Encapsulating History of Place

A Thesis Presented for the

Master of Architecture Degree

The University of Tennessee, Knoxville

Ashley Linn Lenentine

May 2013

Copyright © 2013 by Ashley Lenentine
All Rights Reserved.

Abstract

Architecture has the ability to reveal the culture and history of a place, to support the community and educate society. The design becomes the vessel that retains the history of the place and increases cultural appreciation throughout society. This thesis looks to reinterpret how design responds to a historic context and incorporates culture and memory into the method for new design. A place is an accumulation of layers that tell a story of the past and overlay conditions of the present that enhance the experience of the place. The site, context, history, and culture can be identified as various layers that drive time-responsive architecture. The stratification of the site creates a complex ground from which to develop a program to inform society and respond to the culture of the community.

The site that was chosen for investigation through this thesis is located in Cherokee territory. The site is situated along a hiking trail in the mountains of Northern Georgia, and is within a protected archaeological zone. The architecture emerges through careful interpretation and revelation of the traces of the site. The traditions and culture of the Cherokee are significant as well as the culture and traditions uncovered from the remains excavated on the site. The architecture protects the sacred conditions of the history and educates the public through experiential interpretation. The history and culture of the place is perceived through passage across the terraces revealing the strata that stitch together an authentic understanding of place.

Table of Contents

1 Encapsulating History of Place 1

Premise 1

Objective 2

2 Background 4

Space vs. Place 4

Palimpsest of Place 4

Authenticity 5

3 Precedent Analyses 7

Exploration into Three Architectural Works 7

4 Castelvecchio 8

Background 8

Building Renovations 8

Design Stratification 9

5 Archbishopric Museum of Hamar 12

Background 12

Building Renovations 13

6 Shelter for Roman Ruins 16

Background 16

Design Implementation 16

7 Reflection of Precedents 18

Overlay with the American Vernacular 18

Experiencing History and Culture 20

8 Site Introduction: 9UN367 21

Site Location 21

History of the Site 24

Site Overlay 26

9 The Cherokee Indian 28

Background 28

Application 29

Table of Contents [continued]

10 The Archaeologist **31**
Background 31
Application 32
11 The Hiker **34**
Application 34
12 Project Narrative **36**
Programmatic Conditions 36
Program Introduction 37
13 Program Analysis **38**
Interpretive Center 38
14 Interpretive Center of Place **39**
Conceptual Designing 39
Designing Terraces 39
Threading the Procession 41
Materiality 43
Site Development 43
Experiencing the Culture and History 46
15 Conclusion **52**

List of References **55**
Sources: Theoretical Content 56
Sources: Case Study Content 57
Sources: Site Selection Content 58
Sources: Programmatic Conditions 60
Vita **61**

Figure Index

Figure 1: Castelvecchio Museum 7

Figure 2: Hamar Bispeegard Museum 7

Figure 3: Shelter for Roman Ruins 7

Figure 4: Verona located within Italy 8

Figure 5: Castelvecchio located within Verona 8

Figure 6: Castelvecchio Museum 8

Figure 7: Interior material connections 9

Figure 8: Interior material details exposing connections 9

Figure 9: Occupying the walls of the fortress 10

Figure 10: Creation of simple but evocative stair 10

Figure 11: Exterior courtyard, detail of construction 10

Figure 12: Fortress wall details of openings 10

Figure 13: Layers of the roof 11

Figure 14: Design of the new, support for the artwork 11

Figure 15: Textures of the layered histories of the castle 11

Figure 16: Merging of spaces through old and new materials 11

Figure 17: City of Hamar within Hedmark county in Norway 12

Figure 18: Interior Circulation 12

Figure 19: 16th Century Palace 12

Figure 20: Material Detail 13

Figure 21: Material Contrasts 13

Figure 22: Entry Detail 13

Figure 23: Exterior Cladding Condition 14

Figure Index [continued]

Figure 24: New Exhibition Space 14

Figure 25: Plan and Section Diagrams 14

Figure 26: Plan and Section Diagrams 15

Figure 27: View within shelter 16

Figure 28: Circulation through ruins 16

Figure 29: Contrast of Ruins from Shelter 17

Figure 30: Suspended Entry 17

Figure 31: Interior vs. Exterior material tectonics 17

Figure 32: Illuminated ruins within 17

Figure 33: Artifacts in courtyard - Scarpa 18

Figure 34: Ruins from Hamar - Fehn 18

Figure 35: Suspended Walkway- Zumthor 18

Figure 36: Recreation of Colonial Williamsburg 19

Figure 37: Infill to occupy an existing structure 20

Figure 38: Construct shelter of the ruins 20

Figure 39: Excavating ruins around temporary structures 20

Figure 40: Regional site- Appalachian Trail 21

Figure 41: Regional site- State of Georgia 21

Figure 42: Site Context- Trail Network 22

Figure 43: Site Remains 22

Figure 44: Petroglyphs boulder 6 23

Figure 45: Petroglyphs- boulder 4 23

Figure 46: Petroglyph image 23

Figure Index [continued]

Figure 47: Petroglyph symbols 23

Figure 48: Site image- lower terrace walls 24

Figure 49: Site image- multiple terraces 24

Figure 50: Site image- lower wall 24

Figure 51: Site image- large cairn 25

Figure 52: Site image- stacked stone 25

Figure 53: Site image- stone retaining wall 25

Figure 54: Site image- stone wall detail 25

Figure 55: Generic fumarole 26

Figure 56: Site map- context 26

Figure 57: Site Context- Linear Terracing 27

Figure 58: Site Context- Telescoping Terrace 27

Figure 59: Cherokee Indian silhouette 29

Figure 60: Cherokee Indians Overlay 29

Figure 61: Cherokee pottery 29

Figure 62: Cherokee making pottery 29

Figure 63: Site Concept- Point 30

Figure 64: Process of Archaeologist 32

Figure 65: Archaeologist Overlay 32

Figure 66: Archaeologists Tools 32

Figure 67: Site Concept- Field 33

Figure 68: Hiker Overlay 34

Figure 69: Hiker 34

Figure Index [continued]

Figure 70: Site Concept- Line 35

Figure 71: Program Organization 36

Figure 72: Program Diagram 38

Figure 73: Guidelines composing form 39

Figure 74: Guidelines composing terraces 39

Figure 75: Molding terraced space 39

Figure 76: Tiers of programmatic terraces 40

Figure 77: Passage through architectural terraces 40

Figure 78: Flow through spatial constellations 40

Figure 79: Section sketch of program relationship 41

Figure 80: Program and Procession through the site 42

Figure 81: Upper terrace organization 42

Figure 82: Board formed concrete 43

Figure 83: Vertical wood slat cladding 43

Figure 84: Occupation of a strata defined by the characters 44

Figure 85: Relationship between cisterns and spatial walls 44

Figure 86: Site Concept- System 44

Figure 87: Site Plan reference 45

Figure 88: Site Design- Terrace retaining walls 45

Figure 89: Site Design- Concrete walls 45

Figure 90: Site Design- Tectonic spatial conditions 45

Figure 91: Cherokee Site Plan 47

Figure 92: Cherokee guiding to water 47

Figure Index [continued]

Figure 93: Star gazing from the tower 47

Figure 94: Pottery making in the clay garden 47

Figure 95: Conversing around the fire pit 47

Figure 96: Archaeologist Site Plan 48

Figure 97: Lodging entry 48

Figure 98: Research lab 48

Figure 99: Agricultural terraces 48

Figure 100: Excavation site 48

Figure 101: Hiker Site Plan 49

Figure 102: Lodging Entry below 49

Figure 103: Gallery space 49

Figure 104: Dining hall 49

Figure 105: Observation tower 49

Figure 106: Upper terrace interpretive center plan 50

Figure 107: Central terrace interpretive center plan 50

Figure 108: Lower terrace interpretive center plan 50

Figure 109: Section through upper terrace of complex 51

Figure 110: Transverse Section through complex 51

Figure 111: Elevation view of the complex from downhill 51

1 Encapsulating History of Place

Premise

Architectural design has the ability to express the history of a place and encapsulate the significance of the past. Typically the artifacts become the foreground for understanding the history or culture of a place. Museums have expansive white walls that are the backdrop to the objects on display. Rather than uprooting artifacts from the site and displaying them on pedestals with placards dictating the history of the object, the premise of this thesis is to use architecture to set up the experience of a site without creating gallery exhibits to understand the culture and history of the place. Architecture can increase the cultural appreciation of American society by revealing historical places that operate as public functions. This thesis looks to reinterpret how design responds to a historic context and how a design project can incorporate culture and memory into a new methodology for design. Architecture can tell a story of the past and overlay conditions of the present that allow the place to stay in use. Architecture is comprised of layers; separated out as constituent elements of design. The site, context, history, and culture can be identified as various layers that drive time responsive architecture. This thesis looks at the way that space is perceived and the unconscious understanding of layers of space that tell overlapping stories of the past. The superimposition of design on a place guides the understanding of the space; using light, materials, and procession of the experience.

> *The experience and memory of humankind are laid down in layers in the physical environment, concretely and graphically. Every new part exploits ancient forms, materials and ways of making. Building is, at base, a sign of hope, a sign of society's belief in future, a gesture forward in time.*[1]

Architecture should be a vessel through which history can be retained, revived, and re-interpreted through the experience of a space. This is done through a conscious analysis of the context, understanding the history and cultural of the

1 Marja-Riitta Norri, "Six Journeys into Architectural Reality", The Architectural Review (London), 1190, April 1996, p.76.

surroundings. The evidence of time passing in architecture calls attention to history and memories of the past. Sverre Fehn advocates for a responsive architecture that responds to the palimpsest of place in a statement he made: “If you chase after the past, you will never catch up with it, only by manifesting the present can you make the past speak.”[2] The integration of architecture into a place can never alter the past and the events that have occured in the past. The past defines the current conditions of the place, the history becomes signifcant for designing responsive architecture. The awareness of the past in the design process calls attention to the significance of the place and manifestation of a new design

Objective

According to Lewis and Stout, “Architecture is the most visible physical manifestation of human culture.”[3] The understanding of the culture and history of a site will be harnessed to create a visible manifestation that brings to light significance of the past. This thesis will discuss terminology that supports the method for design, imperative to creating responsive architecture and will follow by outlining an analysis of responsive examples of architectural interventions that aim to retain the history and transform the site into a vessel for experiencing the place.

This exploration will be manifested on a site with a rich history and charged with controversy between the differnt cultural and historic groupl involved with the site in the mountains in northern Georgia. The site has three cultural groups with investment in the layers of history embedded in the site. The implementation of an architectural design that responds to the palimpsest of the place uses materials of contrast, natural light, and delicate interventions to reveal significant elements of the site. The history of the place is experienced by each visitor individually rather than the facts being displayed through artifacts and nametags. The stratification of the site creates a complex ground from which to develop a program to inform society and respond to the culture of the community. The site chosen for this investigation is located off of hiking trails within the Chattahoocee-Oconee National

---

2 Mings, Josh. "The Story of Building: Sverre Fehn's Museums. Web. 19 Sept. 2012. http://www.joshuamings.com/files/Mings_fellowship_lecture.pdf. p.7

3 Lewis, R. Barry., and Charles B. Stout. Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar. Tuscaloosa, Ala.: University of Alabama, 1998. Print. p. 1.

Forest. The Cherokee Indians are the cultural community to whom rights to the site belong, although artifacts and remains that have been found on the site are thought to predate the tribe's presence in the area. The site is used to narrate the modern culture of the Cherokee Indians and reveal the interpretation of the remains from the archaeological site.

2 Background



Space vs. Place

The context surrounding a site does not have to be visible, there are temporal aspects, layers of history that create a palimpsest of the site influencing the design approach. Aspects of the site that can be expressed but not seen include the culture, the history, and events of the past linked to memory. The context includes the extent of the land out to the property lines, but also includes the forces such as wind, water, slope, and sun that act upon the plot but are not confined to the arbitrary site lines.[1] Once a building is constructed, the context extends to include the domains impacted by the design action such as sight lines and circulation in response to the urban landscape. The temporal aspects that act upon the ground make the conditions around a site unique. The qualities of a space can define a place; the difference between space and place is related to the process of making a site unique. Space is a constructed environment that can be occupied, but place is associated with memory and a personal connection to a specific location. A place is formed when there are transactions between body, imagination, and environment.[2] When associations of memory are superimposed onto a space connections are established that transforms the space into a place. The sense of a place is "the sum total of those parts which give a particular site, area, or neighborhood a distinctive character unique to its locality."[3] Architecture becomes part of a location, it should respond to the cultural and historic relationships associated with the site.

Palimpsest of Place

Peter Eisenman and Juhani Pallasmaa use palimpsest in their architectural theories to explain how the site cannot erase what came before. Palimpsest is the accumulation of imprints left on the site that become a layered and rich history that is created based on the past conditions of the place. Below the surface of the

4 Burns, Carol and Andrea Kahn. Site Matters: Design Concepts, Histories, and Strategies. New York: Routledge, 2005.

5 Bloomer and Moore. Body, Memory, and Architecture. 1977.

6 Murtagh. Keeping Time.

ground is the aggregation of history that is translated into memories that impact the present condition of the site. Architecture is a palimpsest of layers that are a combined understanding of the site, community, culture, context, and history that define place. Memories of the community define the culture and refer to the history in relation to the context of the place. Cumulatively, they represent the progression of time. The synthesis of the element of design is a palimpsest. Architecture is exposed to the elements and through time should reveal the process of time and decay.

Architecture is a lasting addition, in time buildings "grow naturally into being part of the form and history of their place."[7] Architecture has lost its durability as designers strive for buildings that achieve perfection and attempt to transcend the passing of time. Architects have strayed from using natural materials that reveal the passing of time, instead plastics and other synthetics are being used more frequently to create a finish that does not age. Even though these materials do not reveal a transformation over time they are replaced every few years rather than being left to endure. This design project will revert back to time responsive architecture emphasized by natural materials that fosters an experience defined by the palimpsest of the place. The objective of this thesis is to have create an authentic response that reveals the woven history that defines the culture of the community.

Authenticity

Authentic architecture is true to its surroundings, defined by culture and history of the present conditions of the community. Authenticity preserves the condition of the ground, in relation to the history and context. Architecture that retains authenticity can revive the community with a structure that integrates the experience of the local community. "[Architecture] is a social art and must rest on the social and cultural base of its time and place."[8] Authenticity can be in response to a type of preservation whether restoring, renovating, repurposing, or

7 Zumthor, Peter. "Thinking Architecture". p. 17.

8 Mockbee, Samuel. "The Rural Studio". p. 110.

rehabilitating the history of the place plays a role in the formation and progression of the community and culture of the place. Close attention must be paid to the way that new design is integrated with the old to maintain authentic architecture.

"Architecture petrifies time."[9] Time is a continuous transformation, with the present always becoming the past and we can never alter this continuum. If a space is significant, the 'vessel' that revives the site should respond to the present conditions of the place and create architecture that reveals the past while maintaining an identity of its own.

Ann-Catrin Schultz explained her concept for the principles of layering in Carlo Scarpa: Layers. She defines the various layers that overlap and are juxtaposed onto one another through architecture. Schultz outlines different issues of layers that are addressed when designing responsive architecture. There is spatial stratification, material stratification, cladding, and transparency of overlapping.[10] Carlo Scarpa is the designer through whom Schultz analyzed the concept of layered architecture; and this thesis looks to follow in her methodology throughout the analysis of the museum typology.

9 Pallasmaa, Juhani. "Six Themes for the Next Millennium". p. 3.
10 Schultz, Anne-Catrin. Carlo Scarpa: Layers. Stuttgart: A. Menges, 2007. Print.

3 Precedent Analyses

Exploration into Three Distinct Architectural Works

There are two popular approaches to designing in response to existing context. The history of the context can both be preserved and maintained through a new design or; alternatively, the culture of the place can be transformed based on the new design. This thesis investigates how to design in the context of a place that is historically significant and how to respond through a new design. An analysis of three distinct architectural works was conducted to reveal the implications of design on a place with historic significance and the relationship between the new and the old.

The precedent analyses help to reveal design techniques and methods of design that respond to the memory generated from the history of the place. The analyses suggest successful methods for reviving an architecturally significant place. The issues of interest are: understanding the history of the site, the building within the site, their relationship to one another, and the relationship to the landscape. The selected precedents deal with how materials connect; multiple layers of history; and dynamic sites, some that are still active by archaeologists.



Figure 1: Castelvecchio Museum



Figure 2: Hamar Bispeegard Museum
Image Source: Rozy & Robin- flickr.com



Figure 3: Shelter for Roman Ruins
Image Source: Hèĺene Binet

4 Castelvecchio

Background

The site of Castelvecchio has a long and dynamic history that Carlo Scarpa capitalized on in his design for the renovations of the Castelvecchio Museum. Castelvecchio is located in Verona, Italy and was constructed between 1354 and 1376 as a military castle. The castle was conceived as a defense against both outside invasion and popular rebellion. Later the city became part of the Venetian Republic and the castle was used exclusively for military purposes. Only after 1923 did the castle cease to serve an exclusively military function. Ferdinando Forlati and Antonio Avena were commissioned to restore the castle as a museum. The restoration by Forlati and Avena transformed the castle making modifications that were not authentic to the original design.

Building Renovations

Throughout history Castelvecchio was renovated and in 1923 it was transformed from a military complex to a museum. The 1973 restoration to the castle by Carlo Scarpa was focused on authenticity and eliminated the false context created in previous restorations. Scarpa conducted a thorough research of the history of the site and building. He stripped down the building to the authentic layer. With a clear understanding of the history of the place Scarpa

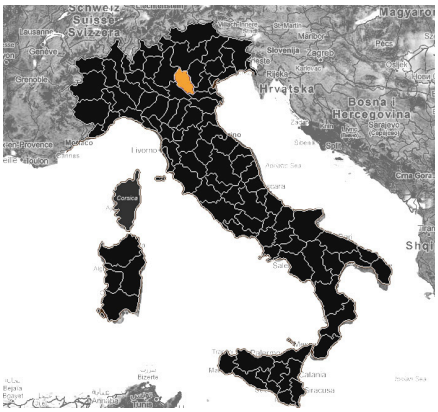


Figure 4: Verona located within Italy.
Image Source: from http://maps.pickatrail.com/europe/italy/verona.html

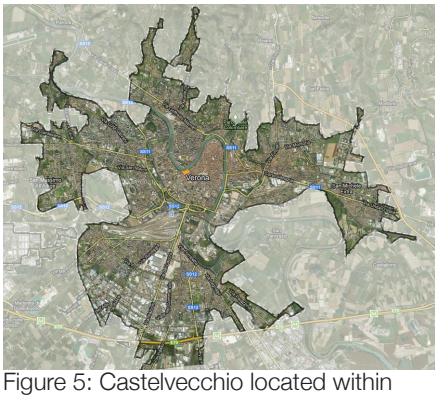

Figure 5: Castelvecchio located within Verona.
Image Source: Map of Hedmarkmuseet. www.google.com


Figure 6: Castelvecchio Museum.
Image Source: Map of Verona, Italy. www.maps.google.com

was able to create a design that held a strong relationship between old and new, tradition and modernity. Scarpa used planes to create stratifications that integrate new elements into existing spaces. Carlo Scarpa superimposed floor, wall, and ceiling planes to divide and create new interventions with Castelvecchio. The rooms have multiple readings of time; they are created through fragments that span the building's history.



Figure 7: Interior material connections.

Design Stratification

Carlo Scarpa's projects are known to address the complex relationship between old and new, tradition and modernity; he creates layers that read both simultaneously and separately. As the second designer to renovate Castelvecchio, Carlo Scarpa approached the project with a thorough understanding of the history of the site rather than renovating the castle to appear as it did at some irrelevant point in history. The Castelvecchio museum modified by Scarpa is a place that is understood as a compilation of layers; from any point on the site you cannot understand the entirety of the project because of the intricacies that expose the history and culture of the place. The delicacy of the material connections creates an evocative space that leaves everything exposed to be discovered. The materials integrated by Scarpa were carefully selected based on texture and grain that aid in revealing the history of the

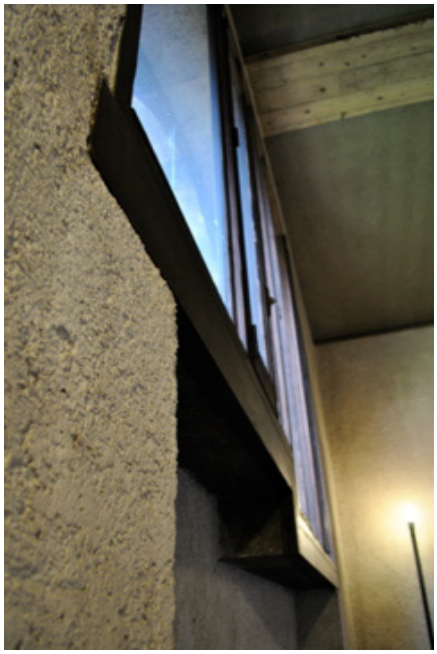


Figure 8: Interior material details exposing connections.

place. The grain of the materials implies how to move through the space as well as relate to the materials from the past. The exploration of the architectural details reveals an understanding of the history and creates an experience relative to the palimpsest of the place. Carlo Scarpa is renowned for his museum interventions that carefully manipulate the existing conditions of the site, including buildings, to expose the history and create a vessel that is intertwined in the ruins of the site. Scarpa used subtraction and the peeling of layers to expose various layers of history within singular spaces.



Figure 9: Occupying the walls of the fortress

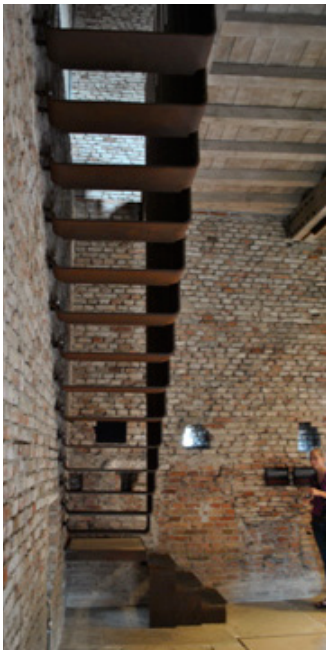


Figure 10: Creation of simple but evocative stair.

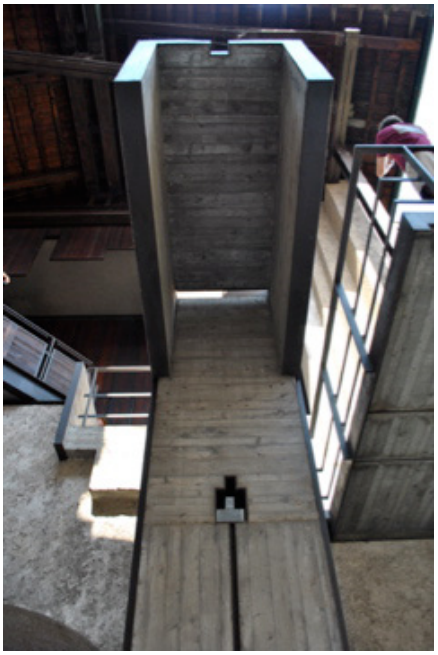


Figure 11: Exterior courtyard, detail of construction.



Figure 12: Fortress wall details of openings



Figure 13: Layers of the roof



Figure 14: Design of the new, support for the artwork



Figure 15: Textures of the layered histories of the castle



Figure 16: Merging of two spaces through old and new materials

5 Archbishopric Museum of Hamar

Background

Sverre Fehn's Archbishopric Museum of Hamar [Hedmarkmuseet] enhances the experience of the historic place and evokes memories of the past through the addition of the museum in 1979. Hamar is the largest city in the county of Hedmark with an interesting history that is intertwined in Sverre Fehn's design. The city is centered on Mjosa, a lake, and located on some of the most fertile agricultural land in the country.

Hamar was originally established in the Middle Ages, between 1030 and 1152 and persisted into the 17th century when the city of Hamar was abandoned and all market activities were moved to Oslo, Norway by the government. The modern city of Hamar was established in 1849 as a merchant town. Many of the structures from the Middle Ages remained and existed as a central point in the new city, specifically the Hamar Cathedral. The modern



Figure 17: City of Hamar within Hedmark county in Norway.
Image Source: Map of Hamar. www.maps.google.com



Figure 18: Interior Circulation
Image Source. Collection by J. Shields

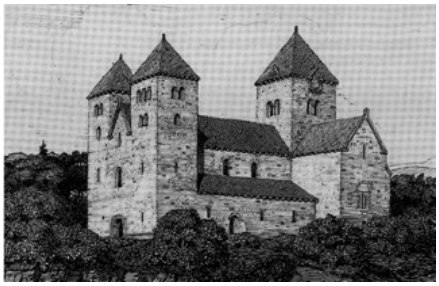


Figure 19: 16th Century Palace.
Image Source. http://www.enjoyfoodtravel.com

city of Hamar was populated with farmhouses.

Building Renovations

There are four temporal layers intertwined within the site of the museum; the ruins of the 16th century Bishops' fortress, the 18th century barn-like enclosure, the new concrete ramp and elements of the museum, and the exhibit of the archaeological ruins. Fehn creates a path that weaves through time winding through the building without dictating the pace or sequence. A dialogue exists between past and present and between interior and exterior.

The textures of the materials reveal the history of the place and create a visual understanding of the layers of time that have impacted the site. The museum component is perched above the archaeological excavation sites but at the same time is grounded in the site. The movement through the site is sculpted and reveals the history of the site through the experience of the place. Fehn creates a path that is solid but the experience of the path is one that meanders through the building. This juxtaposition allows the viewer to interpret his or her own memories guided by the reveal of the history. Fehn contrasts the new from the old but in a way that responds to the stratification of the



Figure 20: Material Detail
Image Source: Collection by J. Shields



Figure 21: Material Contrasts
Image Source: Collection by J. Shields



Figure 22: Entry Detail
Image Source: Collection by J. Shields



Figure 23: Exterior Cladding Condition
Image Source: Collection by J. Shields



Figure 24: New Exhibition Space
Image Source: Collection by J. Shields

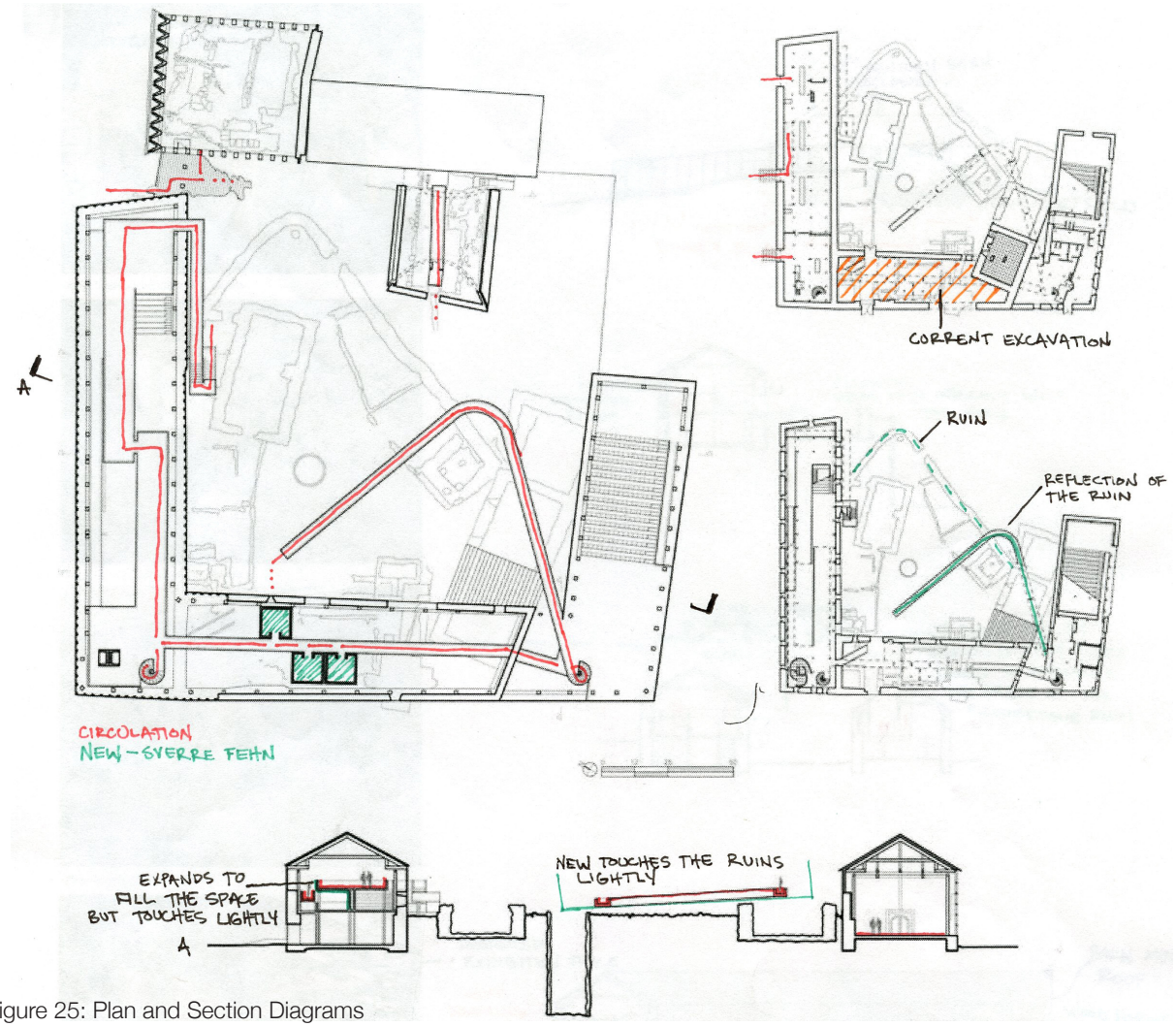


Figure 25: Plan and Section Diagrams
Referenced from: Josh Ming

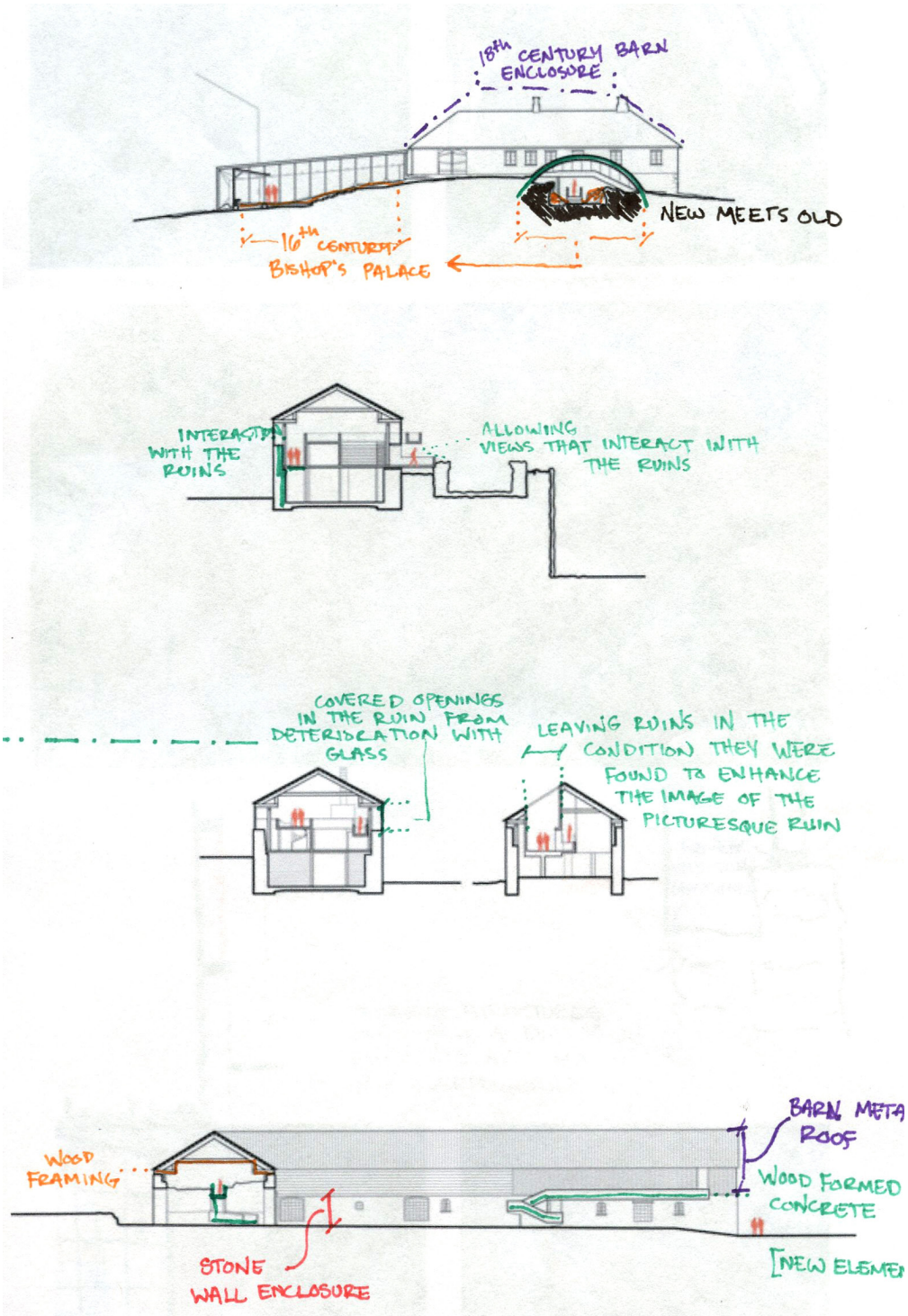


Figure 26: Plan and Section Diagrams

Referenced from: Josh Ming

6 Shelter for Roman Ruins

Background

Peter Zumthor's Protective housing for the remains of the foundations of two Roman buildings is essentially a protective case for the archaeological finds. The ruins are located in Chur, Switzerland and Zumthor's shelter was completed in 1986. The shelter wrapping the ruins is an abstract reconstruction of the structures that occupied this space. The only remains are the roman building foundations.

Design Implementation

The structure allows light and air to pass through the wood slat walls. The entry into the structure is a protrusion that distinguishes a change between past and present. The entry is suspended delicately out of the main structure extending out to invite passersby in. The shell that encases the ruins is an abstract representation of the Roman volumes. The wooden slats of the tectonic structure contrast with the heavy stone wall remains distinguishing between the old and the new. A steel footbridge runs the length of the buildings and is raised above the ground touching the ground inside the structure delicately. The space is dimly lit but allows natural light to filter into the spaces. The light washes into the space illuminating the ruins and filling the space. The new elements are slender and delicate contrasting from the monolithic ruins.

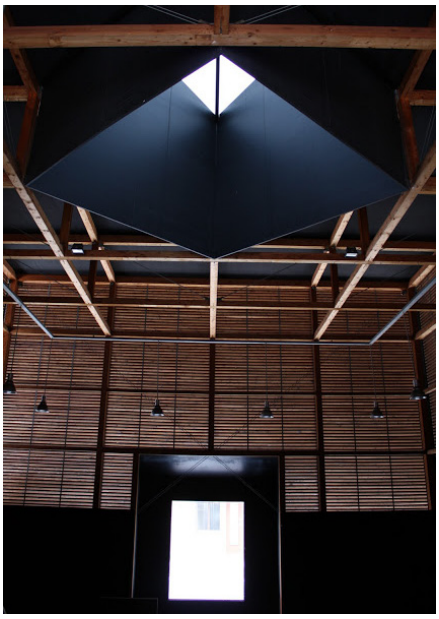


Figure 27: View within shelter
Image Source: B. Moedinger



Figure 28: Circulation through ruins
Image Source: B. Moedinger



Figure 29: Contrast of Ruins from Shelter
Image Source: Hèĺene Binet



Figure 30: Suspended Entry
Image Source: Shigeo Ogawa & Shinkenchiku-sha





Figure 31: Interior vs. Exterior material tectonics
Image Source: Hèĺene Binet

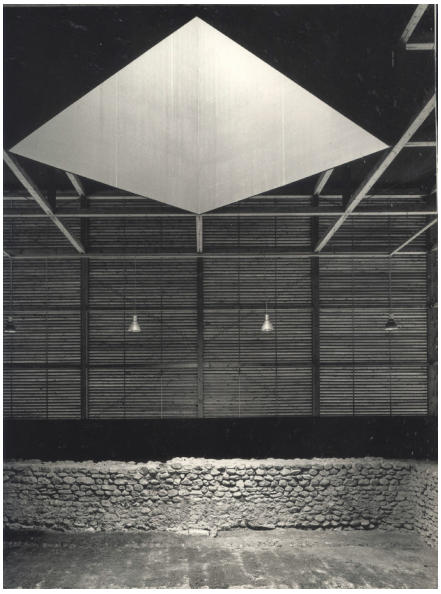


Figure 32: Illuminated ruins within
Image Source: Hèĺene Binet

7 Reflection of Precedents

Overlay with the American Vernacular

The precedents presented are located outside of the United States because there is a lack in responsive architecture to the palimpsest of place in the United States. There are successful examples of interventions that respond to places of significance but there are also many examples that have not integrated memory and history as part of the design constraints. The examples above used a contrast in material from the older architecture and remains that were found from the new design implementations. The dialogue between the old and new is achieved through careful analysis of the remains, the new material needs to contrast but remain a humble material that allows the historical conditions to speak rather than become muddled by newly fabricated materials.

In the above examples: Castelvecchio is an infill to occupy an existing structure, the Hamar Bispeegard Museum is a response for the need of multiple functions, and the Shelter for Roman Ruins is a delicate shelter constructed over the ruins. Each of these pays particular consideration to the circulation. The circulation is the element that brings the visitor to and through the site. The circulation is a defined path, in all three conditions that path is clearly defined even though there is fluidity in the order of how you move through the sequence of



Figure 33: Artifacts in courtyard - Scarpa



Figure 34: Ruins from Hamar - Fehn
Image Source: www.worldofbuildings.com



Figure 35: Suspended Walkway- Zumthor
Image Source: www.flickr.com/photos/dog-pochi/3651392577/

spaces. The attention to detail is evident in the texture of the material in the Hamar Bispeegard Museum and in the Shelter for Roman Ruins. Carlo Scarpa emphasizes the details of material connections in a way that is respectful to the materials and construction techniques of the old architecture.

Historic places in America are not approached with an authentic approach to repurposing the space. Colonial Williamsburg in Williamsburg, VA is an example of a town that has been recreated to mimic the original conditions. Authentic buildings were torn down in order to recreate ones from a different time period that had once existed on the site. A more authentic approach would have been to maintain the original structures and recreate missing buildings while making sure they appear differently so that there is a clear distinction between original and recreated. Colonial Williamsburg is successful in creating an atmosphere to experience the culture and history of the place. In Colonial Williamsburg there is no separation between the past and the present, time has been frozen in this instance to allow the experience of what the town was like during a specific moment. Colonial Williamsburg is an outdoor museum with characters to play the role of the people in the town. The method for revealing the culture and history of Colonial Williamsburg is not authentic and this distorts and defines specifically what the experience should be rather than allowing for interpretation.



Figure 36: Recreation of Colonial Williamsburg
Image Source: The Colonial Williamsburg Foundation

Experiencing History and Culture

Based on the investigation of successful examples of time responsive architecture I have revealed a series of methods for integrating new architecture within ruins. Architecture integrated within a historic place can either infill, shelter, or bridge ruins of the site. To be successful the design implementation cannot be as simple as infilling, sheltering, or spanning but should create layers of the past overlaid with layers of the present that compliment and contrast one another.

The history and culture of a place can be experienced without the space being occupied as a museum. A museum is the standard function of a site with historic context. The design implementation to reveal the essence of the place should be part of authentic conditions. The application of materials to a new design should be carefully considered, materials are the most obvious visual element that could come in conflict with the ruins. The objective is to use humble materials that are different from the old materials but do not overpower the texture, color, and quality of the existing material. The location of the site and the surroundings can also define the materials of the design that allows the strata of the site to be revealed.



Figure 37: Infill to occupy an existing structure

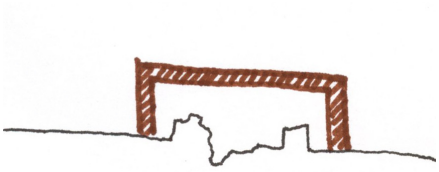


Figure 38: Construct shelter of the ruins

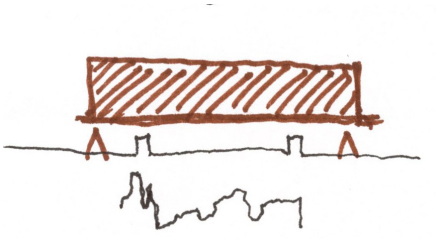


Figure 39: Excavating ruins around temporary structures

8 Site Introduction: 9UN367

Site Location

The site is located within the Chattahoochee National Forest in the mountains of Northern Georgia. The site is part of an archaeological zone, marked as 9UN367. The site can be accessed from a large network of hiking trails. The Arkaquah trail runs adjacent to the site and terminates at the beginning of the trail into the site. The Arkaquah trails extends from the Petroglyphs, 9UN3, at the entry of the site across Buzzard Roost Ridge to the peak of Brasstown Bald, a five mile hike. Brasstown Bald is the highest peak in Georgia at 4,784 feet and there are branch access trails to the Appalachian Trail connecting the Arkaquah trail into a larger system of trails from Brasstown Bald Peak. The Appalachian trail spans 2,181 miles from Springer Mountain in Georgia to Mount Katahdin in Maine.

The petroglyph site marks the terminus of the Arkaquah hiking trail adjacent to the parking lot for the trail leading into the site. The Petroglyphs are carved into six soapstone boulders articulating stories of the area. The Petroglyphs are mainly of tracks, imprints from all different species.

The Vent Trail leads into the site from the road and extends to the dormant volcanic vent. The Vent Trail used to be an old logging road that varies between eight and fourteen feet wide. The site is bounded by two ravines that run East to West with a small stream flowing through during most of the year. Along the Track Rock Branch there are remains of retaining walls that have been destroyed or

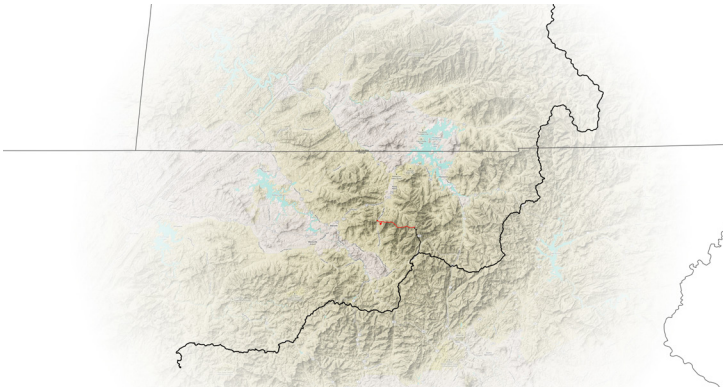


Figure 40: Regional site- Appalachian Trail
Referenced from: Google Maps



Figure 41: Regional site- State of Georgia
Referenced from: Rand McNally & Co.

covered for road improvements. The Northwest corner of the site is reached first from the Vent Trail moving into the lower retaining walls.

Visible remains on the site consist of retaining terrace walls, remaining foundation walls, and cairns. The terraces were constructed into the slope to create agricultural land, the different levels of terraces defined different uses of the site. Rectangular foundations were found just beyond the acropolis plaza. The walls and cairns were created by stacking fieldstone. The cairns have multiple purposes. Some are markers along trails while others are burial mounds associated with battles that were fought around the site between either different Indian tribes or with white settlers.

At the bottom of the site wrapping around toward the ravine. The wall begins on a large boulder and is about 3' tall along the ground and much taller where it engulfs the boulder. The ravine is directly north [left side of the image] and the wall is elevated just above the logging trail that leads into and through part of the site from the road. This is the tallest visible portion of a wall on the site although there could be a lot more found through archaeological excavations.

The lower terraces are mainly concave walls that are terraced up the site that range up to about two feet. Climbing the site more stacked stone cairns populate the site among the terrace walls. The Village terrace is elevated

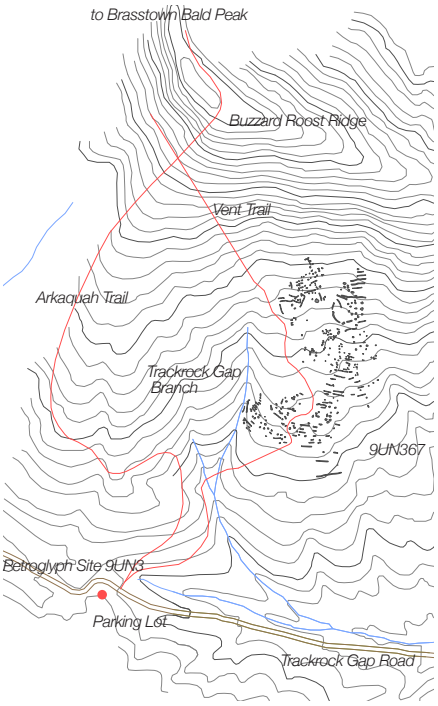


Figure 42: Site Context- Trail Network

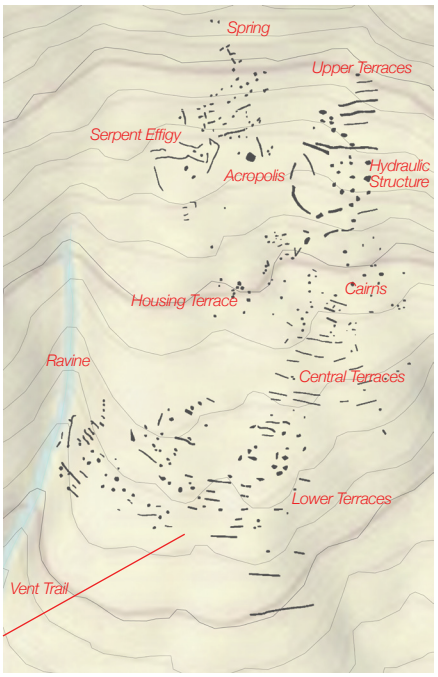


Figure 43: Site Remains

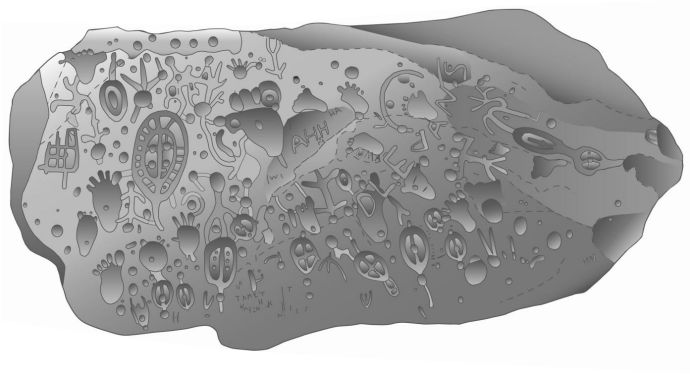


Figure 44: Petoglyphs- boulder 6
Image Source: http://www.fs.usda.gov/detailfull/conf/home/?cid=stelprdb5227039&width=full

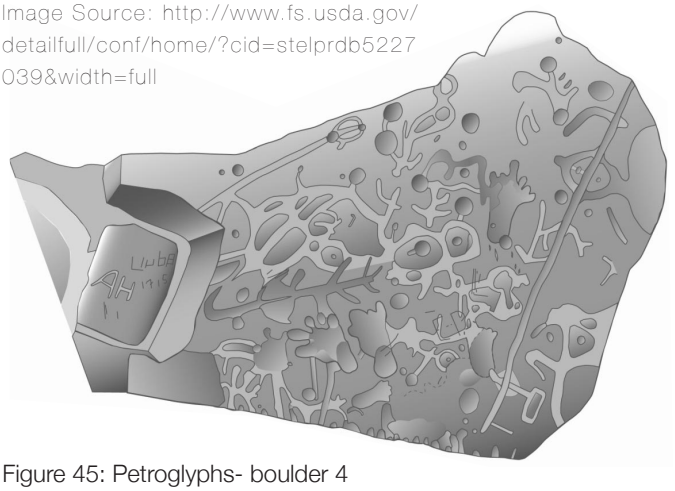


Figure 45: Petroglyphs- boulder 4
Image Source: http://www.fs.usda.gov/



Figure 46: Petroglyph image
Image Source: www.flickr.com

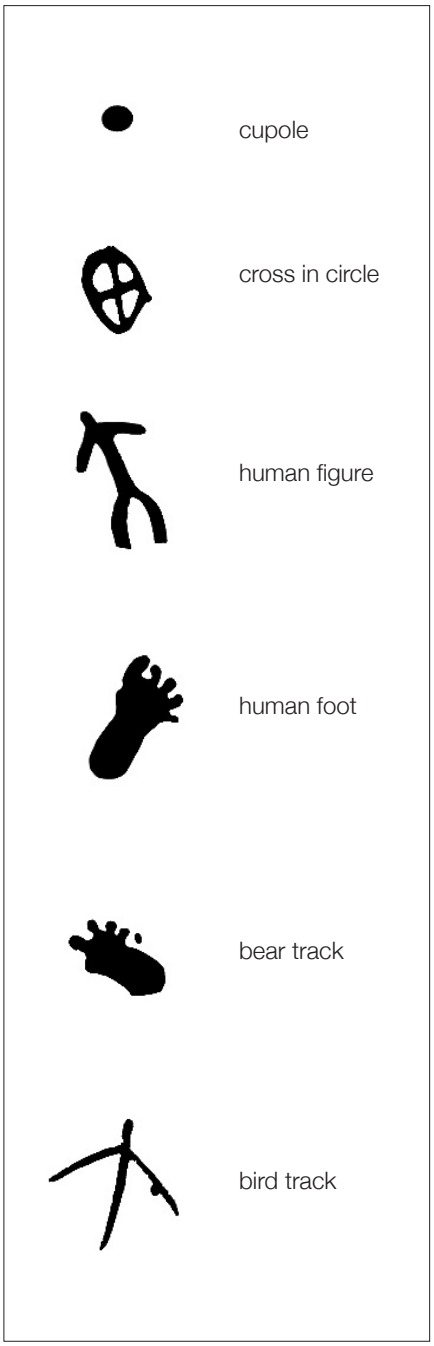


Figure 47: Petroglyph symbols
Referenced from: http://www.fs.usda.gov/

on a mound that was expanded on to create locations for housing or gardening. The hydraulic structure is defined by a semi-circular stone wall, approximately one hundred and twenty feet in diameter. The acropolis is due North of the hydraulic structure on a U-shaped man-made plaza. East of the acropolis continuing up the slope are rectangular and round structures of buildings. North of the acropolis are two effigies to different deities.



Figure 48: Site image- lower terrace walls
Image Source: http://rockpiles.blogspot.com/2011/12/

History of the Site

This archaeological site in northern Georgia has only recently been discovered and contains ancient Petroglyphs, rock formations, sophisticated irrigation systems, and earth mounds. Archaeological excavations still need to be completed to get a better understanding of the origin of the ruins. It is believed by local archaeologists that the ruins are a Mississippian civilization, a mound-building Native American culture. There are controversial articles written



Figure 49: Site image- multiple terraces



Figure 50: Site image- lower wall

by Richard Thorton that claim the site to be a Mayan civilization.

This site, regardless of the cultural ties, is a significant historic and cultural site that is currently being unintentionally destroyed. The discovery of the site has been publicized and has drawn hikers out to the site. In explorations of the site archaeological remains are taken, destroyed, and altered. If these public ruins are not protected Georgia and the United States can lose a significant piece of history.

The archaeological zone at Track Rock Gap is a half-mile square that rises 700 feet in elevation up a steep mountainside. The site has a variety of names that define the place based on adjacencies to towns or other landmarks.

The age of the civilization is not verified; various soil samples have resulted in an array of dates that range from 141 to 2000 years



Figure 51: Site image- large cairn
Image Source: http://rockpiles.blogspot.com/2011/12/



Figure 52: Site image- stacked stone



Figure 53: Site image- stone retaining wall



Figure 54: Site image- stone wall detail

ago. Visible on the site are at least 154 stone masonry walls for agricultural terraces, plus evidence of a sophisticated irrigation system and ruins of several other stone structures. There are speculations that much more may be hidden underground.

The design intervention should create time responsive architecture that embraces the culture of the place should be intertwined into the surroundings: the landscape, the community, and the culture.

Site Overlay

The Vent Trail terminates in a dormant fumarole. A fumarole a result of volcanic activity that leaves a hole in the Earth's crust that vents volcanic gases. There are spiritual connections that the Cherokee have related to the fumarole. The chimney-like hole where vapor came up out of the ground was seen as being from the immortals who had a townhouse and fire under the mountain. The site should remain relatively untouched to allow for an authentic interpretation of the place.

The site needs to be retained and revived to provide an experience of memory and history to the public but "in its current state, the enormous scale of the original town is difficult to appreciate, unless the visitor spends hours of vigorous hiking up and down the steep slopes."[11] This site as it is being discovered

11 Sustainable Land Development Initiative. http://www.triplepundit.com/



Figure 55: Generic fumarole
Image Source: www.flickr.com

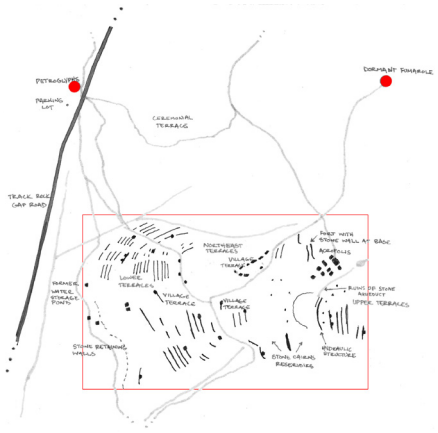


Figure 56: Site map- context

reveals an experience that shows how nature took back a place, lived in by mankind for hundreds of years. This site is charged with layers of history and culture that overlap with adjacent conditions of the landscape and surrounding conditions. A careful manipulation of the place will allow an experience of the history intertwined with this archaeological zone.

To begin to respond to the site one must first understand the culture of the Cherokee and how they are connected to the site. Also, the archaeologists' process for uncovering the remains can be achieved through various methods. The archaeologists need to be respectful of the sacred ruins on the site while still being successful in uncovering the history of the site. The formal design moves should be derived from the history of the site, the integration of an interpretive center has an unlimited number of possibilities of where it can be placed on the site and how it interacts with the ground and the ruins.

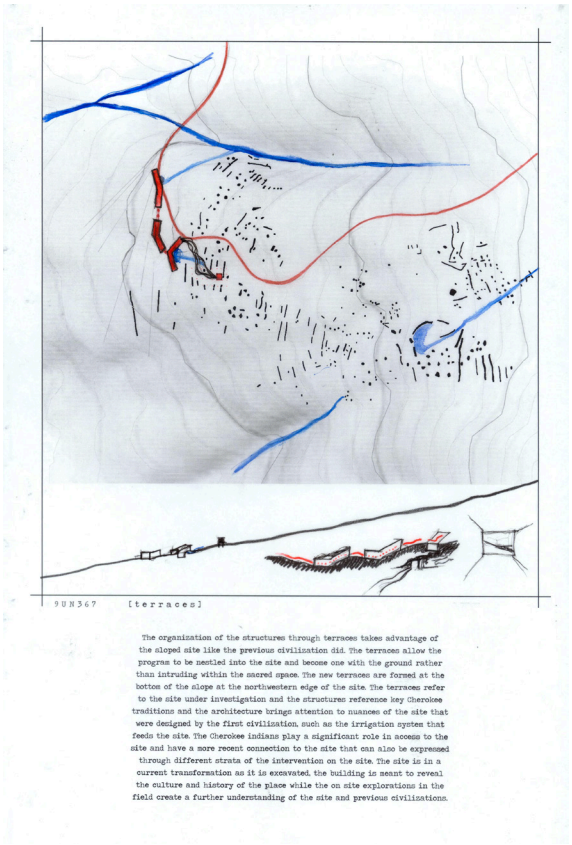


Figure 57: Site Context- Linear Terracing

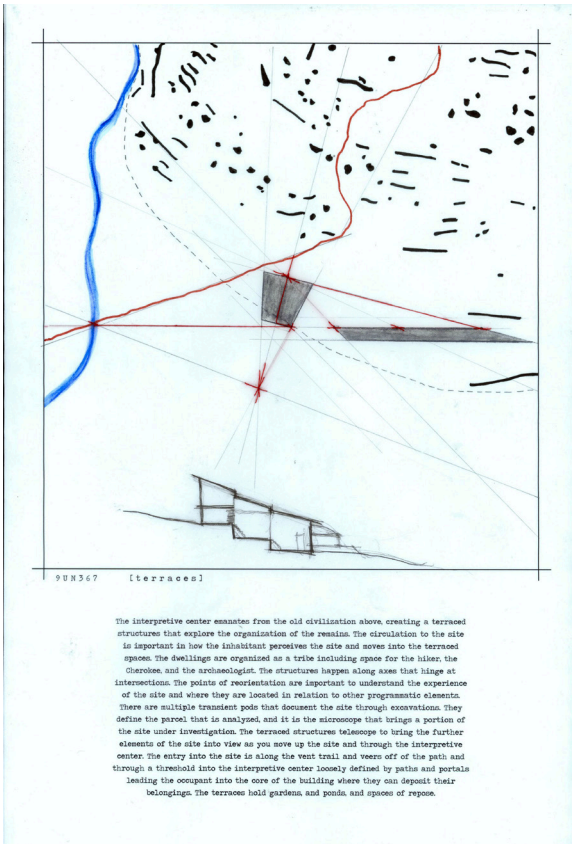


Figure 58: Site Context- Telescoping Terrace

9 The Cherokee Indian



Background

The Cherokee Indians have significant ties to the site mainly as a result of the ownership of the land by the Cherokee Nation since 1785. Trails lead through the region utilizing the ancient Vent Trail that leads through the site. Some of the cairns, mounds of dry-stacked stone, mark burial mounds of deceased Cherokee members fallen from battles. There are also cairns that act as markers to various trails and become landmarks along the trail.

The Cherokee have a sacred connection to the land and have a strong belief system with long standing traditions that have lasted into modern times. The numbers four and seven play an important role in the rituals that the Cherokee have established. The four cardinal directions are important for orientation with each direction coordinating to a color: East is red, representing victory and power; West is black, representing death; North is blue, representing sadness and defeat; and South is white, representing peace and harmony. There are three additional directions that the Cherokee reference being above, below, and here. There are four seasons that are defined by the suns orientation and observing the sky. The celestial patterns and constellations played a significant role in the Cherokee's beliefs, they took part in star gazing.

The Cherokee revere the owl and cougar as well as pine, cedar, spruce, holly, and laurel trees. The Cherokee are a culture that makes pottery using ancient traditions. The pottery is made with the sacred elements of fire and water. Fire is never extinguished, the Cherokee have a member of the tribe who tends to the fire constantly, spreading fire throughout the village as it is needed. The fire is constructed as an "X" so that gathering around the fire does not define an orientation. The water is nourishment, a source to cleanse, and a source to create food through farming. The Cherokee Indians gathered wild food and cultivated corn, beans, and squash. They also adopted traditions from the Europeans growing peaches and watermelon. The Cherokee have a legacy of passing down stories orally from one generation down to the next. There are seven Cherokee clans with seven ancient ceremonies that occur annually and the relationships within the tribe were more significant than family ties.

Application

The Cherokee have a connection to the archaeological site, 9UN367, that needs to be understood and considered in the exploration of the site by archaeologists and hikers. The Cherokee used the Vent Trail as a major trading route that leads to the Etowah mounds, they also have an upstanding tradition to add rocks to the burial mounds of their ancestors. The Vent Trail begins at Petroglyphs at Trackrock Gap that show markings of the tracks of various species and the Vent Trail terminate in a dormant fumarole. A fumarole is a result of volcanic activity and it emits steam from a fissure in the ground surface. The Cherokee believed it to be a chimney-like hole where vapor escaped from the fire that the immortals had in a townhouse under the mountain.

The Cherokee Indian represents points on the site, centered around the clay garden, the ceremonial fire pit, and the burial mounds. These moments of stasis are about reflection and understanding of their culture and history and how it has evolved over time.



Figure 59: Cherokee Indian silhouette

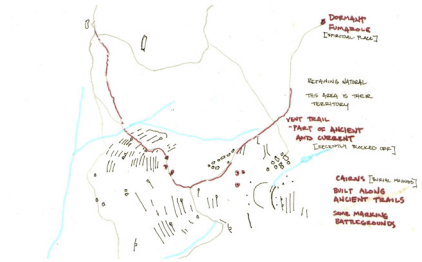


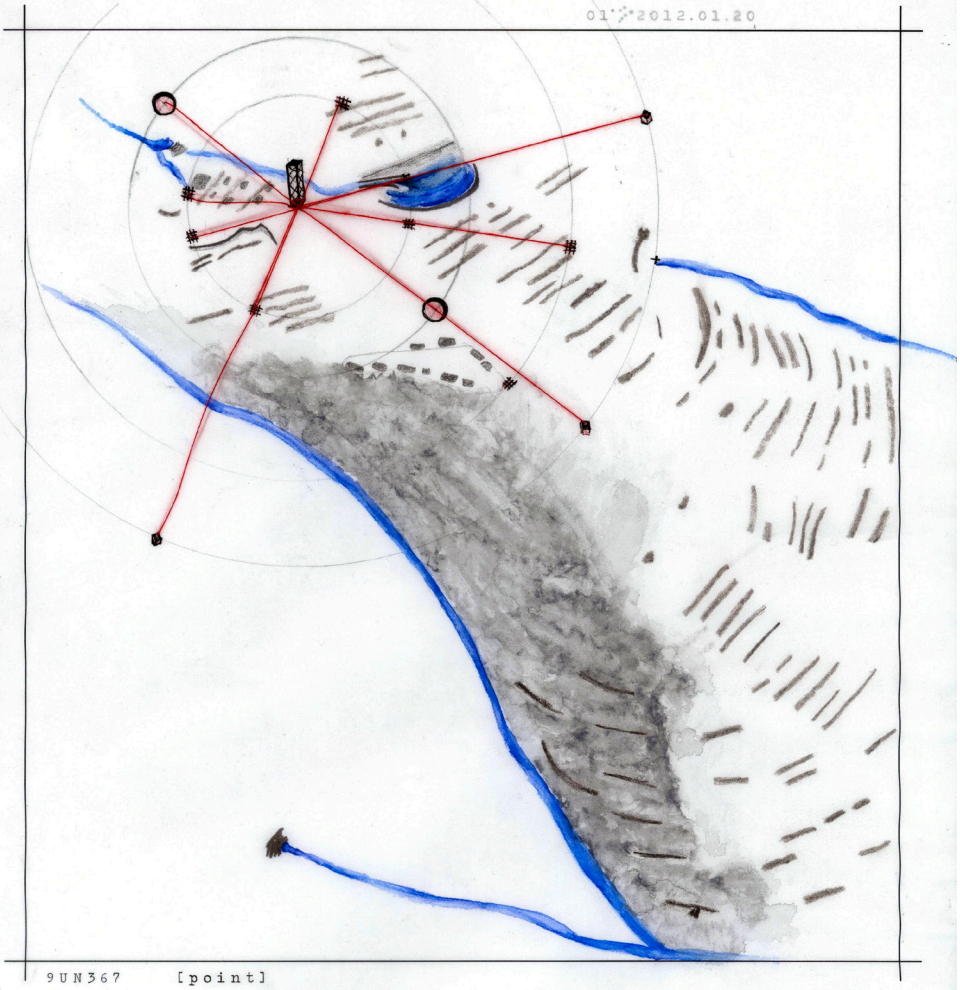
Figure 60: Cherokee Indians Overlay



Figure 61: Cherokee pottery
Image Source: http://www.wcu.edu/WebGraphics/cherokee_potters.jpg



Figure 62: Cherokee making pottery
Image Source: http://www.icollector.com/Cherokee-Pottery-Jar_i9828112



The altar on the acropolis is the point that the site is organized around. The acropolis is assumed the most significant part of the site historically and the site will evolve and develop from the altar. The altar will have a strong significance to the Cherokee Indians and its relationship to the stream that flows into the site just above the acropolis, due East. The Cherokee Indians are provided two 'sites', the first is a gathering point for everyone on the site where the 'chief' can tell stories of the past that help reveal the culture of the site. The second 'site' for the Cherokee Indians is at the top of the site where the stream that nourishes the terraced complex pools and enters down into the site. The archaeologist will potentially find the most significant information surrounding the acropolis, a workspace is provided at the point of the altar embedded below the surface emerged in the underbelly of the site. The field excavators will have temporary structures that branch from the beacon marking the altar on the acropolis. The transient hikers have shelter at the outer edge of the marked archaeological zone. The hikers move inward experiencing the site from the different perspectives of the Cherokee Indians and the archaeologists.

Figure 63: Site Concept- Point

10 The Archaeologist



Background

The archaeologists coordinates work in horizontal stratifications marked by X, Y, and Z axes. Archaeology is a systematic study revealed mainly by excavation. Archaeology consists of field study that includes written record, drawn record, photographic record, and physical materials taken from the site. Following field study finds records are created, post-fieldwork is completed, and finally interpreting evidence resulting in published documentation.

The field study is the most extensive and also the most invasive. Field study can be done through a series of different methods based on the extents of the information that needs to be revealed. Excavation is destructive because the ground removed during the excavation can never be reconstructed, the past is gone forever. The obligation of the archaeologists is to create a series of stories or interpretations that extensively document the site and analyze what the past may have been like.

Archaeologists have obligations as well to maintain archaeological sites. The local community is a major source of information about the sites, affecting the type of field work that should be implemented. The archaeologists work from a grid, they survey the site to be able to precisely document the work completed on the site. They work from different scales of grids based on if they are walking lines or a plot that they are excavating within.

All of the minute details about the site are important to document because the information will be lost forever after the excavation has been completed. Information may not be significant at the time of the excavation but something could be found later in the dig that could bring light to something found on the site earlier in the dig and if the information was documented accurately the archaeologists can make more appropriate conclusions about the history of the site. The written record documents coordinates, site code, length, diameter, height, depth, soil color, soil texture, soil consistency, coarse components, stratigraphic relationships, as well as thoughts, ideas, and interpretations of the findings as they are uncovered. The bond of stone walls can help date the strata of the site. The collected records include artifacts, ecofacts, and environmental samples. The post-fieldwork can be

more intensive than the fieldwork. Post-fieldwork cannot be planned because plans need to be flexible during the excavation process based on the finds.

Application

Archaeologists have already been involved on the site, 9UN367, to determine if it was significant in being preserved as an archaeological zone. The archaeologists tested a few different areas of the site to date the site and get an understanding of the type of civilization that occupied the site. The archaeologists precisely document plots divided into squares for excavation. The archaeologists document the process and label the quadrants as Test Units; TU1, TU2, TU3...Etc.

The archaeologist is a field, they overlay a grid across the site and occupy different regions of the site. The archaeologists live and work on site to maintain and research the ruins.

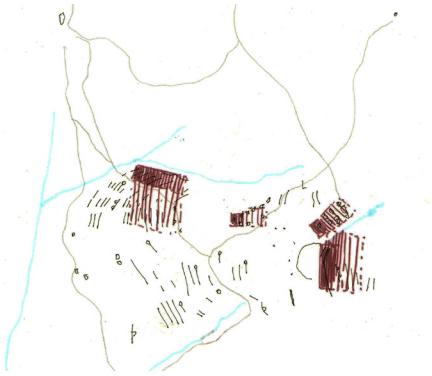


Figure 65: Archaeologist Overlay

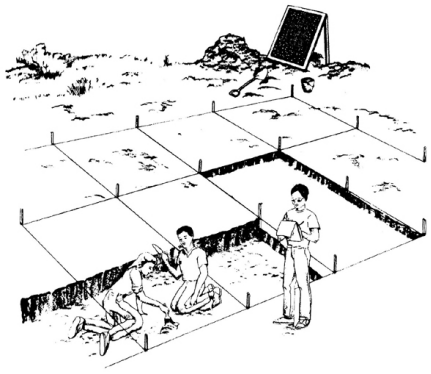


Figure 64: Process of Archaeologist
Image Source. Ward, H. Trawick, and R. P. Stephen Davis, Jr. 1999. Time Before History: The Archaeology of North Carolina. Chapel Hill: University of North Carolina Press. [Figure 5.18.]

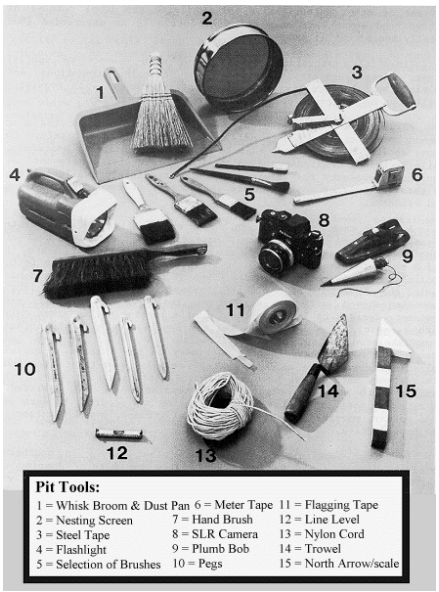


Figure 66: Archaeologists Tools
Image Source: http://bcheritage.ca/artifacts/kosapsom/tools.htm



Figure 67: Site Concept- Field

11 The Hiker

Application

The hiking trails running through the site connect into a larger network of trails, leading from the Vent Trail to the Arkaquah Trail to Brasstown Bald Peak and from there to the Appalachian Trail. The hiker is a visitor and could be interested members of the local community, out-of-state visitors interested in the hike, or travellers from the Appalachian Trail.

The hiker occupies a line, they move sequentially along a path with moments of stasis happening at key visual intervals. The hiker moves along a defined trail and has a heightened awareness of the wooded surroundings observing sights, scents, sounds, and textures.

Within the interpretive center complex the hiker occupies a threshold above the surface of the ground, always being elevated above the ground to move into a space designed for the hiker. On the site the hiker can assume the role of the other characters but only when they are entering program related to that character.

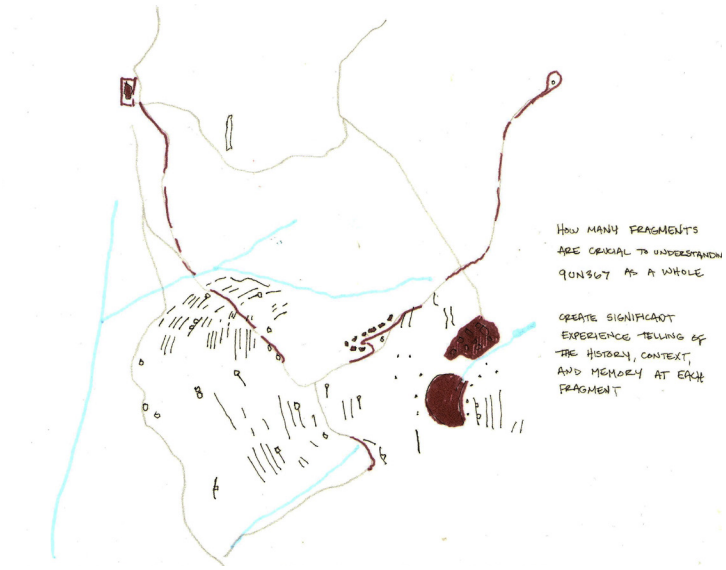


Figure 68: Hiker Overlay



Figure 69: Hiker
Image Source. http://www.immediateentourage.com/2011/11/serious-about-hiking.html

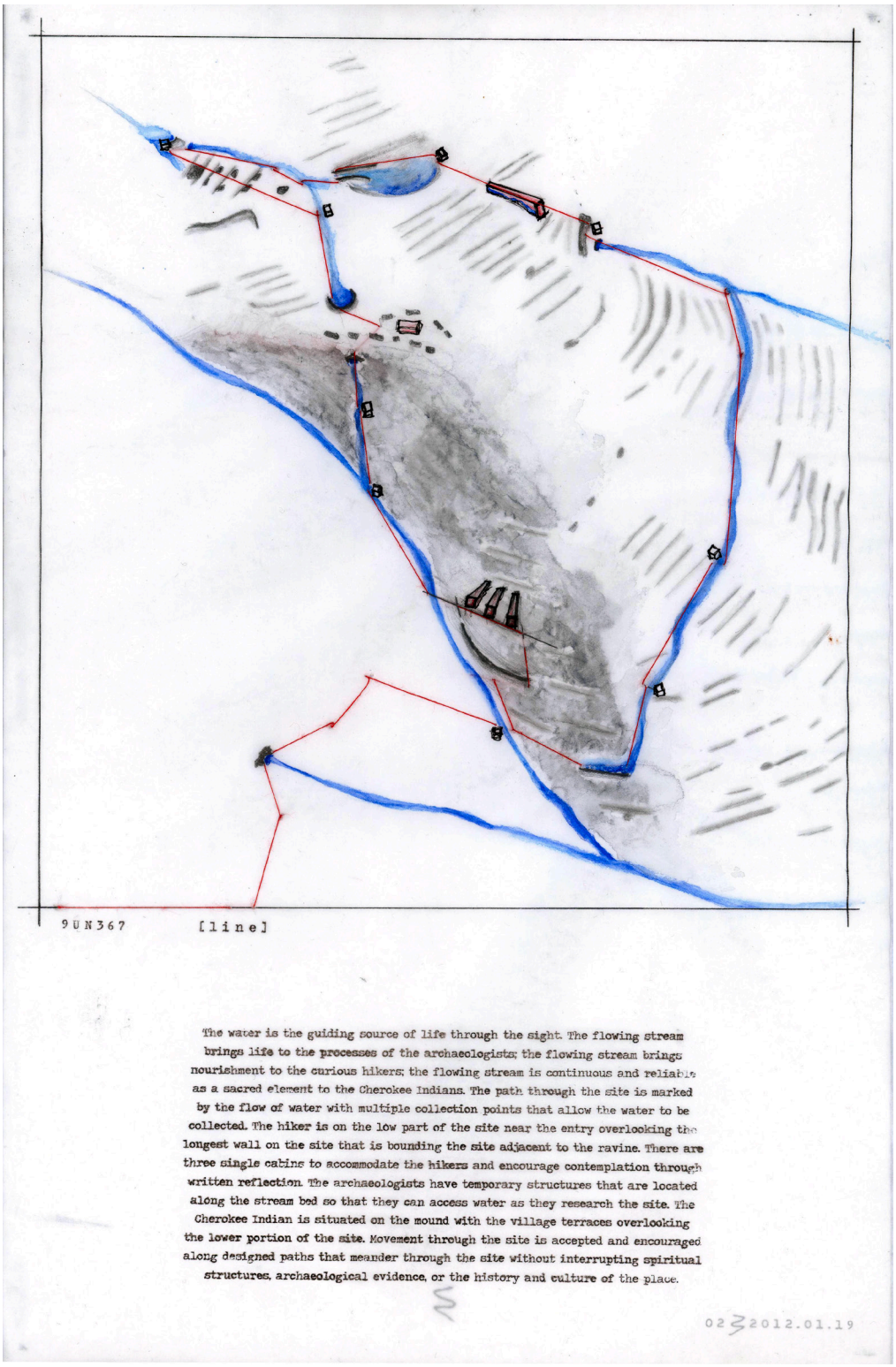


Figure 70: Site Concept- Line

12 Project Narrative

Programmatic conditions

Creating an architectural intervention on a historically significant site outside of an urban condition relies on the creation of a public facility that allows people to experience the place. The program will be catered to the three users of the site: the archaeologist, the hiker; and the Cherokee Indian. The aim of this thesis is to design an overlay of spaces that applies to the stratification of users within the site. The site should be designed as a sacred space understood through multisensory experiences that reveal the culture and history tied to the site. The Cherokee Indians local to Georgia see the site as a sacred space and the intervention will strive to maintain this condition. The approach to preservation of a place with cultural value can be seen as similar to the design of a memorial. To quote Jackson, the design of a memorial "is not a matter of beauty or of use or of an age; it is a representation of emotion."[12] Preservation has to address a purpose, the objective of creating a space where the public can experience an ancient culture that has been retained authentically. The main objective is to create an atmosphere that evokes emotion within the visitor. Atmosphere is generated by a form of perception that can be manipulated subconsciously. Subliminal priming can suggest an emotion that is evoked subconsciously.

The new method for design compiles these layers of time into a place that evokes memory of the past. Intervening on historical sites entails creating a method

12 Jackson. "The Necessity for Ruins".

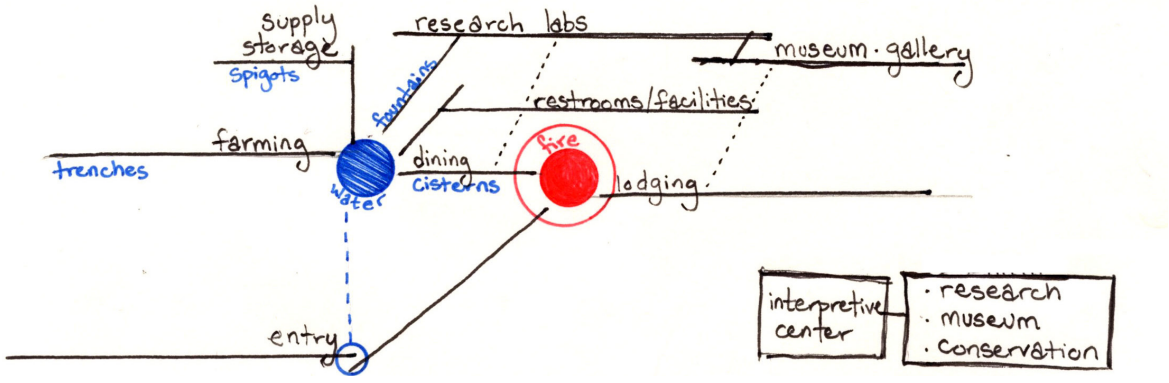


Figure 71: Program Organization

for understanding what instills memories of the past into a personal experience and how they are incorporated into the design of the architecture of place. The memory that is significant in revealing from within historically significant structures represent the temporal phenomena that creates the building's identity and ties it to the place. The issues of how responsive architecture is executed revolve around the response to memory and the way individuals perceive a place. Architecture that is integrated within the history of the place, reveals the history through the display of information, experienced through multisensory architecture. This design elevates the role of experience and multi-sensory observation and integrate them into the design process. The role of the museum is to create a place that unravels as the visitor moves through the space, reorienting them to focal points of experience until the layers of the space are compiled to create the full perspective and understanding of the place. Experience is not understood from a single view, it is fragmented and enmeshed with layers of time, and qualitative characteristics of light, sound, touch, and other multisensory characteristics. The design of the place is created from a projected experience that reveals layers of time superimposed into the vessel that retains the history of the site.

Program Introduction

The implementation on the site is a 'village' of structures that becomes an interpretive center to reveal the culture and history of the place. An interpretive center is focused around interaction between the space and the occupant, using the architecture to reveal the experience. Meandering through the site the objective of the architecture is to stimulate the discovery process, to reveal knowledge about the place. The interpretive center will be an educational facility to provide information: to the hiker about the Cherokee Indians, to the hiker about the archaeologists' research, to the archaeologist about the past of the Cherokee culture, and to the Cherokee about the uncovered remains discovered by the archaeologist. The three characters operate on different strata of thresholds, and in the discovery of the site they can assume the role of one another. The interpretive center aims to reveal the history of the site as it is excavated by the archaeologist and reveal the past and present culture of the Cherokee.

13 Program Analysis

Interpretive Center

Typical Occupancy [20]

- computer work stations [4]
- cisterns [3]
- large archive room
- crop fields [2]
- gallery
- collection pond
- lab benches [2]
- dining hall
- lodging [6] [5]
- observation deck

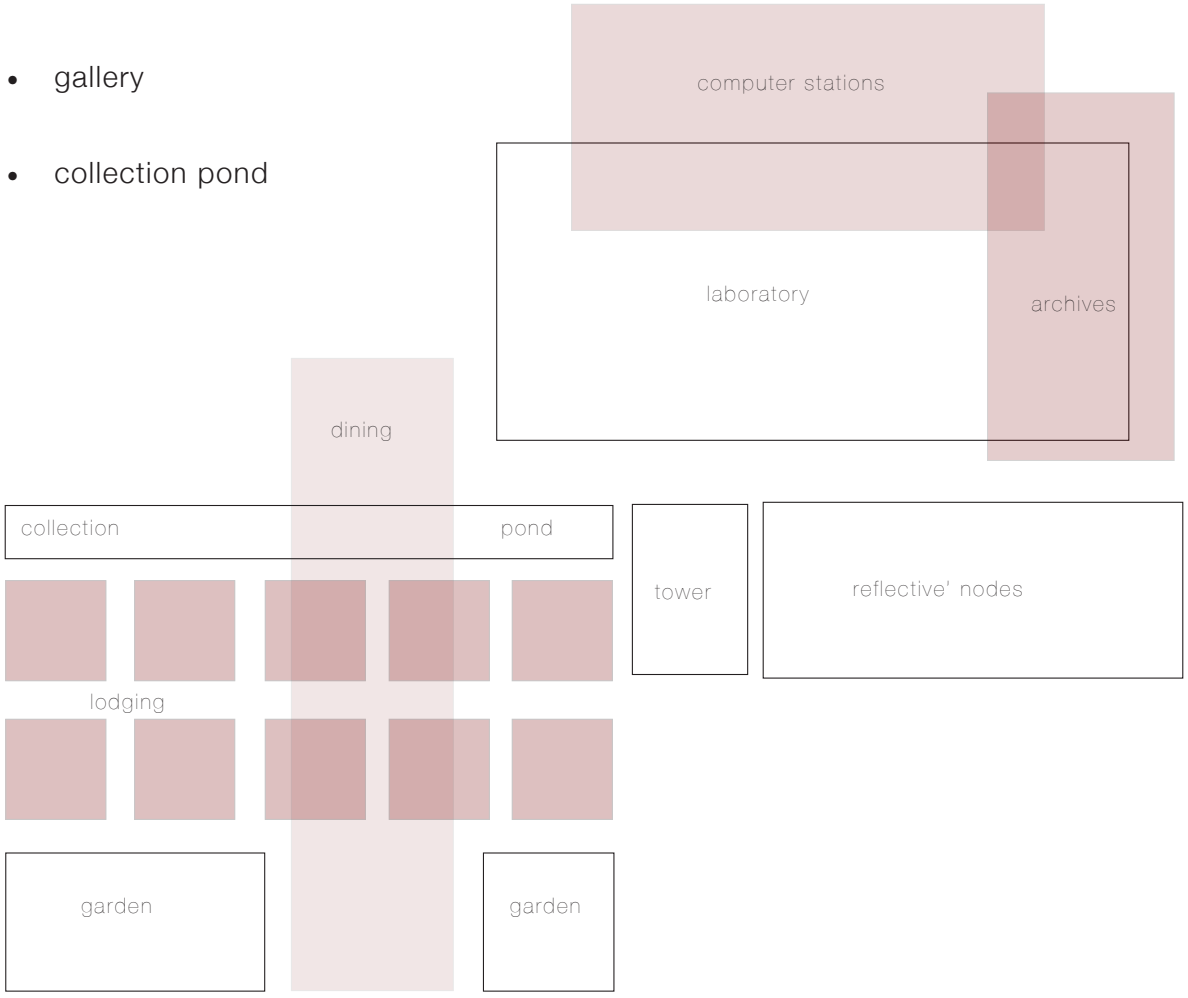


Figure 72: Program Diagram

14 Interpretive Center of Place

Conceptual Designing

The constraints of the site define the design of the interpretive center, resulting in the components of the interpretive center to be stretched into long meandering terraces. The terraces are a response to the ruins found on the site. The terraces are created below the archaeological zone to minimize invasive manipulations to the ground and to protect the ruins.

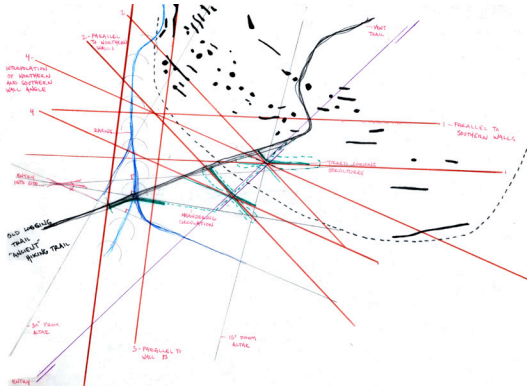


Figure 73: Guidelines composing form

Designing Terraces

[Guiding Formation]The Vent trail creates access to the interpretive center from the Northwest corner of the archaeological zone. The Vent trail crosses a ravine that becomes the hinge point for reorienting the visitor to a complex situated downhill from the ancient stone terraces. Guidelines dictate where program, circulation, and space can be located in relation to existing site conditions. The lower walls contour around the natural form of the land generating multiple angles to guide the formation of space. Sightlines up to the acropolis plaza, the most prominent element of the site define edges. Walls generated from the guidelines define movement.

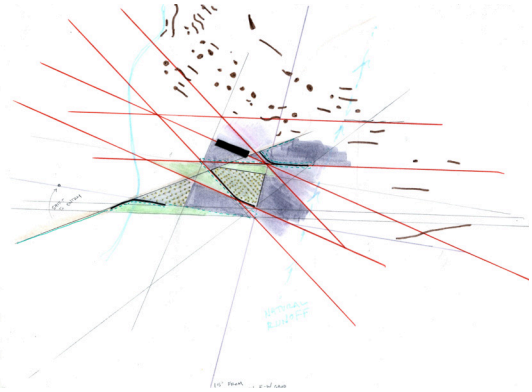


Figure 74: Guidelines composing terraces

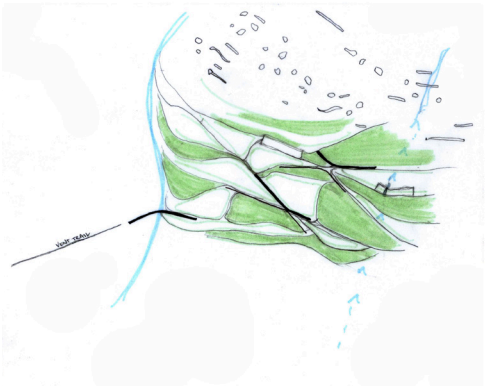


Figure 75: Molding terraced space

[Terrace Formation] The straight lines generated from site conditions intersect to create spaces interpreted into flowing terraces. Zones were specified for various exterior purposes. The terraces were manipulated to align with the surrounding site context further articulating the definition of the terraces. The terraces move up in 5' increments climbing 50' across 100'. The terraces shift to create hierarchical tiers. The various colors define agricultural fields, hardscapes, natural areas, and transitional zones between programmatic tiers. The terraces extend to the boundary of visible walls without disturbing the ground around them.

[Space Formation] The connection between the sculpted terraces defines the passage to the site and through the interpretive center complex. The interpretive center is a fragmented series of vessels that reveal the history and culture of the site through the experience. The architecture is defined by points and lines that reflect the ancient walls and cairns found scattered through the archaeological zone. The points and lines of the architectural elements articulated throughout the site appear as constellations aligning across datum lines and arced around the edge of the ancient



Figure 76: Tiers of programmatic terraces

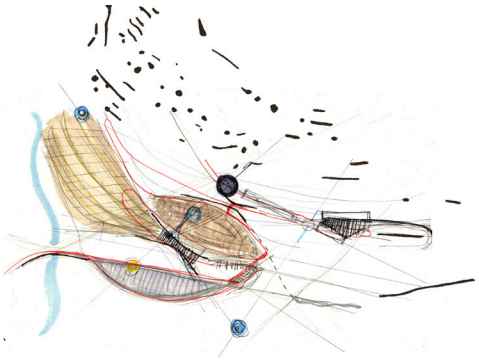


Figure 77: Passage through architectural terraces

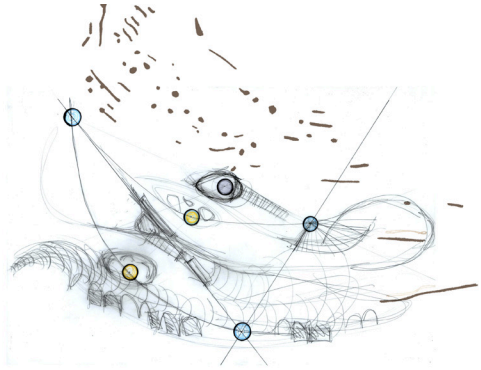


Figure 78: Flow through spatial constellations

walls and cairns. The final sketch defines space and movement through spaces of enclosure. The path through the site is defined but flexible. For the archaeologists who live on the site there are small staircases that provide more direct access between the research labs and the lodging.

Threading the Procession

The visitor enters the site along the Vent Trail, moving along the old logging trail across the ravine and up onto the first terrace. Walking along the first terrace there is a material shift on the ground, this reveals the lodging along the path. The roof surface of the lodging is comprised of a hardscape material to differentiate between the natural sloping land and the abutted lodging structures. Progressing along the lower terrace of the interpretive center complex the visitor is confronted with a cistern that ties down into the level of the lodging to provide for daily consumption. The visitor continues along the path that comes to a point at the stone wall that is furthest down the hill, the continuation of the procession is a

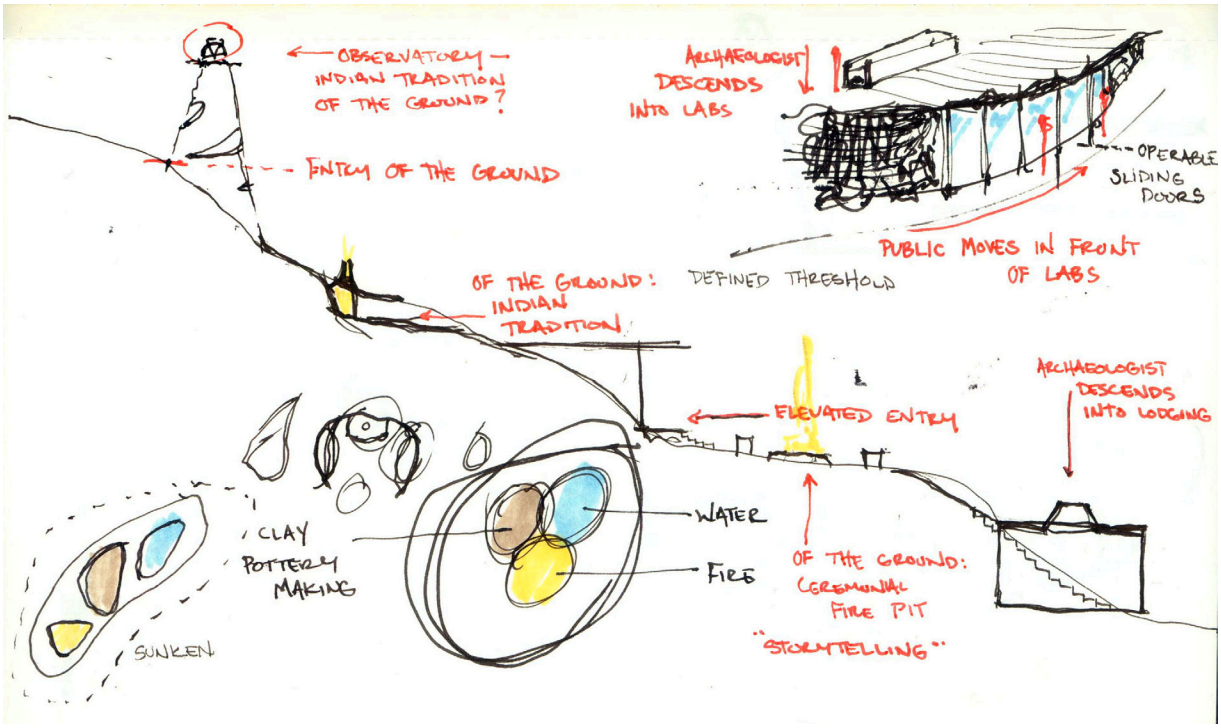


Figure 79: Section sketch of program relationship

180° rotation that leads up the sloping site to a staircase that brings the visitor to the dining hall. There is a visual connection between the hearth in the kitchen and the large ceremonial fire pit on the terrace outside of the dining hall. Advancing through the dining hall out into the crop fields the visitor wanders through the rows of corn and moves up and around the cistern that irrigates the fields. Changing direction again moving back towards the dining hall there is an overlook on the roof structure of the dining hall and across from that is the clay garden. The clay garden is a place for reflection of the history gathered through the experience of the site. Pottery can be created in a similar manner to the way the Cherokee made pottery. Transitioning from these moments of stasis the visitor continues along the gently sloping hill around a second stone wall that is protected by the retaining walls that form the exterior wall of the archaeologists research labs up to a terrace that separates the interpretive center from the site up the slope. The final terrace has a structure that houses artifacts from the site as they are transitioned from the site to the research labs, this zone becomes like a gallery that displays the history that the archaeologists have uncovered through excavation of the site. Moving through the gallery space the visitor enters a tower and winds up to the top where they are opened up to a view of the lower terraces of ruins. The Cherokee use the tower as an observation deck for star gazing at night.

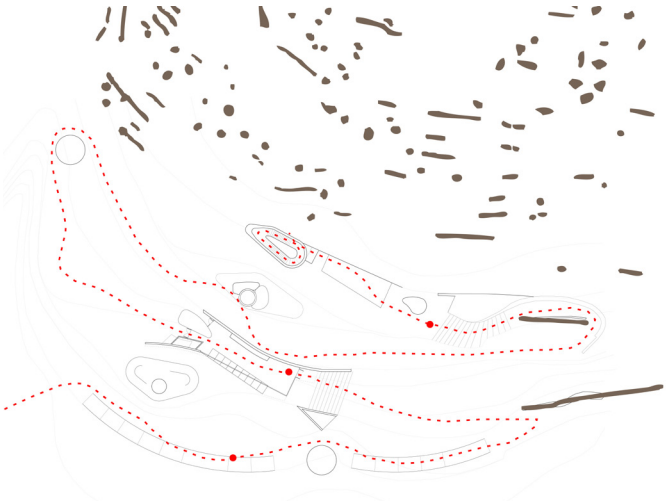


Figure 80: Program and Procession through the site

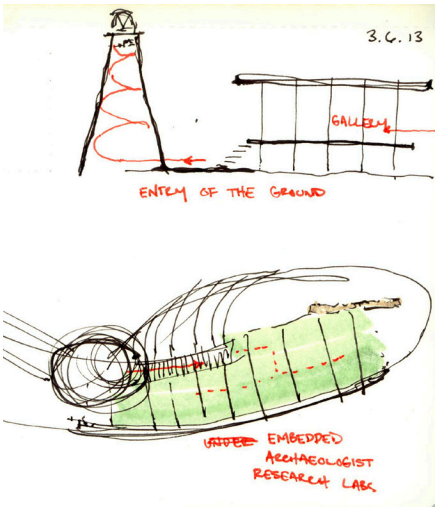


Figure 81: Upper terrace organization

Materiality

Board formed concrete is a successful material choice to be incorporated into the site because of the textures and colors found on the site. Concrete develops a patina of age that will happen similar to the ruins on the site but along a different timeline that will add to the palimpsest of the site. The concrete is a different type of construction than the stacked stone so it will remain as a contrast. The wood texture imprinted on the concrete relates to the trees in the site.

Wood elements as a secondary material complement the concrete. The vertical layering of the wood becomes a shading element but translates into the repetitive verticality of the trees in the forest. The wood ages in a different way than the monolithic concrete forms and creates a lighter form that can become a walkway, an interior finish, exterior details, and even the structure or exterior material.



Figure 82: Board formed concrete
Image Source: www.flickr.com
By - richguernena



Figure 83: Vertical wood slat cladding
Image Source: www.archdaily.com
Michael Moran

Site Development

The structures of the interpretive center are contained below the ruins of the site but there is a necessity for allowing the visitor to become engaged with the ruins. The spring at the top of the site provides water to the site, running through a channel flowing down the site and filling the cisterns within the village of the interpretive center. The Cherokee make a

ritualistic hike to the top of the site daily to release the water at the top of the site so that it flows down and provides nourishment to the visitors. The archaeologist uses the same path to access the plot that is undergoing excavation. At intersections of the archaeologists temporary grid and the meandering path defined by the flow of water there are collection points of water where the archaeologist can gather water for nourishment and for cleaning artifacts in the field before they go to the research lab.

The cisterns are a series of points related to each other and integrated into an irrigation system that provides nourishment to the visitor. The procession through the site is a line that passes through the experience and the archaeologists superimpose a grid over the ground that documents quadrants into a field of information. The characters' roles within the site are defined by point, line, and field. The overlap between the characters creates a system of circulation. The characters are separated by entry through the threshold.

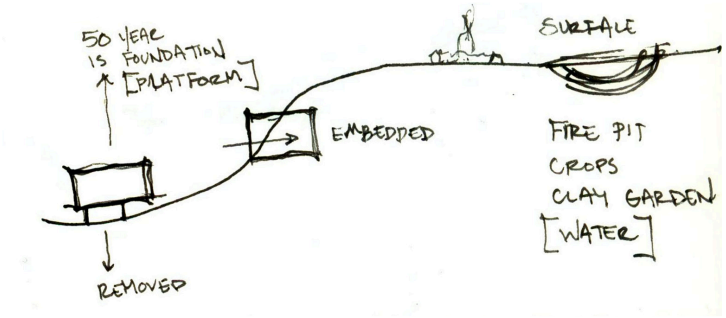


Figure 84: Occupation of a strata defined by the characters

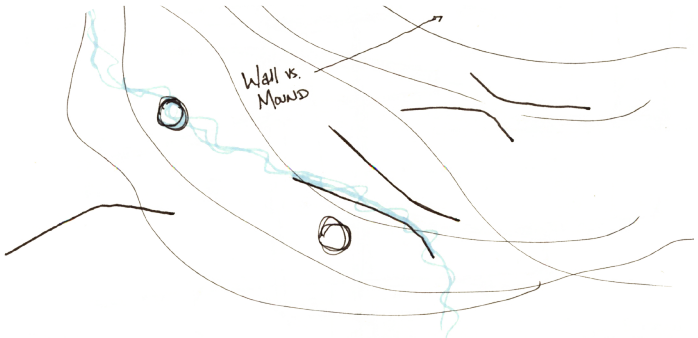


Figure 85: Relationship between cisterns and spatial walls

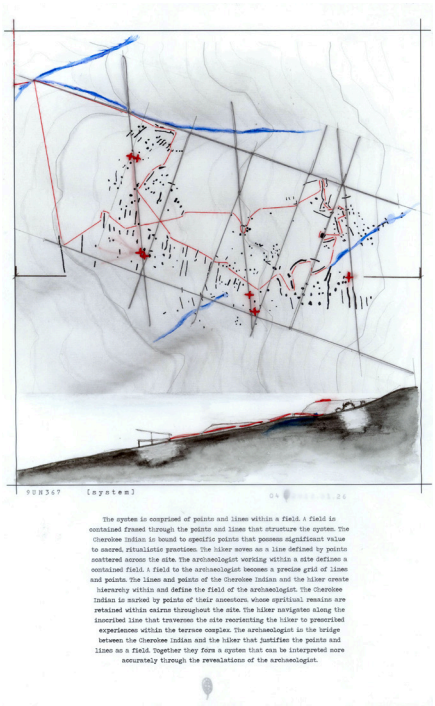


Figure 86: Site Concept- System



Figure 87: Site Plan reference



Figure 88: Site Design- Terrace retaining walls



Figure 89: Site Design- Concrete walls



Figure 90: Site Design- Tectonic spatial conditions

Experiencing the Culture and History

Responding to the sacred nature of the site the structures are abutted to the terrace rather than becoming embedded in the ground.

The architecture merges with the landscape conditions maintaining the natural conditions of the site. The details become imperative in understanding the relationship between the structures of the interpretive center and the ground. The elements of the interpretive center respond to the existing remains of the site and the cultural implications of the Cherokee on the site. The use of concrete happens to define the overarching organization of the site, as retaining walls and linear elements, the concrete is a lasting material compared to the use of wood that begins to decompose over time. The wood is used to create enclosure and shading elements that specify a grain, either vertical or horizontal. The concrete is a poured material contrasting from the dry stacked stone ruins. The board formed texture of the concrete responds well to the forested surroundings.

The three characters have their own interpretation of the site. The architecture should be humbling to the ruins in material choice and high in the level of craft to not distract from the ruins. The characters have their own role in the site but also take on the role of the others in order to become educated on their expertise of knowledge. Each character is focused around a different site plan and different set of perspectives to reveal the significance of the character to the site. The Cherokee reveals a cultural understanding of the site, the archaeologist reveals documented knowledge of the ancient civilization, and the hiker is intrigued by the discovery process.

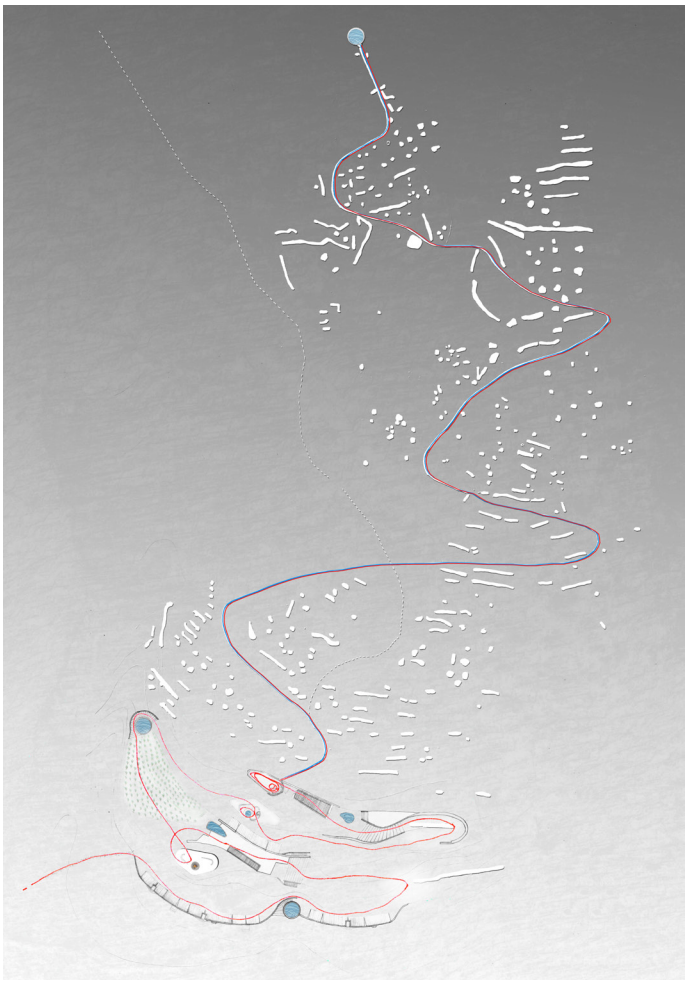


Figure 91: Cherokee Site Plan

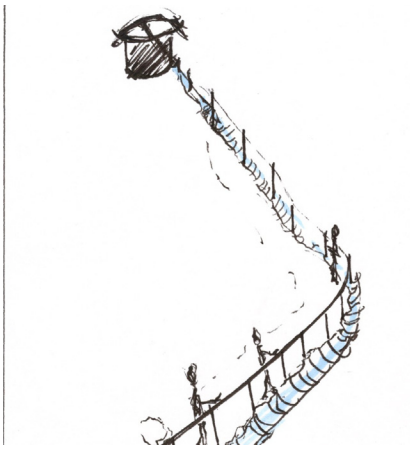


Figure 92: Cherokee guiding to water



Figure 93: Star gazing from the tower

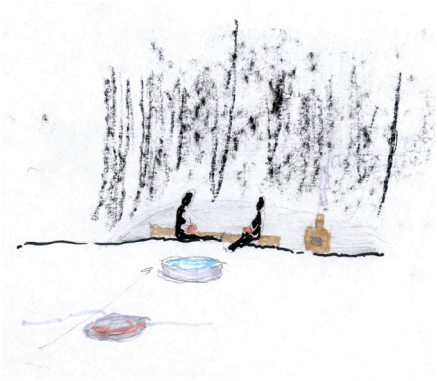


Figure 94: Pottery making in the clay garden



Figure 95: Conversing around the fire pit

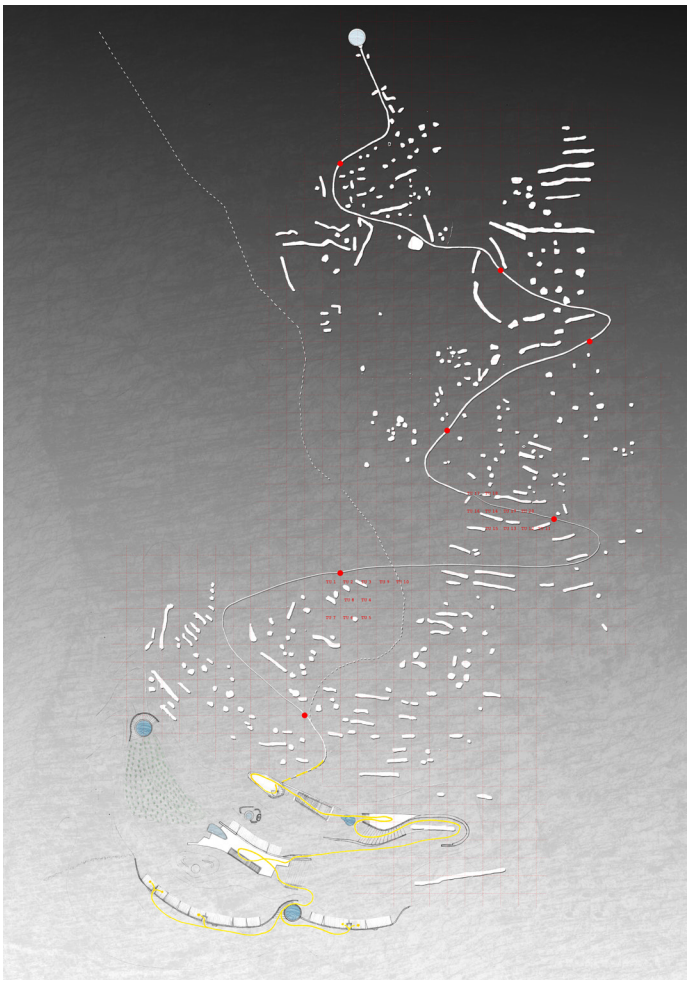


Figure 96: Archaeologist Site Plan

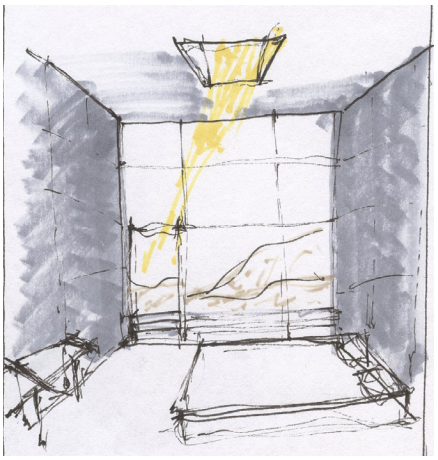


Figure 97: Lodging entry below



Figure 98: Research lab



Figure 99: Agricultural terraces

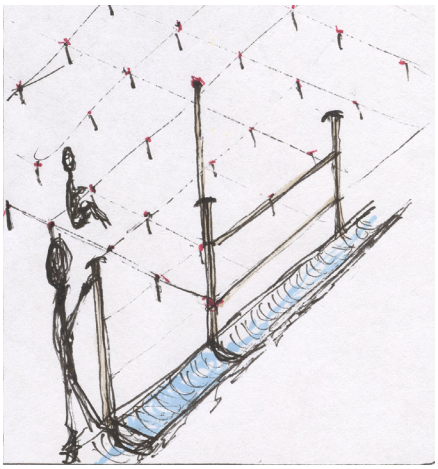


Figure 100: Excavation site

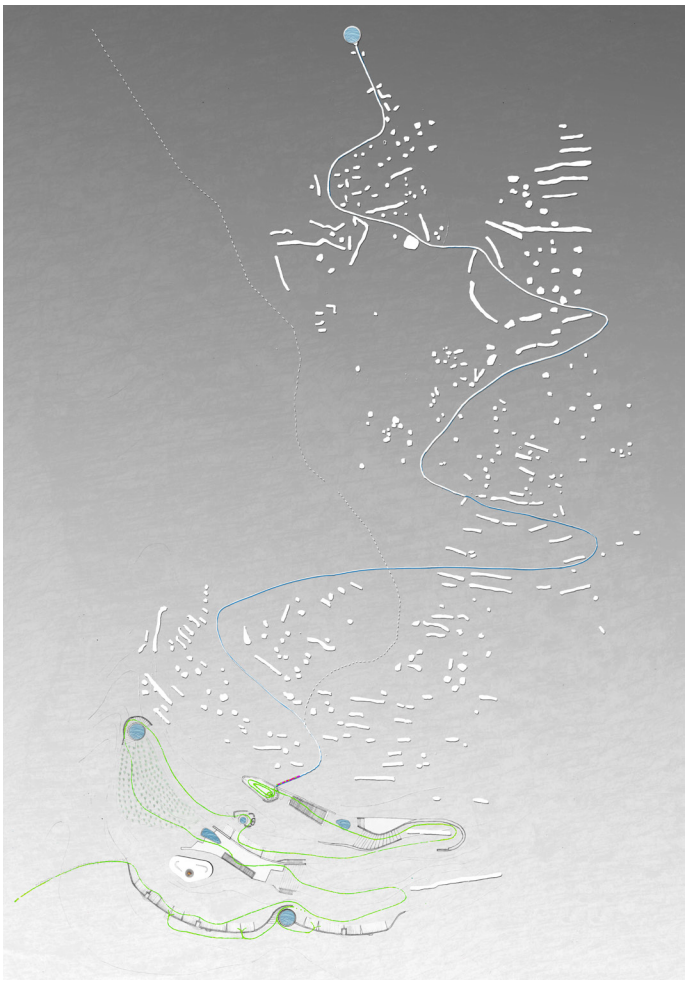


Figure 101: Hiker Site Plan

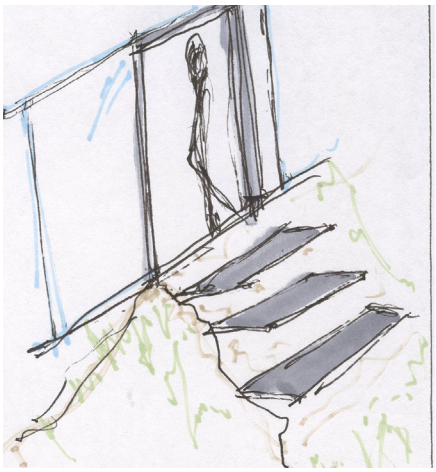


Figure 102: Lodging Entry above

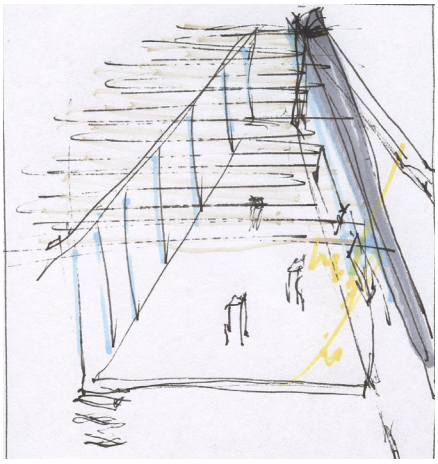


Figure 103: Gallery space



Figure 104: Dining hall

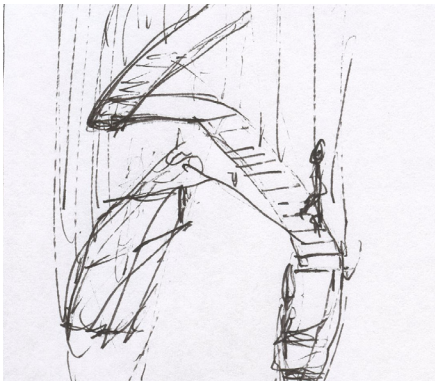


Figure 105: Observation tower

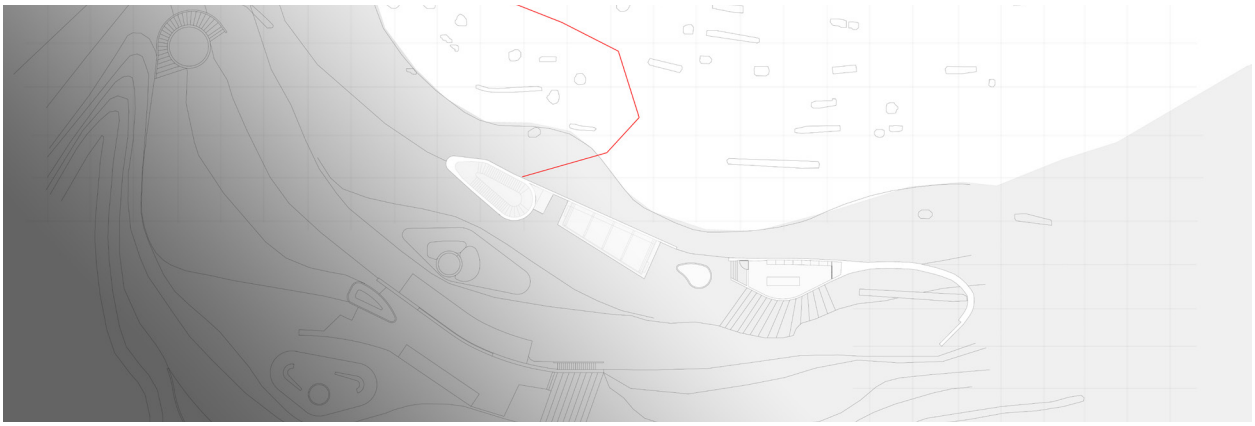


Figure 106: Upper terrace interpretive center plan

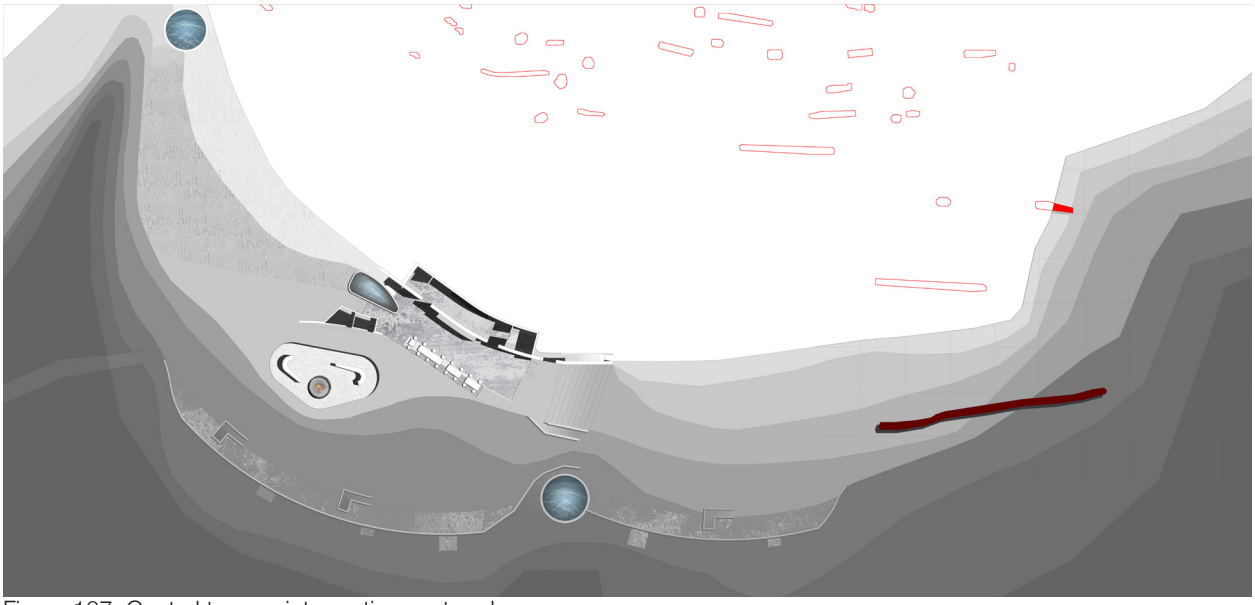


Figure 107: Central terrace interpretive center plan

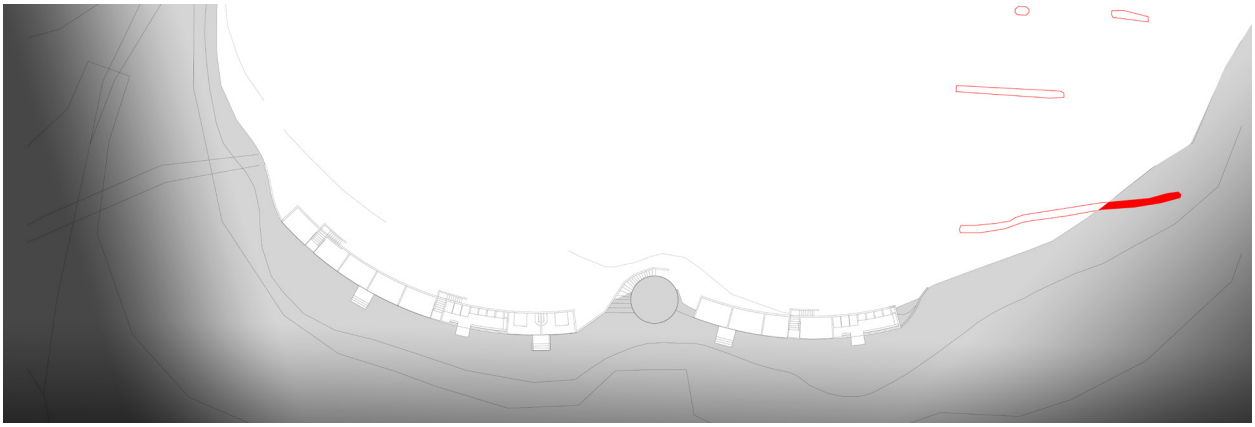


Figure 108: Lower terrace interpretive center plan



Figure 109: Section through upper terrace of complex

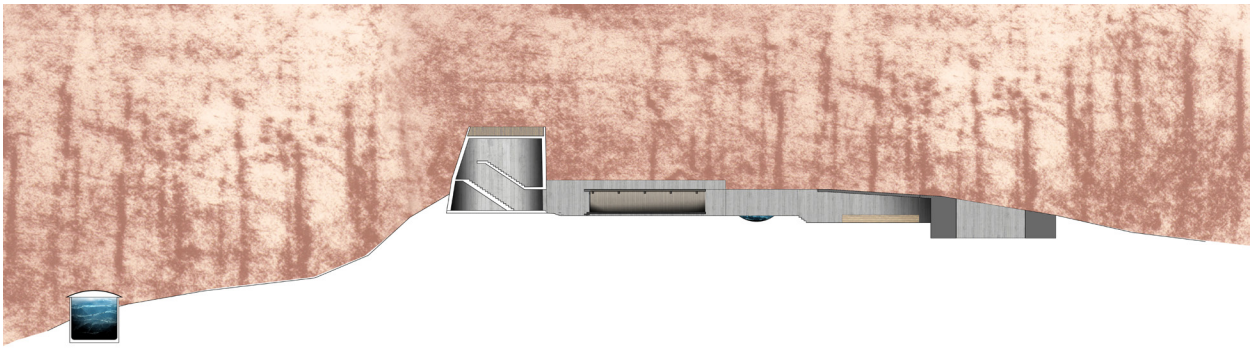


Figure 110: Transverse Section through complex

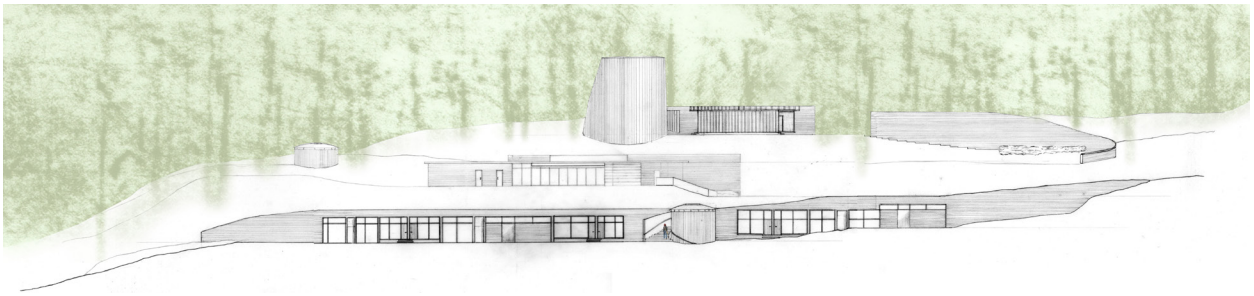


Figure 111 : Elevation view of the complex from downhill

16 Conclusion

Designing an architecture that reveals the culture and history of place necessitates a focus in the representation of the design to reveal the quality of the experience. The moments of the interpretive center complex become crucial to the experience of the site. The engagement of the characters in the site and their interactions with one another stimulates an experience of discovery. The hiker is the visitor to the site, unfamiliar with the history revealed by the archaeologist or the culture of the Cherokee tied to the site. Approaching a holistic design that retains and responds to the existing site conditions becomes intensive in fully designing a sequence of moments that when strung together reveal the culture and history of the place.

The entry into the complex from the Vent Trail leads the visitor on to the roof planes of the lodging nestled against the naturally sloping ridge. There is a clear distinction between the ground and the building, the material on the roof terrace is a paving stone that is clean cut and contrasted from the natural landscape. Moving across this terrace a stone wall covered in moss appears on the horizon, moving towards this wall the paving begins to disapate and the visitor climbs up the gently sloping ground to become faced with the first ruin. The worn trail of travelers falls short of the wall revealing the passage of time between the users of the site today from a past occupation of the site. Continuing along the path the natural landscape transitions again into a clean-cut stone material that builds steps up to a building that is abutted up to another terrace. Entering into the dining hall is a light filled structure with wood cladding that allows natural light to filter through the vertical slats recreating the feeling of being in the forest. There is one long table to congregate at and beyond the enclosure of the building is a large fire pit in prominent view. At dinner time the village collects around the warmth of the fire pit and exchanges stories of the site, the Cherokee have strong ties to their oral history and the archaeologist can potentially learn significant information about the current state of the excavation site by understanding the past of the Cherokee. The archaeologist can also partake in the storytelling by revealing the newest discoveries of the site. The site is active and always uncovering new artifacts or conducting new research that bring to light new and inspiring information. One

interesting discovery on the site is that there is a hydraulic structure with an irrigation system that exists below the surface to bring water to the remote extents of the agricultural terraced site. Understanding the history of the site the visitor can make new connections to the organization of the site. Continuing the procession through the site from the fire pit the visitor passes into a cornfield and weaves through the corn stalks along a loose path that develops into a concrete stairway that wraps the cistern that feeds water into the site from the ravine on the North. Elevated another level on the site the sloping landscape projects the traveler forward, presenting them with a choice to either move down into the clay garden to create pottery using the techniques that the Cherokee developed, or they can move out to an overlook looking out across the dining hall, the fire pit, and the lodging on the lowest terrace. Moving on from these interactions the path wraps 180° around a second ruin that the visitor can engage with. Ramped stairs climb to the top terrace of the interpretive center, there is a space recessed into the retaining wall where the archaeologists conduct research. The traveler passes through a shelter that frames the path to the tower just beyond. Within the wood framed structure are artifacts from the site that have been positioned so that the visitor can engage with them but they are not permanently on display. Moving through the corridor with the remains calls attention to the potential of the findings within the sight. The light washes the back wall directing the visitor out of the space and into the tower. The tower leads to an observation deck where the traveler can understand the scope of the site or become engaged with a nighttime observation of the constellations.

The controversial site creates a set of restraints in mediating between the different views of the characters involved in the site. There is a interaction between the characters that enhances the discovery of the past. The visitors are defined by their own background, culture, and history and their experience of the site is defined by their associations relative to their cultural heritage. The visitor is taken on the ritualistic journey with the Cherokee to gather water, they move up to the top of the site to the source of the water where the Cherokee releases water from the cistern that flows down a depression along side the path that provides water for the day to the complex below.

The interpretive center complex is a response to the known information of the history and culture of the ancient civilization and the Cherokee. The overlap of the characters and the implementation of stratified program are created through a methodic process to develop interaction between the elements identified within the site as well as significant traditional Cherokee beliefs. The experience of the site is directed by the defined path through the site, but allows interpretation and reflection of the sequential experiences revealed through the movement through the terraces of the interpretive center. The design maintains the original sculpted terraces and responds to them further down the slope of the site with the creation of additional terraces that stratify the characters along a path that is prescribed through the site.

List of References

Sources: Theoretical Content

Bloomer, Kent C., and Charles Willard Moore. “Body, Memory, and Architecture”. New Haven: Yale UP, 1977.

Burns, Carol and Andrea Kahn. “Site Matters: Design Concepts, Histories, and Strategies”. New York: Routledge, 2005.

Certeau, Michel De. “The Practice of Everyday Life”. Berkeley: University of California, 1984. Print.

Cohen, Nahoum. “Urban Planning Conservation and Preservation”. New York: McGraw-Hill, 2001.

Fehn, Sverre. Translation by Ved Olsen. “Hedmarksmuseet PCE Domkirkeodden, Hamar”, Byggekunst, The Norwegian Review of Architecture. Feb 1992.

Jackson, J.B. “The Necessity for Ruins”. Amherst: University of Massachusetts, 1980.

Holl, Steven, Juhani Pallasmaa, and Gómez Alberto Pérez. “Questions of Perception: Phenomenology of Architecture”. San Francisco, CA: William Stout, 2006. Print.

Lewis, R. Barry., and Charles B. Stout. Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar. Tuscaloosa, Ala.: University of Alabama, 1998. Print.

Mings, Josh. “The Story of Building: Sverre Fehn’s Museums. Web. 19 Sept. 2012. http://www.joshuamings.com/files/Mings_fellowship_lecture.pdf

Mockbee, Samuel. “The Rural Studio”. Constructing a New Agenda: Architecture

Theory 1993-2009. New York: Princeton Architectural, 2010. Print.

Murtagh, William J. “Keeping Time: The History and Theory of Preservation in America”. New York: John Wiley & Sons, 1997.

Nora, Pierre. “Between Memory and History: Lieux De Mémoire.” Representations 26 (1989): 7-24. JSTOR.

O’Neil, Marie E. “Corporeal Experience: A Haptic Way of Knowing.” Journal of Architectural Education (2001): 3-12.

Pallasmaa, Juhani. “The Eyes of the Skin: Architecture and the Senses”. Chichester: Wiley-Academy, 2005. Print

Sommers, Joan, and Ascha Drake. “The Joseph Cornell Box.” The Joseph Cornell Box. 2006. Web. <http://www.josephcornellbox.com/boxes.htm>.

Van Der Hoorn, Melanie. “Exorcizing Remains Architectural Fragments as Intermediaries between History and Individual Experience.” Journal of Material Culture 08 (2003): 189-213.

Zumthor, Peter, Maureen Oberli-Turner, and Catherine Schelbert. “Thinking Architecture”. Basel: Birkhäuser, 2006. Print.

Zumthor, Peter. Atmospheres: Architectural Environments Surrounding Objects. Basel: Birkhäuser, 2006. Print.

Sources: Case Study Content

Cohn, David. “Court Case Tests Limit of Spain’s Preservation Law.” Architectural Record, 28 Jan. 2008. Web. 18 Sept. 2012. <http://archrecord.construction.com/news/daily/archives/080128spain.asp>.

Crippa, Maria Antonietta., and Randolin Marina. Loffi. Carlo Scarpa: Theory, Design, Projects. Cambridge, MA: MIT, 1986. Print.

Danishnet. “Koldinghus.” Castle. N.p., 2008. Web. 18 Sept. 2012. <http://www.danishnet.com/info.php/travel/koldinghus-357.html>.

Mendez, Alexander. “Augustus Altar of Peace.” Art History Presentation Archive. Blogspot, 29 June 2008. Web. 18 Sept. 2012. <http://honorsaharchive.blogspot.com/2008_06_01_archive.html>.

Moedinger, B. “The Runcible Architect.” : The Backsides of Buildings. N.p., 8 Apr. 2011. Web. 18 Jan. 2013.

Norberg-Schulz, Christian, and Gennaro Postiglione. Sverre Fehn: Works, Projects, Writings, 1949-1996. New York: Monacelli, 1997. Print.

VisitKolding. “Awe-inspiring Koldinghus.” Awe-inspiring Koldinghus - Kolding - VisitKolding - Denmark - Tourist: Tourism and Travel Information of Kolding. N.p., 17 Mar. 2009. Web. 18 Sept. 2012. <http://www.visitkolding.dk/international/en-gb/menu/turist/experiences/museerogsamlinger/faaetsugimavenpaakoldinghus.htm>.

Zumthor, Peter, and HèĺeneBinet. Peter Zumthor Works: Buildings and Projects 1979-1997. Baden: Lars Müller, 1998. Print.

Sources: Site Selection Content

Access Genealogy.com. “The Trail to Yupaha.” The Trail to Yupaha. N.p., 21 June 2011. Web. 18 Jan. 2013.

Bat400. “Track Rock Gap Archaeological Area in United States in The South.” The Megalithic Portal. N.p., 19 July 2012. Web. 30 Oct. 2012. <http://www.megalithic.co.uk/article.php?sid=31785>.

Ferguson, David. “TreasureWorks - 1,100-year-old Mayan Ruins Found in North Georgia - TreasureWorks Forum.” TreasureWorks - 1,100-year-old Mayan Ruins Found in North Georgia - TreasureWorks Forum. N.p., 22 Dec. 2011. Web. 30 Oct. 2012. <http://treasureworks.com/forums/47-recent-discoveries/5594-1100-year-old-mayan-ruins-found-in-north-georgia>.

Loubser, and Frink. “Appraisal of a Piled Stone Feature Complex.” Early Georgia 38.1 (n.d.): 29-50.

Sustainable Land Development Initiative. “Sustainable America Series Part 3: Discovery of Pre-Columbian Maya Mountain Village in North America.” Triple Pundit: People, Planet, Profit. Triple Pundit, 20 June 2012. Web. 30 Oct. 2012. <http://www.triplepundit.com/2012/06/sustainable-america-series-part-3-discovery-pre-columbian-maya-mountain-village-north-america/>.

TANN. “Massive 1,100 Year Old Maya Site Discovered in Georgia’s Mountains?” The Archaeology News Network:. N.p., 21 Dec. 2011. Web. 30 Oct. 2012. <http://archaeologynewsnetwork.blogspot.com/2011/12/massive-1100-year-old-maya-site.html>.

Thorton, Richard. “Early Winter in an Ancient Archaeological Zone.” Examiner.com. N.p., 23 Nov. 2012. Web. 18 Jan. 2013.

Thorton, Richard. Itsapa: The Itza Mayas in North America. Third ed. N.p.: n.p., 2013. Web.

USDA Forest Service. “Chattahoochee-Oconee National Forest.” USDA Forest Service. N.p., n.d. Web. 18 Jan. 2013.

Waksman, Peter. “Rock Piles.”: Some History of Rock Pile Studies at Track Rock Gap and Other Sites in the Southeastern US. N.p, 28 Dec. 2011. Web. 18 Jan. 2013.

Sources: Programmatic Conditions

Build LLC. “The Architecture of Observation.” Build Blog RSS. N.p., 28 Jan. 2008. Web. 6 Mar. 2013.

Cherokee Nation. “About The Nation.” About The Nation. N.p., 2013. Web. 18 Apr. 2013.

Newhouse, Victoria. Towards a New Museum. New York: Monacelli, 1998. Print.

New South Associates. “Archaeology - Remote Sensing - New South Associates.” Archaeology - Remote Sensing - New South Associates. N.p., n.d. Web. 2 Feb. 2013.

Holl, Steven. Parallax. Basel: Birkhäuser-Publishers for Architecture, 2000. Print.

Schultz, Anne-Catrin. Carlo Scarpa: Layers. Stuttgart: A. Menges, 2007. Print.

Trulove, James Grayson. Designing the New Museum: Building a Destination. Gloucester, MA: Rockport, 2000. Print.

Ward, H. Trawick, and R. P. Stephen Davis, Jr. 1999. Time Before History: The Archaeology of North Carolina. Chapel Hill: University of North Carolina Press.

Vita

Ashley Linn Lenentine was born in Suffield, CT, to the parents of Roger and Susan Lenentine. She is the eldest daughter of two children. She attended the University of North Carolina at Charlotte and graduated in 2011 with a Bachelors of Arts in Architecture and a minor in Urban Studies. In the summer of 2010 she spent four weeks studying abroad in Rome, Italy. With the intention of becoming a practicing architect she attended graduate school at the University of Tennessee, Knoxville. At the University of Tennessee, Knoxville she obtained a concentration in Conservation & Stewardship as well as in Urban Design. The concentration in Conservation & Stewardship provided the opportunity to intern at Knox Heritage, a non-profit preservation organization. Ashley is studying for a Master of Architecture to be received in the Spring of 2013.