

## Dummy Text, or The Diagrammatic Basis of Contemporary Architecture

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Peter Eisenman has often remarked that his Ph.D thesis of 1963, "The Formal Basis of Modern Architecture," was a critical response to Christopher Alexander's earlier Cambridge dissertation, which would be published as *Notes on the Synthesis of Form*<sup>1</sup>. While the architectural agendas announced by these projects could not be more dissimilar - determining the "fitness of form" as a problem of set theory versus releasing the potential for forms to notate the forces of their emergence - it should not be overlooked that the techniques of diagramming are central to each. In fact, Alexander begins the 1971 preface to *Notes* by baldly stating that the most significant contribution of his book is "the idea of the diagrams." In some ways, the present collection, *Diagram Diaries*, advances a related assertion, a post-facto preface to an unpublished dissertation, though one that now addresses (and is demonstrated by) a career-long body of intervening work.

In general, the fundamental technique and procedure of architectural knowledge has seemingly shifted, over the second half of the twentieth century, from the drawing to the diagram. This is not to suggest that a diagram of one form or another was not always constitutive of architecture at various points in its history, but simply that it has only been in the last thirty years or so that the diagram has become fully "actualized," that it has become almost completely the *matter* of architecture. Proceeding with halting steps through serial obsessions with form, language, and representation - though, as will be seen, equally with program, force, and performance - the diagram has seemingly emerged as the final tool, in both its millennial and desperate guises, for architectural production and discourse. Relatively impervious to the specific

ideology being promoted, the diagram has instigated a range of contemporary practices. Just as Robert Venturi summarized the effect of his 1950 M.A. thesis as "one great diagram," Lawrence Halprin published a book of diagrams in 1970 - which he referred to as "scores" - intended to form the foundation of a renewed design discipline. Significantly, even Klaus Herdeg's critique of the Bauhaus-inspired diagram of pedagogy and design at the Harvard Graduate School of Design proceeded simply through an alternative form of diagrammatic analysis.

It should not be surprising that the discourse of the diagram at this moment has become so confused given its near-universal use and abuse, its simultaneous promotion and denigration. This was less true with the previous trait of disciplinary identity, the act of drawing (*disegno*), which, as Reyner Banham writes, "had such a crucial value for architects that being unable to think without drawing became the true mark of one fully socialized into the profession of architecture."<sup>2</sup> With the increasing inability after the war to link convincingly the formal and functional ambitions of modernism, the first appearances of the diagram solidity around two possible axes, which Colin Rowe would later identify as "paradigm" (the embrace of a *priori* ideals) and "program" (the empirical solicitation of facts). While Rowe significantly notes that both positions "condemn us to no more than simple repetition," he ultimately endorses the side of paradigm (or type) and suggests, true to his predilection for a Renaissance humanism, that it is precisely the drawing that will overcome the diagrammatic alternatives he so ably identifies but too quickly dismisses.<sup>3</sup> In lieu of a return to drawing and modified types, however, an alternative version

1. Christopher Alexander, *Notes on the Synthesis of Form* (Cambridge: Harvard University Press, 1964). For more on the "debate" between Eisenman and Alexander, see "Contrasting Concepts of Harmony in Architecture," *Lotus International* 40 (1983).

2. Reyner Banham, "A Black Box," in *A Critic Writes* (Berkeley: University of California Press, 1996), p. 298.

3. Colin Rowe, "Program versus Paradigm: Otherwise Casual Notes on the Pragmatic, the Typical, and the Possible," in *As / Was Saying*, vol. 2 (Cambridge: MIT Press, 1996), p. 10.

4. Later, this transformation will become more evident via architectural strategies of "folding," procedures that in part continue the complication of vertical and horizontal while exaggerating the dematerialization of "paper architecture."

of repetition (a potentially non-linear mode of repetition) has more recently been pursued by rethinking and extending the logic of the diagram. Thus, the rise of the diagram, a more polemical device than the drawing, accompanies a breakdown of the post-Renaissance consensus on the role of the architect, and achieves its apotheosis with the emergence of the "information architects" (or architect-critics) after 1960. This latter association begins to suggest that not all recent uses of the diagram are equally "diagrammatic".

As the dominant device within the hybrid practices of the architect-critics of the neo-avant-garde, this more specific use of the diagram promises to elide Rowe's postwar opposition between *physique-form* and *morale-word*. Whereas Rowe would elevate the former pair over the latter in his attempt to extend the legacy of modernism (in contrast to his alter ego, Banham, who would elaborate the implications of the second pair), the architects of the neo-avant-garde are drawn to the diagram because - unlike drawing or text, *partis pris* or bubble notation - it appears in the first instance to operate precisely *between* form and word. For the purposes of this brief introduction, this attitude toward the diagram has several implications: that it is fundamentally a *disciplinary* device in that it situates itself on and undoes specific institutional and discursive oppositions (and that it provides a projective discipline for new work); that it suggests an alternative mode of repetition (one which deviates from the work of the modernist avant-gardes and envisions repetition as the production of difference rather than identity); and that it is a performative rather than a representational device (i.e., it is a tool of the virtual rather than the real). For an early version of this new disciplinary role inscribed in a project, one can look, for example, to Robert Venturi's National Football Hall of Fame Competition entry (or so-called "Billdingboard," 1967), which consists of a tripartite division of the "billboard" entrance facade, a vaulted exhibition shed, and a sloped grandstand in the rear. What one reads in section - from the slightly inclined seating, through the arc of the shed's roof, to the armature of the upright façade - is the 90 degree rotation of a horizontal surface (a table or drafting board) into a vertical object. As with John Hejduk's Wall Houses, Venturi's competition entry describes the transformation of

the horizontal space of writing into the vertical surface of the visual, Rowe's *morale-word* becoming *physique-flesh*, a process that diagrams a new professional identification which collapses writing and design.<sup>4</sup> Venturi's, appropriation of this swinging tabletop - a drafting room appliance that evinces the documentary status of the discipline - recalls Corbusier's similar use of industrial ready-mades (e.g., the file cabinet, bottle rack, ocean liner, briar pipe, etc.) as the basis for new organizing systems in the Unités and other projects. The drafting board itself (and here Venturi refers to the front elevation as a "high easel") becomes used as a *diagram*, one which mobilizes a series of relations and forces. Moreover, by proceeding through a misreading of Corbusier's protomachinic or diagrammatic disposition, the project also suggests that an alternative mode of repetition might be available to architecture, one distinct from the equal but opposite functional and formal reconstructions of modernism after the war.

The history of architectural production over the last forty years can broadly be characterized as the desire to establish an architecture at once *autonomous* and *heterogeneous* in contrast to the *anonymous* and *homogenous* building associated with the interwar rhetoric and postwar experience of the modern movement. This quest for autonomy and heterogeneity - with its fundamental antinomy in the call for both identity and multiplicity - has taken several forms in this period, one of which is a continual misreading or repetition of the modernist avant-gardes, though now in a significantly transformed postwar context. Briefly, then, it might be useful to distinguish between two kinds of repetition, one associated with postmodern historicism and the other with the constructive swerves, or misreadings, of the neo-avant-garde. The first model of repetition can be identified with icons, resemblances, and copies, while the second is aligned with simulacra or phantasms.<sup>5</sup> The first repetition relies on an ideal of the origin or model, an economy of identity, and can be thought of as typologically driven (the vertical imitation of timeless precedents). In contrast, the second sets in motion divergent series and exists as a continual process of differentiating. One points back to a static moment of being, while the other advances through modes of becoming. Again, this has a direct relation to

5. This view of repetition follows from Gilles Deleuze's account of two ways to conceive difference: "Only that which is alike differs," and "Only differences are alike." In the first version difference can only derive from a prior autonomy or identity (e.g., the way a right and left shoe are different by their relation to a prior identity, the pair), while in the second version differences operate horizontally rather than vertically, in a state of becoming identical (e.g., the surrealist encounter of the sewing machine and the umbrella). See *The Logic of Sense*, trans. Mark Lestor (New York: Columbia University Press, 1990) and *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press, 1994).

what Gilles Deleuze also distinguishes as the factitious (or artificial) and the simulacrum:

*It is at the core of modernity, at the point where modernism settles its accounts, that the factitious and the simulacrum stand in opposition as two modes of destruction may: the two nihilisms. For between the destruction which conserves and perpetuates the established order of representations, models and copies, and the destruction of models and copies which sets up a creative chaos, there is a great difference; that chaos, which sets in motion the simulacra and raises a phantasm, is the most innocent of all destructions, that of Platonism.*<sup>6</sup>

6. Gilles Deleuze, "Plato and the Simulacrum," *October* 27 (Winter 1983), p. 56.

It is now possible to differentiate the repetition of the neo-avant-garde (that of the simulacrum) from the larger trajectory of postmodern historicism, which idealizes the work, stabilizes the referent, and banks on its resemblance. Historicism in this account has little to do with style, but is more a mode of operating, since historicist work can equally include the modern, as evident in the projects of Richard Meier. A particular kind of repetition is at the heart of modernity, however - that of the misreading of the avant-garde - and it is this form of practice that relies on the diagram in its fullest sense. Finally, this distinction between modes of repetition provides competing views of "autonomy" as well - i.e., there is the disciplinary autonomy that relies on *typology*, and the alternative call associated with the neo-avant-garde that understands autonomy as a *process* of self-generation or self-organization, a model that allows for formal-material emergence or transformation without authorial intervention, where time is an active rather than a passive element.

As early as his dissertation, Eisenman had implied that the diagrams of Rowe and Alexander (which are more accurately "paradigms" and "patterns," respectively) were insufficiently diagrammatic in that they attempt to represent or identify a static truth condition (whether formal or operational is irrelevant). Advancing the potential of registering site forces and movement via inflections in generic form, Eisenman's transformational diagramming techniques anticipate the need for (and predict the possibilities of) the later development of 3D modeling and animation software. Even in this nascent

7. Colin Rowe, "The Mathematics of the Ideal Villa," in *The Mathematics of the Ideal Villa and Other Essays* (Cambridge: MIT Press, 1976), pp. 15-16.

dynamic construction of the diagram (and non-linear model of repetition), Eisenman imagined that the grid itself could move from an analytic tool of description - the invisible infrastructure of postwar formalism - to a material to be manipulated itself. This approach, of course, was in direct contrast to that of Rowe, who filtered out the wild element of time in favor of timeless resemblance vouchsafed by the stabilizing substrate of an ideal grid.

Rowe's first published essay is a virtuoso performance in formal architectural criticism; it provides a subtle comparison and differentiation of Corbusier's Villa Garches and Palladio's Villa Malcontenta, an analysis that remains both striking and unsettling even now, almost fifty years after its original appearance. Certainly, one can discern the influence on Rowe of Rudolf Wittkower's geometric analysis of Palladio's villas, work which would achieve its definitive statement in Wittkower's *Architectural Principles in the Age of Humanism*, published two years after Rowe's essay. Still, Rowe's lasting contribution, against all previous understandings, was to cross historical periods and locate a mannerist-humanist project at the *center* of the modern movement, thus establishing a discursive frame through which architectural polemics have been projected ever since - an act that might be described as one of sheer ideological hubris. Moreover, even at this early date, the primary issue revolved around the propriety or appropriateness of "repetition", as suggested in the final two lines of the essay:

*The neo-Palladian villa, at its best, became the picturesque object in the English park and Le Corbusier has become the source of innumerable pastiches and of tediously amusing exhibition techniques: but it is the magnificently realized quality of the originals which one rarely finds in the works of neo-Palladians and exponents of "le style Corbu". These distinctions scarcely require insistence: and no doubt it should only be sententiously suggested that, in the case of derivative works, it is perhaps an adherence to rules which has lapsed.*<sup>7</sup>

Though Rowe seems to be distinguishing between two forms of repetition - since the repetition between Palladio and Corbusier is apparently endorsed - the model he defends is still founded on an ideal of "originals". Perhaps more significantly, he alludes

here to a legal grounding, the “adherence to rules,” to adjudicate cases of repetition, the first of many such invocations of the rule of the law in Rowe’s liberal reconstruction of modernism.

Also, though critical of the immediate postwar version of *le style Corbu*, twenty-seven years later Rowe would write a brief in support of the New York Five’s repetition of Le Corbusier, even if it is, as he confesses, “a largely negative introduction - an attack upon a potential attack”; a prime specimen of a slippery-slope logic issued with the sole intention of getting his clients off: “For, in terms of a general theory of pluralism, how can any faults in principle be imputed?”<sup>8</sup> And if one equates Palladio and Le Corbusier, as Rowe’s analysis has, then it is logical that he remarks - demonstrating in yet another manner his obsessive attachment to analogical reasoning - that the Five “place themselves in the role, the secondary role, of Scamozzi to Palladio.”

In the same year that he issued his somewhat reluctant defense of the New York Five, Rowe wrote an addendum to his “Mathematics” essay that further clarifies his position on repetition. Here, he describes his mode of criticism as “Wölflinian in origin” and says that it “begins with approximate configurations and ... then proceeds to identify differences.”<sup>9</sup> This approach derives from an understanding of repetition in the first sense described above, the one Deleuze associates with the axiom “only that which is alike differs.” This mode of *identifying differences* relies on an existing *langue*, or ideal armature, against which seemingly disparate instances like Garches and Malcontenta can be related and distinguished - such that LeCorbusier’s emphasis on dispersion and Palladio’s on centrality can be defined as viable and coherent options within a larger paradigm - and by which derivative bad copies can be dismissed as falling too far from the proper model.

Such an extension of this model of repetition as a pedagogical project - the intellectual underpinnings of which were largely provided by the “Chicago Frame” and “Transparency” essays - would become officially instituted at the University of Texas in Austin in 1954 with a memorandum ghost-written for Dean Harwell Hamilton Harris by Rowe and Bernard Hoelsli.<sup>10</sup> And it is from this curricular framework

that, initially in the studios of John Hejduk, the nine-square problem would emerge as perhaps the most durable and widespread beginning design problem in the postwar period.<sup>11</sup> The elegance and ingenuity of this problem lay in the way it consolidated a series of discourses and demands. Thus, while the technical preconditions that would allow modern architecture to refound itself exclusively on the twin bases of *structure* and *space* had existed for almost a hundred years, the aesthetic, philosophical, and intellectual sources - i.e., the unique combination of cubism, liberalism, gestalt psychology, and the new criticism, with a renewed understanding of mannerist organizing geometries - would not be consolidated as an articulate assemblage until the 1950s, when it would provide a new disciplinary foundation for high modern (or mannerist modern) architectural design and pedagogy. As an educational device, the nine-square problem emerged from a collapse of two modern diagrams - Le Corbusier’s domino (*structure*) with van Doesburg’s axonometrics (*space*) - filtered through the reductive planimetric logic hypostatized by Wittkower as Palladio’s “twelfth villa.” What this problem provided was a *discipline* for modern architecture, a perverse and clever argument for a rhetorical capacity against those who would understand modern architecture as simply the literal addition of constructional systems and programmatic requirements. Further, it assumed a *language* of architecture founded on the articulation of a series of dialectics (center and periphery, vertical and horizontal, inside and outside, frontality and rotation, solid and void, point and plane, etc.), a logic of contradiction and ambiguity. And it is largely to the lessons issuing from Analytic and Synthetic Cubism (and the compositional models of collage emanating from the latter) that Rowe continues to return in his pictorial rendering of the language of modern architecture, an optical bias present even in his assessment of the work of the Five:

*[I]t might be more reasonable and more modest to recognize that, in the opening years of this century, great revolutions in thought occurred and that then profound visual discoveries resulted, that these are still unexplained, and that rather than assume intrinsic change to be the prerogative of every generation, it might be more useful to recognize that certain changes are so enormous as to impose*

8. Colin Rowe, *Five Architects* (New York: Oxford University Press, 1975), p. 8.

9. Rowe, “The Mathematics of the Ideal Villa,” p. 16.

10. For a detailed history of this program from an “insider,” see Alexander Caragone’s *Texas Rangers: Notes from an Architectural Underground* (Cambridge: MIT Press, 1995).

11. This studio problem was paralleled in Hejduk’s personal work with his seven “Texas Houses,” a series begun in 1954 and later dedicated to Rowe and Robert Slutzky. See John Hejduk, *Mask of Medusa* (New York: Rizzoli, 1985), p. 197 and pp. 222-37.

*a directive which cannot be resolved in any individual life span. ...It concerns the plastic and spatial inventions of Cubism and the proposition that, whatever may be said about these, they possess an eloquence and a flexibility which continues now to be as overwhelming, as it was then.*<sup>12</sup>

12. Rowe, *Five Architects*, p. 7.

This “flexibility” of Cubism and collage provides an institutional and disciplinary basis for architecture beginning with Rowe, while the diverse series of ideal villas and collage cities that derive from this tradition represent a sustained reflection on the form and content of individual and collective arrangements and an investigation into varied compositional and associative laws in the relation of part-to-whole.

In their dispute with this formalist reconstruction of postwar modernism, the subject of Hejduk’s and Eisenman’s “anxious influence,” to borrow Harold Bloom’s model, was first and foremost a strong critic rather than a strong poet. In other words, all of their productive misreadings of modernist European predecessors can be understood as a “swerve” within and against the production of Rowe’s formalism, and it is this swerve that allows them to develop other possibilities suppressed within that tradition. In this way, one can read characters from Hejduk’s *Vladivostok* or Eisenman’s typological field studies from the Rebstockpark Competition as perverse extensions of the gestalt diagrams Rowe and Slutzky used in their second “Transparency” article from 1956. While miming Rowe’s sources, however, the projects of Hejduk and Eisenman simultaneously subvert the values of transparency, verticality, opticality, and figure-ground definition that the diagrams were initially rostered to support.

Whereas the separation of space and structure in the nine-square problem enabled one to articulate formal-plastic relations, the disengagement of the sign from the box in Venturi’s “decorated shed” ultimately suggested that these manipulations were unnecessary, as all such relations would be consumed by surface noise. While Rowe and company attempted to replace the neutral, homogenous conception of modernist *space* with the positive figuration of *form*, the neo-avant-garde began to question the stability of form through understanding

it as a fictional construct, a *sign*. This semiotic critique would register that form was not a purely visual-optical phenomenon, not “neutral,” but constructed by linguistic and institutional relations. Assuming multiple directions, this agenda was first broached in Venturi’s particular deployment of a collage practice that was not merely compositional but which would include both text as well as “low” or base references (specific iconic representations). Subsequently, Eisenman’s deviation of form would move not to information or the sign (as did Venturi’s), but to the trace, the missing index of formal processes (thus stressing absence and the conceptual). At the same time, Hejduk would investigate the theatrical construction of form through highly orchestrated relations and instructions, both linguistic and contractual (i.e., the symbolic). Thus, this three-pronged critique would variously foreground *context* (the framing mechanisms outside form); *process* (the active procedures within formation); and *usage* (form’s relation to a subject). With the neo-avant-garde, then, *form* would be precisely subjected to the functions of its linguistic descendants: *informing*, *transforming*, and *performing*.

For his part, Eisenman develops one of his earliest and most extensive analyses of form by rewriting two structures by the Italian architect Giuseppe Terragni - the Casa del Fascio and the Casa Giuliani-Frigerio - having first encountered this work in the summer of 1961 when he traveled to Como with Rowe. Previous to Eisenman’s writings on Terragni, in the late 1950s and early 1960s, Rowe had already developed the terms for a high formalist interpretation of modern architecture, primarily through his elaborate readings of Le Corbusier. Eisenman’s contribution to that discourse would be to suspend formal analysis on a structuralist base, a seemingly slight shift in emphasis that would ultimately undermine the way American formalism had institutionalized modernism in the postwar context. In other words, Eisenman was able to transform the discourse from within by appropriating the term “formalism” and deploying it to register the more polemical idea of “work on language” in the Russian formalist sense. This move began to displace the aestheticization of the unique art work that accompanied the Anglo-American version of formalism present in the work of the New Critics,

Clement Greenberg, and even Rowe. More generally, Eisenman's project has always entailed a return to the critical aspects of the historical avant-garde, aspects that had been repressed in theory and practice precisely through the formalist reconstruction of modernism after the war. As Eisenman wrote in one of his early essays on Terragni - indicating his intent to use these strategies as prescriptive design tools - "while formal analysis is a valuable art-historical method, in itself it can become merely descriptive - an exercise in intellectual gymnastics."<sup>13</sup> Not only was the history of fore rewritten, but Eisenman would subject "form" itself to perpetual revision through an exhaustive sequence of operations: transformation, decomposition, grafting, scaling, rotation, inversion, superposition, shifting, folding, etc. And it is the catalogue of these procedures that becomes the subject matter of architecture, a disciplinary precondition to a diagrammatic approach. Through an extreme logic, Eisenman engaged in a critique both *through* and *of* calculation (or mathematics) in the alternate senses of both Rowe's ideal geometries and Christopher Alexander's "goodness of fit."

By 1970 Eisenman would distinguish the practices of Corbusier and Terragni (and, indirectly, Rowe's formalism from his own) by incorporating terminology from the structural linguistics of Noam Chomsky. While Corbusier's architecture remains committed to creating new meaning through iconography, through the *semantics* of the object, Eisenman claims that Terragni's work is concerned with revealing a *syntactics* of the architectural language. This shift represents a move away from a concern with the *perceptual-aesthetic* qualities of the object toward an attempt to mark the *conceptual relationships* that underlie and make possible any (and every) particular formal arrangement. Thus, Terragni's work is said to mark the relationship between "surface structure" and "deep structure" through transformational methods that Eisenman attempts to disclose via a series of axonometric diagrams and projections. It should be noted here that the axonometric technique (or parallel projection) was one of the historical avant-garde devices recuperated by this generation, especially Eisenman and Hejduk.<sup>14</sup> In contrast to the other dominant mode of three-dimensional drawing, the central projection or perspective of

Renaissance humanism, the axonometric favors the autonomy of the object by conveying measurable or objective information over the distortion created by a vanishing point oriented to the viewing subject. Where Rowe's analyses were undertaken separately in plan and elevation, the axonometric simultaneously renders plan, section, and elevation, thus again collapsing the vertical and horizontal - an act that has been noted earlier, for example, as one aspiration of Venturi's Billdingboard. Moreover, unlike Corbusier's "regulating lines" - geometric descriptions appended to their objects after construction - the three-dimensional device of the axonometric enables analysis and object to become congruent.

Through his axonometric diagrams, Eisenman argues that Terragni develops a conceptual ambiguity by superimposing two conceptions of space - additive/layered and subtractive/volumetric - neither of which is dominant, but each of which oscillates with the other indefinitely. The effect of this dual reading is not primarily aesthetic, but operates as an index of a deep structure: that is, it investigates and makes apparent the possibilities and limitations of the architectural language itself. Eisenman's attention to form, then, can be seen as a means to advance this transformational method as both an analytic and synthetic design tool. It is an attempt to fulfill the historical avant-garde program of a temporal and spatial movement or dislocation that precludes any static contemplation of the high-art object. In this way, Eisenman's "drawing on modernism," the diagrammatic supplements of his American graffiti, places the architectural object under erasure and initiates the process of its disappearance.

Contemporaneously with the critical-historical work on Terragni, Eisenman was beginning a series of architectural projects that would develop many of the transformational strategies he was "finding" in his analysis of the modern canon. The serially numbered transformational diagrams for Houses I and II, like the retrospective diagrams created for Terragni's work, suggest that the "final" built structures are merely indexical signs that point to a larger process of which they are only a part. Not only is movement generated across the series of individual frames - for the whole process most resembles a cinematic operation with its montage

13. Peter Eisenman, "From Object to Relationship II: Giuseppe Terragni's Casa Giuliani Frigerio," *Perspecta* 13/14 (1971), p. 41.

14. While widely deployed by the modernist avant-gardes of the 1920s and 1930s, the axonometric projection virtually disappeared as a graphic tool until the late 1950s, being eschewed by those attempting to mimic more pictorial and static media in the postwar reconstruction of high modernism. Rowe and Johnson, for example, have explicitly come out against the effects of "floating," "rotation," and "the diagonal" associated with the isometric or axonometric. It will be suggested later that Eisenman does not recuperate the axonometric simply as a representational tool, but as a design tool, using its characteristics as a generative device. For a historical discussion of the axonometric, see Yve-Alain Bois, "El Lissitzky: Radical Reversibility," *Art in America* (April 1988), pp. 160-80, and "Metamorphosis of Axonometry," *Daidalos* 1 (1981), pp. 40-58, as well as Robin Evans, "Architectural Projection," *Architecture and its Image*, eds. Eve Blau and Edward Kaufman (Montreal: Canadian Centre for Architecture, 1989), pp. 19-35.

of stills - but, given the nature of axonometric projection (exaggerated here by being rendered transparently or as a wire frame), there is also constant oscillation and reversible movement within each diagram: the observer is now inside, now outside: now under, now over. Recalling the new hybrid role of the architect-critic, this effect suggests the coincidence and complicity between "internal" formal condition and "external" construction of subjectivity. In addition to the transformational process effacing the object, this process also begins to displace the subject (as both designer and client) since the remaining architectural index is no longer dependent on the iconography or functions of man. This relates to Eisenman's argument that modern architecture was never sufficiently *modernist* due to its functionalism, that it amounted to nothing more than "a late phase of humanism."<sup>15</sup> Shifting architecture from a formal to a structuralist base, or from an iconic or semantic to an indexical or syntactic one, would enable architecture to finally register the insights of the modernist avant-gardes, an account which suspends classical-humanism's centrality of the subject and proposes architecture as "the abstract mediation between pre-existent sign systems,"<sup>16</sup> or, as he would write later of Corbusier's domino, as a "self-referential sign".

In displacing the author-subject (and, ultimately, the static object), Eisenman's early "cardboard" or "conceptual" architecture was designed "to shift the primary focus from the sensual aspects of objects to the universal aspects of object" and "to investigate the nature of what has been called formal universals which are inherent in any form of formal construct"<sup>17</sup> Eisenman's investigations thus required an initial ideal or generic form, which he often located in the cube, a neutral box that was typically (and somewhat less neutrally) designated as a nine-square. Unlike the initial premises of the nine-square problem as articulated in Austin (and as continued in Hejduk's private research into the theme through his seven Texas Houses from 1954-63), Eisenman does not privilege "space" (of the van Doesberg variety) is the dominant dynamic element to be read against the stasis of structure (of the Domino type). Instead, in House II (1969), for example, multiple traces of column and wall systems are registered, traces which provide the overall spatial effects of the project. Thus, the activation of the

structural grid or frame engenders the spatial event of the object - a kind of objectification of the structure, similar to Eisenman's association of architecture more with the *study* of language than with language itself. This tactic will reappear in the later work when there is a becoming-figure of the structure (see, for example, the Aronoff Center) or a mannerism of the grid which will finally manifest itself through the organization of the fold (e.g., Rebstockpark).

In House VI (1973-76), the classical nine-square organization initially deployed in the earlier houses comes to be seen as a uioere modernist four-square, an organization that will become more evident in the subsequent houses. Across the entire series of projects, however, Eisenman works within the strictures of the high modern diagram only to undo its fundamental principles and values, subverting the classical-humanist logic of the nine-square. In other words, Rowe's mannerist-modern conception of form as the relation of *space* and structure is now understood as the more provisional outcome of *time* and *movement*. In House VI specifically, the facades are no longer the primary vertical data for the reading of phenomenal transparencies, but are pushed to the interior such that the periphery now crosses at the center of the structure. Floating above the ground with no visible entry, it is a house which for all practical purposes could be upside down and inside out. Here, the value of frontality that had accompanied the flat, pictorial associations of plan and elevation in the writings and analyses of Rowe and Slutzky is undermined by the temporal and cinematic displacements provided by the axonometric. With Eisenman, the nine-square is no longer thought through the logic of painting, but through film, and it is this conception that enables it to exist as simultaneously experience and representation.

*House VI...exists as both an object and a kind of cinematic manifestation of the transformational process, with frames from the idea of a film being independently perceptible within the house. Thus the object not only became the end result of its own generative history but retained this history, serving as a complete record of it, process and product beginning to become interchangeable.*<sup>18</sup>

15. Peter Eisenman, "Post-Functionalism," *Oppositions* 6 (Fall 1976), p. ii (unnumbered).

16. Eisenman, "Post-Functionalism" p. iii (unnumbered).

17. Peter Eisenman, "Notes on Conceptual Architecture," *Casabella* 359/360 (1971), p. 55. For an earlier though similar formulation, see "Towards an Understanding of Form in Architecture," *Architectural Design* (October 1963), pp. 457-58.

18. Peter Eisenman, "Misreading Peter Eisenman," *Houses of Cards* (New York: Oxford University Press, 1987), pp. 178 and 181. See also Peter Eisenman, "House VI," *Progressive Architecture* (June 1977), p. 59: "[T]he designs for House VI are symbiotic with its reality; the house is not an object in the traditional sense - that is the end result of a process - but more accurately a record of a process. The house, like the set of diagrammatic transformations on which its design is based, is a series of film stills composed in time and space." For more on the idea of architecture as document, see Venturi's similar discussion of the wall in *Complexity and Contradiction in Architecture*.

Described through serially arranged axonometric diagrams, Eisenman's houses are conceived as part of a cinematic movement, arbitrary stills translated into three dimensions from a potentially endless series.

Whether understood is a move from ambiguity to undecidability or from binary oppositions to micromultiplicities, Eisenman's more recent work insists upon a surface reading that questions the possibility of the embodiment of meaning, and seems to operate only as an endless chain of conjunctions - *and, and, and...* - one thing after the other. There is here a literal repetition (like that eschewed in Rowe's dismissal of the Bauhaus or in Michael Fried's rejection of minimalism) that wagers on the chance for an other condition to emerge through the machinic (in a broadly bio-mechanical sense) process of iteration. In fact, the projects that have been evolving since the Wexner Center cannot really be discussed as "works" or "objects" or "forms" or even "structures" - all these terms being too aesthetic or technical, too well demarcated and defined. Rather, they really seem to be just "things," with all the formless and transformative possibilities of the monstrous and grotesque that the term implies. These recent rhizome-worm "things" seem to frustrate and defeat formal analysis and indicate a transition from the clear structuralism of the early Roland Barthes to the base materialism of Georges Bataille, theorist of the excess. In his dictionary-like entry on the term *formless*, Bataille writes that "what it designates has no rights and gets itself squashed everywhere, like a spider or an earth-worm."<sup>19</sup> In the post-vermiform projects since the Columbus Convention Center, the theoretical investigation of form has increasingly moved to an embrace of the *informe*, or a condition that Eisenman and his colleagues have referred to as "weak form."

For Eisenman, architecture - unlike writing - must struggle against its literal presence, which has traditionally been reinforced by the icons of "strong form." To articulate this non-dialectical condition between presence and absence, Eisenman posits the term "presentness" as one possibility for a "weak" practice, the hazard of architecture as event. While both he and Michael Fried are opposed to literal presence, Eisenman's use of the term must

be distinguished from Fried's usage of the concept. For Fried, presentness implies a bounded object of depth and plenitude, the quality of which is instantaneously self-evident such that it induces immediate faith and conviction. In this way, Eisenman's use has more in common with the perpetual reframing and temporal limitlessness of minimalist work that Fried was arguing against. In fact, minimalism operates precisely in a *diagrammatic* manner in that it solicits and undermines a key opposition of formalist modernism - namely, that between painting and sculpture - as it can be seen as emerging in response to developments in either medium (which, of course, would be impossible from the high modernist dicta of medium specificity and boundary maintenance). Finally, whereas Fried's "presentness" relies on a condition of timelessness, Eisenman's is involved with the state of "singularity" - i.e., a specific moment in a phase transition where diverse forces acting on matter induce the emergence of unforeseeable traits.

An early form of this singularity can be glimpsed in a project like the Rebstockpark proposal for the development of 200,000 square meters of offices and housing in Frankfurt (1991), an urban analog to the cinematic chronography of Alain Resnais and Robbe-Grillet's *Last Year at Marienbad*. Here, the between-condition of presentness requires a consideration of the arbitrary, the accidental. Rather than a narrative (strong-time) succession of presents (as, perhaps, represented in the Wexner Center), these event-folds inhabit "peaks of present," where there is a coexistence of a present of the future, a present of the present, and a present of the past. In describing the time-image found in the work of Robbe-Grillet, Gilles Deleuze writes:

*An accident is about to happen, it happens, it has happened; but equally it is at the same time that it will take place, has already taken place and is in the process of taking place; so that, before taking place, it has not taken place, and, taking place, will not take place...etc.*<sup>20</sup>

In the undecidability of whether the Rebstock site has contracted to absorb a neutral exterior net or is in the process of expanding to unfold its information across a larger area, the project offers an urban version of peeks at presentness, similar

19. Georges Bataille. "Formless," in *Visions of Excess: Selected Writings, 1927-1939* (Minneapolis: University of Minnesota Press, 1985), p. 31.

20. Gilles Deleuze, *Cinema 2: The Time-Image* (Minneapolis: University of Minnesota Press, 1989), p. 100.

to the literary and cinematic visions of Robbe-Grillet and the mathematical models of Rene Thom. In both large - and small - scale episodes there is a multiplication of tenses: already folded, folding, not yet folded. Beginning with Rebstock - and continuing through the Church for the Year 2000, Bibliothèque de L'IHUEI, the Virtual House, and the IIT Campus Center - the "movement-image" of the earlier projects (where the diagram was limited to a linear unfolding of time, the recuperation of a genealogy for the work, such that time existed as a

Muybridge-like dependent-variable of movement) has been displaced by a "time-image." Curiously, as intensified field conditions rather than distorted generics or ideals, these projects resemble more Rowe's denigrated diagram, "program without plan," than they do "plan without program."

In distinguishing "the event" from a narrative sequence organized by plot, John Rajchman maintains that it is "a moment of erosion, collapse, questioning, or problematization of the very assumptions of the setting within which a drama may take place, occasioning the chance or possibility of another, different setting."<sup>21</sup> Events are not in themselves accidental so much as the fact that their occurrence engenders the realization that what has been taken to be the necessary and natural is accidental. The Rebstock project directs an architectural "event," a manifestation of "weak time," to the extent that it elicits an active reframing of typology, context, function, and archaeology. Neither historicist nor progressive - and therefore other than the category of the possible - this kind of time can be thought of as "virtual," that which is merely an historical impossibility, not a logical or necessary one. As an investigation of the virtual, the Rebstock proposal performs an experimentation rather than an interpretation. And it is through this experimental quality - presentness as the untimely or singular - that the scheme projects a "virtual reality." It is from this point that it might be possible to begin an evaluation of the fold in Eisenman's most recent work, for the fold is precisely a map of the event, a geometric description of the unexpected, *a diagram of the virtual*.

Certainly, in the trajectory from Venturi's Billdingboard to Eisenman's mannered

manipulation of the axonometric evidenced in House X and Fin d'Ou T Hou S, the fold is perhaps the most advanced and economical device for collapsing vertical and horizontal, reversing inside and out. As an emblem for the hybrid activities of the architect-critics (and their privileged *métier* of paper), the fold is simply the shortest distance between two disciplines, two incommensurate discourses. As a figure, the fold immediately indexes a process, an activity. Unlike the secondary transformation or decomposition of an ideal or generic form such as the cube, a fold is at once a thing and its process. It is the *operation* of folding that generates the form, before which the thing simply did not exist. In this way the fold is not a mere *distortion* of or *opposition to* a clear formal type (e.g., as with the erosion of a cube), but evinces a repetition that produces something entirely new, an emergent organization that, in its most successful actualizations, is not simply dismissible as a "fallen" or debased ideal.

For Eisenman, then, the instrumentalization of the fold - translating this operational figure into a technique now made available to the repertoire of architectural production - resolved many of the dilemmas (and incompatibilities) internal to the two phases of his earlier work. In other words, while the house series developed through the manipulations of internal structure, the archaeological projects were engendered by the external contingencies of the contextual field. In addition to providing a means to negotiate the relations between the internal frame structure and the external urban grid, the fold enabled the development of figural effects (which had been precluded by the earlier house processes) as well as complex sections (which were hindered by the plan orientation of the larger scale archaeological work). Moreover, since the *informe* is not simply the negation of form, but a more complex maintenance and subversion of it, the fold allowed a relaxation of homogenous or hierarchical organizations without completely abandoning a geometric rigor or discipline. Given that the fold exists as one aspect of an alternative (or topological) mathematics, in this way, too, it promises to overcome not only the formalism of Rowe's classical mathematics but also a faith in the efficient functionality of Alexander's cybernetic version. In

21. John Rajchman, *Philosophical Events: Essays of the '80s* (New York: Columbia University Press, 1991), p. viii.

the movement from structuralist forms to textual grafts to folded singularities, Eisenman has provided a coherent program for the dual project of dismantling the classical-modernist object and the liberal-humanist subject. While the house series focused on *process* as a way to displace the designer as an authoring agent, the archaeological projects (from Cannaregio to Wexner) sought new definitions of *context* that would destabilize the static identity of place. As a continuation of these reconfigurations of *process* and *context*, the folded projects have added a concern with *section* as a critique of the planimetric decidability of typology, which tends to contain objects through a limited logic of extrusion.

For the two decades following its introduction in 1957, the nine-square served as the discipline's formal introduction to itself, establishing the discourse on space and structure, and providing a series of solution sets through the allied design research of Hejduk, Eisenman, and others. In advanced academic and professional contexts after 1974, however, that epistemology of space was rapidly replaced by a pragmatics of force, such that the high modern diagram of the nine-square - which had served the formal purposes of the first generation's semiotic critique - came to be supplanted by a very different kind of diagram, a diagram that took its historical form in the discussions of "panopticism" by Michel Foucault and Deleuze. For these thinkers, panopticism exists as *the* diagram of modern disciplinary societies, one which underlies multiple institutional types (prisons, hospitals, schools, factories, barracks, etc.), and one that can be most abstractly characterized by the attempt "to impose a particular conduct on a particular human multiplicity."<sup>22</sup> Not since Piranesi have prisons provided such an opportunity for extreme architectural speculation, and soon after Rem Koolhaas's "Exodus" project, he and his Office for Metropolitan Architecture (OMA) had the chance to engage directly the panoptic diagram in a design study for the renovation of Koepel Prison in Arnheim (1979-81), originally built according to Jeremy Bentham's principles in 1787. Rather than attempting to formalize any current (but soon to be obsolete) vision of prison management, OMA proposes in a sense to stage various diagrams of power:

*If prison architecture today can no longer pretend to embody an "ideal," it could regain credibility by introducing the theme of revision as raison d'être. A modern prison architecture would consist of a prospective archaeology, constantly projecting new layers of "civilization" on old systems of supervision. The sum of modifications would reflect the never-ending evolution of systems of discipline.*<sup>23</sup>

Thus, the importance of the lesson of panopticism is not simply to appropriate that figure as the new organizational system, but generally to understand (and configure) society as a plastic entity, susceptible to multiple (virtual) diagrams and possibilities for arrangement.

Having identified this connotative shift in the way in which the diagram has become instrumentalized in architecture over the last few decades, however, one should not mistake this transition for some essential opposition. Despite the posturing by several critics and architects alike, Koolhaas and Eisenman, for example, have much more in common with each other than either the former has with Jon Jerde or the latter has with Frank Gehry. Working diagrammatically - not to be confused with simply working with diagrams - implies a particular orientation, one which displays at once both a social *and* a disciplinary project. And it enacts this possibility not by representing a particular condition, but by subverting dominant oppositions and hierarchies currently constitutive of the discourse. Diagrammatic work, then (and this includes the projects of Eisenman and Koolhaas), cannot be accounted for by reapplying the conventional categories of formal or functional, critical or complicit. It operates as an alternative to earlier attempts to put "architecture" in quotation marks (the compensatory or affirmative sign of postmodernism) or append a "kick me" sign to its back (the apparently critical gesture of early deconstructivism now institutionalized in a few Ph.D. programs throughout the country). Diagrammatic work is projective in that it opens new (or, more accurately, "virtual") territories for practice, in much the way that Deleuze describes the diagrammatic painting of Francis Bacon as overcoming the optical bias of abstract art as well as the manual gestuality of action painting:

22. Gilles Deleuze, *Foucault* (Minneapolis: University of Minnesota Press, 1988), p. 34. For Foucault's discussion, see *Discipline and Punish* (New York: Pantheon, 1977), originally published as *Surveiller et punir* (Paris: Gallimard, 1975), and "The Eye of Power," in *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*, ed. Colin Gordon (New York: Pantheon, 1980).

23. Rem Koolhaas, "Revision," in *S,M,L,XL* (New York: Monacelli Press, 1996), p. 241.

*A Sahara, a rhinoceros skin, this is the diagram suddenly stretched out. It is like a catastrophe happening unexpectedly to the canvas, inside figurative or probabilistic data. It is like the emergence of another world....The diagram is the possibility of fact - it is not the fact itself.*<sup>24</sup>

24. Gilles Deleuze, "The Diagram," in *The Deleuze Reader*, Constantin V. Boundas, ed. (New York: Columbia University Press, 1993), pp. 194, 199.

This "emergence of another world" is precisely what the diagram diagrams. This begins to explain why, almost alone among those of their respective generations, both Eisenman and Koolhaas - teachers and critics as well as designers - persistently and curiously eschew *design* (and, along with it, that post-Renaissance trajectory of architecture obsessed with drawing, representation, and composition). This diagrammatic alternative can be seen initially in Eisenman's process automatism and, more recently, in Koolhaas's statistical research: complementary attempts to supplant design with the diagram, to deliver form without beauty and function without efficiency.

A diagrammatic practice (flowing around obstacles yet resisting nothing) - as opposed to the tectonic vision of architecture as the legible sign of construction (which is intended to resist its potential status as either commodity or cultural speculation) - multiplies signifying processes (technological as well as linguistic) within a plenum of matter, recognizing signs as complicit in the construction

of specific social machines. The role of the architect in this model is dissipated, as he or she becomes an organizer and channeler of information, since rather than being limited to the decidedly vertical - the control and resistance of gravity, a calculation of statics and load - "forces" emerge as horizontal and nonspecific (economic, political, cultural, local, and global). And it is by means of the diagram that these new matters and activities - along with their diverse ecologies and multiplicities - can be made visible and related. Against some of the more currently naive extensions to the legacies of Eisenman and Koolhaas, it is thus important to avoid confining a diagrammatic approach to architecture as the expression of either presumed bio-mathematical imperatives or socio-economic inevitabilities, and understand architecture rather as a discursive-material field of cultural-political plasticity. To do otherwise would be to return to the inadequately diagrammatic options first outlined by Rowe (in terms of formal or analytical "truth") and Alexander (operational or synthetic "truth"). And it would also be to miss the virtual opportunities instigated by the design-research Eisenman has conducted for the last thirty years, simply (and brutally) collected here as a catalogue of procedures ("functions" or "tensors"), an architecture that has come to deviate from a *priori* geometry as well as from social accommodation in favor of Bacon's "possibilities of fact."