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Ritual in architecture and the New England Holocaust Memorial

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RITUAL IN ARCHITECTURE AND THE NEW ENGLAND HOLOCAUST MEMORIAL

by

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ABSTRACT

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David Asofsky

Space is created not only by fixing forms but also by performing certain activities. The latter sort of space becomes most evident during ritual performances—the dances, games, and even battles through which cultures order the world and assert their beliefs. The spaces created by such rituals are temporary, existing only at the time and place of the performances. The power of such spaces, however, and their effect on the participants, have allowed some ritual spaces to survive far longer than any of the fixed, supposedly permanent constructions that have housed them.

There is an architecture in ritual activities, made evident by the combined use of choreography and costume. Choreography outlines the movements of a ritual, and costumes provide vehicles through which the bodies of participants create ritual space. Considering the integration of these two elements is essential when designing architecture tied to ritual.
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"...modernism was not thought to be man centered, it was, ironically, willed man; his shadow loomed more importantly than had been realized. Then, in 1945, those shadows became frozen realities, marked forever on the consciousness of man in the stones of Hiroshima and the smoke of Auschwitz. While the ruptures c.f. the Renaissance and modernism were created by man in the eclipse of history, the ruptures of 1945 were created by history in the eclipse of man."

-Peter Eisenmann "The Futility of Objects"

A great deal of contemporary philosophical discourse has focused on the crisis of history in our century. In architectural theory this crisis is reflected by the current investigations regarding architectural representation. If history is coming more generally into question, and if this questioning has affected the capacity for architecture to carry meaning, then contemporary thought is pressed, foremost, to find viable alternatives for meaning which do not rely on historical time and ideology.

In Cosmos and History, The Myth of The Eternal Return (1.), Mircea Eliade references numerous premodern societies, identifying their view of time as antihistorical, based not on progress and change, but on ritual and routine. An analysis of this work may provide a crucial step off of the Hegelian staircase, into another understanding of time and a potentially different sort of representation.

In brief, the concept of time which Eliade presents is a cyclical, rather than linear, construction. In such a view events become significant only in as much as they repeat and relate to eternal paradigms, such as the original creation or the battle between good and evil. In such a construct, Eliade emphasizes, rituals are much more than representations of eternal acts, they become the eternal acts, not merely copies of divine events, but reappearances.
"Insofar as an act acquires a certain reality through repetition of certain paradigmatic gestures... there is an implicit abolition of profane time, of duration, of "history"; and he who reproduces the exemplary gesture thus finds himself transported into the mythical epoch in which its revelation took place."(2.)

It is through this ability to reappear that ritual events can become eternal, and thus more sacred than any historical events which occur only once. Through such rituals of "eternal return", Eliade reveals the premodern method for making irrelevant the "terror of history"(3.) with which contemporary architecture seems to be faced.

Unfortunately, by the end of Cosmos and History, Eliade provides little reconciliation between the archaic societies which embrace the cycles of eternal return and modern historical society which is at a point of crisis. While he does recognize more recent cyclical diagrams, such as the expanding and contracting universe theories, these do little to relieve the current pressure of history. Even combinations of linear and cyclical time, such as Vico's spiral (4.), give little or no credit to the magic of ritual and its ability to deliver the human condition outside of the terror of history. In becoming historical and accepting linear time, according to Eliade, the comfort gained from ritual can be maintained at best as nostalgia, but not as a reasonable way of life.

There is an aspect of ritual, however, which Eliade tends to neglect. In all of the exploration of ritual time, there is only one brief passage in Cosmos and History which begins to consider that ritual involves not just time, but also space.

"...the construction rites show us something beyond this: imitation, thus reactualization, of the cosmology. A "new era" opens with the building of every house."(5.)
This can hardly be considered a thorough investigation of ritual space. However, there can be little doubt that the space of a ritual plays an important role in the event. A closer look at the capacity to describe such ritual space may provide the method for better reconciliation between the comfort gained from ritual repetition and the necessity of historical progress.

Some of the groundwork for appropriating Eliade into architectural discourse has already been set.

"Only to the extent that we, too, have remained "primitive" and continue to understand ourselves as part of a timeless order that assigns both place and measure to human existence, can we still call on ... symbols to defeat the terror of time." (6.)

This article investigates a number of time theories and draws numerous useful conclusions regarding the role of architecture in history. With regard to Eliade and cyclical time, though, the focus becomes somewhat narrow, concentrating on the necessary role of paradigmatic figures in ritual. "Building and the Terror of Time" thus concludes that, in architecture, certain forms which are repeatedly used, such as the dome or Doric column, can become archetypes through their repeated use. But by focusing on the forms, outside of a ritual, this appropriation of Eliade tends to develop typologies, rather than identify archetypes, and so quickly resembles a historicist approach, inheriting all of the current skepticism regarding content.

There are several more recent notable approaches to incorporating ritual and cyclical time into the process of architecture.
"Ritual formally defined man's collective action in the face of awesome nature. It marked the cycles of the heavens and celebrated the ages of life. Today's rituals promote and protect the psyche of solitary man in the daily business of a largely incomprehensible society." (7.)

Here there is an attempt to define the ways in which ritual survives today, as well as the recognition that the action of the ritual itself plays a vital role in the form of the space. Such an approach is also seen in the introduction to Bernard Tschumi's "Architecture and Limits III"

"Body's not only move in, but generate space produced by and through their movements. Movements- of dance, sport, war- are the intrusion of events into architectural spaces. At the limit, these events become scenarios or programs, void of moral or functional implications, independent but inseparable from the spaces that enclose them" (8.)

In these articles Tschumi argues the benefits of expanding the study of architecture beyond the realm of building, investigating disciplines at the "limit" of architecture, in order to enrich the role which architecture plays. Each of the activities he sites- dance, sport, and war- are of primary significance in the rituals described by Eliade. As well, the ritual role of these activities remains evident even in their contemporary manifestations. Taken and studied in turn, each of these activities help to develop guidelines for an architecture based in the cycles of a ritual rather than a moment in history.
Dance

"All dances were originally sacred; in other words, they had an extrahuman model...a dance always imitates an archetypal gesture or commemorates a mythical moment. In a word, it is a ...reactualization."(9.)

There are numerous similarities between dance and architecture.

"Dance has been called moving architecture, a truth which the complexities of contemporary choreography may mask. Not only does the dancers body form shapes and groups of dancers form moving or static designs, but also group arrangements carve up stage space, establishing areas of open as well as enclosed space which are significant in their changes and contrasting effects.....There is an "architecture" in the sequence of graphic symbols used to record dance patterns."(10.)

Both dance and architecture fundamentally deal with the manipulation of space, and both utilize the body in space as the focal point of this manipulation. As well, both have means notation for the intended spatial intervention. The greatest difference between dance and architecture is made evident by their notational systems. Through this difference the notation of dance begins to inform the making of a ritual architecture.

Architectural notation, such as plans, sections, and elevations, involve spatial characteristics including scale and dimension, materials and form. They are two dimensional constructions meant to identify or instruct three dimensional objects. Dance notation, while it may deals with this, includes another element decidedly missing from traditional architectural notation.
"...The process of dance notation requires reducing four dimensional movement (time being the fourth dimension) to a two dimensional surface."(11.)

Dance notation necessarily involves not only the space in which the dance will take place, but also the time, the order in which parts the space will be occupied, in what form, and for how long. As with musical notation, there is an ability to describe experience with more than form, but form over time, dramatic and in flux (fig. a). Dance notation therefore comes closer to describing the actual ritual event. Architectural notation, by comparison, lacks the same sort of ability for describing the activity for which the space exists. It is perhaps this shortcoming which inspired the inclusion of movement diagrams in Bernard Tschumi's Manhattan Transcripts(12.). In these works Tschumi uses photo stills, movement diagrams, and traditional architectural drawings to explore four different events in four different parts of New York City (fig. b).
"The insertion of movement or program into the overall architectural scheme implied breaking down some of the traditional components of architecture. It soon became clear that such decomposition permitted the independent manipulation of each new part according to narrative conditions."(13.)

Tshumi juxtaposes the notation of the "dance" in the Manhattan Transcripts with that of the architecture, allowing each to inform the other, eventually blurring the distinction between movement and form. It is through such a juxtaposition and even direct overlapping that the potential for dance notation to charge architectural drawings becomes evident. Through this overlapping the rituals of a space might begin to be described.

The overlapping need not be confined to drawings. Dance notation may be literally inscribed on a space, and in fact this method for teaching dance is centuries old (fig. c).
In these cases, it is only when the dance is being performed that the meaning of the notational marks are experienced, it is only at that time that the marks make space. The space of the ritual comes and goes with the ritual itself, and thus exists temporally, outside of history. As well, in the absence of the dance, the notation becomes a memory of the ritual, without disturbing its spatial temporality.

The inscription of two dimensional notation into an architectural space as a means of describing ritual movement has numerous precedents. The stones in the plaza before the Temple of Heavenly Peace in Beijing, which instructed the emperors ministers where to position themselves during state ceremonies; the freedom trail in Boston, which links the cities historic sites for pedestrians; even the inscription of lines on gymnasium floors, which will be discussed at length later, bear witness to the possibility, and sometimes necessity, for architecture to appropriate two dimensional notational systems similar to those in dance to describe a space.

Two dimensional marking is not the only way in which a study of dance informs the making of space linked to ritual. There are three dimensional components for dance which likewise rely on the activity in order to become architectural, and so inform the making of ritual architecture.

The work of Oskar Schlemmer (14.) is instrumental in understanding the relationship between dance and architecture. Schlemmer's work with dance was inspired by many of the same issues already discussed.

"For it was the unsatisfactory rigidity of sculpture that drew Schlemmer to the dance. He therefore lent even greater weight to 'its essence, movement, since the essence of other means of expression (painting and sculpture) is fundamentally static and represents movement caught in a fleeting moment' (Diary, 7 September 1931)" (15.)
With Schlemmer, the method of giving structure to the dance, thus uncovering architecture within dance, was not confined to the markings of his choreography. He also explored how the costume, as a three dimensional component, might be used to structure the dance. His costumes go beyond merely altering the exterior appearance of performer, they also act as prosthetic devices, extending the dancers body while at the same time limiting their movements, literally confining them within a space (fig. d). In this way, the costumes define the space of the dance, as would a stage or a room. But with Schlemmer's costumes, at the same time they limit and define the dancer, so is the dancer necessary for the definition of the space. Without the body to animate the costume, without the ritual event, the costumes become empty shells, with comparatively little presence.
"In Schlemmer's hands, costume becomes the total mask, the spatial case or casing animated by the dancer, and inhabited and propelled by him."(17.)

Architectural space, in perhaps a less confined way, also effects the movement of the figure within it. Indeed, the physical and psychological effects of a space on its inhabitants makes up much of the study of architecture. Schlemmer used his study of costume to describe these effects. He classified architectural space into four types, translated by the four marionettes which could dance in such a space {fig. e}.

"The costumed creations which become masked figures were developed by Schlemmer from the interrelational laws of the physical being in space. Where the laws of cubic scenic space dominate, the 'limitation' of the figure approaches movable architecture; where the functional laws of physical assembly predominate, the figure appears as a jointed doll; where the laws of physical movement in space dominate, the figure assumes a stereometric rotary shape. Finally, where the symbolism of bodily forms needs to be stressed, the costume enhances total dematerialization.

These diagrams display a very analytical if not typological approach to the dancer in space. However, the relationship between these figures and certain materials, such as glass and metal, develop later in Schlemmer's work and provide a wealth of important connections between the expressive movement of dance and the space of architecture."(17.)
By using costume to both manipulate and rely on the performer, Schlemmer touches simultaneously the structure and materials of architecture, the action of dance, and potentially the magic of ritual, the latter in the capacity for his costumes to transform his performers outside of themselves, outside of history.

"In the same way that the mask in cultist dancing had become the medium of the deity, so that the dancer served his god and incarnated him, Schlemmer used the mask as a means for a transformation into a new artistic figuration. In his Chorus of Masks they appear independently, asserting their individuality in its purest form." (18.) (fig. f)
According to Eliade, the role of costume in assisting cyclical time myths and is very ancient. Costume's role for informing architecture is comparatively new, but its potential has been given attention in contemporary so called "experimental" architecture. Notably, in a recent performance piece by architects Diller and Scofidio, "The Rotary Notary and his Hotplate", based on Duchamp's painting "The Bride Stripped Bare by Her Bachelors Even". In this piece, the costumes act to limit and control the movement of the performers in order to express the role of each character (19). Diller and Scofidio create four costumes (fig. g) which control the space of each performer, manipulating them on the stages space while altering the spaces character, like other pieces of the stage set, like pieces on a game board. The game board analogy in their work, and in ritual architecture, will be discussed at length later.
The appropriation of Duchamp's work into an architectural performance piece provides another avenue into addressing a ritual architecture, namely the sensual experience of the body in space. It is clear that in analyzing Duchamp's piece Diller and Scofidio meant to address these issues.

"The Large Glass is a self contained dialogue across that division. The Bride is on top, the Bachelor is on the bottom... The top is painterly, the bottom is mechanically constructed, with instruments... The lower plate uses projective geometry, it can be mensurated, the upper panel is free from mensurability. The play between two and three dimensions is part of an obsession Duchamp had about dimensionality in general and, particularly, in the search for the depiction of the fourth dimension."(20.)

Recall the quote from page 5. Diller and Scofidio took The Large Glass, which they describe as an "icon of Twentieth century art" and a "cult piece", and transformed it into an architectural dance notation (fig. h) to create a performance piece combining costume, dance, and architecture in an attempt to uncover some ritual befitting the twentieth century.
There is one very important issue, however, which is conspicuously absent in the works of Diller and Scofidio and of Schlemmer, perhaps absent in much of modern dance, but absolutely essential in dances associated with ritual, and with the creation of ritual space. This is the freedom of the bodies involved to interpret the dance and to discover the archetype. It is the Diocesan revel of dance, the potential for dancer and audience to share in the escape, the "non-history" of the dance. In short, the non-specificity in the choreography of ritual dance allows for the imagination necessary to step outside of history. In a contemporary performance, the choreographer has taken over the role of imagining, and the audience is removed. The piece is set on a stage, and the opportunity to experience the dance as a ritual has likewise been made distant.

There are, however, other sorts of contemporary performances whose origins lie in ritual events, and which to this day enhance more of the sort of removal once evident in dance. These are events in which the outcome is not predetermined by choreography, but which are choreographed non the less. Examples include the second of the activities called for by Tschumi's "Architecture and Limits", sports.

Sport

Potential elements of ritual architecture made evident in the study of dance are likewise apparent in many sporting events, albeit in a different format. As was mentioned, the overlapping lines of a gymnasium floor, like the lines of any playing field, act as a two dimensional notational in reference to a three dimensional space. Expressions such as "in bounds", "out of bounds", "off sides", "fair territory" and "home plate" make apparent the recognition and necessity of these markings to the space of the rituals. They connote imagined planes, describing a strictly adhered to but completely imaginary space.
Furthermore, in contrast to the dance notation described earlier, the playing field does not diagram one specific movement. Whereas these lines do control the activity of the game, of the ritual, and likewise limit the movements, they do not instruct. That is left to the ingenuity and imagination of the players. Playing fields are subject to the inscription of dance notation, of course, and in fact it is here that dance notation and architecture are most commonly seen in coincidence (21.) (fig. i). Such diagrams display the inscription of choreographed movement through mostly imagined spaces. It is an architecture that, like the rituals of eternal return, involve imagined space as the fundamental architectural role.

Further, in sports the power which this imagined space has is not confined to the performers. Its importance is cast over the spectators of the event as well. This of course relies in many ways on the intensity with which sports are enjoyed in modern (western) culture. When a ball on the foul line or a close call at the plate sends the crowd into an uproar, or a riot, there can be little doubt that the trance of the game has taken hold, everyone involved in the ritual has fixated on the importance of the field, on the marks which from almost nothing but commonly imagined rules create a space of intense experience.
As with any ritual, in sports there are enchanting costumes. Like the dance costumes described earlier, they frequently go beyond simple decorative uniforms and enter the role of prosthetic appendage. The baseball glove, football pads, and especially notorious in recent second rate horror movies, the hockey mask, all act to enhance the magic of the ritual, while at the same time playing a central role in creating the space. In fact this spatial role is played by virtually any piece of sports equipment, the bats, the sticks, all make up the costume through which the ritual can take place.

The spatial characteristics involved in sporting events are made evident in another sort of gaming, related to ritual and architecture in a different fashion, board games. In these games, though, the role of the body in creating the space has been removed. The ritual relies entirely on the imagination. The playing of such games provides an opportunity to explore the imaginations role in ritual space, and its relationship to architecture.

Nearly all board games require the participants to focus on the space of the board. The board defines the space of the ritual. This does not mean, of course, that all such games contain the sort of ritual space which intercedes in the terror of history. Many popular games carry the burden of the particular moments in history during which they were created. For example, the Parker Brothers game, LIFE, developed in the 1950's, is a clear reflection of that era in the United States. In the game, players move miniature cars along a linear path on which the events of a middle class lifetime are described. Cars which "attend" the college portion of this line inevitably earn more money, there are financial obligations if children are added, insurance must be dealt with, taxes paid, in fact a whole myriad of circumstances conspire against each player in order to prevent them from achieving the games goal, namely to disappear into the retirement home at the end the line with the least debt. While this game does create a miniature world for the imagined reenactment of events, in doing so it also reinforces, rather than relieves, the pressures of history.
There are other examples of games which can be traced to their moment in history, but which do not necessarily carry the burdens of reflecting their age. One recent example would be Monopoly, a game of real estate (an ironic play on words), which was developed during the depression of the 1930's. In spite of this origin, the objects of the game are very ancient. Players acquire wealth through property, mostly land, in order to overwhelm other players into bankruptcy. Since accomplishing that goal can take some time, the board describes a cyclical path, with pieces circling as many times as required. The significance of the cyclical path on the monopoly board should not be overemphasized. Whereas it does diagram that the game has no identifiably end, and perhaps also the redundant futility of developing land for purely financial reasons, it is the activity which the game represents which indicates its closest link to ritual. Obtaining and developing property in order to influence others is an ancient activity. Monopoly is one of the few appearances of a ritual which celebrates this. The activity is confined to the board, on which lies the diagram for the events for the ritual. As the pieces circle the board, a narrative unfolds through group participation, until the ritual reaches its end. The ending is always the same, of course, one player owns all, the ritual space on the game board tells this same tale every time the game is played. It is perhaps the opportunity to relive this fable which has kept Monopoly popular.

There are many games, whose origins are much more obscure, which survive in a large part because of the rituals they reenact.

"In the game, the forms give off severe magic: Homeric castle, gay knight, warlike queen, king solitary, oblique bishop, and pawns at war.

Finally, when the players have gone in, and when time has eventually consumed them, surely the rites will not be done."
In the east, this war has taken fire.  
Today, the whole earth is its provenance.  
Like that other, this game is forever”(22.)

Reenactment of wars and conflicts is the theme of hundreds of games and thousands of rituals. Borges poem illustrates the power with which this theme can grip its players, particularly in a game such as chess.

Again the board provides a two dimensional diagram of the ritual, the "hatred of two colors". Two opposite and, at the outset, equal forces, meet in a complexly interwoven dialectic. The chess board sets the stage for this ritual, and the pieces, like costumes in a dance, provide the magic. Chess sets have been used to represent the heroes of many cultures and many more battles. The Moors and the Crusaders, the Norman and Saxon, the Serb and the Indian, in recent times the Union and the Confederacy and even the mythic cast of Star Trek have played their part on the sixty four square grid battlefield of chess. But the specific forms are not significant. Whether a king represents William the Conqueror or Robert E. Lee its role in the game is the same. It is still a King, its movement is prescribed by rules, it is a dancer with a role, the part in the ritual is set.

All such games generate ritual space in much the same way. There is a board, or neutral ground, to outline the activity. This is the notation of the ritual. There are also the pieces, whose movement is prescribed by the most important ingredient, the rules of the game. With these elements, ritual space is made.

This approach to space, establishing a neutral ground and manipulating pieces according to rules, is not an unfamiliar architectural process. Many board games originated with diagrams drawn in the ground, as a planner might stake a floor plan.

There are other comparisons. The floor plans of Mies van der Rohe, for instance, frequently have a gridded ground plane as a conspicuous presence on which the space
making pieces are manipulated. Indeed, the neutral grid would seem the ideal board for describing the rules by which van der Rohe made space.

In the Barcelona pavilion, for example, the gridded floor is set apart on a raised platform. It is a raised board on which the pieces, walls of varying opacity, furniture, sculpture, and water, are manipulated [fig.j]. Unfortunately for this analogy, in the Barcelona pavilion the pieces became fixed, even the furniture was bolted down, and so the ritual of creating the space became formalized. The game is experienced only at its finale, after the play of creating the space is finished. It is like staring at checkmate, the pleasure of the game is over.

Another potential analogy for gaming and architecture may be witnessed in the withDrawing room, an installation project by Diller and Scofidio.
"In Diller and Scofidio's work ritual is a game that tests and trains the essential social faculty of possessing and processing information, the key ingredient of social status and survival today. The game is set apart from the everyday world and carries no physical risk." (23.)

In the withDrawing room, furniture is cut by and suspended above imaginary planes which emanate from dashed lines, resembling section cut lines (fig.k). These lines are inscribed on the walls, ceiling and floors of the space. By colliding this drawn convention with the objects in the space, Diller and Scofidio mean to engage those experiencing the space into playing with architectural meanings and conventions, thereby generating new meanings and inspiring new activity.

The richness of the architecture relies on the interaction of architectural pieces with imaginary lines, like the lines of a playing field (a soccer ball is suspended suspiciously on the second "floor" of the withDrawing room). The game board has become three dimensional, and the pieces respond to its rules.
While the withdrawing room may challenge participants' interpretations, and while the derivation of new rules from lines inscribed on space make the project noteworthy, this experiment in gaming and architecture suffers the same difficulties mentioned in the analogy of the Barcelona pavilion. Since the space is fixed, and again so is the furniture, there really is no game to be played. Diller and Scofidio are aware of this shortcoming—

"Their ambition perhaps is to establish an architecture where the hinges are not isolated events but pivots that activate a dense and continuous fabric of meaning, of forms and surfaces crowded with latent actions."(24.)

In both projects used as examples so far the architecture became a puzzle which the architect solved, rather than a game for the participation of inhabitants.

"Games, like puzzles, challenge the interpreter with their unusual combination of elements. Puzzles, once solved, lose their mystery; games, on the other hand, retain their fascination even when they have been decoded; in fact, it is only at that point that they become truly engaging."(25.)

It is important to keep this distinction in mind, for it is the reenactment in games which likens them to ritual performances. A ritual architecture would necessarily involve such reenactment.

A better example of the potential correlation between gaming and architecture might be a later work of Mies van der Rohe, the upper level of the New National Gallery of Berlin (fig. 1). Again the building is set on a raised gridded platform, removed like a game
board. Again the pieces of the building are masterfully detailed and manipulated on the site. But in this project, the space is not fixed. The interior partitions of the museum are hung from the ceiling, a structural grid. The pieces can be moved and manipulated, according to the rules of the board, for changing exhibitions and spatial programs. As well the curtains, a necessity since the building is sheathed entirely in glass, are manipulated to respond to the cycles of the day and year and their relationship to the changing exhibitions.

In the New National Gallery, Mies van der Rohe created a game board and the pieces for the display of art, and through them established the rules for this activity. But he left the playing out of that activity to others. The ritual of the space can be performed.
"Channeling the flow of space between the floor and roof planes, a system of suspended panels supplies the necessary hanging surface for the display of paintings. The usability of the space has been questioned, without much justification, since the huge space offers innumerable options for the installations of exhibitions." (26.)

The plan of the New national gallery project actually bears a striking resemblance to a board game of Asian origin, Wei-chi. Like chess, this game is considered a representation of warfare, but in a decidedly different way. Opposing black and white stones are placed on (not in) a grid in an attempt to enclose space on the board. Surrounded territory becomes the property of the player whose stones enclose it. If an opponents stones are also surrounded, they are considered captured (fig. m). But this game is not typically won by capturing an opponents pieces. Enclosing the most space determines the victor. As an representation of war, this game focuses on enclosing space efficiently. The reenactment is seriously respected, and mastery in Wei-chi was long considered an essential part of higher military training in eastern Asia (27.).

Wei-chi also introduces some of the corresponding concerns between war and architecture, namely the domination and control over space.
"Struggles, conflicts, and wars for the most part have a ritual cause or function... War or the duel can in no case be explained through rationalistic motives... Each time the conflict is repeated, there is an imitation of an archetypal pattern."(28.)

The role of war as a ritual activity has unquestionably faded in this century. Indeed, it is the inability to believe in a ritual return from the next great war which has inspired much of the skepticism regarding historical progress. But where the goals of war have changed, many of the elements which create the space of the ritual remain. Further, in war the elements of ritual space which have already been discussed directly relate to, and rely on, architecture.

In warfare there is choreography, with a necessarily remarkable level of precision. The importance of such choreographed movement was made evident over a thousand years ago when a force of trained but outnumbered Greek troops led by Alexander defeated the entire Persian army, whose greatest disadvantage was their lack of organization.

The choreography in warfare perhaps most closely resembles architectural composition, since the goals of surrounding, controlling, and commanding sites in an orderly fashion are common to both.

The ritual of war also relies on the presence of lines, as borders. Here again there has been a reliance on architecture to make physical the boundaries which are considered significant enough to demand peoples lives. The Great Wall of China is perhaps the most impressive such construction, but throughout time and the world similar such projects have derived form from the ritual of war.
But most revealing are the costumes of war. In these the notion of costume as architecture, introduced with Schlemmer, receives its most convincing examples. For example there is armor, the costume into which the body retreats for shelter. Medieval plate armor is perhaps fullest realization of this notion. The shelter is animated, as with any costume, controlled by and controlling its inhabitant. But the presence of hinges, locks and view port on these constructions make it evident that there are architectural concerns in creating the costume which must be satisfied. Such suits of armor might be viewed as predecessors to Schlemmer's figurines (fig. n).

Costume in warfare, though, can be viewed as extending beyond the role of armor. The weapons of war, like the equipment in sports, play a central part in the event and, like the other parts of a costume, rely on the activity to make them spatially significant. The sword and spear change and extend the space of those whose carry them, as is their function. Choreographed dances have long been a method of training the use of these weapons in both the Asia and Europe (ballet is renowned for improving the balance and precision of a fencer).
But in war, unlike sports, the equipment can serve both roles, as weapon and armor, as extension and shelter. The machines of war, the balustrades, battering rams and, in recent history, tanks and planes, both encase and protect their user while serving to alter and extend their sphere of influence. These are costumes, not for one person, but teams of people. And these inhabitants must move according to specific choreography in order to animate their costume. Such machines become stages for their occupants activity. At the same time they are costumes in the theatre of war. They are constructions in which the different elements of ritual architecture begin to become combined.

Architects have a long history of involvement with such machines (fig. 0). Vitruvius' tenth and final book of architecture includes a study of the improvement of war machines, and it is through this text that the relationship of architecture as a ritual can finally be realized.
Vitruvius' tenth book concludes with several chapters devoted to machines for war. But the beginning of the book is devoted to a different class of machine, one based on the same principles as the catapult and ballistae, but used for a very different purpose and serving a very different ritual. It begins by discussing the machines needed for constructing temples.

This juxtaposition is critical. War machines play an important role in their ritual, as do the machines for building, although the latter serve a constructive, not destructive role. It is perhaps for this reason that these machines have changed so little over the centuries. The pulley and platform, lever and crane are very much the same today as they were for the cathedrals, or even the pyramids. They are the costumes for people engaged in the ritual of making architecture.

Through the act of constructing, architecture becomes ritual.

What ritual but construction is better suited to architecture? During this time the activity must be choreographed. This is the time when imaginary lines are struck, and it is the time when the construction devices make animate the space.

In most cases, the ritual comes to an end. the building is finished, the costumes for its creation are dismantled, the reference lines are wiped away, and little memory of the ritual is left behind. The machines will be constructed again elsewhere, of course, and will perform their ancient dance, but their final product will be frozen in time and by time, no longer temporal, no longer the space of a ritual.

This need not be the case. Construction can be the architectural event of a larger ritual. In such a case, the appearance of the architecture signals the presence of the ritual, and when the construction is dismantled, so has the ritual come to an end. The architecture is the ritual, and so is the architect responsible for the event, the choreography, the board, the pieces, and through these, the rules.
The New England Holocaust Memorial program offers an opportunity to explore the potential for linking architecture and ritual. Judaism has survived more through the repetition of religious rituals than because of any particular site or space. A synagogue is created, not by its form, but by the activity it contains.

By creating a memorial which literally transforms from a place of individual contemplation to a space for a communal remembrance service—a temple—this Holocaust Memorial will juxtapose the two notions of creating space and of using architecture to preserve a memory.

The memorial design includes six forty foot tall walls which frame twelve inch by eighteen inch panes of glass. On each piece of glass a set of fingerprints will be etched from concentration camp records. The fingerprints are both specific to the individuals they identify and anthropomorphic enough to indicate the universal importance of the memorial. Further, the fingerprints give an indication of the dual role of the walls.

The walls of the memorial will, upon the eve of the Crystal Night and of the Shoah, be moved from the normal positions to form an enclosed place for the remembrance ceremony. The keys which unlock each wall from its fixed position will be circulated through the Jewish congregations in and around Boston, so that they all must gather together in order to create the space of the ritual. The walls are moved by the hands of the congregations members, leaving new sets of prints.

The movement of the walls both signifies the ritual and becomes part of it. The architecture itself provides the choreography and the costume for the special activity which takes place on this site. The means of moving the walls, mobile foundations in the form of railroad cars sunken below grade, will also be the space for CD ROM storage for the records of the Holocaust. In this way the memorial becomes not only a place for remembrance but also a place to access information which is to be remembered.
Axonometric Drawing of Wall System
Conceptual Rendering 2
NOTES


Eliade's text provides much of the foundation for this paper. He outlines at length the universal significance of ritual, and ties ritual to cyclical conceptions of time. Significant attention has been given to his work by architectural theorists, though few have focused on the implications of the rituals he describes, choosing instead to concentrate on his more limited discussion of archetypes.

2. Ibid. p. 35

3. Ibid.

The notion of the "Terror of History", in brief, stems from the uncertainty of the unstructured universe. Myths of eternal return are structuring devices, reassurances of universal patterns, as well as universal meaning. Eliade does not propose to revive such myths, and neither do I. However, the study of the principles and effects of these rituals is useful when confronting the problems of representation being addressed by architecture.


It is not my intention to discount the significance of Vico's theory. The notion of "recurso" and the spiral diagram of time, in which history does return on itself while at the same time growing outward, provides a very agreeable modern compromise between cyclical and linear conceptions. His theories, however, give inadequate recognition to the critical role rituals play in alleviating the "terror of history" described by Eliade.


In this passage Eliade cannot even be said to be dealing specifically with ritual space, but rather with the act of construction. This does suggest, however, some of the ways in which rituals of eternal return are necessarily connected with architecture. The survival of groundbreaking and cornerstone laying ceremonies, for example.


In this article Karsten Harries does recognize some of the difficulties between archetypal form and historical meaning. The focus of the article, however, then turns away from the significance of the activity of the ritual, which is the focus of my study.

8. Tschumi, Bernard, from "Architecture and Limits, III"


   Guest's work focuses specifically on the role dance may play in informing architecture. In this article she is tracing the history of dance notation as a moving spatial diagram, an ever-changing plan and section.

11. Ibid.


   The inclusion of movement diagrams in each panel of the Transcripts ties Tschumi's notational studio to the work of Anne Hutchison Guest. In Tschumi's case, though, the movement diagram is both formed by and forms the architecture in which it occurs. By juxtaposing both architectural and movement notation, Tschumi reveals their interdependency.

13. Ibid. p.9


   Schlemmer taught courses at the Bauhaus School of Design including Figure Drawing, Anatomy, Sculpture and Dance. His interest in the last was unique in the school, but Schlemmer seems to have been convinced that the study of dance was essential to understanding the body in space.


16. Ibid. p.43

17. Ibid. p.42


   Elizabeth Diller's explanation of this project is in many ways more enlightening than any single image of the performance can convey. Issues which she intends to address include center of gravity, vanishing point, division and section, masculine and feminine, mechanical and visceral, and solid and ethereal. The use of costume to explore these architectural interests makes the piece noteworthy in this study of dance and architecture.

20. Ibid. p. 88


22. In this poem, Borges' analogy between chess and the world extends the role of deities to the players. Eventually he suggests that God moves people through time just as players move pieces on the board. He further speculates as to the sort of field that God might be moved through.


24. Ibid p.56


   This distinction between puzzles, which have a fixed end, and games, which are open ended and therefore dynamic, is made in an attempt to classify some of the hundreds of entries in the books study of architectural elements. The notion is of "games" in architecture, in which space is manipulated by rules, or played with, but not fixed.


   This book deals at length with the notion that the board game presents an accurate representation of the events and strategies of warfare. The abstracted battlefield on the board is real enough to provide a means for discussing strategy through both metaphor and physical representation.

Of the rituals outlined by Eliade as cross cultural, the two which he sites most often are creation myths and great battle or conflict myths. Frequently these myths are combined.
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