Whatever Happened to the Elements of a Composition?

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In tracing the history of the old composition books, this paper makes the case for a lexicon of elements, whose terms have evolved since the first architectural academies and endured in an oral tradition to this day. This lexicon does not purport to represent a system or a recipe. Instead it is more akin to a list of ingredients that goes into the making of a great dish.

Good architects like to play with the rules, rather than slavishly follow them. This lesson was imprinted on me as a student when I attended a lecture by a young architect, Simon Ungers. He showed a house that from plan view looked perfectly conventional. It had a sloped roof to comply with the zoning regulations. However, Ungers did not want a pitched roof, so he reversed the direction of its slope. In this way, he achieved the appearance of a flat roof much to the chagrin of the neighbors.

If architecture is to aspire to an art, rather than to mere building, then architects need to be good at subverting the rules. Not just any rules, but rules that are imposed from extrinsic factors: zoning, fire safety, egress, ADA requirements, etc. Architects, after all, are by definition strategists and even tricksters.[1] But what about the rules intrinsic to the discipline? Whatever happened to them? Or more specifically, to the elements of architecture in the old composition books?

These types of books on architectural theory are a product of the French Academy in the nineteenth century, the most famous of which is J.N.L. Durand's *Précis des leçons d'architecture donnés a l'École Polytechnique* (1802).[2] Durand was among the first to propose an explicit procedure in how to make an architectural composition. In the first volume of the *Précis*, titled "The Elements of Buildings," he analyzed how the properties of construction materials comprised building elements, such as walls, columns, doors, floors, and roofs. This was followed by a section on "Composition in General," in which he examined how those elements combined to form building assemblies, such as porches, vestibules, staircases, courtyards, façades, etc. In the second volume of the Précis, titled "Principle Kinds of Buildings," Durand presented different combinations of assemblages based on program type: churches, libraries, theaters, museums, hotels, country houses, and so on. He proposed a building typology of simple geometric compositions, symmetrically laid out on a modular grid.

Composition books such as Durand's have a long and venerable tradition in the *Ecole des Beaux-Arts*, and this historyhas been carefully mapped in Jacques Lucan's recent book, *Composition, Non-Composition: Architecture and Theory in the Nineteenth and Twentieth Centuries*.[3] At the pinnacle of this French tradition is Julien Guadet's *Élements et théories de l'architecture* (1902), the last synthetic attempt to write a general theory of architecture.[4] Similar to Durand's first volume of the *Précis*, Guadet's theory focused on building elements (walls, doors, windows, porticos, floors, vaults, roofs, etc.), as well as on typologies of interior elements (vestibules, passages, corridors,

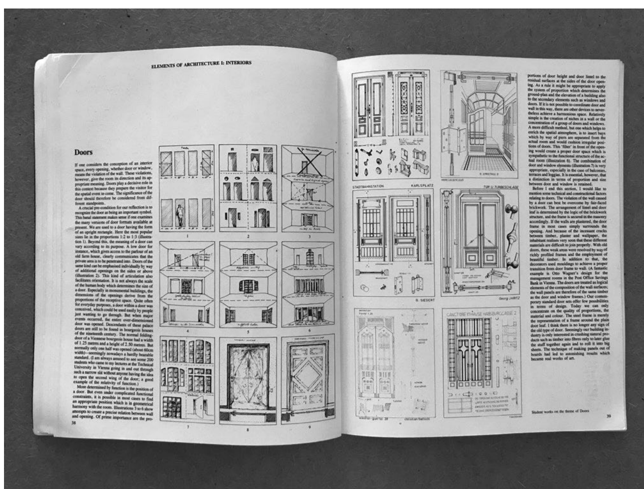

Figure 1: "Doors," pages from Robert Krier, Elements of Architecture (London: AD Publications, 1983).

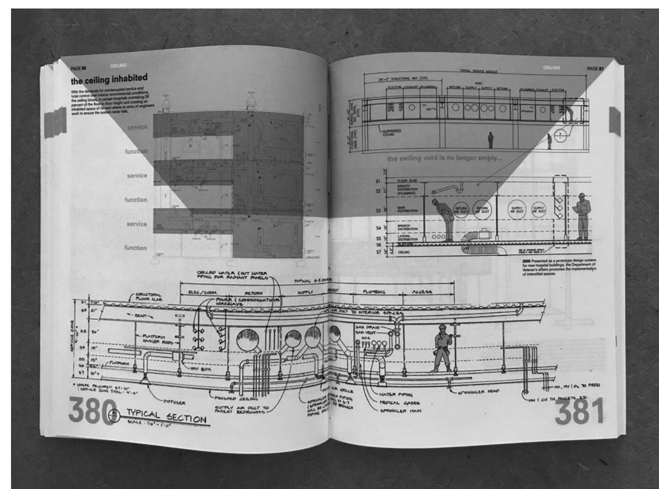

Figure 2: "Ceiling," pages from Rem Koolhaas Elements of Architecture (Venice Biennale, 2014).

stairs, etc.). For Guadet, as for Durand, composition was the assemblage of parts into a coherent and aesthetic whole based on precedent. Although these composition books fell out of favor in the first half of the twentieth century, there are two anachronisms worth mentioning. The first is Robert Krier's *Elements of Architecture* (1983), and the second, Rem Koolhaas's *Elements*, the eponymous theme of his 2014 exhibition for the Venice Biennale.[5] Here, it may be significant to note that while Krier's book follows the basic outline of the old composition books, Koolhaas limits his discussion to building elements in order to document their slow evolution throughout history to the present.

And yet, both Krier and Koolhaas's *Elements of Architecture* are surely anomalies, for it is not without good reason that the old composition books fell out of favor. Here, it is perhaps worthwhile to recall Colin Rowe's critical review of Talbot Hamlin's four-volume *Forms and Functions of Twentieth Century Architecture* (1952), the American Beaux-Arts successor to Guadet's French treatise.[6] Not surprisingly, Rowe's argument is rich in its complexity. While still acknowledging the necessity for compositional principles, he criticized the Beaux-Arts system for reducing the elements to a rational and idealized grammar and typology. For Rowe, these books did not account for the depth of stylistic and technical experimentation, which marked the novel compositions of the modern avant-garde. "Implicit in Guadet's treatise is the idea that, at all times and in all places, the architect's motivation is purely rational and formal.... Guadet envisages ... an architecture in which the element through which form is made manifest, the element of style, is purely a matter of taste and personal bias and so, in the last degree, an irrelevance."[7] The successor to Guadet's tome, by Talbot Hamlin, was therefore already obsolete when it was published in 1952.

So what are we to make of the elements of architecture today? Should we relegate them to the dustbin of history or is there something there to be salvaged? Certainly, I do not think that any rule book or system is going to illuminate the design process, and in any case, architects have enough rules they have to deal with, as a consequence of extrinsic factors, so creating a system of more rules seems counter-productive. But if there is something to be salvaged, then my bid would be for a lexicon of compositional principles, a vocabulary unique to the discipline of architecture. This vocabulary was not part of the composition book proper. Rather, it constituted an informal verbal tradition in the design studio, which was then written down when the Beaux-Arts came to the United States. John Harbeson, for example, appended "a vocabulary of French words used in the atelier" at the end of his book, *The Study of Architectural Design* (1926), and Raymond Hood contributed a glossary of French terms to the journal, *Pencil Points, A Journal for the Drafting Room*.[8] These key terms were not translated into English and remained in the original: *parti, enfilade, poché, marche, axe, bouchon, tableaux, échelle, dimension, entourage, projet and charette*, for example. According to Lucan, "these words belonged to the vocabulary of the Ecole, but rarely appeared in theoretical texts of architecture."[9]

While we no longer think of composition in terms of Beaux-Arts theory, we still see evidence of its lexicon in the studio. This lexicon does not purport to represent a system or a recipe. Instead it is more akin to a list of ingredients that goes into the making of a great dish. This list is not a static or finite one, and there are times when someone adds to the ingredients in a very precise way. For example, Le Corbusier introduced the term, *promenade*, in his *Precisions* (1928), to describe a primary architectural concept animating his design for the Villa Savoye.[10] Louis Kahn gave new meaning to the term *poché* with his definition of served and servant spaces. And Rowe himself attempted to add to this lexicon in his essay (co-authored by Robert Slutzky) on phenomenal transparency.[11] Although their word choice may have been too cerebral for popular consumption, phenomenal transparency is a genuine architectural idea about the figure-ground and implied space. More recently, Kristy Balliet speaks of volume in her contemporary work, and Robert Somol, of shape. These terms loosely correspond to *poché* and *parti*, respectively, whose meanings have evolved over time in different contexts and applications.

ENDNOTES

1. Lola Sheppard provides the following definition of an architect from the Webster Dictionary: "builder, maker, producer; captain, commander, director, handler, leader, manager, quarterback; contriver, designer, formulator, originator, spawner; arranger, hatcher, organizer, planner, plotter, schemer; finagler, machinator, maneuverer; developer, generator, inaugurator, initiator, inspirer, instituter, pioneer." Interview by Eric Baldwin, *Archinect*, July 6, 2018, https://archinect.com/features/article/150071962/if-architects-don-t-attempt-to-maintain-social-and-public-relevance-i-m-not-certain-what-we-are-doing-a-conversation-with-lola-sheppard.
2. Durand, *Précis des Lecons* (1819; Munich: Unterschneidheim, 1975), 25.
3. Lucan, *Composition, Non-Composition* (Lausanne: EPFL Press, 2012).
4. Guadet, *Elements et théories*. v. 1-4 (Paris: Librairie de la Construction Moderne, 1902). This book is online in the Digital Collection of the Smithsonian Libraries, https://library.si.edu/digital-library/book/elements-et-theorie-de-larchitecture.
5. Robert Krier, *Elements of Architecture* (London: AD Publications, 1983) and Rem Koolhaas *Elements* (Venice Biennale, 2014).
6. Hamlin, *Forms & Functions* (New York: Columbia University Press, 1952).
7. Colin Rowe, "Review: Forms and Functions of Twentieth Century Architecture by Talbot Hamlin," *As I Was Saying*, ed. Alexander Caragonne (1952-53; Cambridge, Mass.: MIT Press, 1996), 110.
8. Harbeson, *Study* (New York: Pencil Points, 1952), 309; and Hood, "A Vocabulary of Atelier French," *Pencil Points* (July 1922).
9. Lucan, 175.
10. For more on this topic, see Flora Samuel, *Le Corbusier and the Architectural Promenade* (Basel: Birkhauser, 2010), 9.
11. Rowe and Slutzky, "Transparency," Mathematics of the Ideal Villa and Other Essays (1963; Cambridge, MA: MIT Press,1976), 159-183.
12. See Kristy Balliet, "Possible Volumes," *Offramp* (Fall/Winter 2015), http://sciarc-offramp.info/useless/possible-volumes; and Robert Somol, "12 Ways to Get in Shape," *Content*, ed. Rem Koolhaas (Köln: Taschen, 2004), 86-87.

A VOCABULARY OF FRENCH WORDS USED IN THE ATELIER

No attempt has been made to indicate the pronunciation, which should be learned from someone who speaks French correctly.

The abbreviations used are as follows: *n.*—noun; *m.*—masculine; *f.*—feminine; *pl.*—plural; *adj.*—adjective; *adv.*—adverb; *v.*—verb; *arch.*—architectural.

A

Analytique: (a) *adj.;* analytical; (b) *n.m.; arch.,* a projet which is the study of the elements of architecture.
Ancien: (a) *adj.;* old, antique; (b) *n.m.;* an old student, a senior.
Atelier; *n.m.;* a work shop, a studio, a drafting room.
Axe: *n.m.;* axis.

B

Beaux-Arts: *n.m. pl.;* fine arts.
Bosquet: *n.m.;* a small clump of trees.
Bossage: *n.m.; arch.,* coursed ashlar with a roughly dressed or projecting surface.

C

Cartouche: *n.m.;* an ornamental medallion; *n.f.;* a cartridge.
Charrette; *n.f.;* a cart; *en charrete* (slang, *arch.*), the final drive to complete a projet.
Châssis: *n.m.;* a wooden or iron frame; *arch.,* frame on which a drawing or painting is to be stretched.
Château: *n.m.;* a castle, also a palatial country residence; *château d'eau,* the architectural front of a reservoir of water.
Concours: *n.m.;* competition; *hors concours* (H. C.), *adj.;* ineligible to compete.
Croquis: *n.m.;* a sketch.

D

Dallage: *n.m.;* a floor or pavement of marble, stone or tile.

E

Echelle: *n.f.;* (a) a ladder; (b) *arch.,* scale, as of a drawing.
Ecole: *n.f.;* school.
Entourage: *n.m.;* environment, followers; *arch.,* the grounds immediately surrounding a building.
Envoi: *n.m.;* the action of sending, the thing sent; *arch.,* a drawing made by a scholarship student to be sent to his masters.
Esquisse: *n.f.;* a sketch; specificially the nine hour sketch made *en loge* at the beginning of a projet.
Esquisse-esquisse: *n.f.;* a rough sketch, applied in the Ecole des Beaux Arts to the twelve-hour and twenty-four hour sketches.

F

Foyer: *n.m.;* (a) home, hearth-side; (b) the part of the theatre where the public congregates during the entre-actes; (c) the focus of an ellipse.

G

Gouache: *n.f.;* Chinese white, color mixed with Chinese white: i. e., solid color.
Grand Prix, see *Prix.*
Grisaille: *n.f.;* a style of painting in which only gray tones are employed, in imitation of sculpture.

H

Hors concours, see *Concours.*

J

Jardin: *n.m.;* garden.

L

Loge: *n.f.;* a small hut, cabin or lodging; *arch.,* a small room or stall in which a student is enclosed to work alone.
Logiste: *n.m.;* a student admitted to a loge for a competition, usually applied to those doing the Prix de Rome competition.

M

Massier: *n.m.;* the student head of an atelier.
Medaille: *n.f.;* medal.
Mention: *n.f.;* mention; *arch.,* a passing mark.
Mosaïque: *n.f.;* mosaic.
Motif: *n.m.;* motive; *arch.,* an element in a composition.

N

Négligé: *adj.;* neglected, insufficient; *esquisse-négligée,* insufficient sketch.
Nouveau: *adj.;* new; *n.m.;* a beginner in an atelier.

P

Parterre: *n.m.;* flower garden; also, that part of a theatre or auditorium situated behind and at a slightly higher level than the orchestra stalls.
Parti: *n.m.;* scheme, idea, intention.
Patron: *n.m.;* teacher, master.
Pocher: *v.; arch.,* to fill in with black ink, as the walls of a plan.
Poché: *n.m.;* the walls of a plan blackened in; the study of a plan with reference to the walls and piers only.
Prix: *n.m.;* price, prize. *Grand Prix de Rome:* scholarship to Rome awarded at the Ecole des Beaux Arts, as a result of a competition in architecture, the most difficult student competition; open only to French citizens.
Projet: *n.m.;* a projet, problem, set of drawings.

R

Relevé: *n.m.; arch.,* a restoration.
Rendu: *n.m.;* the coloring of a drawing; also, the finished projet; also, the delivery of the projet.

Figure 3: Page from John Harbeson, The Study of Architectural Design (New York: Pencil Points, 1952)..All photos by the author.