A photograph of Native American people in traditional regalia. In the foreground, a person's head is visible with a single yellow feather in their hair. They are wearing a dark blue garment with a circular, light-colored medallion. A red line graphic, resembling a jagged path or a heartbeat line, runs across the lower right portion of the image. The background is blurred, showing other people in similar attire.

ON THE END
TO NATIVE
GENOCIDE

SHEDDING LIGHT

SHEDDING LIGHT ON THE END TO NATIVE GENOCIDE

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

by

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In Partial Fulfillment of the Requirements
for the degree of
Master of Architecture



Primary Thesis Advisor



Thesis committee chair

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Figure 02 | *Summer Storm*, photo credit | Aaron Huey

THESIS ABSTRACT

The Pine Ridge Indian Reservation has seen historical trauma. Located roughly 75 miles southeast of the Black Hills in South Dakota, Pine Ridge has received international attention for its incredible despair. Plagued for generations by a series of broken treaties with the U.S. Government, the Oglala Lakota have been left a mere fraction of their original sacred land and resources. Despair rips through the region as quality of life within Pine Ridge has been overshadowed by severe poverty and an endemic of drug and alcohol addiction. With each passing generation, spiritual and cultural values seemingly become lost as a never-ending battle of conformity to the modern world has left its mark on the indigenous people.

This thesis research will expose a bitter truth of historical prejudice while providing a solution to end the ethnocide of the Pine Ridge Indian Reservation and to restore quality of life within its Native people. A proposed cultural center in the heart of Pine Ridge will seek education and shine light on Native American history. The center will focus on traditional Lakota practices and rituals, combining cultural influences and a safe-haven for those struggling with the long-term effects of addiction, depression and abuse. The center will provide a sense of hope and purpose, breathing life back to the Oglala Lakota.



Figure 03 | *Horse Races*, photo credit | Aaron Huey

THE UNIFYING IDEA

Pine Ridge, the site of several events that mark milestones in history between the Native Sioux and the United States government has become ground zero for Native issues within the U.S. The Fort Laramie Treaties of 1851 and 1868, which sanctioned bands of the Lakota and Sioux Nation to establish the Great Sioux Nation including ownership of the Black Hills and other areas within South Dakota, Wyoming, Nebraska, and Montana was deliberately broken by the U.S. Government. The Native people unjustly lost sacred land, resources, and ultimately a sense of pride as they were forced into prisoner of war camps. December 29th, 1890, U.S. troops surrounded a Sioux encampment at Wounded Knee Creek and massacred Chief Big Foot and 300 women, children, and warriors of the Pine Ridge Reservation. With this event, a new era in Native American history began.

The psychological effects of the Wounded Knee Massacre and broken treaties with the US Government continued to take a toll on the indigenous people. The beginning of a genocide was unveiling in American history. Numerous events have unfolded since the Wounded Knee Massacre of 1890. Conformity to the ways of the white settler was no longer an option. “Kill the Indian, save the man” became the motto as thousands of

NARRATIVE OF THE THEORETICAL ASPECT OF THE THESIS

American Indian children were forced into boarding schools, whipped and beaten if they spoke their native language or practiced their beliefs.

Native Americans, especially those of the Oglala Lakota in Pine Ridge, have struggled to find their identity in a world that once revolved around the spirituality of nature and self-sufficiency. Plagued by unemployment rates between 85-90 percent, arid land, drug and alcohol addiction, abysmal health statistics and life-expectancy rates atop the worst in the western hemisphere, Pine Ridge is in desperate need of direction. The spiritual culture of the reservation’s people is being lost at an alarming rate.

We may ask ourselves, how can architecture stop a genocide of indigenous people? The answer may not be elementary as the problem appears to be systemic, but by allowing the Oglala Lakota freedom of cultural expression, or “undisturbed use and occupation” as signed by Gen. William T. Sherman in the 1868 Fort Laramie Treaty, Pine Ridge may begin to restore itself the way native grass re-establishes roots in the vast rolling prairies of the Great Plains. A sanctuary for art, education, and spiritual rituals, the proposed cultural center would allow this freedom of expression, thus bringing a sense of pride back to its Native people.

THE PROJECT TYPOLOGY

The importance of civic institutions within a community is often related to the economic development, preservation, history, culture, education, and overall success of the community. These factors are represented by the common idea that civic institutions become catalysts for revitalizing the neighborhoods around them. A sense of community, belonging, or sociability can also be derived by this idea that the primary focus of any civic institution is community engagement through the exchange of goods, knowledge, beliefs, and/or entertainment.

With the motive for community engagement and psychological rehabilitation, potential for a mixed-use, civic institution and healthcare facility is apparent. Ideally, fully integrated together, this mixed-use facility would largely reflect upon social events, celebrations, spiritual rituals, and large gatherings while welcoming those suffering from depression and addiction to become involved. A major part of Lakota culture is focused on creating and maintaining relationships. Those who struggle with mental and physical illness are often deprived of maintaining the support they desperately need.

The facility would also support workshop/trade spaces for those interested in learning, teaching, and creating Native American art, crafts, building practices, and culture. These spaces would engage the public, become an economic driving force, and further the idea of placemaking in the community.

MAJOR PROJECT ELEMENTS

ASSEMBLY / AUDITORIUM

- “Spiritual [Theoretical]” aspect of the design
- Area to have traditional rituals such as ghost dance, sun dance, powwow, etc.
- Transformational ability for large gatherings, celebrations, and events

WORKSHOPS / MAKER SPACES

- “Physical” aspect of the design.
- Creativity spaces for Native American art, crafts, woodworking, etc.
- Classrooms for education and trades

REHABILITATION CENTER

- “Social” aspect of the design
- Psychiatric and addiction center
- Gathering spaces for family support
- Patient care rooms



Figure 04 | *Mitakuye Oyasin*, photo credit | Aaron Huey

USER/CLIENT DESCRIPTION

USER GROUPS

Office Employees	1-5 Total
Teachers/Instructors	5-10 Total
Mental Health Practitioners	5-10 Total
Students	1-100 Total *
Artists	1-100 Total *
Community members	1-300 Total *

CONSIDERATIONS

Healthcare:

- Extended parking
- Safe and private rooms
- Reflection/Outdoor spaces
- Break room required

Workshops/Maker Spaces:

- Extended parking
- Natural light in maker spaces
- Offices/storage for instructors
- Gallery spaces

Assembly/Auditorium:

- Extended parking
- Flexible areas
- Seating storage
- Strong integration of natural light

* Varies depending on event schedule & availability



Figure 05 | *Badlands*, photo credit | Aaron Huey

THE SITE

Located at the southern end of Badlands National Park in western South Dakota, Pine Ridge Reservation consists of 3,468.85 sq mi (8,984.3 km²) of land area, making it the eight-largest reservation in the US. Encompassing the entirety of Oglala Lakota County, the southern half of Jackson County, and the northwest portion of Bennett County, only 84,000 acres of the nearly 2 million are suitable for agriculture. The Reservation is home to over 15,000 residents; however, studies suggest the population is likely between 28,000–40,000+ residents.

The city of Pine Ridge is the most populous community in the Oglala Lakota County and headquarters the reservation's Oglala Sioux Tribe. Pine Ridge is located along the South Dakota – Nebraska border, roughly 75 miles from Rapid City, South Dakota.

The proposed site is nestled within the Red Cloud Indian School campus just north of Pine Ridge's center. Built by the hands of the Oglala Lakota and a group of Jesuits in the late 1800's, the private Red Cloud Indian School seeks to educate students "through the mind and spirit that promotes Lakota and Catholic values." The proposed cultural center would become the missing piece between students and the community. The campus' Heritage Center currently occupies a small portion of the Red Cloud Indian School and encapsulates the rich history of Native American art and culture.



Figure 06 | *Sacred Badlands*, photo credit | Aaron Huey

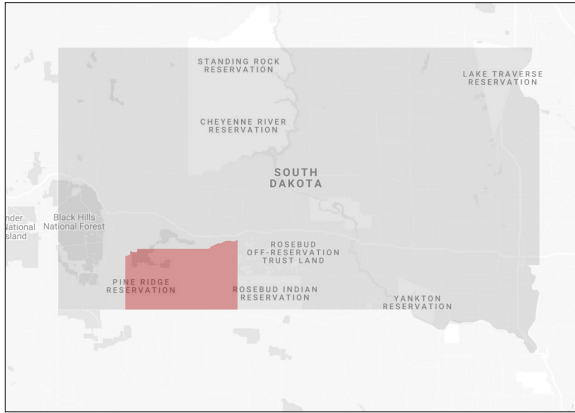


Figure 08 | State of South Dakota | Pine Ridge, SD



Figure 09 | Pine Ridge Reservation | Pine Ridge, SD

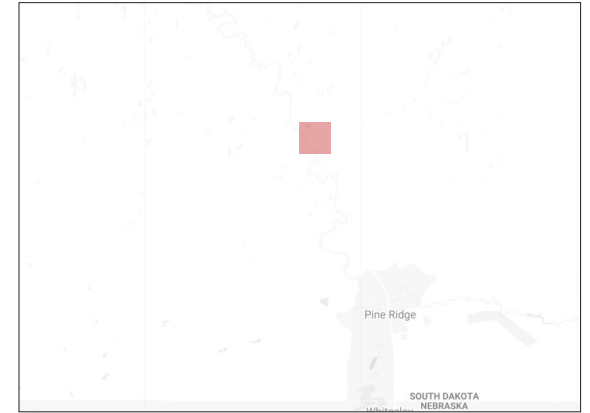


Figure 10 | Proposed Site | Pine Ridge, SD

SITE SELECTION:

Pine Ridge, South Dakota was chosen as the location for this thesis duly for its incredible despair. The proposed cultural center will be placed within the Red Cloud Indian School campus just north of Pine Ridge's center. Figures 09 and 10 each depict the approximate location of the proposed center and its proximity to the city of Pine Ridge. This is a rather expansive area with fingered hills and a small creek defining its boundary.

Initial experiences of Pine Ridge were striking. The area has become desolate and under-developed for generations. There are still a great deal of residents living in the Pine Ridge area but are often overlooked by overcrowded and dilapidated homes throughout the region. Currently, the Red Cloud Indian School seems to be a safe-haven from the despair and abysmal lifestyle many students experience at home.

CITY OF PINE RIDGE VALUES:

Connection to nature

The Lakota tradition has been engrained with nature from the very beginning. Today, there is still a deep connection between the Oglala Lakota and Native land as all cultural values stem from the preservation of ecology.

The Pine Ridge Reservation occupies the majority of the Badlands National Park in western South Dakota and are deemed sacred to the Oglala Lakota people. This rugged terrain continues southward with subtle reminders around the chosen site.

Relationships

Native identity stems from the relationships formed and maintained with one another. A strong value is placed upon family, friendship, and community engagement.

THE PROJECT EMPHASIS

1. Rehabilitation of an entire community/culture/race that has shown dire need of revival.

As discussed earlier, the Pine Ridge Indian Reservation has been decimated by a series of conflicts with the US Government dating back from the emergence of white settlers in America. Many unsuccessful attempts have been made to restore quality of life within Pine Ridge with very few accepting the historical importance of the Native culture. How can we help them regain their strength through spiritual ritual and education?

2. Integration of sustainable, natural strategies in a building engaged by all.

The environmental wisdom and spirituality of the American Indian is humbling. Introducing building forms that do not battle the environment but rather coexist within the realm of nature is a must. Passive strategies, biomimicry, and the use of sustainable sources will be employed extensively.

3. Placemaking through the introduction of a civic institution.

With regards to earlier discussion, civic architecture expresses engagement within a community. A cultural center would look to bring healing powers of spiritual involvement, historical precedence, education, and preservation.

GOALS OF THE THESIS PROJECT

Theoretical, physical and social goals of the project:

1. *[Physical]* Create a reference document analyzing various civic design precedents; establishing how one might identify them and where they are in the region.
2. *[Theoretical]* Answer the burning question, how can architecture stop a genocide of indigenous people?
3. *[Social]* Establish the proposed cultural center as a community landmark in Pine Ridge.
4. *[Social / Physical]* Identify appropriate and inappropriate typologies for civic use in terms of cultural and social factors.
5. *[Social]* Educate individuals on the importance and benefits of civic buildings in our communities.
6. *[Theoretical]* Learn about construction techniques and architectural theories employed in traditional Native American structures.
7. *[Theoretical]* Understand important spiritual and cultural influences of the Oglala Lakota such as the ghost dance, sun dance, sweat lodge, and powwow and vision quest.



Figure 10 | Crazy Horse Ride, photo credit | Aaron Huey

A PLAN FOR PROCEEDING

Upon completion of the proposal and program phases of this thesis project, I may begin to move forward in the conceptual design phase. Establishing a site context model is top priority and will be used extensively throughout the remainder of the project.

Utilizing software programs such as Autodesk InRoads, Autodesk AutoCAD, and Rhinoceros 6.0, I can begin to collect information dealing with the existing site. This collection of data can then be organized and understood to inform my design process. Conceptual massing and spatial diagrams will likely prevail primary design solutions.

Throughout the iteration process, each form will be analyzed and progressed to inform a clear and concise solution. Plans, sections, elevations, axonometrics, and diagrams will help decipher strong solutions. Documentation and organization is necessary here as this will help the audience understand the entire process scope. Design development will proceed as I delve into the appropriate research, narrowing my scope and direction. I will continue to look at historical Native American architecture as an inspiration and guide to the structure and material preference of this thesis project. Natural, passive design strategies will be thoroughly researched, addressed, and integrated within design development as Lakota culture is so heavily influenced by ecology.

As my design becomes more refined, I can begin to pull it all together into a cohesive piece of art – a story that catches the attention of the audience and further explains my solution to 'The End of Native Genocide.'

DEFINITION OF RESEARCH METHODOLOGY

The process used to arrive at a scientific research conclusion

1. Unifying Idea
2. Topic research leading to discovery of new ideas and tools to help you answer related questions
3. Testing of new ideas and tools
4. Formulation of your own design opinions
5. Formulate those opinions into a proposed intervention

DOCUMENTATION OF THE DESIGN PROCESS

DOCUMENTATION COMPILATION / Documentation creation

Medium for design investigation:

Computer representation
Hand Sketching
Hand Modeling

Software for Investigation

Autodesk AutoCAD
Autodesk Revit
Autodesk InRoads
Rhinoceros 6.0

Software for Representation

Adobe Photoshop
Adobe Illustrator
Adobe InDesign

Design Preservation Methods:

- Creation/investigation of representation
- Feedback from advisor(s)
- Research Material documented
- Computer files backed up weekly via Google Drive & external hard drive
- Thesis book updated weekly as per schedule
- Drawings/diagrams created upon acquisition in references section

Publication of Material:

Relevant material will be recorded & credited in final thesis book available:

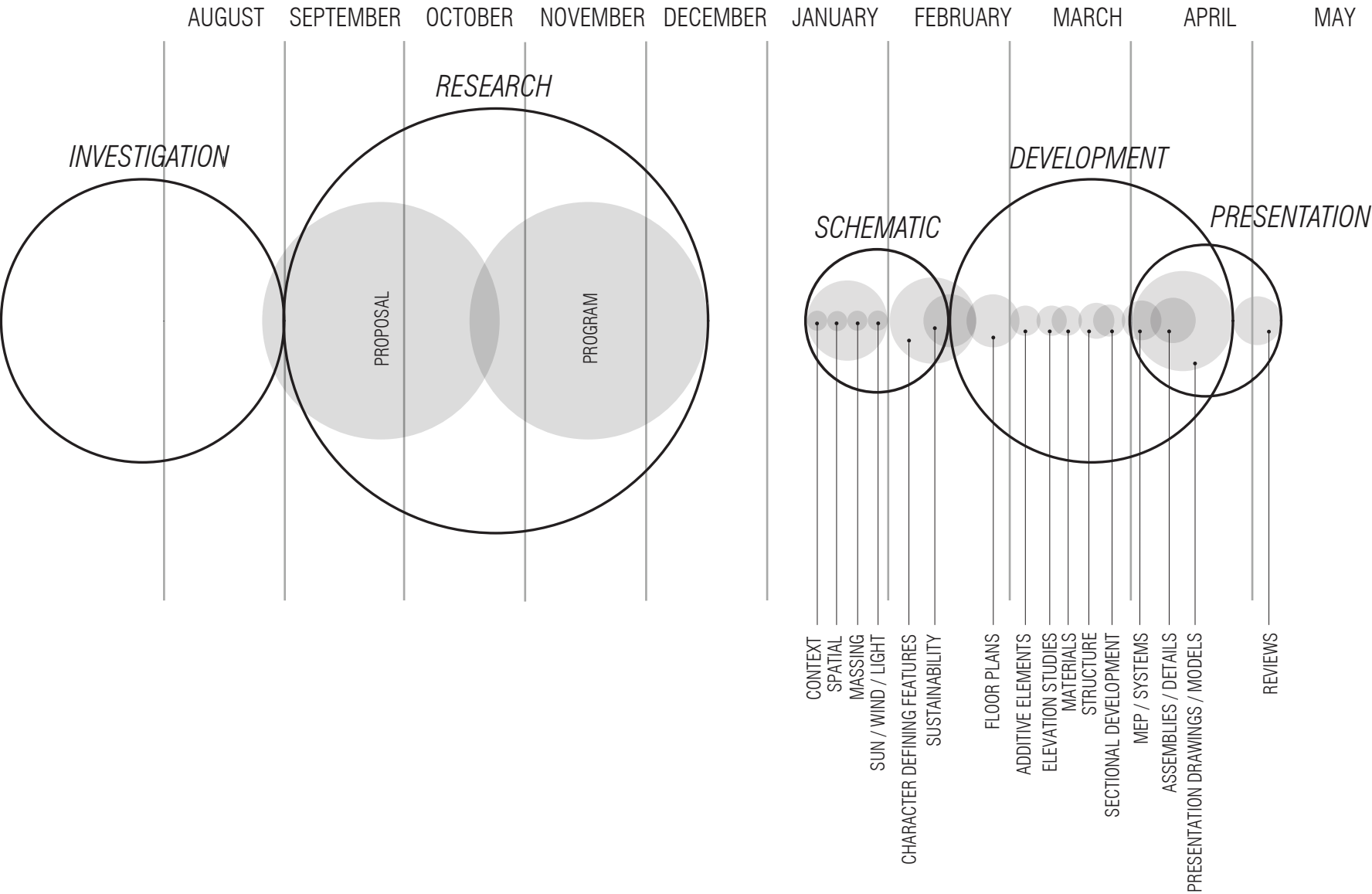
- NDSU Institutional Repository
- Hard cover book format

Documentation Organization:

File Labeling: Year-Blindert_Thesis_Phase_Name

Example: 2018-Blindert_Thesis_Passive Systems_Sun Path Diagram

THESIS PROJECT SCHEDULE



RESULTS FROM THEORETICAL PREMISE

Two separate literature reviews were heavily dissected to further understand this project's theoretical premise. The first, *Black Elk Speaks, The Complete Edition*, takes the reader upon a journey through the eyes of a renowned medicine man of the Oglala Lakota Sioux tribe. The reader may look to this piece for its spiritual guidance, sociological identity, political insight, and/or for the affirmation of the continuing substance of Native tribal life. The second literature review is an article published for the Oxford Research Encyclopedia for American History, titled, *Christian Missions to American Indians*. This insightful article presents the overwhelming effect missionaries had on both European and Native American cultures throughout history and is directly informative to the nature of this project's site location and premise. Each of the reviews, being incredibly unique in their own nature, will surely have a significant impact throughout the design of the project. By diving deeper into the theoretical realm, the spirituality of the Oglala Lakota and the opportunities that exist within their beliefs, one may begin to approach a better understanding of Native values and their integration within nature.

BLACK ELK SPEAKS: THE COMPLETE EDITION

Black Elk Speaks: The Complete Edition, is the work of two collaborators. Poet and author John G. Neihardt writes the life story of Oglala Lakota medicine man, Nicholas Black Elk. Interviewed by Neihardt at the Pine Ridge Reservation in 1931, Black Elk's account is a self-portrayal of his adventure as a young Sioux boy transforming into adulthood in the American West. The adventure takes the reader through a rich source of Sioux customs, anthropological data, and the spectacular history of the Native plains people.

This philosophical masterpiece is primarily an account of one man's vision and what became of it. Nicholas Black Elk saw his first vision when he was just five years old. At age nine, extremely ill and lying in a coma for twelve days, Black Elk imagines himself soaring to a council of his six grandfathers. Here, they give him sacred objects: the cup of living water and the sacred bow, the power to make live and destroy. Each grandfather tells Black Elk what his powers are and what is expected of his life. They predict that he will have the power to destroy foes, he will save many people, and that the Sioux will experience many troubles. The grandfathers charge Black Elk with protecting these objects in order to protect his people's sacred hoop. Representing the connection with the earth and each other, the hoop's center contains a flowering tree that assures the Oglala Lakota will flourish. The tree stands at the crossing of a red and black road. The vermillion red road represents the good on which his nation would walk, and the black: a road of troubles and war that would give him the power to destroy his people's foes. Black Elk is honored to be chosen for this mission, but is overwhelmed with trepidation. Throughout his life, especially this book, Black Elk questions his ability to meet the demands of his visions as he longs to seek justice for his nation's people.

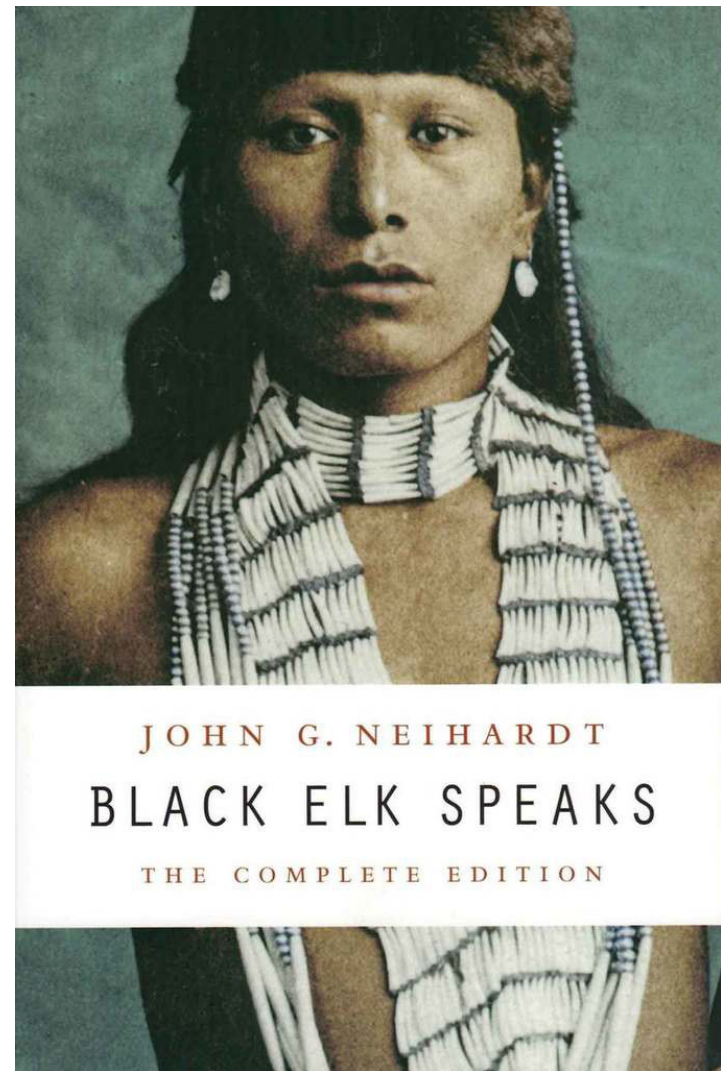


Figure 12 | *Black Elk Speaks*, photo credit | John G. Neihardt Trust

Black Elk's visions would eventually help him become a seeker of salvation for his people. Yet, at an early age, he was afraid to express his visions to others. He continued to sink back into the routines of Sioux life, but the vision would return and consume him. When a medicine man urged to tell others of his vision through a dance, Black Elk discovered he could heal the sick. Healing brought him great pride, but he eventually felt that his mission was greater than curing individuals: his mission, he believed, was to save the nation's hoop.

Black Elk experienced a great deal of trauma throughout his life. In this book, he recalls many historical events and the horrific effect each had on his nation's people. He describes the cruel death of the great Sioux leader, Sitting Bull, and the Massacre at Wounded Knee, where more than 200 women, children, and warriors were ravaged by U.S. soldiers. Black Elk experienced the gold rush in Montana, the execution of the Transcontinental railroad, and the Fort Laramie Treaty of 1868. He met Queen Victoria while traveling in Buffalo Bill's Wild West and survived many major battles such as the Fetterman Fight, the Battle at Little Big Horn, the Wounded Knee Massacre, and numerous other encounters between the wasicus. *Black Elk Speaks* continually references the diminishing Sioux culture with each conflict, giving insight to the historical oppression of the Plains Indians.

As the interview, and thus the book, ends, Black Elk says: "Again, and maybe the last time on this earth, I recall the great vision you sent me. It may be that some little root of the sacred tree still lives. Nourish it then, that it may leaf and bloom and fill with singing birds. Hear me, not for myself, but

for my people, I am old. Hear me that they may once more go back into the sacred hoop and find the good red road, the shielding tree!." (Neihardt 172)

This book grabs the attention of the reader in many ways. Those looking to learn more about Native American culture, religion, and history of the American West are matched with this book's philosophical prowess. especially intriguing is the story's constant identification of cardinal orientation. The directions; north, south, east, and west, respectively, appear to have great meaning to the Native Plains people. The text explains the spiritual healing and religious ceremony each possess with relation to the powerful sun and the sacred earth. The design process of this project will surely look back to directional orientation as this will play a major part of the development and theoretical understanding throughout.

A major criticism brought forth by many reviewers of this book is the bias in which Neihardt is undoubtedly susceptible to. Though Neihardt does in fact meet face to face with Nicholas Black Elk on multiple occasions, the two remain separated by a barrier of language. Black Elk, for the entirety of his life, spoke the language of his people, the Oglala Lakota. On the other hand, Neihardt is at the mercy of an interpreter to relate and understand Black Elk. The interpreter is none other than Black Elk's son, Benjamin Black Elk. As one can imagine, this creates another fabrication of bias expression. Critics have questioned the extent to which this account is true as some Lakota have stated it is not entirely representational to the Oglala Lakota Sioux. Nonetheless, the account has become valued, especially in schools for adding to the history of westward expansion and the savage nature of human ramifications.

CHRISTIAN MISSIONS TO AMERICAN INDIANS

Carol L. Higham's research titled, *Christian Missions to American Indians* has been published for the Oxford Research Encyclopedia of American History. Higham endeavors on the difficult and rather intensive subject of introducing missionary work and religious beliefs in the lives of Native Americans. By comparing Catholic and Protestant missions to the Indians, this article provides a better understanding of the relationship between the missionary movement and how they changed both European and Native American cultures throughout history.

It can be argued that missions to the Indians played significant roles in social, cultural, and political changes for Natives and Europeans alike from the very first contact in the 1500's to the present day. When Christopher Columbus first "discovered" North America, he was introduced to the Indians, seeing them as two types of resources: they could be slaves, or they could be converts of Christianity and modern society. Columbus' views represented those of the Spaniard people of the time. The Spanish were becoming a powerful nation. Fueled by their religious beliefs of Catholicism, the Spanish successfully drove the Muslim people out of southern France and Spain. In their eyes, this was a victory for Christianity. Shortly after, Columbus and his explorers returned with news of what they saw. The Spaniards believed God had blessed Spain with thousands of infidels (Indians) to convert or discipline through enslavement.

Spaniard priests spared no time, following in the footsteps of the explorers and arriving in New Spain in 1523, the conversion began - expanding

northward and attempting to spread their faith as quickly as possible. By the 1600's, Protestant groups had also begun to spread their religious beliefs to the "untamed" tribes. Higham notes: Both Catholic and Protestant missionaries approached mission work in the same demeanor. They came to preach the Gospel and teach Indians about civilization. The missionaries saw themselves as models of Christian behavior hoping to influence the Indians by their actions. Missionary societies promoted missionaries as the exemplars of a "Christian lifestyle." They entered Indian villages with the belief that their daily actions would help teach and lead Indians to Christ. (Higham 12) However, many missionaries struggled to maintain their "Christian lifestyle" in the face of adversity and resistance from the Native Americans. The missionaries believed the Natives had adopted uncivilized and unchristian practices from barbarous whites around them so they built schools and towns to isolate their converts and potential converts from the evils of native life and the barbarous whites. Interestingly, the history of the Fort Laramie Treaties proves: This practice extended well into the 19th century and developed into the reserve and reservation systems we know today. Catholic and Protestant missionaries believed that isolating converts would make the process easier and protect them, but they were rarely able to isolate all of the Indians. Only those willing to convert or those who needed the mission for protection or food entered the missions. (Higham 13) The idea of providing resources was intriguing to those who traditionally fell at the bottom of the region's political and economic power structure. Many were left with no choice but to conform to the missionary lifestyle as they were being driven to starvation.



Figure 12 | I Survived Catholic School, photo credit | Aaron Huey

Carol L. Higham's research suggests that significant impact on the American Indian was brought forth by the missions. As many of the missionaries were expected to keep thorough records of their work, numerous primary sources are presently available to inform the validity of this statement. The success of the missionary work, however, is said to be in the eye of the beholder. One must understand the greater picture, the grand scheme of the missions and how they impacted the cultural, economic, political, and religious history of the American Indians. Though the success of the missions can be wildly debated, it is the nature in which these missionaries guided their principles.

Interestingly, this thesis project is located on the Jesuit founded campus of Red Cloud Indian School. The campus' history was built upon the foundation of a "Christian lifestyle" and it continues to educate its students "through the mind and spirit that promotes Lakota and Catholic values." (Redcloudschool.org) The history of the Red Cloud Indian School can be found in their promotional guide, "Our Story:" In the late 1800's, Chief Red Cloud (1822-1909), one of the most famous leaders of the Oglala Lakota people, became a fierce advocate for Jesuit education. More than 130 years ago, he recognized the Lakota were facing irrevocable economic and cultural loss. His wish was for the Jesuits to educate Lakota children to "walk in two worlds" so as to survive in a rapidly changing environment, while still sustaining their Lakota identity. He lobbied the U.S. government for over a decade to allow the Jesuits to build a school on the Pine Ridge Reservation, and in 1888, he succeeded. (Our Story, I)

Through the eyes of Indian tribes and even individual Native Americans, the impact of the missions is not coherently universal. Still today, questions can be asked to the success of the Red Cloud Indian School. Are its members truly converts of Christianity or are they bystanders of the effects of the "irrevocable economic and cultural loss?" Their student success in modern day society is, however, undoubtedly impressive. Nearly 100% of Red Cloud graduates pursue higher education after high school - most of which are first generation college students. They've earned millions in scholarships and many are pursuing degrees at some of the most highly regarded colleges and universities in the nation. They boast a graduation rate around 94%, compared to an average of just 70% for Native students nationwide. These statistics provide insight to just one account of missionary work. For this small group of American Indians, in some manner, has been an unparalleled success story.



Figure 13 | *Mobile Home*, photo credit | Aaron Huey

PRECEDENT RESEARCH

When selecting the following case studies for precedent research, four major factors were given consideration:

1. Typology

Community or cultural center

2. Context

3. Urban Impact

Project sparked major urban renewal within the community

4. Environmental Impact

Project attempts to avoid adverse environmental impacts through locally sourced materials, passive systems, and responsive building techniques

The following projects were given special consideration for precedent research:

- Bamboo Craft Village Chongzhou, China
- Naoshima Hall Hongaza, Naoshima, Japan
- Fort Mason Center for Arts & Culture San Francisco, California
- Lakota Waldorf School Kyle, South Dakota



Figure 14 | *Bamboo Craft Village*, photo credit | Bian Lin

BAMBOO CRAFT VILLAGE / *Archi-Union Architects*

TPOLOGY: *Civic*

LOCATION: *Daomingzhen, Chongzhou, Chengdu, Sichuan, China*

SIZE: *Unknown*

DISTINGUISHING CHARACTERISTICS:

The Bamboo Craft Village, with a strong upbringing of rural life and tight-knit neighborhoods, is a typical representative of a local living environment. The region's cultural heritage reflects on the art of bamboo weaving while the Bamboo Craft Village looks to exemplify it.

In Bamboo, the successful precursor and community cultural center of the Bamboo Craft Village, is most notable for its interweaving serpentine roof which naturally defines two unique interior spaces. These spaces provide a rich experience between what is inside and what is outside; declaring what is landscape and what is architecture. The various functions of the building are garnered into a continuum under this inter-weaving roof.

After much research in the urban context, designer, Philip F. Yuan, attempts to create a rural infrastructure space integrated with the region's cultural premise. Yuan's approach to the cultural industry system becomes sensitive to the ecology, culture, industry, and lifestyle of the village.

URBAN IMPACT:

As this village is named after the local bamboo weaving craft, the community periodically carries out special events where bamboo weaving, processing, and artistry are fully displayed and taught. The community

welcomes the cultural expression of bamboo craft and has pushed to improve the surrounding environment in its namesake. Village roads have been the surrounding environment in its namesake. Village roads have been reorganized into a more efficient system, waterways are now subjected into a purification system, and a radiant countryside flourish. Ecological agriculture practices have been fully integrated with the local landscape. Even multi-level public buildings and spaces have been taken into consideration and prevention of urban sprawl. The village has gone great lengths to guide consideration and sensitivity to the local character.

PROGRAM ELEMENTS:

In Bamboo

- Courtyard
- Meeting/Dining
- Restroom
- Restaurant/Flexible space
- Terrace

Bamboo Craft Village

- Community cultural center (In-Bamboo)
- Bed & breakfast
- Bamboo industry education base
- Viewing platform/Express delivery/Restroom
- Camp lodging/Multi-functional classrooms/Outdoor gear
- Community welcome center/Souvenir shop/Handcraft exhibit



Figure 15 | Site Plan, photo credit | Archi-Union Architects

CASE TAKEAWAYS:

The Bamboo Craft Village project demonstrates a new definition for how architecture can interweave with tradition. It provides a means for re-examining the relationship between the village and the city of Chongzhou.

The project will not only help preserve construction traditions found in the rural countryside but will also help advance and facilitate village industry throughout. The Bamboo Craft Village has become a catalyst for rural industrialization while connecting the region's cultural influence to its healthy ecology.

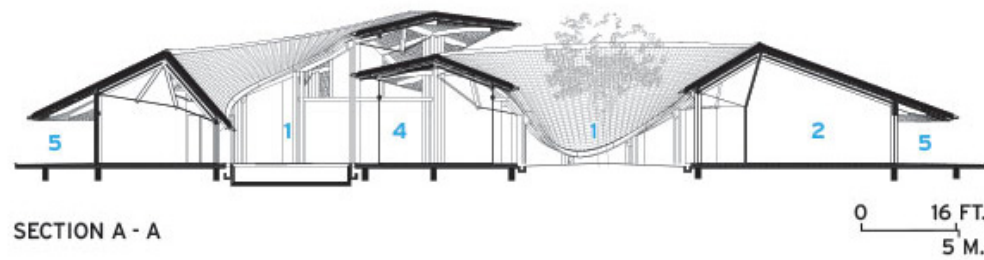


Figure 16 | Section, photo credit | Archi-Union Architects

- 1 Courtyard
- 2 Meeting/Dining
- 3 Restroom
- 4 Restaurant/Flexible space
- 5 Terrace

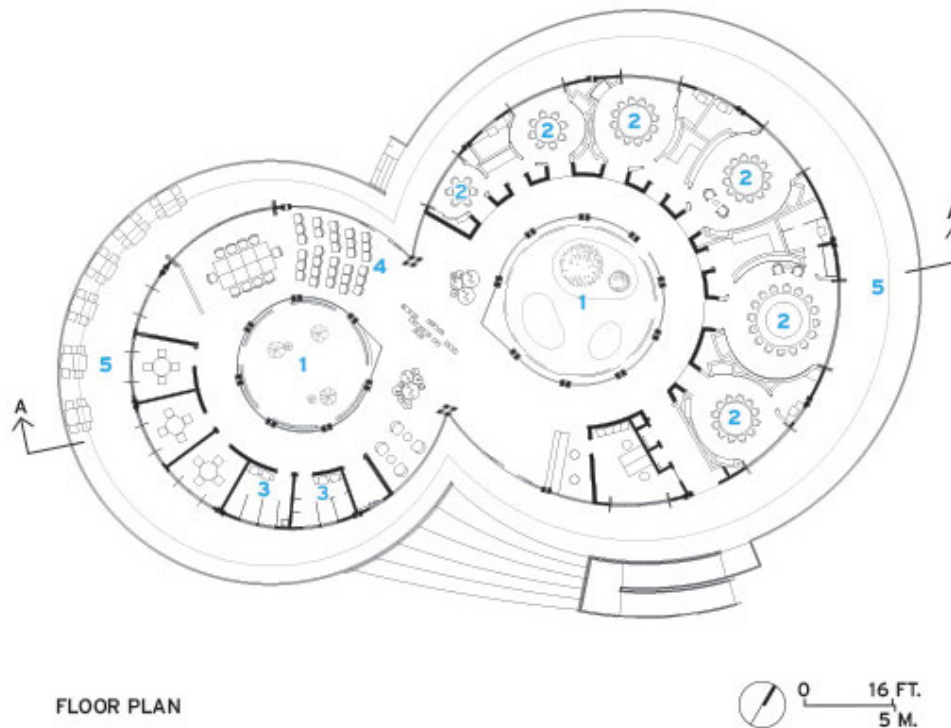


Figure 17 | Floor Plan, photo credit | Archi-Union Architects

ANALYSIS:

In Bamboo's interweaving architectural approach is a direct representation to the community's respect to bamboo craft. Adjacent streets and paths also begin to express this organic nature, connecting the village throughout.

The building is centered around its two interior courtyards; distinguishing a rich experience between what is landscape and what is architecture. In Bamboo looks to promote the ecology and cultural of the region.



Figure 18 | Naoshima Hall, photo credit | Shigeo Ogawa

NAOSHIMA HALL / *Hiroshi Sambuichi*

TYPOLOGY: Civic

LOCATION: Honmura, Naoshima, Kagawa Prefecture, Japan

SIZE: 1,000 sq. meters

DISTINGUISHING CHARACTERISTICS:

Designed by Hiroshi Sambuichi, the Naoshima Hall project places an elegantly nuanced building on the island of Naoshima, Japan. The project is an astonishing piece of art through architecture and a symbol of Sambuichi's two and a half years of research into this island's many 'flows'. Naoshima Hall is grounded in local history and a resemblance of the region's beauty. As Hiroshi Sambuichi explains, the project is chiefly influenced by 'the wisdom of the local way of life, which comprises an intimacy with nature in an unbroken succession since distant medieval times.'

On approach, the defining feature of Naoshima Hall is its impressive roof form, a contemporary reflection to the traditional Japanese Buddhist roof style found scattered across the country's many temples and shrines. Crafted from the highly resistant Japanese cypress, this roof maintains a traditional hipped profile, while hovering above its surrounding berm. The smooth, triangular opening in the hall's roof allows the prevailing north-south breeze to flow through and, when opened, draws inner air up from below. The long, low berm is similarly pragmatic – it provides thermal mass to the hall's interior, and helps regulate seasonal temperatures.

Separated to the north, the community center adopts an equally impressive form, rising vertically towards the sky. Stepping within its interior realm, Naoshima Hall sustains a balance of traditional architectural thinking with unblemished contemporary craftsmanship. The space is kept flexible, natural, and calm – inviting both local residents and tourists to experience anything from performance to sporting events. Meanwhile, a floating timber platform stretches out into the rear pond, facilitating an area appropriated as a tea ceremony venue or theatre stage. The hall space is bound with soil walls and both earthen and hinoki floors, while the panoramic ceiling is glazed in white stucco. These natural elements ensure that Sambuichi's architecture remains a part of Naoshima's beautiful landscape.

PROGRAM ELEMENTS:

- Multi-purpose hall
- Stage
- Community center
- Moss garden
- Pond

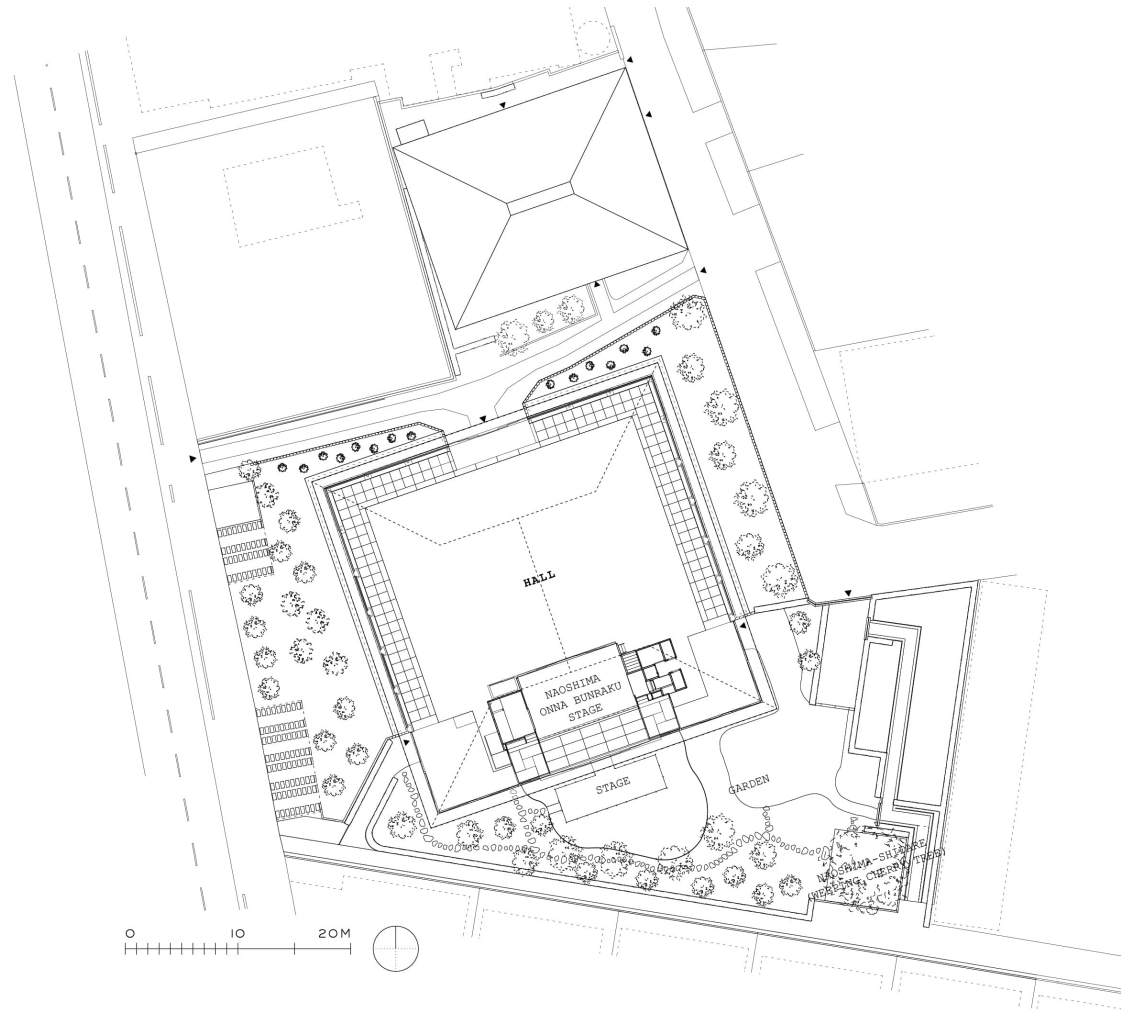


Figure 19 | Site Plan, photo credit | Sambuichi Architects

CASE TAKEAWAYS:

Naoshima Hall is the foundation of a contextual research project that Sambuichi is undertaking. Titled 'The Naoshima Plan', it aims to communicate the island's material history, and subtle natural patterns, to the next generation. According to Sambuichi, 'The Naoshima Plan is an attempt to show the moving materials – like water and air – of the entire island, manifested in individual buildings, and to make people once again recognize their beauty and importance.'

The Naoshima Hall project is a strong advocate for design integration of the natural environment. Its beauty resonates with the stunning landscape found throughout the region because of its purity, simplicity, and extensive use of natural elements. Hiroshi Sambuichi's massive undertaking of 'The Naoshima Plan' attempts to instill ecological premise into the built environment while allowing "people to once again recognize their beauty and importance." The Naoshima Hall is flexible and welcoming to all. Its ability to adapt to the changing needs of its occupants help make it an ideal case for the future of civic design and integration.

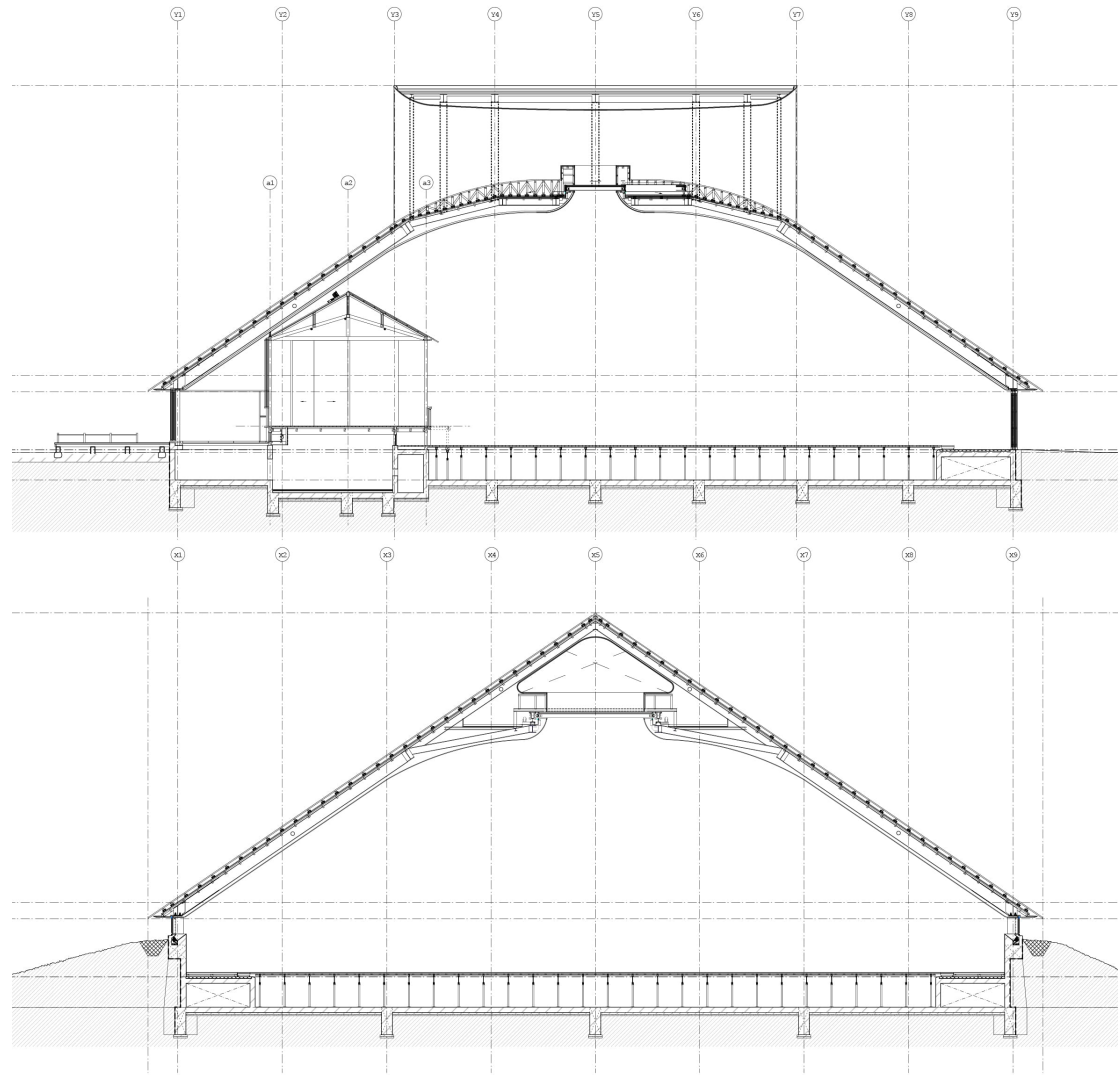


Figure 20 Building Sections, photo credit | Sambuichi Architects

ANALYSIS:

The project's open-plan mimics traditional Buddhist architecture of the region in its ability to become flexible and accommodating. Naoshima hall welcomes local residents and tourists alike to experience a space of divine nature and community engagement.

The positioning and orientation of Naoshima Hall optimizes the island's many 'flows'. The building naturally breathes, allowing the prevailing north-south winds to circulate through its interior while additionally inviting the sun to solely light the space within.



Figure 21 | Fort Mason Center for Arts & Culture, photo credit | Bruce Damonte

FORT MASON CENTER for ARTS & CULTURE / ***LMS Architects***

TYPOLGY: Institutional

LOCATION: Golden Gate National Recreation Area, San Francisco, CA

SIZE: 70,000 sq. feet

DISTINGUISHING CHARACTERISTICS:

Fort Mason Center for Arts & Culture connects the public to innovative theater performances, vibrant visual-art shows, compelling installations, music and art classes, and award-winning cuisine — all on a historic, waterfront campus. Founded in 1977 as part of the Golden Gate National Recreation Area, the nonprofit was established in an effort to support creativity by providing a vibrant gathering place and a home for thought-provoking programs, events, and organizations (Fort Mason Center, 2015).

Fort Mason Center for Arts & Culture (FMCAC) is a unique community destination along San Francisco's northern waterfront. The center organizes arts and cultural events, exhibits, and performances in a rehabilitated U.S. Army San Francisco Port of Embarkation military base. This national historic landmark hosts an ever-evolving rotation of artistic programs for over 1.2 million annual visitors. FMCAC's commitment to supporting San Francisco's arts community provides approximately \$2.5 million in annual grants to local arts organizations. These funds allow groups to experience and produce diverse and innovative works at the historic campus (Fort Mason Center, 2015).

PROGRAM ELEMENTS:

- Main public gallery
- Student lounge
- Media theaters
- Student gallery
- Shop/maker space
- Atrium/exhibit space
- Bleacher stair
- Seminar room
- Classrooms
- Studios

CASE TAKEAWAYS:

Fort Mason Center for Arts & Culture is a pioneer in the reuse of military bases. Its mission to engage the public through local arts makes it a unique and innovative landmark in the city of San Francisco. A multitude of classrooms, workshops/maker spaces, theaters, and public galleries provide students and visitors the opportunity to express their artistic minds.

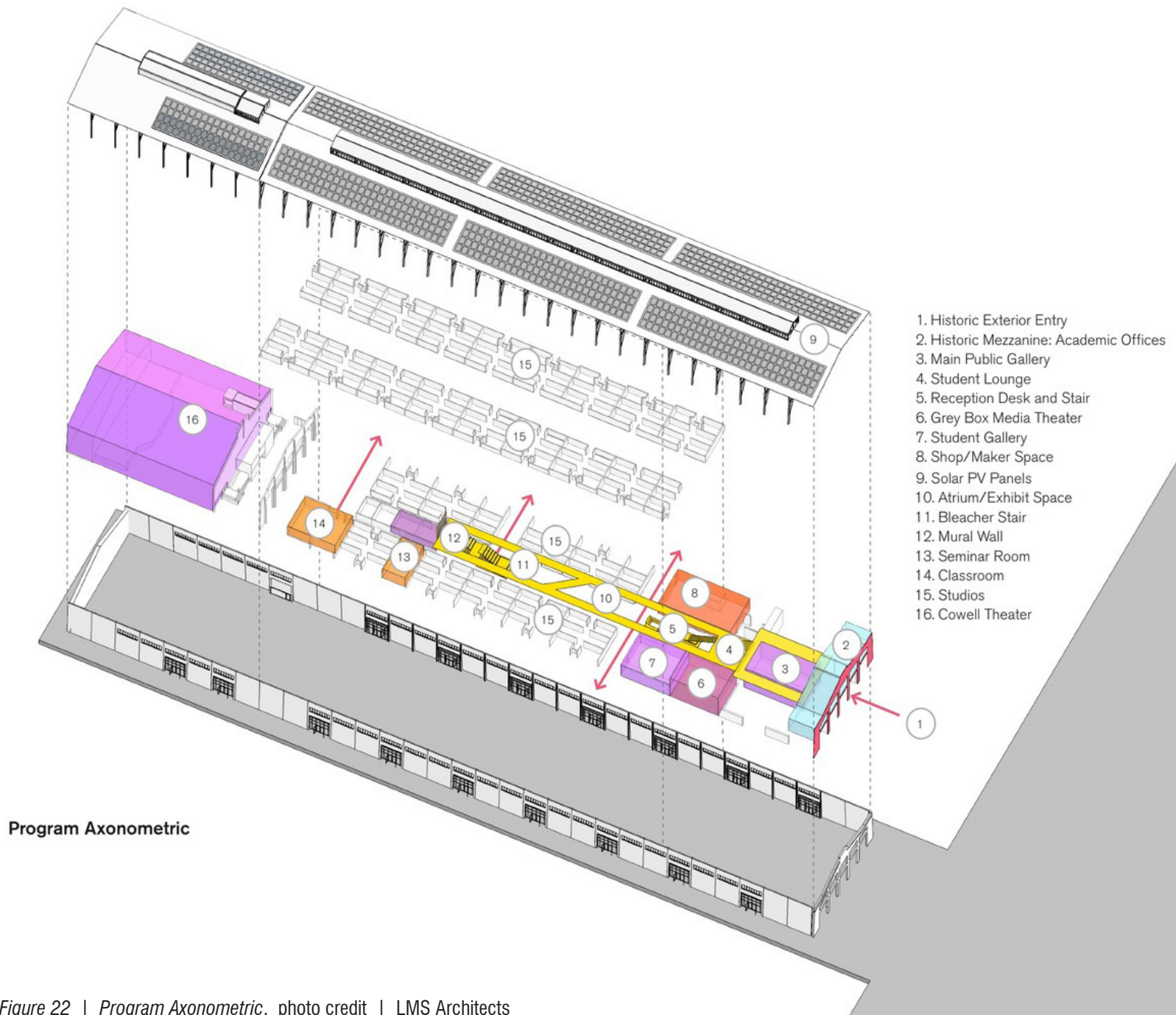


Figure 22 | Program Axonometric, photo credit | LMS Architects



Figure 23 | Phase II - Floor Plans, photo credit | LMS Architects

ANALYSIS:

The Fort Mason Center for Arts & Culture transforms San Francisco's Pier 2 into a hub for both undergraduate and graduate studies and integration of public engagement within the arts.

The 13-acre complex houses numerous classrooms, workshops/maker spaces, theaters, and public galleries along its slender footprint.

100%



On Site Renewable Energy
Provides all Required Electricity

23 kBtu/SF



Energy Use
Intensity

83%



Energy Reduction- Meets
AIA 2030 Commitment

75%*



Building Reuse/
Embodied Energy

32%



Water
Reduction

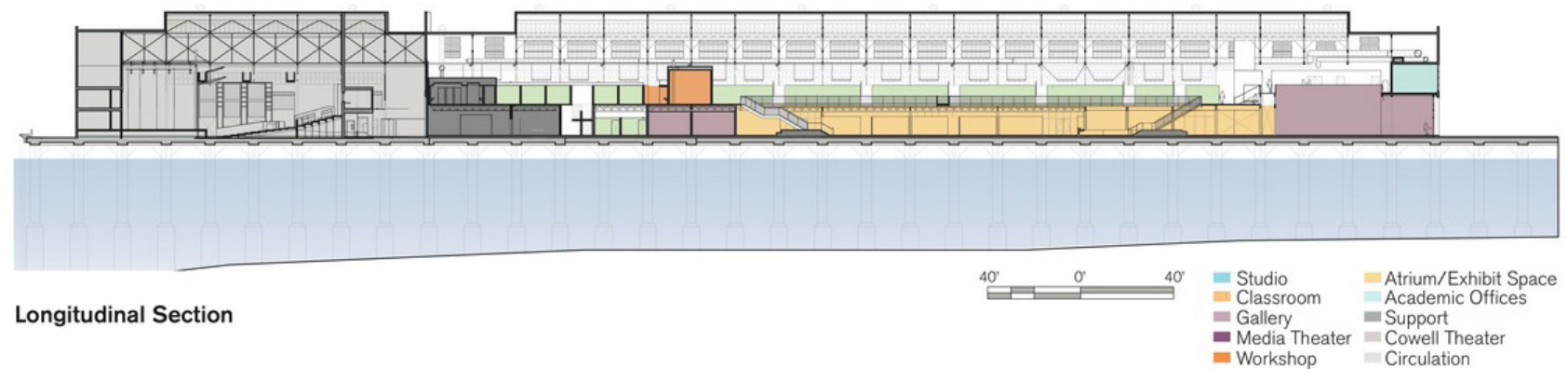
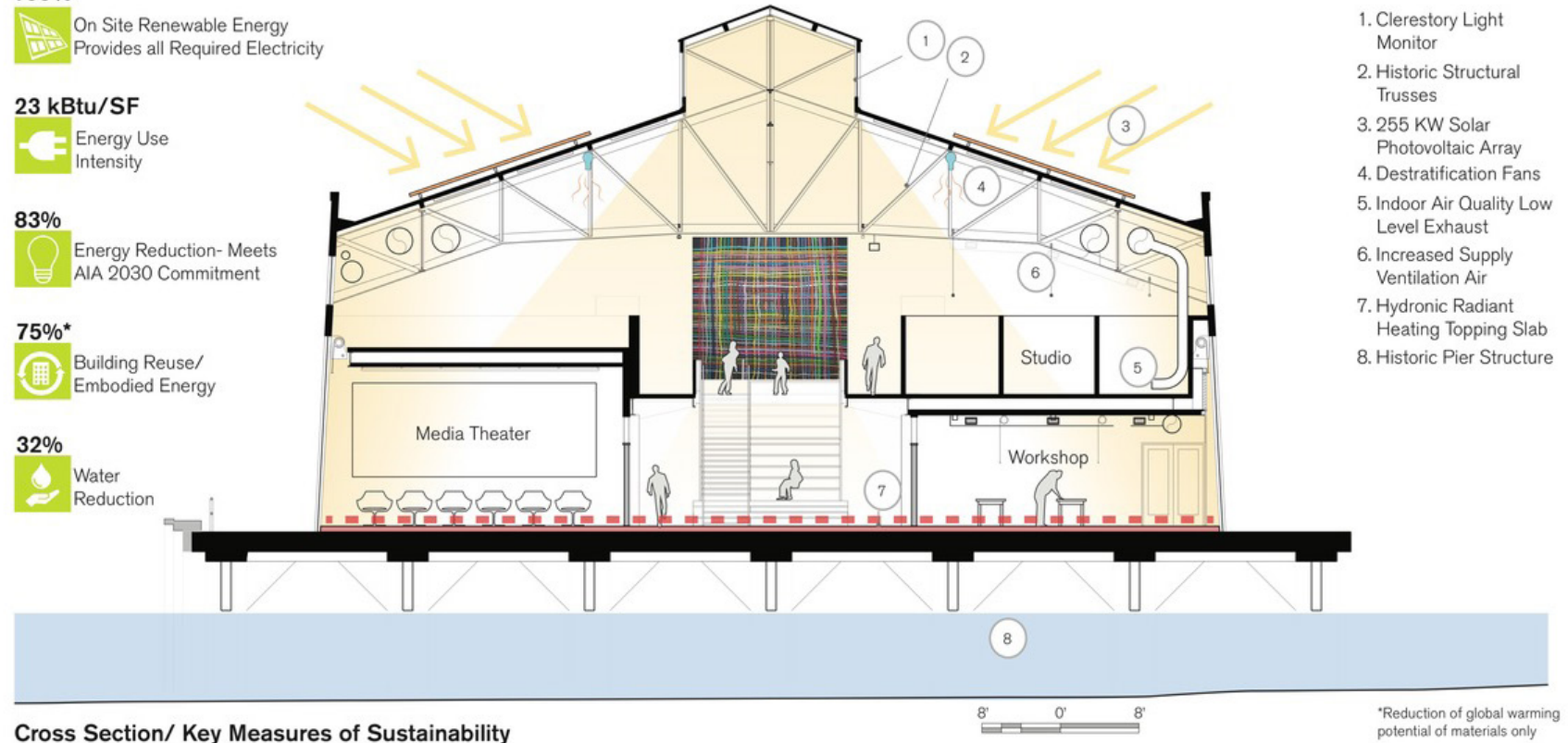


Figure 24 | Sections, photo credit | LMS Architects



Figure 25 | Lakota Waldorf School, photo credit | lakotwaldorfschool.org

LAKOTA WALDORF SCHOOL / *Jeff Dickinson*

TPOLOGY: Education

LOCATION: Kyle, South Dakota

SIZE: Unknown

DISTINGUISHING CHARACTERISTICS:

The Lakota Waldorf School in Kyle, South Dakota was founded in 1993 by a group of parents who aspired an alternative education for their children, which integrated their Native culture, language, and values. Those parents sought an education that taught Lakota craft-making, woodworking, gardening, language and culture throughout the curriculum.

The pedagogy of Waldorf education seeks to develop children's intellectual, artistic, and practical skills through holistic thinking and integrated cultural influence. This philosophy stems from the idea that children learn from experience rather than the expectation to memorize facts. The schools incorporate art and culture into nearly every subject manner as a means to bring lessons to life. Still shadowing the academic requirements set forth by public institutions, Waldorf's central focus is the cultivation of children's independent imagination and creativity.

“Waldorf is basically learning with head, hand and heart” - Isabel Stadnick, Lakota Waldorf School administrator and co-founder.

PROGRAM ELEMENTS: (proposed building)

- Classrooms
- Offices
- Conference
- Cafe/Retail
- Assembly space
- Restrooms
- Organic garden
- Playground
- Sweat lodge

CASE TAKEAWAYS:

The Lakota Waldorf School building is not a flashy representation of Native culture. It's conservative nature makes the current structure contextually normal while still being ecologically respectful in the small town of Kyle, South Dakota. But what goes on inside the building, the life lessons, is what is so special.

“The children becoming part of the economy is one part of their life,” teacher Celestine Stadnick said. “We are looking at the children, what does the child need, not what does America need. We teach them their culture, give them back their cultural identity that has been so violently removed is what gives them a sense of self.”



LAKOTA WALDORF SCHOOL - CAMPUS EXPANSION 2016
COMMUNITY AND CLASSROOM BUILDING



Figure 26 | *Planned Expansion*, photo credit | lakotwaldorfschool.org, Jeff Dickinson

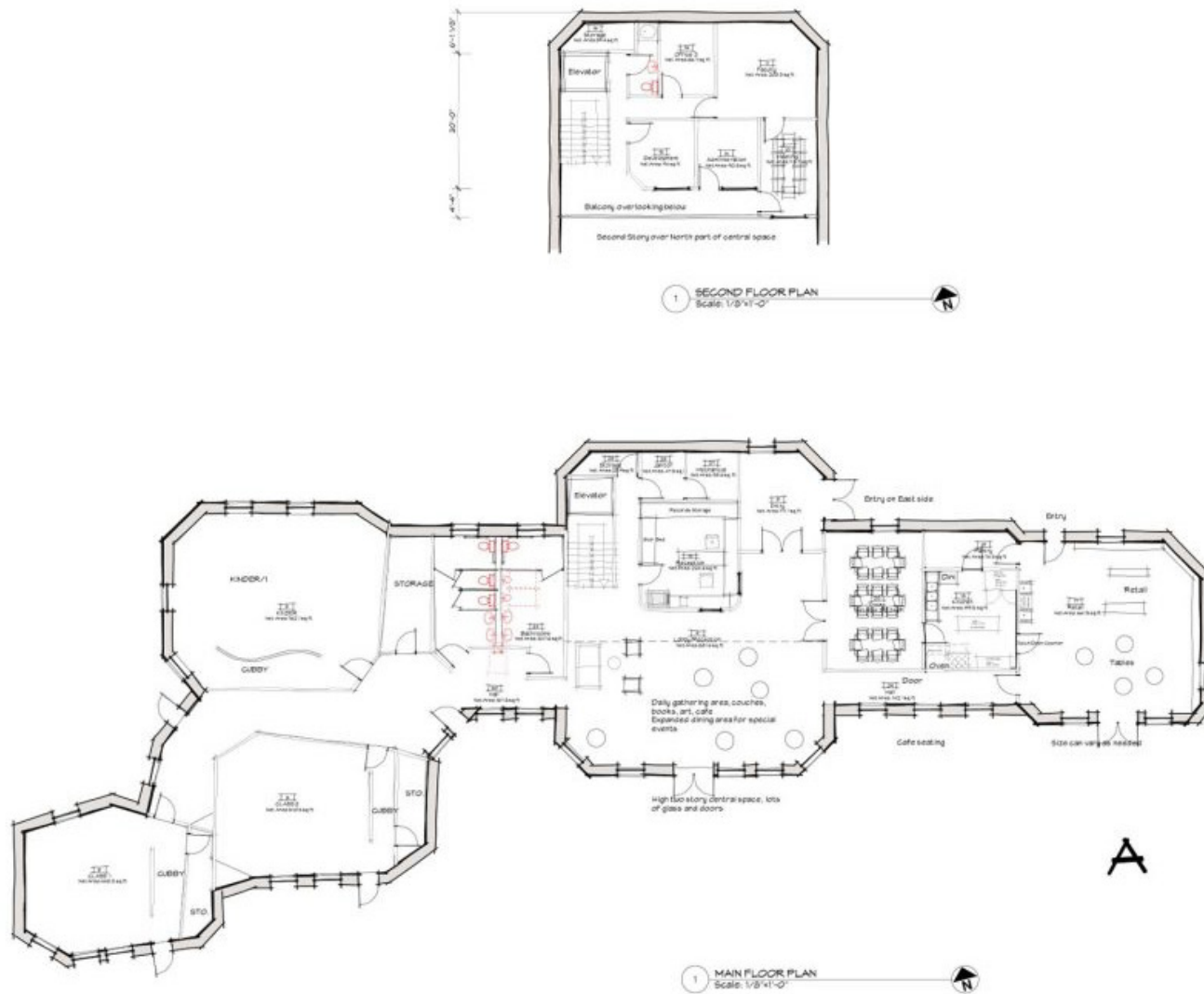


Figure 27 | Planned Expansion Floor Plan, photo credit | lakotwaldorfschool.org, Jeff Dickinson

ANALYSIS:

The current Lakota Waldorf School building has two-foot thick, straw bale-insulated walls. Its two classroom interiors welcome the natural environment with skylights above. This structure constitutes the first phase of a three-phase capital construction campaign planned by the school.

CASE STUDY & TYPOLOGICAL RESEARCH SUMMARY

Each of the previous case studies discussed were thoughtfully chosen and addressed based on individuality and unique differences. However, commonality of the urban impact between each of the studies shows significant similarities in their approach.

The Bamboo Craft Village, especially the village's community center, In-Bamboo, enlightens the rich history and culture of the region. Its interweaving, infinite roof is symbolic to the area's artistry of bamboo weaving, promoting industrialization, economic status, and engagement within the community. In-Bamboo is a catalyst for regeneration of the urban context and continues to improve quality of life in the City of Chongzhou.

The Naoshima Hall case study looked extensively at the integration of the natural environment. Hiroshi Sambuichi's contextual research of the region's many 'flows' provided great insight into the development of a passive building and its importance within the community. Sambuichi states, "The Naoshima Plan is an attempt to show the moving materials – like water and air – of the entire island, manifested in individual buildings, and to make people once again recognize their beauty and importance." As this thesis approaches an idealogical design of a natural, passive structure, I find Sambuichi's work of Naoshima Hall exquisite.

Regeneration of San Francisco's Pier 2 proves to be popular amongst local residents and visitors alike. Fort Mason Center for Arts & Culture is a major hub for both undergraduate and graduate studies and public engagement with the arts. The center capitalizes on the area's historical precedence while creating immense change, opportunity, and development.

The Lakota Waldorf School on the Pine Ridge Reservation in Kyle, South Dakota is gem amongst jagged rocks. This progressive school teaches students through the expression of Native values, language, and culture. Students here learn by experience through the use and integration of all their senses. Woodworking, gardening, archery, art, and Native dance are just a few lessons students become exposed to on a daily basis at the Lakota Waldorf School. By giving their students a cultural identity, the children are able to recognize their beauty and importance.

As mentioned earlier, each of the four previous case studies has unique differences, uses, and typologies; however, commonality of the urban impact between each of the studies shows significant similarities in their approach. This can be argued based on the idea that each and every study has a positive urban impact in each their respective communities. Not only do they possess positive qualities but rather common goals – to promote community engagement, improve quality of life, integrate the natural environment, and to help others understand their self-worth.

The project I have defined is important to me as I take great pride in being an advocate for the Dakota people. I have been a resident of the Great Plains my entire life as I grew up on the family farm near the small town of Salem, in eastern South Dakota. Here, I was blessed with an education and work ethic that was unparalleled. I was always proud to talk about my heritage and to learn about the history of the Upper Midwest, especially the legacy of South Dakota. I had learned about Native Americans and their influence on the development of the United States. The idea of Indian reservations was not foreign to me as I've ventured through many, scattered across the rolling prairies of South Dakota. My idea of the history of the Great Plains was not perfect but it seemed rather clear. However, as my education continued, the whole story began to unveil.

In my first year of post-secondary education, I distinctly remember being shown a documentary in a sociology class. The video expressed the untold truth of the despair of Pine Ridge in western South Dakota. I was overwhelmed. I could not believe what I was seeing; just 90 miles southeast of the Black Hills, a nation of people was struggling to survive. Many, unable to afford food or clothing, were living in over-crowded, mold-infested, dilapidated homes with no running water or electricity. I realized these individuals are experiencing the long-term effects of forced assimilation in modern society. I have continued to dive deeper into the history of Native Americans and simultaneously become deeply involved in their struggle.

The Oglala Lakota are just one of the many Nations of Indians across the Great Plains. However, their history of struggle with the United States government has made Pine Ridge ground zero for Native issues in America.

PROJECT JUSTIFICATION

The precedence of the Sioux Indians in the Great Plains is astounding but in dire need of direction. Many have exposed the truth of this obliterated Nation, yet, few have attempted to create change. My project looks to do just that. Providing a sanctuary for education and spiritual rituals, the proposed cultural center would allow the freedom of expression through art form and community engagement. I believe this idea of involvement and education will shine light on their history and resilience. It will exclaim the Oglala Lakota name, thus bringing a sense of pride back to its people. The privately funded cultural center, on the campus of Red Cloud Indian School, would become a catalyst for the community, creating economic income, job opportunities, art, education, and spiritual healing. It will look to change the dynamic of the modern society in ways that promote growth and interconnected resiliency.

At this stage in my academic and professional development, I have been part of numerous projects that often represent typical members of society – members of the middle- and upper-class. These members, whom can afford every day essentials, food, lodging and the occasional luxury, continue to separate themselves from those less privileged. An enormous economical gap between stable individuals and the lower-class shines light on the opportunities each represent. I believe by narrowing this gap, we can provide more opportunities and overall growth within our society. I understand that this is not an easy issue to address so I know my personal, academic, and professional development will undoubtedly be pushed throughout the process. As I continue to show my compassion, not only for Native people but for all of those who fail to be heard, I believe this is the perfect time to make change in our great nation.

From the earliest days of the United States, Native Americans have fallen victim to the ascent of the white settler. The American Indian Wars throughout the course of history prevail an ugly truth of segregation, deprivation, and forced assimilation of indigenous people. From the colonial period to today, a genocide of Native Indians continues to unearth.

The Revolutionary War began in 1765. A colonial revolt of American Patriots in the Thirteen Colonies won independence from Great Britain, becoming the United States of America. Though this major battle was not the first conflict with Native Indians, it became one of the most extensive and destructive Indian wars in United States history. Burned villages and crops, murdered chiefs, divided councils and civil wars, migrations, towns and forts choked with refugees, economic disruption, breaking of ancient traditions, losses in battle and to disease and hunger, betrayal to their enemies, all made the American Revolution one of the darkest periods in American Indian history (Calloway, 1995, p. 290).

The wrath of the American Indian Wars continued. Major battles proceeded with the advancement of the U.S. government and the destruction of indigenous people was unfolding before the eyes of our ancestors.

The Louisiana Purchase in 1803 acquired approximately 827,000 square miles of land west of the Mississippi River from France. The significance of this event was indeed important to the development of the United States but had unforeseen devastation of the indigenous people and their cultural identity. During this time, president Thomas Jefferson pursued an Indian policy that had two main ends.

HISTORICAL, SOCIAL AND CULTURAL CONTEXT OF THE THESIS

First, Jefferson looked to guarantee the security of the United States by binding Indian nations to the U.S. through treaties. The treaties sought to acquire land and facilitate trade while most importantly, keeping the Indian nations allied with the United States. Secondly, Jefferson focused on the gradual “civilization” of the Native people with his Enlightenment principles. Through treaties and commerce, Jefferson aspired to get Native Indians to adopt European practices and a sedentary way of life. Jefferson did not coerce Indian nations to sell lands but rather looked for ways to outwit them. Accelerating the process, Jefferson encouraged Indian nations to purchase goods on credit. Ultimately, this would cause tribes to fall into debt, which they could relieve through the sale of lands to the government. Another division of Indian Nations rose as many were unsure how to respond to Jefferson’s policies. Resistance formed and prevailed during the War of 1812.

Years progressed, and the United States continued to struggle with ways to address Native affairs. The Indian Removal Act, signed by president Andrew Jackson on May 28, 1830, began a systemic effort to remove American Indian tribes from the southeast. This acculturation, originally proposed by George Washington, was a major effort to assimilate with American culture. Natives were encouraged to read and speak English, adopt European practices, and convert to Christianity. By 1831, in a case titled *Cherokee Nation vs. Georgia*, the Supreme Court decided that Indian tribes were not foreign nations yet, were not states. Tribes were considered “domestic dependent nations,” not subject to the laws of the states. The ruling meant that Native Americans were not citizens of the United States and would continue to become displaced.

Two decades later the Fort Laramie Treaty of 1851, signed between United States treaty commissioners and thousands of representatives of the Arapaho, Arikara, Assiniboiné, Cheyenne, Crow, Hidatsa, Mandan, and Sioux Nations, set forth traditional territorial claims for each of the eight tribes. The land would be sanctioned as Indian territory with the United States acknowledging no lawful claim of it. The Fort Laramie Treaty of 1851 was the first effort to define the geographical boundaries between Indian tribes of the northern Great Plains and became one of the most important treaties in American history. However, the Treaty of 1851 had several problems that ultimately led to broken terms by U.S. citizens, the government, and the Native tribes. Over the next several years, the treaty was battered by new challenges. The Civil War had ended, the great Union Pacific Railroad was under construction, gold had been found in Colorado and Montana, and many more people were traveling west through the Great Plains. This increase in travel led to the increase in conflict between the Great Plains' Natives and the United States. Red Cloud, a fearless Oglala Lakota leader, declared his people would create war on travelers and U.S. Army posts until the government subdued the road passage and removed the Army. Turmoil was beginning to strike fear in the eyes of American leaders

In 1868, a treaty commission again met at Fort Laramie. A new federal policy was brought forth that focused on placing all tribes on reservations. This became known as the Fort Laramie Treaty of 1868 and sanctioned bands of the Lakota and Sioux Nation to establish the Great Sioux Reservation, including ownership of the Black Hills and other areas within South Dakota,

Wyoming, Nebraska, and Montana. According to the agreement, the treaty had to be signed by three-fourths of the males of each tribe. Numerous bands of Lakota Sioux agreed to the treaty, however, many did not.

In 1874, six years after the second Fort Laramie Treaty, gold was found in the Black Hills. The government immediately attempted to buy the land, but the Sioux tribes refused. The Black hills are sacred to the Sioux and were deemed not for sale. As a desperate attempt to control the Native tribes, the government demanded that all Sioux Indians report to the reservation. Conflict followed as many bands refused. The treaties were meant to bring peace but instead ensued dissension.

Matters escalated as the United States sought to assimilate the indigenous people. During the Fall of 1876, Congress issued an ultimatum to the Sioux nation. Rations would be eliminated if the Lakota did not give up their claim of the Black Hills. Many tribes were forced to adhere for fear of death from starvation. During this time, the United States Army in the West was planning a major campaign against the Sioux. The attempt would disarm the Natives as the government feared another uprising from the Sioux. The Battle at Little Big Horn began, continuing the destruction of the indigenous people. "The Pioneer has before declared that our only safety depends upon the total extermination of the Indians. Having wronged them for centuries, we had better, in order to protect our civilization, follow it up by one more wrong and wipe these untamed and untamable creatures from the face of the earth." – L. Frank Baum



Figure 28 | Massacre of 1890, photo credit | Aaron Huey

The Wounded Knee Massacre on December 29, 1890 would become one of the most traumatic events in Native history. Commanded by Colonel James W. Forsyth, the 7th Cavalry Regiment surrounded a Sioux encampment at Wounded Knee Creek and massacred Chief Big Foot and 300 women, children, and warriors of the Pine Ridge Reservation. This became the last major battle between the United States and Native Americans. At the atrocious expense of a helpless tribe, at least twenty U.S. soldiers were awarded the Medal of Honor for valor during the Wounded Knee Massacre – more medals given for this single battle than any battle in WWI, WWII, Vietnam, Korea, Iraq, or Afghanistan.

Many events have unfolded since the Wounded Knee Massacre. Fortunately, few have seen the deliberate acts of killing of Natives or U.S. citizens. However, these milestones go much deeper and present great problems with the cultural future of the Oglala Lakota.



Figure 29 | Red Cloud Indian School

SITE ANALYSIS

100 MISSION DRIVE | PINE RIDGE, SOUTH DAKOTA

"So often the narrative of the Pine Ridge Reservation is that of deep and immense poverty, of incredible violence or sadness. But Red Cloud is a pocket of hope. I think that's exactly what we provide here, is hope for the future. And the tools in order for our students to open those doors." (Maka Akan Najin Clifford)

The Red Cloud Indian School, located roughly five miles North of Pine Ridge, serves 600 Lakota children and families on the Pine Ridge Reservation in western South Dakota. Extreme poverty is a reality on the reservation and continues to affect the overall development of the Oglala Lakota and their city. As one may expect, the quality of the infrastructure and cleanliness of the reservation is of major concern. However, there are exceptions to this norm and the Red Cloud Indian School campus works diligently to upend this notion.

This thesis project looks to integrate a cultural/art facility right in the core of the campus. An initial site visit was conducted in early October and was incredibly informative to the project. The following pages include photographs and illustrations that give insight to the surrounding context, nature, and overall mood of the campus.

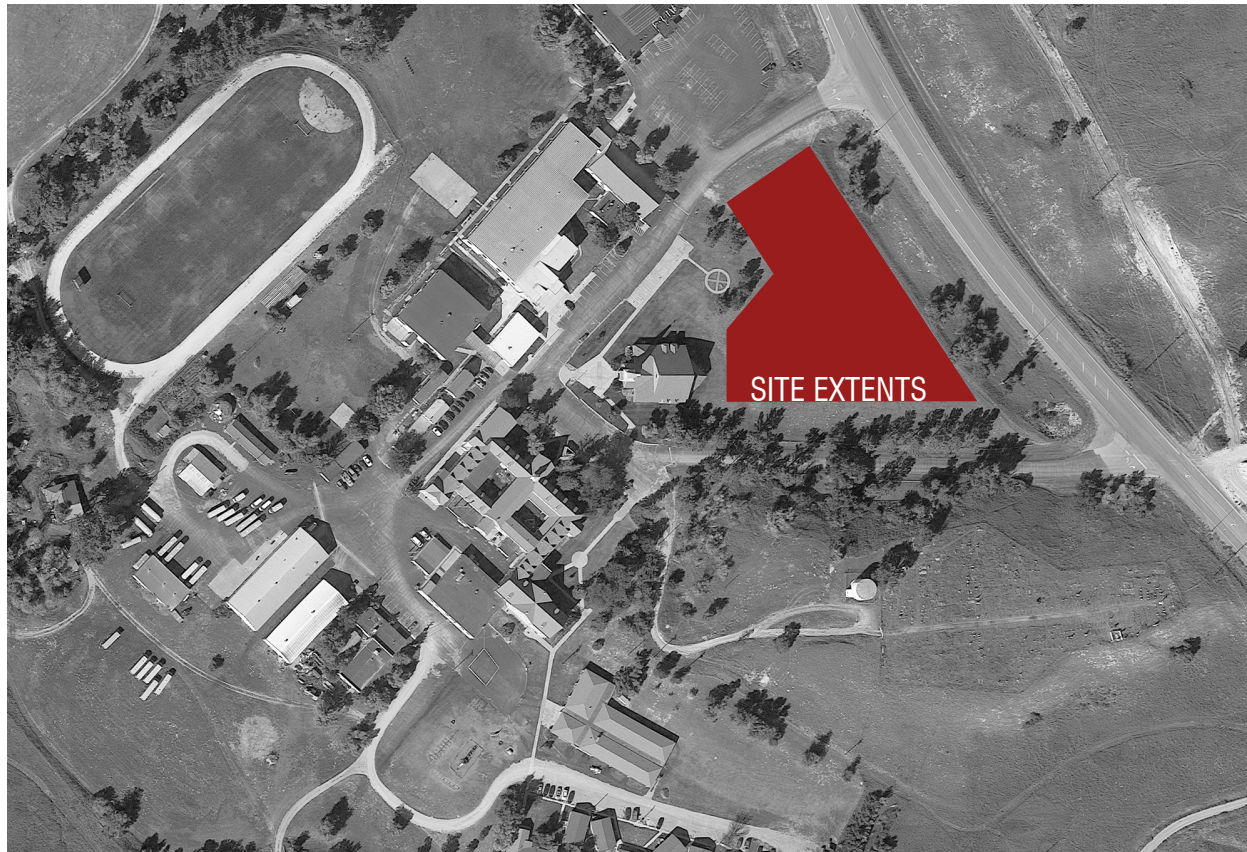


Figure 30 | Proposed Site Extents, photo credit | Google Maps

SITE EXTENTS

Sprawling an area of roughly two-acres, the potential capabilities for the site focuses on the currently under-developed interior. The renowned Holy Rosary Catholic Church is the only other structure within the realm of the campus center. The Church's steeple and entrance face due West, leaving its back side exposed to the morning sun in the East.

The marked location in Figure 31 is often used as overflow parking for major sporting, school, and campus events, yet it yearns for permanent belonging. The campus' original historic church once occupied a large portion of this area but burned to the ground on Good Friday, April 5, 1996.

This large expanse sees almost no change in elevation when comparing the site's surrounding context, and is positioned well below the campus' graveyard to the South. The site is quite open, surrounded by sparsely populated pine trees and the elevated U.S. HWY 18 to the East.

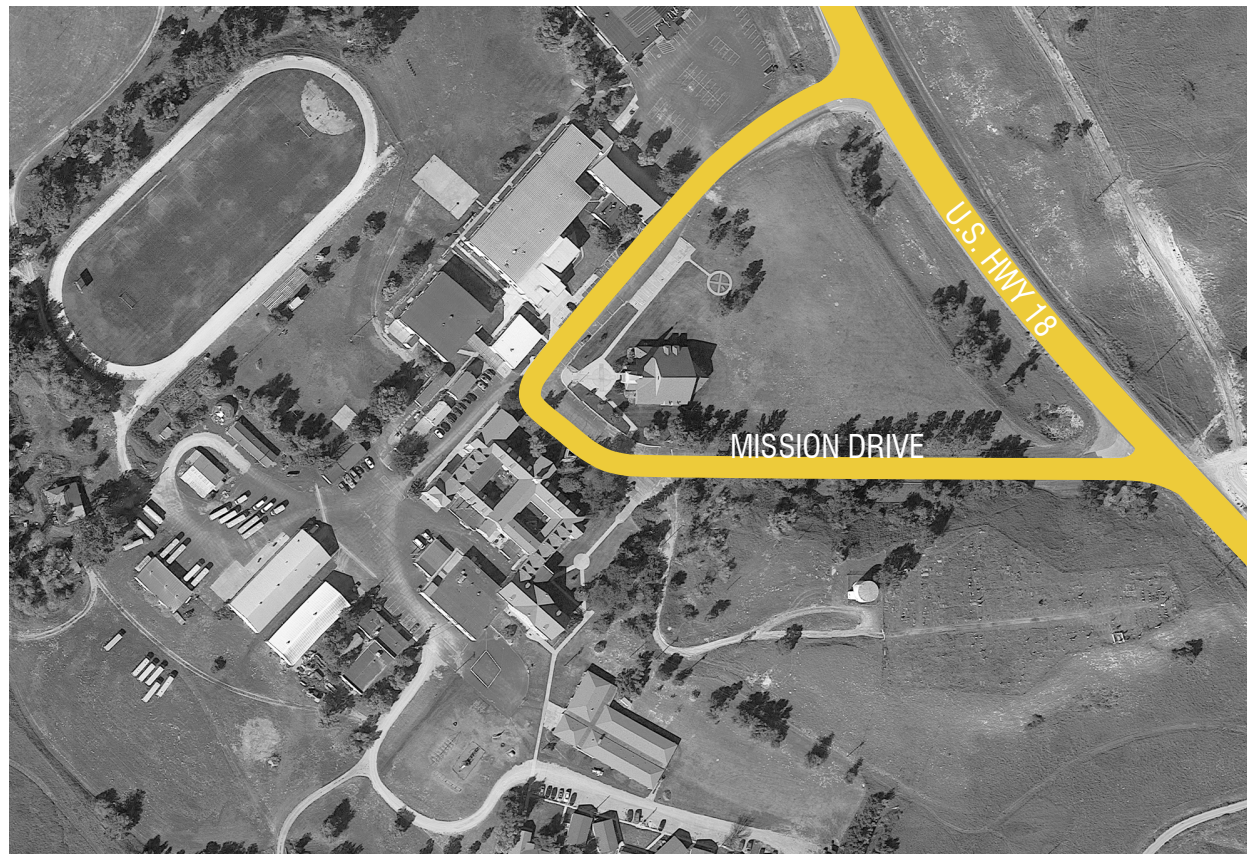


Figure 31 | Red Cloud Campus Circulation, photo credit | Google Maps

CIRCULATION

Surrounding the proposed site location is a looping circulation system. Major U.S. Highway 18, adjacent to the East, has a steady flow of traffic throughout the course of the day. It is one of two major highways connecting the city of Pine Ridge and travels northwest, touching the Badlands National Park roughly 80 miles away. A popular route for many members of the reservation, this major highway system creates a rather hectic and dangerous environment directly outside of the Red Cloud Indian School Campus. However, its close proximity is a welcomed means of access for a reservation that attempts to sprawl in every direction.

Mission Drive, arching around the iconic Holy Rosary Catholic Church in the campus' center, has a much different attitude than the busy highway to the East. Almost immediately, one experiences the comfort of its quiet atmosphere and scalable width. Mission Drive feels the stress of chaos just twice each day - correlating to the beginning and end of the school's daily dismissal. Parents and guardians, as well as the campus' nineteen yellow school buses, dominate the asphalt roadway, beginning and ending their combined 1,000 mile daily journey. Pedestrian pathways currently reside on the developed portions of the campus but would look to be increasingly interconnected with the addition of this project's proposed cultural facility.

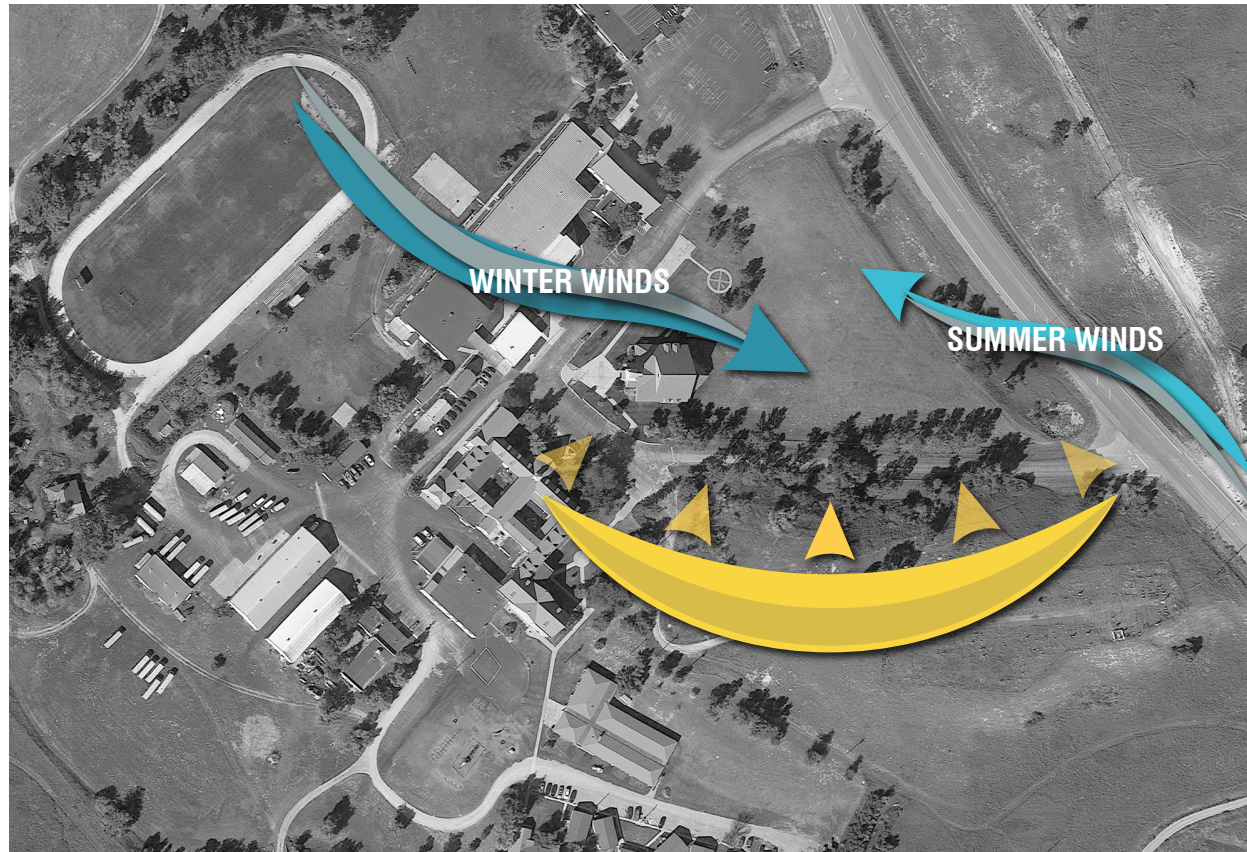


Figure 32 | Sun & Wind Studies, photo credit | Google Maps



Figure 33 | Site Analysis



Figure 34 | Site Analysis



Figure 35 | Site Analysis



Figure 36 | Site Analysis



Figure 37 | Site Analysis



Figure 38 | Site Analysis



Figure 39 | Site Analysis



Figure 40 | Site Analysis



Figure 41 | Site Analysis



Figure 42 | Site Analysis



Figure 43 | Site Analysis



Figure 44 | Site Analysis



Figure 45 | *Bareback*, photo credit | Aaron Huey

The performance criteria for this project is largely justified by material and environmental impact. The project attempts to have a minimal effect on the environment while having a major influence on its occupants. Materiality will play a substantial role in this attempt.

The notion of sustainable living is particularly apparent in Native American culture. Though religious beliefs vary between tribes, each share strikingly similar anthropological data, traditions, and spiritual values associated with environmental presence. They share a profound respect for nature and their attitude to the land with other hunter-gatherers. As history took its course, the white-settler began to demonstrate power and aggression toward the Native people. Ways of life began to change. The advent of agriculture and then industry brought massive shifts in attitudes to nature. Yet, still today, after years of assimilation, nature is still derived in nearly every part of Native American culture.

As this project's performance criteria is based off the principle of sustainability, there is a need for evident data, proving its success or unsuccess. This data will be collected through two determining factors: materiality and regenerative design. Both can be argued to be one in the same but for statistical purposes, I will be separating them into their own respective categories.

PERFORMANCE CRITERIA

Materiality will play a significant role as it is the basis, or framework, for the project. Choosing the most environmentally-friendly, energy-stable materials will prove a valid source of argumentation for performance of the building. I will be considering the longevity of product resources and their direct (and indirect) impact upon the environment. Locally sourced materials (within a 500-mile radius) will undoubtedly be utilized as much as possible.

Regenerative design will be heavily integrated into the project and be representational to Native American building practices, especially those of the Oglala Lakota. The term "regenerative" describes processes that restore, renew or revitalize their own sources of energy and materials, creating sustainable systems that integrate the needs of society with the integrity of nature. Though this concept will likely be difficult to document, computer analysis, and graphical representation will prove its undeniable performance. The regenerative approach uses biomimicry, or the study of ecological systems to find solutions to human problems and will continue to be influential throughout the design of the project.

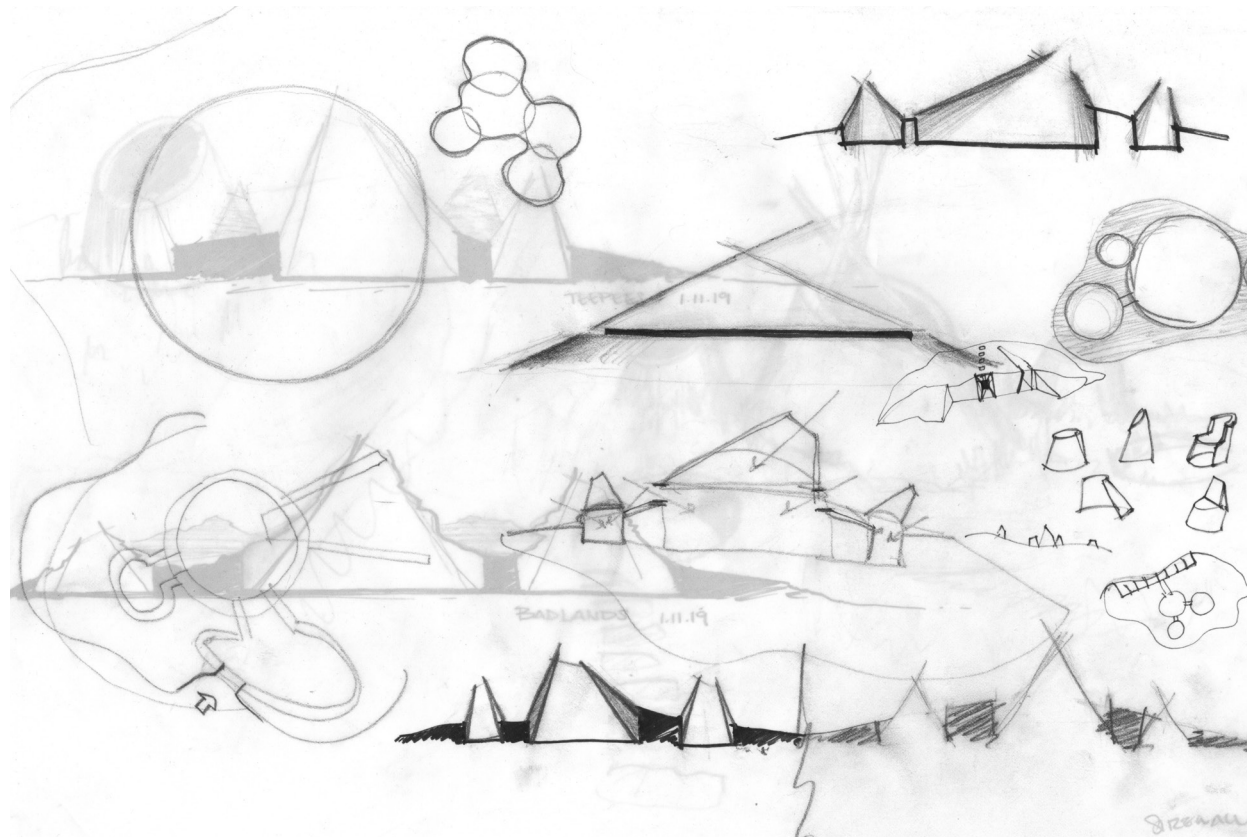








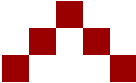







Figure 46 | Process Sketches

DESIGN SOLUTION | PROCESS DOCUMENTATION

The process of this thesis design reflects largely on the traditional culture of the Oglala Lakota. Combining influences of the Lakota visual language, medicine wheel, architectural practices, the natural environment, surrounding site context, and spiritual and cultural values, the design takes one through the historical significance of the region's indigenous people. Paying homage to the fearless leader and war chief, Red Cloud, the design also represents the future and growth of Pine Ridge.

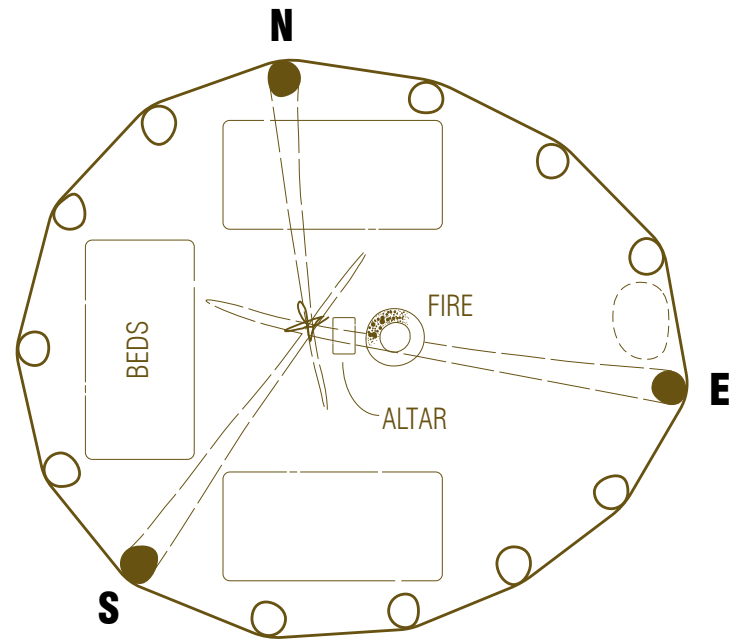
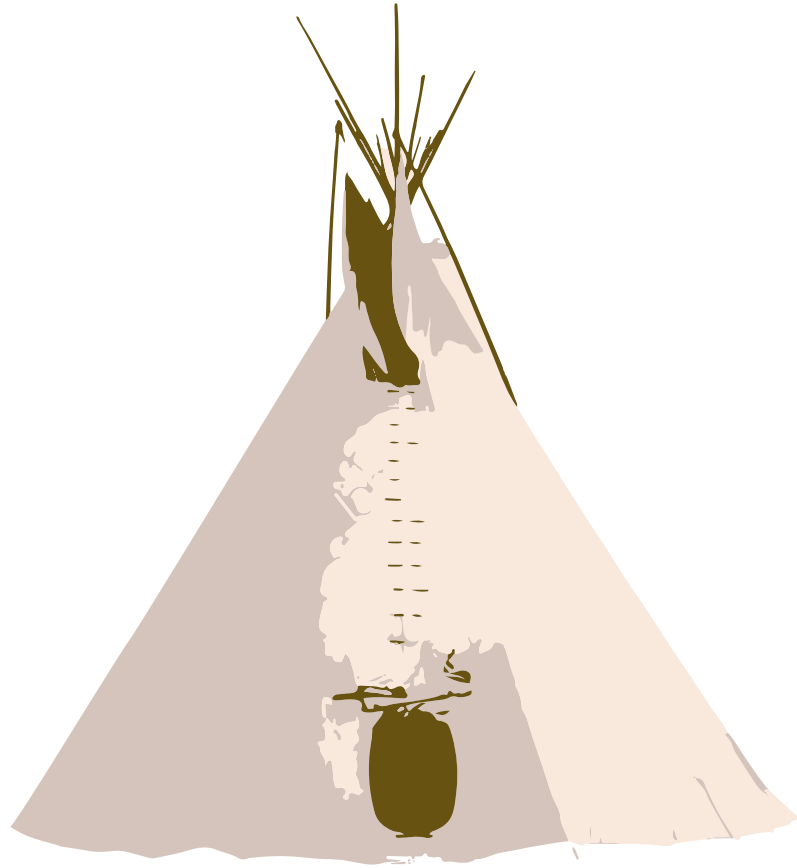
Chief Red Cloud's wisdom and understanding helped save a nation of people over a century ago. His legacy continues at the Red Cloud Indian School and is directed expressed through this design solution.

LINE	TRIANGLE	SQUARE
		
STAR 	HOME 	BAG 
HORSE TRACK 	CLOUDS 	EARTH 
DRAGONFLY 	FEATHER 	
THUNDER 	EARTH 	
LIGHTNING 		

LAKOTA VISUAL LANGUAGE

Native American tribes represent themselves significantly through the use of imagery that pertains to their traditional cultures. Tribal imagery expresses messages that signify their identity amongst other indigenous nations.

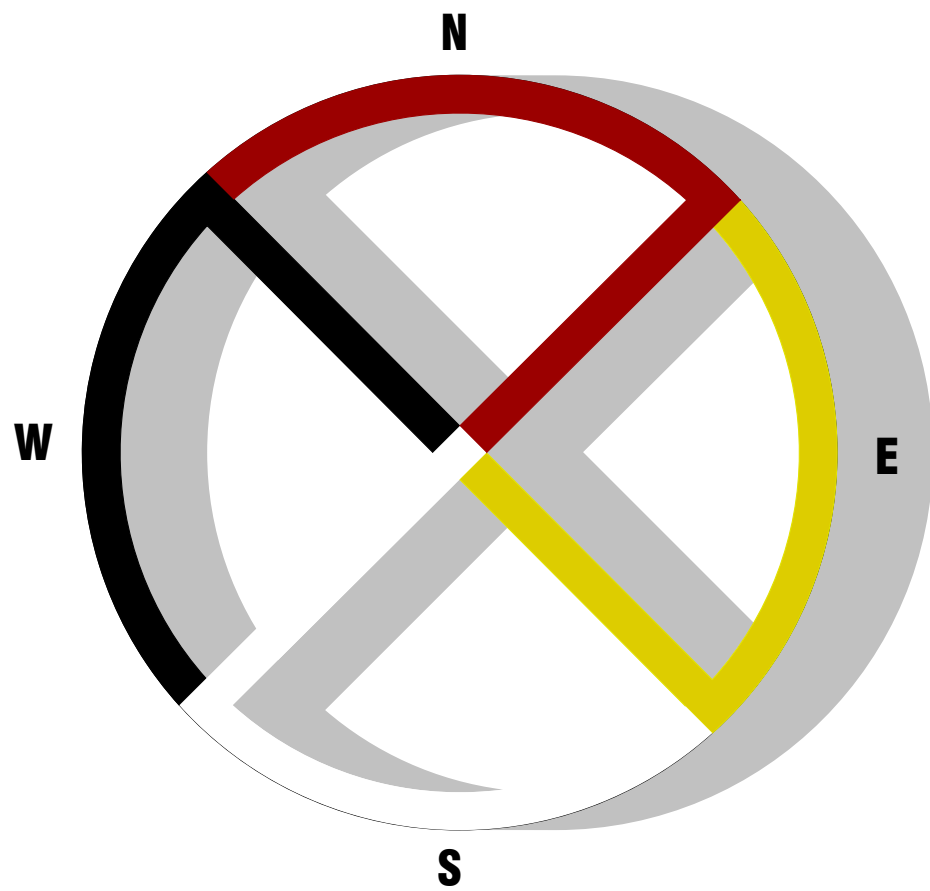
All Lakota language originates in the line, the triangle, and the square. This line and plane-based vocabulary evolved as the Lakota used porcupine quills to create the traditional figures because the quill cannot form round shapes, like the circle. Each of the 11 traditional Lakota shapes function as a symbol. The symbols are metonymical, representing the things in which tribal life is associated with.



PLAINS TIPI

The Sioux 3 pole tipi was a staple for the nomadic Plains Indians. The profile of the structure resembles a tilted cone with its steeper side facing westward, the direction of the prevailing winter winds. A double-skin system is additionally used during the winter months as an insulative barrier against the brutal cold. Throughout the summer, the skin is lifted on the southern portion, allowing air to circulate and naturally cool the internal space. The egg-shaped floor plan allows for a more generous interior, fixated upon the fire and altar in the center. The entry condition of the Plains tipi predominately faces East, symbolizing the beginning of a new day and new life.

The Oglala Lakota, like most Plains tribes, arranged their tipis into highly organized and well policed camps. When nomadic bands assembled for ceremonies or councils, each tribal division, band, and individual tipi had its assigned location, sometimes upwards to a thousand tipis in a ring, three to four dwellings deep, and extending up to a mile in diameter.



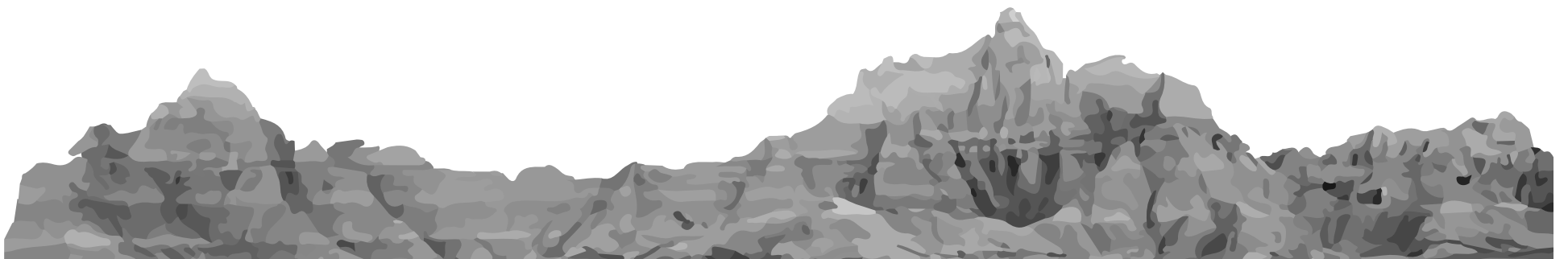
LAKOTA MEDICINE WHEEL

North (Red)-North brings the cold, harsh winds of the winter season. These winds are cleansing. They cause the leaves to fall and the earth to rest under a blanket of snow. Often depicting hardship, the North suggests endurance, power, and resiliency.

East (Yellow)-The direction from which the sun comes. Light dawns in the morning and spreads over the earth. This is the beginning of a new day and new life.

South (White)-As the sun is at its highest, this direction stands for warmth and growing. The sun's rays are powerful in drawing life from the earth. It is said the life of all things comes from the south.

West (Black)-To the west, the sun sets, and the day ends. For this reason, west signifies the end of life.



SACRED BADLANDS

The Badlands were the hunting grounds of indigenous tribes thousands of years before it was taken from them during the 19th century. Today, Pine Ridge Reservation occupies nearly two-thirds of the dramatic landscape's sharply eroded rock formations, steep canyons, towering spires and the largest undisturbed mixed grass prairie in the United States. The Badlands National Park in western South Dakota continues to hold prevalence in the lives of the Oglala Lakota.

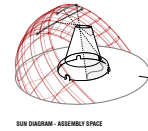
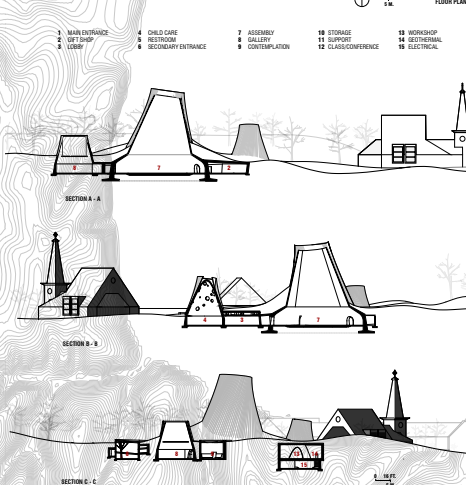
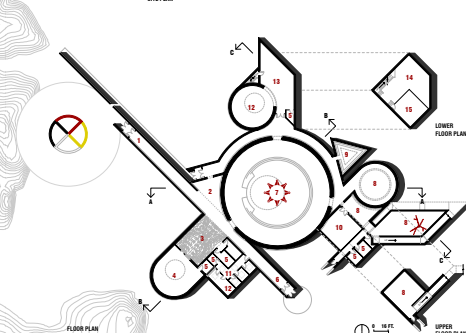
[illegible]

The Pine Ridge Indian Reservation has seen historical trauma. Located roughly 75 miles southeast of the Black Hills in South Dakota, Pine Ridge has received international attention for its incredible despair. Plagued for generations by a series of broken treaties with the U.S. Government, the Lakota have been left a mere fraction of their original sacred land and resources. Despair runs through the region as quality of the within Pine Ridge has been overshadowed by severe poverty and an endemic of drug and alcohol addiction. With each passing generation, spiritual and cultural values seemingly become lost as its never-ending battle at conformity to the modern world has left its mark on the indigenous people.

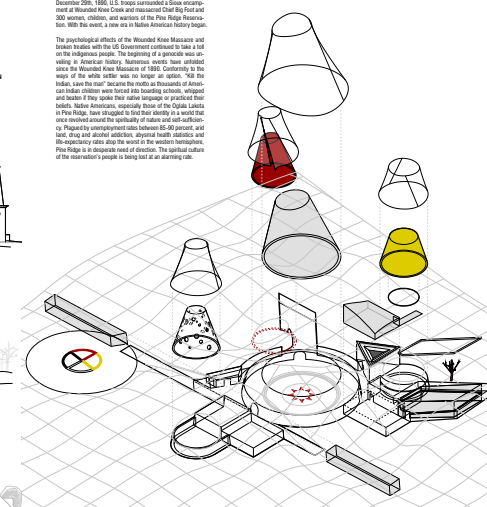
"So often the narrative of the Pine Ridge Reservation is that of deep and immense poverty, of inordinate violence or adobeism. But Red Cloud is a pocket of hope. I think that's exactly what we provide here, to hope for the future. And the tools in order for our students to open those doors." (Maka Awan Naye Clifford)

The Red Cloud Indian School, located roughly five miles North of Pine Ridge, serves 100 Lakota children and families on the Pine Ridge Reservation in western South Dakota. Extreme poverty is a reality on the reservation, and continues to be the largest barrier to the health of Oglala Lakota and their city. As one may expect, the quality of the infrastructure and cleanliness of the reservation is of major concern. However, there are just exceptions to this norm and the Red Cloud Indian School campus works diligently to spend this notice.

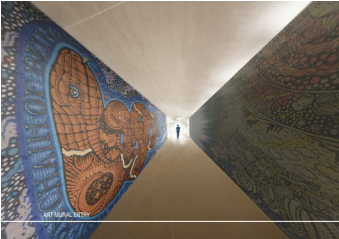
LINE	TRIANGLE	SQUARE
STAR	HOME	BAG
HOUSE DRINK	CLOUDS	EARTH
DRAGONFLY	FEATHER	
THUNDER	EARTH	
LIGHTNING		



Pine Ridge, the site of several events that mark milestones in history between the Native Sioux and the United States government has become ground zero for Native issues within the U.S. The Fort Laramie Treaties of 1851 and 1868, which sanctioned lands of the Lakota and Sioux Nation to establish the Great Sioux Nation including ownership of the Black Hills and other areas within South Dakota, Wyoming, Nebraska, and Montana was deliberately broken by the U.S. Government. The Native people unjustly lost sacred land, resources, and ultimately a sense of pride as they were forced into prisoner of war camps. December 29, 1890, U.S. troops surrounded a Sioux encampment at Wounded Knee Creek and massacred Chief Big Foot and 300 women, children, and warriors of the Pine Ridge Reservation. With this event, a new era in Native American history began.



EXPLODED AXONOMETRY



PROJECT SOLUTION DOCUMENTATION

An intensive graphical and physical representation of the design solution captures the essence of the project scope. Simplistic presentation of the design elements reflect the minimalistic concept and style while possessing refined knowledge of the constructibility of the project.



Figure 52 | Physical Model - Sacred Badlands

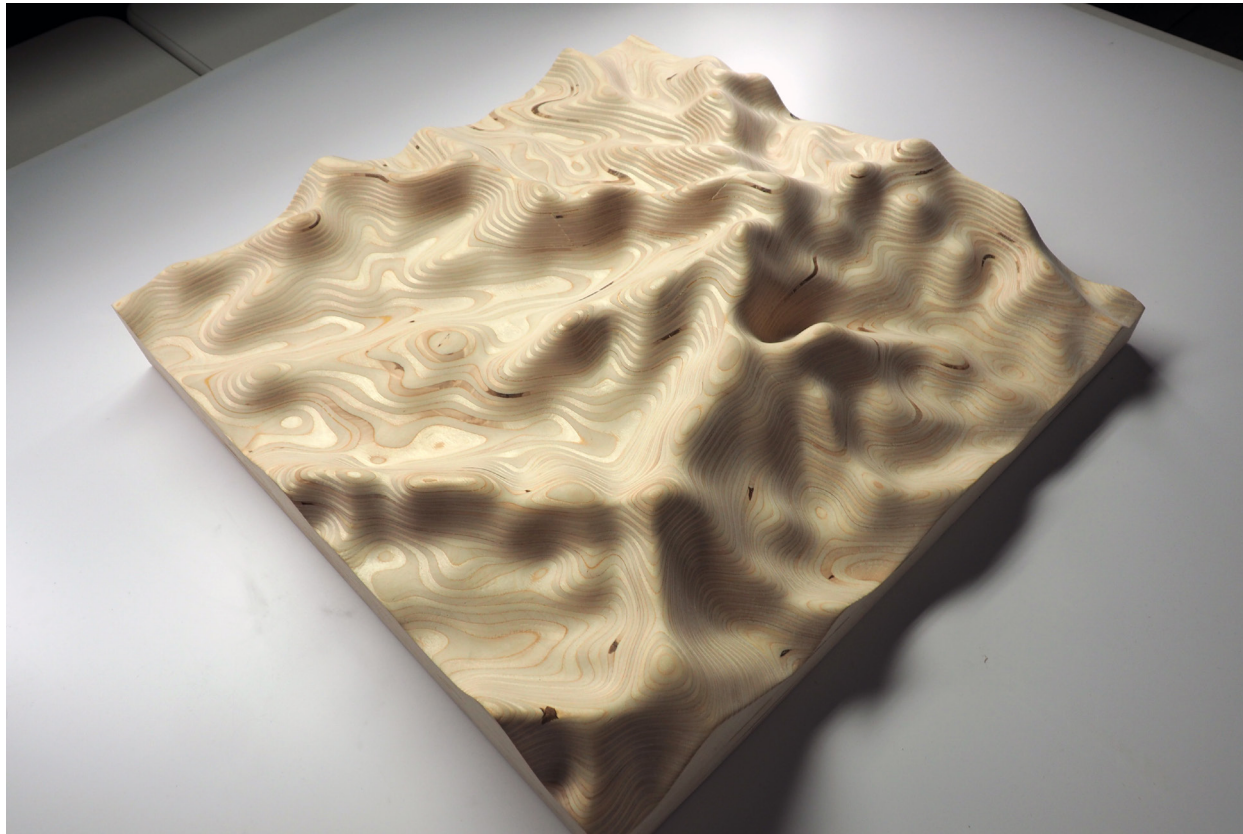


Figure 53 | Physical Model - Sacred Badlands



Figure 54 | *Physical Model - Red Cloud Indian School Campus*

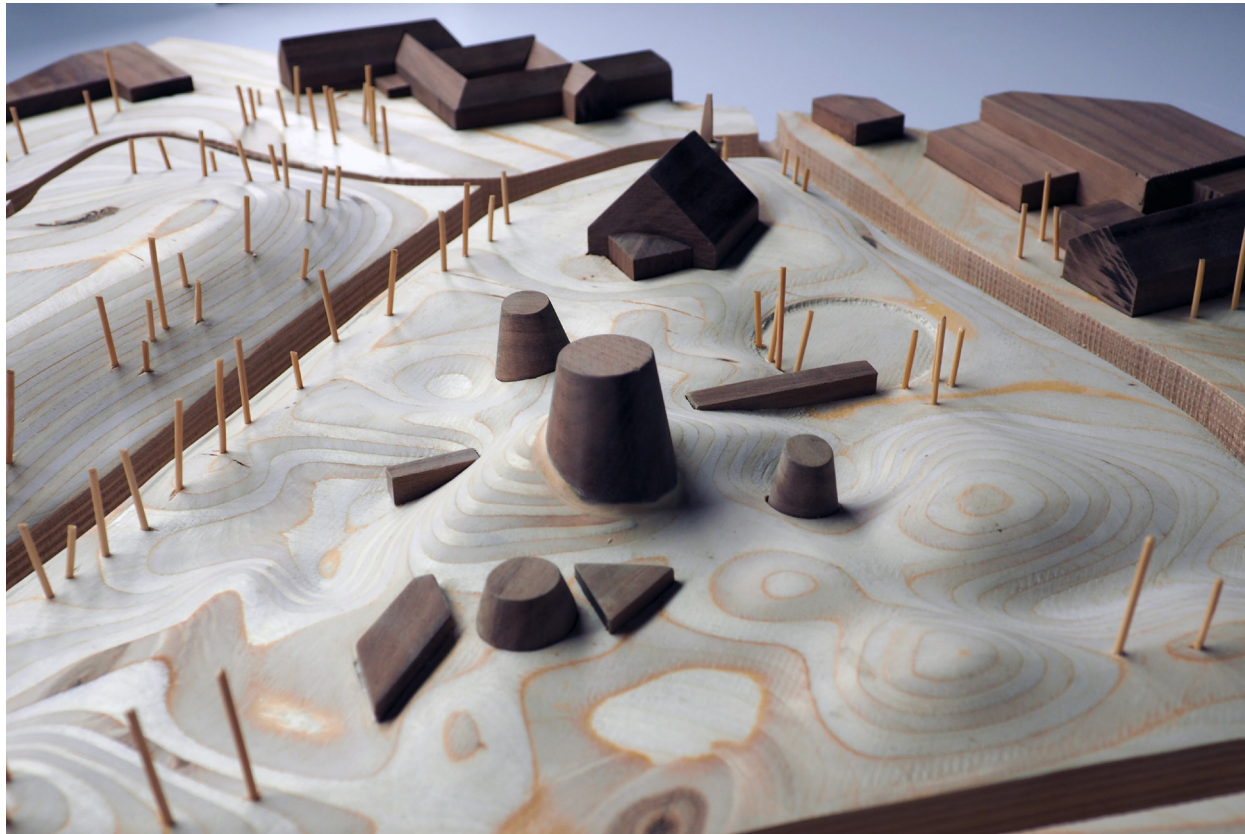


Figure 55 | Physical Model - Red Cloud Indian School Campus

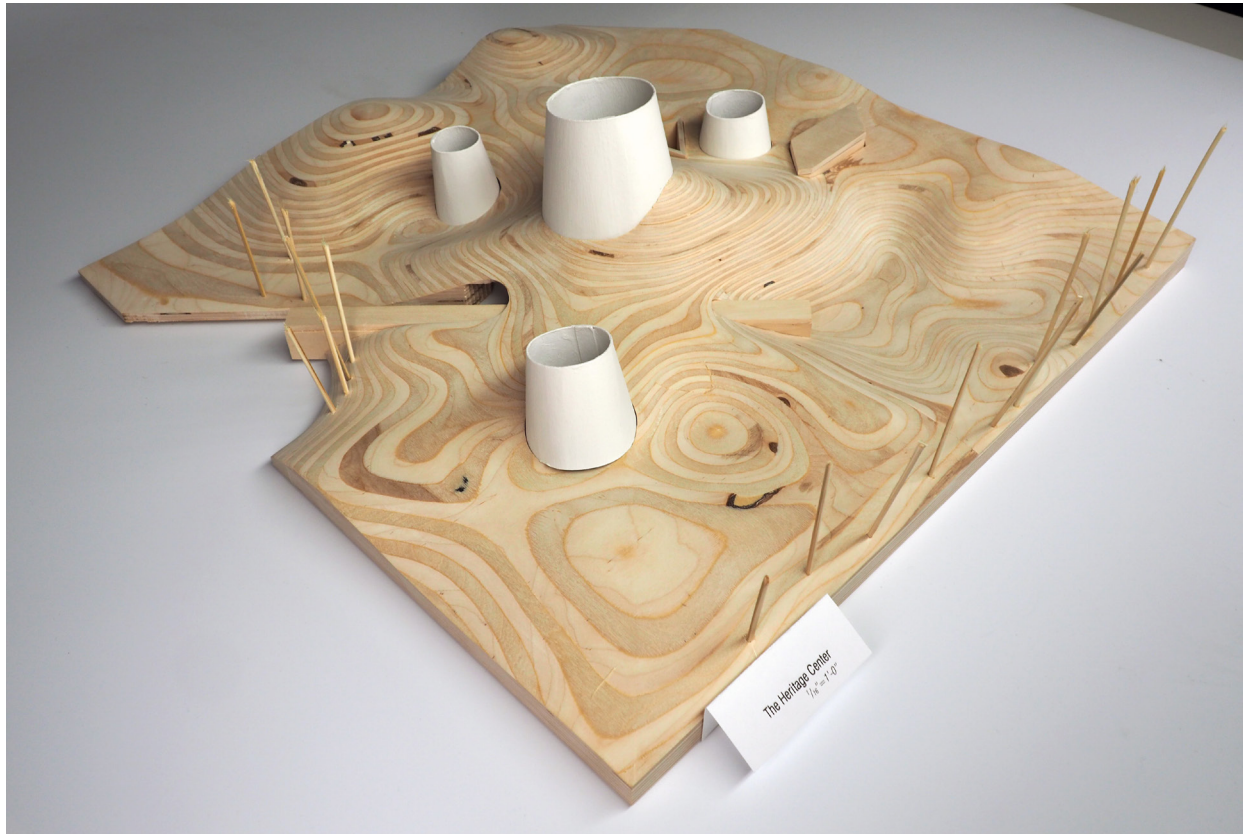


Figure 56 | Physical Model - The Heritage Center

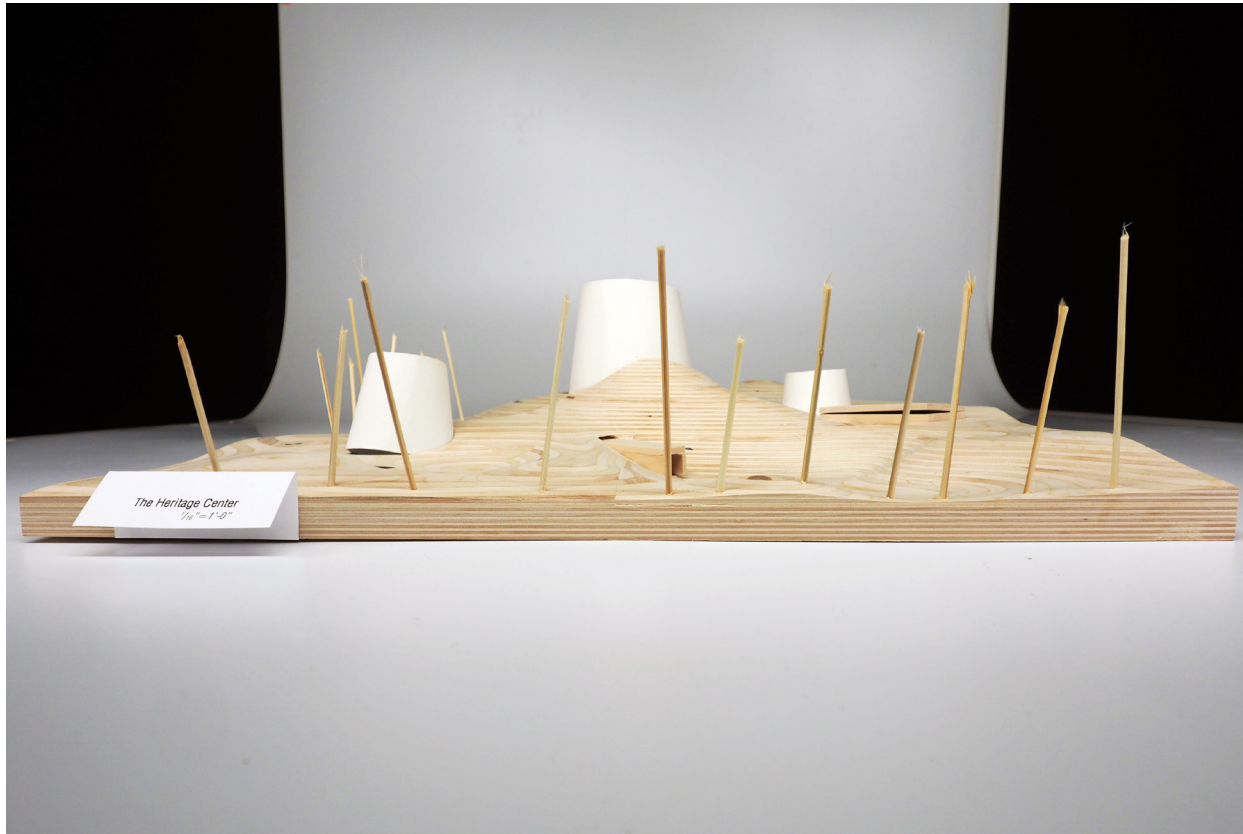


Figure 57 | Physical Model - The Heritage Center



Figure 58 | Figure-Ground Site Plan

PERFORMANCE ANALYSIS: RESPONSE TO THE SITE, PRECEDENT RESEARCH, GOALS & PROJECT EMPHASIS

The following images, diagrams, sections and plans demonstrate a complete response and performance analysis to the previous design research extensively discussed throughout this book.

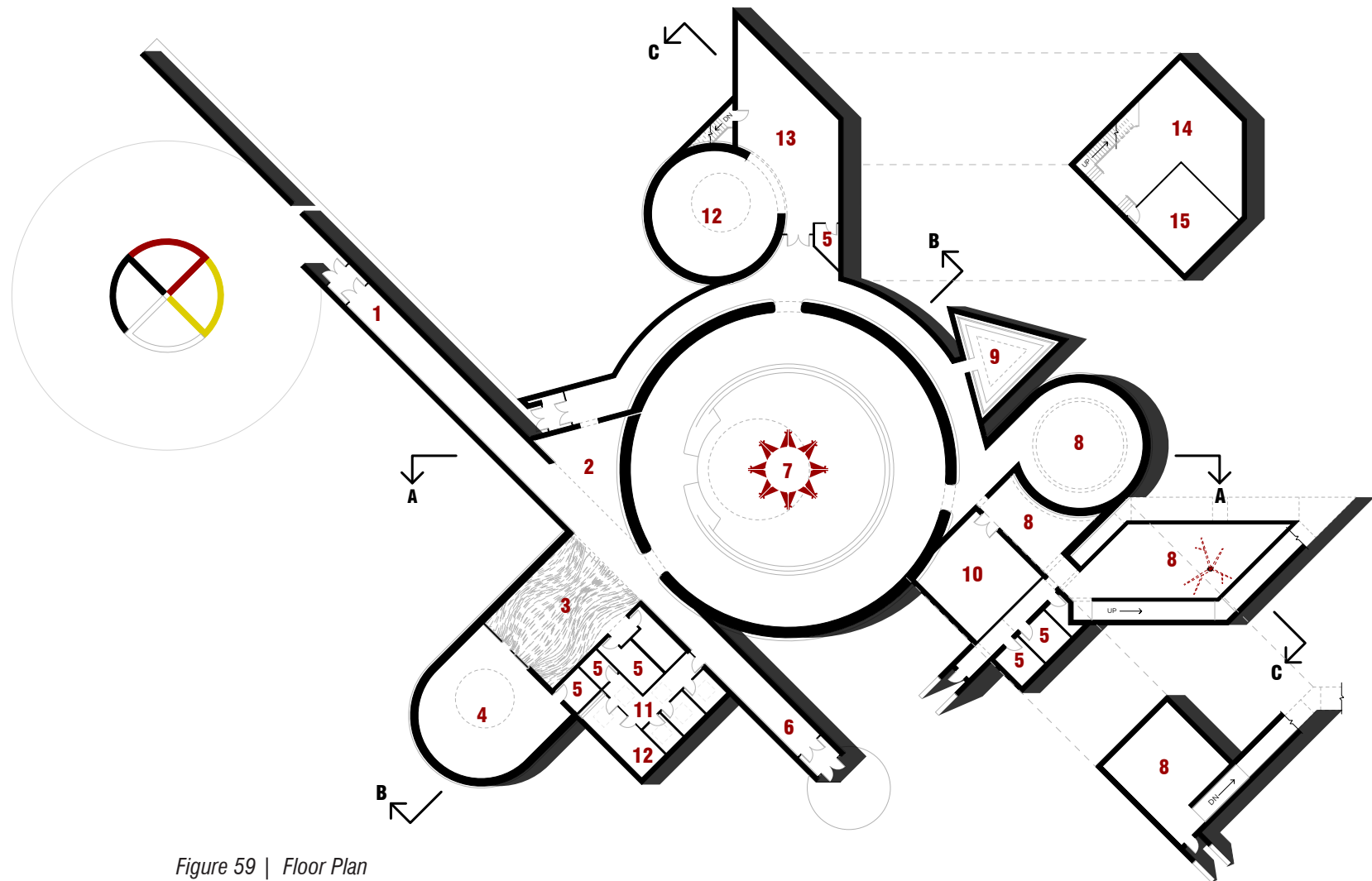


Figure 59 | Floor Plan

1 MAIN ENTRANCE
2 GIFT SHOP
3 LOBBY

4 CHILD CARE
5 RESTROOM
6 SECONDARY ENTRANCE

7 ASSEMBLY
8 ART GALLERY
9 CONTEMPLATION

10 STORAGE
11 SUPPORT
12 CLASS/CONFERENCE

13 WORKSHOP
14 GEOTHERMAL
15 ELECTRICAL

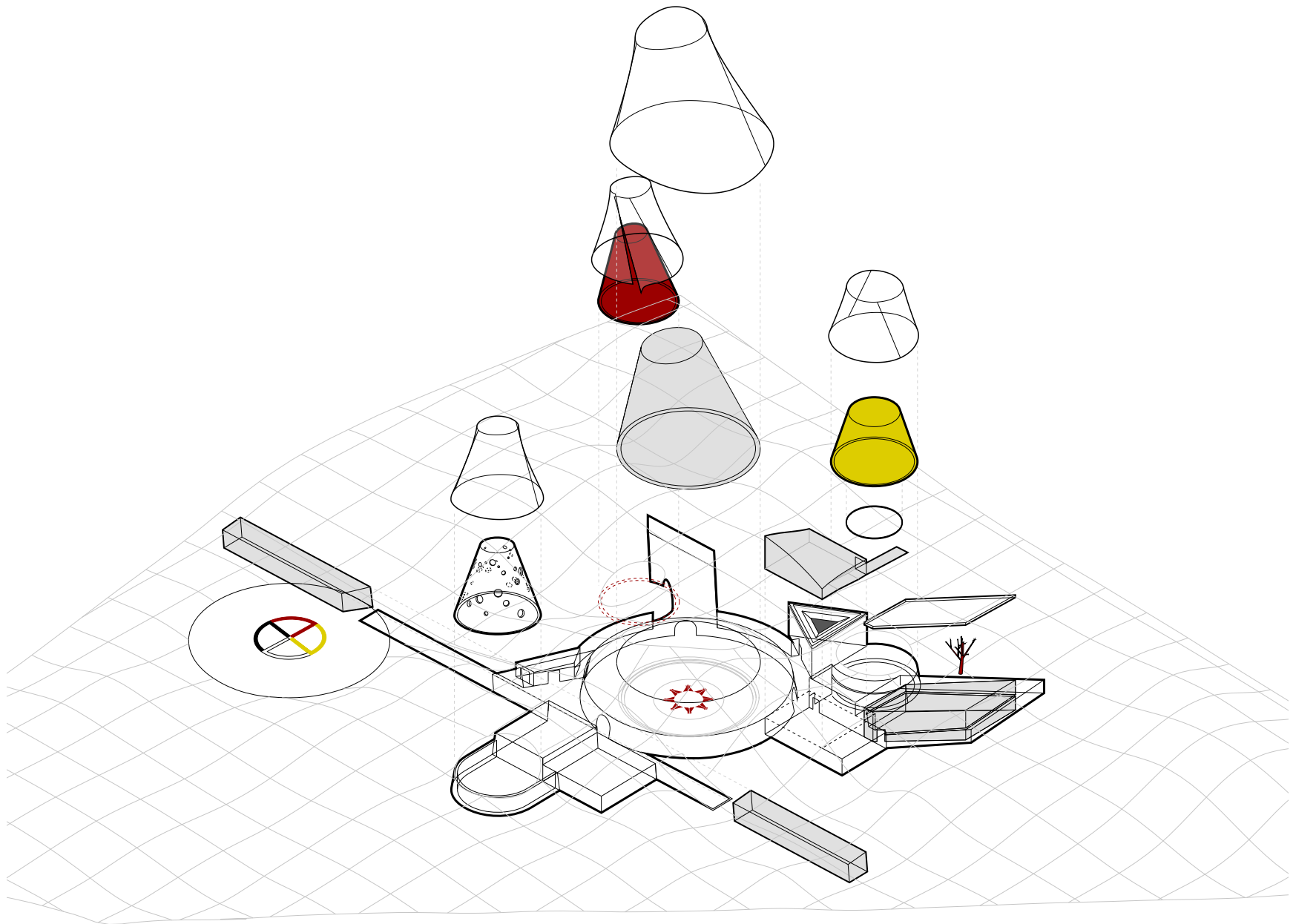


Figure 60 | Exploded Axonometric

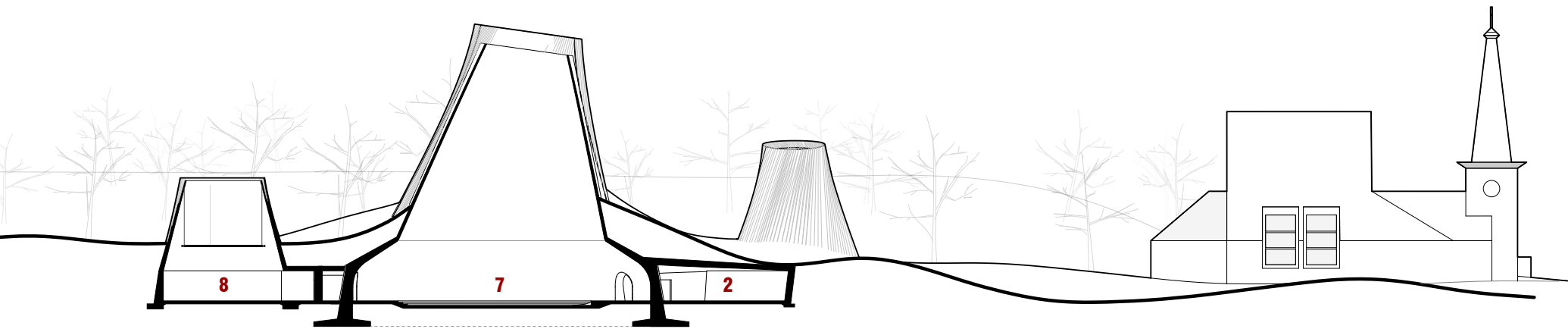


Figure 61 | Section A - A

- | | | | | |
|------------------------|-----------------------------|------------------------|----------------------------|----------------------|
| 1 MAIN ENTRANCE | 4 CHILD CARE | 7 ASSEMBLY | 10 STORAGE | 13 WORKSHOP |
| 2 GIFT SHOP | 5 RESTROOM | 8 ART GALLERY | 11 SUPPORT | 14 GEOTHERMAL |
| 3 LOBBY | 6 SECONDARY ENTRANCE | 9 CONTEMPLATION | 12 CLASS/CONFERENCE | 15 ELECTRICAL |

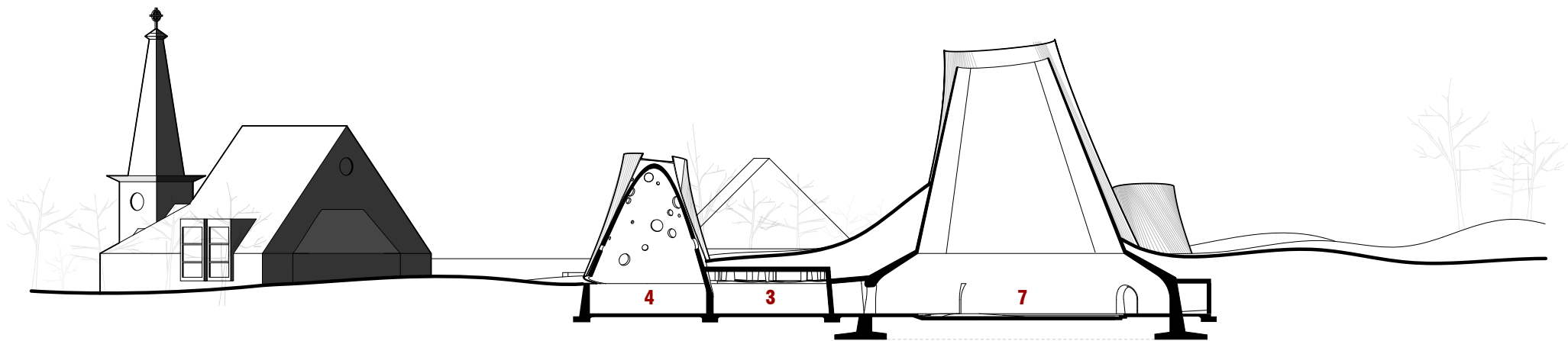


Figure 62 | Section B - B

1 MAIN ENTRANCE
2 GIFT SHOP
3 LOBBY

4 CHILD CARE
5 RESTROOM
6 SECONDARY ENTRANCE

7 ASSEMBLY
8 ART GALLERY
9 CONTEMPLATION

10 STORAGE
11 SUPPORT
12 CLASS/CONFERENCE

13 WORKSHOP
14 GEOTHERMAL
15 ELECTRICAL

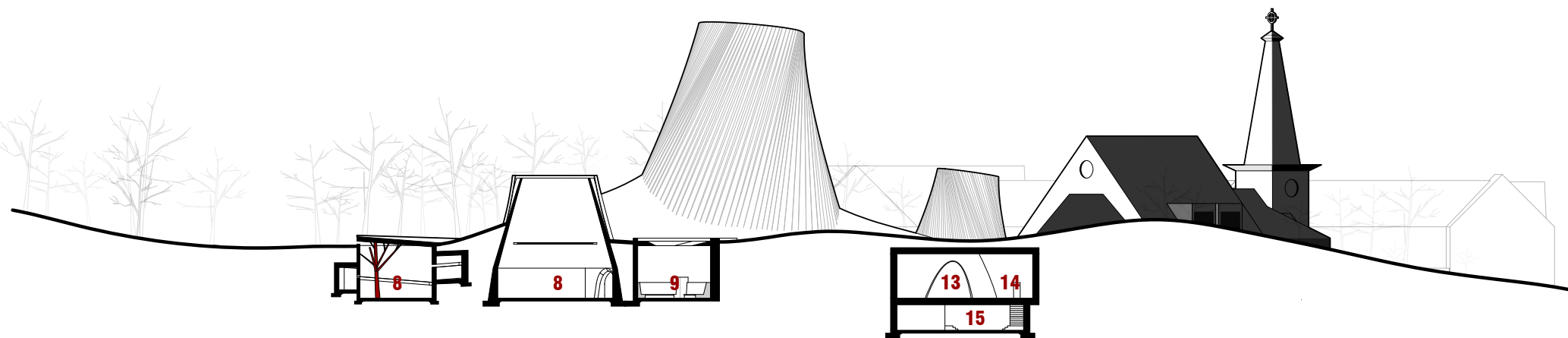


Figure 63 | Section C - C

1 MAIN ENTRANCE
2 GIFT SHOP
3 LOBBY

4 CHILD CARE
5 RESTROOM
6 SECONDARY ENTRANCE

7 ASSEMBLY
8 ART GALLERY
9 CONTEMPLATION

10 STORAGE
11 SUPPORT
12 CLASS/CONFERENCE

13 WORKSHOP
14 GEOTHERMAL
15 ELECTRICAL

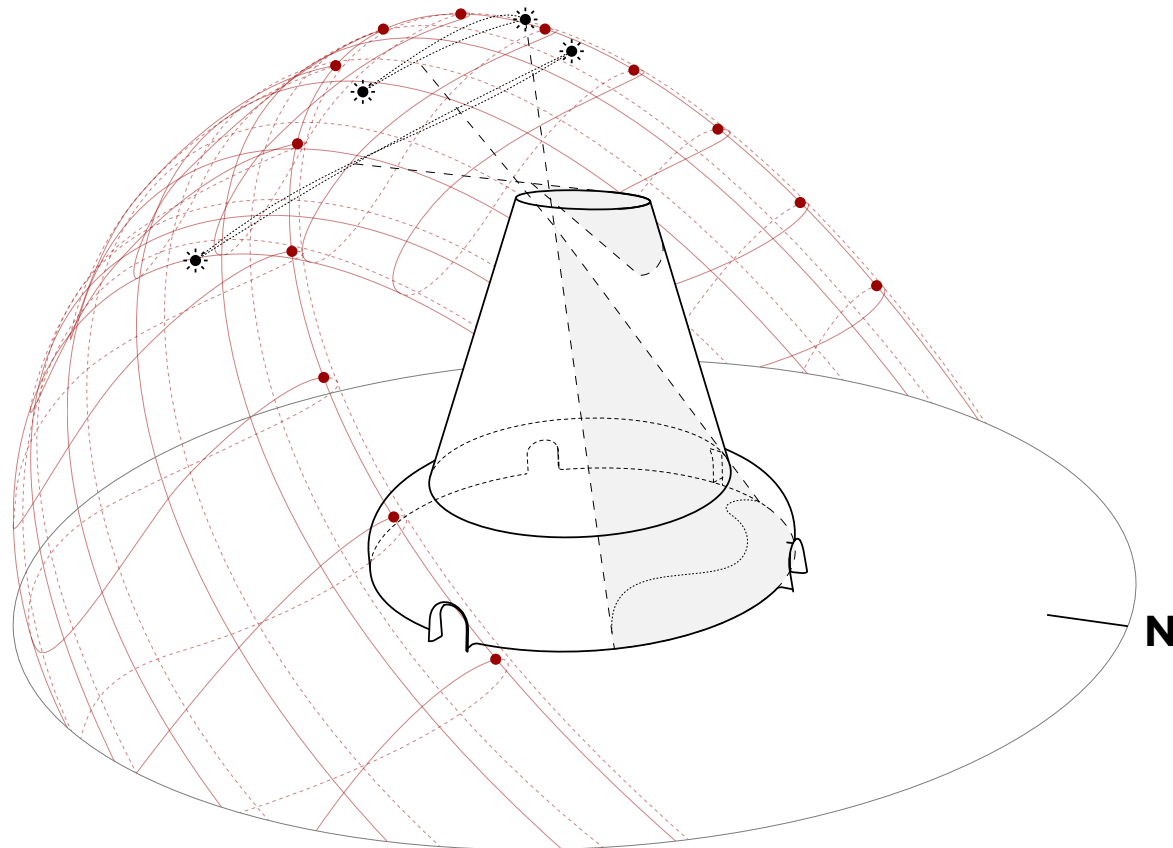


Figure 64 | Sun Path Diagram - Assembly Space



Figure 65 | The Heritage Center Lobby



Figure 66 | Art Mural Entry



Figure 67 | Assembly Space



Figure 68 | Contemplation Space



Figure 69 | Art Gallery



Figure 70 | Art Gallery



1



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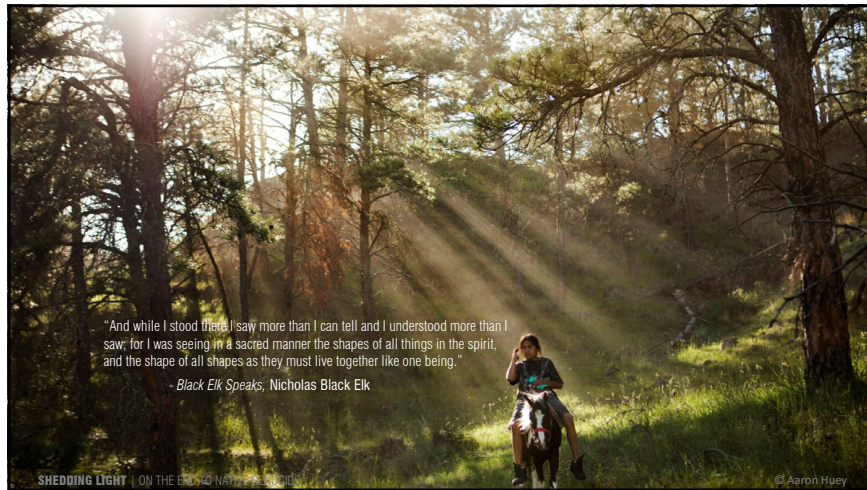
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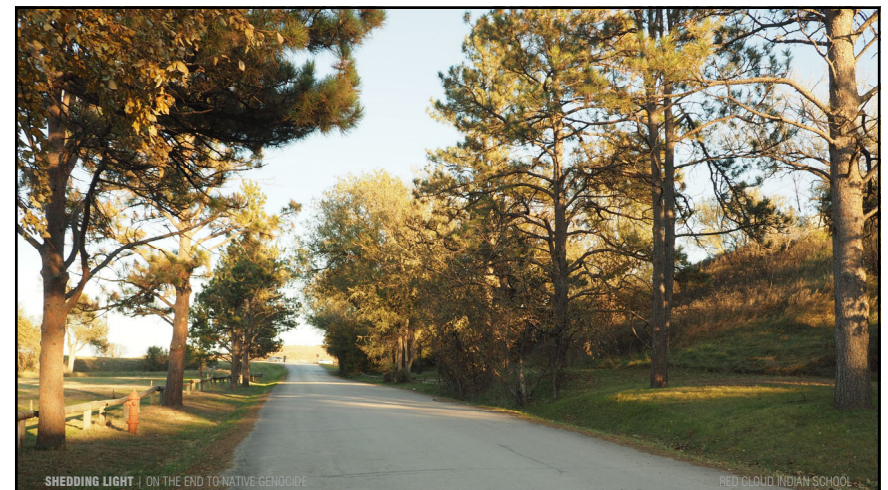
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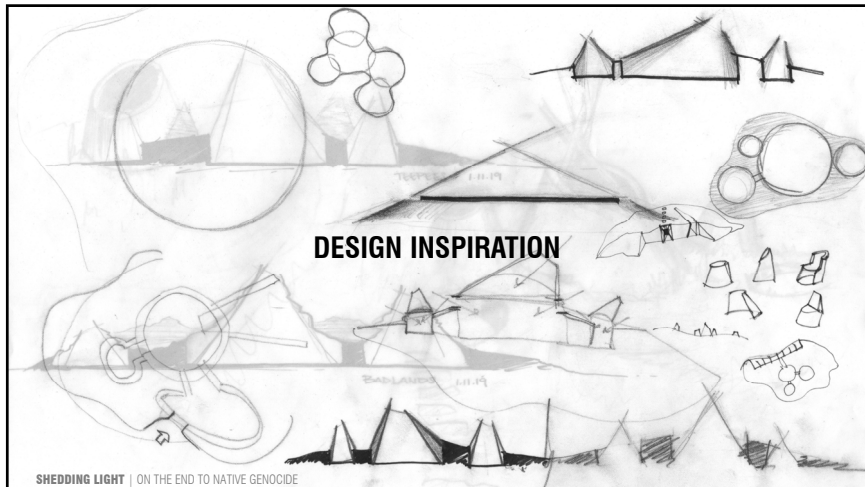
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LINE	TRIANGLE	SQUARE
	△ △ △	□ □ □
STAR	HOME	BAG
+	△	□
HORSE TRACK	CLOUDS	EARTH
⊞	✉	⬮
DRAGONFLY	FEATHER	
⚡	◇	
THUNDER	EARTH	
LIGHTNING	⬮	

A visual language communicates a system of visual elements. Native American tribes represent themselves significantly through the use of imagery that pertains to their traditional cultures. Tribal imagery expresses messages that signify their identity amongst other indigenous nations.

All Lakota language originates in the **line**, the **triangle**, and the **square**. This line and plane-based vocabulary evolved as the Lakota used porcupine quills to create the traditional figures because the quill cannot form round shapes, like the circle.

Each of the 11 traditional Lakota shapes function as a symbol. The symbols are metonymical and represent the things in which tribal life is associated with.

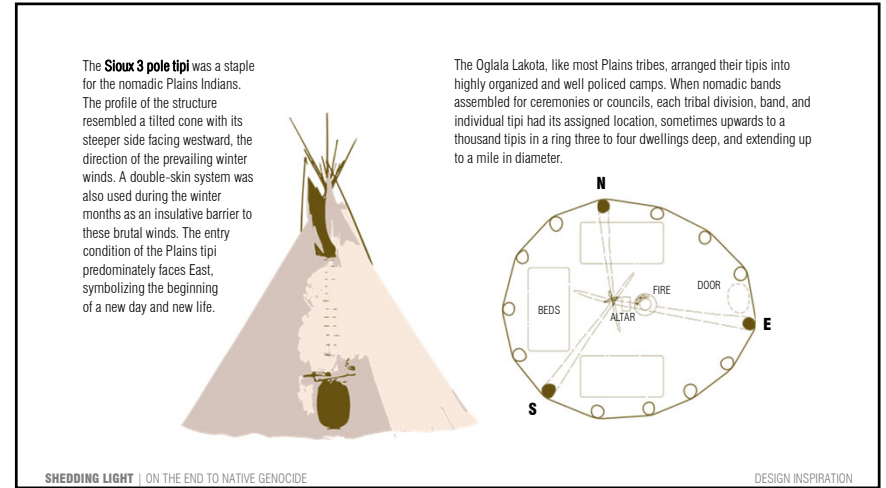
LAKOTA

GRAMMAR CHART

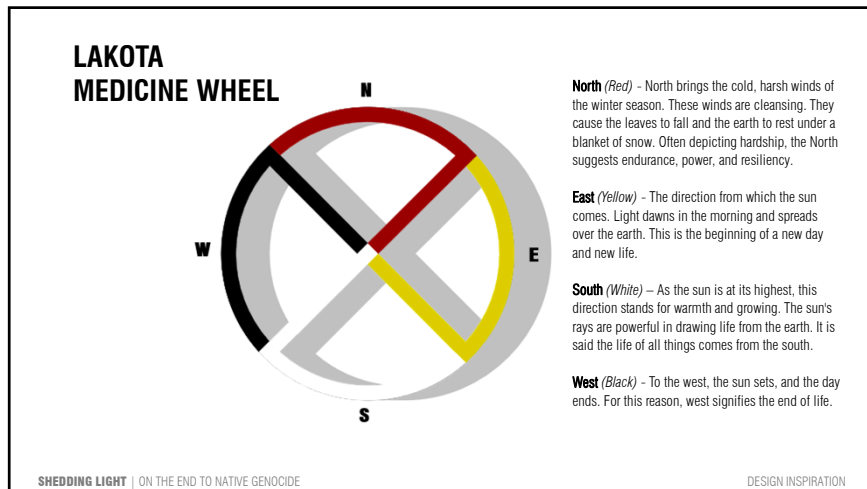
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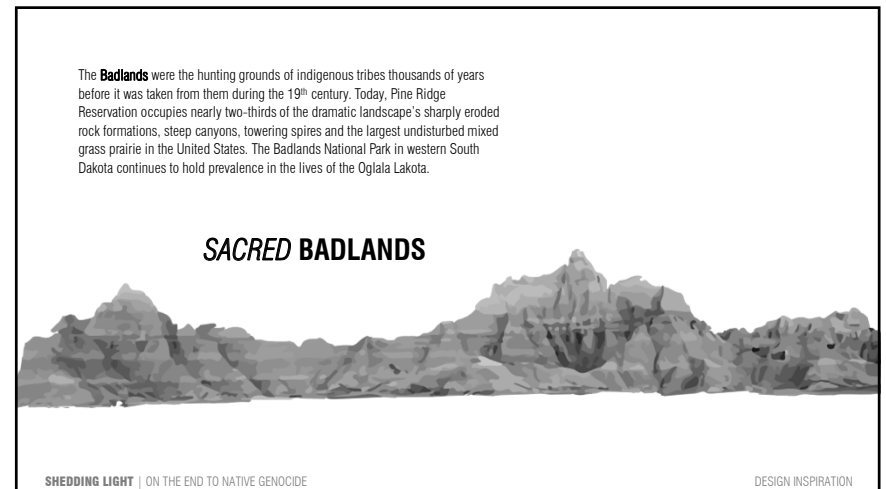
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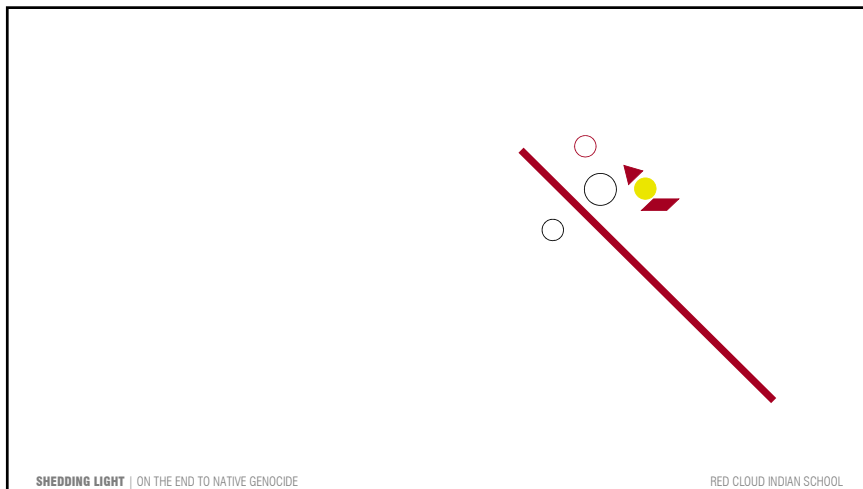
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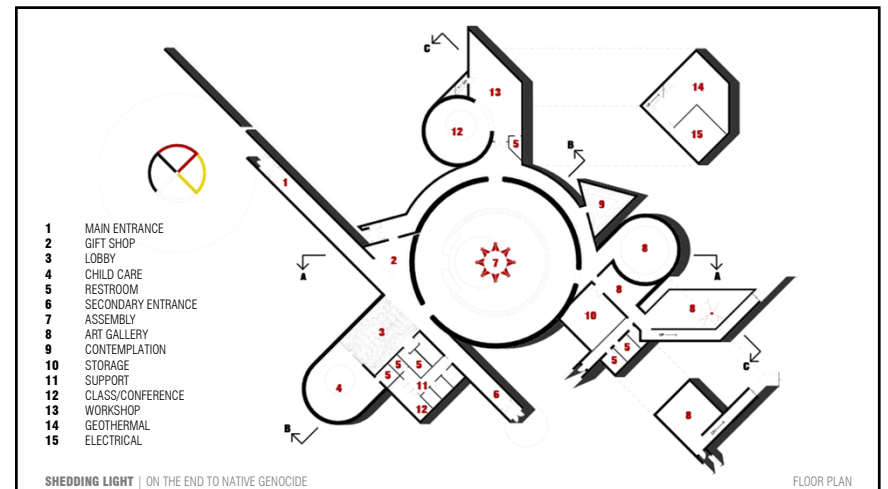
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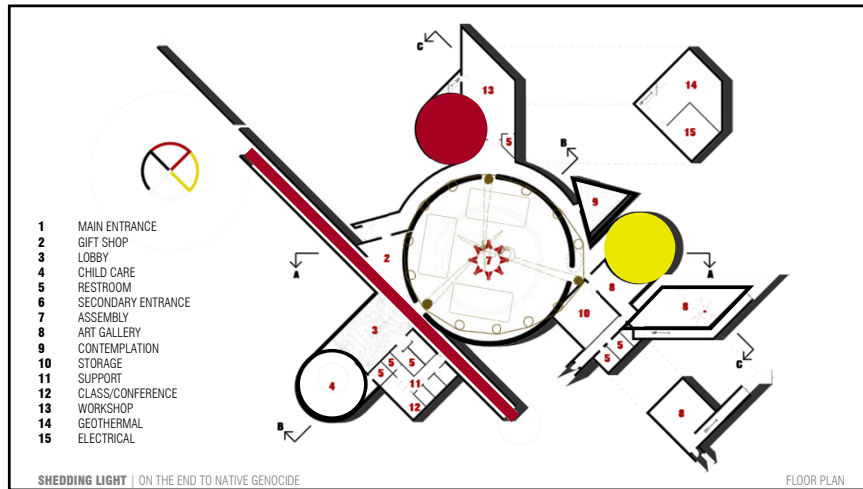
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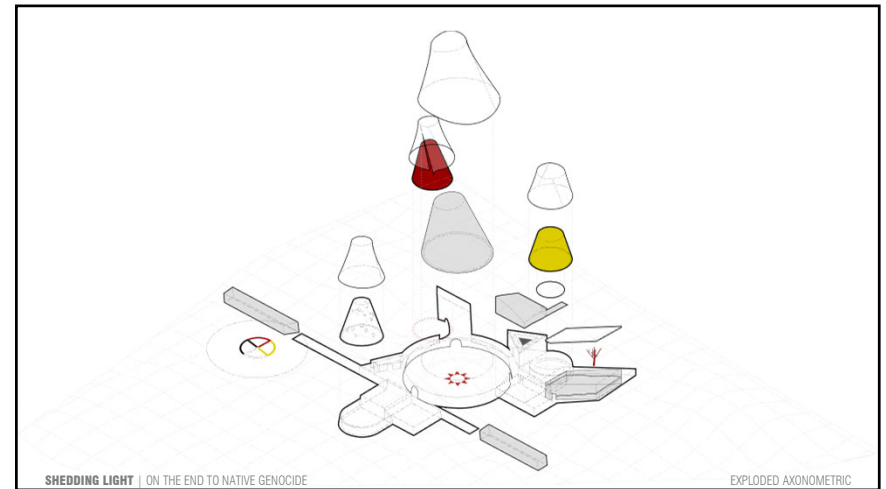
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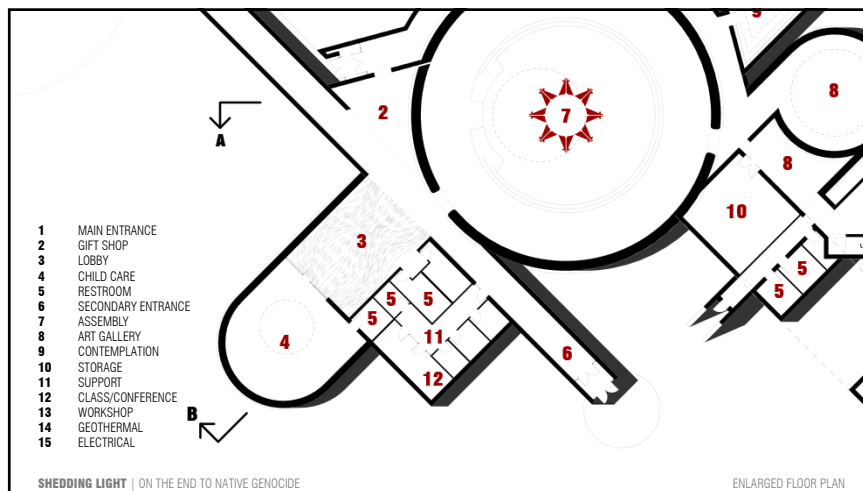
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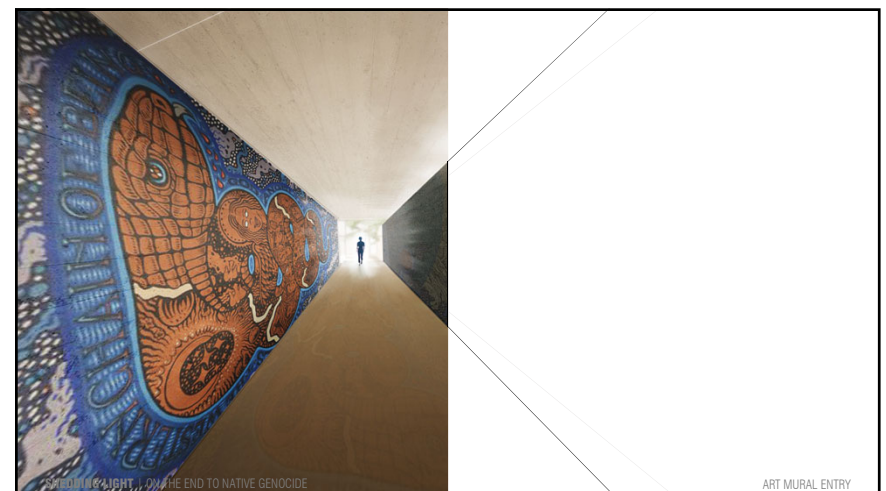
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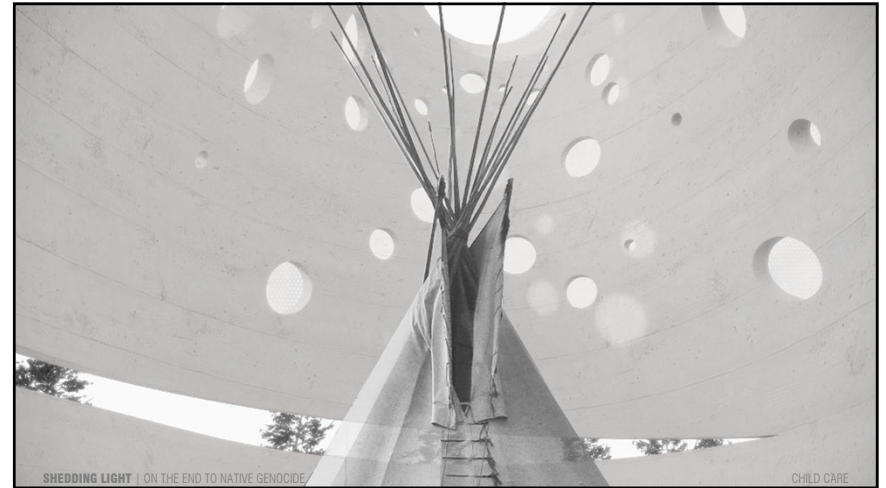
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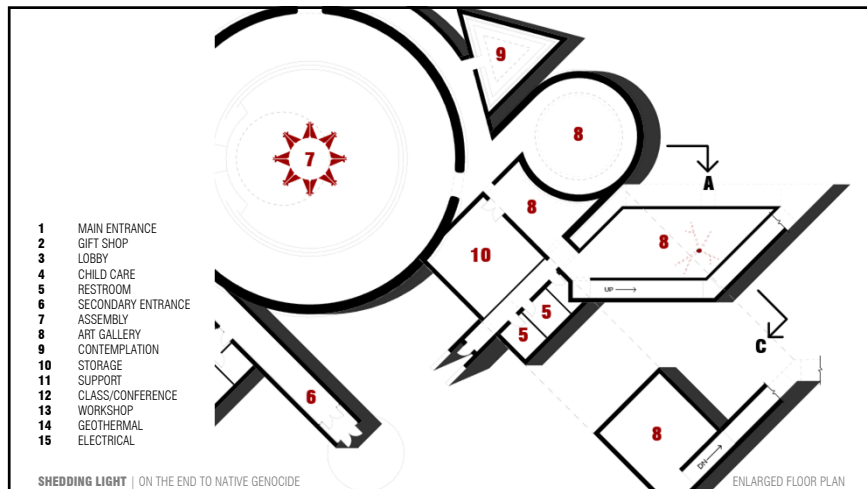
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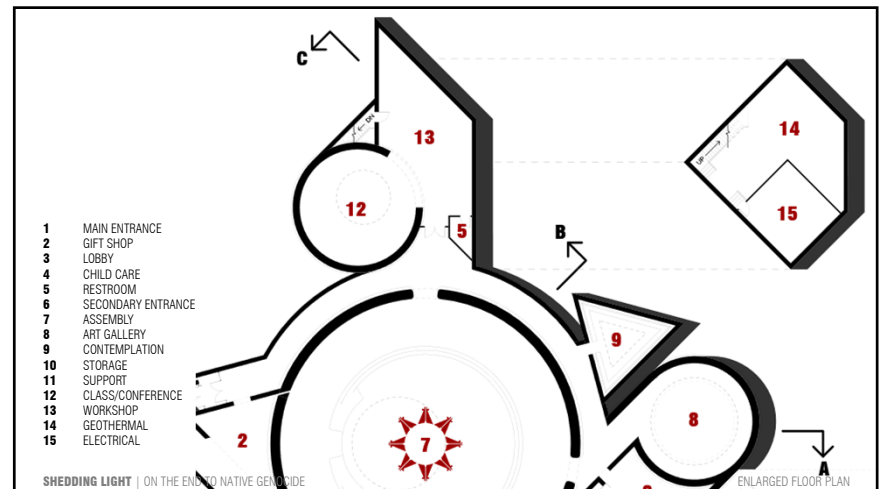
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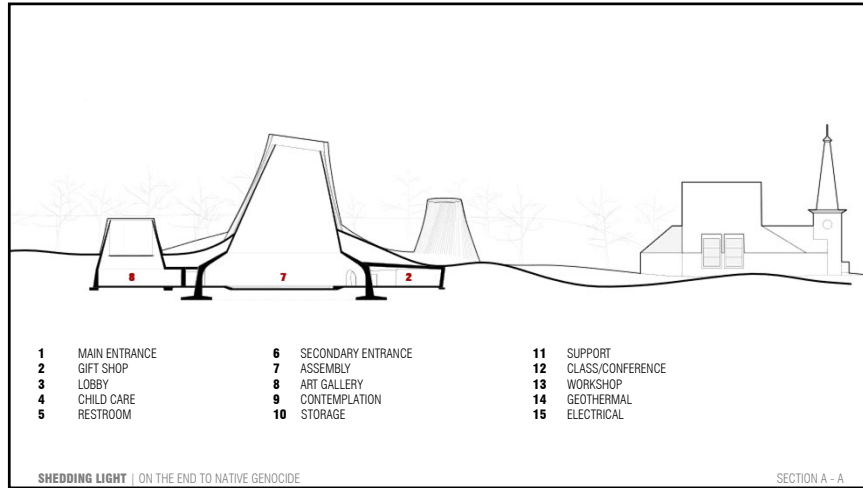
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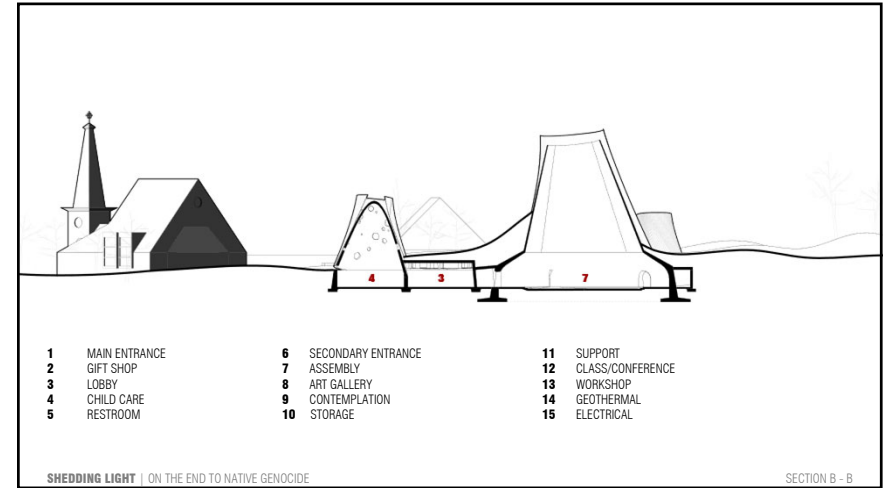
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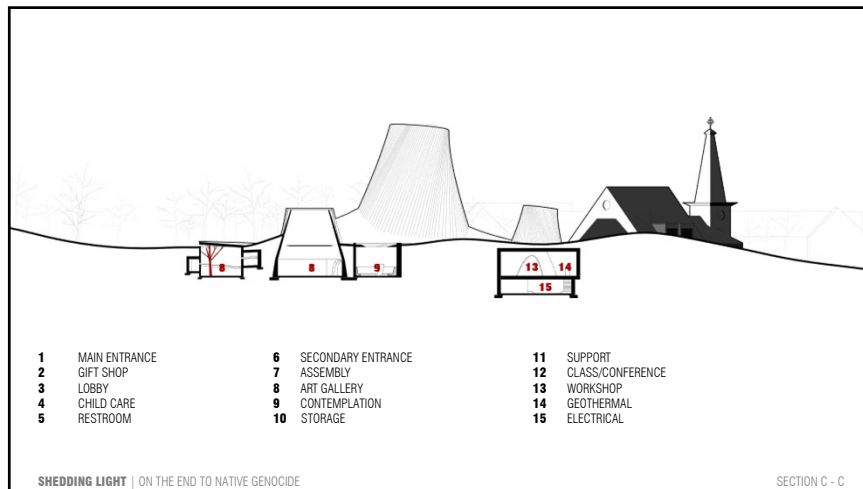
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phone | **605.421.8477**

email | **DOMINIC.BLINDERT@ICLOUD.COM**



Figure 71 | Personal Identification, photo credit | Perkins Eastman Architects

PREVIOUS STUDIO EXPERIENCE

2ND YEAR

Fall: Joan Vorderbruggen

Tea House | Fargo, North Dakota

Site response and integration into a conceptual building

Spring: Darryl Booker

Small Dwelling | Crippled Creek, Colorado

Design on a micro scale; accommodating specific use scenarios

Birdhouse | Fargo, North Dakota

Design for specific bird species in respect to Pritzker Prize winner

3RD YEAR

Fall: Mike Christenson

Timber Museum | Winona, Minnesota

Adaptive reuse of historic structure to reflect on the region's past

Spring: Regin Schwaen

Steel Competition | Fargo, North Dakota

Design for community engagement through civic design

Home for the 21st Century | Fargo, North Dakota

Residential design for the future

4TH YEAR

Fall: David Crutchfield

Urban and Sustainable High Rise | San Francisco

Extensive investigation under a strict delivery timetable

Spring: Mark Barnhouse

Minneapolis Watershed | Minneapolis, Minnesota

Urban development for the future of Minneapolis