Noam Andrews

The Architectural Gesture

Below the heading, "What is drawing and how fine pictures are made and recognized,"[1] in his introduction to the second edition of *The Lives of the Artists* (1568), Giorgio Vasari (1511–1574) appraises the importance of drawing for architecture. "The drawings [*disegni*] of architecture are composed of nothing but lines, which as far as the architect's principles are concerned constitute the beginnings and ends of his art; for the rest, by employing wooden models taken from said lines, is nothing but the work of carvers and builders."[2] The capacity to produce *disegni* is the result of years of training that enable the hand of the artist or architect to act as a conduit into the recesses of the human mind, drawing out from it forms of graphic representation that directly correspond to its interiority.[3] While *disegno* is transmitted onto the physical space of the page as "an apparent expression and articulation of the conceit that one has in the mind," hidden beneath the finished image lies the latent body of its creator.[4]

Since abstract expressionism opened up the practice of reading artwork as the product of the body's movements, we have become accustomed to medium and (the trace of) gesture as integral parts of any formal critique. Yet contemporary architectural practice has remained firmly wedded to the significations of representation rather than to the *materialities* integral to the production of architectural drawings. Architects are trained to read an orthographic projection, but the gestures required to produce the drawing in the first place, the material properties of the page itself, even the physical space within which the drawing is composed, are rarely taken into consideration. Materiality, physicality, and corporeality must be edited out of drawings in order for drawings to express themselves.

And yet there are fissures through which the body persists in announcing its presence. In a tomb design attributed to the circle of Perino del Vaga (1501–1547), rot clusters in the folds of the figure's clothing, revealing the pressure once exerted by the gesture of the hand required to inscribe the drawing on the page (fig. 1). It appears that despite age-old prejudices in the architectural drawing that leave it vulnerable, and even

1. The entire title reads "What is drawing and how good pictures are made and recognized, and for what purpose, and on the invention of histories." My translation.
2. Giorgio Vasari, *Le vite dei più eccellenti pittori, scultori e architetti*, ed. Maurizio Marini (Rome: Newton & Compton, 1997), 73–74. My translation. As Vasari, alongside Cosimo I de' Medici (1519–1574), would contribute to the founding of the Accademia delle Arti del Disegno in Florence in 1563, it is useful to see Vasari's comments in the light of his professional ambitions.
3. Quite apart from Vasari's use of the term, general definitions of *disegno* varied from city to city and, depending upon the locale, any number of associative dimensions could be stressed: the cognitive processes that apprehended universal knowledge from sensible particulars, the skill required to produce quality artwork, or even *disegno* as the preparatory sketches for a work of art. See Karen-edis Barzman, "Perception, Knowledge, and the Theory of *Disegno* in Sixteenth-Century Florence," in *From Studio to Studiolo: Florentine Draftsmanship under the First Medici Grand Dukes*, ed. Larry J. Feinberg (Oberlin: Allen Memorial Art Museum, Oberlin College, 1991), 37.
4. Vasari, *Le vite dei più eccellenti pittori, scultori e architetti*, 73. My translation. Vasari's view of drawing continued to develop after the first publication of *The Lives of Artists* in 1550, as seen in the revised 1568 edition. The second edition includes a definition of *disegno* that some scholars see as a response to criticism of the perceived inferiority of the arts because of its provision of a universal concept underlying all artistic and architectural production. Robert Williams, *Art, Theory, and Culture in Sixteenth-Century Italy: From Techne to Metatechne* (Cambridge: Cambridge University Press, 1997), 50. For the Aristotelian and Neoplatonic elements in Vasari's definition of *disegno*, see Patricia Lee Rubin, *Giorgio Vasari: Art and History* (New Haven: Yale University Press, 1995), 241–42, and Barzman, "Perception, Knowledge, and the Theory of *Disegno*."

desiring, to erase the presence of the human, the architect's hand every now and then slips out from beneath the representation it is tasked with creating. To understand the general absence of the body and the denial of materiality in the conceptualization of contemporary architectural design, we might look beyond the effects wrought by the newest technological developments and ask where and to what end the body has been sublimated in the drawing medium.

The Gestural Line

Where does the architect's body – as the entity responsible for delivering lines to a page – remain perceivable in early 16th-century drawings? Where does one find the body in these drawings? And what work was the body doing? To address these questions we must first distinguish between two types of representation – the representation of the human body as an image, and the forms of representation that best hold the trace of the human hand that rendered the drawing.

These two categories of representation are often, but not exclusively, intertwined. Their sites within the architectural drawing may be seen as subsidiary layers of ornament, a category that must be expanded in order to include not just the sculptural flourishes that adorn buildings but also the scriptural flourishes that adorn the drawings of buildings. Alina Payne has noted that the Renaissance never produced a general theory of ornament despite all of the attention lavished on the topic, although, as Payne discusses, ornament gained an "iconic currency as the most obvious way of declaring the appropriation of antiquity" in the Renaissance.[5] The dimensions and measurements that articulate the space of the Renaissance drawing are very much products of that cultural moment – the desire to define, and thus to quantify, architectural/ornamental beauty through proportion and the relative composition of components made legible, and consequently provable, in graphic form. Reading measurements and dimensions as belonging to one set of ornamental typologies – as a kind of *data ornament* – in the architectural drawing directs our attention not only to the rhetorical functions of ornament within the image but also to the presence of the human hand in drawn ornament. Viewing marginalia and dimensions as ornament and traditional ornament as marginalia opens up ways to acknowledge the presence of the architect's body, though it would be overly optimistic to assume that one's perception of the architect's body within drawing is somehow distinct and outside of the hegemony of mediation.

5. Alina Payne, "Reclining Bodies: Figural Ornament in Renaissance Architecture," in *Body and Building: Essays on the Changing Relation of Body and Architecture*, eds. George Dodds and Robert Tavernor (Cambridge: MIT Press, 2002), 100–01.

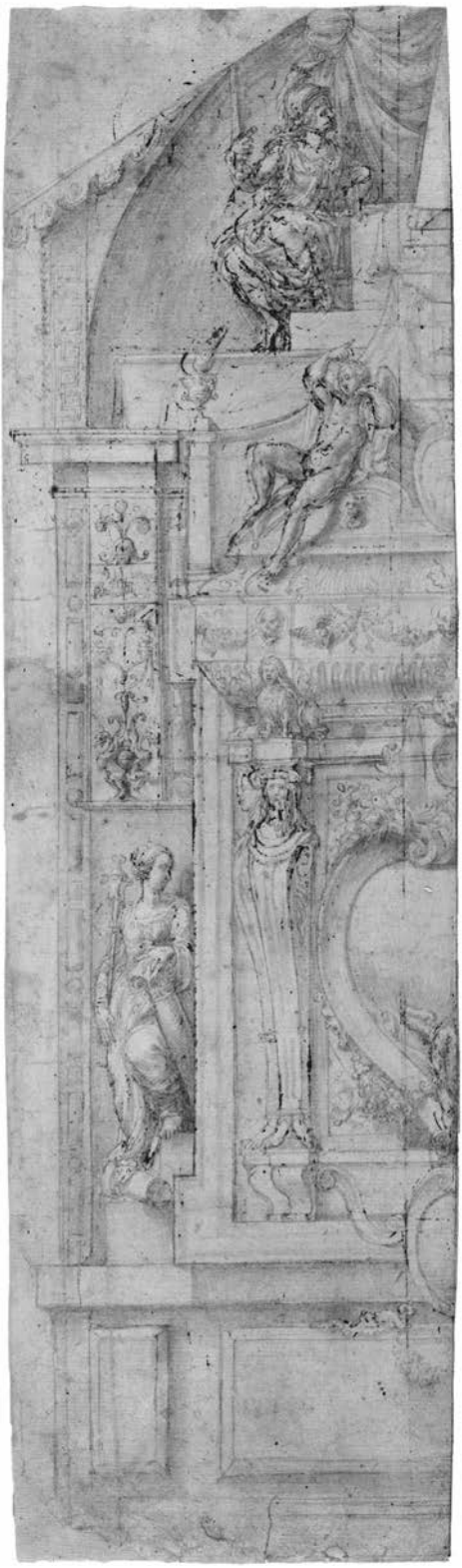
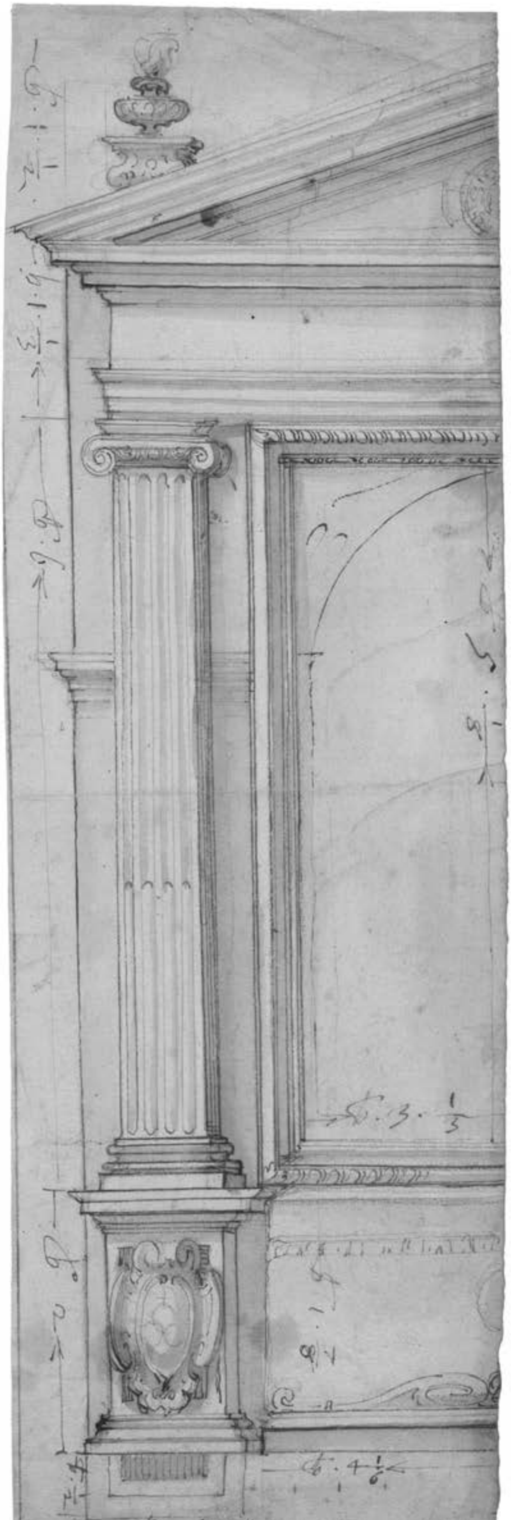
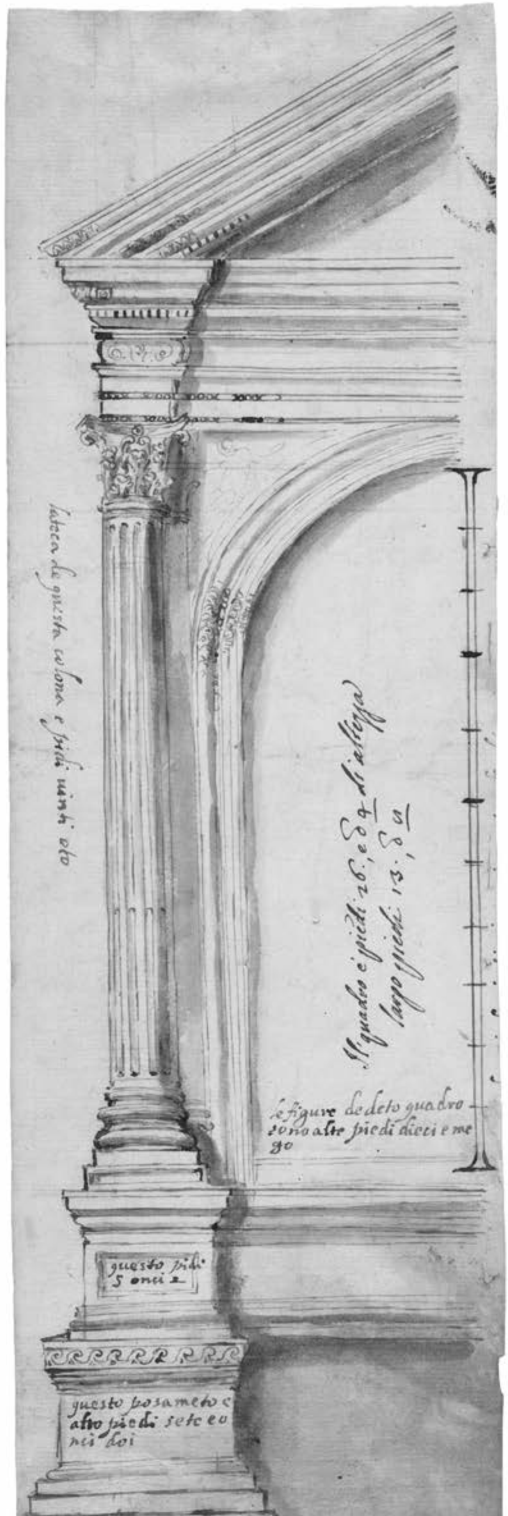


Fig. 1. Circle of Perino del Vaga (1501–1547), Tomb Design (recto), c. 1540. All drawings, unless noted, courtesy Harvard Art Museums/ Fogg Museum, purchased through the generosity of an anonymous donor and the Kate, Maurice R. and Melvin R. Seiden Fund in honor of F. Gordon and Elizabeth Morrill (1998.202). Photos: Imaging Department © President and Fellows of Harvard College.

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Within this expanded category of ornament, it is the gestural line that most readily embodies the movement of the hand that created it. Examining the gestural line in architectural drawings requires us to differentiate between what can be assumed to be its utility in its own historical context and its unique potential as a form of inscription. Of all the possible lines that the architect can draw, it is primarily the gestural lines that appear able to represent of the movement of his or her body.

The relationship between gesture and the gestural can be demonstrated in two anonymous design drawings for altar frames, made in 1560 and 1540 respectively, the former dedicated to St. Bernardino. The first image (fig. 2) appears to be cut in half, although this is not certain, and there is no way of knowing whether the possibly missing half would form a symmetrical whole, whether it would include the same level or types of detail, or whether it would be similarly dimensioned. The dimensions noted along one edge produce aesthetic effects similar to traditional ornament. This data ornament increases the density of information on the page, communicating the architect's understanding of proportion and highlighting the parts of the drawing that the architect deemed most essential to emphasize. The spindly line quality of the data ornament adds a pleasant balance to the graphic arrangement, which would otherwise be missing, and displays a degree of certainty in the proportioning of the frame's geometry. The second image (fig. 3) separates text from a diagrammatic dimensioning line at the right edge of the page. The rough line quality of the illustration is in contrast with the refined penmanship of the text, making it ambiguous whether the image is intended to accompany the text or vice versa. Furthermore, the text inhabits two kinds of spaces in the drawing: It floats vertically in an abstract graphic space that is superimposed within blank areas in the drawing, and it is embedded within the drawing as inscriptions on the base of the column. The dimensions and marginalia can be understood as communicating the design, as notes to jog the architect's memory, and as devices intended to make the design appear more final. But it is the explicit reference to the human hand, moving around and along the contours of the images, that animates the reading of the drawing.

Left: Fig. 2. Unidentified Artist, Design for Altar Frame dedicated to S. Bernardino (recto), c. 1560 (1998.193). Right: Fig. 3. Unidentified Artist, Study for an Altar Frame, c. 1540 (1998.192).

The sociologist Michael Lynch uses the term *visualization* to "gloss the various practices associated with making objects observable and intelligible." For Lynch, documents are "deeply integrated within a nexus of activities that includes

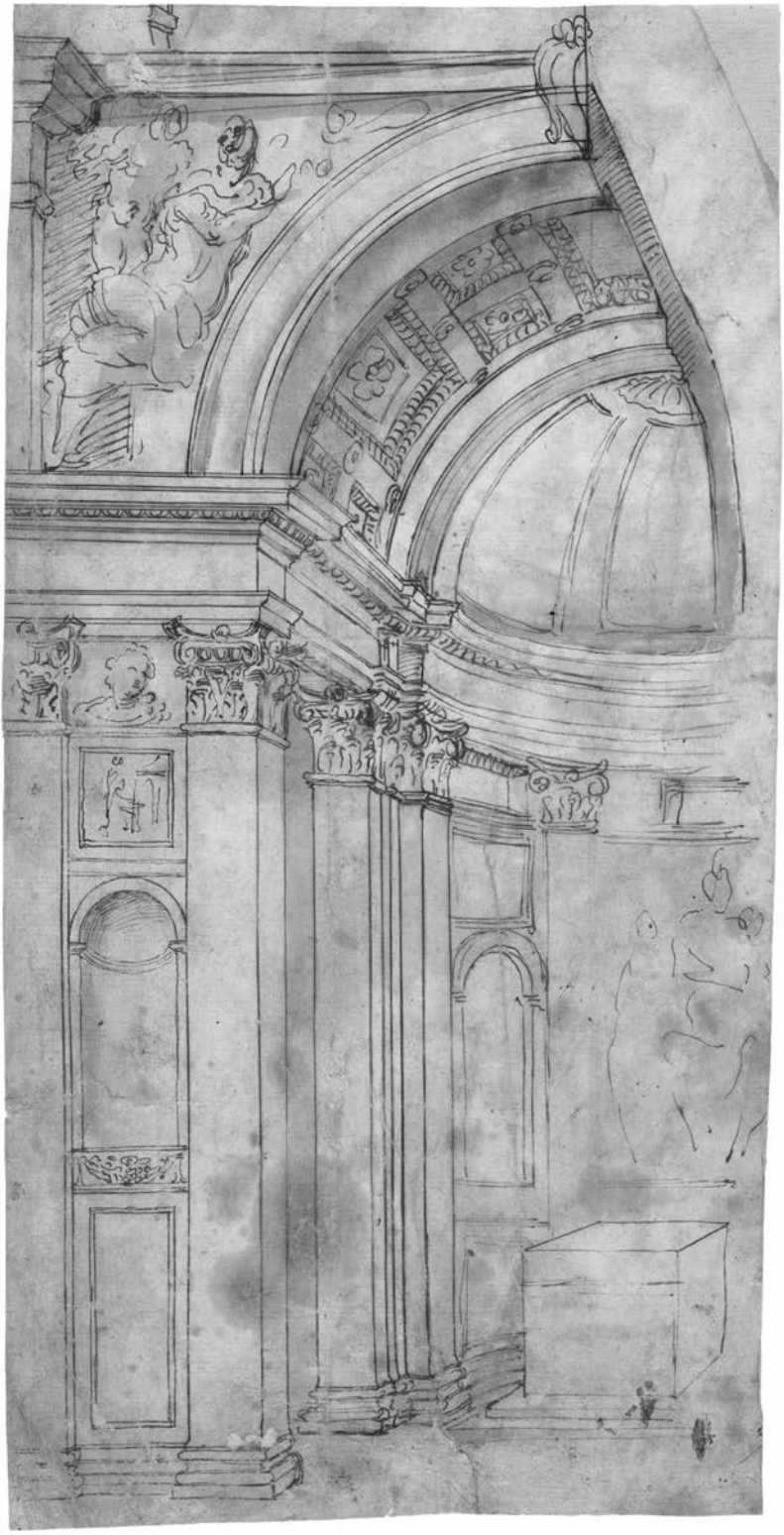
observation, measurement, description, analysis, and demonstration." Images are "complex assemblages of verbal, numerical, geometrical, textual, material, instrumental, and pictorial phenomena."[6] As Lynch has demonstrated in the field of science studies, images are often "enframed" with subsidiary markings, abstractions, and graphics so as to better facilitate the systematic ordering of information. Taken together, these enframing techniques cultivate the accountability of an image and prepare it for public consumption.

The data ornament that adorns these altar drawings also communicates a level of intentionality through writing that communicates the prior presence of the human hand as well as the faith in the practice of measurement to which the hand purports to have previously committed itself. Thus the altar frame is prepared for public consumption precisely through certain lines that one is asked to see on a different ontological plane than the lines depicting the altar. Here the gestural lines of marginalia and dimensions are a clear site within the architectural drawing where one is a spectator of the ritual of the drawing's production and where the body of the architect is *performed* – that is, made convincingly present in the absence of an actual body – in order to substantiate the authenticity of the drawing as representing an altar frame that may be realized in the future. These visual (and textual) conventions are reinforced by drawings produced by other architects, further reinforcing the reading of dimensions/marginalia as gestural, real, immediate, and authentic expressions of thought that stand *outside* of representation.[7] That the role of data ornament is ignored is not surprising. Data ornament makes a drawing more convincing because it is never officially acknowledged as having any aesthetic effect or value. To acknowledge such effect would lessen its power of persuasion and detract from the architect's ability to convince a potential client of the suitability of a design. The architect is also encouraged to project his hand into the marks of marginalia, thereby leaving the main image seemingly pure and free of human intervention. Human-ness becomes located in a network of semiperceivable inscriptions that annotate the drawing but are always separate from it. Even as these inscriptions perform a function in the aesthetics of the drawing, they masquerade as the architect's *auctoritas*, or authority, over the subject of the drawing. The gestural lines that constitute data ornament siphon up the perceivable presence of the architect's body from the rest of the image.

6. Michael Lynch, "The Production of Scientific Images: Vision and Re-Vision in the History, Philosophy, and Sociology of Science," in *Visual Cultures of Science: Rethinking Representational Practices in Knowledge Building and Science Communication*, ed. Luc Pauwels (Hanover, NH: Dartmouth College Press, 2006), 27–29.

7. Following Saussure, Timothy Lenoir's assertion that "the written sign is in fact an institution, backed up by other texts and embedded in a network of enforceable codes" is applicable both for architectural drawings as a whole and for gestural and nongestural elements within architectural drawings. Timothy Lenoir, "Inscription Practices and the Materialities of Communication," in *Inscribing Science: Scientific Texts and the Materialities of Communication*, ed. Lenoir (Stanford: Stanford University Press, 1998), 7.

Opposite page: Fig. 4. Copy after Baldassare Peruzzi (1481–1536), Chapel Design, 16th century (1998.210).



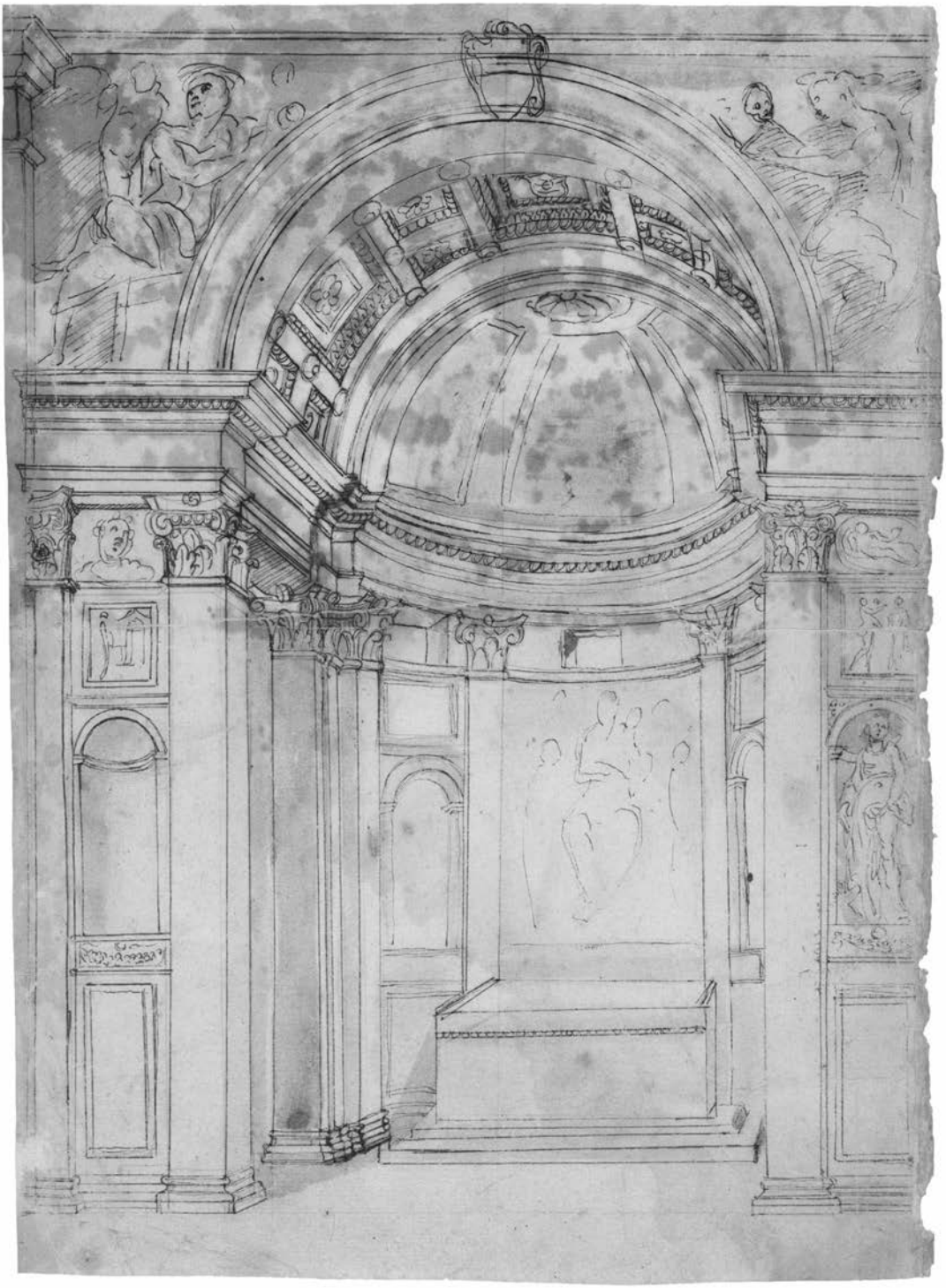


Fig. 5. Copy after Baldassare Peruzzi, Chapel Design, 16th century (1998.211).

Consider another pair of drawings, 16th-century copies of a chapel design by Baldassare Peruzzi (1481–1536) that depict a semicircular apse containing an altar table and references to a painting of the Virgin and Child. The first image (fig. 4) shows only half of the central semidome, but it appears to refer to the same Peruzzi design as the second drawing (fig. 5), in which figures of sibyls with putti are located on either side of the front arch and alternative schemes for decoration are indicated on the pair of composite pilasters carrying the entablature.[8] Within both images are decorative elements that appear to be sketches of ornament to be painted or rendered in relief on the chapel apse by craftsmen after construction.[9] The lines that precisely articulate the space of the apse are of a very different quality than those used to depict the ornamental figures within the apse, illustrating a sharp division between spatial precision and semiabstract figuration, straight perspectival lines and groups of gestural lines. The hand of the architect is perceivable in the figural elements, not in the staging of the main space itself.

The gestural drawing refers to the graphic forms that held communicative capital within the established cultural milieu of 16th-century Italy. It represents what was *obvious* or typical for a Renaissance architect. The connection between the architect and the viewer of his drawing is not with something seen but with something as yet *unseen*. These drawings within drawings can be understood as broadly accessible, empathic icons for a late Renaissance audience, a form of representation that anyone (architect and potential patron) could imagine populated with more developed future versions. It is the least amount of effort required to suggest an idea for decoration, especially as the architect would not necessarily be completing the decorative work. The human hand is conjured up here precisely because of a seeming *lack* of attention on the part of the architect to these marginal drawings – self-evident place markers.[10] Unlike data ornament, these decorative designs are drawn explicitly within the representational space depicted on the page. But their similarly semi-invisible or marginal nature exempts them from the regime of precision exerted to delineate the space of the chapel proper. And thus, perhaps counterintuitive to the 16th-century architect, our modern gaze can more easily read the gestures of an individual hand in these sketches than in the areas of the drawing in which the architect chose to lavish his attention.

These drawings show how the gestures of the architect's hand remain local to gestural lines that the architect deemed

8. K.T. Parker, *Catalogue of the Collection of Drawings in the Ashmolean Museum*, vol. 2, *Italian Schools* (Oxford: Clarendon Press, 1956), 229. The original Peruzzi drawings are located in the Ashmolean Museum in Oxford.

9. On the relief as a point of intersection between architects and sculptors, see Alina Payne, "The Sculptor-Architect's Drawing and Exchanges between the Arts," in *Donatello, Michelangelo, Cellini: Sculptors' Drawings from Renaissance Italy* (Boston: Isabella Stewart Gardner Museum, 2014), 64–72.

10. This is not to say that the architect is not making numerous aesthetic decisions in these gestural clusters. He would have been responsible for filtering out extraneous information, defining the limits of the figure to be presented, choosing stylistic and formal references, deciding on a level of abstraction, laying out the image on a page, and deciding the placement of the ornament relative to the other graphisms. As one architect copying the work or style of another, he may not have been concerned with whether his hand could be read in a drawing, but the persistence of the gestural line to indicate his presence, perhaps even despite himself, cannot be underestimated.

unnecessary to completely fit the representational logic of the image; after data ornament the second of two sites where the corporeal self is expressed in architectural drawings. Thus I would like to raise the proposition that the authenticity of expression associated with gesture is transferable to the gestural line.[11] And although the use of drawn lines that perpetually perform the human hand serves, to a large extent, the didactic purpose of reinforcing the further mediation of the architect's body, it is by exploiting this particular substructure of the logic of mediation that we can propose a way to work through or even beyond it. Gilles Deleuze and Félix Guattari remind us of the virtue of patience in the face of power: "It is through meticulous relation with the strata that one succeeds in freeing lines of flight."[12] Can the corporeality emerging from the coincidence of ornament and the gestural line in the architectural drawing provide an opportunity for the heavily mediated body of the architect to claim authority through presence, not absence? And might this constitute a strategy to counteract the apex of mediation in which contemporary architectural practice now finds itself?

11. Michael J. Braddick has pointed out that the term *gesture* as referring to "the expressive bodily motions of persons imagined as autonomous individuals," for whom gestures may be seen as reflections of a directly communicable inner consciousness, is just the latest incarnation of a definition of gesture. See "Introduction: The Politics of Gesture," in *The Politics of Gesture: Historical Perspectives* (Oxford: Oxford University Press, 2009), 32.
12. Gilles Deleuze and Félix Guattari, "November 28, 1947: How Do You Make Yourself a Body Without Organs," in *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (London: Continuum, 2008), 178.
13. This will subsequently be referred to as the *Architettura.* When it began publication in 1537, Book IV was the first installment.
14. Vaughan Hart and Peter Hicks, "Introduction," in *Sebastiano Serlio on Architecture* (New Haven: Yale University Press, 2001), xxi.

The Mediated Architect

To understand the mediation of architecture today is to acknowledge the pervasive impact of the mass-produced architectural copybook on the practical experience of producing architecture during the Renaissance. After its rediscovery in the early 15th century, Vitruvius's *De architectura*, which was recognized as the only architectural manuscript from antiquity to have survived, swiftly became the key reference on the classical orders. Its popularity and unimpeachable antique authority changed the business of building in the Renaissance, cemented the relations between body and building, and inspired the neoclassical style that would come to dominate architectural culture. *De architectura* was not found with illustrations, but Sebastiano Serlio (1475–1554) took the radical step of setting Vitruvius's writing to image in his *Tutte l'opere d'architettura et prospetiva* (1537), an action justified by Vitruvius's own reference to originary accompanying drawings.[13] Serlio's visual intervention attempted to reconcile Vitruvius's text with the remaining physical ruins of antiquity and helped to establish standard rules "for the proportioning and arrangement of every architectural element from the pedestal to the entablature."[14] (fig. 6) Initially written in Italian, his *Architettura* was repeatedly translated for audiences across Europe, launching the illustrated treatise

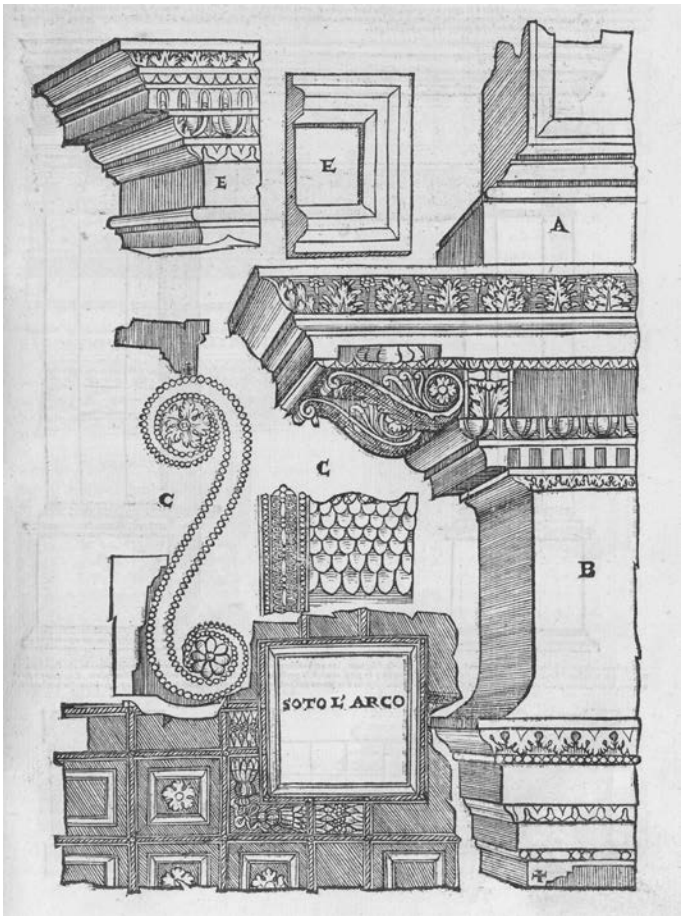


Fig 6. Sebastiano Serlio (1475–1554), page 100r from *Libro Terzo, Tutte l'opere d'architettura et prospetiva*, 1566. The Metropolitan Museum of Art, Bequest of W. Gedney Beatty, 1941 (41.100.147). Image © The Metropolitan Museum of Art.

as the medium through which architects could be trained and retrained in Vitruvian subjects. This success was in no small part due to *Architettura* being pitched to architects in the vernacular, which could be immediately understood without trawling through Vitruvius's Latin, thus encouraging a new, widespread visual literacy in classical architecture.[15]

Post-Vitruvian architectural literacy had required reading *De architectura* and visiting antique ruins, but Serlio's *Architettura* "obviated the need for artists to visit the scattered monuments of antiquity by making them widely accessible in pictorial form."[16] In this sense, Serlio displaced two modes of visuality – the imagining of antique architecture from the mental images conjured up by reading Vitruvius's descriptions, and the direct observation and study of classical architecture as a source of inspiration for contemporary architecture – offering instead the treatise-as-manual for architects, a kind of conceptual "color by numbers" for those who might never make it to Rome or perhaps were in need of ideas. In Book III:

15. There are numerous foreign-language translations of *Architettura* from the 16th century, the first being published in Flemish by the painter Pieter Coecke van Aelst (1502–1550) in 1539. For further reading on Coecke and the legacy of Vitruvian studies in the Low Countries, see Krista De Jonge, "Early Modern Netherlandish Artists on Proportion in Architecture, or 'de questien der Simmetrien met redene der Geometrien,'" *Architectural Histories* 2, no. 1 (2014), doi: http://dx.doi.org/10.5334/ah.bt.

16. Hart and Hicks, "Introduction," xx.

On Antiquities, Serlio was very clear about the audience for his book and his role as a discerning tastemaker:
It would be confusing and tedious . . . if I were to recount the measurement of all the parts of the ornamentation member by member, in minute detail . . . but I have taken great pains to scale down all the original members very carefully to the small versions here, so that the sensible reader can find all their proportions with a pair of compasses in hand . . . my whole intention is to teach those who do not know and who think it worthwhile listening to what I say, since it is one thing to imitate the state of ancient things exactly, but to know how to make a choice of the beautiful according to the rules of Vitruvius and reject the ugly and badly conceived is something else.[17]

Architettura offers Serlio's take on Vitruvius in place of the ideas his readers might have had after reading Vitruvius's book or visiting Rome. Furthermore, Serlio's authorial voice seeks to establish a relationship with the reader based on trust. Serlio had already completed the "confusing and tedious" measurement of antique ornaments so that the average architect did not have to do such work. Readers of *Architettura* are asked to relinquish the primacy of their own potential measurements and experiences to Serlio. And it is a slippery slope from there. Once the reader accepts that he may never make it to Rome, or that he may not need to go to Rome because he has Serlio's book, his ability to judge the relative merits of architecture (antique or new) becomes irretrievably compromised. Thus he must rely on Serlio's drawings both to replicate selfsame ornamental forms and to develop an individual aesthetic. The reader does not know if Serlio has fabricated these fragments, has misrepresented them, or surveyed them badly, or even the nature of the material he may have left out of *Architettura*. In accepting the book on the terms that it presents to the architect-as-reader, the practice of architecture and the formation of the selfhood of the architect are made subservient to two-dimensional, visual media.

Antique sites in the Renaissance stimulated many graphic products and a wealth of gestures connected with these products. The gestures were intimately tied to drawing as well as to the treatment of the page itself. Sketches could be folded, rotated, drawn backward and on top of each other, all of which required its own unique choreography. But unlike Alberti's architect, who was brought into conflict both with his body and the paper on which he inscribed his body's movements as lines, Serlio's architect was calculatedly *disembodied* from physical experience and opinion-forming judgment.[18] *Architettura* inserted itself in the space between the

17. *Sebastiano Serlio on Architecture*, 99v. This rich quotation is taken from a larger context in which Serlio weighs up the merits of various ornaments on Roman arches, designating some as "licentious" and others as "confused" on the basis of their form and proportions.
18. It appears that architecture began to drift toward disembodiment in the 16th century, even as art began to become ever more *embodied*. As Pamela Smith writes, "These artisans all had in common an 'individual struggle with reality,' and this struggle – this bodily experience of the particulars of matter – resulted in a knowledge of matter and its transformations, proved by the artisan's creation of 'effects' or works of art." Pamela Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2004), 110. Compare this to the increasing technological and representational mediation of architecture and to Serlio's catalogue of essentially standardized and repeatable graphic components. The printed book had become the site of idealized, reproducible perfection. One might even say, as Mario Carpo does, that "the mechanical reproduction of images favored the invention of new architectural models – the five orders – that were explicitly 'designed for reproducibility.'" Mario Carpo, *Architecture in the Age of Printing: Orality, Writing, Typography, and Printed Images in the History of Architectural Theory* (Cambridge: MIT Press, 2001), 52.

architect's body and the sites of antiquity, and between the architect's body and the page on which drawings were composed. In this denial of the importance of direct experience, the role of the architectural imagination was reduced to the reinterpretation of Serlio's predigested experiences.

The publication of *Architettura* marked the birth of the mass-produced, pedagogical image in architecture. After Serlio, the average architect, whose locale might have been far from the sites of antiquity, was likely to first become familiar with the sites of antiquity through a book or printed images. Thus the production of architecture and architectural knowledge post-Serlio became ever more antecedent to media. Perhaps print media became pervasive in 16th-century architectural culture because it seemed to shoulder the intellectual responsibility for making neoclassical design decisions, decisions that would otherwise have required active interpretation of Vitruvius's writing or even drawing from sight. The popularity of *Architettura* attested to this particular niche in architectural culture. Just as the increasing proliferation of architectural drawings proved the maxim that "the medium is the message," so too did dissemination of the printed drawing encode the practice of architecture in a greater web of technological systems. Architects would use their hands to copy a two-dimensional representation intended for mass production, not interpreting and translating from three dimensions, but mimicking the carved lines of Serlio's woodblock prints. As Friedrich Kittler notes, even the Greeks defined "the soul" by using a technological "metaphor that was not just a metaphor," the tabula rasa.[19] By projecting *auctoritas* into media, architects staked their claim to selfhood *in media*.

19. Friedrich Kittler, *Optical Media: Berlin Lectures 1999*, trans. Anthony Enns (Cambridge: Polity Press, 2010), 34–35.
20. Robin Evans, "Architectural Projection," in *Architecture and Its Image: Four Centuries of Architectural Representation*, eds. Eve Blau and Edward Kaufman (Montreal: Canadian Centre for Architecture, 1989), 19.

Projection

In his essay "Architectural Projection," Robin Evans defines projection as "a plausible outcome for a set of instructions and proposals already defined elsewhere but not yet accomplished," and, more specifically for architecture, as a directional vector made up of "the invisible lines that relate pictures to things. . . . Drawings arrest and freeze these vectors, but even in this fixed state, projected information can be mobilized by the imagination of the observer."[20] Projection is a technique not just of representation but also of the outward imaginative movement required to envision a future building from a workshop drawing. In discussing this form of projection, Evans formulates the complexities of the relationship between the architectural drawing and building as resulting

in an overlap between projection and the imagination. "There is always a touch of illustration in even the most abstruse and diagrammatic visual instruction, and illustration always prompts us to envisage what it portrays as if it were already real, even when we know it is not. This suggests that some aspects of the imagination are sufficiently similar to projection to be compared with it, or even confused with it."[21]

Evans' "projection" is alluring because it suggests that architectural drawings tap into an intrinsic part of the human psyche that desires to make representations of things into the things themselves. It might, however, be productive to consider a further point of entry into the status of architectural drawing, one that cleaves representation from built form and allows architectural drawings to stand on their own. While the conceptual play between the built real and the drawn imaginary might be lost, the basic function of architectural drawing becomes clear. It is a medium that, to use Evans' definition of projection, "relates pictures to things." Thus, by its very nature, a nature that Evans seeks to naturalize by relating projection to the workings of the imagination, the architectural drawing, or the drawing of architecture, projects the spectator away from the drawing itself. The imagination does not "actively remodel reality" at the site of the drawing.[22] Even as the drawing explains a building proposal, the drawing itself hides in plain sight. Imaginative projection takes the spectator of the architectural drawing away from the physical page by appealing to an imagined materialization that occurs elsewhere. But it also takes the spectator *into* the page, again bypassing the materiality of the two-dimensional surface and the lines inscribed upon it, by requiring adherence to the representational conventions of projection and the resulting spatial construction. In order for the drawing to work at all, the spectator must view the drawn lines extending into the perspectival space of the page as both infinite and representative of a space scaled down to the size of the page. Thus the spectator is both thrown out of the drawing and pulled into it without being allowed the time to dwell on the surface itself.

21. Ibid., 20.
22. An exception to this statement might be when drawing is used to recombine and redeploy elements from existing architectures. "The Parthenon cannot be demolished by drawing, but it can be burgled; its forms stolen and reconstituted by virtue of this same, not so passive agency of projection." Ibid.

The Status of Drawing

Then as now, the practice of architecture was inseparable from an essential set of tensions between the architect and his drawing. Only by denying the materiality of the medium, the acts of creating lines upon its surface, and the gestures through which the architect's body delivered his thoughts to the page, could the architectural drawing become an institution and

thus be made immutable and perfect. The architect's body was written out of the very drawings that he himself was writing; a strategic abdication of authorship that was intended to provide the drawing with its authority and reconstitute the architect as an author (in the absence of his body). Watershed interventions like Serlio's *Architettura* enmeshed the architect in further layers of technological mediation, ultimately seeking to inculcate the printed image as a reliable substitute for a wide range of corporeal and intellectual experiences. It seems that the issue at stake in understanding how architectural drawings came to be what they have become – marks, disembodied of their creators, inscribed on a two-dimensional surface that must be ignored for a drawing to be legible – is contained in the teasing apart of the virtual and vacuum-like space into which drawn architectural lines are imagined to exist.

Alberti's interest in architectural drawing was as much due to what he saw to be the Vitruvian mold as it was a reaction to the problem of building in 15th-century Italy. Vitruvius had recommended that architects represent their designs in plan, section, and elevation, and had himself clearly distinguished between the *fabrica* (craft) and *ratiocinatio* (theory) in architecture.[23] Alberti (1404–1472), whose *De re aedificatoria* (1452) would become the first major treatise on architecture after Vitruvius, was keen to pursue a stable notion of architectural authorship in which the architect/author would even be able to lend the *auctoritas* of his name to a work, as Marvin Trachtenberg has extensively discussed.[24] For Alberti, the drawing seemed to be an imperfect means of solidifying mastery over craftsmen through the communication of design intentions while fulfilling the legacy of Vitruvius.

Reacting to a medieval building culture that had not sharply defined the boundaries between design and construction, Alberti stressed that the benefits of planning would pay off in terms of quality and cost: "I will always commend the time-honored custom, practiced by the best builders, of preparing not only drawings and sketches but also models of wood or any other material."[25] His well-known proposition to insert drawings between the design ideas of the architect and the building proper amounted to advocating an exponential increase in the value of the architectural drawing, particularly from the previous medieval paradigm, though as Payne has pointed out, Alberti was also suspicious of the drawing's capacity to hide spatial inconsistencies that would be revealed by the architectural model.[26] While the importance of the

23. Vaughan Hart, "Introduction: Paper Palaces from Alberti to Scamozzi," in *Paper Palaces: The Rise of the Renaissance Architectural Treatise*, eds. Vaughan Hart and Peter Hicks (New Haven: Yale University Press, 1998), 14.
24. Marvin Trachtenberg, *Building in Time* (New Haven: Yale University Press, 2010), 88.
25. Leon Battista Alberti, *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Robert Tavernor, and Neil Leach (Cambridge: MIT Press, 1988), 33–34.
26. Payne, "The Sculptor-Architect's Drawing and Exchanges between the Arts," 60.

notion of encouraging the architect to commit his mind to paper prior to the assembly of building materials cannot be overestimated, even for Alberti, drawings were not precious enough to be saved, and after a building was completed, the drawings required to build it were rarely preserved.[27] In stark contrast to the prodigious building industry and cultural interest in architecture that emerged in the Renaissance, the architectural drawing was considered to be expendable from its inception, as can be attested to by the few architectural drawings remaining from this period.

While Alberti sought to establish a graphic space that could capture an idealized version of the building-to-be, he too saw architectural drawings as subservient to architectural buildings. One might speculate that the unstable value of the Renaissance architectural drawing was bound up with what he found to be its lamentable inability to dictate and enforce its built counterpart. Given the realities of the culture of building construction in the 15th century, it was clear that a design, no matter how well thought out on paper, would rarely be directly translated into built form. Thus, unlike the preparatory sketch for a painting, which might later allow the creator, or collector, to glimpse the nascent stirrings of the developed work, the architectural drawing was often seen to be a record of failure because of its inability to conclusively dictate the architect's terms and even seems to have maintained a utopian dimension that set it apart from the messy realities of building and, indeed, bodies.[28] To think about architecture through the architectural drawing was to think through a disposable vehicle. Yet as a genre of drawing, the architectural drawing's disposability made it the perfect medium for preserving the purity of thought. In contradistinction to the compromises of construction, the drawn line was the direct impression of *disegno* inscribed on a surface; the total drawing, a vision of building absent of the problems created by the body's labor. Far from heralding an architect's authority, perception of the presence of the architect's hand in an architectural drawing ran the risk of calling attention to the act of the drawing's creation. Being aware of the mechanisms of production that underscore the architectural drawing was antithetical to its utopic quality as an invisible medium through which *disegno* is transmitted. In order for a fully realized vision of a building to exist on paper, the architect had to renounce his presence.

That design drawings were quick, relatively easy to produce, and allowed for revision were powerful incentives that blossomed into the establishment of the Renaissance

27. This practice seems to have persisted from earlier times. As an example, the proliferation of drawings, designs, and models of the Florence Cathedral became so overwhelming that in 1365 they were destroyed to avoid confusion, all aside from the final project. "As a result, today there is much written information about the Florence building site dating back to the fourteenth century, but not one drawing." Christoph Luitpold Frommel, "Reflections on the Early Architecture Drawings," in *The Renaissance from Brunelleschi to Michelangelo: The Representation of Architecture*, eds. Henry A. Millon and Vittorio Magnago Lampugnani (New York: Rizzoli, 1994), 102.

28. While the architectural drawing abdicated the architect's body, bodies, just not architects' bodies, were becoming increasingly relevant to Renaissance architecture. Alberti and others sought to relate human proportions to those of buildings and building parts "in order to demonstrate both the architectonic 'symmetry' of the human body and the anthropomorphic vitality of architecture." Erwin Panofsky, "The History of the Theory of Human Proportions as a Reflection of the History of Styles," in *Meaning in the Visual Arts: Papers in and on Art History* (Garden City, NY: Doubleday Anchor Books, 1955), 92. In his *De statua* (ca. 1443–1452), Alberti developed a new system of mensuration, and a head-mounted measuring tool called the *finitorium*, intended to make the surveying of human form, and the changes to human form due to gestural movement, more accurate for artists working across different mediums and scales. Utopian bodies were also in demand. Extrapolating backward from surveys of ancient architecture, Alberti refined his sets of bodily measures with the knowledge that Vitruvius had mentioned the use of the idealized human body as the basis for laws of symmetry and proportion in temple architecture. See Robert Tavernor, *On Alberti and the Art of Building* (New Haven: Yale University Press, 1998), 40–41.

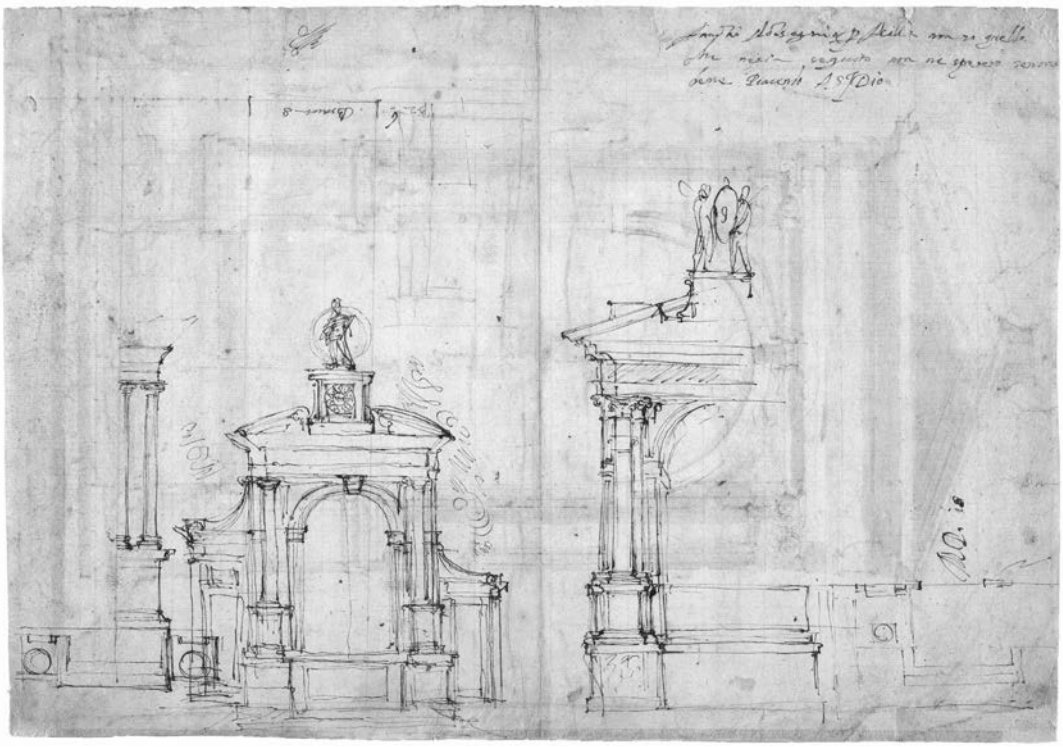


Fig. 7. Unidentified Artist, Altar Designs in Honor of St. Bernardino (verso), c. 1540 (1998.216)

architectural drawing, a new media form that constructed what it meant to be an architect by denying his physical presence on paper. Far from the prelapsarian communion between architect and drawing that we might be culturally conditioned to imagine, the architect has always been defined by self-antagonism. From its conceptual birth in Alberti's *De re aedificatoria*, architecture appears to have been in conflict with the very medium of drawing through which it is produced and, in turn, the physical body of its producer.

Gesturing Toward a New Architecture

The architectural drawing has, from its inception, been compromised by a fear of erasure, as if the integrity of representation were endangered by anything less than a total, and a priori, denial of human and material presence. Amputated from the hand that created it, the drawing acts as a conscript of the institution of architecture; an institution that now, more than ever, prefers the perception of a seamless transition from design to building without human interference and all our messy, irreconcilable frailties. Still, the specialness of the gestural line endures, its status preserved in the architectural drawing by the integral yet limited role it plays in the successful communication of the totality of the design idea. One

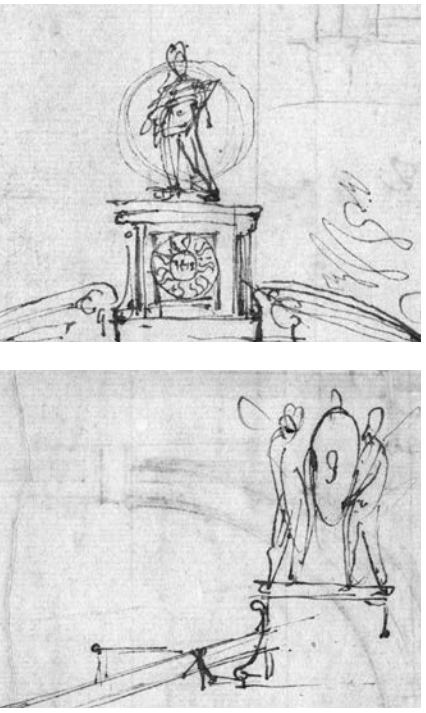


Fig. 7. Unidentified Artist, Altar Designs in Honor of St. Bernardino (verso), c. 1540 (1998.216). Details.

might say that the gestural drawing conjures up the human by seeming to record the act and energy of its own making, retaining a unique closeness to the human hand. No less a record of gesture than any other drawn element on the page, we read it as attracting conspicuous attention as a *true* recording of gesture, even as the rest of the drawing remains defined by temporally defined, stylistic conventions. Within the metacontext of the drawing that houses them, gestural elements operate as a form of representational marginalia located *inside* the drawing. Just as notes on the side of a printed page allow us direct (if mediated) access to the thoughts of the reader of a book, so too does the gestural drawing purport nearly instantaneous access to what Quintilian called the "speaking hand."[29] By holding abstraction and figuration in tension, the gestural drawing gestures toward its subject without allowing the subject to overwhelm the line as the object of the viewer's attention. The service the gestural line performs is the representation of itself. It performs its own gesturalness, it performs us *to* us – the trace or inscription, which is always a product of gesture, refined as a subset of lines that produces self-conscious records of gesture.

Details from sketches on the verso side of a Sienese altar design in honor of St. Bernardino (c. 1540) seem almost as if they could have been drawn yesterday (fig. 7). Style, manner, motif, gesture, expression, even medium – all of the different typological analyses to which we subject works of art in order to contextualize them – slide off these images. This immediacy gives gestural drawings a peculiar atemporal quality precisely because they embody the time of their production. And as such, they are curiously stable images. It is possible to agree on the time it took for the figure details to be created (approximately 10 seconds) and it is very possible to imagine drawing similar figures. When the time allotted to production is severely curtailed, it is almost as if the drawing does not gain enough *representational momentum.* It is this lack of momentum that allows the gestural drawing to stand *outside* of both time and style, as an ever-present inscription of these several seconds of production. The gestural drawing holds the potential to communicate the sustained moment of inception and creation, the experiential time of its own making.

Arguably, since Alberti, and certainly since Serlio, the institution of the hand-drawing has fully participated in the commodification of the architect as a distinct quantity within his or her own work. Authorship is fully located on the various surfaces produced by imaging media, while any awareness of the

29. See Quintilian's *Institutio oratoria*, c. 95 CE.

role of the human body or the drawing medium in the production of architectural drawing is decried for calling attention to itself. The expression of the architect's body on paper has been limited to those instances when a human impression is a necessary contribution to the success of a drawing (which would ostensibly lead to more drawings). Alternatively, gesture as the expression of the body's movements has also revealed itself in marginal sites, where the matrix of representational logics seems to have been relaxed. Here the human presence slips under the radar of mediation.

The condition architecture finds itself in today is not so different from the condition in which it has always been – or so it seems. As drawings and models can simply be printed by a programmed machine, in perfect fulfillment of the fantasy of complete technological determinism found in Serlio's *Architettura*, and computer renderings have replaced the Renaissance sketches to be filled in by craftsmen, the *material* of drawing has all but disappeared, a casualty of architecture's prevailing state of willing self-mediation. Should the institution of the architectural drawing be deemed worth saving, we might consider how to resuscitate the drawing as an instrument of institutional critique. How might the materialities of the architect's body and the medium of the two-dimensional surface as tools in the architect's arsenal contribute to rethinking the meaning and perception of authorship in architecture? Renouncing the progressive abdication of embodied architectural authorship might provide the architect, as well as the student of architecture, with the chance to work *with* the perception of his or her body, not against it, to recast the idea of *auctoritas* in architecture through the materiality of thought in drawing.

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