POINT OF DEPARTURE:
Landscape, Memory and Change as Passage for Design

by
Richard M. Ames

Bachelor of Arts
University of Vermont
Burlington, Vermont
1981

Submitted to the Department of Architecture in
Partial Fulfillment of the Requirements for the
Degree of Master of Architecture at the
Massachusetts Institute of Technology

FEBRUARY 1989

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Signature of Author

Richard M. Ames
Department of Architecture
20 January 1989

Certified by

Richard C. Tremaglio
Adjunct Professor of Architecture
Thesis Supervisor

Accepted by

Imre Halasz
Professor of Architecture
Chairperson, Departmental
Committee for Graduate Students

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Abstract
This thesis is the exploration of the natural and cultural environment through design. The natural landscape is a richly complex system reliant on interdependencies, change, and renewal. It is laden with multiple, even contradictory interpretations, yet it is one of intimate associations and often pastoral repose. Unlike the often static, simplistic order of the human environment, the natural environment is understood and enjoyed through formal and interactive relationships set in an emerging process of time. As such, a very positive reference for societies' state can be found in observing and transforming all evolving landscape that surrounds, nourishes, and defines us. The landscape, the "point of departure," becomes meaningful in its expression of the perpetual possibility of an occurrence, change or design.

The vehicle for this investigation is a design projection for a small park in conjunction with the 1992 Summer Olympic Games in Barcelona, Spain. The programmatic requirements are to supply temporary exhibit space for the Olympic/global ideal and to function as a formal and pedestrian link between the closed formal axis of the city and its extension to the Olympic Stadium. A strong design concern is the interpretation of the site as a temporal, spatial, and formal continuum of what existed before, the needs during the three week Olympic celebration, and its return to a daily routine as a new botanical garden.

The first section is an elaboration of the relativistic character of the natural environment and its reference to both the process of design and the human experience. The second section describes the site in terms of landscape, its formal attributes and its place in geographic time. The third section describes the site in terms of memory, autobiographical and cultural time, the impact of man's relation to nature, and the specific plastic effects that it has had on the existing condition and form. The last section reveals the site in terms of change, or both the literal and lyrical passage of design. This part synoptically describes the temporal and formal configuration between what was, what is, and what might be.
ACKNOWLEDGEMENTS

The first acknowledgement I have is to express the warmth I have about what turned out a surprisingly peripheral component in this thesis. That of the Olympics and their ideals. I worked at the 1980 Winter Olympics in Lake Placid, N. Y., as a press photographer. The Olympics are truly a bright spot of hope in the collective events of world history. For a passionate, idealistic and exhuberent moment (3 weeks) the world congregates to share its best. Although veiled in th trappings of nationalism (uniforms / flags) an individual is expressed and judged by ones own personal beliefs, integrity and performance. Despite the contradictions, commercialization and monumentality, the celebration radiated a desire and understanding of world unity I've never experienced elsewhere. Regardless of the type of involvement, from media, support, judges, spectators to competitors, the sincerity and wonderment at cultural exchange and equality were inspiring. As such it was rather intimidating to work on a project that was in any way related to these memories. I hope a glimmer of the reasons I wish to be involved with the Olympics again show through.
On a local level, I would especially like to thank Tremmie, who, as mentor and friend, has shown me how life and architecture are compatible.

Thanks to:
- Bill Porter for showing me the full depth at which the game can be played;
- the many hands that helped, especially brother Ebb and Sterling;
  the legacy of thesis students
prior for travelling the road first, but especially James Bachelor and Bary Stanton
- Janina, Mahmood, Bernard, Lauren, Tina, Maria and Sarah for sharing "thesis life" with me, and from whom I learned more about myself and design than in any studio;
- Campbell whose joie de vie, clarity and strength got me through some times when I had none of my own;
- Jamie and Serena for their affection and wisdom.... and a bit more;
- Dan for being always ready with a song, a howl, a smile or a break;
- Ken, for whom the mere thought brings a feeling of warmth and blast of repose.
The meals and musings are perhaps the best times of this fall;

but most of all to Meg, with whom I love and dream the best.
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Fluid passing an obstacle, J. Hunsaker

Glass fracture
POINT OF DEPARTURE

The poem of the mind in the act of finding
What will suffice. It has not always had
To find: the scene was set; it repeated what
Was in the script.
Then the theatre was changed
To something else. Its past was a souvenir.
It has to be living, to learn the speech of the place....

Wallace Stevens "Of Modern Poetry"

The natural environment is an incredibly intricate
world defined by relationships, transformation and
cyclical evolution. From the simplistic single-celled
creature to an entire biosphere, the concept of life is
dependant on the notion of change over time and its
metering through correspondence to its
surroundings. Even the seemingly inanimate earth's
crust is placed in motion when viewed as a galactic
body, tectonic plates or even chemically composed
of atoms.

A belief in a relativistic and symbiotic relation with the
landscape make the self-inflicted dissonance of
modern society seem placatable. No longer do the
historic principles of hierarchy, subordination, and
proportion seem the only ways to order our built
environment.

The direct correlation of design to natural life
processes, associative qualities, and methods of
addition and change can all be invaluable aids to
design.(1) Most of our terminology and technic for
describing buildings has its roots in man's endeavor
to comprehend the landscape.
Cartography, topography, scale and perspective all
had established legacies before being applied to the
building trades. But most importantly, the "delicate
balance" of nature and the relativistic, temporal character of the human experience can be seen as analogous to both the design process and the realization of architectural order.

A fundamental aspect of the twentieth century experience is an awareness of the paradoxical nature of reality and that it can only be comprehended in terms of continuities and associations (2). An explosive understanding of this notion could well be said to have ushered in the turn of the century. In science, Einstein developed his theory of relativity merely a decade after the "standardization" of time, thus challenging a millennium of ever-increasing elaborate categorization, definitive solutions, and experimental "fact." In philosophy and psychology, the Gestalt approach to the human experience became pervasive. In the arts, writers such as T.S. Eliot, James Joyce, and Gertrude Stein all explored the narrative experience limited in time yet composed in a complexity of multiple experiences and interpretations that evoke the simultaneous and contradictory fabric of reality itself. In music, Stravinsky's polytonality, dissonance and polyrhythm, "Petruchka" for example, destroy the possibility of an absolute reading. Others such as Satie, Cage and Carter were all to lay the groundwork for contemporary music, which probably most purely represents this relational perception of the world. Perhaps because of the powerful link between visual stimuli, memory and personal identity, you find the most useful examples of this belief in the visual arts. Starting with Picasso and Braque the Cubist movement irreversibly denied the possibility of a definitive position. No single
The seasons, the orbits, moisture condensing into snow and back, a fire ravaged forest, a cell multiplying, frost splitting a rock, each a repetitive cycle, yet never the same. Each a new form, yet imbedded in its past form and only existant in the knowledge of its future.
interpretation of the fluctuating shapes, textures, spaces and objects could be complete in itself. Curve was defined by straight, warm by cold. The introduction of collage made the work of art integrate tactile space (us to object) and visual space (space between objects). Painting became a plastic process, a visual whole no longer subservient to the motif. Space no longer was an element of separation but of an equivalence with objects and forms. The notion of our relativistic status has become available as a design methodology. These painters later returned to including not only collage but figurative elements to their work. The work of Paul Klee, perhaps makes figuration most directly available for architectural design. Here identifiable, even primal elements are spatially arranged to generate the figurative image. Klee’s use of the elemental and figuration seem important in our current age. Although his images often appear as human, they can also be identified as architectural plans, landscapes or a variety of "familiar" forms. These "archtypal" figures reach a level of understandings beyond representation. By his placement of objects in a territory recognizable and useful orders are established. Two aspects of this are especially applicable to architectural design. The first is that the field organization is handled exactingly enough so that with very minor modifications the overall image can change dramatically, yet the structure is left intact. The second is that very simple pieces are employed to construct complex images. To quote Klee, "Objects painted and the field create a juxtaposition of the objects. The components co-exist yet retain their identities as adding another
level of meaning, the constant of painting. Collage integrates the field (continuity) with the element (idealized form) while retaining, strengthening specific differences...integration is explicit." (3)

The response to this new kinetic vision can be very powerfully felt in a number of fashionable trends today. One is rejection, through the obsession with a building's appearance, that concept of meaning, immanent in architectural form, that dictates it's signifying, symbolic potential. This is a nostalgic return to the eclectic tradition of revivalisms that desperately cling to the antiquated, anthropocentric world. Another is the denial of temporal and associative qualities in the artifice of an analytical and scientific approach based on definitive solutions and categorical comparables. Yet another is the most current trend of alienation or "desconstruction". This is the most insidious of architectural responses as it is a reversal of the relativistic paradigm saying that contemporary society is fated to a realm of discontinuities and isolation. This is then exploited in the guise of a design motif, as a viable (even enjoyable) plight of a consumptive and information-based society. Disregarding the theatrical forms and replacing the pessimistic prefixes of "dis" and "anti", one finds extremely useful opperants for design. These methods are worth analyzing as they are identical or parallel toward the design attitude and architectural order being pursued.

A powerful predecessor of this movement is Guston Bachelard and his' understanding of the "poetic essence." Here the establishment and relation to the primal unleashes a whole body of knowledge and associations, both personal and societal. The
figurative qualities of these collective memories are available in the process of placemaking in a specific setting. The best of modernism, say Aalto or Asplund, Wright or Kahn, rely on this for their figurative content. Bachelard also purports that the essence of life is not "a feeling of being, of existence "but a feeling of participation in a flowing onward, necessarily expressed in terms of time, and secondarily in terms of space. Another is the current works by Jacques Derrida on the duality of deconstruction. His notion is that "deconstruction", once initiated, leads to a perpetual kinetic state where both the original "object" and its new derivatives are perpetually negating each other. Again a positive reversal of this is the ability for static, closed or formal objects and organizations to be "deconstructed" or engaged in a temporal and spatial fashion. As such it becomes a very literal abstraction whereby both what was and what is are accepting of interpretations of what might be. The most vociferous architect in this movement is Bernard Tschumi. His theoretical working method is directly parallel to a relativistic perception of the world, unfortunately executed for all the wrong motives and values. Tschumi provides a strong design foundation when he states,

"Parc de la Villette project had a specific aim to prove that it was possible to construct a complex architectural organization without resorting to traditional rules of composition, hierarchy and order...The principal of superimposition of three autonomous systems of points, lines and surfaces was developed by rejecting the totalizing synthesis of objective constraints evident in the majority of large-scale projects...But it is above all the historical split between
A. Gaudi: bench, Parc Guell, 1912

B. Tschumi: Parc de la Violette, 1984
architecture and its theory that is eroded by the principals of deconstruction." (4).

Tschumi then utilizes built cinemagraphic sequences to define the experiential continuity. The promenade is seen as sequences that either combine or parallel divergent concerns. Playground, store and school could all coexist and overlap. As it were, each "frame" of a sequence qualifies, reinforces or alters the works prior to or following it. The associations that follow allow for a plurality of interpretations rather than a singular fact. As such,

"All sequences are cumulative. The 'frames' derive significance from juxtaposition. They establish memory - of the proceeding frames." (5)

This can be elaborated so that each "frame" has an autonomous validity of its own, a still photograph. Yet in combination, montage (collage), the relationships between "frames", imbue movement and create a cinemagram. The transitory quality of film (flashbacks, projections, dissolves and jump-cuts) depend on the relation of temporal and spatial experiences between potential "stills" to establish and convey the "complete" interpretation.

Tschumi's endeavor for a relational or field organization (superimposition) and a multiplicity of readings dependent purely on the movement, associations and participation of the user, is a useful goal and method for design.

Another version of a relativistic approach is the powerful and prolific work of Gunter Behnisch and Partners. Although Tschumi and Behnisch employ
similar pluralistic, spatial and formal considerations in both application and methodology, they also represent a philosophical antithesis. The work of Behnisch is firmly entrenched in a humanist approach where the needs of those affected take priority over all "formalistic" and process considerations. He terms his work as "situational architecture," where a building is formed in response to its purpose, time and place. They consider their task as designers to "look for form" through the relationships and integrity of the components. Thus, the design and construction process are seen as equivalents resulting in a belief that it is a "worthwhile approach to determine form at the last possible moment." Each element retains its own function and identity, and is of equal status (self-stable) yet assumes its part within the whole. As such the whole is determined by a collage of the parts, none placing excessive demands on the relationships or larger organization. One can assess and work on a detail at the local level without referring to the larger structure. The product is then not artificially shaped but "we can identify the forces at work in its formation without being deceived. An appearance that tells whether those involved strive to counter and resolve the restrictions of reality, so as to create room to maneuver and latitude for the user and for the object itself." (6)

This comprehension of our relational status is imbedded in the design throughout the building process, from planning, formal, and spatial considerations, through construction detailing to inhabitation and interpretation. The building is not only conceived and rendered in a temporal fashion but even projected as one for the inhabitants.
G. Bahnisch: Catholic University Library, 1987
Munich, 1972
Implicit in this associative, contemporary vision of Architecture is a political challenge to static, totalitarian leadership. It denounces closed, formalistic governments reliant on nationalism and the enforcement of boundaries. But again it is important to distinguish the philosophical difference between Tschumi and Behnisch. Tschumi purports a world of rupture, even anarchy representing today's social, political and cultural dissociations. Behnisch is opposite this in purporting a positive vision of society based on the integrity of individual rights in the context of their collective surroundings. It firmly places us at a moment in history within a process of history. It provides the shared experience (continuity) that allows us to meaningfully define both ourselves and the larger community in which we interact. It is the awareness of interrelationships, associations and continuities that prevent us from having to re-invent life daily. It can only be hoped that our comprehension of our relativistic state pervades our political and environmental interdependence.

Design is seen therefore as a process of situational and contextual response that searches and provides for the relational opportunities between people, forms, space and their settings. The transformation of an existing condition or form into a new one. Through change and interpretation, design enables the user to draw as full a set of meanings as possible. Design starts with a belief. And that, through and of the landscape in an associative vision, is the realization of place.
Analysis of dominant directions, forms and access at city scale
The city consists but of relationships between the measurements of its space and the events of its past. Italo Calvino, Invisible Cities.

The analysis of the site begins with the vision of a bird. The dominant directionality is reinforced by the coastline, the flatness of the coastal plain and the edge of mountains beyond. Even the growth and circulation of the city pays homage to the coast. The site appears perched on a small plateau lodged on the north shoulder of Montjuic, a mountain above the city. The city spreads out evenly as if a continuation of the ocean that borders it. The uniform grid of the city breaks down into smaller chariotic patterns as if surf on the shore of an island or the eddy of a stream. The contours of the mountain ripple down, they exchange at the edge with neither the grid or the mountain dominant. The winding block and undulating roads up the mountains appear almost an intensification of the fictitious lines of mapping and contours. The singularity of the mountain seems imperative to the placement of the city along the coast, with the castle crowning the peak as exclamation to this fact. The importance of the peak as a landmark and spirit of the city is understood. As you approach, swooping down towards the site, the drainage and ground forms
City as objects & space

The edge and its reciprocal forms
lose their gracefulness and become fragmented on their journey down the hill. The vegetation begins to take form. In places it appears to run its natural course of following the drainage and flourish on the north side in the warm Mediterranean climate. In other places it appears formalized, in submission to the desires of the gardens and paths that define the hillside. As you zoom closer, the prominent ground forms become identifiable. The long formal axis of the old exhibition grounds rams into the hillside. This terminates into the ominous National Palace. This is
Site model showing site, mountain, city and harbor.
Scale 1 = 200
an overwhelming stone structure crowning the long succession of stairs and landings. It sits on the brink of a broad plateau tucked into an almost exaggerated edge that skirts the entire north side. In the shadow of this edge lies a powerful, cartographic phenomena; three grottos with steep, cliff edges separated by two fingering promontories. The power of these reciprocal forms heightens the presence of the edge in this place, almost pausing in its circuitous route around the mountain.
Ground form study

Dimensional / directional study
Memory

Zora’s secret lies in the way your gaze runs over patterns following one another as in a musical score where not a note can be altered or displaced... Between each idea and each point of the itinerary an affinity or a contrast can be established serving as an immediate aid to memory. Italo Calvino, Invisible Cities.

As you return and alight on the formal axis, the foot route from the city to the Olympic Ring is traced. The powerful character of the axis is overbearing, like a conveyer to the jaws of the palace above. You are relentlessly climbing up in a world of stairs, stacking planes and sliding plateaus. The character of how these are attached and the space between them seems to define the placement of the exhibition buildings and the series of edges and walls they define. These built terraces emote the understanding of contours. That of a scaled abstraction which makes the form of the earth available human modulated reconstruction. The hillside briefly becomes a three dimensional matrix of built and natural landforms. You return to the climb, the tumbling of the formal cascades in the center offer momentary, temporal and audial relief, but overall reinforce the composition. Even the enfilade offers only a brief interruption before arriving at the palace. The last climb heads to the doors of the palace and ends with a speed that takes your breath away. Wanting to continue up, you feel abandoned after
Boulevard between botanical garden and Olympic grounds

Existing stairs through site

Plateau with palace behind

Existing wall along upper edge of grottos

National palace from promontory

View from axis
the formality of the climb. You then bump along skirting the palace to find the plateau an even more vague space. It is randomly occupied by idling tour uses and loose configurations of pruned trees. It is the cultural memory of numerous exhibitions and temporary structures occupying this place that fill it, both with some images and some validity. The trees and landscape now appear caged, domesticated. The extent of human intervention becomes evident even in the seemingly natural landscape that fringes the plateau. The one sense of place is a small island surrounded by trees that provides a place for children to play. Again, it is signage that brings you to a lone stair that appears as a tongue up one of the promontories. It is while passing up and between two of these romantically ominous grottos that the presence of time and memory begins to change the configuration of site. Viewing into the chasm the steep edges no longer appear sheer. The fractures, blocks and vegetation all add a recognizable dimension to it. The range of sizes is complete and continuous. In relation to your own form the dimensional correlations are infinitely more understandable than the oversized, classical elements of the palace below. No longer is this edge and the grottos below the product of an ageless erosion but rather a man-made
disturbance in quarrying the stone for the palace and axis below. Soon the entire site is in flux. The configuration of the flora all bespeaks now of an intervention. Even with the seemingly free growth within the grottos, the site becomes an abandoned beard over the landfill that was placed behind the palace, a political punishment during the reign of Franco. Upon reaching the top of the bluff, the view behind you becomes captivating. You are now at the edge of both the construction of the Olympic Ring and the cliff above the site. The entire site now falls into the definition of landscape, that which can be comprehended in a single viewing. The palace now appears as another promontory with small towers and a dome perched on top. The eaveline now represents a reference plateau at the same elevation. The edge on which you are standing appears to now be snapped out around this new peninsula. This new line is brought forth, as if cartographically, and becomes the first chink in the axis. The potential for change in the site becomes very powerful, as if by flashback.
Site study: forms & vegetation
Marco Polo describes a bridge, stone by stone. "But which is the stone that supports the bridge?" Kublai Kahn asks.
"The bridge is not supported by one stone or another," Marco answers, "but by the line of the arch that they form."
Kublai Kahn remains silent, reflecting. Then he adds: "Why do you speak to me of the stones? It is only the arch that matters to me."
Polo answers: "Without stones there is no arch."

Italo Calvino, *Invisible Cities*

You find yourself again on the axis headed up the hill. The powerful experience of the palace is now interrupted by its crowded placement on the new edge. Its singularity is also interrupted by the presence of flags and banners. Those that move up the hill appear to be at the same scale as the small flags snapping in the breeze nearby, yet perspective tells you they must be of a much larger scale. They seem to float above the hill as if contours had freed themselves and were now defining a new depth to the mountain. They move up the hill in the direction of the Olympic Ring. As you climb up the axis, they set up a territory that seems to relate more with the horizon than the hill. Up with the flags the banners also share the same heart, the wind pumping life into them giving the entire hillside a slight rustle and shimmer. As you reach a platform, two levels below the palace, the presence of a few low, curvilinear walls checks
Site study: abstracted forms, contours, access and relationships

Early sketch model, site study
your progress up the axial treadmill. The next platform is more dramatically interrupted, with the left staircase being encroached by this same set of low masonry walls. The first of the large fabric structures swoops down to greet you. It brings with it a number of elements that spill out onto the axis at the crossing of the enfilade. This is not unlike the neighboring Mie's pavilion. The building elements each describing a full range of space, use and size, doth independently and as the collective form. Although the perpendicular enfilade is now reinforced with another
Built and unbuilt forms, edges

Contours as form: early site diagram
fabric structure, the presence of other elements denies the axial, cross-axial control of the baroque plan. The strongest of these elements is a ramp moving up the hillside through a new set of terraces. Closest to you the terraces free themselves from the ground in the form of cantilevered trays, appearing as layers of earth elevated up to expose the space underneath.

The possibility of shifting off the axis is reinforced by the shifted placement of two small arbors. They appear as the displaced entry sequence of the palace above, one being a cafe and the other an Olympic information center. As you start up the ramp, the rhythm of platforms continues and engages the floor levels of the palace providing a structure or form to the new edges,
Exchange between city and mountain forms.
contours. The palace is now understood as perched on this peninsula and its relationship crowns the rippling of the edge down through the axis and into the city. The appearance of a long, narrow water element moves you up along this edge. As you reach the crest, you pass under a small arbor with a tower. The four main elements of this new garden are all now at play. The walls, stairs, terraces, and platforms are all constructions of the ground form. They provide a scaled framework in which to understand, inhabit and move through the larger form of the edge. The presence of water is still as a marker of place or narrow and moving to provide local directional movement. The larger fabric structures overhead appear as the spatial compliment of access and ramps that move you along the edge and through the site. They also register off the edge to heighten the site's presence as territorial definition. The fabric can be seen as mist clinging to the cliffs of the edge, muffling the light, giving the entire garden a sense of alternating light and dark. The supporting structures are located to provide a rhythm to one's movement. As all of the elements, these structures have projected future lives as lamp posts in a different pattern offering a more local reading of the site than the directional fabrics of the Olympic
celebration. The last element is the collection of small arbors and towers that serve as markers, objects and gates at a more human scale. These allow you to calibrate your movement through at a slower, more optional rate than the larger elements previously mentioned. They at times provide places of rest or enclosure. They are also sited as counterpoint to the towers and dome now set on the cliff like a palace. This again reduces scale to engage the palace in a field organization other than the larger site move of the edge.
Macchu Picchu - A powerful built landscape that turns an uninhabitable ridge into a city. The agricultural terraces, temple placement and relationship to the small structures on the nearby peak all define the place of the central plaza. From this central space the location and importance of all the elements are available and reinforce your position as "anchor to the sun." Not unlike a Piranesi ruin, the site is seen in time and as undergoing a continuous transformation. As such its past is always envisioned as its future, against the inevitability of change.
As you pass under this arbor, the dark/light alternation of its canopy generates a sense of arrival as you move out onto the main plateau. After the passage through the terraces, this appears like a broad and generous space. From this vantage point, the upward sweep of the edge, and the organization of the site is available. It is here that the notion of a bridge conceptually begins to affect the form of the new edge. The presence of the overhead fabric structures make a temporary physical link between the ceremonial axis and the olympic grounds. But also present in the transformation is the concept of bridging. It is the crossing over of some limit, passage between two existing realities. The botanical garden assume a sacred dimension of traversing some obstruction, a direct crossing of limits or boundaries. Not unlike a bridge over the flow of water, this crossing can be seen as one of the first symbols of time.
Immediately to your left the terraces reverse their coordinates to become vertical walls as they move around the plateau and engage the palace. As they traverse the cross-axis of the palace, the walls temporarily liberate themselves from the terraces and ground forms they have been ushering around the palace edge. These free-standing walls are the influence of formal geometries of the palace. As such, they assure dimensions and forms related to the towers above. This is the lower of the two main exhibition pavilions. These walls, as the terraces they departed from, are made of ashlar masonry. The fabric structures reduce in width and increase in density as they swoop down low over the pavilion. They supply a muted quality of light that plays off the grove of trees the pavilion shares. The screen-like quality of the trees play off the stark walls to provide a range of spaces for viewing art and artifacts exhibited during the Games.
Okinawa Park - A masterful 20th century place. It escapes kitch through its directional placement in the larger city and understanding of the form, nature and place of ruins. The specific reference to built contours or terraces reinforces the scale, materials and intention of the larger form. It is the process of change and revealing one experiences that roots it to rhythms of the nearby ocean.
Sculpture Pavilion - The place is carved out of the trees and the circular pavilion placed on a pristine square. The isolated object is read as out of context, a pavilion, despite the repetitive form mimicking the trees behind. The walls are organized in a field with the small curves interfering with the strict math. This provides the place for the sculptures which inhabit it, along with the viewer to provide a human dimension. The omnidirectional canopy controls the quality of light and reinforces the scale. The access through the freestanding walls, though directional, becomes optional again through the interruption of the semicircular forms.

The nature of this space is heavily influenced by Van Eyck's sculpture garden. But unlike Van Eyck, the space is seen as a clustering along a larger form and not an isolated structure. Although both utilize field organization for overall form, the structuring of the two are very different. This pavilion is much more loosely organized, responding to its surroundings for its overall configuration. The experience is that of an African village where you can move easily through a variety of collective spaces formed by individual forms, and where both gathering and privacy freely interact. The reduction in size and increased density of the fabric provide a waving tent overhead. In this sense the building does isolate you temporarily from the site. As you move through the exhibition space, a number of options present themselves. Each of
Site sketch, edges taking form

palace dimensions transposed on site.
the three grottos, or quarries, participate in the formation of the edge and your access up through it to the Olympic Ring. The most easterly grotto has been expanded so that a bridge for vehicle access is now required to move through and over the edge. This excavation crowds the palace and strengthens the edge quality of the depression, in relation to the bridge, is the dialectic between real and virtual ground and heightens the edge experienced. This new portion of grotto is again affected by the formality of the palace in the formation of a small sunken garden. The edge then wiggles its way up the cliff to the plateau of the Olympic Ring. This access is composed of terraces and balconies or
sliding contours shored up against a long ramp. Again, water intermittently helps to define the clearest access, and murmuring the echo of the cerebral bridge. This gives the feeling of an encroaching edge built of spatial topographies. Another option from the plateau is to move from the pavilion into the cover of the grove. Here the walls return to the status of terraces, snaking their way through the grove. The exhibit space continues into these woods as the screen-like coverage above in some way mimics the rustling fabric left behind. The walls and terraces momentarily fade as they cross the road that bridges those at the previous quarry. As these walls climb the steeper edge of the central grotto, they again take on the more angular forms of the platforms first encountered. Although there is a small, winding stair up the side of the promontory, the large access clings to the steep margin of this grotto. The route scales the edge of the bowl by dangling veins down to find footing on the ragged edge. These trays bring you completely around to the opposite promontory before reaching the top. As these balconies find surer footing, they again reverse themselves into freestanding walls, only this time they seem to race off in a strong splayed geometry as if glad to shake off their steep ascent. This configuration counters the singular
1st pass site diagram: forms, access and relationships

Built landscape
geometry of the outcrop. From here, you can either move along the natural edge or enter the busy and most architectural space of the garden. If you move to the edge, the last, most westerly quarry is visible. Here the form of grotto is simply reinforced by radial terraces that travel its rim in independent fragments and directions. These blocks define the potential for built space as you progress around the perimeter. The cross-axis of the palace hurls the stacked shards into a broad staircase, stepping down to the water that fills the grotto. A ramp leaves the terraces and passes over the water to the edge of the garden and seemingly beyond. This strong, horizontal is oriented due west and as such, out beyond the site, the city and to the setting sun. The evidence of the older quarry work appears as an inhabitation of a pre-existing ruin and its essential form. As such it appears as a timeless piece with an almost mysterious history and purpose. Perched above is the old botanical center, rejuvenated to be both the future caretaker of the garden and the terminus of enfilade which was not traveled earlier. The new greenhouses are left open, incomplete to more gracefully accept more exhibit space. Again a small fabric roof derives from the larger ones overhead. This temporary shudder quivers with light and wind during its fleeting control of
Sketch model of greenhouse, ground forms (walls) and roof in lower exhibit area.
the Botanical Center. Although a few artworks participate, most of the exhibit space is for flora given from participating nations. As such this exhibit shelters the seed of the future gardens form.

Surrounding you in the Upper Pavilion one of the walls that splay out reaches over the edge and brings a trickle of water with it. This cantilever builds the height of this upper plateau, establishing a reference plane that reaches across the entire garden to the height of the palace standing on the far end of the quarry. The large fabrics rustle below, activating the spatial zone between the two planes, the plateau below and the edge above. You now enter the upper pavilion by a series of ramps that travel up tight to the walls. The walls define the larger exhibit areas and powerfully orient the viewer out over the site with a strength that almost beckons flight. Each wall denies the downward slope of the bank to shore up a patio of exhibit space. These are covered by a set of four, interlocked fabric roofs that reinforce the kinetic rush out over the site. These roofs are stretched over a trellis of mesh-like trusses. They radiate around the edge in yet a third configuration. The forms of the curved roofs alternate, concave to convex, creating an undulating motion and
Birdseye view of upper pavillion
quality of light within. As one progresses up the angular terraces, the slack between roofs create dramatic patterns of dark and light, generating smaller rooms and definitions in the exhibit spaces. The last wall shores up the broad ramp that sweeps up and over the bus loop. As the ramp becomes airborne, the released space underneath rushes out. The displaced ground spills out in the form of a series of small curvilinear walls that take the form of edges and closure for the underlying Information Center. As you move onto the ramp you join the hordes of people emerging along the bus platform. You head up the ramp under the one permanent metal roof structure. As you move up, it becomes near and heightens the sense of release as you move into the light. Looking down on the sweep of the vista below, you realize that the pavilion itself becomes an analogy for the entire site. Each element has an order of its own yet contributes to the larger organization. It is the experience and sequence of moving through that defines the form and its potential.

The large, curved information screen is the last of the markers that orient the pavilion to the dome on palisades of the palace beyond and integrates site as a whole. You turn and cross into the Olympic grounds and are confronted by
Pergamon - Part of the mountain is converted into part of the city; neither looses its characteristics. As such the mountain moves spatially through the precinct, defining it's place. The sequential order of the city starts at the harbor some miles away and progresses through space toward the high acropolis. In organization, the site becomes spatial through the orchestration of movements, changes in elevation and the alternation of vistas and controlled views. These determine the placement and experience of buildings. The entire region is fabricated, the port, large landscape tumuli outside the precinct walls, the buildings, even the stairs work to define the experience of placemaking. The Greeks were masters of the double issues of “form” and “site,” of the human identification of the self and the reverence for that which was outside the self, both as objective realities. The treatment of the landscape unified the relationship of man, the gods and the earth mother.
an array of technologically exuberant, yet static, monuments. One wishes that planners had the same spatial understanding that the Greek founders of the Games had in laying out their sacred compounds.
Parc Guell - The place is defined by the elevated terrace. This is perceived as a plane of elevated ground, which in its making yields two forms. One of the ground raised and a space, a market below approached by a stairwell and fountain. The second, and an important notion of a form unto itself, is that of collecting, storing and distributing water. The place of this plaza is then reinforced by the winding system of paths that always refers to it. These are also made by peeling up spatial contours into streets and caves of elevated ground.
Later, as you head back down the ramp, the large screen merely glows for the enjoyment of the restaurant-goers on the patio below and as a landmark to the city beyond. The fabric roofs now rustle in the form of growing arbors that have claimed the spidery truss work that remains. The lower patios are quiet spaces, now with subtle definition. The strong walls contain and the steel frameworks, plants, and water inhabit this hallowed space, where the bustle of the exhibit once stood. The light and pavement provide the movement through. On one patio the floor has an almost humansized chess board imbedded. The hushed space halts time, as through the seasons the young challenger replaces the master.

When you approach the edge, the grottos below have humbly recovered from the olympic crowds. The Lower Pavilion has disappeared, the free standing walls receding back to the terraces from whence they sprang. The whole edge has lost a bit of its clarity, sheerness as the many new
plants have charted their own roles. As you head down below...
Preliminary radial design of upper pavillion
Luis Barragan- Powerful, contemplative spaces that evoke the timeless character of sunlight, sky and walls that defines his cultural reality. His work integrates modern, even minimalist imagery which complete a personal and societal legacy of space. He employs figuration, as defined earlier, to create powerfully poetic spaces that flux of time. The forms invite and require interaction to generate the full depth of place. The use of walls speaks more of frozen space than boundaries or defense. They are not so much enclosure as containment of the "inner landscape"
CONCLUSION

Time present and time past
Are both perhaps present in time future,
And time future contained in time past.
If all time is eternally present
All time is unredeemable.
What might have been is an abstraction
Remaining a perpetual possibility
Only in a world of speculation.
What might have been and what has been
Point to one end, which is always present.
Footfalls echo in the memory
Down the passage which we did not take
Towards the door we never opened.....

T. S. Elliot, "Burnt Norton"

A synchronic notion of time defines both life's process and design transformations. Each layer and element evokes a new order, a new understanding constantly juxtaposed against older ones. The plurality of both potential and readings is intrinsic. The contemporary human condition is dependant on new, multiple perceptions, not invention. The landscape (both "inner" and "outer") of our surroundings are the temporal framework in which life's spatial and spiritual complexities are revealed. Design seeks to transform an existing condition to meet the potentials and aspirations of the next inhabitants. The relevance of nature's continuity, and the depth of its discovery are analogous to design.
Ancient Games 776 BC-394 AD
- First Olympic contest 500 B.C.
- Games took place in religious center, Olympia
- All wars voluntarily halted during games, broken only once, - Olympics viewed as religious ceremony designed to please gods
- Women forbidden
- After Roman defeat of Greeks in 66 A.D., Olympics began to fail, 388 A.D. Olympia ravaged, 394 A.D. Roman Emperor banned games and all temples destroyed, 500 A.D. earthquake destroyed remaining structures

St. Louis 1904
- 617 athletes (525 American, 41 Canadian), 12 nations
- St. Louis selected because of simultaneous World's Fair, which relegated Games to "sideshow" status as in Paris
- First sprinting event, first decathlon, first boxing event

Athens 1896
- 311 athletes, 230 from Greece, 9 sports, 13 nations
- revived after 1500 yrs by Coubertin, "father" of modern Olympics
- held in 2000 yr old ruins of Panathenaic Stadium
- first marathon won by Spyridon Louis, Greece
- all future Olympic stadiums designed around Athens marathon gate

London 1908
- 2000 athletes, 22 nations
- Rome withdraw as host after devastated by earthquake
- excellent organization
- acrimony between U.S. and Britain over judging
- White City, designed by Fulton, first stadium to be built specifically for Olympics, new standard for Olympic architecture
- stadium design too ambitious trying to accommodate too many events
- largest number of sports to date (21)
- first black gold medalist

Amsterdam 1928
- 500 athletes, 25 nations
- controversial first year for women to compete in track and field
- first temporary Olympic building (swim stadium)
- Olympic Village plans abandoned due to cost
- Olympic Stadium, designed by Wils, strong horizontal mass interrupted only by Constructivist ornament

Paris 1900
- 1319 competitors, 22 nations
- poor organization, overshadowed by Paris International Exhibition of 1900, which made Games financially feasible
- took place over 5-month period, creating confusion and farcical scoring
- first woman to compete (lawn tennis)

Stockholm 1912
- 3000 athletes, 18 nations
- excellent organization
- gymnastics popularized
- Jim Thorpe stripped of medals due to charges of "professionalism"
- Excellent stadium, designed by Gutf, with long, low mass scaled to street, strong Gothic features, basic form derived from Greek amphitheatres

Paris 1924
- 3000 competitors, 44 nations
- Paris selected by Coubertin to repair image of 1900 Games
- excellent planning and organization
- Colombes Stadium rebuilt and enlarged by designer Faure-Dujarric, confronting structural and circulation problems
- influential new swimming stadium designed by Beliere

Los Angeles 1932
- 1400 athletes, 34 nations
- carried out in spite of 20 Wall Street crash
- Olympic Committee set precedent by subsidizing athletes
- Most efficient games yet
- LA Memorial Coliseum largest Olympic facility to date
- First Olympic Village (for males only) completed Coubertin's vision of the Olympics

Berlin 1936
- 3450 athletes, 49 nations
- politicalization of Games by Hitler to show off Nazi organizational machinery
- Plans for racial discrimination dropped when U.S. and Britain threatened to boycott
- First Olympic torch relay carried by over 3000 athletes from Greece to Germany
- Grunewald Stadium redesigned by March, under Hitler's strict orders, from canceled 16 games
- First televised Games
- First marathon winner from Athens 1896 Games presented Hitler with olive branch, ancient symbol of peace
- Jesse Owens dominated track and field, destroying Hitler's propaganda about Aryan superiority
- Beautiful, complete, and permanent Olympic Village for men designed by March, Nazi architecture"vast, imposing, and powerfully ordered..."

Paris 1922
- 3000 competitors, 44 nations
- Paris selected by Coubertin to repair image of 1900 Games
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1944 Games canceled to WWII

1940 Games canceled due to WWII

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<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Athletes, Nations</th>
<th>Highlights</th>
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<tbody>
<tr>
<td>Los Angeles 1984</td>
<td>1984</td>
<td>12,000, 140</td>
<td>- Excellent fiscal planning</td>
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<td></td>
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<td>- Used existing and temporary buildings, leaving little identity to these Games</td>
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<td>- Logistical difficulties due to decentralization</td>
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<td>- First women's marathon, first synchronized swimming</td>
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<td>- First appearance by China in 32 yrs</td>
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<td>- Russia and 20 Eastern bloc countries boycotted for &quot;security&quot; reasons, but probably in retaliation for '80 boycott</td>
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<td>- First Games with corporate sponsors</td>
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<td>Tokyo 1964</td>
<td>1964</td>
<td>5,500, 84</td>
<td>- First games in Asia</td>
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<td>- Wiped away the scars of WWII and lifted Japan</td>
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<td>- Japanese &quot;masters of organization&quot;</td>
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<td>- Permanent improvements to infrastructure, major sections of city re-built</td>
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<td>- Meiji Olympic Stadium renovated from 1958 Asian Games</td>
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<td>- Architects masters of combining old materials with new design, emphasis</td>
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<td>- Craftsmanship, gardening, and traditional motifs (Maki)</td>
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<td>- National Gymnasium, Yoyogi Sports Center designed by Tange</td>
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<td>- Komazawa Gymnasium designed by Ashihara</td>
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<td>Munich 1972</td>
<td>1972</td>
<td>7,000, 122</td>
<td>- Arab terrorism in Olympic Village, killing 12 Israeli athletes</td>
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<td>- Two U.S. black athletes turned their backs on the U.S. flag during award</td>
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<td>- Ceremony, later suspended</td>
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<td>- U.S.-Russia controversial basketball game</td>
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<td>- Olympic Park, built over WWll airstrip, made up of abstract, high-tech</td>
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<td>- Buildings with flexible roofs, designed by Behnisch</td>
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<td>- Visual continuity of buildings achieved through glass walls</td>
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<td>- Park still major attraction, &quot;green, happy, vibrant, voluptuous&quot;</td>
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<td>- A built landscape</td>
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<td>- Major new infrastructure and planning for city</td>
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<td>Seoul 1988</td>
<td>1988</td>
<td>13,700, 161</td>
<td>- Attended by more countries than belong to U.N.</td>
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<td>- Attended by 21 more than ever before</td>
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<td>- Worries of North Korea disruption</td>
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<td>- Kyo Sung Woo Olympic Village</td>
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<td>- Political scandal about widespread displacement (10,000 people) to create</td>
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<td>Olympic &quot;poltrinh, image of Seoul&quot;</td>
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<td>Barcelona 1992</td>
<td>1992</td>
<td>6,000, 106</td>
<td>- Excellent organization</td>
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<td>- Major renovation of facilities</td>
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<td>Sydney 2000</td>
<td>2000</td>
<td>6,000, 100</td>
<td>- Excellent organization</td>
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<td>Athens 2004</td>
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<td>6,000, 104</td>
<td>- Excellent organization</td>
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<td>Beijing 2008</td>
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<td>6,000, 120</td>
<td>- Excellent organization</td>
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FOOTNOTES


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