

**This Rough Magic: Shakespeare's *Tempest* as a Generator of
Architectural Form**

by

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Table of Contents

Table of Figures	iv
Acknowledgement.....	viii
Abstract	x
Introduction	1
Prologue: Summer 2008.....	1
The Tempest	1
Historical Review.....	3
Previous Strategies: Architecture and Music	3
Finite Non-linear Space	5
Preliminary Studies: Letter and Language as Generator.....	7
Meter as Architecture	7
Letter A	9
Control Interventions	10
Analysis of Initial Investigations.....	11
Analysis of <i>The Tempest</i> as Masque.....	12
Pavilions for <i>The Tempest</i>	15
MACHINE FOR EXPERIENCING A TEMPEST.....	16
LIBRARY FOR ONE BOOK	18
PAVILION FOR A CONSPIRACY (OBSERVED)	20
CALIBANARY (PAVILION FOR AN ABHOR'D THING)	22
LANDSCAPE TO TEST THE METTLE OF A LOVER	24
Connective Exploration of Pavilions.....	25
Analysis of Pavilion Exercise.....	27
Speculative Context Analysis	29
Site	29

1. University Campus	29
2. City Fabric	30
3. National Park: Contemplative Forest	31
Program.....	31
1. Theater: The Empty Space.....	32
2. The Chinese Scholar Garden	33
3. Library.....	33
Context Determination	35
Program.....	35
Extending the Masque.....	35
Perfect scholarship in perfect isolation	36
Three interconnected plots, one over-arching narrative	37
Site	38
Final Project	42
LIBRARY OF REMOVE.....	47
SCREENS FOR DISPERSAL.....	52
SCHOLAR’S GARDEN	55
OBSERVATION PAVILION.....	56
AMPHITHEATRE (CHAPEL OF HUMANISM)	57
Discussion and Conclusion	59
Works Cited	61
References.....	62

Table of Figures

FIG 01. Elevation drawing and photograph of facade of Monastery at La Tourette.....	3
FIG 02. Exploded axonometric view of Stretto House by Steven Holl	4
FIG 03. Interior of Stretto House by Steven Holl.....	4
FIG 04. Scansion of <i>The Tempest</i> expressed as a field of walls	8
FIG 05. Scansion of <i>The Tempest</i> expressed as a grid of blocks	8
FIG 06. Lowercase “a” generates a lamp.....	9
FIG 07. Lowercase “a” generates a banked-track roller skating rink	9
FIG 08. Lowercase “a” formed into an arts center with an outdoor performance space.....	9
FIG 09. Solid wall encloses a series of platforms	10
FIG 10. Wall insertion create differentiation in a grid.....	10
FIG 11. Wall insertions define space.....	10
FIG 12. Curved walls channel space	10
FIG 13. Diagram of the action in <i>The Tempest</i>	13
FIG 14. Elements of <i>Berlin Masque</i> by John Hejduk, image from <i>Mask of Medusa</i>	13
FIG 15. “Caretakers House” from <i>Berlin Masque</i> by John Hejduk,	14
FIG 16. Section perspective of “Freespaces” from <i>Berlin Free Zones</i> by Lebbeus Woods.....	14
FIG 17. Section drawing of MACHINE FOR EXPERIENCING A TEMPEST	16
FIG 18. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST	17
FIG 19. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST	17
FIG 20. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST	17
FIG 21. Section drawing of alternative version of MACHINE FOR EXPERIENCING A TEMPEST.....	17
FIG 22. Computer rendering showing LIBRARY FOR ONE BOOK in forest context.	18
FIG 23. Computer rendering showing both faces of LIBRARY FOR ONE BOOK.....	18
FIG 24. Elevation/perspective drawing of LIBRARY FOR ONE BOOK	19

FIG 25. Computer rendering of LIBRARY FOR ONE BOOK.....	19
FIG 26. Elevation diagram OF LIBRARY FOR ONE BOOK	19
FIG 27. Diagram of PAVILION FOR A CONSPIRACY (OBSERVED)	20
FIG 28. Plan and conceptual diagram of PAVILION FOR A CONSPIRACY (OBSERVED)	20
FIG 29. Computer rendering showing possible materials of PAVILION FOR A CONSPIRACY (OBSERVED).....	21
FIG 30. Computer rendered section showing the hidden position of the observer of PAVILION FOR A CONSPIRACY (OBSERVED)	21
FIG 31. Computer rendered elevation of PAVILION FOR A CONSPIRACY (OBSERVED) ..	21
FIG 32. Computer rendered axonometric drawings, showing south-west, north-east and top views, of PAVILION FOR A CONSPIRACY (OBSERVED)	21
FIG 33. Side and top elevation drawing of CALIBANARY	22
FIG 34. Computer rendering of interior of CALIBANARY	23
FIG 35. Computer rendering of CALIBANARY	23
FIG 36. Computer rendered axonometric views of CALIBANARY	23
FIG 37. Computer rendering of CALIBANARY in forest context	23
FIG 38. Scale test and drawing of LANDSCAPE TO TEST THE METTLE OF A LOVER	24
FIG 39. Sketch of LANDSCAPE TO TEST THE METTLE OF A LOVER as a linear condition	24
FIG 40. Sketch of LANDSCAPE TO TEST THE METTLE OF A LOVER	24
FIG 41. Tempest pavilions reconceived in a similar architectural language at different scales.....	25
FIG 42. Reconceived MACHINE FOR EXPERIENCING A TEMPEST, opened and closed,...	26
FIG 43. Reconceived LIBRARY FOR ONE BOOK, two versions,.....	26
FIG 44. PAVILION FOR PRESENTATION OF A SPECTACLE	26
FIG 45. Reconceived PAVILION FOR A CONSPIRACY (OBSERVED)	26
FIG 46. Reconceived LANDSCAPE TO TEST THE METTLE OF A LOVER	26
FIG 47. Hypothetical section (Part I) through <i>The Tempest</i> showing key events and streams of narrative	35

FIG 48. Hypothetical section (Part II) through <i>The Tempest</i> showing key events and streams of narrative	36
FIG 49. Map of Maryland highlighting Baltimore City.....	38
FIG 50. Map of Baltimore City highlighting site	38
FIG 51. Street map of site	39
FIG 52. Detail map of existing conditions at site.....	40
FIG 53. Diagrammatic section through site	40
FIG 54. Aerial perspective photograph of site	41
FIG 55. Satellite photograph of site	41
FIG 56. Aerial perspective rendering of final project in context, highlighting major areas	43
FIG 57. Exploded axonometric drawing of final project showing all major features.....	44
FIG 58. Site Plan at Ground Level.....	45
FIG 59. Site Plan at Second Level	46
FIG 60. Interior perspective rendering of library	47
FIG 61. Section perspective of through library	48
FIG 62. Rendered axonometric view of library ground level.....	48
FIG 63. Rendered axonometric view of library second level	48
FIG 64. Rendered axonometric cutaway view of library interior	49
FIG 65. Front view of interior cutaway	50
FIG 66. Side view of interior cutaway	50
FIG 67. Articulated beams and columns	50
FIG 68. Rendered perspective view front library entrance to main courtyard.....	50
FIG 69. Diagrammatic plan of library second level highlighting program areas.....	51
FIG 70. Diagrammatic plan of library ground level highlighting program areas	51
FIG 71. Street level perspective view showing screens.....	52
FIG 72. Axonometric view showing all screens sited throughout project.....	53
FIG 73. Rendered view through screen to library facade	54

FIG 74. Detail of screen arrangement.....	54
FIG 75. Rendered view of library’s front courtyard behind screen	54
FIG 76. Exploded axonometric of garden.....	55
FIG 77. Scholar garden with planter boxes	56
FIG 78. Axonometric rendering of Pavilion for Observation	56
FIG 79. Rendered view of Pavilion for Observation from Library Courtyard.....	56
FIG 80. Axonometric view of amphitheatre	57
FIG 81. Section through amphitheatre	57
FIG 82. Perspective rendering of amphitheatre as viewed from the stage	58

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In memory of my father, John C. Smith, who first taught me to build.

Then the conceit of this inconstant stay
Sets you most rich in youth before my sight,
Where wasteful Time debateth with Decay,
To change your day of youth to sullied night;
And all in war with Time for love of you,
As he takes from you, I engraft you new.

William Shakespeare, Sonnet 15

Abstract

As practices, theatre and architecture are both highly synthetic. When successful, both take many disparate elements and subjectively recombine them into a cohesive whole, while solving and addressing real-world problems. In the case of theatrical practice, these most often relate to presenting a narrative in an effective way—a subjective element—while also staging an actual event—an objective, present reality. Architecture has a similar duality: the subjective shaping of space coupled with the tectonic reality of building.

If it can be established that both of these practices involve a significant degree of subjectivity, it seems equally valid to state that finding some generative diagram would be a way to both limit and spark the creation of the subjective. Both architecture and theatrical production commonly begin with a conceptual idea that can serve as a framework and a generator for the elements of the work.

It seems quite possible, then, that works of theatre, as literature and as practice, could be used to generate works of architecture. Taking this as a thesis, it can be used to explore the linkages between theatre and architecture. It also raises significant problems to be addressed. Can the inherent linearity in a work of drama assist in the formation of architectural works that afford non-linear opportunities? And do other dynamic aspects of a play (for example, narrative, characterization, objectives) have analogues in architecture?

Introduction

Prologue: Summer 2008

As a prelude to major research and design on this thesis, a project was undertaken in the summer of 2008 to design the sets and playing space for the Bakerloo Theatre Project's summer season. The plays involved, Anton Chekhov's *Cherry Orchard*, and William Shakespeare's *The Tempest*, would take place in the Academy Hall auditorium, a large room on the Rensselaer Polytechnic Institute Campus.

Though the room had an existing proscenium stage, the theatre company had earlier decided to present the play fully in the round, so an entire playing space and audience area had to be created. The auditorium itself is fairly large, so in order to create the sense of an intimate theatre space within the larger volume, eight "screens" were deployed in a circle surrounding the playing space. The screens were printed with a simple graphic pattern appropriate to each of the plays and could be reversed as appropriate.

Though serving both plays, this configuration was particularly apt for *The Tempest*, a play that takes place entirely on a magical island, with a main character able to affect the world outside the boundaries, but not leave them. The play itself is a metaphor for the theatrical act. For a play must take place within its own private space, and in most cases cannot transcend those physical boundaries, but it can have an impact beyond those borders. The creation of a magic circle within the larger "world" of the auditorium was meant to explicate, albeit subtly, this relationship.

As a design investigation, this represented a preparatory exercise for the larger thesis and final project, and an attempt was made to bring an architectural sensibility to the design. Work on this production also allowed for an in depth study of Shakespeare's *Tempest* and was instrumental in focusing the final project on that particular play.

The Tempest

The Tempest is often considered Shakespeare's final play. Though he continued to collaborate with other authors after it was written, many believe it was the last play he wrote by himself. As such, it has a unique poignancy. The play deals with themes of loss, and of giving up one world to take

on another. But it also deals with redemption, forgiveness, and freedom. At the beginning of the play, Prospero, the rightful—and deposed—Duke of Milan is in exile on an island. Using magic powers and spirits who are under his control, he raises a storm and shipwrecks his old enemies on the island. He puts them through some trials, but ultimately forgives them and returns to his dukedom. At the end, in a monologue set largely in the world of the theatre, not the world of the play, Prospero asks the audience to set him free.

This project will make an attempt to explore this play further and use it to guide the development of an architectural space. As stated, an attempt will also be made to explore issues of non-linear space in opposition to the linearity of narrative. Special qualities that the play might have to allow for this will be considered. Further, the subjectivity necessary to translate between two disciplines will be addressed. And aspects of the play, especially characterization, will be explored in the realm of architecture.

Historical Review

Previous Strategies: Architecture and Music

Previous architects have used the performing arts as a generator of form. Most commonly used seems to be music. This relationship is now coded into the DNA of the profession, following Goethe, and both Le Corbusier—more specifically, his apprentice Iannis Xenakis—and Steven Holl have created buildings of note with specific elements generated by music.

The rhythmic, mathematical qualities of music have an almost direct analogue in construction. Both can be described as repetition with variation, within a larger framework. When “composing” the facade of Le Corbusier’s Monastery at La Tourette, Iannis Xenakis used syncopated rhythms derived from his own “mathematical and musical compositions,” (Baranas, 150) compositions that he derived from Le Corbusier’s own Modulor system. He spaced vertical concrete mullions at varying widths, determined by the music. The mullions divide relatively narrow panes of glass. These narrow windows are further subdivided by horizontal muntins, their various placement presumably also derived from the compositions.

These screen walls sculpt the light that enters parts of the monastery. Le Corbusier said, “for me, light is the fundamental basis of architecture. I compose with light.” (qtd. in Baranas 139) and that credo clearly underlies the creation of these *ondulatories* (“undulatories”). The patterning has the delightful effect of creating an almost organic randomness, like the pattern of shadows in a forest. Baltanas points out how a users experience of the walls can vary, depending on one’s approach: “The short distances between the mullions create an impression of enclosure when seen head-on, disrupting the continuity of the exterior landscape, while an approach from an angle obscures the filtration of sunlight to give the appearance of a blind wall.” (139)

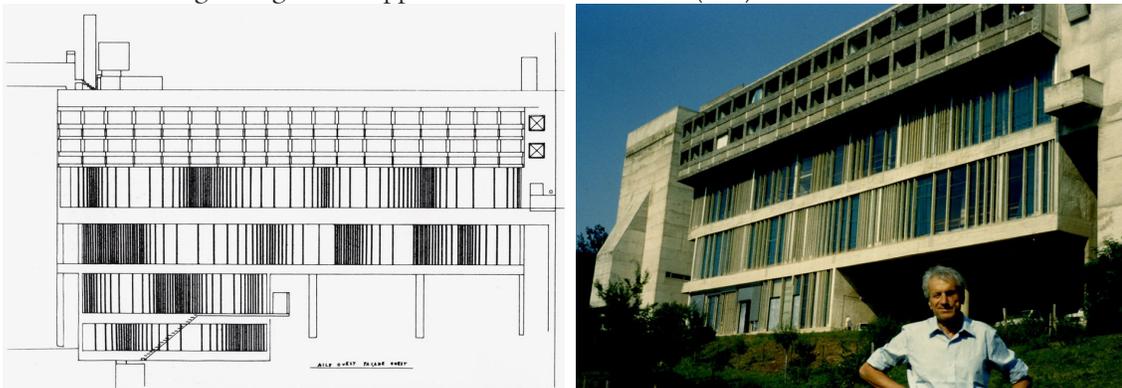


FIG 01. Elevation drawing and photograph of facade of Monastery at La Tourette.
Images: www.iannis-xenakis.org

Despite these architectural effects, there remains an element of the purely ornamental in Xenakis' approach. His adaptation of music is applied as a facade treatment, and not as a holistic approach to the design of the entire project. In fact, the *ondulatories* seem to work most effectively as a counterpoint to the overall heaviness of the rest of the project, creating a lively, visually lightweight element in contrast with the monolithic mass of the building.

Steven Holl took a more fully integrated approach to using music as a generator in his approach to the design of the Stretto House in Dallas. Holl started with the site, which had “three ponds with existing dams” (Steven Holl Architects) and found the simultaneous sound of the water pouring over the dams to be “like a stretto in music.” (ibid.) A stretto occurs when different variations on a musical theme accompany each other, starting without waiting for the others to finish. Using this as a starting point, he then found a piece of music using stretto, Bartok's *Music for Strings, Percussion and Celesta*, that would guide the further development of the house.

The ultimate result is divided into four main interrelated volumes—the simultaneous fugues creating the stretto—and each volume is further subdivided into lightweight elements (curving steel canopies, representing water) and heavy segments (masonry—representing the existing dams) modes. These mode relate to heavy and light elements in the music. (Holl, 56) As Holl states, “The main house is aqueous space: floor planes pull one space to the next, roof planes pull space over walls and an arched wall pulls light from a skylight.” (Steven Holl Architects)

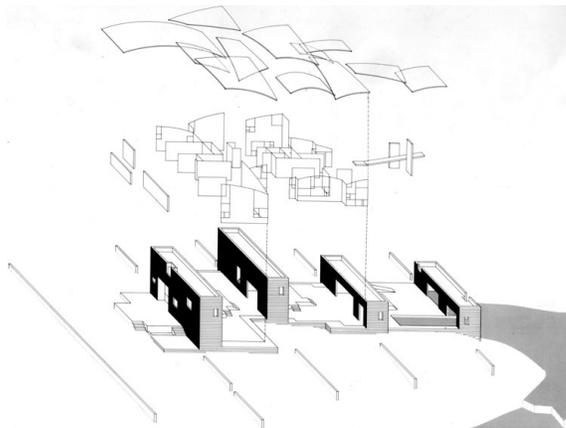


FIG 02. Exploded axonometric view of Stretto House by Steven Holl
Image:stevenholl.com



FIG 03. Interior of Stretto House by Steven Holl
Image:stevenholl.com

Holl's project appears to achieve these intentions. The house uses a palette of materials, including highly polished terrazzo, that enhances this desired sense of liquidity, going so far as to enclose a pond at one end of the building. Additionally, the various divisions of the house are connected by an open plan, “purely orthogonal” (Holl, 57) and linked by a curvilinear section.

The contrast between these two approaches is stark. Xenakis' has inscribed his score on the facade of the building, where one might, with patience, transcribe and represent it. Holl's more complex use of the music has completely subsumed any clear notion of the original score: Little is left to be "read." One can, perhaps, "feel" the intentionality, but the subjectivity involved is far too great to codify. (Interestingly, for me it is hard to reconcile the Bartok piece, which feels dark and discordant, especially when the stretto occurs, with Holl's bright, minimalist building.)

Of course, it is this great leap of personal subjectivity that makes the project of translating a work of art in one discipline to a work in another field so difficult. If one uses a measure of the music, and applies it in a clear system, it is possible to find clear evidence of achievement. But if a more subjective translation is desired, a measurement of the success of the translation must also be subjective.

Finite Non-linear Space

As an element of this project, an affordance for non-linear experience will be sought. Ultimately, it can be argued that non-linear space allows for a richer combination of experiences and opportunities. A central challenge of adapting a narrative into architecture is addressing its inherent linearity. A work of drama is presented on the stage and has, as a rule, a beginning and an end. The middle is usually located between them. Even when the playwright attempts to subvert the narrative's timeline, as in Harold Pinter's *Betrayal*, or the film *Memento*, both of which are told "backwards" in a series of scenes, there is still a deliberate sequencing that occurs. Backwards, in these cases, is forwards. One important canonical play, Georg Büchner's *Woyzeck*, has no definitive sequence of scenes. A case could be made for such a play as a non-linear experience, though in performance, a sequence of events must still be chosen.

There are also architectural spaces that take an inherent linearity in their design, composed of linear elements, and combine them into compelling non-linear spaces. One example is that of the traditional Chinese scholar garden. Chinese garden architecture is highly planned, in many ways very linear. There are distinct paths through them. But they add up to a non-linear experience through several factors. First is the careful placement of views that creates an ever changing experience. Also, users of the garden have choices that can be made of what path to take, and often these lead back on themselves, providing the ability to move in a circle. The experience of the garden is also screened from itself. It is rare that you can "get" the entire garden from one vantage point, or

even through walking around it several time. There is enough variety and choices to keep a clear, complete understanding of the spatial order of the place from crystallizing. Even in a plan drawing, such as that it is difficult to completely comprehend the variety of experiences constructed within the garden. Control is always maintained by the paths and the architecture, yet within that framework are affordances for delightful, non-linear experience.

It is interesting to note that “non-linearity,” to be successful, may require this kind of control. An example of a completely unbounded, non-linear space requires a thought exercise like that undertaken by Borges in his story *The Library of Babel*. The story is about a library that contains all possible books, through the random combination of combinations of letters within a certain framework. Of course for each possible book, there is a nearly infinite number of books that differ from it by one letter, and exponentially more that are complete gibberish. The library is arranged in a series of hexagonal galleries in all directions with no beginning and no end. Instead, one can simply move through them forever. Though not a real space, Borges library illustrates a kind of space with complete freedom to move in all directions, but such infinite freedom is suffocating, paralyzing through infinite, undifferentiated choice.

Instead, it seems that a positive, non-linear experience generated by architecture must guide the user, limiting but not constricting, affording opportunities to make choices, but providing choices to make. The narrative of a play can help create this, but its linearity must not be paramount. Instead, one can look to the choices characters make, the objectives they seek to fulfill, and the actions they take as a guide. All of these elements can be architectural, without demanding linearity.

Preliminary Studies: Letter and Language as Generator

The first design investigations attempted to translate the play script into architecture using what can only be described as a brute force approach. One investigation took the scansion of a monologue within *The Tempest* and translated into a field of walls, with the unstressed syllables being an opening in the wall, and the stressed syllables being closed. Another series of investigations took the lowercase letter “a” in several typefaces as a plan diagram, and, using that starting point, generated a series of architectural spaces and elements. A third series used a very basic diagram of *The Tempest* as an insertion into an urban field.

Meter as Architecture

- / - / - / - / - / -
Our revels now are ended. These our actors,
- / - / - - / / - -
As I foretold you, were all spirits and
- / - / - / - - / /
Are melted into air, into thin air;
- / - / - / - - - / -
And, like the baseless fabric of this vision,
- / / / - - / - / - -
The cloud-capp'd towers, the gorgeous palaces,
- / - / - - / / - /
The solemn temples, the great globe itself,
/ / - / - / - / - /
Yea, all which it inherit, shall dissolve,
- / - / - / - / - / -
And, like this insubstantial pageant faded,
- / - / - / / - - /
Leave not a rack behind. We are such stuff
- / - / / - - / - /
As dreams are made on, and our little life
- / - / - /
Is rounded with a sleep.

The monologue above, spoken by Prospero in Act IV Scene 1 of *The Tempest*, is marked to show the stressed and unstressed syllables. (Shakespeare Resource Center) Though the passage is nominally written in iambic pentameter, Shakespeare varies the stresses with some fluidity, creating a more dynamic condition. When taken into an architectural condition, the variances in the rhythm, as expressed in a field of walls, become physically apparent.

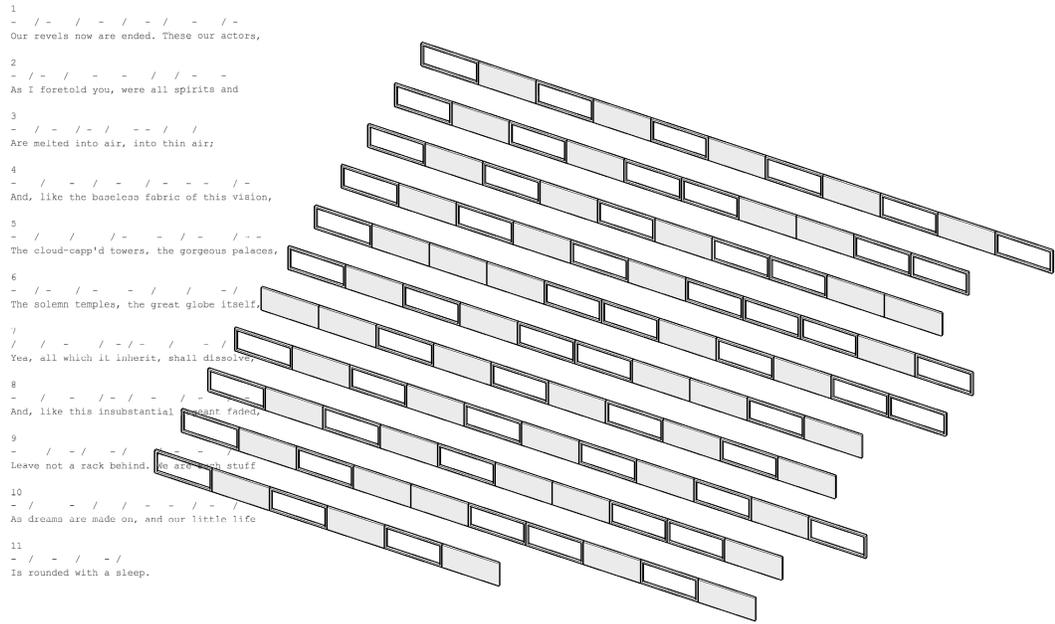


FIG 04. Scansion of *The Tempest* expressed as a field of walls

The field of walls makes the meter of the play's poetry explicit, and the variations in the meter become blockages or unexpected passageways. A grid of blocks, keyed to the final lines of the speech, does less to explicate the meter.

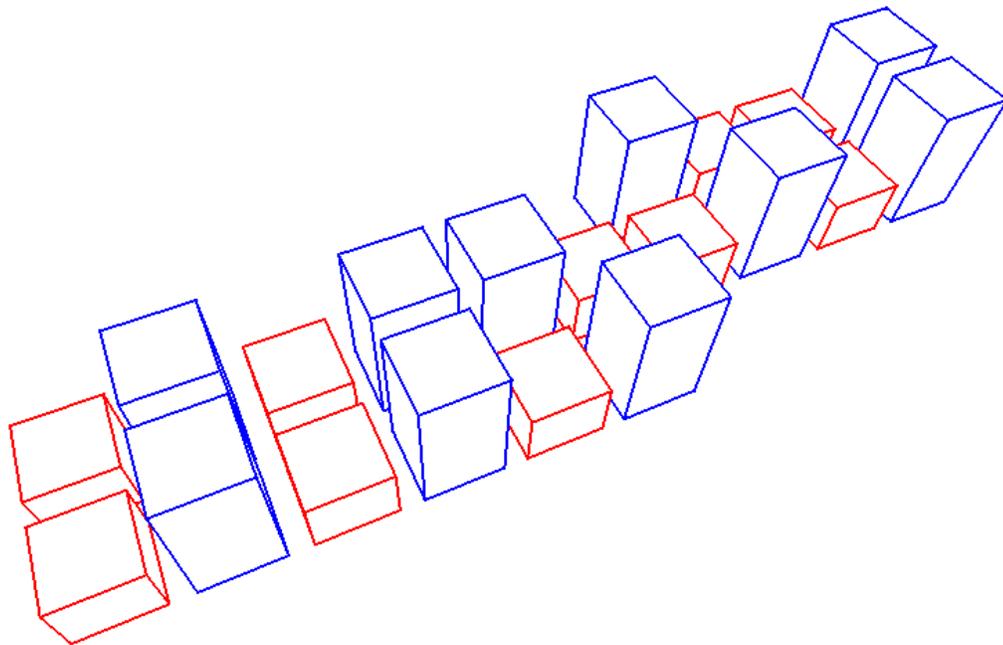


FIG 05. Scansion of *The Tempest* expressed as a grid of blocks

Letter A

The second investigation, taking the letter “a” as a plan is even more literal. The lowercase “a” from several typefaces suggested several architectural elements at different scales. This exercise came about from looking at the unique letterforms of the original folio text of *The Tempest*. A lamp, a skating rink and an arts center were all generated from this investigation.

The arts center uses the same “a” as the folio version of *The Tempest*. Of these investigations, it is the most strictly architectural, using the enclosed space of the “a” in plan to suggest an outdoor performance space wrapped by a curved hall with an adjacent courtyard, all suggested by the curving spine of the letterform. The other elements use different a’s.

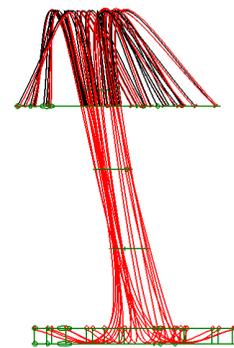
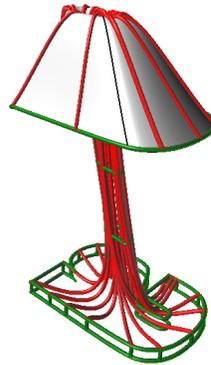


FIG 06. Lowercase “a” generates a lamp

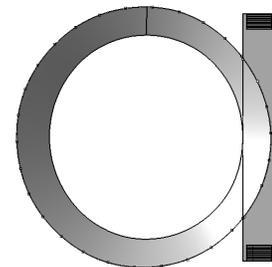
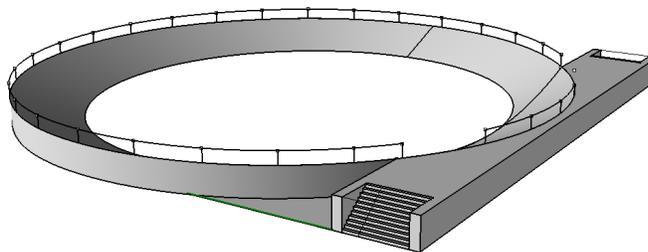


FIG 07. Lowercase “a” generates a banked-track roller skating rink

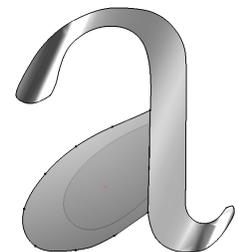
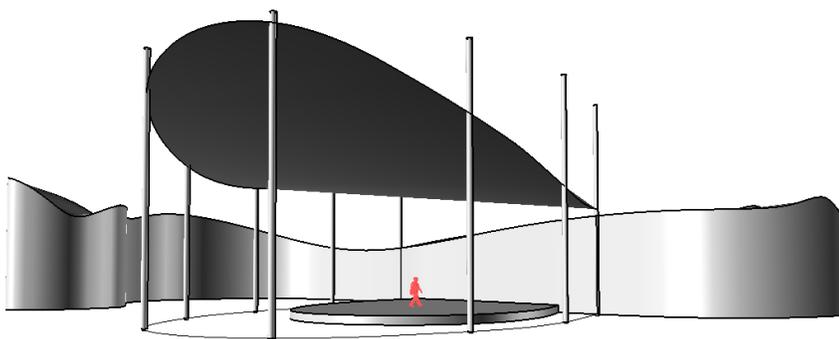


FIG 08. Lowercase “a” formed into an arts center with an outdoor performance space

Control Interventions

This investigation takes a very simplistic, diagrammatic understanding of *The Tempest*—that Prospero controls the action of the play—and explores it by inserting walls and blockages in existing grids. The interventions represent Prospero’s control, and show architecturally the dominance of certain elements.

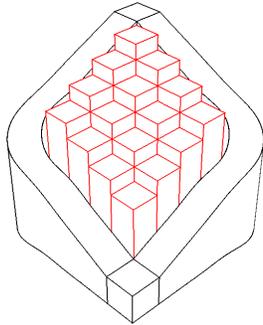


FIG 09. Solid wall encloses a series of platforms

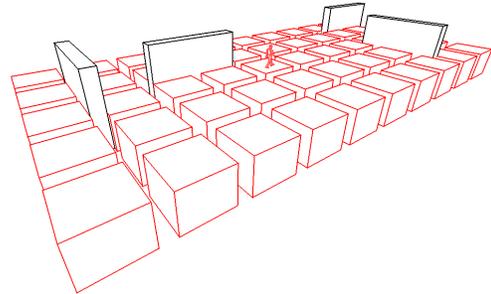


FIG 10. Wall insertion create differentiation in a grid



FIG 11. Wall insertions define space



FIG 12. Curved walls channel space

Analysis of Initial Investigations

These investigations yielded mostly architectural failures. In general, they suffered from an overall lack of complexity, which yielded few unique combinations or spaces. Perhaps the most architecturally interesting element that emerged was the arts center, suggested by the form of a lowercase “a.” However, this is more a result of happy accident, not a well-designed research investigation. Such a space cannot be said to be generated from the play, or any play, but by a chance confluence of typographic letterforms.

As stated, the wall experiments do express the meter of the text in physical form, but it sets up a very literal binary condition. This could create architectural interest as a subset of other conditions, but the reduction of linguistic complexity to an either/or condition of mere beats, without the attendant language, consequently leaves little room for architectural complexity.

The control insertions show that the insertion of an imposing element into an existing field has consequences architecturally, whether of blocking existing areas or focusing pedestrian movement. However, the simplistic diagrammatic understanding of the play at work in this investigation yields concurrently simplistic architectural understandings.

Overall, these investigations contribute some knowledge toward proof of the overall thesis, but more in the negative, showing how not to proceed. They made it clear that further study would require a more complex understanding of the play.

Analysis of *The Tempest* as Masque

In *Shakespeare: The Invention of the Human*, Harold Bloom observes that *The Tempest* is “fundamentally plotless; its one outer event is the magically induced storm of the first scene, which rather oddly gives the play its title.” (662) He also points out that the play was “presented at the court of James I, which probably accounts for its masquelike features.” (ibid.)

The Tempest does bear similarities to a traditional masque. The play is full of spectacle and songs, and large parts of the play are more tableau than action. The raging storm that begins the play is a spectacle in itself. Later, there is actually a masque (within a masque?) in the play where several goddesses and spirits give their blessing to the young lovers. In another spectacle, the spirit Ariel appears to the villains of the play as a harpy and proceeds to upbraid them for their misdeeds. In epic monologue to his daughter Miranda, Prospero tells of the central, inciting action of the play, his deposal from the office of Duke by his usurping brother, but this action precedes that of the play by a dozen years. In some ways, the whole play is more a story being shown and told by Prospero than actually being performed on the stage.

Unlike nearly all of Shakespeare’s plays, *The Tempest* utilizes the classical unities of time and place. The entire play takes place over a few hours on an island. The events in the play do not necessarily take up any more time than is spent displaying them on stage. Arguably, some of its scenes could even be considered co-temporal with others, since there are three isolated groups on the island for most of the play, and the elements we are shown of their activities often need not be taking place in any particular sequence. Prospero and his servant Ariel, a spirit, are the only characters ever present or aware of occurrences in the different streams of activity, and if they can control the wind and the rain, why not as well control time itself?

Of course there is a narrative within the play. The diagram that follows shows the overall structure of the action of the play. In general, the three isolated groups on the island, the courtier, the clowns and the young lovers, form three parallel streams of action, with the spirit Ariel, supervised by Prospero, able to move among them.

Interestingly, these three parallel streams have a major similarity in that within each of them, a conspiracy of sorts is formed by the characters. Prospero’s brother, the usurping Duke of Milan encourages Sebastian, brother to the king, to take his opportunity to kill the king and rule himself. Later, the half-human slave Caliban conspires with the drunken servants Stephano and Trinculo to

kill Prospero and rule the island themselves. Both of these plots are overheard and later foiled by Ariel, the spirit in Prospero's service. Less strictly conspiratorial, but structurally similar, the lovers Ferdinand and Miranda fall in love and are overheard by Prospero, who forces Ferdinand to work to earn her love.

Having developed an understanding of the play as a number of masquelike events, within parallel structures, an attempt must be made to use that understanding to generate architectural elements. It should be noted that the masque has been previously deployed as an architectural typology by the architect John Hejduk.

Hejduk's architectural Masques were a consequence of his "return to the positive symbolic and narrative potentials of architecture" yielding "two features...the temporal, narrative dimension and the radical figuration [that] form the crux of Hejduk's various Masques." (Hayes)

Hejduk's Masques "propose various interacting architectural characters and human inhabitants—architectural troubadours, vagabonds, and itinerants." (Hayes) The Berlin Masque is a collection of these architectural characters, collected and surrounded by a wall of hedges. Bringing together architecture and

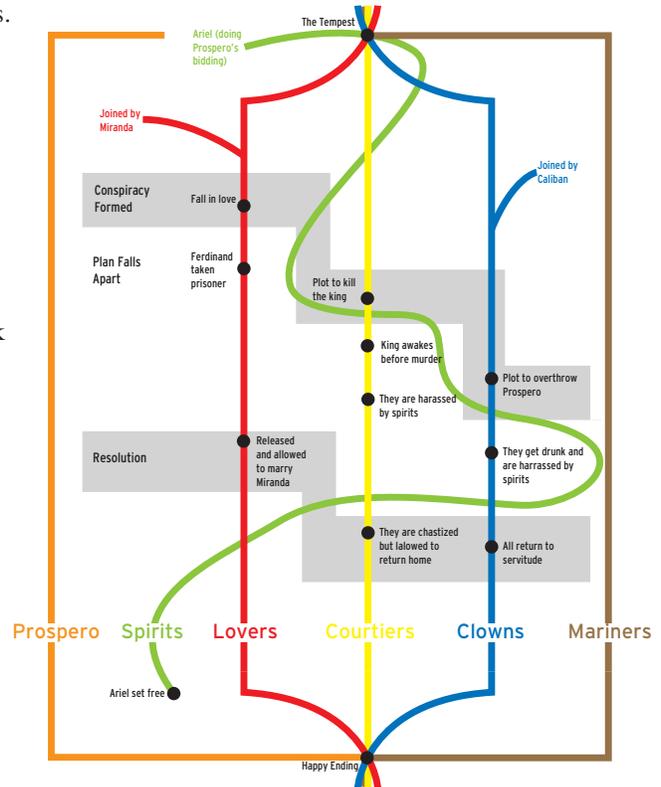


FIG 13. Diagram of the action in *The Tempest*

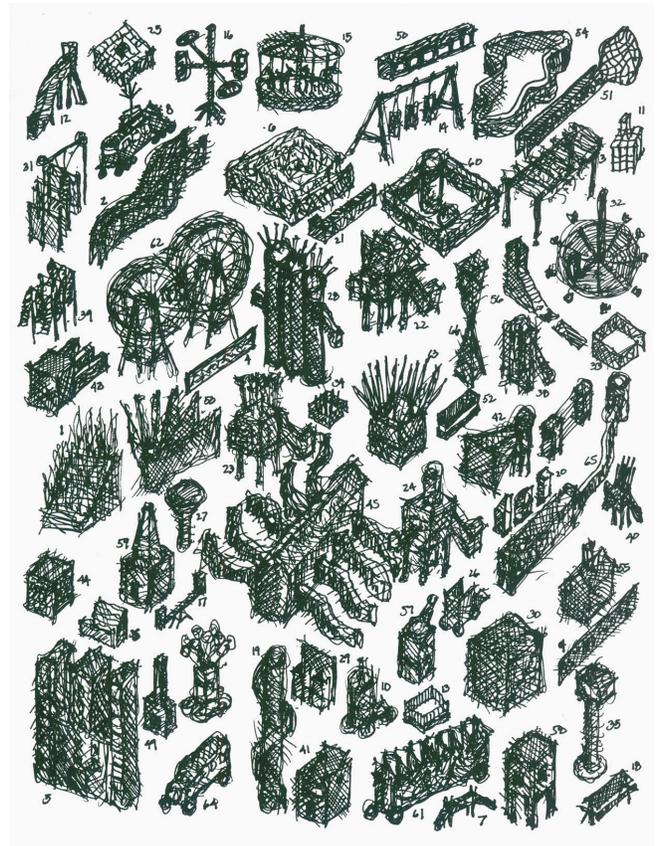


FIG 14. Elements of *Berlin Masque* by John Hejduk, image from *Mask of Medusa*

characterization in this way is a highly theatrical act. The Berlin Masque also represents Hejduk's radical rethinking of the idea of program. He writes that after reading the brief for the international competition that generated the Berlin Masque, "I came to the understanding that a deep search into the 'nature' of program might perhaps be attempted...a search towards the possibility of renewal...a program that perhaps had something to do with the spirit of our times." (Hejduk, 138) The project, essentially, considers the zeitgeist as program.

②1) CARETAKERS HOUSE.
 LOCATED BETWEEN THE
 CROSS OVER BRIDGE AND
 THE HEDGE-GATE.
 THE CARETAKER TAKES
 CARE OF ALL FACILITIES.
 HE IS REQUIRED TO BE
 THERE AT ALL TIMES.
 HE IS RESPECTED.
 HE HAS A BED, A CHAIR,
 AND A T.V. SET.
 THE UPPER PART OF HIS
 HOUSE CAN MOVE UP SO
 THAT HE CAN OBSERVE.

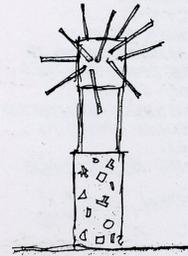


FIG 15. "Caretakers House" from Berlin Masque by John Hejduk, Image from *Mask of Medusa*

Hejduk creates specific architecture characters for specific human people, drawn from both the zeitgeist, but also from what Muschamp calls "an elaborate personal mythology of angels, medusas, watchtowers, condemned men and other allegorical figures. In these cerebral cityscapes, buildings often resemble costumed performers." (Muschamp) The buildings are, in essence, costumes for their inhabitants. For instance, one of the buildings of the Masque is the "Caretakers House." The building is a narrow tower with a raise-able observation chamber at the top, essentially an armature for the watchful caretaker inside.

Hejduk's work is situated in a realm—and an era—of experimental architecture that considers narrative very seriously. Following Hejduk is the experimental work of Lebbeus Woods, particularly his concept of Free Zones. Originally conceived for Berlin, (about ten years after Hejduk's Berlin Masque—and after the Berlin Wall came down) Free zones are spaces with no predetermined function. Woods asks, "What is an experimental space? A space in which you don't know how to behave." (Woods Lecture) In his drawings, these are presented as secretive insertions into the city fabric, built and obscured inside existing buildings. He imagines them as spaces that are difficult to access and inhabit; "they are an inner frontier that challenges conventions of every kind." (Woods *Experimental Architecture*)

24) Woods work presents a new narrative of city life: an ad-hoc network of these spaces, inhabited by a new type of inhabitant with a post-war, uncontrolled, anti-authoritarian anarchistic lifestyle.

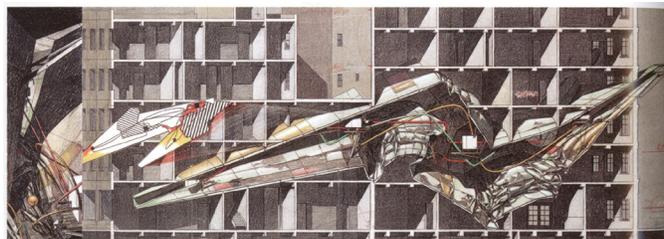


FIG 16. Section perspective of "Freespaces" from *Berlin Free Zones* by Lebbeus Woods Image from *Lebbeus Woods Experimental Architecture*

Pavilions for *The Tempest*

The experimental ideas of program, and narrative expressed through architecture, as discussed in the preceding section, are the starting point for the following investigations. They will take the text and the action of *The Tempest*, and break it into masquelike elements, much as the actual play is so divided. Aspects of the play will serve as program, context and site for the generation of architectural events, and then a method will be sought to interrelate these elements.

Some of the pavilions provide furniture for the play's action, others are specific to an individual character. Some are free standing buildings, and one is landscape. In general, they use *The Tempest* directly as their source, and present architectural space for the action of the play, as if it were to actually occur.

MACHINE FOR EXPERIENCING A TEMPEST

The Tempest opens with the eponymous storm, and this investigation creates tempest conditions in a small pavilion, featuring water, light and sound. It is important to note that is not meant to be a scenographic experience for an audience but a real experience that occurs for the characters in the play, re-created and thus re-lived.

The pavilion is set up as a curved passageway so that for a part of the passage through the pavilion, a way out cannot be seen. Speakers to project sound effects and lighting instruments to simulate lightning are housed in the roof of the pavilion. Water is pumped to the top of an adjacent tower and then fed into a series of pipes that cross the ceiling of the pavilion, spraying water throughout. The water drains through a grate in the floor and is collected and reused. The section drawing illustrates the system.

The second section drawing shows an alternative configuration enclosed in a spherical volume with a series of platforms for the users to move across. The mechanics would be similar.

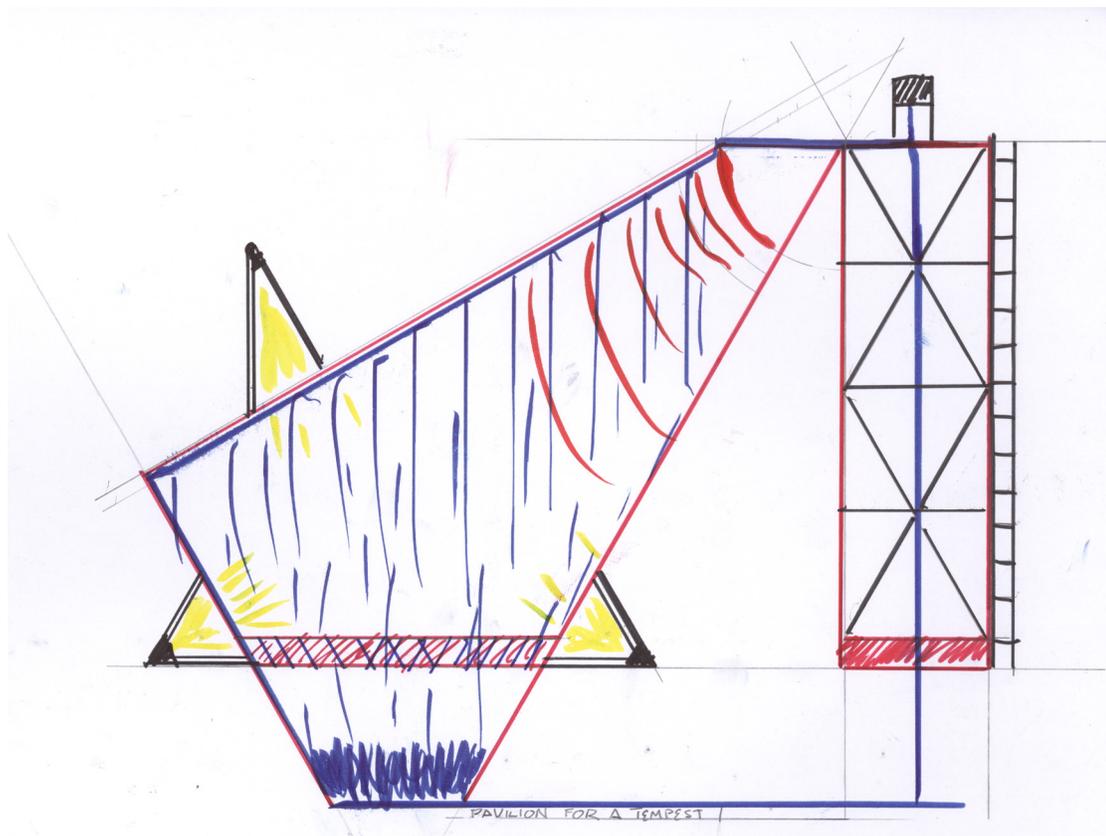


FIG 17. Section drawing of MACHINE FOR EXPERIENCING A TEMPEST
Scale: 3/16" = 1'

The Tempest Act 1 Scene 1

On a ship at sea: a tempestuous noise of thunder and lightning heard.

Boatswain: You mar our labour: keep your cabins: you do assist the storm.

Gonzalo: Nay, good, be patient.

Boatswain: When the sea is. Hence! What cares these roarers for the name of king? To cabin: silence! trouble us not.

Gonzalo: Good, yet remember whom thou hast aboard.

Boatswain: None that I more love than myself. You are a counsellor; if you can command these elements to silence, and work the peace of the present, we will not hand a rope more; use your authority: if you cannot, give thanks you have lived so long, and make yourself ready in your cabin for the mischance of the hour, if it so hap. Cheerly, good hearts! Out of our way, I say.

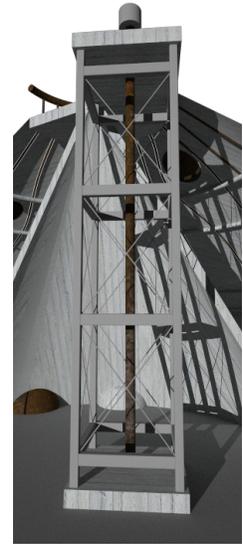


FIG 18. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST

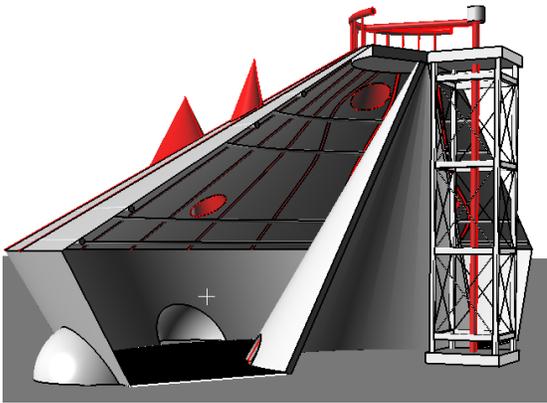


FIG 19. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST



FIG 20. Computer rendering of MACHINE FOR EXPERIENCING A TEMPEST

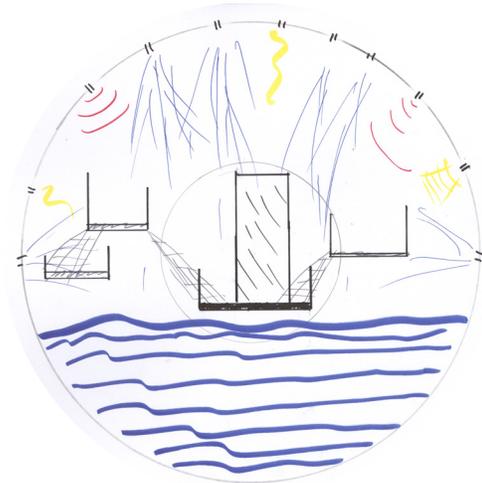


FIG 21. Section drawing of alternative version of MACHINE FOR EXPERIENCING A TEMPEST
Scale: $3/32'' = 1'$

LIBRARY FOR ONE BOOK

This pavilion provides hypothetical furniture for the play. The main character, Prospero, has brought a number of books to the island in the play. One of these is particularly magical. A place to store, reference and read a single book, the library, the LIBRARY FOR ONE BOOK is an abstraction of this set of circumstances.

This Library also addresses the modern paradox of a library. What is a library in a world where all information can be accessed from a single point (e.g. a computer terminal or even a smartphone)? What architectural significance does the library have when its physical importance as a storage point for books and other media is eliminated?

Borges' *Library of Babel* is a meditation on the library as a place where all possible human knowledge exists but is impossible to find in an infinite collection of all possible combinations of letters. For me, this kind of extreme limit case reveals the essential function of the library: the organization of data. This function need not occur in a single physical location, though, so even though there is a demonstrable need for the library, there is no need for the

physical space.

But it is here that the play gives us some insight. In narrating his history, Prospero alludes to his own neglect of his princely duties: "For me, poor man, my library was dukedom large enough." Far more scholar than governor, the character of

Prospero is imbued with a great sadness, one endemic to the modern era: an unwillingness to choose happiness over a pre-programmed set of obligations.

It is the hope of this author that retreat and study remain a human need. The library can generate mental contemplative space by providing the physical location for it.

The library itself is a single wall, with an arched passageway through it. A bookshelf and reading ledge are on one side. A seat is located on the other.



FIG 22. Computer rendering showing LIBRARY FOR ONE BOOK in forest context. Background: *White Birch Forest* by Stefan Jansson



FIG 23. Computer rendering showing both faces of LIBRARY FOR ONE BOOK.

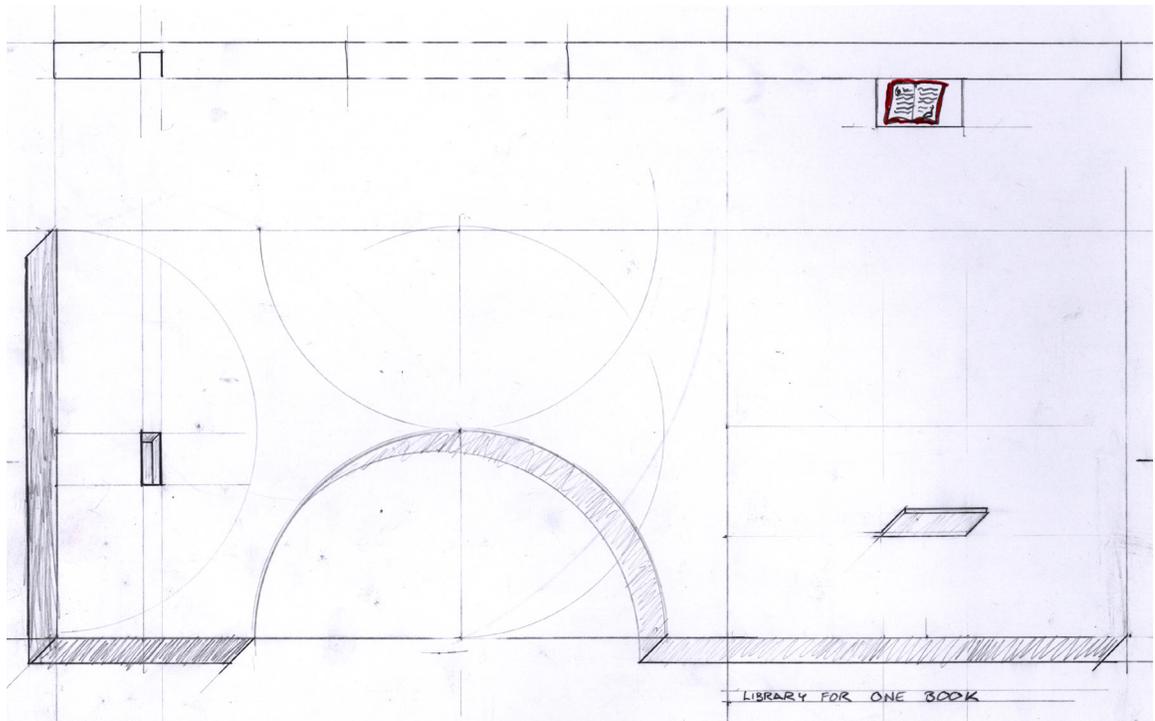


FIG 24. Elevation/perspective drawing of LIBRARY FOR ONE BOOK
Scale: 3/16" = 1'

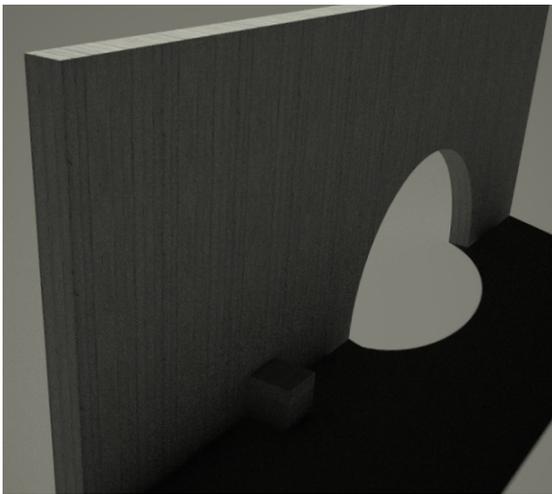


FIG 25. Computer rendering of LIBRARY FOR ONE BOOK

The Tempest Act 1 Scene 2

Miranda: How came we ashore?

Prospero: By Providence divine.
Some food we had and some fresh water that |
A noble Neapolitan, Gonzalo,
Out of his charity, being then appointed
Master of this design, did give us, with
Rich garments, linens, stuffs and necessaries,
Which since have steaded much; so, of his gentleness,
**Knowing I loved my books, he furnish'd me
From mine own library with volumes that
I prize above my dukedom.**

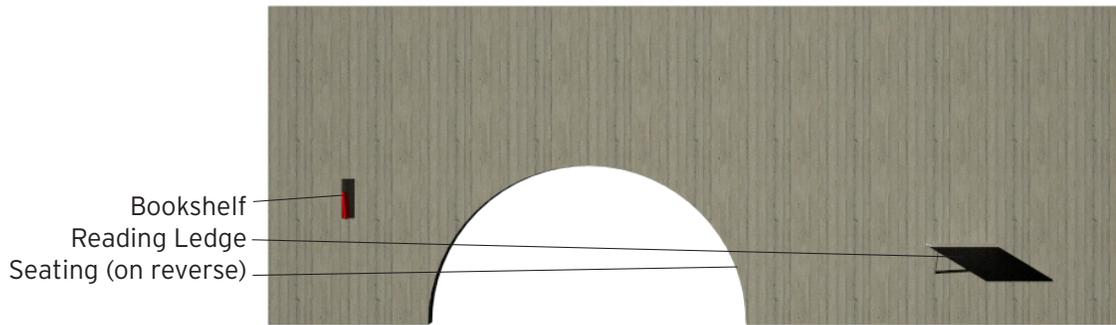


FIG 26. Elevation diagram OF LIBRARY FOR ONE BOOK

PAVILION FOR A CONSPIRACY (OBSERVED)

This project represents an architectural element for the action of forming a conspiracy. It contains a secluded chamber where the surreptitious work of conspiring can occur. But, because conspiracies in *The Tempest* are always observed, the pavilion also contains an observation chamber. The conspiracy chamber features entrances for the conspirators on each side, but one must crawl to enter them. The observation chamber can only be entered from above. The observation chamber is elevated above the conspiracy chamber, so the observer can both see and hear the conspiracy without himself being detected.

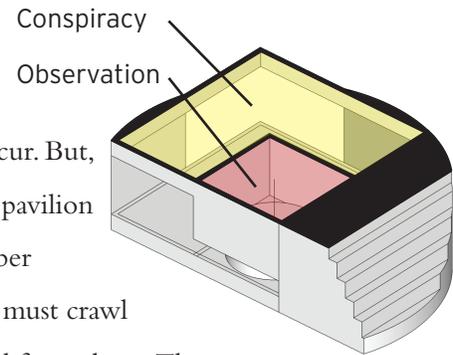


FIG 27. Diagram of PAVILION FOR A CONSPIRACY (OBSERVED)

This pavilion is particularly useful as furniture for the play since the action of forming a conspiracy occurs three separate times within the play.

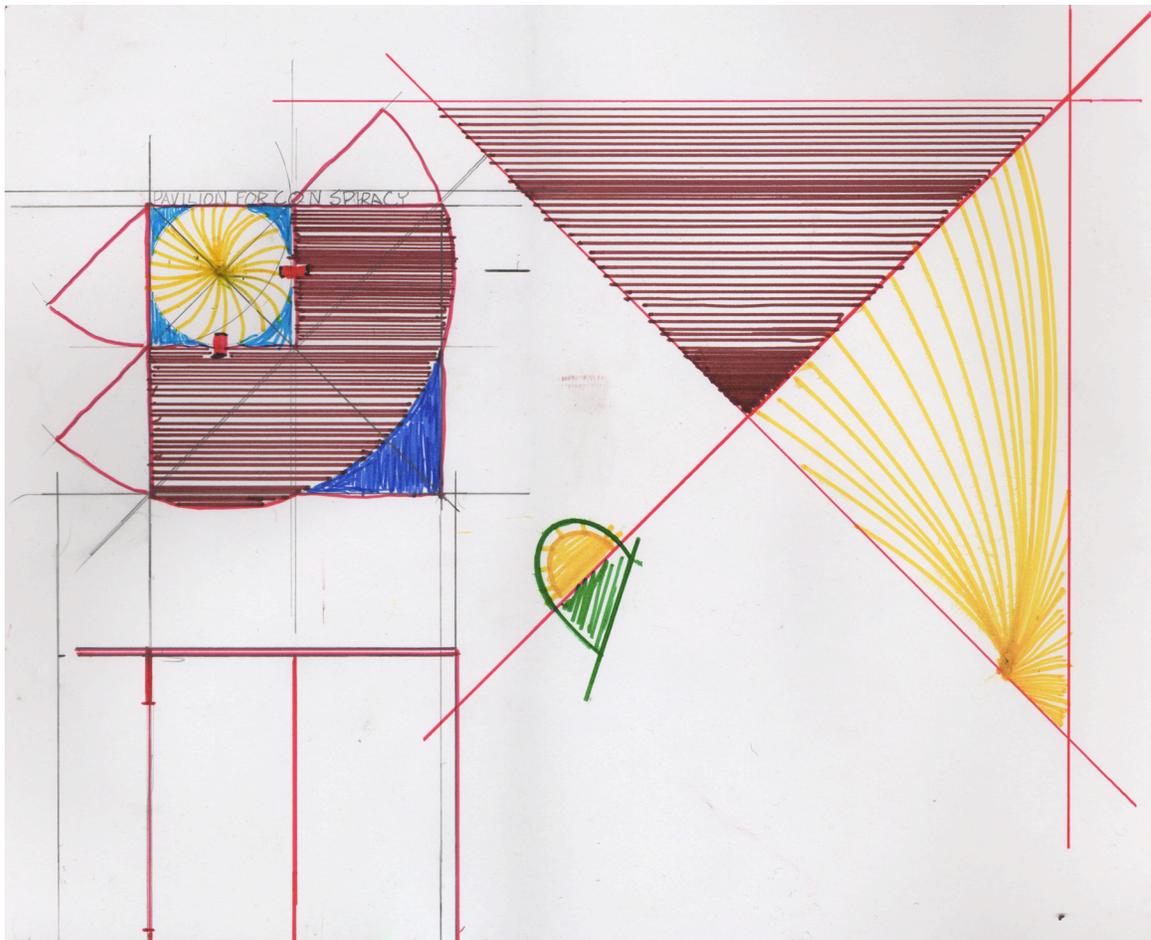


FIG 28. Plan and conceptual diagram of PAVILION FOR A CONSPIRACY (OBSERVED)
Scale: 3/16" = 1'

This architectural element contains two separate chambers, one for the conspirators and one for the observer. The conspiracy chamber must be crawled into, an entry symbolic of the act. The chamber is surrounded by visually and audibly permeable screens. The observer's chamber is entered from the roof via a staircase and a ladder. The chamber is visually separated from the rest of the pavilion, but a careful observer can both see and hear the actions of the conspirators.

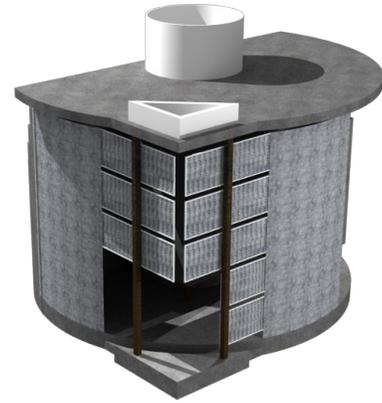


FIG 29. Computer rendering showing possible materials of PAVILION FOR A CONSPIRACY (OBSERVED)

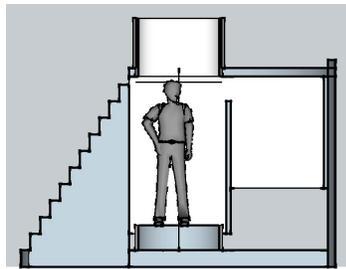


FIG 30. Computer rendered section showing the hidden position of the observer of PAVILION FOR A CONSPIRACY (OBSERVED)

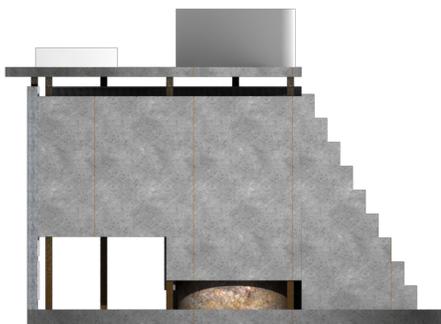


FIG 31. Computer rendered elevation of PAVILION FOR A CONSPIRACY (OBSERVED)

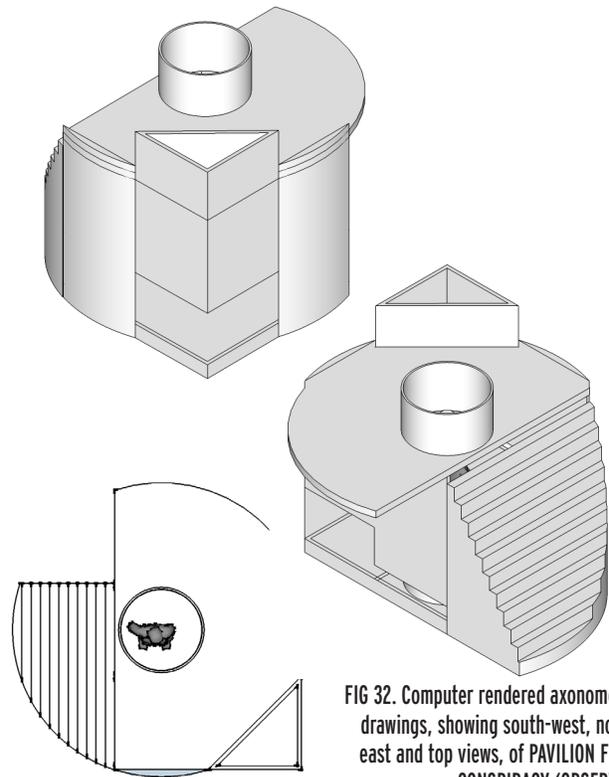


FIG 32. Computer rendered axonometric drawings, showing south-west, north-east and top views, of PAVILION FOR A CONSPIRACY (OBSERVED)

The Tempest Act 2 Scene 1

Ariel:

My master through his art foresees the danger
That you, his friend, are in; and sends me forth--
For else his project dies--to keep them living.

Sings in Gonzalo's ear:

**While you here do snoring lie,
Open-eyed conspiracy
His time doth take.**

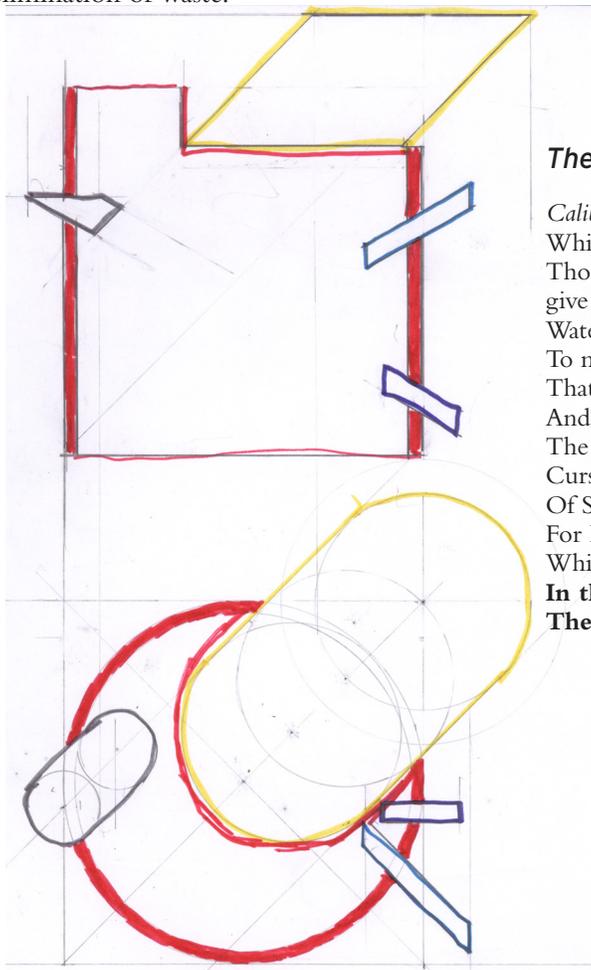
If of life you keep a care,
Shake off slumber, and beware:
Awake, awake!

CALIBANARY (PAVILION FOR AN ABHOR'D THING)

An actual physical element in the play generates this project. Prospero, upon his arrival on the island, adopted and taught the half-human, half-amphibian Caliban. But Caliban attempted to violate Prospero's daughter Miranda, forcing Prospero to evict Caliban from their living quarters and imprison him in a cell of sorts: "therefore wast thou / Deservedly confined into this rock / Who hadst deserved more than a prison."

This project represents that prison, though it also is an attempt to consider the larger notion of solitude. Solitude can be enforced like, as in a prison, but it is often sought as well. This project attempts to mediate between those two extremes.

An opening at the top of the pavilion allows for entrance and exits, possibly with the assistance of a ladder or rope. There are openings to provide food and water to the occupant, and for the elimination of waste.



The Tempest Act 1 Scene 2

Caliban: This island's mine, by Sycorax my mother,
Which thou takest from me. When thou camest first,
Thou strokedst me and madest much of me, wouldst
give me

Water with berries in't, and teach me how
To name the bigger light, and how the less,
That burn by day and night: and then I loved thee
And show'd thee all the qualities o' the isle,
The fresh springs, brine-pits, barren place and fertile:
Cursed be I that did so! All the charms

Of Sycorax, toads, beetles, bats, light on you!
For I am all the subjects that you have,
Which first was mine own king: **and here you sty me
In this hard rock, whiles you do keep from me
The rest o' the island.**

FIG 33. Side and top elevation drawing of CALIBANARY
Scale 3/16" = 1'



FIG 34. Computer rendering of interior of CALIBANARY

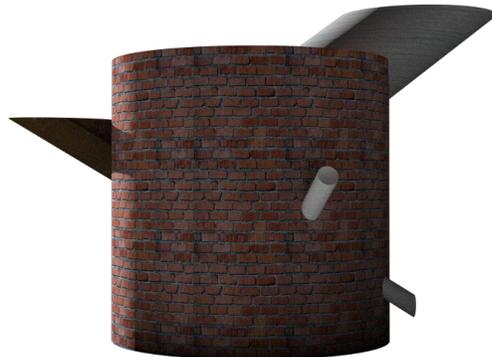


FIG 35. Computer rendering of CALIBANARY

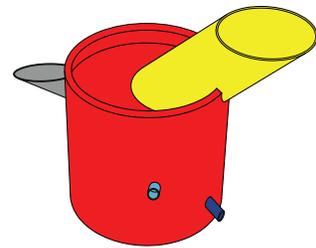
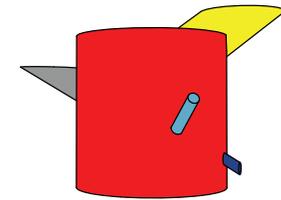
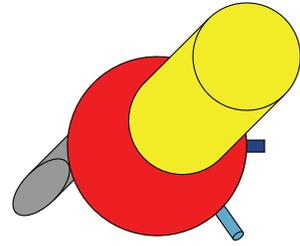


FIG 36. Computer rendered axonometric views of CALIBANARY



FIG 37. Computer rendering of CALIBANARY in forest context
Background *Forest in Autumn* by Jose Maria Cuellar

LANDSCAPE TO TEST THE METTLE OF A LOVER

This architectural element represents an actual landscape inspired by events of the play. The young lover Ferdinand is forced by Prospero to labor in order to earn the love of Prospero's daughter, Miranda. These labors are symbolic and largely pointless, merely a test of Ferdinand's determination. Because of this, the landscape presents a Sisyphean task, with the lover forever moving a heavy load up a slope, only to have it fall and return to the starting point.

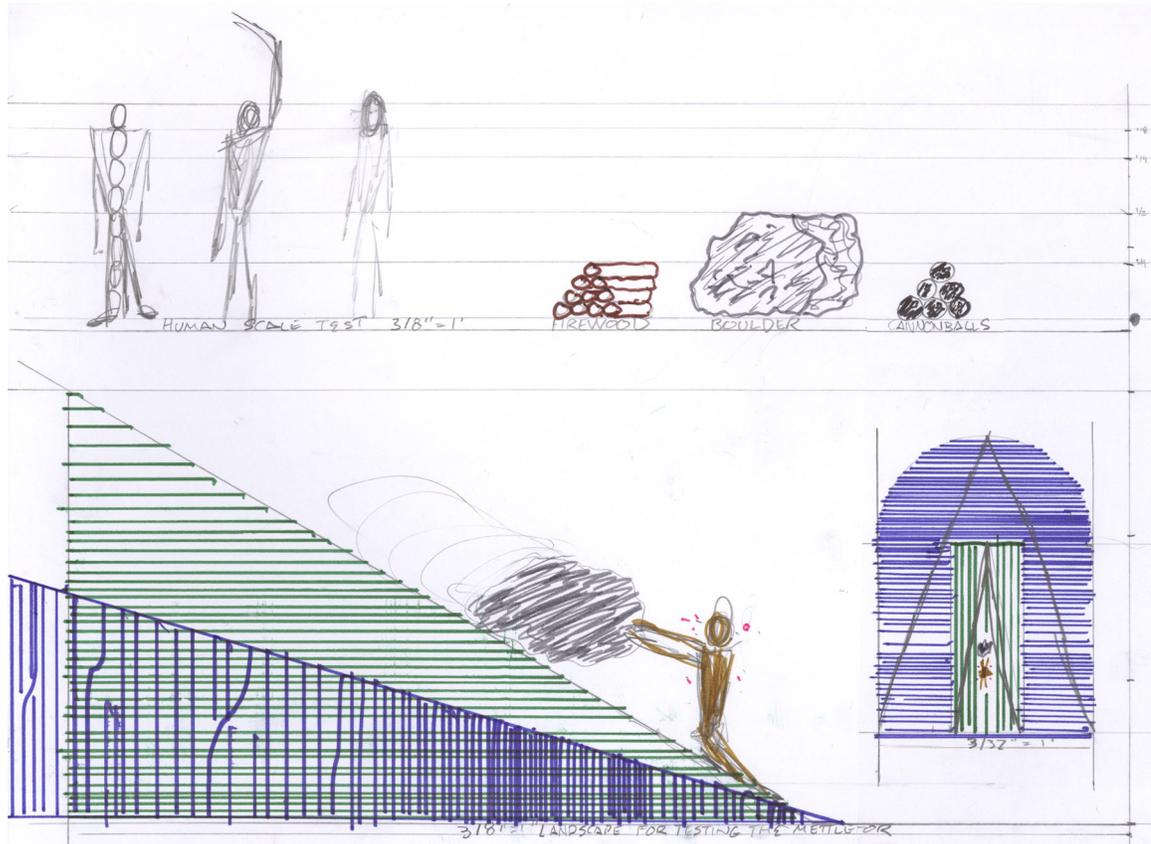


FIG 38. Scale test and drawing of LANDSCAPE TO TEST THE METTLE OF A LOVER
Scale 3/16" = 1'

The Tempest Act 1 Scene 2

Prospero:

They are both in either's powers; but **this swift business I must uneasy make, lest too light winning Make the prize light.**

Act 3 Scene 1

Ferdinand:

There be some sports are painful, and their labour Delight in them sets off: some kinds of baseness Are nobly undergone and most poor matters Point to rich ends. **This my mean task Would be as heavy to me as odious, but The mistress which I serve quickens what's dead And makes my labours pleasures**



FIG 39. Sketch of LANDSCAPE TO TEST THE METTLE OF A LOVER as a linear condition

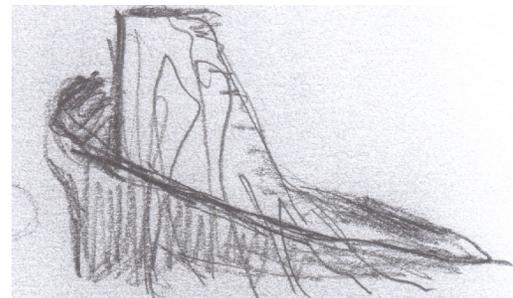


FIG 40. Sketch of LANDSCAPE TO TEST THE METTLE OF A LOVER

Connective Exploration of Pavilions

This exercise furthers the development of the pavilions by reconceiving them as elements created with identical units at different scales. They are contained in a cabinet which represents the play as container. In the image below, starting at the top left, and moving counter-clockwise, are represented the MACHINE FOR EXPERIENCING A TEMPEST, PAVILION FOR A CONSPIRACY OBSERVED and a new PAVILION FOR PRESENTATION OF A SPECTACLE, a traveling trunk, the LANDSCAPE TO TEST THE METTLE OF A LOVER, and the LIBRARY FOR ONE BOOK. These are pictured in more detail on the following page.

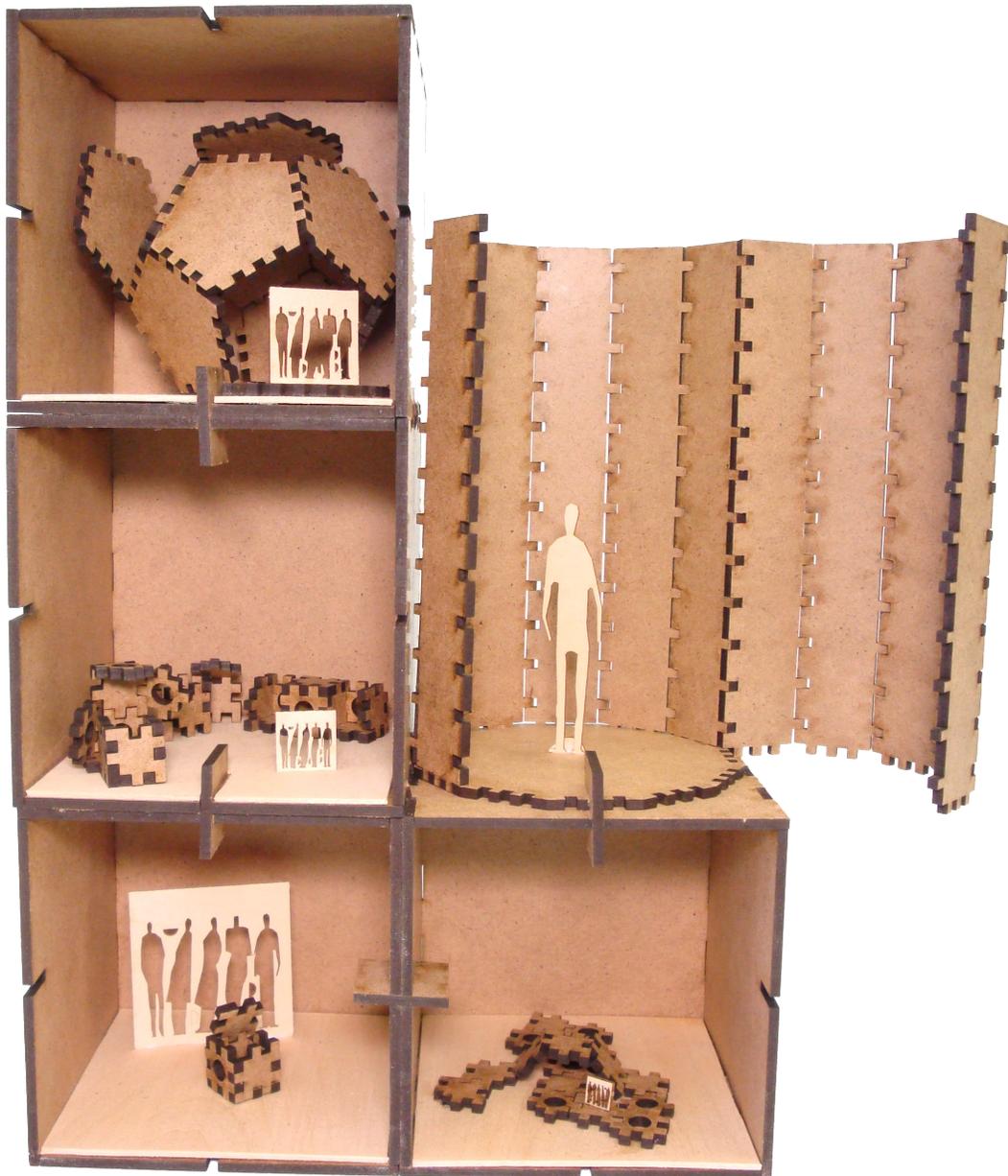


FIG 41. Tempest pavilions reconceived in a similar architectural language at different scales

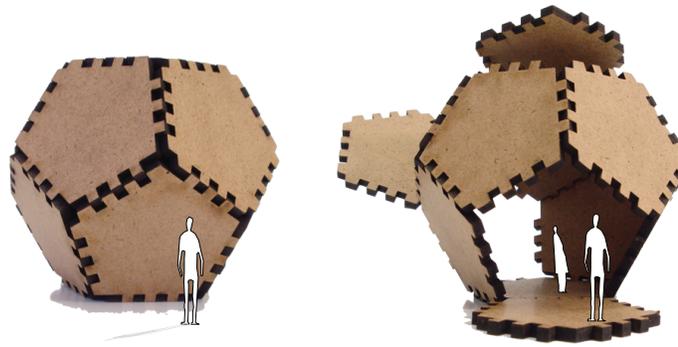


FIG 42. Reconcepted MACHINE FOR EXPERIENCING A TEMPEST, opened and closed,



FIG 43. Reconcepted LIBRARY FOR ONE BOOK, two versions,



FIG 44. PAVILION FOR PRESENTATION OF A SPECTACLE



FIG 45. Reconcepted PAVILION FOR A CONSPIRACY (OBSERVED)

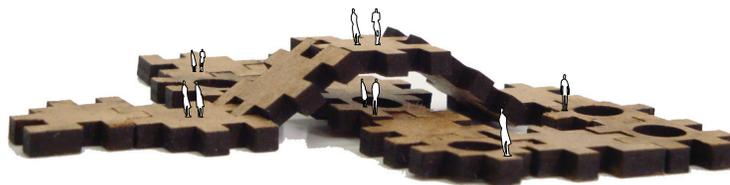


FIG 46. Reconcepted LANDSCAPE TO TEST THE METTLE OF A LOVER

Analysis of Pavilion Exercise

The development of these pavilions starts to examine certain theatrical conceits and present them in an architectural way. The most significant of these expressed in this exercise is characterization. Following, to some extent, Hejduk's ideas of architectural characterization, the development of several of these pavilions comes directly from the actions and objectives of specific characters in the play, and consequently, the pavilions become free standing architectural characters.

For instance, the pavilion that was generated as a prison for Caliban takes not only the architectural need to imprison him, but also elements of his characters. He is not only a monster; he also gives one of the most moving monologues in Shakespeare:

Be not afeard; the isle is full of noises,
Sounds, and sweet airs, that give delight and hurt not.
Sometimes a thousand twangling instruments
Will hum about mine ears; and sometime voices
That, if I then had waked after long sleep,
Will make me sleep again; and then in dreaming,
The clouds methought would open, and show riches
Ready to drop upon me, that when I waked
I cried to dream again. (Tempest, Act 3 Scene 2)

The development of the building attempts to take the nuance of the character into account. The building is meant to be more than a mere prison through its use of a rich material pallet, and elegant proportioning of the various components. Similarly, a characterization of Prospero underlies the design of the library pavilion. A place to study, yes, but it is also a wall that can divide and control space.

There is also an inherent theatricality in the presentation of the pavilions. They present something of the play, but it is a top-down presentation, actor to audience, not the kind of rich, interactive experience that should imbue an architectural experience. The architectural elements are decontextualized. As individual elements, the pieces are interesting, and as a part of a whole project, they relate to one another, but they are purely self referential, related in no way—at least, no useful, discernible architectural way—to a context, a site or a real-world function. (If one casts a critical eye back to the Berlin Masque of Hejduk, it is possible to see some of the same failings.) Though they are architectural to a great extent, they lean dangerously into the territory of the purely sculptural. As the sculptor Carl Andre writes, "Sculpture just sits on its ass—architecture goes out there and does something." (Andre 6) In order for this project to effectively translate the play, it must do more than make vignettes of it. It must engage with a larger condition.

A key next step in this project will be to generate connective elements that can create a series of these events, while still trying to avoid the trap of linearity. The latter project of creating similar elements at different scales was an attempt to create the rudiments of a connective architectural language. The exploration generated some compelling objects including an architectural cabinet of curiosities. Ultimately, though, boxing the different elements into compartments only served to emphasize their lack of relation to a site, and in fact broke up what relation they had to each other. Additionally, the tectonic language used was too crude to be extensible to a larger scale.

Instead, a different kind of connectivity must be sought. Critical to this process will be finding a real-world situation to address and effectively problematizing the thesis. Having other architectural problems to solve, and factors to respond to, will add resistances that can move toward the generation of a holistic architectural project. There remains a strong desire for the architecture to retain qualities of *The Tempest*. It is hoped that the play can be used to creatively respond to contextual factors, rather than providing the context from within itself.

Speculative Context Analysis

The pavilions lack an architectural problem to solve. They exist in and of their architectural world. In attempt to further this investigation and situate it in a real world context, I will speculate on sites and program that could allow the project to move forward.

Site

I foresee this project being successful in a context that affords access by pedestrians, ideally both by chance (those who stumble upon it) and by design (those who seek it out.) To that end, I will sketch three different contextual locations that meet these conditions, though in different ways. I will look at a location on a university campus, whereby students can move through and interact with the landscape as space to move through or space to stop and use. I will examine an urban context, a “city park” or even a network of parks that can be part of an urban fabric. And I will look at a less conventional location, a “park within a park,” looking at forming this landscape within the boundaries of a “natural landscape,” i.e., a national park or wilderness condition. Within the discussion of each context, I will speculate on specific locations that meet these criteria, and their appropriateness to the central aims of the thesis.

1. University Campus

The first context, a university campus, is ideally suited to the aims of this project in several ways. First, there is pedestrian movement throughout the day, and on many campuses, there is relatively little vehicular traffic. Though the degree depends on the time of year and overall climate, there is usually a significant amount of outdoor activity, similar to that of a highly urbanized area. And, perhaps most importantly, students are not necessarily firmly set in their ways of thinking and perceiving their spatial environment. This presents an opportunity to offer them new ways of moving through space and new types of spaces without a high degree of skepticism. This thesis may lead to the development of a yet-unnamed architectural type, and the university setting seems an apt place to present and test it.

Furthermore, a university has certain interstitial requirements that are often undermet by traditional campus planning. Students require quiet places to study, along with places to gather and make noise. Ideally these spaces will occur between or adjacent to classes, allowing for convenient places

to spend a few minutes or a free class period without requiring a special trip.

Though each university has its own “culture,” the overall cultural place of a university is as a seat of knowledge: a place where students seek this knowledge and professors impart it. Of course, in reality the university is often a place where students seek grades and degrees, more than anything so abstract as knowledge. And, ideally, a first class education teaches students to think far more than it imparts information, giving the lie to the notion of degrees that you “can’t do anything with.”

It is perhaps overzealous to hope that architecture can restore criticality to education. However, universities have historically been more willing than other cultural institutions to experiment with the architecture, presenting themselves as laboratories for architectural theory. Such projects—the Experimental Media and Performing Arts Center at Rensselaer is one such example—often test the boundaries of programmatic elements and typologies, presenting students with challenging new architectural experiences. This is the type of space I hope to create with this thesis.

2. City Fabric

This portion of the thesis book is being written in New York City’s Bryant Park. At least three hundred people sit within a stones throw, and dozens more are ice skating nearby. On any given day in an American city like New York, there are thousands of people with time to sit around and contemplate. And a city like New York offers dozens—maybe hundreds—of parks to meet their needs.

Often these parks meet a need that was not even acknowledged in the first place. It can be assumed that some portion of the people in Bryant Park didn’t know they needed to get a coffee and sit in the park when they left their office/house/doctor’s appointment, but they came across it, and there was music, and people ice skating, and suddenly they found themselves in the middle of it. I personally didn’t know I was going to come here until I was walking past and decided to sit down and write for a bit. And I certainly didn’t know there would be ice skating.

The advantage of such a space in a truly pedestrian urban context is there is almost no barrier to entry, physical or psychological. This particular park has entrances on all sides, and many chairs and tables where anyone can sit. Perhaps more importantly, and in stark contrast to many other American cities, there is no automobile mediating the decision to enter. If one drives by at Thirty-five miles-per-hour, there is only a split second to process the presence of a park, decide to stop and visit, actually slow the car, and then turn into the parking lot—because anywhere else, there must

be a parking lot).

Assuming such walkability is acknowledged broadly as a goal, it presents an interesting conceptual starting point. What kind of a space could be constructed that could serve as a nexus of pedestrian activity, a draw of sorts that could generate and encourage other pedestrian activity? A park, broadly defined, but more accurately, a social activation space.

3. National Park: Contemplative Forest

The national park system is about as far as it is possible to get conceptually from an urban pedestrian area. And of course the allure of the natural park is the “nature.” It is interesting to note that much of the forested land of the northeastern U.S., in the Adirondacks particularly, could be considered “man made.” Clear cutting at the beginning of the twentieth century left much of these forests completely denuded, but over the century, they have returned to a seemingly primitive state.

Inserting a man-made landscape into this neo-pristine forest presents a compelling architectural challenge. Obviously such a project would intend minimal ecological harm while creating an interesting space that could be sought (or discovered) by visitors within the park system. The typology being developed as part of the larger thesis is something akin to a contemplative garden. National forests serve something of this function in the United States. Formalizing this in a series of buildings or a landscapes that responds to the natural forest environment might serve the larger thesis, even if only as a design exercise.

Program

I will examine three programs and their related typologies. I expect the thesis to not *be* any of these types, while including some elements of all of the programs.

I will first look at performance space, and the theater type. Though there are very strong cultural expectations and preferences for this building typology, I think it is worth looking at the essential aspects of the theater. I will then consider the Chinese garden typology, as a way of examining its particular programmatic functions of contemplation, study and retreat. Note that though this kind of program can occur in many different types of buildings, the Chinese garden has been selected due to its relation to elements of the larger thesis. Lastly, I will look at the library. Both a program and typology, the library has entered a state of conceptual flux in an era where virtually all

information can (and will) be archived and accessed electronically. It is worth examining this type since it relates to the contemplative/study aspects of the Chinese garden type, and it is also evolving as a nexus point for social and community activities (including but not limited to performances).

1. Theater: The Empty Space

Peter Brook famously stated “I can take any empty space and call it a bare stage.” (9) Certainly the modern performance venue is far from an empty space. The massive technical requirements alone usually call for a tower above the stage where scenery, lighting, technicians and rigging can all coexist. Seating is, of course, required. And a lobby for people to gather. And a box office.

And of course, before the first actor steps onto the stage and starts the evening’s performance, a highly ritualized drama has already played itself for months. The brochures arrive, the tickets are ordered, the tickets arrive, transportation, baby sitters—all is arranged!—the arrival, the waiting, the lobby, the ushers, the seats, the gilded proscenium: every aspect of this is part of the experience of “theatre,” particularly at the professional level.

And yet if we examine theatre at the level of its essence, we find few requirements. For an “act of theatre” to be performed, we need simply an act (performed by an actor) and a spectator to observe it. This essential definition lies at the heart of modern performance theory, which holds (generally) that most (even all) acts in life are acts of performance, altered, consciously or not, by the knowledge that their performance is being observed. However, in order to avoid defining theatre as everything, we will add to our definition the notion of intentionality: the actor must be intentionally performing an act of theatre.

This is a very raw definition, one which can be accommodated by a very raw space. Again, if we add in the intentionality component, we can narrow the definition somewhat, because the proto-theatre will require a place for the spectator(s) and a place for the actor(s), with the presumption that the former will be able to see and hear the latter. Even then, our definition can be easily met: a warehouse with a raised platform, a park with a knoll, or a quiet room with chairs arranged in a circle.

Of course the subtraction of ritual and technology from theatre is not without consequence. The ritual gives “a night at the theatre” a certain elevated special-ness that separates it from daily life. It becomes an “event” with modes of dress and behavior all its own. But this elevation of theatre also generates a perception of elitism. Coupled with technical spectacle and high ticket prices, the

notion that theatre is an art form for common consumption seems laughable.

Altering the typology this way creates the challenge of creating the desired ritual from the simple interchange between the audience and the performance, ultimately a more primal and immediate theatrical experience than seeing *Cats* at the Palace. Because of the driving aspect of theatricality that underlies the thesis, it seems likely that the final project will include a performance space.

2. The Chinese Scholar Garden

Of course “Chinese Garden” is not a program. But it represents a certain set of programmatic elements, some of which are intended to be included in the thesis. Chinese gardens historically served as places to which scholars (and the wealthy) could retreat for contemplation and study. Interestingly, the essentiality of this program is also reflected in the context/program of a university (discussed above), and a library (discussed below). It is possible that this program could be reduced even further to the primitive hut, a completely solitary place for contemplation, but that reduction eliminates the things one might contemplate. The Chinese garden as a typology brings additional emotional resonance by providing sequences and “natural” elements that can stir contemplation, as well as small buildings often designed for single purposes (reading, drinking tea, etc.)

And, as discussed earlier, the Chinese garden presents a carefully structured space, one that affords multiple opportunities for non-linear movement and interaction,

3. Library

The Library is a typology in flux. The program of a library has traditionally been a place to access books and other reference materials. Architectural projects like OMA's Seattle Central Library, as well as social phenomena such as the massive availability of information on the internet and, more recently, on mobile devices, have raised the question of what a library should be in the twenty-first century. Probably, any library will still need to hold books for the immediately foreseeable future, but the new library's essentialist function is as more of a public service provider, with library scientists who can help patrons find what they need amidst a vast and bewildering array of information and resources.

And as mentioned earlier, the library can also be a place of retreat. Particularly in the university setting, it is often a quiet place to focus on reading or study. But more and more public libraries are trying to shed the perception of constant quiet. The Seattle Central Library reimagines the library's function as a public space, creating an extraordinary "living room" for the city. An interesting challenge would be to find a way for the quiet and the loud to coexist. Is there some way to deaden sound in one area while an adjacent area is allowed to be as loud as it wants, and still have those areas open to each other?

Context Determination

Following on the speculation earlier, the following essay will explain site and program selection for the final project.

Program

Extending the Masque

Though the narrative through-line of any play can, by definition, be drawn linearly, the masque like structure of *The Tempest* can also be construed as a grid, a structure into which units of action—tableaus, songs, spectacles—can be fitted. Because the narrative elements of *The Tempest* cannot be disregarded, the grid must also allow for the three major streams of the story, along with Prospero's overarching meta-narrative, to coexist coherently, while at the same time being interconnected with each other, representative of Ariel's ability to move throughout the story, but also an

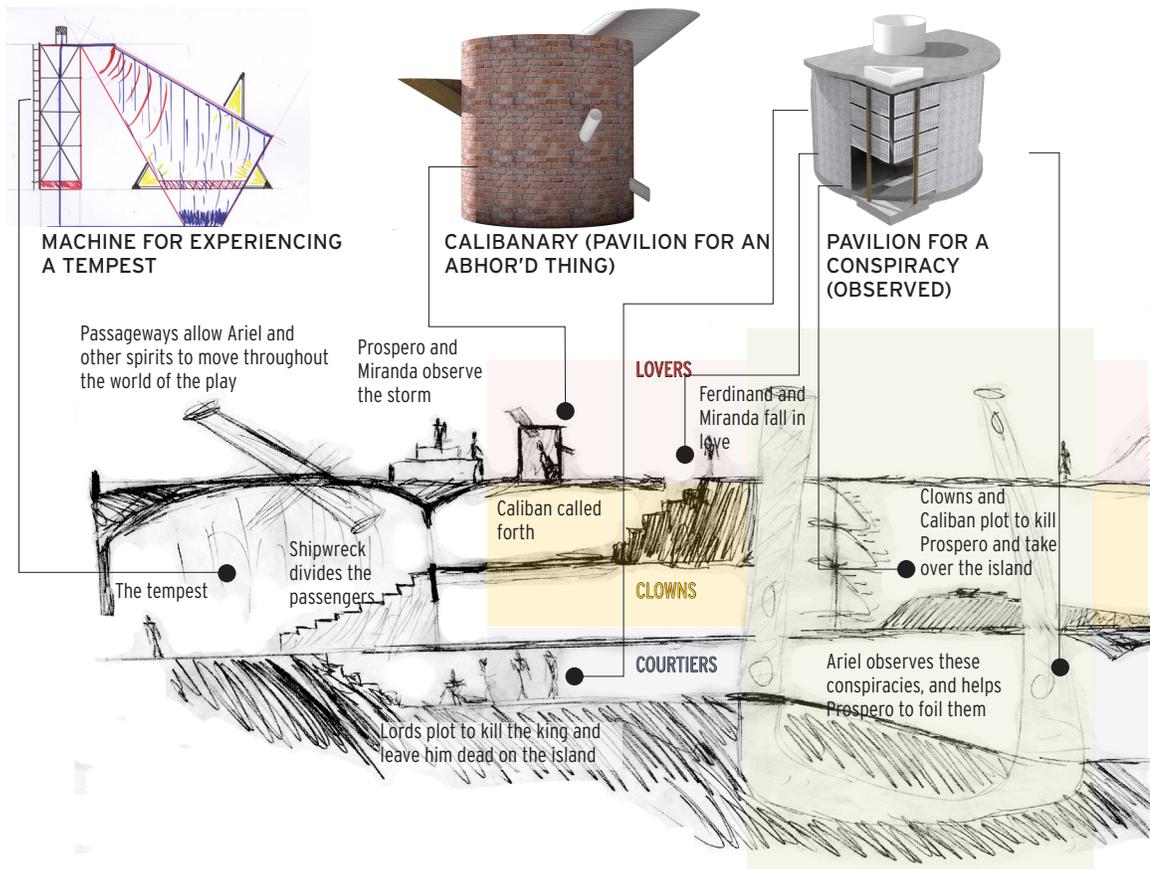


FIG 47. Hypothetical section (Part I) through *The Tempest* showing key events and streams of narrative

acknowledgement of the human need for access between spaces. The hypothetical section of the play begins to show this configuration, and where the architectural elements from the previous investigation fall within the structure of the play.

Perfect scholarship in perfect isolation

In the play, Prospero, stranded on an island, becomes master of many arts through long study in his prized books. His considerable study yields considerable power. The imagery and thematic elements of books and study invoke the idea of a library, to be sure, but also something more. This library would provide a place of remove from the world around it. It must provide some degree of separation and isolation. Yet, Prospero continues to monitor the world outside, arguably gaining more control over it through time, eventually allowing him to bring his enemies within his reach. Like Prospero's continued engagement in the world, the world of the library must remain engaged and active in the world around it.

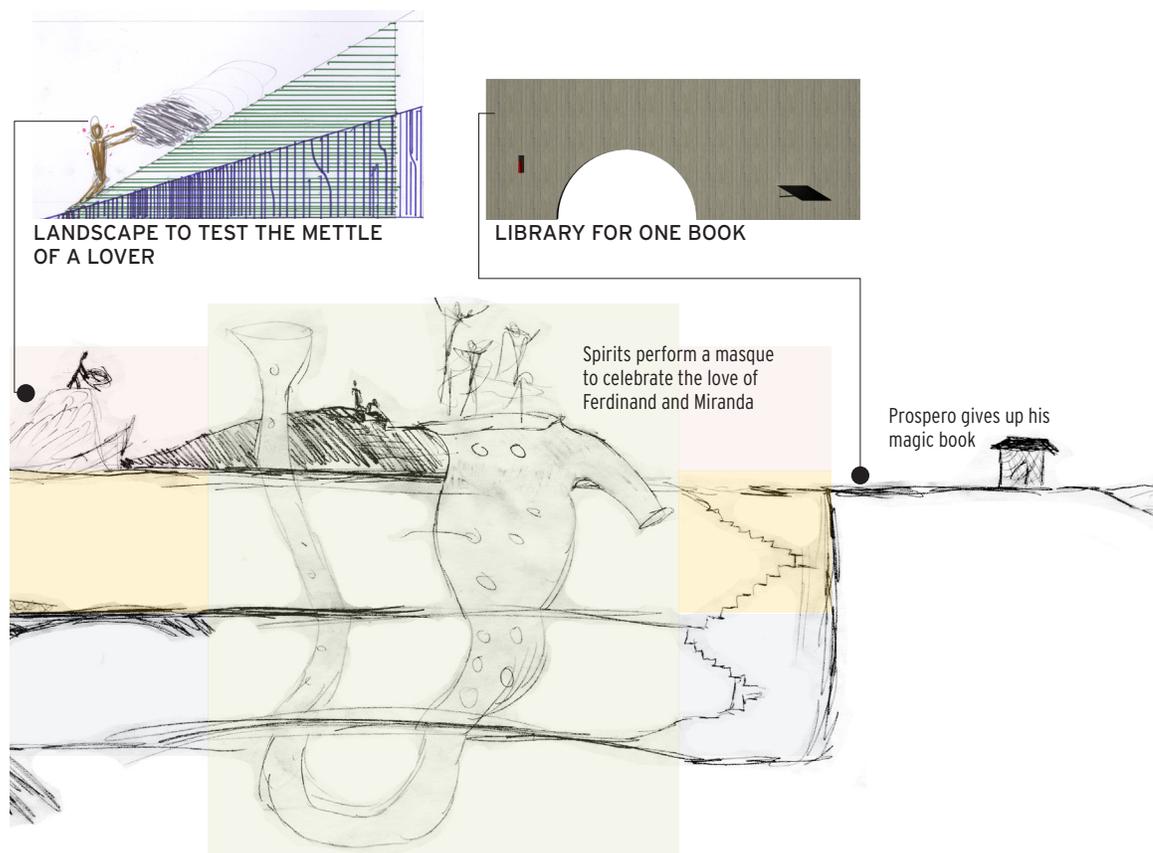


FIG 48. Hypothetical section (Part II) through *The Tempest* showing key events and streams of narrative

Architecturally, this situation implies that the library must be within a city and part of the city, but also provide a place of special remove from it, a place of study and learning that provides different conditions than the surrounding fabric, while remaining accessible from it. There can and should be visual and physical connections between the two conditions (library/not library), but for purposes of this project, the distinction should remain.

Three interconnected plots, one over-arching narrative

The lovers, the courtiers and the clowns form three different stories within the play, but all three stories are essentially controlled by Prospero, and even, to an extent, predetermined. A literal mapping of these stories may not lend itself to an architectural interpretation, but by reducing certain essentialities of the stories, it becomes possible to map them to certain urban needs.

The function of **library** forms the meta-narrative of this project. Architecturally, the library should serve to organize the project, perhaps forming a spine around which the other programmatic elements can be arrayed. It, like Prospero, knows how the entire story will play out, and forms the framework to allow it to come to fruition.

The clowns in the play, along with Caliban, the deformed half-man, half-fish, represent pastoral elements, an essential component of any masque. These pastoral elements, interpreted in an era of economic stagnation and a growing rejection of large scale agriculture, generate the architectural/spatial notion of **urban farming**, using unused parts of the city to grow food for the people who live there.

The young lovers in the play are united by tragedy: Ferdinand arrives on the island, believing his father to have drowned; Miranda has just learned her own tragic history. Ferdinand is the first human man she has ever seen that is not her father. They immediately fall in love and are united in both their guileless affection and rueful sadness. One architectural interpretation of this situation would be the **contemplative garden**, a space that captures some of the exuberant beauty of nature, but also provides the space and quiet to consider it.

Lastly, and perhaps most troubling, are the courtiers in the play. In general, it is these men that Prospero most wishes to revenge himself upon. They are unscrupulous and conniving, but are, in the end, taught a moral lesson. How best to capture the villains of the piece in architecture? A possible distillation would be to create a learning space, some kind of school function interwoven into the library condition. Perhaps, though, taking the idea of instruction further would be

useful. The information age raises moral and ethical questions about what we are to *do* with the information, yet we can not, in a pluralistic society, assume a religious commonality to provide us with answers to those questions. But our shared humanist tradition, of which the Shakespearean canon is an early and important element, can perhaps at least begin to provide a framework for answering these questions. Therefore I propose to create a **humanist chapel**, a space for learning, but also for performance and debate, within the framework of this project.

Site

From the program discussion above, it seems clear that an urban setting would best suit this project. Though *The Tempest* takes place on an island, placing it too far from population density would eliminate the opportunities for pedestrian access through the site, and reduce the ability to test for non-linear conditions.

A search for a small but vital American city in need of compelling urban project quickly lead me to Baltimore City. I have spent time there and the city is very interesting. It has a racially diverse mix of inhabitants, but it is highly segregated. However, the neighborhoods surrounding the project site are among the more diverse neighborhoods in Baltimore, populated in part by employees and faculty of the nearby Johns Hopkins University, as well as staff of several major hospital centers in the area.

The site sits near a nexus point of four adjacent neighborhoods which are highly walkable, with schools and services within a one-mile radius of the site. There is an active street life, including a large farmers market that occurs weekly in a parking lot immediately adjacent to the site. The undeveloped median strips in the midst of East 33rd Street make it particularly compelling, since that space could be repurposed and made active.

The primary site chosen is an existing library property, the street adjacent to it, including a

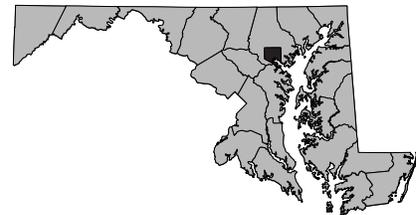


FIG 49. Map of Maryland highlighting Baltimore City
Original image: commons.wikimedia.org

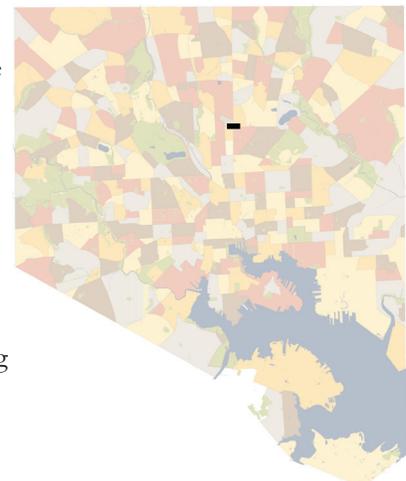
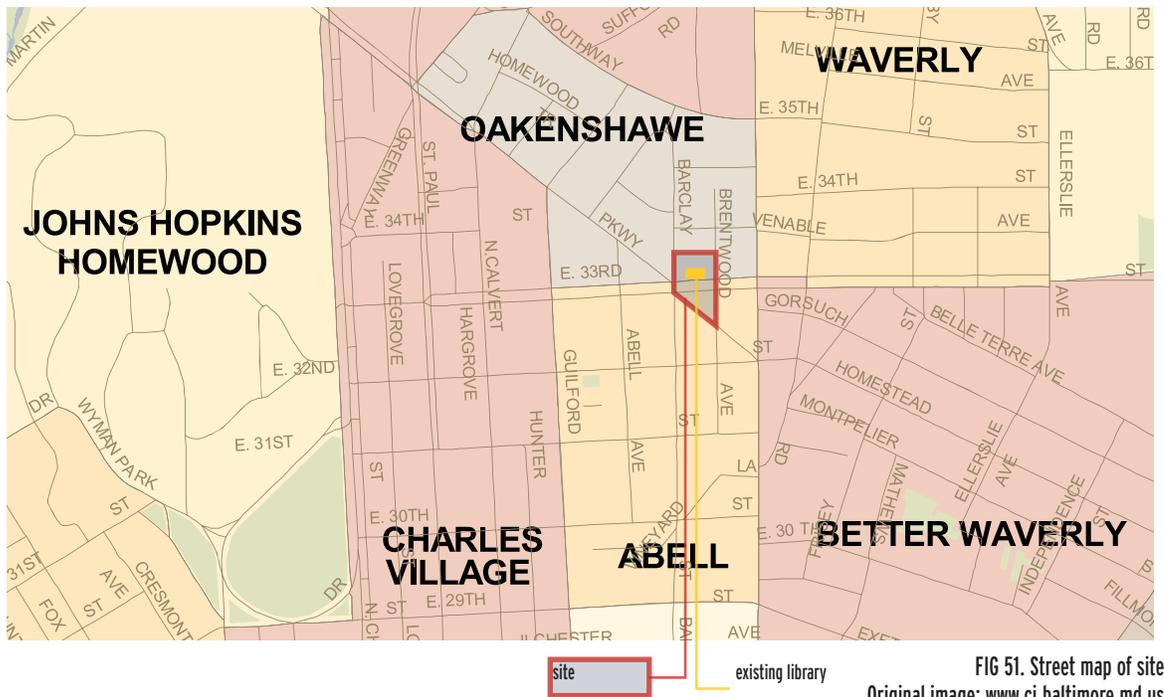


FIG 50. Map of Baltimore City highlighting site
Original image: www.ci.baltimore.md.us

narrow median strip, and the property immediately adjacent to the south, which currently has a convenience store and its small parking lot.

The property is located on East Thirty-third Street in the center of Baltimore City. East Thirty-third Street serves the eastern half of the city, beginning at the campus of Johns Hopkins University on Charles Street (a central north-south connector). About a mile and a half from the college is the former site of Memorial Stadium, an historic multi-use stadium recently torn-down and replaced with a senior living facility. Between these two urban polar attractors lie several Baltimore City neighborhoods, with East Thirty-third Street serving as a major axis and hub between them.

East Thirty-third is a four-lane boulevard with a wide median between the eastbound and westbound lanes. There is often an additional lane for parking carved out of the adjacent sidewalk. The median strip is generally around 35 feet wide, and the city blocks in that area are approximately 300 feet long (curb to curb, not including the street widths) generating a series of



long, narrow spaces, broken up by cross streets. The long, narrow medians currently are tree lined but are not set up in a way that invites use or exploration.

The chosen site is currently occupied by the Waverly neighborhood branch of the Enoch Pratt Free Library— Baltimore City’s public library—which has recently identified a need to enlarge and modernize its facilities.

By utilizing the library site, the median, and the small property across the street, the site should present enough space to meet the programmatic needs, while serving as a filter and a pleasing disruption to the urban scape. As a first response to integrating the median into a larger project, bridging the streets with an enlarged library will be considered. This strategy is shown in the hypothetical diagrammatic section that follows.

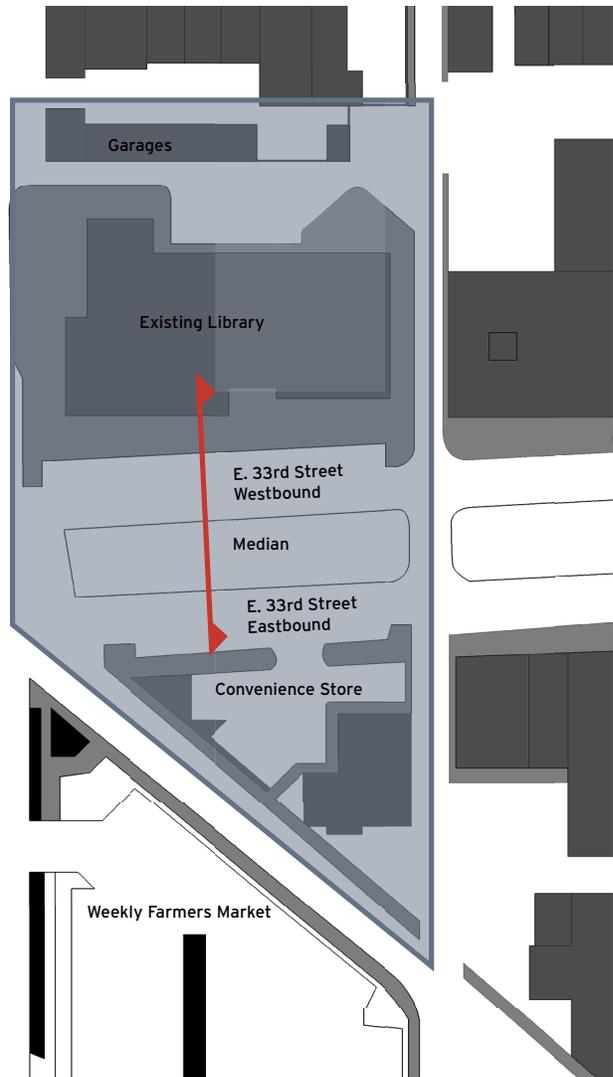


FIG 52. Detail map of existing conditions at site



FIG 53. Diagrammatic section through site



FIG 54. Aerial perspective photograph of site
 Images: Microsoft Virtual Earth

existing library

site



FIG 55. Satellite photograph of site
 Images: Google Earth

Final Project

The final project is an attempt to synthesize the developed program brief and the selected site, retaining *The Tempest* as source.

Deviations from the brief were made. An original plan was formed to develop a portion of the adjacent parking lot into a garden for urban farming, but this function was instead subsumed into the contemplative garden. The library itself does not serve as a spine for the site; instead, its superstructure extends throughout the site to organize and define it.

An attempt was made to use the play to develop each element of the design, but in order to avoid the strictures imposed by attempting some kind of firm, mathematical translation, subjective choices were made along the way, and it is not possible to relate each of them to an aspect of the play. As will be discussed in the conclusion, subjectivity is an unavoidable, essential part of this process.

Each of the major elements in the final project has a name, but these names are only guidelines to the use and purpose of the elements. It is hoped that the spaces will be adapted and used for what purposes seem fitting to those who are able to use them.

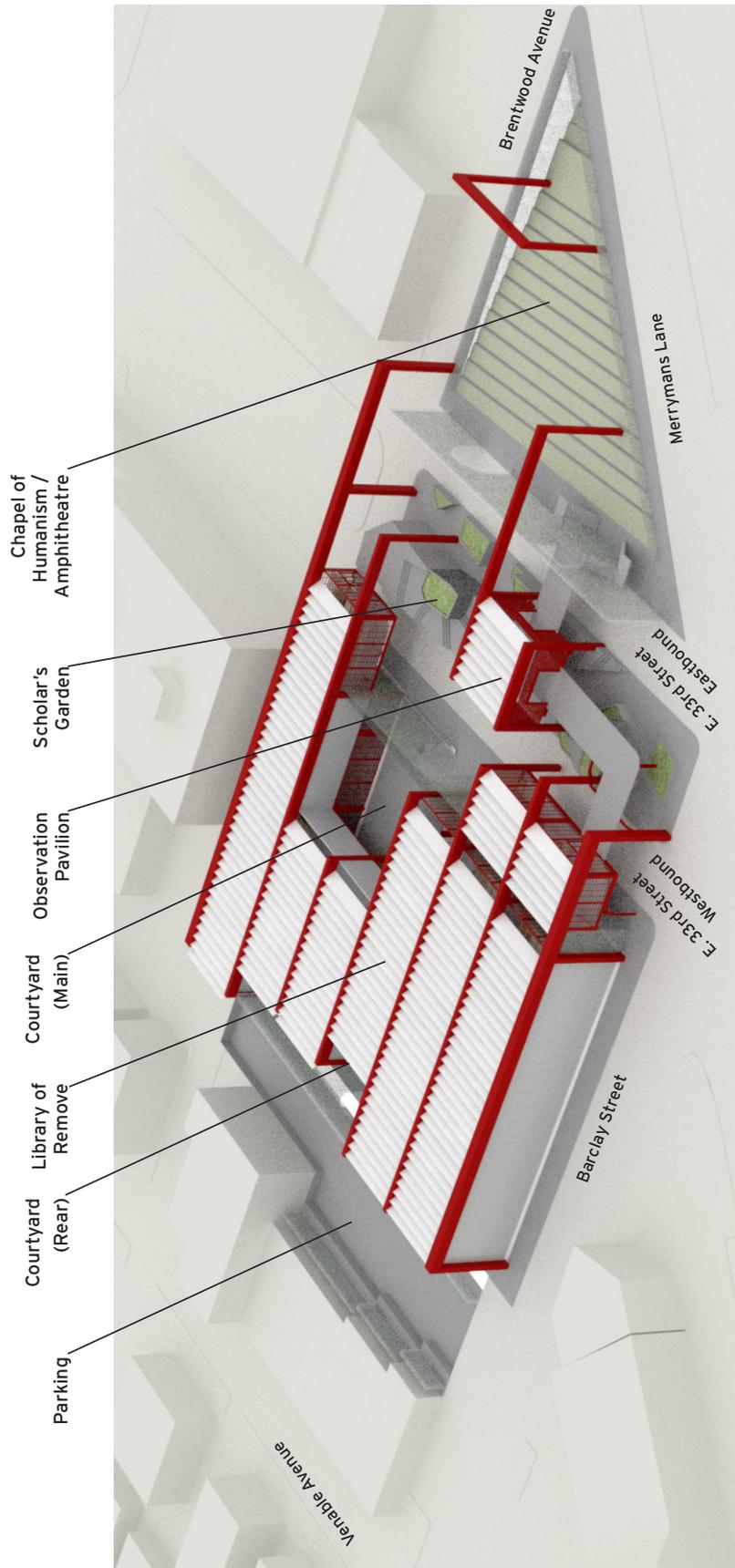


FIG 56. Aerial perspective rendering of final project in context, highlighting major areas

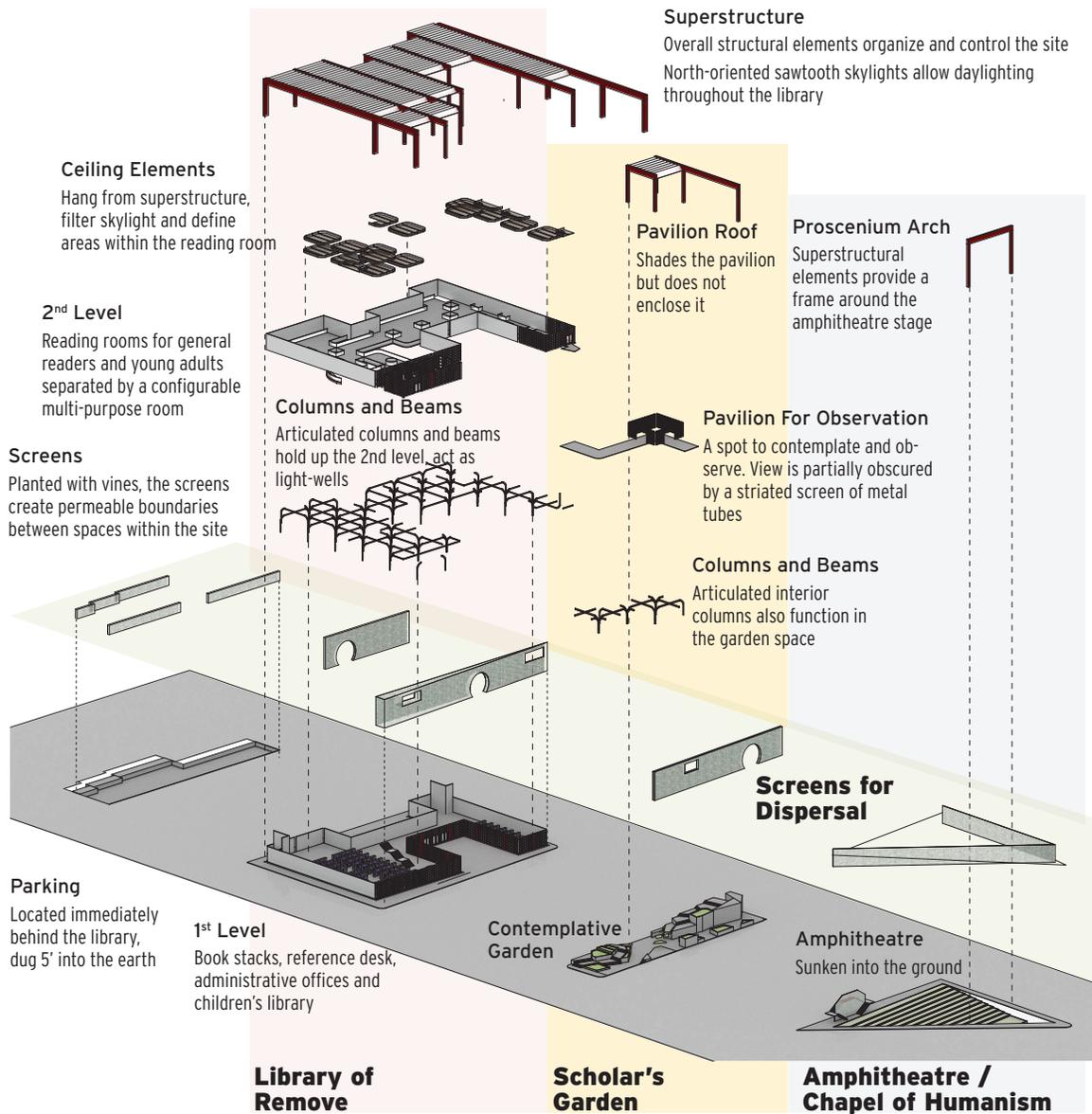


FIG 57. Exploded axonometric drawing of final project showing all major features

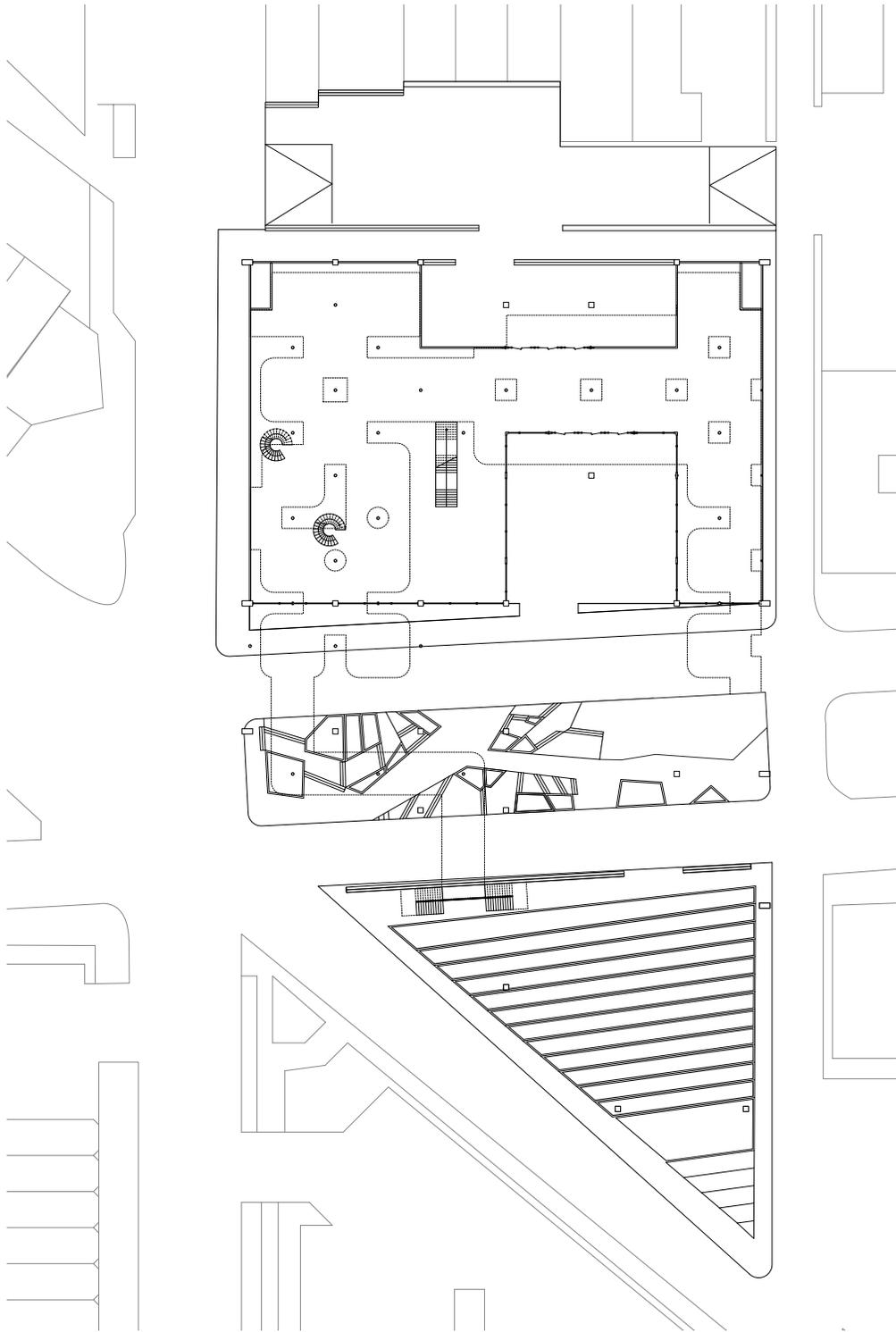


FIG 58. Site Plan at Ground Level
Scale: 1/64" = 1'

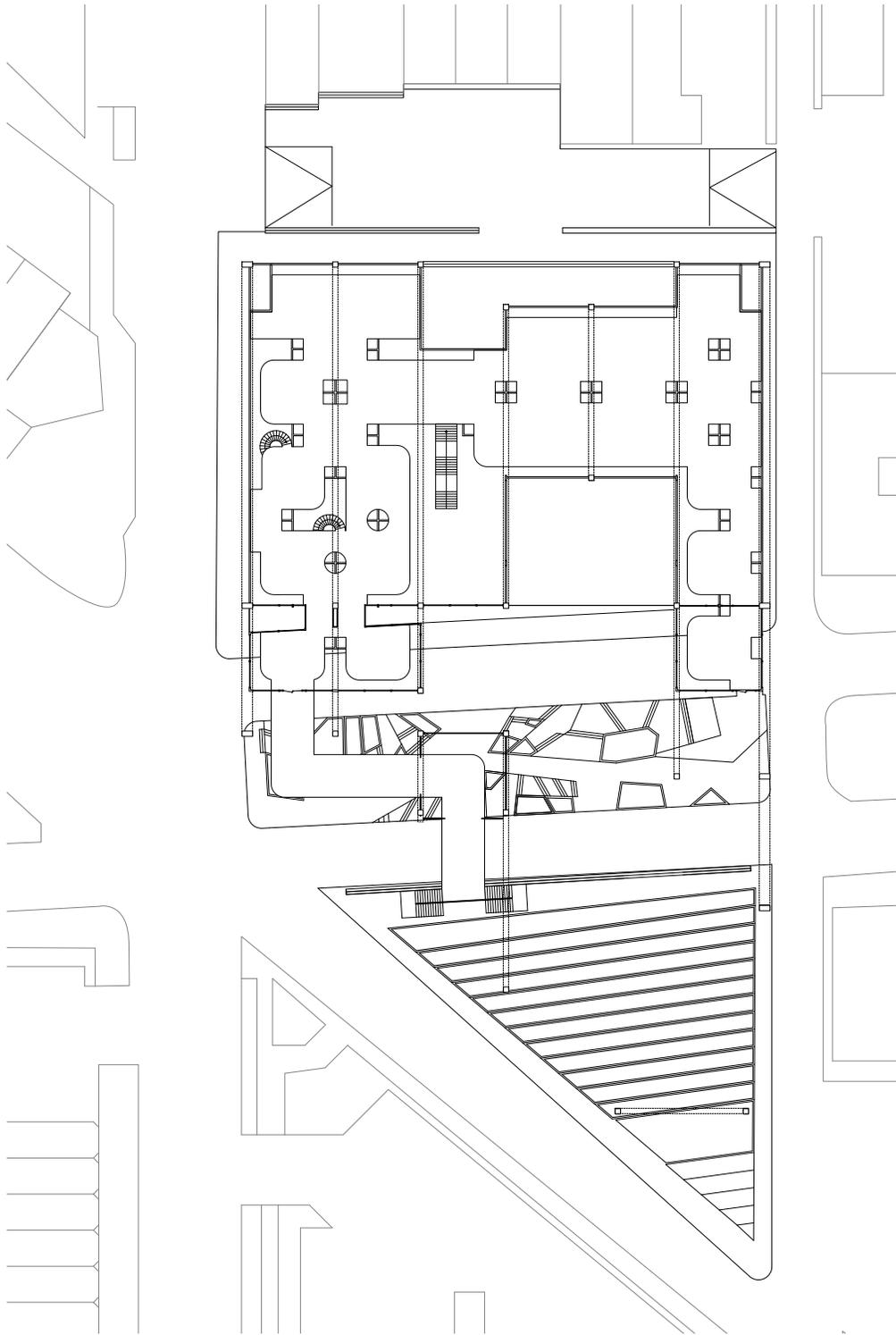


FIG 59. Site Plan at Second Level
Scale: 1/64" = 1'

LIBRARY OF REMOVE

The library, as in the program brief, represents the overarching story of *The Tempest*, that of the deposed duke, Prospero, and his books. They lost him his dukedom, and their power allowed him to regain it. Several aspects of the library derive from the play, including the second floor reading room that floats above the ground floor on highly articulated columns. It allows peeks and glances at the ground floor through a series of cutaways in the floor slabs, much as the spirits are able to hide and observe the action of the play. The highly articulated curving columns attempt to imbue the library with a spirits playfulness, while the fenestration of the library allows it to look only inward on the rest of the complex, giving the library building itself an island-like sense of remove from the surrounding city.



FIG 60. Interior perspective rendering of library

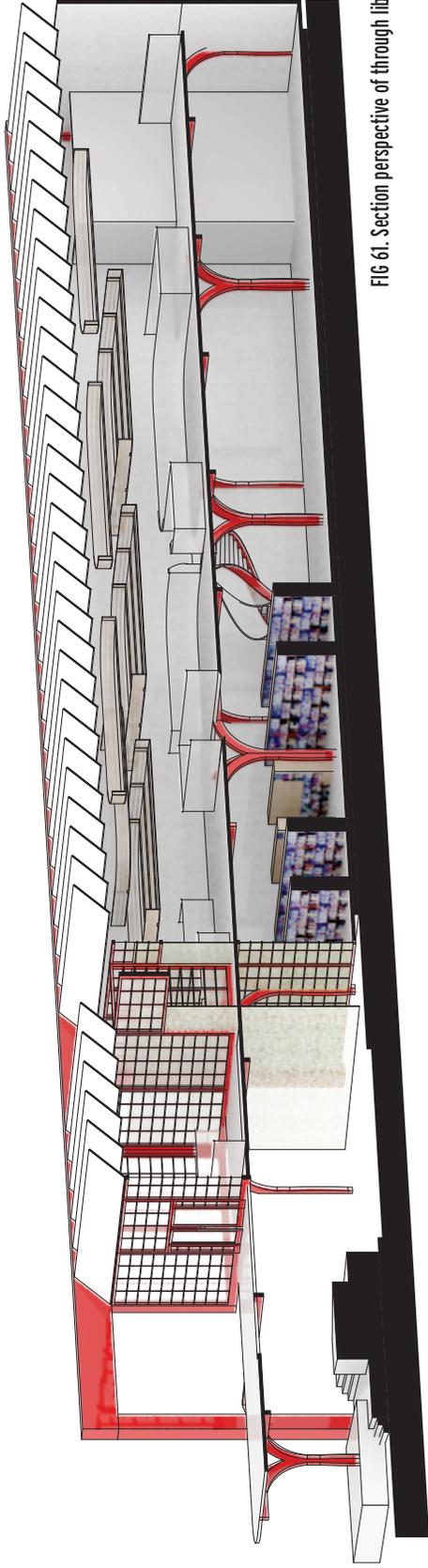


FIG 61. Section perspective of through library



FIG 62. Rendered axonometric view of library ground level

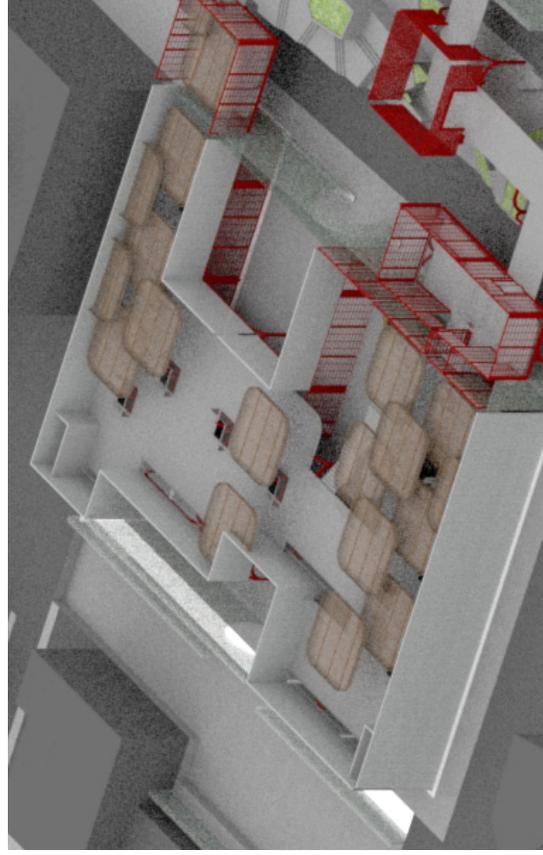
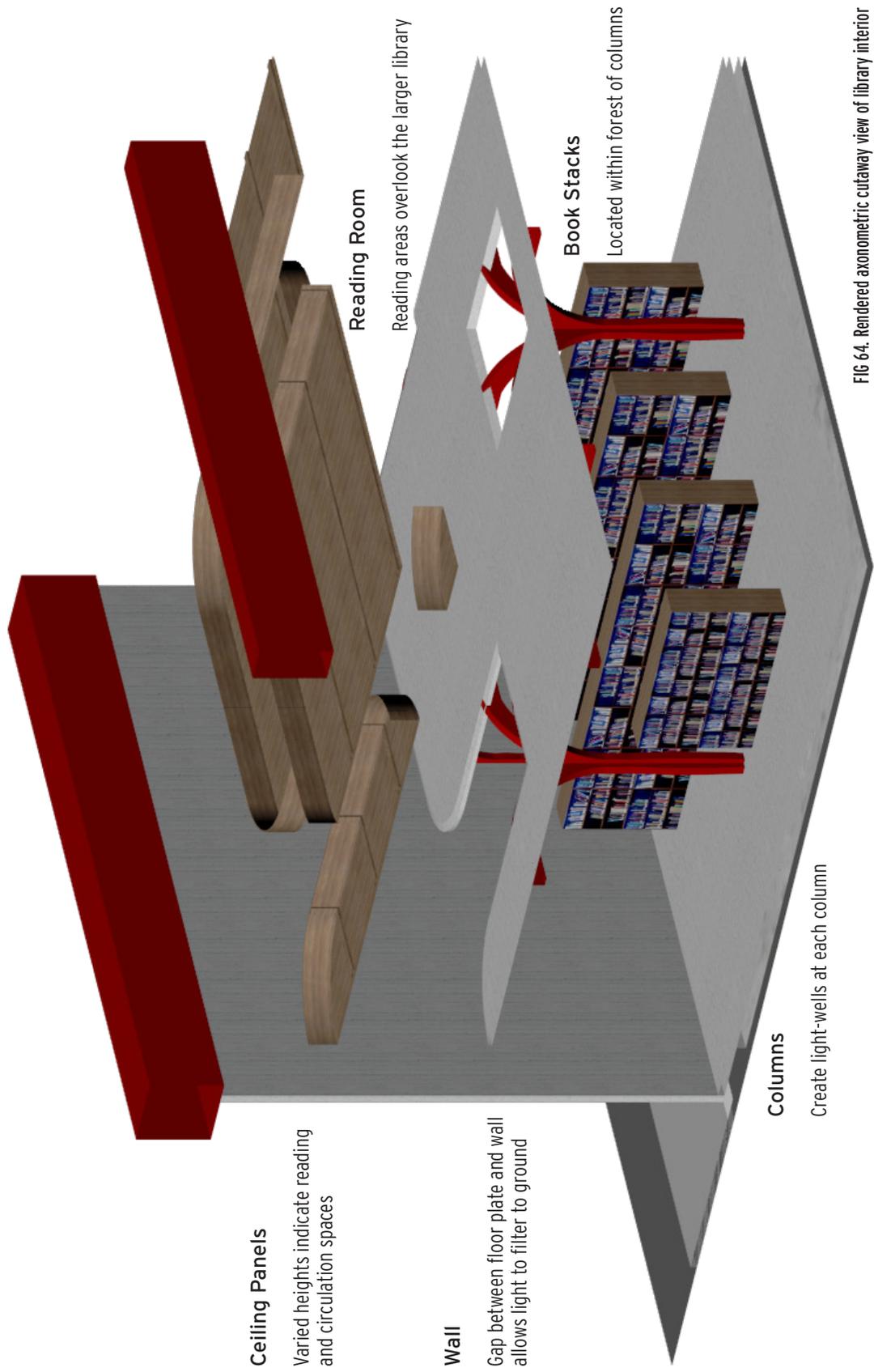


FIG 63. Rendered axonometric view of library second level



Ceiling Panels

Varied heights indicate reading and circulation spaces

Reading Room

Reading areas overlook the larger library

Wall

Gap between floor plate and wall allows light to filter to ground

Book Stacks

Located within forest of columns

Columns

Create light-wells at each column

FIG 64. Rendered axonometric cutaway view of library interior

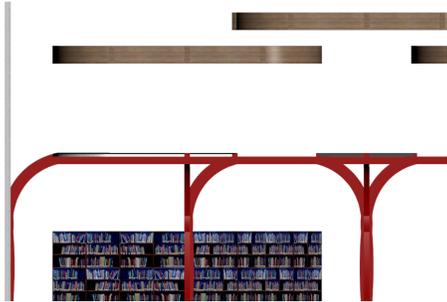


FIG 65. Front view of interior cutaway



FIG 66. Side view of interior cutaway

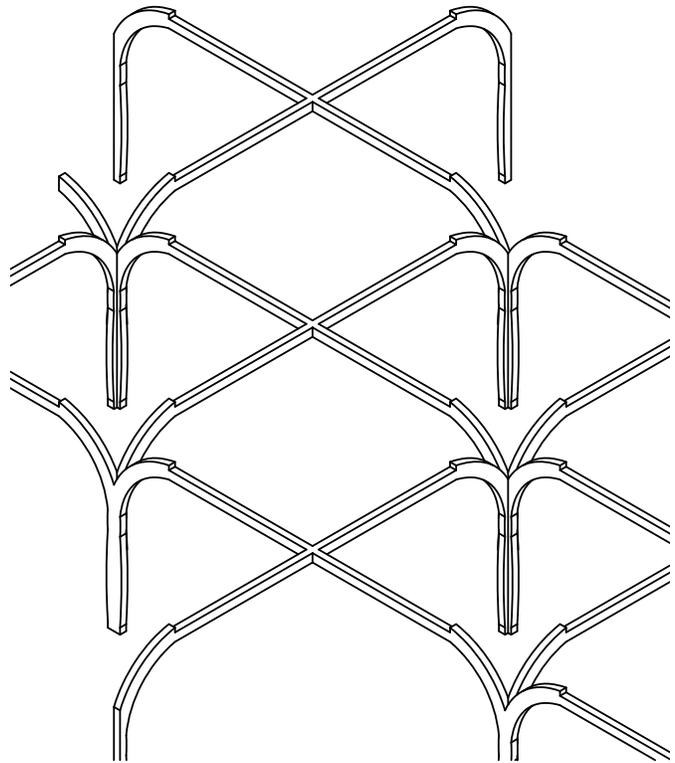


FIG 67. Articulated beams and columns



FIG 68. Rendered perspective view front library entrance to main courtyard

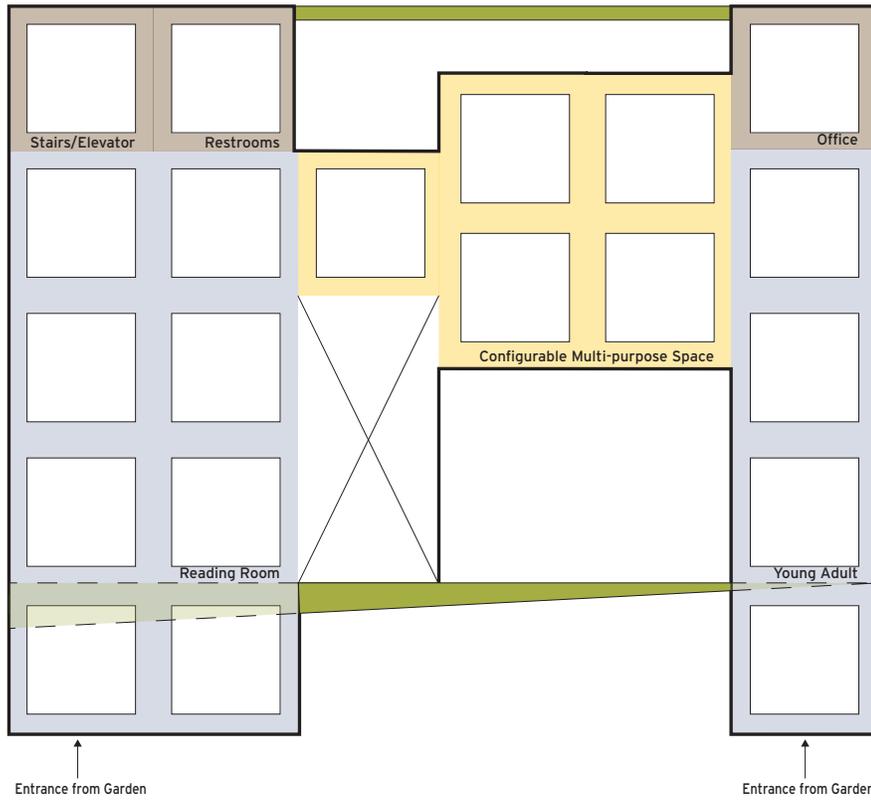


FIG 69. Diagrammatic plan of library second level highlighting program areas



FIG 70. Diagrammatic plan of library ground level highlighting program areas

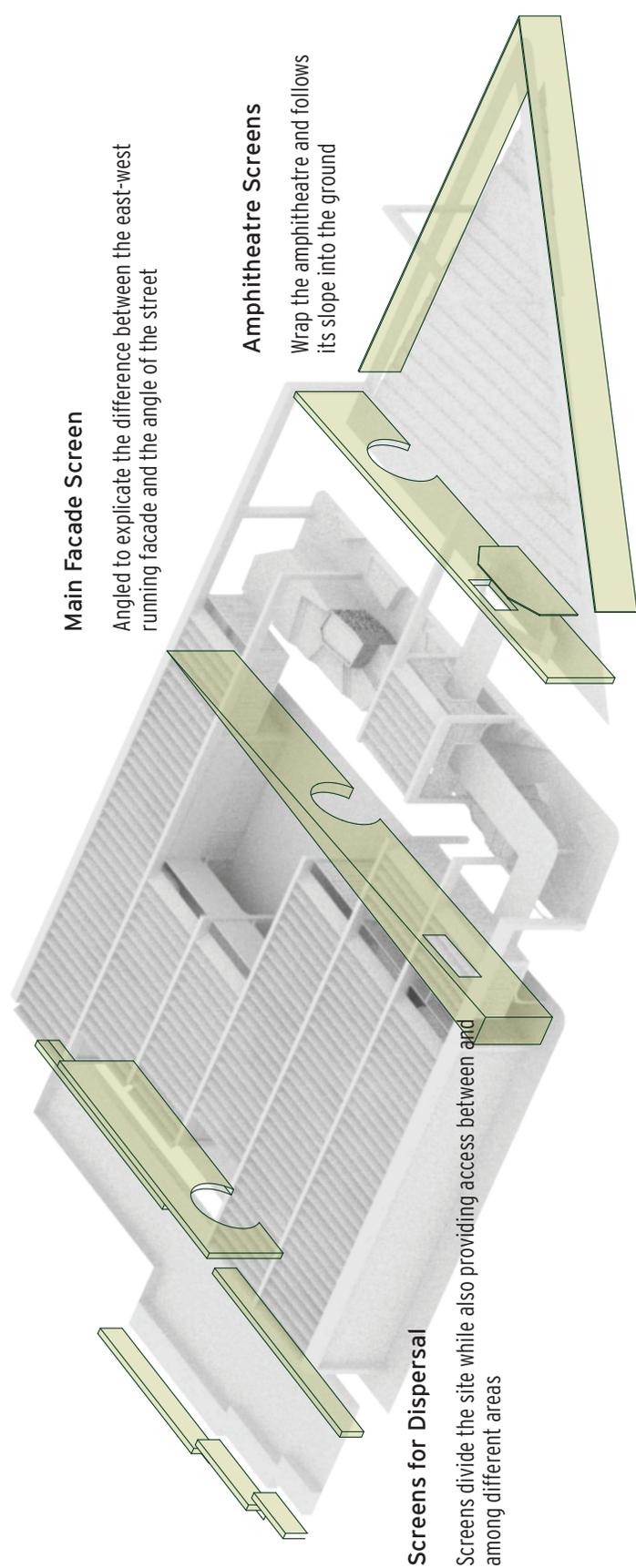
SCREENS FOR DISPERSAL

At the beginning of *The Tempest*, the spirit Ariel disperses the various characters from the shipwreck about the island. From then on, only Ariel is able to move among their individual narratives. The screens perform similar functions, serving to subdivide the larger space of the project, and providing passageways between them. The screens are composed of a perforated armature, on which climbing plants are allowed to grow. They allow visual penetration that varies depending on the season and where the plants grow. The passageways through the screens allow users to move between spaces.

The library penetrates the screen in two places, with the second level of the library coming through the main screen and hovering over the sidewalk. Inside the library, the user passes through the screen and briefly inhabits it, standing in two worlds at one time. At the amphitheatre, the screens cease to subdivide the space. Instead, they peel away to completely wrap the amphitheatre, much as the lords in the play are completely controlled by Ariel when they are being chastened.



FIG 71. Street level perspective view showing screens



Main Facade Screen

Angled to explicate the difference between the east-west running facade and the angle of the street

Amphitheatre Screens

Wrap the amphitheatre and follows its slope into the ground

Screens for Dispersal

Screens divide the site while also providing access between and among different areas

FIG 72. Axonometric view showing all screens sited throughout project



FIG 73. Rendered view through screen to library facade

White plastic armature forms front and back of screens
 Climbing plants grow between the layers, on and through the armature

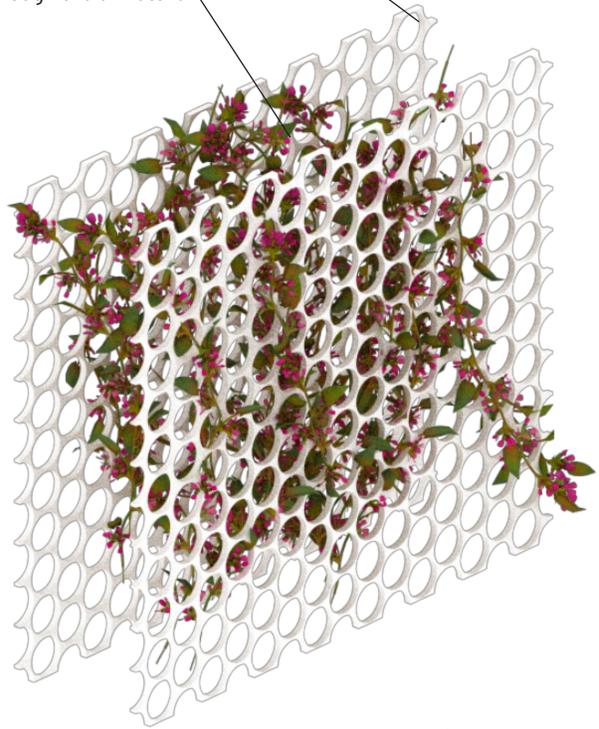


FIG 74. Detail of screen arrangement

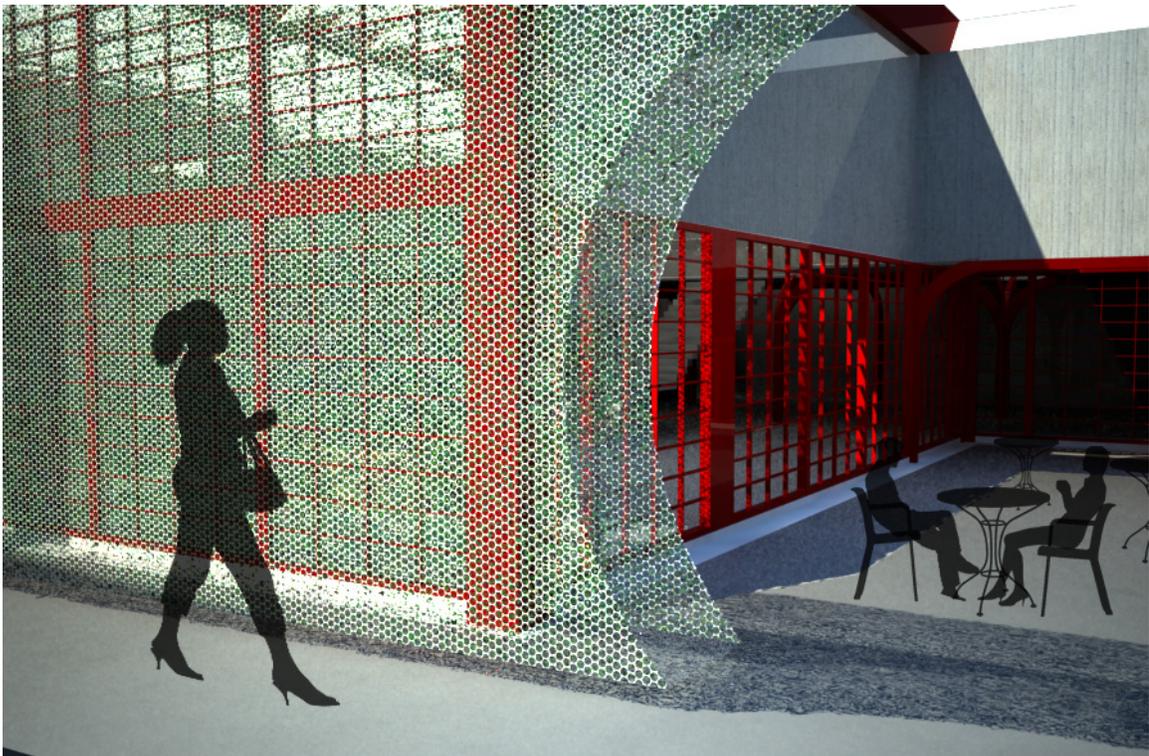


FIG 75. Rendered view of library's front courtyard behind screen

SCHOLAR'S GARDEN

The part of the project is a place for contemplation, but also for gardening. Planter boxes are provided to be adopted by neighbors who wish to grow food or flowers. Throughout, there are also places to sit and contemplate. The landscape also represents a journey, serving as the nexus of circulation over the street, and through and around the project.

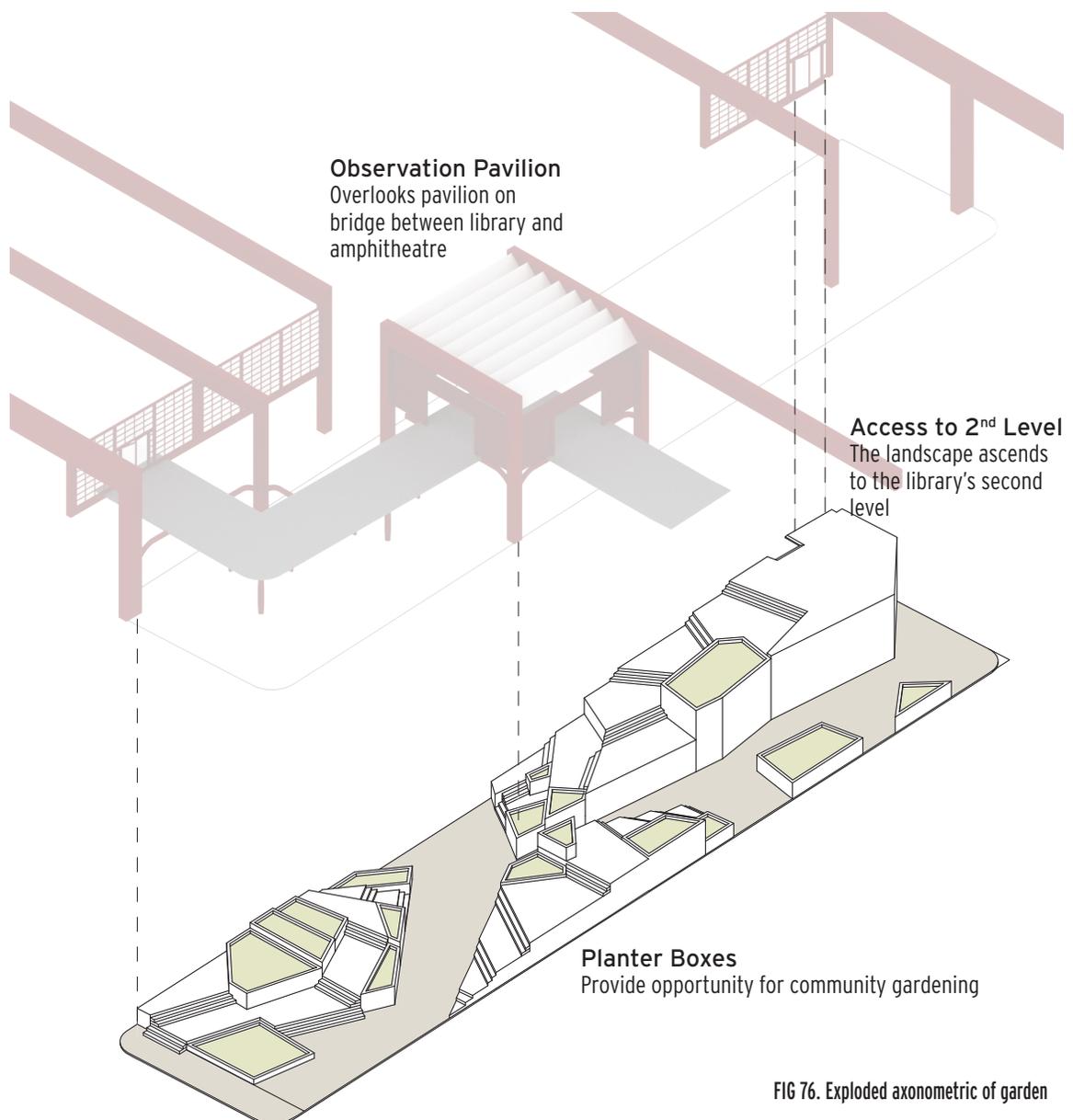


FIG 76. Exploded axonometric of garden



FIG 77. Scholar garden with planter boxes

OBSERVATION PAVILION

The observation pavilion is a way-station on the bridge across the street, and also a place to view all the parts of the project. One can stop and look around from it, enjoying its shade, or one can simply pass through it on the path. It is part of the Scholar's Garden, yet also distinctly separate from it.

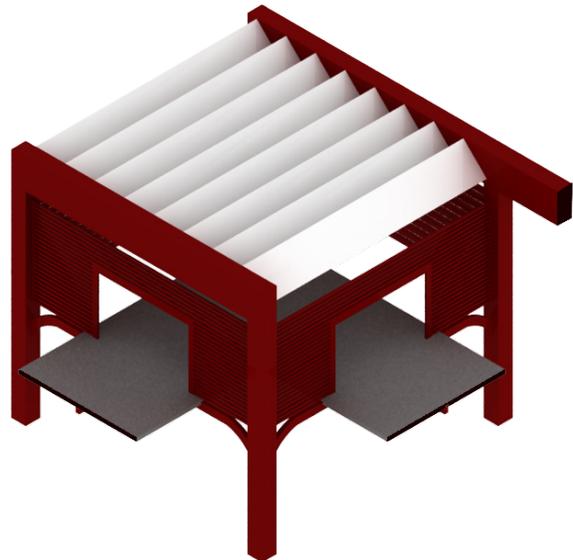


FIG 78. Axonometric rendering of Pavilion for Observation



FIG 79. Rendered view of Pavilion for Observation from Library Courtyard

AMPHITHEATRE (CHAPEL OF HUMANISM)

The amphitheatre is a place for performance, but also gathering and teaching. It consists of a series of terraces that descend into the ground for audiences to sit on. The structural elements that define and control the entire site on a north-south axis break here, in this one location, to form an east-west arch over the stage. Behind the stage, the terracing continues, providing a sense of depth and mystery. A large screen fronts the amphitheatre, but instead of closing it off, other screens wrap around it, descending along with the terrace, placing the amphitheatre inside the screens.

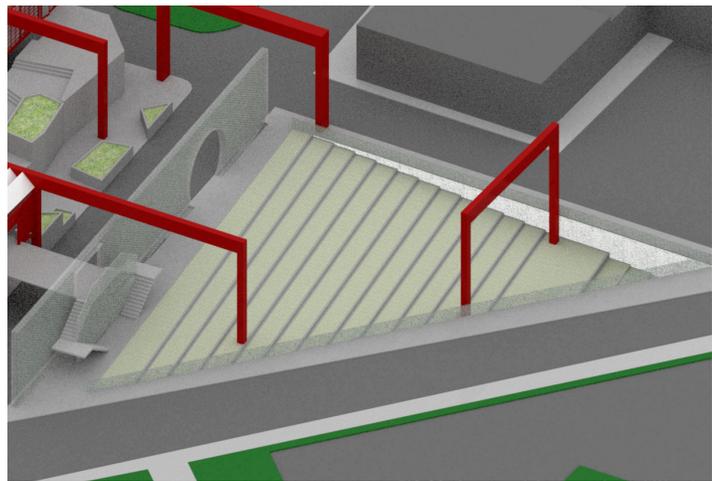


FIG 80. Axonometric view of amphitheatre

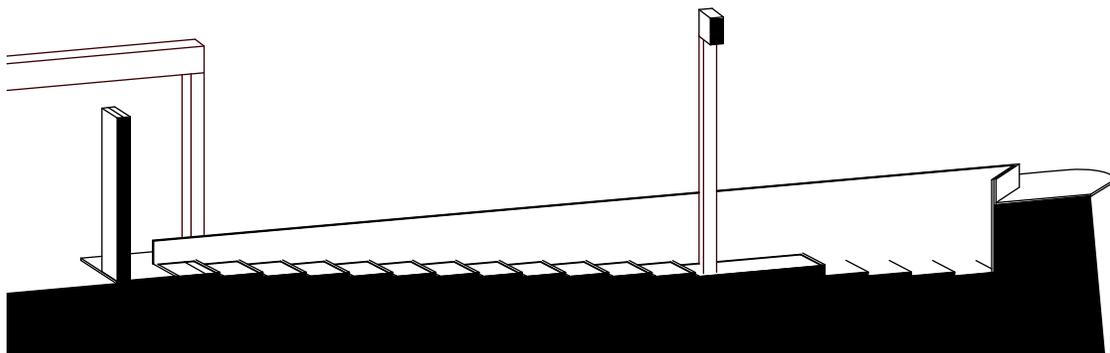


FIG 81. Section through amphitheatre



FIG 82. Perspective rendering of amphitheatre as viewed from the stage

Discussion and Conclusion

Ultimately, the final project was more successful than any of the preceding investigation. At the final review presentation, reviewers raised the question of whether the project should be discussed as a literary endeavor of translation, or as an architectural work in its own right. One reviewer believed the former, that the final project should have been even more personal, focusing on the translation and the play. Another believed more strongly that it was important to consider the real, architectonic qualities of a building and resolve it thus.

In essence, a translation like this must be both: intensely personal, but also addressing real-world needs. The review discussion merely highlighted this tension that lies at the center of this project. Indeed, it is the crux of any generative strategy of architecture. Using a strategy to help guide the generation of the subjective can be a helpful, almost essential part of the process. The adage that “limitation breeds creativity” has a great deal of wisdom. But the architecture must not be subsumed by the strategy. Architecture at its heart is the art of solving problems in and with space. Architecture for its own sake is, instead, sculpture. This was born out by the process of this thesis project. It became clear after the pavilions, which were interesting, but completely of the play, that in order for the thesis to be successful, it had to exist outside of the play.

It should be noted that all the major parts of the final project are named, and the names are echoes of their origins in the play, but upon consideration of this, I realize that these names are important to the architect, but not the architecture. The spaces they describe can and would be used in ways never intended, and this is another aspect of architecture. Any generative strategy cannot be too limiting, because no one knows how architecture will be reused and repurposed in the future.

This project also forced me to become comfortable with the subjective leaps required to get from the play to an architectural project. It seems natural at first to seek a generative strategy for architecture that will generate a series of one-to-one relationships for all the aspects of what is to be built, but it became clear that this would not be the case. Instead, a great deal of subjective reinterpretation was required to make the translation, and it took me a long time to acknowledge this.

I believe that the final project addresses the question of linearity by taking the play apart, using its masquelike structure to create a virtual grid of activity, instead of a linear series of action. *The Tempest's* special qualities as a masquelike play were certainly helpful in this deconstruction, but at

the same time, I feel that such a reassembly could occur with any play of sufficient richness. I think that the problem of linearity in narrative can be avoided by extracting the relationships within the play and using those, instead of the narrative. The characters and relationships are what generates the narrative, and thus are dominant.

For me, these two disciplines worked well together. Because they are both synthetic disciplines, there was a great deal of rich associations to find within the realm of theatre when an architectural problem needed to be solved. To be fair, an architect with a background in painting or music might find one of those to be a better generator, but I feel that a holistic view of theatre shows it to be a more complete artistic form, encompassing painting (sets), music, technology, narrative and performance (among others). To use art to generate something as complex as architecture requires a complex art form. The investigation did focus mainly on a work of theatrical literature—as opposed to production—but for me, this project would have been impossible had I not worked on the play several times before in different capacities.

It is unfair to call the final project a translation of *The Tempest*. Instead, it must be seen as an adaptation: an attempt to express the spirit of the play, not present it exactly. I think that such adaptation is the only way that literature can generate successful architecture. Theatre and architecture are both highly synthetic, to be sure, but both synthesize a different set of inputs. Such an adaptation, from theatre to architecture can only occur when the architectural problem to be solved remain paramount.

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