

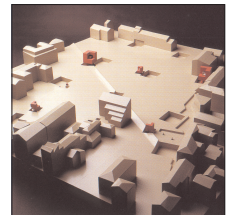
Parallel to these series of house projects, Eisenman also got involved in a series of bigger public projects—on invitation or within the context of competitions. In these projects he is more directly confronted with the specific requirements of the context, the site and the city. Within the context of those new architectural opportunities, Eisenman starts to experiment with a series of new formal strategies, which are usually associated with the notion of ‘artificial excavation,’ and he begins to reflect on the theoretical implications of those new formal strategies. Of course, many of those new formal and theoretical considerations are colored by the particular architectural climate of the late seventies and early eighties, which is characterized by a heated debate on the question of how to deal with the urban, historical and modernist context.

In this new series of projects, the design process is not anymore derived from a reflection on the internal dynamics of architectural processes and elements—like in the earlier processes of transformation and decomposition—but from a reflection on the external considerations (like the site, the context or the city) which are used as an artificial and arbitrary motivation for the design process.

In a nutshell, one could say that this strategy of ‘artificial excavation’ is based on the superposition, scaling and grafting of artificial figures. The idea behind this strategy is that the design process is derived from an analogous and textual reading of the project and the site, which is conceived as a deeply scored palimpsest with different textual layers. The architectural forms are not anymore derived from the transformation or decomposition of an ideal form like the cube or the el-form, but resulting from the superposition and scaling of artificial figures which are derived from the architectural, urban, archeological or topographic texture of the project. The artificial figures are first abstracted from their initial context, in the form of elements (like buildings, urban blocs, city walls, rivers etc.), grids (f.i. site and city grids) or maps (city or regional maps). These figures are then copied and scaled in different sizes, shapes and materiality, superposed upon or subtracted from each other and then imprinted or extruded on the surface of the site. Usually the figures are first projected as two-dimensional figures on the surface of the site, and then extruded or imprinted. It however also happens that tri-dimensional figures are literally replicated from the site or grafted from other architectural projects.

Many of these new techniques were introduced in the Cannaregio Project (1978), which is the first project to deal with the specific context of the site, which is conceived as a conceptual datum on its own.<sup>62</sup> The site is treated as a topological skin or surface that can be stretched and

*concept*



Cannaregio\_1978  
model

*projects*



**Cannaregio\_1978**  
Le Corbusier's Venice Hospital



**IBA Berlin\_1983-85**  
frontview



**Wexner Center\_1983-89**  
armory tower



**Romeo and Juliet\_1985**  
scaling of castles

imprinted, with multiple textual layers which are referring to the memory of the past, the present and the future.<sup>63</sup> The different textual layers are obtained by marking the ground with a series of grid-imprints, which are derived from external grid patterns (like Le Corbusier's plan for a Hospital in Venice) or by the impact of different *el*-forms on the ground. In these imprinted molds, Eisenman drops a series of variations on House 11A, in different scales and combinations, which are placed half underground, half above ground. The Cannaregio project is the first project which is derived from an analogous and textual reading of the site and which is designed by processing external artificial figures (like Le Corbusier's project or Eisenman's own project for House 11A). Yet, the resulting imprints are still remaining within the abstract vocabulary of the earlier cubes and *el*-forms, which means that the real potential of artificial figures and processes are only evocated in principle, rather than formulated as a distinct formal strategy on its own.

This happens in his next competition entry for a social housing project (I.B.A. Berlin, 1981-85), which Eisenman describes as a 'City of artificial excavation'. In this project, he uses the universal Mercator grid as an artificial tool of excavation, superposition and substitution.<sup>64</sup> The novelty in this project is that Eisenman begins to work with imprints and extrusions of grids, which are scaled and superposed upon each other: yet, the building volumes are still derived from the abstract figures of the *el*-shapes.

With the Wexner Center (1983-89), a winning entry for a museum competition in Columbus (Ohio), Eisenman starts from the superposition of different grids and maps (from the campus, the city and the state of Ohio) which are misaligned in relation to each other. The building, which is squeezed between two existing buildings, is characterized by its giant white scaffolding structure, a corridor which accommodates the new art facilities, and by the prominent presence of the rebuilt Armory, which is artificially *de/reconstructed* with fragments of the former 19th C. Armory. Thanks to these emblematic attributes, the building will later become one of the famous icons of Deconstructivism (London, 1988). Yet, the real strategic potential of the 'artificial excavation' will only be demonstrated with the following series of projects—the Romeo and Juliet project (Verona, 1985), the Via Flaminia project (Rome, 1986), the Long Beach University Art Museum (1986) and the project for the park of La Villette (1986)—when the artificial figures are not only derived from the abstract form of geometric figures (like grids and maps), but also from the figurative shape of architectural, urban and geographic elements (like buildings, rivers or street fragments). In these projects, the fictional and textual dimension is much more explicit than in the previous projects, so much that, in the case of the Romeo and Juliet project for instance, Eisenman is actually conceiving his project as a fictional text in which different fictional elements (like Romeo's castle or Juliet's house) are transposed in the historical site of Verona, in

analogy with three different versions of the Romeo and Juliet story.<sup>65</sup> The architectural program of the Long Beach project (1986) is also based on a similar fictional invention, which simulates three different moments of the history of the building (in 1849, 1949 and 2049).

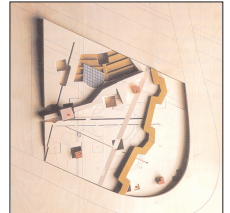
With this new strategy of 'artificial excavation', Eisenman introduces a series of innovations, which will have a crucial impact on the further development of his work. First of all, it proposes an alternative formal strategy in which both the site and the building are conceptualized and formalized, which offers the possibility to play on the dynamic relationships between site and building. The site is now conceptualized as a topological surface (or 'palimpsest') with multiple layers which can be formalized in a similar way as the building project. It can be submitted to a similar kind of formal processes, such as imprints, extrusions, superposition, scaling etc. This creates a situation in which it becomes difficult to distinguish the figure (of the building) from the ground (of the site). Instead of the traditional opposition between figure and ground, there is now a situation of fluctuation between figures which Eisenman describes as a figure-figure relationship (Romeo and Juliet, 86/1). The second important innovation is the fact that the basic volume is not anymore defined according to the inner formal logic of an ideal 'form'—like the cube or the el-form—but according to an artificial and arbitrary 'figure.' This shift from ideal form to artificial figure is crucial for the further development of Eisenman's work, because it allows him to break with the ideal and transcendental origins of the cube, and, more fundamentally, because it eradicates the problem of the ideal form at its very (metaphysical) origins. The figures are now conceived as fictional and rhetorical figures with arbitrary and artificial origins. One of the advantages of this break with the cubic format is the fact that it opens the way for the use of less compelling forms, like blocks and bars, which will become the dominant basic formats in the late eighties and nineties. One disadvantage of the artificial figure though—and of the process of 'artificial excavation' in general—is that the processes of extrusion or imprint are actually reinforcing the figurative and narrative character of the figures and grafts, even if this narrative aspect is meant to be counteracted by the redundant and self-similar character of the superposed/scaled figures. This could explain, why, in the late eighties and nineties, the artificial figures are not anymore extruded or imprinted, but used as flat diagrams that are projected, folded or animated. Another difficulty of the artificial figure is that its irregular and complex forms are not always easy to use within the regular conditions of architectural design, and that it can hardly be used as a generic design module, which, again, explains the use of more pragmatic volumes like blocks and bars in the nineties.

A final innovation is related to the external and textual character of the processes of superposition, scaling and grafting. The design process is

assessment



Long Beach\_1986  
model



La Villette\_1986  
model

not anymore derived from a rationality that is internal to the architectural forms and processes, but based on an analogous and textual reading of external factors—like the site, the urban context, the concept or the history of the project.

By extending the scope of parameters of architectural design to other variables, like the site or the city, Eisenman is now able to deal with more pragmatic and contextual design requirements as well, but, above all, it gives him an opportunity to escape from the solipsistic development of earlier formal strategies, which are too much entangled within the internal discourse of formal abstraction.

*theoretical relevance*

On a deeper, more theoretical level, Eisenman is now also confronted with a series of new theoretical issues and challenges, which are resulting from the analogous and textual reading of the new urban, historical, temporal and spatial context, and, especially, from the dislocating character of the strategy of 'artificial excavation.' The idea behind this whole strategy of 'artificial excavation,' is that figures are first disconnected from their original historical, temporal and spatial context, and then reassembled in an entirely new (artificial and fictional) configuration, which is obtained by replicating, scaling and superposing these figures upon each other. Because the processes of superposition and scaling are based on the repetition of self-similar and analogous figures, Eisenman is able to create a condition of 'self-similarity' and 'recursivity', which dislocates the figures from their original condition (in terms of scale, representation, meaning, time, place and space).<sup>66</sup> The figures are now read as fictional and rhetorical figures, without any specific or original scale, form or meaning and without any specificity of place, time and space.

The superposition of figures from different historical, temporal and spatial background thus has a serious impact on the historical, spatial and temporal perception of architecture, the site or the city.

By making an analogous and textual reading of site and city—rather than a literal, contextual or historical one—Eisenman is able to redefine these very notions. The site is conceived as a fictional text of invention or as a deeply scored palimpsest with multiple textual layers from different times and places. In the 'City of Artificial Excavation', there are traces of previous memories and anti-memories, presences and absences: therefore, the city can be read as a city of memory, immanence and absence.<sup>67</sup> More generally, one could say that the process of 'artificial excavation' has an impact on the conception of such abstract concepts as place, time and history, which are now disconnected from the specific condition of the here and now, and considered in a more fluctuating, discontinuous and multiple manner. This brings Eisenman to consider time as a timeless condition, history as a discontinuous process made of presences and absences, or place as another 'place between' or '*atopia*.'

In fact, Eisenman starts to speak about the place, time and history of the city, in his writings on the work of A. Rossi (82/1), in which he particularly focused on Rossi's analogous interpretation of the city, its history, time and place. It is probable that Rossi's conception of the Analogous City ('*Città Analoga*')—and, with him, the whole theoretical discourse of the 'School of Venice'—have had a critical influence on Eisenman's own strategy of 'artificial excavation', and, more particularly, on his analogous reading of the urban, temporal and historical dimension of architecture.<sup>68</sup> On the other hand, Eisenman's Artificial Excavation can also be considered as a conceptual reply to the upcoming Post-Modern Architecture.<sup>69</sup>

## Architecture as text

6

Another important theoretical implication of the strategy of 'artificial excavation,' is that it is based on a textual reading of architecture. As such, this textual approach is not entirely new, since it can be situated in the continuity of earlier linguistic and syntactic investigations in the sixties and early seventies. Yet, contrary to Eisenman's earlier references to Chomsky's structuralist and linguistic model, this new textual approach is representative of a fundamental shift towards post-structuralism, since it is basically derived from the reception of French post-structuralist authors, like M. Foucault, J. Derrida, or, to a lesser extent R. Barthes and J. Baudrillard. Since Eisenman gradually discovered the work of these authors, and steadily improved his understanding of the underlying theoretical implications of post-structuralism for architecture, it is not easy to determine when this shift actually occurred. But one can reasonably assume that his writing on 'The End of the Classical, the End of the Beginning, the End of the End' (84/1) is the first theoretical text in which the philosophical potential of Foucault's and Derrida's writings is fully explored in relation to architecture.<sup>70</sup>

In this seminal text, his first theoretical statement since Post-Functionalism (76/1), Eisenman focuses on the epistemological conditions that have led to the crisis of modern architecture, and, more generally, of the architectural discourse as such. For Eisenman, modern architecture has, despite its stylistic and ideological rupture, not been able to radically break with the classical epistemic model of Renaissance architecture, because it still perpetuates the classical fictions of representation, reason and history. Since the Renaissance, architecture is remaining in a continuous mode of knowledge, that of the classical *episteme*. In order to escape from this classical epistemic model, Eisenman comes up with a different ('not-classical') approach towards architecture, in which architecture is not anymore defined in

*not-classical architecture*

relation to external values, origins or ideals (like representation, reason, history), but in relation to its intrinsic textual condition as difference. In his proposal for a 'not-classical architecture,' Eisenman conceives architecture as a text of difference, i.e. as a textual condition of writing, difference, fiction and dissimulation. This means that the objects are read as a system of relationships and traces rather than as an object. For Eisenman this 'architecture of difference' heralds the 'end of the classical', as it permits to unveil the fictions of representation, reason and history so characteristic for classical architecture. A 'not-classical architecture' therefore considers architecture as an independent discourse free from external values such as representation and meaning, reason and truth, history and time. It is timeless (without origins and ends), non-representational and arbitrary.(84/1)

The article on 'The End of the Classical' is more conceived as a general theoretical statement on the discursive condition of architecture, than as a specific design theory as such. Although there are no specific references to any architectural project in particular, there are some general references to architectural processes, such as decomposition and graft (which is here described as an artificial motivation for a process of modification), and, therefore, one could deduce that Eisenman's concept of 'not-classical architecture' could be associated with his own projects of decomposition and 'artificial excavation.'

The article on 'The End of the Classical' is crucial, because it fundamentally questions the rational and representational foundations of the classical model of discourse. In fact, Eisenman starts here from the theoretical premises of his earlier editorial on Post-Functionalism, in which he already stated that modern (functionalist) architecture has not really assimilated the cultural and epistemic shift towards modernism, as opposed to other artistic disciplines. In this article, though, Eisenman is making a much freer interpretation of Foucault's concept of *episteme*, since he is actually transposing Foucault's notion of the classical *episteme* (which occurred in the Classical Age, 17th Century) to the classical architecture of the Renaissance.<sup>71</sup> On the other hand, Eisenman is much more influenced by Derrida, when he is actually formulating his counter-proposal for a 'not-classical architecture', which he closely associates with Derrida's notions of text, writing, difference and deconstruction (among many others). The article is thus somehow caught between Foucault's (structuralist) argument on discourse, which influenced Eisenman's epistemic diagnosis of 'classical architecture', and Derrida's (post-structuralist) argument on textuality, which influenced his concept of a 'not-classical', textual architecture.



M. Foucault\_The Order of Things\_1973

"The *episteme* is not a form of knowledge or type of rationality...: it is the totality of relations that can be discovered, for a certain period, between the sciences when one analyzes them at the level of discursive regularities."

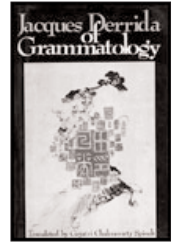
*Derrida's concepts of text and writing*

In the following years, Eisenman will have the opportunity to further elaborate some of the themes outlined in this article, especially Derrida's concepts of text (and writing), which will become one of the main theoretical concepts of the late eighties. Contrary to Eisenman's

earlier syntactical references, which have a clear structuralist and linguistic connotation, the notions of text and writing are symptomatic of a deeper philosophical and post-structuralist engagement, which mainly derives from Eisenman's reception of Derrida's early writings.

In order to fully understand the implications of Derrida's influence, it is perhaps useful to go back to some of his most known concepts (like writing, text, difference, absence, dislocation or deconstruction). Derrida considers writing as a constant process of deferral and differing (*différance*). In writing, as opposed to speech, the meaning of words is not immediately present (as for a spoken word), but constantly deferred: signs and texts are constantly bearing traces of other signs and texts. Therefore, a text is a place of the effaced trace: it is a play between presence and absence. It is constructed as a tissue or texture, with elements and traces from other texts. In the 'signified-signifier' relationship, the signified is originally and essentially 'trace': it is always already in the position of the signifier. Derrida's theory of writing is conceived as an indefinitely multiplied structure, which is driven by an indefinite process of supplementarity and differentiation ('*différance*').<sup>72</sup> Derrida states that the systematic subjection of writing under speaking is symptomatic for the Western metaphysical tradition, which is based on the 'metaphysics of presence': the problem of being has always been considered in terms of presence (the presence of speech, meaning, thought, truth, reason etc.), rather than in terms of absence and difference. As presence is already marked by absence and difference, the metaphysics of presence has to be deconstructed and dislocated. Deconstruction is not a form or critique, method or theory, but a way of dislocating the metaphysical and dialectical underpinnings of such concepts as identity, essence, being, truth or presence, which are usually conceived as binary oppositions. The work of deconstruction is based on a 'double movement' (or writing), which involves both the inversion of the classical hierarchical relationship and the emergence of a new, yet already present, concept.

From all those themes, the concept of text is, in Eisenman's own writings, perhaps the most emblematic of all, because it embodies many of those other philosophical principles (like difference, absence, dislocation, otherness, between etc.) that are so characteristic of Eisenman's new philosophical approach. When Eisenman defines architecture as a dislocating and textual condition of absence, difference and immanence, it is clear that he is referring to Derrida's own terminology. Even so, when he is stating that one of the goals of an 'architecture as text' is to dislocate architecture from its dialectical and metaphysical condition, i.e. from the 'metaphysics of presence and being'.<sup>73</sup> Yet, Eisenman's reception of Derrida is always tempered and motivated by a deeper concern for architecture's singularity. Contrary to philosophy or language, architecture has a real physical presence or 'objecthood' (i.e. architecture as bricks and mortar, shelter or structure) which can-



J. Derrida, 1974  
Of Grammatology



J. Derrida, 1978  
Writing and Difference

*Eisenman's  
concept of text*

not be outstripped. Therefore, Derrida's deconstruction cannot be directly applied to the field of architecture, because, in architecture, presence is necessarily physical—whereas Derrida's presence is specifically related to the metaphysical condition of being. In fact, Eisenman is modifying Derrida's interpretation of the presence-absence relationship, in order to make it comply with the specific (physical) condition of architecture. Derrida is actually reversing the traditional metaphysical relationship between presence and absence, by stating that presence (of being) is already marked by absence and difference. In a similar way, Eisenman is arguing that the presence (of architecture) is already contained by absence and difference, but in this case, the term presence is loaded with a specific physical connotation that is typical to architecture. In architecture, the textual logic of absence and difference is thus already contained within its presence and repressed by architecture's own 'metaphysics of presence'. Yet, it is precisely this textual condition of 'absence in presence' which enables us to dislocate the metaphysical dialectics of architectural conventions. For Eisenman, architecture can thus be considered as a paradoxical condition of presence and absence, object and sign, physic and metaphysic. The paradox is that architecture has to dislocate what it locates.<sup>74</sup> Architecture tends to be overwhelmed by its own 'metaphysics of presence', because, by its mere physicality, it tends to focus on issues of presence, construction, shelter, use etc. Therefore it should constantly criticize and dislocate this 'metaphysics of presence.'

In order to clearly differentiate his own interpretation of architecture's textuality, Eisenman uses other notions like 'absence within presence', presentness, otherness or betweenness, which are referring to architecture's paradoxical 'between' condition. For instance, Eisenman defines architecture as a three-term system of absence-presentness-presence, as a way to overcome Derrida's two-term system of absence and presence. The third term of presentness refers to architecture's excessive condition of 'presence of absence.'<sup>75</sup> In other texts, Eisenman is specifically describing architecture's textuality as a condition of betweenness, otherness or secondarity.<sup>76</sup> Especially the notion of between, which Eisenman uses in various linguistic combinations (like text between, place between or between condition), is representative of Eisenman's intention to overcome the traditional dialectical oppositions, because it doesn't choose for one or the other term of the usual binary pairs, but radically assumes the simultaneous multiplicity of both terms. In that sense the 'between' is basically a textual condition of instability and uncertainty. At the same time, the notion of between is also used in a more architectural or formal way, in the sense that it also refers to a condition in which two weak images are blurred or superposed.<sup>77</sup> In the nineties, Eisenman will make a similar use of the notions of excess, 'interstitial' and 'blurring.'



Derrida's influence thus, has been critical for the development of an 'architecture as text', and, more generally, for the entire philosophical enterprise undertaken during the eighties and nineties, which shifted from the strong vertical and dialectical systematic of structuralism towards the weaker horizontal and paradoxical systematic of post-structuralism. One of the main differences between the structuralist and the post-structuralist approach is that the former starts from the assumption that the 'deep structure' of architecture can be made understandable by the use of a formal process of transformation, while, in the latter, architecture is not anymore defined in relation to a deeper essence or being, but with the more elusive and paradoxical terms of difference, absence, otherness or betweenness. This horizontal and paradoxical dimension is not only perceptible in the way Eisenman is developing his architectural projects—namely by superposing different textual layers on top of each other, or by nesting different elements within each other (cf. 'artificial excavation')—but also in the way Eisenman is (de)constructing his theoretical arguments. His multiple variations and reinterpretations of textuality are literally layered and superposed on top of each other, or implied within each other, rather than being hierarchically organized in dialectical and binary oppositions.

Even if Eisenman came up with a personal and architectural (mis)reading of Derrida's terminology—namely by modulating, twisting or combining it with a variety of other concepts (like e.g. fiction, palimpsest, otherness or between)—, it is clear that he has been deeply marked by Derrida's post-structuralist approach, not only in relation to specific philosophical themes (like text, writing, difference etc.), but, more systematically, by his fundamental critique of Western metaphysics and dialectics and by the dislocating and paradoxical dimension of his deconstructionist approach.<sup>78</sup>

If one looks back to the architectural production of the late seventies/mid-eighties, one could say that Eisenman was actually pursuing two specific lines of architectural investigations at the same time. On the one hand, he was pursuing his formal investigations on the internal and self-referential aspect of architectural processes and elements, namely with his projects of decomposition (1975-1983), while, on the other hand, he was engaging in a new architectural direction by investigating the external, textual and artificial potential of architectural processes and elements, namely with his projects of the 'artificial excavation' (1979-1986). While both lines of investigation are somehow overlapping in time, they are not really actively interacting with each other from an architectural point of view. One could even say that, for his house projects (like the House 11a, House El Even Odd or Fin d'Ou T Hou S), Eisenman was tempted to rely on his processes of decomposition, while, for the bigger projects, he relied on the processes of 'artificial excavation'. While both design options have their own advantages and disadvantages, they are nevertheless restricted by their own figurative and geometric limitations: the projects of decomposition are limited by the cubic format of the el-form, while the projects of 'artificial excavation' are restricted by the figurative and narrative character of the artificial figures and by the geometric limitations of the typical imprints and extrusions.

*theory*

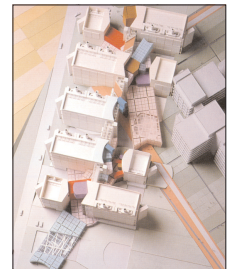
In the second half of the eighties though, Eisenman finds a better way to make these internal and external investigations interact more smoothly with each other, namely by channelling his interest for external and artificial constructions towards the processes themselves rather than towards the figures. He does so by associating his design processes with scientific processes, rather than with fictional narratives, and by opening his palette of basic formal elements (or volumes) to other types of elements, such as blocks, boxes or bars, which are less constraining than the previous el-forms or extruded figures. One could thus say that the internal formal and geometric investigations are further developed in relation to these basic volumes and elements, while the external and artificial approach is applied to the processes themselves. While Eisenman is actually dropping the technique of extrusion of volumes from artificial figures—which is so typical of the 'artificial excavation'—he never fully abandons the concept of the artificial figure, since it will actually lead to the concept of the diagram and become one of the main formal elements of his later design processes. As we already noted, the concept of the artificial figure was crucial in that it enabled Eisenman to definitely break with the myth of the original or essential architectural form of the platonic cube—whereas the el-form only partially succeeded to decompose the concept of the cube in a negative way. Eisenman will

nevertheless continue to use the figures of the el-shape or the cube, but these figures are now completely stripped of their original formal aura and used as regular basic volumes among others.<sup>79</sup>

One of the main characteristics of these scientifically oriented projects is indeed that their processes are often replicating scientific processes which in one way or another can be associated with the concept, function or location of the project in question.<sup>80</sup> In a formal sense, this implies that these scientific processes are used as an artificial way to rationalize or mechanize typical formal processes, like processes of copying (e.g. linear and parallel serialization), movement (e.g. tilting and oscillation), modification or combination (e.g. oscillation and overlap). Typical for these scientifically oriented projects, is the fact that the elements and processes are beginning to be serialized and that the processes of movement and modification are beginning to be organized along the vertical Z-axis, namely by tilting or oscillating volumes in relation to the Z-axis, whereas the projects of the 'artificial excavation' are only involving extrusions/imprints in a strictly perpendicular way. At the same time, Eisenman is experimenting with other (more scientific) types of geometry—like fractal geometry or Boolean geometry, or his own 'box geometry'—with the intention to fully explore their formal and geometric possibilities and to challenge the orthogonal coordinates of the classical Cartesian geometry.<sup>81</sup> Another typical feature is the fact that the formal interactions between the successive volumes are derived from the oscillating interaction of mutual imprints and traces upon each other.<sup>82</sup> Of course, the upcoming of sophisticated computer CAD techniques has been crucial for the development of more complex formal and spatial operations, such as those used in the Aronoff Center for Design and Art (1988-96).

Despite the fact that these projects are not supported by a strong theoretical statement underpinning their scientific foundation, their typical scientific orientation can be sufficiently deduced from Eisenman's descriptions. Among the main form-theoretical issues that are raised in the various writings are also the themes of 'space between' (or architecture between)—which is often referring to the interstitial space that is created by the mutual interaction between traces and imprints—and that of the impact of 'media' on architecture—an issue that is often related to the upcoming Media Age and the paradigm of electronic production.

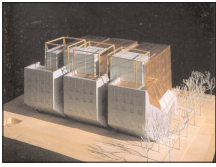
In terms of architectural production, one can say that the transition from the earlier strategy of 'artificial excavation' towards the new series of scientifically oriented projects is made in a smooth, rather than in a disruptive way. The first project to actually use scientific references is the Biocentrum (1987). Its basic forms and processes are directly derived from the scientific codes and processes of DNA. Even if the project is still a transitional one, in the sense that its volumes are still generated



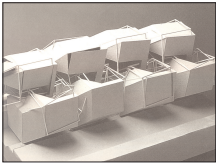
Biocentrum, 1987  
replication of DNA strand

*projects*

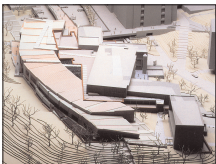
by extruding the artificial figures of a DNA strand, it nevertheless indicates the future trend of scientific processes and striated volumes. In later projects though, it becomes clear that Eisenman's real intention is to start from rather basic architectural elements (like cubes, blocks, boxes, bars or even el-shapes) and to develop the various architectural design processes in analogy with scientific processes, which are derived from an analogous reading.



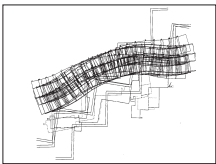
Carnegie Mellon\_1988  
model



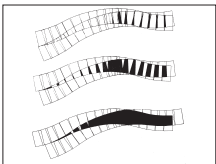
Carnegie Mellon\_1988  
serialized cubes



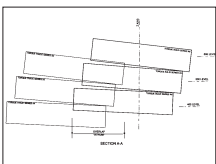
Aronoff Center\_1988-1996  
front view



Aronoff Center\_1988-1996  
box geometry and traces



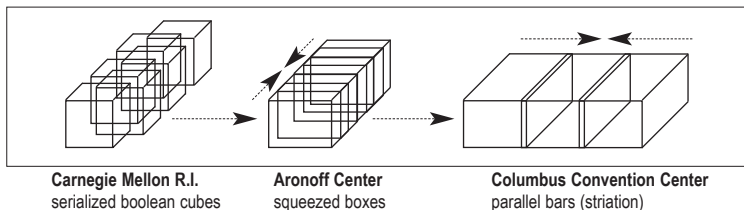
Aronoff Center\_1988-1996  
serialized / squeezed boxes



Aronoff Center\_1988-1996  
overlap section, torque

The most representative of this new scientific idiom are certainly the projects of the Carnegie Mellon Research Institute (1988) and, especially, the Aronoff Center for Design and Art (1988), which is the most complex and emblematic of all. These projects are not only motivated by a strong scientific statement—the Carnegie Mellon Institute is referring to the mathematical model of Boolean geometry and the Aronoff Center to dynamic processes in the field of mathematics and physics—but they are also characteristic of Eisenman's new concern for the serialization of elements (i.e. cubes or boxes) and processes. In the Carnegie Mellon Research Institute, the design is mainly based on the superposition of different series of Boolean cubes, which are successively aligned as a series of beads on a string.

The Aronoff Center for Design and Art (1988-96) is also based on the serialization of volumes, but, in this case the series are not conceived as a linear succession of separate pairs of cubes, but as a succession of boxes that are overlapping each other on the extremities. In comparison with the Carnegie Mellon Institute, the boxes are, so to speak, squeezed upon each other, so that they create the impression of continuous movement of curved line segments (or 'phase shifts') or bended bars. If one considers that Eisenman will start to make a frequent use of bars in the next year (Columbus Convention Center), one can say that this serialization of volumes has enabled him to finally make the transition from the cubic format of the cube and the el-form (which dominated the seventies) to the rectilinear format of the bar (which will become one of the main basic formal elements of the nineties). This transition from the cube to the bar is thus made in a series of successive steps. First, the volumes are created by serializing the cubes (Carnegie Mellon Research Institute) and boxes (Aronoff Center) in a linear manner; then, this linear succession of boxes are squeezed upon each other (Aronoff Center); and, finally, the volumes are created by using a succession of bars which are now serialized in a parallel way (striation, Columbus Convention Center).



Another characteristic feature of the Aronoff Center project is that the body of scientific processes is much more elaborated and complex, both in a formal, theoretical and computational sense. All the formal processes (e.g. overlap, torque, twist, shift etc.) are labelled and serialized in analogy with specific scientific processes in the field of physics and mathematics which are all dealing with transitional phases, probabilities and indeterminations. They are even labelled under the common notion of 'box geometry', in reference to the functional boxes that are used as basic volumetric units.<sup>83</sup> The scientific orientation is further stressed by the extensive and explicit use of computer graphics (CAD), which is not only helpful for the realization of complex formal operations, but also for the computational processing or serialization of the formal processes as such.

With the Aronoff Center project, the scientific idiom is thus pushed to a climax, and becomes emblematic for a whole series of projects that are specifically referring to scientific processes (like the Biocentrum, Carnegie Mellon Institute, Aronoff Center, Groningen Music Pavilion, Columbus Convention Center). The scientific idiom is perhaps not specific for this period of time, since Eisenman's work has always been, more or less explicitly, inspired by scientific research (from his PhD onwards up to his most recent projects and writings). Neither can it be generalized to all the projects of this period. For instance, the Guardiola House (1988), the Koizumi Office Building (1988) or the Nunotani Office Building (1990) are, by their characteristic use of el-shapes, perhaps more reminiscent of earlier design strategies and less scientifically oriented. Yet their design approach, which is based on the oscillation of overlapping and tilted el-shapes, is certainly closer to the specific formal and geometric research of this period. Anyhow, at no other time of Eisenman's work, has the scientific idiom been so manifestly formalized and theorized as now, perhaps, because it also coincides with a period of time in which the mediated and computational reality of the upcoming information age is becoming more and more manifest. Both the Columbus Convention Center (1989-93)—whose design is referring to fiber optics, railyards and highway ribbons—and the Groningen Music-Video Pavilion (1990), which refers to video scans, are typical examples of this tendency to refer to the specific manifestations of the information age. The design of the Columbus Convention Center though is particular since it is based on the bending of overlapping and striated ribbons, which clearly announces the future design tendencies of the nineties, mainly based on the folding of surfaces and the striation of bars.

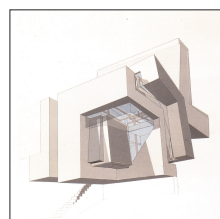
In the nineties, Eisenman will continue to make frequent and explicit references to various scientific disciplines and subjects—especially in those fields that are specifically dealing with fluctuating, unstable or dynamic processes (like chaos theory, bio-genetics or other theories of complexity). Yet, at this stage, these scientific references are perhaps less representative of a predominant scientific orientation, and more



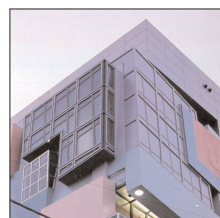
**Aronoff Center\_ 1988-1996**  
front view



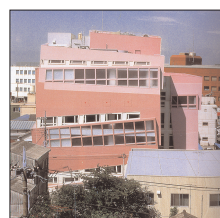
**Columbus Convention Center**  
1989-1993\_ parallel bars



**Guardiola House\_1988**  
embedded el-forms



**Koizumi Building\_1988-90**  
nested el-shapes



**Nunotani Building\_1990-92**  
overlapping, tilted el-plates



Groningen Music-Video Pavilion  
1990\_ view of built project

representative of a deeper architectural and theoretical shift, which can be understood as a shift from Derrida's textual post-structuralism (in the eighties) towards Deleuze's more pragmatic and dynamic discourse.<sup>84</sup> At this point, the scientific process is, so to speak, reduced to the figure of a 'scientific diagram' (e.g. the diagram of a wave), which is then used as one of the formal layers of the process of folding or morphing (early-mid nineties) or as a virtual engine for an animated series of diagrams (late nineties).<sup>85</sup>

## 8

### Folding

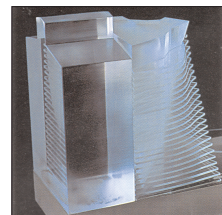
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In the early nineties, Eisenman is able to underpin his latest scientific interests within a deeper theoretical and philosophical framework, which is mainly based on the reception of G. Deleuze's work, especially in relation to his notion of the fold. In a sense, this new philosophical orientation also reflects the increasing popularity of Deleuze's work in the early nineties among various architectural and academic circles in the United States. Perhaps, Deleuze's popularity can be explained by his special affinity with the world of art, architecture and science, and by the more recent English translations of his work, but, most evidently, because his work deals with the specific dynamic, spatio-temporal, topological and scientific concerns of the new architectural and computational strategies of the nineties.<sup>86</sup> Especially the notion of the fold is appealing to American architects and theorists (like Eisenman, G. Lynn or J. Kipnis),<sup>87</sup> not only because of its specific topological and extensive character, but also because the image of the fold is particularly spatial and architectural in its evocation. Before tackling the specific question of Deleuze's reception—in an architectural, philosophical and discursive perspective—let us first focus on the architectural and theoretical developments of Eisenman's work in the early-mid nineties, and their particular affinities with Deleuze's work.

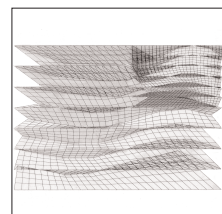
#### projects

Among the architectural production of the early nineties, the Rebstock Master Plan (1990) is certainly one of the most emblematic projects, since it is the first to be specifically associated with and modeled on the concept of the fold. Although Eisenman only associated the notion of the fold with a limited series of projects—besides the Rebstock Master Plan, also the Alteka Office Building, the Emory Center for the Arts or the Max Reinhardt Haus—the process of folding is one of the most representative, or elaborated, design strategies of the early-mid nineties, especially since it initiated and triggered a series of theoretical and critical elaborations on other deleuzian themes (like e.g. the affect, smooth space, singularity, event *et al.*). In a strictly formal, or architectural, sense, one would be tempted to associate the process of folding with

the folding of surfaces or elements, and with the typical manifold, pliant and multifaceted triangulations that are so distinctive for the projects of the early-mid nineties. Yet, on a closer look, one has to recognize that this definition is too reductive and limited, and that it barely covers all the other formal aspects that are actually involved in these projects, in terms of processes (superposition, projection, folding and morphing), elements (grids, diagrams, volumes, meshed surfaces or Nurb curves) and relationships (figure-figure relationships). To be more accurate, one should mention that, in most cases, the design results from a series of successive processes (from the type of 'copy, move, modification and combination') and that these processes are operating on a series of elements, which result from the superposition of grids (abstract grids or site grids) and diagrams (usually scientific diagrams like waves) on the one hand, and the repetition of volumes (like bars, blocks, el-forms or cubes etc.) on the other. First, the grids and diagrams are superposed, scaled and projected upon each other and the volumes are multiplied according to a certain pattern—e.g. by striating the bars (Emory Center for the Arts, Tours Center), doubling the blocks (Haus Immendorff, 1993), extending the existing block or perimeter structure of the site (Rebstock Master Plan, Nordliches Derendorf Master Plan), or by following a rotating sequence (Max Reinhardt Haus, 1992). Then, the combination of elements (surfaces and volumes) are processed by a series of modification processes, which are usually based on the folding, the projection or the morphing of elements and associated with scientific processes.



Haus Immendorff\_1993  
model

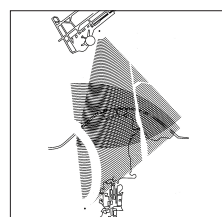


Rebstock Master Plan\_1990  
folded plan

In the case of the Rebstock Master Plan (1990), one could have the impression that the design process is actually relying on the folding of surfaces, as could be deduced from the folded and pliant character of the accompanying series of diagrams. But, in reality the folding process is, like J. Kipnis pointed out, more of a 'representational illusion,' since the design process is actually based on the projection of points, rather than on the folding of surfaces. In fact the illusion of folding is created by projecting and connecting a series of points of an abstract grid outline with a series of corresponding points of the site outline, which gives the impression of a folded diagram.<sup>88</sup> The fold is thus rather conceived as 'a tri-dimensional plan of projection' than as the result of a proper folding process, and, in that sense, it might be reminiscent of earlier representational experiments—like e.g. the 'axonometric and representational models of House X and House El Even Odd.'<sup>89</sup> In the case of the Nordliches Derendorf Master Plan (1992), the design process looks quite similar to that of the Rebstock Master Plan, in that both master plans are starting from the extension of existing perimeter blocks or Siedlung units. Yet, in the case of the N. Derendorf Master Plan, the folding process is resulting from the superposition and intersection of two scientific patterns (the intersection of a radar and radio pattern), which are projected on the site, whereas, in the Rebstock scheme, the

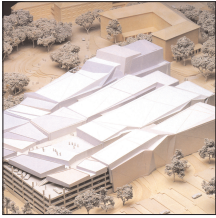


Rebstock Master Plan\_1990  
master plan

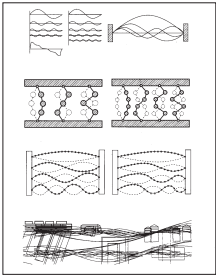


Nordliches Derendorf\_1992  
scientific diagram\_intersection  
of radar and radio pattern

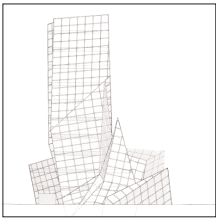
process is starting from the superposition/projection of two abstract grids on the site grid-outline.



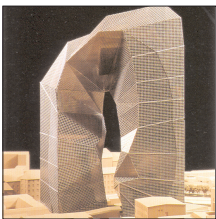
Emory Center for the Arts\_1991\_model



Emory Center\_1991 diagram (musical waves)



Alteka Office\_1991 folding of el-forms



Max Reinhardt Haus\_1992 model

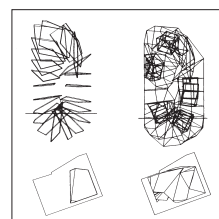
In other examples, like the Emory Center of the Arts, the Alteka Office Building or the Max Reinhardt Haus, the folding process is not starting from an existing urban pattern (like the perimeter blocks), but from a combination of abstract basic elements, like bars, el-shapes or cubes/surfaces which are superimposed on the surface of the site. In the Emory Center for the Arts (1991), for instance, the process of folding is starting from an initial *parti* that is based on the striation of four parallel bars that are grafted on the rectangular volume of an existing parking building. In this case, the actual folding process is triggered by the superposition of scientific diagrams (namely the overlay of musical waves and parabolic harmonics) on the actual site grid of the building: these parabolic harmonics are activating a series of topographic lines on the campus, which, when projected on striated bars, are creating a series of tri-dimensional folds. In the Alteka Office Building (1991), on the other hand, the design process starts from a combination of el-shaped forms, which are first projected in plan and section, and then infolded and unfolded in analogy with the section of a fold in R. Thom's fold catastrophe theory. In the case of the Max Reinhardt Haus (1992), the volumetric composition starts from a succession of cubes and planes (i.e. the basic formal elements), which are following a triple rotation pattern, that is inspired by the scientific process of crystalline mutation. The volumetric envelope of the skyscraper is formed by a folded membrane, which gives the building its typical prismatic and fragmentary character.

In other cases, like the Tours Center (1994), the Klingelhöfer Triangle (1995) or the Vienna Monument (1996), the process of modification is based on a particular process of multi-projection that is known as morphing. In the case of the Tours Center, the morphing starts from the plan and sections of two adjacent building volumes (combined with a double process of striation), while, in the Klingelhöfer Triangle, the morphing is operating between two mechanical diagrams (of watch and chips mechanisms) that are superposed upon each other. In the Vienna Monument, the morphing process starts from the connection of two site maps with another site diagram that is located above the two others.

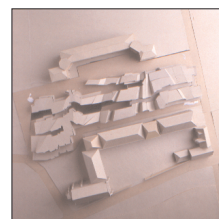
From all those examples, one can conclude that the process of folding doesn't follow a single or uniform design pattern, but that it should rather be conceived as a combination of processes, in which a series of basic elements (grids, diagrams and volumes) are successively superposed, scaled, projected and folded: the actual folding process is only one of the many processes, but certainly the most distinctive and characteristic one, with its typical prismatic and multi-faceted surfaces. In this sense, the process of folding is not an entirely new architectural strategy, since it



builds on a series of formal processes that have been used in earlier formal strategies—like f.i. the superposition and scaling of grids, diagrams and volumes, which are so typical of the ‘artificial excavation’ processes, or the use of scientific references (processes and diagrams), which were already used in earlier ‘scientific’ projects. There are also other indications that are pointing to the fact that, in a strictly formal and architectural sense, the process of folding can be situated in the continuity of earlier architectural, theoretical and scientific investigations (with topological and fractal geometry, curved lines, in-between spaces, differential processes, figure-figure relationships etc.) For instance, Eisenman’s interest for topological geometry and surfaces can indeed be retraced to earlier experiments with topological diagonals and topological surfaces (like, f.i. the topological diagonal of House VI and the el-form, or the topological surface of Cannaregio, or the Möbius strip of House 11A).<sup>90</sup> We also already know that the concept of figure-figure relationships, was already associated with the process of scaling, and, more generally, with the projects of the ‘artificial excavation.’ In more recent projects, like the Aronoff Center or the Columbus Convention Center, the architectural similarity with the concept of the fold is even more pronounced. For instance, in the Aronoff Center, the curved line segments are clearly conceived as infinitely variable curves—like those Koch curves that Deleuze mentions in his ‘Fold’—whereas, in the Columbus Convention Center, the weak forms of the web of ribbons are already anticipating the later folding and bending of surfaces and volumes.<sup>91</sup> All these examples show that the fold/folding cannot just be reduced to the simple process of folding (i.e. as an architectural analogue to the Japanese origami art of folding paper), and that it cannot be dissociated from earlier architectural and theoretical investigations, which, in many ways, paved the way for (and conditioned) its current development.



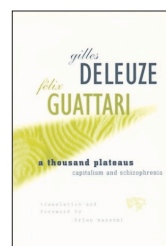
Max Reinhardt Haus\_1992  
diagram of rotating cubes



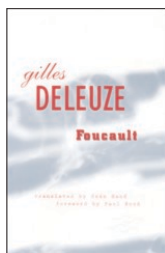
Tours Center\_1994  
morphing of volumes

Now that we have situated the process of folding within the context of Eisenman’s architectural production, it is perhaps time to focus on the more theoretical and strategic dimension of the concepts of fold/folding, which one can recover from a series of writings that Eisenman wrote in the early nineties (cf. 91/3, 91/4, 92/1, 92/2, 92/3, 93/1). As usual, Eisenman doesn’t come up with a single or straight definition of the concept of fold, but rather with a series of successive descriptions—some more architectural, others more theoretical—which are gradually modulated and combined with other theoretical associations and connotations. It is clear that the concept of the fold cannot be reduced to a strictly formal or architectural process, and that it should be rather conceived as a multilayered strategic concept with multiple levels of implications and ramifications—not only in the field of architecture and urbanism, but also in the broader field of philosophy, cultural theory or media.

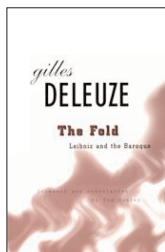
*theory*



D. Deleuze\_1980  
Thousand Plateaus



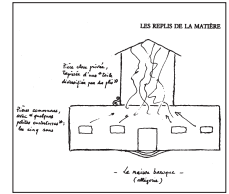
G. Deleuze, 1986  
Foucault (cover)



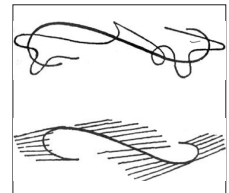
D. Deleuze, 1988  
The Fold (cover)

In his argumentation, Eisenman does not only make references to the work of Deleuze (cf. the fold, the affect, singularity, 'smooth space' etc.), but also to the work of other writers (like J.-F. Lyotard, R. Thom, M. Blanchot or W. Benjamin), and to earlier theoretical statements.<sup>92</sup> But, since Deleuze is the main theoretical reference, it is worthwhile to confront Deleuze's conception of the fold with Eisenman's architectural and theoretical interpretation. Eisenman's references to Deleuze's fold are mainly drawn from his publication on the 'The Fold,' but, in his later writings, Eisenman is also referring to other Deleuzian concepts (like the manifold, the affect or the 'smooth space') which, in Deleuze's writings, are not explicitly associated with the fold. Of course, Eisenman is mainly interested in those characteristics that are complementary and useful to his own architectural interpretation, and, therefore, it is not surprising that he is mainly referring to Deleuze's publication on 'The Fold,' since it contains many useful artistic, scientific and philosophical references (to Leibniz, B. Cache, R. Thom or B. Mandelbrot a.o.).<sup>93</sup> Eisenman indeed follows Deleuze's aforementioned passages when he describes the fold as 'the smallest element of matter' (Leibniz), as an in-between figure or as an 'object-event' that is moved by a continuous temporal modulation and variation. In his descriptions, Eisenman also specifically refers to several of Deleuze's scientific and artistic references, like B. Cache's fold or inflection, R. Thom's catastrophe fold or Leibniz' definition of the fold as the 'smallest element of matter.' Yet, as one could expect, Deleuze's conception of the fold is much more complex and elaborated than those scientific and artistic references, which are only mentioned as occasional references for a much more elaborated philosophical argument—which is not only developed throughout the chapters of 'The Fold' (1988), but also in his other publications on 'Foucault' (1986) and 'Thousand Plateaus' (1980).<sup>94</sup> In fact, Deleuze's first references to the 'manifold' (*multiple* in French) can be found in his 'Thousand Plateaus,' where he compares his notion of 'smooth space' (as opposed to 'striated space') with the mathematical model of Riemann's 'manifold' (or Riemann space), which stands as model for a non-metric, heterogeneous, amorphous and non-homogeneous space.<sup>95</sup> In his book on 'Foucault' (1986), Deleuze is extensively referring to the fold, namely in his last chapter on the 'Foldings, or the Inside of Thought,' in which he focuses on questions of subjectivity, ontology and epistemology.<sup>96</sup> The main question is that of subjectivity, which Deleuze relates to Foucault's concept of the fold. For Foucault, the relationship between the subject (the I) and the other "resembles exactly the invagination of a tissue in embryology, or the act of doubling in sewing: twist, fold, stop, and so on."<sup>97</sup> Subjectivity can be understood as a topology of different folds (the fold of the body, the fold of forces, the fold of knowledge and the fold of the 'outside itself, or the ultimate'). For Deleuze, the human subject can only be understood under the condition of the fold, and through the filters of knowledge, power and affect: the fold is something creased between things stated or said, visible or seen. The fold is not only a fig-

ure of subjectivation, but also the very fabric of ontology, in the sense that being can be conceived as a fold or doubling of an inner and outer surface (*doublure* in French). The inside and outside, or the past and present, are two sides of a single surface. According to Deleuze's 'Foucault', the inside is a fold or doubling of the outside, a contortion of the exterior surface.<sup>98</sup> Deleuze makes his most pronounced statements on the fold in his following publication on 'The Fold' (1988), in which the concept of the fold is used as a metaphor for his philosophical interpretation of Leibniz and the Baroque, and, more broadly, for Deleuze's typical (immanent and inclusive) manner of dealing with questions of subjectivity, ontology and epistemology. In this publication, the question of the subjectivity is even more prominently present, as can already be deduced from the first opening chapters, which are focusing on the relationship between matter and soul.<sup>99</sup> Illustrative for this approach, is the famous passage (in Ch 1.) on the allegory of the two-floored Baroque House, which unfolds the enfolded relationships between matter (lower floor) and soul (upper floor).<sup>100</sup> In these passages, the figure of the fold is used as an allegory for the way in which matter and soul are operating and relating to each other (i.e. folded upon themselves and in relation to each other), or, in other words, how the inside and the outside are folded into each other. In other chapters, the concept of the fold is also associated with other philosophical problems of subjectivity (like those relating to reason, individuality, event or perception).



G. Deleuze\_Le Plis\_1978  
La Maison du Baroque



G. Deleuze\_The Fold\_1978  
diagrams of the fold

It is clear that, for Deleuze, the issue of the fold is more than a mere spatial or temporal feature, and that it should be rather considered as an emblematic figure of his own philosophy of immanence and inclusion. The figure of the fold, among many other concepts (like the middle, difference in itself, the outside, the exterior etc.) fits perfectly in Deleuze's ambition to conceive a philosophy, which—in terms of ontology, metaphysics, subjectivity and epistemology—is entirely based on immanence. Deleuze's philosophy of immanence is thought in terms of relations 'in' something, as opposed to relations 'to' something (philosophy of transcendence). It starts from the outside to the inside in a fold 'of' the exterior.

Although Eisenman retains some of the theoretical characteristics of Deleuze's fold—the fold as singular, extensive, temporal, topological or between condition a.o.—he is less interested in the deeper philosophical implications of the fold (namely in terms of subjectivity, ontology and immanence), and, in this sense, one could say that the fold is certainly less emblematic for Eisenman's way of thinking than for that of Deleuze. For Eisenman, the fold is first of all the embodiment of an architectural condition, process or strategy, with its typical geometrical/topological, formal/figural, spatial/temporal or urban/topological connotations. For instance, the fold is conceived as a tri-dimensional plan of projection or as a topological surface or membrane for the

*Eisenman's fold*

mapping of nomadic relationships. It is an in-between figure which blurs the traditional dialectical distinctions between figure and ground, plan and section, vertical and horizontal, inside and out, object and sign etc.<sup>101</sup> On a spatial and temporal level, Eisenman partially follows Deleuze in that he defines the fold as a singular, variable, unstable and multiple temporal condition (i.e. the fold as object-event or as temporal modulation), and as a 'smooth' spatial and topological condition. But, here again, Eisenman's interpretation differs from Deleuze's, in that he associates Deleuze's notions of 'smooth space' and 'striated space' with the spatial conditions of, respectively, the matrix and the grid. For Eisenman, the fold belongs to the 'smooth space' of the matrix—i.e. a condition which is no longer bound by traditional spatial or temporal coordinates, whereas the grid is typical of the 'striated' space of the Cartesian geometry.<sup>102</sup> On a more urban level, the fold can also be considered as a complex model to reframe existing urban models and typologies and explain abrupt urban changes.<sup>103</sup> In his interpretation of the fold, Eisenman also refers to the question of the subjectivity, but, here again, he is making a very personal interpretation of some of Deleuze's concepts (like the affect or the body), which he loosely associates with the current condition of the media. For Eisenman, media has transformed our affective ability of sensation, perception and vision, and therefore, he envisions the fold as a way to overcome the loss of affect and sensation, which is inevitable in these times of media and information. In this sense, the fold could be considered as a typical figure of the media-age, i.e. as a form of weak media.<sup>104</sup>

From all those examples, one can conclude that Deleuze's fold is only a starting point for Eisenman's own architectural interpretation of the fold, in the sense that he modulates Deleuze's terminology by combining different references from different publications, authors and disciplines. Yet, it is clear that these new references to the work of Deleuze, are only the first symptoms of the growing influence of Deleuze's writings on Eisenman's theoretical writings in the nineties, as can be deduced from his numerous references to other Deleuzian concepts (like e.g. immanence, diagram, repetition and difference, becoming, figural/virtual, exteriority, interstice etc.) Even, if, at this point, it is still not very clear how Deleuzian Eisenman really is, one can already see that Eisenman's reception of Deleuze is rather selective, ambivalent and mixed. As we'll see later, this ambivalent reception will only increase with the years, in the sense that Eisenman will constantly hesitate between a Deleuzian and Derridian approach, by mixing and combining themes from both writers, (cf. *infra*).