

Notes on the Detail for Architecture

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INTRODUCTION

I have the (initial) taste for the detail.
- Roland Barthes

A history of the detail is impossible.
- Daniel Arasse

The irony of generalizing about particularities should not be underestimated. And yet a literature of the aesthetic detail exists. It frequently arrives armed with more than the usual reservations about its ambitions. In his study on the detail in painting, Daniel Arasse has observed:

the very notion of the detail forbids the idea of a "history of detail" as a chronological account of details in painting...¹

He proceeds to reformulate his project investigation around the question "What role has the detail played in the history of painting?," moving on to a thematic investigation around a series of specific works. It is the patriarchal overtones of a 'grand narrative' of history which Naomi Schor also resists in her account of the aesthetic detail. Her book *Reading in Detail* gives an account of the long-standing hostility to the detail within Western culture, arguing its negative 'feminine' status, its 'double gendering' between the ornamental on the one hand and the everyday on the other.² Schor recounts in her introduction the expansion of her original investigation into the literary detail to include the scope of aesthetics in general. Yet her bias towards the literary is maintained within the project — it is an operation on the literature of different disciplines (psychoanalysis, art history, psychology, literature) and a broader account of the expulsion of the specific and the fragmentary from the canon of Western culture, in which the detail as a categorical entity participates. Both scales of exploration (Arasse's disciplinary, artifact-based study and Schor's literary cross-disciplinary one) provoke questions regarding the peculiar status of the detail for architecture, which has been largely unexplored. I will attempt here to re-direct Arasse's question "What role has the detail played...?" towards the discipline

of architecture and to situate its particular disciplinary status as both noun and verb. At the outset of the discussion which favors the specificity of the term detail for architecture, it may be helpful to trace in the etymology of the word, an account of the context from which its architectural resonance arises, and in which it operates.

The origin of the word "detail" lies in the French noun *le detail*, and has been transposed directly to German and English. An amalgam of the prefix *de* and *tailler* (verb, to cut, fr Latin *taliare*), the verb *détailler*,³ in usage by the twelfth century, meant "the separation/spreading/disheveling of hair (as when cutting it)," subsequent usages migrating towards breakage, tearing, dividing, etc. The noun *le detail*, signifying the broken or torn piece, has moved by the sixteenth century from its exclusive roots in cutting, with two main usages: in a military context, *en detail* signifying the engagement of small portions of an army for specific duty or special combat, and in a commercial one, a retail (*en detail*) as opposed to wholesale (*en gros*) selling transaction. By the seventeenth century *en detail* may be opposed to *en general* in the sense of particularity with which the word today is imbued.³ English usage of verb "to detail" dates from the twelfth century, later absorbing the meaning "to cut into pieces", and the French retail connotation in both noun and verb form.⁴ The denotation of a small part of a whole, current in English usage since the eighteenth century, has assumed by the beginning of the nineteenth century, a meaning within the fine arts as "a minute part of a building, work, sculpture or painting as distinct from larger portions or whole."⁵

Within art history the role of the detail in the analysis of painting or sculpture, ranging from the identification of traits of authorship to distinguishing marks of a period classification, has been important to the formation and expertise of the discipline.⁶ The communication of argument on the basis of the small extract or close study has been facilitated enormously by improvements in the quality and resolution of color photography and reproduction. Publications such as Kenneth Clarke's *100 Details from Pictures in the National Gallery* have been made possible, as has the everyday use of the close-up in slide form as a pedagogical tool.⁷ It is Aby

Warburg's observation regarding God's dwelling in the details (*Der Liebe Gott skekt im Detail*), which is attributed within architecture to both Mies van der Rohe and George Edmund Street.⁸ Studies in the phenomenology of perception, particularly in France, concentrating on the mobility of seeing and the logic of the fragment, have promoted the *jouissance*, delirium and ante-anti categorical nature of the detail's intimacy.⁹ Within painting, the detail lies in perception of an artifact, in the construction and framing of a spectator - in the action of pointing an eye (mechanical or human). In addition to this sense of the engagement between the (piecing) eye of an observer and the surfaces of an artifact, the detail for architecture comprises the act of "piecing" in the drawing made in the making of the artifact. The detail for architecture, suspended between two potentially overlapping but distinct contexts of process and reception, is haunted by the intentionality of its definition in process. Dictionary definitions confirm this latitude within the word's currency for architecture (*OED*) which has a double entry - under *fine arts* as "one class of artifact to which one can ascribe/in which one can perceive detail," and under *architecture* as "the delineation (to a large scale) of all parts of an edifice so as to be self-sufficiently intelligible (by builders) for the execution of the work, otherwise denoted 'the working drawings.'" ¹⁰

It is to the presence of the drawing within the architectural detail, its specific working, enlarging and piecing, that I will now turn. Clearly, the detail-for-architecture as it currently appears, is identified with the working drawing, and immersed in contractual responsibilities. The very strength of its contractual alliances, however, paradoxically ensure its elusiveness. Important for the framework and methodology of this investigation is the uncoupling of the detail-drawing from any automatic identification with working drawing practice, on the basis that such an assumption may be a product of the history of both. To begin to trace this evolution, I will concentrate on French academic theory, where the detail finds an explicit formulation.

DETAIL FOR ARCHITECTURE: ELEVATION/PROFILE

Within nineteenth-century French academic practice, the architectural detail centers around the architectural orders and their conventions of ornament, as both a term of description and a kind of drawing. While the large-scale or partial drawing was not a requirement of the monthly *concours*, it became a central feature for the archeological study of classical examples by the *pensionnaire* elite during their five-year stay at the academy in Rome. Examples of detail (detail and fragment are used interchangeably at this time) elaborating the orders and decorative elements of the chosen model, may be seen in the work of Labrousse and Vaudoyer carried out in Rome during the 1830's. The focus remains on the elevation of such elements, exquisitely modelled and shaded in water-color wash." Projecting from these elabo-

rately rendered 'painterly' elevations, are section/profiles to the same scale (either hatched or rendered in the pink 'flesh' wash of the section¹²), which become the locus for written dimensions on the drawing. Studies of entire buildings relate the enlarged section-profile of moldings to the central elevation of the whole.

The fragment/profile offset as detail is a format which may be traced back to Renaissance drawing practice, when perspectives or elevations often include the marginalia of enlarged corner drawings of ornamental friezes in particular. As the preference for orthographic projection of a facade became more common because of its superiority of dimensional accuracy, three-dimensional drawings begin to include the flattened elevation/profile as a plane from which scale dimensions may be taken. Serlio's drawings of the Corinthian order, for example, append to their respective perspective views, the elevation-profile of the capital and base from which construction measurements may be taken. Such notes may be seen as links with the process of stone-cutting on site, where large full-scale templates would be used to direct the cutting and carving of stone-work.) While for rounded surfaces the measurements of a profile of a running molding in elevation are the same as those of its section/profile, the corner-profile of orthogonal figures presents a diagonal cut thru the elevational plane, and cannot be measured directly as an index of depth. Despite such indirectness (one of proportional rather than absolute measurement), profiles of the order applied to capitals, bases and friezes became an important foundation of their study at a large scale. Where the corner is insufficient to register an account of the depth of a facade (as in the case of very modulated facades with multiple inside corners, for example) Renaissance elevational drawings often include, beside the frontal drawing, a kind of section through the depth of the facade, or "side elevation" of the front, as the securing of a reading of depth. A similar elevation-profile relationship between poched walls and elaborately drawn and rendered elevation of interior wall surfaces within the microcosm of the room, may be seen in the elaborate cross-sectional drawings of the seventeenth century.

The profile is not a full section through the extent of a wall or column element, as we think of it today, but a section-poche through a surface, cut with the assumption of the homogeneity of that surface. Within the conventions of the French academy, the material from which the surface is made is presumed to be stone. These are the instructions for the sculpting or carving of a surface, its extraction from one block of material, not the cutting of separate blocks of stone for assembly. Quatremere de Quincy, in his *Dictionnaire Historique d'Architecture* (1832) devotes quite a long entry to the "profile," as both noun and verb.¹⁴ In an analogy to the facial profile, he suggests that the side view confirms and measures the features of the face essential to its character, arguing that the profile is "the result of the bony framework from which one judges forms more effectively as one considers them from the side."¹⁵

He proceeds to locate the profile as a method of architectural study in the act of cutting a section, in particular through the moldings of cornices, entablatures and bases either singly or together. Confirming that the depth of a cornice, for example, is difficult to read in a drawing, unless it returns at a corner, Quatremere notes that the profile drawing supplies this exactitude of measurement. Conventions of architectural ornament are related to conventions of their respective profiles. As a method of studying the effect of an architectural element, the word 'profile' is thus appended at once to the tracing in section/profile of architectural ornamentation, and 'to the details (*i.e., of ornament*) thus represented' (*italics added*), thus establishing a link between profile and detail.¹⁶ The subsequent entry under the verb "to profile" merits longer treatment, meaning not only to trace in profile, but also a much deeper set of ideas, relating to judgment in the distribution of architectural elements and ornamentation, as an essential part of the decoration of an edifice. Appended to the notion of a complete consistency throughout the scales and members of a building, and giving it its character (light or heavy simple, rich, robust or delicate), the profile constitutes the physiognomy of a building. Establishing the link between the order, its contour and its character, the art of profiling amounts to the diction or signature of an artist: "The different orders are, in a way, a sensuous account of the general doctrine, and of the means of the art of profiling."¹⁷ As Quatremere's account of the profile as an extension of the coherence of the proportional system of the order concerned down to the smallest scale element, the detail-profile participates in the whole like the features in a face.

DETAIL FOR ARCHITECTURE: SECTION/PLUS

Quatremere de Quincy's Dictionnaire entry on "le detail" begins with a statement which confirms and summarizes much of the ground covered by this argument to date:

One uses this term in architecture in opposition to the word "whole" (*ensemble*), to express all its parts, either the *modenature* or the ornament, which, without constituting the essential merit of a work (*italics added*), contribute to its perfection with their felicitous and judicious application.¹⁸

Both the inessentiality and the qualified importance of the detail are nicely summed up here. Given the primacy of the *ensemble* within neo-classical doctrine, detail becomes the object of the 'second glance,' and there is a cautionary note regarding its overuse in corrupting the effects of mass to which it is opposed.¹⁹ Under the word *modenature* Quatremere gives a brief entry marking it as a recent import from Italy meaning both the distribution of members, and the profiles or moldings of an order. His description of ornament connects it to the art of sculpture and its intimate relationship to architecture. Each order, we are told, has its ornamental details which impart a particular character to its forms "in les

contours of a capital, in the triglyphs and metopes of the frieze, and in the profiles of the cornice."²⁰ A network of connections is established here, confirming the detail's participation in the sculptural contouring and profiling of the ornamental conventions of the orders.

Quatremere's entry under "detail" does not end here, however. Having explored the detail in architecture, he goes on to outline separately the detail in the art of building in two senses: as the production by an architect of the works of large-scale developed drawings to be used by workers in the execution of the works, and as the enumeration of tasks and the quantification of materials and work for the project (commonly called in today's practice, the specification or bill of quantities). The interesting strategic location of the detail within academic parlance between architecture and building, spanning the rift between both, with the multiple connotations given to it by Quatremere, which is the source of both its invisibility and power. It is the second part of the definition, the orientation of the "detail for building" and its alliance with the "working drawing" which will now preoccupy the argument.

Not all of Quatremere's contemporaries or students agreed with the assuredness of his separation of "architecture" and "building" on which his bifurcation of the detail depends. The re-ordering of the relationship between architecture and construction formed one of the important debating issues within the academy during the early part of the nineteenth century. It had been the occasion of a previous quarrel between Quatremere and Rondelet in 1815, when Rondelet (who had provided the entries under construction for Quatremere's pre-revolutionary *Encyclopedie Methodique*) argued in vain for a more thorough instruction in building construction and materials.²¹ It was the encounter between the pensionnaires and the archeological experience in Rome which brought many of these disputes into focus. There, the procedures of measuring and surveying, the close study of the fragment, culminating in the restoration project of the fourth-year *envoi* began to question the hierarchy between part and whole presumedly academic doctrine. Leon Vaudoyer's letters to his father uses the word 'detail' in the sense of "hitherto unobserved particularities," and propose that the monuments of the ancients be looked at, not as confirmations of an ideal type, but for their singularity - proposing "isolated studies of monuments as if they were analogs of its form and construction."²² His contemporary survey drawings in the elevation/profile format add visible and enumerated stone coursing to the sectional cut. His fifth year *envoi*, the design culmination of the lessons learned in Rome, was a belfry - a programmatic source thought to be too unchallenging by Vaudoyerpere. In a letter he pleads with his son to enlarge the narrow task he has given himself by "us(ing) the orders and show(ing) their details, in accordance with the beautiful models you have studied."²³ This advice was not taken. The final drawings of the project — a tower in which the column is not used — center on an elevation and section drawing, regulating the plans to a strip running across

the bottom of the sheet. Details, so named, are included in the margins of the section drawing, to the same scale, and elaborate on its construction and framing. In earlier letter to his father, Vaudoyer includes a savage commentary on his previous education:

Reform the absurd rules which make of construction a separate (competition) issue: it is as if in painting one had separate competitions of color and competitions of drawing. It is the utmost ridiculousness. There must be an architectural competition designed in such a way that the student indicates all the means of construction which he wishes to employ in his project, and not a competition of images and landscapes as in my time, where one did not indicate a joint on a facade, or one did not know if an architrave were made of one piece or six.²⁴

It is clear here, that the assembly of pieces in construction is impressing itself as an idea on the sculptural unity of the classical ideal.

The urgency of such pleas for a reformed relationship between the 'piecing' of the detail and the piecing of the construction assemblage are echoed by Viollet-le-Duc and Choisy later in the century. Again, the effect of developments in archeology, the natural sciences and medicine, in terms both the intellection and representation of the part, are important. Viollet-le-Duc's *Dictionnaire Raisonné de L'architecture* is the first to take on board the illustration of the fragmentation entailed in the dictionary format. As Barry Bergdoll has noted, the *Dictionnaire* betrays its anti-academic bias in the absence of contemporary terms such as "ideal," "imagination," "inspiration," "model," "picturesque," or "rule."²⁵ Also missing are the entries "ornament" and "detail", a surprising omission given the use and currency of both words in the text of other entries.²⁶ Viollet's innovative drawing methods (he combines contemporary medical and natural history illustration with those of descriptive geometry) secured him a post as a teacher of drawing at the *Ecole de Dessin*. While it is the innovative perspective and axonometric views of elements (both integral and exploded) from the *Dictionnaire* which are most frequently reproduced its remarkability lies in the sheer profusion of drawing techniques it employs: including perspectives of column capitals and bases (always drawn in relation to eye level), and the geometric construction of structural elements and systems. Also included, especially in relation to the analysis of column bases, is the convention of the profile drawing, albeit now isolated from its counterpart elevational view, and with the demarcation of stone coursing erupting through the continuity of hatching and contour. Under the dictionary entry "style," Viollet summarizes his idea of architectural unity from elements by stating:

...by viewing the profiles, one can determine the architectural members; the arch members, the monument... a logical deduction based on all of the details.²⁷

Bergdoll places such an observation in the context of a redefinition of relationships between part and whole, in which the part is regarded as the carrier or exemplar of the whole, rather than in opposition to it. While we note the maintenance of academic links between profile and detail in Viollet's claim, unity now emerges *from* the profile-detail — from the 'bottomup,' as it were — in opposition to previous 'top-down' theories of unity.

Auguste Choisy's account of architecture in the *Histoire de l'Architecture* is exemplified by the order of headings under which his explanation of each period is organized, beginning with *material, form, proportion, ornament, optics* and culminating in *history* and *sociology*.²⁸ Architectural illustration begins with the location, extraction, and shaping of raw material, and ends in its assemblage into a whole. He, too, has become associated with a particular drawing innovation: the "worm's-eye" sectional axonometric or isometric projection, which he uses to clarify the procedures of assembly and comparative study of complex vaulted structures in particular. In his introduction, Choisy explains that he has removed the "superfluous details" from such drawings in order to improve their legibility.²⁹ For Choisy, details may be capricious (eighteenth-century French architecture is used as an example) or identified with construction and execution of buildings: he notes the development of recent French architecture in which "decoration more or less emerges out of construction."³⁰ Like Viollet, Choisy maintains the use of the profile/detail (standing in isolation for the character of a whole period) among his other drawing techniques, using a comparative series of molding profiles to trace the ornate decadence of subsequent architecture in comparison with those of the Renaissance, when decoration similarly was derived from construction.³¹ The profile now floats outside of the context of an elevational presentation and the chain of proportionality represented by the orders.³²

It may seem then, that the projects of both Viollet and Choisy are linked in their elementarization of architectural process, in which constructive pieces float and combine in a three-dimensional perspective or axonometric/isometric space. Yet the morcellation of both accounts is not total: it is the section which implicitly anchors the elements in construction. In Choisy's drawings the pieces which are transported to the construction site find their integrity in a sectional assembly or view. The recessive presence of the section controls the logic and direction of the cut through construction in the axonometric view, ensuring the integrity of the vertical cut, the partiality of the plan view. In Viollet's studies of stereotomy it is the tracking of structural forces in gravity which controls the project of aligning pieces of stone on top of each other. The sectional view is the foundational representational instrument of engineers (from simple beam theory on) in the tracing of forces to ground. This 'alignment' of construction with section is evident in today's working drawing practice where it is in the passage from building section to the wall section that the pivotal transaction between whole and part occurs.

CONCLUSION: THE ENIGMA OF DETAIL

Having proposed the elevation/profile and the section/plus as different drawing techniques in which the project of the detail is carried, their similarities may be as apparent as their differences. Both techniques record the relationships between elevation and section, between the visible and invisible constructed surfaces of an artifact, the interface between the two. Yet their emphases are fundamentally different. In the elevation/profile the eye moves from the elevation to the profile at the periphery: rotation occurs within the context of and subsequent to the frontal view. In the axonometric sectional view, the eye moves from the section's *weight*, its definition and rendering, to the elevational surface of construction. In these modes of viewing an intellectual shift is confirmed; from the confirmation in contour of a visible 'frontal' construction surface to the attenuation of a sectional cut. Its difference between the elevation/profile detail and that of the section/plus is the difference in orientation between the subtractive act of a sculptor carving a single block of stone and the additive trabecation of a blocklayer.

Fin-de-siecle architectural terminology was obliged to register this shift in the orientation of the detail by qualifying the word in use, distinguishing between Choisy's "capricious" detail, tainted by the excesses of ornamentation, and his "construction" detail, imbued with the logic of assembly. The constructional and the ornamental were seen in opposition to one another, the detail forming the site of their contestation. The word "detail" is no longer qualified in current practice, so we may understand the silent victory of the "construction" detail, and its implication in the working drawing. A dictionary entry from the turn of the century records this increasing internalization of the word within professional activity:

Details, then, and the drawing of details, are treated here altogether purposely, because it is mainly in connection with the preparation of designs that the term is used. One rarely speaks of the details of an existing church porch from which he is receiving pleasure, though it would *still* (italics added) be common to say that the porch was fine in detail.³³

As understood here, the detail is inseparable from representation, yet not identical with it. "Detail" is haunted, even in the drawing's absence, by the biases of the drawing in the figural, the elemental, the linear. While in general linguistic usage, an "architectural detail" might mean any particularity related to architecture (the construction date of a particular building, the way the sun strikes a surface at a particular time of day, for example), the detail for architecture is circumscribed and understood within the context of architectural drawing.

Such an enlarged alliance with drawing, however, has not limited the use of the word to the specific discussion of drawn production. It maintains the residues of its general usage in the description of artifacts, gesturing towards construction and its documentation but often implicitly so. The unassailability of

the logic of construction on which the modern detail has been founded is no longer an assumption which can be made, nor is the opposition between construction and ornament, so confidently proposed a century ago. As this agreement breaks down, certain architectural positions tend today to be characterized by their identification with or rejection of detail; the former position connoting a saturation of constructional articulation (often seen as fetishized by its opponents), the latter connoting a theoretical endeavour outside constructional and contractual issues. Both characterizations seem naive, and obstruct the possibility of a fine-grain specific discussion of architectural practice and representation.

The elements of the detail drawing have, in their "calling out," migrated from the topography of architectural ornament that of architectural assembly, with a parallel shift in the orientation of their study. (A difference of emphasis, but not kind, it is now clear.) Initially allied with the superfluity of the ornamental, excess has re-entered the detail-as-construction. (Perhaps Schor's twin poles of the ornamental and the prosaic inscribing the range of the detail are apposite here.) Two possibilities which need not be exclusive of one another exist for such a development. One suggests that the detail, in its linguistic usage as a description of surface phenomena, has in its associations with the superficial, never lost its potential link with the excessive, despite the shift in its rhetoric towards the "economies" of construction. The other possibility would locate architecture's continuing resistance to the detail-as-excess as a denial of the convention which both ornament and construction represent, an "enormous weight of convention" which, as Robin Evans has suggested, "has always been architecture's greatest security and at the same time its greatest liability."³⁴ It is perhaps both an ironic denial of convention and a naive description of surface which animates the vehement assertion that an architectural artifact is "without detail," which is most likely to come from an architect.

NOTES

- ¹ Arasse, Daniel, *Le Detail: Pour Une Histoire Rapproché de la Peinture*. Paris: 1992, p9.
- ² Schor, Naomi, *Reading in Detail: Aesthetics and the Feminine*. New York: 1989, p4.
- ³ The etymology of "detail" in French has been compiled using the following sources: *Dictionnaire Historique de la Langue Francaise* (Dictionnaires Le Robert. Paris: 1993), and E Clifton & A Grimaux, eds, *A New French-English Dictionary* (Paris: Gamier Freres)
- ⁴ *Oxford English Dictionary*. Oxford: 1933.
- ⁵ *Ibid*, also "details(pl)," "such parts imagined collectively, or the manner of treatment of them."
- ⁶ See Arasse, op cit, for a discussion of Hubert Damisch, and an analysis of Wolfflin's and Morelli's reliance on concrete detail in their work.
- ⁷ Cambridge: Harvard University Press, 1990.
- ⁸ For the attribution to Mies, see Johnson, Philip, "Architectural Details," in: *Architectural Record*, April 1964, p137. For attribution to Warburg, see Heckmer, W S, "Petites Perceptions," in: *Journal of Medieval and Renaissance Studies*. Vol 4, 1974, p101.

- ⁹ See, for example, Bachelard, Gaston, *Essais sur la Connaissance Approche* (Paris: 1968), and Didi-Hubermann, Georges, "Notes on an Absent Wound," from: eds Michelson, Krauss, Crimp, *Kopjec, October: The First Decades*. Cambridge: 1988.
- ¹⁰ *OED*, op cit. Specific reference from Nicholson, P, *Architectural Dictionary*, 1819.
- ¹¹ Savignat, J M , *Dessin et Architecture du Moyen-Age au XVIIIeme Siecle*. Paris: 1980, p156.
- ¹² Saddy, P, "Henri Labrouste, Architect-Constructeur," in: *Henri Labrouste, (Revue). Monuments Historiques de la France, 18F*.
- ¹³ Savignat, op cit.
- ¹⁴ Quatremerede Quincy, *Dictionnaire Historique D'Architecture* (2 vols). Paris: 1832.
- ¹⁵ *Ibid*, p311.
- ¹⁶ *Ibid*. In the subsequent entry "profilier," they are used interchangeably as nouns.
- ¹⁷ *Ibid*, p312.
- ¹⁸ *Ibid*. All translations and italics are author's.
- ¹⁹ See Schor, op cit, for a useful summary of academic attitudes to the question of "detail" and its use in opposition to "mass."
- ²⁰ Quatremerede Quincy, op cit, p180.
- ²¹ Quoted in Bergdoll, Bany, *Leon Vaudoyer: Historicism in the Age of Industry*. Cambridge: 1994, p80-81.
- ²² *Ibid*, p93.
- ²³ *Ibid*, p106.
- ²⁴ *Ibid*, p107.
- ²⁵ Bergdoll, Barry, ed, *The Foundations of Architecture: Selections from the Dictionnaire Raisonne*. New York: 1990.
- ²⁶ It might be argued that the dictionary format itself obviates the need to name the detail, but this doesn't seem fully satisfying as an explanation.
- ²⁷ Requoted in Bergdoll, *Foundations*, op cit, p15.
- ²⁸ Choisy, Auguste, *Histoire De L'Architecture* (2 vols). Paris: 1987.
- ²⁹ *Ibid*, Vol 1, p2.
- ³⁰ *Ibid*, Vol 2, p580.
- ³¹ *Ibid*, Vol 2, p578.
- ³² Choisy's drawings in the *Histoire* differ markedly from his earlier studies of the architecture of Greece and Rome.
- ³³ Sturgis, Russell, *A Dictionary of Architecture and Building*. London: 1902.
- ³⁴ Evans, Robin, "Translations from Drawing to Building," from: *AA Files*. Summer 1986, p16.