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“Hidatsa Ma-giguts-gi Adish”  
(Hidatsa Learning Lodge):  
Language and Performance Renewal Center for  
Three Affiliated Tribes



a Graduate Design Thesis prepared by Marita Abe

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(Hidatsa Learning Lodge):  
Language and Performance Renewal Center for  
Three Affiliated Tribes

A DESIGN THESIS SUBMITTED TO THE  
DEPARTMENT OF ARCHITECTURE AND LANDSCAPE  
ARCHITECTURE OF NORTH DAKOTA STATE UNIVERSITY

By

Marita Abe

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARCHITECTURE

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MAY 2010  
FARGO, ND

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(Student Signature)

(Date)

My mother, “E Ta’ She Zahgish” or “Good Blanket”, has always been a steady role model for me in my life. In writing this document, she guided me toward some excellent Hidatsa resources and we had some good conversations about the past to help me understand better how to design a stronger language renewal program.

When I go home, I always look forward to a good conversation with my Dad. Throughout this design process he was always eager to share some of his knowledge in environmental science to guide me in the right direction of sustainable design. I am grateful for all the lessons both he and my mother have taught me throughout my life – thank you.

Grandma Virginia – “Mixed Yellow Blossom” – There is a connection I have always felt between my Grandma Virginia and myself, and I would like to make a special dedication of my Hidatsa Language program document to her. She is also my teacher in the Hidatsa language, and I would like to thank her and all the elders of the Hidatsa community for keeping this endangered language alive.



“Knife River Indian Villages aerial photo”  
Ahler; *People of the Willows*  
Attribution: Russ Hanson photo



“Mah-zha-gih-datz”

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Hulsing Associates, Architects



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Acknowledgments.....4-5

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Promissory Abstract:

Recently there has been increased interest among the “Seventh Generation” on the Three Affiliated Tribes in the Fort Berthold Reservation, seeking out elders who are still fluent speakers of the Hidatsa language. Language embodies important aspects of cultural expression and cultural identity, and a shared goal is to pass on this endangered language to future generations. Now is the time to learn the culture and tradition of this tribe to ensure its cultural identity for future teachers.

This design exploration deals with the current need for a place to give a voice to fluent Hidatsa speakers. Successful expression of cultural renewal and healing of an endangered language (Hidatsa) should be carried out by Hidatsa elders fluent in the language and well educated in the traditions and culture of the Hidatsa tribe.

An architectural setting affords the appropriate “vehicle” that will facilitate language renewal through performance and celebration.



## Theoretical Premise:

Through time and tradition, architecture can communicate a sense of healing and renewal of an endangered language (Hidatsa). Language renewal is integral with renewal of cultural life among the Hidatsa tribe as well as future generations of this tribe. Architectural “place-making” can help the process of language renewal by creating a vehicle for the people to communicate and help revive this culture’s identity.

Cultural renewal and healing can be expressed through the active process of teaching the endangered Hidatsa language and traditions. As Hidatsa language and culture are valued in all their rich details, they can be celebrated by being passed along from one generation to the next. Architecture will contribute to the preservation cultural life and language by giving the people of the Hidatsa tribe a performance setting and celebrating place that stimulates communicating, teaching, and language renewal in all its dimensions.

## Project Emphasis:

This cultural renewal space will provide a place for the people of the Hidatsa tribe to express the attitude and emotions that embody the spirit of this language.



## Major Project Elements

Each space in the *Hidatsa Learning Lodge* is designed to encourage the teaching/learning process of the people participating. The spaces are arranged according to the four sacred directions of the Medicine Wheel, while the activities reflect the meaning of each direction.

**East:** “beginning/entrance”

- library
- language resource repository
- views to New Town
- windows to show the seasonal passage of time

**South:** “peak of life”

- individual classroom spaces
- acoustical storytelling room (to record lessons)
- views toward Missouri River

**West:** “end/finality”

- rehearsal units
- children and adults may have conversations with each other with lessons they have just learned

**North:** “cleansing/purifying/strengthening power”

- performance space
- auditorium



## Plan for Proceeding

Being able to envision a steady and well thought-out set of goals for this project such as Professor Martens' *12-Step Program for Thesis Recovery*, is a successful way for staying on track with goals.

Initial startup meeting. Agree on design goals and priorities.

January 12 Declare vision; see the idea that unifies; begin testing "form-givers"

Week 1 *Activity/Task/Product:*

**Jan 10-16**

Alternative site concepts graphically resolved & documented (diagram)

Review on 1/19 Identify unifying ideas and form-giving "design directives" from program

Site base map in hand and drawn at workable scale (1"-30'-0")

Week 2 *Activity/Task/Product:*

**Jan 17-23**

Resolve & document functional space planning & site relationships

Review on 1/26 graphically developed "at scale";

How will this project advance the goals of Hidatsa language renewal? Firm up spatial arrangements.

Week 3 *Activity/Task/Product:*

**Jan 24-30**

Identify overall structural pattern & configuration; find patterns that organize

Review on 2/2 Graphically study volumetrics with perspective section

Week 4 *Activity/Task/Product:*

**Jan 31-Feb 6**

Resolve, arrange and clarify patterns of space; space-planning complete

Review on 2/9 Identify sustainable design strategies; space-planning is ONLY a vehicle

Week 5 *Activity/Task/Product:*

**Feb 7-13**

Build structural framing model; suggest 1/16" = 1'-0"

Review on 2/16 Identify a strong structural concept; resolve volume & massing



Week 6 *Activity/Task/Product:*

**Feb 14-20**

Develop material assemblies at 3/4-inch = one-foot Review on 2/23 Identify a strong material concept & develop material palette in detail

Week 7 *Activity/Task/Product:*

**Feb 21-27**

Graphically resolve sustainability aspects and mechanical concept  
Review on 3/2 Identify a strong sustainable/renewable building performance concept

Week 8 *Activity/Task/Product:*

**Feb 28-Mar 6**

Interior and exterior character-sketches of key spaces; compose for beauty  
Review on 3/9 Final decisions & graphic documentation of exterior elevations

Week 9 *Activity/Task/Product:*

**Mar 7-13**

Mid-term pin-up review of all completed design work  
Review Wk9 on 3/9 Storyboard layout of final presentation completed in “cartoon” fashion  
Identify the story you want this project to tell, in specific terms

SPRING BREAK WEEK

Week 10 *Activity/Task/Product:*

**Mar 21-27**

Continue development of any incomplete or unresolved aspects  
Review on 3/30 Final revisions to documentation of site plan solution

Week 11 *Activity/Task/Product:*

**Mar 28-Apr 3**

Begin final graphic “packaging” of thesis solution (Boards 1 and 2)  
Review on 4/6 Emphasize “telling the story” of the project’s conceptual meaning  
Documentation of plan, context, and concept boards completed



Week 12 *Activity/Task/Product:*

**Apr 4-10**

Emphasize “telling the story” of construction and material dimensions;

Review on 4/13 sustainability, mechanical space-conditioning functions (Bds 3 and 4)

Add interpretive text to all boards to explain and evoke

Week 13 *Activity/Task/Product:*

**Apr 1-17**

Emphasize “telling the story” of spatial character, site and sectional

Submit on 4/20 relationships (Boards 5 and 6 completed); add action words to focus and interpret project meanings to users; step back and see your project as a unified whole, achieving goals of Hidatsa language renewal

Week 14 *Activity/Task/Product:*

**April 19**

All thesis design graphic documentation due on CD delivered to instructor

Review on 4/20 Continue work on physical model and output boards for mounting

**April 26-28**

Thesis exhibit installed (by students) on Fifth-floor Renaissance Hall

April 29 – May 6 Thesis final reviews scheduled by Thesis Committee

Make the most effective presentation of your work & design recommendations

**May 13**

Final book of thesis documentation due (verify); 4:30 at departmental office

May 14, 2010 Spring Commencement scheduled at NDSU

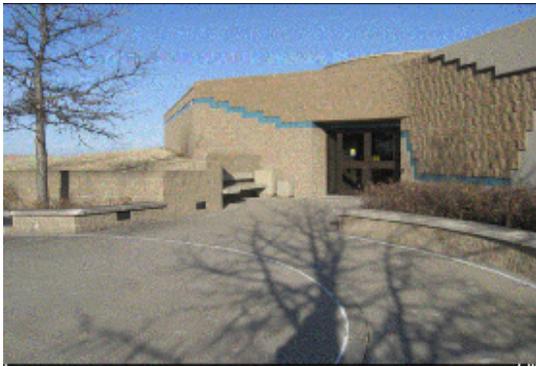


Case Studies





Knife River Indian Villages National Heritage Site  
vicinity of Stanton, ND  
photo: Marita Abe



Knife River Indian Villages National Heritage Site  
vicinity of Stanton, ND  
photo: Marita Abe



Knife River Indian Villages National Heritage Site  
vicinity of Stanton, ND  
photo: Marita Abe

Building: Knife River Indian Villages Visitor Center

Location: Stanton, ND

Architect: Surrounded-by-Enemy and Archambault,  
architects

### Symbolic/Spiritual

Approaching the interpretive center from the county road 37 that sort of borders the Knife River where it enters the Missouri River was a welcoming experience. Here architect Denby Deagan or Surrounded-by-Enemy successfully invites the tourists through the structure of his design from his own cultural background. An eagle's head formed out of concrete block whose neck seems to drip off feathers textured concrete block. Another welcoming characteristic of the outdoor entrance space are the benches on either side of the door that wrap and engage the visitors to come in to the center.

The interior space resembles qualities that are attributed to the earth lodge. The first view is of the man-built earth lodge just west of the interpretive center. Ample daylight comes through the windows from the west as well as a skylight that symbolizes the smoke hole of an earth lodge. This quality of showing the seasons and passage of time throughout the day is an important feature of the Knife River Indian Villages that would parallel the goals of the Hidatsa Learning Lodge. Being in tune with the river (views) and having spaces to sit next to windows to converse and talk in informal settings is where a lot of learning and communication will occur.

Maintaining the original style of architecture was another successful feature of this building. Embedding the north façade of it into the earth resembles aspects of the earth lodge that are sustainable architectural qualities known to the Mandan and Hidatsa tribes of this area. The Knife River Indian Village creates a very serene setting by preserving many of the original plants and by choosing a site so close the original villages of the Mandan and Hidatsa villages, the spiritual ambiance is not lost in the environment. It continues to live from season to season in the trees, in the Knife River where it meets the Missouri River and in the stories that the guides are able to tell out here near Stanton, ND.

Building: Muscogee Creek Independent Agencies Building

Location: Okmulgee, OK

Architect: Ragsdale, Christenson, and Everette

### Sustainable

The primary design motive of this building was a culture and second was energy conservation. 'Sustainable' is how I would describe the Muscogee Creek Independent Agencies Building. With very similar cut and fill strategies that the Hidatsa used with their earth lodges, the agency mound provides a recessed entrance leading to a lobby, then an annular aisle with offices on one side and a central auditorium where council meetings and ceremonies are held, as in a council house (Krinsky, 1996).

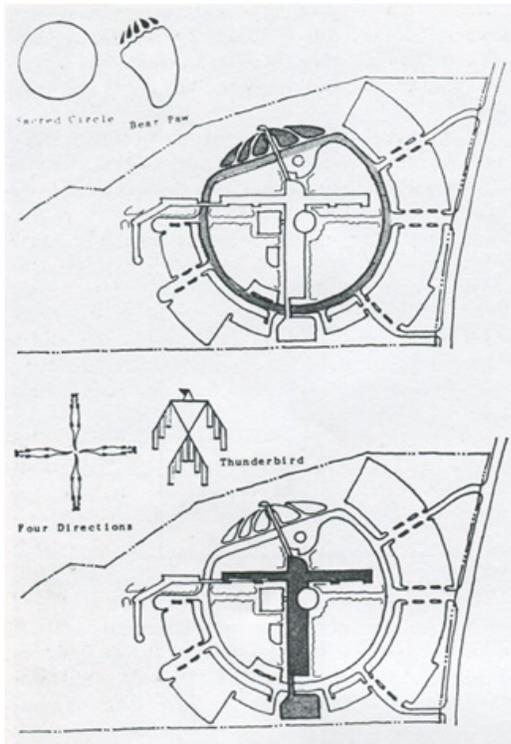
The ability for this array of spaces to be used in the Muscogee building's square footage presents an opportunity for me to design the Hidatsa Learning Lodge with traditional and culturally important spaces that are just as successful on the sustainability level as the Muscogee Creek building's programmed spaces.



Muscogee Creek Agency Building; photo reproduced from Krinsky, Contemporary Native American Architecture



Photo taken by the Muscogee Creek Nation website: [http://themuscogeecrieknation.com/index.php?option=com\\_content&view=frontpage&Itemid=1](http://themuscogeecrieknation.com/index.php?option=com_content&view=frontpage&Itemid=1)



Fon du Lac Community College conceptual drawings; photo reproduced from Krinsky, Contemporary Native American Architecture



Top and bottom photos taken from the Fon du Lac Community College website: <http://www.fdltec.edu/aboutfonddulac/history.shtml>



Building: Fon du Lac Community College

Location: Cloquet, MN

Architect: Thomas H. Hodne, Jr. and Dambert, Scott, Peck & Booker

### Unifying

There is great potential to learn from other tribes across the nation. The Ojibwe nation in Minnesota has responded to concerns that are not uncommon to young Hidatsa Natives. In doing so, this community college demonstrate a very rich character that should be created in Fort Berthold's community as well.

At first glance, many might associate the term 'symbolic' with the college, but I found it to be more of a 'unifying' space for people to gather in. There are two distinct cultures in this sites region, the Christian and the Ojibwe. Conceptual drawings for the college were founded on these ideas and unified into one plan. Each space has a specific meaning and purpose in the Fon du Lac community college. Whether it's the intersection of elements or the views out windows, the architect paid particular attention to details that makes the story of each area a more meaningful place to be in. Design efforts like these ought to be brought forward to the Hidatsa Learning Lodge in order to assist teachers with the education process.

Building: National Museum of the American Indian

Location: Washington, D.C.

Architect: Douglas Cardinal

**Alive**

Natural elements flow from one end of this museum to the next. Architect Douglas Cardinal along with his design team of landscape professionals and Native American partners were extremely successful in creating an environment that seems to live with nature. One matrilineal tribe even described the museum terms of being female. The material palette used here was kasota limestone which is known for its warm golden color and is found in Minnesota. The stratification of the stone in the exterior curves gave the overall effect a sense of movement as one would tour under the shadows of the overhangs or next to the active waterfalls on the sides of the building.

The site is alive with plants. The intention of the design scheme was to respect the natural world around us as well as representing people with plants. There are a variety of indigenous plant species that are grown on site. Such a garden environment, with original Hidatsa corn, beans, squash, and tobacco (just to name a few) should be carried over to the Hidatsa Learning Lodge as well.



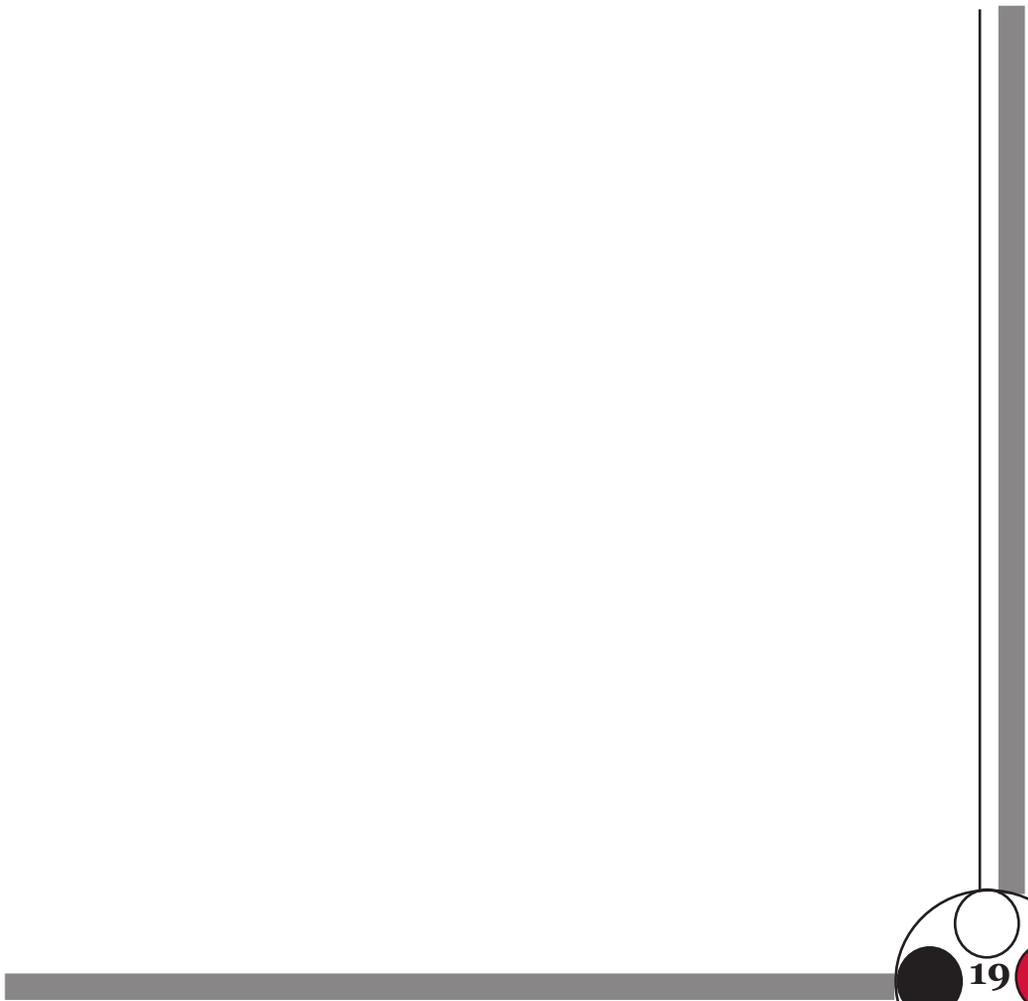
Photo taken by R. A. Whiteside and reproduced from the website: <http://www.nmai.si.edu/subpage.cfm?subpage=visit&second=dc&third=landscape>



Photo taken by Kathrine Fogden and reproduced from the website: <http://www.nmai.si.edu/subpage.cfm?subpage=visit&second=dc&third=landscape>



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# Disciplinary Studies



Yi-Fu Tuan, interview with Marita Abe  
 Fargo, ND

April 24th, 2009



Yi-Fu Tuan giving a brown bag lecture series; photo retrieved from website: <http://www.geography.wisc.edu/News/images/yifutuan.jpg>

Respect for spiritual content of places and things should be considered when designing such an intimate space for people to experience a rich knowledge of the Hidatsa culture. Sustainable architecture should pay closer attention to subtle lessons about the inherent spiritual qualities that dwell in the natural world and inanimate objects. These “intangible” qualities and lessons about appropriate conduct are discoverable in the telling of stories and are available only when we help maintain the continuity of the understandings from each generation to the next. “Broken threads” are difficult to mend, however the Hidatsa Learning Lodge maybe the first step to uniting the generations back together with a stronger communication ties.

What makes humans unique? Language – and it is something that defines all cultures around the world. It reveals the intimate connectivity among people, space and time. The concept of speech however can be thought of as fundamental and humans are still modified by the idea of speech. Architecture can embody feelings, images and thoughts in a tangible material form. The result is a space where the designer is able to show rather than tell. Architecture becomes the material – a transformation of the environment, whereas language presents the picture of reality. Architecture and speech however, are parallel, and within Hidatsa Learning Lodge, people should be in tune with their five senses. Relating these senses to the homelands of the Hidatsa nation might improve the quality of learning students gain in this space. Scents of cedar, sweet grass, sage may evoke memories to engage daily conversations of lessons being taught in Hidatsa.

We should always maintain a love for nature. Buildings can speak to us with eloquence or words in the realm of material things. For example, heavy materials become the objects of fiction and freeze. The Hidatsa culture is going to be an integral part of the building, especially the words of this nation being taught. Words can carry shades of meanings (Chinese proverb).



Humans are very lucky to have an opportunity at experiencing the world in a 360 degree field. I relate to Yi-Fu-Tuan's ideas of perception in that he noticed the interaction between culture and environment. This is a very intimate relationship for the people of the Three Affiliated Tribes because each tribe was able to come together and understand how to respect their surroundings and each other in order to survive. It was a time during the history of Mandan, Hidatsa and Arikara peoples that they were able to employ each of their five senses to stay attune to their families, culture, and environmental changes around them.

Avoiding these changes was inevitable to the communities of the Three Affiliated Tribes, and the next step is how can a culture learn to frame such transformations? Yi-Fu-Tuan suggests that through the study of "topophilia" we might better understand these concepts of culture change. One might consider examining the perceptions and values of an elder from each tribe of the Three Affiliated to identify with why each group might feel displaced from their natural environment of the past to their urban upbringing of what could be their future. These are a few of my human responses to what I feel has happened to Fort Berthold's natural hazards – and how environmental psychology can play a role in a culture's future if no action is taken.

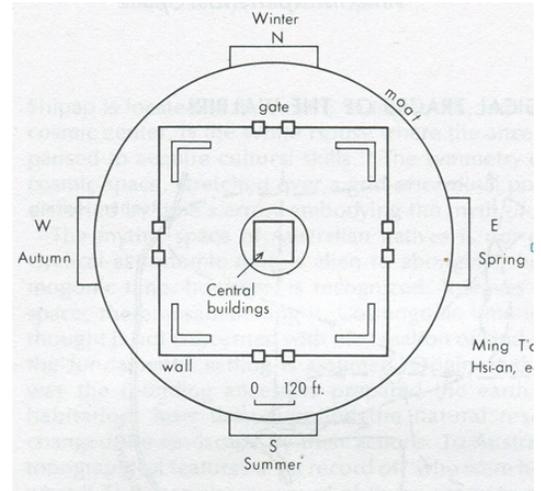


Photo by "Space and Place" attributed to Yi-Fu Tuan

## Architecture as the Changing Environment

The spirit of this place is always changing and lessons that the earth gives the people that inhabit it should be taken into better consideration rather than covered up with the latest technology or the fanciest piece of architecture. For it isn't about the way the building is dressed up on the site, but rather how it responds to its surrounding environment. We as designers should always maintain a respect for the earth and all of the messages it is constantly relaying to people, animals, and overall ecosystem.

The Hidatsa people had a sense of environmental psychology. Being able to navigate the Missouri River's bottomlands, with a keen sense of where the buffalo were, and how to maintain a good winter camp are just a few examples of this knowledge of the land. Travelling further upstream toward Like-a-Fishhook Village and eventually settling in what is now called the Fort Berthold Reservation. Unfortunately a balanced knowledge of the environment and appreciation of its imperfections have been lost over the years, and now is the time to teach our future generations how the Hidatsa understood the land around the Missouri River and utilized all of its materials, goods and natural resources to their full potential.

We are in another interesting state of change as far as the ecosystem goes and need to be mindful of how we react as designers of the land. Human inflections on the earth (oil drillings, power plants, car exhausts, destroying forests) are causing some shifts in weather patterns. Each new change in the environment is a new adaptation that future architecture will need to be adaptable to in order to be sustainable to the current ecosystem's patterns.

In fact, a designer may even draw lessons from animals that have learned to deal with each phase of these changes throughout the years. Creating their own style of "imperfect" architecture that has proven to be adaptable to their current environment, shows that animals inherit an innate sense of adapting with the earth. The response that animals have to season change varies among species, but the overall lesson is that even through nature's various elements (harsh and mild), if one can subtly disturb the land and still adjust to the changes occurring in the environment – work with mother earth, not against her, we will find a better relationship with the ecosystem all together.



“Native American Architecture” by Peter Nabokov

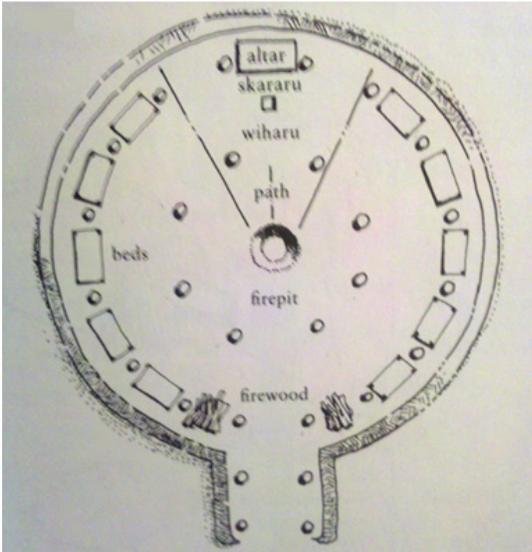
Spatial patterns and symbolism are two notions revealed in the sacred place of an Arikara earth lodge. The Arikara are a subgroup of the Pawnee tribe and are an affiliation to the Hidatsa nation. The Arikara tribe attributed each semi-cardinal direction (northwest, northeast, southwest, and southeast) with a power of their Pawnee supreme deity (Tirawa). His presence was manifest in a shaft of light that came through the smoke hole to the fireplace – a symbolic link connecting the heavens above to the center of the earth below (Nabokov, 1989).

Two important directions – east and west corresponded with appropriately significant stars. The Morning Star rose in the east and represented the God of Light. Every morning poured his beam into the lodge and lit fire in act of cosmic procreation, symbolizing his first union with Evening Star – from their mating came the girl who was the first human being to be placed on earth (Nabokov, 1989). On the other end is the west which is symbolized by the Evening Star – Goddess of Night. The Evening Star or Beautiful woman represents Germination as well because in her garden the corn and buffalo were constantly being renewed so the people could eat (Nabokov, 1989).

The ability to navigate in a space with a sense of that each step is made on purpose is the goal of this place. When entering and leaving a space people leave a mark (seen or unseen) and it is important to understand the importance of the direction of where you are going in a space. The Hidatsa might have gained insight through the Arikara use of star patterns for spatial organization.



Parkso37.JPG  
reprinted from Parks; Arikara Storytelling (v.4)  
“Early 20th Century Arikara ceremonial leaders”  
collections of the Stater Historical Society of  
North Dakota

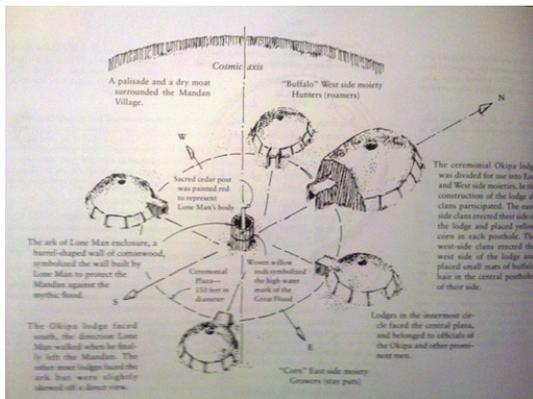


“Pawnee earthlodge symbolism”  
 (Photo by: Native American Architecture by Peter Nabokov)

Spatial awareness of the environment is a skill an architect should strengthen to create a strong program of spaces in each project. The Hidatsa Learning Lodge is a space that will evoke a sense that each area one is in was designed with intention and meaning

Space inside each dwelling was laid out in a defined manner according to the universe as well. Space around fire pit symbolized the horizon. The fire pit is the open mouth of Tirawa, the westernmost post became the Evening Star – an easternmost post was Morning Star, head chief was North Star, whose mystery was symbolized in a North Post, in the southern post represented the Milky Way, and the flickering campfires represented dead Pawnee (Nabokov, 1989).

The lodge was both universe and womb of the woman, the household activities represented her reproductive powers – the women’s beds were arranged by age to represent the main stages in a woman’s life (Nabokov, 1989).



“Pawnee earthlodge symbolism”  
 (Photo by: Native American Architecture by Peter Nabokov)

“Maintaining and Renewing Native Languages” by Jon Reyhner

The National Geographic Society’s Enduring Voices Project notes: Every 14 days a language dies. By 2100, more than half of the more than 7,000 languages spoken on Earth--many of them not yet recorded--may disappear, taking with them a wealth of knowledge about history, culture, the natural environment, and the human brain. This is a statistic that many Native Americans of all generations face each passing day in their monolingual world. How did cultural identity across the nation become in such a critical stage? The need for assertive action needs to take place soon or future generations will begin to melt into a blend of cultures that will be hard to trace back to their “mother tongue” (Reyhner, 1993).

Immersing children at a young age into language programs where they are in a comfortable environment will motivate and help them retain the important language conversations they are having with each other. Reyhner mentions that while the elders of each Native community may be the prime resources of language renewal, it is not always easy to program a facility that will successfully create an environment for them to interact comfortably with the students. Joshua Fishman, a world renowned expert on sociolinguistics, suggests that it is important to get the children’s parents involved in the learning process at an early age in the home. This concept is key to native-language survival.

Applying these notions to the Hidatsa Learning Lodge will help the people of the Three Affiliated Tribes move forward in their quest for cultural identity



Neva Meyers, interview with Marita Abe  
White Shield, North Dakota

Wednesday November 25<sup>th</sup>, 2009

I asked Annie if she noticed a trend in Native American children and young adults if they are more of a quiet and reserved generation. I was wondering how this property of them may affect the way they ask questions in the classrooms or how they socialize with each other. Some reasons Annie mentioned that are common on the reservation are alcohol, drugs or seeing families argue in their homes. She also said that these trends of children being quiet and reserved didn't start with today's generation but with the generations before them. For example, when my grandmother's generation was growing up, they were able to sit down and communicate with their family – by talking with each other face to face each night with hardly any distractions.

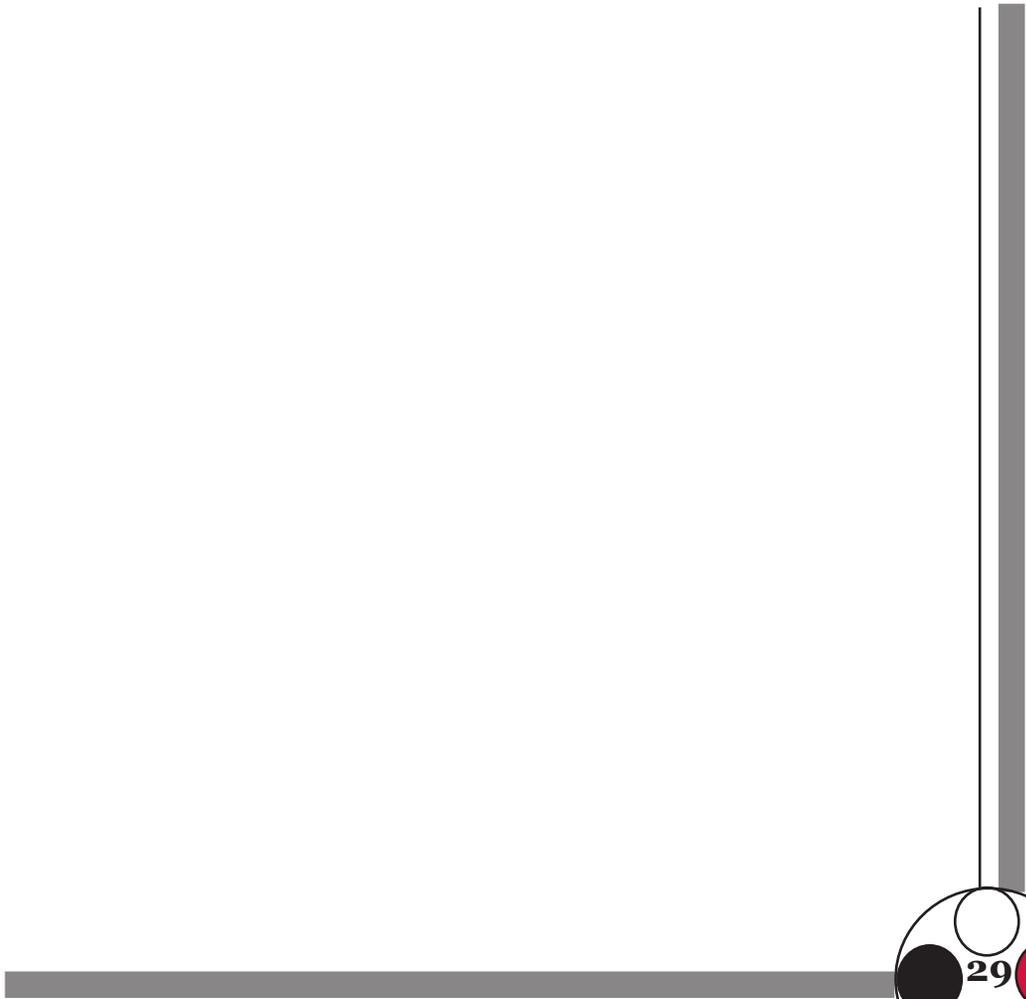
However, when my grandmother decided to have children and family – new forms of entertainment came along. Soon, my parent's parents were socializing outside of the home, in bingo halls, bars or casinos – leaving the children home. The family connection and communication became less strong and young Native children began to withdraw from socializing. Fast-forward to today's generation and not only are parents but children are now surrounded with technology. Families are becoming sidetracked with cell phones, laptops, and TV's in their home. The communication between each family member is less and issues of drugs, alcohol, and broken homes are still common not only for the parents but for young adults as well.

Time is something we can work with or against and there seems to be an energy of change and healing in this upcoming generation of children. With the appropriate place of architecture to begin these lessons of renewal, such goals are possible.



As for Native American children who have not grown up on the reservation there seems to be a wave of energy to want to encourage a more healthy environment for Native Americans on reservations (socially, psychologically, spiritually, architecturally, environmentally...) It's these children who grew up off the reservation that need the intellect of teachers and Native American children who grew up on the reservation to make successful decisions in their goals of turning each reservation around across the country. Creating a place for comfortable conversations to take place for these students is the key to allowing these ideas to flow and begin to take place. Perhaps it will give hope to those Native American students who have grown up on the reservation to take action and tell their stories. For now it seems their way off of the reservation is starting jobs on the reservation, joining the service or beginning a family at a young age. All of these options can be avoided if something stimulates their interest. I am a peer to many of these Native young adults and have watched these "quiet trends" happen, and yet share similar interests such as sports or different goals for the reservation. It probably starts with a simple conversation among friends that will spread among each other. Hopefully the Hidatsa Learning Lodge is the place for these conversations.





### Academic

Since my third year in the Master's of Architecture degree program at NDSU I have discovered a term that suits my goals in this field of study I am pursuing which I call "people architecture". One mode may be through the art of research, where I was able to discover and practice the phases of collecting and gathering information in a proficient manner, so each presentation came across clearly and comfortably. Another environment I am able to elevate my goals of people architecture is in the studio among my classmates. Here, I am able to work in either a team environment or on my own, while still learning about the importance of design techniques and incorporating them into a scheme that identifies the cultural and spiritual values associated with whom I am. Establishing an appropriate topic for my thesis was not a difficult decision. Given the opportunity to grow in the few semesters I was able to research and collect information, I began to develop a more guided path on where I wanted to take this whole project.

### Professional

In the near future, and for my profession as a people architect, I envision myself reflecting on the lessons I have learned in my academic career, applying them, growing stronger and more confident to provide people and more specifically tribal communities with a renewed sense of culture identity through their unique methods of architectural design specific to their culture. As with my thesis topic, these goals will take patience and a pair of sensitive ears to ensure that each project is approached with careful consideration the people and their places. Endangered languages, for example, continues to be an issue for Native American communities across the nation.



### Professional (continued)

After experimenting with the research methods of the Hidatsa Learning Lodge, I feel confident to offer assistance to more nations with their issues in language revival – by first listening and then communicating ideas with each other. Working in a team environment is a skill that I will have to exercise in order for my professional goals to become a reality. Since my previous experience of working in an architect's office, I was able to see first-hand the design-build process and all the team players that go into it. If I imagine myself as a people architect doing tribal architecture – communication between each person on the design team from the contractor to the owner and everyone in-between will have to be smooth.

### Personal

Coming from a family whose mother and father are both part Hidatsa, it would be an honor to provide a learning space for others to carry on this endangered language to future generations. I am also privileged to have had the opportunity to research the site of my family's reservation and even a few family members. I am benefitting from the process of unveiling layers of information and stories of my culture's past. Learning how to respect each story and relate it to my goals as an aspiring people architect is a skill that I am constantly practicing. It is fun to see the relationship between architecture and the history of the Hidatsa culture be so intertwined. Throughout this research process I have become more aware of my goals and direction as a people architect by learning the methods of my Hidatsa past and applying them to a more sustainable future.



# Site Analysis





Approaching site on Lake Sakakawea Rd looking south



On the site looking northeast towards New Town



On Lake Sakakawea Road looking west towards site

### Site Information:

This land west of New Town, ND is currently in a state of change. There are many advantages to building a language renewal center here because of the current tourist attraction that the earthlodge village brings to this area. Already there is discussion of a Hidatsa language center being programmed with the Fort Berthold Community College located in New Town. I propose to move the language facility west of the town because of many learning advantages that cannot be achieved in town.

The context of the earth lodge tourist site has more spirit. There are southeastern and southern views to the river that may evoke a sense of place for the students/faculty harboring this space. Seasonal changes bring constant lessons that can be learned from the earth/nature. This concept of time passing by through each season is something I wish to incorporate in the program of the language facility – through the views of the windows, or how one enters/leaves a room, etc.

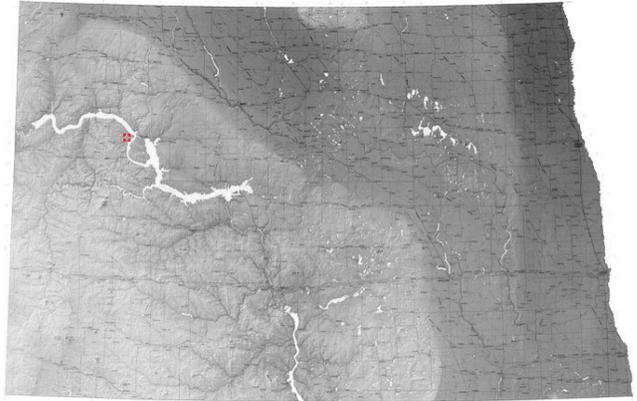
Throughout the year, northwest winds will have to be sheltered from, but the topography opens up to the river allowing great southern exposure for the long winter months. This slope down towards the Missouri River is not a very good piece of land to build on or for elders to walk on, perhaps a walking path could be implanted on here to allow easier access to the river, because I have seen tourists venture down towards the edge to take pictures of it or just to look around. Also a familiar scent of sage can be attributed to this site – particularly on the slant towards the river – that would be a traditional characteristic if preserved.

It is an underdeveloped site and there aren't many boundaries set, however there are a few disadvantages that need to be addressed as well when considering this as a language renewal center site. As stated earlier this area is currently in a state of change and residents around this region are taking notice to the constant traffic of the oil trucks travelling on Highway 23 from New Town to Mandaree to Williston. They produce a bit of noise and are sometimes a reminder of the quiet roads these residents used to have and what this reservation is becoming. Some other things to consider that cannot be seen yet are only in the planning stages. Wind mills and housing development are something that might be in the horizon of this site in the near future. These are just a few factors that need to be considered when construction my program and taking my views into consideration.



### Macro Location

Located in the northwestern region of North Dakota is a place that grasps the edge of the Missouri River. Away from the two major highways (Highway 83 and Interstate 94) of the state, noise will not be an issue as some of the bigger cities have developed along those highways.



Aerial view of North Dakota and surrounding context. (<http://geology.com/store/wall-maps/north-dakota-wall-map-lg.jpg>) © Raven Maps)

### Micro Location

Highlighted is a place that lies just west of New Town, North Dakota. It remains in close proximity to the Missouri River which is important for the spirit of the Hidatsa Learning Lodge.



Aerial view of New Town, ND and surrounding context. (2009 Google Earth © site plan of New Town, North Dakota)



Four Bears Memorial Bridge over Missouri River near Elbowoods  
(North Dakota State University Libraries, Institute for Regional Studies)

### **Importance:**

The earth lodge village west of New Town is an appropriate site for this project because of the sense of place it holds to the Hidatsa people. For the purpose of a Hidatsa Learning Lodge, this site is unique to the Hidatsa culture, because their history is embedded in the land all around them.

Keeping the Hidatsa Learning Lodge near the Missouri River would exhibit a place that would hold a sense of sustainability as well as renewability. The river is a reminder of Fort Berthold's past with many stories that go along with it. At the same time, it displays change with the elements and seasons - lessons that Native Americans have taken from the earth to maintain a healthy balance with it.



Qualitative Aspects:

The opportunity for building a Hidatsa Learning Lodge on the proposed site has many qualitative characteristics about it. It is a place where visitors and learners may continue to have a close relationship with North Dakota’s environment around them, while still being naturally sheltered by its weather elements.

The site is here to provide a place for the Hidatsa Learning Lodge – and spiritually, this location is near the sites of many past sites that are of high respect to this Hidatsa nation. The Hidatsa people were known as “people of the Willows” and even though the tree line to the south of the site may not be willows, it is another aspect of the site that is a buffer to the neighboring Earthlodge site.

All around the site there is a quality of innocence. Original plants such as sage and berries still continue to blossom into late fall and its qualities such as these that make this site a great learning space for the Hidatsa Learning Lodge for all generations.



Looking east from site towards Lake Sakakawea and Four Bears Bay

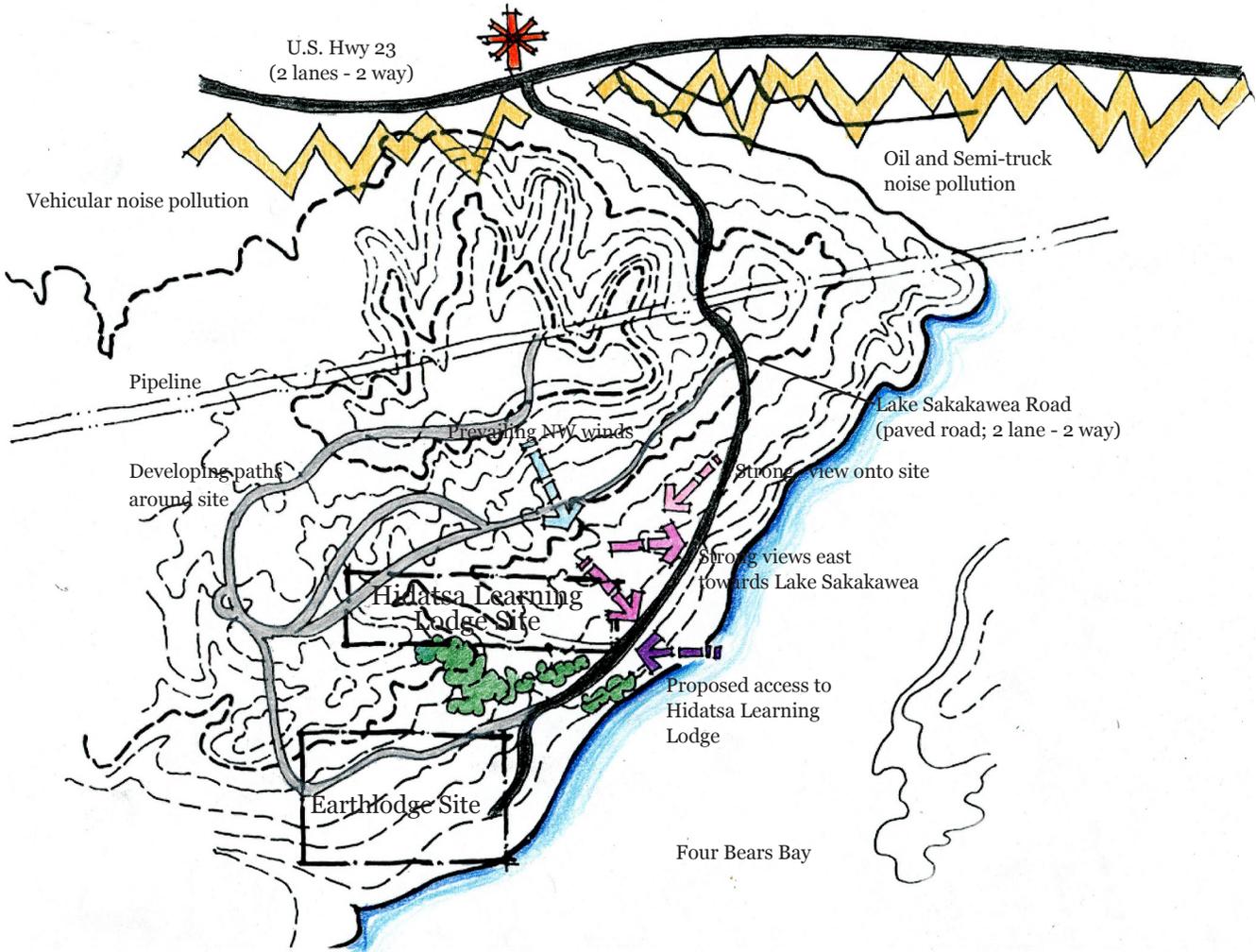


Idea of what the tree line’s relationships with Lake Sakakawea’s Road looking northeast



Looking east in-between site and Earthlodge site

Qualitative Diagram:



# Material Palette





Knife River Indian Villages National Heritage Site  
vicinity of Stanton, ND  
photo: Marita Abe



Cottonwood used to make the traditional Hidatsa  
earthlodges - preserve and use as structural ele-  
ments or grow on site  
photo: Marita Abe

Understanding past traditions of building and place-making enables us to test the extent to which technologies, building practices and cultural expression can be applied and celebrated through contemporary architecture. These insights will yield a tangible list of design principles that can be applied through contemporary architecture that is demonstrably better-suited to the cultural context. The Hidatsa language renewal facility would require careful selection of a material palette to be in sync with the program that is taking place in each space.

It is important to stay in harmony with the context of the site as well as the traditions of the Hidatsa culture. To help create an atmosphere that will encourage a healthy environment for receptive learning, it is my recommendation to apply a reinforced concrete palette as the primary masonry building material.

One of the case studies I composed about the Knife River Indian Villages, reminds me of techniques that could be employed on this site. Expressing the building in reinforced concrete would allow a more “of the earth” material palette. The idea of incorporating wood beams as a secondary structural material might also help achieve the traditional character in the language facility. For this site, the reinforced concrete would allow a more natural pattern design, symbols (whether sculpted or stamped in) as well as an interpretation of embedding it into the site/context. In addition to the reinforced concrete and wood beams, as masonry units, a variety of sealant and coating applications for the improvement of people’s safety will also be applied. These details will reflect the program’s defined spaces that each person is occupying, such as acoustical recording spaces or better insulated materials for more storytelling rooms.

The environmental character of North Dakota, particularly in the Fort Berthold community is currently being lost in terms of landscaping. Traditional trees that once flourished in the coulees and bottomlands around the Missouri River have either been consumed by the flood of Elbowoods or more recently dug up by the oil rigs that are springing up all over Indian land. The cottonwood tree was among North Dakota’s native trees that I would like to implant onto this site. In addition to the cottonwood, the material used as the secondary structural unit for the language facility should be oak.



Self-Sustaining Technology:

After careful consideration of the Hidatsa language facility's relationship to the Missouri River, the most energy-efficient, environmentally clean and cost-effective, active, space conditioning system available (EPA, 1993) would be the geo-exchange heat pump. Water from the Missouri River could easily be drilled in a closed vertical loop system is usually preferred because much less pumping energy is required. These pumps also have the aesthetic advantage of being hidden indoors and making almost no noise (Lechner, 2001), which is a great advantage to the language center.





Users/Peoples:

The Hidatsa Learning Lodge is a place that will house a lot of minds with transitional thoughts. Young learners, who long for cultural identity, are moving forward in a fast-paced world with seemingly unlimited technology. This generation will be taught by a group of elders with a more elegant knowledge of the tribe's history and language characteristics. The environment will encourage a sense of community for these individuals who wish to further their memory and knowledge in the Hidatsa culture. Seasons may interpret when the time is right to tell the stories of the Hidatsa – which will be determined by the elders.

**Elders/Teachers:** The teachings of Hidatsa language are primarily passed on via word of mouth. Whether it is through oral storytelling or scholars writing down what they heard in conversations in books to be passed down to others. The Hidatsa language courses will primarily be taught by the elders of the tribe, as well as any available fluent speakers who have been studying the language at the local community college. These teachers will have full access to the facility, as well as reserved parking spots. Peak usage will be between 8:00am and 5:00pm, Monday through Friday.

**Students:** Learners of the Hidatsa language are not limited to younger generations. Those generations that were sent off to the Catholic boarding schools and weren't allowed to speak their Hidatsa language, also fall in the student category. Although these people are exposed to a wide variety of what seems to be unlimited technology resources, it is the elders' stories that are highly credible and should be utilized for all they're worth.



## Spatial Relationships

### Visitors

 Meet and greet space - (800-1200 sf)  
includes visitor services and possible gift shop

 Gift/exchange spaces - (800 sf)  
Respectful venue for meeting and presenting gifts of appreciation

 Acceptance space - (1200 sf)  
Lunchroom and informal food preparation activities

### Archive

 Repository - (1800 sf)  
object storage, collections of audio visual recordings, small reference library, archive, analogous to preserved medicine bundles

Residence - (400-600 sf)

Possible small apartment or sleeping space with day bed for one or two elders

 Audio/video recording and possible dissemination of broadcast content to three to five sectors of the reservation (2400 sf)

Infrastructure and materials for acoustical insulation from external distractions - primarily associated with modern culture such as cell phones, internet, Facebook, mp3s, etc. - (400 sf)

Administration management of ongoing programmed activities - (800 sf): 3 small offices and support facilities for staff, mail, promotional information, etc.

### Learning

Sharing spaces - (6 spaces of varying sizes totaling 3200 sf)  
Similar to small classrooms or less overtly-structured seminar spaces of varying sizes accommodating conversational groupings of 4 to 10 persons each

 Awareness spaces (1200 sf) - Space that affirms seasons and the passing time in relationship to the environmental setting; differentiated women's and men's spaces

 Cultural celebration and Performance spaces - venue for small community gatherings - (15 to 30 people; 2400 sf) gallery space for object display; possible small auditorium

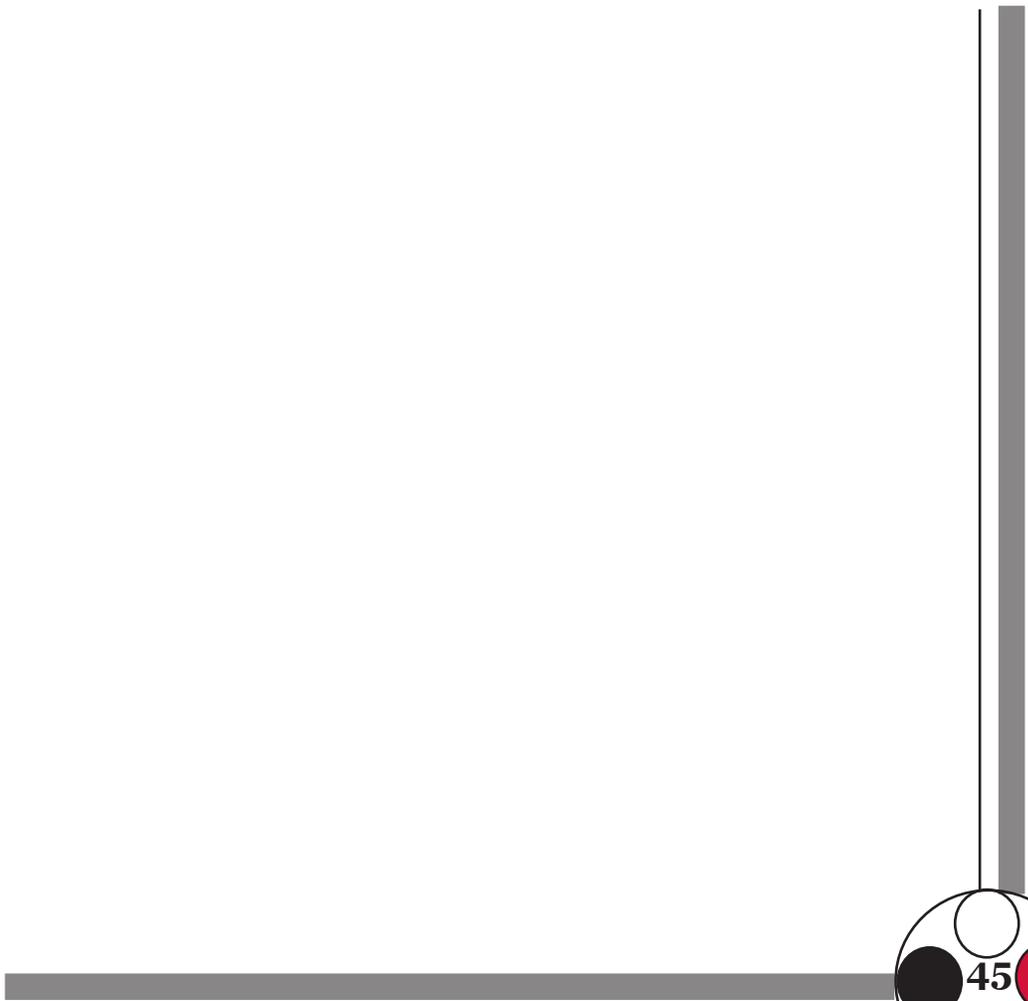
### Supporting Services

 Building services and mechanical equipment (10% of gross building area; 1600sf) - with information display of building environmental control and sustainability principles

 Visitor services/conveniences (15% of gross building total; 2400 sf) - restroom /facilities, circulation, etc.

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- Ahler, Stanley A., Thomas D. Thiessen, and Michael K. Trimble. 1991. *People of the Willows: the Prehistory and early history of the Hidatsa Indians*. University of North Dakota Press: Grand Forks, ND.
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- Jakle, J. A. (1987). *The Visual Elements of Landscape*. Amherst, MA.: University of Massachusetts Press.
- Meyers, N. (2009, November 25). (M. Abe, Interviewer)
- Nabokov, Peter, and Robert Easton. *Native American Architecture*. New York: Oxford University Press, (1989).
- Nabokov, P. (2006). *Where the Lightning Strikes the lives of American Indian sacred places*. New York: Penguin Group.
- Reyhner, J., & Tennant, E. (1993). *Maintaining and Renewing Native Languages*. Retrieved December 2, 2009, from Teaching Indigeous Languages: <http://jan.ucc.nau.edu/~jar/Main.html>
- Three Affiliated Tribes. *Rebuilding a nation: The Mandan, Hidatsa, and Arikara Nation*. New Town, ND: Three Affiliated Tribes, c1994. [manuscript in the collections of the State Historical Society of North Dakota.]
- Tuan, Y.-F. (1974). *Topophilia: A Study of Environmental Perceptions, Attitudes, and Values*. New York: Columbia University Press.
- Tuan, Y.-F. (2009, April 24). Topophilia. (M. Abe, Interviewer)
- Tuan, Y.-F. (1977). *Space and Place the Perspective of Experience*. Minneapolis: University of Minnesota Press.
- VanDevelder, P. (2004). *Coyote Warrior: One Man, Three Tribes, and the Trial That Forged a Nation*. New York: Little, Brown and Company





*Building Typology:*  
Educational Building

*Theoretical Premise:*

Architectural “place-making” can help the process of language renewal by creating a vehicle for the people to communicate and help revive this culture’s identity.

Cultural renewal and healing can be expressed through the active process of teaching the endangered Hidatsa language and traditions.

As Hidatsa language and culture are valued in all their rich details, they can be celebrated by being passed along from one generation to the next.

*Project Justification:*

This cultural renewal space will provide a place for the people of the Hidatsa tribe to express the attitude and emotions that embody the spirit of this language.



*Project Abstract:*

Recently there has been increased interest among the “Seventh Generation” on the Three Affiliated Tribes in the Fort Berthold Reservation, seeking out elders who are still fluent speakers of the Hidatsa language. Language embodies important aspects of cultural expression and cultural identity, and a shared goal is to pass on this endangered language to future generations. Now is the time to learn the culture and tradition of this tribe to ensure its cultural identity for future teachers.

This design exploration deals with the current need for a place to give a voice to fluent Hidatsa speakers. Successful expression of cultural renewal and healing of an endangered language (Hidatsa) should be carried out by Hidatsa elders fluent in the language and well educated in the traditions and culture of the Hidatsa tribe.

An architectural setting affords the appropriate “vehicle” that will facilitate language renewal through performance and celebration.



*Project Narrative:*

Years before the flood of the Elbowoods community, before the lands surrounding the Missouri River became known as the Fort Berthold Reservation, and before generations of children were taken from their homes and told they were going to be taught in English-speaking boarding schools - there was a prosperous nation, the Hidatsa.

Among each other the Hidatsa people could communicate the spirit of their language by evoking various emotions, attitudes and traditional nuances that their culture embodied. It was a time that families would communicate life's daily events through storytelling.

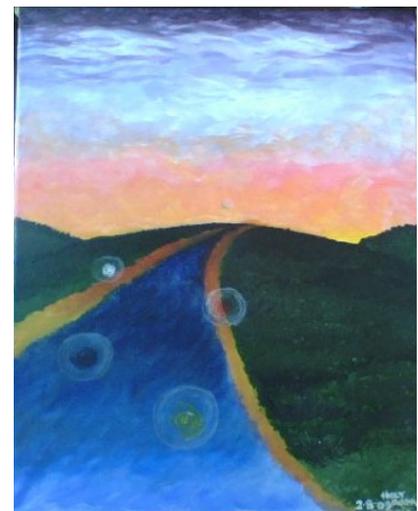
It is a different story today however. After the water rose on the banks of the Missouri and the Elbowoods community is no longer with us, after the Army Corps of Engineers shuffled the Mandan, Hidatsa and Arikara tribes onto the lands near the Missouri River and labeled this land the Fort Berthold Reservation, and after years of being taught to not speak their native language in schools, many generations of children grew up learning that the English language was the "right way" (no questions asked).

Recently there has been increased interest among the "Seventh Generation" on the Three Affiliated Tribes in the Fort Berthold Reservation, seeking out elders who are still fluent speakers of the Hidatsa language. Language embodies important aspects of cultural expression and cultural identity, and a shared goal is to pass on this endangered language to future generations. Now is the time to learn the culture and tradition of this tribe to ensure its cultural identity for future teachers.

This design exploration deals with the current need for a place to give a voice to fluent Hidatsa speakers.



Aerial View 1954: Elbowoods Flooding.JPG  
 "Elbowoods Flooding" (possibly mis-identified as "Fishhook")  
 accessed 2\_10\_2009 DigitalHorizons online;  
 original source: Alan R. Woolworth; 32ML2  
 attributed: collections State Historical Society of North Dakota



"Elbowoods After the Water"  
 Acrylic painting on canvas,,  
 painting by M. Abe  
 Feb 8, 2009





Knife River Indian Villages National Heritage Site  
vicinity of Stanton, ND  
photo: Marita Abe

Successful expression of cultural renewal and healing of an endangered language (Hidatsa) should be carried out by Hidatsa elders fluent in the language and well educated in the traditions and culture of the Hidatsa tribe.

With the appropriate space and vision, there is a promising future for the people of the Hidatsa nation that will continue to sustain their everlasting culture while still keeping an open mind to future lessons of an ever-changing world. They will proudly walk with a renewed feeling of their culture identity.

Academics have, for more than 30-years, explored ways in which architecture resembles a “semiotic” language. Though the codes and constructions of architecture exhibit a surface of simplicity and rudimentary “mechanical” quality, like any language, the richness and meanings go much deeper below the surface. An architectural setting that celebrates and enables Hidatsa language renewal should acknowledge the rich subtleties, nuanced personal and public meanings implied by this analogy.



*User/Client Description:*

1. Hidatsa community and future generations of this tribe about 1100 enrolled members (6000-7000 members living on reservation)
2. People of the Mandan and Arikara communities
3. Visiting guests and scholars on the Fort Berthold Reservation (number of guests varies in size)
4. At any one time, a maximum of 80 persons (staff, language learners, and visitors) in a variety of spatial settings and venues for groups of from 3 to 12 interactive users engaging in a very broad range of language renewal activities

**Description**

Involving all generations of the Hidatsa tribe as well as the Mandan and Arikara tribes will encourage the preservation of the Hidatsa language. It is important to include the elders as well as the younger generations because of the knowledge and stories the elders can tell the younger people - who can then absorb the lessons to pass on to future generations. Making this space available to visitors of the Fort Berthold Reservation will also promote more Hidatsa conversation among each other.



*Major Project Elements:*

Each space in the *Hidatsa Learning Lodge* is designed to encourage the teaching/learning process of the people participating. The spaces are arranged according to the four sacred directions of the Medicine Wheel, while the activities reflect the meaning of each direction.

**East:** “beginning/entrance”

- library
- language resource repository
- views to New Town
- windows to show the seasonal passage of time

**South:** “peak of life”

- individual classroom spaces
- acoustical storytelling room (to record lessons)
- views toward Missouri River

**West:** “end/finality”

- rehearsal units
- children and adults may have conversations with each other with lessons they have just learned

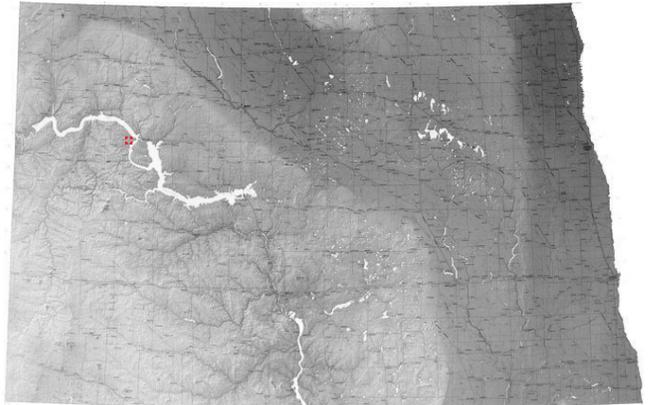
**North:** “cleansing/purifying/strengthening power”

- performance space
- auditorium



Site Information: Macro Location

Located in the northwestern region of North Dakota is a place that grasps the edge of the Missouri River. Away from the two major highways (Highway 83 and Interstate 94) of the state, noise will not be an issue as some of the bigger cities have developed along those highways.



Aerial view of North Dakota and surrounding context.  
(<http://geology.com/store/wall-maps/north-dakota-wall-map-lg.jpg> © Raven Maps)

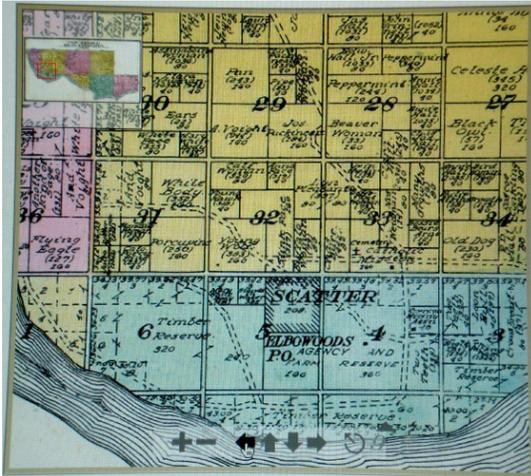
Site Information: Micro Location

Highlighted is a place that lies just west of New Town, North Dakota. It remains in close proximity to the Missouri River which is important for the spirit of the Hidatsa Learning Lodge.



Aerial view of New Town, ND and surrounding context.  
(2009 Google Earth © site plan of New Town, North Dakota)





1914 Ogle Map 006.JPG  
 "Historic plat map of Elbowoods and Scatter Village"  
 accessed on-line;  
<http://www.historicmapworks.com/Atlas/US/9545/McLean+County+1914/>

### Site Information: History

Chief Four Bears never gave up on piecing together geographical knowledge of our land and where my ancestors have explored sacred place by sacred place. Along with Big Cloud, Poor Wolf, Raven Necklace, Crow Heart and Bluesnake, he compiled a map that he proudly brought to Fort Laramie, August 1851, to save these sacred sites.

One such sacred site is in Twin Buttes, ND. Here Nabokov journeyed to find the final resting place of Lone Man's Shrine and tied pieces of red cloth (prayer flags) to the Sun Dancers – around the little structure. Lone Man's original sacred site was at the center of the Heart River, but his shrine was relocated numerous times due to the construction of the Garrison Dam.

Native Americans will continue to relate to places through the appreciation of the space itself. Meaning, through the elements or animals that have occupied each area we encounter, we will maintain that respect for their place and in return learn how each of the elements (rock, tree, river, and plant etc.) or animal has survived so long there too. So in the tradition of the Three Affiliated Tribes, we respect the past of the space we find ourselves in while continuing to learn from it and moving forward with future hope that the next generation will continue to respect the space too.

As a designer I would want to make sure I have a keen sense of the environment I am surrounding myself in. Landscape visualization and cognitive mapping skills are a few methods of wayfinding I might use in unique instances to assess a location. According to Jackle's article "Landscape Visualization and Cognitive Mapping", in *The Visual Elements of Landscape*, he states that cognitive mapping is a step-by-step associating of various place representations so that being in one place suggests how one might be in another. It is sometimes confusing for me to read maps of the Three Affiliated Tribes from an explorer's point of view because cognitive mapping occurs after perception.



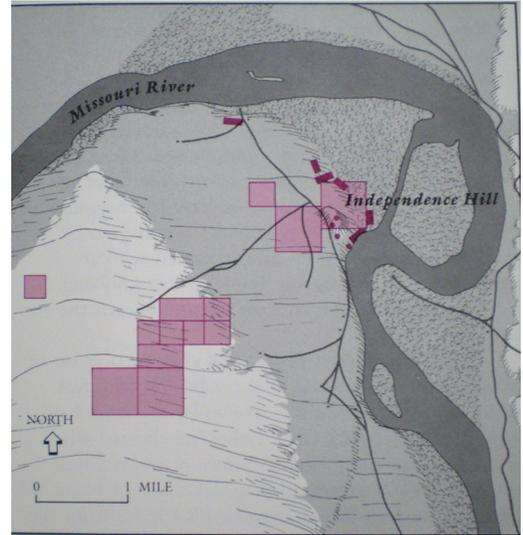
*Site Information: History*

A common path is something I think is very important in the process of wayfinding and cognitive mapping. Whether one has a map, guide, or is wandering freely, the images that they encounter along their journey are mentally stored and slowly a map is formed in their heads. A general notion of how the landscape is spatially structured is achieved through this method (more so through walking rather than motorized transportation).

The most important path I feel in the Fort Berthold community is the Missouri River that was the binding element for all three tribes. This was the path the three tribes travelled up to eventually unite as the Three Affiliated Tribes many years ago. They explored, hunted, lived and died along this river; it will always remain a part of the Mandan, Hidatsa and Arikara.

Yi-Fu-Tuan suggests that through the study of “topophilia” we might better understand these concepts of culture change. One might consider examining the perceptions and values of an elder from each tribe of the Three Affiliated to identify with why each group might feel displaced from their natural environment of the past to their urban upbringing of what could be their future. These are a few of my human responses to what I feel has happened to Fort Berthold’s natural hazards – and how environmental psychology can play a role in a culture’s future if no action is taken.

The Three Affiliated Tribes welcome the chance to teach those who interested in our culture, just as long as it’s done with respect for each story. Elders hold these stories close to them, and seem to want to make sure they are telling them to the right people who won’t damage their history and past.



Hidatsa Place images 10\_2008 folder; Willows\_030 .jpg

“Sketch of central ark of lower Mandan Village near Fort Clark”

Ahler; People of the Willows

Karl Bodmer 1833-34; courtesy of Joslyn Gallery, Omaha, NE



Earthlodge site west of New Town, ND  
photo by: Marita Abe



Earthlodge site west of New Town, ND  
photo by: Marita Abe

### *Site Information: Importance*

The earth lodge village is also west of New Town. This is an appropriate site for this project because of the sense of place it holds to the Hidatsa people. For the purpose of a Hidatsa Learning Lodge, this site is unique to the Hidatsa culture, because their history is embedded in the land all around them.

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*Project Emphasis:*

The Hidatsa Learning Lodge will be a space for renewal of spirit and culture identity by creating a place for the Hidatsa people to communicate their language. Architectural “place-making” and engaging the history of the Hidatsa’s culture in the program of the masterplan is important for sustaining a community with a greater sense of culture identity. Design strategies employed here will also be flexible for future growth. This delicate balance of sustainability and renewability is a vital for the success of the Hidatsa Learning Lodge.



## Plan for Proceeding

Being able to envision a steady and well thought-out set of goals for this project such as Professor Martens' *12-Step Program for Thesis Recovery* is a successful way for staying on track with goals.

Initial startup meeting. Agree on design goals and priorities.

January 12 Declare vision; see the idea that unifies; begin testing "form-givers"

Week 1 *Activity/Task/Product:*

**Jan 10-16**

Alternative site concepts graphically resolved & documented (diagram)

Review on 1/19 Identify unifying ideas and form-giving "design directives" from program

Site base map in hand and drawn at workable scale (1"-30'-0")

Week 2 *Activity/Task/Product:*

**Jan 17-23**

Resolve & document functional space planning & site relationships

Review on 1/26 graphically developed "at scale"; How will this project advance the goals of Hidatsa language renewal? Firm up spatial arrangements.

Week 3 *Activity/Task/Product:*

**Jan 24-30**

Identify overall structural pattern & configuration; find patterns that organize

Review on 2/2 Graphically study volumetrics with perspective section

Week 4 *Activity/Task/Product:*

**Jan 31-Feb 6**

Resolve, arrange and clarify patterns of space; space-planning complete

Review on 2/9 Identify sustainable design strategies; space-planning is ONLY a vehicle

Week 5 *Activity/Task/Product:*

**Feb 7-13**

Build structural framing model; suggest 1/16" = 1'-0"

Review on 2/16 Identify a strong structural concept; resolve volume & massing



Week 6 *Activity/Task/Product:*

**Feb 14-20**

Develop material assemblies at 3/4-inch = one-foot Review on 2/23 Identify a strong material concept & develop material palette in detail

Week 7 *Activity/Task/Product:*

**Feb 21-27**

Graphically resolve sustainability aspects and mechanical concept  
Review on 3/2 Identify a strong sustainable/renewable building performance concept

Week 8 *Activity/Task/Product:*

**Feb 28-Mar 6**

Interior and exterior character-sketches of key spaces; compose for beauty  
Review on 3/9 Final decisions & graphic documentation of exterior elevations

Week 9 *Activity/Task/Product:*

**Mar 7-13**

Mid-term pin-up review of all completed design work  
Review Wk9 on 3/9 Storyboard layout of final presentation completed in “cartoon” fashion  
Identify the story you want this project to tell, in specific terms

SPRING BREAK WEEK

Week 10 *Activity/Task/Product:*

**Mar 21-27**

Continue development of any incomplete or unresolved aspects  
Review on 3/30 Final revisions to documentation of site plan solution

Week 11 *Activity/Task/Product:*

**Mar 28-Apr 3**

Begin final graphic “packaging” of thesis solution (Boards 1 and 2)  
Review on 4/6 Emphasize “telling the story” of the project’s conceptual meaning  
Documentation of plan, context, and concept boards completed



Week 12 *Activity/Task/Product:*

**Apr 4-10**

Emphasize “telling the story” of construction and material dimensions;

Review on 4/13 sustainability, mechanical space-conditioning functions (Bds 3 and 4)

Add interpretive text to all boards to explain and evoke

Week 13 *Activity/Task/Product:*

**Apr 1-17**

Emphasize “telling the story” of spatial character, site and sectional

Submit on 4/20 relationships (Boards 5 and 6 completed); add action words to focus and interpret project meanings to users; step back and see your project as a unified whole, achieving goals of Hidatsa language renewal

Week 14 *Activity/Task/Product:*

**April 19**

All thesis design graphic documentation due on CD delivered to instructor

Review on 4/20 Continue work on physical model and output boards for mounting

**April 26-28**

Thesis exhibit installed (by students) on Fifth-floor Renaissance Hall

April 29 – May 6 Thesis final reviews scheduled by Thesis Committee

Make the most effective presentation of your work & design recommendations

**May 13**

Final book of thesis documentation due (verify); 4:30 at departmental office

May 14, 2010 Spring Commencement scheduled at NDSU



*Previous Studio Experience:*

**Second Year Fall Semester 2005**

*Vince Hatlen*

Identification of Place - Fargo, ND  
Temples and Cottages - Fargo, ND  
Transitional Care Facility for the Temporarily Blind - Fargo, ND

**Second Year Spring Semester 2007**

*Joan Vorderbruggen*

NDSU Prairie Dance Academy - Fargo, ND  
Dwelling (Biohaus) - Rocky Mountain National Park

**Third Year Fall Semester 2007**

*Steve Martens*

Finding the Center  
Healing Cultures - New Town, ND

**Third Year Spring Semester 2008**

*David Crutchfield*

Green Star Market - Fargo, ND

**Fourth Year Fall Semester 2008**

*Don Faulkner*

Capstone: Folsom Tower - San Francisco, CA

**Fourth Year Spring Semester 2009**

*Frank Kratky*

Communidad de la Tierra - Santo Domingo, DC  
Kigoma School - Tanzania, Africa (Marvin Windows)

**Fourth Year Summer Semester 2009**

*Ron Ramsay*

Project Tree - Santo Domingo, DC

**Fifth Year Fall Semester 2009**

*Milton Yergens*

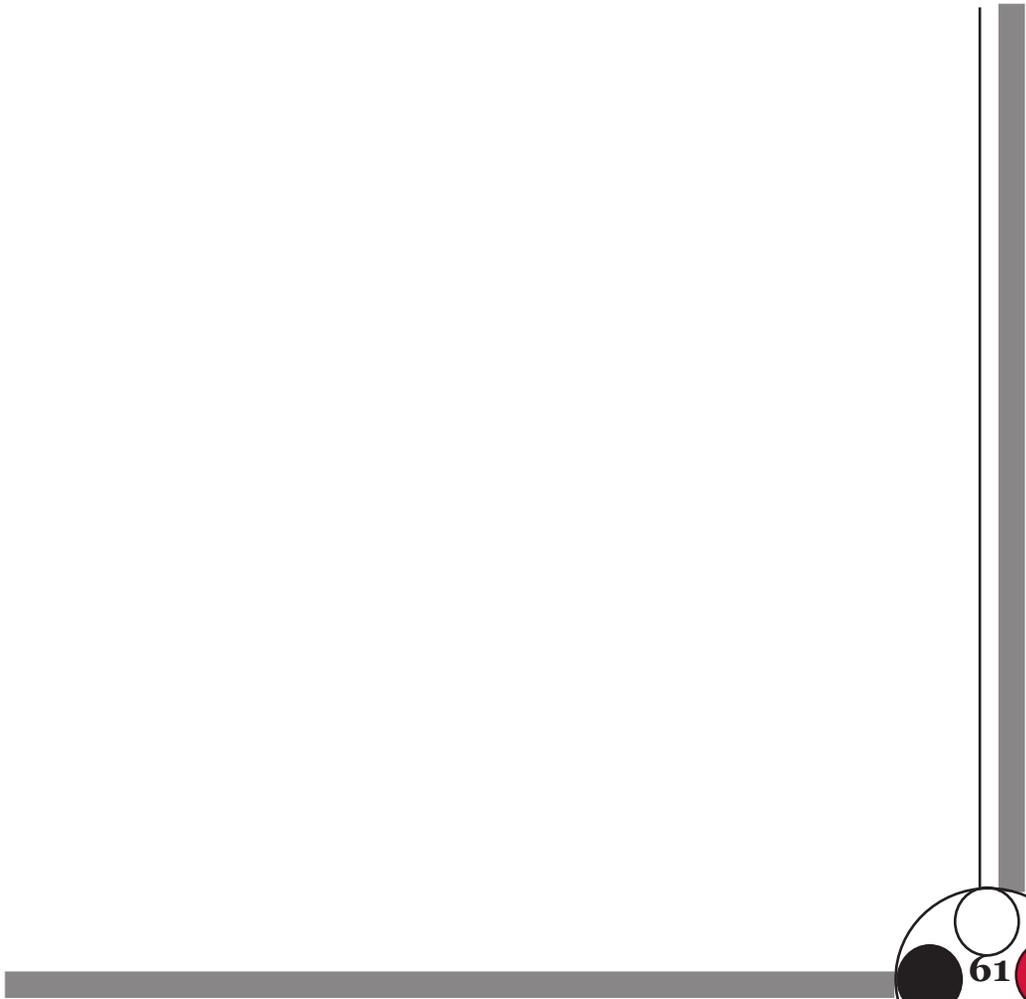
Fargo Town and Gown Study - Fargo, ND

**Fifth Year Spring Semester 2010**

*Steve Martens*

Hidatsa Learning Lodge - New Town, ND





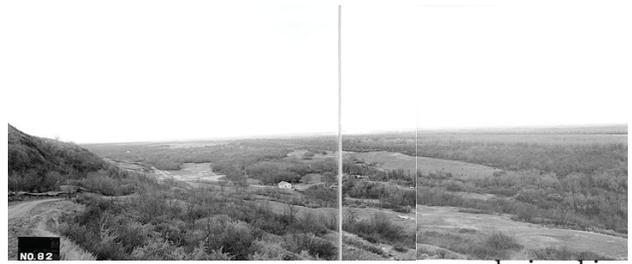
**“People Architecture for the Three Affiliated Tribes:  
Sustaining Community, Architectural  
Expression, and Cultural Identity”**

Summary of Research findings presented by  
Marita Abe, McNair Research Scholar and  
Steve C. Martens, Associate Professor  
(April 1, 2009 draft)

***Introduction/Research Objectives and  
Methods:***

This presentation attempts to summarize the approach an architectural historian might use in conducting research that correlates the built environment of the past with potential architectural design responses for the future. A research project was proposed in February 2008 to examine past traditions of place-making and architecture based on the broad, documented record of the Mandan, Hidatsa, and Arikara people along the Missouri River. Research of this kind can potentially serve several benefits. Among them, this research affords an opportunity to practice an architect’s methods of evaluating material culture features (including vernacular architecture) by critically examining the documentary record, physical evidence, and oral history accounts as sources for understanding the “fit” between a geographic place and the cultural preferences and values of a distinct population.

Potential source documents, resource persons, and research methods were identified in Fall of 2008, and the research activity began in earnest in Spring of 2009. Fieldwork and examination of historical documents took place over a three-month period, after with the research findings were interpreted and synthesized into “lessons learned”. In addition to primary and secondary source documents, the research has been paced by a series of focusing questions, linked to written treatises by noted scholars, and intended to afford a framework for interpretative inferences made by the research scholar. Secondary research objectives included examination of historic architecture in terms of its implications for more sustainable future design responses. Sustainability has implications for both the technology of building, and also for the formation of communities and buildings that are self-sustaining and self renewing.



1\_mh\_inval.jpg

“View of Missouri River Bottomlands”

<http://www.lewis-clark.org/content/content-article>  
image courtesy of North Dakota Heritage Center



2\_mh\_elpan.jpg

“Elbowoods before the Water”

<http://www.lewis-clark.org/content/content-article>  
image courtesy of North Dakota Heritage Center



3\_mh\_elboP.jpg

“Aerial photo attributed to Alan Woolworth, 1953”

[http://www.mhanation.com/main/history/history\\_](http://www.mhanation.com/main/history/history_elbowoods.html)  
[elbowoods.html](http://www.mhanation.com/main/history/history_elbowoods.html)

original photo in the collections of the North Dakota  
Heritage Center





Aerial View 1954: Elbowoods Flooding.JPG  
 “Elbowoods Flooding” (possibly mis-identified as “Fishhook”)  
 accessed 2\_10\_2009 DigitalHorizons online;  
 original source: Alan R. Woolworth; 32ML2  
 attributed: collections State Historical Society  
 of North Dakota



Case016.JPG  
 reprinted from Case; Remembering Elbo-  
 woods  
 “Elbowoods Congregational Mission School”  
 State Historical Society of North Dakota



Case018.JPG  
 reprinted from Case; Remembering Elbo-  
 woods  
 “Elbowoods Congregational Mission; 1920s”  
 State Historical Society of North Dakota

In his treatise *A Timeless Way of Building*, architectural theoretician Christopher Alexander discusses several ways in which design can be made more sustainable in terms of appropriately using resources to provide for human physical comfort, in the ability of well-designed architecture to afford meaning and purpose for people who use the environment, and in the way well-designed buildings can adapt themselves to closely suit conditions of changing environments.

One useful model for this kind of “sustainably-adaptable” architecture is the genetic model, by which organisms transform in small increments over time, and by a process of self-selection come to acquire a closer “match” to their specific environment. (And of course environment here means both physical place and the needs or cultural requirements of building users.) In explaining the strong preference we humans have for doing things in ways that confirm our values and preferences, geographer and vernacular scholar Allen Noble writes that, “when culture and climate collide, culture usually wins”. Thus, sustainable architecture not only confirms the adaptive “fit” between buildings and their physical setting. Truly sustainable architecture also reflects long-term adjustments that give commonplace buildings, meaning and significance in the judgment of their users. When there is close-correspondence between buildings and the expectations people have for them, architecture becomes sustainable and even self-renewing in a cultural sense as well as in the usual sense of stewardship of physical resources.

Lastly, this research project was envisioned as a suitable practice exercise for the kind of architectural programming that is done prior to design. Programming is essentially “problem-definition” (Pena); a process undertaken prior to design so that an architect can begin with a more precisely-defined description of the full range of needs and expectations to be met through design. Most architectural projects -- and particularly academic design thesis projects -- begin with programming of this kind. A comprehensive architectural program document examines the performance requirements of context, physical setting, user behaviors and expectations, functional requirements, organizing patterns, ideational underpinnings, and predicted performance of material systems (as illustrated by this diagram).



Summary results of this 6-month research project are presented here in terms of two sets of observations; “Reflections on the past . . . “ and “. . . Lessons for the future”. By carefully examining and interpreting the record of material culture, an architect can derive recommendations for how the things we build can more broadly meet the full range of needs and expectations of people we serve. When these needs are well-met, architectural design is likely to have a more sustainable quality that precisely suits the specific needs (including the need for adaptability and renewal) for which it is created. Predictive “Lessons for the future” are presented here as a bulleted list of programmatic requirements that could be applied to the design of several building types well-matched to the cultural and environmental needs of the Three Affiliated Tribes on the Forth Berthold Reservation.

Summary Observations:

Throughout the historical period, Mandan, Hidatsa, and Arikara people have used a variety of technical building practices that were well-suited to their environmental context. Knowledge about these learned traditions of vernacular architecture was transmitted verbally and through well-defined cultural practices. Evolution and change in building practices has been documented, to a preliminary extent, by Euro-American ethnographers and anthropologists. However, much detailed knowledge about building practices, technology, and cultural meaning has not yet been previously interpreted in architectural terms. The physical record of traditional ways in which the Three Affiliated Tribes constructed buildings and formed communities is rapidly disappearing. Fortunately, descriptive documentation and academic analysis of these traditions has been done by historians and cultural geographers Libby, Woolworth, Woods, Ahler, Nabokov, and others in the second half of the 20th-century. Additional insights about these issues can ideally be accomplished from an architectural perspective, based on relevant cultural affiliations and close personal connections with the setting and people.



Case019.JPG  
reprinted from Case; Remembering Elbowoods  
“Elbowoods School and Church”  
State Historical Society of North Dakota



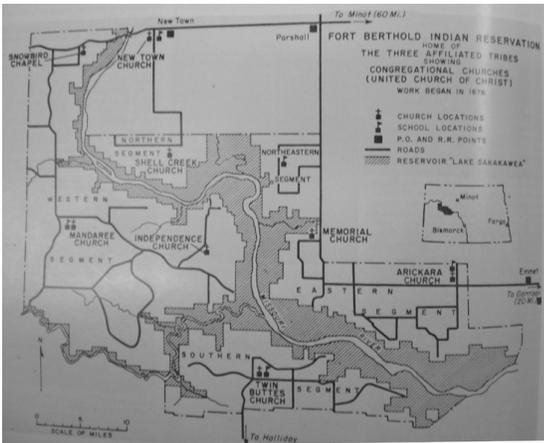
Case020.JPG  
reprinted from Case; Remembering Elbowoods  
“Elbowoods Schoolyard Scene”  
State Historical Society of North Dakota



Case021.JPG  
reprinted from Case; Remembering Elbowoods  
“Elbowoods at the Time of Four Bears Bridge (1930s)”  
State Historical Society of North Dakota



Case022.JPG  
reprinted from Case; Remembering Elbowoods  
“Twin Buttes UCC Congregational Church (relocated Nueta Church)”



Parkso27.JPG  
reprinted from Parks; Arikara Storytelling (v.4)  
“Fort Berthold Reservation map”

Because the center of their extended community has been relocated at least four times within the past 300-years, the Three Affiliated Tribes demonstrate a remarkable experience with formation of communities. As part of this research investigation, a comparative analysis was made of patterns found at the Knife River Indian Villages National Historic Site (archaeological descriptions, Like-A-Fishhook Village at Old Fort Berthold (which was the subject of a digital reconstruction by a team led by NDSU Professor Dr. Jeffrey Clark), Elbowoods (documented photographically before it was flooded in 1953), and the most recent settlement enclave at New Town, much of which was planned and laid out by the U.S. Army Corps of Engineers. The substantial historical record shows that communities formed after contact with European immigrants reflect a combination of European planning principles (based on engineered formulas such as those of the land survey and planned railroad towns), juxtaposed against traditional patterns of community embedded in local contexts and grounded in well-appreciated natural settings. Several of these communities – most notably Elbowoods -- exist today only in the form of memory and the retelling of stories about their place and meanings.

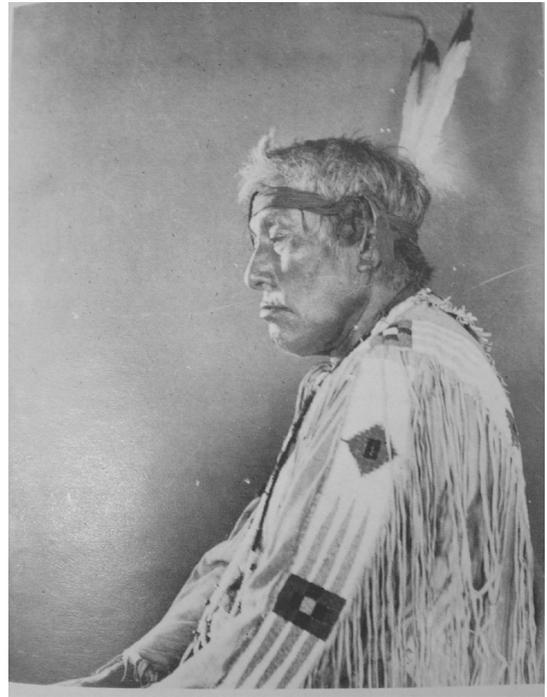
Settlement patterns and building methods from the period 1804 to 1952 have largely been erased from the landscape of the Fort Berthold Reservation lands as a result of dam construction and reservoir flooding caused by the US Army Corps of Engineers. There is still enough available historical documentation, shared knowledge, and physical remnants of buildings and communities to enable a well-prepared student of architecture to discover relevant patterns. Many other Native American groups have found excellent success in recovering and reinforcing cultural values through contemporary architecture. By better-understanding past traditions of building and place-making, a valuable opportunity can still be captured for testing the extent to which technologies, building practices, and cultural expression can be applied and celebrated through contemporary architecture. Research findings may be tested by applying them to design of a building in partial fulfillment of the Master of Architecture professional degree.



### ***Lessons about Synthesizing Culture; Forming/Transforming Communities:***

The Three Affiliated Tribes demonstrate a remarkably resilient and adaptable experience with formation of communities, closely connected with the Missouri River. Several of these communities – most notably Elbowoods -- exist today only in the form of memory and the retelling of stories about their place and meanings. As “travelers”, the Three Affiliated Tribes have demonstrated a very open mind to the idea of learning from other cultures they encountered. This admirable quality has yielded a healthy, sustainable “resiliency” that has allowed the communities to revive and flourish once again despite the effects of historical cultural assimilation. The Mandan, Hidatsa, and Arikara have a long tradition of welcoming and being open to their immigrant neighbors. It is a good thing to let others hear our stories of the past and make sure they have the chance to meet somebody from the Three Affiliated Tribes and get to know a little bit about our culture. I do believe we have a great story to tell and have much to learn too from other cultures, so the more people we can meet the better off our community will prosper. There is that factor of keeping what is sacred to us sacred too, and that is true if we weren’t left with something from our past to pass down to our children just as the non-native’s do in religious ceremonies, our identity as a culture and people may diminish and be lost.

The extensive historical record of photos, maps, stories, and images enables us to examine the evolution in architectural patterns from Slant Village and Double-Ditch, to Knife River, then Like-A-Fishhook/Fort Berthold, Elbowoods, and the contemporary communities of New Town and White Shield. Each of these settings embodies a cultural “episode” in which the physical place reflects the fusion of cultural practices. Lost settings like Nishu Village, Shell Creek, Independence, Lucky Mound, and Sahnish also contain instructive lessons about patterns of community. As “travelers”, Mandan, Hidatsa, and Arikara people have substantial experience with formation of communities: The substantial historical record shows that communities formed after contact with European immigrants reflect a combination of European planning principles (based on engineered formulas such as those of the land survey and planned railroad towns), juxta-

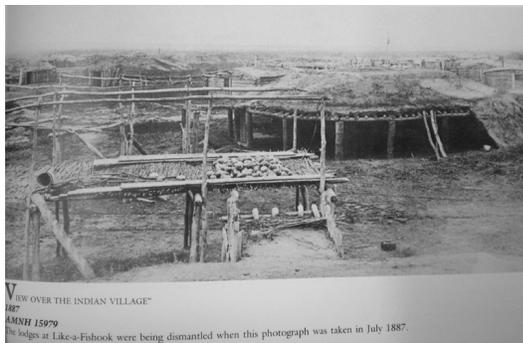


Parks028.JPG  
reprinted from Parks; Arikara Storytelling  
“Picture of Old Dog; Hidatsa”  
Smithsonian Bureau of American Ethnology

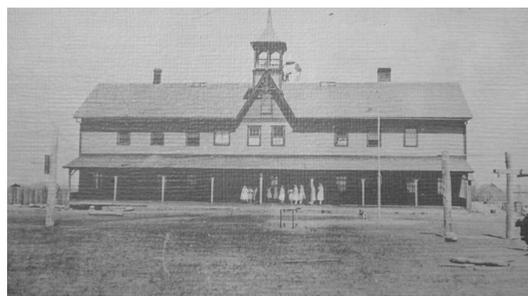


Ahler029.JPG  
reprinted from Ahler; People of the Willows  
“Like-A-Fishhook Village with Lake Sakakawea Rising”  
photographed by Alan R. Woolworth; July 7, 1954  
collections of State Historical Society of North Dakota 32ML/2





Ahler031.JPG  
reprinted from Ahler; People of the Willows  
“view of lodges at Like-a-Fishhook Village;  
July, 1887”  
collections of American Museum of Natural  
History AMNH 15979



Case032.JPG  
reprinted from Case; Remembering Elbow-  
woods  
“Mission building erected by Father Francis  
Craft at Elbowoods in 1889”



Case033.JPG  
reprinted from 100 Years at Fort Berthold;  
p. 196  
“Dedication of 4-Bears Bridge (on its origi-  
nal site near Elbowoods; 1934”

-posed against traditional patterns of community embedded in local contexts and grounded in well-appreciated natural settings.

***Lessons about gender and clan derived from examining the architectural traditions of the past.***

In the book *Where the Lightning Strikes: Journeys to Promised Lands*, author Peter Nabokov suggests that a foreigner to the Great Plains might have difficulty imagining how the Mandan and Hidatsa lived together so sustainably as neighbors for hundreds of years along the muddy banks of the Missouri River. Nabokov describes the edge conditions of community very nicely; lined with cottonwoods and willows with the skies filled with birds by the millions. The Missouri River offered so much for the Hidatsa, Mandan and later Arikara – especially for their valued gardens they tended to yearly. Snowmelt spread rich mulch for their corn, beans, sunflowers and tobacco. The well-silted plain and grassy slopes allowed men and women to balance their respected rituals. Normative behaviors for men included hunting, fishing, and breeding horses. Women traditionally weeded and hybridized gardens, sang to the children, molded pottery, wove baskets, played a central role in shaping living space, and formed societies. “Baby” places, such as the site of present day St. Mary’s College in Bismarck, ND were traditionally places that childless women went and prayed for children and even offered gifts –girl’s clothing for a daughter or small bows and arrows for a son.

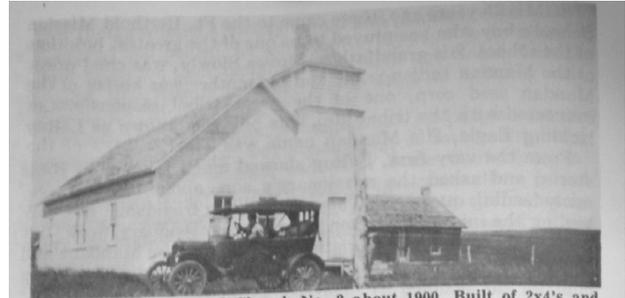
Jungian psychology, focuses on personal expression of id and ego, vs. cultural expression of traditional values and gender roles. These issues are relevant to our understanding of the way gender roles are expressed differently in Native American cultures than according to the modern, European model. Traditionally, places (including the two banks of the Missouri River on which Mandan, Hidatsa, and Arikara people settled) were associated with male and female spirituality. Architects need to place themselves in a position of educating clients by exploring preconceptions and asking questions that get at the root issues of the desire for personalization of individual uniqueness, in relationship to the unifying qualities of shared culture. Architecture can help mediate and balance between individuality and sustainable, shared cultural values. Cultivated gardens are a culturally-important expression of sustainable, renewable relationship to the natural setting.



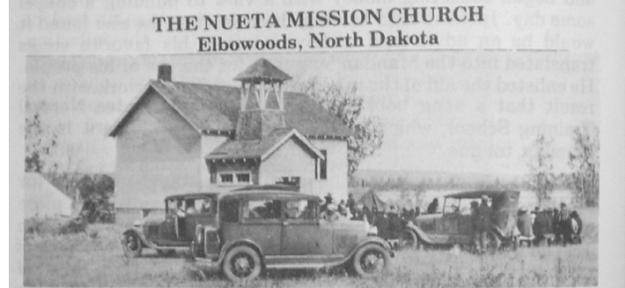
Oral histories about cultural origins – sometimes termed “origin myths” by western scientific cultures – contain important information about beliefs in the Mandan and Hidatsa’s spiritual connections to the Missouri River. Chief Four Bears never gave up on piecing together geographical knowledge of our land and where my ancestors have explored sacred place by sacred place. Along with Big Cloud, Poor Wolf, Raven Necklace, Crow Heart and Bluesnake, he compiled a map that he proudly brought to Fort Laramie, August 1851, to save these sacred sites. One such sacred site is in Twin Buttes, ND. Here Nabokov journeyed to find the final resting place of Lone Man’s Shrine and tied pieces of red cloth (prayer flags) to the Sun Dancers – around the little structure. Lone Man’s original sacred site was at the center of the Heart River, but his shrine was relocated numerous times due to the Garrison Dam.

***Policy-making/Negotiating Architectural Values:***

As designers, how should we decide or recommend a course of design response that will be suitably sensitive to special issues of place-making that are so close to the heart and spirit of cultural renewal? There is great potential to learn from tragic past mistakes in the way decisions are made about architecture and community. Much like the discredited Urban Renewal policies of the 1960s in American cities, settlement patterns and well-honed indigenous building methods from the period 1804 to 1952 have largely been erased from the landscape of the Fort Berthold Reservation lands as a result of dam construction and reservoir flooding caused by the US Army Corps of Engineers. Non-inclusive decision-making methodologies – though efficient – seldom lead to sustainable outcomes in terms of architecture, community, ecology, or economics. It is important to advocate architectural processes through which local people can get involved and realize a meaningful sense of ownership of community. Decision making processes driven by power differential, intimidation, domination, and exclusivity are generally less sustainable over time.



Arichara Congregational Church No. 2 about 1900. Built of 2x4's and packed with straw. About 1924 "Fire in the night burned to the ground. 1926 new building erected.

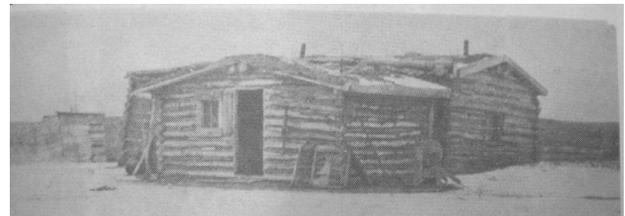


THE NUETA MISSION CHURCH  
Elbowoods, North Dakota



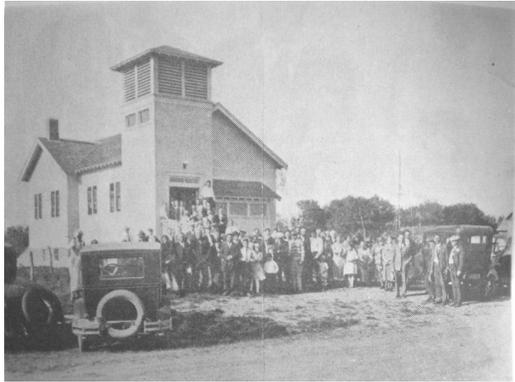
178 Twin Buttes Church 100 YEARS AT FORT BERTHOLD

Case034.JPG  
reprinted from 100 Years at Fort Berthold; p. 178  
“Arikara UCC and Nueta Mission Churches at Elbowoods; 1924”



Case035.JPG  
reprinted from 100 Years at Fort Berthold  
“Home of White Face (Hidatsa) at Elbowoods; 1914”





Case036.JPG  
reprinted from 100 Years at Fort Berthold  
“Dedication of Susan Webb Hall Memorial  
Church at Elbowoods; 1934”



Parkso37.JPG  
reprinted from Parks; Arikara Storytelling (v.4)  
“Early 20th Century Arikara ceremonial leaders”  
collections of the Stater Historical Society of  
North Dakota

The powerful book *Coyote Warrior: One Man, Three Tribes, and the Trial that Forged a Nation* (Vandevelder) offers a positive, hopeful characterization of future prospects for communities and settings of the Fort Berthold Reservation. Has the tide turned? Have the Three Affiliated Tribes reasserted its self-confidence and vision for the kinds of community they can be in the future? A community is very hopeful in my mind but at this point in the book, I am not sure – the Cross children have many reflections of the past . . . vivid memories of how the town of Elbowoods was put together (stores, street alignments, cop cars, even sounds . . .) but it also seems like they don’t want to think about it too . . . like it was too sad, or too strange. I hope to change that with sensitive ears and an open mind when I get a chance to visit them. The theme of “The Flood” has a long, and even mythic significance in the cultural traditions of Mandan and Hidatsa people, associated with the Ark of First Man. Research informants Marilyn Hudson and Phyllis (Cross) remember “The Flood” as a very traumatic event, even to the point of not wanting to talk or think about it. I hope that one day I will be able to walk in the footsteps of my uncle Raymond (Cross). The need to piece this story together is urgent because the generation that has the knowledge of these events is leaving us.

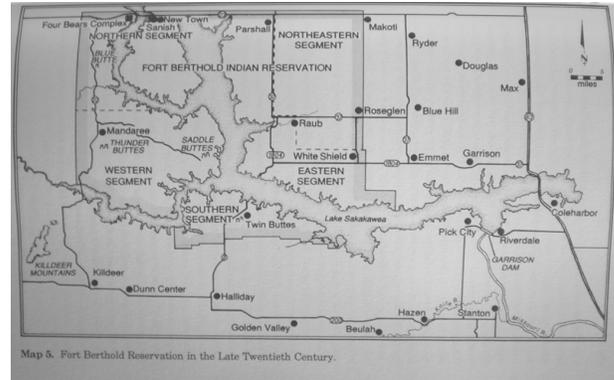
### ***Topophilia: Spirit and Place***

The term “Topophilia” -- meaning a special affinity and understanding of a specific place -- was coined by cultural geographer Yi\_Fu Tuan. The principles behind Tuan’s theory relate to the way we comprehend and value places, and also relates to the research area of spatial cognition, wayfinding, and cognitive mapping. Respect for spiritual content of places and things: suggests that sustainable architecture should pay closer attention to subtle lessons about the inherent spiritual qualities that dwell in the natural world and inanimate objects. These “intangible” qualities and lessons about appropriate conduct are discoverable in the telling of stories and are available only when we help maintain the continuity of the understandings from each generation to the next. “Broken threads” are almost impossible to mend.

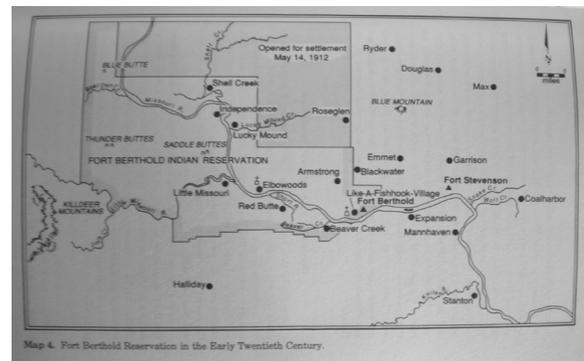


As a student of architecture and “place-making”, I am intrigued with the aurora a place gives off to me. While visiting the farm back near the Missouri River and Indian Hills this past July, to pay my respects to my grandmother who had just passed away, it seemed like each of my relatives had their way of ‘meditating’ on the hills surrounding the site. I took my time next to a rock embedded into the earth, said a prayer to her and said goodbye. Every now and then I took a look around at my family to see how they were doing and some would be near trees or off next to the tilting barn, still others with nostalgic faces staring at the river. Native Americans will continue to relate to places through the appreciation of the space itself. Meaning, through the elements or animals that have occupied each area we encounter, we will maintain that respect for their place and in return learn how each of the elements (rock, tree, river, and plant etc.) or animal has survived so long there, too. So in the tradition of the Three Affiliated Tribes, we respect the past of the space we find ourselves in while continuing to learn from it and moving forward with future hope that the next generation will continue to respect the space too.

Historical maps and photos that document typical villages of the Mandans, Arikara, and Hidatsa in the Missouri Valley, North Dakota can be compared with much older and more durable oral traditions that describe the same places. Each of these community/village settings described and illustrated by Libby, Aheler, Woolworth, and Woods are interesting to read and look at from the perspective of the way these same settings are remembered by people who lived there. Orrin G. Libby’s description (Plates I and II) were of two Mandan villages south of the Heart River. A few errors show (larger holy tepee in center of Plate I) but for the most part, Libby’s maps are still being used today at Fort Clark. The location of the doorways or entrances to the tepees is seen to be of great importance, as it is often the most important element in the identification of a village site (Libby). Plates III and IV are surveys of Hidatsa villages on the Knife River. Characteristics such as no holy tepee, random arrangement with doorways pointed in every direction, and the tepee circles being much deeper than those in the two Mandan sites are all features of a typical Hidatsa village.



Map 5. Fort Berthold Reservation in the Late Twentieth Century.  
 Parks039.JPG  
 reprinted from Parks; Arikara Storytelling (v.4)  
 “Fort Bethhold Reservation in the late 20th Century”



Map 4. Fort Berthold Reservation in the Early Twentieth Century.  
 Parks041.JPG  
 reprinted from Parks; Arikara Storytelling (v.4)  
 “Fort Bethhold Reservation in the early 20th Century”



Parks042.JPG  
 reprinted from Parks; Arikara Storytelling (v.4)  
 “Partial view of Elbowoods, Fort Bethhold Reservation;  
 ca. 1911”  
 Fred Olsen; collections of the State Historical Society  
 of North Dakota





Parkso43.JPG  
reprinted from Parks; Arikara Storytelling  
(v.4)  
“Arikara Medicine Lodge with sacred cedar  
at Like-A-Fishhook Village, 1872”  
Stanley J. Morrow; collections of the State  
Historical Society of North Dakota



Parkso43.JPG  
reprinted from Parks; Arikara Storytelling  
(v.4)  
“Hidatsa scaffolds, lodges, and log cabins at  
Like-A-Fishhook Village, 1872”  
Stanley J. Morrow; collections of the State  
Historical Society of North Dakota

La Verendrye’s documented visit to the Missouri Valley is interesting in how close he got to reach the Fort Berthold site but possibly never reached it. From his encounters with the Ojibway (Anishinabe), it sounds like he may have become acquainted with the Hidatsa but it is doubtful the Mandan (who identify themselves as Nu-a-ta or The People). La Verendrye’s description of the Mandan village holds no characteristics of a classic Mandan village either. However, it may have been a Hidatsa fortified village. Later in May of 1860, La Verendrye discovers an Arikara village site (last village before union with Mandan and Hidatsa). The village was under the leadership of Wolf Chief and Yellow Knife, with Wolf Necklace as assistant. This was an important site because represents the union of the Three Affiliated Tribes.

My research in this area introduced me to several artists who created journals and paintings of the places they have been to capture a place in time. Karl Bodmer is known to have done a few paintings of the Three Affiliated Tribes and that may be one way to save in our memories detailed knowledge about traditions. Another is storytelling, using our ears and imagination to form an image in our heads to be able to pass the story along to future generations, making sure the history of the people would never die. For instance, the stories of the Sun Dance traditions, I have learned are only to be told in the right setting and time of respect because of how sacred the ceremony is. I just hope that each successful generation would hold that same amount of respect for each unique story as it is being passed along from generation to generation.

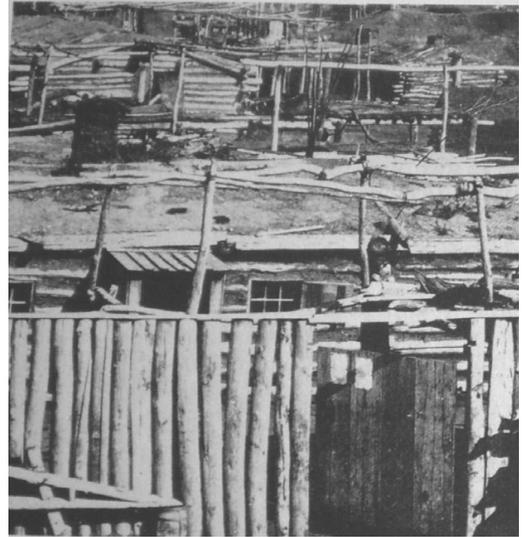
There may have been multiple personalities and tourist characters on each of these expeditions to the Great Plains too. Sociologist Max Kaplan differentiates between two extremes: comparative strangers and emphatic natives. Comparative strangers find security wherever they go by applying the popularly accepted standards of home to things seen. So unless these explorers were vastly hunters and gathers too, they may have found themselves out of their element and had their reservations about the landscape they encountered in North Dakota. Emphatic natives, however, seek by putting themselves in the place of whom they visit.



I am sure at first thoughts of the winters they were told they were going to endure they may have had a second thought or two, but with reassurance from their ‘tour guides’ (Mandan, Hidatsa and Arikara) I would hope they felt they were in good hands with people who knew how to survive through even the coldest January’s to the hottest July’s with minimal resources.

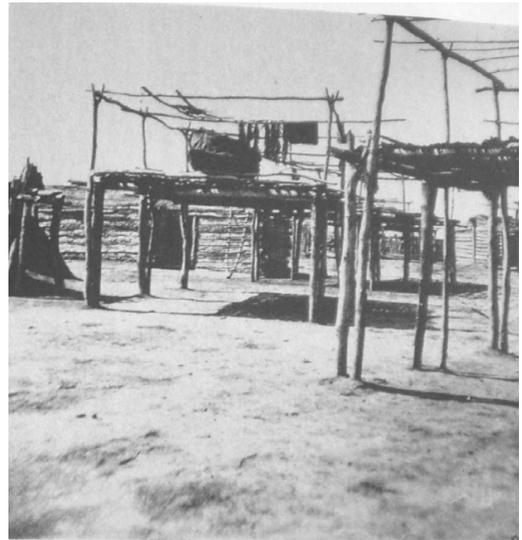
Kaplan reminds us that most tourists fall somewhere between the two poles, but in both cases, it is seeing, no matter how insightful, that lays that basis for the experience of place – and according to Kaplan seeing is the essence of touristic experience. To actually live with the people in whom the designer is building for would be a huge learning experience. An everyday ritual that each culture goes through is important and sometimes can’t be explained or drawn, rather it has to be experienced. This way when the architect/designer is ready to form the spaces form will follow function. This is a huge aspiration of mine and I hope I never impose any disrespectful ideas or uncomfortable spaces on any culture in my journey as an architect.

Every time I think of how to approach my elders on the sensitive topic of how they remember Elbowoods before the flood, I try to imagine what it would be like to be taken from my home suddenly without warning and put into a new space and call it “home”. A few catastrophes have happened in my lifetime that I have seen on TV such as Katrina and 9/11...where many people’s personal spaces, and families were very quickly either victims of death or displacement physically, mentally and most of all emotionally – which seems to last long term. Here is where I want to make sure I come into the picture with an open mind to their wishes for what happened to them. If for the first few interviews it’s just a matter of me listening to their stories of what happened, mad, sad, or whatever, I would like to be there for them. Then from there I want them to know that I have nothing but respect for that past that was lost, stories that we are trying to find and pictures are slowly being put together in our heads for future generations to pass along to their kids.



Parkso44.JPG

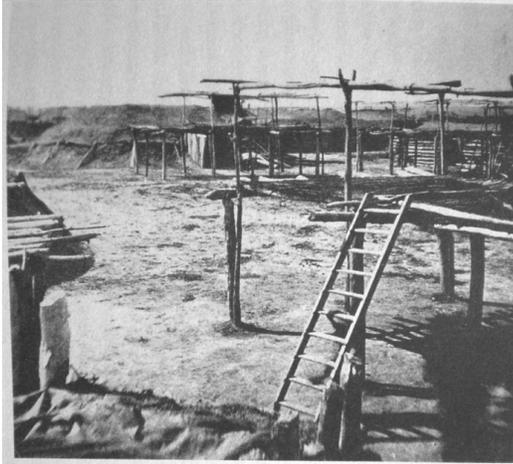
reprinted from Parks; Arikara Storytelling (v.4)  
 “Palisades and log cabins; Arikara section of Like-A-Fishhook Village, 1872”  
 Stanley J. Morrow; collections State Historical Society of North Dakota



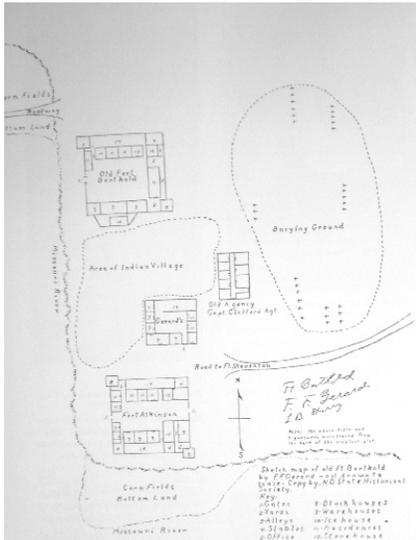
Parkso44.JPG

reprinted from Parks; Arikara Storytelling (v.4)  
 “Drying scaffolds and log cabins; Arikara section of Like-A-Fishhook Village, 1872”  
 Stanley J. Morrow; collections State Historical Society of North Dakota





Parkso45.JPG  
reprinted from Parks; Arikara Storytelling  
(v.4)  
“Arikara scaffolds, sacred cedar tree and  
rock at Like-A-Fishhook Village, 1872”  
Stanley J. Morrow; collections State Historical  
Society of North Dakota



Map of FtBerthold.JPG  
reprinted from Ahler; People of the Wil-  
lows  
“Sketch of old Fort Berthold, 1872” (trading  
post surrounding Like-A-Fishhook)  
Van Ostrand 1942-43: 236 collections State  
Historical Society of North Dakota

A question I might ask elders who lived in these communities is, “What specific thing, event, feeling or tradition would you want future generations to remember about Elbowoods?” The first couple interviews may be a little uncomfortable, but I am confident that I will be able to gain the confidence and trust in my relatives and friends on the Fort Berthold reservation. I will always continue to listen to what they have to say about their experiences, and that I’m not here to trample more on their already invaded past. And if ever I have overstepped any boundaries to make sure they correct me in my researching journey, because I haven’t forgot who I am to this community.

After discussing the memory of Elbowoods with my Dad (Thomas Abe), I learned that the community of Elbowoods did have a somewhat second community called Dogtown. From his recollection, he remembers it being a little bit of a more run-down part of the town, but was never really “separated” from the town like I had suspected earlier. Later that night he called my grandma Virginia Grinnell and asked her if she remembered Dogtown, and she did. He called me back and told me that her memory of it was that it was a place that had so many dogs that at night it was all you heard – them barking. My conclusion to my conversation with my Dad is that Elbowoods may have had these inter-communities, but still had a strong sense of unity built within each citizen that lived there. Because even my grandma Virginia couldn’t stop talking about it when my Dad called her, and each time I talk to her about Elbowoods, there always seems to be a faraway look in her eyes but a lesson in each story. Each time I listen I try to take it as another pathway to these lost communities that I am confident we’ll put back together.

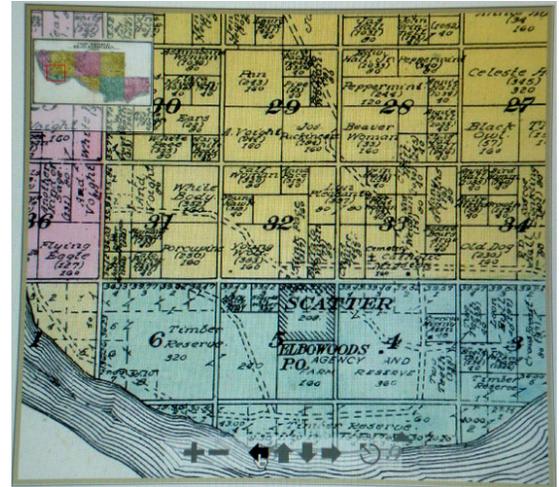
The chapter “Landscape Visualization and Cognitive Mapping”, in *The Visual Elements of Landscape* (Jakle) offers some suggestions for how, as designers, we might be more thoughtful and analytical in the way we experience landscapes. As a designer I would want to make sure I have a keen sense of the environment I am surrounding myself in. Landscape visualization and cognitive mapping skills are a few methods of wayfinding I might use in unique instances to assess a location. When I interviewed my dad last week, I felt that he used his sense of memory and sightseer’s personal geography to help me map my own visual image of what Elbowoods might have looked like years ago.



According to Jakle's article "Landscape Visualization and Cognitive Mapping", in *The Visual Elements of Landscape*, he states that cognitive mapping is a step-by-step associating of various place representations so that being in one place suggests how one might be in another. It is sometimes confusing for me to read maps of the Three Affiliated Tribes from an explorer's point of view because cognitive mapping occurs after perception. I should remember, according to David Canter, that it is the spatial arrangement of places not their visual organization that is crucial.

A common path is something I think is very important in the process of wayfinding and cognitive mapping. Whether one has a map, guide, or is wandering freely, the images that they encounter along their journey are mentally stored and slowly a map is formed in their heads. A general notion of how the landscape is spatially structured is achieved through this method (more so through walking rather than motorized transportation). The most important path I feel in the Fort Berthold community is the Missouri River that was the binding element for all three tribes. This was the path the three tribes traveled up to eventually unite as the Three Affiliated Tribes many years ago. We explored, hunted, lived and died along this river; it will always remain a part of the Mandan, Hidatsa and Arikara.

Wayfinding is an appropriate starting point to try to achieve a "sense" of place. Orienting, choosing the route, keeping the right track, and discovering the objective are a few steps one might follow to start their path to wayfinding and acquiring their "sense" of place (Jakle). G. A. Kelly holds that each and every experience, as it is "absorbed" by a person, is interpreted in the light of previous experience, expectancies, and anticipations until it "makes sense". Perhaps when explorers came to the Great Plains region of North Dakota and encountered the Native American tribes for the first time they already had expectations about what and who they would see. This is a process Kelly calls "construing". I am grateful that the explorer's that met up with the Mandan never gave up hope in trying to achieve a communication bridge. In a way it was like finding a path between languages and cultures to achieve a greater goal of exploring more of who we were and what our landscape was like.



1914 Ogle Map 006.JPG  
 "Historic plat map of Elbowoods and Scatter Village"  
 accessed on-line;  
<http://www.historicmapworks.com/Atlas/US/9545/McLean+County+1914/>

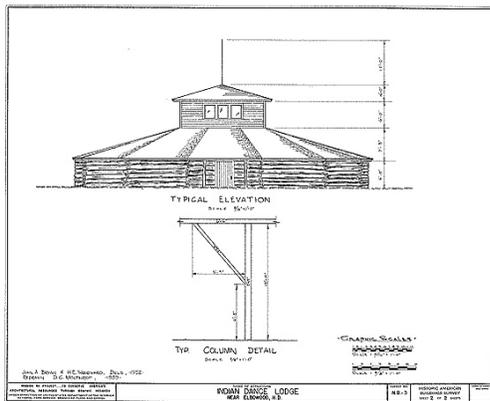


4\_mh\_niwaP/jpg  
 "Nightwalker's Village"  
[http://www.mhanation.com/main/history/history\\_elbowoods.html](http://www.mhanation.com/main/history/history_elbowoods.html)  
 original photo image courtesy of Calvin Grinnell



5\_mh\_niw2P

[http://www.mhanation.com/main/history/history\\_elbowoods.html](http://www.mhanation.com/main/history/history_elbowoods.html)  
original photo image courtesy of Calvin Grinnell



Elbowoods jpg image folder; Elbowoods jpg image folder; 002a.gif  
“HABS recording; drawing of Elbowoods Dance Lodge”

Library of Congress web page  
<http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/nd/00002a.gif>

As new opportunities arise with each passing generation, I believe that there is much potential with the idea of a well-rounded architect with good intentions to work with and meeting the needs of the communities of ailing reservations. Artist James Gibson brought up many points about perspectives and how we relate to them. One such point was: the shrinking of an object with distance implies a time dimension, or length of time needed to reach the object. I understand that he was probably meaning it in a way that a person walking or driving away from a place meant it would take a longer time to reach that place again. However, I imagined a different perspective. Earlier, Jakle describes visualizing the landscape through the scope of a vista or panorama. There are many points (points of pause) such as Crows Flies High Point on the Fort Berthold Reservation where tourists stop to sightsee the Missouri River and Saddle Butte and other points of interest. Back to the “shrinking of an object” perspective, I couldn’t help but think of a few of my grandmothers sitting at a point where they were able to watch Elbowoods shrink as it was being flooded – perhaps implying to them a time dimension as well that they will never reach that place again. Nothing, however, is impossible to recover from past losses. There are all kinds of needs that need to be met on each reservation, and it is important to make sure to take into account each landscape the reservation is set in to assure each community will feel safe and at home in their new environments. Being mindful of what each community’s “vistas” are, and where their places of refuge are all the little details an architect should do while researching for an upcoming project.

Another point Jakle makes is that redundancies make the strongest visual images, and that two or more symbols of similar kind reinforce the same visual effect – such reduplication suggests movement. I thought about how the repeating scatter patterns indicated a community orientation in Elbowoods that encouraged movement in the village. That movement may have sparked some basic ties of friendship that even my dad remembers to this day. It is something that intrigues me to this day – the ‘scatter’ pattern, because I never thought that a chaotic pattern would bring people together. I appreciate Jakle’s analogy to music as well.

Native Americans have always been very close to their songs, whether in times of celebration or mourning, they have an appropriate song for each ceremony or occasion. It makes sense to me that as the Three Affiliated Tribes made their journey up the Missouri River and watched the environment unfold in a sequence, with each new blessing and burden they encountered, some form of music was there with them.

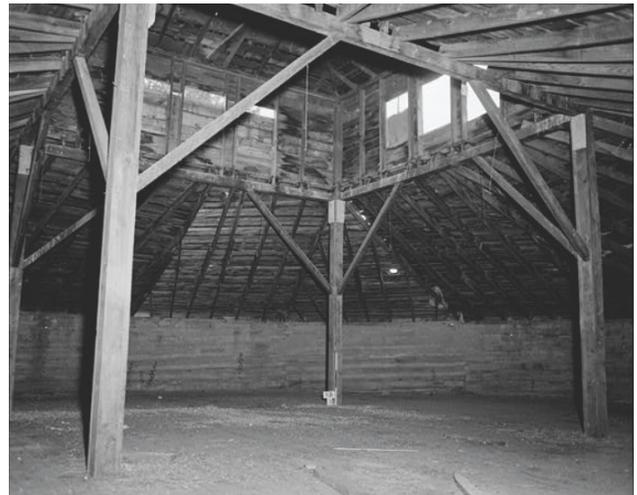
In small town communities, such as the town I grew up in, it had a basic community-feel, but it was more in the public light rather than in the neighborhood. We would socialize at basketball games, potlucks, or church services but when we went back to our homes, it was very private. That is where I saw a contrast in community communication from town to town when I was a little girl. Then I would go visit my family on the reservation and notice that, they would be social on the public level at basketball games, church services and community get-togethers as well as the neighborhood kids and families would all know each other. It felt like there were no boundaries on the reservation when it came to playing in a backyard. I even remember my walks to the convenience store with my cousins; we would pass their friends along the way and stop by their houses to say “hi”. So as I reconstruct and rebuild these places to better-serve these communities, one of my main goals is to not lose that basic community trust and comfort-ability in each other to just walk anywhere and still feel safe and ‘at home’ while still meeting their human needs, values and purposes that my own home town met for me.

It is a good idea to look at the patterns of past communities such as Sahnish, Van Hook, Red Butte, Lucky Mound, Nishu, Beaver Creek, Independence, Shell Creek, Charging Eagle and Elbowoods. All these communities were affected by the Garrison Dam before the 1940s and seemed to be prospering before that era. The residents of these communities all seemed to building a strong sense of place within each settlement and made it their own.



Elbowoods jpg image folder; Elbowoods jpg image folder; nd.jpg

“HABS recording; photo of Elbowoods Dance Lodge”  
 Library of Congress web page  
<http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/nd/00002a.gif>



Elbowoods jpg image folder; Elbowoods jpg image folder; 103033pt.gif

“HABS recording; interior photo of Elbowoods Dance Lodge”  
 Library of Congress web page  
<http://memory.loc.gov/cgi-bin/displayPhoto.pl?path=/pnp/habshaer/nd/00002a.gif>

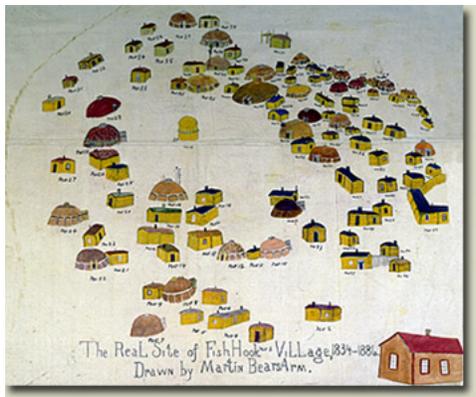




Elbowoods jpg image folder; Elbowoods jpg image folder; 002a  
 “Indian Lodge; Dance Lodge at Elbowoods 1911”  
 Fred Olsen photo collection; State Historical Society of ND



Elbowoods jpg image folder; 1862\_1874\_large.jpg  
 identified as Sanish 1862-1874; or “Like-A-Fishhook Village, 1872”  
 collections State Historical Society of North Dakota



Elbowoods jpg image folder; 4 bear 142.jpg  
 “Maryin BearsArm drawing of Like-A-Fishhook Village”  
 collections State Historical Society of North Dakota

For example, Bobtail Bull served as the first councilman representative at Shell Creek District and to prevent the children from losing their traditional values, he convinced the BIA to start a day school at Shell Creek so the kids could stay and attend school there and not be sent away to boarding school. Persistent acts such as this is what can build a durable space for a strong community in the future that will hold a perishing community together. By perishing I mean, losing their traditional values with each passing generation. The stories are waiting to be told in our elders memories; we just need to provide the proper spaces for the youth to learn their heritage and not have to wonder anymore what these places were like.

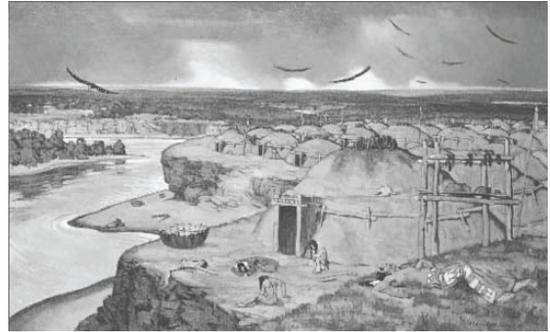
The storytelling traditions of each distinct member group of the Three Affiliated Tribes are unique and yet bonded with memories to their past. As with most cultures, without struggles, it wouldn't make them who they are today. The Mandan, Hidatsa, and Arikara are different in that they endured challenges together, and had to pull through together sometimes without choice. And even to this day, we are still united as brothers and sisters, but still remember who we are individually. One story, of Four Bears, during the smallpox epidemic, when he lost his whole family to the disease, he ended up turning on the White man and even his own brother, the Mandan peoples, calling them: “mortal enemies”. Even though most accounts have described Mahto Tope (Four Bears) as a brave, courageous, charismatic, generous, fearless, and religious man, it was this very sad time that the Three Affiliated Tribes went through together and lost many of their people that made them question one another at times. The relevant differences I have heard most people describe each tribe as is that the Mandan as the most friendly, the Hidatsa as a social and hospitable tribe (joking and friendly as well), while the Arikara as the more combative and teasing tribe. How I interpret it is we balance each other very nicely. We need the calmness of the Mandan to balance off the aggressiveness of our Arikara nation. While the overall thread of the Hidatsa social kindness and good-heartedness (with their occasional jokes) keeps the Three Affiliated Tribes a strong united band of tribes that will continue to prosper for many generations to come.



### ***Reconciling Technology/Self-sustaining Architecture***

Canadian Architect Douglas Cardinal, a “First Nations” American Indian and designer of the Museum of the American Indian in Washington, DC, has suggested that the first step in his problem-solving methodology is to seek the wisdom and counsel of elders. The second step is, then “declaring vision”. Through the historical period, the Mandan, Hidatsa, and Arikara people used a variety of technical building practices well-suited to their environmental context. Knowledge about these learned traditions of vernacular architecture was transmitted verbally and through well-defined cultural practices. By paying careful attention to local details, over time architecture develops a much more “sustainable” fit with its environmental context. Adaptation of vernacular buildings closely matches a Darwinian, “genetic” model of natural selection. Most Native American populations also placed very high value, traditionally, on showing respect for the spiritual qualities of natural things, which was then extended to using all parts and to showing appreciation for the enduring spirit of things we disturb through our human actions. Understanding past traditions of building methods and place-making enables us to test the extent to which technologies, building practices, and cultural expression can be applied and celebrated through contemporary architecture. These insights will yield a tangible list of design principles that can be applied through contemporary architecture that is demonstrably better-suited to the cultural context.

We sincerely thank you for your interest in our research project, and we especially thank McNair Scholars coordinator Kay Modin at the NDSU TRiO office, family elders and spiritual leaders who contributed helpful perspectives, the archivists at the North Dakota Institute for Regional studies, and the staff at the State Historical Society in Bismarck for assisting us with access to their collections.



Elbowoods jpg image folder; 1837\_large.jpg  
reprinted from Parks; Arikara Storytelling (v.4)  
“Great Epidemic of the Mandans, 1837”  
painting by W. Langdon; National Geographic  
Society



Elbowoods jpg image folder; Chief WhiteShield.jpg  
“White Shield, Son-of-Star, Arikara Chief and Peter  
Beauchamp, 1867”  
source unattributed



Elbowoods jpg image folder; NDIRS Sanish  
Rodeo.jpg  
“Sanish, North Dakota, ca. 1916) accessed by  
DigitalHorizons online  
collections North Dakota Institute for Reg-  
ional Studies





Knife River Indian Vilages National Historic Site web pasge;  
Contemporary Native American architecture folder,  
Architectural design by Surrounded-by-the-Enemy (Denby Deagan)



Elbowoods jpg image folder; NDIRS Sanish 1916 enlarged.jpg  
“Sanish, North Dakota, 1916) accessed by DigitalHorizons online collections North Dakota Institute for Regional Studies



Elbowoods jpg image folder; Elbowoods tent.jpg  
accessed through DigitalHorizons online (January 08, 2008)  
collections State Historical Society of North Dakota

***Observations/Looking forward;  
anticipating design implications and needs  
of culturally-meaningful architecture for the  
future:***

Based on research analysis of the record of the past, a need is suggested for buildings and architectural settings serving six main activities that are relevant to cultural renewal and sustainability of communities currently embodied by Mandan, Hidatsa, and Arikara people. Design principles that ought to be met through new building designs, will be recommended for each activity set. The activities are,

- places for celebration and honoring (sweat-lodge or medicine lodge),
- places for feeding and nurturing community (community centers appropriately-accessible to elders and other generations),
- places of teaching and cultural learning (local schools that value cultural distinctiveness),
- places for dwelling and healthy family life (private homes and other domestic settings),
- places for healing and helping (a proposed “Elbowoods Memorial Healthcare Outreach Center”), and
- places of cultural renewal (unified sustainable communities).

***Predicting architectural programmatic requirements for a place of celebration and honoring heritage, (such as a sweatlodge, medicine lodge, or powwow grounds):***

*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- A central space should be provided for the Medicine Man or healer.
- Two distinct seating areas should be provided for men and women participating in ceremony.
- Entry and egress should be through a lowered “portal”, necessitating stooping, bending, or crawling.
- Purifying experience is embodied by a pit in the center where water is poured over heated stones.
- A gathering space is to be provided outside, where women can serve food after the ceremony.



**Predicting architectural programmatic requirements for a place of nurturing community and sharing of nourishment for the body and spirit (such as a multi-generational community center):**

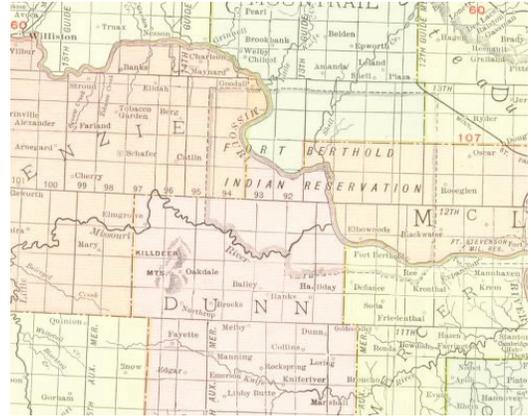
*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- A big kitchen is required where younger generations can prepare food for elders.
- A large, open gathering space should be provided, which is flexible enough for eating, dancing, honoring, sporting events of games.
- Multiple sets of restrooms should be provided in various parts of the building
- Large windows placed high in the space are appropriate to let daylight in, but belief systems dictate that windows must be screened while people are eating at night.

**Predicting architectural programmatic requirements for places of cultural learning and teaching (such as local, neighborhood schools that value cultural distinctiveness):**

*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- A special speech-therapy space should be provided for language renewal. This space should be centrally-oriented, with views outward.
- A play area should be provided that will make use of cultural lessons from the past as a mode of teaching.



Elbowoods jpg image folder; Elbowoods map\_b.jpg  
 “Elbowoods Map; undated (ca. 1910)”  
 collections North Dakota Institute for Regional Studies



Elbowoods jpg image folder; Elbowoods Santee Hall.tif  
 accessed through DigitalHorizons online (January 08, 2008)  
 collections State Historical Society of North Dakota

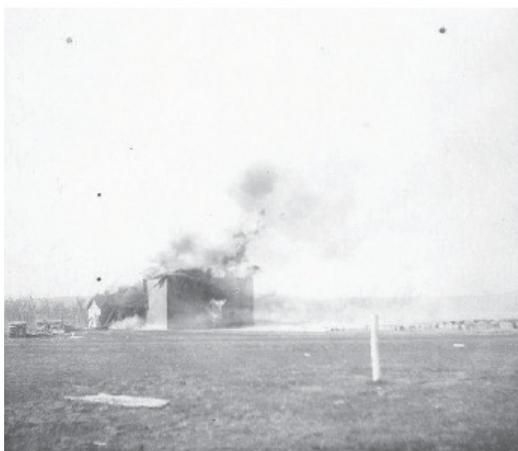


Elbowoods jpg image folder; Elbowoods FourBears Bridge.jpg  
 “Four Bears Memorial Bridge over Missouri, Elbowoods, ND (ca. 1911)”  
 accessed by DigitalHorizons online;; Eva Nelson photographer  
 i.d. rs000550 N.D. Institute for Regional Studies





Elbowoods jpg image folder; NDIRS Sanish Rodeo.jpg  
 “Snyder’s Tracdtor Train Hauling supplies to Ranch Near Elbowoods”  
 accessed by DigitalHorizons online; Ronald Olin postcard collection  
 i.d. rs003331 N.D. Institute for Regional Studies



Elbowoods jpg image folder; FtBerthold FlourMill Burning.jpg  
 “Fort Berthold Flour Mill Burning, Elbowoods, ND (ca. 1904-05)”  
 accessed by DigitalHorizons online;  
 i.d. A0994 N.D. Institute for Regional Studies

***Predicting architectural programmatic requirements of places for dwelling*** and healthy family life (private homes and other domestic settings, including specific living environments for elders):

*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- An essential space that should be provided in all dwelling settings is a gathering and conversational space large than a typical living room.
- Kitchen spaces should be sized and configured to allow for several generations of family to help with preparing and serving food to elders.
- Social spaces, including living and kitchen spaces, should be more of an open plan configuration.
- Wherever possible, a basement space should be provided as a storm shelter and place of refuge.
- East-facing windows should be emphasized, to welcome morning sunlight, and south-facing windows should be utilized to gather solar energy during winter months.
- Specific storage spaces should be provided to accommodate specialized activities associated with that family or clan, such as places for dance regalia or places to store give-aways when a family is so-honored.

**Predicting architectural programmatic requirements for a place of healing** and helping (including “Elbowoods Memorial Healthcare Outreach Center,” proposed in recent U.S. federal legislation):

*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- Waiting rooms should serve as settings for family support. A key aspect of healing body and spirit comes from the strength of family and the resiliency of culture.
- A unit (alternative to a chapel) dedicated to purifying and unifying people’s energy.
- Central teaching space for elders to help answer questions about healing processes that are the backbone of Native American culture.
- Children’s play area, staffed with a “nanny” or “auntie”.
- Use colors and lighting throughout to help stabilize and spiritually heal.
- Dialysis unit and chemical abuse recovery unit (therapy); tragically common needs on many reservations.
- An indoor or outdoor space for dance or other artistic expression of the healing spirit.

**Predicting architectural programmatic requirements for places of cultural renewal** (overall design/planning principles for unified sustainable communities):

*[include one or two architectural illustrations; is there a good Hidatsa word for this activity?]*

- Allow for spontaneous “scatter village” configurations and less overtly structured settlement patterns.
- Relate the layout of communities as closely as possible to the Missouri River.
- Provide suitable places within the pattern of community for powwow celebrations, gatherings, and other forms of cultural renewal. Use the places as organizers for neighborhoods within the community.



Elbowoods jpg image folder; Berthold Village 1878.  
 jpg  
 “Indian Vilage of Berthold, Dakota Territory (ca. 1878)”  
 accessed by DigitalHorizons online; O.S. Goff photographer  
 i.d. AH00088-20; N.D. Institute for Regional Studies



Hidatsa Place images 10\_2008 folder; Hidatsa\_032.  
 jpg  
 “Interiour scene of Hidatsa earth lodge”  
 Ahler; *People of the Willows*  
 attribution:

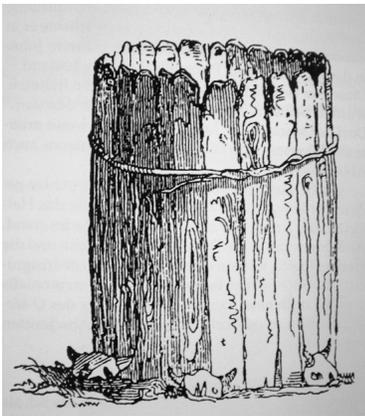




Hidatsa Place images 10\_2008 folder; Hidatsa\_033 .jpg  
 “Indian artist’s version of Mandan village, ca. 1900”  
 Ahler; *People of the Willows*  
 attribution: State Historical Society of N.D.



Hidatsa Place images 10\_2008 folder; Hidatsa\_034 .jpg  
 “Catlin’s view of O-kee-pa ceremony near Fort Cklark, 1832”  
 Ahler; *People of the Willows*



Hidatsa Place images 10\_2008 folder; Hidatsa\_035 .jpg  
 “Karl Bodmer/Maximilian rendering of Ark of First Man”  
 Ahler; *People of the Willows*

Carol Herselle Krinsky has published a book, *Contemporary Native American Architecture*, that considers “contemporary” architectural responses made by specific native American groups throughout North America in the final three decades of the 20th-century.

Notes from Krinsky:

Crisis of culture resulted from Dawes Act, perhaps led to catalyzed cultural innovation. (p. 15) 1934 Indian Reorganization Act (IRA) a.k.a., Wheeler-Howard Act forms basis for reservation life today. Shared land was held in perpetual trust, while allotment lands remained in individual, family ownership.

“Unfortunately, the traditional and often internally dynamic methods of selecting leaders, the autonomy of small bands, decisions made by consensus, and time-tested negotiating procedures were downgraded by the Anglo-inspired written constitutions. Elections held to decide whether a tribe would accept new ways of organizing led to discord that sometimes endures today.” (p.15)

John Collier, Commissioner of Indian Affairs from 1933 to 1944 (during the New Deal) advocated “support for tribal life and culture embodied in new government-sponsored buildings [and Historic American Buildings Survey documentation of extant architecture]. He announced plans for reservation buildings that would, “be an additional step toward Indian control of Indian activity.” With Money supplied by the Public Works Fund, schools, hospitals, and homes were to be built “to fit the local landscape . . . use local building materials, and . . . employ the Indians and other such workers, preferably local, as may be needed.” Architects – there were then no Native American ones – would “strive to embody the spirit of the Indians in these Indian buildings.” He believed that there ought to “flower into expression” a new architecture [an expectation realized a generation later]. (p.16)

**Authenticity:** “folk traditions of architecture are different from technologically-oriented expressions. Quoting Janet Abu-Lughod’s characterization of folk vernacular building,

“In our idea of the traditional are the following assumption: that it is collectively built (that is, it derives from some shared sense of how its pieces connect to one another, how each dwelling is related to the space of others); that it is collectively interpreted (that is, that common meanings are attributed to its forms); and that it is collectively consumed (that is, that the use to which any single part is put is somehow related to the use of the whole ensemble.” (p.41)



**Culturally-meaningful treatment of individual architectural elements.**

Rather than copying traditional forms, inventive architecture may abstract or paraphrase traditional architecture. Modernity needs not imply that clients want full assimilation of Anglo ways, but that retention and expression of cultural ceremonies and forms of interaction may yield buildings that instill pride and respect. (p.63)

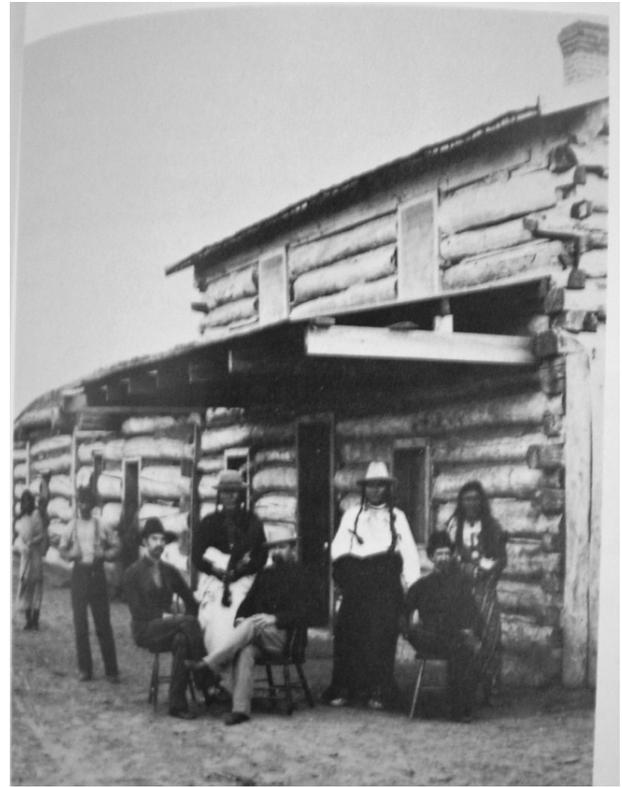
Adaptation of material technologies, particularly log building, is evident in many Native American adaptations from 1890 to 1940s; a tradition that continues in some Great Plains.

**Modified Continuity and Paraphrasing.** (pp.69-81)**Symbolic forms.**

“It is not for an outsider to assess the power of the symbolic designs produced for Native Americans, but the proposals can be described and local opinion can be taken into account. Most architectural solutions that emphasize derivation from symbolic forms fall into two broad categories: the diagram and the zoomorphic. Many of the diagrams are based on the circle – seen as the circle of life, medicine wheel, wind rose, and cosmos. The zoomorphic shapes tend to emphasize birds, serpents, and turtles associated with the specific tribe’s cultural narrative and storytelling traditions. (p.118)

Thomas Hodne, working with Damberg, Scott, Peck & Booker, designed the (tribally-sponsored) Fond du Lac Community College in Cloquet, Minnesota.

At the Knife River Indian Villages National Historic Site, the architect Surrounded-by-Enemy designed for the exterior layout a semi-abstract eagle, sacred to the Three Affiliated Tribes. This “motif” is not simply painted or appliqué; the architect believes that decoration must be intrinsic to the structure. (p.145)

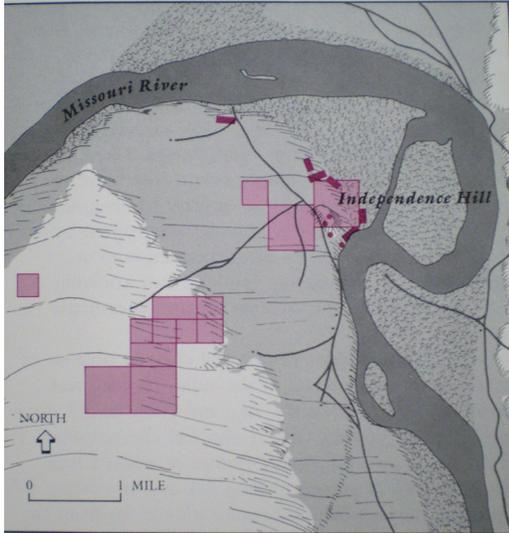
**References to Nature.** (p.148)**Embodiment of Values.** (p.167)**Appropriate Processes.** (p.172)

Hidatsa Place images 10\_2008 folder; Hidatsa\_036.jpg  
 “Trader’s Store, Fort Berthold, Dakota Territory”  
 Ahler; *People of the Willows*  
 attribution: F. Jay Haynes photo, 1880; Montana  
 Historical Society H-346

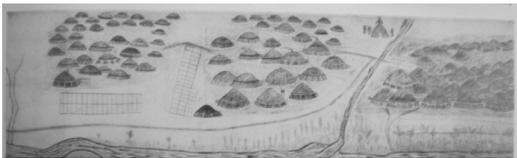


Hidatsa Place images 10\_2008 folder; Hidatsa\_040.jpg  
 “Dismantling Lodges at Like-A-Fishhook; ca, 1887”  
 Ahler; *People of the Willows*  
 attribution: AMNH 15979





Hidatsa Place images 10\_2008 folder; Willows\_030 .jpg  
 “Sketch of central ark of lower Mandan Village near Fort Clark”  
 Ahler; *People of the Willows*  
 Karl Bodmer 1833-34; courtesy of Joslyn Gallery, Omaha, NE



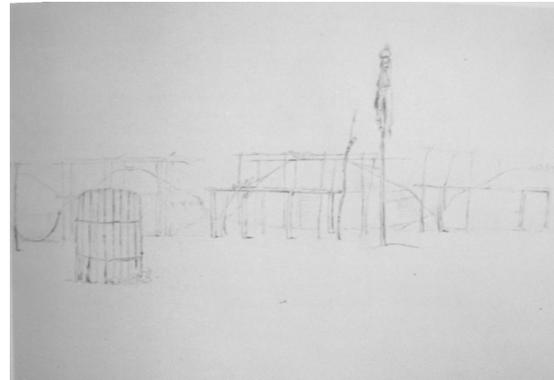
TRiO McNair and PND papers folder; Hidatsa\_040 .jpg  
 “Dismantling Lodges at Like-A-Fishhook; ca, 1887”  
 Ahler; *People of the Willows*  
 attribution: AMNH 15979



TRiO McNair and PND papers file  
 “Like-A-Fishhook Village”  
 attribution: State Historical Society of North Dakota

Deagan (Surrounded-by-Enemy), Dardis and Lervik theses,  
 Architectural expression of the Totemic (clan) system. (Dardis, p.7)  
 Architectural embodiment of language and religion. (Dardis, p.8)  
 Form embodies Climate, Social organization, History and traditions of the distant past, religion and spiritual beliefs, technology, and economics. (Dardis, p.12)  
 Importance of materials. (Dardis, p.15) Native American respect for nature is embodied in the understanding that buildings and the materials that go into making them were once living things with spiritual meaning and purpose as part of the unified cosmos. Appropriate building materials, the proper way to gather them and assemble them into a lodge were all prescribed by tribal custom. [Lervik]

Footnotes and reference resources cited:



Hidatsa Place images 10\_2008 folder; Hidatsa\_038 .jpg  
 “Map; Independence, 19802 USGS Topographic Overlay”  
 Ahler; *People of the Willows*





TRiO McNair and PND papers file  
"Archaeology at Like-A-Fishhook Village; ca. 1952"  
attribution: State Historical Society of North Dakota



TRiO McNair and PND papers file  
"Elbowoods Catholic Mission School; 1939"  
attribution: State Historical Society of North Dakota



TRiO McNair and PND papers file  
"Archaeology at Like-A-Fishhook Village; ca. 1952"  
attribution: State Historical Society of North Dakota



6\_4 bear127.jpg  
"Sanish, ND; ca. 1930"  
[http://www.mhanation.com/main/history/history\\_elbowoods.html](http://www.mhanation.com/main/history/history_elbowoods.html)

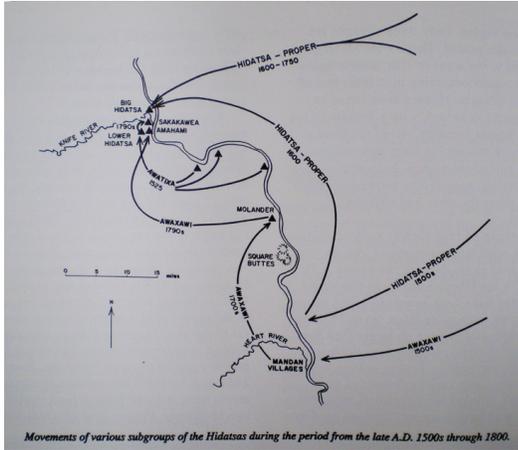


Hidatsa Place images 10\_2008 folder; Willows\_041 .jpg  
"Cutting Hair in Loving Tribute"  
Ahler; *People of the Willows*

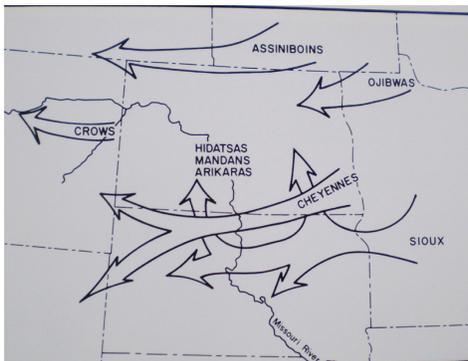


Hidatsa Place images 10\_2008 folder; Willows\_042 .jpg  
"Doubl Ditch Mandan Village"  
Ahler; *People of the Willows*





Hidatsa Place images 10\_2008 folder; Willows\_043 .jpg  
 “Map: Movements of various Hidatsa during period 1500s through 1800”  
 Ahler; *People of the Willows*



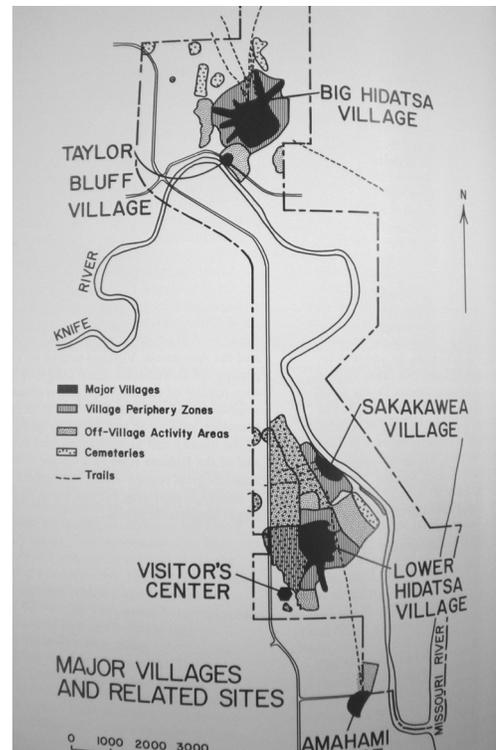
Hidatsa Place images 10\_2008 folder; Willows\_044 .jpg  
 “Movement of Horse nomad tribes onto the Plains 18th and 19th centuries”  
 Ahler; *People of the Willows*



Hidatsa Place images 10\_2008 folder; Willows\_045 .jpg  
 “Knife River Indian Village aerial photo”  
 Ahler; *People of the Willows*  
 attribution: Russ Hanson photo

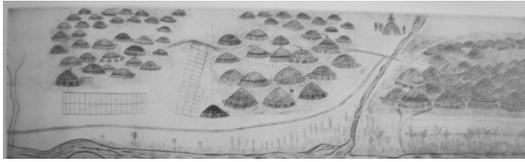


Hidatsa Place images 10\_2008 folder; Willows\_004 .jpg  
 “View across the Knife River toward Sakakawea’s Village”  
 Ahler; *People of the Willows*  
 attribution:: George Catlin, ca. 1832  
 Smithsonian Institutional National Museum of American Art



Hidatsa Place images 10\_2008 folder; Willows\_006 .jpg  
 “Map; Major Hidatsa Villages and Related Sites”  
 Ahler; *People of the Willows*

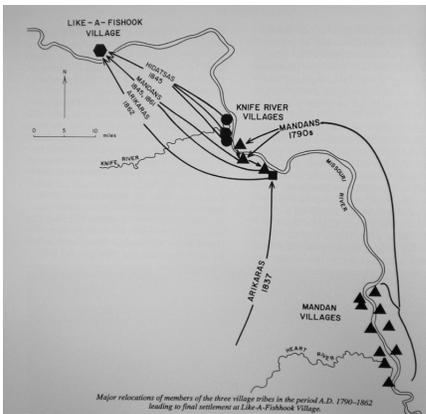




Hidatsa Place images 10\_2008 folder; Willows\_002 .jpg  
 “Sitting Rabbit’s depiction of three historic Hidatsa villages at Knife River”  
 Ahler; *People of the Willows*  
 courtesy; State Historical Society of N.D.



Hidatsa Place images 10\_2008 folder; Willows\_007..jpg  
 “Calf-Woman setting up Hidatsa tipi on Ft. Berthold Reservation”  
 Ahler; *People of the Willows*  
 attribution: Gilbert L. Wilson photo (1909);  
 Minnesota Historical Society



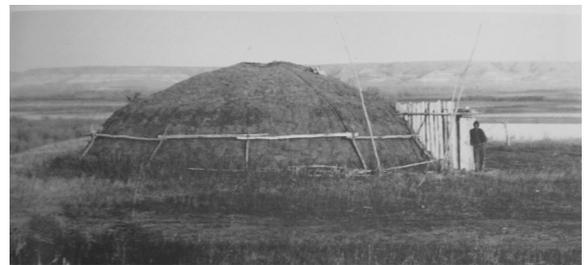
Hidatsa Place images 10\_2008 folder; Willows\_010 .jpg  
 “Relocations of Three Affiliated Tribes to Like-A-Fishhook, 1759-1862”  
 Ahler; *People of the Willows*



Hidatsa Place images 10\_2008 folder; Willows\_012 .jpg  
 “Mandan Village at Fort Clark”  
 Ahler; *People of the Willows*  
 attribution: George Catlin painting; Smithsonian National Museum of American Art



Hidatsa Place images 10\_2008 folder; Willows\_014 .jpg  
 “Model of historic Hidatsa circular earth lodge”  
 Ahler; *People of the Willows*  
 reconstruction by Dan Aird  
 based on data collected by Gilbert and Frederick Wilson

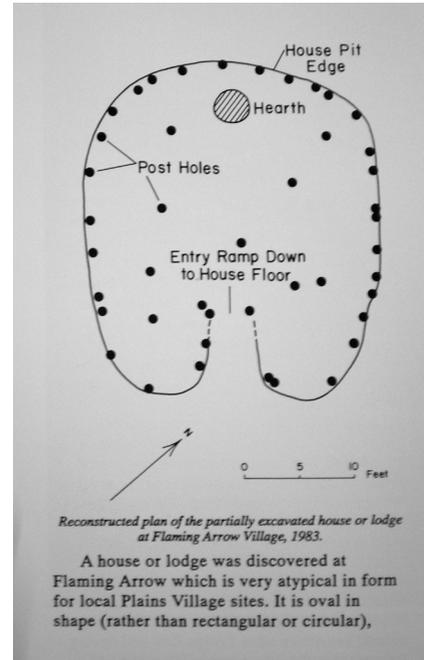


Hidatsa Place images 10\_2008 folder; Willows\_015 .jpg  
 “Circular Hidatsa earth lodge on Fort Berthold reservation”  
 Ahler; *People of the Willows*  
 attribution: L.A. Huffman photo (1908)  
 courtesy of Montana Historical Society

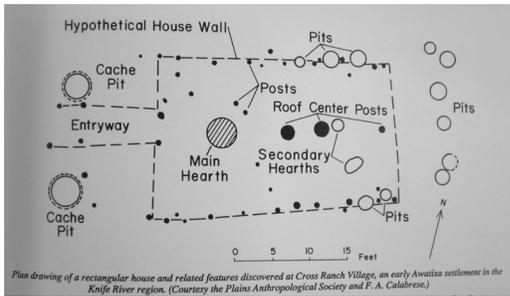




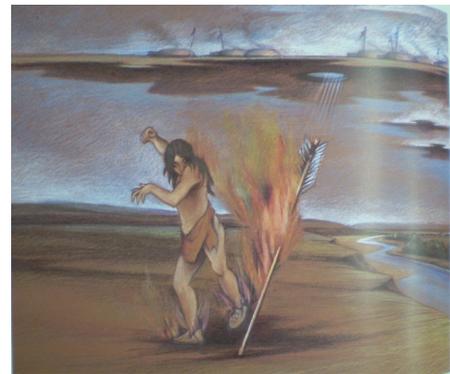
Hidatsa Place images 10\_2008 folder; Willows\_016 .jpg  
 “depiction of dispersed Awatixa Hidatsa settlement near mouth of Knife River; A.D. 1400-1450”  
 Ahler; *People of the Willows*  
 attribution: drawing by Marcia Goldenstein



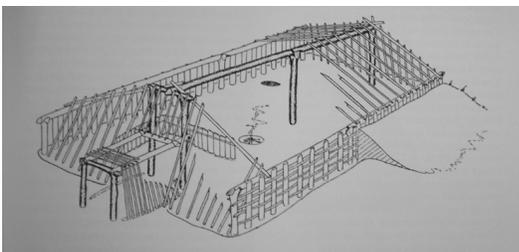
Hidatsa Place images 10\_2008 folder; Willows\_022 .jpg  
 “Reconstructed plan of partially excavated lodge at Flaming Arrow Village, 1983”  
 Ahler; *People of the Willows*



Hidatsa Place images 10\_2008 folder; Willows\_019 .jpg  
 “Features of rectangular house; early Awatixa Hidatsa settlement near mouth of Knife River; A.D. 1400-1450”  
 Ahler; *People of the Willows*  
 Plains Anthropological Society and F.A. Calabrese



Hidatsa Place images 10\_2008 folder; Willows\_023 .jpg  
 “Artist’s depiction of Charred Body story”  
 Ahler; *People of the Willows*  
 attribution: drawing by Marcia Goldenstein



Hidatsa Place images 10\_2008 folder; Willows\_021 .jpg  
 “Speculative reconstruction early Plains Village rectangular house”  
 Ahler; *People of the Willows*  
 attribution: courtesy W. Raymond Wood



# “People Architecture for the Three Affiliated Tribes: Sustaining Community, Architectural Expression, and Cultural Identity”

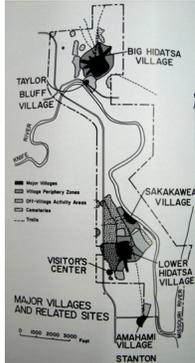
Marita Abe; McNair Research Scholar

Steve Martens, Associate Professor; Research Mentor

## “Reflecting on the past . . . ”

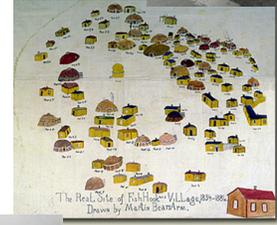
### A. Elders Sharing Knowledge

Through the historical period, the Mandan, Hidatsa, and Arikara people used a variety of technical building practices well-suited to their environmental context. Knowledge about these learned traditions of vernacular architecture was transmitted verbally and through well-defined cultural practices. By paying careful attention to local details, over time architecture develops a much more “sustainable” fit with its environmental context. Adaptation of vernacular buildings closely matches a Darwinian, “genetic” model of natural selection.



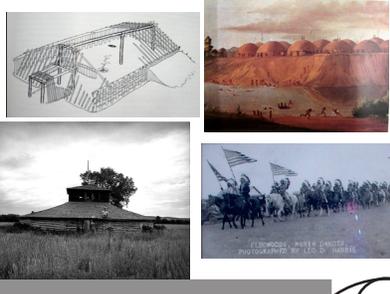
### B. Research Methods Historic Architecture

Process and methods used in researching historic architecture. Historical documentation, shared knowledge, and physical remnants of buildings and communities enable us to discover relevant architectural patterns. Evolution and change in building practices has been documented, but these past traditions have not been thoroughly interpreted in terms of the architectural implications of practices, technology, and cultural meaning. Architectural lessons about the past can be distilled and interpreted based on thoughtful examination of stories, family memories, images, maps, and careful listening (processing) of selected information.



### C. Synthesizing Cultures

The Three Affiliated Tribes demonstrate a remarkable experience with formation of communities, closely connected with the Missouri River. Several of these communities – most notably Elbowoods -- exist today only in the form of memory and the retelling of stories about their place and meanings. As “travelers”, the Three Affiliated Tribes have demonstrated a very open mind to the idea of learning from other cultures they encountered. This admirable quality has yielded a healthy, sustainable “resiliency” that has allowed the communities to revive and flourish once again despite the effects of historical cultural assimilation.



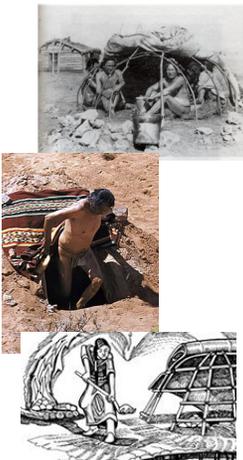
### D. Forming/ Transforming Communities

As “travellers”, Mandan, Hidatsa, and Arikara people have extensive experience with formation of communities: The historical record of photos, maps, stories, and images enables us to examine the evolution in architectural patterns from Slant Village and Double-Ditch, to Knife River, then Like-A-Fishhook/ Fort Berthold, Elbowoods, and the contemporary communities of New Town and White Shield. Each of these settings embodies a cultural “episode” in which the physical place reflects the fusion of cultural practices. Lost settings like Nishu Village, Shell Creek, Independence, Lucky Mound, and Sahnish also contain instructive lessons about patterns of community. The substantial historical record shows that communities formed after contact with European immigrants reflect a combination of European planning principles (based on engineered formulas such as those of the land survey and planned railroad towns).



### H. Accommodating Gender Roles

Jungian psychology, personal expression of id and ego, vs. cultural expression of traditional values and gender roles. Traditionally, places (including the two banks of the Missouri River on which Mandan, Hidatsa, and Arikara people settled) were associated with male and female spirituality. Architects need to place themselves in a position of educating clients by exploring preconceptions and asking questions that get at the root issues of the desire for personalization of individual uniqueness, in relationship to the unifying qualities of shared culture. Architecture can help mediate and balance between individuality and sustainable, shared cultural values. Cultivated gardens are a culturally-important expression of sustainable, renewable relationship to the natural setting.



### G. Reconciling Technology/ Self-sustaining Architecture

Understanding past traditions of building and place-making enables us to test the extent to which technologies, building practices, and cultural expression can be applied and celebrated through contemporary architecture. These insights will yield a tangible list of design principles that can be applied through contemporary architecture that is demonstrably better-suited to the cultural context.



### E/F. Policy-making/ Negotiating Architectural values

There is great potential to learn from past mistakes in the way decisions are made about architecture and community. Much like the discredited Urban Renewal policies of the 1960s in American cities, settlement patterns and well-honed indigenous building methods from the period 1804 to 1952 have largely been erased from the landscape of the Fort Berthold Reservation lands as a result of dam construction and reservoir flooding caused by the US Army Corps of Engineers. Non-inclusive decision-making methodologies – though efficient – seldom lead to sustainable outcomes in terms of architecture, community, ecology, or economics. It is important to advocate architectural processes through which local people can get involved and realize a meaningful sense of ownership of community. Decision making processes driven by power differential, intimidation, domination, and exclusivity are generally less sustainable over time.



### I. Topophilia: Spirit and Place

Respect for spiritual content of places and things: Sustainable architecture should pay closer attention to subtle lessons about the inherent spiritual qualities that dwell in the natural world and inanimate objects. These “intangible” qualities and lessons about appropriate conduct are discoverable in the telling of stories and are available only when we help maintain the continuity of the understandings from each generation to the next. “Broken threads” are almost impossible to mend.



# “People Architecture for the Three Affiliated Tribes: Sustaining Community, Architectural Expression, and Cultural Identity”

Marita Abe; McNair Research Scholar

Steve Martens, Associate Professor; Research Mentor

## “ . . . Lessons for the future ”



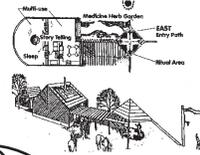
### Sweatlodge/Medicine Lodge A place for celebration and honoring

- There should be a central place for the Medicine Man or healer
- Two distinct seating areas need to be set aside for the men and women participating in the ceremony
- The entrance ought to be low enough for one to crawl out of (rebirth experience)
- The sweatlodge should provide a pit in the middle with stones to pour hot water over (purifying experience)
- Located outside of the sweatlodge ought to be a gathering space for the women to serve food after the ceremony



### Home: A place for dwelling and healthy family life

- The designer must include a space dedicated for gathering and visiting (larger than regular living room spaces)
- There ought to be a kitchen space large enough and configured for everyone to help with preparing and serving food to the elders
- These social spaces (kitchen, living, dining) all should be more of an open floor plan
- Include a basement space as a storm shelter and place of refuge. This is an important space for this area of this country (weather)
- East-facing windows should be emphasized, to welcome morning sunlight, and south-facing windows should be utilized to gather solar energy during winter months
- Specific storage spaces should be provided to accommodate the family, such as places to store dance regalia, give-aways or other items/artifacts associated with traditional honorings



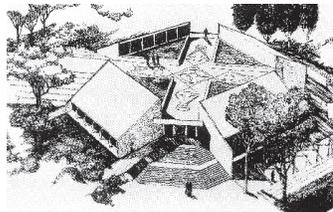
### Elbowoods Memorial Healthcare Outreach Center A place for helping and healing

- Include a space for the families to support each other and to help heal one's body and spirit. The designer should remember that in the Native American culture, strength comes from the core of the family and multiple waiting rooms must be located with-in the healthcare center.
- Provide a unit (alternate to a chapel) that is dedicated to purifying the sick and unifying their families
- Locate a central teaching space in healthcare center for the elders (who are the backbone of the Native culture) to help with the questions about the healing processes
- There should be a children's play area staffed with a "nanny" or "auntie"
- The designer ought to make sure the palette of colors and quality of lighting chosen will help mentally stabilize and spiritually heal patients and their families
- Provide a therapy wing, which includes a dialysis unit and alcoholic recovery unit - common issues on many reservations
- Include an indoor or outdoor performance space for periodic guests to perform artistic talents to heal one's spirit



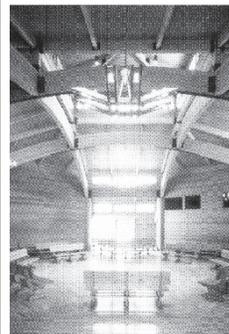
### Community centers for elders and all generations Places of feeding and nurturing

- Include a big kitchen area for younger generations to prepare meals for elders
- Every community center must provide a large open space that is flexible for: eating, honoring, sporting events...etc
- Include multiple restrooms
- Locate large windows near top of building to let in daylight during day - (but many events will linger into the night and superstitions of Native culture will make it a better choice to not have the night right next to the guests while they eat)



### Local schools that value cultural distinctiveness Places of teaching

- A special speech-therapy space should be provided for language renewal. This space should be centrally-oriented, with views outward.
- A play area should be provided that will make use of cultural lessons from the past as a mode of teaching.



### Opportunities for Renewal

Research objectives: Examine the historical record and other forms of "cultural narrative" for evidence of sustainable building practices and environmental adaptations by the Mandan, Hidatsa, and Arikara. Examine these forms of documentary evidence in terms of architectural implications for more sustainable future design and community decision-making in the 21st century context of the Fort Berthold Reservation. Develop appropriate design recommendations relating to architectural programming for the design of archetypal activity sets - and above all, for the people.



### Unified, sustainable communities Places of cultural renewal

- Designers ought to consider implementing "scatter-type" patterns to fully understand how these tribes were nomadic and tended to layout their villages
- Relate the layout of the community as closely as possible to the Missouri River
- Include a place within the sustainable community for powwow celebrations, gatherings, and other forms of cultural renewal. Designers need to coordinate these places as organizers for the neighborhoods within the community.



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Personal Quote:  
I am an aspiring People Architect,  
attempting vernacular architecture.



“Mah-zha-gih-datz” /Thank You

“Me-day Ho-bash” “Holy Door”/Marita Abe



