



architects / planners

# ***Learning from our Elders: Sustainability in Culturally Responsive Contemporary Indigenous Architecture***

**Daniel J. Glenn, AIA, AICAE**





**7 DIRECTIONS**  
architects / planners

Culturally & Environmentally Responsive Architecture & Planning  
Indigenous Owned and Operated / Contemporary Indigenous Design



**Daniel J. Glenn**  
(Apsáalooke – Crow Nation)  
Principal



**Esteban Vallejo**  
(Colombian Mestizo)



**Bobbie Koch**  
(Sicangu Lakota)



**Laila Montenegro**  
(Nicaraguan Mestiza)



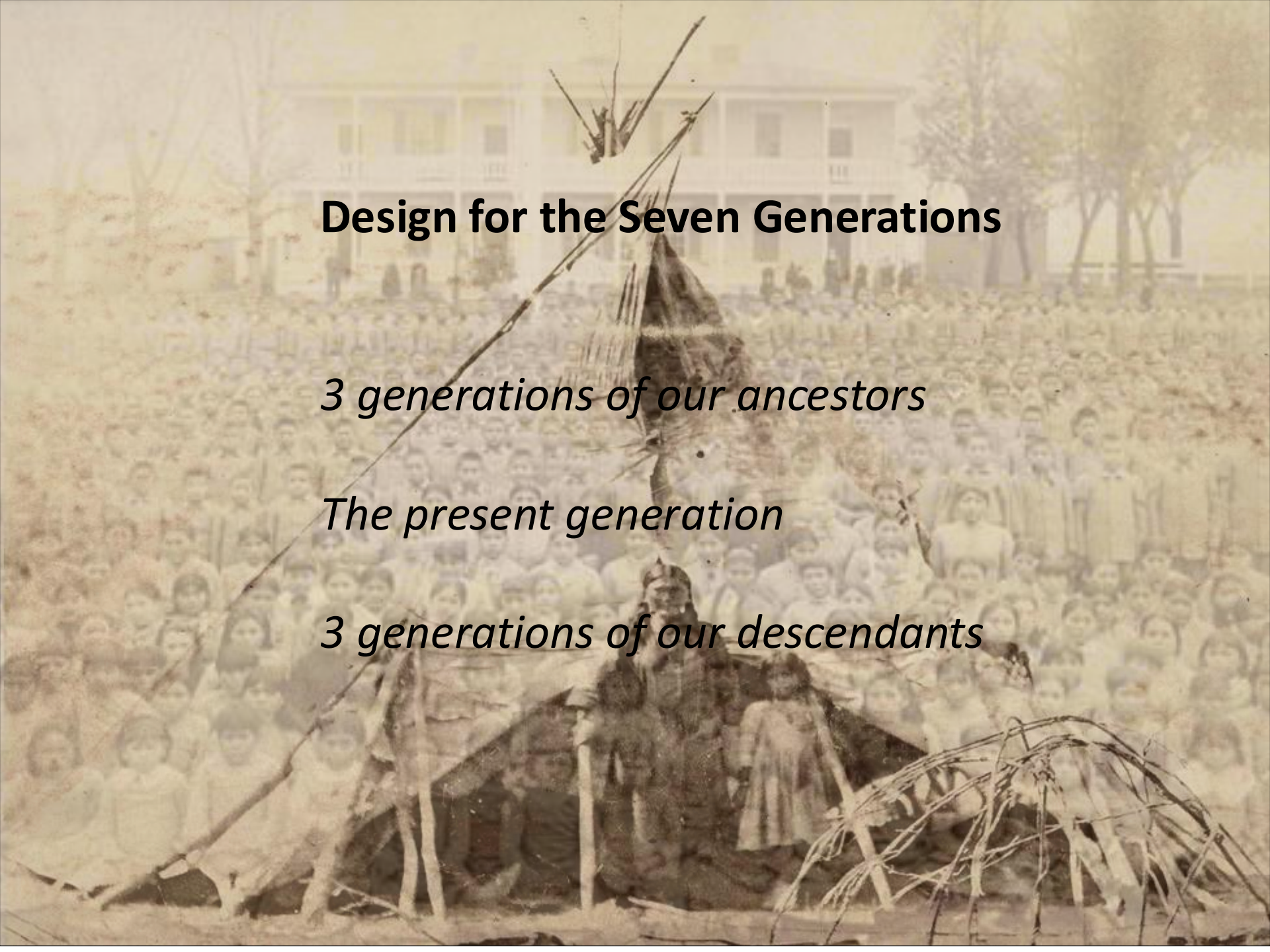
**Dana Herrault**  
(Euro American)



**Keeanna Andres**  
(Native Hawaiian)



**Jack Glenn**  
(Apsáalooke)

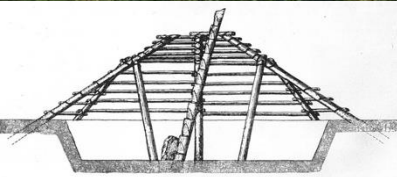


# Design for the Seven Generations

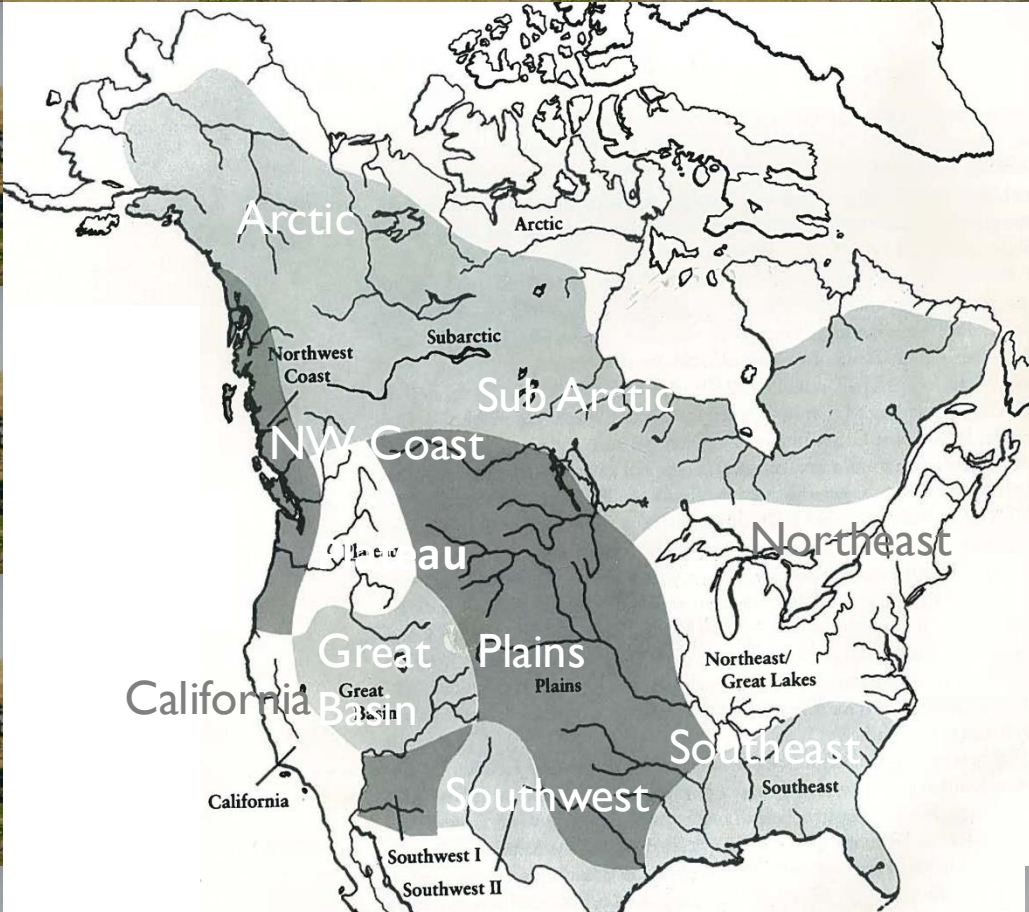
*3 generations of our ancestors*

*The present generation*

*3 generations of our descendants*



# Turtle Island: 1970



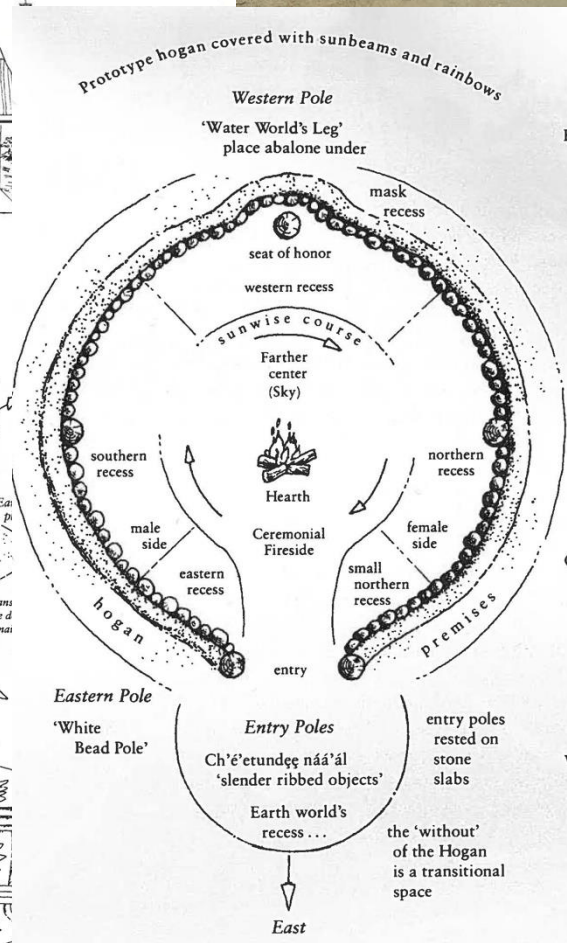
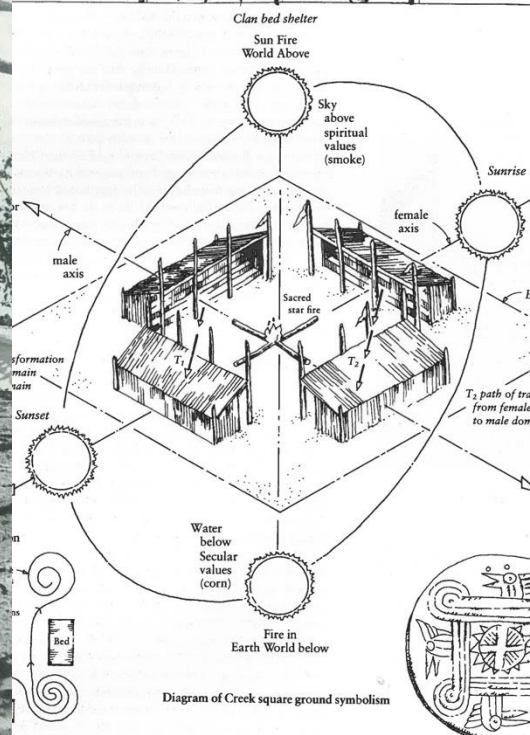
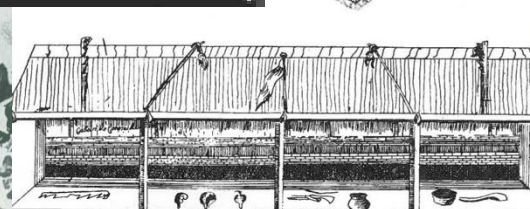
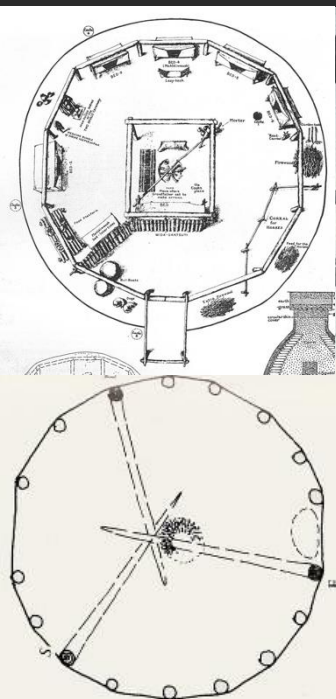
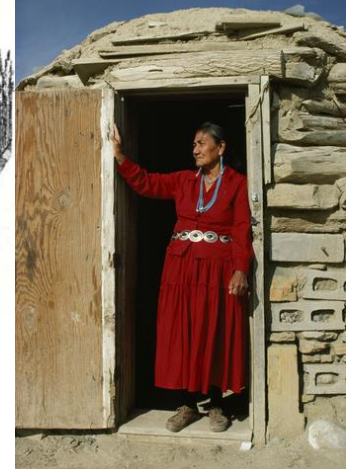
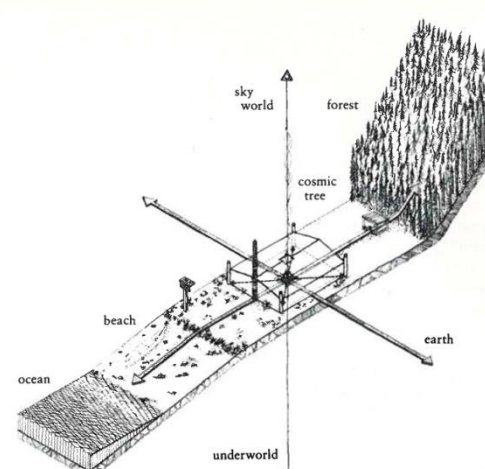


*Everything the Power of the World does is done in a circle... Our tepees were round like the nests of birds, and these were always set in a circle...But the Wasichus have put us in these square boxes. Our power is gone and we are dying, for the power is not in us anymore.*

Black Elk

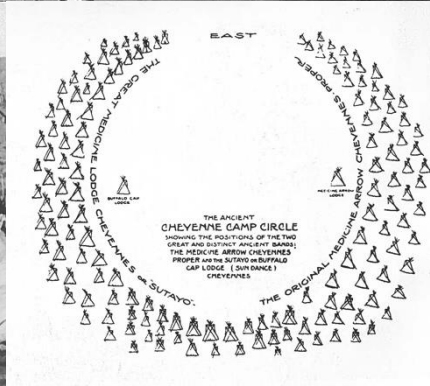
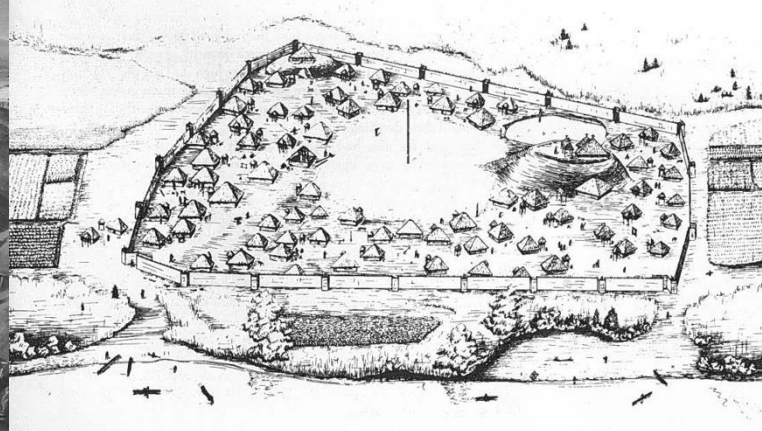
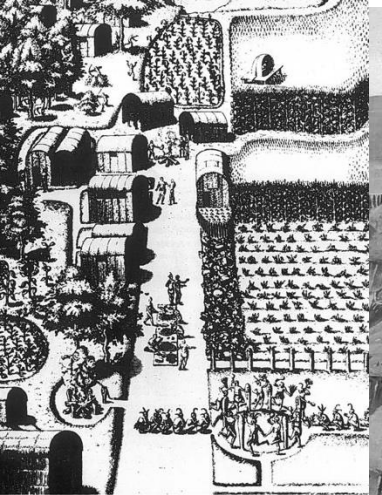
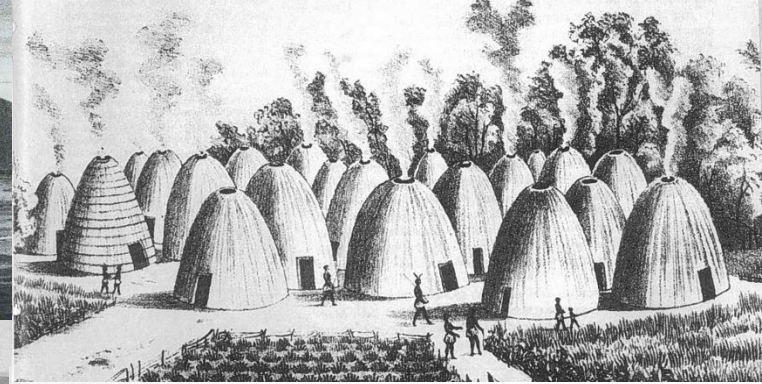
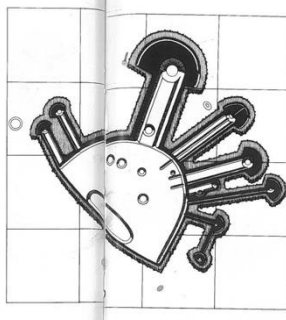
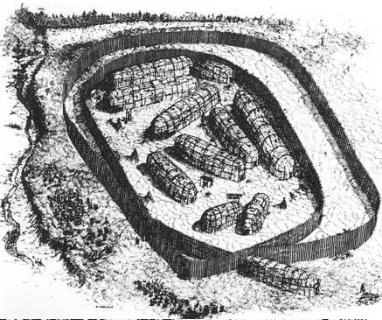
# Culture:

Cosmology, seven directions, eastern entry, the sacred circle, ceremonial spaces and structures, spirituality, solstices, numerology, sacred plants....



## Community:

Clustered communities minimize impact on the landscape, create strong social integration, integrate gathering space with dwelling, integrate work, play, learning, ceremony together.



# Climate Response:

Dynamic Structure responds to climate extremes – hot summers / cold winters:

Summer Condition –  
Shade / ventilation /  
open location to catch prevailing



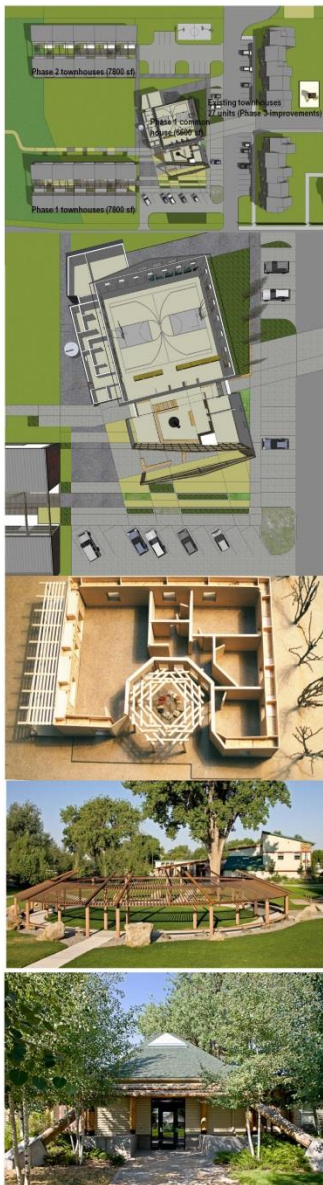
In the winter, our villages stood on low, sheltered ground near the river, where the wind and cold could not reach us; in summer they were moved to higher ground where they could catch the cool winds.”

The Arapaho Way  
Althea Bass

Winter Condition –  
Double wall insulation / central heat /  
sheltered location



**BUILDING SITE / ORIENTATION**



**BUILDING FORM**



**SPIRIT / GATHERING / DAYLIGHT**



**MATERIALS / STRUCTURE**



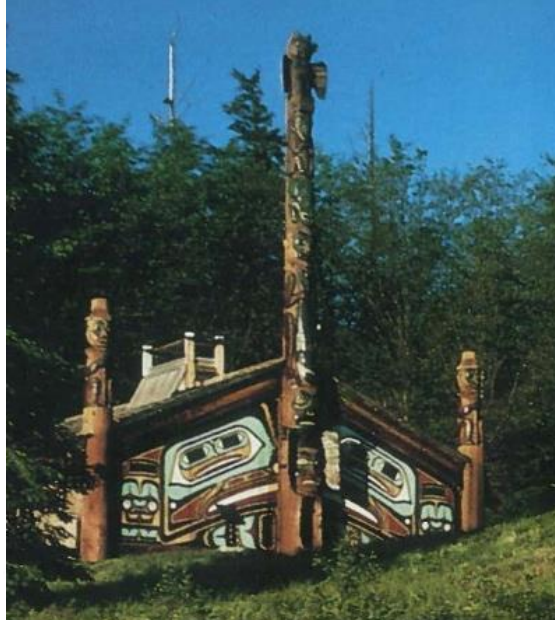
**PATTERNS / COLORS**



**CULTURAL ELEMENTS**

Tolowa Dee-ni' Nation





# Northwest Coast

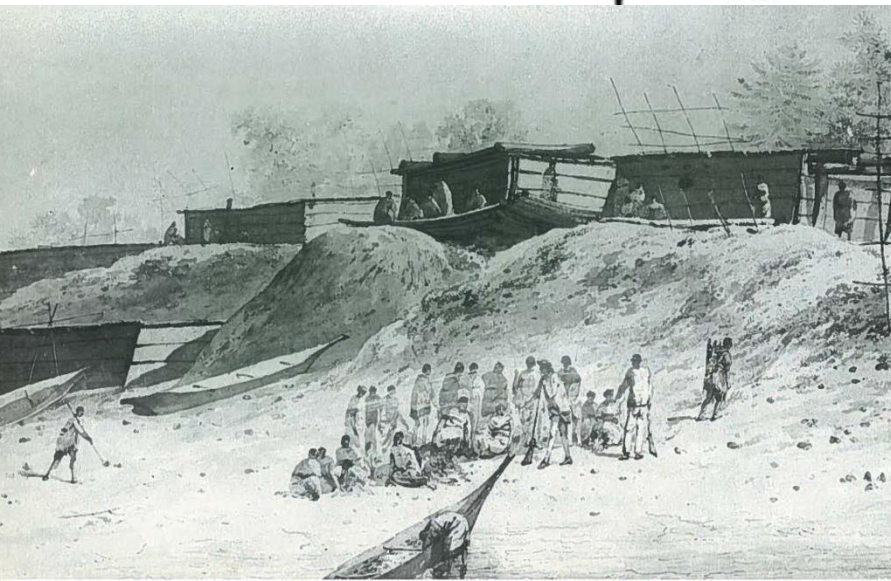
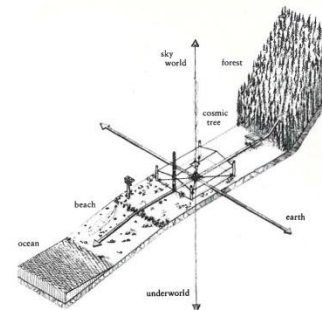
**Climate:**  
Temperate

**Region:**  
Forest, islands, waterways

**Materials:**  
Cedar Timber, split planks, bark

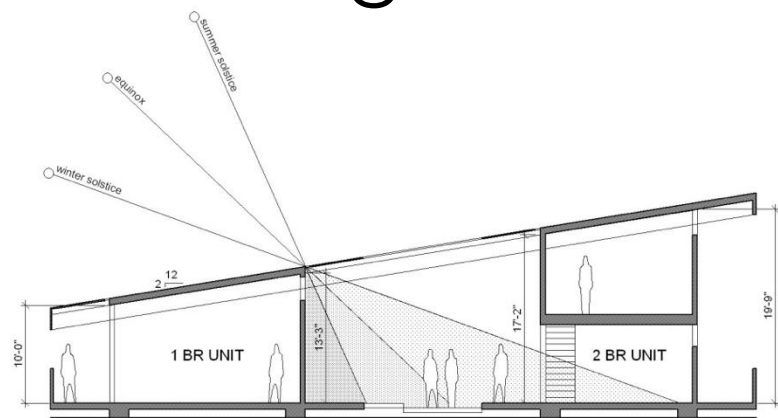
**Building Type:**  
Plank House

**Cultures include:**  
Haida, Tlingit, Chinook, Kwakiutl, Salish

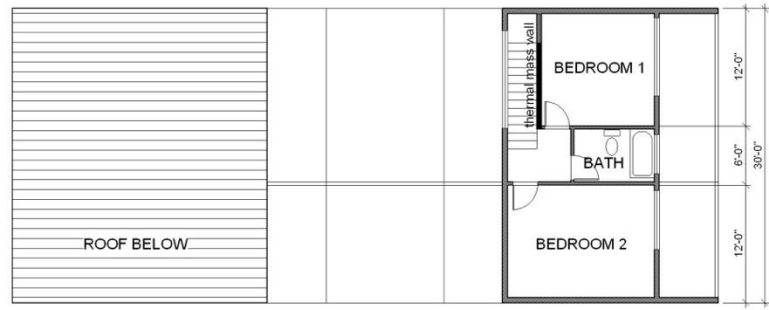


# Housing Case Study

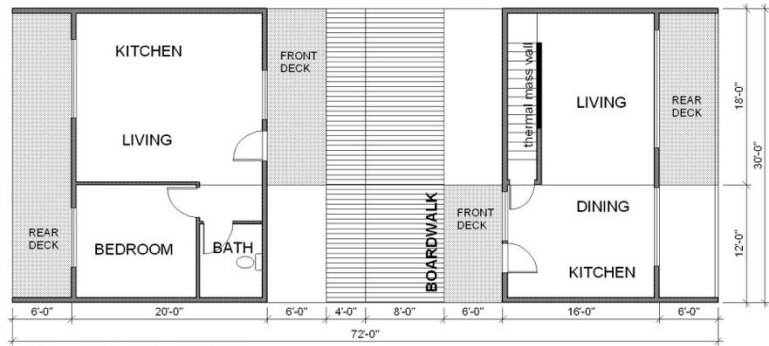
## Culture: Longhouse design



SECTION THROUGH LONGHOUSE



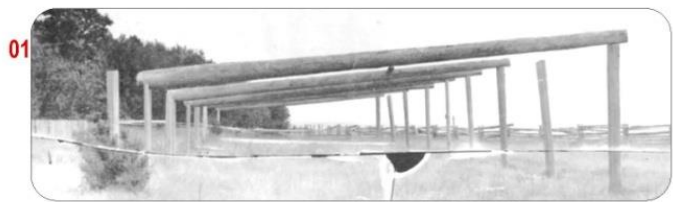
2-BR UNIT . 2ND FLOOR



1-BR UNIT . 1ST FLOOR

2-BR UNIT . 1ST FLOOR

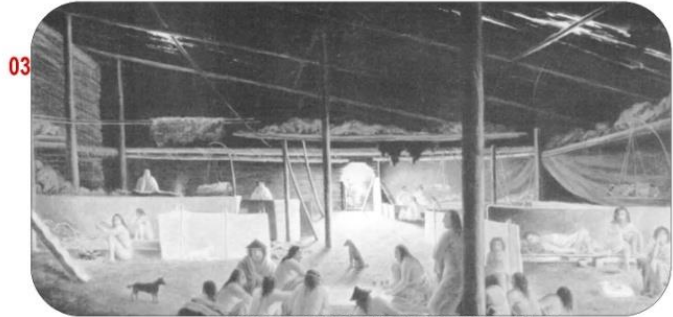
REPLICABLE LONGHOUSE MODULE 1/8"=1'-0"



SHED STYLE FRAME . Lummi Washington



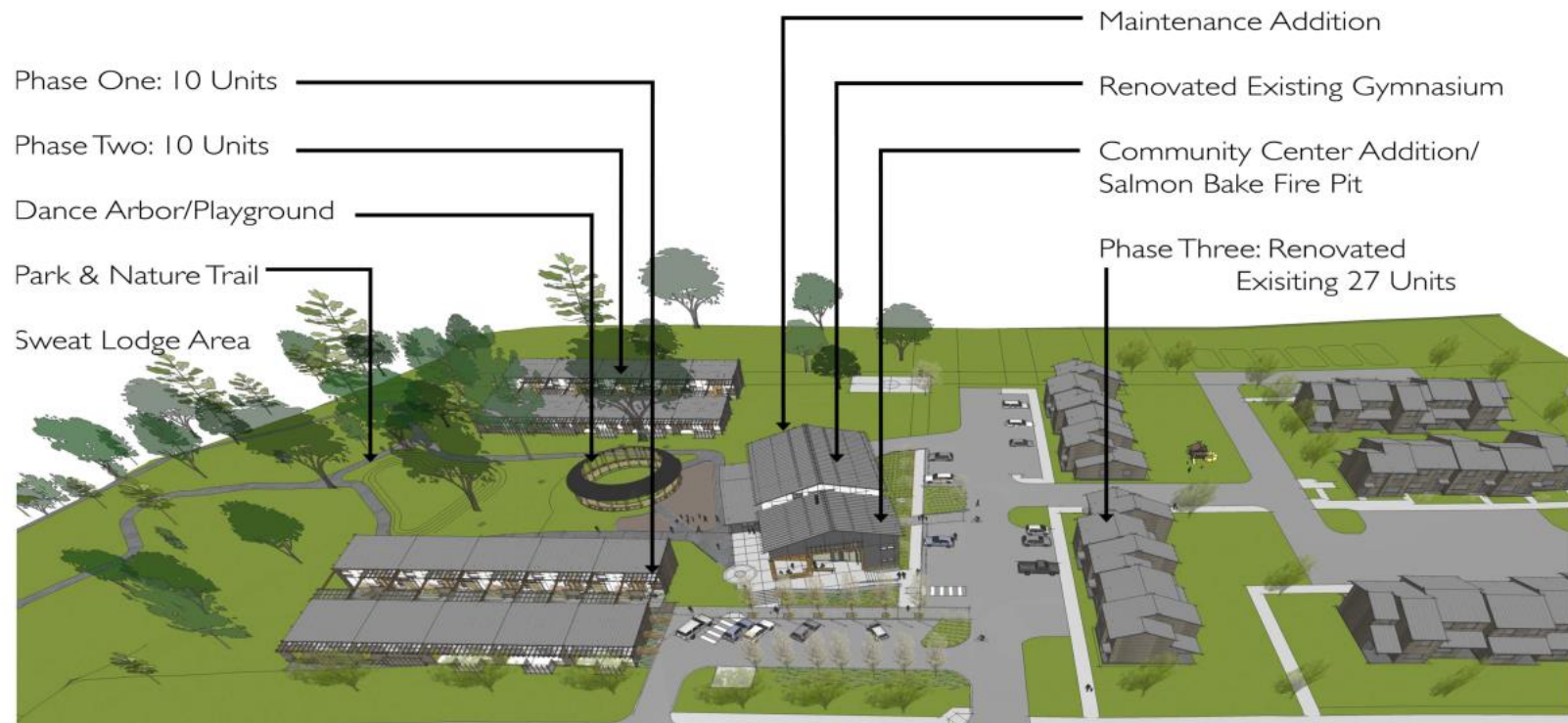
DAYLIGHT FROM ABOVE . Chinook



SHED STYLE LONGHOUSE INTERIOR . Klallam Salish



LONGHOUSE WALLS DEFINE VILLAGE COMMONS . Songhees village, Victoria



# LEED® Facts

6209 21st St NE  
Tacoma, WA 98422



LEED for Homes  
Certification awarded August 2012

**Platinum 82\***

|                                                                                                                |        |
|----------------------------------------------------------------------------------------------------------------|--------|
|  Innovation & Design          | 6.5/11 |
|  Location & Linkages          | 5/10   |
|  Sustainable Sites            | 17/22  |
|  Water Efficiency             | 10/15  |
|  Energy & Atmosphere          | 20/38  |
|  Materials & Resources        | 9.5/16 |
|  Indoor Environmental Quality | 14/21  |
|  Awareness & Education        | 0/3    |

\*Out of a possible 136 points



# Phase One



Wellness Clinic

# Elder's Longhouse



# MOTHER NATION SPIRIT JOURNEY VILLAGE

## 7 DIRECTIONS RELEVANT EXPERIENCE



**Project:**  
Mother Nation Spirit Journey Healing Village  
Seattle, WA

The Mother Nation Spirit Journey Healing Village is an 11,296 SF supportive housing community on a one-acre urban infill site in South Seattle for Native women and their families. The four-building village includes a 3,219 SF Common House and three residences providing 15 transitional homes around a shared courtyard with gardens, a playground, storytelling fire pit, and sweat lodge enclosure. Developed through an interactive engagement process with Mother Nation staff and residents, the project integrates Indigenous artwork, Net Zero energy design, and Salmon-Safe site strategies. Phase One is funded by the State of Washington and begins construction in 2026.



**Project Size / Type:** 1 Acre (43,874 SF Site) / 11,296 SF Supportive Housing Community

**Project Team:**  
Project Architect - 7 Directions Architects/Planners  
Landscape Architect - ABLE Studio  
Civil Engineer - Rain City Civil  
Structural Engineer - Lund Opsahl  
Mechanical/Electrical/Plumbing Engineer - TresWest Engineers

**Client:**  
Mother Nation

**Design Timeline/Budget/Status:**  
\$8.6M Total Project / Construction Begins 2026



# TOLOWA DAT-NAA-SVT DEE-NI' VILLAGE

7 DIRECTIONS PROJECT EXPERIENCE



**Project:**  
Mixed-Use Housing Development  
Tolowa Dee-ni' Nation, CA

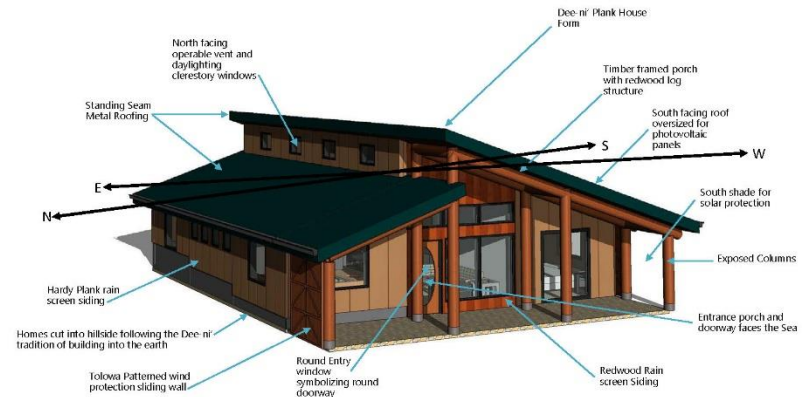
**Project Size / Type:**  
22 Acre Conservation Mixed-use Development  
6 Units Assisted Elder Housing  
46 Affordable Green Single Family Units  
8 Affordable Townhomes  
2,000 SF Community Room  
1,500 Management Office  
7,000 SF Child Care Facility & Micro-Commercial  
5,000 SF Open Air-Market  
Neighborhood Gardens, Park Pavilion, Playground, & Sweathouse

**Project Team:**  
7 Directions Architects/Planners  
Herrera Environmental Consultants

**Client:**  
Tolowa Dee-ni' Nation Department of Housing

**Design Timeline/Budget/Status:**  
Master Plan Phase - October 2015-2016  
Breaking Ground 2018

## CULTURAL + ENVIRONMENTAL | Design Approach



**DAT-NAA-SVT Housing Village**  
Tolowa Dee-ni' Nation Department of Housing



# MUCKLESHOOT HOUSING SITE DEVELOPMENT

## 7 DIRECTIONS PROJECT EXPERIENCE



**Project:**  
Muckleshoot Sober Living Neighborhood in Auburn, WA  
Master Planning, Housing Design, Site Development

**Project Size / Type:**  
2 bedroom Townhomes Duplex, Triplex, Fourplex (34 units total)  
3 bedroom Townhomes Duplexes (14 units total)  
4 bedroom Single Family Houses (6 units total)  
5 bedroom Single Family Houses (4 units total)

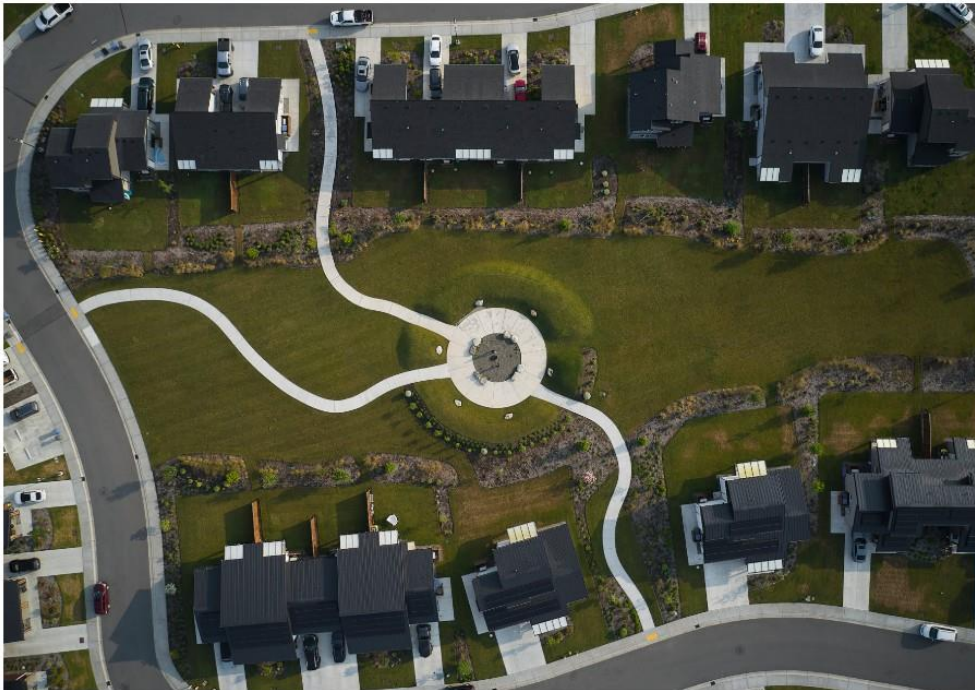


**Project Team:**  
Lead/Architect: 7 Directions Architects/Planners  
Structural: Lund Opsahl  
MEP: Tres West Engineers  
Landscape: West Studios (now MIG)

**Design Timeline/Budget/Status:**  
Completed 2023

**Client Contact:**  
Muckleshoot Indian Tribe

7 Directions collaborated closely with the Owner and A/E team to design and engineer 58 units of housing on previously undeveloped agricultural lands. All units are solar ready with 28 units net zero certified.



### Home Energy Rating Certificate

#### Final Report

Rating Date:  
Registry ID: 710739901  
Ekotrope ID: LXE30m7d



#### HERS® Index Score:

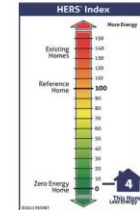
**4** Your home's HERS score is a relative performance score. The lower the number, the more energy efficient the home. To learn more, visit [www.hersindex.com](http://www.hersindex.com)

**Annual Savings**  
**\$1,401**  
\*Relative to an average U.S. home

**Home:**  
17929C SE 394th Ln  
Auburn, WA 98092  
**Builder:**  
Muckleshoot Housing

#### Your Home's Estimated Energy Use:

|                         | Use (MBtu)  | Annual Cost  |
|-------------------------|-------------|--------------|
| Heating                 | 0.6         | \$191        |
| Cooling                 | 0.1         | \$3          |
| Hot Water               | 1.7         | \$50         |
| Lights/Appliances       | 11.0        | \$318        |
| Service Charges         |             | \$95         |
| Generation (e.g. Solar) | 18.1        | -\$521       |
| <b>Total:</b>           | <b>19.4</b> | <b>\$136</b> |



#### Home Feature Summary:

Home Type: Townhouse, Inside unit  
Model: VP 2br 2C  
Community: Van Putten  
Conditioned Floor Area: 984 ft²  
Number of Bedrooms: 2  
Primary Heating System: Air Source Heat Pump • Electric • 10.5 HSPF  
Primary Cooling System: Air Source Heat Pump • Electric • 18 SEER  
Primary Water Heating: Residential Water Heater • Electric • 3.55 Energy Factor  
House Tightness: 5.2 ACH50 (Adjusted Infiltration: 6.45 ACH50)  
Ventilation: 50 CFM (unmeasured) • 29 Watts • ERV  
Duct Leakage to Outside: Forced Air Ductless  
Above Grade Walls: R-21  
Ceiling: Attic, R-49  
Window Type: U-Value: 0.28, SHGC: 0.3  
Foundation Walls: N/A  
Framed Floor: N/A

This home meets or exceeds the criteria of the following:

ENERGY STAR v.2  
ENERGY STAR v.3.1  
ENERGY STAR v3

#### Rating Completed by:

Energy Rater: Tom Balderston  
RESNET ID: 7582922  
Rating Company: Balderston Associates  
314 1st Ave S, Seattle, WA  
206-715-6865  
Rating Provider: Washington State University

Tom Balderston, Certified Energy Rater  
Date: 9/7/23 at 11:57 AM



Ekotrope RATER - Version: 4.1.1.3235  
The Energy Rating Disclosure for this home is available from the Approved Rating Provider.  
This report does not constitute any warranty or guarantee.

