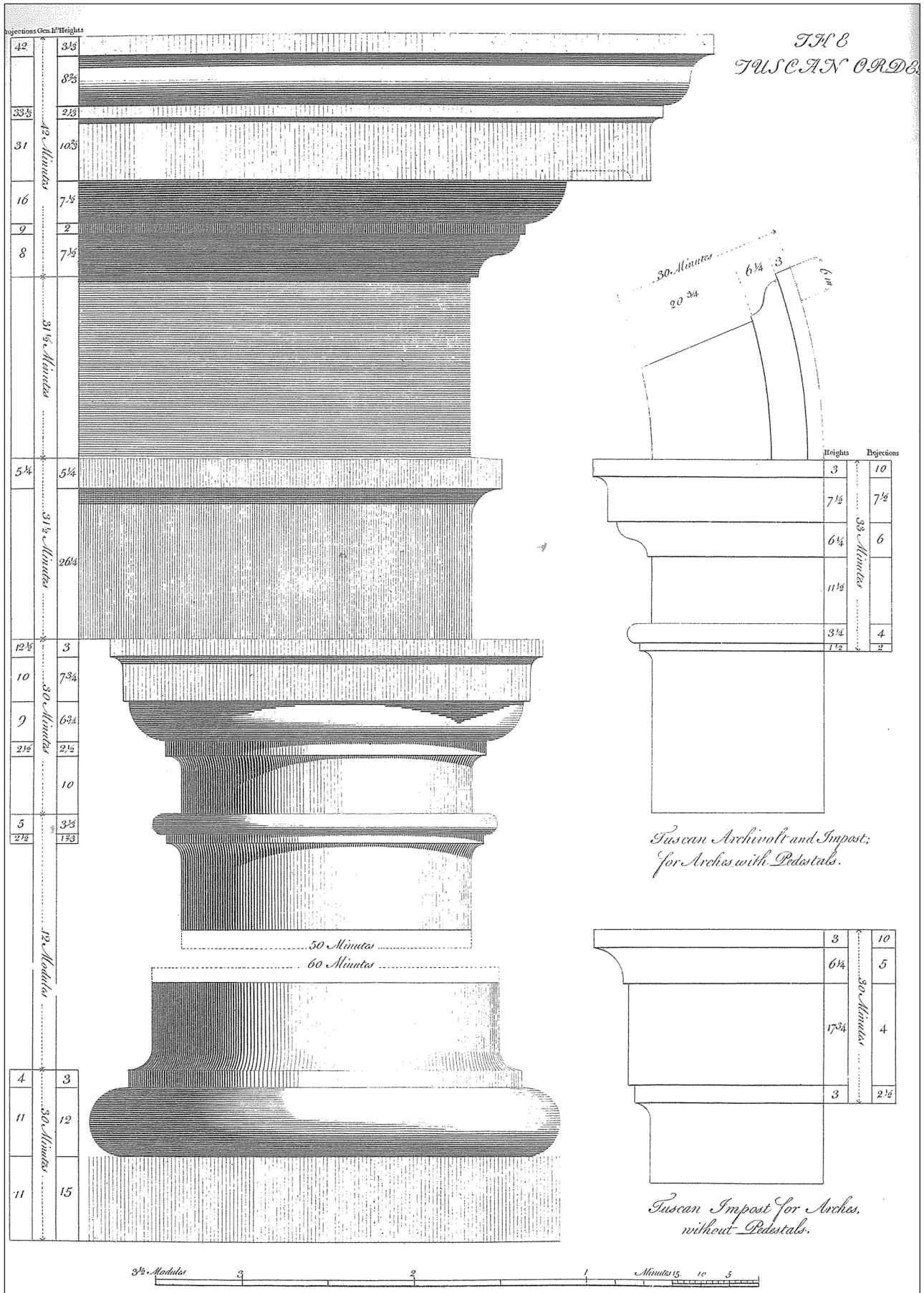


Figure 17: William Chambers, Tuscan Order. From Chambers (1791: 42).

The Diction of Architecture

The different ideational strands of profiles were given a new twist by Charles Robert Cockerell, who added recently acquired knowledge of Greek architecture (RIBA, Box 1, Folder 6, COC 1/6, sixth lecture, Feb. 11, 1841).²⁴ In an unpaginated 1841 lecture given to the Royal Academy, he called profiles the 'diction of architecture', constituting the language that clothed the conception of the building: just as an argument might lose half its weight if dressed in bad language, so a building suffers if profiles are poorly drawn. Cockerell also referred to profiles as motifs of 'characteristic and emphatic expression' that emerged from the designer's 'crucible of thought and feeling', reminding one of Scamozzi's description of profiles as the 'signature' or 'the true portrait of the work'. As he concluded, 'in architecture Profile becomes the leading means by which the character and merits of the work is to be apprehended'. The great value of skilfully designed profiles was that they gave the building a human presence. On this topic, he raised the unparalleled example of the Greeks. In their work, the cymatium, lesbian (*cyma reversa*), and ovolo were marked by a 'peculiarity of contour and deep knowledge and breath and grace and proportion which can only come from sections of human forms – the arms, the thighs etc. the alternation of planes and rounds [. . .] can only be the result of sculptors study'. The body, whose poised balance depended on unequal parts, also governed the composition of individual mouldings into larger wholes. Cockerell admired the Grecian understanding of 'eurythmic adjustment', where a varying degree of sizes permitted emphasis on 'important portions by making others subsidiary'.

What made Cockerell's views on profiles different from earlier theorists was the distinction he made between the sculptural quality of Greek mouldings and the more mechanical one of the Romans. As Cockerell argued in the 1841 lecture, the Greeks looked to the human figure to derive forms of such exquisite subtlety that 'common eyes could neither follow nor appreciate'; the Romans, on the other hand, used a simple geometrical process based almost exclusively on the circle and the square. Roman mouldings were thus 'attainable by rule and do not demand the sculptor or the painter', they derive from the 'operation of mechanics'.

Cockerell's view might seem perverse, given that clear geometrical instructions for the design of mouldings were crucial for masons and stuccoists, yet what he implied was an old debate. Scamozzi complained of those architects who liked to make profiles as if turned by hand, but which on inspection were ugly and deformed:

For those who desire things close to perfection, then all mouldings and profiles, whether details or members, or even bodies of the Orders, must be formed with no other rule or way [. . .] than the compass and square, instruments that serve so well the architect and the mathematician. (Scamozzi 1615: vol. 2, bk 6, 147)

Scamozzi mentioned no names, but Michelangelo comes to mind. In *L'art de tourner en perfection*, first published in 1701 (Connors 1990: 224), Charles Plumier argued that making profiles on the lathe was best done by free-carving rather than with a template-bar, because good profiles were in essence not a matter of rules but of personal taste, by means of which the carver's *génie* is invested in the work. In support of this, Plumier cited those architects who designed mainly with the eye, above all Michelangelo (Plumier 1749: 138–39, quoted at length in Connors 1990: 226). The theme was picked up by John Soane (Watkin 1996: 503), who gave the advice (which Cockerell would have known) that the student should describe profiles with the compass, but when 'he has attained a full knowledge of their [mouldings] powers, he should then draw them by hand to give more grace, variety, and character'. For Soane, the compass and the hand were points on a continuum, where one gave way to the other as work was raised above the dead hand of formula. Cockerell, however, put the two in opposition, stigmatising the compass as mechanical and lauding the free-hand technique as closer to the Hellenic ideal. Such a view was doubly meaningful in the context of what he thought was a dehumanised industrial society.

Cockerell's preference for hand-drawn profiles was braced by another discourse, predating industrialisation, and in fact running parallel to the Roman tradition of which he was critical. This concerned the value of the so-called wavy 'line of life'. In the Renaissance, Giovanni Paolo Lomazzo praised the *figura serpentinata* in Michelangelo's sculpture, an exaggerated *contrapposto* which he likened to the undulating and S-shaped candle flame. Lomazzo generalised its importance: 'All motions of the body should be represented [like] the *serpentinata*, towards which nature is favourably inclined [. . .] it was always used by the ancients' (Lomazzo 1584: 22, as quoted in Shearman 1967: 81). This refers to a passage in Quintilian (1920: 2.13.4), which discusses the rhetorical virtues of antitheses via Myron's Discobolos, whose body is not straight but curved, in a manner that evokes grace, motion, and life. The image was later adopted by Charles-Alphonse du Fresnoy in *De Arte Graphica* (1667), a well-known Latin didactic poem on the principles of painting and sculpture. Du Fresnoy made a slight change to the motif in question; namely, where Lomazzo spoke of the motions of the body, that is action, du Fresnoy (2003: lines 106–7) referred to the rendering of figures: 'The curvature of the limbs, like the tongues of fire, should flow with a serpentine motion'. The serpentine line, in other words, became a quality that the artist should give not to a composition as a whole, but to the details [. . .] of the living body. In the next century, William Hogarth's *The Analysis of Beauty* (1753: 52 and 55) (**Fig. 18**) combined this aesthetic theory with evidence from anatomy ('there is scarce a straight bone in the body') into a particle, not of composition or figure rendering, but of beauty itself: the wavy, serpentine, shallow S, that 'I call the line of grace'.

The attitude that proclaimed the humanising virtue of the free-hand curve had a strong effect on Cockerell. It reinforced his enthrallment with the sculptural dimensions of Greek architecture and the newly discovered subtlety of its departures from straight lines (in 1814, he had measured the entasis on the temples of the Acropolis: see Watkin 1974: 17). It also positioned him in contrast to the neo-classical theory of Milizia, who had, in the few comments not copied from Chambers, explicitly condemned the serpentine line in profiles. Milizia (1813: vol. 1, 58–59) thought that, while the line was an appropriate ideal for painters and sculptors, being found in nature, 'it would be strange to expect the same snaking line in the profiles of architecture'. This follows from the theory, largely derived from Laugier, regarding the origins of architecture. Unlike the figurative arts, which imitate nature, architecture is purely cultural; its only model is another work of architecture, namely the primitive hut (Milizia 1813: vol. 1, 34). Thus for Milizia the composition of the profile had nothing to do with the body or figuration; it was merely an issue of combining straight and curved lines in a way that conveyed the support of structure, while avoiding displeasing repetition. As Cockerell saw it, however, and with the intervening impact of mechanised production in mind, the profile's undulating line, not geometric but free-drawn by the living hand, imbued the inert stone with the spring of life itself.

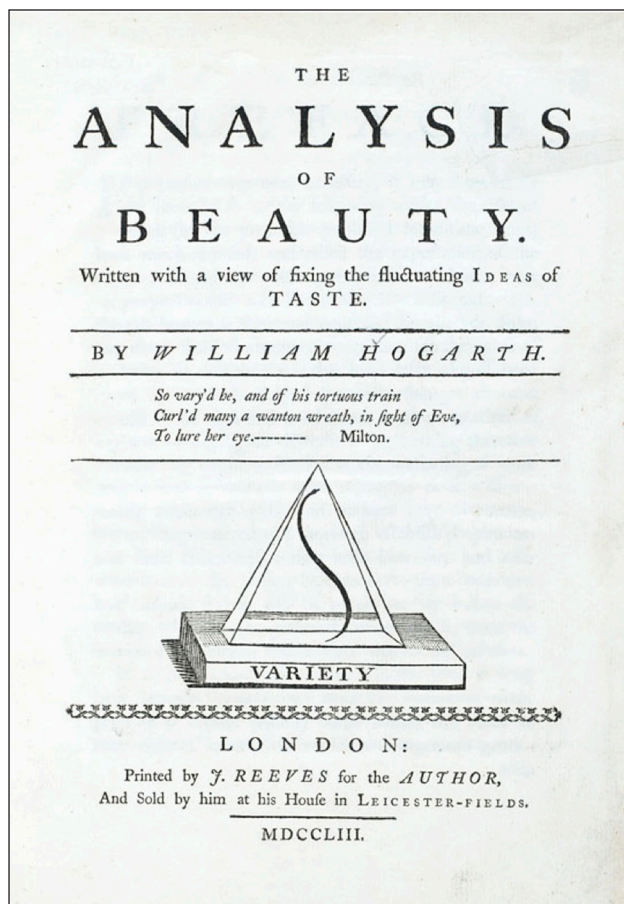


Figure 18: William Hogarth, frontispiece of *The Analysis of Beauty* (Hogarth 1753).

Coda

The theorisation of profiles began with an analogy between the five-part composition of the face and that of the cornice. Human analogy offered the potential to make architectural detail representative and symbolic. However, the crucial ingredient to the theory of profiles was that of rhetoric, which furnished terms for formal analysis: it enabled the profile to be understood as an assemblage of straight and curved lines, one that was adjusted to its audience and which embodied pleasing alternation; it encouraged symmetry, where the profile was proportioned according to a module; and it stressed decorum, so that the profile befitted its place within the genre of the order and the building. But the context of rhetoric went further still; under the influence of Horace, theorists insisted that profiles spoke. That is, if the arrangement of the plan was the equivalent category to composition, profiles were examples of style, or *elocutio*. And if they spoke, they should have character. The purpose of rhetoric was persuasion, which was facilitated if expression was consistent with the temperament of the speaker and the temperamental expectations of the listener. When understood in this light, Chambers' view of mouldings in terms of structural expression of weight is not so much a message from the future as a way of viewing the system of profiles as if they encapsulated order, with each part performing its allotted role, in keeping with the rhetorical principle that expression must be fitted to its purpose (see Kohane and Hill 2001: 72).

The last book on the topic is *The Theory of Mouldings*, by the Boston architect Charles Howard Walker (1857–1936), published in 1926, but likely consisting of lecture material delivered over many decades. The book is practical, with no mention of earlier theorists, nor any discussion of the relationship of mouldings to the face or the body; other than prescriptions for cornice 'facial angles' (Fig. 19), which probably derives from Jacques François Blondel. The general tenor is that cornices, bases, and other mouldings visually accent the post and lintel structural components of classical architecture. In so doing, they provide ornament, understood as a supplement to the primacy of structure, which by the just combination of projection and recession can produce effects of light and shade. In this respect, the Greeks provide the best examples of economic (that is, restrained and concise) and well-lit moulding combinations. If mouldings have any symbolism, it would relate to the origins of construction; for example, projecting items like the fillet and torus were derived from the joints that offer protection from wind and rain. These are positive mouldings, related to structural purpose, compared with the negative mouldings of concavities, designed to trap shadow and to function visually in counterpoint to the former. In such terms, Walker's theory is similar to that of Chambers', with its emphasis on the logical expression of structure. Echoes also remain of the older linguistic tradition, where mouldings are understood as making the building speak, while unmoulded surfaces are silent. Walker (1926: 17, 60, *passim*) mentions several parallels of mouldings and

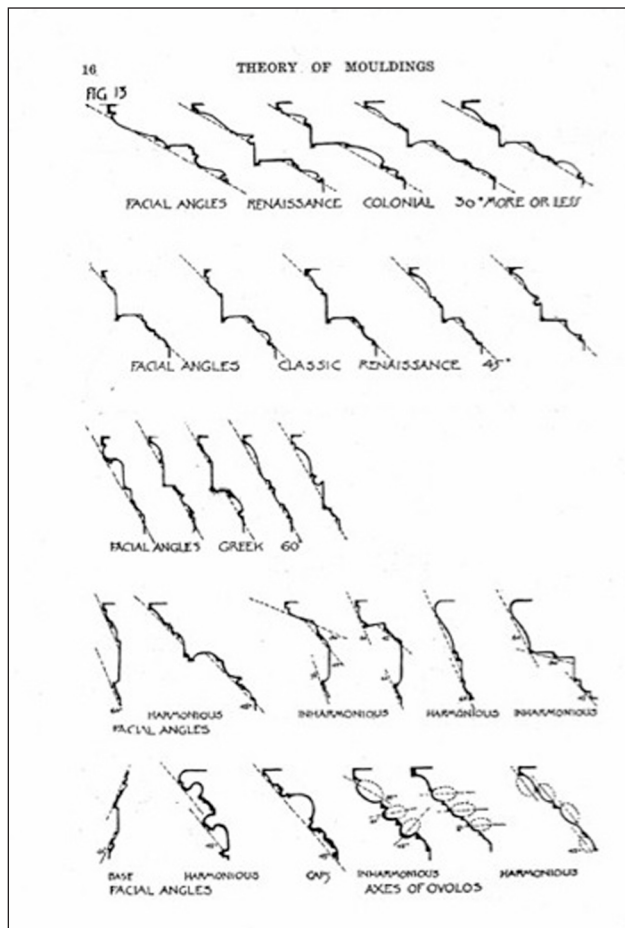


Figure 19: Charles Howard Walker, facial angles of mouldings. From Walker (1926: 16).

language: mouldings are adjectives to the nouns of structure; some items, such as fillets, are like conjunctions; and the repetition of mouldings is tautologous. But where Scamozzi, Boffrand, and Blondel keyed such expression to the prevailing tradition of rhetorical address, Walker's interest was more the internal coherence that is implied by correct grammar. Divested of the context that made the idea of profiles speaking meaningful, the theory seems brittle; isolated as well, given the advancing view that ornament, of which profiles are an example, did not embody the building so much as obscure it.

Competing Interests

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Notes

¹ Scholarship on the Renaissance orders has focussed on columns and capitals, with some notable exceptions. Tzonis and Lefavre (1986: 43–108) synthesise the design logic of profiles insofar as they were determined by the orders; Hersey (1988: 84–88 and 104–110) examines di Giorgio's face/cornice profile and its reverberation in the works of Michelangelo; Wilson Jones (2000: 10) examines reasons for the diverse mouldings on the doors on the Palazzo Massimo (Rome; Baldas-

sare Peruzzi, 1531–6); Rykwert (1996: 34–60) explores the physiognomic background to di Giorgio and Jacques François Blondel; Payne (1999: 229–232) considers Scamozzi's contribution to the theory of profiles; elsewhere, Payne (2000: 120–121) examines the confusion in the sixteenth century over what the 'canon' of profiles might be. Finally, Van Eck picks up the theme of profile theory in the introduction to Boffrand (2002: xxiii), incorporated into Van Eck (2007: 191–199). The priority of columns in the modern study of the orders is partly due to their relationship to structure, while something like a profile occupies the discredited category of decoration. See Payne (2002: 100–101).

- ² Di Giorgio (1967: vol. 1, pl. 37) had illustrated the facial cornice, without commentary, in the earlier c. 1480 version of the treatise (*Trattato I: Codex Saluzziano*).
- ³ On medieval terminology, see Marquand (1906: 282–288) and Onians (1988: 91–94).
- ⁴ Llewellyn (1977: 292–293) briefly discusses the quoted passage and its relationship to de Sagredo. Hersey (1988: 84–85) examines this image (although the *Saluzziano* rather than *Magliabechiana* version) in the light of Greek allusions. See also Rykwert (1996: 59). Di Giorgio applied these proportions in his *Madonna del Calcinaio* (begun 1484, Cortona), where the interior cornice and frieze beneath the vault have the same arrangement of mouldings to represent the head and chest as recommended in the treatise.
- ⁵ In the beginning of a proposed treatise on water, Leonardo da Vinci (1980: 45) referred to the ancient view of man as a lesser world, because in him resides all the material and compositional elements of the world at large; see Panofsky (1970: 119–122). On the contribution of di Giorgio to the theory of the body as the paradigm of architecture, see Summers (1981: 91–97); Lowic (1983); Onians (1988: 174–178), Rykwert (1996: 61–67); Payne (1999: 107–110).
- ⁶ De Sagredo's etymology was recycled by Evelyn (1723: 19). Payne (2002: 105) emphasises the bodily figuration of architectural descriptors, particularly of profiles, in Serlio and Scamozzi.
- ⁷ Rykwert (1996: 56–59) points out de Sagredo's debt to Pacioli (1978: 93), who described how the secrets of nature are contained in the measure of the human body.
- ⁸ The drawing recalls one of Michelangelo's earlier studies for a crying grotesque head; see Summers (1981: 154).
- ⁹ Hersey (1989: 107) notes that the drawing may also play on the image of jeering, a homonym of scotia in Greek. The drawing includes an inscription that promotes an interpretation of the shadow as a sign of death (De Tolnay 1970: 73). On the way death pervades the details of the Medici Chapel. See also Panofsky (1964).
- ¹⁰ Benelli (2009: 65) points out Michelangelo's use of shade to frame columns. The attention of sculptors to shadows is the focus of Agostino Veneziano's *The Academy of Baccio Bandinelli* (engraving: 1531, reproduced by Cropper and Dempsey 1996: 152).
- ¹¹ Giulio Argan (1993: 14) highlights cornice and base profiles as loci of Michelangelo's attitude to the body.

- ¹² Cammy Brothers (2008: 45–76) pays special attention to the antiquarian studies of profiles in the early sixteenth century, and Michelangelo's peculiar method of copying them. Brothers highlights the importance of Bernardo della Volpaia's *Codex Corner* (1510s) and emphasises Michelangelo's resistance to antiquarianism and, conversely, his desire to vitalise the tradition of profiles. Michelangelo's sketches of profiles can also be compared to Peruzzi, who would often use proportional grids. See Wurm (1984). Peruzzi continued, in intensified form, the study of Giuliano da Sangallo. See Borsi (1985).
- ¹³ Scamozzi (1615: vol. 2, bk 6, 140) also asserted that the model results in the subsequent physical and proportional forms of the building, just as a seed grows into a plant.
- ¹⁴ Vitruvius (1931: 3.5.9) recommended enlarging distant parts like the architrave, because the eye had difficulty seeing through the thick air. The adjustment of order according to the eye is eurythmy, Vitruvius' third principle of architecture: 'Eurythmia est venusta species commodusque in compositionibus membrorum aspectus' (Vitruvius 1931: 1.2). Vitruvius' definition hinges on *aspectus*. This was noted by a seventeenth-century reader of Daniele Barbaro's Italian translation of Vitruvius (Venice, 1556), who wrote in the margin of page 18 on the copy now in the Vatican library (Cicognara Collection), 'eurithmia è lo stesso che in Toscano apparenza' [eurythmy is the same as appearance in Tuscan].
- ¹⁵ Payne (1999: 224–230) explores the background to Scamozzi's ideas of forms and his debt to science, particularly the idea of species production. She later refers to Scamozzi's profile as a sort of DNA of architectural species.
- ¹⁶ On the pervasiveness of the principle of organic unity in classical poetic theory, see Vickers (1988: 16ff).
- ¹⁷ 'Les profils des moulures, et les autres parties qui composent un bâtiment, sont dans l'architecture ce que les mots sont dans un discours. [Tororum atque anaglyptorum scenographiae, caeteraque alae partes quibus aedificium constat, idem sunt architectis quod oratoribus et poetis verba et voces.]' Boffrand (1745: 22). See Caroline van Eck's note 29 in Boffrand (2002: 99).
- ¹⁸ On the popularity of Horace, see Braider (1999).
- ¹⁹ '[N]ous pouvions aussi comparer avec Sagrado, auteur espagnol, et avec le Blond, mort architecte du Czar Pierre, la relation assez intime que puevent avoir les dimensions de la tête humaine, vue de profile avec la projection d'une corniche Toscane.' (Blondel 1771: vol. 1, 258). According to Rykwert (1996: 400), Blondel confused Jean Baptiste Alexandre Le Blond, architect of the Peterhof palace in St Petersburg, with his father Jean Le Blond, author of *Deux exemples des cinq ordres de l'architecture* (1683).
- ²⁰ Dolce closely echoes the advice of Leonardo da Vinci (1956: 147) from his proposed treatise on painting, which was eventually compiled in manuscript form around 1550 (the manuscript was widely circulated and it is conceivable Dolce knew its contents), although not published until 1651.
- ²¹ Palladio (1997: 1.20, 55) notes that bases under some columns appear to be crushed by the weight above. Payne (1999: 163–165) highlights Gherardo Spini's (1568–70) unpublished discussion of mouldings in terms of the representation of downward pressure; also, Evelyn (1723: 19) described the pulvinated base as if it was squashed by a great weight.
- ²² J.-L. de Cordemoy (1714: 3) acknowledged the authority of Perrault; Laugier (1753: preface) continued the lineage by doing the same of Cordemoy. In the first edition of his *Treatise*, Chambers (1759: 3) made a mild objection to the argument against pilasters by that 'certain French Jesuit'. By the third edition, Chambers (1791: 64) had sharpened his protest: '[Laugier] operated very powerfully on the superficial part of European connoisseurs. He inveighs vehemently against pilasters, as against almost every other architectonic form but such, as were imitated by the first builders in stone, from the primitive wooden huts: as if, in the whole catalogue of arts, architecture should be the only one, confined to its pristine simplicity, and secluded from any deviation or improvement.'
- ²³ Milizia includes a few additional observations (including one on the serpentine line, discussed below), and alters some of the examples, but mostly he copied Chambers' text word for word. Earlier in the treatise, Milizia (1813: vol. 1, ch. 3) copied Laugier's account (1753: 9–10) of the origin of architecture. On Chambers and Milizia in Rome, see Manfredi (2006).
- ²⁴ All quotations in this paragraph are from this lecture. Cockerell's lecture on profiles was preceded by John Soane, who emphasised profiles in his second lecture to the Royal Academy (published in Watkin, 1996: 503–504), first delivered in 1810. Like Milizia, Soane copied Chambers (notably the definitions of individual mouldings), while also appropriating the ideas of Scamozzi, Boffrand, J.-F. Blondel, and Laugier.

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