
RADICAL DISCONTINUITY OR VARIATIONS ON A THEME?: the recent history of the High Museum of Art

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Abstract

This paper unfolds a study of the 2nd floor gallery plans that correspond to three stages in the evolution of the High Museum of Art: 1983, as designed by the museum's architect Richard Meier; 1997, as converted by Scogin and Elam; and 2005 as reconfigured by Lord Aeck and Sargent. We find that the 1997 conversion constitutes a radical departure from the spatial principles embedded in the original plan. We suggest that this is linked to a shift in curatorial philosophy. We discuss the three way interaction between curatorial principles, spatial structure and architectural language.

**The Spatial History of the High Museum of Art -
Richard Meier**

The High Museum of Art, Atlanta, designed by Richard Meier, opened in 1983; a major extension by Renzo Piano opened in 2005. In this paper we discuss the original building designed by Richard Meier and more particularly the spatial history of the second floor. We look at this history based on three stages of development: first, the original interior layout designed by Richard Meier as it stood in 1983; second, the layout for the permanent collection that was designed by Scogin and Elam and completed in 1997, after the Atlanta Olympics; third, the layout designed by Lord Aeck and Sargent and opened in 2005. These three stages by no means exhaust the spatial History of the High. However, they represent major and systematic efforts to remodel the internal layout and have all been commissioned to prominent architectural practices of national or international reputation rather than handled internally. The designers of the modified layouts responded to definite curatorial programs within the confines of a given building shell and within the framework of Richard Meier's architectural language, or at least their interpretation of it.

As partly documented by the record of these three moments in time,

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the spatial history of the High during the first 30 years of its life can be studied from several points of view. First, as a history of the changing spatial requirements of a growing permanent collection. Second, as a history of changing curatorial priorities and aims. Third, as a set of formal transformations within the constraints of a shell and a well established architectural language. Fourth as a history of different patterns of visitor experience. Work at the morphology lab, Georgia Tech, is currently aimed at reconstructing the record of interior changes and to analyze it from such diverse points of view. This paper addresses the following preliminary but fundamental question: do the changes in layout involve changes in underlying spatial structure? In other words, are we dealing with permutations on a single theme, a history of changing circumstances, or can we identify fundamental changes, a history of discontinuities?

A Spatial Thesis: 1983

As designed by Meier, the 1983 layout brings together a number of compositional principles: The galleries are organized to suggest a clear procession of movement, marked by the axes of columns; the overall direction of movement is directly perceived through wall openings and internal windows; movement itself is deflected into and around spaces of smaller scale; the creation of multiple cross views allows objects to be seen at varying distances and from varying angles; views beyond the limits of the space currently occupied draw visitors into patterns of exploration; movement is always associated with viewing; viewing is directed not only to the objects on display but also to other visitors and to the building; at all points visitors are exposed to diverse scales of organization, ranging from the multi-storey atrium to the intimate display alcove; the arrangement of space suggests alternative groupings for the objects on display and invites alternative comparative perspectives and frames; co-presence itself is choreographed to vary between the formal and processional (on the ramp), to the casual gathering (on the exhibition galleries) and the momentary intersection of gazes (in the main peripheral galleries); architectural intentions are marked by the disposition of the otherwise regular grid of columns: the columns find themselves situated in a variety of spatial contexts as if they embody the spatial circumstances addressed to the visitor (Peponis, 1997; 2005).

These compositional principles converge into a thesis with two facets: First they embody the formal ideas cultivated over a number of years ever since the publication of "Five Architects" in 1975. These include "phenomenal transparency", the layering of planes, the filtering of light (Rykwert, 1983). Second, they embody a curatorial ethos, pioneered in MOMA in the 1940s under Alfred Barr (Staniszewski, 1998). This has to do with the creation of multiple vistas in order to encourage the simultaneous perception and comparison of objects according to alternative classificatory frameworks. The explicit intent was to suggest that objects do not fall within a single chronology or a single classificatory system but must be interpreted according to patterns of overlap between chronologies and classificatory systems.

Here we will use a small sample of six quotes to confirm that the qualities of the 1983 arrangement were intentional on the part of the architect; that they were well recognized by the museum curators; finally that they were also recognized by critics both in professional journals and in the daily press. Thus, we want to show that the architectural thesis was explicitly understood and discussed in the context of architectural and museum culture rather than tacitly embodied in the building and the experience of the building. Given this, the question to be pursued in subsequent sections is whether the layouts of 1997 and 1983 are modifications within the overall

framework of architectural composition and architectural and curatorial intention established in 1983, or whether they constitute departures from it.

Quote 1, Richard Meier (2006): "If there are principles, they are principles that guide the relationship between the building and the works of art displayed within, the quality of the experience in relation to the works of art and the building context. If there are forces competing for attention in the design of museums, they involve the disparities between large-scale and smaller-scale objects...The goal is to understand and communicate the scale relationship. I believe that different objects should be perceived in different ways. Yet, as an architect, one cannot assume in designing a space that a particular object will always be there...Also important is the experience of being within the building. Visiting a museum is not an experience dedicated solely to the viewing of art. In a museum, one sees people, and one sees to the outside...I have worked with European and American tradition of spatial expression and of curatorial philosophy, and what interests me is a synthesis of the two...In America, the design of a museum is often analogous to a city in terms of its circulation. The museum is an urban experience made comprehensible by its organization, where the movement system is a viewing system..."

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Quote 2, Alan Balfour, professor, Georgia Tech, (1983): "From the point of entry the visitor is placed in a multiplicity of frames. Frames which turn spectator into performer, turning floor into stage, and wall into set...Significantly it provides a new social setting in which to enjoy art. In the galleries where the aedicular enclosures are pierced by window like openings, the experience recalls the domestic roots of the art museum, creating an intimacy with the objects that enhances their pleasure. There is an unresolved conflict in all this. Meier writes that the building is designed to encourage people to experience the art of architecture as well as the art displayed. And this has led to two orders of architectural experience."

Quote 3, Catherine Fox, art critic, Atlanta Journal Constitution (1983): "Both the circulation system and the open vistas, cornerstones of Meier's museum philosophy, are derived from Frank Lloyd Wright's Guggenheim museum in New York...When he designed the Aye Simon Reading Room in 1978, he realized: "how wonderful it was to see a work of art close up and then move away and see it in another perspective"...Meier applies the principle of multiple perspectives...This room-within-a-room effect allows the visitor to see the work in new interrelationships and from varied vanishing points."

Quote 4, Paul Goldberg, architecture critic for The New York Times (1983): "But providing a sense of changing perspectives is the central theme of this installation, and it is done with considerable skill. Virtually every piece of art, from the tiniest teacup in the museum's extensive decorative- arts collection, to the Rodin sculpture that sits at a central point in the second-floor galleries, is installed in such a way as to permit it to be viewed from different vantage points. ... The wood-floored gallery rooms themselves are relatively neutral, with limited light and views to the outdoors, and they provide the necessary chance to see each work at close range, without distraction. But the walls from gallery to gallery and the partitions within each gallery are cut away to provide window-like openings, permitting

not just spatial variety but, more important still, an alternative view of most pieces at more distant perspective.”

Quote 5, Director’s Statement, Gudmund Vigtel (1983): “Meier created a brilliant design for a museum building which met our requirements for an enjoyable ambiance and a combination of carefully controlled spaces which would effectively serve the needs of our operation. It is to Mr. Meier’s great credit that the building’s distinctive qualities grew out of the detailed program which had been prepared by us and that his design included all of our specifications for particular spaces, their purposes and their interrelationships. ... Functional requirements have been translated into an esthetically satisfying balance of natural setting and imaginatively varied interior space – an environment for the visitor’s private enjoyment and contemplation.”

Quote 6, Peter Morrin, HMA curator of 20th century art (1983): “Richard Meier’s design is going to be controversial. He has significantly broken with the fifties and sixties notion of the clean, white, infinitely flexible space. The spaces here are charged, dynamic. There is a forcing of groupings that puts pressure on the curator, but in the best possible way.”

An Analytical Profile of the Spatial Structure of the High: 1983, 1997, 2005

An examination of the three plans (Figure 1, top row) shows that the 1997 layout did two things. It eliminated the circulation loops in the three square corner pavilions. It also stopped the intersecting balcony galleries from penetrating the main exhibition spaces along the periphery of the building. Thus, the transformation was aimed at creating a more determinate circulation system imposing a more rigid viewing sequence upon visitors. By contrast, the 2005 layout reintroduced both the circulation loops in the square pavilions and the extensions of the balcony galleries into the main exhibition spaces. At the same time, the 2005 layout cannot be interpreted as a mere return to the 1983 original. The new plan is far simpler. While the “room within a room” principle is observed at the corner pavilions, the break up of space into distinct sub-areas (convex spaces) is not as extensive as in the 1983 layout.

In this section we discuss the transformations of the High using visibility graph analysis (Turner et al, 2001). The term “visibility graph” is used in a mathematical sense. The available area of a layout is flood-filled with tiles of 15cm by 15 cm. If a line can be drawn between any two tiles without intersecting a boundary, the tiles are held to “see” each other. Visibility graph analysis deals with all such relationships between all tiles. In particular, we are interested in two measures. “Connectivity”, the number of tiles that are “seen” from a given tile is essentially an approximate measure of “visible area”. Tiles which are not directly “visible” from a given tile can become “visible” if we move to some intermediate tile within our “field of vision”. Depending on how many such intermediate steps we need to “see” all other tiles in a system, the tile taken as a point of origin is said to be more Integrated (fewer steps needed) or less Integrated (more steps needed).

Using special software, DepthMap, developed by Alasdair Turner at University College London, we compute Connectivity and Integration values for all tiles. In our work, we apply visibility graph analysis to two versions of each plan. First, we take into account all boundaries that block movement, including transparent boundaries or window openings. This essentially applies the mathematical idea of “visibility” to an analysis of the range of movement destinations that are

available from a point. Thus, we will speak of “accessible area” when we refer to the mathematical measure of connectivity and of “Integration of access” when we refer to the mathematical measure of Integration applied to this version of the plan. Second, we take into account only the boundaries that block visibility as well as movement. Thus, we speak of “visible area” when we refer to the mathematical measure of connectivity and of “visual Integration”. In both cases, in order to translate connectivity into an approximation of area, we take into account the size of tiles. In short, “area” always refers to the amount of space that is directly available from a position, either to see or to move to, without crossing any boundary. “Integration” always refers to the “number of corners” I must turn around before all areas of a plan become available to me, to see or to move to; the greater the Integration the fewer the corners I must go round.

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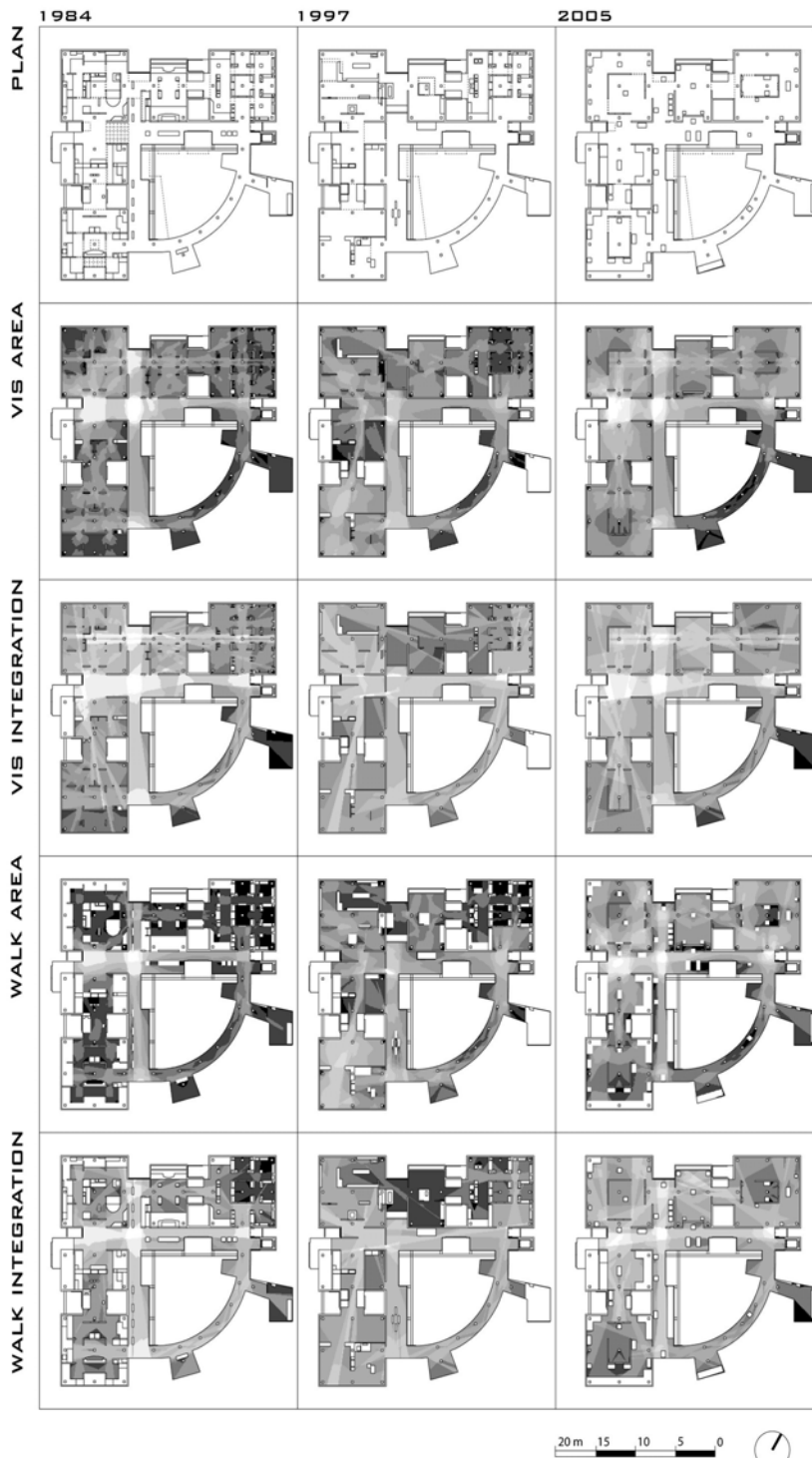


Figure 1:

Plan of the HMA: 1983, 1995, 2005 and Depthmap Analysis

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In our analysis we take “available area” to refer to all spaces that can be visited by museum visitors. We exclude administrative and curatorial offices, as well as storage or utility spaces. Furthermore, we exclude the atrium, in order to concentrate on the spaces that can be reasonably said to be “occupiable” by visitors. This decision was dictated by the fact that presently available software does not permit us to treat atrium spaces as subsets of tiles that can be “looked at” but cannot be used as origins to look from”. Including the atrium would introduce in the analysis a stronger bias than excluding it.

The results of our analysis are presented in Table 1. The third column shows that the area that visitors can occupy has gradually increased as raised display platforms and deep display cases have been reduced in number and size. The area available to be seen has remained more constant with a small reduction in 1997 and a small increase in 2005 as compared to 1983. The more interesting information is contained in the fourth and fifth columns. The fourth column shows that the area which is directly accessible from the average position has steadily increased, while the area which is visible has first dropped significantly and then increased dramatically. When we take the ratio of visible over accessible area, we see that it was substantially reduced in 1997 and restored in 2005. Simply put, the 1997 layout dramatically reduced the views across internal partitions. The excess of direct visibility over direct accessibility that characterized the original design was severely curtailed. Objects became more visually contained within the spaces occupied by visitors.

Table 1:

DepthMap Analysis of the High Museum of Art

Date	System	Total Floor Area (m ²) – All Tiles	Connected Area (m ²) – Per Tile on Average	Integration – Per Tile Average
1984	Walk	914,48	55,15	5,89
	See	1248,13	92,97	8,29
	See/Walk	1,36	1,69	1,41
1997	Walk	1075,55	61,99	5,11
	See	1183,15	75,75	5,91
	See/Walk	1,10	1,22	1,16
2005	Walk	1102,58	75,21	7,06
	See	1269,41	120,06	9,18
	See/Walk	1,15	1,60	1,30

Integration with respect to access was slightly reduced in 1997 and substantially increased in 2005 as compared to 1983. By contrast, Integration with respect to visibility was dramatically reduced in 1997 and then increased in 2005. In other words, the 1997 layout was less integrated than the other two, especially so with respect to visibility. This is also picked up by the ratio of visual Integration over the Integration of access. The excess of visual Integration over the Integration of access was dramatically lower in 1997.

The analysis indicates that the 1997 layout constituted a significant departure from the principles embedded in the 1983 layout. This is evident in the following ways: 1) Overall reduction of Integration and even greater reduction of visual Integration. 2) Reduction of the scope of visual fields, especially visual fields across partitions and boundaries. 3) Reduction of the excess of visibility as compared to accessibility. The 2005 layout restored and indeed enhanced Integration. It also created larger visual fields. The excess of visibility over accessibility was brought back but did not quite reach the 1983 levels because of the dramatic reduction of internal partitions, with or without openings.

Turning our attention from numbers to the spatial distribution of the measures (Figure 1), we notice a fundamental shift regarding syntactic centrality. Here we use the expression “syntactic centrality” to refer to areas from which the plan becomes more readily accessible, visible and intelligible, as distinct from shape-geometric centrality, the region which is simply “in the middle” of a plan-shape. In the 1983 plan, the tiles associated with greater visible and accessible area, as well as with greater visual Integration and Integration of access, include, most prominently, those near the intersection of the balcony galleries. This is a pivotal region for the layout as a whole. It provides both views into the peripheral galleries scaled to showcase individual displays, and into the atrium, scaled to celebrate the museum as a whole. It permits visitors to appreciate the theater of processional movement along the ramp. It also acts as an orientation point. In 1997 the same area lost its syntactic importance. While retaining its connection to the atrium it lost its role as a point of reference for those moving in the peripheral galleries. It ceases to act like the spatial center of the museum as a whole. In fact, the 1997 layout represents an attempt to move away from any emphasis on centrality and to moderate the importance of the atrium as a reference point for overall navigation and experience. We will see later on that the same eschewing of centrality can be traced in the handling of the layout inside the four corner square pavilions. We will see in the next section that the subversion of the centripetal forces of the original plan is linked to a new curatorial philosophy which seeks to juxtapose alternative exhibition themes without allowing a single idea or narrative to dominate.

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The 2005 plan reinstates the original emphasis on syntactic centrality. In addition, as shown by the distribution of high Integration values, it creates recurrent interconnections between the peripheral galleries and the atrium. The plan represents an attempt to orient visitors with respect to the building as a whole at all times. We will see, in the next section that this is associated with a curatorial philosophy that seeks to minimize the spatial mediation between the museum as a whole and the individual work of art.

Intersecting Views and Intersecting Classes: An Inverse Relation?

An examination of the High Museum of Art archives shows that the \$400,000.00 1997 reinstallation of the permanent collection was associated with distinct curatorial aims. The traditional arrangement of objects according to chronology, typology, media or period was to be replaced by a thematic grouping of objects aimed at creating compelling visual and conceptual juxtapositions. Themes include “Compare and Contrast”, “Life in Art”, “Reflections o faith, culture and commentary”. We quote from the Scogin and Elam website (http://www.msmeach.com/museums/high_museum.html - as it was accessible on January 28, 2007):

“The close proximity of artwork that would traditionally be galleries apart encourages the viewer to take an active role re-evaluating pre-conceptions and discovering new qualities and values within the work”.

In fact, we have been able to track individual objects and confirm that from a curatorial point of view, the transition from the 1983 layout to the 1997 layout is not about a fundamental change of content but rather a fundamental change of principles of arrangement. Figure 2 shows a sample of six displayed objects in their respective locations in the 1983 and the 1997 gallery-plans.

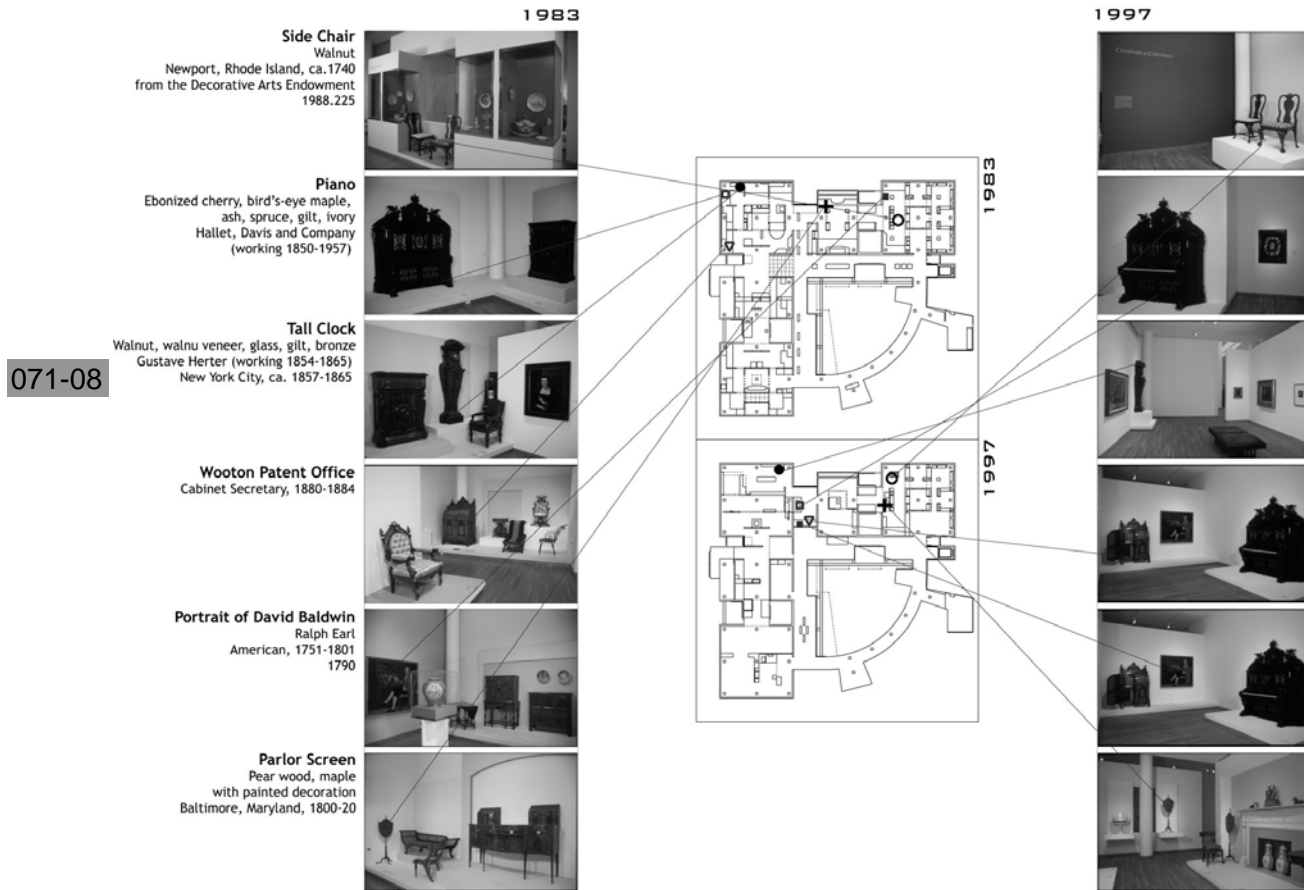


Figure 2:

The Relocation of a Sample Displays, 1983-1997

Source: *The High Museum of Art*

This leads us to a seeming paradox. From the perspective of the 1997 transformation of the High Museum of Art, the previous layout afforded multiple vistas, cross views, and overlapping spatial frameworks but overlaid these upon a more conventional spatial arrangement of the objects. The new layout drastically eliminates cross views, defines a more limited set of vistas and imposes a more rigorous circulation sequence in order to bring visitors to better appreciate the richness and multiplicity of interpretations that inheres in the local arrangement of objects. There seems to be a certain reversal in the mutual roles of the spatial principles that drive the layout and the spatial principles that drive the arrangement of the objects, as if the relative simplicity of one is needed in order to compensate for the relative complexity of the other. This is all the more intriguing when we take into account that between 1983 and 1997 the permanent collection had not changed dramatically, and that a large sub-set of displayed objects could be found in both layouts.

Basil Bernstein's (Bernstein, 1975; 1990; 2000) concept of pedagogy helps to formulate a preliminary interpretation of this shift. Bernstein proposes that whenever we are dealing with a pedagogical system for the transmission of knowledge, we have to ask two questions: first, how strong the boundaries are between different contents; second how well defined the rules are that govern the sequence, the pace and the processes of transmission. Where boundaries between contents are strong there is strong "Classification". Where rules over transmission are well defined there is strong "Framing". Classification, the preservation of boundaries between contents, is associated with wider social principles of power, the preservation of distinct social identities. For example, strong classification reinforces the authority of particular groups over a discipline or field of discourse, or indeed over the bearing of an area of knowledge over culture and society. Framing,

the imposition of rules over transmission, is associated with social control. Strong framing creates explicit criteria whereby those that are taken through the pedagogy are evaluated.

Insofar as museum exhibitions can be treated as pedagogical devices, the 1983 layout of the High Museum of Art can be seen as an attempt to simultaneously weaken classification and framing. While objects might have been arranged according to chronology, media, or typology, the creation of multiple vistas and viewing frames, as well as the creation of cross-views would have allowed visitors to compare objects across classes. At the same time, the variety of local viewing sequences afforded by the circulation loops would suggest weaker control over transmission. Visitors could vary not only their pace but also the order of their exposure and re-exposure to displays. The 1997 layout is more complex. While locally aimed at explicitly weak classification (the bringing together of diverse objects according to a theme), it globally imposes a strong classification (the separation of one theme from another). This works like a “hidden pedagogy” in that the emphasis on the local breaking of boundaries distracts from the global curatorial control over the principles of arrangement. At the same time, the 1997 layout constitutes an attempt at strengthening framing. Visitors are taken through a much more dictated sequence and their viewing is subject to a much stronger containment of what is to be seen and compared at any given point in time. In other words, we propose that the 1997 layout can be interpreted not only as a rather fundamental spatial shift but also as an equally fundamental shift in curatorial approach and in the underlying pedagogical principles.

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The interpretation of the 2005 plan requires that more factors be taken into account. By 2005, the emphasis of the permanent collection has shifted, and there is a need to hand larger paintings. Furthermore, some parts of the collection that were very prominent in 1983 (porcelain) are much less prominent, if displayed at all. At the same time we can trace a second shift in curatorial philosophy. As suggested by the minutes of meetings at the High Museum of Art which we are currently investigating, there has been a greater emphasis on letting visitor experience begin from and resonate with the individual object. Though this is never stated explicitly, it appears as though there is a deliberate attempt to reduce the role of layout as a pedagogical device. What is stated explicitly is the need for more flexible space. In other words, the 2005 plan represents both an attempt to restore the museum to spatial principles closer to those of Meier, and an attempt to do so without overly “putting pressure on the curator” (to recall Morrin’s 1983 phrase). The fact that visitors are more likely to be able to orient themselves with respect to the layout as a whole, due to the distribution of Integration and syntactic centrality (as noted earlier), underscores the way in which the spatial mediation between the building shell and the individual work of art is deliberately kept simple.

Tensions Between Architecture and Space: 1983-1997

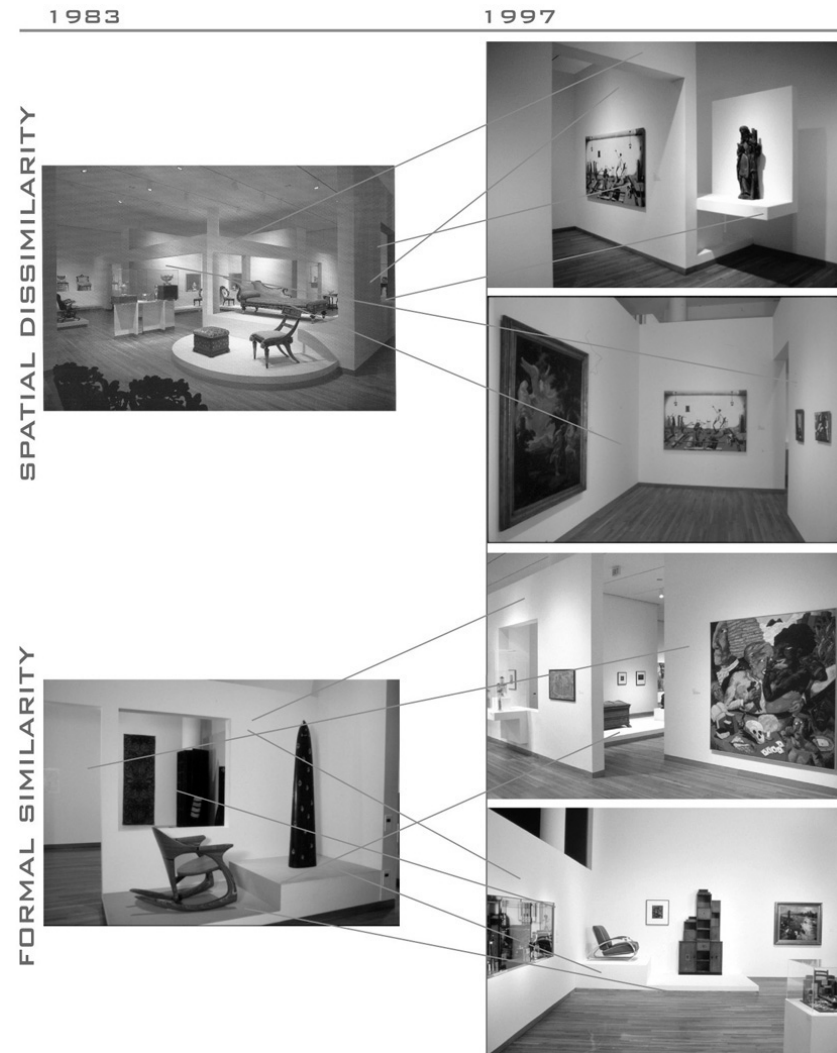
Based on the preceding argument the 1997 plan appears as an interruption, a departure from the original spatial thesis aimed at accommodating a very definite curatorial philosophy. Does this mean that Scogin and Elam designed an architecture set in contrast to the original building shell? Quite on the contrary, one can argue that Scogin and Elam deferred to the language of Richard Meier and adapted their own formal language to match his. As shown in Figure 3, the interplay of surfaces, the creation of interpenetrating volumes, even the controlled use of openings to allow cross views, are all aimed at responding to the vocabulary of Meier. Should we, therefore,

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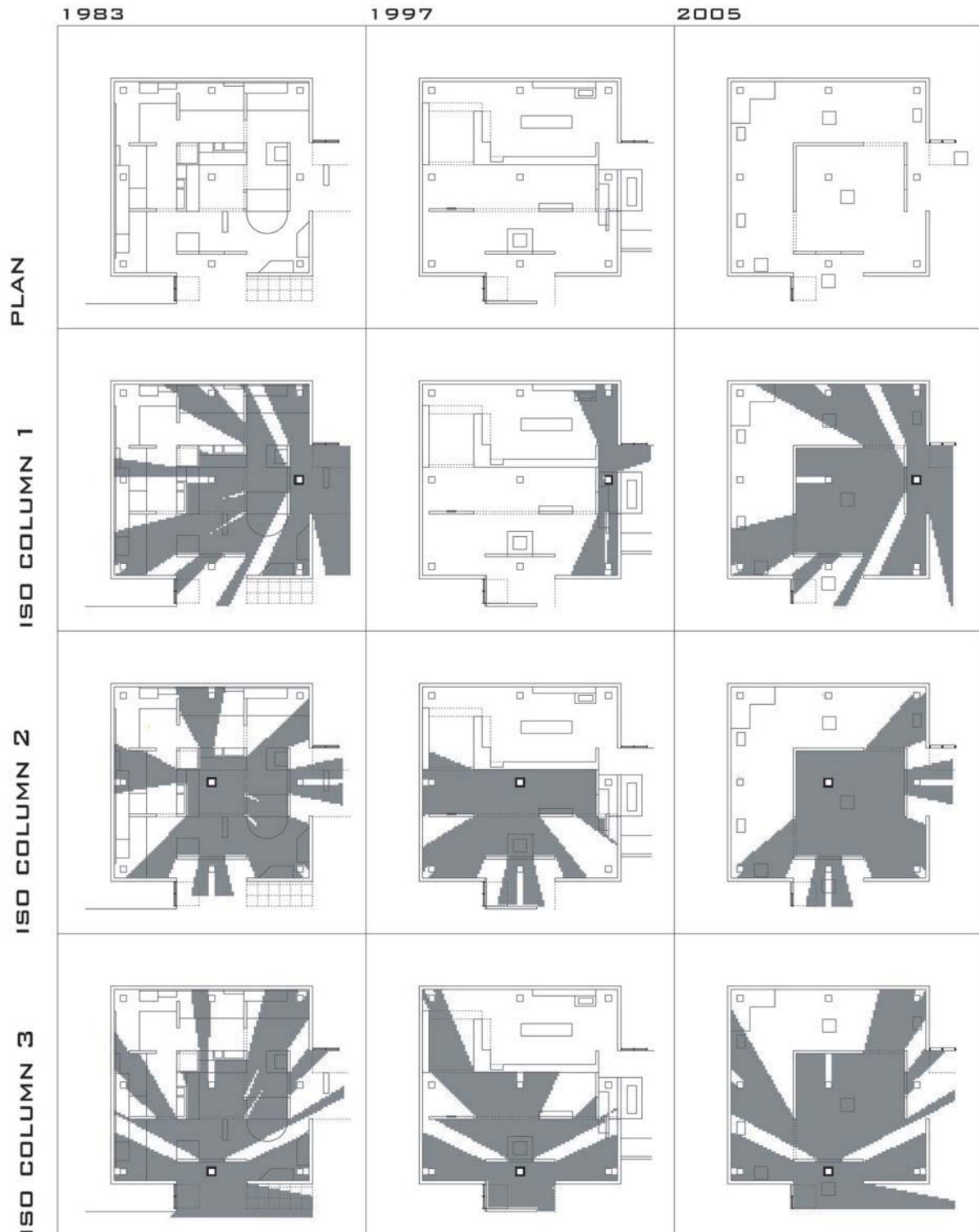
conclude that there is a deflection of a single architectural language towards different spatial aims, or should we concluded that there is a gap, an arbitrary relationship, between architectural language, defined as an interplay of physical shapes, and spatial language, defined as an interplay of continuously linked fields of movement and visibility? Richard Meier has designed the High Museum of Art as an architecture of embodiment, and architecture where, in his own words “the movement system is a viewing system.” One of us (Peponis, 2005) has previously argued that the reflexive integration of embodiment within the design of the physical fabric of the building is given in the handling of columns. Columns lie on a regular grid. At the same time they get staged in different conditions, as if to highlight the dynamic spatial fields engendered by the architecture.

Figure 3:

HMA Interiors: 1983-1992
 Source: *The High Museum of Art*



We pursue this in Figure 4, which shows the isovists from three critical columns at the corner pavilion: the central column and the two columns marking the entrances and acting as devices which slow down the pace of movement as one enters. In 1983, the column isovists (the areas from which columns become visible), extend in all directions and radiate into several “spikes”. In 1997, the isovists radiate in a more limited spectrum of directions. In 2005 they radiate in all directions again, but through a more limited number of “spikes”. Thus, while in 1983 and 2005 columns act as devices which center a surrounding field, in 1997 they act as devices which mark an oriented field. There is, in 1997, a certain sense of frontality which is entirely absent in 1983 and 2005. The spatial ethos of the architecture has clearly changed.



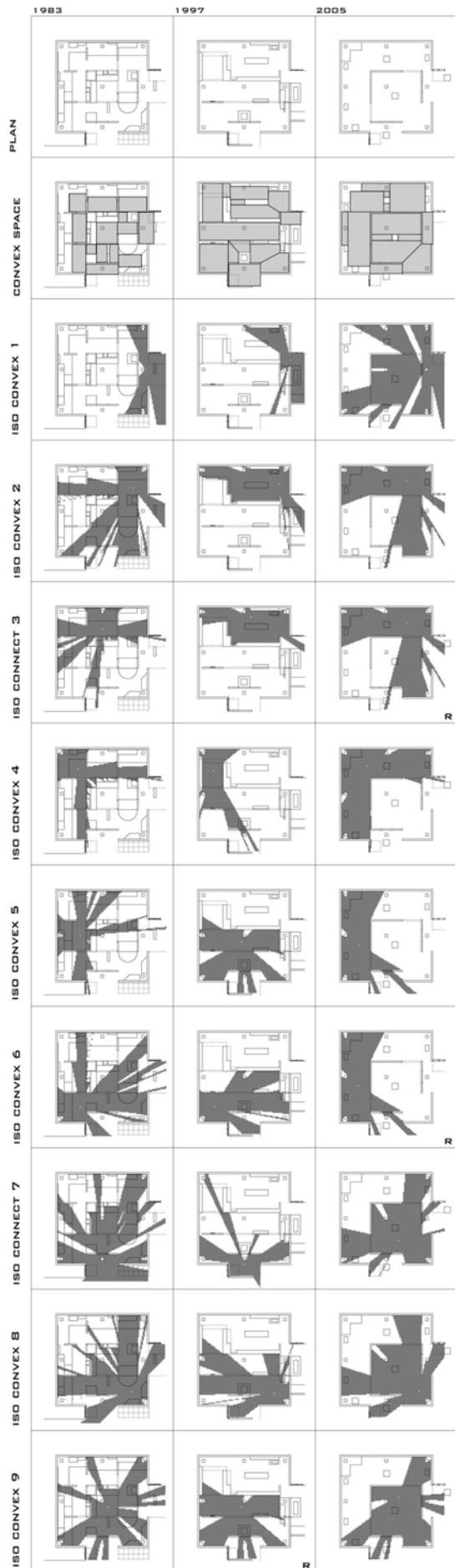
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To study the consequences of this for visitor experience, we drew the isovists from the centers of the main convex spaces associated with each of the 9 columns of that same pavilion (Figure 5). What is true of the column isovists is also true of the convex space isovists, certainly in the vast majority of cases. In 1997, isovists extend in fewer directions and in fewer spikes. Visitors become situated in a more definitely oriented space; their paths are pulled in more definite directions. In short, we might say that there is a shift from a space of intersections, which almost synchronizes one position to all surrounding positions from which it becomes visible, to a space of sequence, a more narrative space.

Figure 4:
Column Isovists

Figure 5:
Convex Space Isovists

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Discussion

In this paper we have analyzed some transformations of interior layout at the High Museum of Art, between 1983 and 2005. We have argued that at least one transformation, represented by the new installation of the permanent collection in 1997, does not merely constitute a variation on the theme of the original design, but rather a radical discontinuity. We have suggested that this radical discontinuity has at least three aspects to it. A change in the syntax of visible and accessible space, a change in the curatorial principles used to arrange objects in space and a change in the underlying spatial ethos of the architectural composition of surfaces. Thus, the High Museum of Art becomes an interesting case study in the multiple intersections between building design, exhibition design and architectural language.

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