FIGURES DES PRINCIPES DE LA GÉOMÉTRIE EXPLIQUÉES DANS LES DEFINITIONS.
The Alphabet of Architecture. Originality and Literacy in the Theory of Profiles
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In 1691 Augustin-Charles D’Aviler published his Cours d’architecture qui comprend les ordres de Vignole. Ostensibly one of the many extended editions of Vignola’s Regola del cinque ordini d’architettura (1562) that would appear over the course of the 16th and 17th century, D’Aviler’s Cours is in fact an expansive and not always systematic compendium on design and construction, covering subjects ranging from the design of locks to the layout of the princely residence. Still, the Cours opens with a short biography of Vignola and is dedicated for its first part to the five orders discussed by the Italian architect. But before D’Aviler dives into the proportions of the Tuscan order, the first and lowest of the five, he treats an altogether different subject: mouldings. Over three sections D’Aviler develops a small design theory of the subject: “des moulures, et de la manière de les bien profiler”, “des ornemens des moulures” and “du choix des profiles.”

A closer look at these sections will show how D’Aviler deals with concerns and anxieties related to the two foundational creative acts of classicism: imitation and invention. The moulding is an architectural element that allows D’Aviler to explore the tension between these two creative acts, thanks to its intricate composition and its capacity to articulate the surface of a building. He does so in the pages of a printed treatise. This medium frames the matters of imitation and invention in terms of literacy and replication. D’Aviler constructs in words and image a vocabulary that allows for the reproduction of the principles he proposes. Thanks to the medium of the treatise, these principles can be taught and reproduced, an effect most apparent in the considerable afterlife of his theory of mouldings.

KEYWORDS
Mouldings, Classicism, Rococo, Originality, Literacy, Translation, Lines and Curves

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Figure 01
Augustin-Charles D’Aviler, “Figures des principes de la géométrie expliquées dans les définitions…”, Cours d’architecture qui comprend les ordres de Vignole, Nicolas Langlois, Paris, 1691, pl. 4, p. 3.
The opening lines of the section on “mouldings, and how to profile them well” are quite well known, as they suggest a direct analogy between architectural ornament and language:

“Les moulures sont à l’architecture ce que les Lettres sont à l’écriture. Or comme par la combinaison des caractères il se fait une infinité de mots en diverses langues; aussi par le mélange des Moulures on peut inventer quantité de profils différents pour toutes sortes d’ordres, et de compositions régulières et irregulières. Mais comme en Architecture il ne se doit rien faire qui ne soit fondé sur la Nature et sur la Géométrie, et que ses règles ne sont pas si arbitraires que quelques-uns s’imaginent, on doit savoir que le contour de chaque moulure est établi sur la Géométrie, et que de même qu’il n’y a que trois natures de ligne en Géométrie qui sont la droite, la courbe et la mixte, aussi il n’y a-t-il que trois espèces de moulures, savoir des moulures carrées, des rondes, et de celles qui sont composées de ces deux natures de lignes.”

The comparison of mouldings to the letters of the alphabet serves a double purpose. It indicates that even the most intricate profiles are derived from a limited set of basic forms. These forms, D’Aviler reminds us, are “not as arbitrary as some imagine”, or with the wanton shapes that characterize gothic architecture, but rooted in geometry. In the alphabet of mouldings there are, so to speak, only three letters: square and round profiles and the mixed curve. Moreover, the combination of these forms should not be random, but yield a meaningful composition: profiles that act as words inscribed on buildings. If these two points define quite limiting rules of formal composition, D’Aviler’s simile also hints at architecture’s capacity to communicate with its users and viewers. Mouldings, it is suggested, are the building blocks of an architectural language. Over the three sections dedicated to the subject D’Aviler points out that profiles should help to convey the purpose and status of a building. When introducing the ornamentation of profiles, he writes that “the meaningful [ornaments] should be suitable and serve as symbols so as to make the building known through some of its parts.” Further on, he reminds his reader that “these ornaments [of architecture] should be as suitable to it as the adornment of clothes. Just as the Ancients have not invented them without reason, so in imitation of them we can only invent those that have something in common with the subject we treat.” This admonishment suggests that also on a semantic level the comparison of mouldings to letters is intended to discipline their application and design. Far from generating a Babel-like proliferation of idioms, mouldings should help to articulate meanings that are at once clear and relevant to a building.

By voicing these restrictions, D’Aviler identifies the use and manipulation of mouldings as a particular competence. It is not an arbitrary occupation accessible to all, but an art rooted in knowledge and awareness. Moreover, the comparison of mouldings to letters frames this competence in terms of literacy. Profiles, so D’Aviler suggests, are the province of those who have learned to write and read their language. It is part of the project of the Cours to enable this process. As Thierry Verdier has noted, one of the key aims of the Cours is to establish a proper professional vocabulary. The second volume of the Cours is an “Explication des termes d’architecture” covering the entire subject range of the first volume. This lexicon is gleaned from earlier dictionnaries but also from D’Aviler’s extensive experience as a practising architect. And it is this vocabulary that allows D’Aviler to describe...
to his reader how mouldings and their ornaments can be designed. After the introductory remarks of the first section follows a painstaking textual description of the various mouldings and their forms, supported by an illustration that connects each term to a particular shape (fig. 02). If a moulding is a letter, if each of these letters has its name, and if their adornment, too, becomes a lexicon, artistic invention is safely inscribed within the sphere of that what can be said, taught and replicated (fig. 03).

TRANSLATION

Exactly this concern for a ‘nomenclature of letters’ helps to explain why D'Aviler’s *Cours* articulates the need for literacy amongst professionals through the subject of mouldings and profiles. Rather than privileging the five orders as the domain of professional competence, as his model Vignola would have it, D'Aviler starts out from this particular set of details. Building on a well-established tradition where the profile was considered the “signature” of architecture, D'Aviler points out that the “art of profiling well is a very necessary part in order to excell in architecture.”

But it is fraught with risk. The author reminds his reader that “the ancient manner is more bold than correct, just like the manner of Michelangelo.” The profiles of gothic architecture, as we have seen, are condemned for their baseless inventions. Because it is so prone to excess, the profile is the element of choice to explore how inventiveness can be codified.

Fig 02


Fig 03

D’Aviler’s lexicographical and grammatical work on mouldings and profiles follows a conservative vein with roots in the mid-seventeenth century. In 1650 the amateur Roland Fréart de Chambray published his Parallèle de l’architecture antique et de la moderne in Paris. By means of back-to-back comparisons of the five orders as described by canonical authors such as Vignola or Palladio, and a small selection of ancient monuments, Fréart attempted to define a limited set of proper models (fig. 04). Fréart’s main criterium for inclusion of these examples was the consensus amongst professionals about their suitability and beauty. He explicitly excluded both the judgment of non-professionals and the inventions of architects not sanctioned by a putative community of professionals. It is these untrained and licentious practitioners who Fréart held responsible for an architectural decadence that D’Aviler, too, laments in the Preface to the Cours: “In order to maintain the good manner that we have received from the writings of the most excellent authors, we have to renew them from time to time in order to retain the changing spirit within the general rules [...] and to attempt that France, today so enlightened, not succumbs to what has happened to Italy where at present the license in the arts has no longer any limits. In Rome, since this century only, buildings have no longer any connection with the rules or with the examples of true architecture. They are nothing but cartouches, broken pediments, columns in niches and other extravagancies that architects such as the knights Borromini, Pietro da Cortona, Rainaldi and several others have applied [...]”8 This statement identifies ornament as the site of creative excess. As a consequence, when D’Aviler turns his attention to profiles, he is careful to define them as the architectural ornaments closest to geometry: elementary forms that should remain free from corruption or excessive manipulation. With these pure ‘letters’ the architectural form can be appropriately articulated.

D’Aviler continues in Fréart’s footsteps when he demonstrates how these letters should be written. The section “On the choice of profiles” is built around the same back-to-back comparison Fréart introduced in his Parallèle (fig. 05). Now focused on the profiles of the Ionic entablature, “without considering the order they crown”, D’Aviler compares two ancient monuments (the Temple of Portunus, or “de la fortune virile”, and the Baths of Diocletian), and two modern authors (Serlio and Palladio), in order to clarify extensively the principles of proper composition. In both cases the earlier example serves to highlight the perfection of its more recent counterpart. The Baths and Palladio are held up as instances where the art of profiling has reached its perfection. Interestingly, this conclusion is reached on the basis of an essentially graphic exercise. D’Aviler claims no direct acquaintance with the monuments, but states openly that he copied the entablature of the Baths of Diocletian from Sebastiaan van Noyen’s Architectural details and ground plan of the Baths of Diocletian, a spectacular and exceptionally large rendering of the monument published in 1558.9 The other three examples are taken from Fréart, with the column and the capital cut off (fig. 06). The codification of the moulding is performed in the pages of the printed book; the principles should be read as much as seen to be understood.

It is in this space of the book that D’Aviler also distances himself from Fréart. The plate with the nomenclature of mouldings is probably the most well-known illustration of the Cours, because it
proposes not one but two lexicons to describe the element: that of the "ouvrier" or artisan, and that of the "author" or architect (see fig. 02).

There are two types of literacy, it seems, each with their own sphere of application. The distinction echoes the anxieties voiced by Fréart and also François Blondel about the undue impact of artisans on architectural design. As we have seen, Fréart accused the unschooled —illiterate— "ouvrier" of debasing the architectural orders. François Blondel presented his *Cours d’architecture* to Louis XIV as a bulwark against the ignorance of artisans. D’Aviler maintains the clear sense of hierarchy between the artisan and the architect, but allots each their own sphere of literacy. Moreover, he emphasizes that only an architect versed in practice will muster the authority to have things built to his
liking: "it is in practise that the other parts [of the architect's knowledge: talent and art] become useful, since erudition, or discourse, or travel or even the most beautiful drawings, are of little use, if one does not know how to put them to work. It is this practice that makes the true architect, and makes him notice the great difference there is between the drawings and the project. It is practice that makes him the master of all the other artisans ... It makes that the artisans have a blind respect for his thoughts, when they are convinced that he knows how to join practice with theory and that in the end with practice we build and arrive at the goal we had proposed to ourselves." This statement suggests that the two forms of literacy should not by mututally exclusive, yet allow for communication between the realms of the architect, which also touches upon that of the patron and his peers, and the construction site. Granting each of these spheres their own form of literacy opens the way towards fruitful translation.

This concern with different forms of literacy and their attendant audiences again suggests why D'Aviler turned his attention to mouldings first. As an element that appears on the exterior and interior of buildings, travels from stone to wood and plaster, which is part of buildings but also of interior decoration and even furniture, it easily crosses over from one professional sphere to the other, and from one audience to the next. And given the extraordinarily wide range of subjects of D'Aviler’s Cours, it is the moulding, rather than the five orders, that allows to define principles of imitation and invention that resonate with its entire purview.

D'Aviler’s comparison of profiles to words would be rehearsed by the architect Germain Boffrand in his Livre d'Architecture of 1745. Yet Boffrand pushes the analogy even further. Compare his statement to D'Aviler’s:

"Les profils des moulures, & les autres parties qui composent un bâtiment, sont dans l'Architecture ce que les mots sont dans un discours. Il n'y a que trois sortes de lignes qui forment tous les édifices, la ligne droite, la ligne concave & la ligne convexe: ces trois lignes forment aussi toutes les moulures qui entrent dans les profils: il faut être fort reservé pour en faire de nouvelles, & ne les employer qu'aux endroits où elles peuvent être placées." [my italics]

Boffrand is even more restrictive than D'Aviler. Rather than square, round and mixed mouldings he sees only square, concave and convex forms. He immediately warns for the dangers of novelty, by admonishing his reader to exercise restraint in invention. Yet he also almost casually extends D'Aviler’s analogy between profiles and words to all "parts that compose a building". If D'Aviler suggested implicitly that mouldings and profiles are more fundamental than the five orders by discussing them first, Boffrand explicitly posits them as the first elements of architecture. The principles governing profiles apply to the building as a whole. This offers Boffrand the opportunity to rephrase the properties of the five orders in an analogous comparison:

"Les ordres d'Architecture employés dans les ouvrages des Grecs et des Romains, sont pour les differens genres d'édifices, ce que le differents genres de Poësies sont dans les differents sujets qu'elle veut traiter."
Using the orders is like a particular arrangement of words or, following Boffrand's own comparison, of sets of lines. These lines lend the orders a particular character suitable to the building they are part of:

Ces ordres d'Architecture, dont les progressions montent du rustique au sublime, ont des proportions relatives à leur caractère, et à l'impression qu'elles doivent faire.14

The capacity of buildings to communicate with an audience, in D'Aviler still a by-effect of the comparison of mouldings to letters, now stands at the core of Boffrand's design theory. Indeed, the later author explicitly modeled his treatise on Horace's Ars Poetica. He also compares architectural design to musical composition, as two art forms capable of moving an audience emotionally. Yet underneath this exploration of the effect of buildings on their audience sit the same concerns about professionalism and literacy that characterized Fréart's Parallèle and structured D'Aviler's Cours. Boffrand's Livre mounts a passionate defense of a "good taste" rooted in the model of Greek architecture in the face of the tyranny of fashion. If buildings should reflect the personality of their "maître", as Boffrand argues, this expression should be controlled and tempered by an architect well versed in the principles of his art and aware of what is acceptable to his community of peers. Just as in D'Aviler's Cours, the now generalized analogy between words and the parts of buildings does not serve to celebrate the expressiveness of architecture, but to advocate a literacy rooted in professionalism and the imitation of proper models.

The insistence on literacy becomes all the more urgent since compared to D'Aviler, Boffrand's Livre extends architecture's field of action in two directions, towards the interior of the building and its environment. The Livre is the first treatise on architecture to dedicate a section to interior design. Boffrand is keen to stress that different rules apply to the interior and exterior of buildings, and emphasizes that what is permissible for interior furnishings should not be extended to the façade. But he fully integrates the interior in the framework of the Livre, not just by treating it as a legitimate subject, but also by embracing the versatile element of the profile as the primary building block of architecture, much as D'Aviler had done. This inclusion signals the increasing prominence of interior decoration in architectural practice. As such, it became a field of active competition between the architects and artisans whom D'Aviler still positioned in a clear hierarchy. At the same time, Boffrand's extends the sphere of literacy and legibility from the professional and the artisan to the patron and society as a whole. A building should communicate with its environment. Such communication would depend on a widely shared literacy, and Boffrand seems to suggest that the vocabulary of lines could transcend distinctions between laymen and professionals, or between an aristocratic elite versed in the codes of the court and a wider bourgeois audience.

In sum, Boffrand's Livre is to some extent pervaded with similar anxieties as D'Aviler's Cours: about the boldness of artisans and the potential miscommunication of buildings with their audience. For both issues, the profile and the moulding are mobilized to structure and discipline architectural design. In theory, the line is like a short leash. Interestingly, however, it is the practise of designing mouldings and
profiles that cracks the armoury of Boffrand's and D'Aviler's books. As Katie Scott has argued, in the illustrations of the Livre but especially of the near contemporary 1738-edition of D'Aviler's Cours, "interior decoration was rapidly preparing an escape from the ritualistic time and space of architecture." Driven by fashion and the marketplace rather than by considerations of convenience and proper expression, engravings by designers like Nicolas Pineau that became included in the Cours indulged in curves, rocailles and festoons that were quite removed from D'Aviler's limited alphabet (fig. 07). Ironically print, the very medium that had allowed D'Aviler to established a proper vocabulary of architecture, now accelerated its dissolution.
Mouldings and profiles are no longer part of the vocabulary of architecture. They are probably more present now than they were, say, fifteen years ago, but factors ranging from aesthetic preferences inherited from modernism to building and fabrication processes still do not play in their favor. They also come with ideological baggage. Anyone advocating their return soon feels the cold hand of New Classicism on their shoulder. This brief exploration of D'Aviler’s and Boffrand’s treatises is in any case no plea for a return to the forms of antiquity. But it hopes to suggest how looking at architecture through the lens of such elements yields fundamental questions about models, originality, replication, literacy and reception. Precisely because they are elementary and almost generic components, and slide easily from the stone surface of buildings to the wooden wall frame and the painted ceiling, they encompass all of architecture, and touch its foundations. RA


03. D’AVILER, Cours, vi.

04. D’AVILER, Cours, viii.


07. D’AVILER, Cours, iv.

08. D’AVILER, Cours, Preface, n.p.


14. BOFFRAND, Livre, p. 25.

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