

BEACH SITE

KITCHITWAA SHKWAANDEM



RECIPROCITY

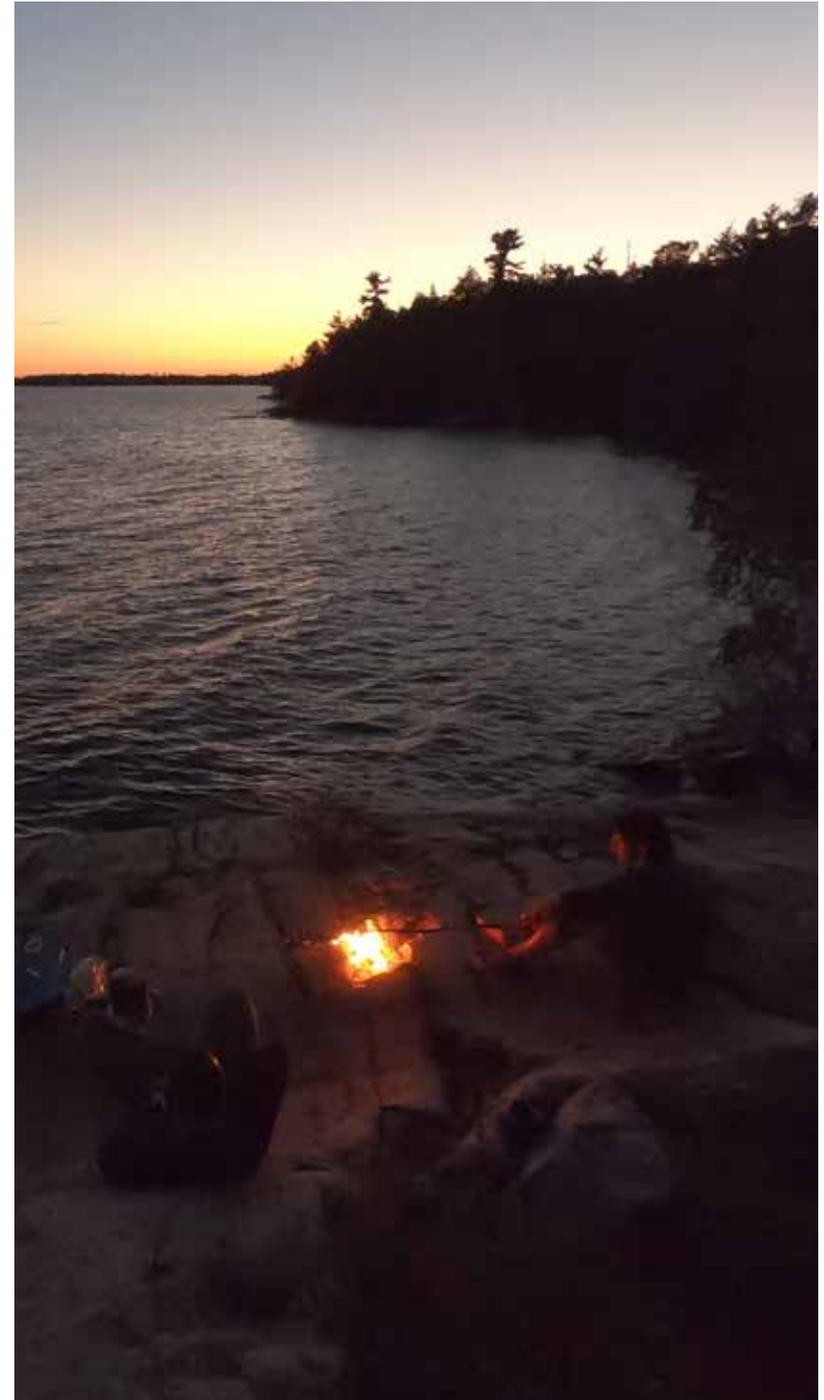
“The practice of exchanging things with others for mutual benefit, especially privileges granted by one country or organization to another.” -Oxford Languages

The following proposed interventions for the heaven’s gate hiking trail are reciprocal. When considering the history of the site, there has been a lack of mutual benefit and exchange of privileges between First Nations peoples and settlers. The Reciprocal Hut and Bridge combine shared heritages of tectonics and form, while also upholding the tradition of sourcing materials from natural products found on site.

The Beach Site, located on the north shores of the North Channel of Lake Huron, has the potential to act as a gate way to the Heaven’s Gate Trail. The large sandy shore offers boaters and canoes easy docking capability, while also providing a flat surface for all camping needs. Furthermore, the geographic location boasts a beautiful view of the North Channel, while also being near various hiking attractions along the Heaven’s Gate trail. Making the beach location an excellent base camp spot or starting point to experience the magnificence of the La Cloche mountain range.

The heritage of the site dates back thousands of years to indigenous people’s occupation of the land, however, currently the beach finds itself as a part of the La Cloche Provincial Park. Parks Ontario has specific regulations which governs the land use and resource management which must be followed to preserve the natural state of the region.

Therefore, the intention for the proposed interventions will be to maintain the natural state of the site while introducing a minimal amount of new materials to the location. A mixed bent wood and heavy timber construction is to be erected for sleeping arrangements for eight people on the beach location while a small scale hiking bridge is to be constructed at a stream much further in land for the Heaven’s Gate Hiking Trail.





SITE SYNTHESIS

Photoshop

Mammals



American Mink



Moose



Beaver



Raccoon



Black Bear



White-tail Deer



"To promote opportunities for non-consumptive use of wildlife in the conservation reserve such as nature appreciation, interpretation, education, photography and scientific study"

Fish

Lake Trout



Salmon



Bass



Perch



Rainbow Trout



Muskie



Pike



Walleye



"To protect, rehabilitate and sustain aquatic ecosystems and populations within the conservation reserve while allowing for the benefits of sport, bait and Aboriginal fishing in accordance with existing policies."

Birds

Great Blue Heron



Saw-Whet Owl



Wood Duck



Red-Shouldered Hawk



Bald Eagle



House Wren



Loon



Pileated Woodpecker



Osprey



"To protect and sustain wildlife habitat and populations within the La Cloche Conservation Reserve while allowing for the benefits of wildlife viewing, Aboriginal hunting, sport hunting and trapping."



To protect the water resources of the conservation reserve by prohibiting the damming, diversion or removal of water from groundwater sources and underground aquifers for commercial use.

Earth Channel Water
Very Fresh and Cold



Sandy Glacial
Ground Moraine
(High cut and fill capacity)



Water Washed
White Quartzite



Trees

American Beech



Black Spruce



Red Maple



Eastern Hemlock



Yellow Birch



Red Pine



Jack Pine



Poplar



White Birch



Red Oak



White Pine



Sugar Maple



Edible Flora

Golden Rod



Partridge Berry



Mint



St John's Wort



Blue Berries



Beach Flora

Yellow Stargrass



Wood Fern



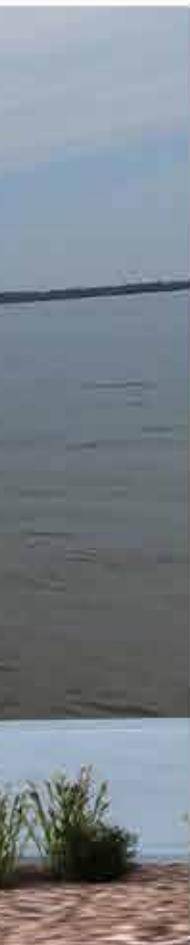
Grass



Sensitive Fern



To protect regionally and provincially significant plant species/communities within the conservation reserve and encourage research to identify and document vegetation species at risk within the conservation reserve.



RECIPROCAL HUT

Rhino & Photoshop

The Reciprocal Hut is a simple shelter located on a secluded beach on the North Channel of Lake Huron.

The structure is made of twelve rafters which support one another in a circle on top of a sloped log henge. Adobe walls are then constructed from the displaced sand and clay. The roof is constructed from lashed canvas covered by earth from the surrounding forest.



Axonometric Drawing



Plan 1:100



Section 1-75



Section 1-50



The site is cleared and leveled.



Holes are dug one meter deep for the columns for the log henge, and half a meter deep for the stone foundation. The sand is collected.



The posts of the log henge are charred and carved to a point on the portion that is to be planted.



Once the last rafter is in place, the crutch is removed. The logs are then doweled together at the apex from underneath.



Saplings are nailed in a spiraling fashion starting from on top of the apex to ensure stability.



Walls are formed on 3/4 of the structure from the displaced sand and clay. The adobe mixture should be 1 part water, 1 part silt and clay, and 4 parts sand.



Dowels are drilled and hammered into the top of the posts and left "wild". The remaining holes are filled and packed with stoned to form a foundation.



Cut Logs are placed on top of one another and then doweled together leaving some of the dowel exposed to form the henge.



The rafters are placed organized on top of one another starting with a support beam.



A waterproof canvas is lashed on top of the structure.



The surrounding soil is placed on top of the structure to support life.



Moss and grasses are planted on the roof of the structure, effectively merging the Reciprocal Hut with its environment.



RECIPROCAL BRIDGE

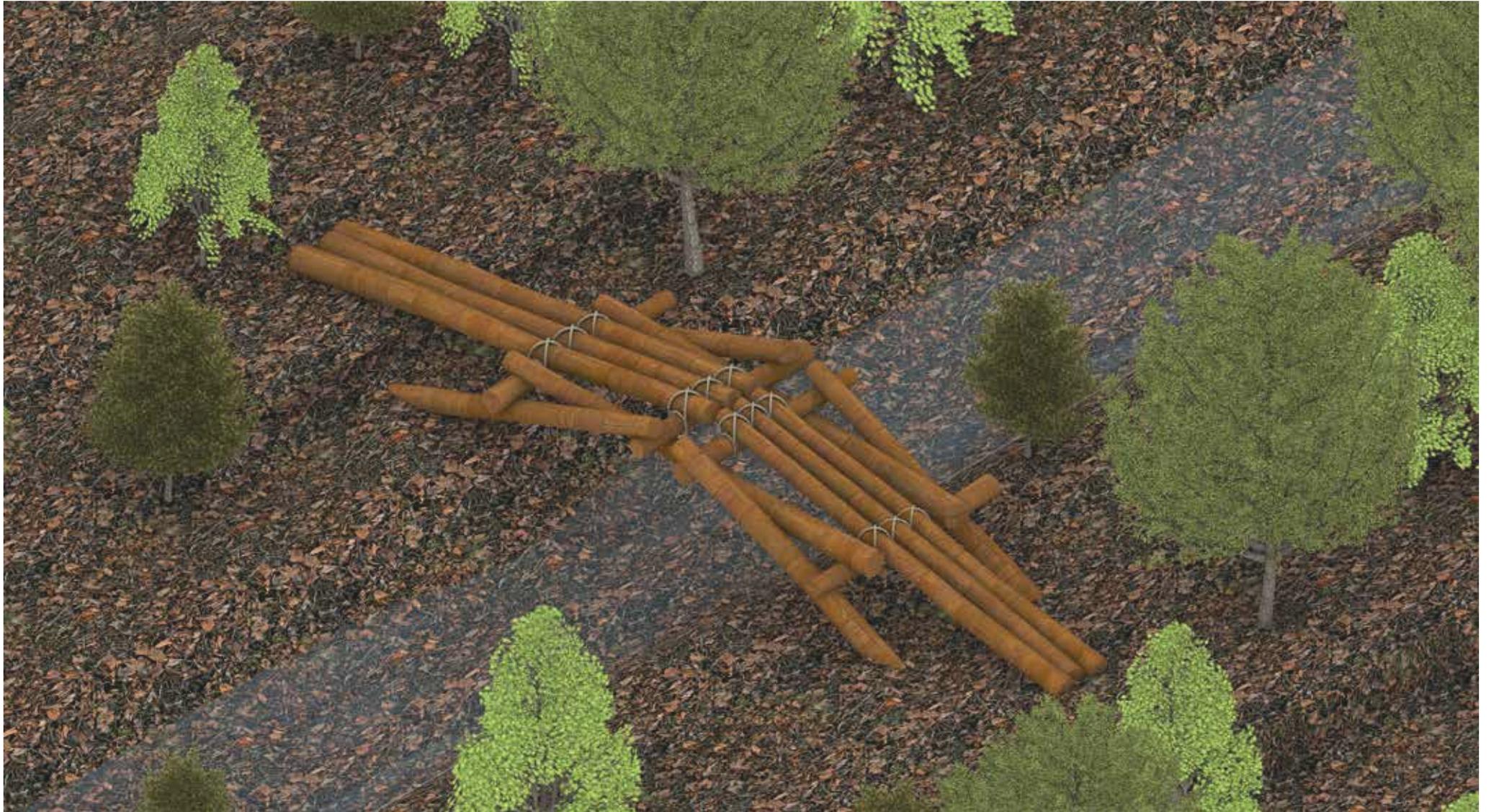
Rhino & Photoshop

The Reciprocal Bridge is a simple structure based on an original design by Leonardo Da Vinci.

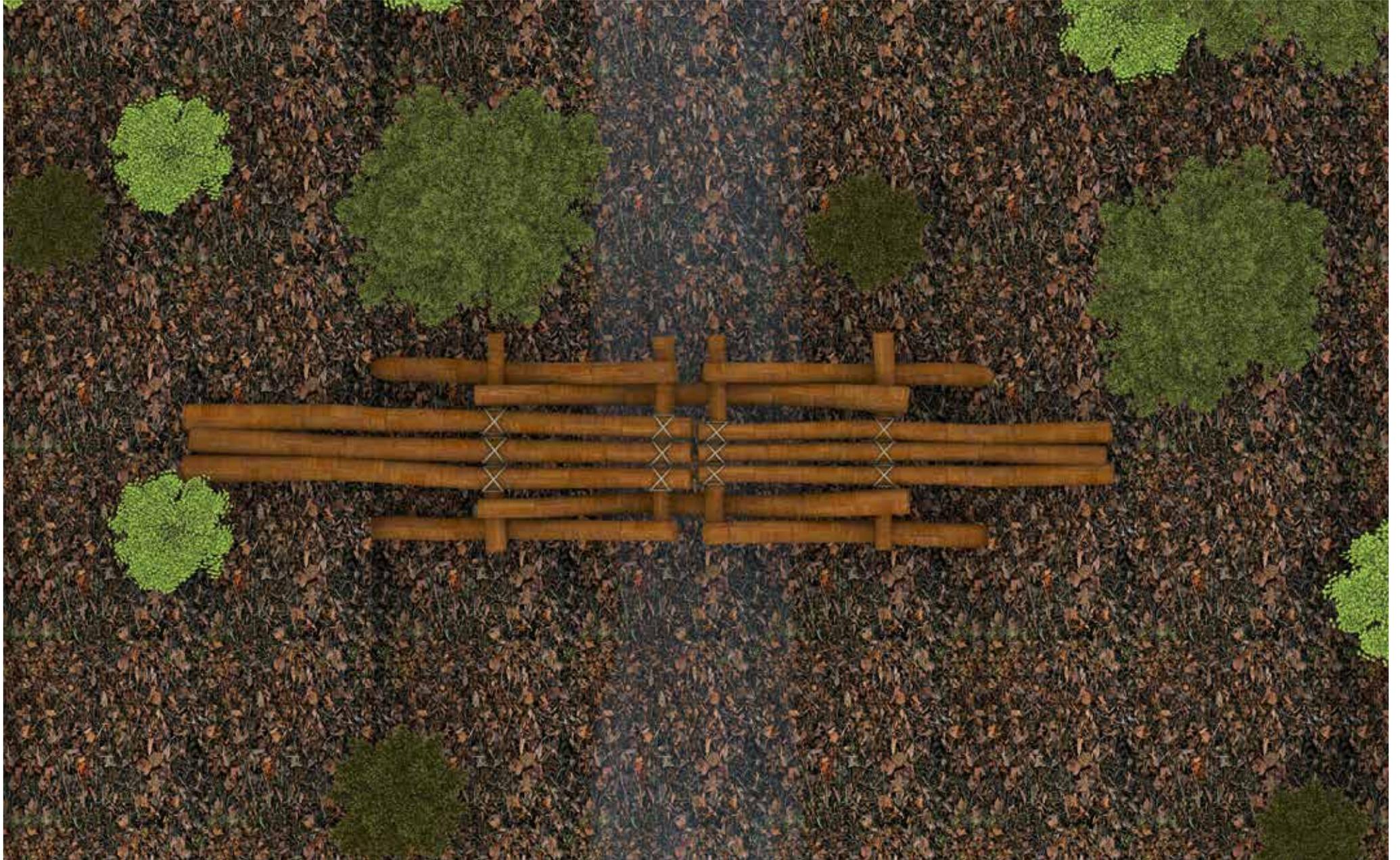
The members are erected and then doweled and lashed together to form a robust bridge.



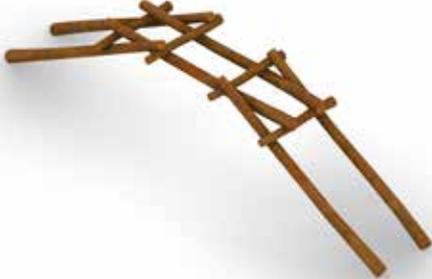
Axonometric Drawing



Plan 1-50



Exploded Axonometric



Section 1-50



Section 1-25





RECIPROCAL BENCH
10 Birch Logs and 15 Minutes



RECIPROCAL THUNDER

Rhino & Photoshop

The Reciprocal Thunder Box is a simple structure that combines principles from both the reciprocal hut and the reciprocal bench.

A shelter is made from three large logs that are lashed together with a canvas on two sides.

A covered seat is made by nailing more pieces of wood on top of the gaps of the reciprocal bench.

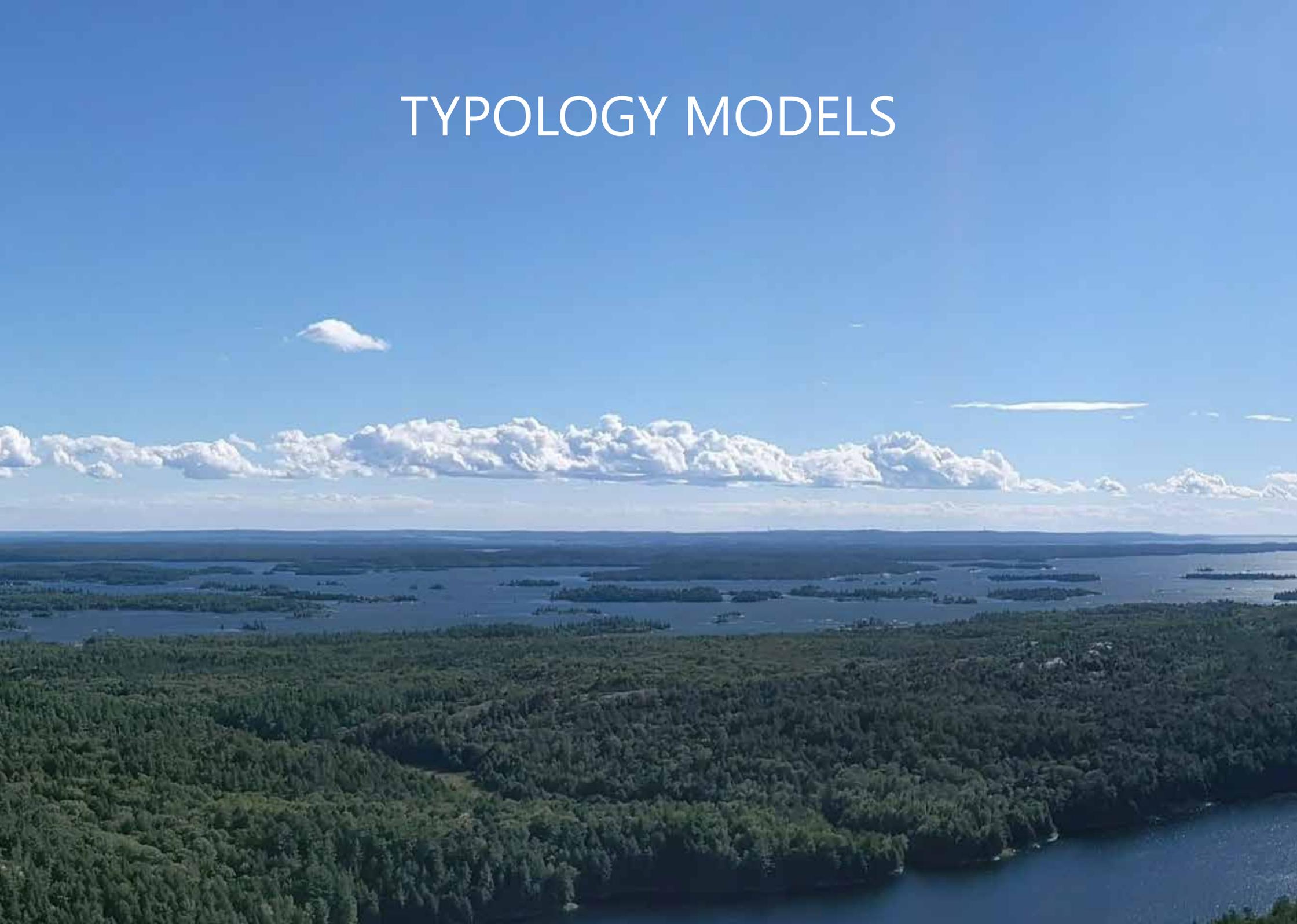




APENDIX



TYOLOGY MODELS



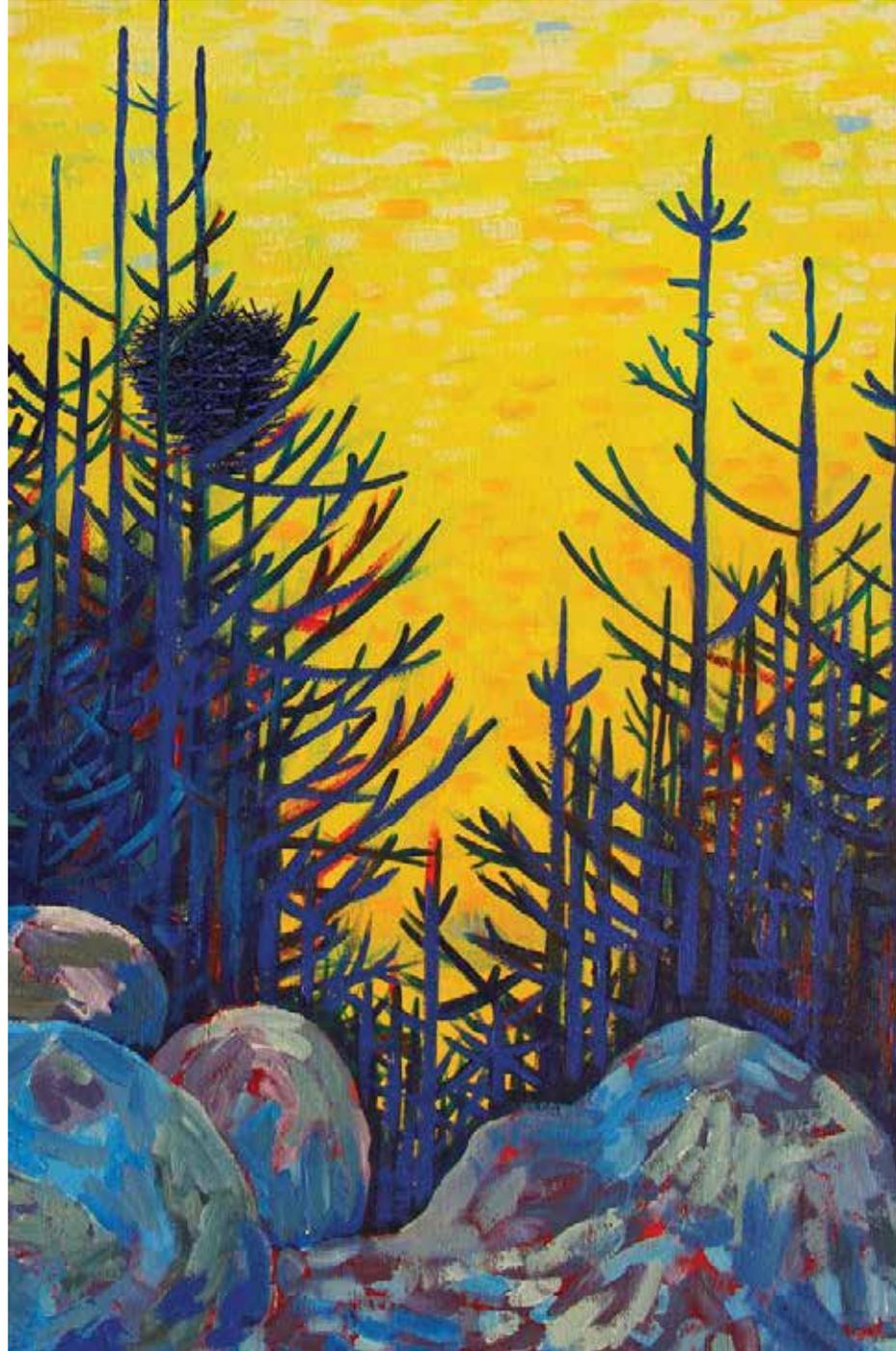
EAGLE'S NEST

Rhino Model



EAGLE'S NEST

Rendering in a Lawren Harris Painting



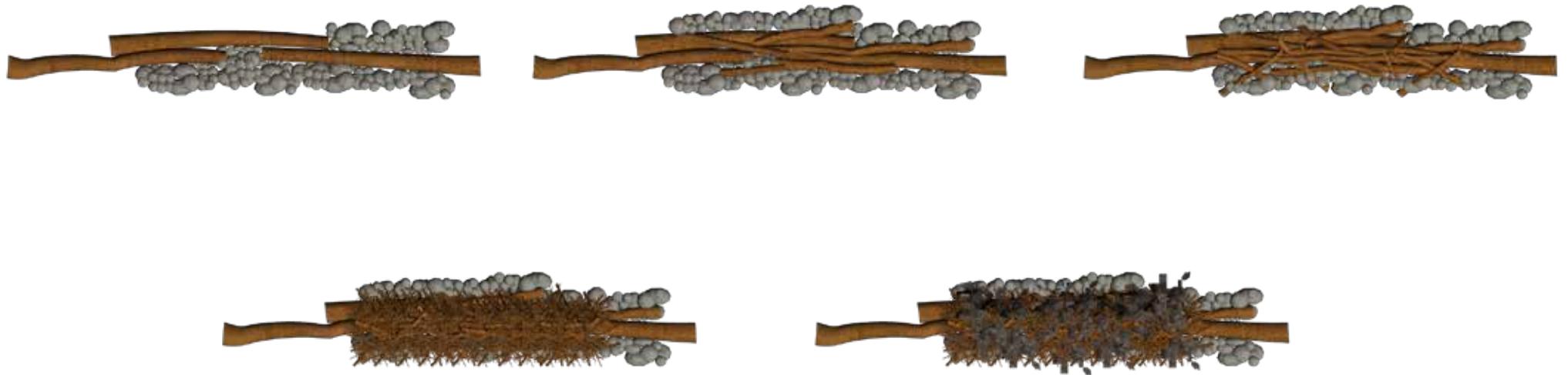
BEAVER DAM & LODGE

Rhino Model

Evolution of Beaver Lodge Construction



Evolution of Beaver Dam Construction



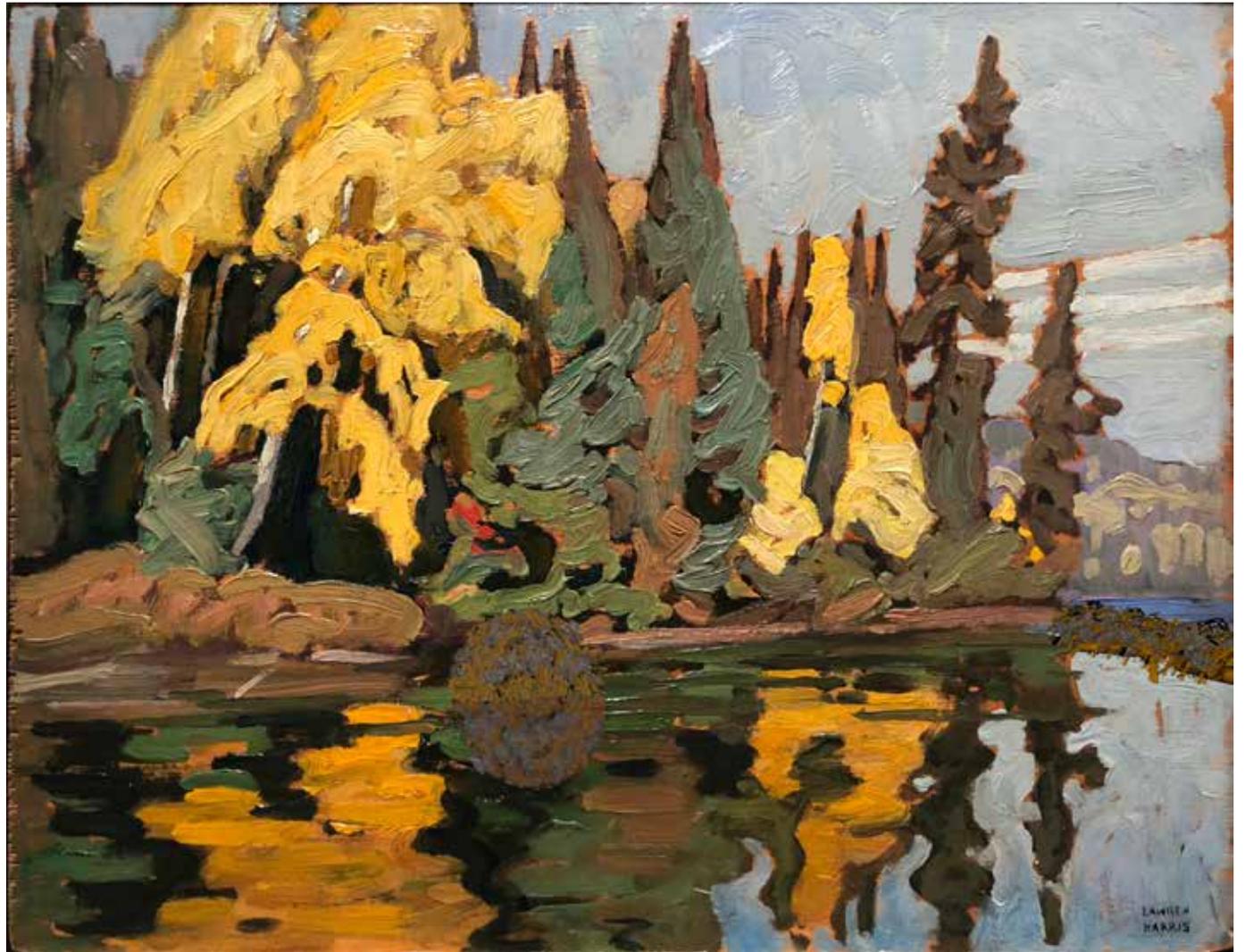
BEAVER DAM & LODGE

Rendering in a Lawren Harris Painting

Section through Beaver Lodge



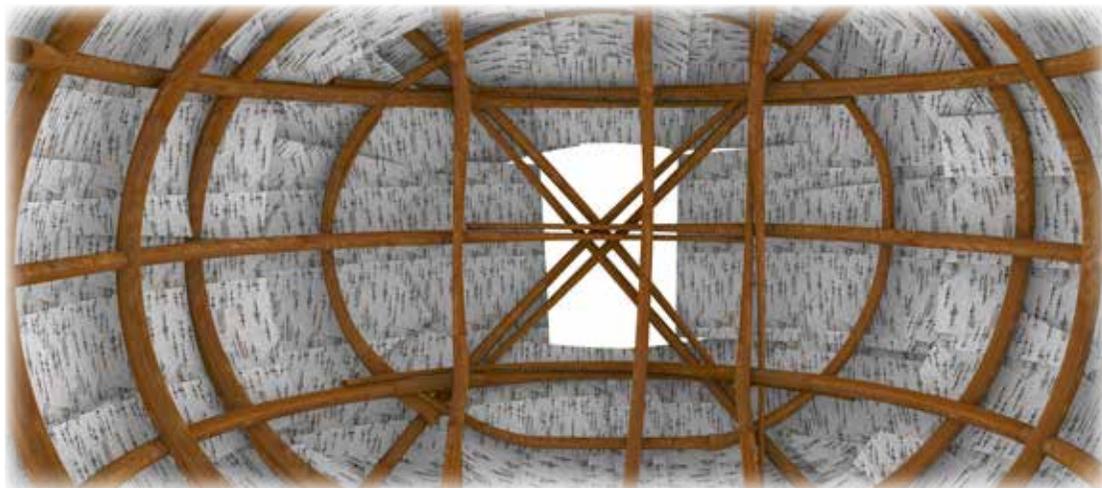
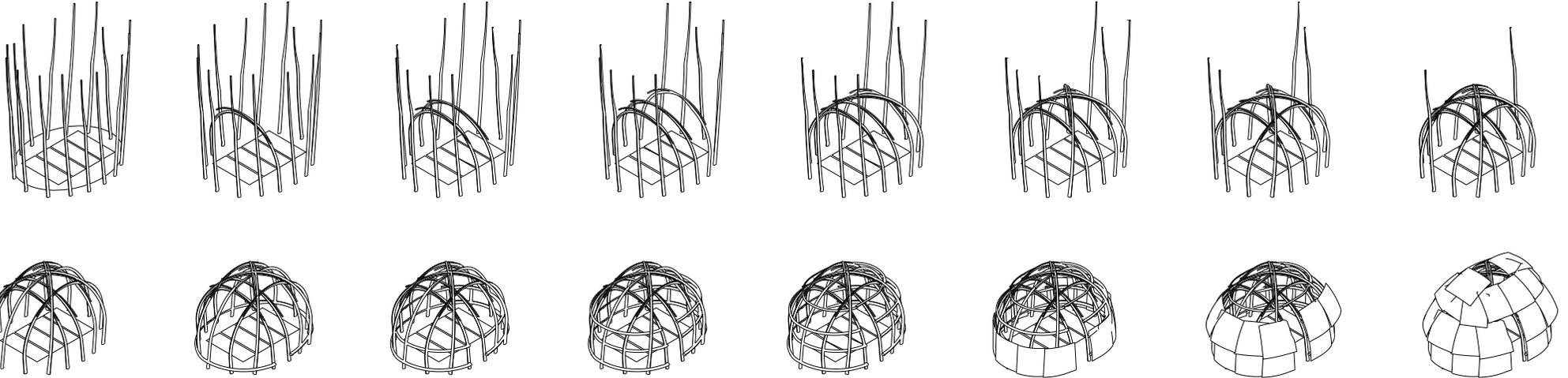
Section through Beaver Dam



WIG WAM

Rhino Model

Evolution of Wig Wam Construction



HEAVY TIMBER CONSTRUCTION

Rhino Model

Evolution of Heavy Timber Construction





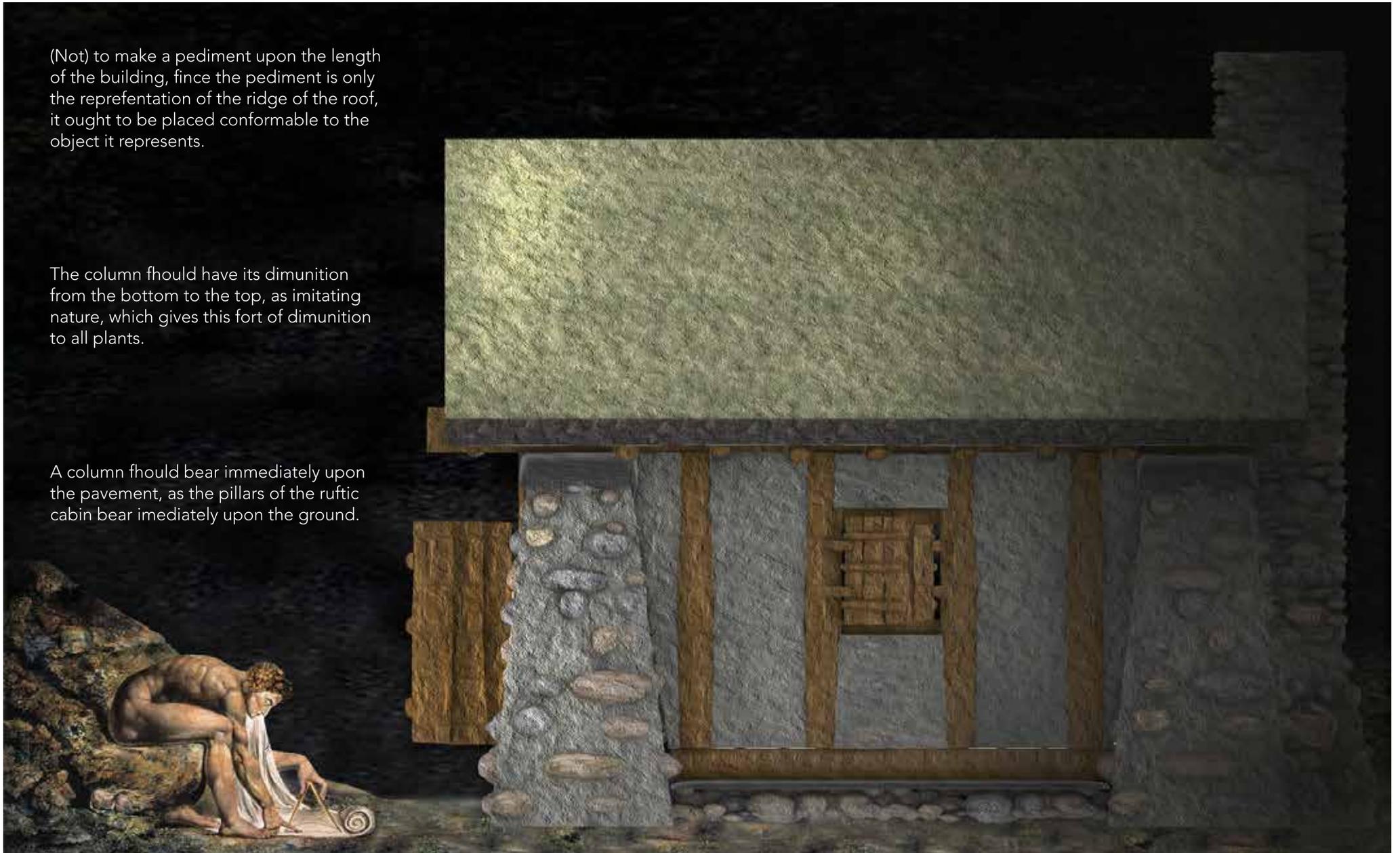
HEAVY TIMBER CONSTRUCTION

Render in a William Blake Painting

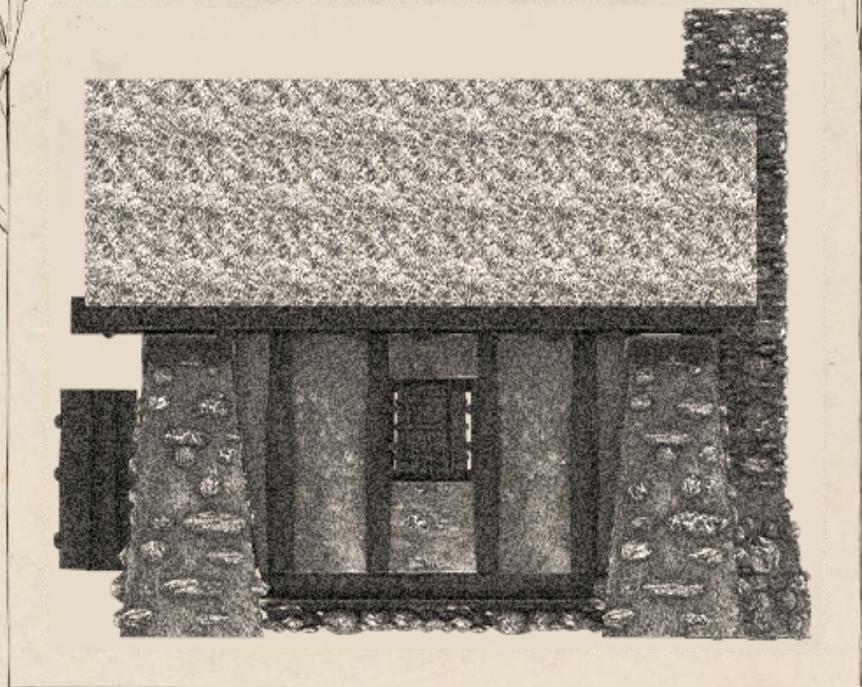
(Not) to make a pediment upon the length of the building, since the pediment is only the representation of the ridge of the roof, it ought to be placed conformable to the object it represents.

The column should have its diminution from the bottom to the top, as imitating nature, which gives this sort of diminution to all plants.

A column should bear immediately upon the pavement, as the pillars of the rustic cabin bear immediately upon the ground.



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Ye have heard of the Patience of Job and have seen the end of the Lord.

Wilshe inven & sculpt

ARCH 5906

DARIUS GHORBANI

