

**KEEPING HOUSE: A HOME FOR SASKATCHEWAN FIRST
NATIONS' ARTIFACTS**

by

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for the degree of Master of Architecture

at

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DALHOUSIE UNIVERSITY
SCHOOL OF ARCHITECTURE

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ABSTRACT

This thesis focuses on the development of a “Keeping House” near Saskatoon, Saskatchewan, Canada. Although there is an extensive artifact collection in Saskatchewan, many First Nations’ artifacts are spread out throughout the province, Canada, and in other countries. These artifacts are living items, with a story, history and ceremony attached to them and they are in need of repatriation through a process which ensures their safety and preservation. This project will offer environments for the safe-keeping of Saskatchewan First Nations’ artifacts, as well as areas for teaching and ceremonies. It will also build on the existing historical strengths of the land on which it sits.

LIST OF ABBREVIATIONS USED

SICC - Saskatchewan Indian Cultural Center

Keeping House - Name of the cultural centre that will showcase, collect, display, preserve, and accurately interpret Saskatchewan First Nations history, cultural artifacts, and art forms from all eight Saskatchewan language groups

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CHAPTER 1: INTRODUCTION

Thesis Question

How can the architecture of a “Keeping House” express the contemporary First Nations’ cultures of Saskatchewan?

Site



View from prairie uplands, east, across Opimihaw Creek Valley towards South Saskatchewan River.

Wanuskewin Heritage Park of Saskatchewan serves as the chosen site for this thesis. This area is located 2.5 kilometres north of Saskatoon in the municipality of Corman Park, adjacent to the South Saskatchewan river, an area bisected by the Opimihaw Creek valley. It is bordered by agricultural land to the north, west, and east and land to the south of the river is used for sand and gravel extraction and sod farming operations. This area consists of 360 acres of land that has remained uncultivated since the 1920's and therefor has retained much of its natural setting. This is largely due to the efforts of the Penner and Vitkowski family who purchased the property in 1934 and maintained it for over 40 years. Archaeological research on this site began in 1982. The Meewasin Valley Authority later purchased the property in 1983 and then sold it to the city of Saskatoon a year later. In 1987 Queen Elizabeth II declared it a National Historic site due to its historical and scientific importance (Saskatchewan Indian Cultural Centre). This traditional land, inhabited by First Nations for thousands of years, contains 19 known pre-contact sites and 2 historic sites. These include a number of habitation areas, bison kill sites, tipi rings, stone cairns and a medicine wheel. Among these sites numerous artifacts have been found.

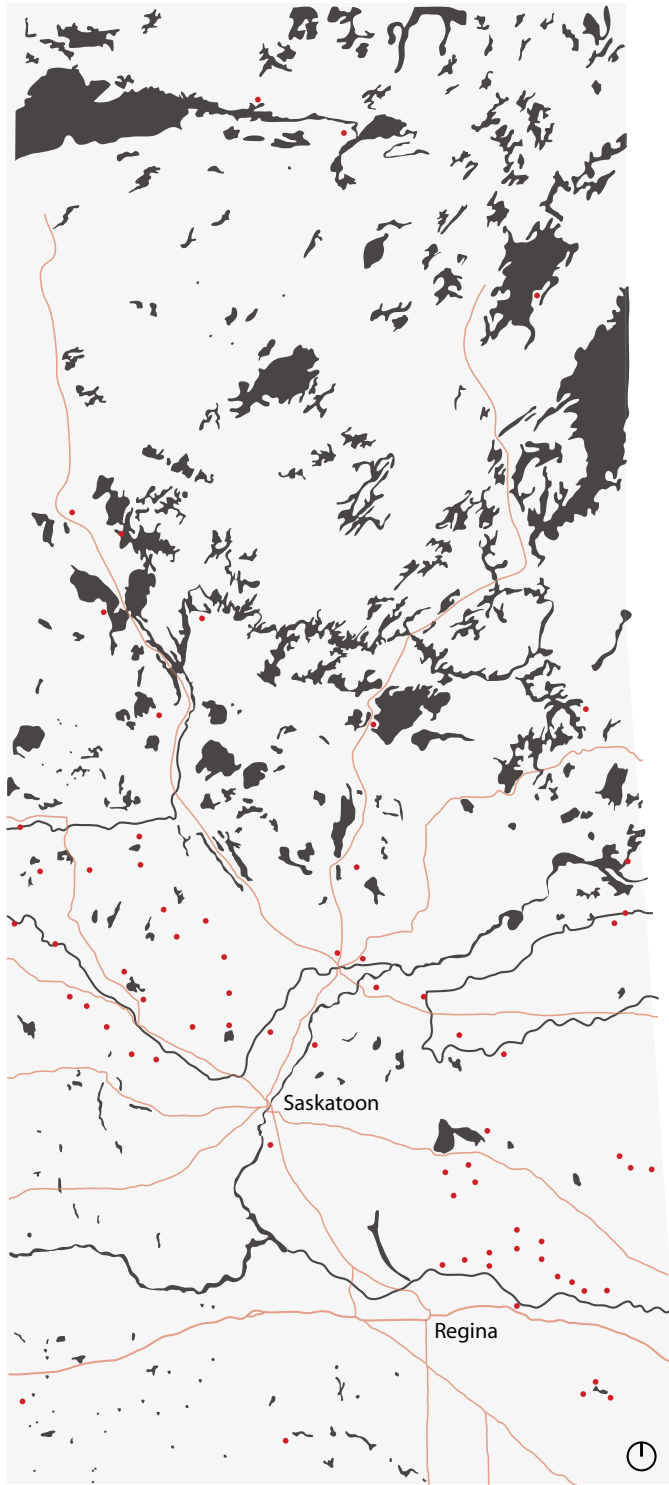
There are 75 First Nations reserves in Saskatchewan, comprising 8 unique language groups: Plains Cree, Swampy Cree, Woodland Cree, Dakota, Nakota, Lakota, Dene, and Saulteaux (Saskatchewan Indian Cultural Centre). They are located throughout the province in largely two main clusters: one northwest of Saskatoon and one northeast of Regina. This places Wanuskewin Heritage Park relatively central to these reserves.



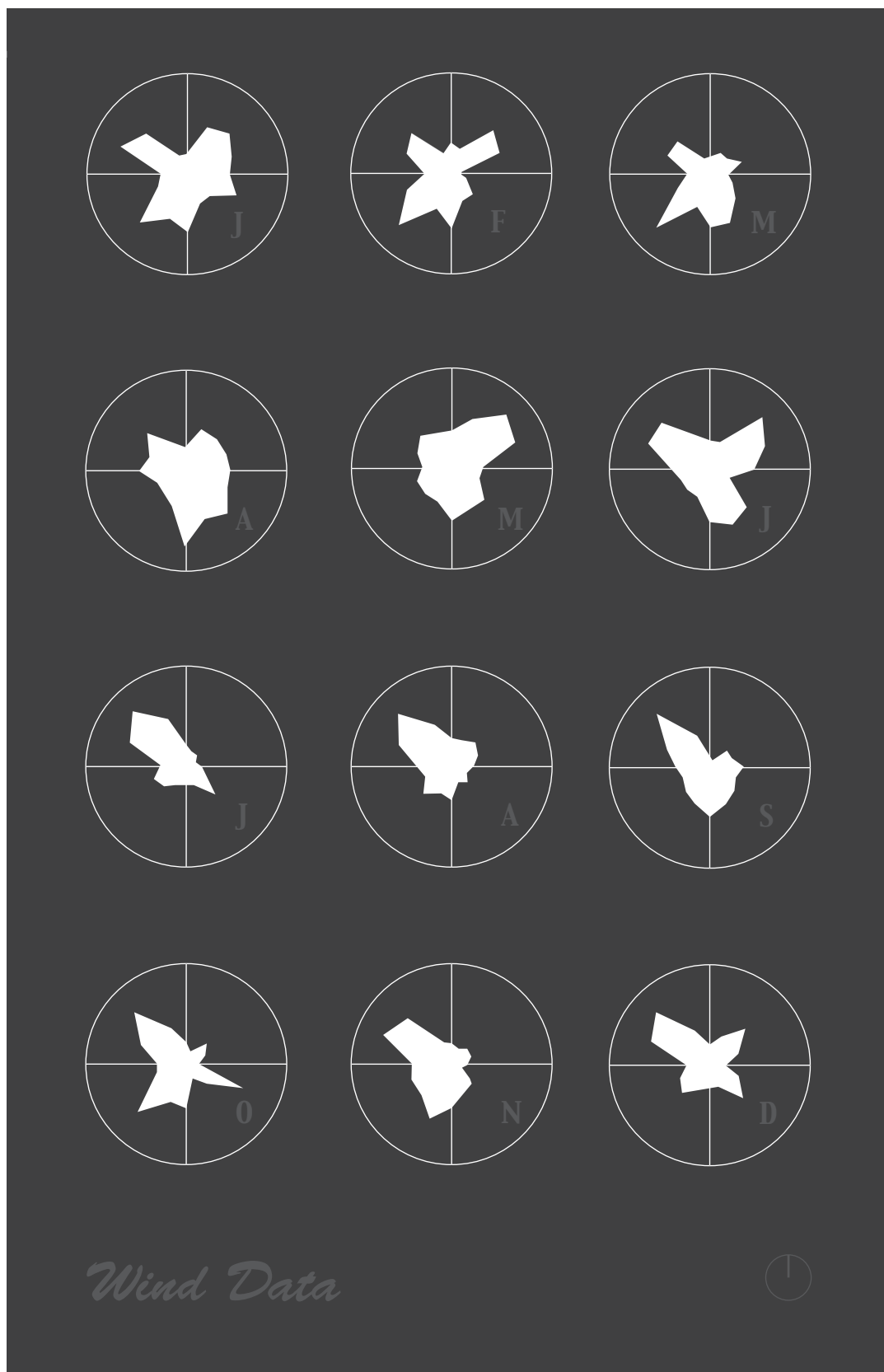
View east from creek valley.

The topography of the area consists of low-lying flat areas cut by the creek channel with steep slopes on the valley walls which lead to the flat uplands. It is within the areas of the valley that the majority of the habitation took place (Meewasin Valley Authority, 1984). Traditionally, the Plains Indians were a nomadic group following and hunting buffalo, an animal integral to their livelihood. Tribes would stampede bison over the edge of a hill into holding compounds below. The steep slopes of the Opimihaw creek valley walls provided an ideal landscape for this type of hunting. In addition to this, the creek valley provided shelter from the wind and, when combined with its close proximity to the river, made for an excellent camp site.

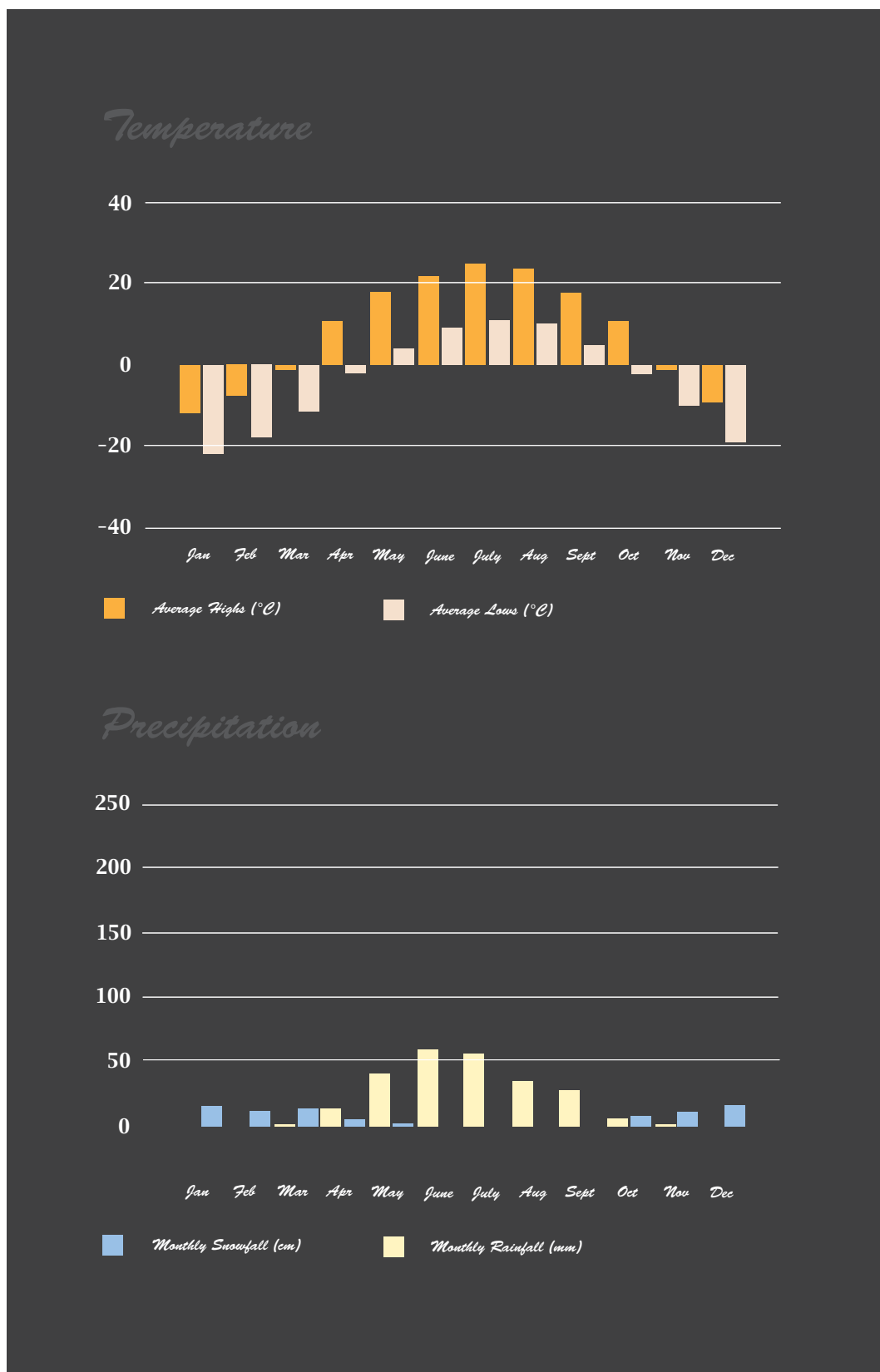
This site has a consistent average of 5 months of temperatures below freezing, with relatively short summer months and low precipitation. Temperatures in excess of -37°C have been recorded with a mean winter temperature of -17°C over the past 50 years. The mean annual precipitation is 37.5 cm and the mean snowfall is between 101 and 114 cm. The majority of the snow fall occurs during the months of November through March and most of the rain occurs during June and July. This site has similar wind conditions to Saskatoon but it slightly cooler due to the fact



Map of Saskatchewan, Canada locating existing First Nations reserves in red. (Adapted from Google Maps.)



Wind diagram for Saskatoon, Saskatchewan. (Data provided by Environment Canada.)



Temperature and Precipitation diagram for Saskatoon, Saskatchewan. (Data provided by Environment Canada.)



View northeast across creek valley.

that it is largely undeveloped and away from the urban core. The low lying creek valley is typically warmer during the day and cooler during the evening than the uplands and the treed areas that are present throughout the valley provide shade during the hot summer months. Finally, the South Saskatchewan River contributes to fog in the creek valley during the spring and fall and periodic flooding of the creek valley occurs (Saskatchewan Indian Cultural Centre, 2010).



View north from Opimihaw creek valley.

Wanuskewin Heritage Park is dominated by grassland. The upland prairie consists of spear grass and northern wheat grass. Intermingled within these are species such as little blue stem, blue grama grass, three flowering avens, and harebells. East of the creek is characterized by dense thickets of shrubs including prairie rose, western snowberry and silverberry. The valley slopes are made up of Manitoba Maple, water birch, willow and chokeberry among many others (Saskatchewan Indian Cultural Centre, 2010). There have been 123 species identified in this area of which 66 have been shown to have been used by the First Nations who inhabited this area.

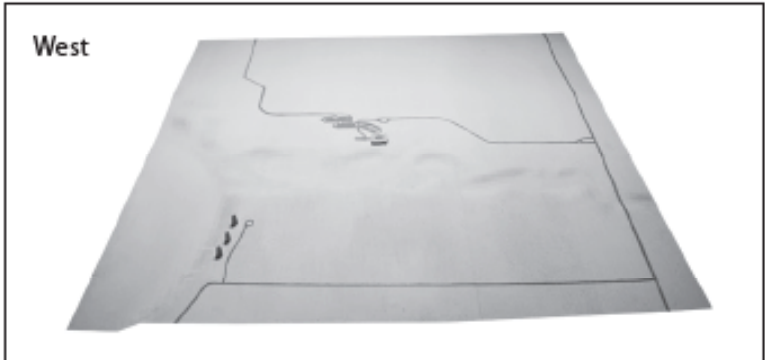
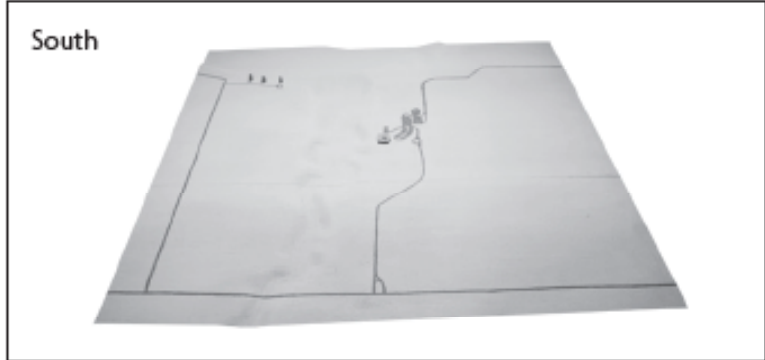
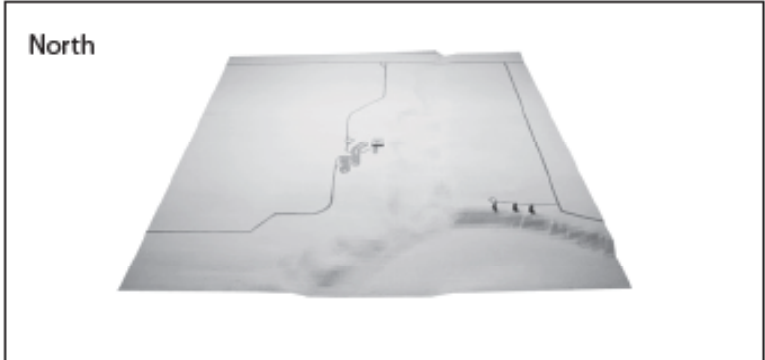


View south of Opimihaw creek valley.

Species common to this area include the white-tailed deer, coyote, skunk, badger, red fox, racoon and river otter. Smaller carnivores include the weasel and mink. There is an abundance of white-tailed jack rabbit and snowshoe hare. Rodents common to this area include squirrels, gophers, beavers, and muskrats. A wide variety of nesting, migrating and overwintering birds have been sited including the great horned owl, bobolink, red tailed hawk and pelican (Saskatchewan Indian Cultural Centre, 2010). Wildlife travel lanes tend to follow the South Saskatchewan River.



Map of Saskatoon, Saskatchewan and surrounding area locating thesis site in red. (Adapted from Google Maps.)



Topography model of Wanuskewin Heritage Park.

Wanuskewin Heritage Park has changed very little over thousands of years. Many generations have come to this valley to feast, seek help from healers, dance and tell stories. Within the First Nations community it is remembered as a resting place - a place of spiritual renewal. The name Wanuskewin is a Cree word chosen by Elders to describe the history of the place. Wanuskewin means “seeking peace of mind” or “living in harmony”. (Wanuskewin Heritage Park)

Existing Program



View east of Interpretive Centre.

Wanuskewin Heritage Park is home to an interpretive centre, trails, interpretive sites, archaeological digs as well as a diverse group of flora, fauna and herbs. The park opened to the public in 1992 and since then a unique set of activities have been developed to describe the history of this land and how it was inhabited by First Nations. The interpretive centre offers hands-on demonstrations, traditional cuisine, an art gallery, and a host of cultural programs. These programs tell five stories: hunting, gathering, social lifestyles, archaeology, and reconnection. Storytelling is a big part of this programming, something that has been developed over the past several decades by Elders. (Wanuskewin Heritage Park)



Tipi wilderness camp at Wanuskewin Heritage Park.

Overnight tipi wilderness camp programs educate visitors through traditional stories and provide the opportunity to taste bannock and muskeg tea. During the summer months dance performances take place daily. These dances offer an opportunity to learn about their meaning as well as the meaning of the regalia. Tipi raising demonstrations teach visitors how the First Nations people set up their homes. There are demonstrations on how to use and handle an atlatl, a spear thrower, and the bow and arrow. Other



Aerial of site taken in 2010: Interpretive Centre, Opimihaw Creek, South Saskatchewan River.
(Provided by Meewasin Valley Authority.)



teachings extend to how bison was processed for food and what different parts of the animal were used for. Various cultural programs show how First Nations used to hunt bison using the two 200 year old buffalo jumps on site and other classes focus on traditional games and First Nations technology. (Wanuskewin Heritage Park)

There are currently four trails on this site: The Trail of Discovery (0.9km), The Path of the People (2.5km), The Trail of the Buffalo (1.3km) and the Circle of Harmony (1.5km). They take 30 minutes, 60 minutes, 30 minutes, and 35 minutes to walk respectively.



Interior of Interpretive Centre.

The park is open year round. Inside the interpretive centre a gift shop sells items produced by local First Nations artisans. These include moccasins, horn jewelry, paintings, pottery and stone sculptures. The restaurant features traditional First Nations cuisine. Much of the food prepared includes bison, wild rice salads, and bannock. There are two gallery spaces that are ideally suited for travelling art exhibits. A 40 foot projection wall offers several videos that tell the history of the park. Activity rooms offer space for hands-on cultural programs. Five meeting rooms accommodate up to 160 people, and when rented out provide an additional source of income for the park. An amphitheatre is set into a hill slightly north of the interpretive centre and is used for many of the centres performances and demonstrations (Wanuskewin Heritage Park). This amphitheatre can hold up to 300 people. South of the interpretive centre a picnic area offers space for visitors to rest and eat. Further south is an area for pow wow's.





With the combined population of Saskatoon and the Corman Park municipality currently around 275,000, and with continued growth and expansion of the city limits, Wanuskewin park is becoming an ever important feature in the Saskatchewan landscape. It is unique to find such a large area of uncultivated land with so much history, in such close proximity to a large urban centre. It is clear that Wanuskewin Heritage Park is unique and continues to have tremendous potential for public education. Virtually every type of archaeological site encountered on the northern plains is represented within this area. Nearly all of these sites are undisturbed and have importance at the local and regional level.

At the moment education is limited to the site and how it was used by First Nations. There is very limited information and education tools in place to educate visitors about First Nations artifacts, some of which were discovered on this very site. There is a tremendous opportunity to extend the scope of the education at the park to these artifacts through the development of the Keeping House. With the Keeping House in place, visitors to the site could walk the land and learn about how First Nations inhabited this area, observe excavations in progress and then complete the experience by visiting the Keeping House and viewing and learning about the artifacts themselves.

When introducing new architecture to this land every effort should be made to maintain the current characteristics of the place that make it so successful. These include preserving existing heritage sites, wildlife paths and environments, vegetation and walking trails.

CHAPTER 2: PROGRAM

The program of this thesis includes a pavilion structure and the Keeping House. The Keeping House will showcase, collect, display, preserve, and accurately interpret Saskatchewan First Nations history, cultural artifacts, and art forms from all eight language groups. The Saskatchewan Indian Cultural Centre has a broad range of artifacts in their collection but many of these items are spread out throughout Canada, and in other countries and are in need of repatriation. The Keeping House will house these repatriated collections and cultural artifacts currently on loan to, or held by, other institutions (Saskatchewan Indian Culutral Centre, 2010.) Currently the Royal Saskatchewan Museum in Regina, Saskatchewan holds several hundred of the provinces artifacts but it is estimated that a large number of artifacts are held privately in the province and need a place where they can be restored and placed in a climate controlled atmosphere. Ultimately, this building will provide owners a location to place their objects in safekeeping. The Keeping House differs from a typical museum in that the owners of the objects retain the right to use the artifacts and to determine how they will be used and handled by others. This is more culturally appropriate as many sacred objects are required for use in annual ceremonies. Gathering these artifacts and organizing them in one location will make it easy and convenient for the public to access. The Keeping House will thus be a place for culturally appropriate interaction by First Nations communities and individuals with the artifacts. It will also provide another forum used to educate the public of the historic and ongoing contributions of Saskatchewan First Nations culture and improve and enhance cross-cultural education and increase awareness. (Saskatchewan Indian Cultural Centre)

One component of the Keeping House, the ceremonial space, will be removed from the building creating a exterior pavilion. In addition to functioning as a ceremonial space this pavilion will act as a place for campfires, drumming, a rest point, and an observation tower.

Storing Artifacts

Types of Artifacts

Some of the items likely to be stored and displayed in the Keeping House include: pipes, all types of clothing, arrowheads and other tools, medicine bundles, feathers, taxidermy treated animals, replicas and art.

Materials

There are two basic categories of materials that would reside in the Keeping House - organic and inorganic. Artifacts made from animal products such as fur, leather, wool, silk, bone, ivory, or feathers are organic. Wood, paper, cotton and other natural fibers made from plant products also fit with this category. Items made from nonliving materials are inorganic artifacts. These consist of items made from metal, stone, ceramics and glass.

Environmental Factors

There are several factors that affect the long-term storage and preservation of artifacts. These include light, temperature, relative humidity, and air pollution.

The three types of light include ultraviolet light, infrared radiation and visible light. All of these lights cause damage to artifacts but some less than others and if managed properly the life time of the artifact can be extended

dramatically. "Displaying an object under ideal museum lighting conditions for just a few weeks could have the same effects as exposing it to bright sunlight for a day or two." (Texas Historical Commission)

Light can have varying effects on different types of artifacts. For example, it can cause textiles to fade and dyes and paints to darken as well as change colour. Every effort should be made to reduce or filter ultraviolet light as it is the most harmful in this situation and when possible, sources of natural light should be eliminated from areas containing artifacts. Common sources of ultraviolet light include natural daylight and fluorescent lamps. Lights that give off a significant amount of heat, such as incandescent lights, should not be placed near artifacts and in general the lowest wattage possible should be used. The lighting qualities of exhibition spaces and storage areas should be able to be individually controlled. (Texas Historical Commission)

Properly controlling the temperature of the environment the artifacts are stored in also has a large influence on their life long preservation. The type of artifact determines the ideal temperature and things like metal objects can withstand varying temperatures while other objects that are organic cannot. Keeping a constant temperature around 20-22 °C and humidity levels of approximately 45-55 % is ideal. The most important contribution to the degradation of artifacts is varying environments. Avoiding fluctuation is key. Artifacts should not be stored along exterior walls or near windows and doors as temperature conditions vary more at these locations. It is also important not to store artifacts on the ground. Instead keep objects a minimum of 12 inches from the floor. (Texas Historical Commission)

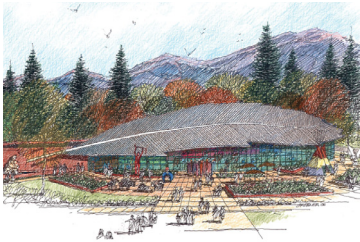
Intake vents should not be located in heavily trafficked areas or other areas of poor quality. Storage of artifacts should not be near fireplaces, cooking places or smoking areas. The storage areas for artifacts should be separate from any exhibition spaces and the office spaces and should only be used for the storage of artifact collections. All other necessary supplies, products and furniture should be stored elsewhere. Custom artifact storage units are an ideal choice but steel shelves and cabinets can be used if they have a synthetic polymer powder coating or are anodized aluminum. Wood shelving emits harmful acids that may be damaging to artifacts. Wood storage units are better for audio-visual collections. If wood is being used for the storage of artifacts than the surfaces must be sealed with a water-based polyurethane. A barrier, such as Mylar or Melinex should be used between the artifact and the wood surface. Padding such as polyethylene foam, or polyester batting can be used as well. Artifacts should also be stored in acceptable containers such as acid-free boxes, or foam with ideally one artifact per container. These protect items from light, dust and other harmful things. In general artifacts should be displayed in a way that puts the least amount of stress on their components and they should be organized thoughtfully to prevent them from being easily bumped or knocked over (Texas Historical Commission).

CHAPTER 3: CULTURE

Indigenous Culture in Architecture

There is a history of architects working within the context of indigenous cultures. These cultures are often nomadic, with a limited history of constructing permanent buildings. How the cultures of these people find expression in the contemporary context of relatively permanent structures is something that has been approached in a variety of ways.

Dennis Sun Rhodes



Rendering of Native American Student Centre. (Great Horse Group).

Sun Rhodes, a former chief, focuses on the integration of American Indian culture in contemporary architecture. Some of his work includes the Native American Student Centre at Montana State University in Bozeman, Montana and the Four Winds High School in North Dakota. These projects and the majority of his other work represents a graphic, sometimes superficial translation of First Nations culture in architecture. Symbols and imagery including feathers, turtles, wings, and the bright colours of First Nations clothing and art are often used as ornamentation to communicate aspects of the culture.

Renzo Piano



Marie Tjibaou Cultural Centre (Bustler.)

In the Marie Tjibaou Cultural Centre of New Caledonia, Renzo Piano organized the buildings in a similar fashion to that of the traditional Kanak village and loosely modeled the structures on the Kanak huts. In the traditional Kanak hut the center post was a symbolic representation of the leader of the village. In the cultural centre he removed this center post as a symbolic representation of the murder of Jean Marie Tjibaou (Galinsky).

Douglas Cardinal



First Nations University of Canada, Regina, Saskatchewan (Lewis)

Cardinal often describes his buildings as if they are rocks carved from the wind. He recognizes the importance of the circle to First Nations and represents this with sweeping, free flowing, organic forms that surface in all of his First Nations work. These forms have a social undertone as he says that “organic architecture is the unique expression of a free individual in a free society.” (Cardinal 13) He works through intuition, seeking inspiration during the design process through traditional meditation and participation in sweat lodge ceremonies.

Louis Kahn



National Assembly, Dacca, Bangladesh (Digital Bangladesh)

In the National Assembly in Dacca, Bangladesh Kahn drew upon the vernacular and monumental archetypes of the region and abstracted these to produce the form of the building. He wanted to produce an ideal expression of new democracy using perfect forms: the circle, half circle, square, and triangle. In this government center Kahn felt that the structures he designed should not just stand for the political nature of the National Assembly’s activities but also for their spiritual nature, thus he describes the importance of a space with its grandness.

Le Corbusier



Palace of Justice, Chandigarh, India. (Glancey.)

In Chandigarh, India Corbusier’s designs for the main buildings of the capitol drew upon forms from local flora and fauna as well as the profile of Indian cattle and local thermal power stations. They also incorporated concepts from the traditional Mughal garden and parasol form of Mughal architecture.

Etienne Gaboury



Interior of the Precious Blood Church (Canadian Architect, 2006.)

The Precious Blood Roman Catholic Church in Winnipeg, Manitoba serves primarily a Métis community. The form of the building consists of a low curving brick wall with an inclined cedar-shake-clad upper section that rises above the surrounding suburban homes. Gaboury uses the structure, lighting and resulting space to suggest the form and basic qualities of the tipi.

Traditional Structures

The Tipi



Tipi camp. (Hungrywolf, 2006, 77)

The conical hide-covered tipi was the most common dwelling used by the First Nations of Saskatchewan. This structure was easily constructed and dis-assembled and the form and materials were reflective of their nomadic lifestyle. This dwelling consisted of a 3 tree pole foundation upon which 13 more poles were laid counterclockwise to form the structure of the tipi. The exact number of poles used depended on the size. The buffalo hide cover, typically made from 12-20 hides, wrapped this form and was pinned together between the door poles with peeled wooden pegs. During winter an interior lining of hide was applied and the cavity stuffed with grass. A ring of stones was often positioned around the base of the tipi to hold down the hide cover. These stones were left in place when tribes moved on to a new location and these now allow us to identify habitation sites. The stone rings were often 25 feet in diameter. The individual stones were about 1 foot in diameter.



Interior of tipi structure. (Hungrywolf, 2006, 119)

Tipis were positioned so that the steeper, rear side braced the structure against the prevailing westerly winds leaving the door facing east towards the rising sun. The plan took on an egg shape with the wider end positioned at the rear. This tilted cone allowed the fire to be directly under the smoke flaps. In summer the bottom of the cover was rolled up on the poles about 2 feet to allow cool air to flow through the structure. Tribes often hung ribbons and strips of cloth from the tips of poles for decoration as well as to help prevent rainwater from running down the poles and into the interior. During windstorms a rock was hung from the top of the tipi where the poles cross to help stabilize the

structure. Similarly, a line was sometimes stretched from the same point to the floor where it was staked to the ground.



“At night the tipis glow like lanterns in the darkness of the prairie.”
(Oldershaw 45)

Sun Shade / Drying Rack

A simple sunshade was often constructed by bending saplings into a dome form. Hide was then laid on top and sliced meat was hung on the saplings to dry.



Sun shade structure. (Hungrywolf, 2006, 74)

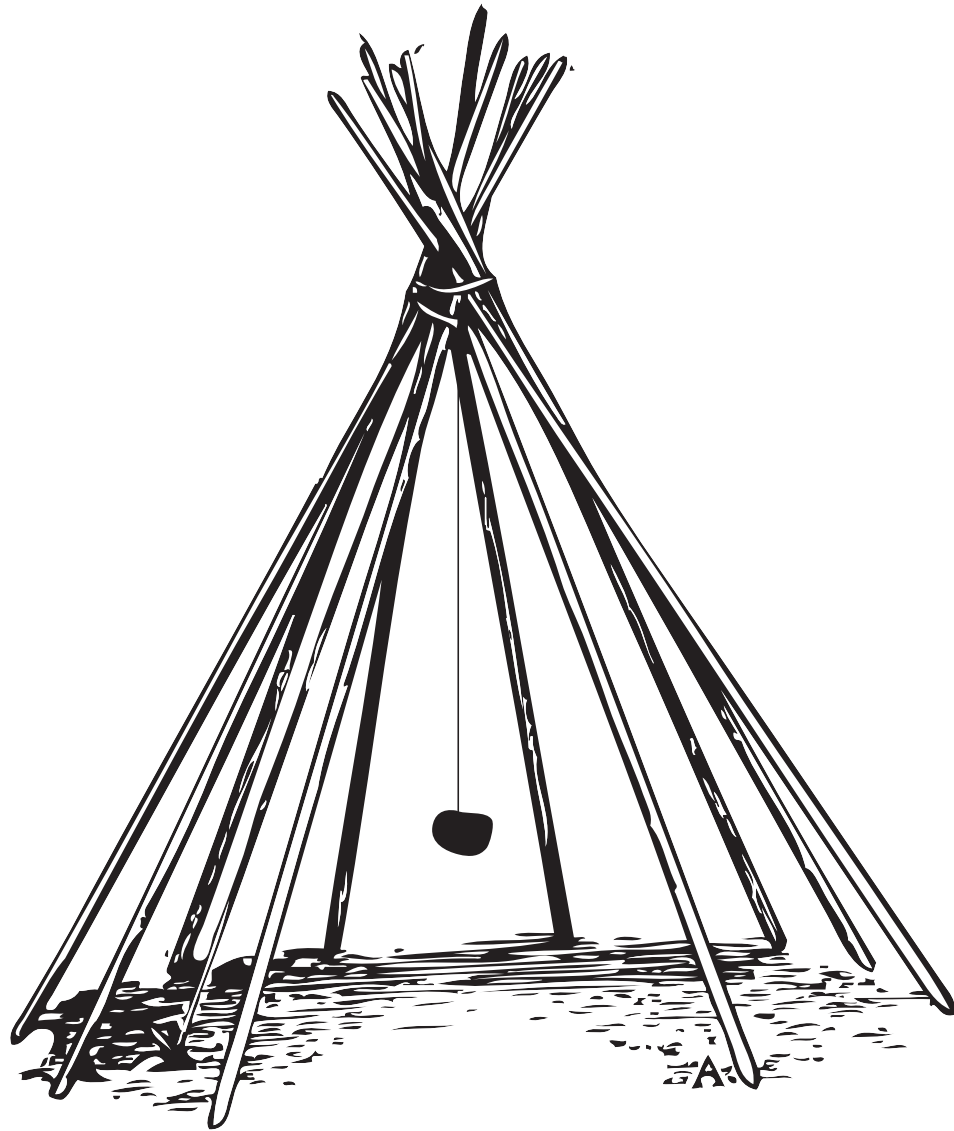


Illustration showing rock hung within the tipi for stabilization. Adapted from (Hungrywolf, 2006, 208)

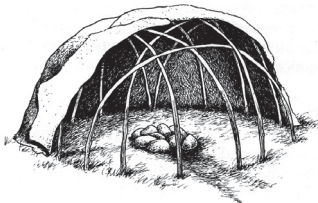
Sun Dance Structure



Interior of Sun Dance structure. (Stonechild)

The Sun Dance structure is about 40-50 feet in diameter and resembles a circular fence. This fence is connected to a central tree trunk by long radiating sapling rafters. This central pole is a conduit for collective prayers and sacrifices made inside the lodge. The central area of the lodge is used for prayer, fasting, meditation, curing, self mutilations and rituals for the renewal of the tribe welfare. At times the side walls and rafters are covered with brush or old canvas tipi covers. The entrance to this structure faces east representing the source of light and life. This orientation along the east-west axis symbolizes the constant birth and death cycle with the sun rising in the east (life) and setting in the west (death).

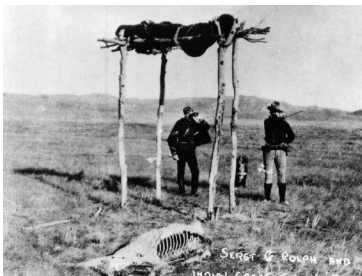
Sweat Lodge



Sketch of sweat lodge structure. (Royal Saskatchewan Museum)

The sweat lodge, like the sun shade structure, is formed through the bending of saplings into a dome form. Willows are commonly used and tied together or wound with smaller pieces to hold the members in place. Rocks are heated in a fire until they are red hot and then moved to the lodge and placed in a central pit where they are watered to produce steam once the structure is covered with hide or cloth. The area between the fire and the sweat lodge forms a sacred path.

Death Lodge



Death lodge structure. (Last Resting Places)

This scaffold structure was constructed using roundwood. The body was sometimes dressed in beads and wrapped in cotton, and then covered in the hide of a buffalo. It was then placed on the platform which sat upon high ground. Higher hills were reserved for men and smaller hills for children.

“ The Sioux abhorred the grave (lowering into the ground). It had the deceased too far away from the Maker; therefore the platform had the deceased closer.” (Last Resting Places)

Pow Wow Arbour



Pow wow grounds. (630 Ched)

Pow wow arbours of the northern plains often take on a circular form. Program is organized in concentric circles. There is a central pole and dance area surrounded by a canopy ring which covers spectators and drummers. Outside of that is space for vendors and stalls.

Artwork



Saskatchewan First Nations artwork. (Marceland)

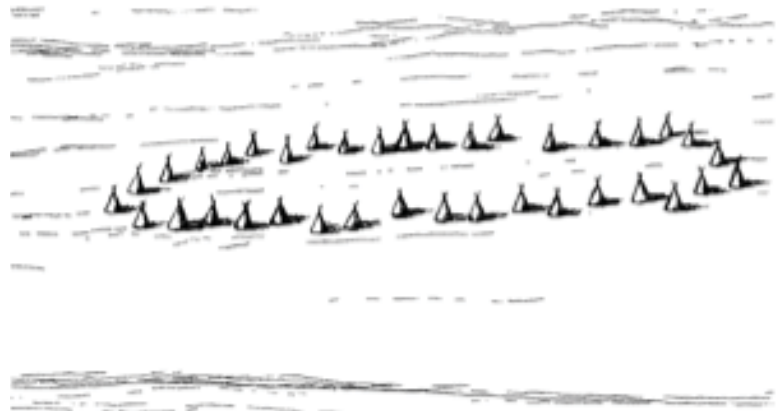
The artwork of the Saskatchewan First Nations often tells stories relating to animals and the landscape. Subjects depicted vary but reoccurring themes include birds, tipis, and buffalo. This artwork is very colourful and has a solid-void quality as bold blocks of colour are used to form the images.

The Circle

It is clear that the presence of the circle in First Nations culture is one of great importance as its presence is strong throughout many aspects of the culture. It finds expression in many of the traditional forms allowing the flow of these spaces to be uninterrupted by planes. The central fireplace

in the tipi, for example, lead to the circular movement of traffic and this was considered a sanctified pattern of movement. The importance of the circle is reinforced by the characteristics of the natural environment of the plains as well. The endless view in all directions provided for a somewhat continuous level horizon. This gave the impression of being positioned inside a circular field. The circle was expressed in the tipi camp as tribes often organized themselves in a circle. This provided some sense of enclosure on the open plains. Finally, the First Nations concept of time is cyclical rather than linear.

“The Indian mind thinks in the round, in the circle and its beginning is also the end. . .the beginning is equal to the end. There is no distinction in being.” (Cardinal 18)



Sketch of circular organization of tipi camp.(Nabokov, 1989)

“ The oneness of Indian culture finds its symbolic expression in the circle, the native people’s ultimate metaphor for totality.” (Cardinal 12)

The Land

“It is a unity with the land which is not based on nationalism or concepts of property but on spirituality. This sense of the land is a sense of nature that is equally alive with man. . .The land is life. The land is a great being.” (Cardinal 11)

In First Nations culture their relationship to the environment and the land is important. There is no concept of ownership of the resources, or inheritance of land from generation to generation. Nor was there a notion of improvement of the natural environment by human intervention. Their people consider themselves a part of nature just as much as the animals, plants, rocks, rivers and streams.

The Cardinal Directions

Many different things are associated with the cardinal directions and these tend to vary quite a lot between language groups and even between tribes. These often appear in diagrams mapped on to the medicine wheel symbol. Some things associated with the four directions include animals, colours, and the four elements.

CHAPTER 4: DESIGN

Site Selection

The pavilion is located midway between Saskatoon and Wanuskewin Heritage Park, adjacent to a new trail linking the rural site with the city. This midpoint allows the structure to act as a rest point for hikers and cyclists travelling between the city and the park. Variations of this structure may exist throughout the province near reserves or other historically significant sites such as the Churchill River site in northern Saskatchewan. This historic site is home to an important series of First Nations rock art. These archaeological remains have been left intentionally as an interpretation of aspects of prehistoric and historic life by the people who lived it.

The Keeping House is more specifically located within Wanuskewin Heritage Park along the ridge of the South Saskatchewan river, east of the Opimihaw creek valley. This area is adjacent to one of the four main walking trails as well as an access road along the east side of the park, leaving this structure well connected with the existing infrastructure on site. This area is also sensitive to the existing interpretive sites, archaeological digs, and wildlife zones. Finally by placing the Keeping House on the valley ridge, overlooking the South Saskatchewan River, we are offered views of the valley that are otherwise non-existent on the uplands further north.

Pavilion

Formally this structure contains one grand central space and reads as a series of solids and voids, a concept prevalent in much of the Saskatchewan First Nations artwork. The rectilinear exterior speaks to the four cardinal directions with the entrance facing east towards the rising sun, something typical in traditional First Nations structures. This orientation prevents the strong north-westerly winds from rushing into the structure and allows light to flood into the space as the sun rises above the horizon.

The interior floor plan is circular with a central firepit. Repeated use of the firepit will cause soot to build up over time on the walls. Darker at the top, enhancing the quality of light, and lightening gradually downward. As visitors enter into the interior truncated cone form their eyes are drawn upward towards the oculus, the space's main source of light. A series of holes are drilled into the surface of the cone. Their size and depth are calculated to acoustically tune the space for various drum frequencies. This truncated cone form of the interior is ideal for natural ventilation. Cool air is drawn in through the entrance and up and out through the top where a vent can be oriented with the prevailing wind to help draw air and smoke up and out of the structure. During rainstorms the vent can be closed allowing this space to be a refuge from the storm. Off the main space a short passage leads to a staircase occupying the void between the interior truncated cone and the exterior walls. This staircase leads up to an observation deck providing the visitor with a view of the surrounding prairies, back towards Saskatoon and forward towards Wanuskewan and the Keeping House. Small slits in the exterior wall allow light to flow into the

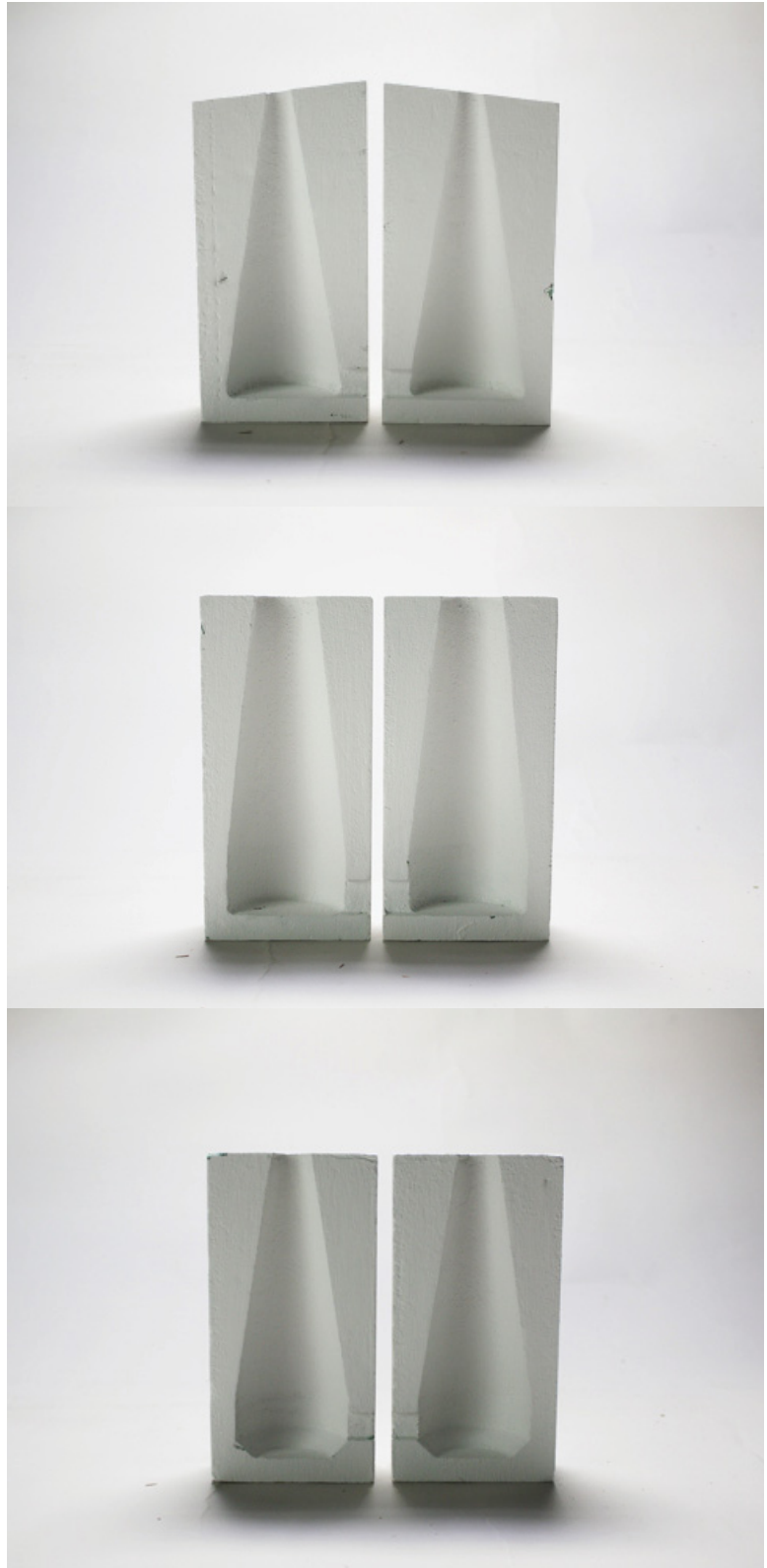
staircase periodically. At night the entrance glows from the fire and the exterior form creates a sharp contrast with the prairie horizon.

In other variations of the pavilion, the structure may be constructed of a lighter, less permanent material. At the end of the buildings lifetime, the foundation would remain and a new structure built. Much like how the stone rings remained marking the location of habitation sights, the foundations of the pavilions marks their locations throughout history.

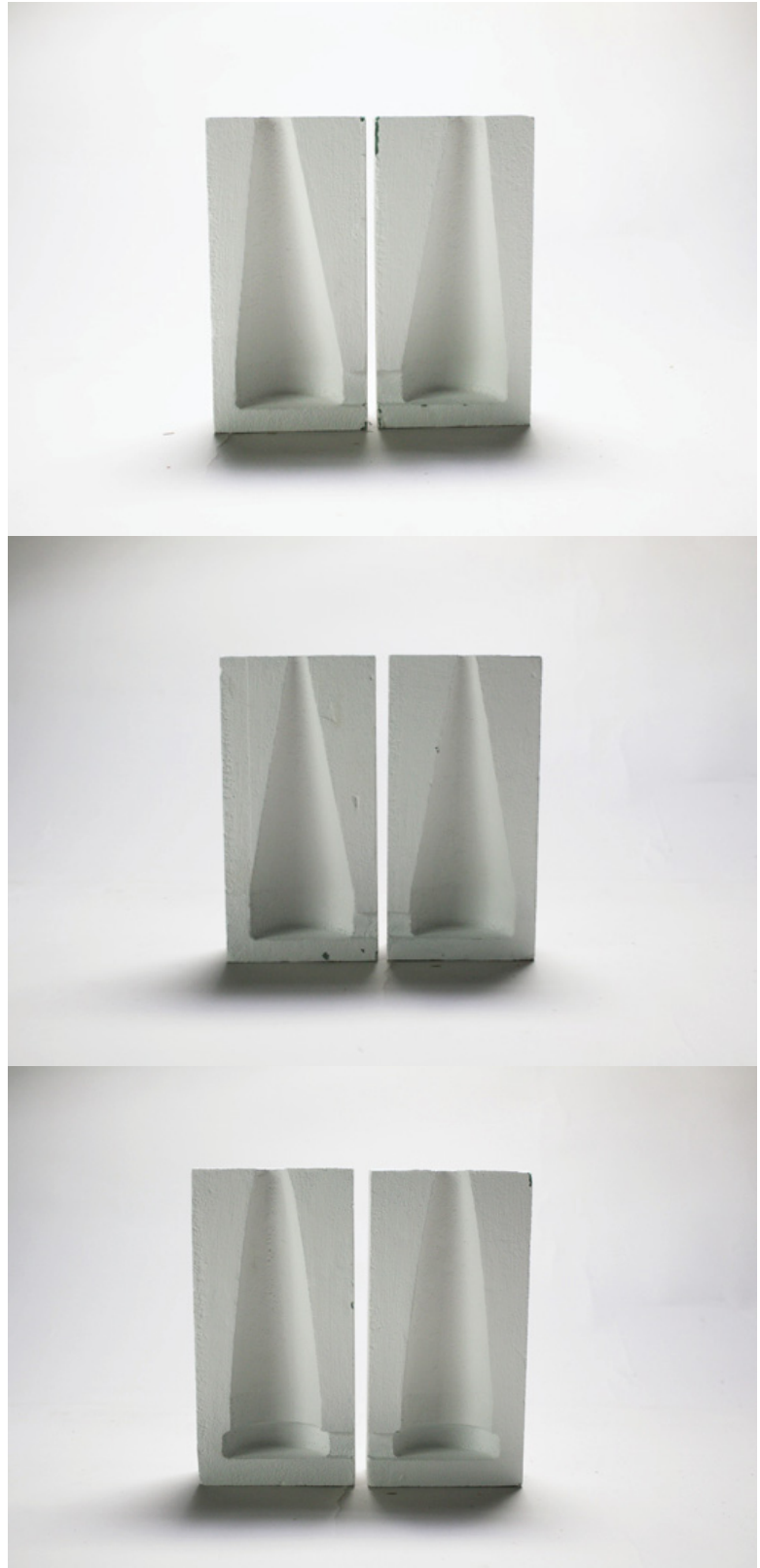


East elevation of pavilion.

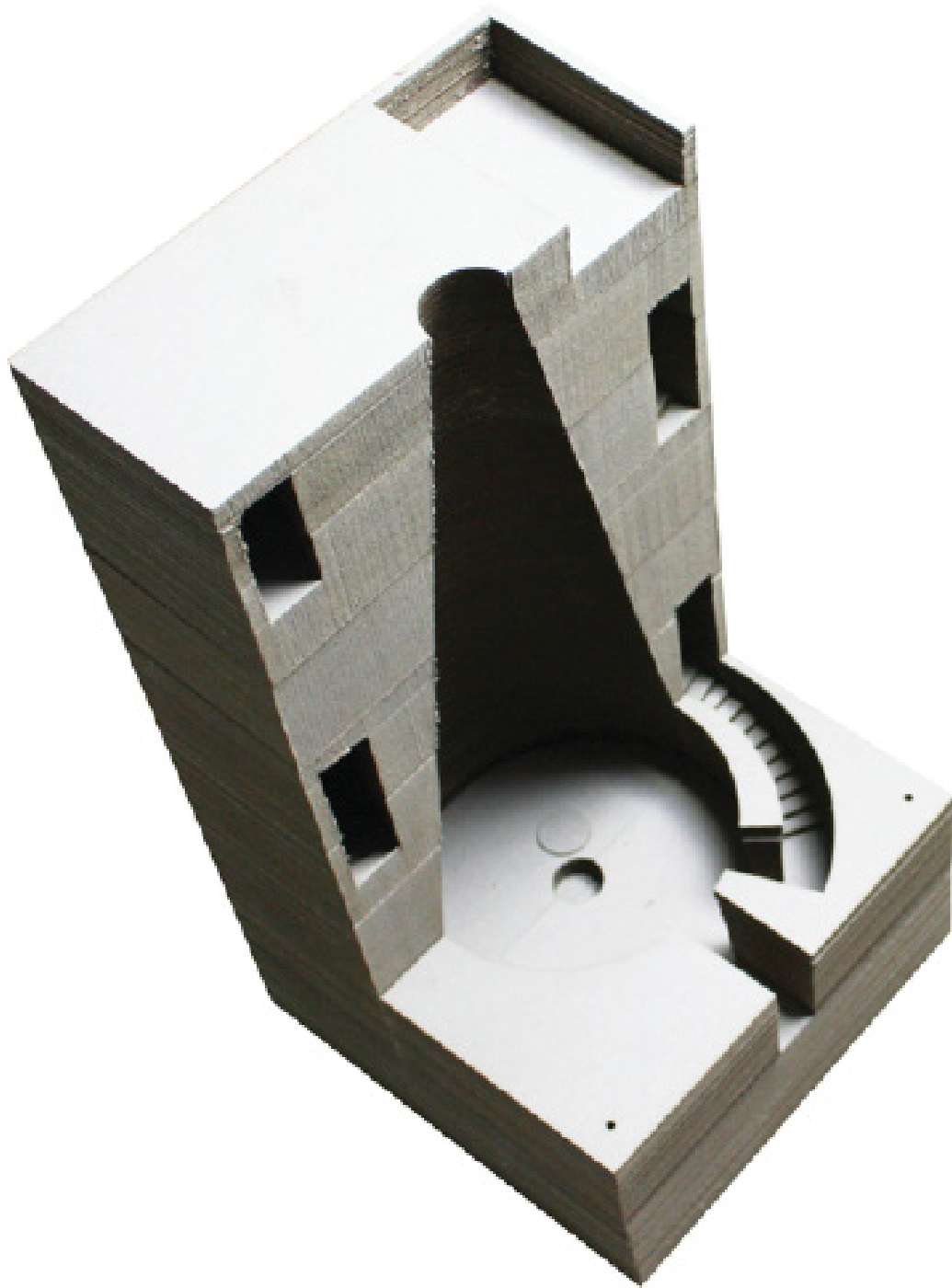




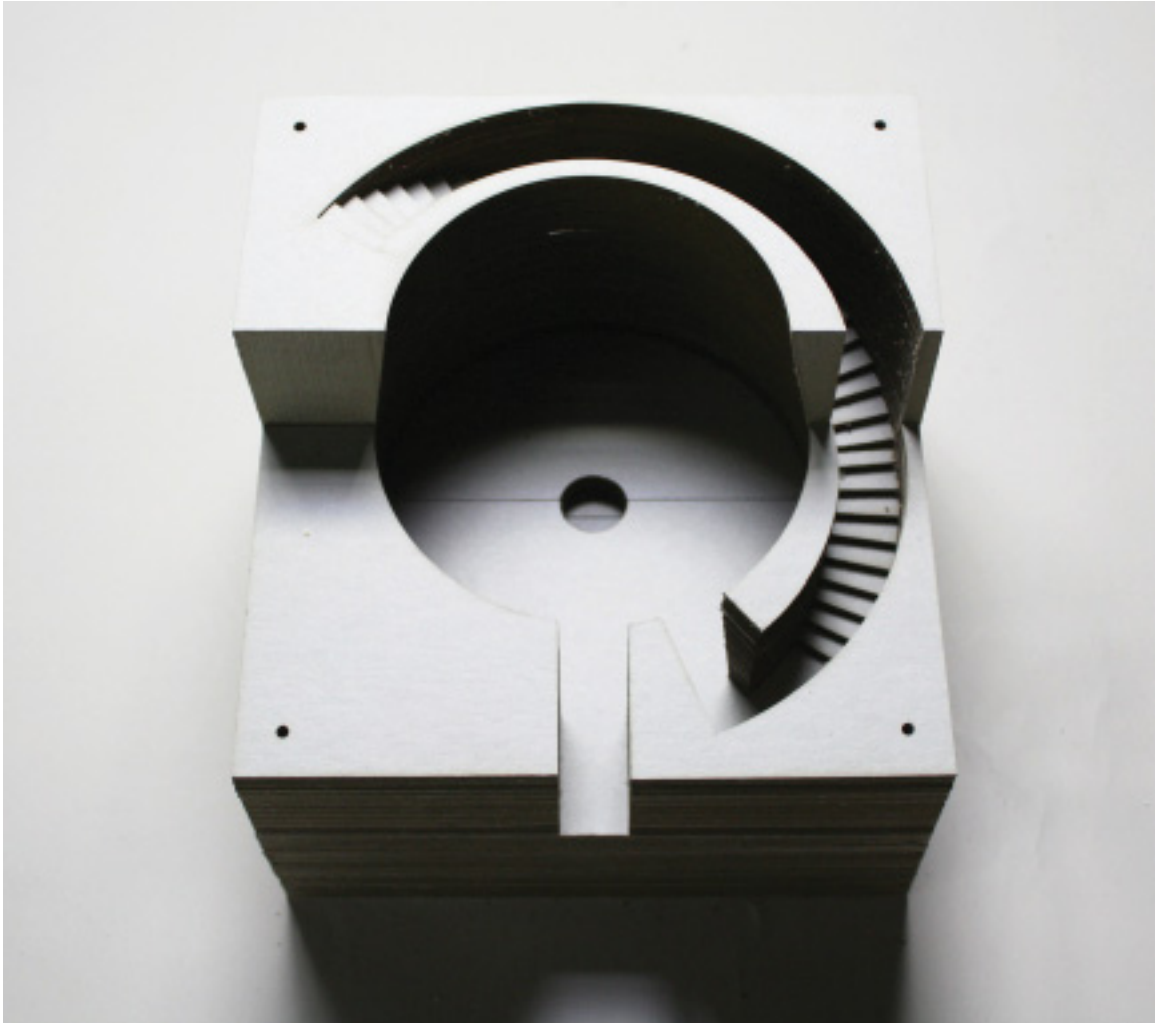
Study models of interior pavilion form variations.



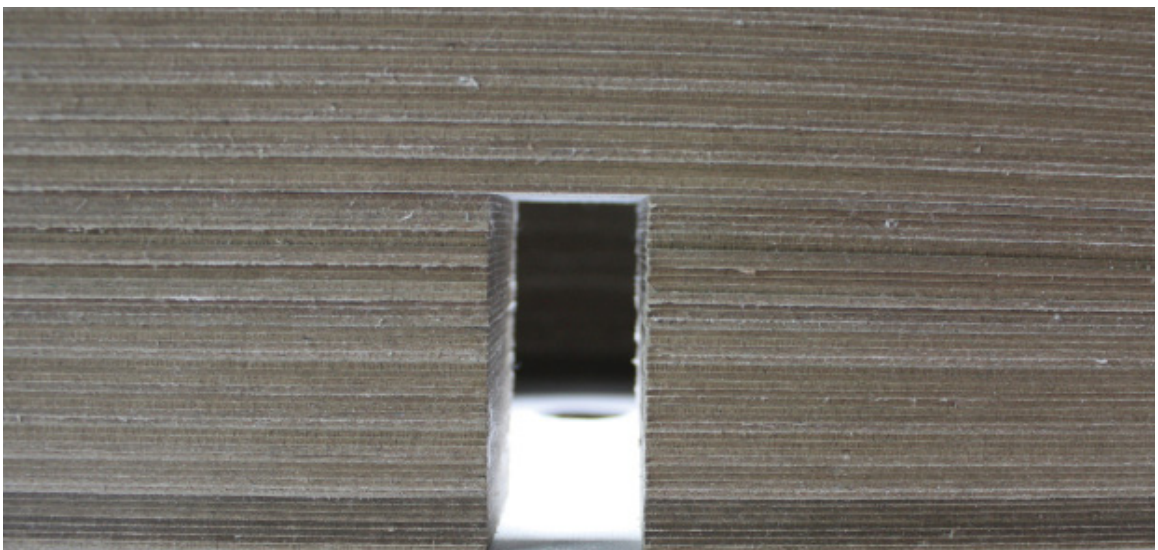
Study models of interior pavilion form variations.



Sectional Pavilion model showing contrasting interior and exterior forms, and staircase.



Pavilion sectional model showing main entrance and entry to staircase.



Entrance to pavilion structure.

Keeping House

Three vertical diagrid structures house the artifacts: House 1, House 2, and House 3. The varying organic forms of these three structures are inspired by the landscape and are abstracted from the many curved forms of traditional First Nations structures. These organic forms are primarily made up of a wooden diagrid structure and this allows these vertical spaces to be extremely rigid while also very transparent. The slabs are supported by wooden rings on the periphery. Layers of wood are laminated and moulded to produce the curved forms and each of the wooden members of the diagrid are unique.

Three boxes contain the artifacts in each house. Much like the rock hung within the tipi for stabilization, these boxes are hung from the diagrid structure and are suspended within the organic form. These spaces are suspended off the ground closer to the creator, an idea expressed in the death structure. The sacred artifacts are stored in the top level of the stack as no one should be walking over any of the sacred items. This is the most culturally appropriate way to house these artifacts. Many of the artifacts are small and these storage spaces do not have to be large. The storage rooms are clad in concrete panels to create a minimalist monolithic form in contrast to the detailed elegant structure of the diagrid. This aids in strengthening the relationship between the storage units and the hanging rock. Additionally this hung mass only touches the floor plates at the walkways and the space between the storage units and the floor plates allows visitors to look up between the two structures. This further strengthens the idea of the hung mass. Within the storage units the artifacts are organized by type. For

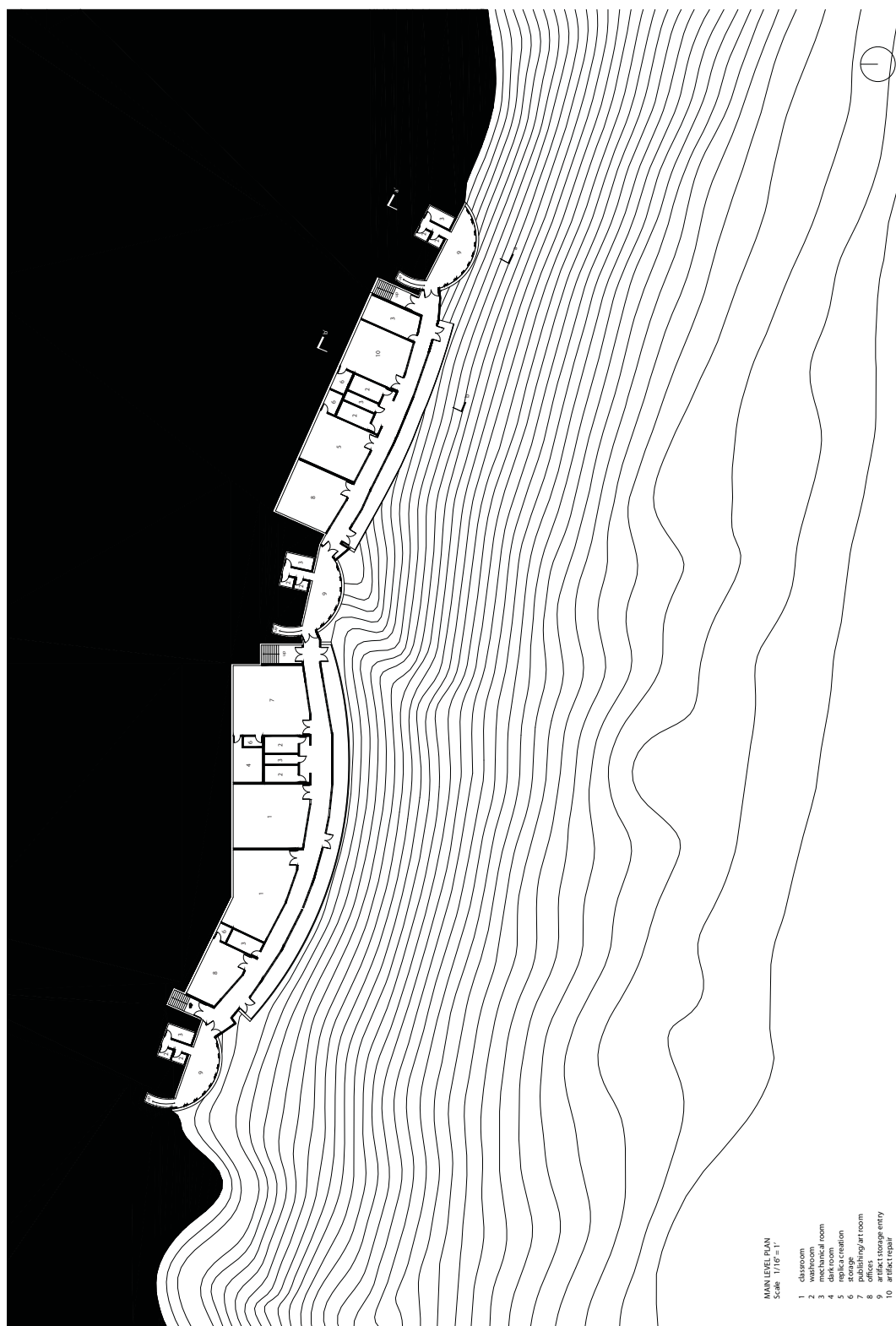
example, all of the pipes will have a common storage space, tools will have a common storage area, etc..

A large skylight is located at the top of these three structures allowing light to shed down around the artifact storage. An open space below the hung mass allows visitors to walk under it and experience the weight of the mass above them. This open space can be used for dance demonstration, gatherings and other events such as Aboriginal Day. The circulation, including the elevator and central staircase run vertically along the interior of the diagrid structure and are kept very transparent so as to not detract from the contrast of the solid hanging mass against the light wooden diagrid structure.

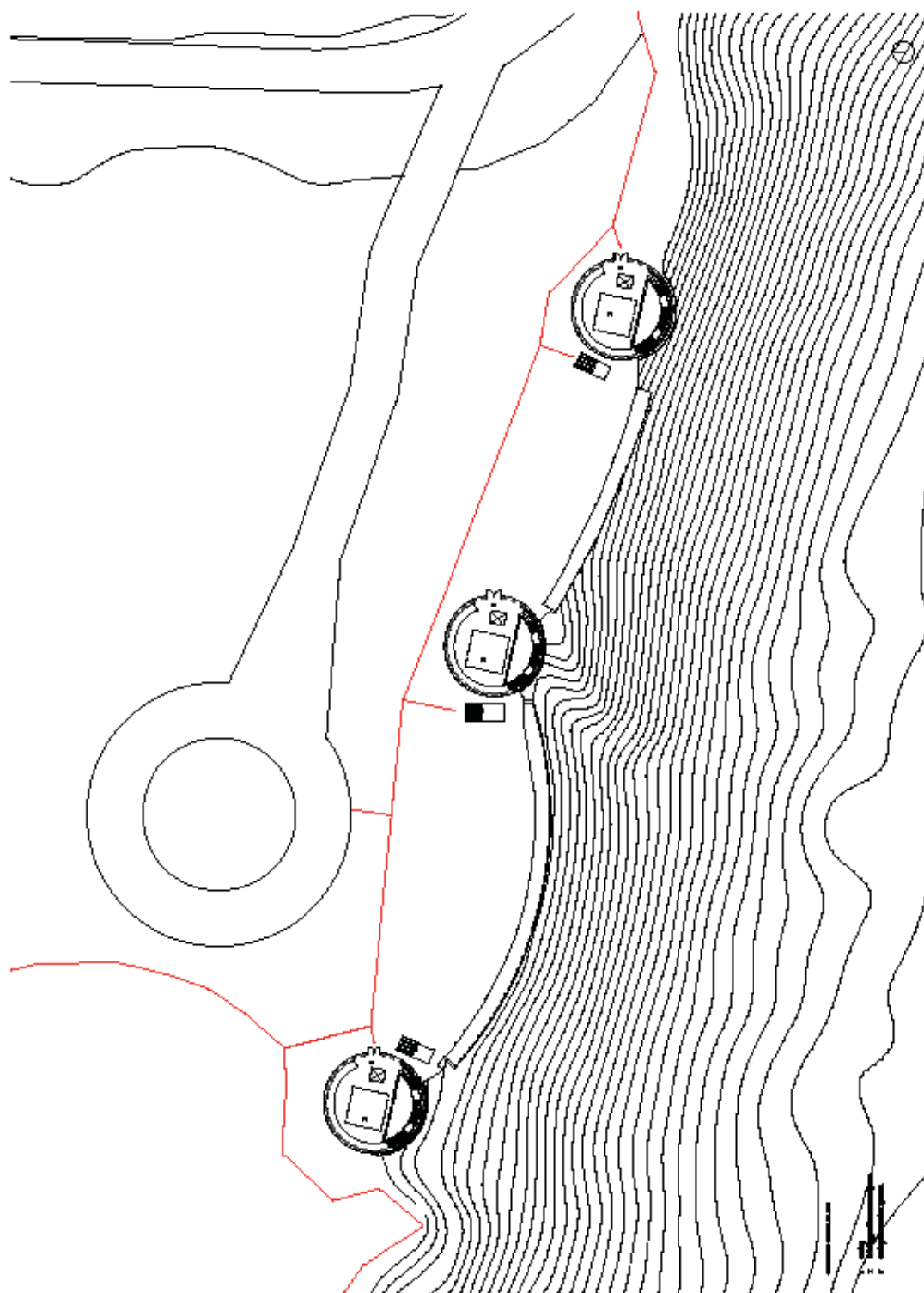
The diagrid forms are clad in an Okalux skin. These insulating panels ensure daylight is scattered into the space. The transmission levels within this material can be adjusted to the special lighting requirements of the Keeping House. This insulated glass provides excellent protection from the sun and glare protection. It also has excellent heat insulation. This will allow the structures to softly glow in the night much like tipis do, while also filtering the light entering the space to a more appropriate level for artifacts. During the daytime as the sun rises above the horizon, visitors walking along the trails will see the silhouette of the hanging mass within the diagrid.

Support Spaces

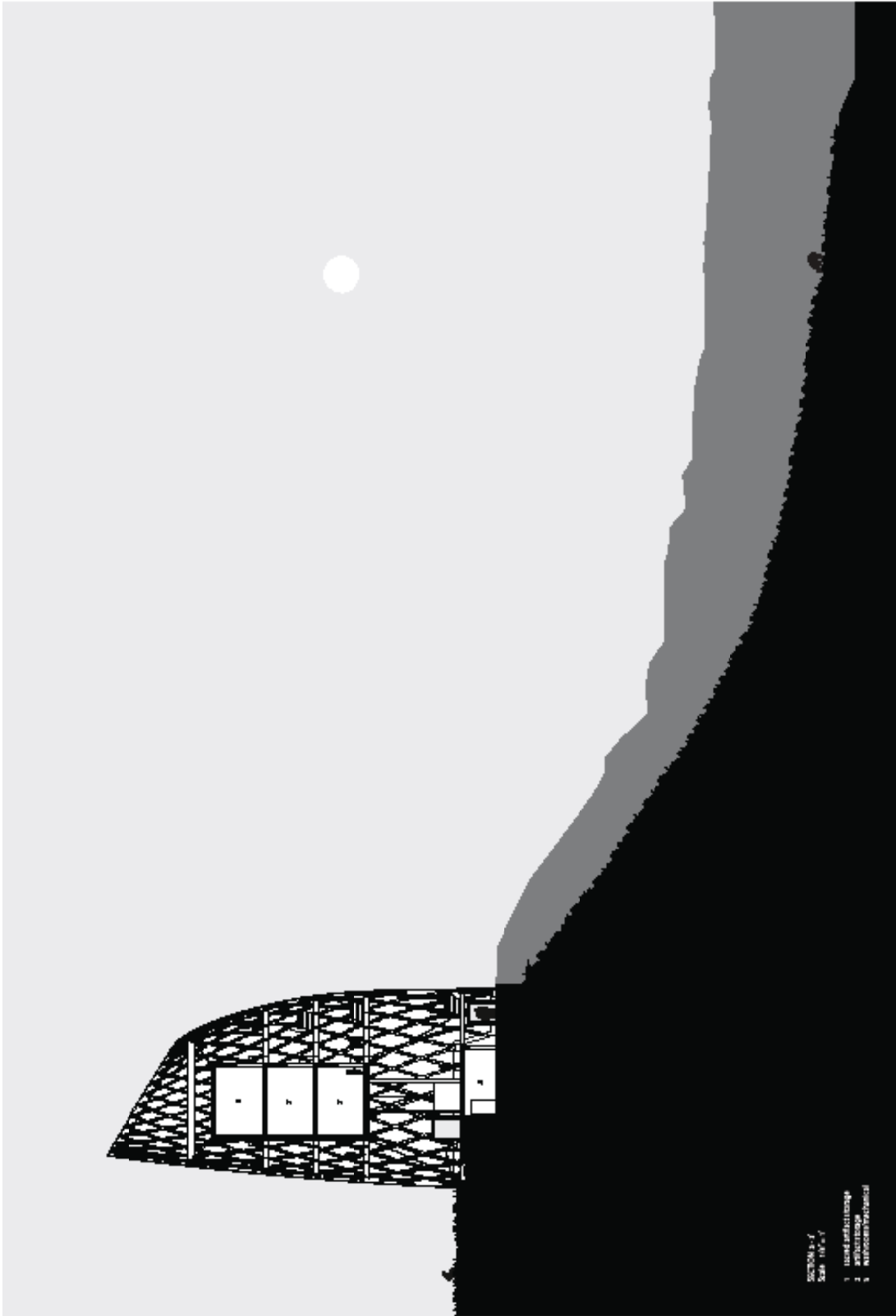
The support spaces, including the artifact replication and restoration, classrooms, offices, etc., extend between the vertical forms and are set into the curving ridge of the river valley. The green roofs of these spaces allow them to blend into the prairie uplands as you look south between the towers to the river. A terrace is developed along the ridge providing a walkway between the support spaces and the storage towers. Currently the extent of the trails and walking paths are limited to the creek valley and the prairie uplands. This walkway along the river valley slope will extend the experience of the site to the river. The fact that these spaces are set into the slope helps to strengthen the vertical quality of the diagrid forms. The support spaces face south and as you walk along the terrace benches provide a place to sit and look out over the river. An interior walkway connects the support spaces with the diagrid forms.



Main level plan.



Ground level plan.



Section through artifact storage towers.



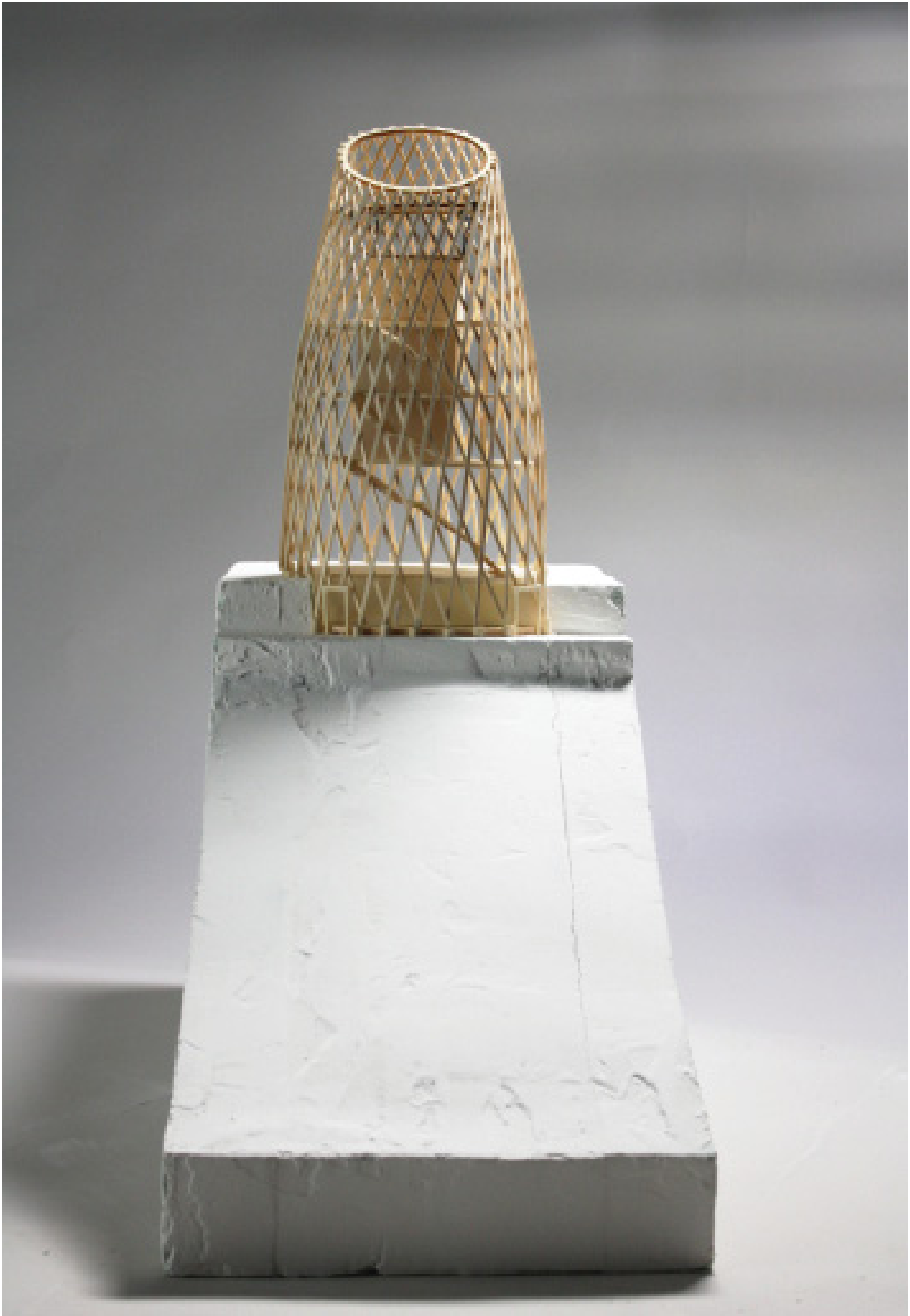
South elevation.



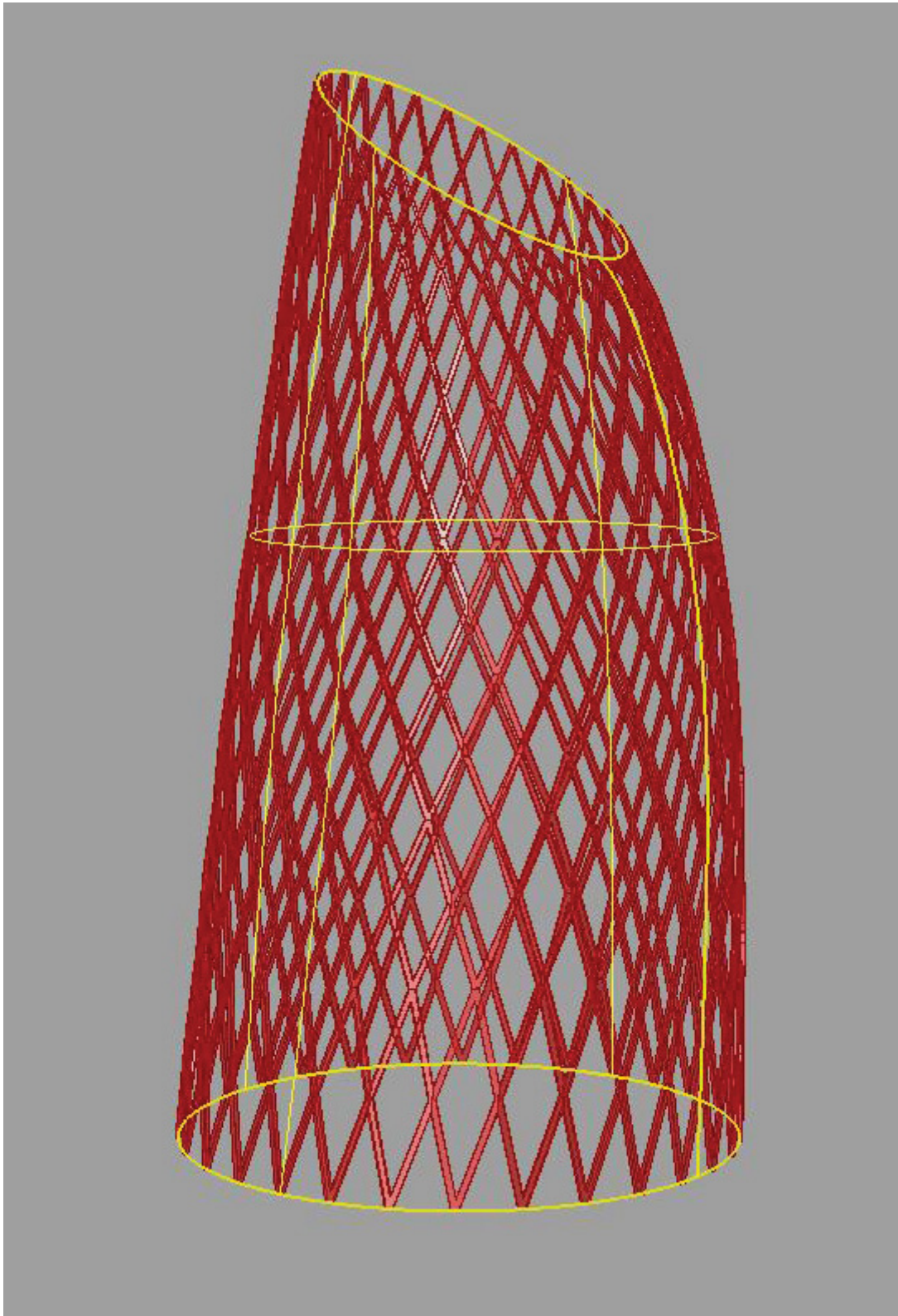
Keeping House storage tower model, looking northwest.



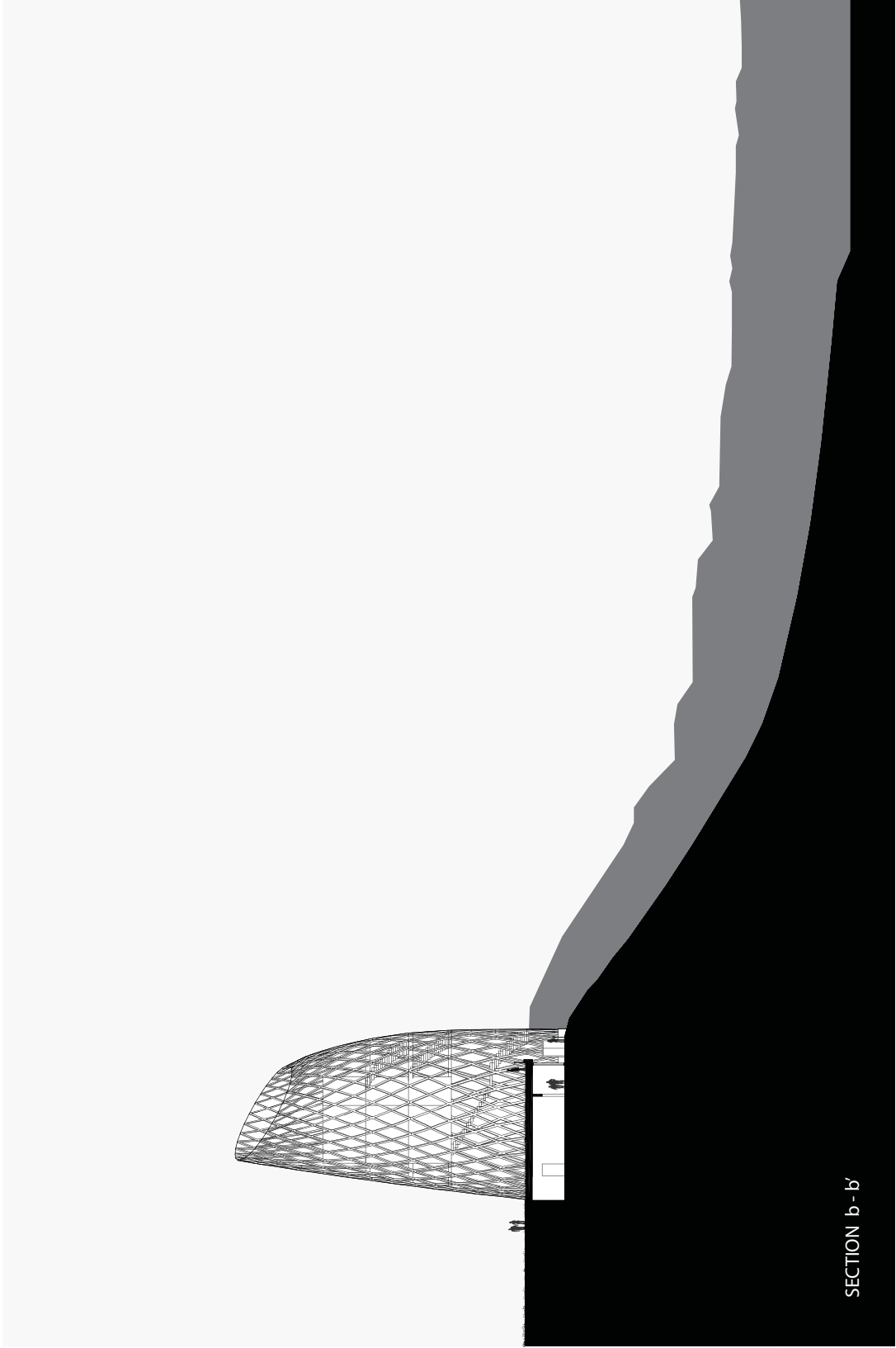
Keeping House storage tower model, looking southeast.



Keeping House storage tower model, looking north.



Computer model of diagrid form.



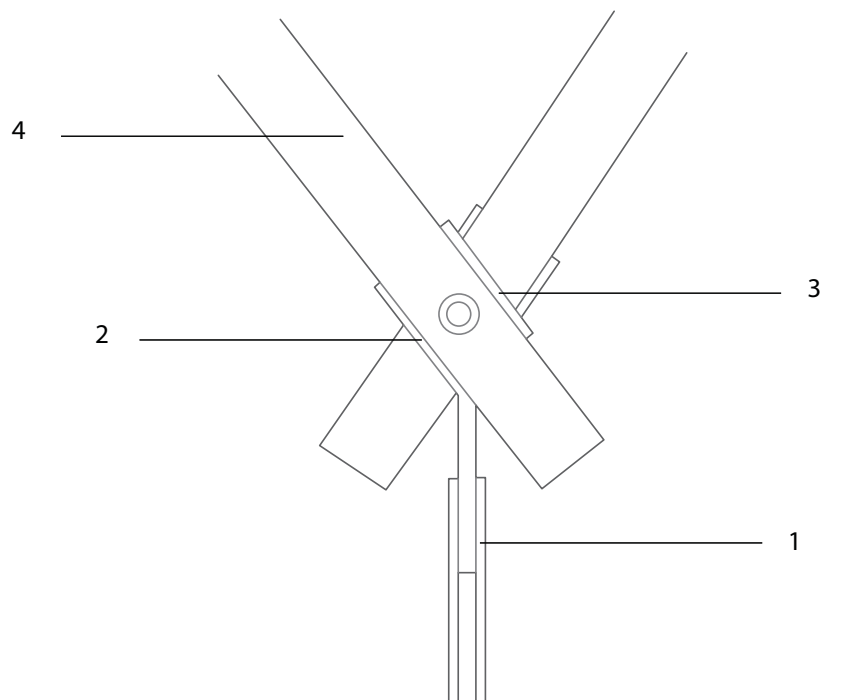
Section through support spaces.



Keeping House night rendering.



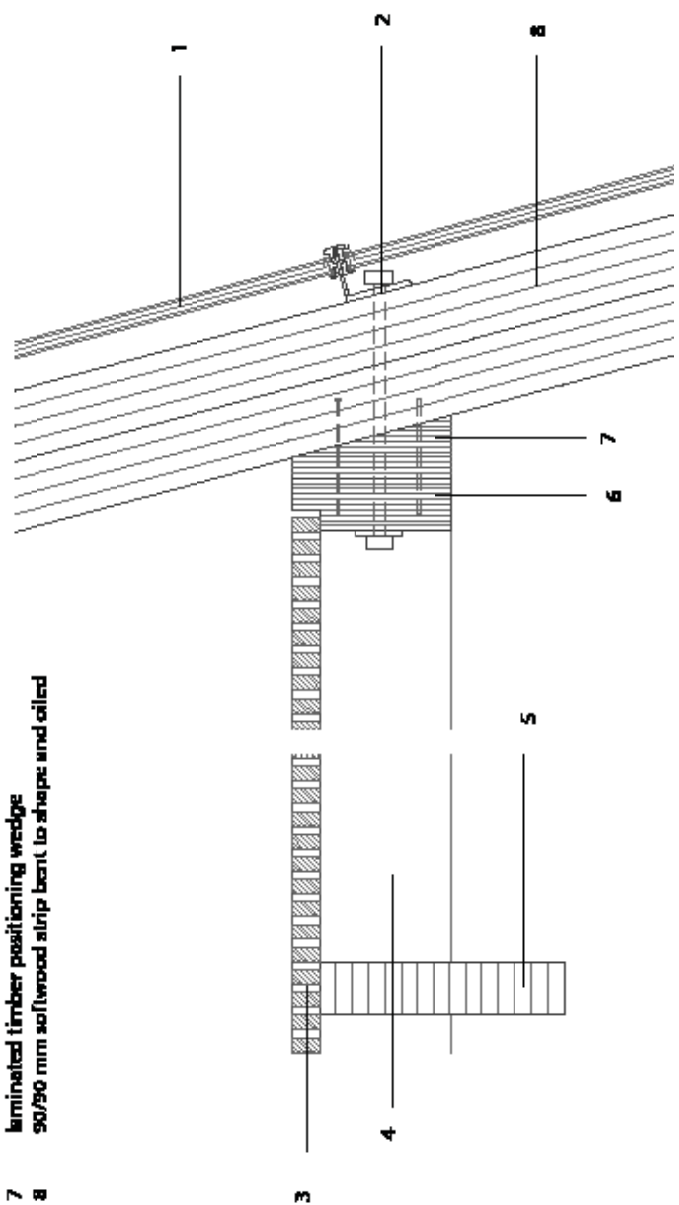
Keeping House morning rendering.



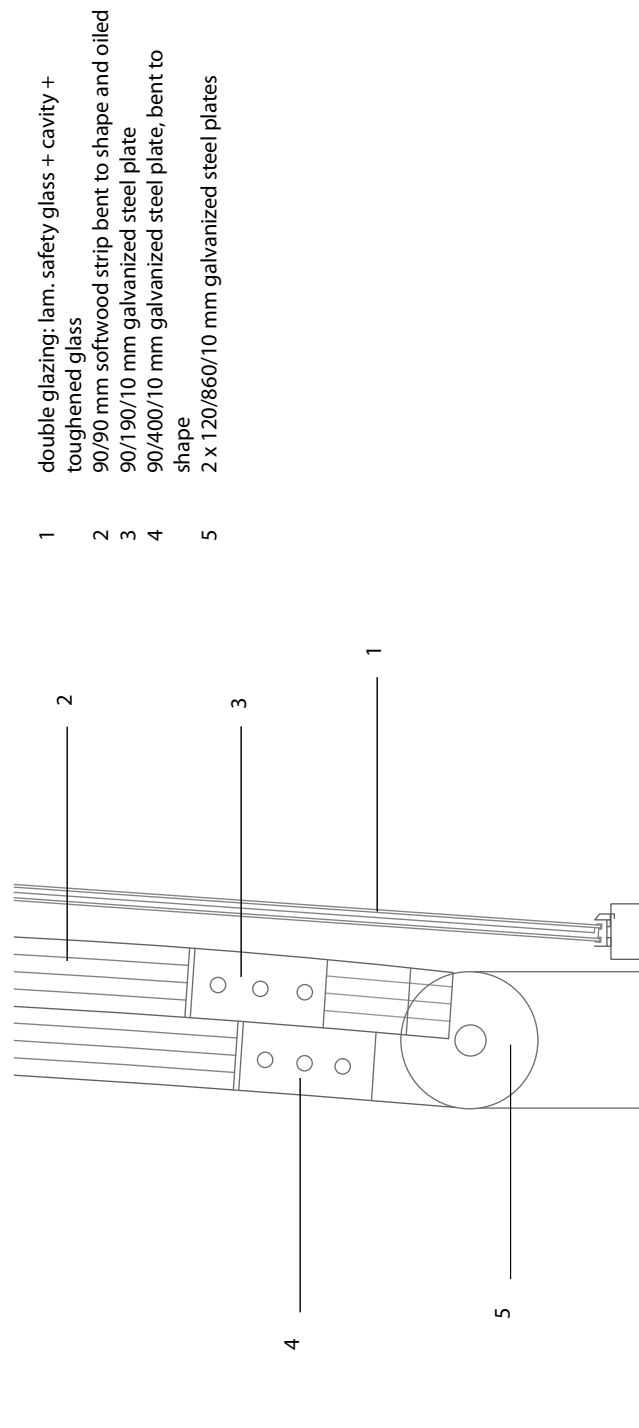
- 1 2 X 120/860/10 mm galvanized steel plates
- 2 90/400/10 mm galvanized steel plate, bent to shape
- 3 90/190/10 mm galvanized steel plate
- 4 90/90 mm softwood strip bent to shape and oiled

Base Connection Detail.

- 1 double glazing: lam. safety glass + cavity + toughened glass
- 2 steel angle
- 3 28/50 mm softwood stripe, oiled
- 4 100/250 mm softwood secondary beam, oiled
- 5 100/400 mm laminated timber main beam
- 6 150/350 mm softwood peripheral beam, bent to shape and oiled
- 7 laminated timber positioning wedge
- 8 90/90 mm softwood strip bent to shape and oiled



Connection of glazing and diagrid structure to ring beam.



Connection of diagrid structure to ground.

CHAPTER 5: SUMMARY

How can the architecture of a “Keeping House” express the contemporary First Nations’ cultures of Saskatchewan?

Through subtle suggestion and abstraction, while avoiding replication, aspects of Saskatchewan First Nations culture are translated into the architecture of the Keeping House and the pavilions. Given that the program is a multi-cultural one, common cultural aspects among all Saskatchewan First Nations are used to create continuity in the expression of these language groups in the architectural forms. Drawing on the contemporary culture while still recognizing important historical ways helps to preserve vital aspects of First Nations past culture in this design. Finally the projects sensitivity to the existing historical landscape helps it to enter into a meaningful dialogue with its surroundings and in turn, the culture.



Presentation Models and Drawings.

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APPENDIX: SITE IMAGE CATALOGUE

The following image collection describes the site and the existing buildings. Wanuskewan Heritage Park is large and there are many unique aspects of the area that are important to establishing an overall sense of the land.

Warman road bordering site



View of South Saskatchewan River from Uplands.



Trail in Creek Valley.



Trail looking east up creek valley slope.



Bridge in creek valley.



Uplands looking north towards interpretive centre.



Ampitheatre.



Creek valley bridge showing structure.



Ampitheatre seating.



View south of creek valley.



Bison holding compound.



Trail seating.



Interior interpretive centre gathering space.



Trail seating atop Cathedral Peak on prairie uplands west of creek.



Projection wall in Interpretive Centre.





Interior lighting in canvas tipi on site.



Pow wow grounds.

Picnic grounds.



Interpretive centre interior.



Medicine wheel viewing structure.





Trail entrance to interpretive centre.