

towards a poly-phon-ic environment

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Submitted to the Department of Architecture  
in Partial Fulfillment of the  
Requirements for the Degree of

**Master of Architecture**

at the  
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**t h e s i s   r e a d e r s**

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**Maurice K. Smith**  
Professor Emeritus of Architecture  
Thesis Reader

**Duncain S. Kincaid**  
MIT M Arch 1997  
Thesis Reader



.



For my parents.

# towards a poly-phon-ic environment

by

**Jesse Wu**

Submitted to the Department of  
Architecture on January 16, 1998 in  
partial fulfillment of the  
requirements for the Degree of  
**Master of Architecture**

## **a b s t r a c t**

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Thesis Supervisor: Imre Halasz  
Title: Professor Emeritus of Architecture

## Architecture and Music

This thesis explores an architectural/landscape environment where polyphonic metaphors are the means for exploration and investigation.

Polyphonic, as described in musical definitions/terms, is the style of composition in which two or more distinctly independent but organically related parts sound against one another. This combination produces associations within the piece that relate to various time lengths and musical instruments when particular musical motives, specifically melodic lines, play against one another. An interdependent relationship between the lines, a vertical association, is referred as harmony, while an interdependent relationship within the lines, a horizontal relationship, is referred as melody.

The significance of this metaphorical association with architectural form is the opportunity to create an architectural vocabulary that is exemplified by its richness and diversity of spatial, material, and subconsciousness qualities that moves beyond music's time sequential nature. It is an attempt to provide an environment that exhibits polyphonic qualities in a space-time sequence. Inherent to achieve these qualities, several issues must be considered. This includes; territorial definition and exchange (privacies vs. public), materiality decisions, physical reciprocity, lighting intentions...etc.

The vehicle for these studies will be a chamber music facility programmed for both practice and performance. It is a place where chamber groups or individual performers have decisions to select a place appropriate for their "style" of performance beyond the traditional enclosed concert hall. This includes decisions such as basic acoustical qualities, audience relationship to performance and appropriate levels of public and private levels of interaction. The multiplicity of use, both in performance and audience interaction, reinforce the polyphonic association.

Particular emphasis will address the following questions/statements;

How can the outdoor music building type (specifically for the chamber music) begin to challenge the place and performance aspects to provide a range of associations and interactions?

How can architecture and landscape exhibit polyphonic qualities that move beyond music's constraint of sequential time and experience?

How can the natural landscape begin to re-interpret interior spaces by creating a consonance of internal horizons and external cosmic associations?

**t a b l e o f c o n t e n t s**

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**i n t r o d u c t i o n**

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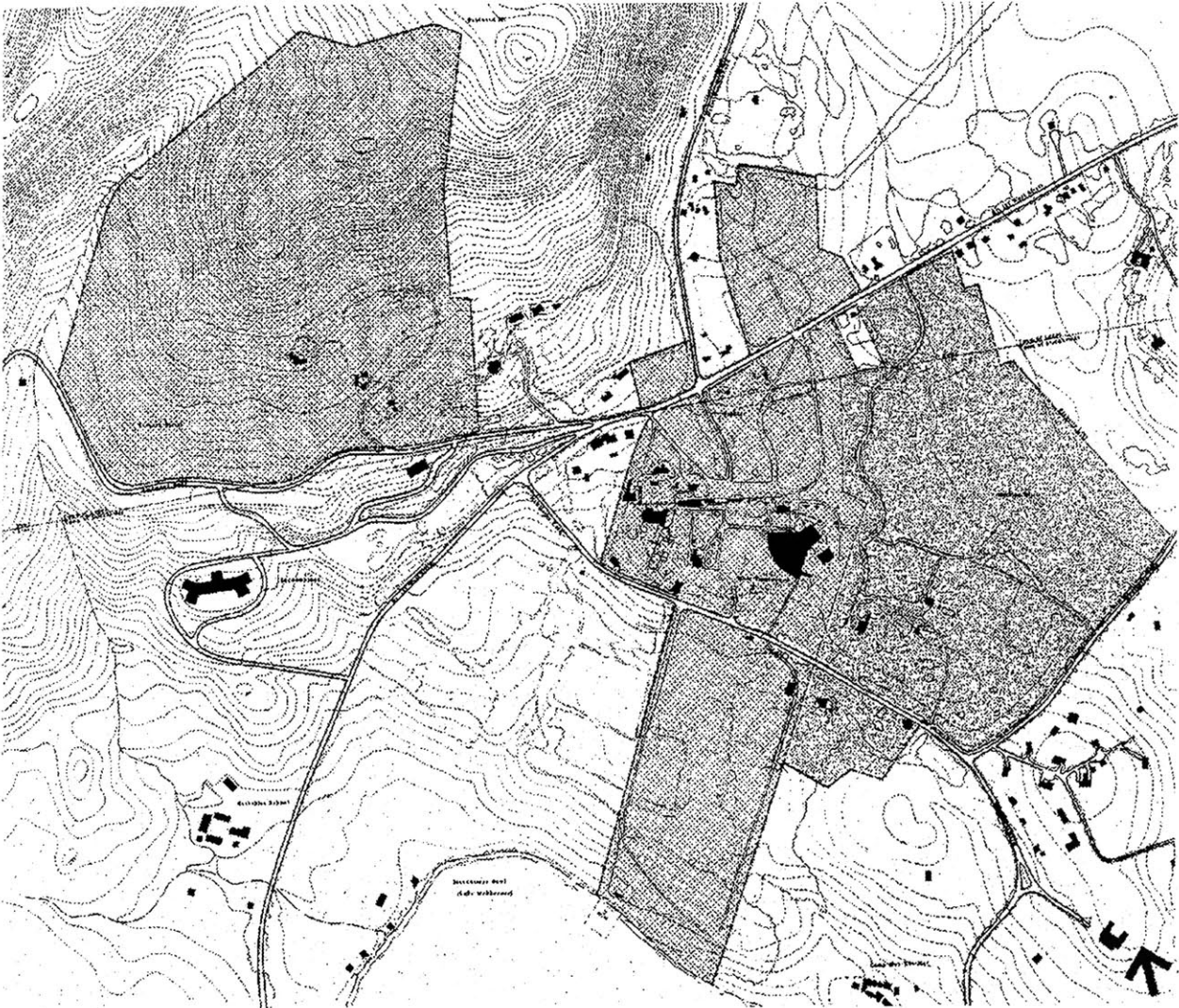
There have been many comparisons between architecture and music throughout history. Some have suggested that there are inherent and direct relationships between the physical structure of the two disciplines. One example is the classical notions suggested by Alberti and Vitruvius. Their interpretations of absolute beauty suggested that the parallel is a direct translation of elements such as proportion and composition from one to the other. The translation, specifically from musical notation of harmonic and melodic 'music-types' to architectural organization, can be considered a superficial realization. A direct one to one translation reduces the significance of these elements through a rationalized and unsympathetic design process. Considerations for architectural program and experiences require careful orchestrated spatial understandings and decisions that are intentional, not coincidental.

The inherent differences in perception also prevent us from making obvious translations. Musical harmony and rhythm are perceived through our ears, because of this, the variation of tone and rhythm is limited to our hearing perception

senses. Through our listening consciousness one can then begin to make associations of musical 'themes' from one period in time to others. The design of spatial organizations and fields that we inhabit are perceived through a combination of visual and other sensory stimuli. Because of this complexity, a thorough understanding of spatial qualifiers, such as physical form, light aspects...etc is necessary in order to design a satisfactory and pleasurable space.

Other possibilities for comparison of music and architecture include a study of architectural spaces that are generated by an intentional sequence of acoustical experiences or through a metaphorical process of comparison of similarities to generate an architectural form, both in experience and metaphor, that can be exemplified through musical analogies. This second alternative process suggests that the interpretations of musical experiences and composition should move beyond music's sequential nature and allow architecture to create a series of sequential experiences that is not restricted to a single time line or experience.

introduction.





This thesis explores the possibility that the translation from musical notation or style to an architectural environment can begin to accommodate multiple levels of experience of performance and architectural possibilities. These possibilities would include a range of material and light qualities, relationship of public and private experiences, various associations with landscape and architecture and numerous relationships with materials. This sequence would allow for multiple experiences and infinite relationships.

This documentation represents a partial record of the thesis investigation. An attempt to document the complete process would be an undaunting and almost impossible task. Included in this brief document are several key segments of the thesis research and presentation. Particular emphasis relies on the transcription of the final review, the decision to include this text are for several reasons. This text collects and presents the most complete and thorough information pertinent to any particular segment of the process. This transcription process also provides a more detailed analysis into the reviewer's comments for further intellectual compre-

hension. In the transcribing the verbal presentation, liberty in clarifying the text for reading comprehension and continuity has been included.

Entries from the thesis journal are also included. They are from the early segment of the research and attempt to document some of the earliest design thoughts and intentions. Though it does not document this process from beginning to end, it still does provide valuable and insightful information.

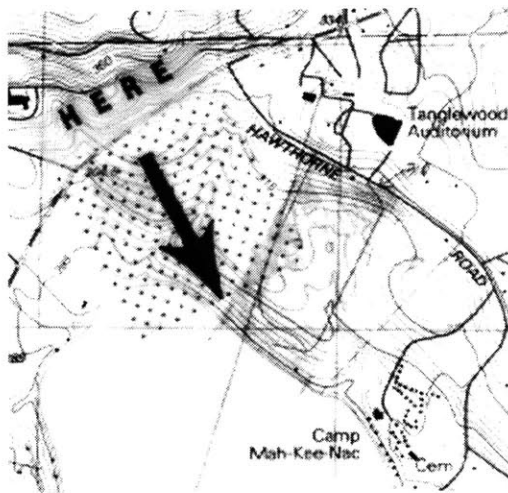
An expanded bibliography at the end includes a number of the references that have influenced this investigation.

Opposite  
**Image 1**  
Tanglewood: Stockbridge, MA, shaded regions are owned by Tanglewood. Mackinac Lot is opposite main shed connecting access to Stockbridge Bowl.

## acknowledgments

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I would like to especially thank Imre Halasz and Maurice Smith whom have provided me with the experiences and education that I sought for here in Cambridge. I thank Duncaín Kinkead who shared many discussions with me on architectural theories.

I would like to thank my friends and professors from UIUC and MIT, who provided me with a wealth of knowledge and experiences that I will remember forever.

I am forever grateful to my parents whom have given me the love and support to achieve what I have never expected. I also am in debt to my brothers, Mark and Dave, who have given me a youthful spirit and a unique camaraderie.

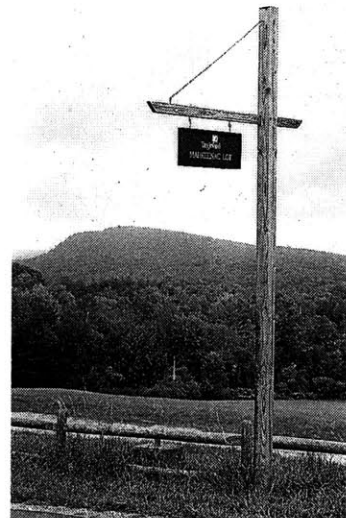
**f i n a l p r e s e n t a t i o n**

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**Stanford Anderson**  
Department Head - MIT, School of Architecture  
**Kevin Fellingham**  
MIT SMarchs Candidate  
**Peter Forbes**  
Guest  
**Duncan S. Kincaid**  
MIT MArch 1997  
**Francesco Passanti**  
Architectural Historian  
**Andrea Simitch**  
Cornell University - Associate Professor  
**Maurice K. Smith**  
Professor Emeritus of Architecture, MIT



final presentation.



Previous

**Image 4**  
Tanglewood south prop-  
erties - Mackinac Lot.

Top

**Image 5**  
View of entrance/souve-  
nir building

Middle

**Image 6**  
View of main lawn - look-  
ing south.

Bottom

**Image 7**  
Main lawn: partial tree  
covering.

JW Hi. My name is Jesse Wu. I am going to start by showing some slides of the site. Unfortunately it will be difficult to see since one cannot turn the lights off.

SA Doesn't that switch turn the lights off?

JW If I turn the lights off, it will take a minimum twenty minutes to regenerate.

The site is in western Massachusetts, in the Tanglewood area. Tanglewood owns several hundred acres in that region (See "Image 1" on pg 13.). They have been assembling land since their inception earlier this century. Within the past two decades, they have more than doubled their size through two donations. One of those lots, the Mackinac Lot, was selected for this project's site(See "Image 4" on pg 18.).

This lot connects the main facility to the Stockbridge Bowl as seen on this map(See "Image 8" on pg 20.). I'm going to start with a couple photos of Tanglewood. This slide shows the main entrance at Tanglewood(See "Image 5" on pg 18.). The building in the foreground is the main gift shop.

Immediately behind it are two lines of pine trees.

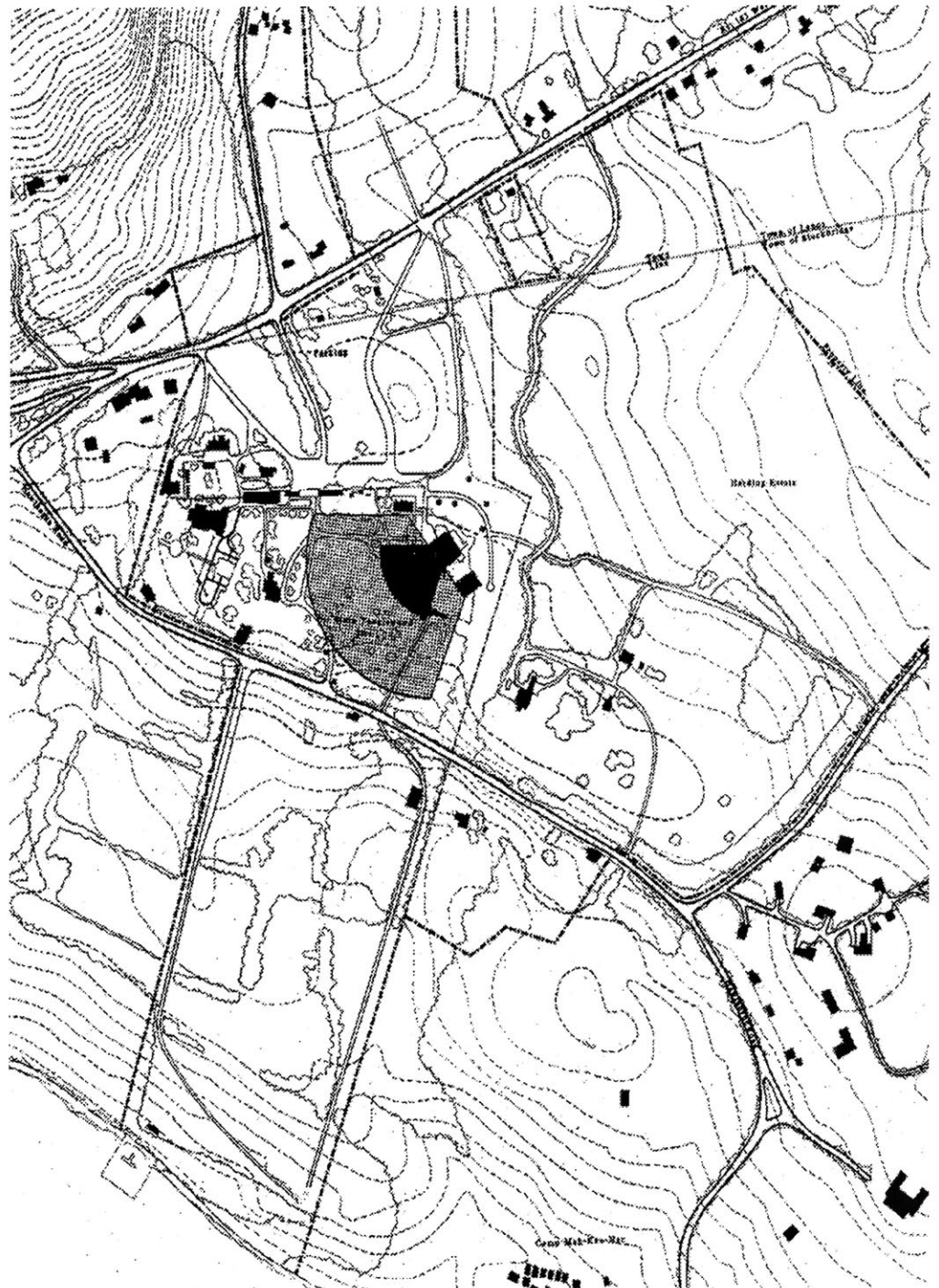
A little further is the main lawn, on the left side is the main performance hall(See "Image 6" on pg 18.). This view actually faces the direction of the site. As one can see, there is a gentle slope up from us, it eventually plateaus and leads down to the lake.

These photos are taken during the off season, one can see that there are a many people around (See "Image 10" on pg 22.). The grounds are open daily, year round to the public. Many families and groups will come for a lunch picnic on weekends.

There are relatively few trees in the main lawn area. The lawn is characterized by the openness and large sky above. There are however, a few trees in one particular side. Among these trees, there is a good deal of tree coverage for people to use(See "Image 7" on pg 18.).

These next few slides will also give a good feel for the lawn's atmosphere. In this particular slide(See "Image 10" on pg 22.), it shows the tall pine trees that surround the main boulder, it

final presentation.





divides this area from the parking lots. As you can see in the background, this area is surrounded by hills and valleys.

This next image shows the lion gate (See "Image 11" on pg 22.) located on the southern side of the lawn. This entrance is not connected to any of the main parking lots, rather, it is situated adjacent to the Mackinac Lot - primarily for VIP and employee parking. This gate is also directly opposite the project's site.

This is the view from the Tanglewood lawn, taken from the visitor's center - one of the old existing mansions on the site (See "Image 9" on pg 22.). One can see that in the distance is Monument Mountain, the famous mountain beyond the bowl, it is approximately four miles away.

These images will give you a sense of the trees and vegetation found on the site (See "Image 15" on pg 24.). In addition to the pine trees we saw earlier, there are many deciduous trees of many sizes on the site (See "Image 16" on pg 24.). The last slide shows one of the access roads to the lake's edge (See "Image 14" on pg 24.).

This road and the other are both covered from beginning to end with trees. Its intimate size in section encourages visitors to drive slowly as they approach the site.

These next series of slides are panoramics from various points on the site. They may be difficult to comprehend individually.

The first series is from the north entrance side of the site (See "Image 18" on pg 25.). The site is approximately 1,100 feet wide and 2,500 feet long, the grade change from this road down to the other end is about 100 feet. The opposite end fronts the Storckbridge Bowl and lake. That side enjoys a south facing view.

The next series of slides (See "Image 13" on pg 24.) is another panoramic, a little further down, but from the opposite direction. There is a mid-point clearing, would be the parking area for the project. One would drive from the main road, down the access roads and park here. The remaining approach to the project would be by foot.

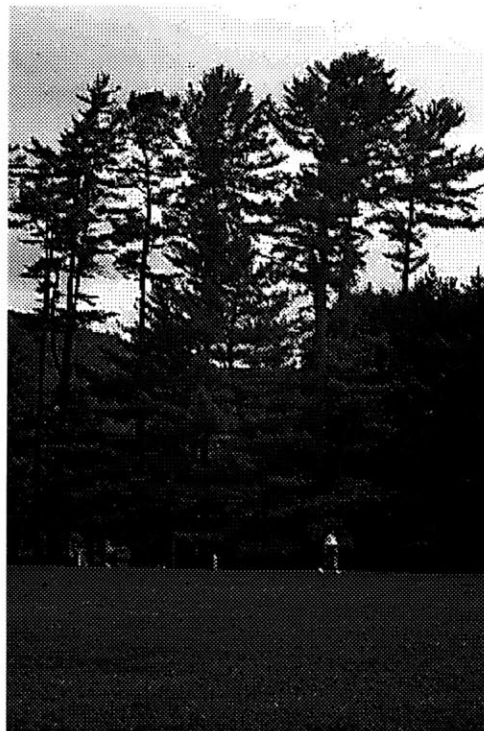
This last two series of slides (See

final presentation.

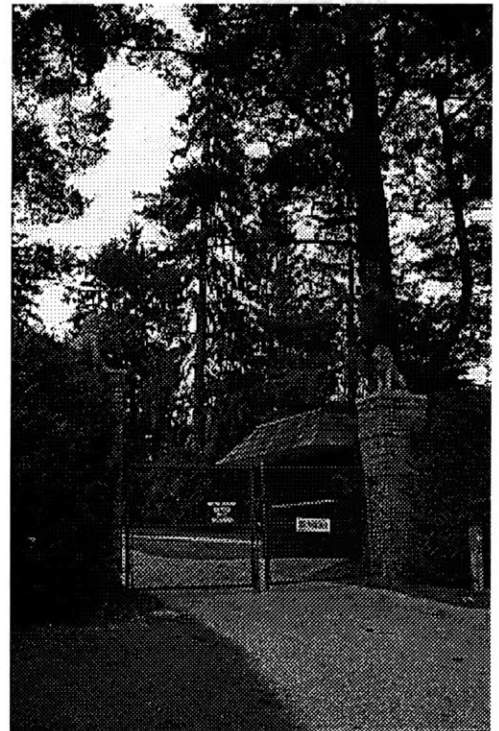


Top  
Image 9  
View south towards  
Monument Mountain.

Left  
Image 10  
View of main lawn.



Right  
Image 11  
View of Lion's Gate.



"Image 12" on pg 24.) show the existing beach and beach house and a panoramic of the Stockbridge Bowl. The beach house is abandoned (See "Image 17" on pg 25.).

FP Is this used by Tanglewood?

JW Again this facility, I'll show you in a second, is primarily a parking lot on the upper side for the performers and VIP. These are a couple photos from another same sort of festival in Chicago, Ravina. This is taken in night. The lighting characteristics in the evening makes the performances a very memorable experience. They have simply directed spot lights, mounted on tree trunks, into the foliage above (See "Image 20" on pg 26.). I'm going to talk about a quick comparison of the two centers.

It was a couple of years ago, rather four or five years ago, that I began asking questions that considered the comparison of architecture and music. I was not interested in the typical classical notion of proportional similarities, rather, looking at how one might make experiential sort of associations.

At the same too, I was also interested in classical music performance spaces. The year I spent in Europe was filled with a number of experiences of musical performances in many medieval churches, specifically France (See "Image 19" on pg 26.). I found that they could accommodate performances of many sizes, both performers and audience, without a problem. Not only were their spaces flexible in nature, they also provided an array of acoustical experiences, from intimate to intense. The atmosphere in these churches, with the music in the background, withdrew one immediately from the outside world.

Those medieval experiences are difficult to find in the performance halls of today. They have now been replaced by a two dimensional cinema type experience, as one friend described it.

One particular problem could be that these spaces lacked the flexibility in organization and variety of experiences. The prescribed organization of today's facilities attempts to create a monopoly of acoustical perfection.

final presentation.



Top  
Image 12  
Panoramic at south side.

Middle  
Image 13  
Panoramic at site mid-point - looking west.

Bottom Left  
Image 14  
East access road.

Bottom Middle  
Image 15  
Typical Foliage.

Bottom Right  
Image 16  
West access road.





Middle  
**Image 17**  
Souther edge of site -  
existing beach house.

Bottom  
**Image 18**  
Panoramic for north  
edge - Hawthorne Road.



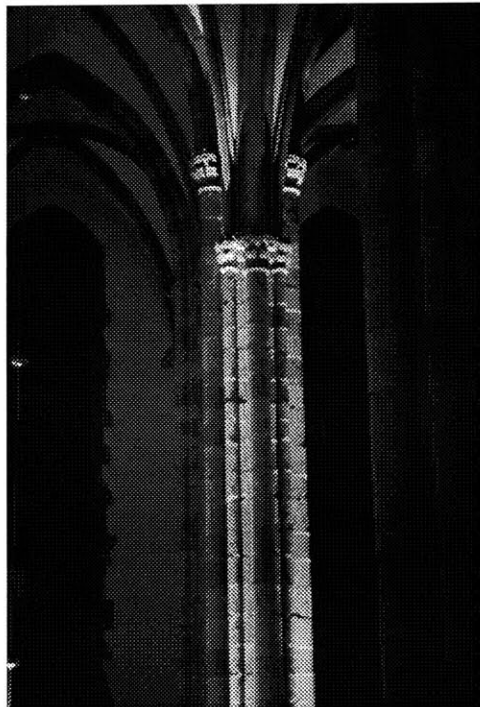
final presentation.

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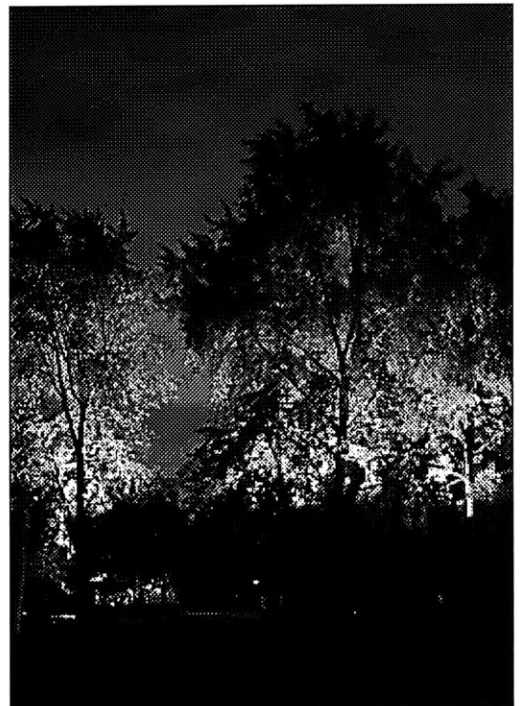
Left

**Image 19**  
Eglise St. Thomas -  
Strasbourg, France.



Right

**Image 20**  
Ravinia Festival - Chi-  
cago, Illinois, 9/5/97.





In outdoor performance halls, the situation and experiences are much different. In places like Ravinia or Tanglewood, the event is more true to the experience - there is not an attempt to create a contained instrument.

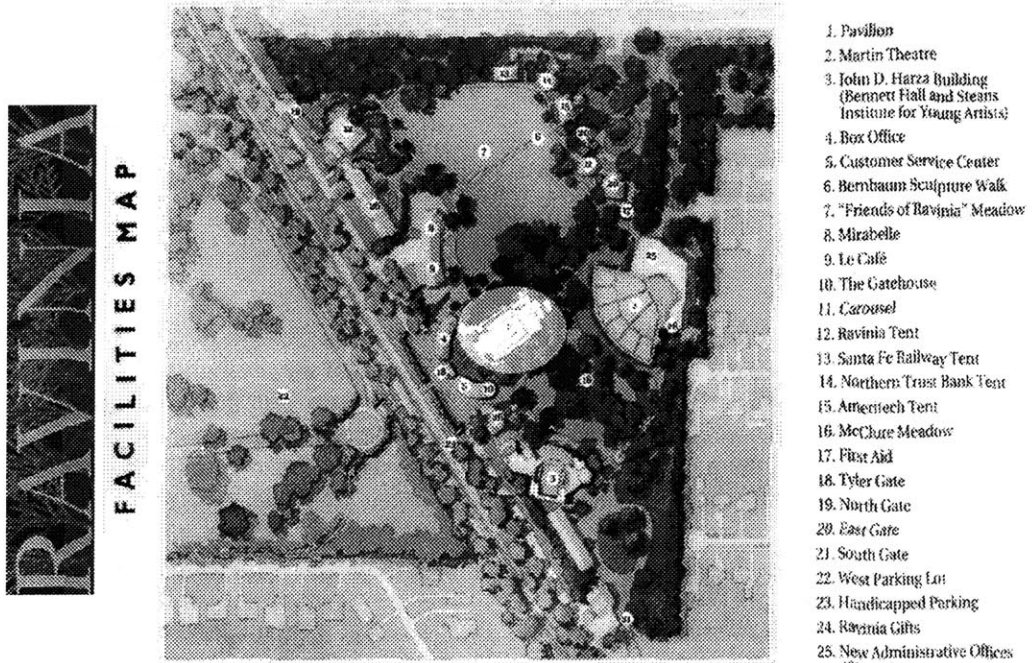
However, these two places have faults in their organization. They remain point controlled and provide a singular relationship with the audience and performer. Because of this, they can only support one type of performance, specifically the large event. If there was a smaller group of performers and audience, one was left with large empty space.

In these two particular cases, I will show the faults and merits of the plan's organization. In Ravinia (See "Image 21" on pg 28.), there is a large obstructive building found immediately outside the performance pavilion, highlighted with an oval. At first, the placement of the building may seem awkward and imposing, however, what this organization benefits from is that the lawn is now divided into two distinct regions with varying experiences (See "Image 74" on pg 80.). The remaining smaller

area is a much more private and intimate space with overhead tree cover. The opposite lawn, the larger half, is almost three to four times larger with more associations beyond the performance - the audience sits beneath a vast open sky. What is interesting is that in this facility, they have placed speakers (amplifying the performance) at regular intervals throughout the entire lawn. This decision greatly affects the experience, the audience is overwhelmed with a constant level of music defeating the range of experiences.

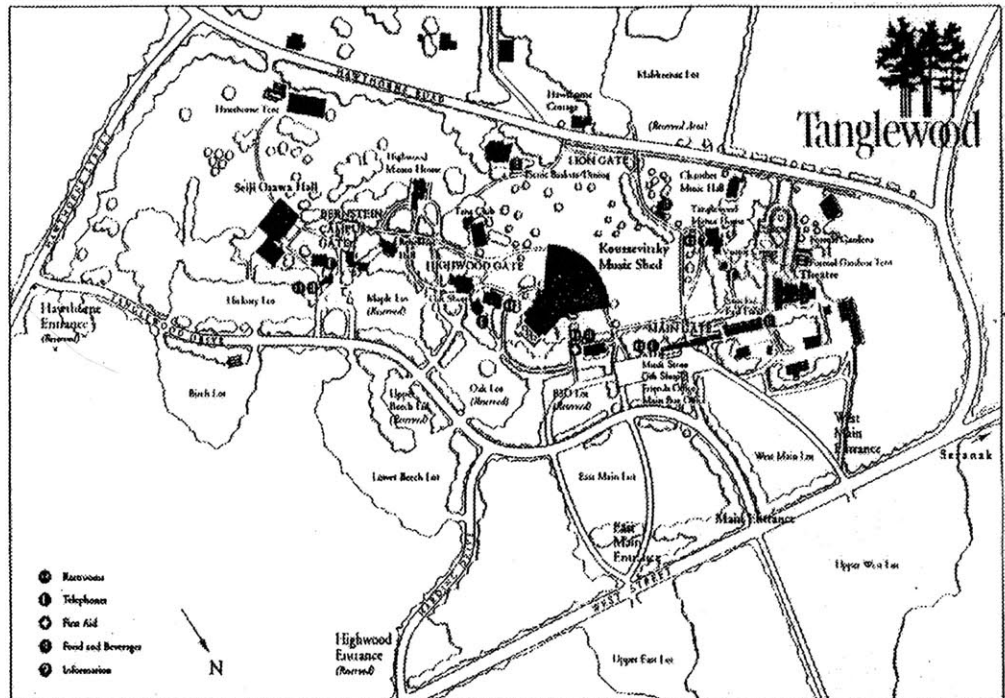
At Tanglewood (See "Image 22" on pg 28.), one finds an extremely vast and open lawn, much larger than the Ravinia with almost the opposite type of experience. The amplification speakers are located at the exterior edge of the performance shed, therefore they do not overwhelm the lawn audience. The lawn is uninterrupted and extends much further than the urban constrained Ravinia (See "Image 80" on pg 86.). The experience of the performance is varied and remains the most intense in the areas immediately behind the shed, as one gradually moves away from the performance, the association with the

final presentation.



Top  
Image 21  
Map of Ravinia Festival,  
Chicago, Illinois.

Bottom  
Image 22  
Map of Tanglewood,  
Storckbridge, Massa-  
chusetts.





performance loses to other social occasions. However, the Tanglewood lawn lacks the variations of privacy through physical structure as found at Ravinia. The Tanglewood lawn is more casual with a constant murmur of conversations in the lawn. Within this model, it begins to support a larger range of experiences and associations with the performer and other audience members.

However, both performance facilities begin to break down when smaller audiences are present. In these situations, the range of associations is lost in the smaller crowds. This was most obvious during the mid-afternoon practices when several hundred people listening were confined to the five thousand plus seats.

When I began this project I had some interest in some theoretical comparisons with architecture and music. Coincidentally, a vehicle for these studies would be a performance facility for chamber music. What I was interested from the theoretical perspective was the notion of counterpoint. Specifically, how counterpoint is a style of music composition that attempt is to create a musical experi-

ence both horizontal and vertical, melodic and harmonic respectively. Specific melodic examples would include various time lengths or frames(See "Image 23" on pg 30.). Harmonic relationship would begin to create experiences that include relationships of several instruments in the same particular motive of chords. These counterpunctual characteristics would then begin to cumulate in a musical experience that begins to make associations at a large range of time lengths, various music instruments, and similar or different motives creating one complete experience.

The association and transition from music to architecture would begin to suggest ways built environment can begin to move beyond music sequential time constraint. It would formulate an experience that allows for many varied and independent experiences and interpretations. Specifically, the possibility to be a part of various performances in a public manor or begin to participate in a very private and intimate immediate environment.

When I begin to define the program, the original intent was to work with a

final presentation.

**ANALYSIS OF MINUET II**

Minuet II in G minor, Rameau. *ANALYSIS: FORMER PRESENTATION FOR PURPOSES OF MUSICAL IDENTITY.*

Italic: Microanalysis  
 Roman: Middle-analysis  
 Bold: Macroanalysis

Eighteen-bar phrase group  
 Mot. 1  
 Mot. 2  
 Highest pitch  
 B (P)

Four-bar phrases  
 Eight-bar period

Mot. 1  
 Mot. 1 cad.  
 A (R with textural contrast)  
 Highest pitch  
 Written-out repeat  
 Mot. 1  
 Mot. 2  
 Mot. 1  
 Mot. 2

B (R with textural contrast)  
 Mot. 1  
 Mot. 1 inv.  
 v (simplified)  
 v half cadence  
 half cad.

16-bar A (D) double period  
 B. of Mot. 1 builds T (melody = T)  
 High point of T (Harm. + Rhythm = T)  
 B (D)  
 Mot. 1-0  
 12<sup>th</sup> half cad.  
 minor v (dec. line)  
 Phrygian cad. (half)  
 Mot. 1 inv.  
 Return  
 Mot. 1-0

Highest pitch A (D)  
 Mel. + Harm.  
 C

Mot. 1 inv.  
 v (v/v)  
 v/v  
 half cad.  
 C  
 (All elements)

Figure 5: Rameau, Minuet II in G Minor

*ANALYSIS OF MINUET II*  
 FORMER

site in Chicago, which is where I am originally from. But after some time, the importance of having a easily accessible site led me to choose the Tanglewood area. Because of the existing musical environment and facilities, designing a chamber music performance center seemed best to complement the existing facility. The existing facilities can accommodate from eight hundred to five thousand indoor and one thousand to approximately ten thousand outdoor. This site plan (not shown) illustrates the size relationship of both facilities

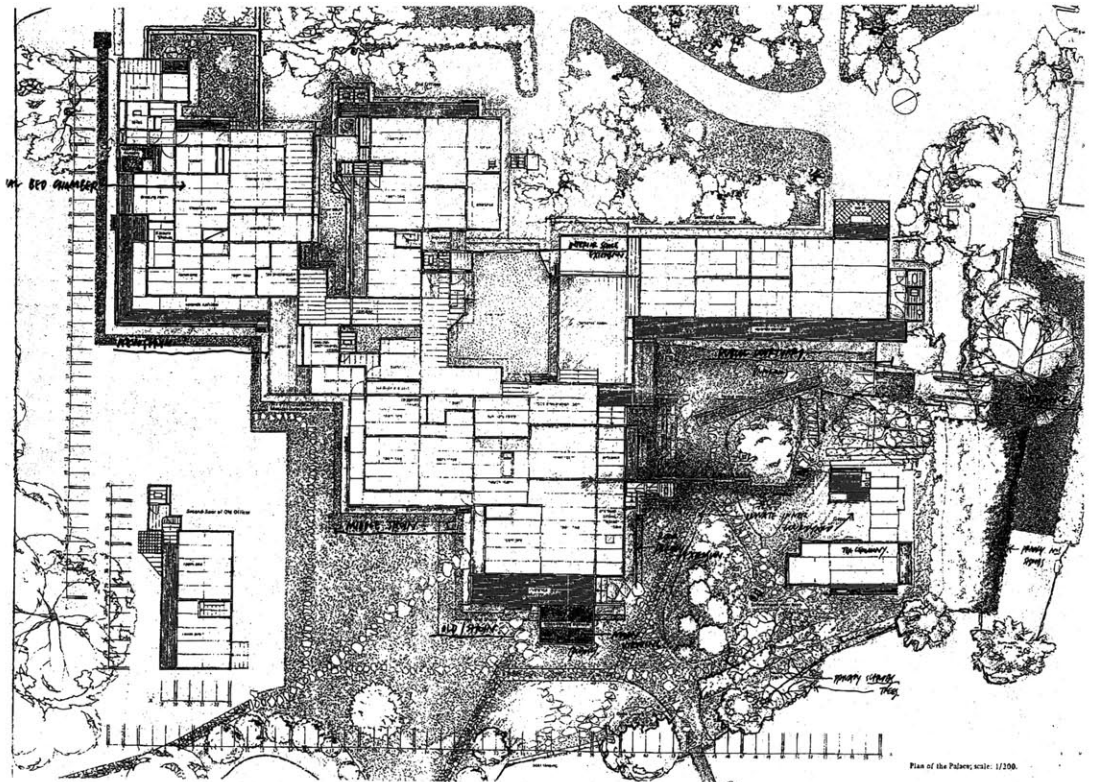
There was also an interest in investigating the relationship between landscape and architecture. Specifically how landscape can be an important part of defining the built environment and not always relying on the architecture or built structure for that definition. This relationship was more evident within the Ravinia plan. In this model, the location of the landscape, through means of berms, trees and shrubs, there exists a varied range of private and public associations. This was developed both in the horizontal (plan) relationships and vertical (section) definitions.

To begin this investigation, I began with a series of studies on precedents where landscape and architecture both play a critical role in defining the environment. This would begin to formulate a sequence of experiences that can begin to relate our understanding through different sizes by means of various materials, light qualities...etc. Specifically, architectural spaces that don't accommodate one particular use, rather spaces which can support various uses. I looked at a number of examples, this particular example, Katsura, (See "Images 24 - 28") can begin to define many levels of privacy and public spaces through landscape and berming, through materials that participate both inside and outside.

Given that, I'll move into the project now. The site, Mackinac lot, is about twenty five hundred feet long and eleven hundred feet wide (See "Image 8" on pg 20.). Currently many trees have been cleared to serve as surface parking for the performances. The change in grade from the main road down to the level of the water is approximately one hundred feet, with a plateau in the middle, which breaks the grade change in half. I began to

final presentation.

Adjacent  
Image 24  
Katsura Imperial Pal-  
ace, main building, first  
floor plan.



Plan of the Palace, scale: 1/200.

create a range of associations of musical performers with their respective audience. This also begins to allow for a range of participation levels. This is not meant to mimic the regular concert where all the participants have the same sort of experience but rather, an attempt to create a whole range of experiences.

I'll walk you through the project as one might experience it. The initial drawings and thoughts (See "Image 61" on pg 68.) began to look at how one can form and define levels of privacy and also introduce the water in the site, specifically to generate different sizes.

One of the initial things I was working with was to create one type of concert music hall (See "Image 29" on pg 38.), of how the building could begin to reflect sound through a series of reflecting surfaces to generate the largest dimensions possible (See "Image 30" on pg 38.). In this case, one could begin to use the water as a reflecting surface to generate the largest size. It was an idea that wasn't totally dismissed, but the departure is that the organization should not define a singular relation-

ship with the audience and performer (See "Image 31" on pg 38.).

So what I began to look at is how the building form and landscape by re-grading the site (See "Image 33" on pg 40.) can create a variation of sizes for different performances. This would then allow a performer to select the appropriate place for the event (See "Image 34" on pg 40.), specifically making decisions on how their relationship with the audience, audience placement and size, acoustic qualities, interior or exterior spaces...etc.

PF (interrupts) What is your audience load?

JW The sizes of audience? There are some diagrams that show the various possibilities.

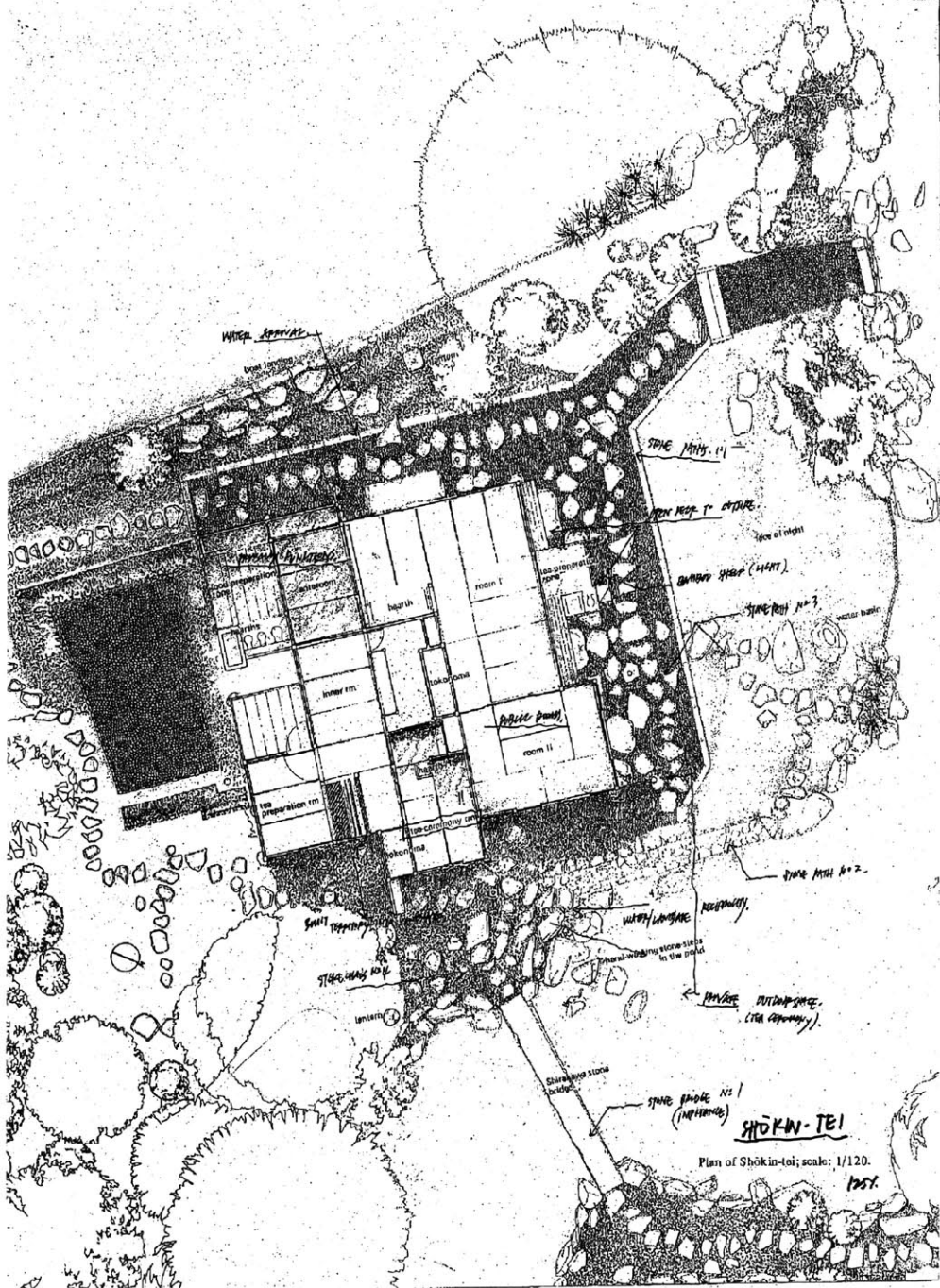
PF (interrupts) is fifteen hundred possible?

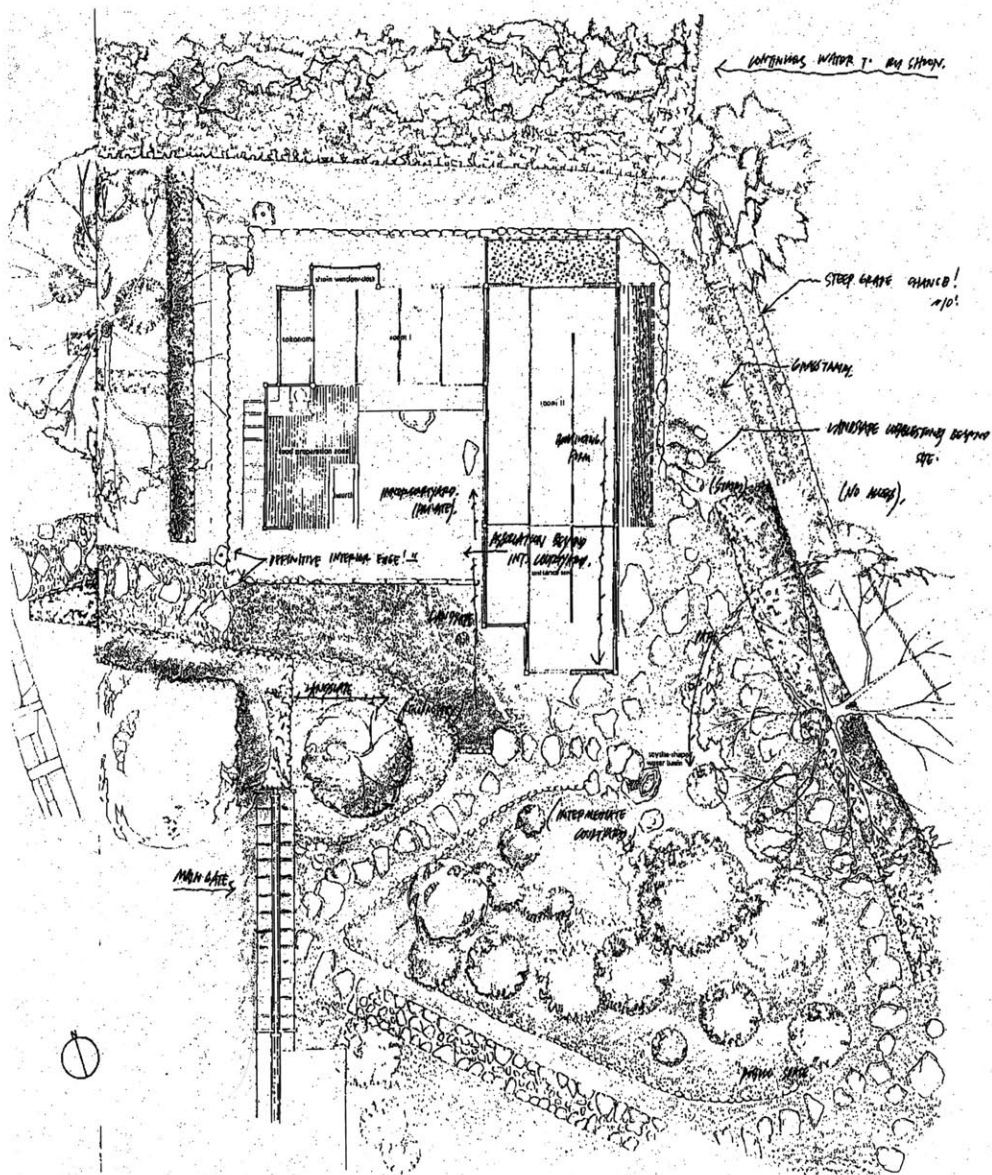
JW Yes.

JW These are the floor plans (See "Images 35 and 36."), there are four sections (See "Image 43") taken at each building. This first is taken

final presentation.

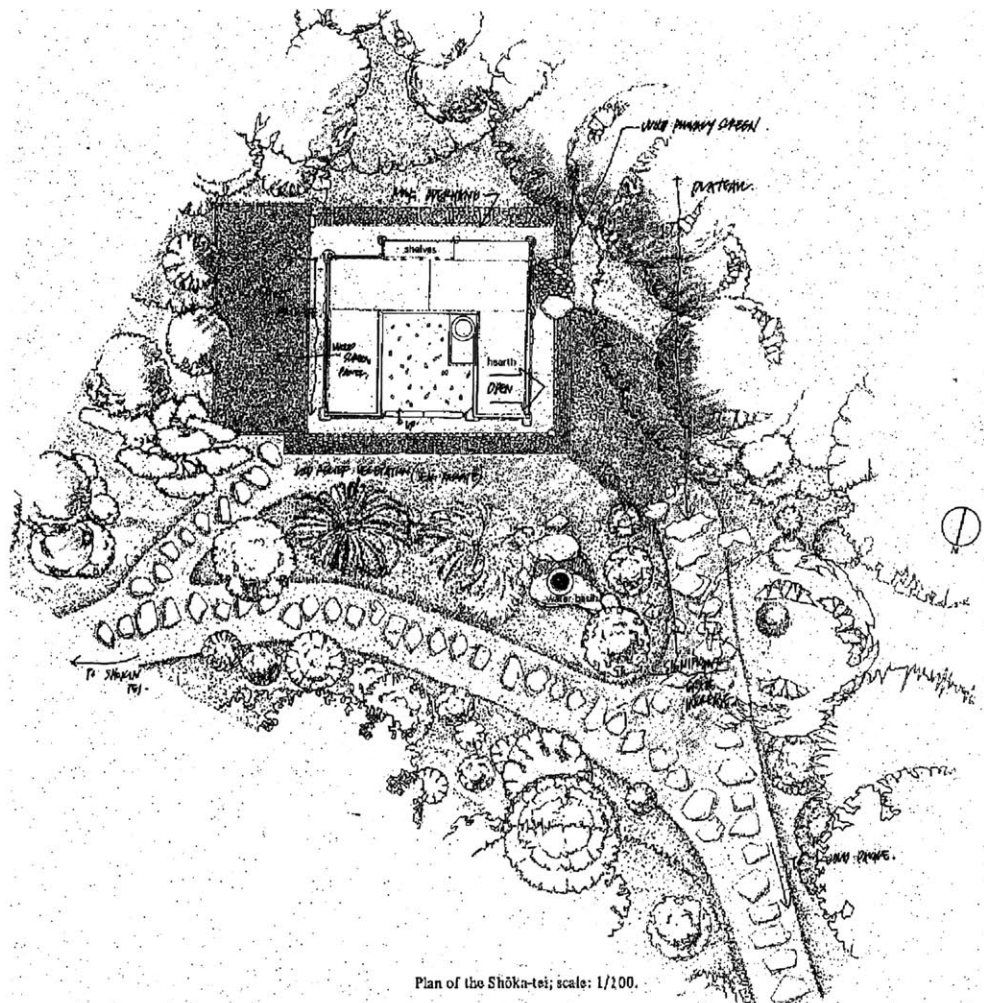
Adjacent  
Image 25  
Shokin-tei, first floor  
plan.





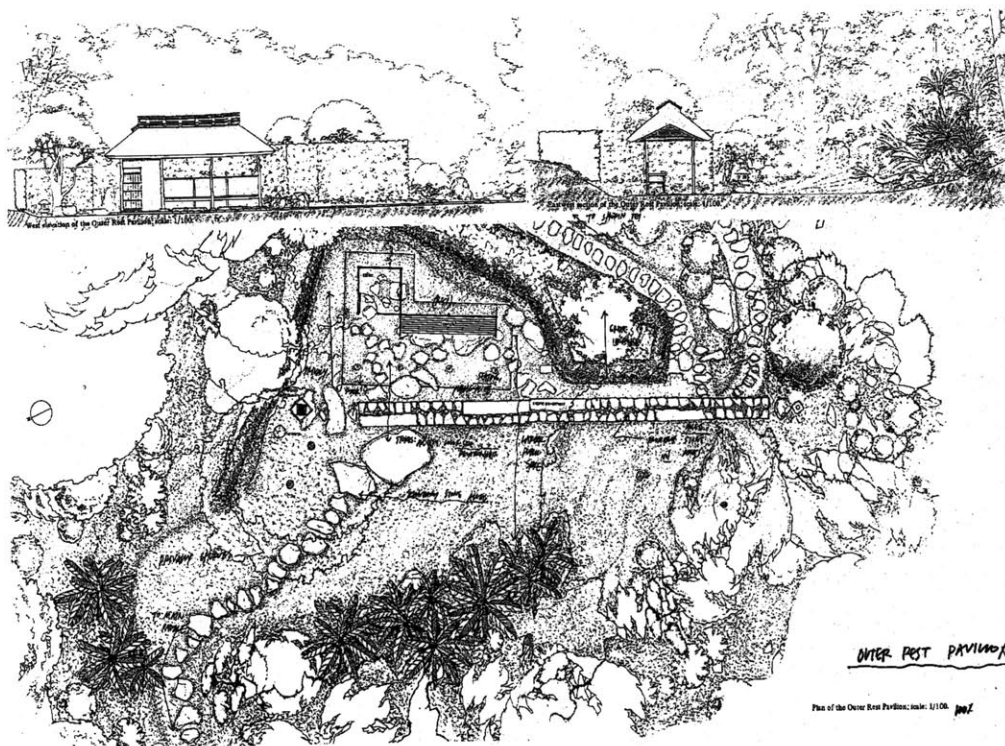
Adjacent  
 Image 26  
 Tea Pavilion I, first floor  
 plan.

final presentation.



Adjacent  
Image 27  
Shōka-tei, first floor plan.



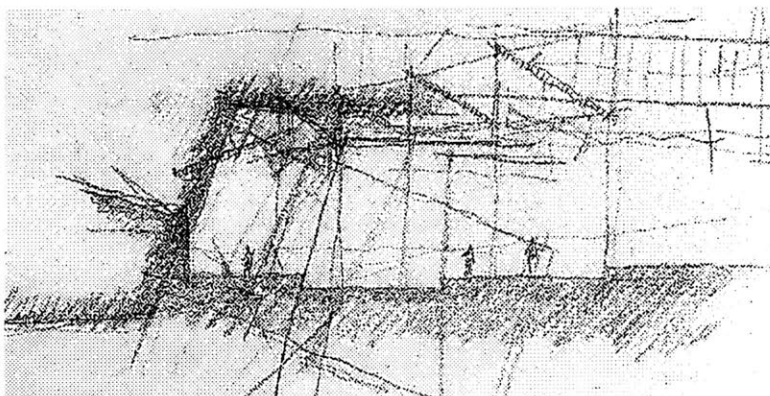
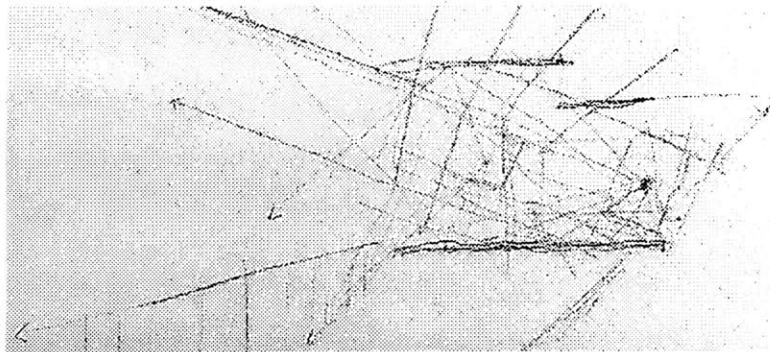
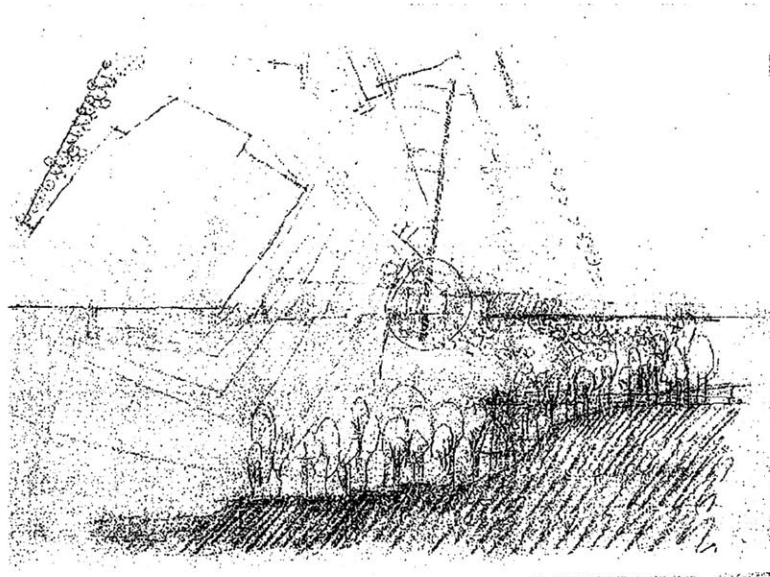


Adjacent  
**Image 28**  
 Outer Rest Pavilion, first  
 floor plan.

OUTER REST PAVILION

Plan of the Outer Rest Pavilion, scale: 1/100. *psj*

final presentation.



Top  
**Image 29**  
Early sketches, section  
and plan.

Middle  
**Image 30**  
Early sketch, diagram of  
reflecting surfaces, plan.

Bottom  
**Image 31**  
Early sketch, diagram of  
reflecting surfaces, sec-  
tion.

through this building and it continues sequentially. In these three drawings, the water is on the left side of the drawing.

Pause.

FP Could you walk us through it?

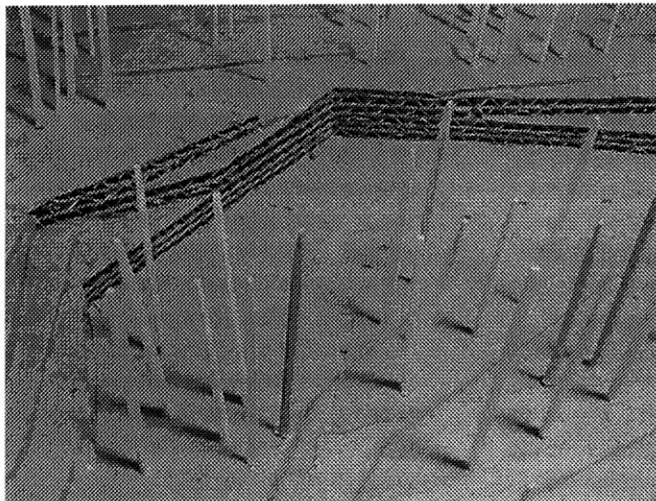
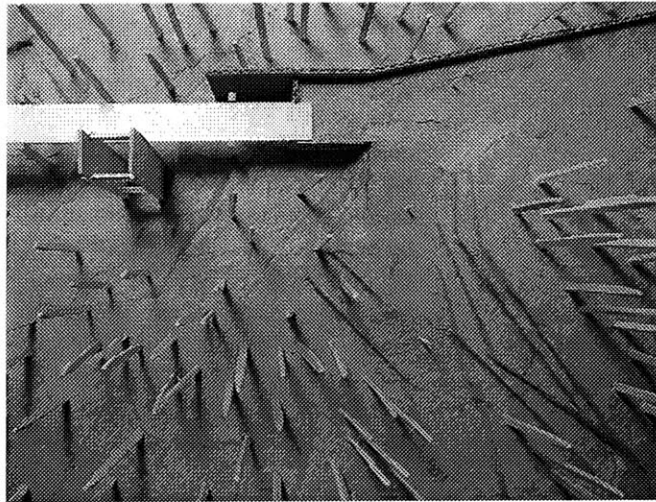
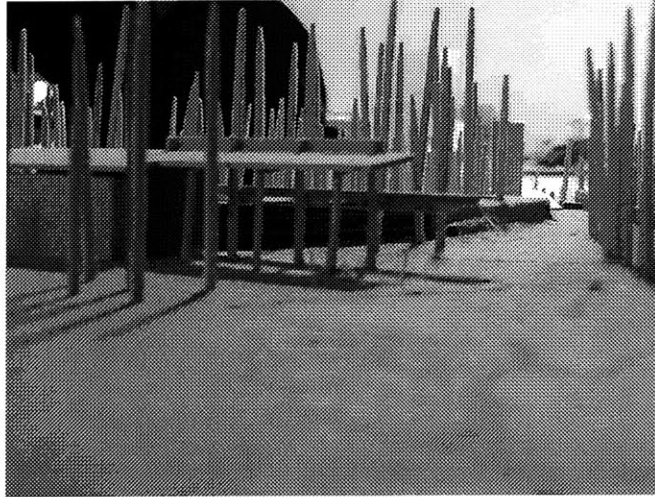
JW Sure. The parking is located above with a service and handicap access road leading to the main complex (See "Image 35" on pg 42.) for people who might not be able to traverse the section. The drop off point is here (points to drawing). Otherwise, if you wanted the experience in this direction, you park your car and walk over to the pavilion, where there is an information booth and restroom facilities (See "Image 32" on pg 40.), which one typically finds at the periphery. The orientation of this is very important, again earlier in the slides I mentioned Monument Mountain and that is the direction of the access. So as one move into the site, you begin to generate the largest dimension, beyond the lake or Stockbridge Bowl. As one proceeds through here, the tree line begins to move below you. Also as one moves down in section the mountain disap-

pears and other shoulders of mountains begin to formulate the immediate surroundings. Normally one would continue down the elevator or the stairs and as you progress through this point (points to model) one begins to understand the scale and the location of the where all the buildings are located (See "Image 40" on pg 48.). This building is primarily a support facility, it includes a restaurant and restrooms (See "Image 46" on pg 52.). This next building is probably considered the most private for performances (See "Image 41" on pg 48.).

AS This is the restaurant and restroom?

JW Yes, the restaurant and restroom. This building allows for different types of performances to occur. As one moves beyond that, these diagrams show how different relationships might occur (not shown). This allows for many opportunities for different types of performances. For example, (points to model) this is one relationship of performer to audience with these reflecting surfaces to intensify the sound at the farthest distance. Or here's another choice (See "Image 48" on pg 54.).

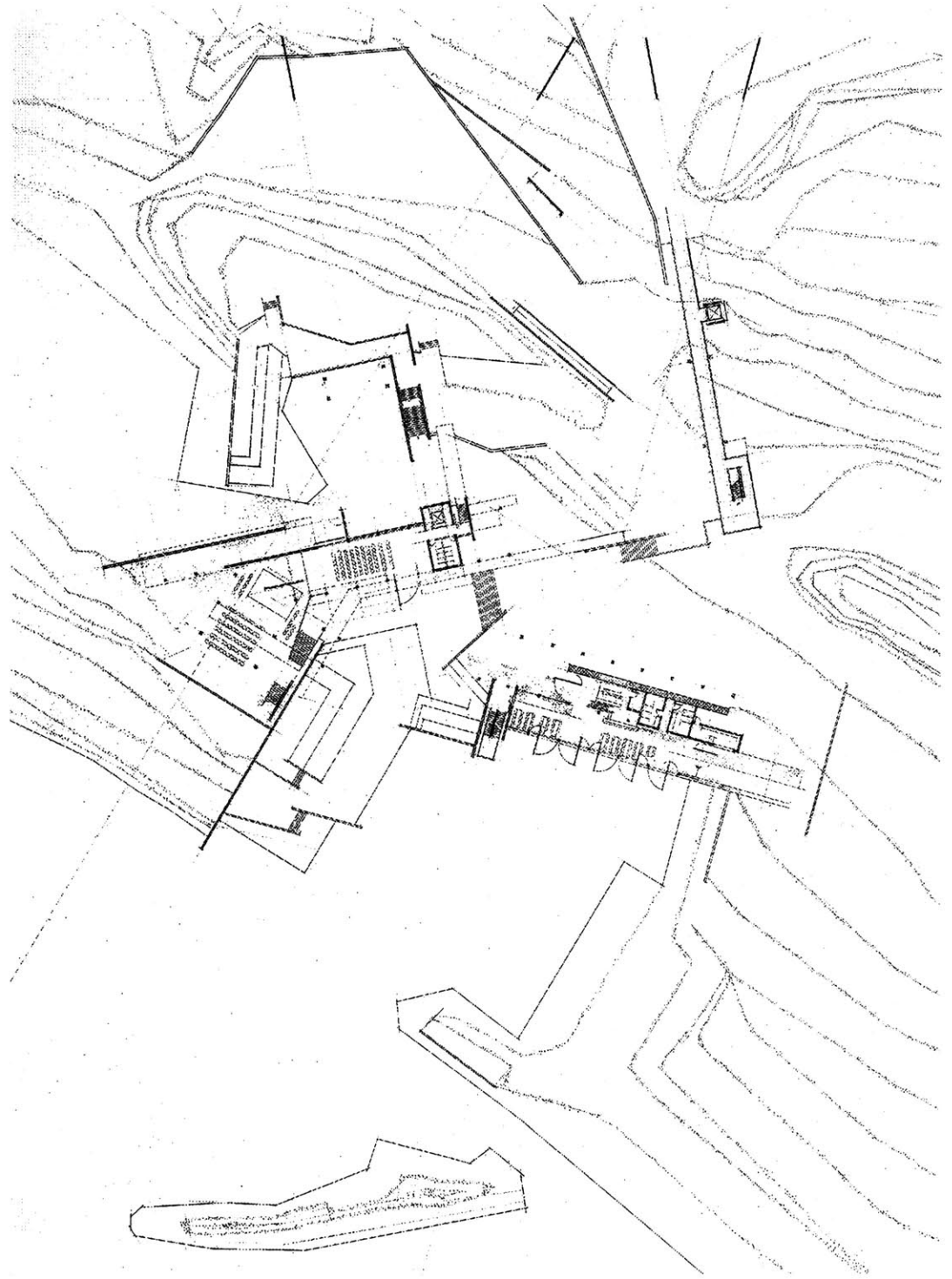
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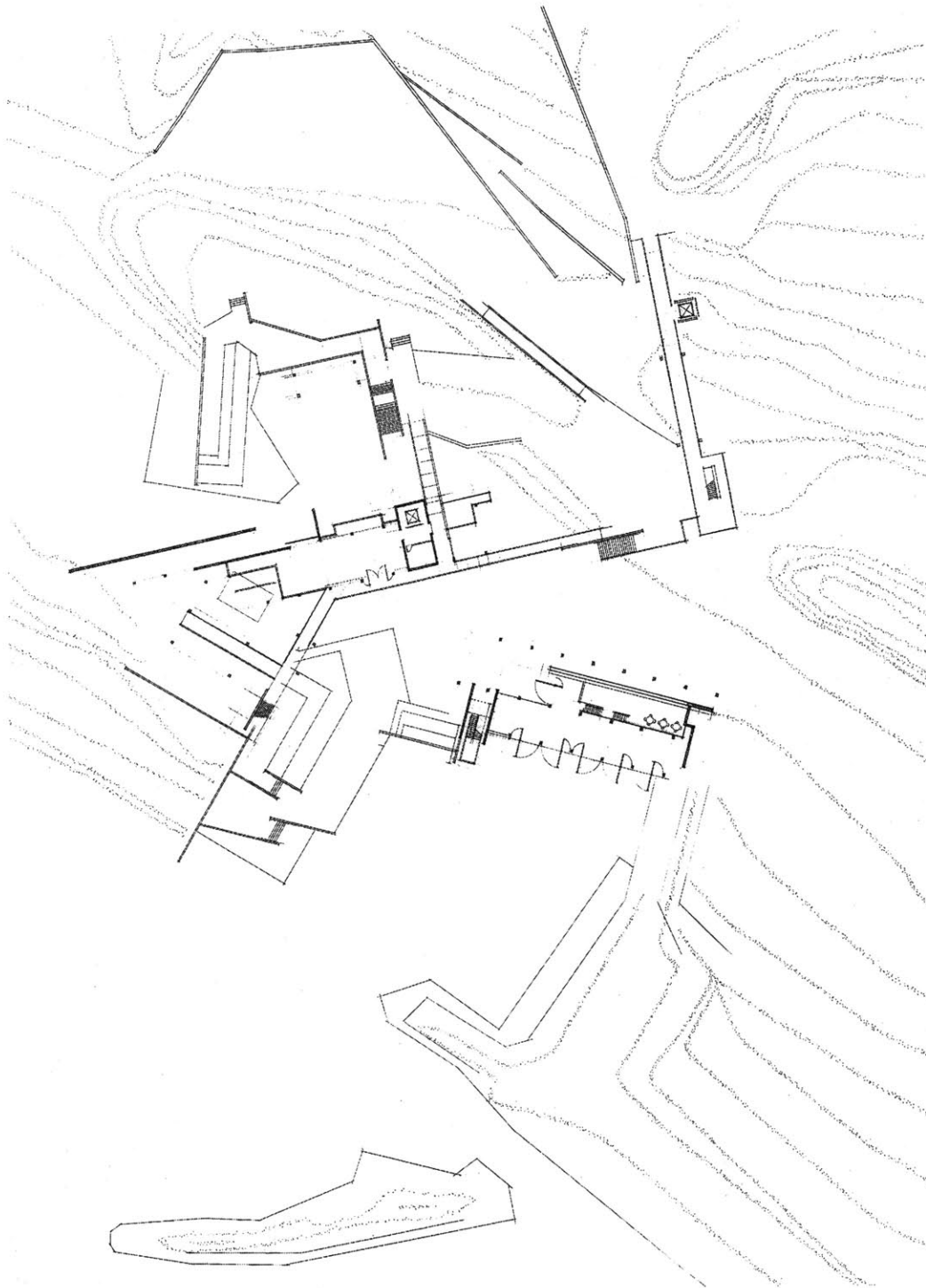
Top  
**Image 32**  
View from entry pavilion  
towards Stockbridge  
Bowl, looking south.  
Middle  
**Image 33**  
Aerial view of entry path  
at beginning.  
Bottom  
**Image 34**  
View of landscape  
amphitheater.

- PF Would there be any audience in the interior? What is the scale of the model?
- JW Yes. This space can support roughly three hundred people, while this area can hold five hundred people (See "Image 48" on pg 54.). Sixteenth. This is the second floor, someone could potentially perform from this balcony on either sides with the audience on these respective sides (See "Image 59" on pg 64.). This section moves on to a complete landscape amphitheater.
- FP These are basic landscaped amphitheaters.
- JW Yes, at different sizes.
- AS Where would the performer be in this relationship (See "Image 34" on pg 40.)?
- JW I would usually not define a singular point. But a performer could choose this as the performance space.
- AS So one could see the performance (from the approach) as you move in this direction (See "Image 40" on pg 48.)
- JW Yes. One would continue from this area, down the stairs and progress into the main audience space or continue to the other areas open to the public (See "Image 53" on pg 58.).
- AS This cross section, there (points bottom drawing), is taken through the main stair area (See "Image 43" on pg 50.)?
- JW Yes. It's taken here through the stairs.
- PF Um... Can I start? I have two questions, one maybe related to the other. How does this describe the relationship of your design efforts to explain the correlation between what you propose to build and polyphony. Two, how did you arrive at the shapes, which are very, very specific building shapes?
- JW Well the connection back to polyphony is again the interpretation, specifically counterpoint, that one begins to make associations beyond a single point in time, one that begins to recognize a whole level of different spatial experiences. Within the project, my intention is that one would begin to understand different relationships

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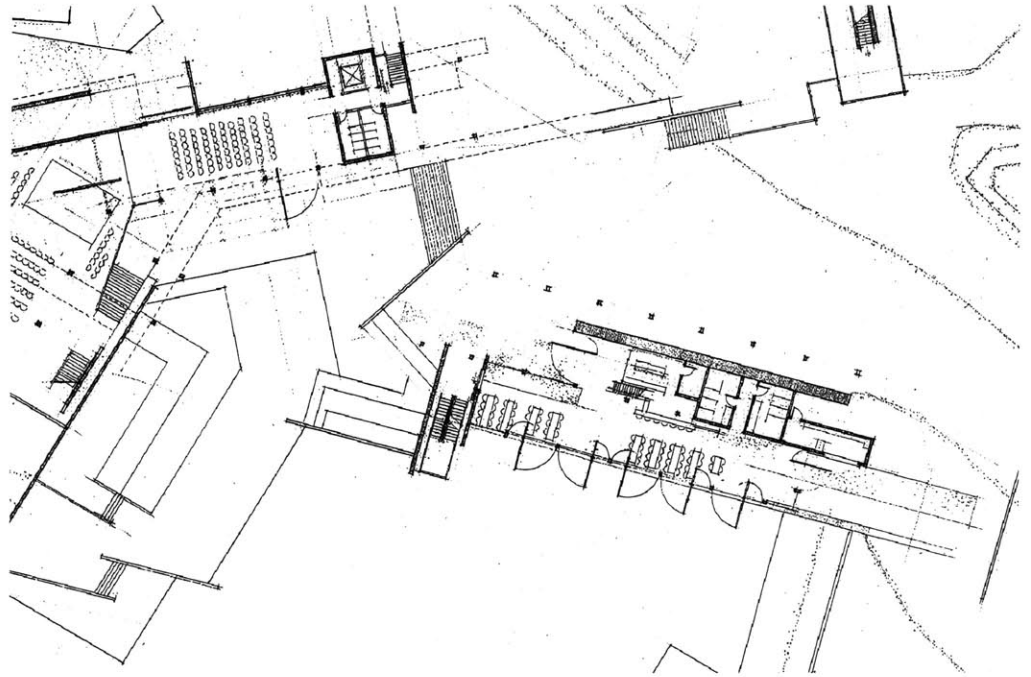
Adjacent  
Image 35  
First floor plan, north orientation at top, not to scale.



Adjacent  
**Image 36**  
Second floor plan, north  
orientation at top, not to  
scale.



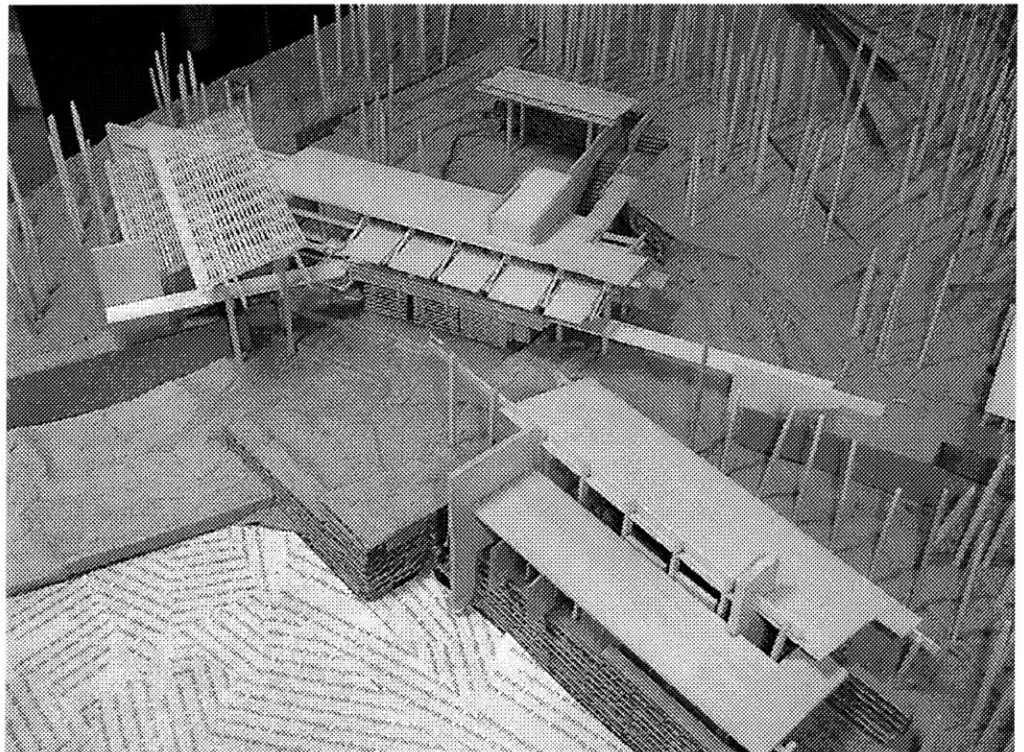
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44

Top  
Image 37  
Partial first floor plan.

Bottom  
Image 38  
Aerial view of main complex.





of the audience and performer such that one is not always confined to one interpretation or experience (i.e. concert hall). For example, a performance within a standard performance hall would only allow for one general type of association with the performance.

PF I see that relationship with that the landscape but I don't see that relationship with your architecture, not that there should be a difference. Then, these that you are proposing to build, I mean I see that as you are coming to down this path which, that you perceive this performance area potential (See "Image 40" on pg 48.), even if there isn't a performance going on and come back here and there might be one here or there or here, but they...

FP (interrupts) but they would not be running concurrently

PF but you could see the potential for the gathering spaces, what I don't see how these shapes (building forms) further that idea.

PF They are all the same scale.

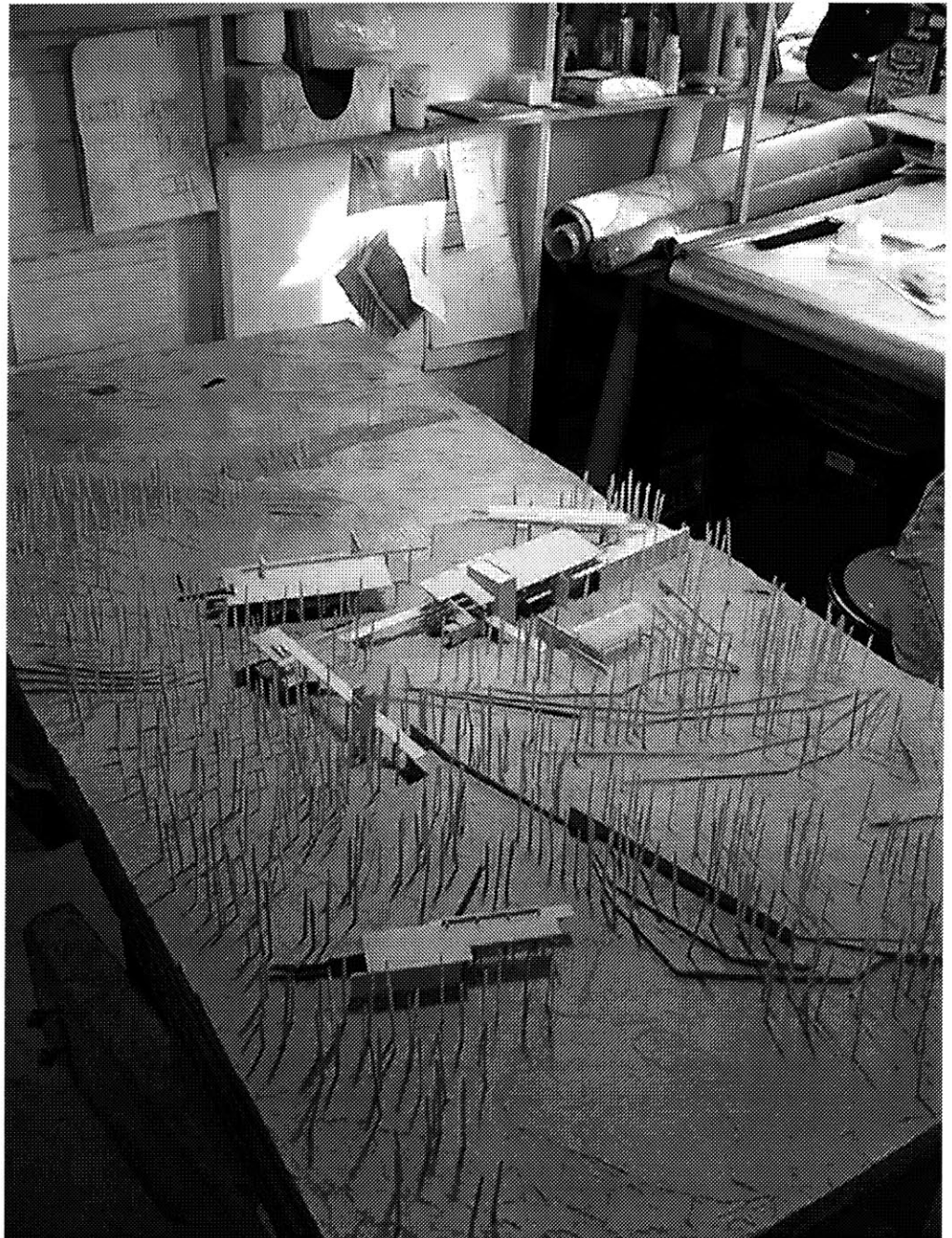
(pause)

PF They are all the same scale. And their shapes are very idiosyncratic, and I have yet to hear about the architecture. Plus, you talk about it, I think there is a wonderful relationship with the near and far landscape. First you see the mountain and they you don't, not because you fall behind trees or it's beyond the horizon. And yet, this (See "Image 54" on pg 58.) will certainly postpone that certain happening. Um. Rather than enhance that (experience), it will rather counter act that and particularly when I get here... where ever... and I haven't gotten anywhere, I would think I would want to come down here (See "Image 33" on pg 40.) and I end up at the restaurant. I would think that I would want to end up a performance space or a cluster of performance spaces. Or at something related to music, rather than the restaurant or the bathrooms...

JW (interrupts) There are other bathrooms here (See "Image 32" on pg 40.)!

PF (continues) and I am confused by that suddenly dislocation of the buildings.

final presentation.



JW I looked at how currently on the site how the change in grade is very none distinct and very subtle and I think then...

PF (interrupts) Well if this is an accurate topography (See "Image 39" on pg 46.), I would notice it.

JW No. One does not notice the change at the largest size with the amount of tree coverage. Does that make sense?

PF (interrupts) Yeah. But your solution doesn't make sense. I mean, selective thinning (of the trees) may... I mean what I'm getting at your talking about is, if you are talking about polyphony, the juxtaposition of multiple total experiences then I don't think you can maintain a level because you have eliminated a total experience. You have eliminated the experience on the grade. If for example you had made this a cut (longitudinal section through length of site), then even though it is an artificial plane, then at least you have to move through the grade at the same time one would go to the ground and out... See what I am getting at? You talked about it and I heard you say it, but I

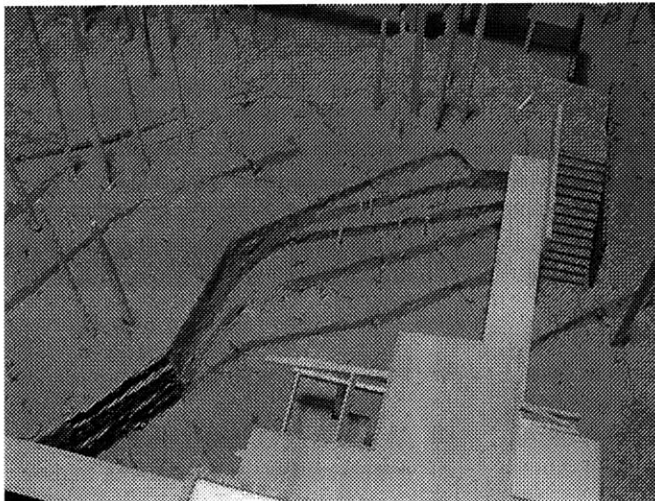
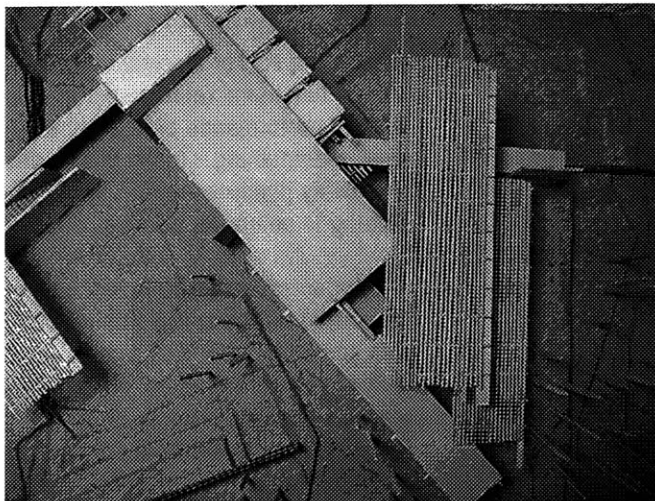
was hoping that there was something happening, that this (See "Image 32" on pg 40.) and this (points to walkway) had a sort of musical relationship or functional relationship at one level of performance or at another level of something. I mean this is, this is a lovely picturesque, but there's nothing to celebrate about music.

JW The organization of the buildings and generation of the space within that was something that was a progression of several schemes. For example, this one(See "Image 29" on pg 38.) is very different from the current scheme, but one of the more immediate scheme, is where this same building you see here, the "restaurant" building, was once directly opposite from the adjacent building. The intention was to begin to break these buildings apart to create another area within here (See "Image 37" on pg 44.). By doing so, the immediate attention when first arriving, one does not approach a wall. Does that make sense?

PF Yeah

JW As one breaks that opening, the understanding of the spaces begins

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Top  
**Image 40**  
View west from entry  
walkway.

Middle  
**Image 41**  
Aerial view of main com-  
plex, west end.

Bottom  
**Image 42**  
View towards approach  
and medium amphithe-  
ater, looking east.

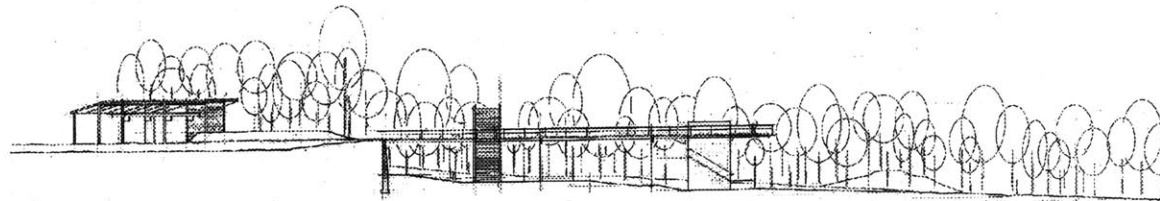
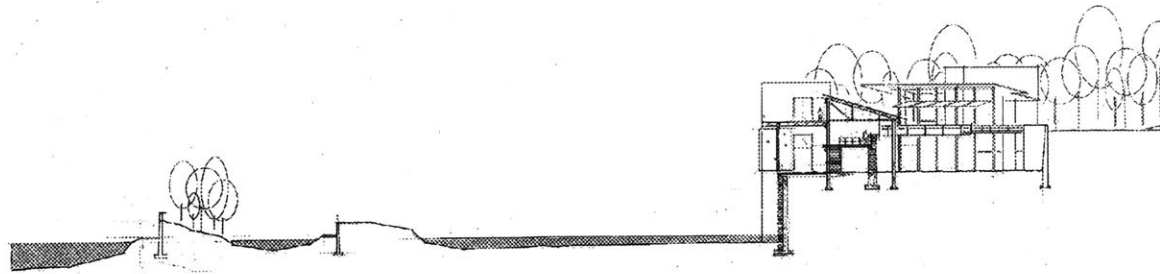
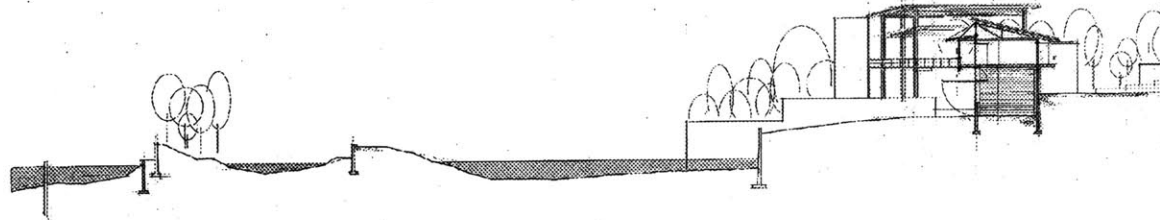
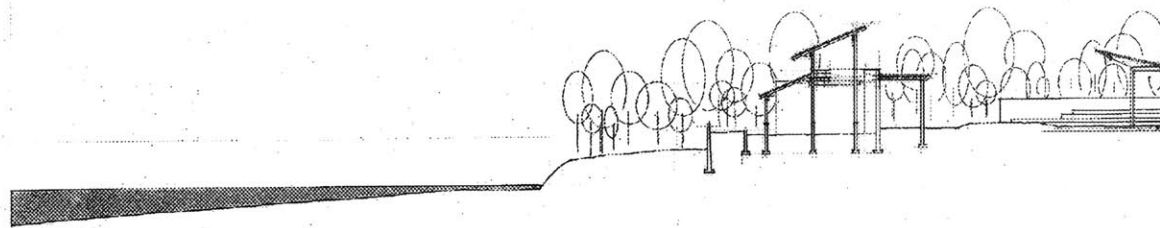
to unfold as one approaches the complex. Otherwise, one would approach the backside of the complex - then it's either the front or the back

AS It seems to me though that there are some very nice things about your project. I would like to know more about the specifics, the materiality, as you have attempted in your section. If I were to make some sort of metaphor or relationship with music or specifically polyphony - multiple voices, it seemed that one would think of different systems (i.e. construction) that exist within the site, that you can propose, that begin to suggest that things are have their origin outside of the site or greater completeness to them and they happen to intersect at the site. Therefore there are multiple voices beginning to be expressed through materiality, of space making devices, and I think that you do begin to do that and that there is a language of retaining walls, certain kinds of roof structures/coverings. More specifically, (points to wood canopies) that begin to refer to the foliage of the trees and that there is some notion of coverings and certain ideas of retaining walls (points to retaining walls) There begins to be some ideas

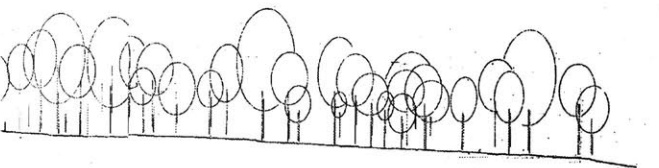
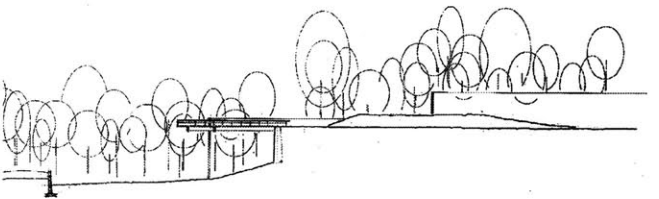
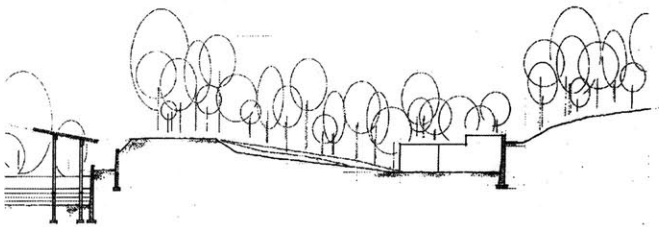
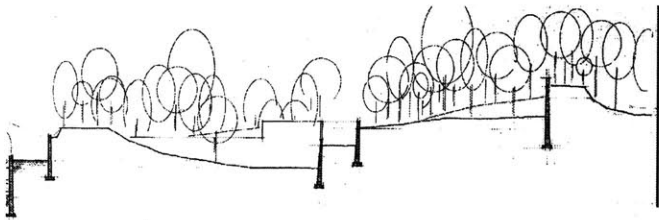
about the horizontal ground plane, which is now being identified as an architectural element roof scape or actual bridging. You begin to talk about the notion of the trees, and the plans, the buildings tread rather lightly, as if coming from above, as if perched on that landscape. With that perspective, I think that the project is successful and begins to re-iterate issues and elements of the landscape. I'd like to hear you be more specific about those. For example, what is the edge of this surface (points to retaining wall)? Is it just the exposed cut away earth, and as that space becomes occupy-able, if you could have an impromptu outdoor gathering here, I think that the nature and quality of the wall should be much more precise and understand those details. And I think being on or the notion of an animated structure, that begins to have a seasonal relationship with opening and closing shutters, where a wall becomes shading. And I think you do begin to develop that quite nicely with the sections. I have a question - what are the upper level spaces (See "Image 55" on pg 60.)?

JW The upper spaces is more perfor-

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Adjacent  
Image 43  
Site sections - top  
three sections - south  
to north (l to r), bottom  
section north to south  
(l to r), not to scale.



mance and slack area.

PF Oh, so one can play from the balcony  
(See "Image 59" on pg 64.).

AS Inside though? This whole area  
(points to main performance pavilion).

JW Inside, there are some privacy areas,  
but it primarily public areas.

PF What goes on in there?

AS (Show us) In the section?

JW In the section, it can be either a private or public area - for performances audience spaces.

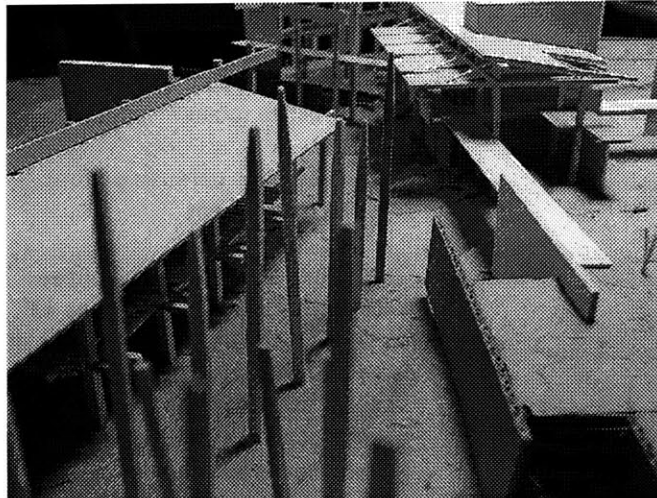
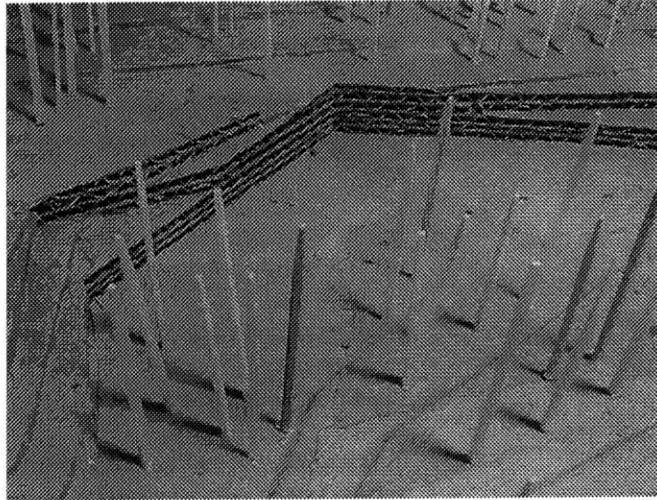
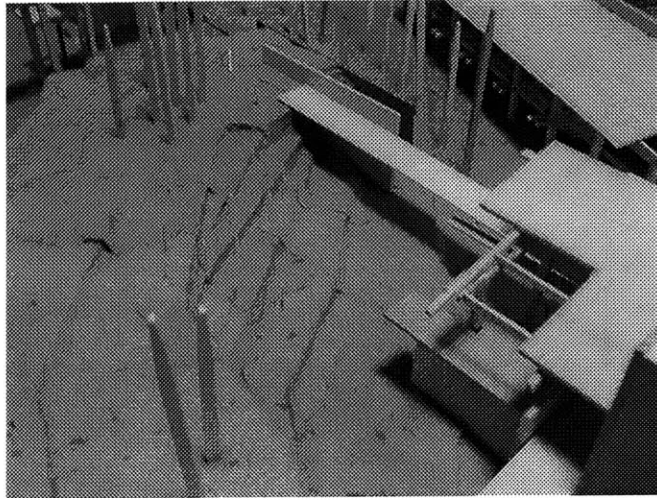
PF Is it a stage, screening room, or are there practice rooms?

JW It could be used between performances as a privacy.

AS That's the reiteration of the upper level ground plane (See "Image 43" on pg 50.), I'd like it to see it more. It is as if one could draw a line across. You can begin to treat it as an elevated ground plane, which the ground moves below it out to the



final presentation.



Top  
**Image 44**  
Alternate view of entry  
approach, looking east.

Middle  
**Image 45**  
View of landscape  
amphitheater - large.

Bottom  
**Image 46**  
View towards main com-  
plex, "restaurant" build-  
ing in left foreground,  
looking west.



water, to the view. Specifically, I think it begins to talk about ideas on perspective and understand the siting of the project. I would want to see it more identified as a series of layers, independent layers, which now perhaps the way the edge of the water is defined, begins to become a low wall that eventually moves through the project. Where the project is the moment of intersection, and I think if the drawings more in that vein, it could certainly be identified and the nature of those moments and what those qualities are of occupying the ground, being above the ground, about coverings, and I think the issue of program becomes a little undeveloped. One would perhaps want it (program) more developed, what are the kinds of spaces that are enclosed...

FP (interrupts)... in a way your are saying that he should think of the totality of this more in terms of form and materials as opposed to function - like this space or that space for performance. ASI think the intersection creates those spaces.

FP (agrees) um hm...

(pause)

PF I think in general here, I can't see your point (points to model). It's like a flock of sheep. Its just scampering around the site.

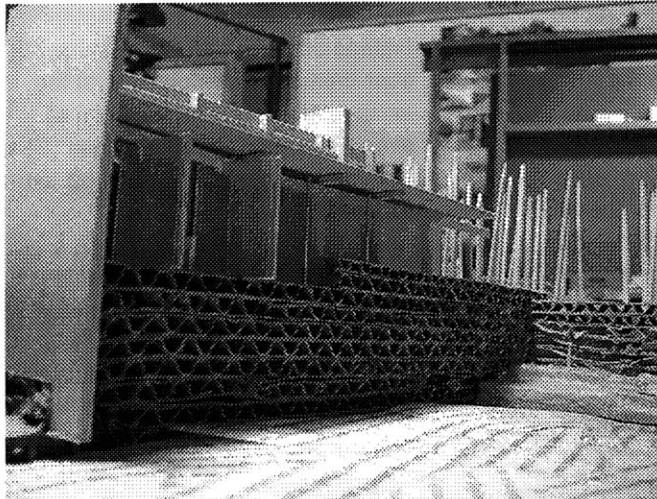
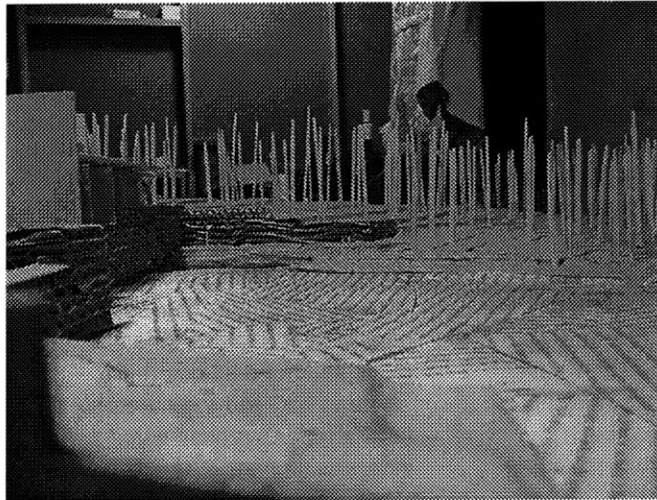
MS (Chuckles and sighs in the background)

FP (interrupts) Which defeats the purpose of polyphony, because in a polyphonic work it is one time line, a modulation of only one thing, whereas her, you have a smorgasbord arranged around some sort of itinerary, this and that, the different sizes of audience that you include, you simply use an outdoor theater. Instead of being part of the same outdoor theater, or modulations of the same spatial systems, I think that even the number of orientations (See "Image 38" on pg 44.), it is a bit too much for me.

One...two...three...there are at least three...four...at least four.

AS (interrupts) Take the time to address different kinds of spaces, then I think it would seem like that this building which is very problematic (points to

final presentation.



Top  
**Image 47**  
View south from entry pavilion.

Middle  
**Image 48**  
View across water inlet, looking east.

Bottom  
**Image 49**  
Main reflection surfaces: retaining wall and "restaurant" building, looking east.

"restaurant" building), it occupies the edge, there is an attempt to create it or perhaps as an extension of the lake's edge condition. If that architecture were more developed more earth bound, that perhaps some notion of covering would not only create a space of entry (points to "restaurant" building), but also allow this to become an area where there are performances. This would be much more about edge, occupying the topography, that view or condition.

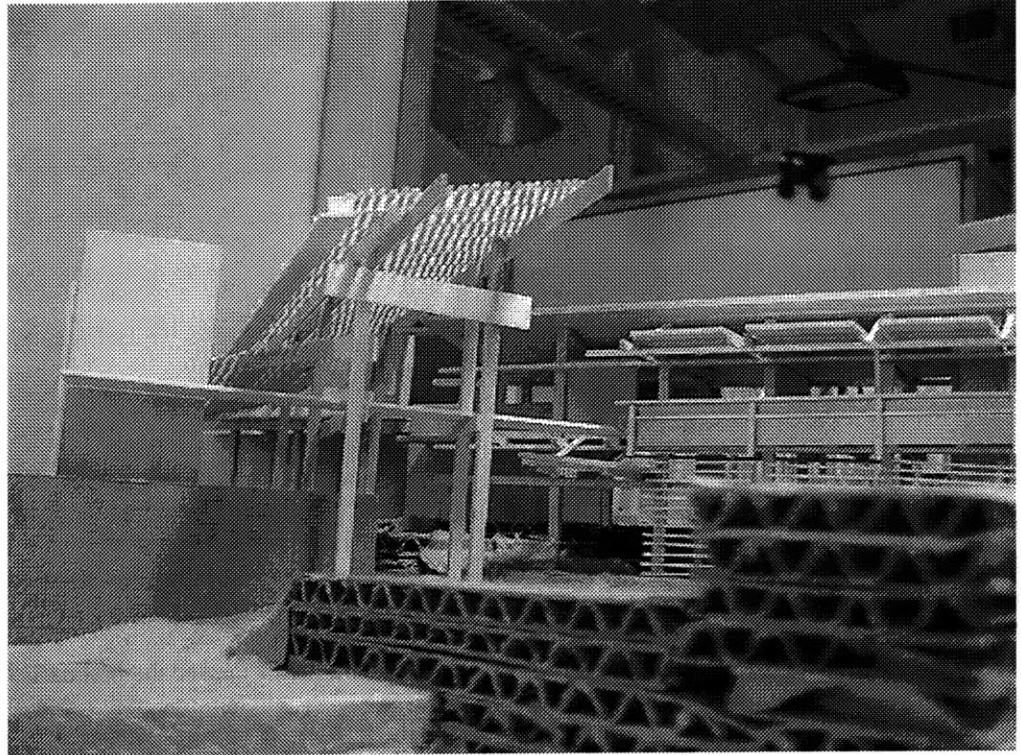
FP I think that this is actually the area which is the least successful (points to restaurant building), these two buildings are the same the modulation of the same thing. This whole this is also one thing (points to two main buildings), The acoustics (pause)... they don't talk to each other.

PF An in addition to that, you've given this private place what is an ancillary facility, its about music, its not a restaurant from which you could hear chamber music. And now, the most persuasive building you would want to go into is the restaurant...you could imagine if you could site here although the sound is broken by this wall, truly perverse, you would sit

here while music is being played over there. But it could have had strolling musicians coming by your table. It's a music performing space, not a restaurant.

KF I unfortunately missed the first part of the review, but in terms of the idea of modulation. In terms of looking at the plans, I complement you as somebody who has come to MIT and being shot by how ugly floor plans are, these actually have a very special aesthetic. What intrigues me is that all of the buildings do have very simple structure identity between them and that place those are they able to play against the site and program conditions. I think at that level, it's going somewhere very interesting, but I would agree that the freedom that you tend to have in that plan (points to first floor plan) seems very resolved - they way these things come together. In restricting yourself to variations of (unintelligible)... that quite that it becomes perverse to overlay them. The clash is an interesting place, why does it not, try to define a third thing. The two systems where they crash into one another can no longer be read as independent. But are just juxtaposed, they

final presentation.



Top  
Image 50  
Main performance building, view from lawn area, looking west.

Bottom  
Image 51  
Main performance building, view of moving screens and performance balcony, looking north.

are not actually, as one would say in polyphonic, in synchronization, and that could have been where this whole thing ends. To me it looks like it should carry on (laugh) that there is something beginning to work from here. And it's also a pity you didn't show the trees in the plan, the column gridding of the structure really then reads as a structural element, that the geometry begins to float relatively free in this situation (points to south east building). The juxtaposition of the building's angle are not going to a modernist deconstructionist, certainly in this situation (points to south end of main performance building). Rather, these (the buildings) are going to be objects among a very dense fabric of trees. It is already a fairly ambiguous stretch. It's a pity you didn't draw the trees (in the plans).

PF Because I think it would have informed the design making...

JW Well, one thing that I have to say that I never interpreted that any particular area of the site would really serve as one purpose. There are opportunities here for someone who is performing here (points to restaurant area),

some sort of chant, that the audience could be out here. That would be another type of relationship

PF You can't tell me after the fact!

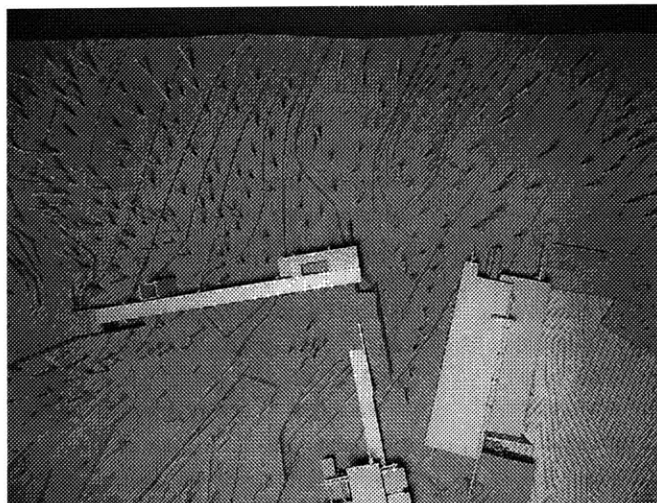
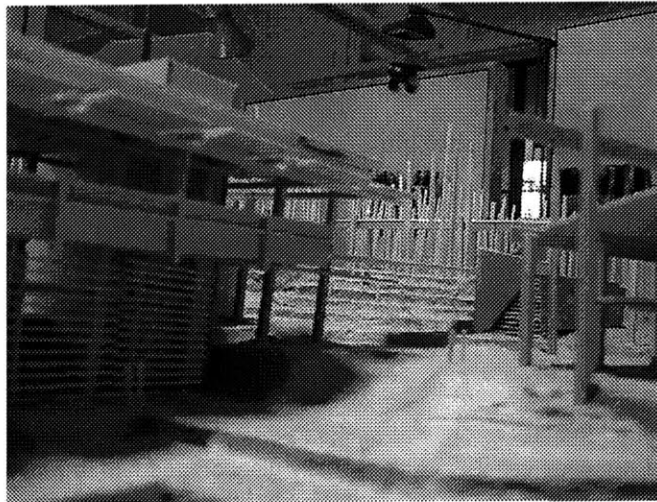
MS Stan tells me that I have to participate (reluctantly said).

SA What did I tell you (in surprise)?

MS You told me I had to participate.

There was a good deal of discussion earlier in the project... but his attempts to interpret what to music, we actually discouraged him to (unintelligible)... but the way of working can be paralleled to other fields one finds... we felt it would be more constructive to work positively in the manor that he thought was both synthetic to the project and to some understanding of architectural possibilities. Then at that point, to find the parallels (with music) rather than trying to solve it (from the beginning). The physical systems are very important (points to AS). Some of the remarks about organization sounded to me close to compositional rooted discussions... in.... in short the attempt is to make an open field

final presentation.



Top  
**Image 52**  
View from landscape  
amphitheater, looking  
east.

Middle  
**Image 53**  
Main entrance perfor-  
mance plaza, looking  
east towards entry walk-  
way.

Bottom  
**Image 54**  
Aerial image of east side  
of complex, north orien-  
tation to the left.



rather than a hierarchic(y) one, the strength of the open field is not completely resolved in some compositional way. What's weird is that... what you don't have is a time capsule of the work... so that this sort of arrival zone is not resolved (See "Image 44" on pg 52.), but much better than what it was. This (points to entry walkway stair) reads as an arrival of the place, and not a musical thing (refers to PF). There was also going to be performance from this building (points to "restaurant" building - corrects PF), and part of it results from, Stan correct me if I'm wrong, from a 1920's - 1930's compositional thing where these vanes are supposed to be contradicting the direction of the growth - that the field system is gone by all these idiotic stops (taps the complex's stair towers)... (unintelligible)... makes it difficult for any of this stuff to work. But in not being able to resolve this as an access place, he has made a second partial protective space here that I think helps

here enormously. When you say systems crash into one another (Points to KF), I don't see any systems crashing (See "Image 50" on pg 56.) into

one another...

KF (interrupts, caught off guard) Well, I simply meant that flow one over one another

MS (interrupts) yes, it's a pavilion, it's espace (laughs), yes (laughs)... there's no way...

KF (interrupts) If you look at the plan, at this point (points to main pavilion's south end) here's its... (unintelligible)

MS (interrupts and dismisses) Okay, okay, more independence of the form, more independence of the physical systems. Indeed you mention it as sweet bits of wooden stuff and sweet bits of ink on the drawing, you don't know what anything is (refers to KF).

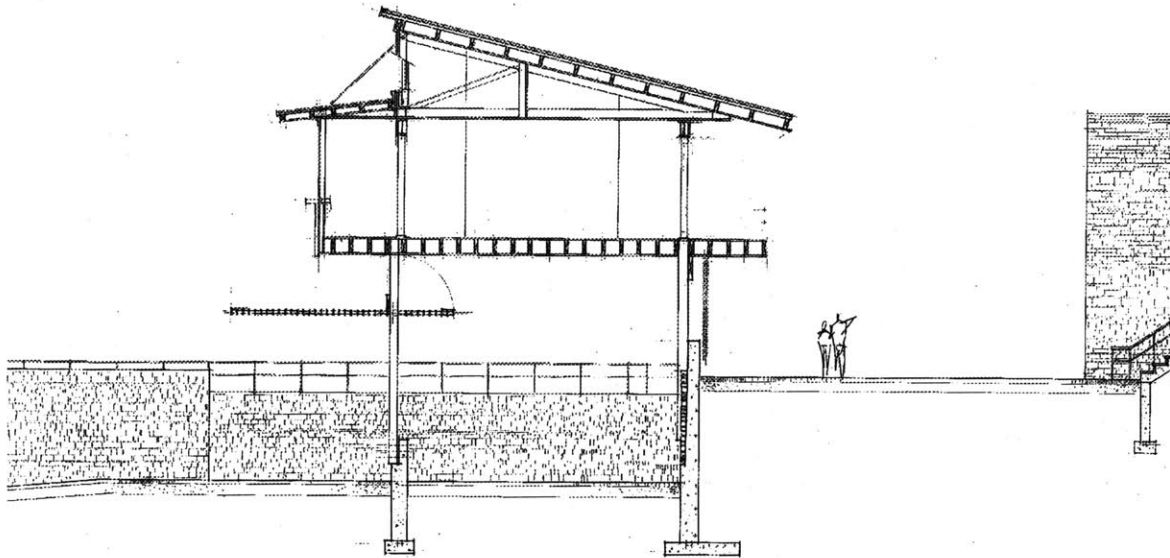
AS (interrupts) But I could...

MS (interrupts) Formally, if these things are roofs, then this stuff is nonsense (whacks model). If the roofs were independent and there were walls and planes and really would never... have not run into each other, they have to maintain more open space. So in a way, there the fear of not having a building an architecture that has

final presentation.

60

Adjacent  
Image 55  
Section through main  
performance building  
and small covered gal-  
lery, looking west.





resulted in some of this stuff, but should have been open, should have been optional, would have been really different physical systems.

AS I think though...

MS (interrupts and concurrently with AS) and that it could be built independently

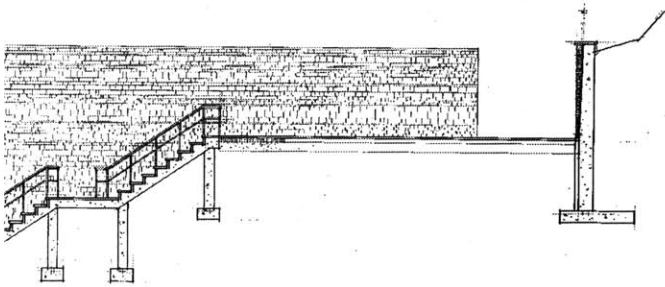
AS that it (physical systems) are there...

MS Look at the bloody section (See "Image 55" on pg 60.), that there is nothing there that is independent, its all a straight pavilion. The roof truss is there to support the roof, that the structure as means for supporting the roof... blah...blah...blah...There's no independence at all.

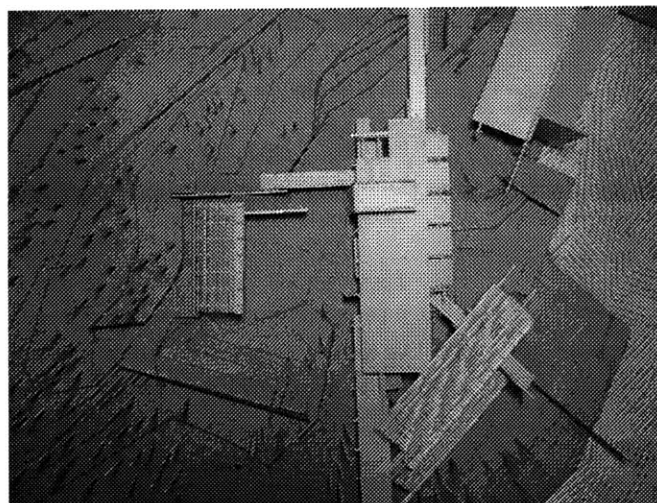
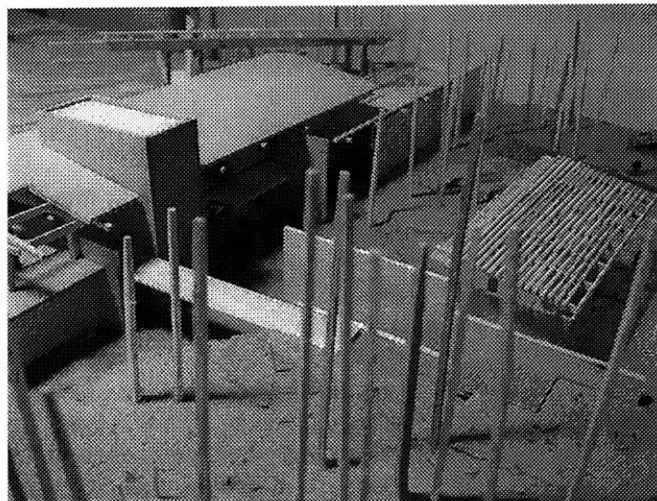
This is... There are options, but there's no place that you can find an independent structure.

KF Jesse, was it your intention to make a series of independent structures? Or was it your intention that is something independent or sometimes dependent?

JW Well...



final presentation.



Top  
**Image 56**  
Main complex performance plaza, looking west.

Middle  
**Image 57**  
Small covered gallery, looking west.

Bottom  
**Image 58**  
Aerial view of main performance building.

KF (interrupts) Because it's between both of those intentions, or should it be more separated? That's another...

PF (speaks for JW) His proposition from the beginning was to not be too particular about it.

MS (corrects PF in a murmur) His proposition is actually about multiple opportunities

AS I think the issue of connection from the upper main level to the water, if one sees it from another scale, as really access to the water, and to resolve the more difficult part of the site. I think merely to bring the people through here around this, to remain high, and move down back into this space and then with a return into that level at grade would actually one to really experience these moments across the lake including down into that space. I think that would be a quite beautiful sequence - as one moves down into all the different regions, one moves back into the ground and begin to occupy this. I think that there is a lot of potential there, certainly the notions of a boat house could talk like this image (points to image of Katusura outer

pavilion) and I think there is an intention to go really lightly on the land. This would call for more development of the retaining wall's role, of the ground, and the excavation of it, of how one could move up it to the structure and become more massive. Which is why it is a little more difficult for that drawing (first floor plan) back there in the plan where that room is attached to that thick wall. It's not clear what vocabulary that walls belongs to.

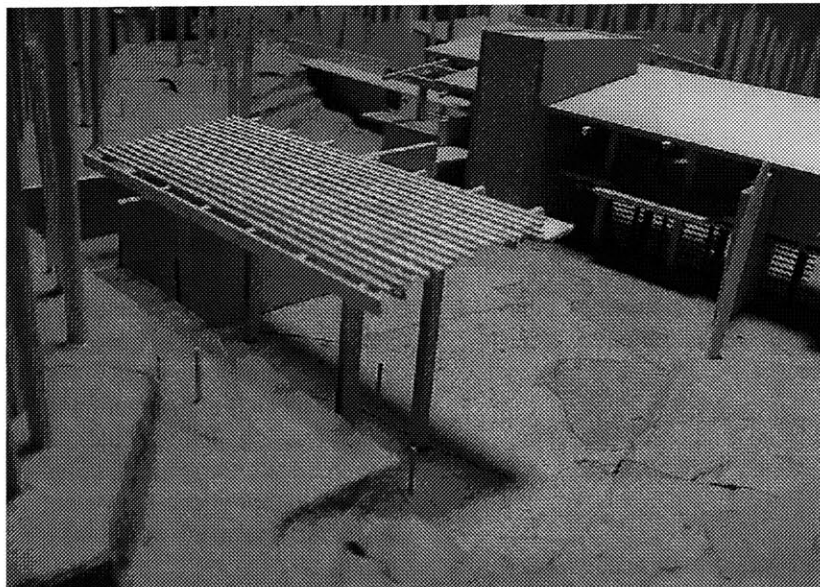
(pause)

NJ I'm here to ask you to wrap it up in the next few minutes. Thanks.

MS One other thing, there was some... some pressure... to some extent the site planning that you (AS) were talking about earlier of being in the ground or having the option of being in the ground, I think does happen locally in places, at the whole scheme you could have had both systems stay up in section and move reasonably by on the ground, and I thought you were going to do that.

JW Yes, there is.

final presentation.

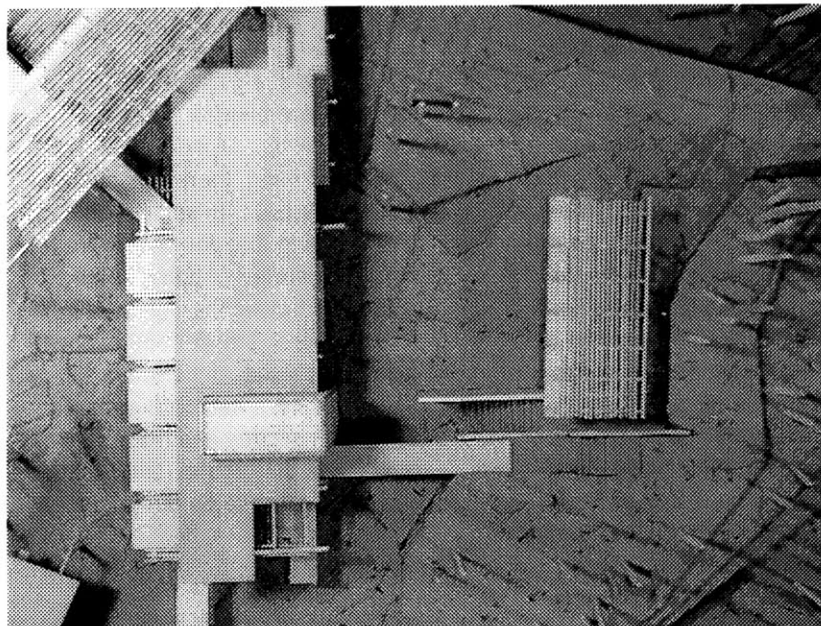


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64

Top  
**Image 59**  
Detail of small gallery,  
performance balcony on  
right, looking east.

Bottom  
**Image 60**  
Aerial of small gallery.



MS Well, no, there's not. It's possible, but its not (laugh), its possible to avoid the main thing (building), only just the...both...are heavily of the opinion that once you start to do that, that stopping here and having to come down to the ground, and then having to confrontationally... if you could have - keep on going, at that level as one option, but keep on going and then arrive at someplace where you could understand without necessarily going into the water - and getting out your canoe... and... you could find out what this whole zone is about before having to go through any of it.

If the access system could have allowed you to go through the open space would have had a chance of winning, and then business of whether it is a collection of separate buildings - and so on, so on would become less of an issue if at the building size, as well as at the component size was more...

JW Nancy (Jones) is coming back. Thank you.

**p o s t - r e v i e w**

---

66

Duncan S. Kincaid

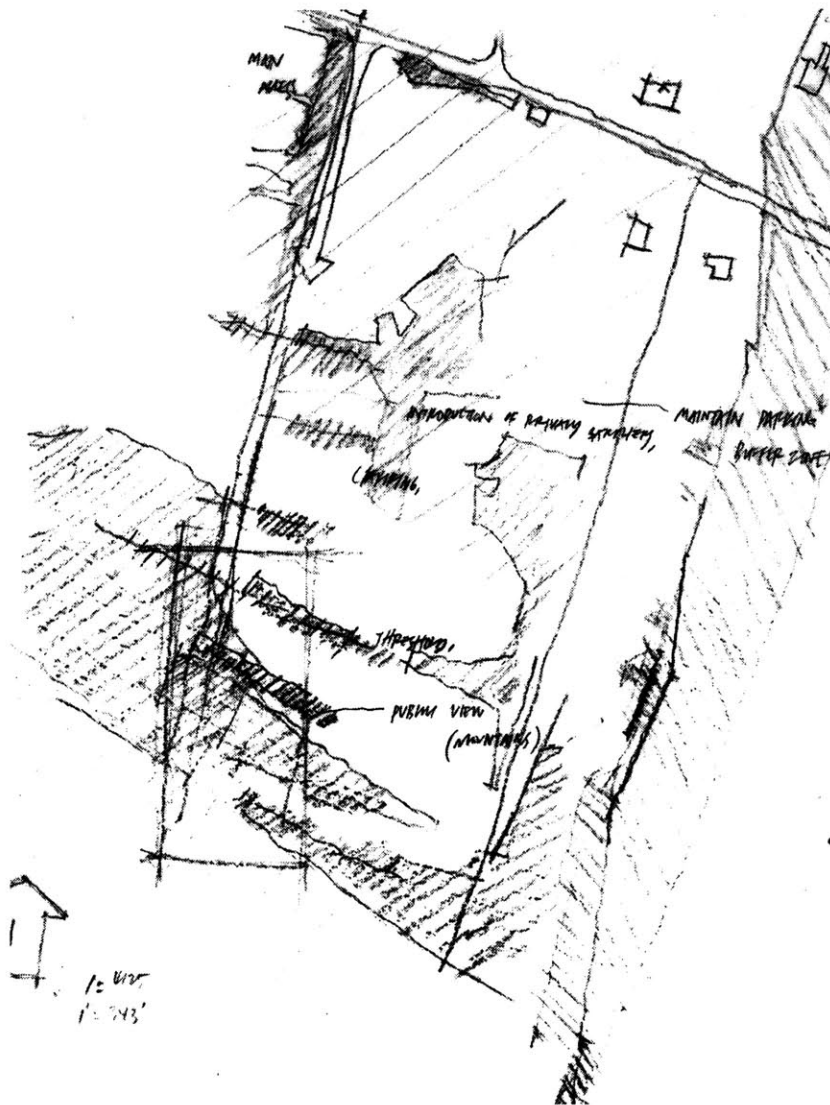
Thesis Reader

Francesco Passanti

Harvard University - Associate Professor

Maurice K. Smith

Professor Emeritus of Architecture, MIT



post-review.





after several minutes of conversation...

FP One very simple idea is to make this whole thing follow one geometry.

DK Just as this came up, I hadn't seen this particular solution, which I don't particularly take as much exception to probably as Maurice. I think this is really quite elegant, you...

FP What goes around that?

DK Oh yeah...

FP This is like the garage staircase (See "Image 63" on pg 70.).

MS Yeah, it's disgusting.

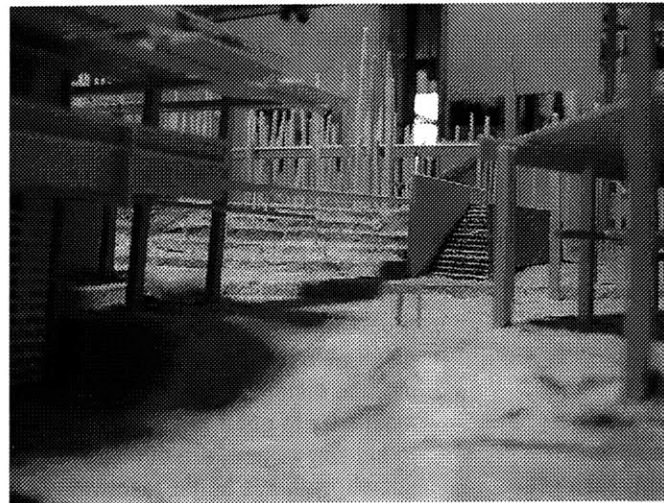
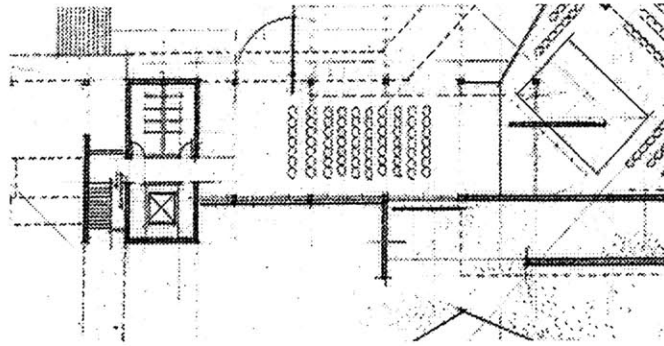
DK But I think you are still left with the curious problem, you have the option of continuing, you occupy the landscape here, down to the water optionally, or back this way optionally, or here, but I think the way you have configured it, you still have all of this stuff here, this is nothing, it residue, it's not occupy-able slack, it's... and then you come right down the stairs, and sure the topography and what

not, light and so on will draw you in here. But it still leaves you to wonder what the hell is happening here, what this edge is here, and why it is given what it is. By keeping the guy out here, you are still stuck with this.

JW You mean stick it out further?

DK No, I'm thinking either, if anything I think you want to get it back in here. But then I think it becomes to be a problem. You would want it to displace at least the length of the building, the dimension of three cars. Or maybe try to get it further out here or to zig zag somewhere out here. Or somehow this is better resolved - maybe in the physical form - as Fernando (Domeyko) would say, 'this is where the dogs go to die.' I thought as well here, when you had the access coming through here, what would be good if the access reaches the end of the building, it gets to grow to a better size, or to a collective size - rather than staying at the dimension of the access size until here. I would recommend that. I think that something that, it doesn't show in your model unfortunately, but probably it does in the design if you just find, it looked as though, the enclosure you

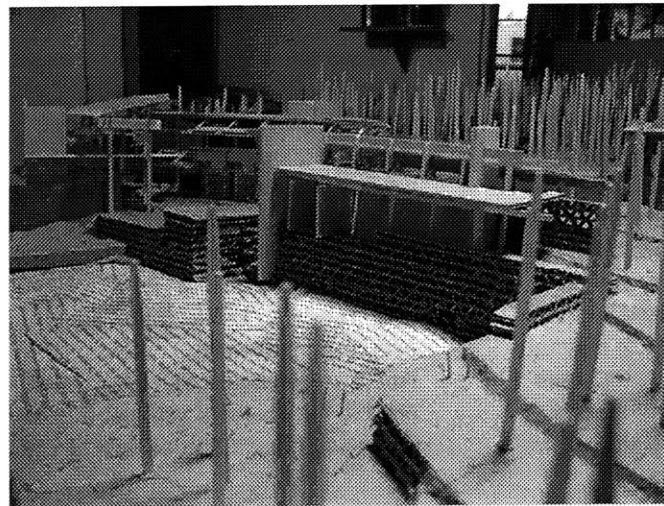
post-review.



Top  
**Image 63**  
Partial first floor plan,  
main interior perfor-  
mance space, south at  
top.

Middle  
**Image 64**  
Entry performance  
space, looking east.

Bottom  
**Image 65**  
Support facilities, look-  
ing northwest.



have here, you forfeited the continuity of the landscape through the building, it isn't apparent anymore - but I'm sure its still there.

(unintelligible)

I think in all what she had said was something that did escape us ultimately, was that I think that we addressed this polyphonic business and the landscape size, the building size - but you didn't get it down to the material sizes, structural systems sizes. In this section (See "Image 55" on pg 60.), as Maurice (Smith) would say, there's not structural independence, this is supporting this, this ...etc.... Roof is the enclosure, the floor is for support...etc. The same thing happens in plan here we have these, opaque walls - its not really even clear if the move or what moves. But in any sense, they are always controlling... (unintelligible)...

So again, if you could have exercised the material maybe in the conscious working order, that the different structural systems would be more independent.... (unintelligible)

JW I think I presented it wrong. When I

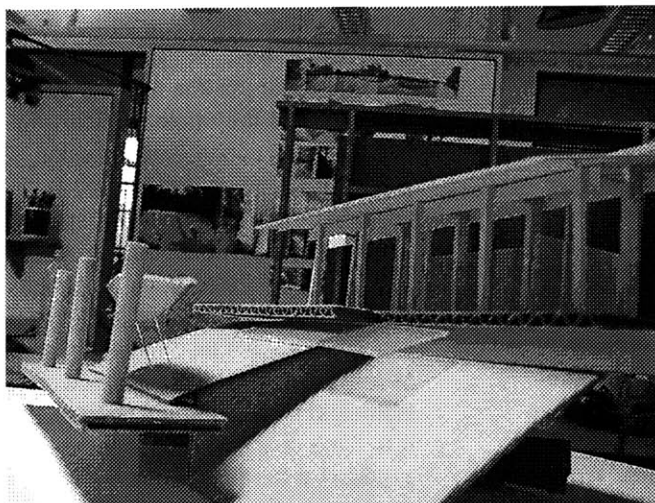
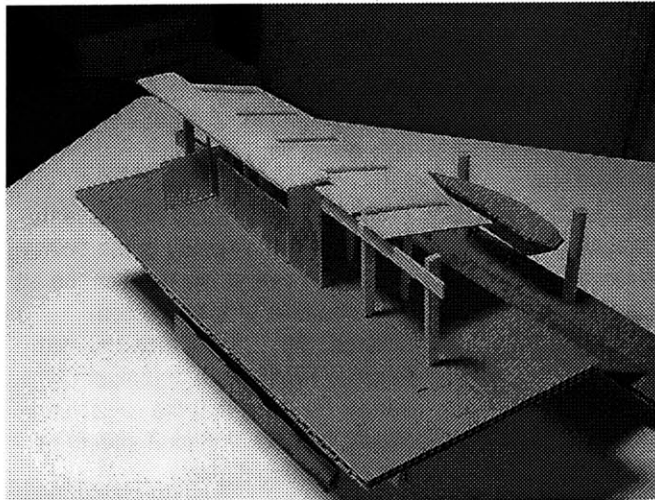
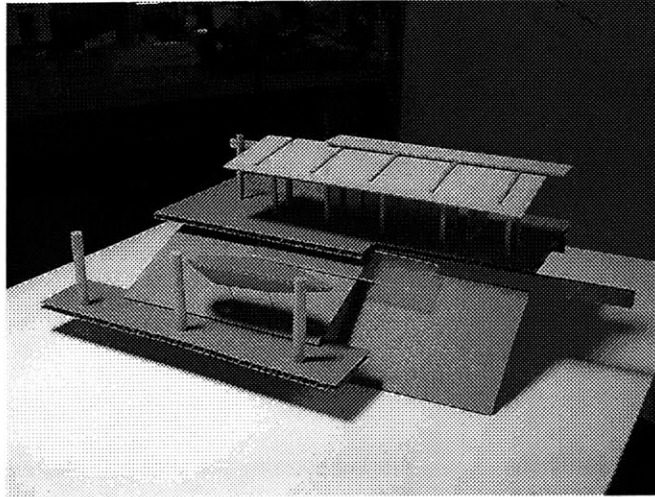
started showing the slides, I realized that...

DK I thought your midterm presentation was better. And of course, you were presenting to all of us who knew what was going on...

JW I realized at a point in the presentation that I wasn't going to the point of explaining everything or even the attitude because of the time constraints...etc.... I still disagree with Maurice (Smith)with a number of things. He feels that the registration should be here, I think it should be here.... (unintelligible)

DK Unintelligible... this thing here, I think that what was bothering people - maybe I could put it in another way - going back to the whole musical analogy, where in counterpoint is when you have Melody A and Melody B going back and forth and overlapping, Bach would begin to build a third melody. This would then begin to harmonize this and that...before you know it you would have a third melody. Same as this group right here, instead of melodies, this part would build all of this, it's a shame that then there is suddenly a third that attempts to...

post-review.

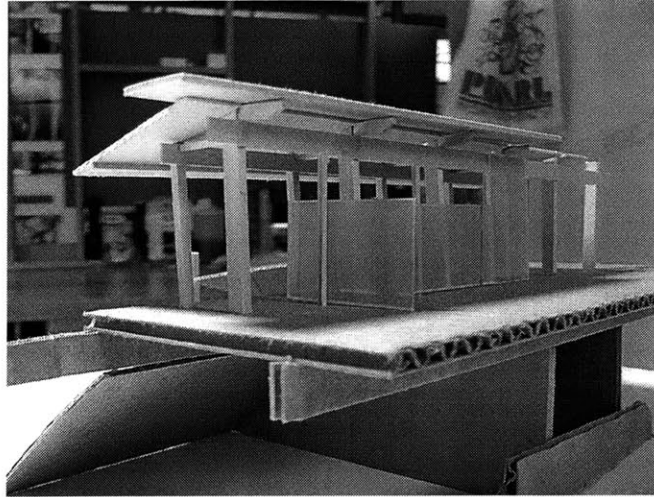


Top  
**Image 66**  
Pavilion study model,  
water edge closest.

Middle  
**Image 67**  
Pavilion study model,  
water edge behind.

Bottom  
**Image 68**  
Pavilion study model,  
view from water  
approach.

Opposite  
**Image 69**  
Pavilion study model,  
view from land  
approach.



this somehow could be better resolved...

JW Yeah, Imre was... I spoke with him a week ago, I think he really - we both agreed that something should occur here (See "Image 70" on pg 74.)- perhaps a change in direction to close off this area. And when I talked with Maurice, he felt that we should build another direction to close this end off, we even talked about a tent, something temporary....

JW Did you see this place?

DK Yep, it's all right, but then even here I don't think you even need it, for instance, you have all these retaining walls, there no evidence anywhere...(unintelligible)... if I remember this building, you actually have a retaining wall coming up doubling as a piece of structure. So this thing here is fully independent of the walls. It's an opportunity to say, all right, here's a retaining wall that doubles, or that is occupying this area (pause). One last thing, the point that the woman (AS) made about giving more

thought given to materials, materials playing off one another, materials acting at the different sizes. Again, that was a very good one, you should have been a little more (unintelligible)... maybe even using a different chipboard or something like that, same with the structure, showing some of the differences in the materials, and allowed for some of this material to move up in section. They might... sometimes form part of the structure and sometimes not. And as you are moving through the landscape, you would pick up on that material, start building associations at the large size, allowing them to extend over large sizes... (unintelligible)...

JW Okay, Thank you. Finally the last one (final review presentation)!

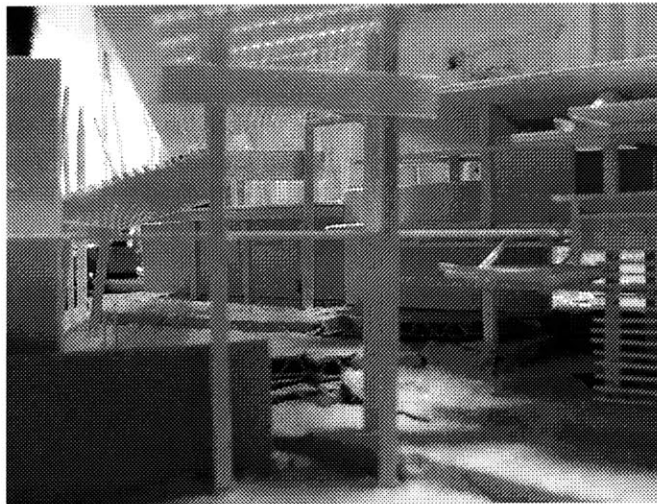
DK I hope not!

JW Well the last one (architectural presentation) for me.

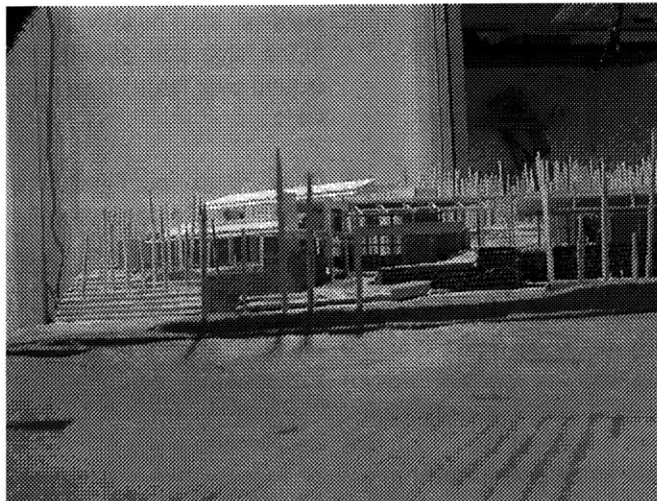
DK I hope not!

post-review.

Top  
**Image 70**  
Outdoor covered performance area.



Bottom  
**Image 71**  
Approach from Stockbridge Bowl.



(Pause)

MS (returns for more comments) What you have got going here is the action that you are not producing all these sectional moves at the landscape. You need to understand directly, not only at one level...

JW (interrupts) Well that's what he (PF) was telling me what to do!

MS That's what I'm saying, As well as, not both things, it's not the either or thing, I mean yes, he was saying either or, which is wrong. (chuckles) Both things should be strong. Duncaín was right also, if you were going to arrive here (See "Image 63" on pg 70.), you could get down and go into this thing more directly with some of this stuff, would be an extension of the event, and this should have certainly been a performance space (See "Image 62" on pg 68.). You'd have to come on a barge (boat), you could get a barge here as a performing space... (unintelligible)...

NJ You have to remember the real relationship is with him (Maurice Smith).

JW (laughs)

MS It's (relationship) with the project, not with me (sarcasm).

(laughter)

NJ And the only one who will give you a grade.

MS I'm the only one...

JW (interrupts) He's the reader!

NJ He is? That's right, Imre is.

MS So...But... Doesn't matter, its (Maurice vs. Imre) the same thing.

(laughter)

NJ (laughs) Pretty close.

MS ... we have a New Zealand - Hungarian thing, so, so you should have had a playing platform here, and if you didn't think it should be an actual part of the continuous surface, then float the thing, put a barge there, so you can put ... oh come-on, that's this bad little pseudo compositional stop-start nineteen... whatever it is, garbage...



post-review.

Top

**Image 72**  
Aerial view of landscape  
amphitheater, east  
above.



Bottom

**Image 73**  
Support building, looking  
west.





MS It says you can't go on here without making a stop... I hope you'll grow out of it... this is very unacceptable and very incoherent - Formally illiterate to the late twentieth century, We're almost in the twenty first century, I may not make it to see it, right? .... Whatever... actually getting this stuff back in here would have been okay (laugh), if you hadn't walled it in completely heavily, so that... in your desperation not to have people come in this way, you made a very fierce edge here, and if you look... where's the collision? That's where the collision is (See "Image 70" on pg 72.)! This little walkway going wanging into that thing. And these coming so close to each other almost wanging, and your roof, what this idiotic little thing? What's that? Is it structure?

JW Yeah.

MS It's crazy! This is one beam sticking outside, There's nothing territorial about that (See "Image 56" on pg 62.).

JW (laugh) It's for stability.

MS My hand is stable still more or less stable, without some of its fingers. If

you are gonna build... and this woman (AS) was right - I don't know if she knew what to do about it, that the physical systems, your territorial beams and stuff, should be clearly territorial themselves. And even when you make the truss you don't do that. You almost do it, but not quite. So to make a propped up surface, if you take a whole plane and hinge it, then there no reference to anything other than....(mumbles)... that makes it into a shape... and that a horrible term... you shouldn't be able to use it... this thing (taps recorder) If you have been clearer about all those things if there was a structure here, that structure could continue to go right through it and all this stuff. The generative primary pavilion is what you should be going through... (unintelligible)...

MS Anyway, at least they weren't put off by any animalistic idiotic gross - this is a building like a fish or a gorilla, at least its not suffering from that problem.

JW Okay, Thanks.

## j o u r n a l

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78

I have included entries from my thesis journal which documents the first few weeks of this process. I hope they provide some reference and insight into the beginning weeks. Enjoy.

M. AREA THESIS JOURNAL, SUM '97.

JESSE WU · JWW@MIT.EDU.  
MIT · 7-401.  
617-441-8754

吳奇濱

PLEASE RETURN IF FOUND! (POMPO!)



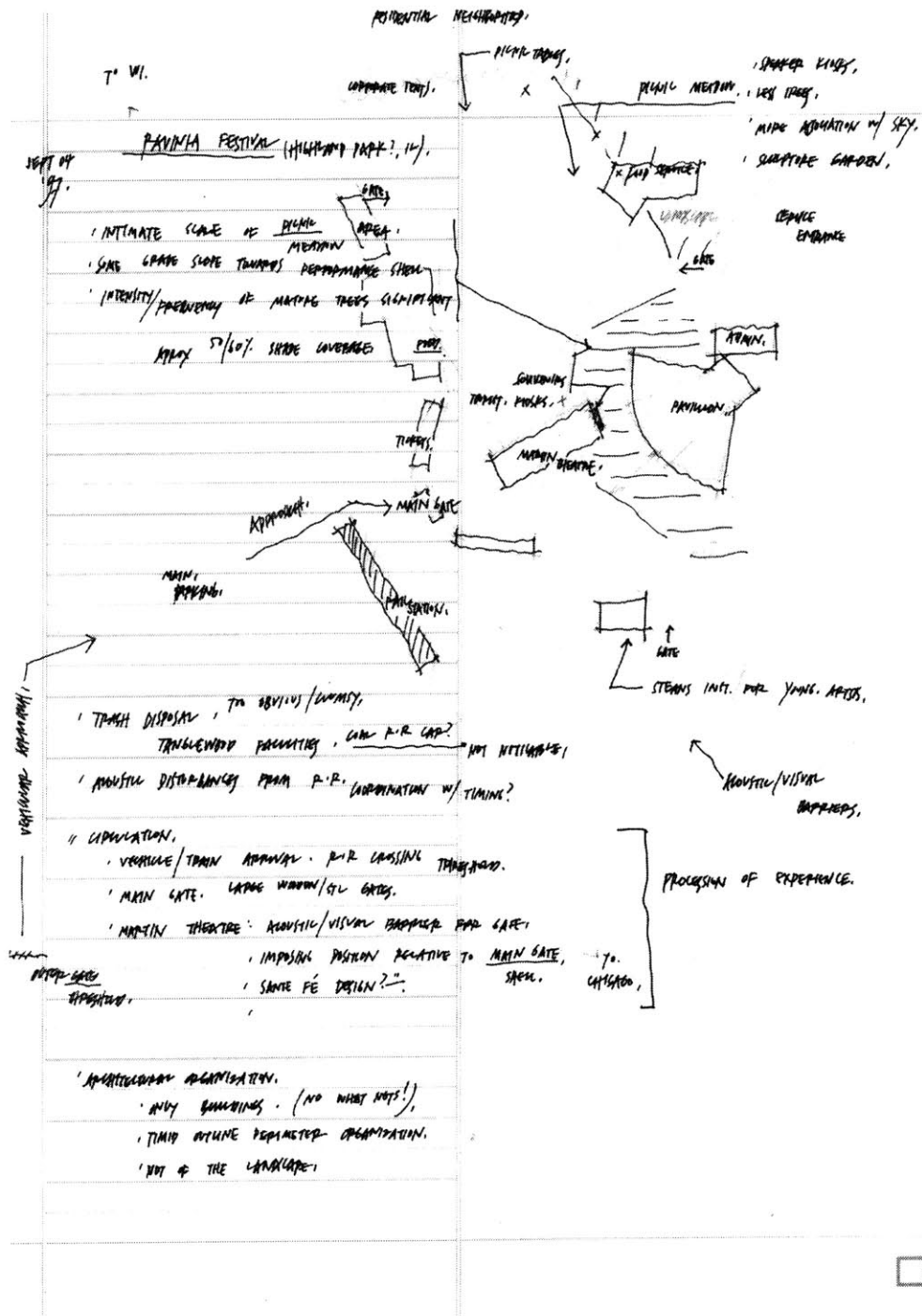


Image 74  
Ravinia Festival analysis, 9/4/97.

Sept 15 '97

CHICAGO → UNIVERSITY OF ILLINOIS

URBANA CHAMPAIGN

DRIVE TO URBANA

• MUYANG KIM

• PROF HENRY PLUMMER MTS

DR. BOB

IN ARCHITECTURE BUILDINGS

UNUSUAL - HORIZON, SKY!

UNUSUAL PRESENCE OF SKY/HORIZON

(EXTRA TERRASTRICAL)

THESE STUDY OF MUSEUM: ARCHITECTURE

a

1/. TECHNICAL COMPARISON/DESCRIPTION OF MUSEUM AS A LITERARY

MEANS TO DEFINE ARCHITECTURAL SPACES EXPERIENCES

DESCRIPTION OF BASE TECHNOLOGY TO DESIGN MUSEUMS WITH A

COMPUTER MODEL, EVRIT WASHED (CONVA ENGINEER)

• USING FROM SOME "MUSEUM" MODELS TO DEFINE SPATIAL QUALITIES UNUSUALNESS

b

2/. METAPHORICAL ANALOGY OF MUSEUM/ARCHITECTURE

• NEW LITERARY TRANSLATIONS WITH EMPHASIS MUSICAL QUALITIES

CREATING AN ARCHITECTURAL EXPERIENCE INCLUDING:

TIME/LIGHT/MATERIALS/USABILITY... etc.

OTHER THAN MOVING/DESIGN

• "MUSEUM" IMPROVING MEANS OF MOVEMENT, ENJOYS VARIATIONS, EXPERIENCES FOR VISIT

"IF PUE" FOR ARCHITECTURAL PRACTICE

DEPARTURE: NON-COMMUNIC STUDIES, SURFACE, BUREAU SIMULACRUMI SIMULACRUMI, OBJECTI SIMULACRUMI

• HALLWAYS ABOVE/DICE PROJECT, ISSUES CONCERNING MEMORY/TRANSITION

UNUSUAL & 2 SING WITH AN ELEMENT

ANNEXIA TO CHINESE GOVERNMENT (PREVIOUS)

BARUCH (URGENT)

CHINESE (PAPER)



Image 75 Meeting with Professor Henry Plummer, University of Illinois at Urbana-Champaign, 9/5/97.

Sept. 21. cont. <sup>WED LIST of THIS is ambiguity, in architecture.</sup>

- THESIS (MAY 94) ASTROLOGY CENTER
- IMPROVED FORM of SEE UNDERSTANDING  
PHYS IN UNIVERSITY
- SITE AT UNIV. CAMPUS, SMALL INTEGRATION TO CONCEPTS,  
MAPING of PARAMETER BENEFIT UNDERSTANDING  
HUMAN
- MAPPING CONNECTION / CATEGORY with SPY. (AMBIGUOUS)

STUDY OF OUTER SPACE / MAP  
COMPARATIONS

• THESIS (SPRING 94?) - LOWLAND STUDY of DOWNTOWN ORGANIZATION  
STUDY OF VARIOUS 2-D GRIDS - MAP-ROADS  
SECTION / PLAN / ELEVATION → SUMMER INTERESTIVE STUDIES

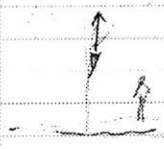
(PREVIOUSLY AMBIGUOUS UNDERSTANDING OF RECONSTRUCTION OF PAPY,  
MANIPULATION)

LABORER → LABORER (BARKEN)  
(HAMPSTEAD)

RAVILLA PATTISON BENNETT  
(EXHIBITION SEPT 19-20)

PERFORMANCE  
CONCEPT  
(HIGHLY RISKY  
COMMITTEE OF THE 100)

MARVIN HARWITZ  
(NYC)



LIMITS (SITE) EXTENDING PERFORMANCE  
VENTILATING - IMMEDIATE UNDERSTANDING OF LEADY  
SITE LIMITED. LIMITED AT MASS ATTACHMENT (BASE)  
EXPOSURE  
FIXTURE

PERFORM. OF 1994  
20-25

• PARAMETER INDICATE INTENSE LEARNING AT SITE PERFORMANCE  
DOWNLOADING TO HIGHLIGHT SCALPNESS IN PARTICULAR AREAS ONLY  
RAINBOW FOUNDING

Image 76  
Continuation of notes.



CHICAGO → BOSTON. M. 1250AM,

SEPT 08 '92,  
 STUDIO SET UP. PM. MT. F.H.

- RE. ORIENTATION TO BOSTON, (NEW APY SETTLE DOWN. "U")
- USES MAPS. 1:100 000 W. MASS.
- 1:25 000. STACEBRIDGE.

SEPT 09 '92,  
 MTC. NJPONG: REGISTRATION.  
 PRELIMINARY ARCHITECTURAL RESEARCH.

- ASPLUND: WOODLAND CONEMTARY,
- SLAVUTINS: MATHIAS '97.

PLAT. TANGEMAD MASTER PLAN '81.  
 S.MANED, (SCALE:  
 1" = 125'  
 1" = 20.0'

FILENAME:  
 125-1  
 SB-1, SB-2, SB-3

SEPT 10 '92.  
 PRELIMINARY MUSIC LITERATURE RESEARCH.

- MUSIC THEORY BASICS.
- COUNTERPOINT.

RAVISMUSSEN: EXPERIMENTAL ARCHITECTURE. P6.  
 MUSIC / ARCHITECTURE → METAPHOR 105.

UNTERSTANDUNG. P6.  
 135.

DEFN. POLYPHONY: MUSIC GENERALLY CONSISTING OF TWO OR MORE  
 DISTINCT MELODIC LINES.

"TOWARDS A POLYPHONIC ARCHITECTURE"

Image 77  
 Preliminary research.



SPR 11 '21

MUSIC (MUSICAL)  
MUSICAL DEFINITIONS/TERMS:

COUNTERPOINT: ACT OF ARRANGING DIFFERENT MELODIC LINES IN A MUSICAL COMPOSITION.

SIGNIFICANTLY DEPENDS TO TECHNIQUE INVOLVED IN/ HANDLING OF THESE MELODIC LINES.

Johann Joseph Pux.  
GRANDI AD PARMASIA

1) VERTICAL RELATIONSHIP BETWEEN THE LINES.  
HARMONIOUS

"VERTICAL CONSIDERATION" PARTS W/ HARMONY.

2) HORIZONTAL RELATIONSHIP WITHIN THE LINES.  
HARMONIOUS

"HORIZONTAL CONSIDERATION" PARTS W/ MELODY.

HETEROPHONY: DUPLICATION OF BASIC MELODIC LINE W/ CERTAIN DIFFERENCES OF PITCH OR OF RHYTHM.

MUSICAL COMPOSITION (PARAMENTAL/GENE TYPE): INVOLVES SHAPING OF PITCHED SOUNDS IN TIME AND SPACE. LAMINATING

MELODY  
HARMONY  
RHYTHM } IN A "PARALLEL" MANNER.

MELODY: SERIES OF SINGLE NOTES CONSECUTELY ARRANGED IN A PATTERN THAT EITHER FROM A PREEXISTING SERIES THAT HAS BEEN HANDLED DOWN BY TRADITION OR IS ACCEPTED AS A CONVENTION.

HARMONY: SOUNDING OF TWO OR MORE NOTES SIMULTANEOUSLY AND THEIR MOVEMENT TO OTHER CHORDS. TYPICALLY HEARD IN SECTIONS.

"/ SECTIONS UNFOLD TOGETHER,  
(UNDERSTANDING/FEELING WAY)

RHYTHM: THE ELEMENT OF TIME IN MUSIC. "THOUGH THE LISTENER MAY BE AWARE OF A PULSAR PULSE, IF ANY SUBCONSCIOUSLY - THERE IS NO PROBLEM FOR THE MATHS TO BE TIED TO IT."



84 Image 78 Preliminary musical theory research.



SEPT 1912

ARTICLE. of THE PERIOD. FROM 1912.

ARTICLE: FROM MOMENT IN WHICH ONE IS REPRESENTING AN INSTRUMENT.

! NATURE OF EXPERIENCE/SUBJECTIVITY/PERFORMANCE  
! AT A STAGE OF ART THE MUSIC

(i.e. BEING, BECOMING, BEING... etc)

ABOUT UNDERSTANDING OF MUSIC RELEVANT.

Applying

ARTICLE OF THE PERIOD  
① HISTORICAL SOCIETY. ABOUT  
②

CONSTITUTION OF MUSIC, (CONTINUE OF EVENTS).

EVENT FROM EXPERIENCE.

OTHER FESTIVALS:	INDIANA FESTIVAL - INDIAN SYMPHONY ORCHESTRA	1911
(Canada):	LEWIS AND CLARK SYMPHONY - NEW YORK SYMPHONY	1912
	ALBANY SYMPHONY - NEW YORK SYMPHONY	1912
	BALTIMORE SYMPHONY - BALTIMORE SYMPHONY	1912
(Germany):	BREMEN FESTIVAL - GERMAN SYMPHONY	
	WOLF TRIP - NAT'L SYMPHONY ORCHESTRA	

- BOSON SYMPHONY ORCHESTRA → TANGLEDWOOD COMMITMENT 1927.

MUSIC DISCS

BERLIOZ PERIEM.  
ST. MATTHEW PASSION.

Image 79  
Research - Other out-  
door music festivals.

TANGLEWOOD.

CAMPUS → WOOD, MA.

SEPTEMBER 13 '97. SATURDAY.

TANGLEWOOD SITE VISIT w/ BUREAU.

WEATHER TO BE. SEMI CLOUDY. NO PEOPLE/WORK AT SITE/PERMITTEE.  
FAMOUS DESIGNER IN THEM W/IN W/ CHAIRMAN.

VEGETATION/FURSTS/ PINE TREES, BECOMING IMPROVED BY ARCHITECTURE  
SOUNDINGS OF TREES/SOUND/LEAF SOME AS CATCHING SOME PLANK.

IMMERSION w/ NATURE  
THAT'S THE PART  
OF EXPERIENCE/IMMERSION  
TUN.

ARCHITECTURE IS AN ATTEMPT AT NATURE'S OWN MATERIAL PROGRESS  
A DEFORMATION @ IMAGIN.

SHED'S SHED. NO ARCHITECTURE SOUNDS → MAJOR ENTRY.  
MAYBE

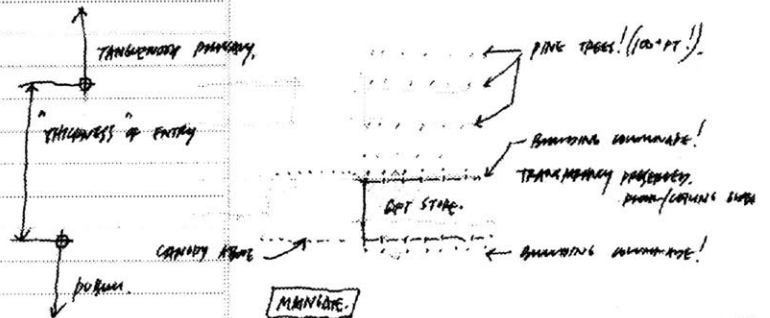
SEVES AS PART OF EXPERIENCE.  
MAJOR ABSTRACTION (NOT UNUSUAL PERCEPTION)

SEATING AREA. SOME ARE NO CHAIRS.

BOX SEATS LOCATED AT CENTRAL SEATING AREA.

TANGLEWOOD ENTRY SEQUENCE  
PERCEPTION.

PURPOSES OF ARCHITECTURE/NATURE COMBINATION TO FORM ENTRY.



PARKING.



Image 80  
Site visit, 9/13-14/97.

TRANSVERSE ENTRY SCENARIOS: (cont.)

↳ INITIAL FRONT STREET GATE (VEHICLE ENTRANCE). MULTI (2) TREES ORIENTING PROCESSION FLOW.

↳ STRATIFICATION OF EXPERIENCE EXTENDED SEVERAL HUNDRED FEET.

↳ VEHICLE PARKING.

↳ PROCESSION TO MAIN TUNNEL/ENTRY GATE.

↳ PASS THROUGH THROUGH MAIN CHAIN LINK GATE.

POOF CANOPY OVERHEAD SHADE

• LIGHTING INTENSITY @ GATE.

↳ TRANSITION @ SHOP ADJACENT.

• INTENSITY EXPERIENCE. (ACROSS BARRED).

VISUAL THROUGH TOO.

LIMITED  
INTENSE VERTICAL  
EXPERIENCE

GRADUAL VERTICAL GATE  
CHANGE.

↳ VOLUMINOSITY OF LEFT SHOP INTENSIFIES EXPERIENCE.

↳ INTERNAL VOLUMINOSITY EXPERIENCE OF RING TUNNEL.

OPEN HORIZONTAL  
(SKYWAY) EXPERIENCE.

↳ REACH MAIN SEATING CANON.

journal.

SEPT 13 '97. SATURDAY.

SITE VISIT (MANTIKERNE LOT).

ACCESS: PRIMARY ACCESS TO SITE IS THROUGH HANWITRANE LANE. LOCATED @ SOUTHERN  
EDGE BOUNDARY OF MAIN TANGLEWOOD FARMSTRIP.

DIRECTLY ADJACENT TO LION GATE. N/O ADJACENT (LATRINARY) TO HISTORIC  
OPPOSITE.

HANWITRANE LOT/AGE. (RED HOUSE - DILAPIDATED BURNED IN 1895).

EXISTING TREES INCLUDE:

SILVER MAPLES,  
ELMS,  
PINES,  
PINE TREES, VARIOUS SPECIES.

TWO ACCESS ROADS FORM THE PERIMETER - APPROX. 3/4 OF SITE LENGTH  
PARTS.

DIMENSIONS: APPROX 1100 FT EAST - WEST,  
2500 FT NORTH - SOUTH.

SUNLIGHT ORIENTATION: SOUTH (PRIMARY SOLAR HEAT GAIN) @ LAKE FRONT.

MAJORITY OF SITE CLEARED FOR TANGLEWOOD VIP PARKING.  
EMPLOYEE.

BARN ON NORTH-EAST CORNER OF SITE (STORAGE OF OUTDOOR PENS).

NOISINESS: LITTLE NOISE FROM VEGANES  
KITCHENING.

SOME RESIDUAL NOISE FROM LAKE VIEWS - MOTORBOATS

2 SPARS. w/ SOME WINDOWS.

RED COUCH.

SOME CIRCUMFERENTIAL FACILITIES/SERVICE.

CAMPERS (NEIGHBOR @ EAST).  
MOUNTAIN CARS (HANWITRANE).

OCASIONAL TOURIST @ HANWITRANE SITE/TANGLEWOOD FARMSTRIP.

09/13/97. 09/14/97. SITE VISIT.

OPEN CLEARINGS. (PARKING LOT) LANDSCAPE OF SKYLINE.  
DISTANT MOUNTAINS.

ORIENTATION TOWARDS STONE-RIDGE BARR.  
MONUMENT MOUNTAIN IN DISTANT. (530M)

NO MIDDLE GROUND. SKY.  
MOUNTAINS.  
SKY. (REFLECTION). "BARRANCO" LANDSCAPE.

LAYERING OF MOUNTAINS/HORIZONS.

CHANGING HORIZONS w/ GRADE MOVEMENT (VERTICAL).  
REGISTRATION w/ SIMILARITY FROM MORE SIGNIFICANT @ SITE EDGE.  
MOUNTAINS SHOW A PRESENCE. REFLECTION PROVIDES PRESENCE.

DIRECT REGISTRATION/REGISTRATION OF LANDSCAPE NECESSARY!  
(SKY, MOUNTAINS).

ARCHITECTURE (OR WHAT NOT) SHOWS FOLD OUT OF SKY/SECTION.

MUST INCLUDE WATER PORTION. (REGISTRATION).

09/16/29,

THE ANALYSIS OF MUSIC. JOHN D. WHITE. MTG. WALK. AS '04.

MINOR ANALYSIS: DEALS W/ MELODY, HARMONIC, RHYTHMIC ANALYSIS.  
FORM / TEXTURE @ SMALLEST LEVEL.  
SOUND BEINGS OF ORCHESTRATION / TIMBRE

MIDDLE ANALYSIS: RELATIONSHIPS BETWEEN PHRASES

MAJOR ANALYSIS: LARGE EVENTS WITHIN TIME SPAN / BROAD HARMONIC / TEXTURAL / RHYTHMIC CONSIDERATIONS.

ALL MUSIC ELEMENTS ARE COMBINATIONS OF:

FINITE ELEMENTS.

vs. INFINITE ELEMENTS.

① RHYTHM: INCLUDES MATTERS SUCH AS DURATION, ACCENTS, TEMPO, METER  
ALSO FINITE ELEMENTS SUCH AS: PHRASES, PERIODS.  
FORMAL

② MELODY: INCLUDES EVERY ASPECT OF BOTH RHYTHMIC / PITCH RELATIONSHIPS IN A SINGLE LINE.

③ HARMONY: INCLUDES NOT ONLY VERTICAL ANALYSIS AND HARMONIC ANALYSIS BUT ALSO COUNTERPOINT / POLYPHONY.

④ SOUND: INCLUDES TIMBRE (ORCHESTRATION) DYNAMICS, TEXTURE.

\* THE MEANINGS / INTENTIONS IN A GIVEN PIECE OF MUSIC USES A VARIETY OF TIME TO MANIPULATE GESTURES EVENTS THAT OCCUR AT CALCULATED / INTENTIONAL POINTS OF ITS PROGRESSION.

PHRASES BEING / ORIGINATING PH/FORM CADENCES, TONAL RELATIONSHIPS AFFECTIVE QUALITIES (PSYCHOLOGICAL EFFECTS) OF MUSICAL ELEMENTS / PIECES ALL OCCUR THROUGHOUT THE PROCESS OF GROWTH / EVOLUTION THAT DEFINE SHAPE A GIVEN SHAPE OF A MUSICAL PIECE.  
FORM



09/16/97. THE ANALYSIS OF MUSIC '97.

SCHAFDOUN · BERLIN PHILHAR.

(SANTIAGO CALTRAVA LECTURE 6:30PM-8:00PM).

MTG. #1 DUNCAN KINKAD: BRAPA-1100PM

PRECEDENT: [1] SCHAFDOUN · BRAIN PHILHARMONIC HALL.

- GOOD LECTURE/DISCUSSION! :)

[2] JOHANN SEBASTIAN BACH. > INVENTION 1/2

> B. MINOR MASS. GLORIA MASSES, BMV 232, EMMOR KIRKE.

\* 2 POTENTIAL THESIS DIRECTIONS:

1. ARCHITECTURE/MUSIC COMPARISON: COUNTERPOINT : SPATIAL RELATIONS.  
POLYPHONIC EXCHANGE · TETRAPOX

2. CHALLENGE MUSIC HOW NOTION: "NEW MOVIE THEATRE LIKE ATMOSPHERE  
FAMILY.

\* COMPARISON / ANALYSIS AT AN STAGE/SCALES.  
SIMILAR SPATIAL PROPERTIES : MICRO · REAL · MACRO.  
ATTITUDES ·  
FINITE / INFINITE SCALES.

Image 85  
Meeting with D.S.  
Kinked, 9/16/97.

9/16/97. MTS. W/ DANAIN KINKEAD.

1. KATSURA: JAPANESE TEMPLES/MANSIONS  
- SEQUENCE OF EXPERIENCE INTENTIONALLY INVESTIGATED.  
- PAVING OF ABOVE

2. JPA. MITALU THESIS MTS W/ (MARE TONY EAST, (GOVERNMENT DISTRICT)) (EVMA VISIT)

IN PRESENTATION: SITE MAPS/PLOTS/ RESEARCH  
1. TANGLEWOOD. (LENNEX MA).  
2. PAVIN-LA. (CANTON MASS.)

SOME QUESTIONS UNDERLINES DISCREPANCY/EMPHASIS OF THESIS.

\* MUST INCLUDE COMPARISONS/QUESTIONS, ATTEND BE MADE?  
ANALYSIS.

\* DIFFICULTY IN ASSESSING AN "ARCHITECTURAL" THESIS TOPIC.  
(SPECIAL DECISIONS NEED TO CONTINUE.

\* DIRECT COMPARISON NOT APPROPRIATE. MY VISUAL DESIGN THESIS.

WHAT ARE THE ARCHITECTURAL POINTS?

HT: MUST UNDOUBTLY ASK QUESTIONS CONCERNING THESIS (ABSTRACT!).

' THE THESIS IS AN INVESTIGATION ABOUT ...

\* ABSTRACT STATEMENT WITH EVIDENCE (A VISUAL BASIS) - WHATS YOUR INTEREST?  
TAPAS.

(COMPARISON)

DECISIONS:  
1. MUSIC FOR AN ARCHITECTURAL EXPERIENCE  
2. PROGRAMATIC SITE/IMPLICATIONS.

Image 86  
Meeting with I. Halasz,  
9/16/97.





9/21/95,

MUSIC LIBRARY: <sup>RESERVE</sup> MUSIC AND PERFORMANCE ESSAYS.

ML447.T37 195.

OSKINPEAD: F. LEE MARRA '95 UVA.

PERMANENCE OF FORM: GENERATING ARCHITECTURAL ORDER USING STRUCTURES OF MUSICAL TIME.

MUSIC: TEMPORAL MEDIUM  
ARCHITECTURE: SPATIAL MEDIA.

MEMORY CRITICAL TO BOTH FOR UNDERSTANDING  
COMPREHENSION.

REFERENCES: <sup>▲</sup> STRAVINSKY, I. POETICS OF MUSIC H.V. PRESS '1970.  
<sup>▲</sup> BERLSON, H. TIME AND FREE WILL. G. AMEN'S UNWIN '1950. 16-10-1  
<sup>▲</sup> KRAMER, J. THE TIME OF MUSIC. SWANMER BROS. '1988 16.2.  
DISTORTION OF TIME. / MUSIC CONCURRENTLY REVEALED THROUGH/COVERTS TIME.

<sup>▲</sup> CLARKE, E. "LEVELS OF STRUCTURE IN THE ORGANIZATION OF MUSICAL TIME."  
CONTEMPORARY MUSIC REVIEW V.2 '87 P.644

"TIMERS A POLYPHONIC ENVIRONMENT"



l a s t t h o u g h t s

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The investigation and comparison of architecture and music in the thesis process is difficult and a never ending task. In this project, the attempt to make metaphorical comparisons lead to many discussions on the nature of that relationship. Ultimately, it seems that the importance of understanding architectural form and organization is significant in any form making task.

One particular issue raised in the design process recognized that the architectural experience of any particular space is difficult to reproduce and understand through scale models and drawings. Such as in music, one has difficulty in experiencing or appreciating music through its written notation. The natural continuation of this investigation would have been to construct full scale models to experiment and demonstrate intentions.

I would have been intrigued to study an alternative process of architecture and music comparison where acoustical qualities begin to define opportunities of place

making and inhabitation. Not always relying on intended occurrences, timing and coincidence would then form unexpected results.

In any case, I am grateful for my educational career. Beginning at the University of Illinois, with Henry Plummer (MIT MArch 1975), and finishing with Imre Halasz and Maurice Smith, has certainly made this process eventful and memorable.

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**c r e d i t s**

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all photos and drawings by author unless otherwise noted.

Cover page

United States Geological Services  
Topographical Map - 1:25,000, Stock-  
bridge, Massachusetts, 42073-C3-  
TM-025.

Image 1

Tanglewood : A Planning Study, Cam-  
bridge, MA, Carr Lynch Associates,  
1987.

Image 2

United States Geological Services  
Topographical Map - 1:25,000, Stock-  
bridge, Massachusetts, 42073-C3-  
TM-025.

Image 3

Photographed by Janice Y.K. Li - 12/  
12/97.

Image 8

Tanglewood : A Planning Study, Cam-  
bridge, MA, Carr Lynch Associates,  
1987.

Image 21

Courtesy of Ravinia Music Festival,  
Highland Park, Illinois.

Image 22

Courtesy of Tanglewood Music Cen-  
ter, Stockbridge, MA.

Image 23

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Image 24

*Katsura*, Shinken-chiku-Sha, Tokyo,  
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Image 24

Ibid.

Image 25

Ibid.

Image 26

Ibid.

Image 27

Ibid.

Image 28

Ibid.

**n o t e s**

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notes.

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Software:  
Adobe FrameMaker 5.0  
Adobe Photoshop 3.05  
Windows NT V4.0  
Hardware:  
Pentium II 233 w/ MMX  
HP LaserJet 5L  
AGFA ePhoto 1280  
Book:  
Font: Aerial Narrow  
Paper: Strathmore Writing, Ultimate White  
24lb, 300-068.



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