

CYCLES

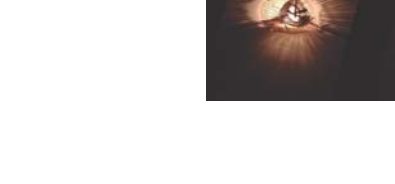
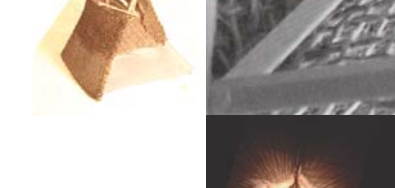
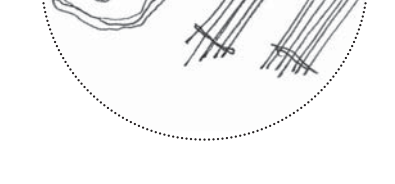
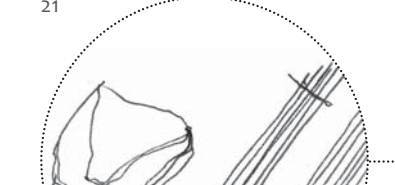
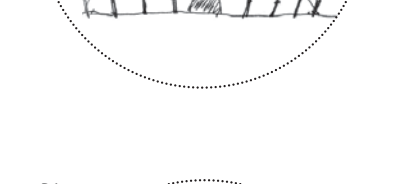
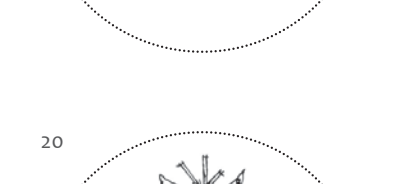
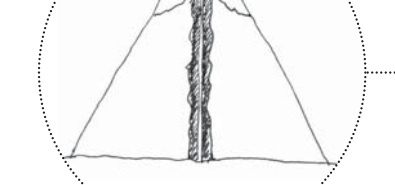
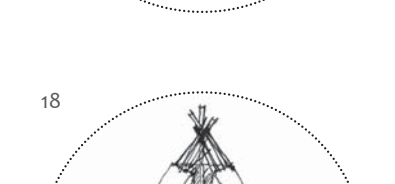
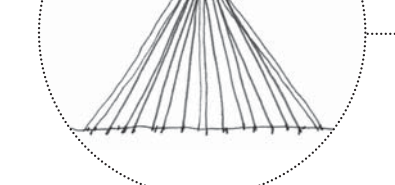
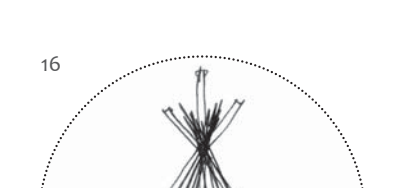
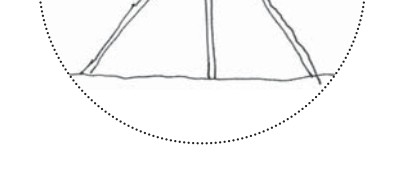
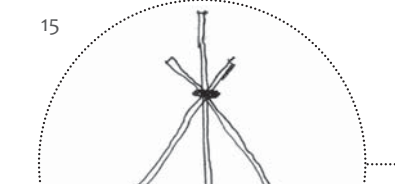
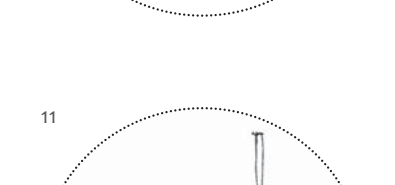
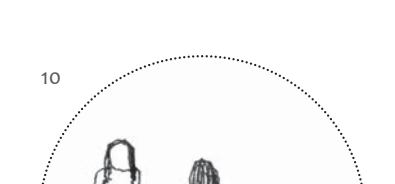
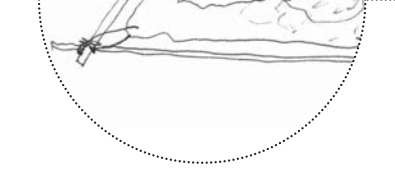
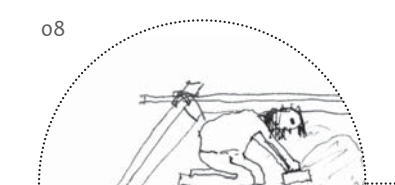
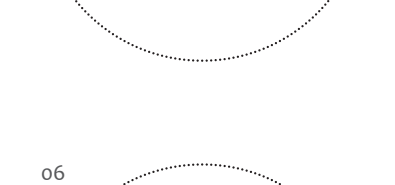
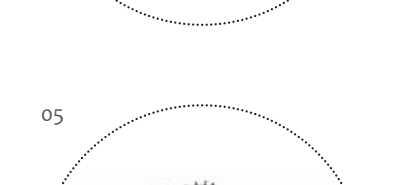
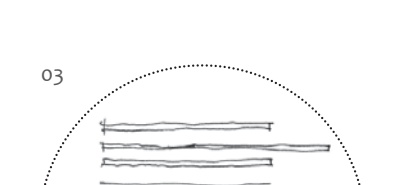
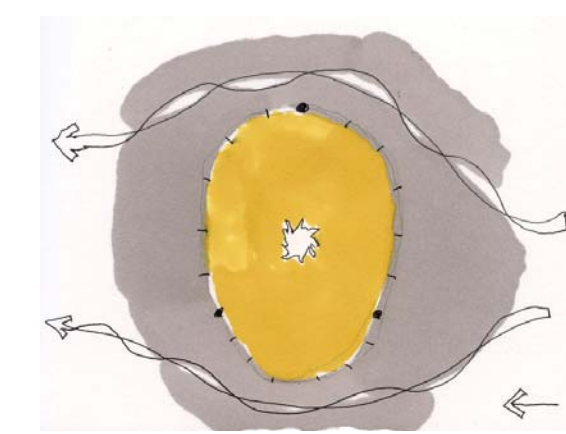
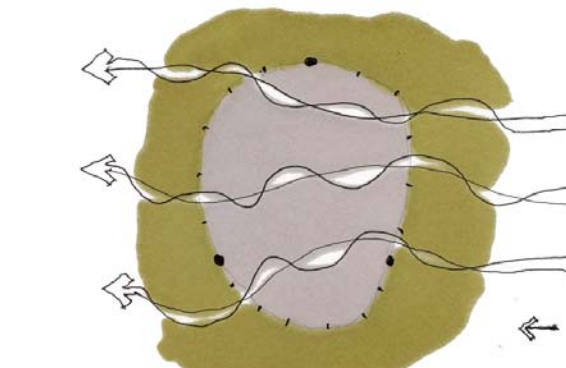
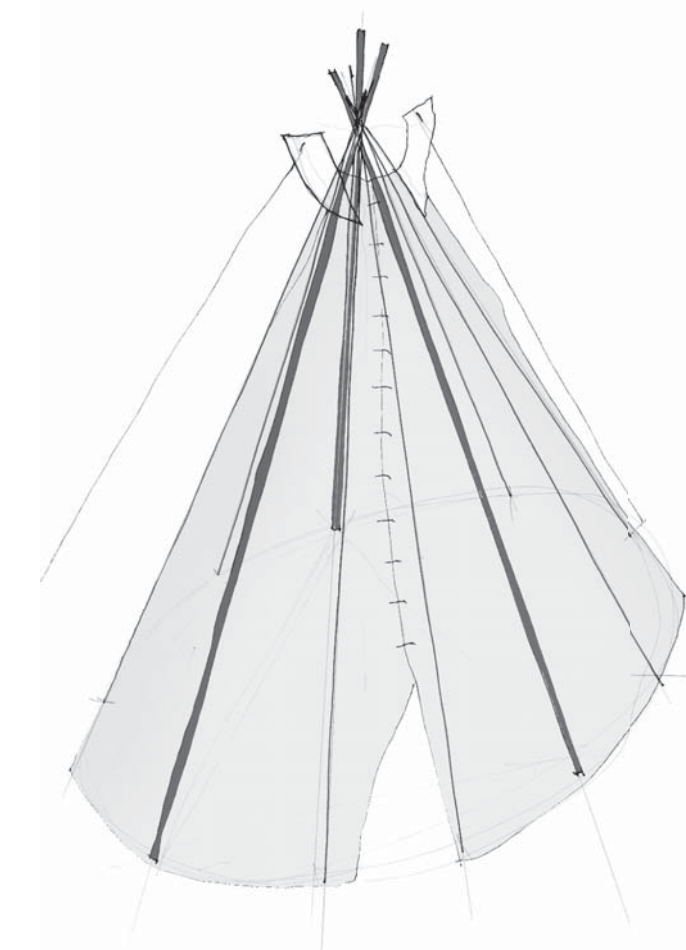
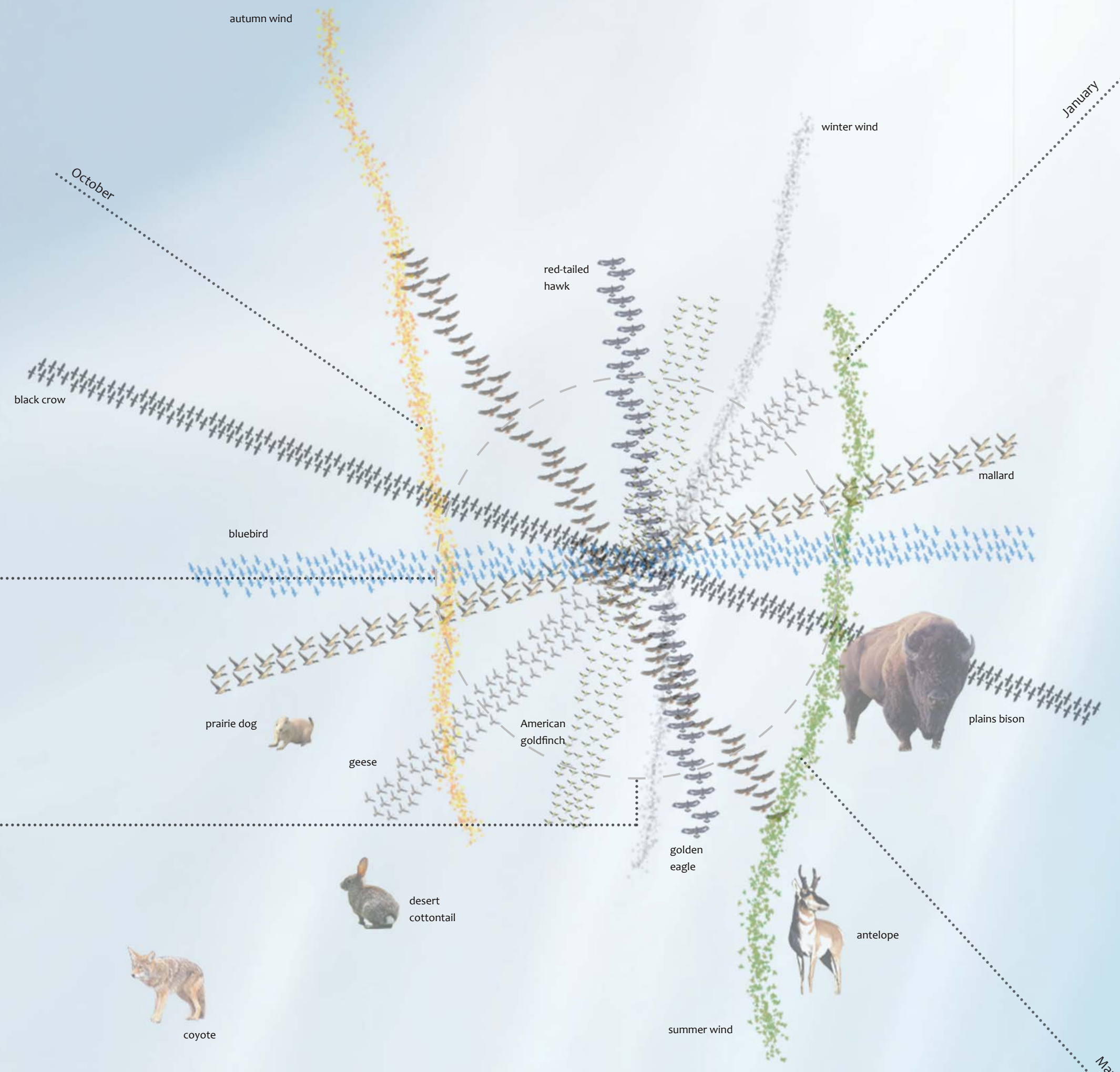
The dwelling transforms based on the changing of the seasons. Children on vacation begin to understand that air conditioning is not the only way to stay cool. The heat of the fire replaces that of the furnace. The wind blows fresh air across their faces and carries with it some of their cultural bias out over the horizon.

SYNTHESIS

As the dwelling changes, so does the wildlife that is moving around it. The visitors' list of companions on the prairie is always shifting. Mallards carve their migratory patterns into the memory of those gazing at the sky. The roof is a frame through which to track the sun and watch it be replaced with the moon. Visitors anticipate nightfall when the crackling of the fire mingles with the sound of the insects.

MEMORY

The experience of the dwelling is immersive. It is complete yet temporary, only being held in place by steel rods manually cranked into the ground. It calls into question the patterns of dwelling that exist for both visitors and locals from the reservation. The way that the structure seems to respond to the earth hints at the fact that there is a different way to live than the pattern most people have fallen into over the last two years. It is a way of dwelling driven by a different attitude, a different ethic, it is one that is in harmony with the rhythms of nature. It is not preoccupied with perpetual comfort, but rather accepts both good and bad from the earth. It was birthed in the Lakota culture and has been silent for decades. In some ways the experience of the dwelling is bringing it to light once more and it is finding a place in the hearts of the next generation.

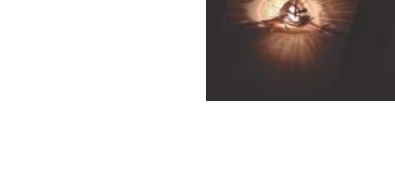
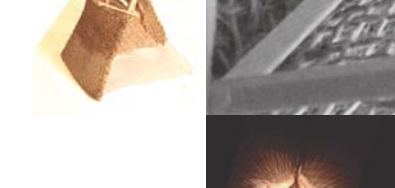
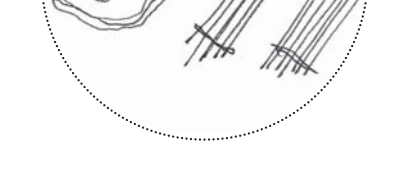
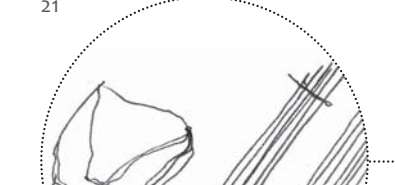
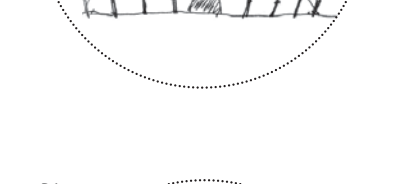
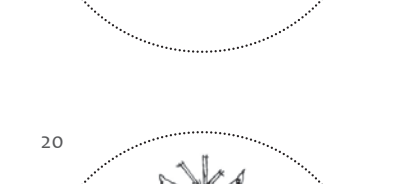
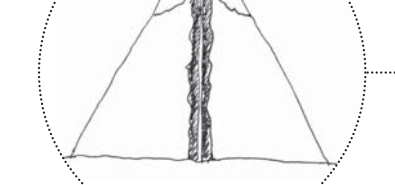
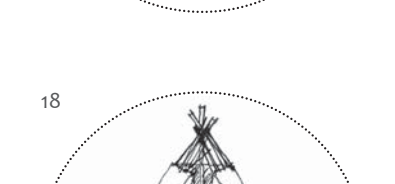
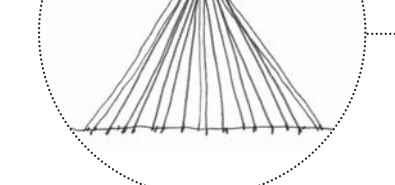
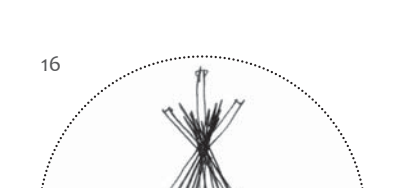
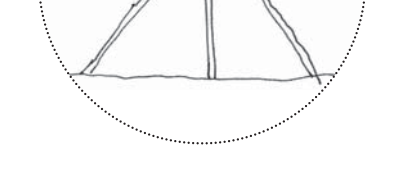
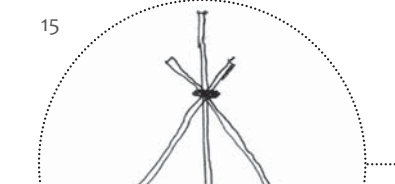
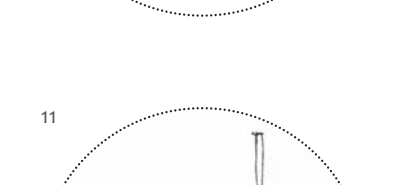
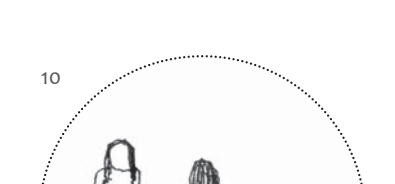
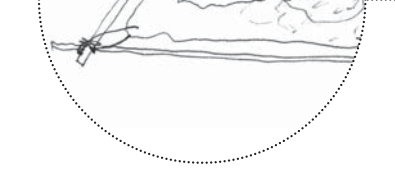
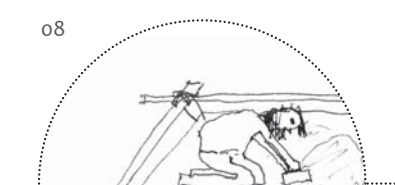
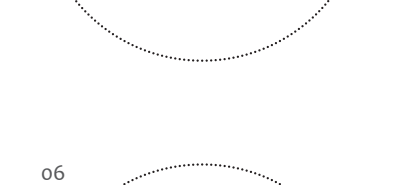
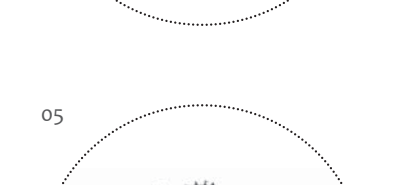
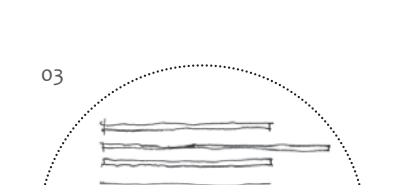
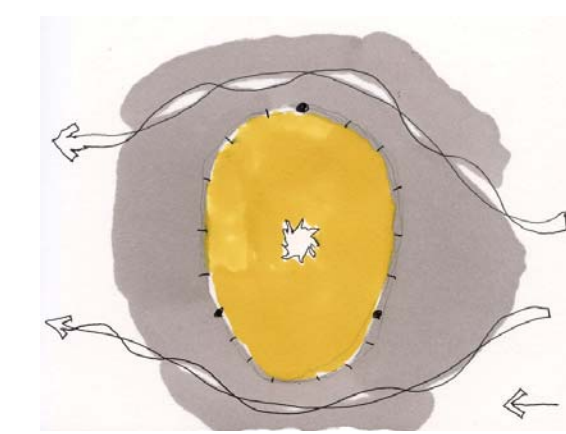
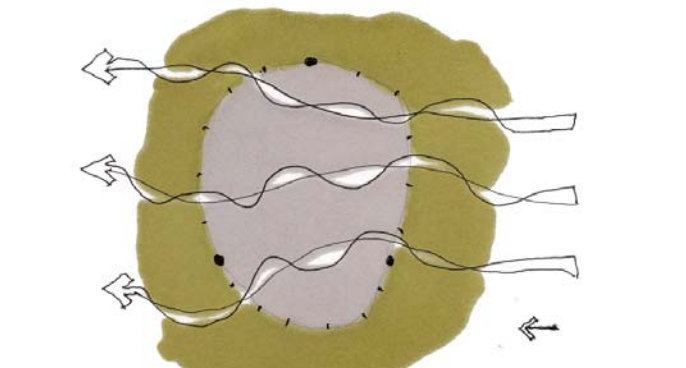


THE MAKING OF A TIPI

The word tipi comes from a combination of the Sioux words ti meaning to dwell or live, and pi meaning used far. From that, one can surmise that a tipi is used to live in. Along with being functional, the tipi is full of rich cultural meaning.

Through metaphor and performance the tipi serves as one of the chief means of cultural narrative among the generations of Lakota Indians. Metaphorically, the entire understanding of the world is contained in the tipi, from origins to religion to time to family history. From the number of poles to their arrangement and its shape, all serve to reflect cultural values.

Performance-wise the tipi is top-notch. It can open to the summer wind while providing shade, block out the winter cold while staying well ventilated, and be taken down and moved by horses within a few minutes all without leaving a mark on the landscape.



01_HARVEST

When it is time to make new tipis, the braves go on a deer hunt to acquire hide for the tipi coverings.

The braves then strip the trunks of leaves and small branches and cut the trunks to the length of a tipi pole.

The correct amount of poles are cut and then set aside to dry, requiring some rotation periodically to keep them straight.

Once the poles have been made, the braves go on a deer hunt to acquire hide for the tipi coverings.

After the hide is removed from the animal, the women in the band stake them down and scrape off any remaining bits of meat on the inside of the skin. This is done using a thin piece of metal or sharpened bone.

02_PREPARATION

The women then flip the hide over and use the same tool to remove the hair from the outside of the hide. The dark layer of skin underneath the hair is also removed, exposing a thin layer of white which is carefully removed and used in a fire soup.

The bloom's brains and liver are boiled and then the liquid mix is applied to the hide. The hide is then folded up in a square bundle and set aside for a few days.

After the waiting period, the hide is unfolded and stretched between a wooden frame. It is still damp, and the brain and liver mix is scraped off and the hide is washed with water until completely clean.

Next, the women go over the entire hide with a sandstone. This makes the hide very soft to the touch.

Though now soft on either side, the hide is still fairly rigid. To make it more pliable, the women run it back and forth over a taught rope which has one end tied around a tree and the other staked into the ground.

03_ASSEMBLY

It is now time to stitch together several hides to make a collective tipi covering. This process starts by laying two tipi poles on the ground and squaring them off.

This process of piecing together is continued until an entire tipi covering is made. The covering is then ready to be painted.

The process of constructing the tipi starts with the three main tipi poles that represent the past, present and future.

The three main poles are tied together at the top with a rawhide rope and raised up so that they stand freely. This is the structural framework for the rest of the tipi.

The rest of the poles, usually seven or fourteen, are leaned up against the three main poles. This form completes the vortex and provides the skeleton around which the tipi covering is stretched.

When it is time to put up the covering, a tipi pole is attached to the middle seam of the covering with rope and then hoisted up into place, leaning up into the vortex like the other poles.

The covering is then pulled around the frame. Care is taken so as to make sure the covering is in the proper place in regard to the vortex, ground, and cardinal directions.

A small child is responsible for climbing up on the tip to place short pieces of bone or wood through pre-cut slits. This holds the covering taut and creates a front door.

Next, the wind flaps are raised by the glazing of two more poles. The last step in the erection of the tipi is the staking down of the covering to the ground. Usually, small pieces of cherry wood are used for this purpose.

04_TRANSPORT

When it is time to move camp, the various parts can be quickly disassembled. The hide is folded up and the poles are bundled together. The bundles are secured by sliding ropes through small holes burned in the ends of the poles.

All tipi elements can then be attached to a wooden drag known as a travois. These are pulled by horses across the landscape. Depending on the size of the tipi, it could take anywhere from two to six horses to transport it properly.

The band travels in a line led by the elders.



FORMAL EXPLORATION

Formally, the project explores ideas like layers of opacity and transparency, operable elements, and climate responsive envelopes. These will be combined with concepts of temporality, a connection to the heavens, and touching the ground lightly in an attempt to create an architecture that is a continuation of the Lakota cultural narratives.

The model photographs at the right showcase a quick exploration into the previously mentioned ideas, and played crucial role in the development of the project's architectural form.