



In a digital era, the most common, pervasive and productive operations of drawing are literally virtual. As a result, drawing now is actually closer than ever before to realizing the theoretical significance and the complex productive potential of *disegno*, a term that, as conceived by Alberti, is simultaneously and ambiguously drawing and design, a thing and a concept, an artifact and an act, a physical and a mental operation. Digital media and production promise to fundamentally extend Alberti's formulation, and change (again, quite literally) the way architects draw and the way drawing produces the possibilities of architecture, from algorithmic and parametric design, scripting, and the informed surfaces of topology, to the absolutely encompassing and insidious practices imposed by normative software such as CAD and BIM.

What is a literalist approach? Literalism, literally, means “of the letter” but its specific meaning varies in every discipline. In computing, a literal is an entity that defines itself, such as a fixed value in source code (*Oxford English Dictionary, 1989*). In mathematics, a literal is virtually the opposite: an equation that uses letters rather than numbers. Literalism can also be defined as “representation without idealization.” A literal image depicts or refers with extreme specificity, not by being indexical like a photograph or a casting, but by being self-referential or by suggesting a series or repetition. Examples include Jasper Johns's numerous drawings of numerals (as figures) or Frank Stella's early shaped-canvas stripe paintings.

Despite their differences and contradictions, each of the preceding definitions adds complexity or depth to the most common (and objectionable) understanding of literalism as a direct, simplistic mode of meaning or interpretation: “that sense or interpretation of a text which is obtained by taking words in the natural or customary meaning, and applying ordinary rules of grammar,” a notion usually associated with religious fundamentalism or the legal notion of “original intent.” Neither delivers the certainty or fullness of meaning to which it aspires. Rather, each is radically reductive and thus deficient. Literalism, as I will pursue it here, is based on approaches that emerged in the middle of the twentieth century in the philosophy of Ludwig Wittgenstein and in the so-called “ordinary language philosophy” of J.L. Austin and others who focused on “speech acts” or “usage” as the keys to meaning. As explored in the 1960s by Stanley Cavell, literalism is one subject, and technique, of that approach, which aims to identify and scrutinize the most apparently unremarkable expressions or articulations of language, or any medium, that are so common they have become naturalized or commonplace, and thus go unnoticed. For Cavell,



locating or analyzing literalisms cannot recover essential truths or realities, but is instead a kind of achievement, awareness or acknowledgment that is both therapeutic and liberating. At best, the identification of literalisms mobilizes their potential in new ways.

A final philosophical point is especially crucial: the emphasis on literalism is an effort to avoid thinking, or thinking of thinking, in terms of mental images, cognition, self-expression, or psychologizing. “The strategy of literalization is: You say only what your words say” (*Cavall, 1969, 126*). In other words, intention is not a matter of expressing inner thoughts or mental states, but a matter of action and transaction, of making an impression or an appearance. This attitude also applies to “representation without idealization” and appears in the way drawing is used or deployed in certain instances of “conceptual art” which should not be understood as efforts to convey or represent concepts. Instead, these artworks are precise articulations that stake a claim or provoke actions. Mel Bochner’s “measurement rooms” are full-scale literalizations of the conventions of dimensional notation. Sol Lewitt’s early wall drawings enact and record a logical set of literal operations. In both cases, the mode of drawing is explicitly architectural and literally inextricable from the architecture. Each refuses our presumption that drawing precedes architecture or that architecture can dispense with drawing. The strength of each lies in its literalism, and its refusal of reductiveness.

So, literalism is a specific, if perplexing, intellectual stance. Susan Sontag offers guidance in her 1964 essay “Against Interpretation” where she advocates an intriguing but not quite literalist method as a means to recover “an erotics of art.” “What is needed is a vocabulary—a descriptive, rather than prescriptive, vocabulary—for forms” which could convey “a really accurate, sharp, loving description of the appearance of a work of art.” She endorses and solicits “works of art whose surface is so unified and clean, whose momentum is so rapid, whose address is so direct that the work can be . . . just what it is (*Sontag, 1964, 80;93*).”(1) But the desire for art that actually is “just what it is” or for criticism that can “show that it is what it is” is a delusion, what Cavell would call a mistaken theoretical demand for absoluteness or concreteness (*1965, 78*).⁽²⁾ Like Sontag, Cavell is against interpretation but he harbors no illusion about purity or immediacy or absoluteness. Cavell’s examples show that literalism is much, much more devious, excessive and puzzling than that.

Literalisms are particular, peculiar, dense, obdurate modes of abstraction that subscribe to the formula, “this is this.” Abstraction in this sense does not involve reduction, as most definitions or conceptions of abstraction presume, for example “removal of specific qualities to arrive at general features” (like platonic forms); “apart from concrete existence”; or “no specific instance.” Literal abstraction is not idealization. Literal abstraction occurs when the concrete instance seemingly coincides with the general.

A fascinating architectural example occurs in the first of Alberti’s *Ten Books*. His literalist explanation of the origin of the column as a “certain strong part of a wall” initiates the discourse on the classical orders in renaissance theory and after. Yet from Serlio to Durand, the increasingly abstract and convoluted attempts to determine the proper number, proportions and uses of the orders charts an evasive trajectory away from the overt literalism of Alberti’s explanation of columns as “nothing other than a wall that has been pierced in several places by openings (*1991, Bk. 1 Ch.10*).” This astounding literalism is followed by, and I believe provokes and sustains, his most elaborate theoretical arguments: first, a complex understanding of *structura*, which is as ambiguous as *disegno*—simultaneously construction and order, material and form, physical and virtual—and second, a theorization of the column as simultaneously body and ornament, fundamental and supplemental. For the next three centuries, the column would be the focus of theoretical debate, yet the tendency was to overlook the initial literalism of the column/wall in Alberti and to emphasize instead the issues of imitation and the systems of proportion that occur in the later

books of Alberti's treatise. This flight from literalism only increased over time. Eventually, when the ferocity of argument over the orders was beginning to wane, the column/wall problem returned with reductionist vengeance in both Laugier's *Essay on Architecture*—which polemically insists on a purely columnar architecture and the elimination of any structural role for the wall—and in Durand's *Precis des leçons d'architecture* (his didactic lectures on design for the civil engineers at the *Ecole Polytechnique*)—which radically dismisses the prior four centuries of debate on the orders only to reassert Alberti's column/wall in a reduced, feeble form as an absolute reciprocity of walls and columns as merely lines and points disposed on a grid and inconsequentially interchangeable as elements in patternbook ensembles. Not coincidentally, Durand's method also radically dismissed *disegno* and “reduced drawing to its simplest terms” in which perspective and shading are prohibited as a means to avoid the mistaking drawing for building.

A literalist recuperation of Durand's instrumental, radical modernism appears 150 years later in the methods of Walter Segal, who devised an approach to architectural drawing that allowed him to design and build modern houses in ways that were so simple, so dependent on readily available materials and techniques, so efficient and economical that anyone could afford and build one. As he saw it, his focus on control, efficiency, clarity, speed, completeness, and objectivity, allowed him to bypass the habitual and legal complications of the typical professional practice. He asked, “How then does a one-man firm run? ... by simplification, shortcuts, extreme centralization and sharp eye on economy (*McKean, 1989*).” To achieve this, he produced unusually literal drawings and in 1970 took an interest in the computer as a way to achieve further efficiencies. At that time he wrote that he looked forward to a time when the single highly-gear architect, powered by modern methods of documentation and administration provided by [computing] apparatus, will be in a convenient position to tackle the work load of the present day mammoth office using traditional methods. Then the re-individualised architect with power at his disposal and tools for his work (which consist of apparatus and not of management techniques) will be able to devote himself again fully to the job of designing in freedom ... (*McKean, 1989*).

Segal did not persist with his interest in computing but he did anticipate the role computing would eventually play in the profession.⁽³⁾ If Segal's obsession was the one-man office, the current obsession is the one-drawing office. Segal's A4 sheets operate according to the same model of integrated, standardized information that exists in REVIT or other building information modeling (BIM) programs. Both are motivated by a desire to control and correlate information and normalize its transmission. But Segal insisted on a kind of literalism that allows us to see drawing and building, especially in a digital age, as convergent and continuous. His project reminds us that computing not only offers new challenges and opportunities for experimentation, speculation and innovation, but also to deliberately scrutinize the presumed fundamental forms of expertise, production and knowledge that define the discipline of architecture and, hopefully, to understand the specifically architectural potential that is latent in, or confounded by, software.



What is the digital equivalent to Alberti's wall/column proposition? Scott Cohen's Terminal Line house suggests one possibility: the line/surface. If a column is nothing other than a discontinuous wall, a terminal line is quite simply a discrete event in a surface, and is as fundamental to the topological world of digital modeling as the column/wall was to Alberti. More important, both BIM and Cohen demonstrate that we are entering an era where Robin Evans's brilliant examination of the "translations from drawing to building" is becoming obsolete. While the variance between the drawing and the building is still great, and drawing remains the dominant mode of architectural production, a crucial change is that computation, coding, data, and CNC fabrication allow a potentially seamless movement from description to construction. Rather than translations from drawing to building, we now move directly, even literally, from modeling to fabrication, potentially without translation. Or at the very least, we are approaching a situation in which the difference between drawing and building is no longer the same sort of problem. Rather than questions of the subjective basis of imagination and judgment, there are new problems of procedure and protocol that require collective or collaborative transaction. The digital model, whether in REVIT or Rhino, is not a source of meaning and interpretation but a device of applications and usage that offers the technical means for the constructed artifact to be adequately (if not completely) articulated as information. Of course it would be foolish to suggest that a digital model is the same as a building, but it may be just as good. The literal digital sides neither with the virtue of reality or its virtual simulation. More than ever the tired truism that you have to actually experience a building to fully appreciate it as architecture is virtually obsolete.

References

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Endnotes

- (1) Sontag's less polemical or philosophically naïve conclusion is: "The function of criticism should be to show how it is what it is, even that it is what it is, rather than to show what it means."
- (2) "This is the sort of thing that happens with astonishing frequency in philosophy. We impose a demand for absoluteness (typically of some simple physical kind) upon a concept and then, finding that our ordinary use of this concept does not meet our demand, we accommodate this discrepancy as nearly as possible."
- (3) Digital design, especially when utilizing commercial software, provokes other challenges because of the ways it operates quite boldly and overtly as a version of Foucault's notion of *gouvernementalite*. All software, whether used as intended, inevitably produces the kind of self-regulating, habitually obedient subjectivity (or subject or discipline or knowledge) that Foucault suggests is the basis of power in modern, democratic states. This cultivation of habitual obedience is painfully clear in much of the teaching of digital design in schools, where students invest in and implement specific software and protocols by emulating the instructor.