



# SUPERMODERN PILGRIMAGE

REDISCOVERING SELF THROUGH PLACE

JENN HICKS

MASTER OF ARCHITECTURE THESIS  
KENDALL COLLEGE OF ART AND DESIGN  
OF FERRIS STATE UNIVERSITY  
SPRING 2017

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# ACKNOWLEDGEMENTS

I WOULD FIRST LIKE TO THANK MY THESIS ADVISOR THOM DANCKEART FOR WALKING WITH ME THROUGH THIS JOURNEY. YOU PUSHED ME FARTHER THAN I THOUGHT I COULD GO AND HELPED ME GAIN A CONFIDENCE IN MY DECISIONS AND PERSPECTIVE. YOUR EXPERT ADVICE AND DIRECTION WAS INVALUABLE.

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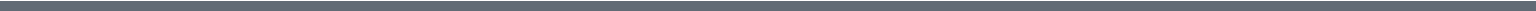
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**INTRODUCTION**

01

CHAPTER



INTRODUCTION	<b>ABSTRACT</b>
01.001	CHAPTER

# ABSTRACT

---

Tourism is a victim of supermodernity and has become a non-place. Tourist environments often lack the relational, historical and identity-rich qualities that define place. I hypothesize that tourism can be returned to a place through the experience of the built environment.

Society has become detached and individuals alienated from themselves and others. In a fast paced world of limitless communication, society is saturated with non-places, causing individuals to feel disconnected.

Supermodernity and our current globalized consumer culture have caused many to search in vain for a sense of identity in consumer products and experiences.

We have become a mere representation of ourselves; we are the representation and not our self.

Through investigating movie character personas representing archetypes of the alienated supermodern personality, and looking at their unique needs and desires that are not being fulfilled, I will use the built environment to enhance experience and engage the everyday user to connect with the self and the world. These sites become a place, in the sense that they are relational, historical, and related to identity. Through the interaction with a place, one is apt to fully engage and in doing so, is able to become open to experience and a deep-rooted connection, to place and self.

# PROGRAM

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This new form of tourism will encompass a series of interventions along a journey. At each location the experience will vary, producing a unique experience to fulfill or highlight a set of needs and desires. Through the interaction with these sites, the user will have to opportunity to experience a rediscovery of self.



SOLITUDE



ALONE AMONG

# MODES OF CONNECTION



ST



MEANINGFUL INTERACTION



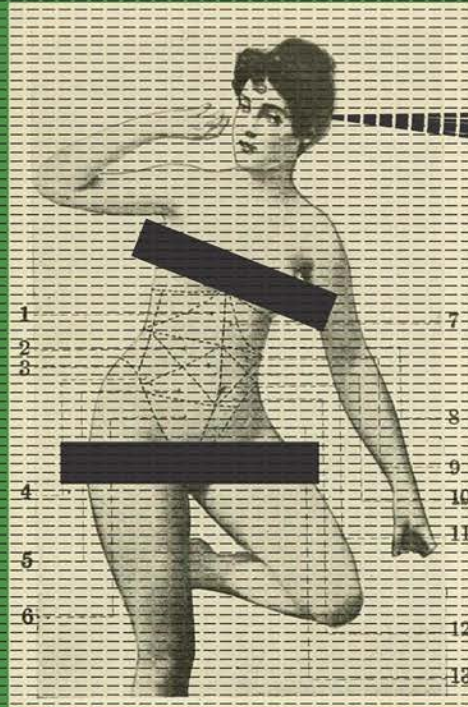


INTRODUCTION	<b>SOCIAL CONTEXT</b>
01.002	CHAPTER

SUPERMODERNITY ●

NON-PLACE

LONELINESS



SUPERMODERNITY AND THE IMP

● REPRESENTATION

LOSS OF  
IDENTITY

● DISCONNECTION

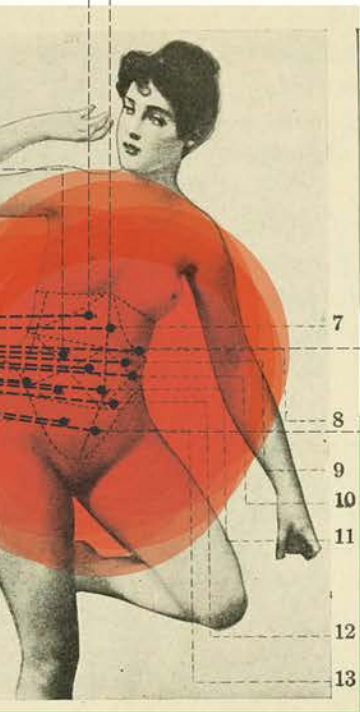
LONGING

IDENTITY

● SUPER-EXCESS

● GLOBAL SOCIETY

RETREAT  
FROM  
COLLECTIVE



PLICATIONS ON SOCIETY

# SOCIAL | CULTURAL CONTEXT

---

## SUPERMODERNITY

Supermodernity can be characterized by excess. An active superfluity exists within the realms of time, space and the individual.<sup>1</sup>

More recently the term "hypermodernity" has been used, but refers to the same basic concept. I will use supermodernity to refer to this concept throughout my thesis.

We live in an attribute-driven world that is fueled by the rise of technology. Technology and biology have become increasingly interwoven, and in the same instance, information and matter have converged.

The ability to make a distinction between 'events' and accurate historical instances becomes exceedingly difficult with the intensification of technological communication. Meaningless

occurrences and meaningful moments blend into the same lens and lack distinguishing characteristics due to the oversaturation of events supplied by technology.<sup>2</sup>

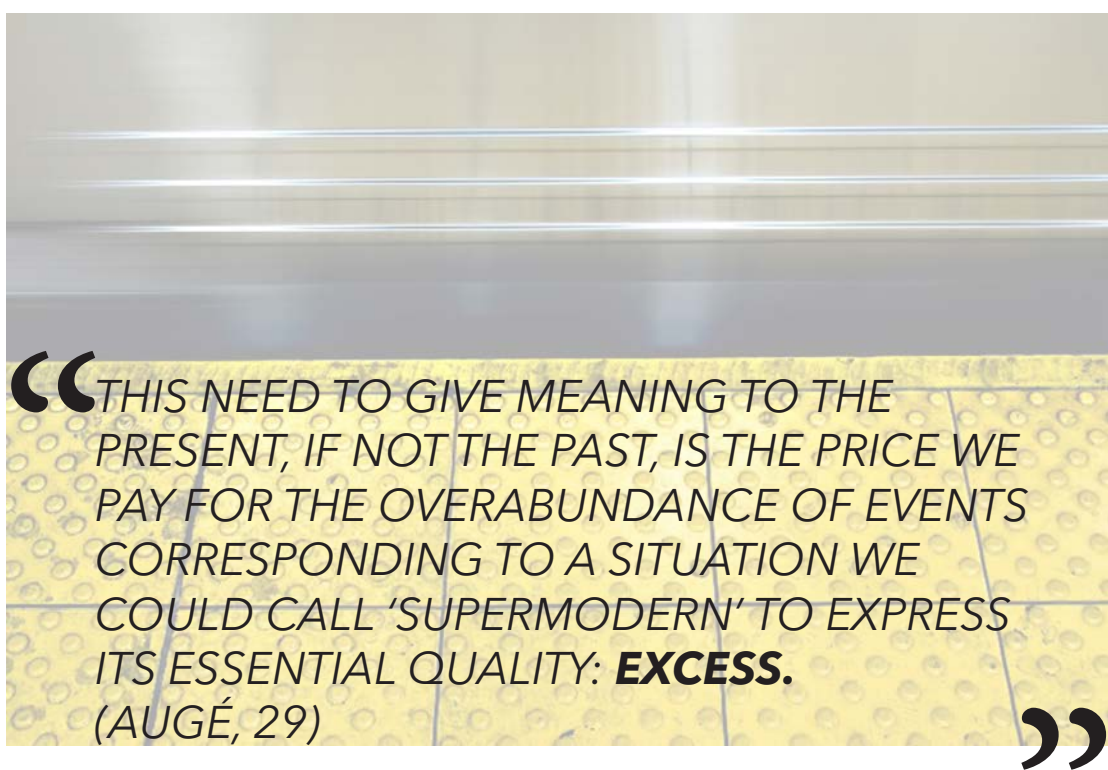
Integrated within Western culture is the encoded drive to understand the entirety of the now, which is far more than we as humans can grasp. We are set up to fail because these goals are far too lofty to reach. This in turn leads to a "so-called crisis of meaning" where meaning has not faded because of technology, it has remained but been dwarfed by the enormity of our goals and desire for meaning.<sup>3</sup>

This thesis attempts to address this crisis of meaning and the seeming lack of meaning in every day life within supermodernity. Is there a way to let people confront this crisis through the built environment?

<sup>1</sup> Ian Buchanan, "Review Article: Non-Places Space in the Age of Supermodernity," 393-398.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.



“THIS NEED TO GIVE MEANING TO THE PRESENT, IF NOT THE PAST, IS THE PRICE WE PAY FOR THE OVERABUNDANCE OF EVENTS CORRESPONDING TO A SITUATION WE COULD CALL ‘SUPERMODERN’ TO EXPRESS ITS ESSENTIAL QUALITY: **EXCESS.**  
(AUGÉ, 29)”

# SOCIAL | CULTURAL CONTEXT CONTINUED

---

## NON-PLACE

If a place is considered as something that is relational, historical, and concerned with identity, then a non-place is not shaped by any of the aforementioned characteristics.

These non-places are a consequence of the supermodern society. Marc Augé argues that supermodernity produces non-place.<sup>4</sup>

Non-places can never be fully possessed. The space is always an anonymous one, where one is forced to be emotionally detached from it. The draw to this space is that it still makes one within it feel as though they are a part of something, that they belong, that they are important.<sup>5</sup> One could relate this to the consumer culture of today where commodities, products, and images create

the identity of an individual. One believes that something outside of themselves is causing a formation of self. Solitary individuality is what the experience of the non-place brings to one within it. The person inhabits a space, but with a veil of indistinctness. They become almost non-human. Within this nonspecific space this non-human can be at home. Nothing is new, nothing is unknown, nothing is challenging, and it can be a monotonous comfort.<sup>6</sup>

Non-place engenders solitude. Human interaction is replaced with the non-place, which is exactly how a non-place is created. The lack of that connection is not noticed. It is not needed. And perhaps, the non-place even improves upon what one would have received from human interaction, creating benefits concurrent with our

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4 Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity* (London: Verso, 1992).

5 Ian Buchanan, "Review Article: Non-Places Space in the Age of Supermodernity," *Social Semiotics* 9, no. 3 (1999): 393-398.

6 Ibid.

supermodern society. An airport is one of the most common examples of a non-place. Each airport is created to be similar to all of the others. One can easily navigate the area without having to rely on another human. Inhabitants of this space remain anonymous. It is a space that one never really inhabits, they just pass through.

Augé proposes that place can

never be erased, whereas in complete opposition, non-place can never be entirely completed.<sup>7</sup>

This thesis attempts to confront the non-place. To return people to place and the human connection found within it. Place, through the built environment, will become the vehicle to bring the user back to their own identity instead of losing it within a non-place.

<sup>7</sup> Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity* (London: Verso, 1992).

“A PERSON ENTERING THE SPACE OF NON-PLACE IS RELIEVED OF HIS USUAL DETERMINANTS. HE BECOMES NO MORE THAN WHAT HE DOES OR EXPERIENCES IN THE ROLE OF PASSENGER, CUSTOMER, OR DRIVER. [...] THE SPACE OF **NON-PLACE CREATES NEITHER SINGULAR IDENTITY NOR RELATIONS; ONLY SOLITUDE, AND SIMILITUDE.** THERE IS NO ROOM FOR HISTORY UNLESS IT HAS BEEN TRANSFORMED INTO AN ELEMENT OF SPECTACLE, USUALLY IN ALLUSIVE TEXTS.  
(AUGÉ, 103)

”





INTRODUCTION	<b>DISCURSIVE CONTEXT</b>
01.003	CHAPTER

# DISCURSIVE CONTEXT

---

This thesis engages the ongoing discussion of place in relation to architecture.

According to Marc Augé, what defines a place is that it is **“relational, historical and concerned with identity.”** He defines a non-place as a space that is not concerned with any of the former characteristics.<sup>8</sup> Non-places have proliferated as the age of supermodernity and the technological era have reshaped our society. This thesis examines the resiliency of place against our altering society and develops a methodology for the production of place in this context.

I situate this work in dialogue with Peter Zumthor. He is revered by many for the experiential qualities and sense of place that he evokes through the careful crafting of his work and his attention to materiality. His point of view and methods are similar to my own. I will bring my own point of view to the creation of place within the context of an alternative tourism network. The social and psychological are integral to the initial design

development in my work. There is a focus on the connection of an individual to their true self. I place great importance on how a sense of place can turn one inward to create that connection.

In 2009 Zumthor was awarded the Pritzker Architecture Prize for his work. The jury citation asserts of Zumthor; “While some have called his architecture quiet, his buildings masterfully assert their presence, engaging many of our senses, not just our sight but also our senses of touch, hearing and smell.”<sup>9</sup> My tourism sites are based on their experiential quality and ability to allow space for the user to reconnect with themselves. The senses are of utmost importance within my designs as well as Zumthor’s.

The senses are not only about their presence within my designs. The lack of or deprivation as well as the excess or oversaturation of senses, draws out a response. This visceral response allows for an experience of the inner-workings of who we are at the core, thus connecting us to a true aspect of the self.

8. Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity*, trans. John Howe (London: Verso, 1992)

9. The Hyatt Foundation, “Pritzker Architecture Prize: Jury Citation - Peter Zumthor,” 2009, accessed 02 13, 2017, <http://www.pritzkerprize.com/2009/jury>



Figure 1

Zumthor attempts to break down the process he uses to create the distinct atmospheres of his work. These are categorized into nine chapters with three appendices. They are as follows:<sup>10</sup>

1. The body of architecture
  2. Material compatibility
  3. The sound of space
  4. The temperature of space
  5. Surrounding objects
  6. Between composure and seduction
  7. Tension between interior and exterior
  8. Levels of intimacy
  9. The light on things
- APPX 1. Architecture as surroundings  
 APPX 2. Coherence  
 APPX 3. The beautiful form

100. Peter Zumthor, *Atmospheres*, (Basel: Birkhauser, 2006)

# DISCURSIVE CONTEXT CONTINUED

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These chapters are all aspects that I will pay close attention to while making my way through the design process and the creation of place.

What I am most interested in exploring through design is the tension between the interior and the exterior and even what constitutes as interior and exterior. There is also the aspect of how one experiences a place if they are in, on, under, away from, or

above. These are central factors that contribute to the creation of place, as well as connection.

The levels of intimacy are a key factor in my exploration of place. Varying the intimacy levels allows for periods of different forms of connection: with the self, place, and others. The light, sound, materiality, and aesthetics all contribute to the forms that the levels of intimacy take.

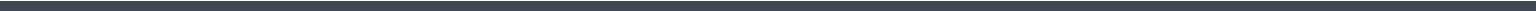
What I would like to explore through the design process is a different way to interpret site and activity. For me, these hold their origins within the analysis of the user and their needs and desires. These will allow determination of what characteristics and spatial qualities a site should encompass. The users also determine what activities and movements through the site are appropriate. The process will be cyclical, making sure that the three components are in harmony with each other. Thus the user is able to greatly influence place.

Zumthor's practice differs greatly from mine in this respect. Zumthor considers who will inhabit the space, but takes a more divine role with his designs. The users in his projects are allowed to inhabit the space, but not influence it. The place influences his users.

The relational, historical, and concern with identity components of Auge's definition of place are deeply rooted in the user. By simplifying this definition and saying that the user is influenced by place, but also influences the place, then the user is of utmost concern. By allowing, or even forcing, the user to be aware of their influence and feel their presence in a changing world, they are able to rediscover themselves and their identity within that context.



Figure 2



**TOURIST NETWORK SITE**

THE UPPER PENINSULA  
OF MICHIGAN

02

CHAPTER





TOURIST NETWORK SITE

**MAPPING THE  
UPPER PENINSULA**

02.001

CHAPTER



The Copper Country region of the Upper Peninsula of Michigan is the focus area of this study on place-based tourism. The selection of this area creates a unique set of characteristics through which this theory can be explored. This place-based tourism and the process from which it stems could be replicated in many other regions, taking advantage of their unique characteristics.

# SITE

---

The Upper Peninsula comprises almost a third of Michigan's land area, but only three percent of its population.<sup>11</sup>

Forty-five percent of Michigan's entire forest land is located in the U.P.<sup>12</sup>

Corporations own many of the large land holdings in the region for timber production purposes.<sup>13</sup>

Over the last 150 years the virgin White Pine forests of the U.P. have been almost clear-cut. This causes the trees to look as if they have been scaled down.<sup>14</sup>

More than 700 underground mines and 2000 shafts in Michigan have been closed.<sup>15</sup>

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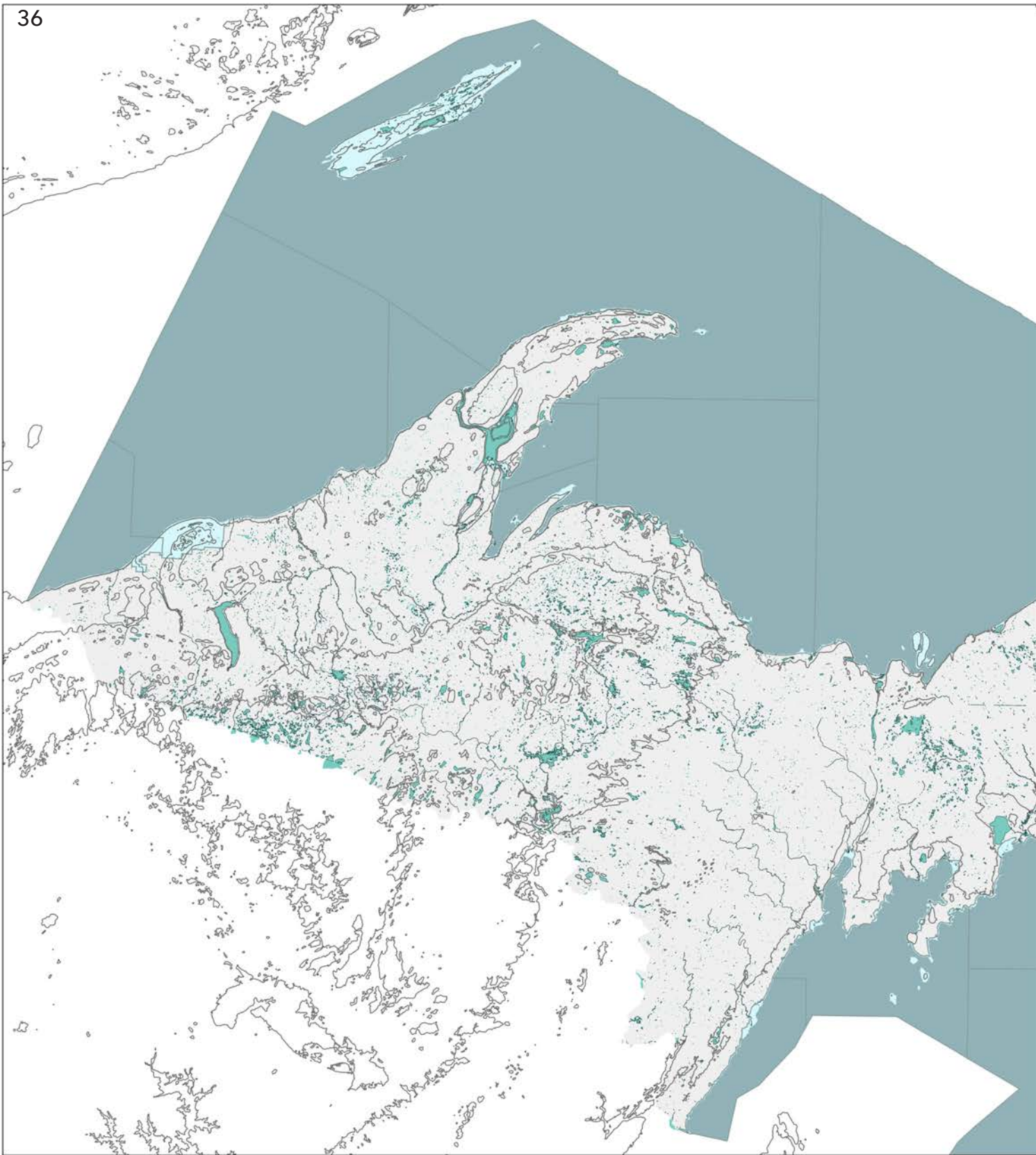
11 "Michigan's Upper Peninsula struggles to survive," *Daily Herald Business Ledger*, May 27, 2011.

12 U.S. Forest Service 2012, "Michigan's Forests 2009," 2012.

13 Ibid.

14 Tim Murphy, "A 51st State in...Michigan?," *Mother Jones*, August 2010.

15 Department of Mining Engineering, MTU, "Michigan Underground Abandoned Mines Inventory, Michigan Tech, 1999.



# FORM MAP

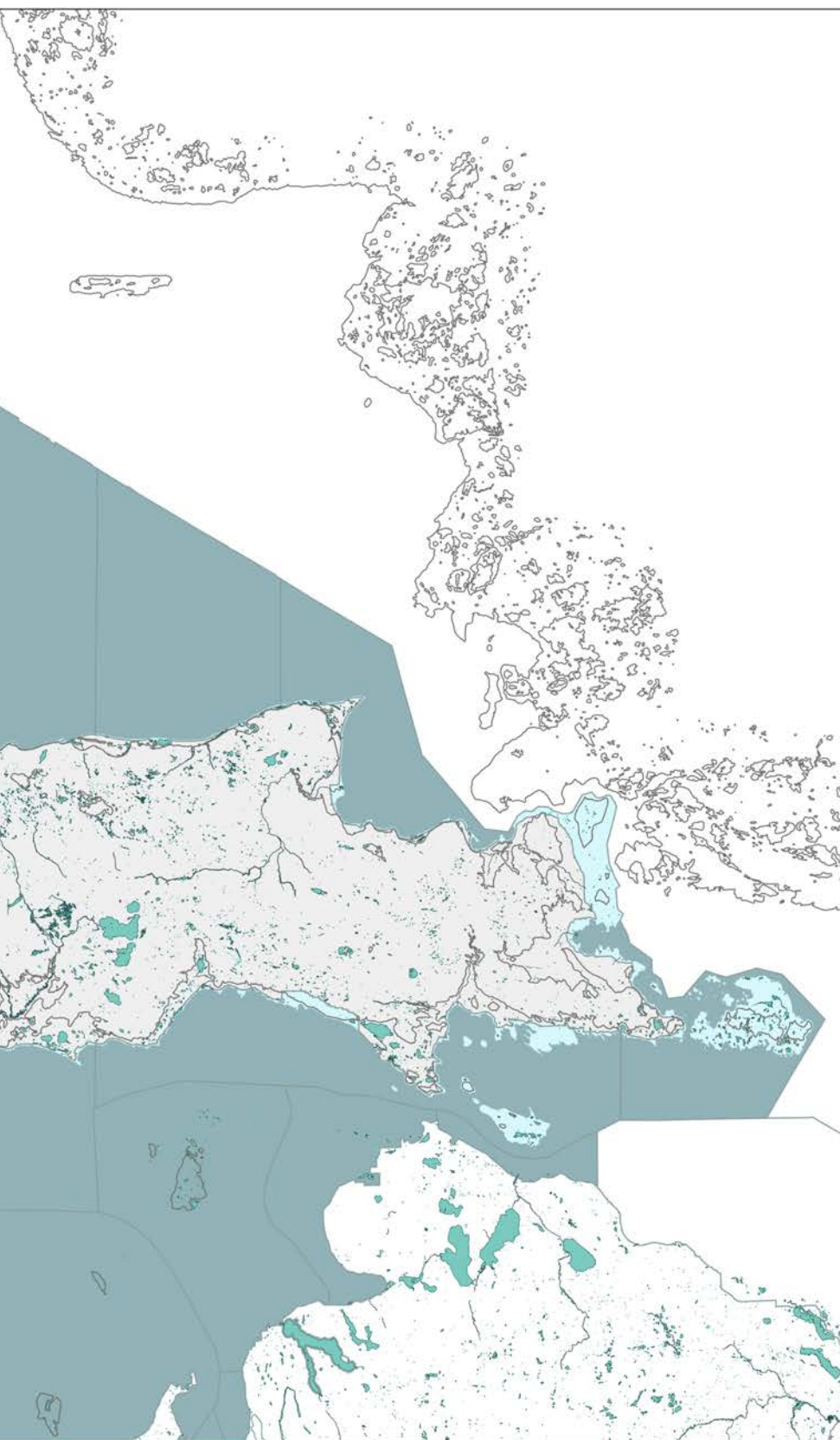
- LAND
- COASTAL ZONE
- INLAND BODY OF WATER
- RIVER

## NATURAL FEATURES

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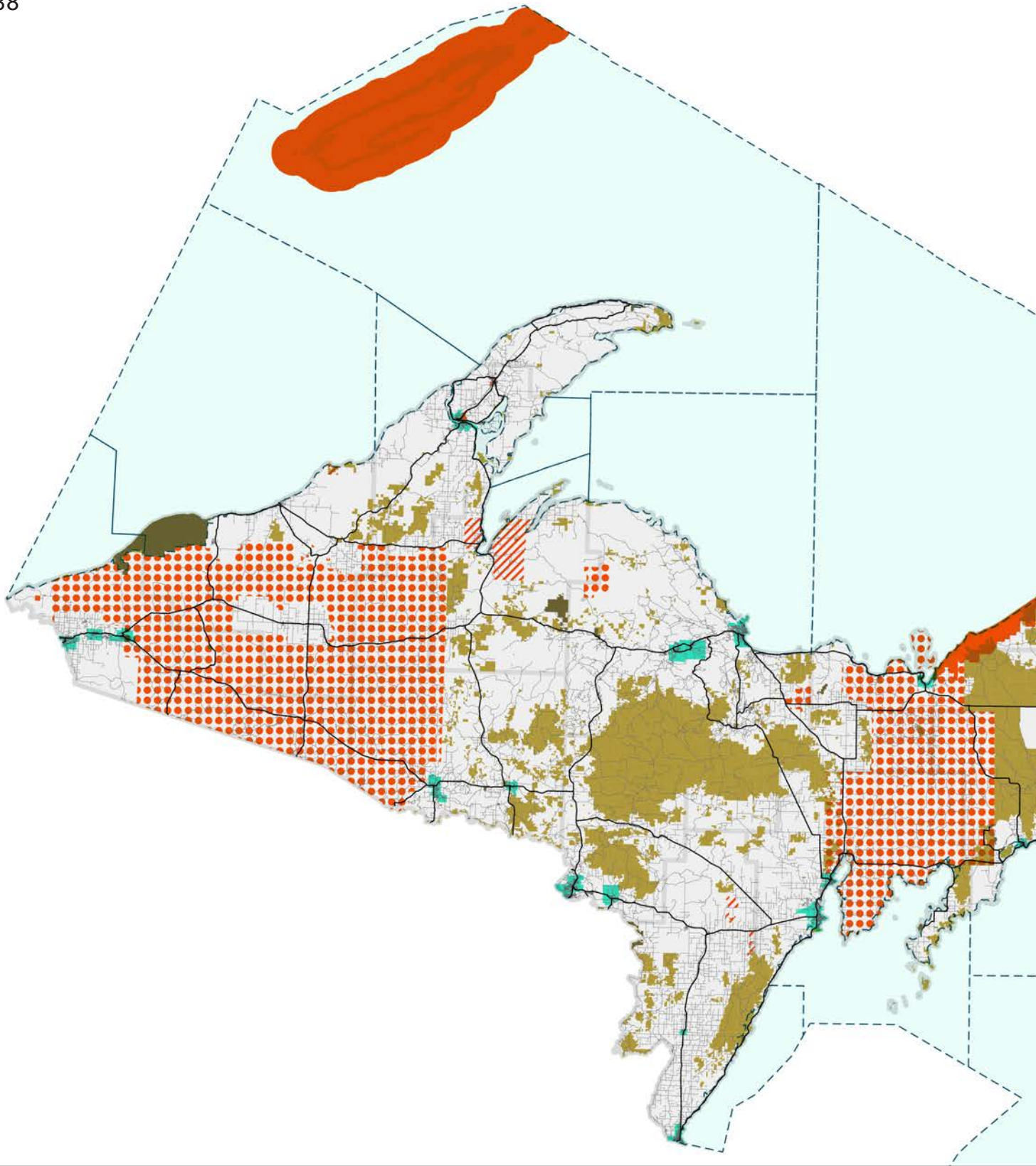
The Upper Peninsula has many unique hydrological and topological qualities. Multiple mountain areas and valleys give the landscape texture along with places of prospect and refuge. These allow for a diverse set of experiences connected with the landscape.

The rivers and lakes penetrate the land, especially toward the west where the glacial formation of land left its mark. This is also the region where copper can still be found in the precambrian rocks as well as a complex network of geological formation under the surface.



 TOPOGRAPHY

 COAST MANAGEMENT  
LAND OVERLAP



# MANIFEST MAP

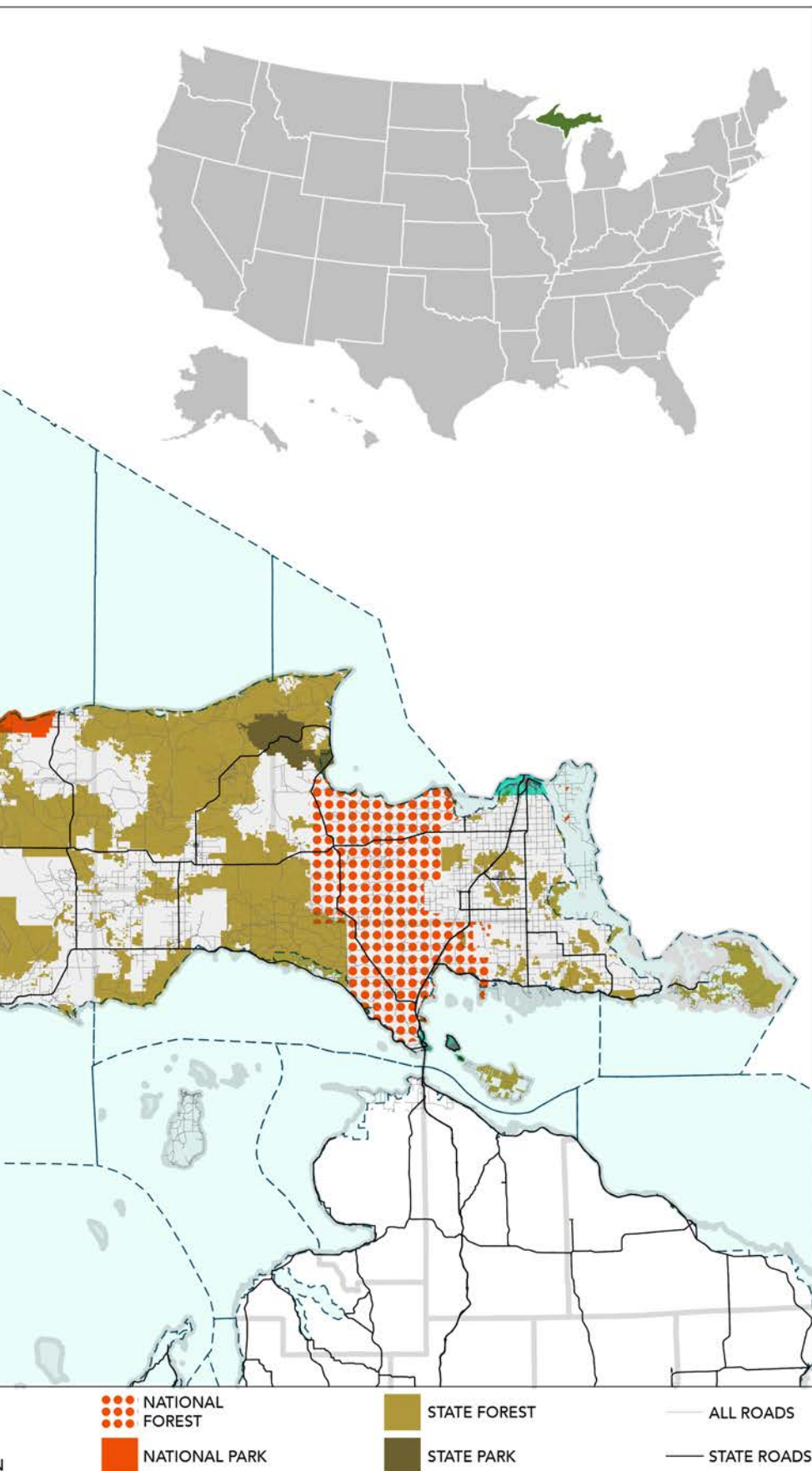
COASTAL ZONE  
MANAGEMENT

COUNTIES

CITY

AIANNH LANDS-  
AMERICAN INDIAN

## HUMAN BOUNDARIES

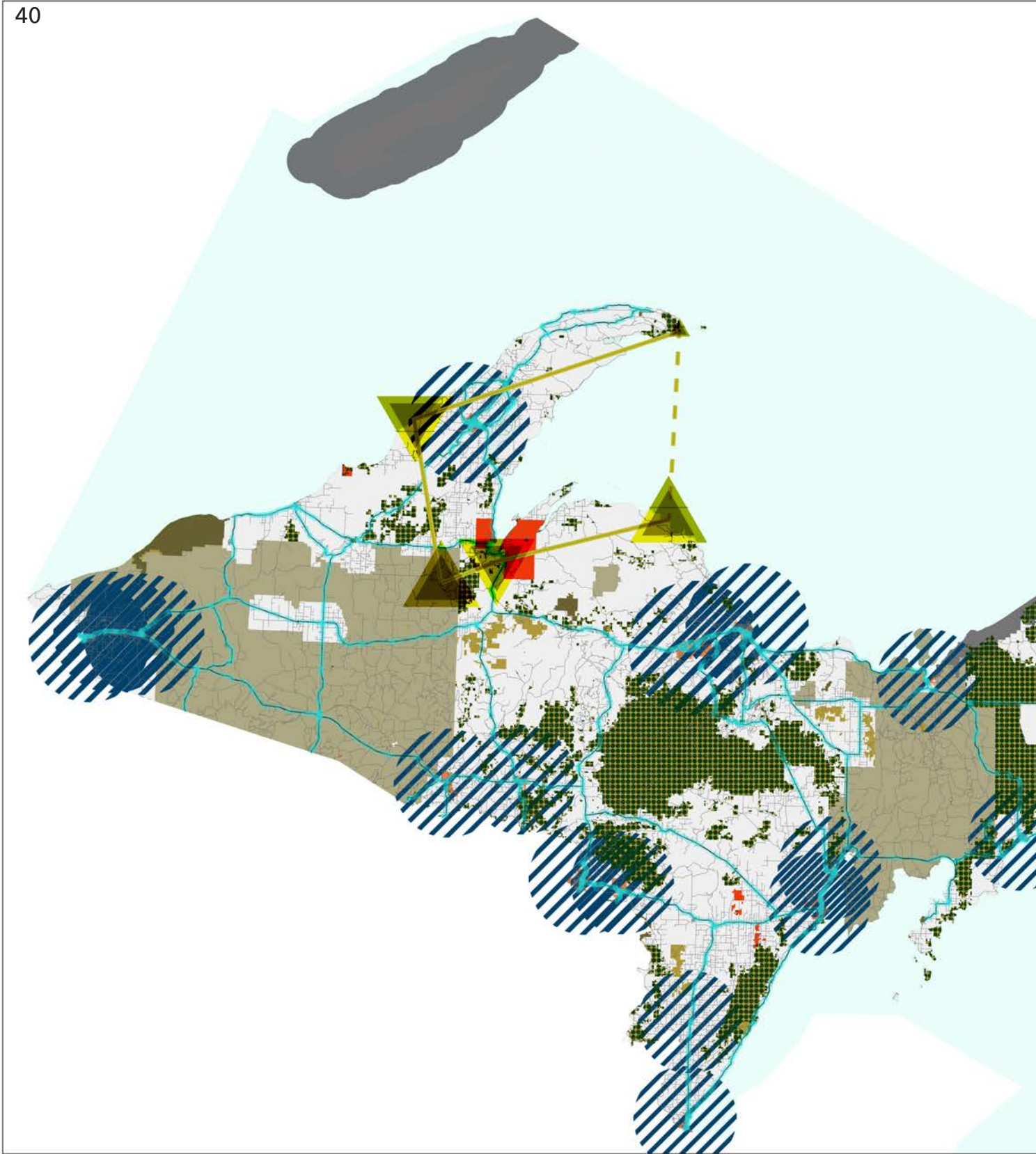


The lands of the Upper Peninsula have been categorized and bounded by institutions. There are vast areas of National Forest land and State Forest land. There are also designated American Indian lands concentrated to the east of the peninsula to the north as well as smaller parcels dotting the entire land mass.



The road infrastructure connects mainly to the large areas of settlement, with smaller roads reaching out to the rural areas. In some cases there are towns that are the “end of the line,” where the only road in is also the only road out. This is the case in Freda, where the final design exploration is located.

Cities are small and sparse. These areas grew out of the industrial revolution era, surrounding the areas where jobs were to be found. The major industry of the Upper Peninsula during its early years of statehood was copper mining. This broadened to mining of other minerals.





# SITE NETWORK MAP

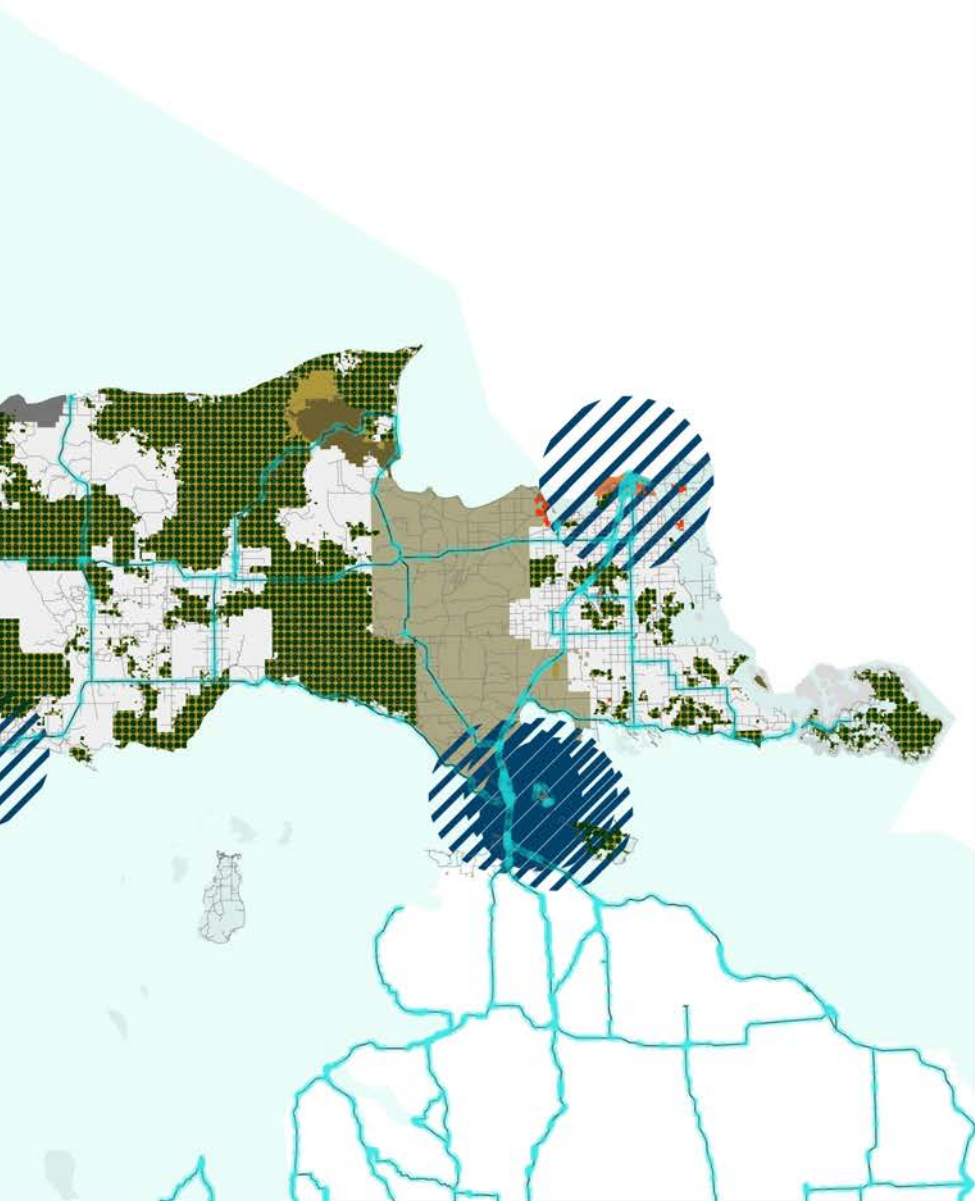
-  FEDERAL LAND
-  STATE PARKS WILDLIFE AREA OPEN TO HUNTING AVOID

# SITE IDENTIFICATION

Taking the information from the natural and human aspects of the land, ideal areas of land can be identified for the sites of interventions.

National lands should be avoided and preserved as well as the American Indian lands. Major cities of noted population should be distanced by at least 10 miles. The State Forest lands would be an ideal location for sites, but a major draw to the U.P. exists because of hunting areas, which are opened up during the season on these lands. This would not allow for continuous site use throughout the year due to problems of safety.

The identified site regions include these considerations as well as the proximity to notable topological and hydrological features.





TOURIST NETWORK SITE

**GEOLOGY**

02.002

CHAPTER

# HISTORICAL CONTEXT

## SUPERIOR GEOLOGY EXTRAORDINAIRE



Figure 3

Lake Superior Copper Country is a majestic result of its unique geological history. Views of the Upper Peninsula from the coastline are evidence to the pronounced distinctiveness of this land (Figure 3).

The Keweenaw Peninsula is located directly on the Mid Continental Rift, which runs from Kansas through the western U.P. and back down to Detroit (Figure 4). This rift was formed around 1.1 billion years ago as super continents separated and lava flowed from the hotspot underneath.<sup>16</sup>

<sup>16</sup> National Park Service, "Geologic Timeline of the Keweenaw," National Park Service, accessed March 13, 2017, <https://www.nps.gov/kewe/learn/nature/geologic-timeline.htm>

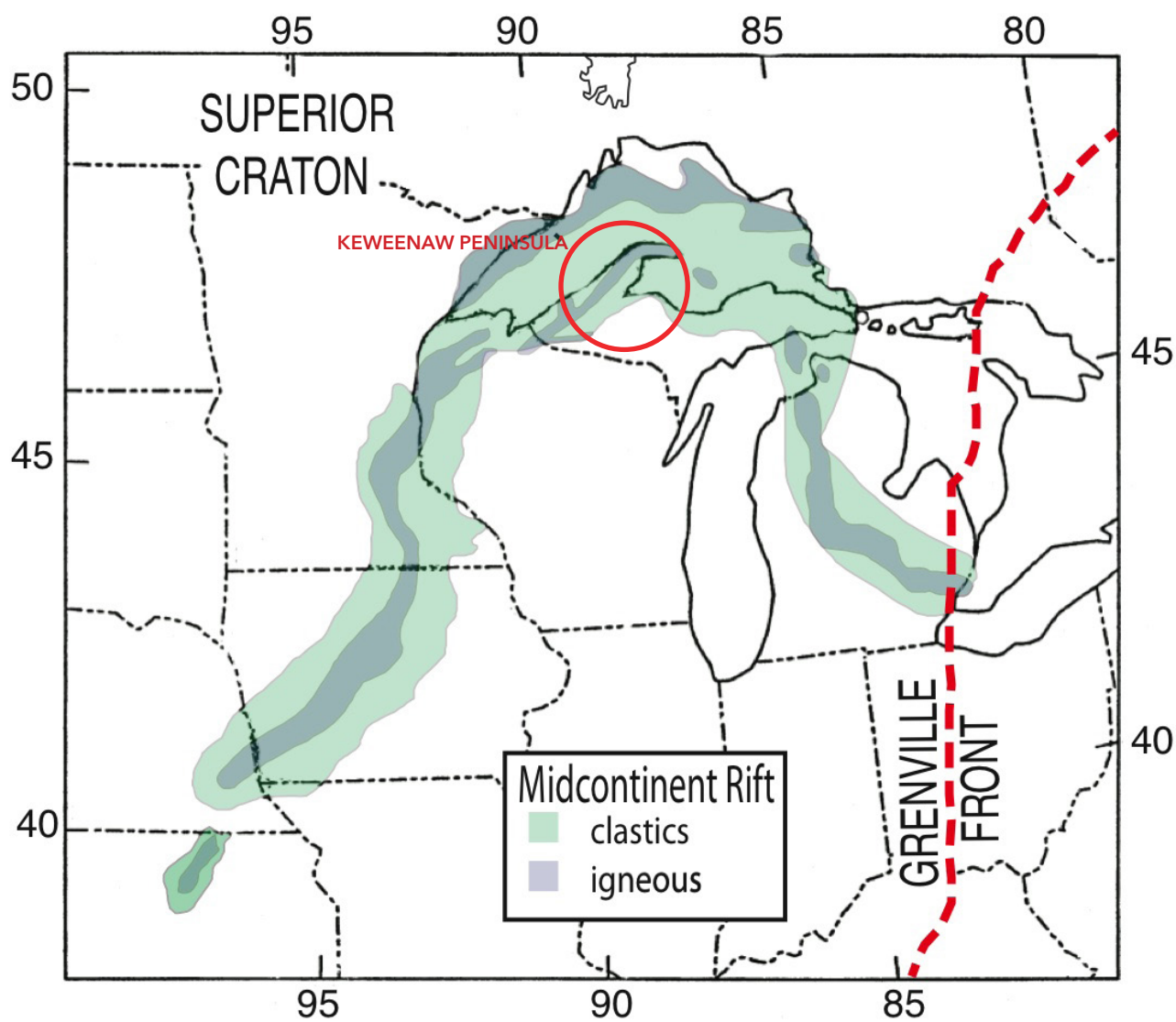


Figure 4

### MID CONTINENTAL RIFT

MAP OF THE ROCKS ASSOCIATED WITH THE MIDCONTINENTAL RIFT ALONG WITH THE LOCATION OF THE GRENVILLE FRONT. CLASTIC ROCKS, A TYPE OF SEDIMENTARY ROCK, ARE MAINLY COMPRISED OF PIECES OF OTHER ERODED ROCK. IGNEOUS ROCK IS CREATED FROM MAGMA OR LAVA THAT GOES THROUGH A COOLING AND SOLIDIFICATION PROCESS.

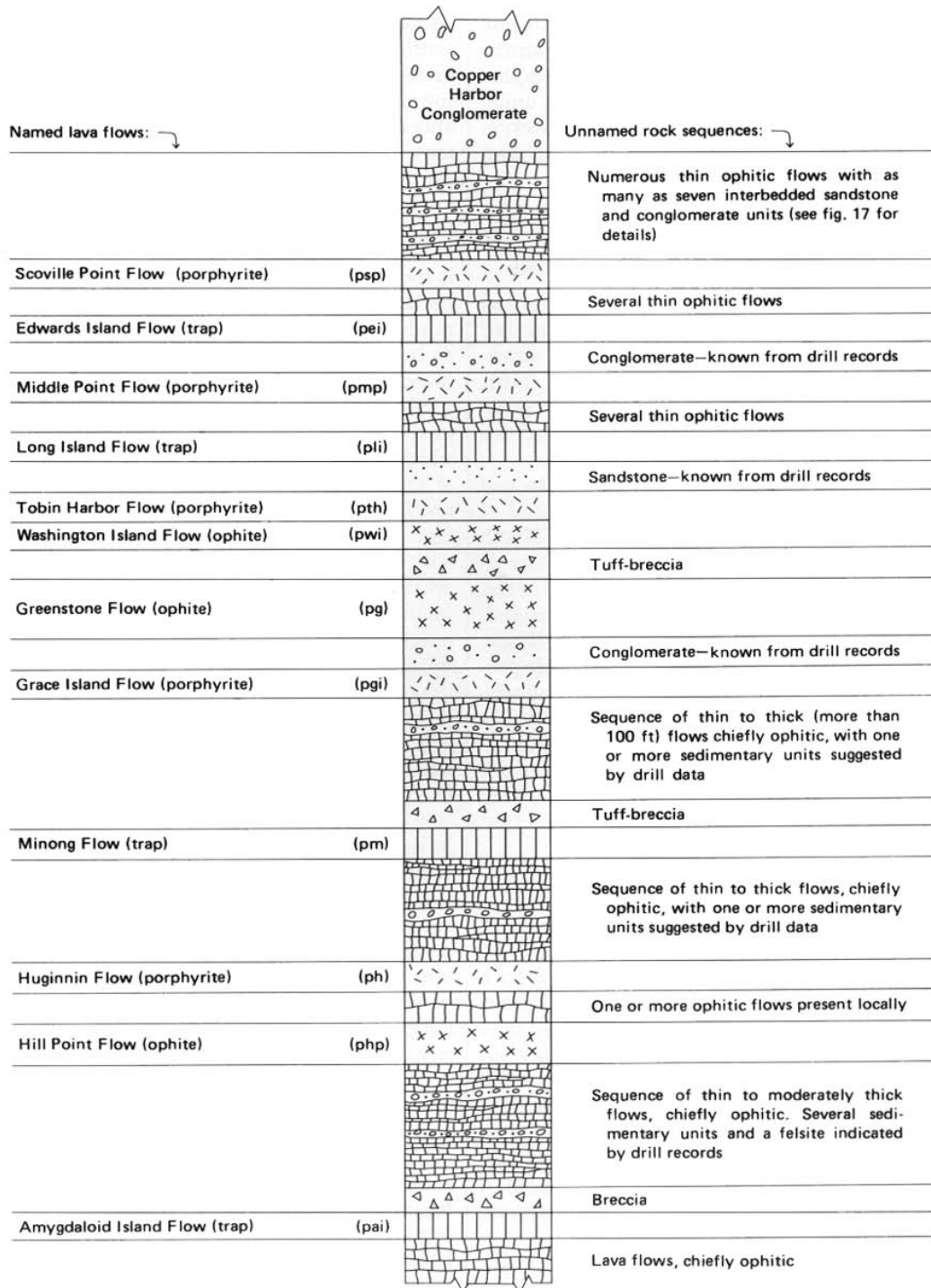


Figure 5

The lava flows of Portage Lake (Figure 5), which runs down the rift, were produced between 1.096 to 1.094 billion years ago (Figure 6 and 7). Only million years later were the last of the lava flows on the Keweenaw deposited. The solidified magma results in the production of basalt, a type of dark volcanic rock.<sup>17</sup>

17 National Park Service, "Geologic Timeline of the Keweenaw," National Park Service, accessed March 13, 2017, <https://www.nps.gov/kewe/learn/nature/geologic-timeline.htm>

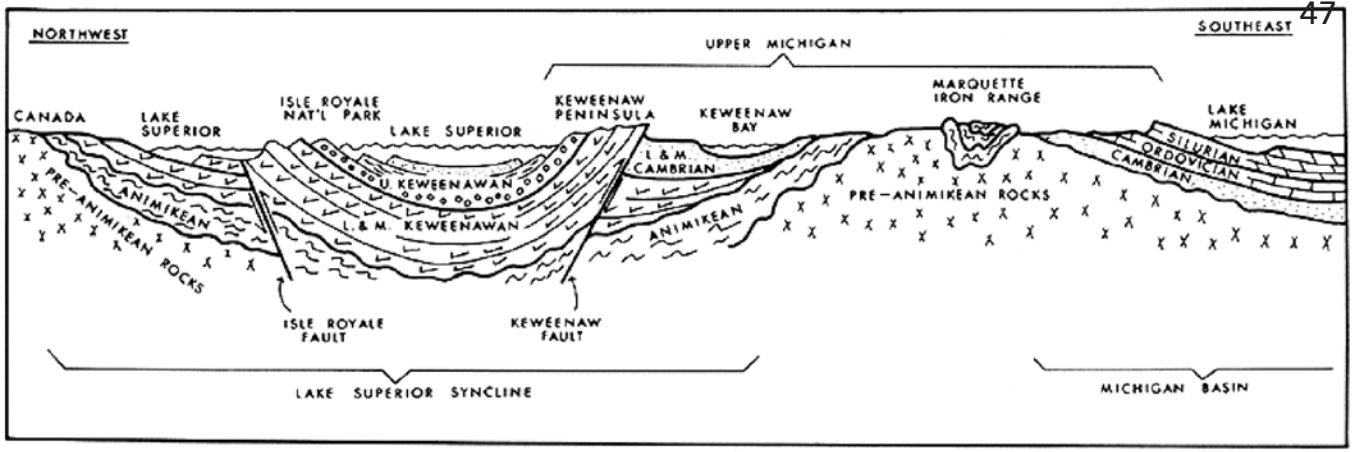


Figure 6

### SECTIONAL REPRESENTATION OF UPPER PENINSULA

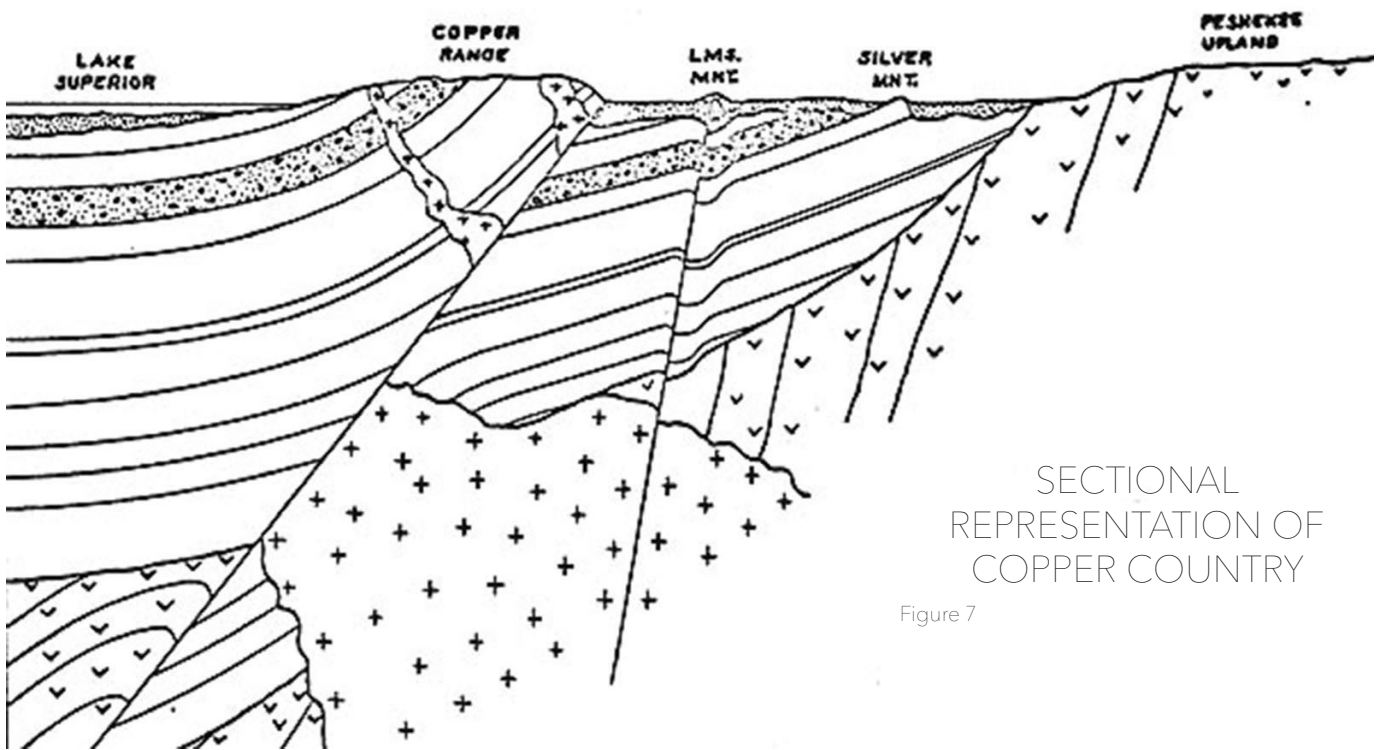


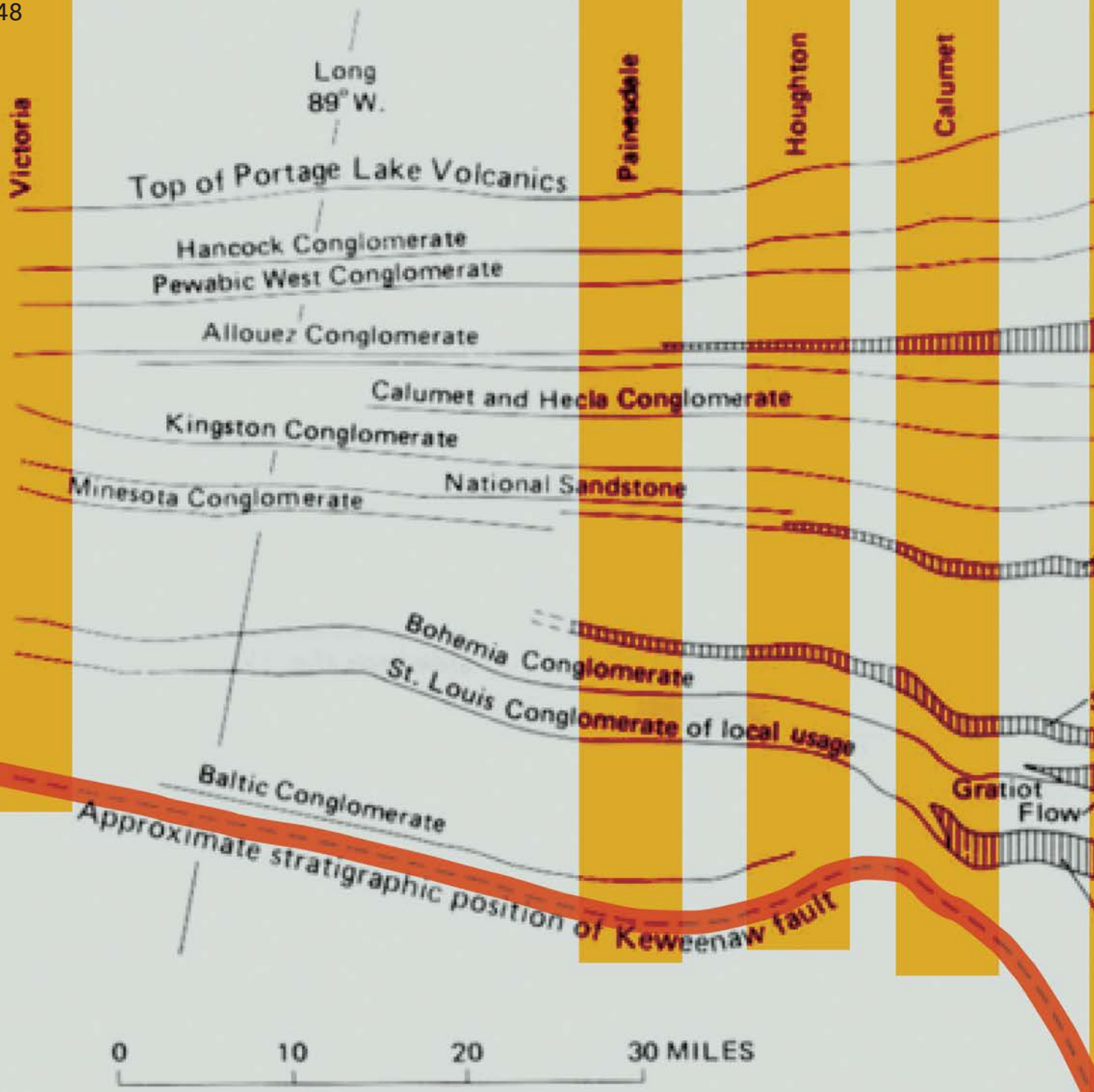
Figure 7

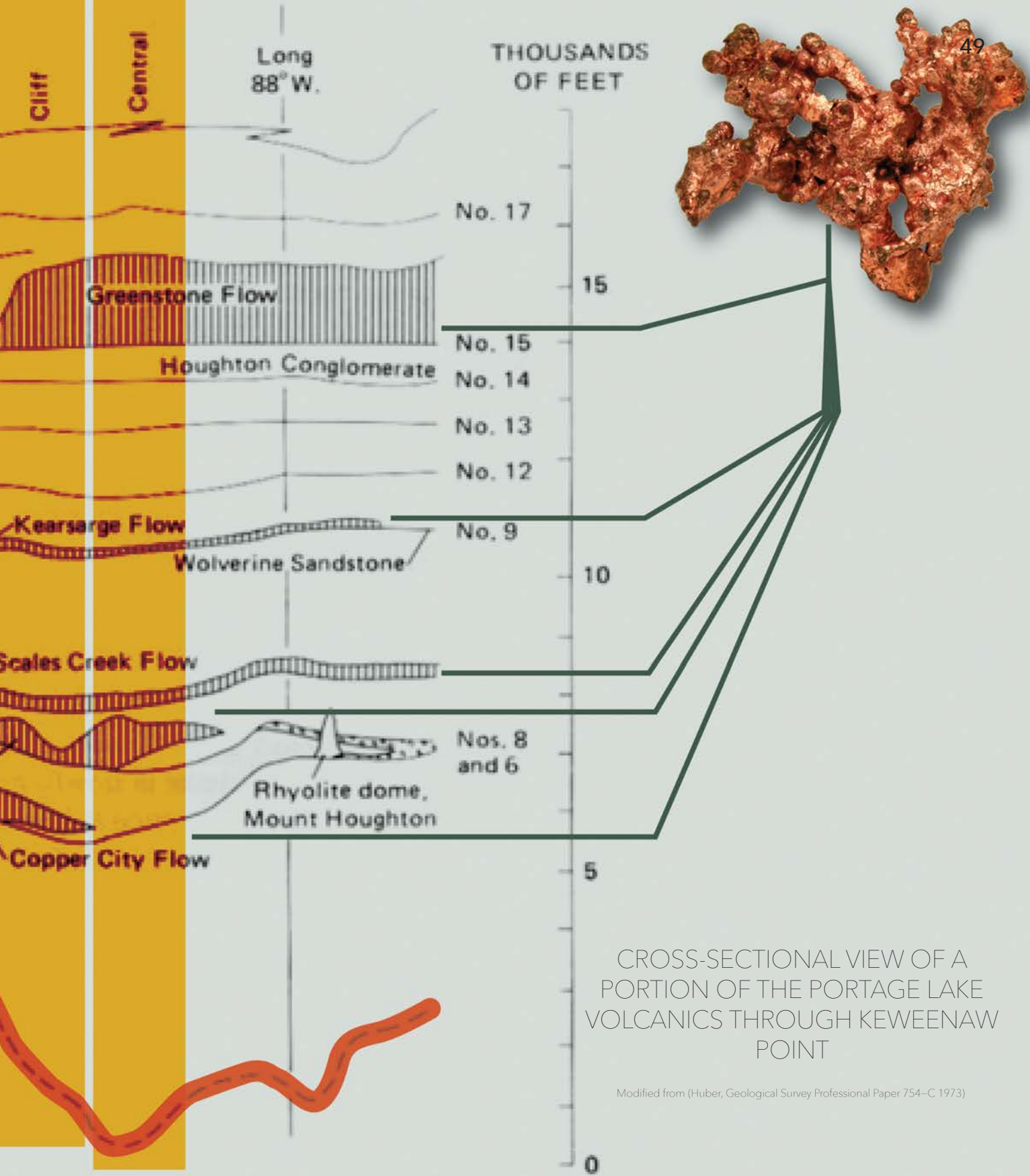
### SECTIONAL REPRESENTATION OF COPPER COUNTRY

For unknown reasons the lava and rifting discontinued. The weight of the basalt caused the land to sink around the rift axis. At the Keweenaw and Isle Royale faults there was a stage of compression that pressed up the earth along the center of the axis of the rift (Figure 6).<sup>18</sup>

<sup>18</sup> John C. Green, "The Lake Superior Basin's Fiery Beginning," Lake Superior Magazine (June 1, 2002).







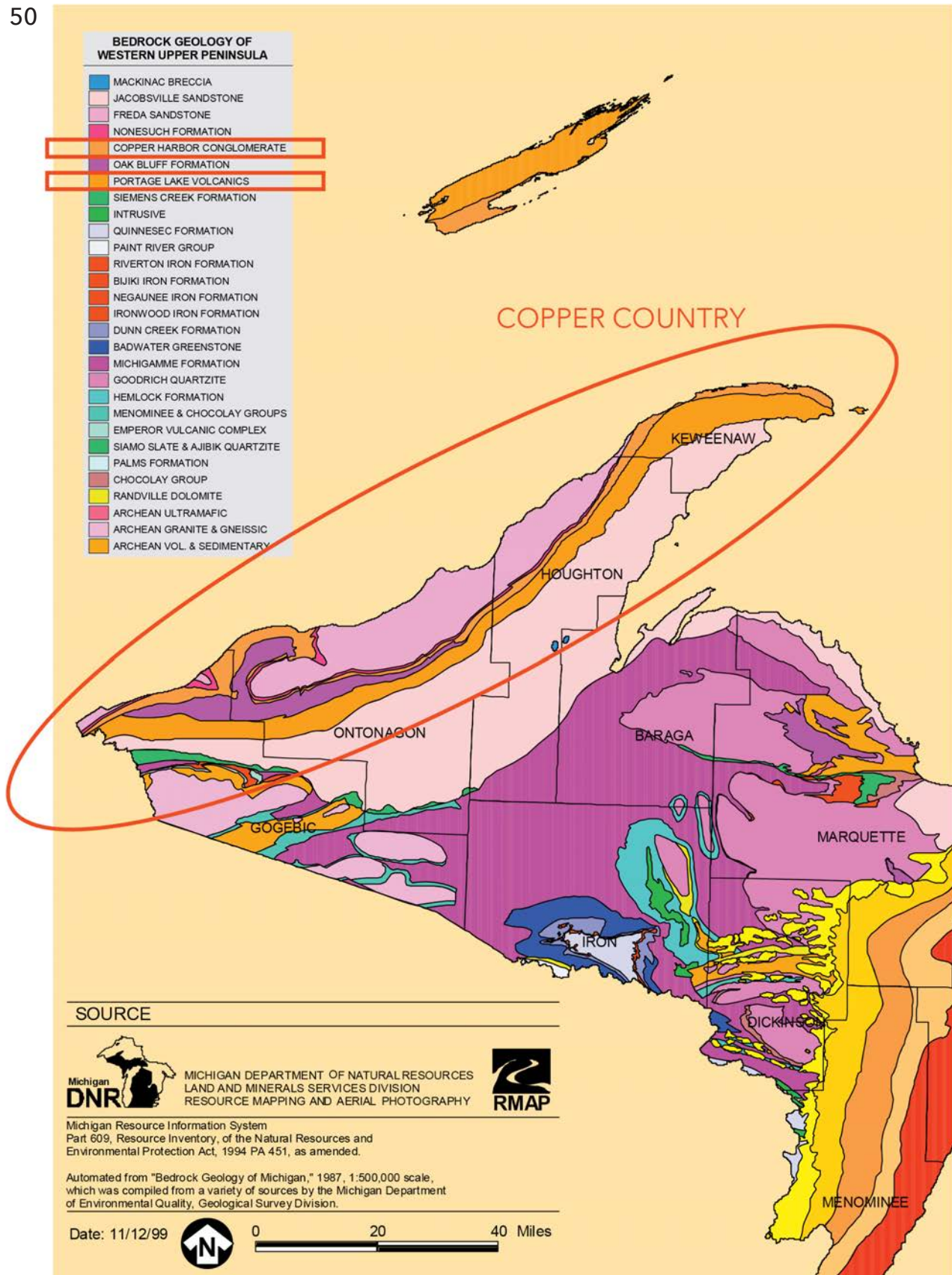


Figure 8

BEDROCK GEOLOGY OF MICHIGAN

Erosion and sedimentation aggressively took over the landscape until around 10,000 years ago, especially in the earlier period when plants had not yet emerged to assist in the stabilization of the planet. The erosion of what is now known as the Huron Mountains eventually resulted in the hardening of the sedimentation into the Jacobsville Sandstone. It is seen predominantly on the eastern edge of the Keweenaw Peninsula as well as the northern edge of the surrounding area (Figure 8).<sup>19</sup>

10,000 years ago the glaciers receded, the ice melted, and the depressions were filled with water, birthing the Great Lakes and pronouncing the form that the Upper Peninsula takes today

(Figure 9). Evidence of this event can be seen around the area in the formation of kettle lakes (depressions created by retreating glaciers), gravel and sand deposits, and most brilliantly in glacial grooves in the exposed basalt rock.<sup>20</sup>

There are two theories on how copper was formed in the Mid Continental Rift. A favored theory is the "burial metamorphism of the rift rocks" (basalts) due to growing evidence. Copper rich ore fluids could be generated at 300 to 500 degrees Celsius.<sup>21,22</sup> The other theory involves the layers of basalt and conglomerate rock trapping copper-rich hydrothermal waters and the copper forming through precipitation as the water cooled.<sup>23</sup>

19 National Park Service, "Geologic Timeline of the Keweenaw," National Park Service, accessed March 13, 2017, <https://www.nps.gov/kewe/learn/nature/geologic-timeline.htm>

20 IBID.

21 T.J. Bornhorst and W. I. Rose, "Self Guided Geological Field Trip to the Keweenaw Peninsula, Michigan," Institute of Lake Superior Geology Proceedings, 40th Annual Meeting, 40 (Houghton, MI, 1994): 185.

22 W.T. Jolly, "Behavior of CU, Zn, and Ni During Prehnite-Pumpellyite Rank Metamorphism of the Keweenaw Basalts, Northern Michigan," Economic Geology 69 (1974): 1118-1125.

23 Robb Gillespie, and William B. Harrison III, and G. Michael Grammer, Geology of Michigan and the Great Lakes, (Canada: Cengage Brooks/Cole as part of Cengage Learning, 2008).

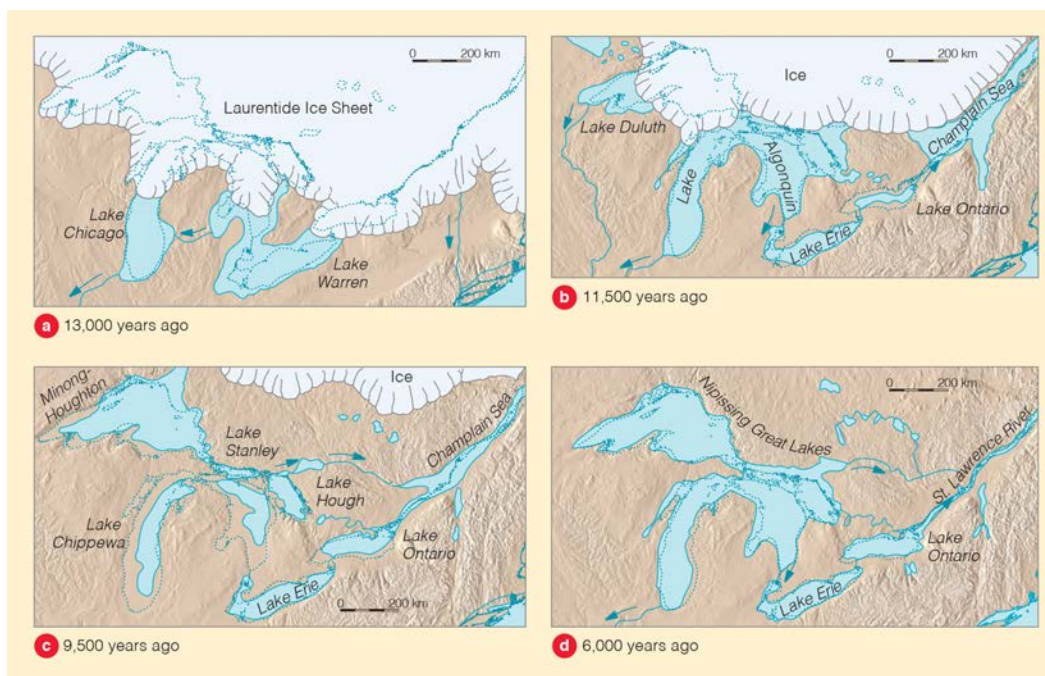


Figure 9

## GLACIAL STAGES OF THE GREAT LAKES



THE IDEA OF THIS BRILLIANT MINERAL BEING PRODUCED FROM DARK VOLCANIC ROCK BY SOMETHING CALLED BURIAL METAMORPHISM, MILLIONS OF YEARS IN THE MAKING, SOUNDS ELEGANTLY BEAUTIFUL. THESE NATIVE COPPER DEPOSITS SIT ABOVE THE BASALTIC LAVA FLOWS AND IN THE PORTAGE LAKE LAVA SERIES CAN BE FOUND IN THE CONGLOMERATES INTERBEDDED WITH THE BASALTS.<sup>1</sup>

IT IS A TRANSFORMATION OF WHAT ALREADY EXISTS. LOCATING THE TOURIST SITES WITHIN THIS LANDSCAPE ALLOWS THE VISITORS TO CONFRONT THE BEAUTY AND REALITY OF THIS METAMORPHOSIS, CONNECTING THEM TO THE DEEP ROOTS OF PLACE.

<sup>1</sup> Randall J. Schaetzl, "Michigan's Copper Deposits and Mining," MSU, accessed March 10, 2017, <http://geo.msu.edu/extra/geogmich/copper.html>

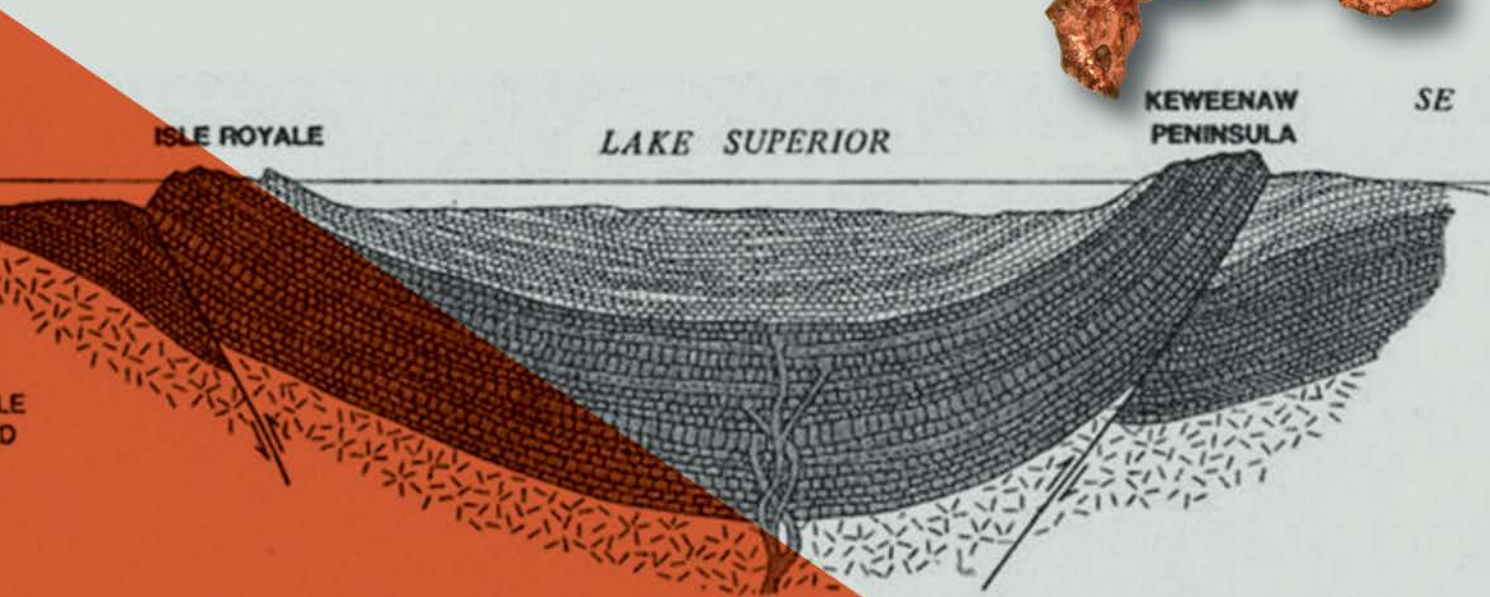
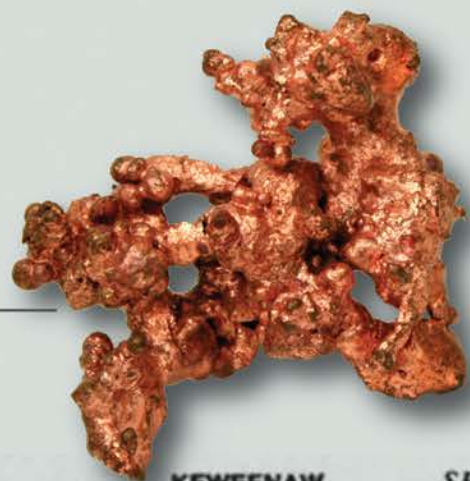
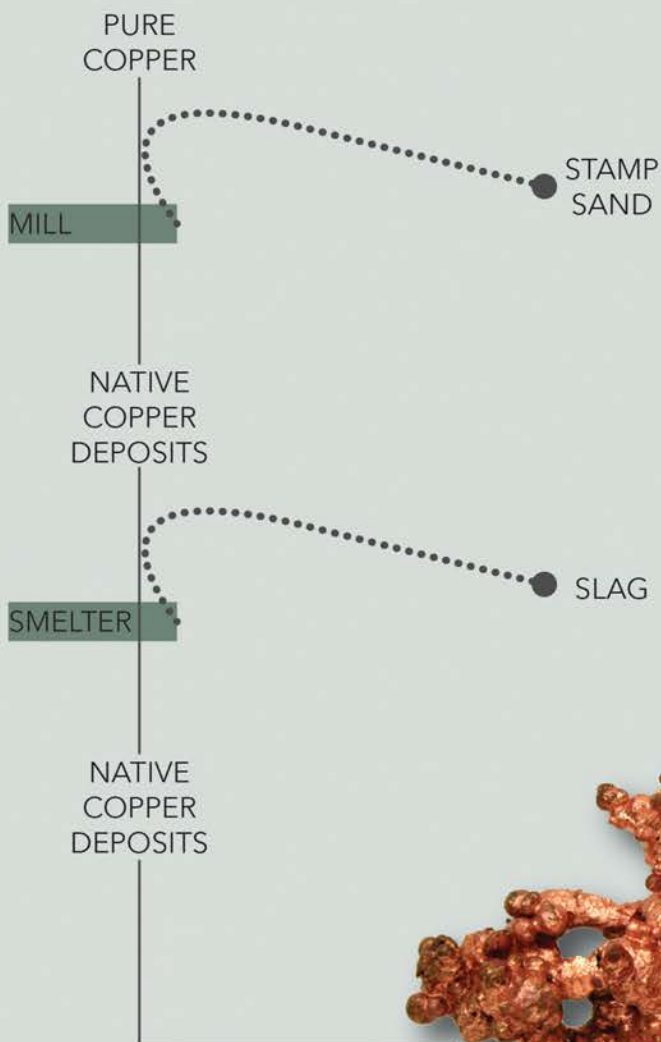
NW THUNDER BAY REGION



VERTICAL SCALE EXAGGERATED



Postvolcanic sedimentary  
the Copper Harbor C



rocks, including conglomerate      Interbedded volcanic and sedimentary rocks, including the Portage Lake Volcanics      Prevolcanic rocks      Arrows indicate relative directions of movement along faults

MEANWHILE...  
MILLIONS OF  
YEARS AGO...  
IN THE  
PRECAMBRIAN  
ROCKS...

12000 BCE

4000 BCE

5000-1200 BCE

GREAT LAKES

ABORIGINAL  
COPPER  
MINING

COPPE

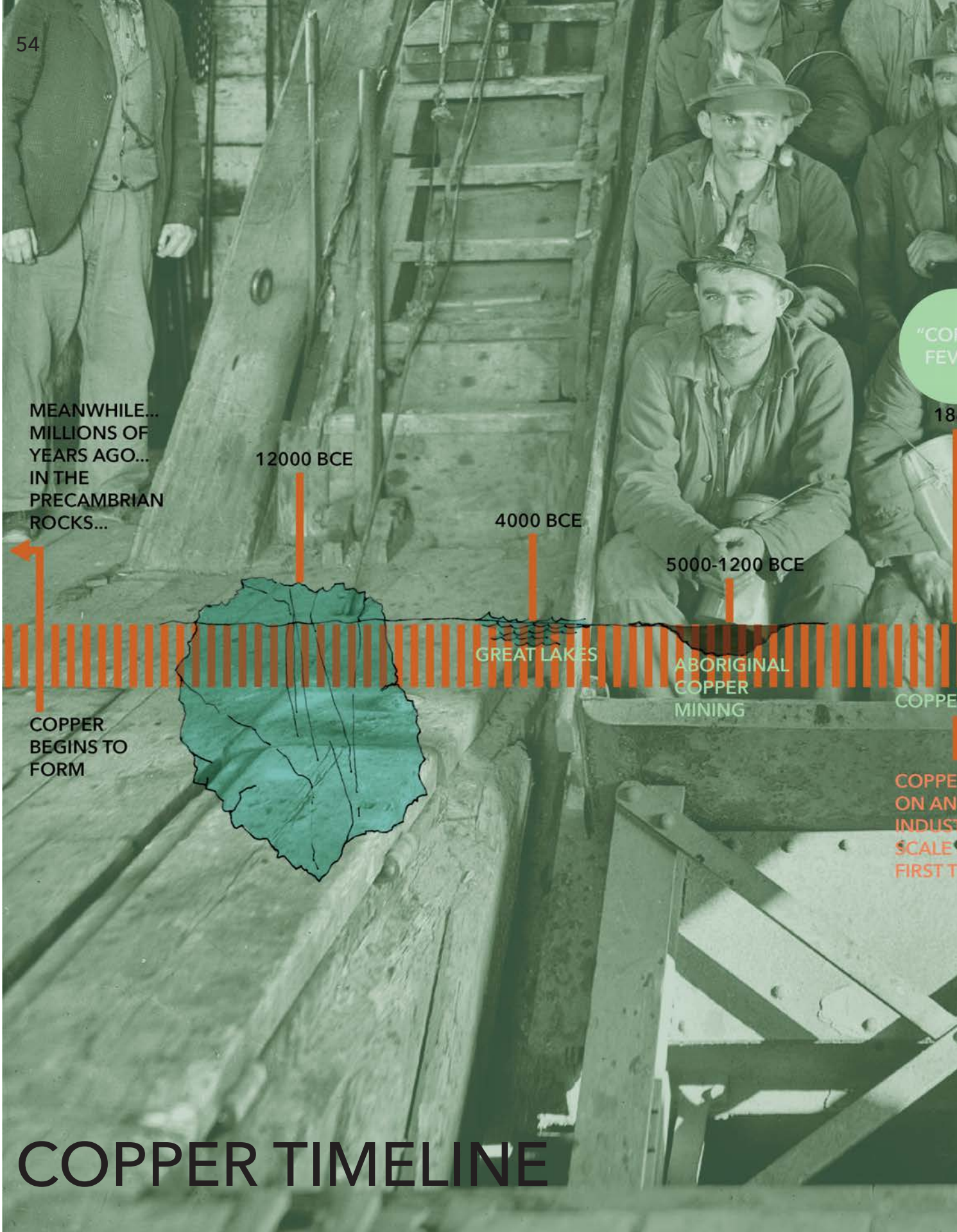
COPPER  
BEGINS TO  
FORM

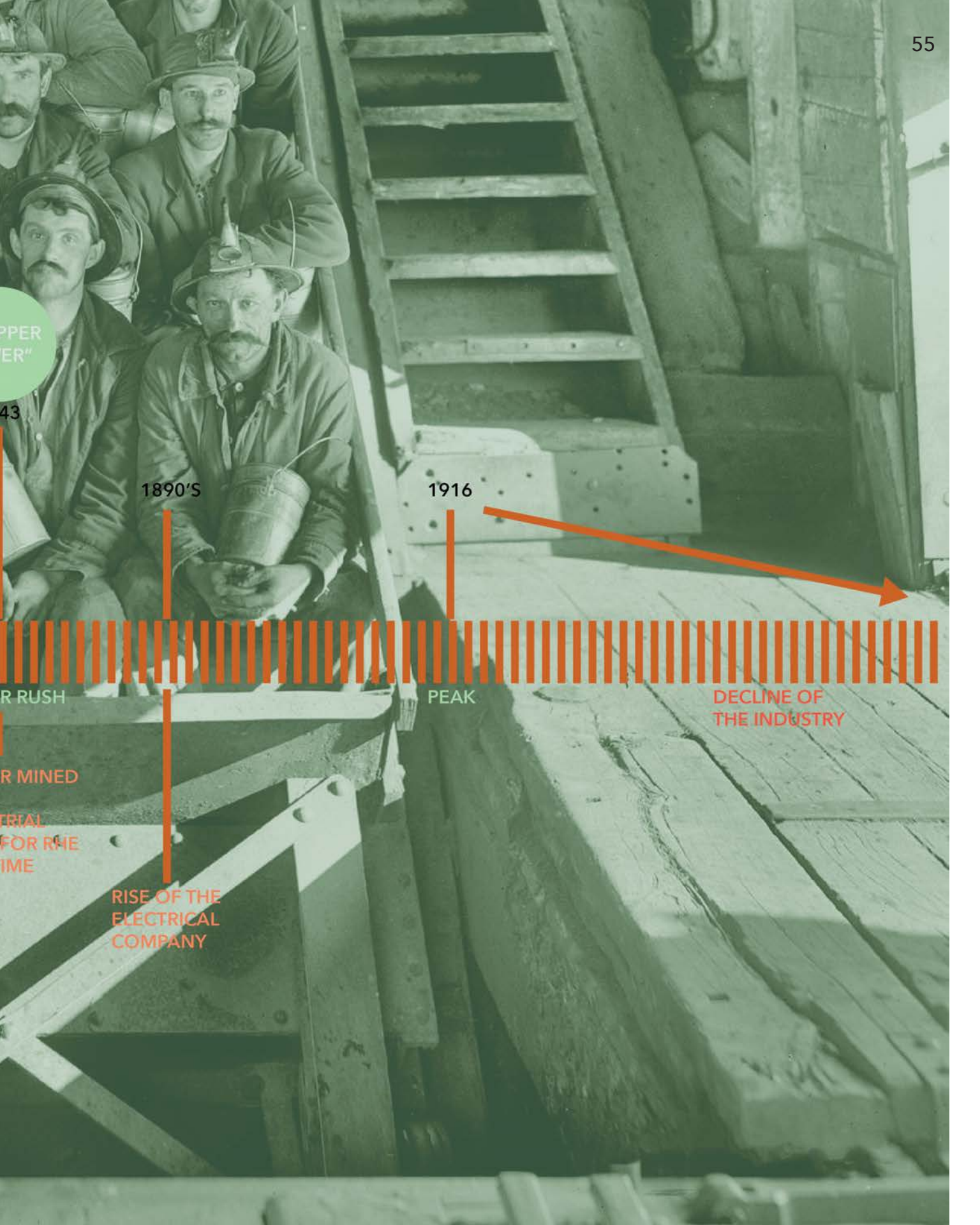
COPPE  
ON AN  
INDUST  
SCALE  
FIRST T

# COPPER TIMELINE

"COP  
FEV

18





“COPPER  
CRAZE”

1843

1890'S

1916

MINING RUSH

MINING TERMINATED

MINING MATERIAL FOR THE TIME

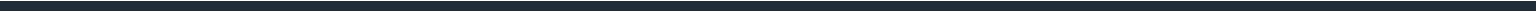
RISE OF THE ELECTRICAL COMPANY

PEAK

DECLINE OF THE INDUSTRY







**PERSONA | SITE SELECTION**

03

CHAPTER



PERSONA | SITE SELECTION

**PERSONAS**

03.001

CHAPTER



# PERSONAS

---

By identifying a user that would be inclined to visit these series of interventions, their needs and desires can be anticipated or intelligently presumed. In the process of relating a general list of verbs to these, the qualities of activities, events, and processes can be defined.

Upon the clarification of the desired experience, attributes of a site can be identified that would help to support these.

Needs and desires appear to be born in the knowledge of the lack of them. To attempt to clarify, for there to be a lack of something, there must first be a knowledge or an experience of it. When the lack is apparent, there is the need or the desire to return to the acquisition of the said lack. Thus

through our lack, our needs and desires are clarified, which make up a large part of our individuality and identity.

In this project, independent film characters were used as archetypes of the alienated supermodern personality. These characters were thoroughly developed for the films. These films are made to connect with society, thus we can see ourselves or someone that we know in the characters.

The personas vary from one another in the ways supermodernity has effected them. When placed together, they represent a large segment of society. The project is designed for this segment.

# THEODORE TWOMBLY

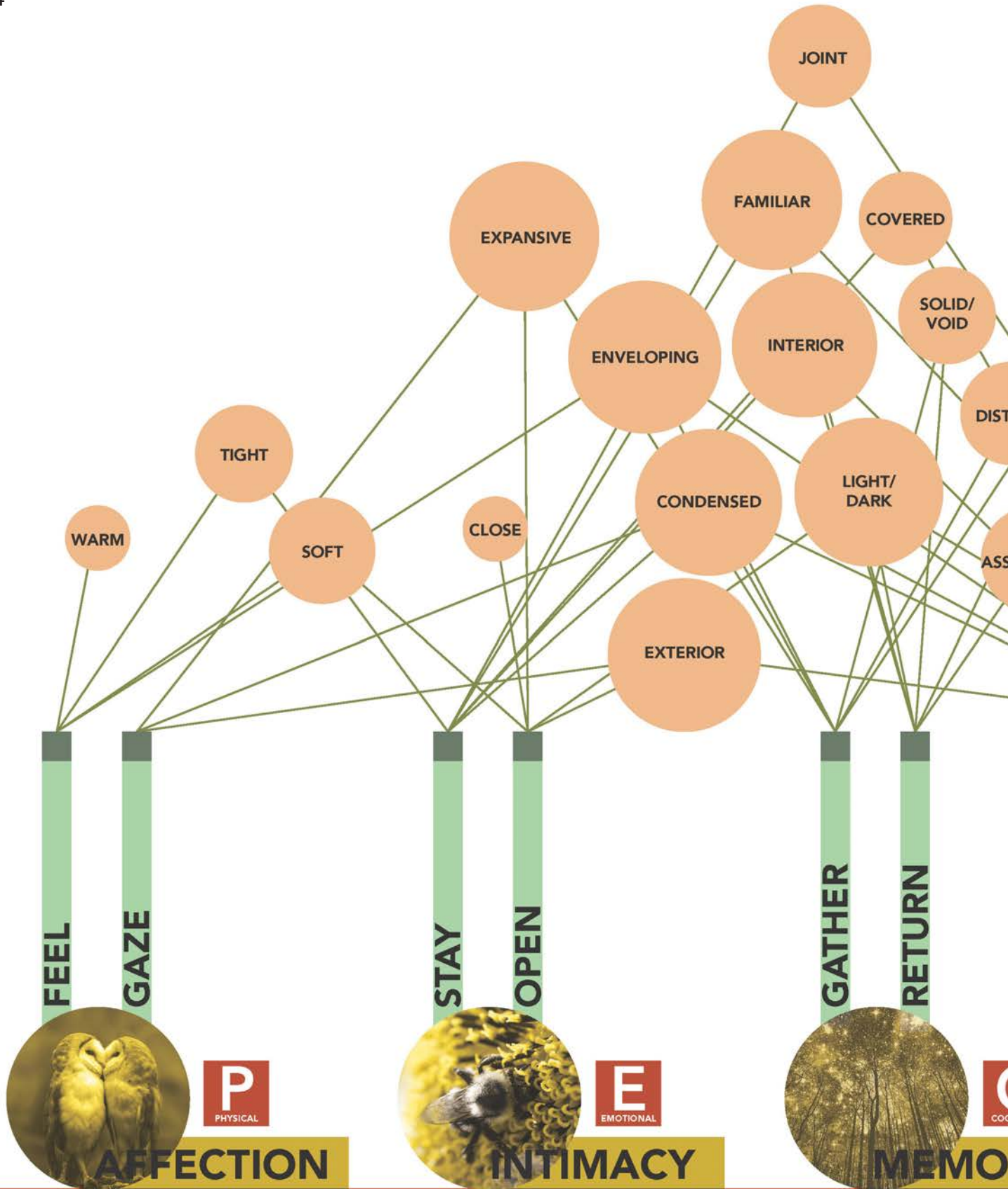
[INFJ]

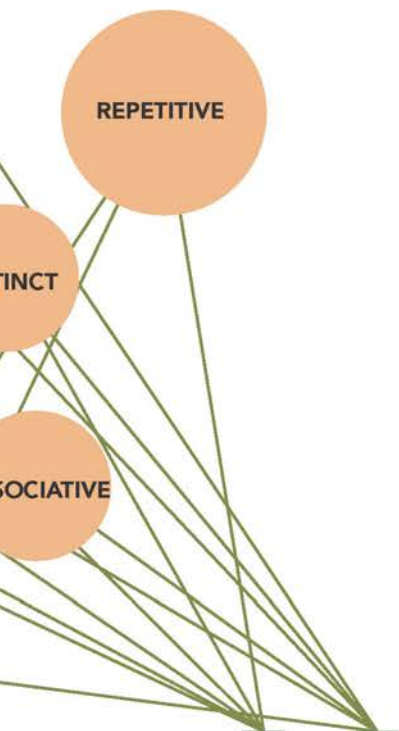
- + WORKS FOR A BUSINESS COMPOSING LETTERS FOR STRANGERS
- + FAILED MARRIAGE
- + CHATS ONLINE FOR CONNECTION
- + HAS VERY FEW FRIENDS
- + FELL IN LOVE WITH AN OPERATING SYSTEM

- + SENSITIVE
- + EMPATHETIC
- + MELANCHOLY
- + LONELY
- + INTROVERTED
- + SELF-AWARE









C  
GNITIVE

RY



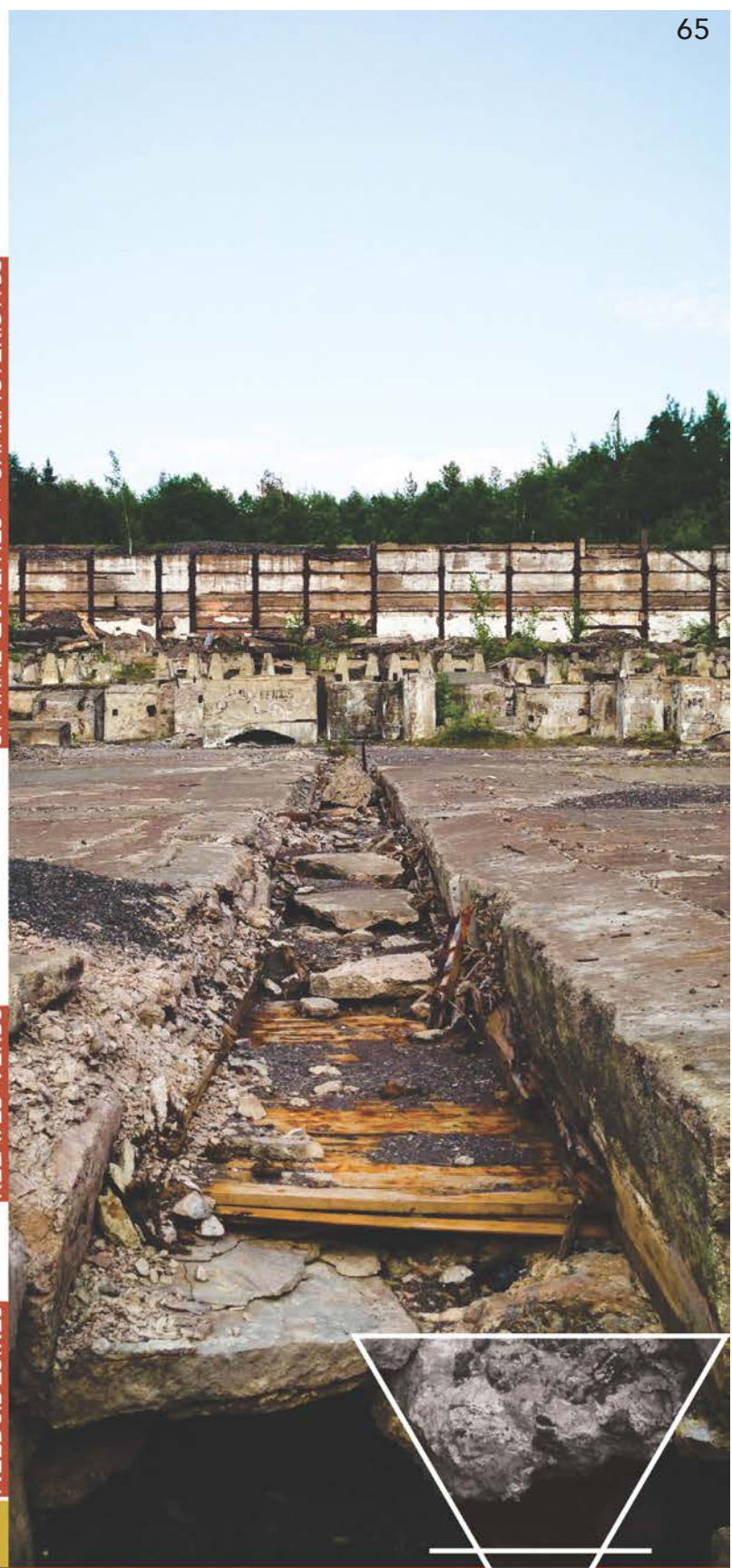
**BELONGING**

S  
SOCIAL

SPATIAL QUALITIES + CHARACTERISTICS

RELATED VERBS

NEEDS/DESIRES



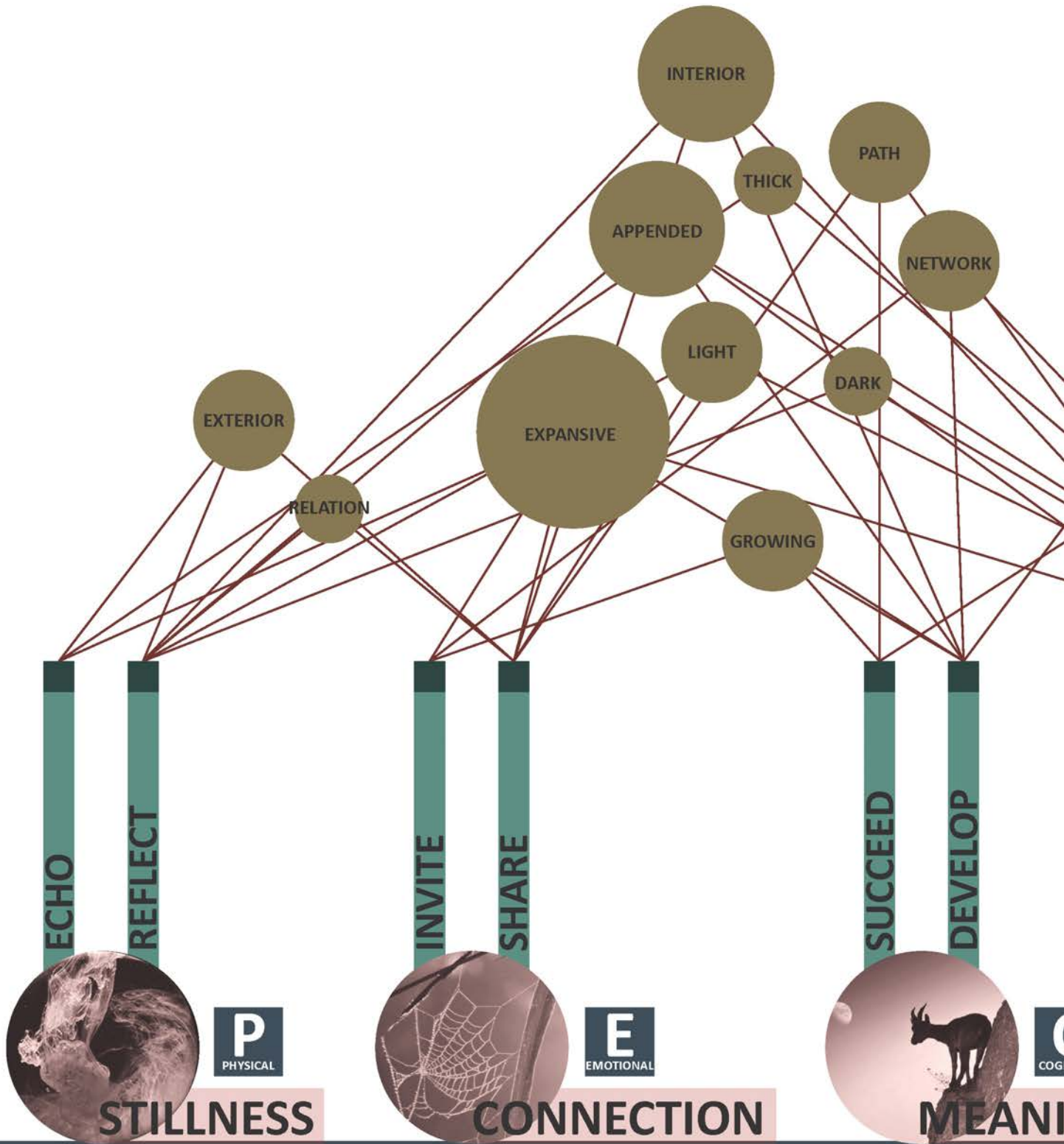
# BOB HARRIS

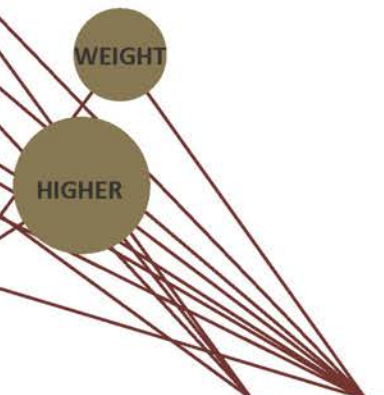
[ENTP]

- + AGING AMERICAN MOVIE STAR
- + 25 YEAR MARRIAGE PLATEAUED
- + MID-LIFE CRISIS
- + CAREER UNFULFILLING
- + EMOTIONAL DISCONNECTION TO/FROM FAMILY

- + USES SARCASM AS A DEFENSE
- + LOST IN LIFE
- + LONELY
- + DISCONNECTED
- + A FEELING OF "OTHERNESS"
- + ISOLATION







C  
NITIVE

NG



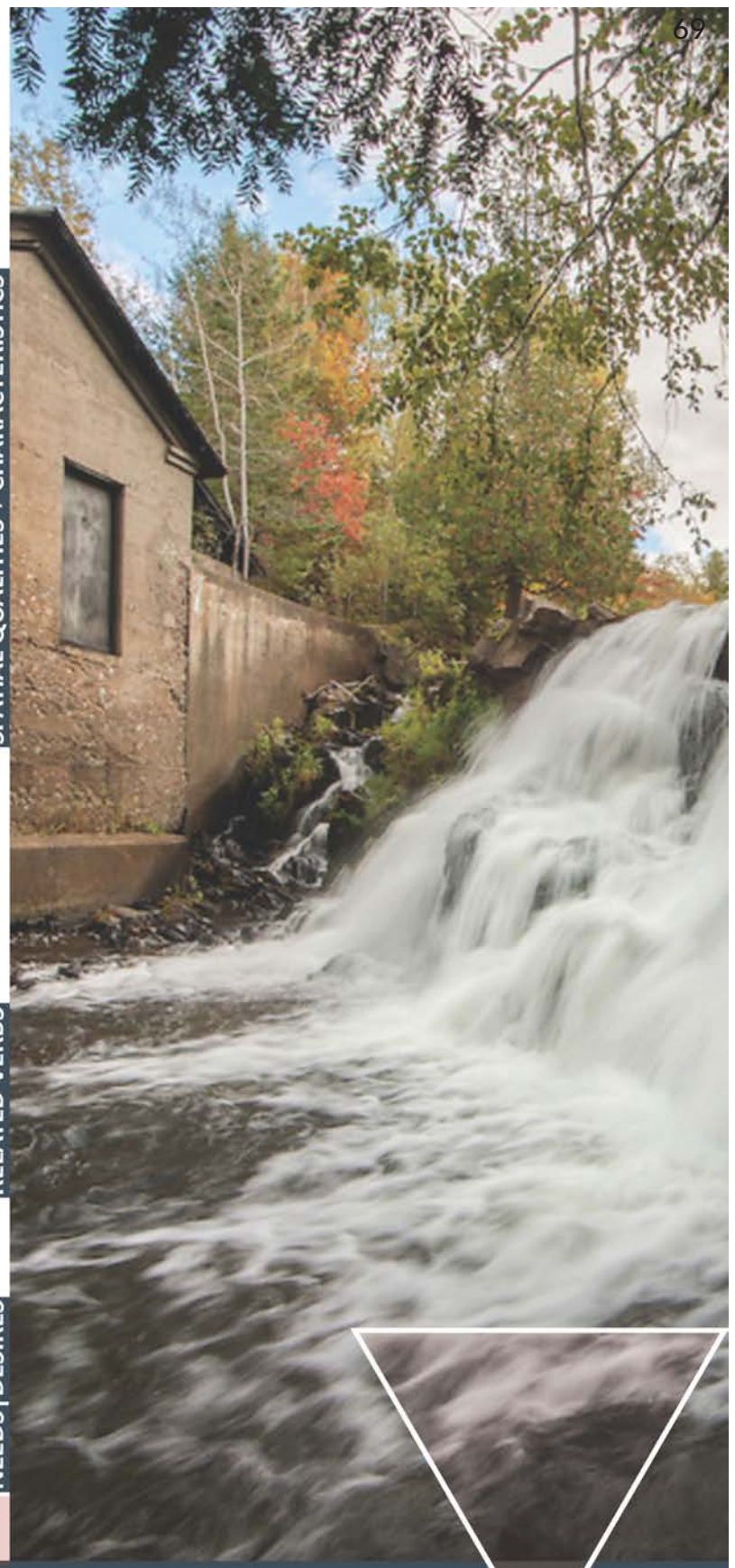
“FOR MORE”

S  
SOCIAL

SPATIAL QUALITIES + CHARACTERISTICS

RELATED VERBS

NEEDS | DESIRES



# CLEMENTINE KRUCZYNSKI

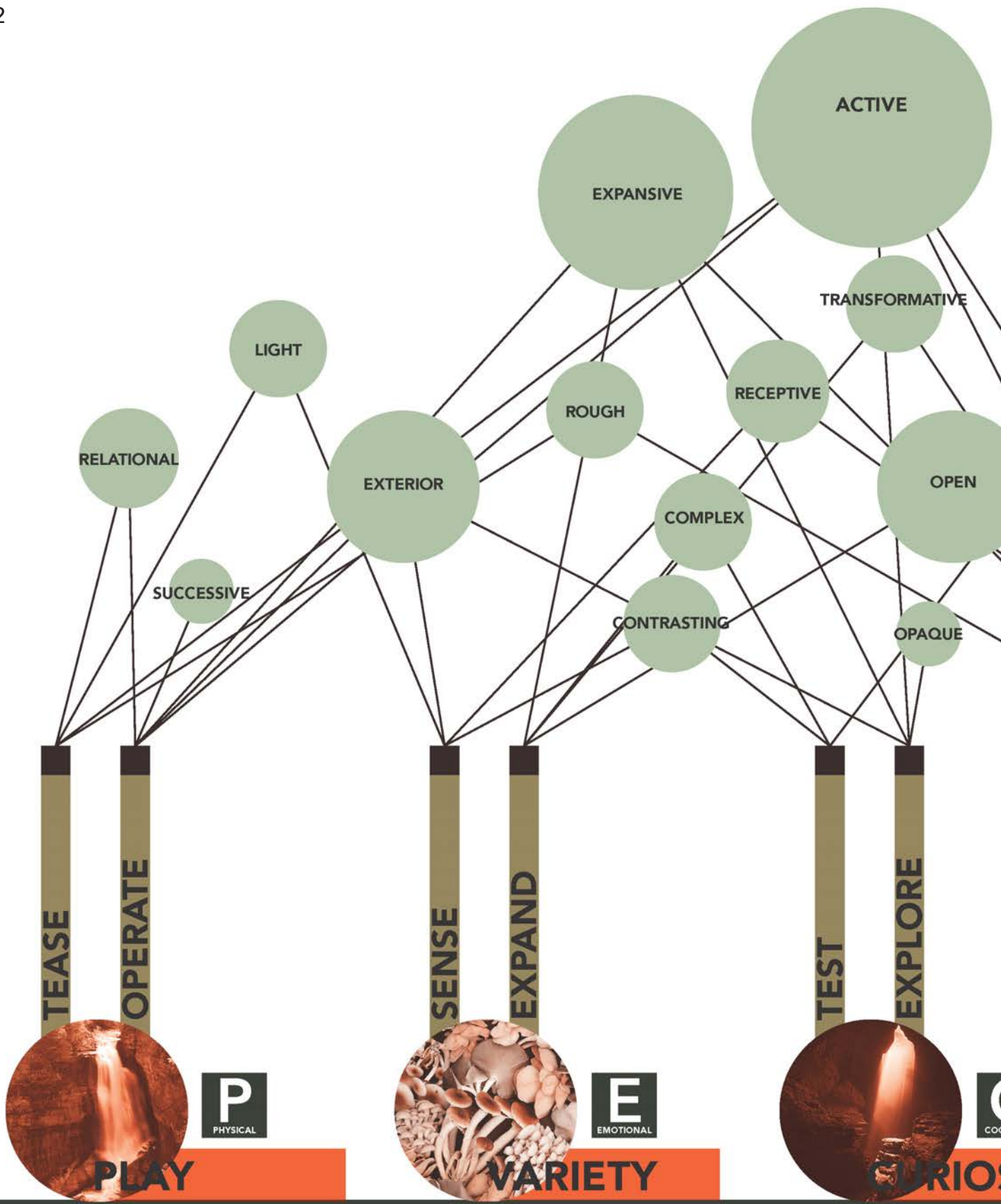
[ENFP]

- + WORKS AT A CHAIN BOOKSTORE
- + CONSTANTLY RE-DYES HER HAIR ACCORDING TO HER MOOD
- + GETS BORED EASILY IN RELATIONSHIPS

- + SELF-AWARE
- + RESTLESS
- + ENERGETIC
- + ECCENTRIC
- + EXTROVERT
- + SPEAKS HER MIND
- + SELF-MEDICATES WITH ALCOHOL
- + RISK-TAKING BEHAVIOR
- + IMPULSIVE
- + INSECURE
- + VULNERABLE







**P**  
PHYSICAL

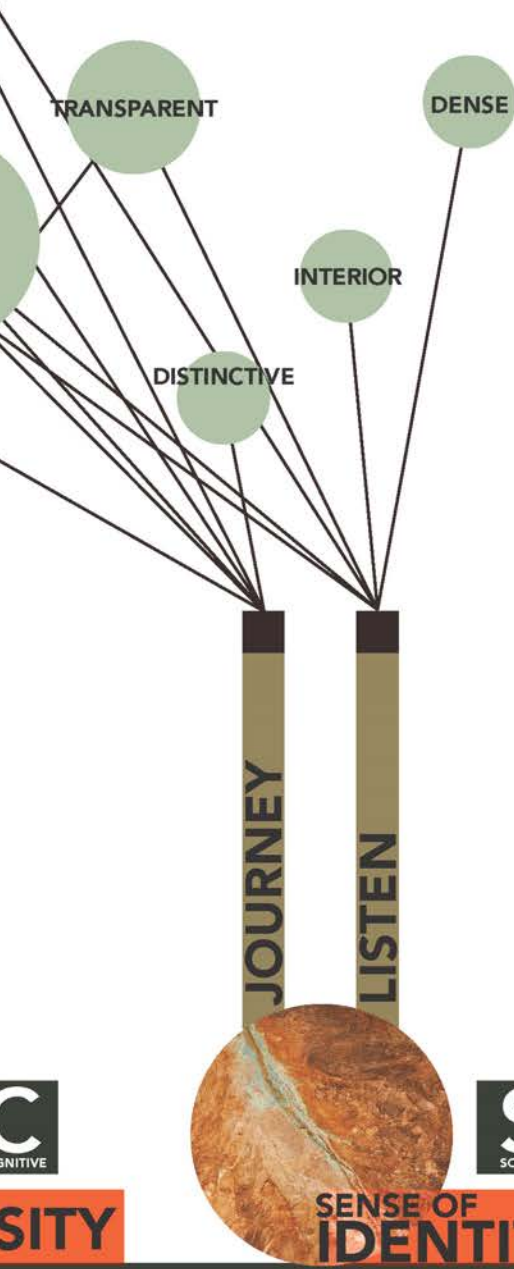
**E**  
EMOTIONAL

**C**  
COGNITIVE

**PLAY**

**VARIETY**

**CURIOSITY**



SPATIAL QUALITIES + CHARACTERISTICS

RELATED VERBS

NEEDS/DESIRES

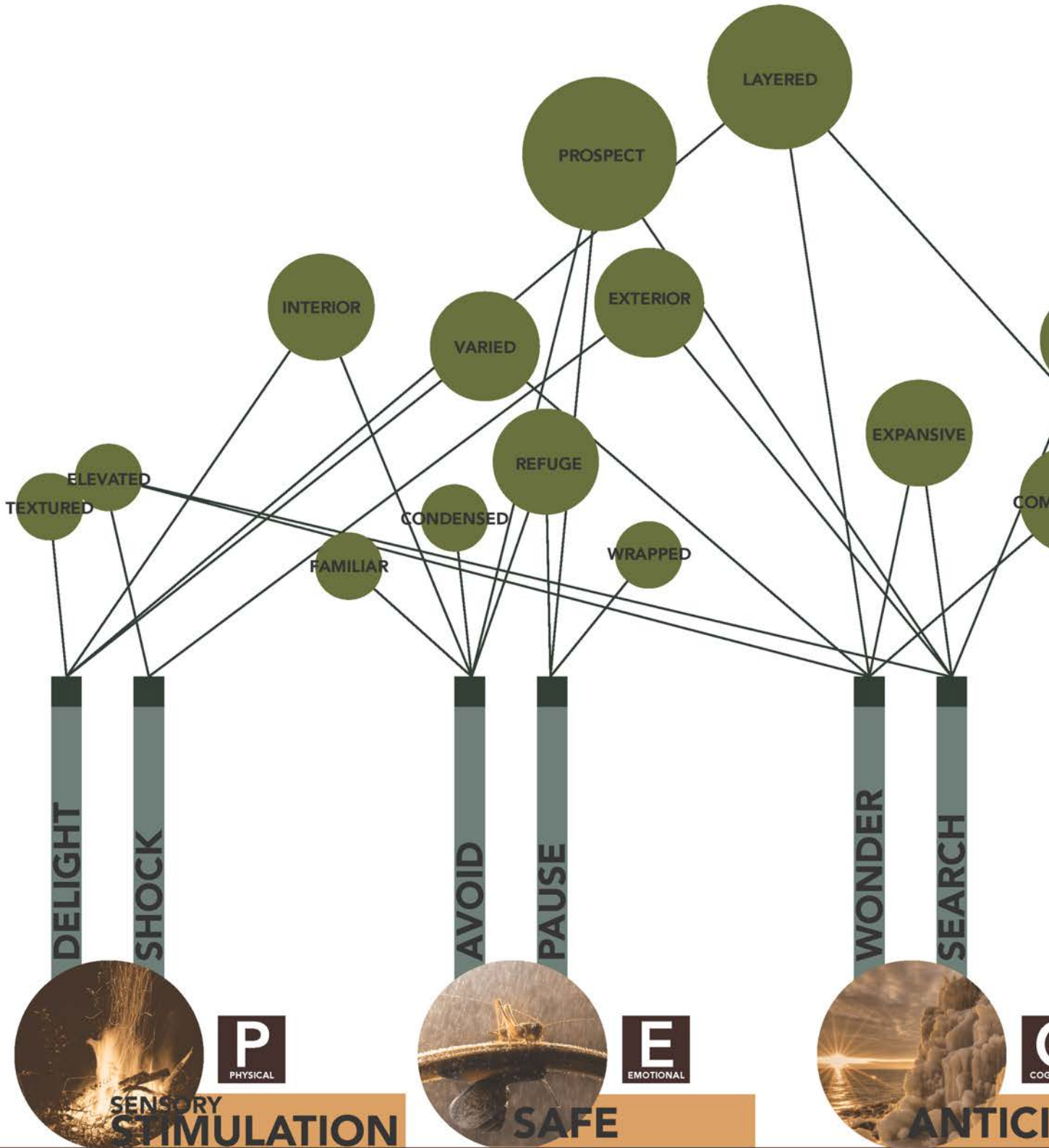


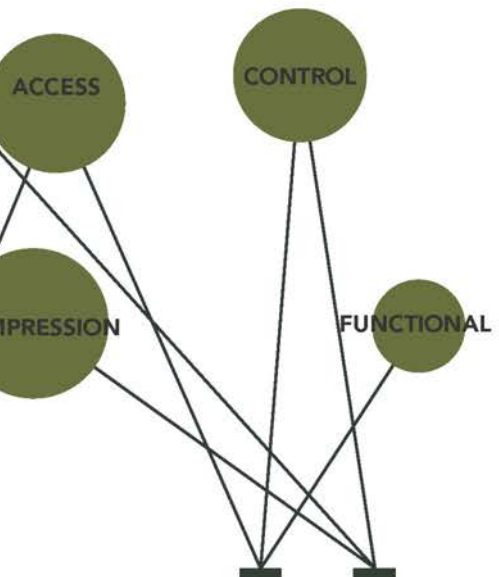
# AMÉLIE POULAIN

[INFP]

- + WAITRESS AT A CAFE
- + LIVES ALONE
- + MOTHER DIED IN HER YOUTH
- + FATHER IS RECLUSIVE AND COLD
- + LIKES SMALL PLEASURES
- + DOES SMALL GOOD DEEDS FOR OTHERS UNBEKNOWNST TO THEM
  
- + LONELY
- + USES IMAGINATION AS AN ESCAPE
- + ISOLATES HERSELF
- + DISCONNECTS HERSELF FROM REALITY
- + LIVES THROUGH THE EXPERIENCES OF OTHERS
- + AFRAID TO BUILD RELATIONSHIPS
- + INTROVERTED







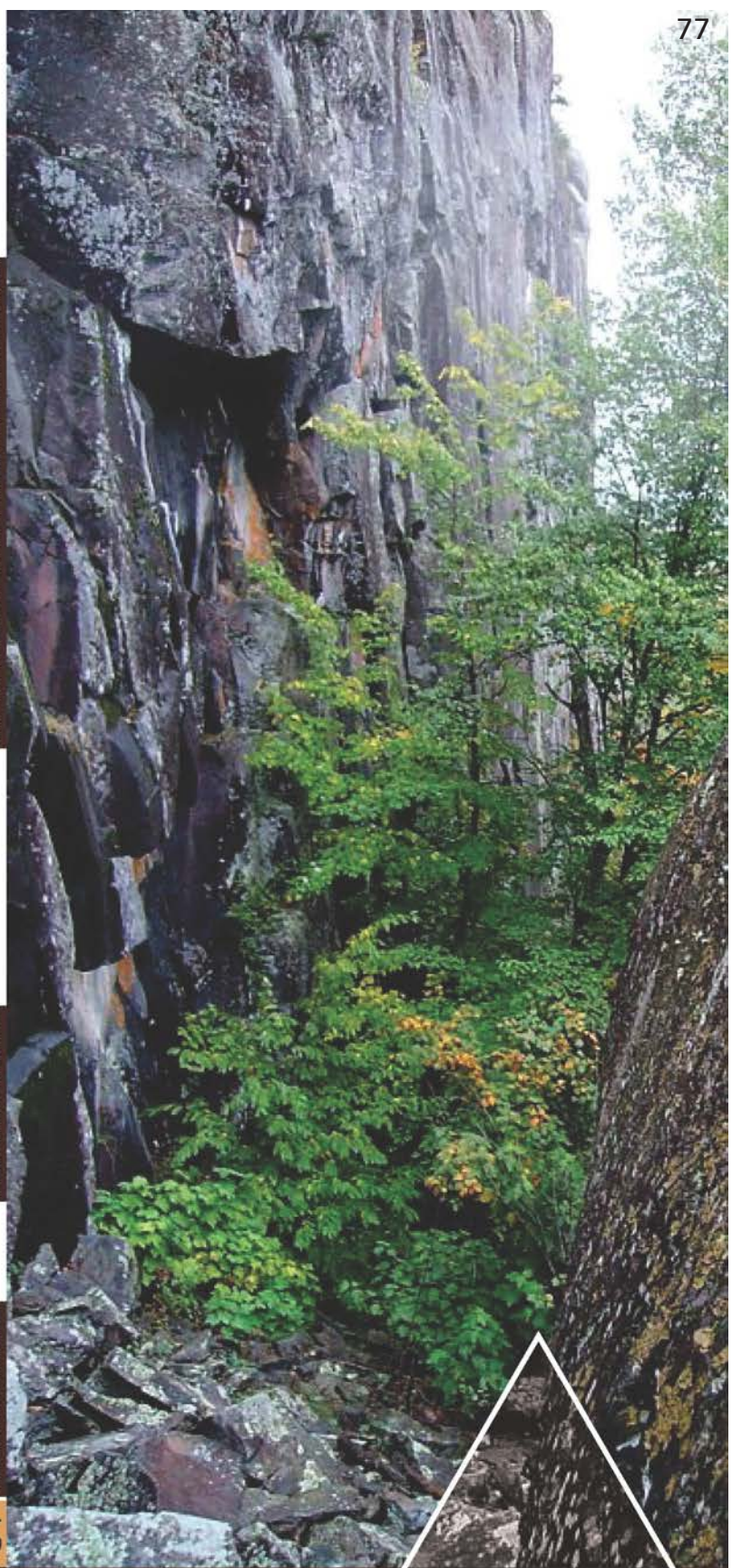
**PATATION USEFULNESS**



**SPATIAL QUALITIES + CHARACTERISTICS**

**RELATED VERBS**

**NEEDS/DESIRES**





PERSONA | SITE SELECTION

03.002

CHAPTER



DISPLACEMENT OF GROUND PLANE



REPETITIVE VIEWS OF ELEMENTS FROM MULTIPLE PERSPECTIVES



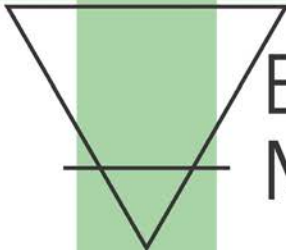
ENCLOSED SPACE



BLUR AND FOCUS



BELONGING  
INTIMACY  
AFFECTION  
MEMORY



EARTH  
MEMORY

# CHAMPION STAMP MILL



**FREDA, MI**

ELEMENTS OF EARTH  
COLLIDING

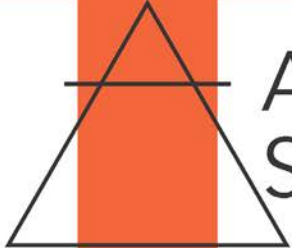
EXPANSIVE VIEW OF  
CONTRASTING PLACES

CONNECTION TO HISTORY  
OF PLACE

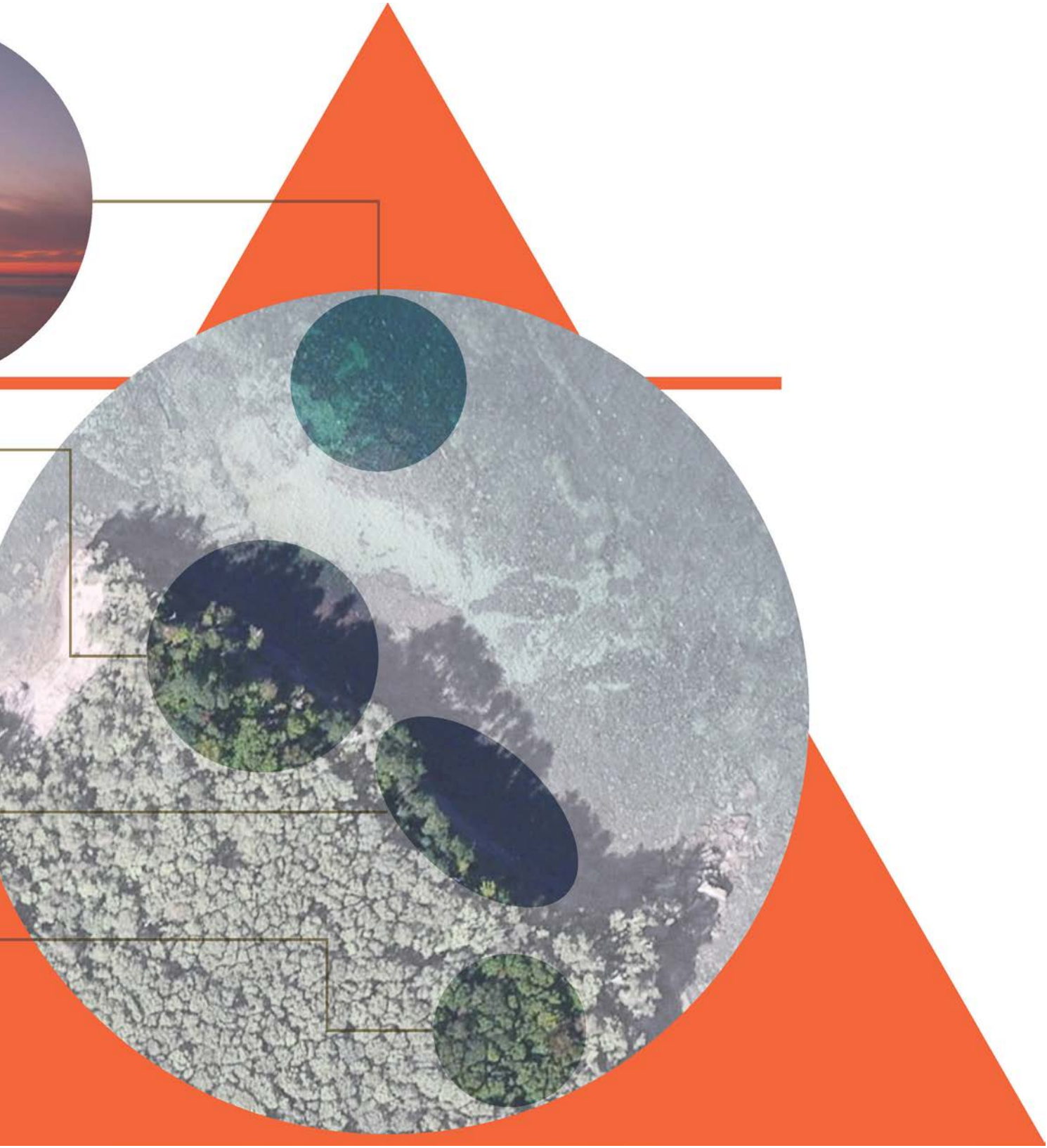
DISCONNECTION FROM  
POPULATED AREAS

VARIETY  
CURIOSITY  
IDENTITY  
PLAY

AIR  
SIGHT



# SALMON TROUT POINT



# POWELL, MI

OUTSIDE INFLUENCE



CHANGE OF STATE OR TRANSFORMATION



SENSORY DEPRIVATION AND ESCALATION



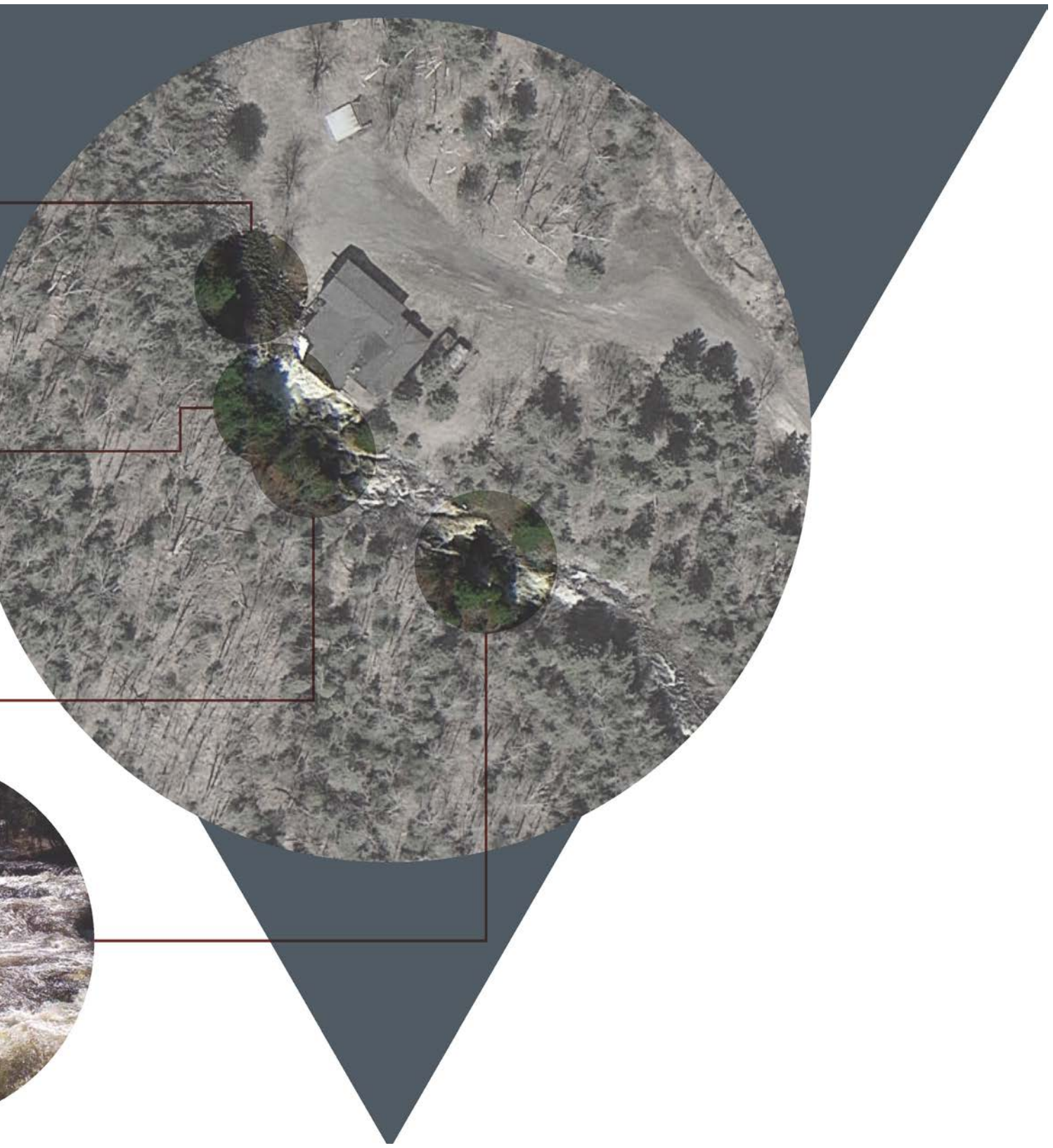
POWER HARNESSSED FROM EXISTING ELEMENTS



CONNECTION  
MORE  
STILLNESS  
MEANING

WATER  
SOUND

# POWERHOUSE FALLS



# L'ANSE, MI

REWARD BY REACHING THE OTHER

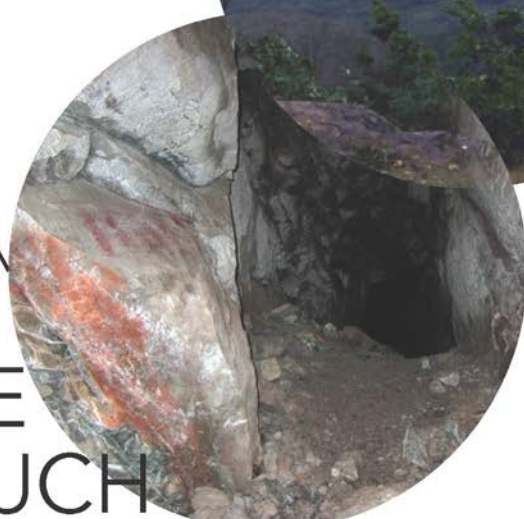
JOURNEY AND PAUSE

PROSPECT AND REFUGE

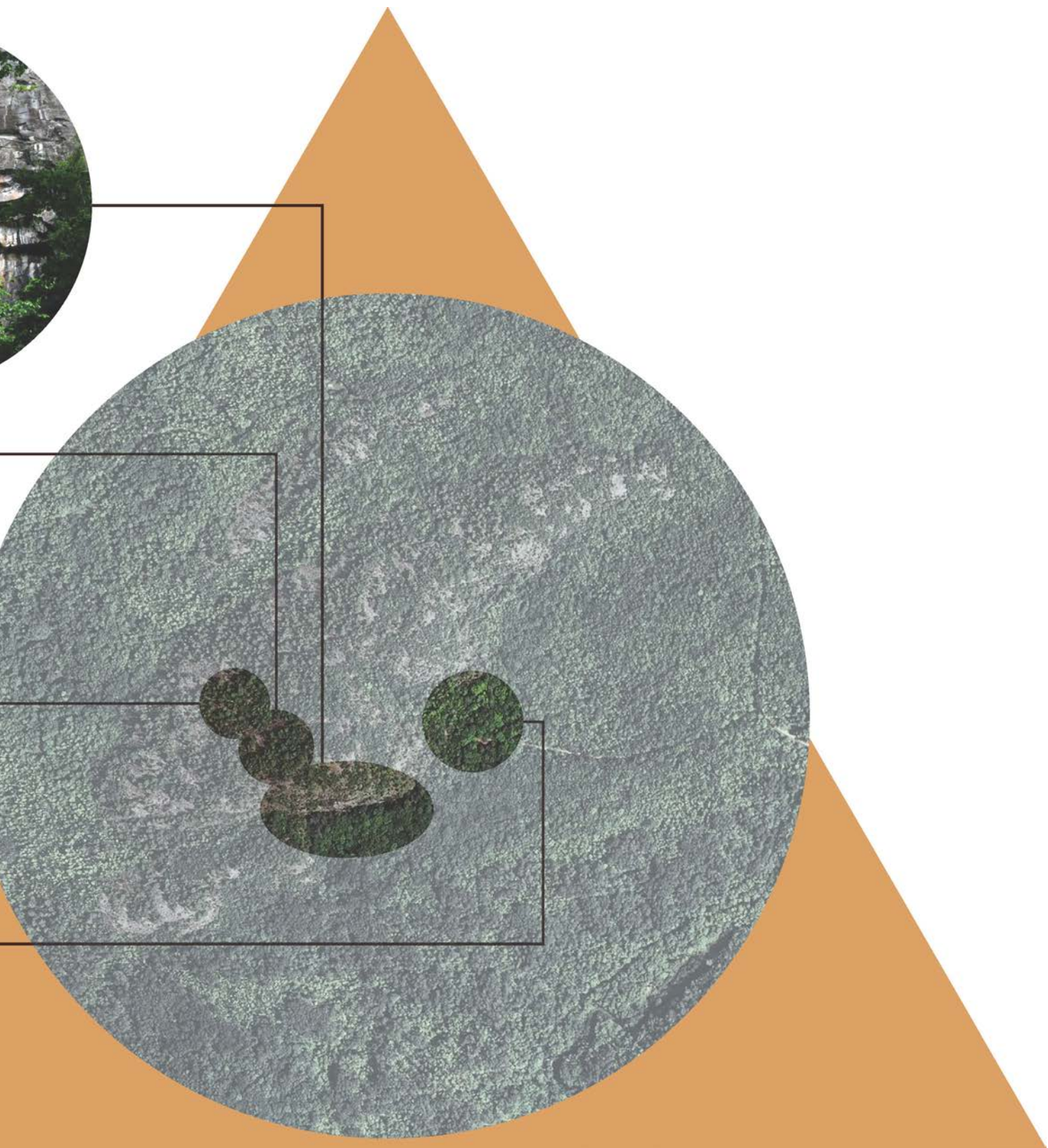
SENSORY CHANGE

USEFULNESS  
ANTICIPATION  
SAFETY  
STIMULATION

FIRE  
TOUCH



# SILVER MOUNTAIN



PELKIE, MI





# SITE - ZOOMED IN

---

Each site requires a close look at entry and departure, circulation, and important moments. These important factors will influence design and suggest what intervention might be appropriate



LAR  
ARR

# CHAMPION MILL CIRCULATION

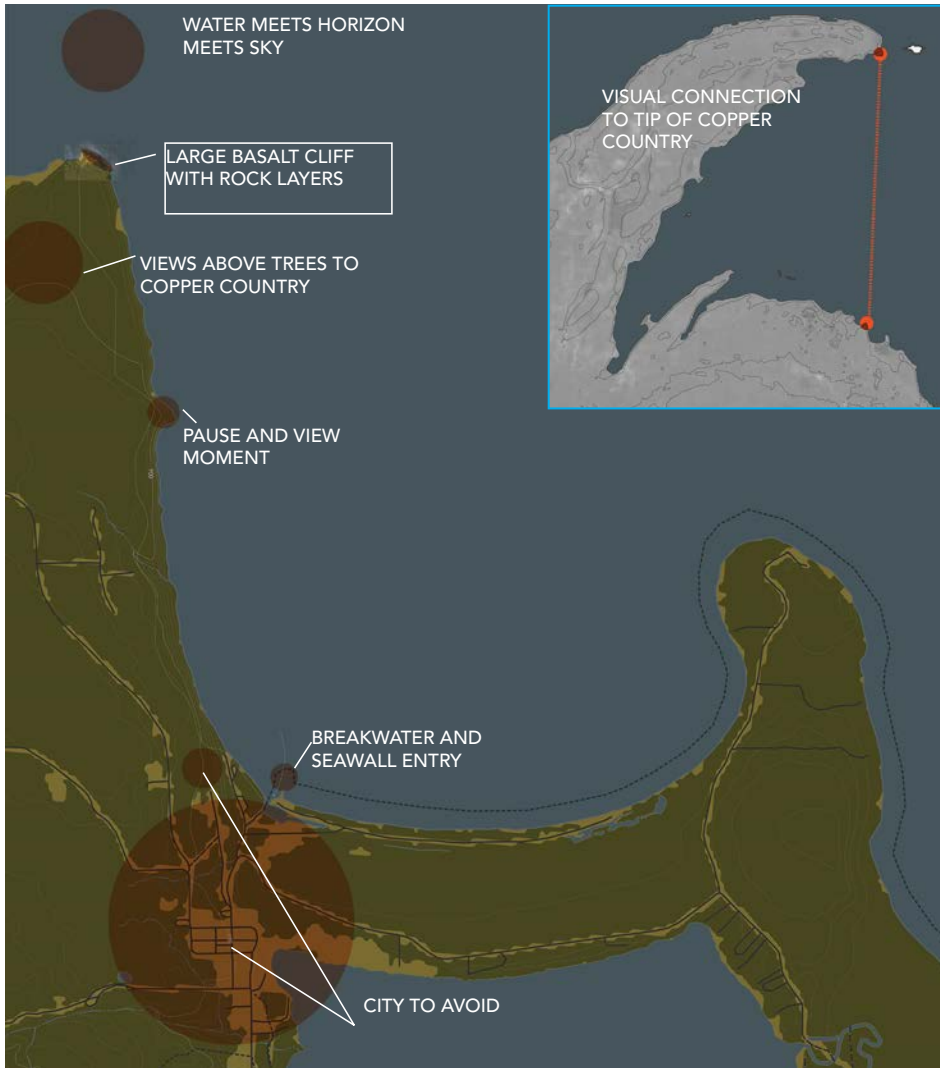


ARRIVAL  
DEPARTURE

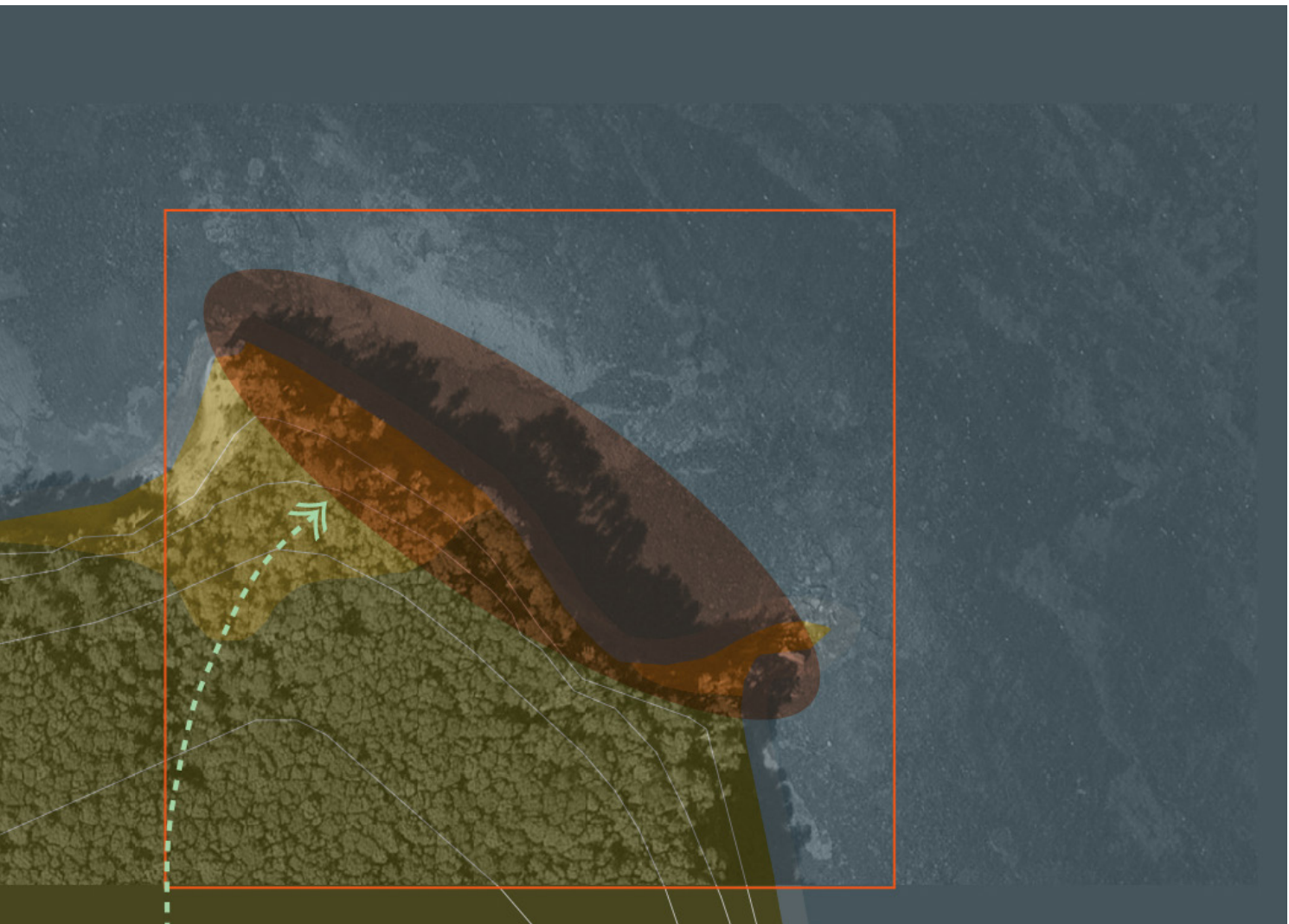
SITE  
MOMENTS

UNDER/  
THROUGH  
JOURNEY

UP



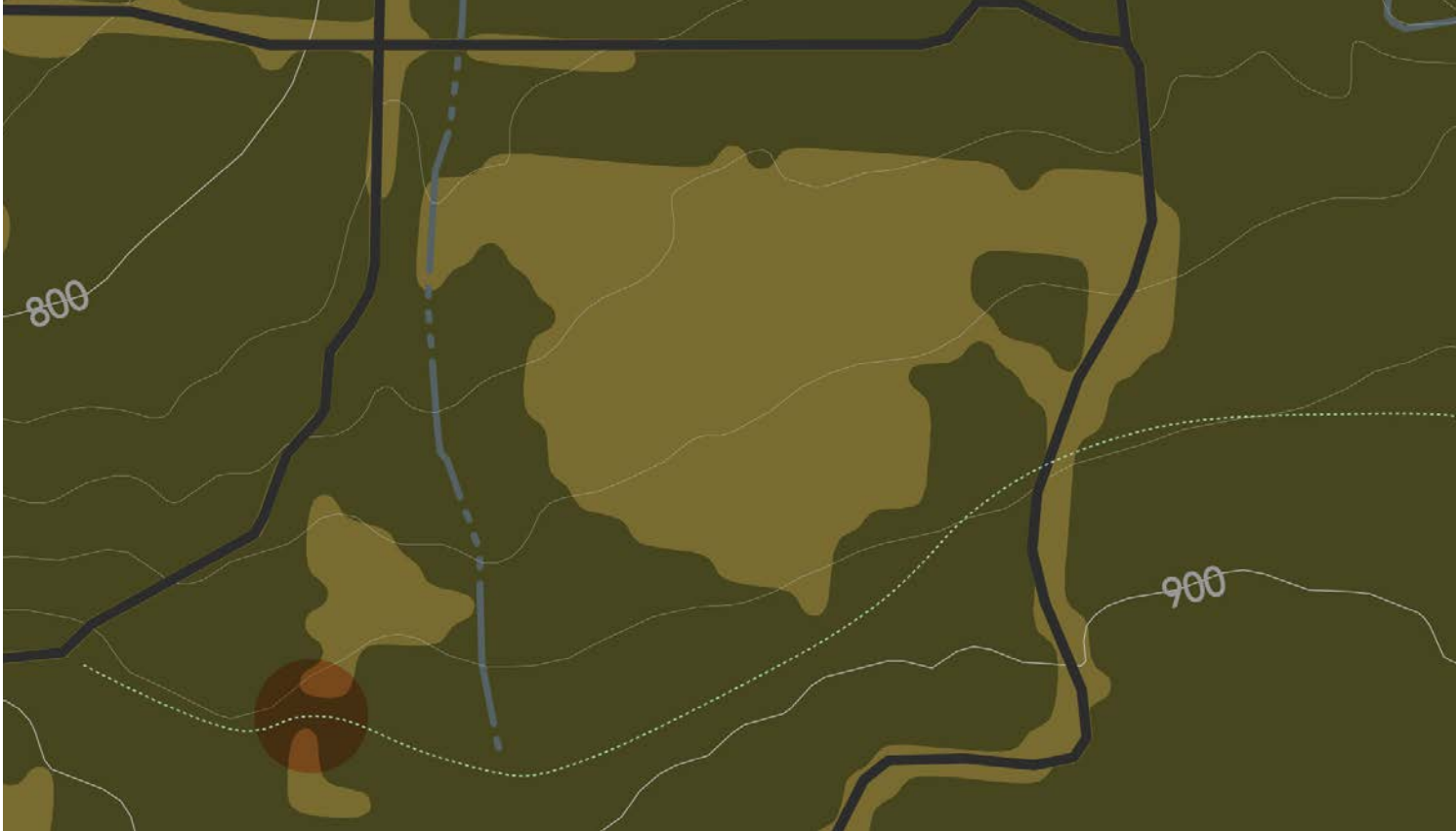
# SALMON TROUT POINT CIRCULATION



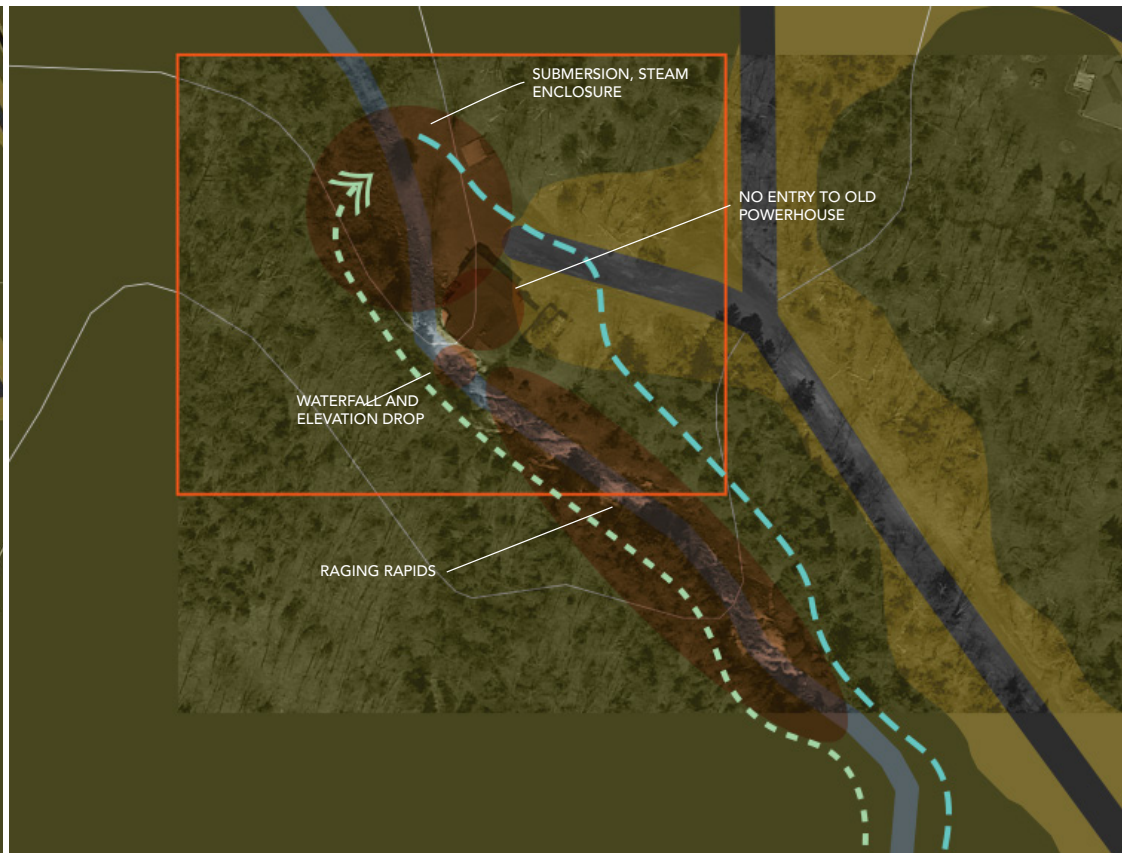
ARRIVAL  
DEPARTURE

SITE  
MOMENTS

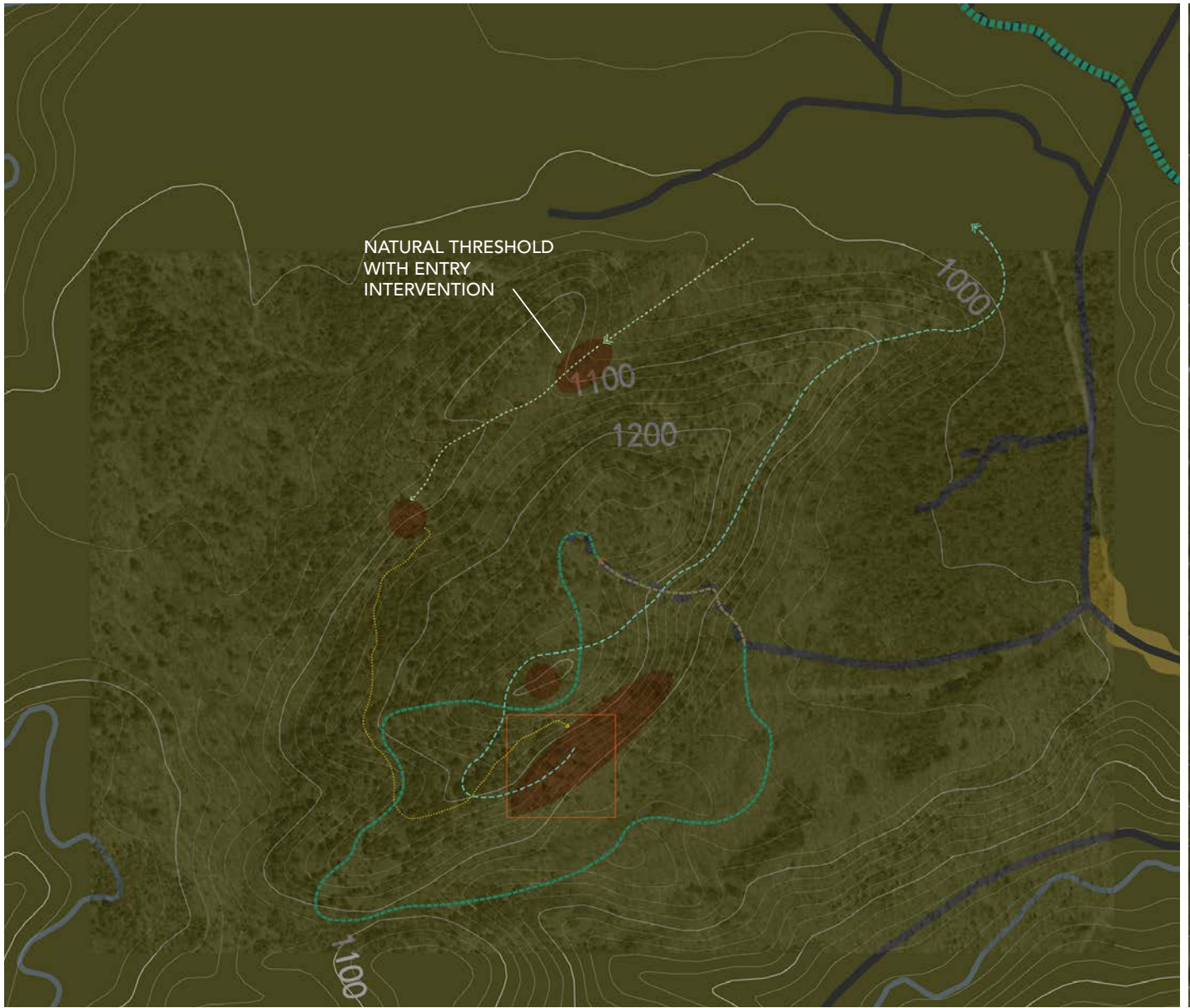
VISUAL  
CONNECTION



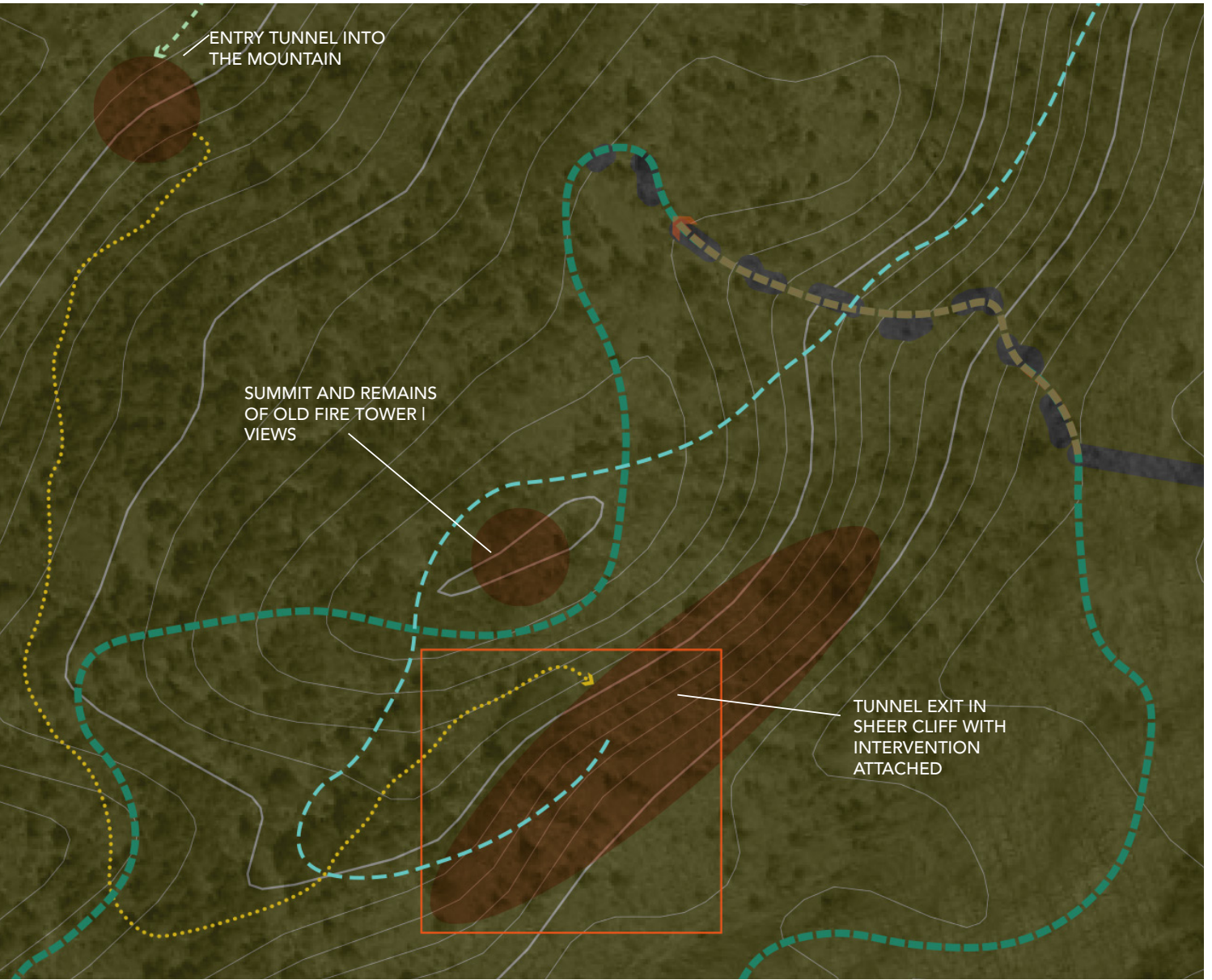
# POWERHOUSE FALLS CIRCULATION







# SILVER MOUNTAIN CIRCULATION



ARRIVAL



SITE



UNDER/  
THROUGH



UP



DEPARTURE



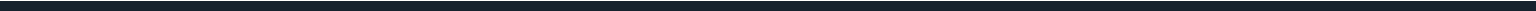
MOMENTS



JOURNEY



EXISTING TRAIL

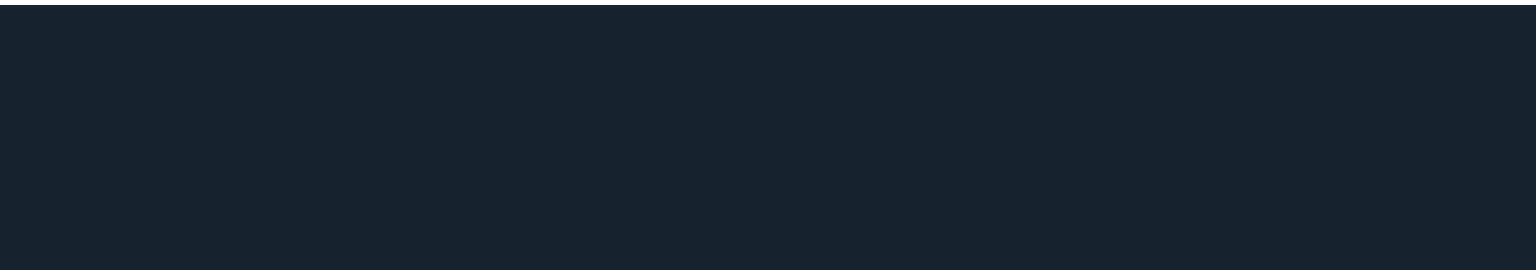


**DESIGN PROPOSITION**

CHAMPION MILL:  
EARTH | MEMORY

04

CHAPTER



DESIGN PROPOSITION	<b>STAMP MILL CONTEXT</b>
04.001	CHAPTER

# STAMP MILL CONTEXT

## CHAMPION STAMP MILL P3 - PROCESSES, PARTS & PIE

In order to understand the site in the most thorough way possible, the origins of the site's industrial use dating back to the early 1900s had to be studied.

This passage will identify the reasons why this site was chosen for the industrial location of a copper stamp mill. How can I use what I learn as a component in connecting my future intervention with the industrial intervention of the past? How do both of these interventions relate to place?

What I uncovered was that the fundamental/paramount reason for the location of this specific mill (and the majority of other copper stamp mills) was its adjacency to a body of water, specifically Lake Superior.



Figure 10

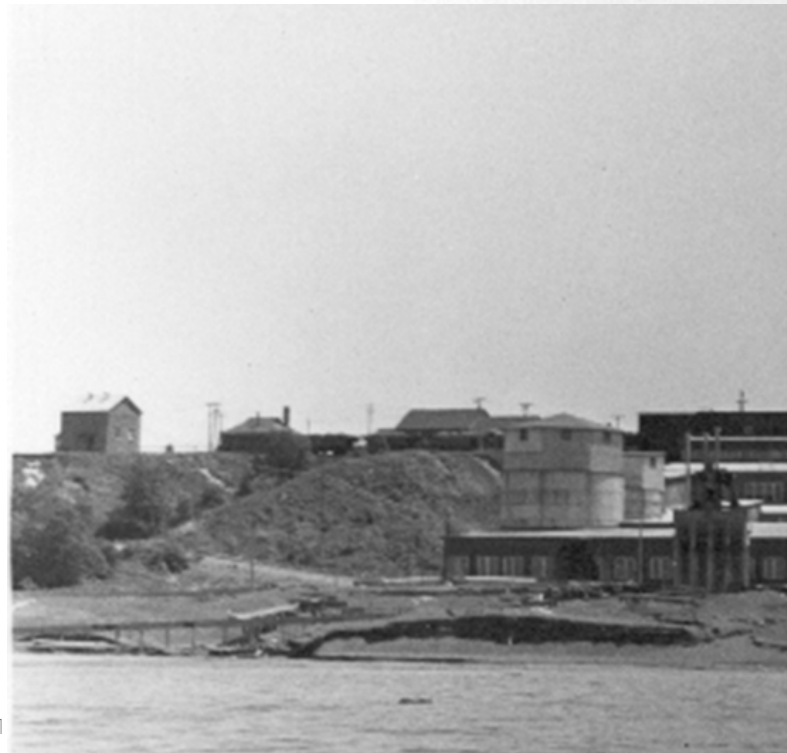


Figure 11

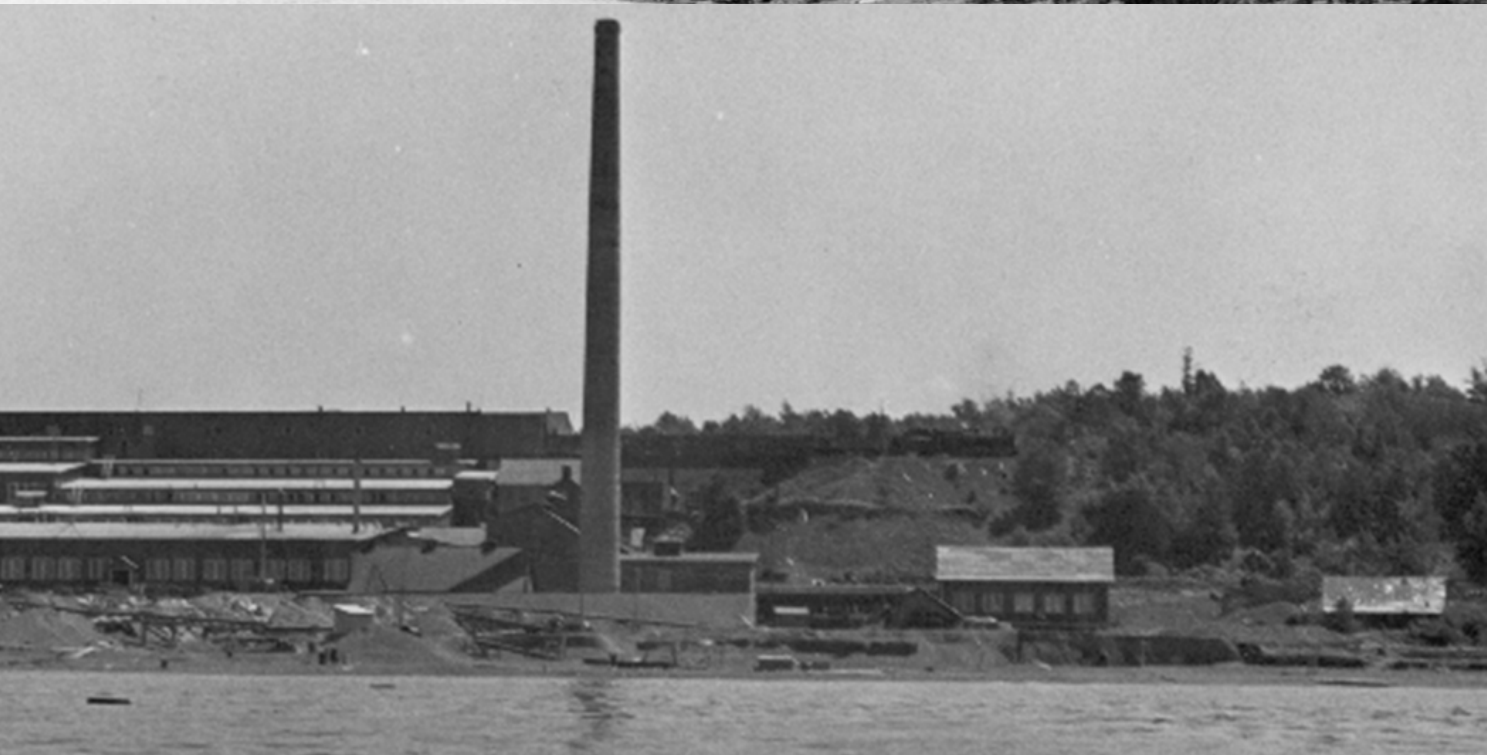
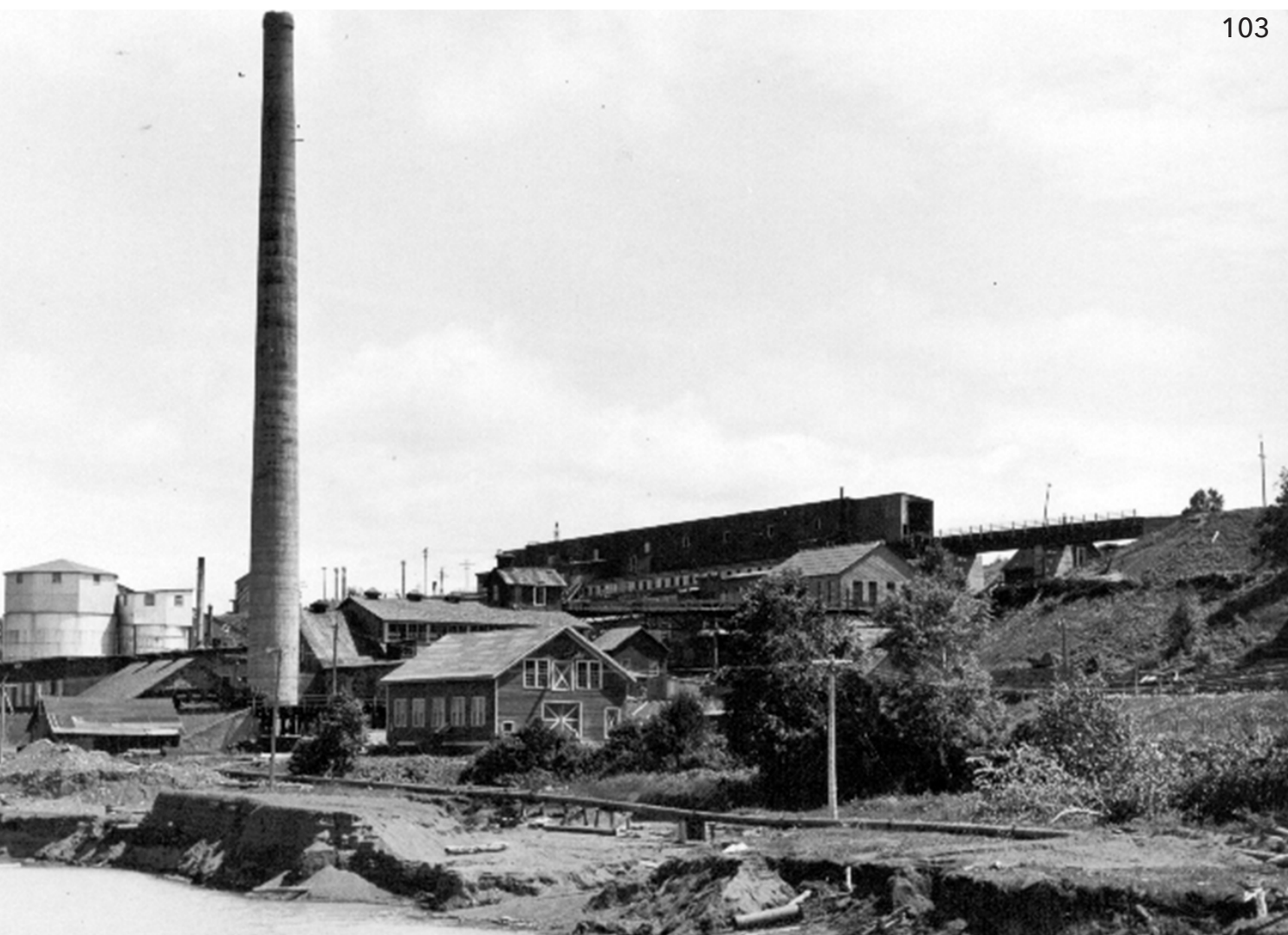






Figure 12

TAILINGS OR STAMP SANDS DEPOSITED THROUGH LAUNDER  
INTO LAKE SUPERIOR

# STAMP MILL CONTEXT

## CHAMPION STAMP MILL P3 - PROCESSES, PARTS & PIECES

The stamp mill process uses a massive amount of water. The Champion Stamp Mill housed a 20 million gallon pump fed by the vast water of Lake Superior through a 1020 foot tunnel blasted underneath the lake.<sup>24</sup>

Each component of the stamp milling process utilizes water. It is the main transportation method that carries the rock and copper from process to process. It is also the means of transporting waste

from the mill back into the lake. The stamp sands and tailings, which are small bits of left over rock from the milling process, as well as the ash from the coal that powers the boilers, heats the building, and creates electricity, are deposited back into the lake by a series of launders. These are troughs in the floor of the mill slightly angled down towards the lake and sometimes assisted with jets of water or waste water from the process.<sup>25</sup>

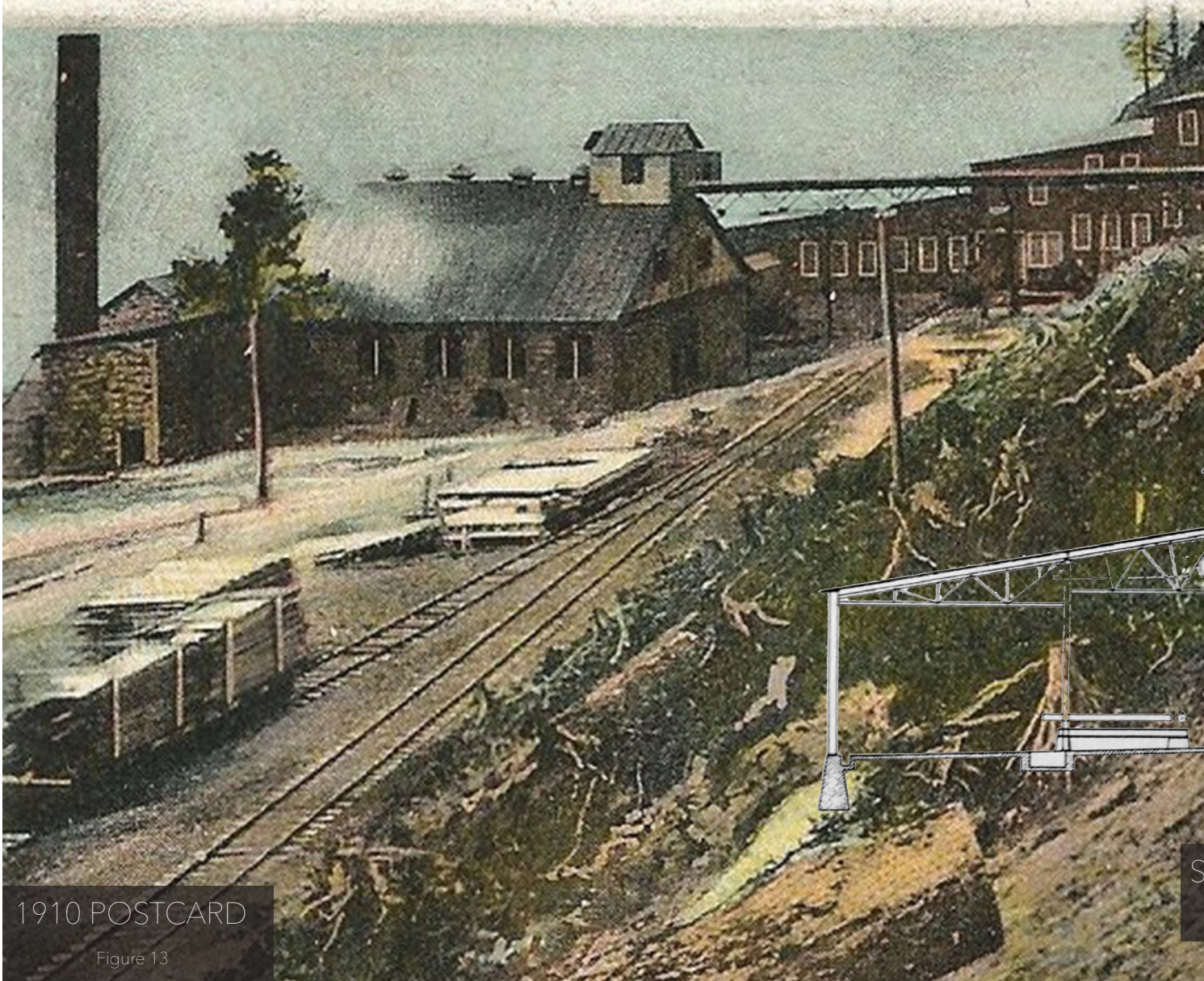
<sup>24</sup> Stevens, *The Copper Handbook*, 252-3.

<sup>25</sup> *Ibid.*



# *Champion Mill on Copper Range Ra*

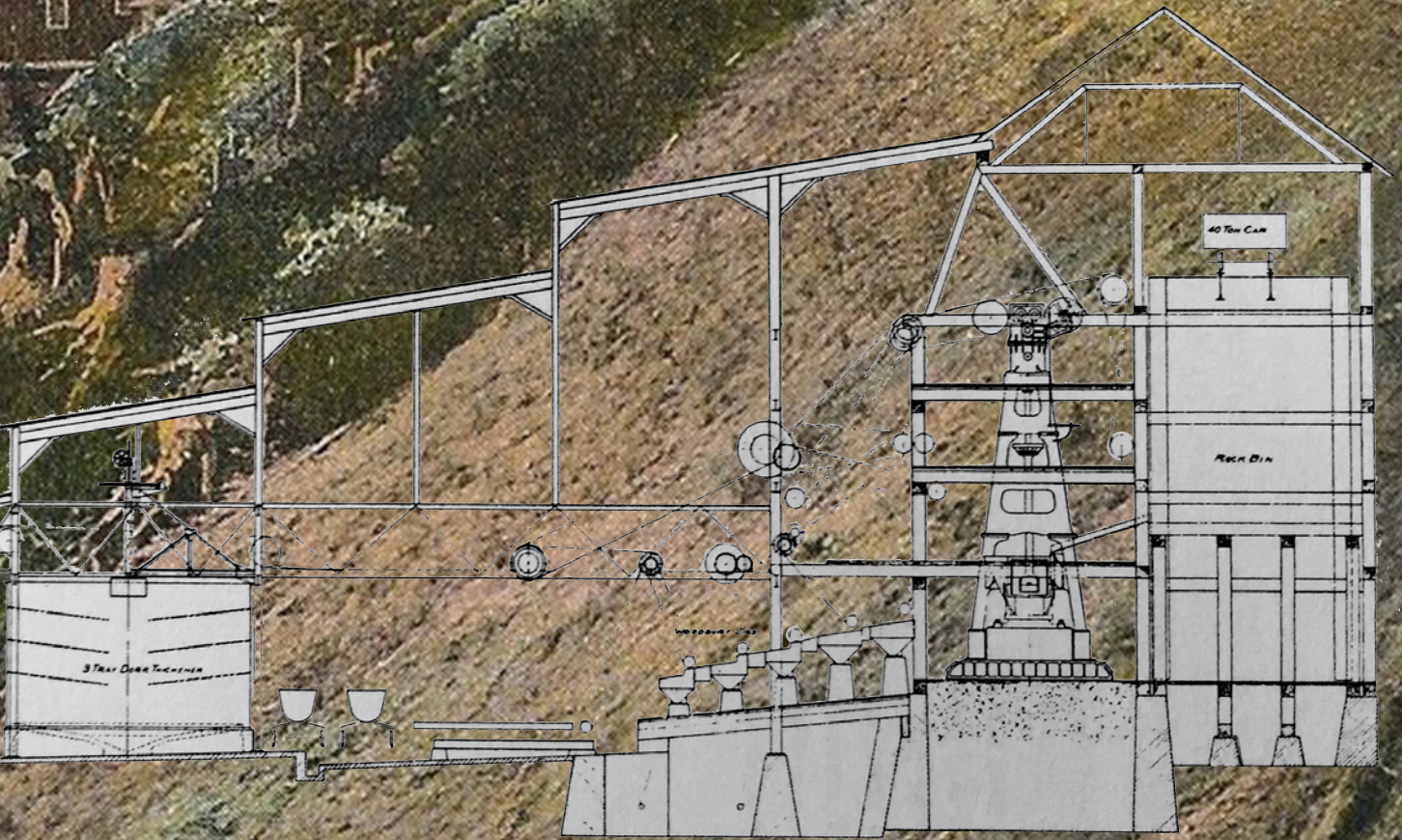
A secondary factor for the placement of Champion Stamp Mill was the topography. The stamp mill process is organized into sections, each stepping downward as the process progresses and refines. Gravity is allowed to drive and aid in the process. In fact, as the sorting process begins, the difference in gravity between copper and rock is what allows this separation to happen. And with the site, by taking advantage of the steep topography, gravity is able to aid in the process without excess manipulation of the land.



1910 POSTCARD

Figure 13

ilroad.



SECTIONAL ELEVATION OF A COPPER COUNTRY STAMP MILL

Figure 14

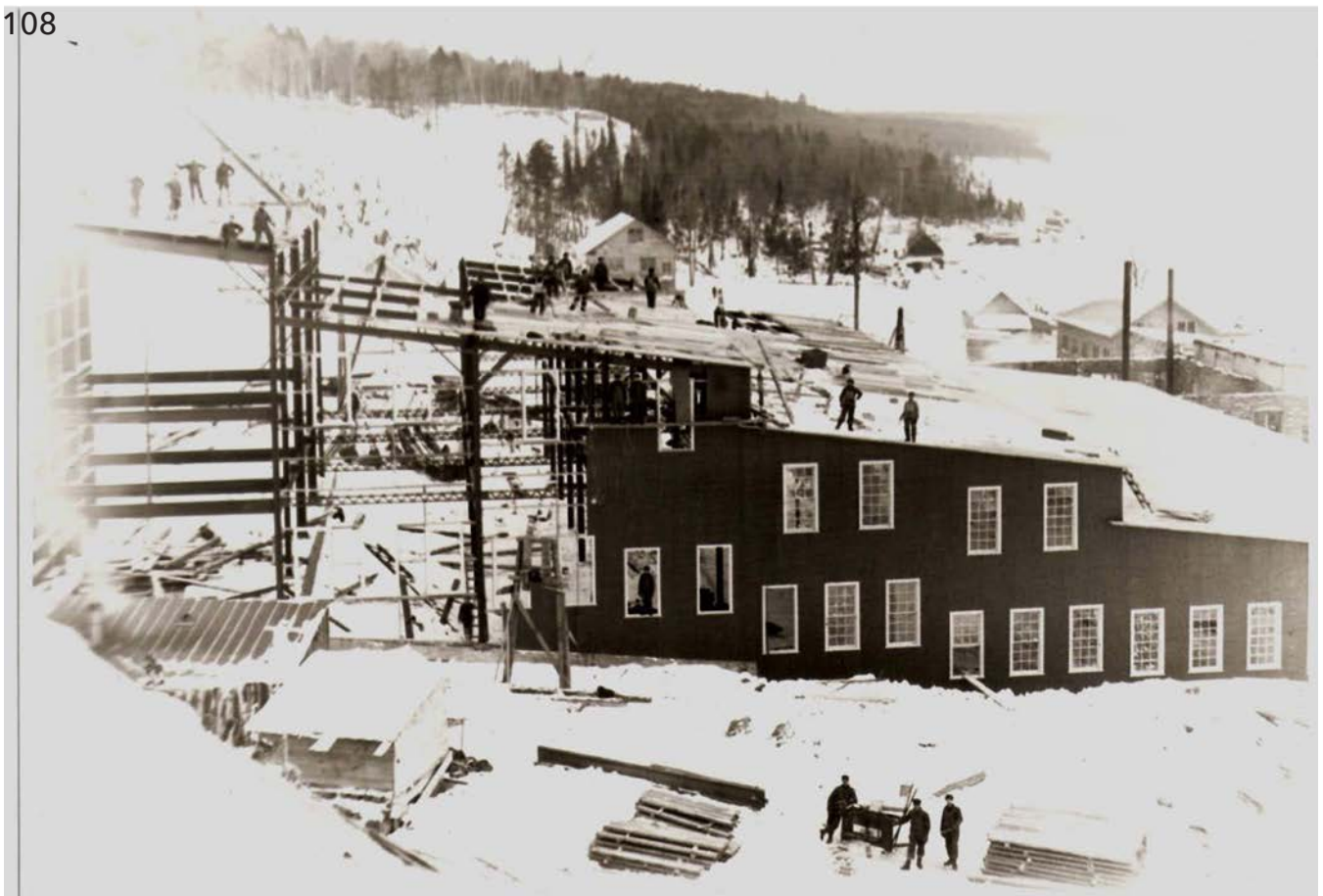


Figure 15

## CONSTRUCTION

To further explore the role of water in the stamp milling process I researched the basic background information of the mill, the layout of equipment, the categorization of the parts and pieces, what role the equipment played in the process, and kept tabs on how the rock and copper were changing as well as how the water was flowing through.

The Champion Stamp Mill was erected in 1902 and a main addition was added in 1905. Originally there were four stamp units and two were added in the 1905 addition. The mill closed its doors in 1967. The original flow is as follows

- Crushing through round openings in stamp
- Screening in trommels
- Concentrating in 4-spigot classifiers
- Sorting in Hodge jigs
- Separation of slime (copper/rock mixture) in Evans round tables
- Selected regrinding in Chilean and Huntington mills<sup>26</sup>



Figure 16

RAZING | 1972



Figure 17

DYNAMITE - BOILER HOUSE AND COAL CHUTE | JUNE 14, 1974

# STAMP MILL CONTEXT

## CHAMPION STAMP MILL P3 - PROCESSES, PARTS & PIECES

Champion Mine product had a very high copper content compared with other mines in the area. The success of the mine made it economically feasible for the Champion Stamp Mill to experiment with processes. For this reason the equipment and flowsheets morphed over the years, yet the main process remained the same. The simplified order is as follows with a few of the related equipment machines attached:

- Sizing - stamp, roller, mill
- Sorting - trammel, classifier
- Separation - jig, table, flotation

The aim of a stamp mill is to separate the copper from the rock to which it is attached. Full separation, 95 percent was one of the highest concentrations, ensued after each component of the mill further processed the rock.<sup>27</sup> The rocks came from the mine by train and were dumped into the rock bins under the tressle found at the highest point of the

mill. From the bins and through chutes the rock made its way into the mortar bins of the stamps. The stamps and bins can be thought of as a massive version of a mortar and pestle, breaking the copper free from the rock if possible and breaking the remaining copper-bearing rock into manageable fragments. The strength of the copper allowed for a simple deformation as the rock crumbled around it.

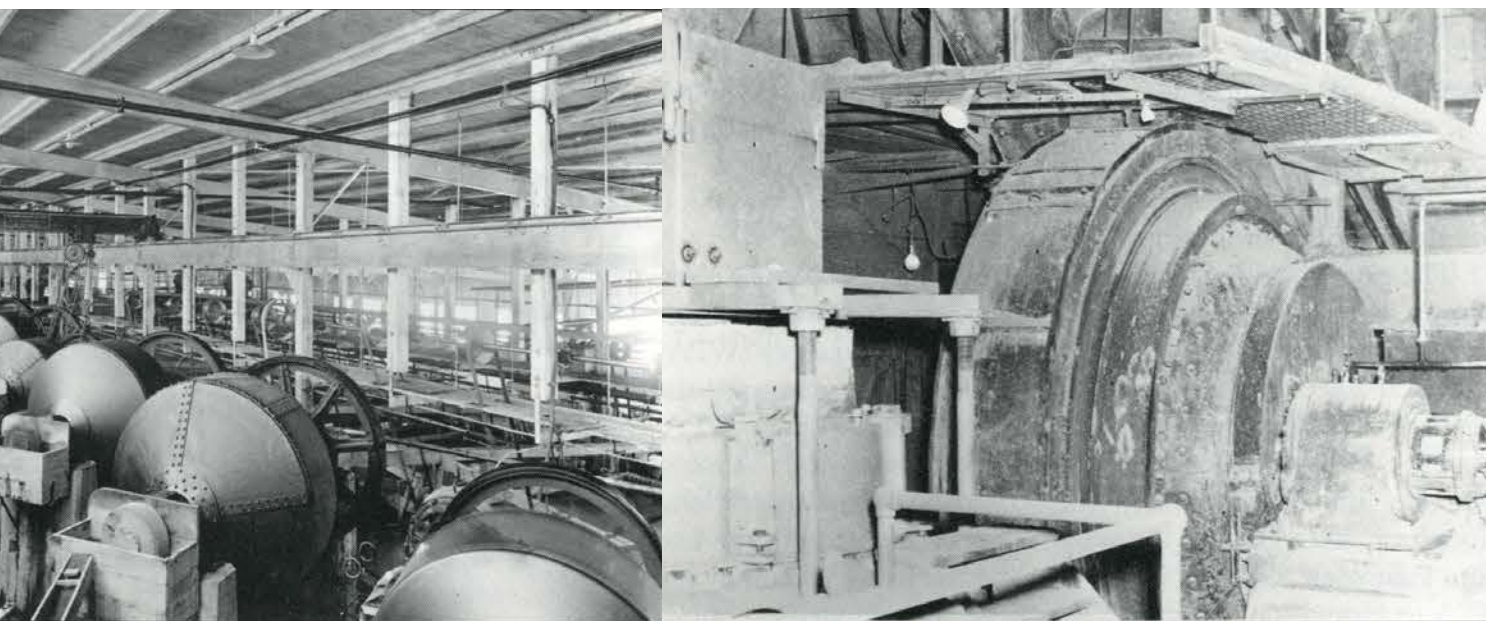
The rocks are sorted through various stages with the aid of gravity and water. If the pieces are too large they are reground and returned to the flow through previous processes and sizing equipment. When the copper is fully separated and reaches the end of the process it is placed in a holding tank below grade of the mill. It is loaded on to a trolley and then to rail for transportation to the smelter for its final phase of processing/melting.<sup>28</sup>



*View of the  
Freda. As  
free from its*

<sup>27</sup> Benedict, Lake Superior Milling Practice

<sup>28</sup> Forgrave, "Copper Country Explorer"



*Ball mills inside Copper Range's Champion Mill at  
these drums rotated, steel balls inside ground the copper  
rock matrix. (MTU Archives & CCHC)*

*Schacht Impact Crusher at Freda in 1965. Installed in 1935-36,  
the Schacht Crusher was Copper Range's answer to the high cost of  
processing copper bearing rock. Although requiring frequent repair,  
Schacht's crusher operated on electricity, not steam, an important cost  
savings for Copper Range. (MTU Archives & CCHC)*

Figure 18



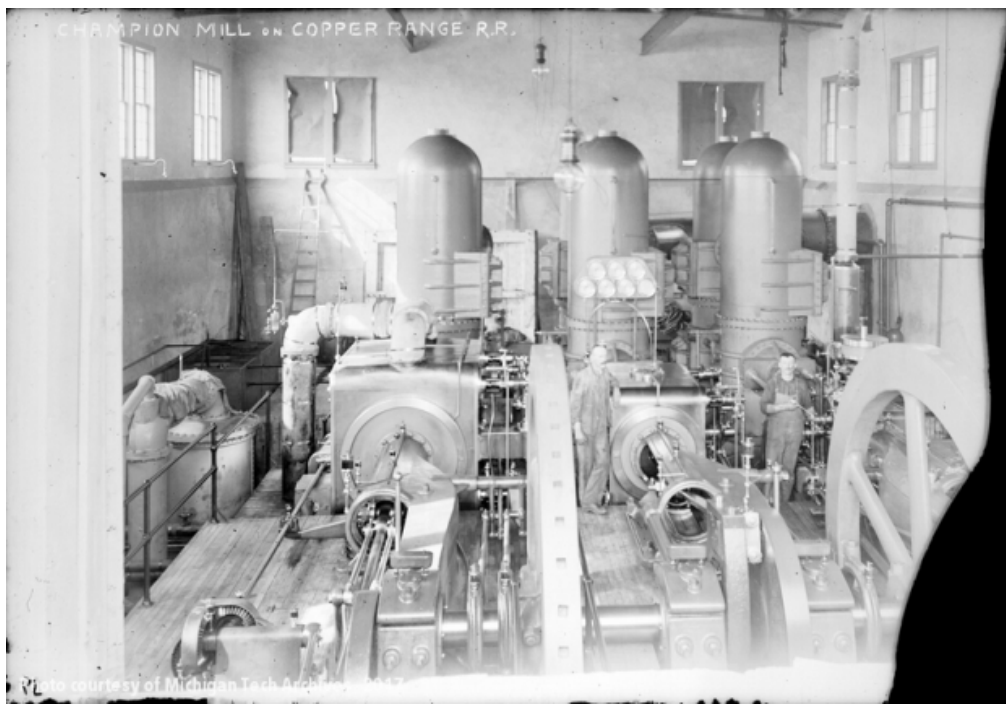


Figure 19

TWO MEN AT THE PUMP

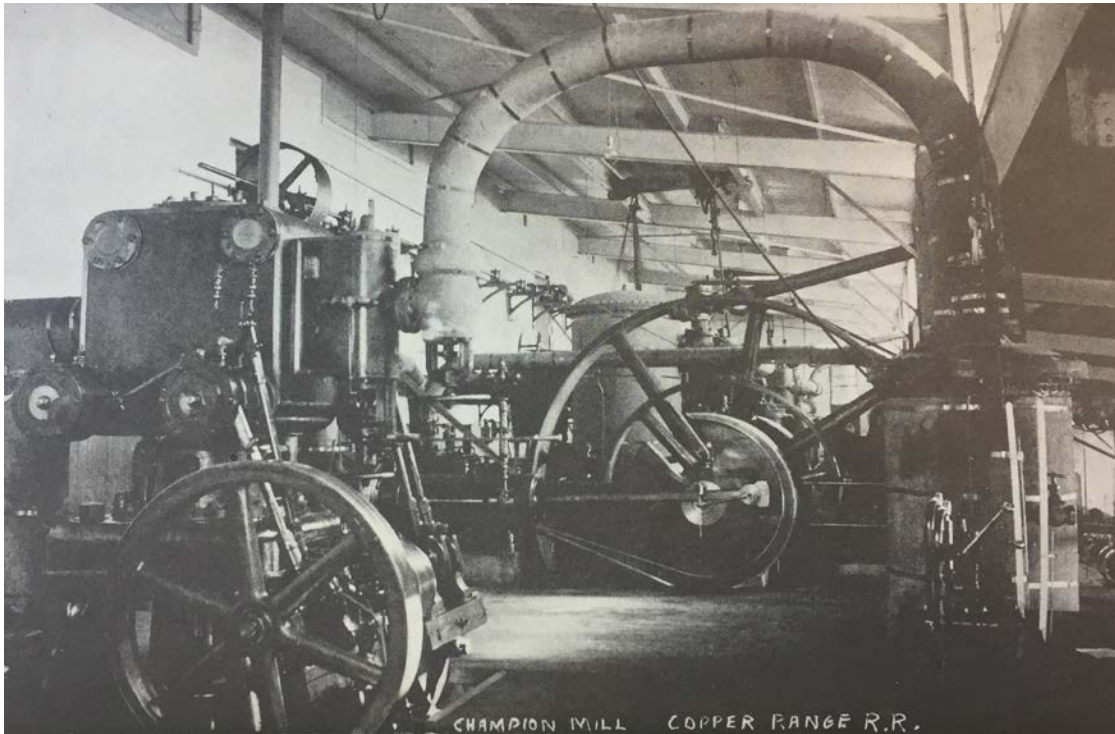


Figure 20

INTERIOR OF CHAMPION MILL

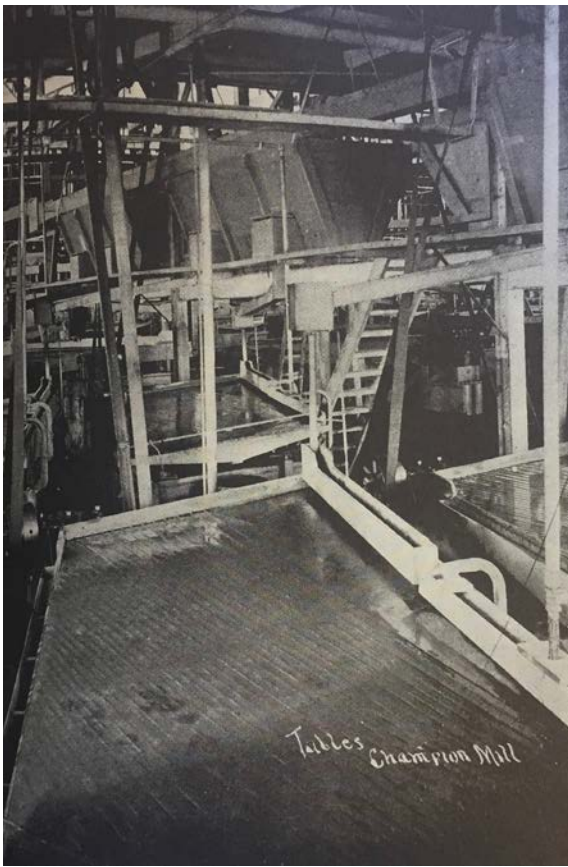


Figure 21

TABLES - WASH PROCESS



Figure 22

NORDBERG COMPOUND STAMP -  
STEAM STAMP

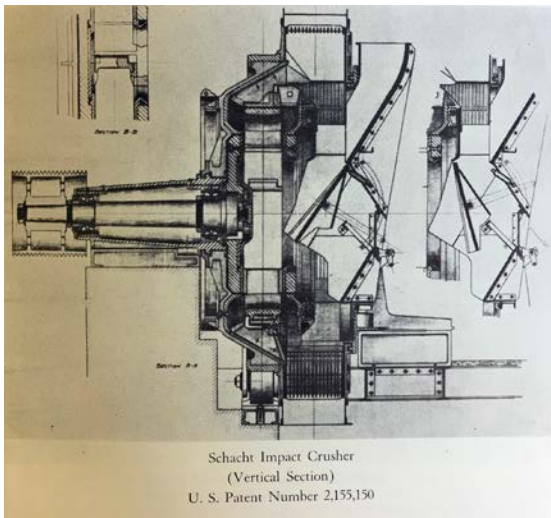


Figure 23

ELECTRIC CRUSHER - REPLACED  
STEAM STAMP IN THE 1930'S

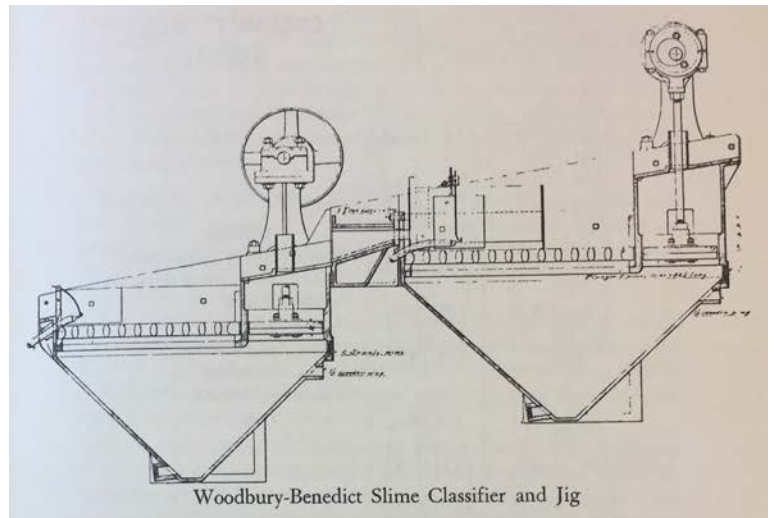
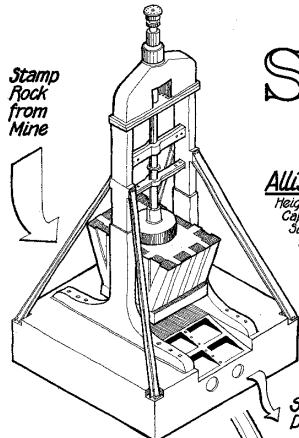


Figure 24

CLASSIFIER AND JIG

# STAMP MILL PROCESS

## c. 1900



### Allis Stream Stamp

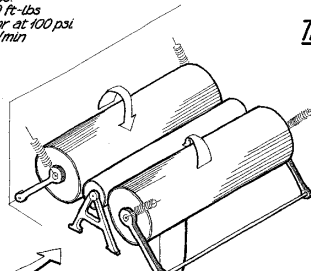
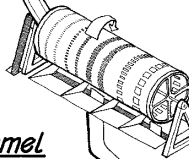
Height - 37 feet  
Capacity - 300 tons/day  
Size of Discharge -  $\frac{3}{16}$ " in diameter or less  
Weight of Head - 6,000 lbs.  
Energy of Blow - 30,000 ft-lbs  
Steam Use - 1,000 lbs/hr at 100 psi  
Water Use - 160 gals/min



Copper

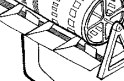
### Rotating Duplex Trommel

Two Trommels per Stamp head  
3 ft long - 3 ft in diameter  
Slope - 3°  
Speed - 16-20 rpm  
Size of Discharge -  $\frac{3}{32}$ " in diameter or less  
Classifies material by size: undersize goes to roughing jigs oversized to triplex rolls



### Triplex Rolls

Crushes oversize Trommel discharge to 0.06" diameter  
Counter-rotating outer rolls; center rolls fixed  
Spring-mounted outer rolls maintained at constant pressure  
Discharge goes to Roughing Jigs



Oversize to Rolls



Undersize to Roughing Jigs

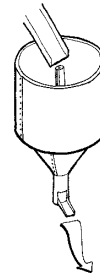
### Roughing Jig

Six Jigs per Stamp head; three compartments per jig (one sieve compartment is not shown). Unclassified material enters jig where action of plungers creates hydraulic current and causes stratification. Heavy mineral settles on screen first, followed by middlings, tailings, and slimes. Size of screen mesh determines size of product discharged; generally, product is 0.04" to 0.08" in diameter. Middlings go to Settling Tank, tailings to Finishing Jigs.



Copper

Tailings

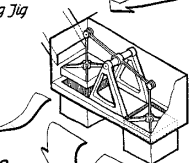


### Settling Tank

3 to 5 ft in diameter  
1 to 2 ft deep  
Particles settle out and are sent to Regrinding Mill  
Overflow water goes to waste

### Finishing Jig

Same operation as Roughing Jig  
Mesh size - 0.02" to 0.04"  
Copper goes to mineral bin; Middlings to Wülfley Table; Tailings to Waste.



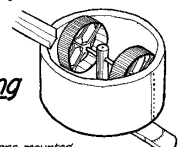
Copper

Tailings to Waste Launder

Middlings

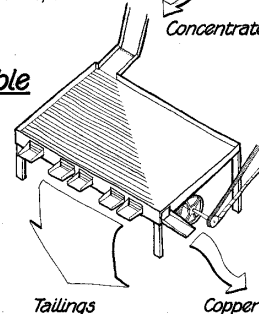
### Trent Regrinding Mill

6 ft in diameter  
60-90 mesh screens mounted on bottom  
Size of Discharge: as small as 0.005" in diameter  
Rubber rollers revolve around shaft at 25-30 rpm



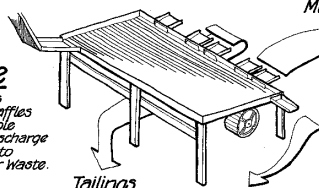
Concentrate

### Wülfley Table



Tailings

Copper



### Wülfley Table

Mineral feed to table is caught on wooden baffles (riffles). Motion of table carries mineral to discharge outlet. Middlings go to further treatment or waste.

Tailings

Copper

Middlings

### Finishing Jig

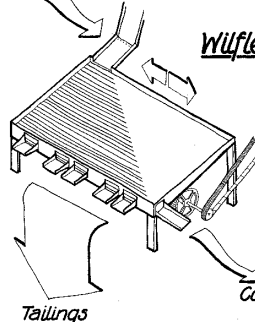
Six Jigs per Stamp head; three compartments per jig (one sieve compartment is not shown). Unclassified material enters jig where action of plungers creates hydraulic current and causes stratification. Heavy mineral settles on screen first, followed by middlings, tailings, and slimes. Size of screen mesh determines size of product discharged; generally, product is 0.04" to 0.08" in diameter. Middlings go to Settling Tank, tailings to Finishing Jigs.

Copper

Tailings

Middlings

### Wülfley Table



Tailings

Copper

### General Information

The milling process had one objective: to liberate copper from the surrounding waste rock. This drawing (not to scale) is a schematic treatment of the Quincy process; it does not show launders, hydraulic separators, or the power train system. Quincy's milling technique was similar to that used by other modern mills in the Lake Superior region. Yield averaged 30 lbs. of copper per ton of rock stamped.

DELINEATED BY: Eric M. Hansen, 1978

QUINCY MINE RECORDING PROJECT  
OFFICE OF ARCHIOLOGY AND HISTORIC PRESERVATION  
HERITAGE CONSERVATION AND RECREATION SERVICE  
UNITED STATES DEPARTMENT OF THE INTERIOR

HANCOCK

QUINCY MINING COMPANY : QUINCY STAMP MILL : MILLING PROCESS - c.1900  
ON TORCH LAKE, APPROX. 5.8 MILES EAST OF HOUGHTON-HANCOCK BRIDGE ON STATE ROUTE 26

MICHIGAN

SHEET 27 of 34

HISTORIC AMERICAN ENGINEERING RECORD MI - 2

Figure 25

# CHAMPION MILL - 1929

(APPLYING FLOTATION TO NATIVE COPPER ORE)

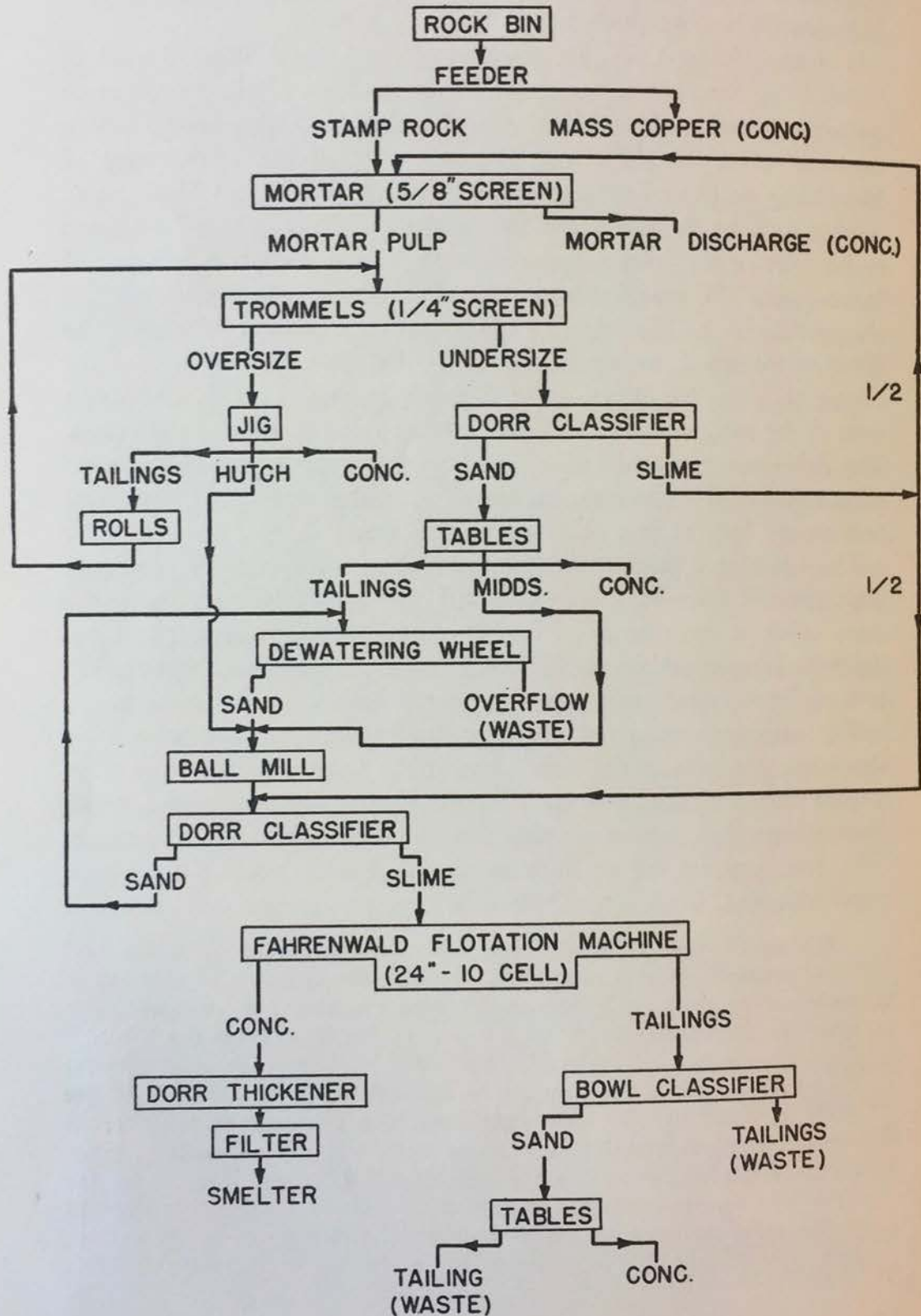
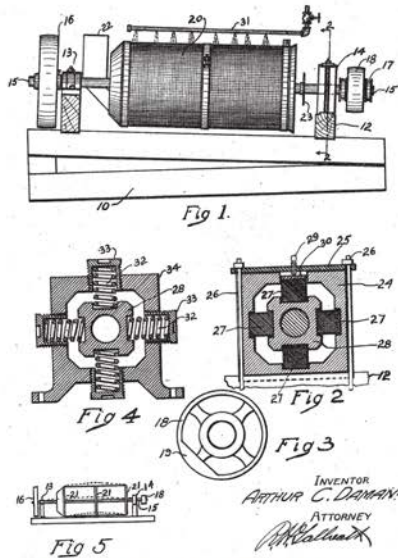
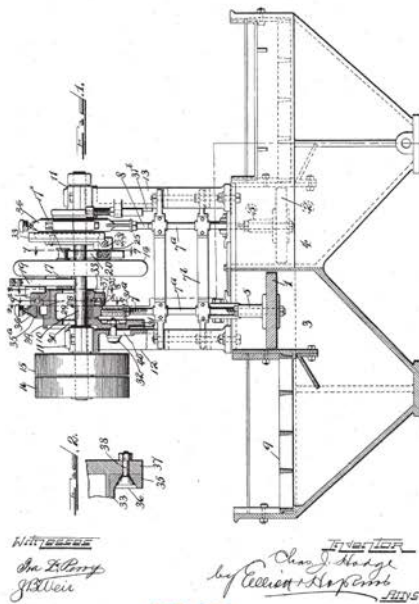


Figure 26



# TROMMEL



# JIG

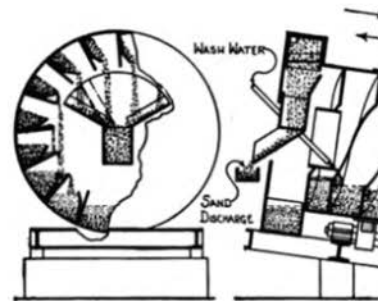
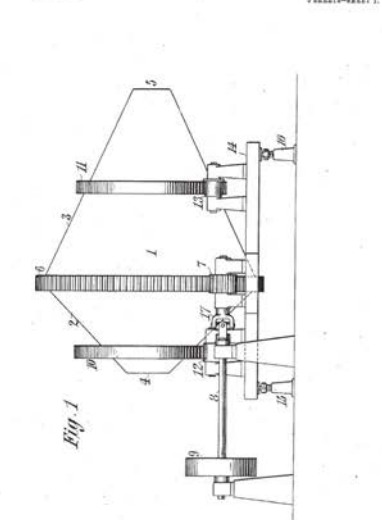


Fig. 24. General arrangement of H...

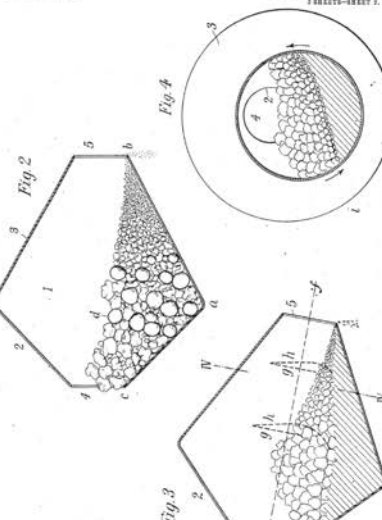
# CLASS



Witnesses:  
Raphael Netto  
Ed. Dunham

Inventor:  
Harry W. Hardinge

By: [Signature]  
Rev. R. P. Cooper

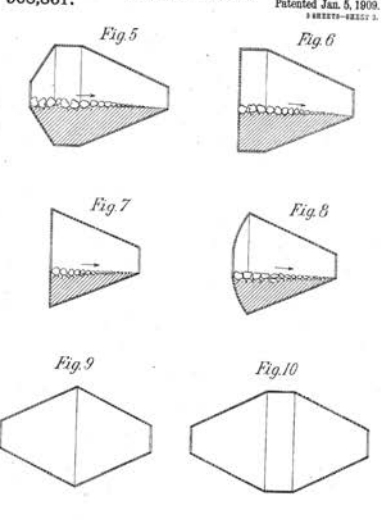


Witnesses:  
Raphael Netto  
Ed. Dunham

Inventor:  
Harry W. Hardinge

By: [Signature]  
Rev. R. P. Cooper

# BALL MILL

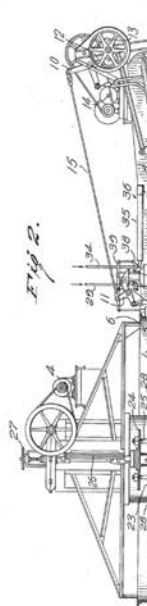


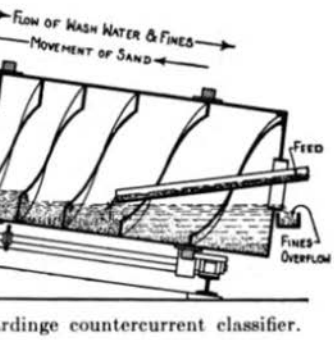
Witnesses:  
Raphael Netto  
Ed. Dunham

Inventor:  
Harry W. Hardinge

By: [Signature]  
Rev. R. P. Cooper

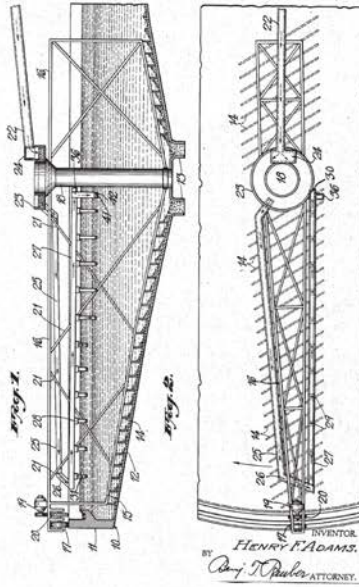
# BOWL





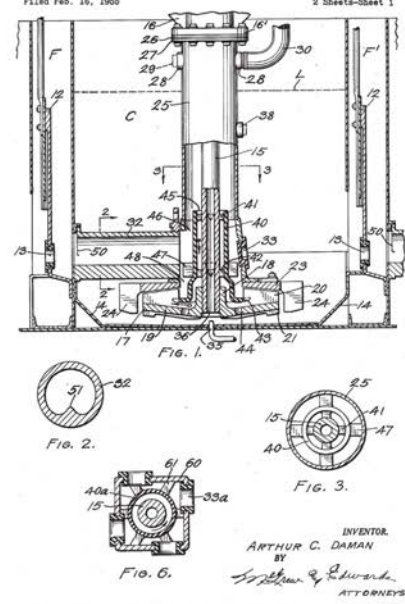
# CLASSIFIER

Dec. 23, 1941. H. F. ADAMS 2,267,516  
THICKENER AND A METHOD OF CONCENTRATING OR THICKENING  
SLURRIES OF FINELY DIVIDED MATERIALS Filed Dec. 15, 1938 2 Sheets-Sheet 1



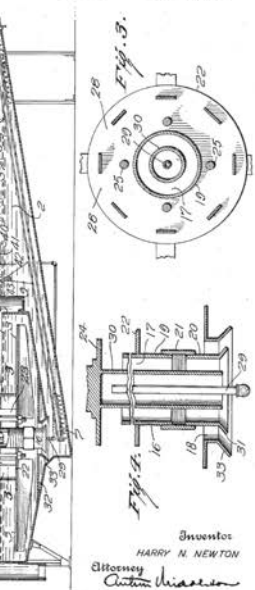
# THICKENER

July 12, 1960 A. C. DAMAN 2,944,802  
PROTH FLOTATION AND AERATION APPARATUS Filed Feb. 16, 1958 2 Sheets-Sheet 1



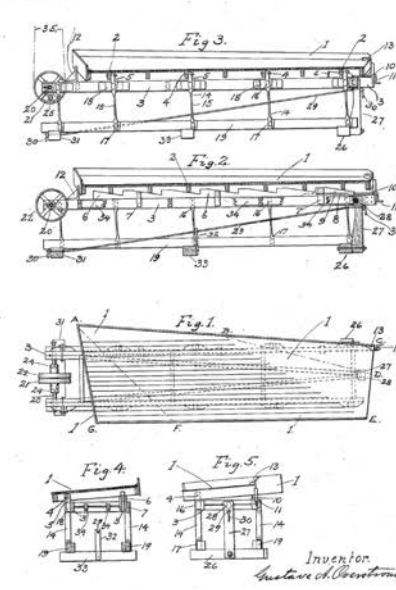
# FLOTATION

H. W. NEWTON 1,881,875  
ROUL CLASSIFIER Filed May 29, 1931 2 Sheets-Sheet 2



# CLASSIFIER

G. A. OVERSTROM. 1,417,681.  
CONCENTRATOR. Patented May 30, 1922.  
APPLICATION FILED NOV. 25, 1916.



# TABLES

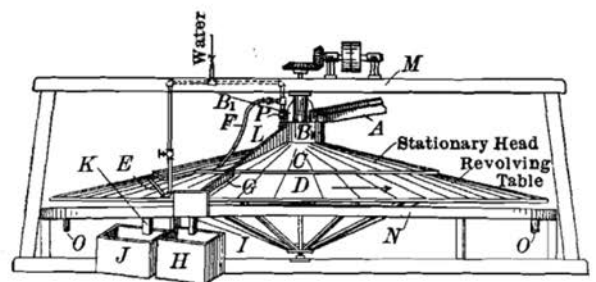


FIG. 14.—EVANS SLIME TABLE.

# TABLES

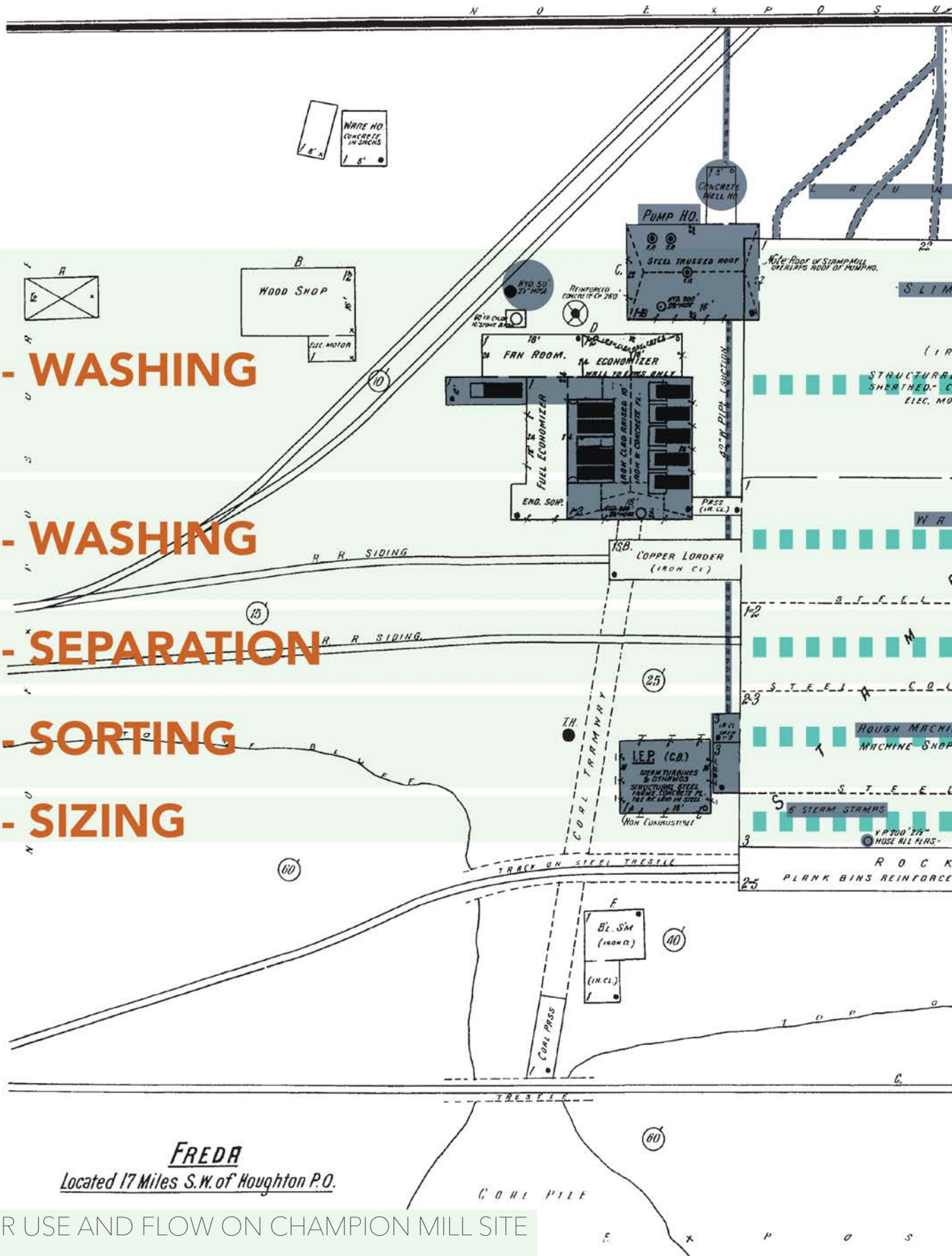
4 - WASHING

4 - WASHING

3 - SEPARATION

2 - SORTING

1 - SIZING

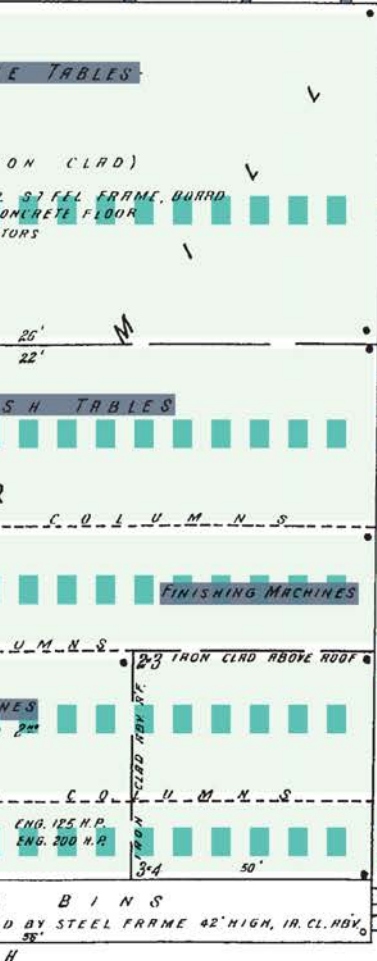


**FREDA**  
 Located 17 Miles S.W. of Houghton P.O.

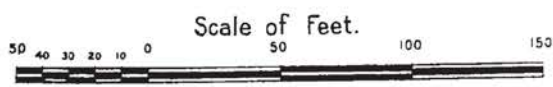
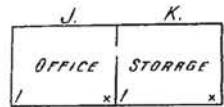
# COPPER RANGE CO., STAMP MILL

+ WATER FLOWING THROUGH LAUNDER TO WASH THE WASTE ROCK OUT INTO LAKE SUPERIOR - CHAMPION MILL BRANCH -

OPERATE DAY & NIGHT, NIGHT WATCHMAN, HOURS: 8 STATIONS, HOURLY ROUNDS: LIGHTS: ELECTRIC, I.E.P.: HEAT: STEAM: POWER: ELECTRIC & STEAM: FUEL: COAL: VERTICAL PIPE HYDS & HOSE AS SHOWN, CONNECTED TO ONE CAMERON K.P. & ONE MURPHY CENTRIFUGAL K.P. CAPCY. 200 GALLONS PER MIN, DRAWING FROM LAKE. WATER FOR MFG. PURPOSES SUPPLIED BY ALLIS PUMP, CAPCY: 30 MILLION GALS PER 24 HOURS, DRAWING FROM LAKE. UNDERWRITERS CHEMICALS DISTRIBUTED THROUGHOUT. SMALL HOSE FOR MFG. PURPOSES THROUGHOUT MILL. HOSE CART WITH 500' 2 1/2" HOSE.



- + WATER/ROCK MIXTURE Poured ON RIDGES ON WIFLEY TABLES WHERE LIGHTER NON-COPPER MATERIAL FLOWED OFF TABLE OR ON REVOLVING CIRCULAR TABLE USING CENTRIFUGAL FORCE AND SLOPE
- + FLOTATION MACHINE
- + DORR THICKENER
- + BOWL CLASSIFIER
- + DEWATERING WHEEL
- + WATER AND ROCK SENT THROUGH TROMMEL TO SORT
- + PULSION AND SUCTION OF WATER DRIVES SEPARATION OF COPPER SLIME THROUGH SIEVE IN JIGS
- + BALL MILLS
- + COLUMNS OF WATER WITH A HORIZONTAL FLOW OF WATER ACROSS SORT FURTHER IN THE CLASSIFIER WITH A CONSTANT FLOW OF WATER
- + STEAM AS POWER FOR STAMPS - PUSHES DOWN AND PULLS UP
- + WATER PUMPED INTO MORTAR BOX UNDER STAMP AND OUT THE OTHER SIDE THROUGH A SCREEN WITH SMALLER COPPER PIECES
- + A COUNTER-ACTING FLOW OF WATER SENT BACK INTO BOX TO MEDIATE DISCHARGE OF MATERIAL

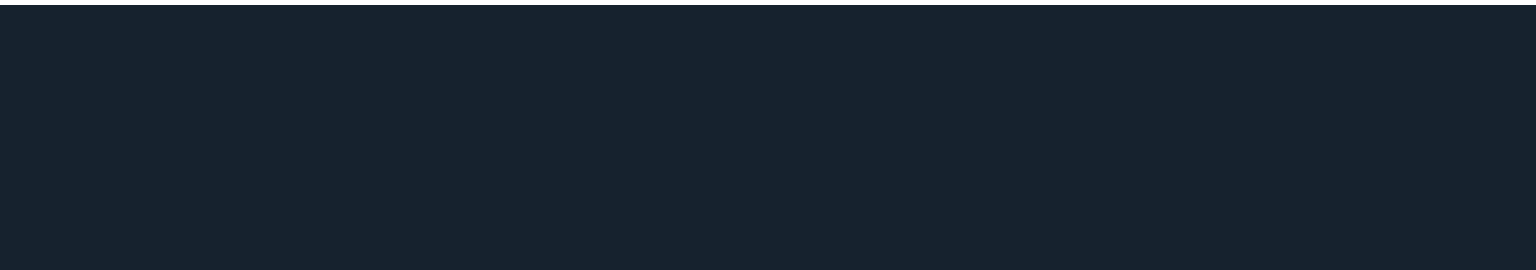


Copyright 1917 by the Sanborn Map Co

150' TO 2 STORY BOARDING RD.  
HOSE CART AT BUILDING NO.  
500' 2 1/2" HOSE.







DESIGN PROPOSITION

**FINAL PROPOSAL**

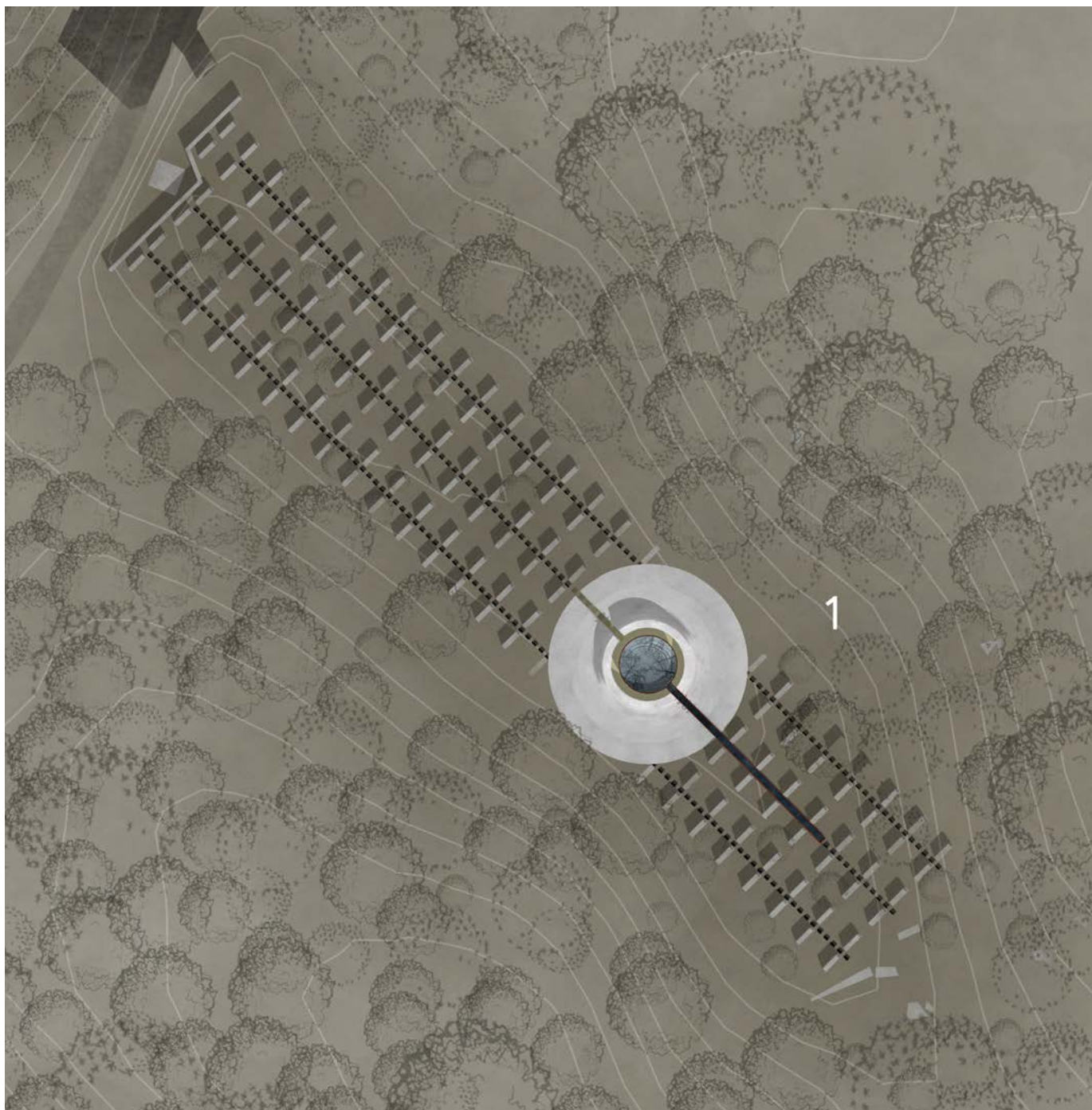
04.002

CHAPTER









# MEMORY

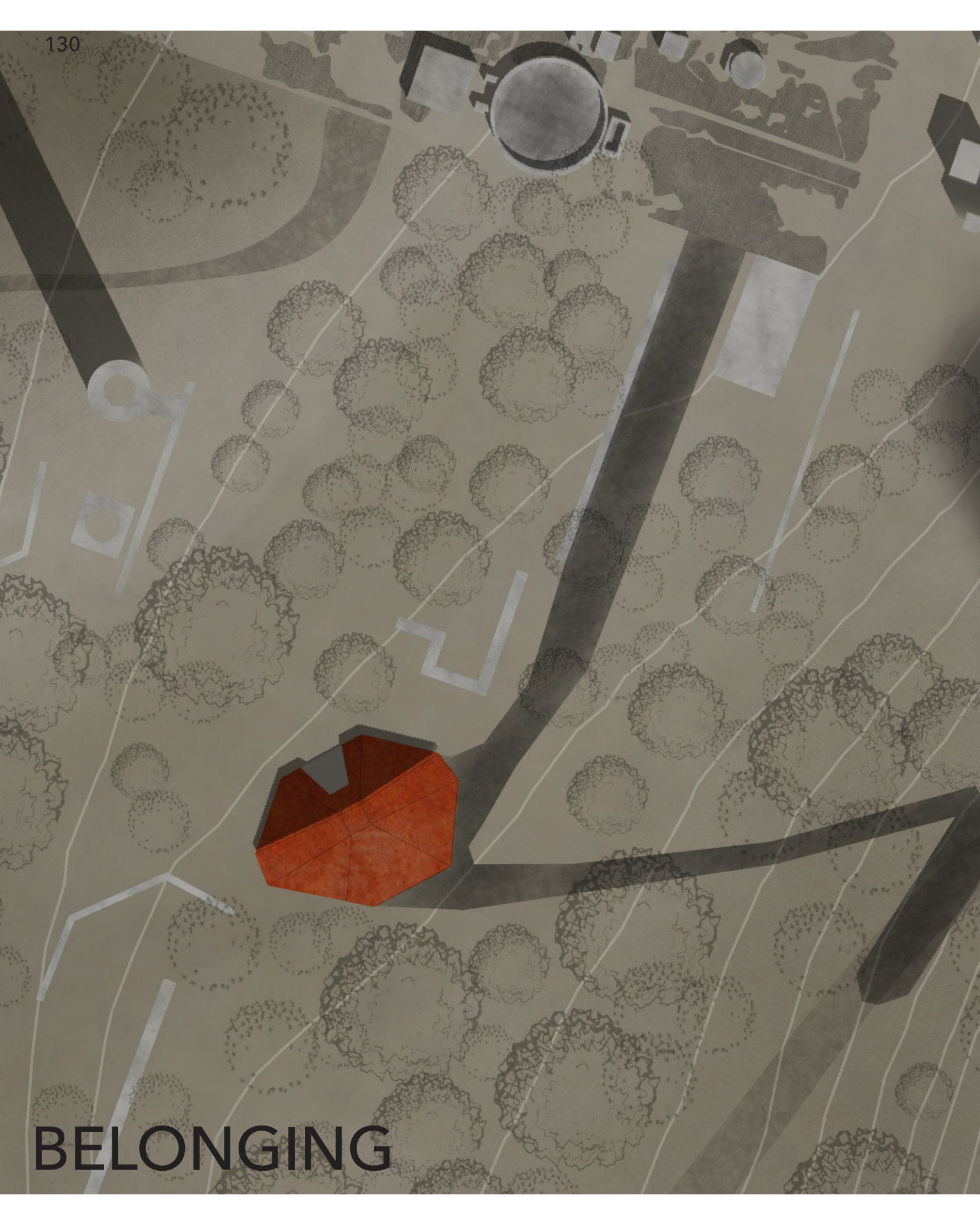




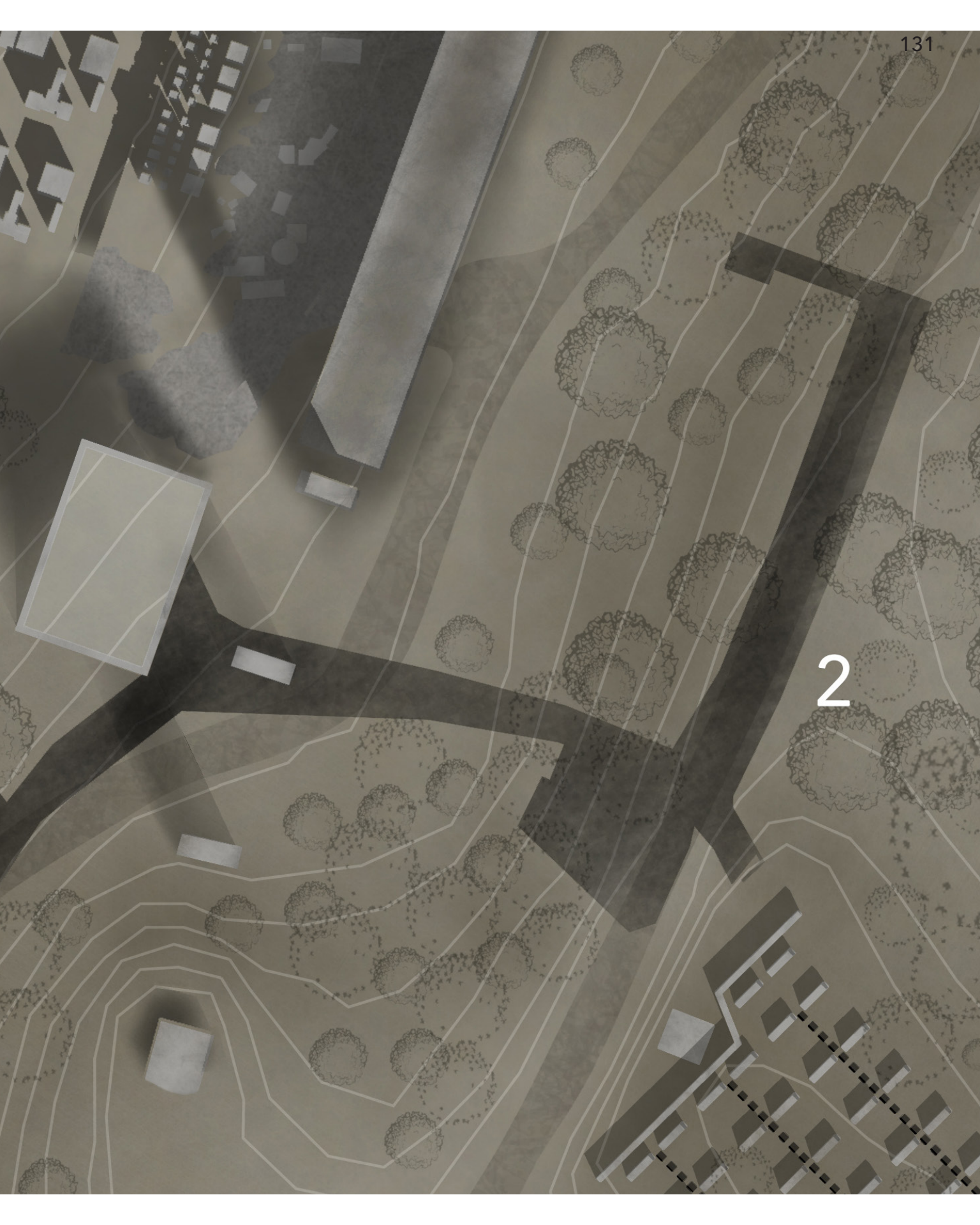




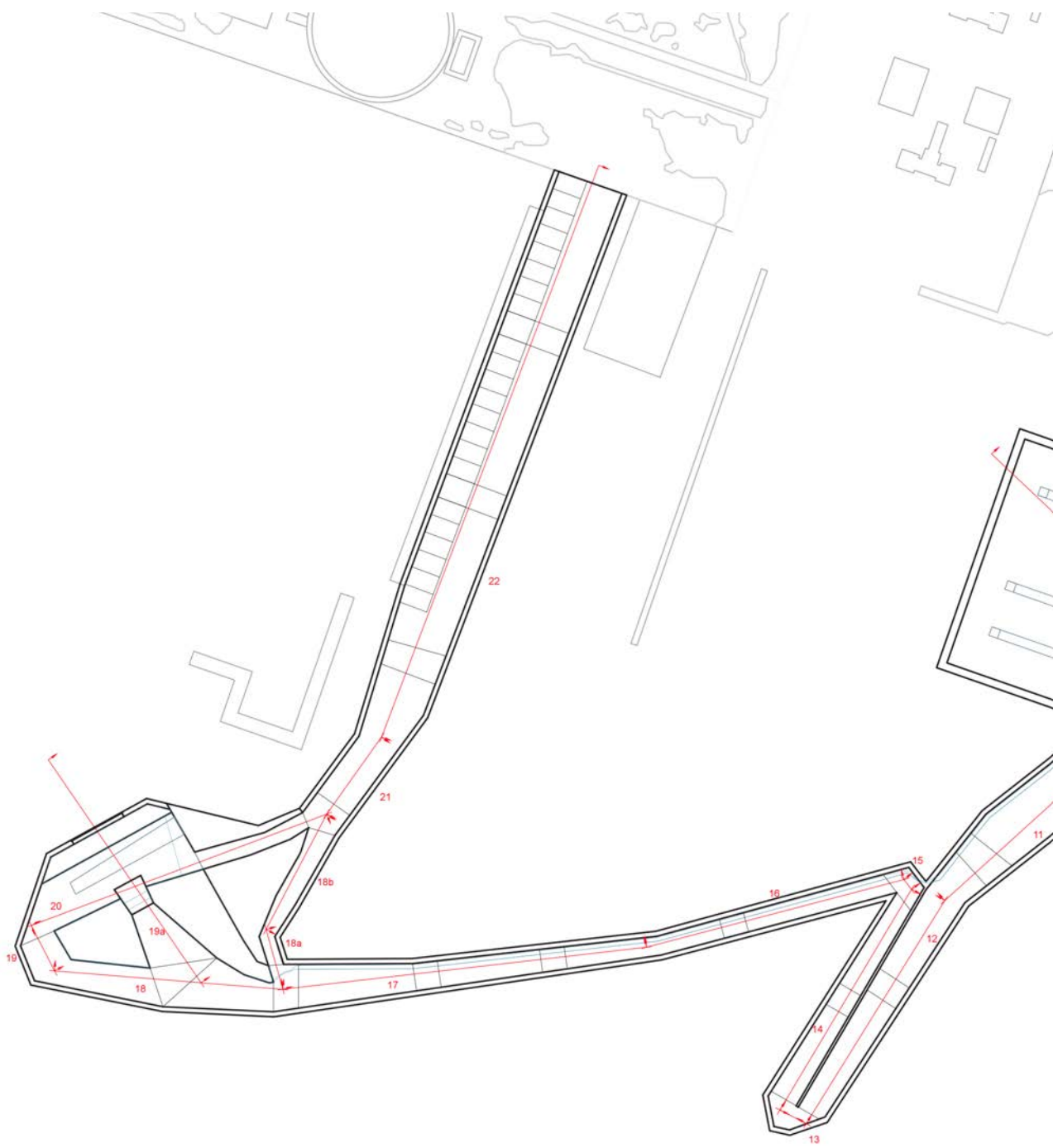




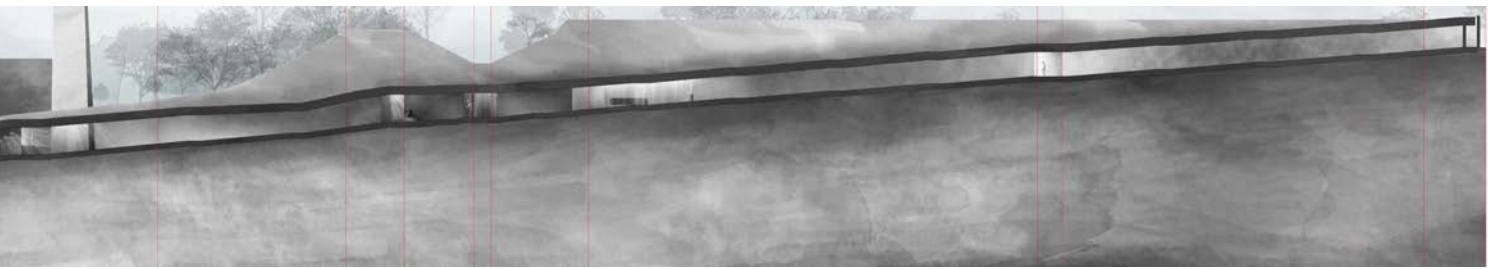
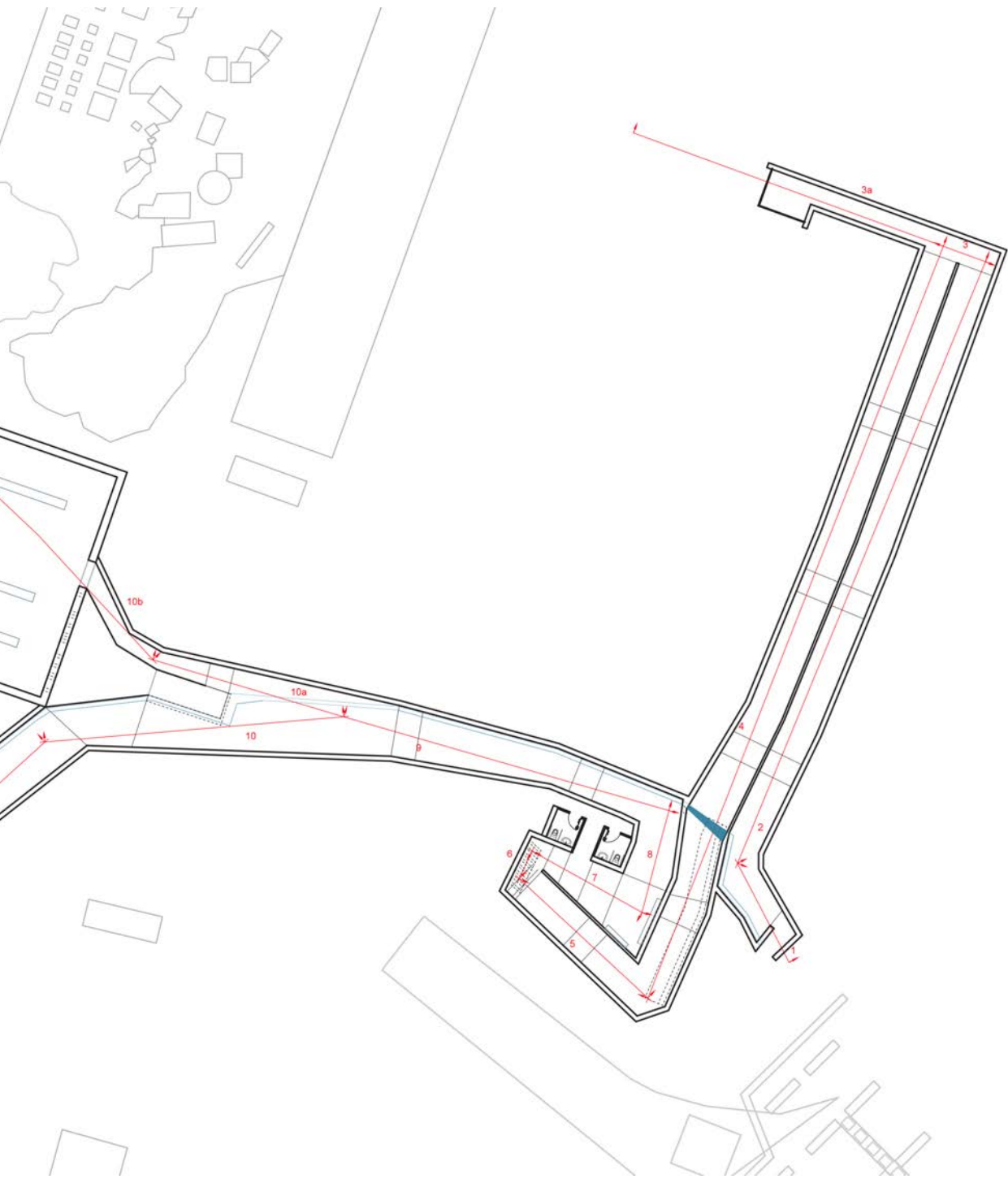
# BELONGING



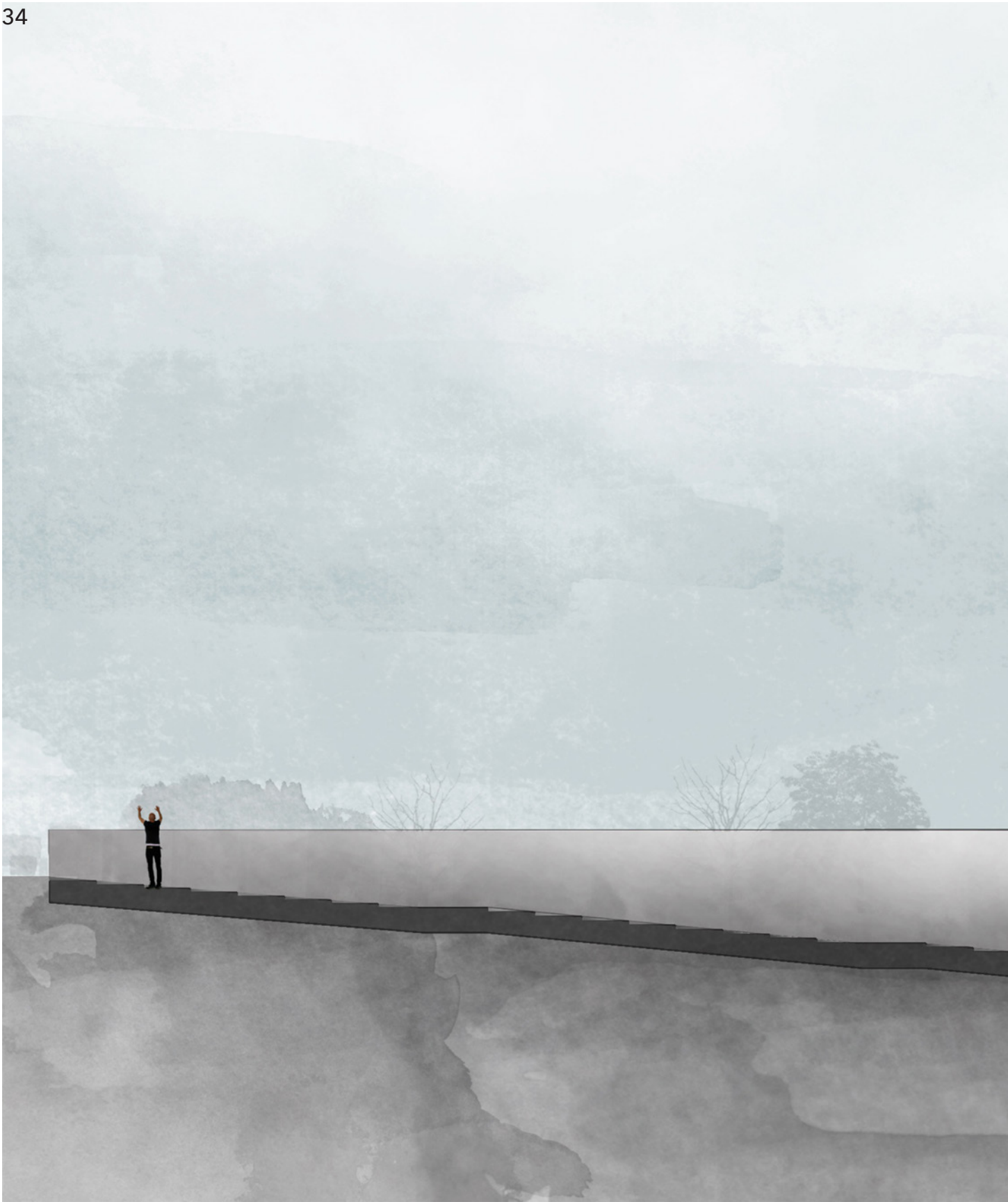
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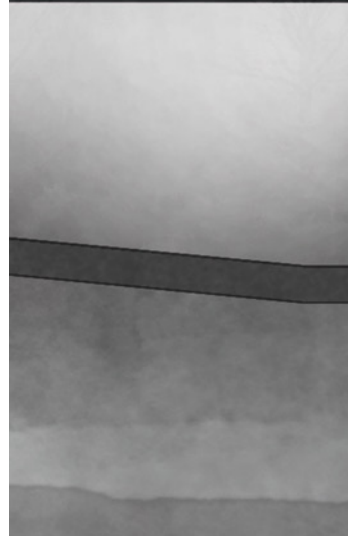
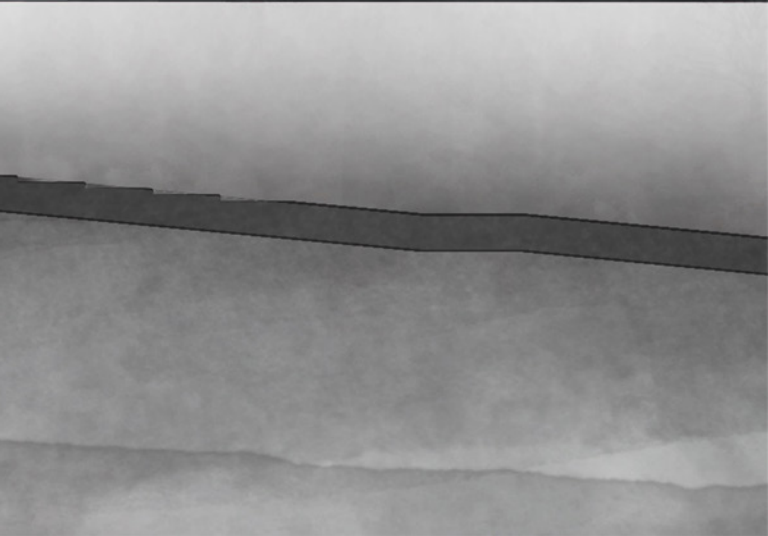


22 21 20 19 18 17 16 15 14 13 12 11



10 9 8 7 6 5 4 3 2 1



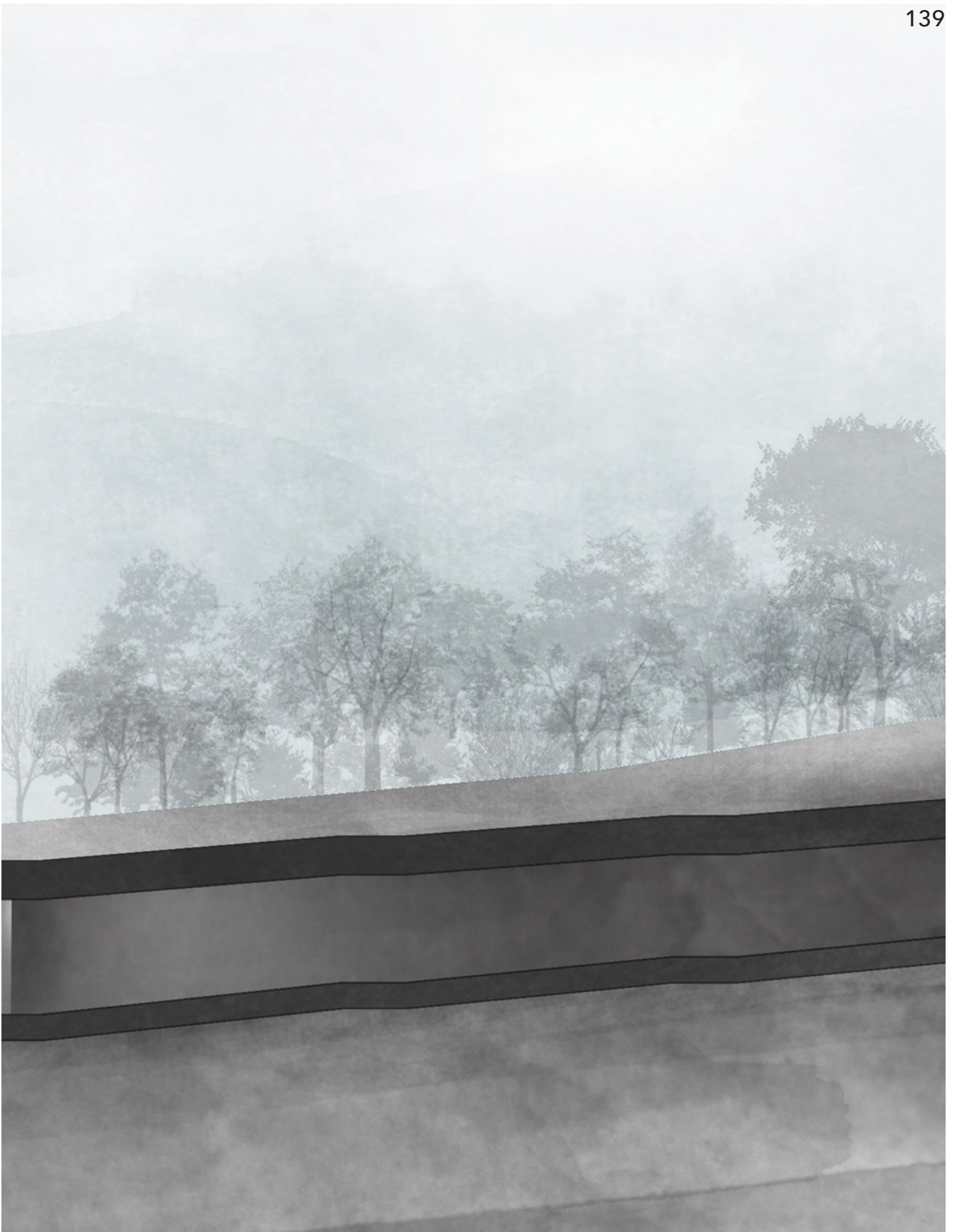


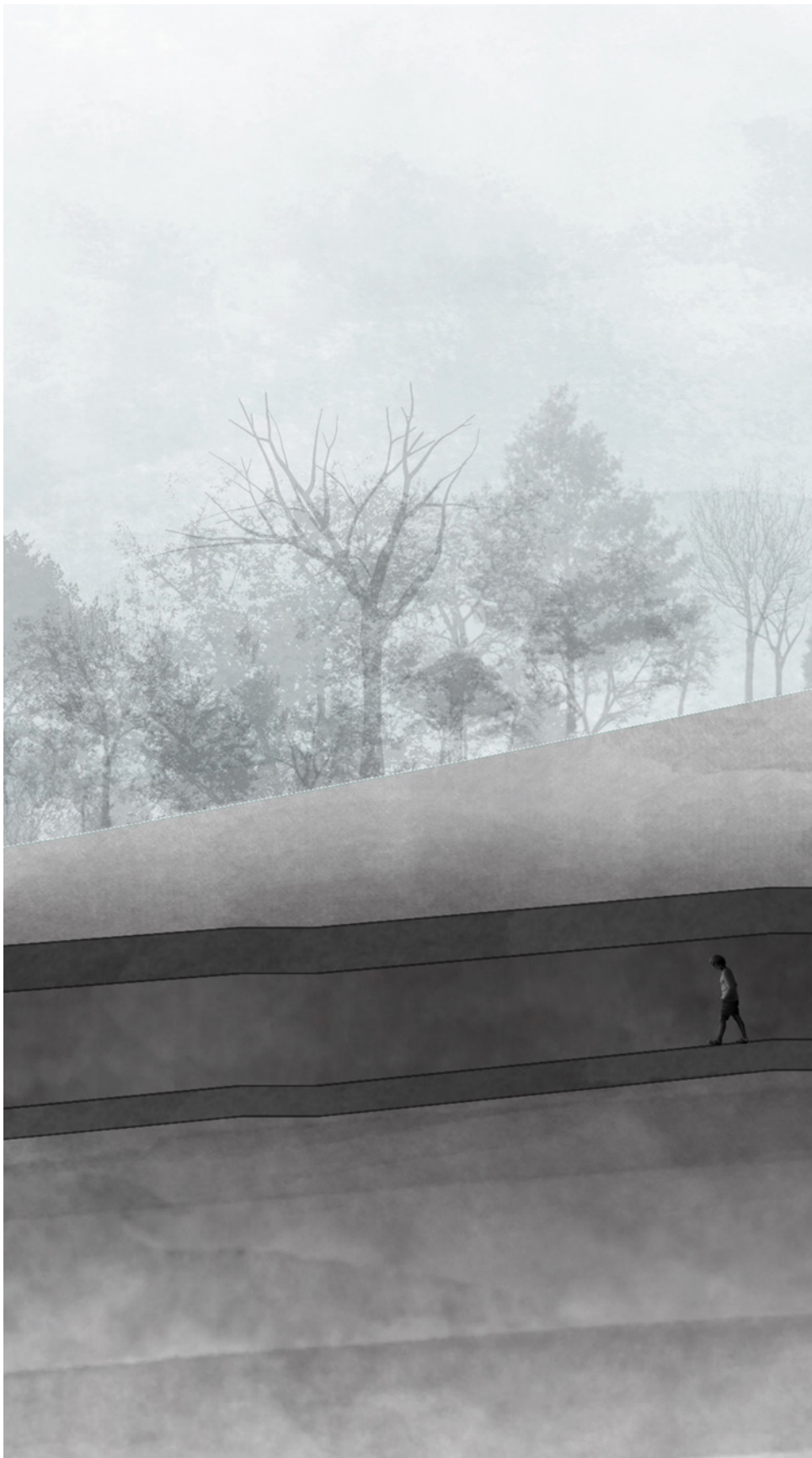




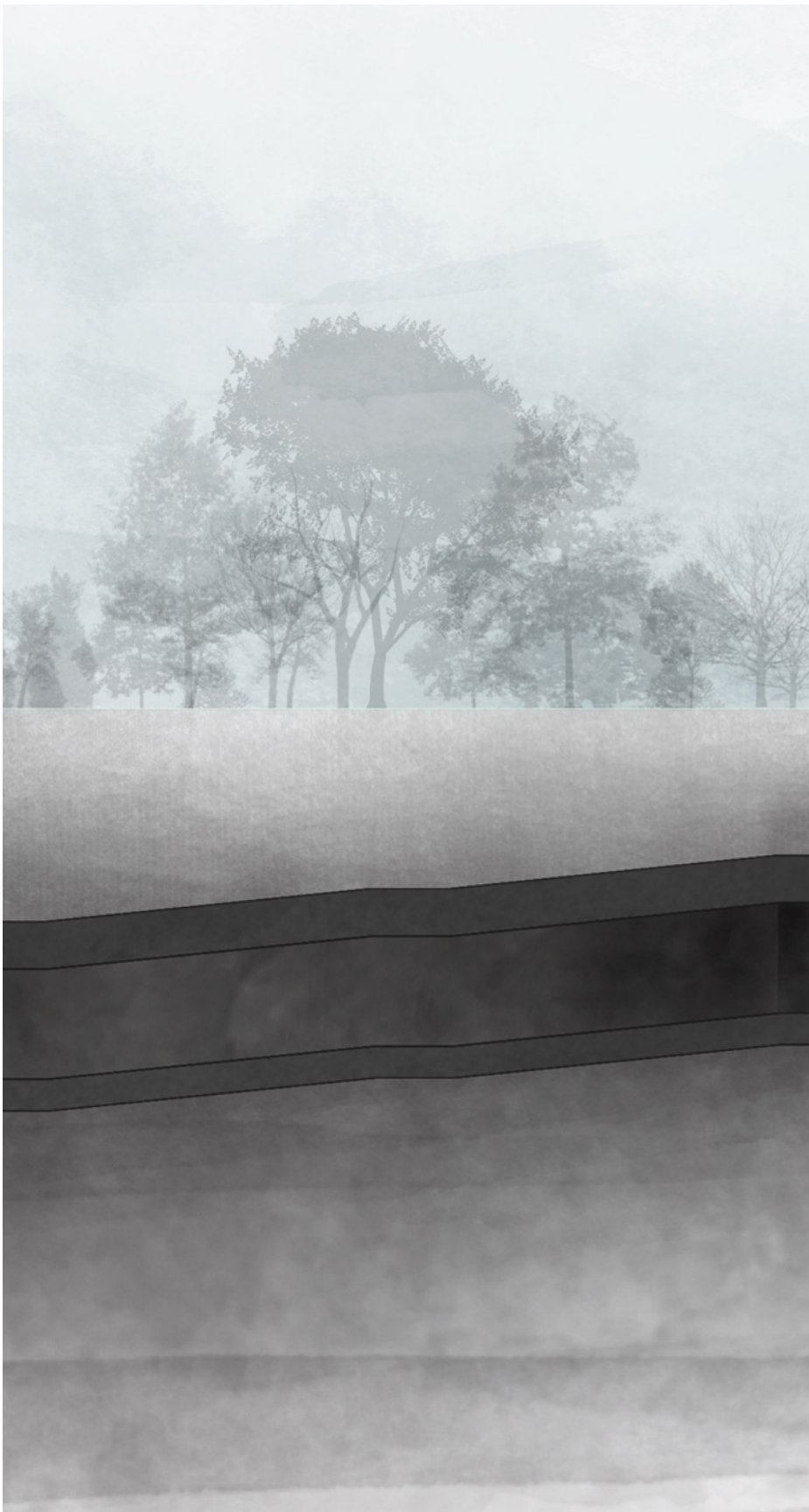






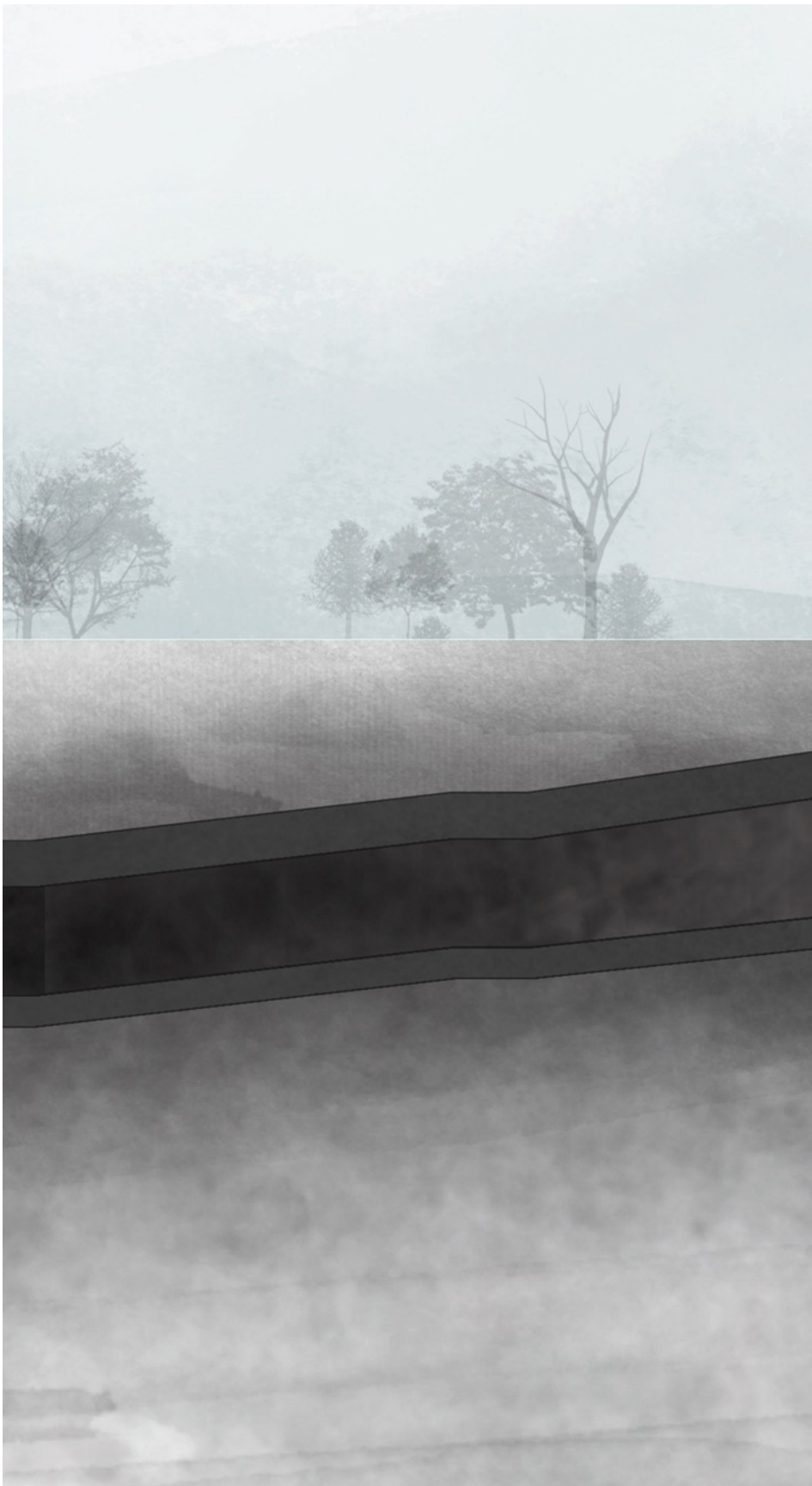


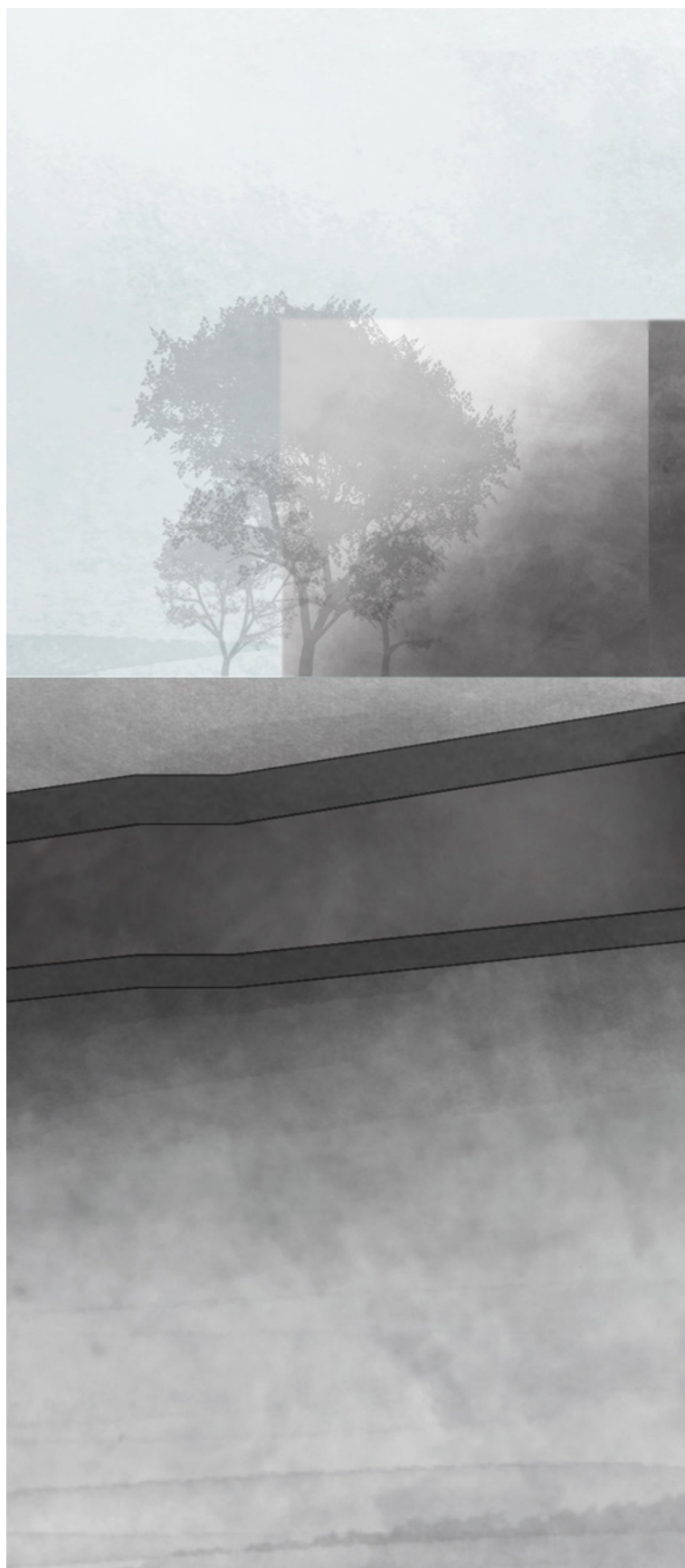


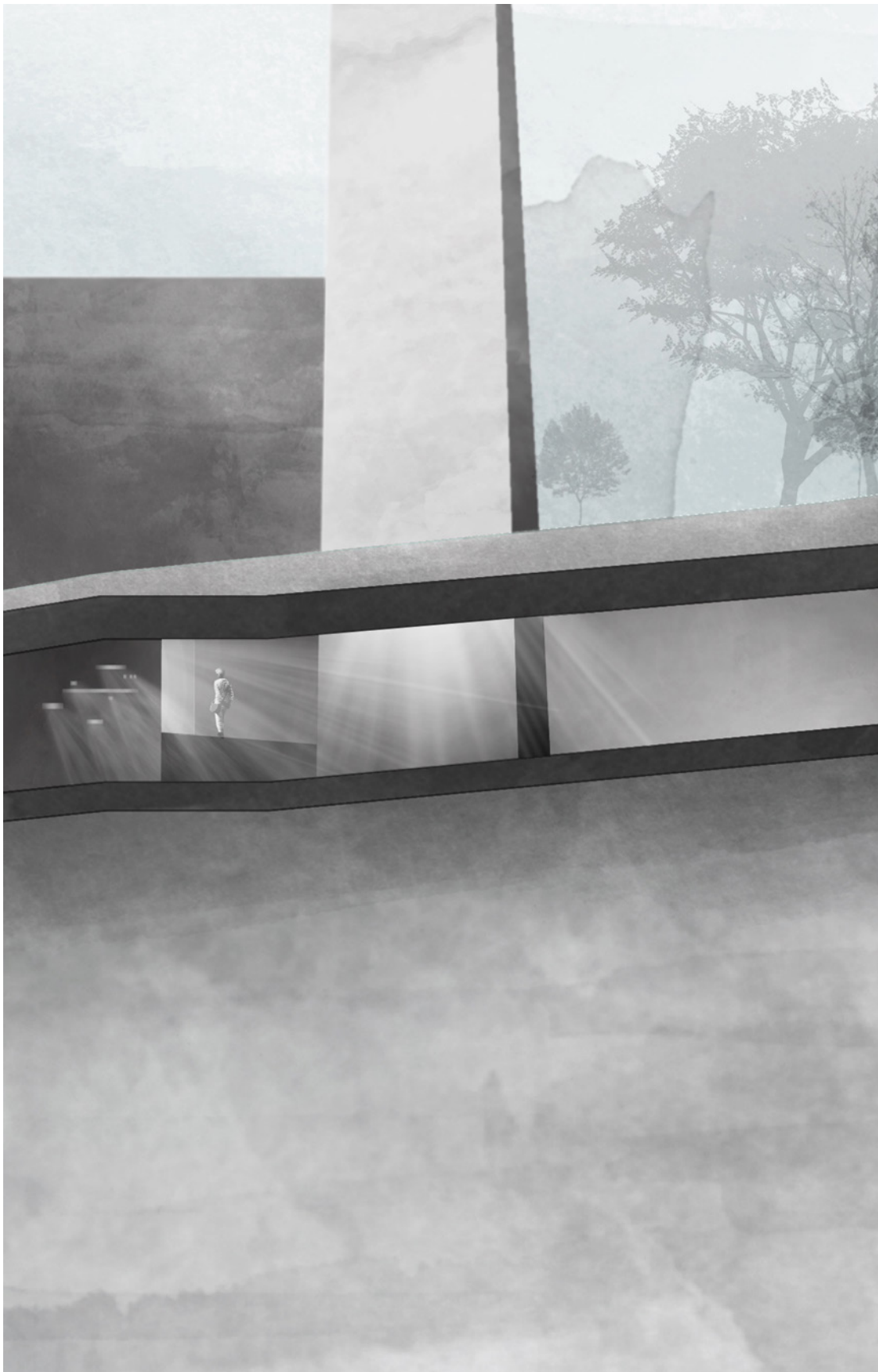


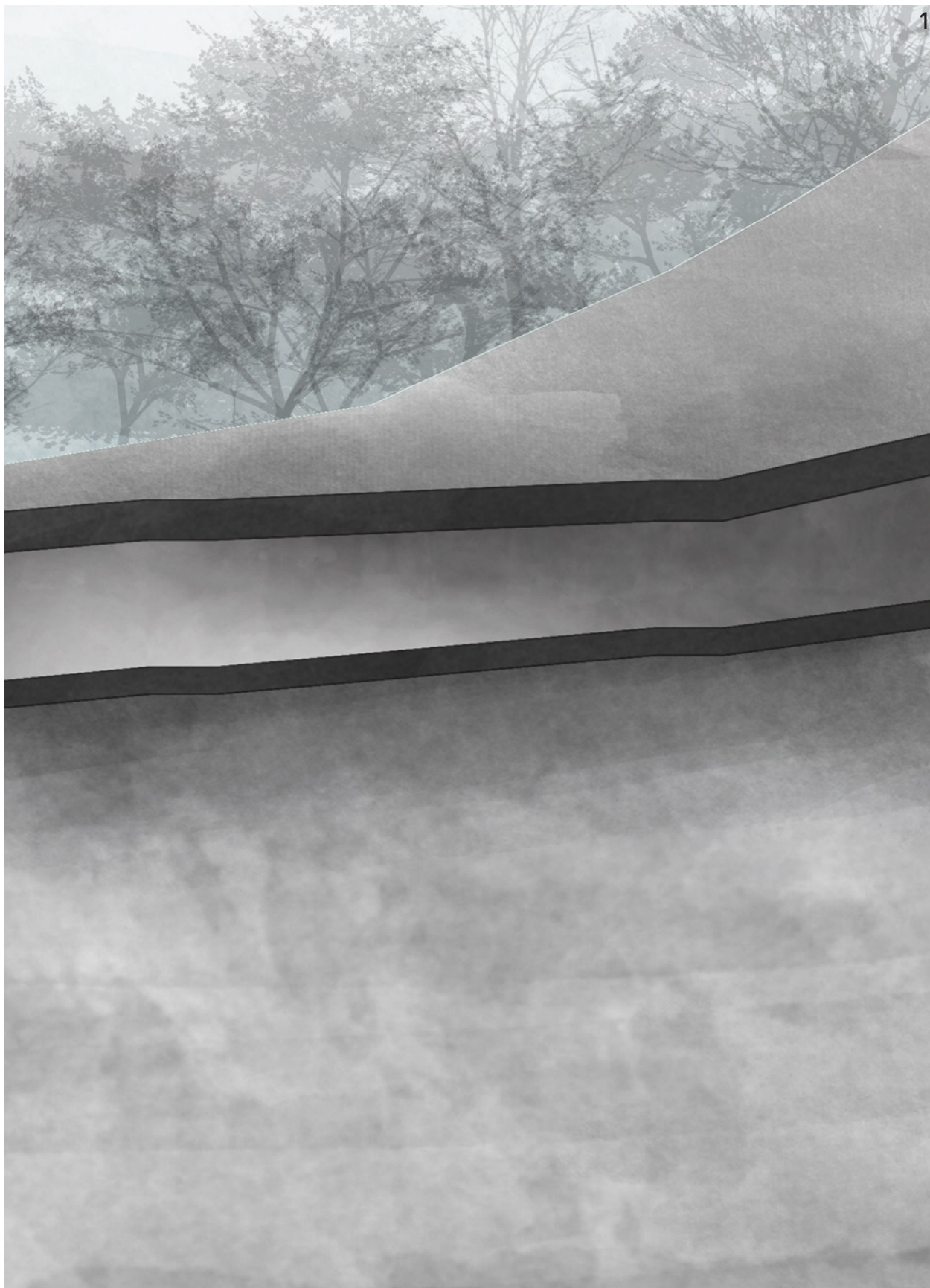


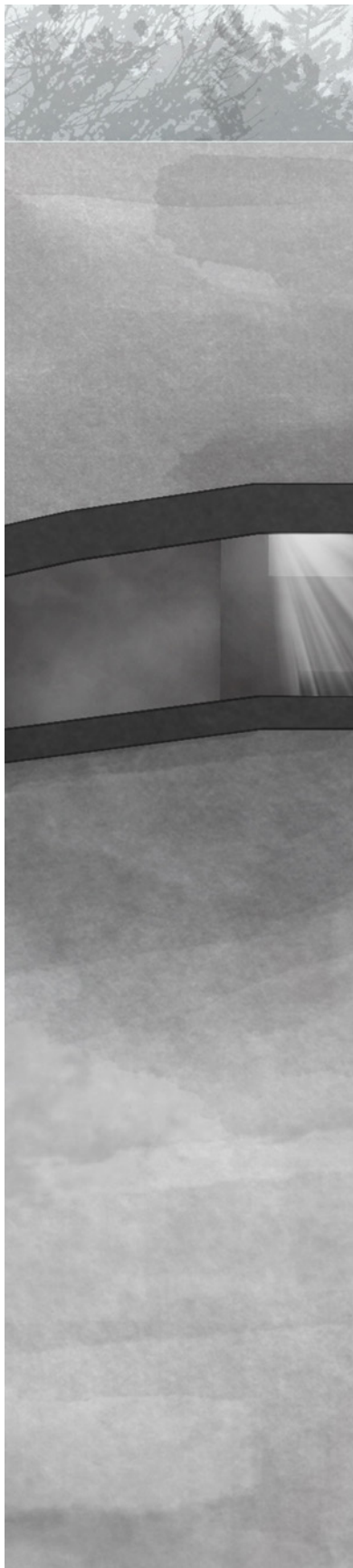


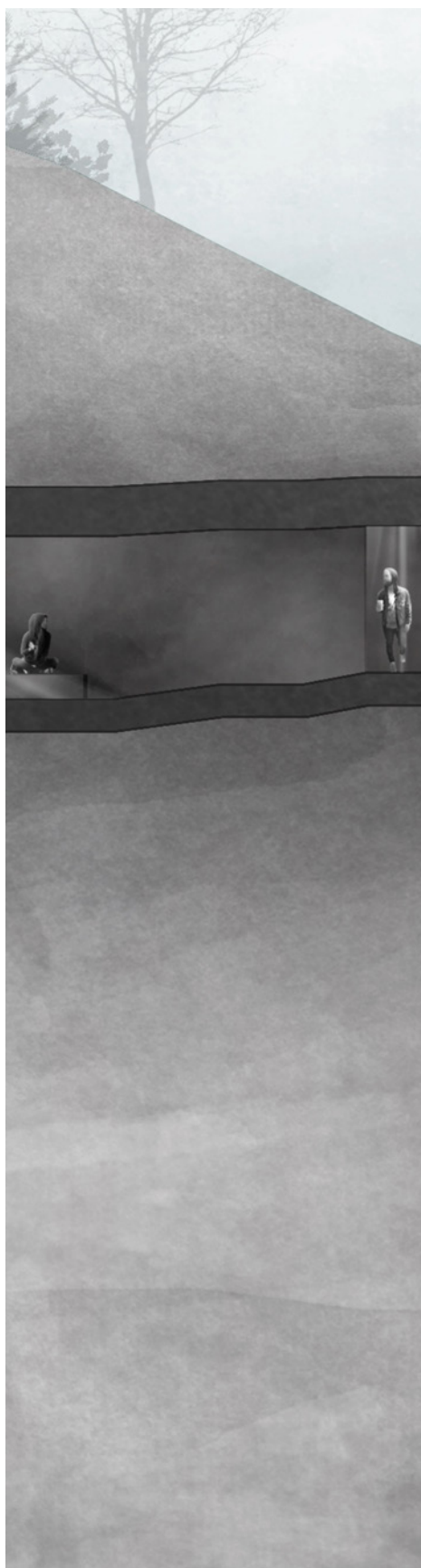




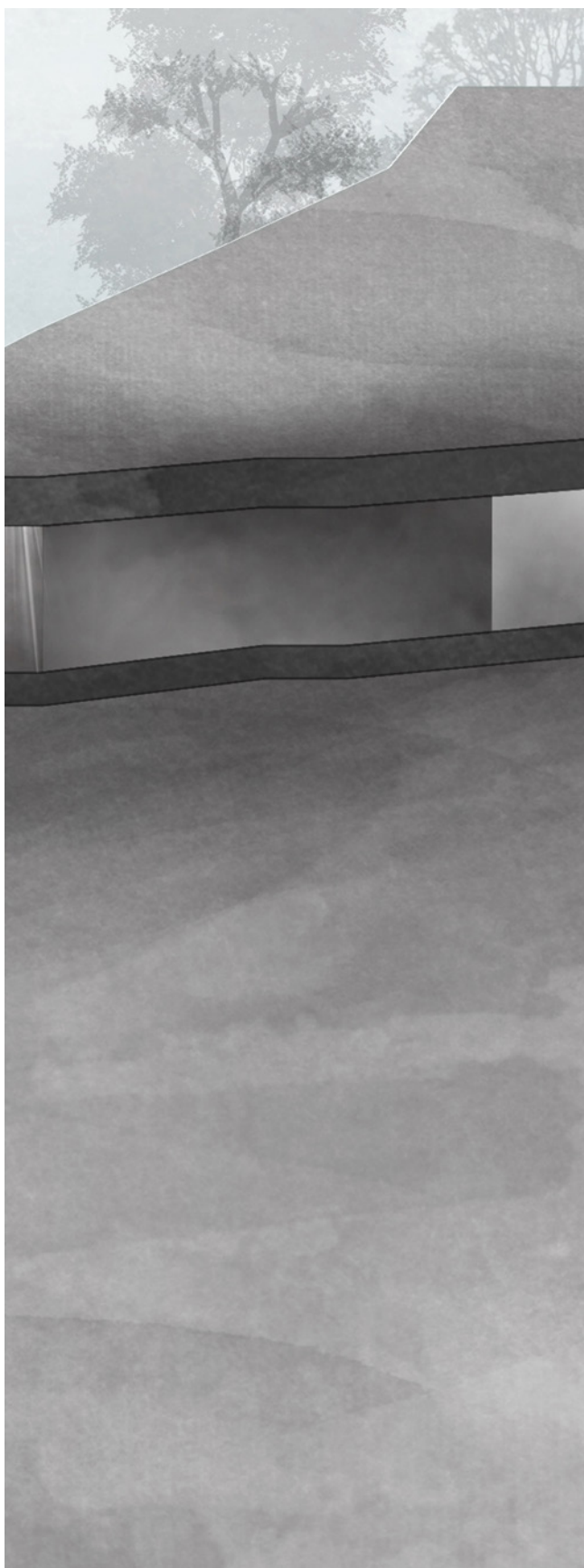




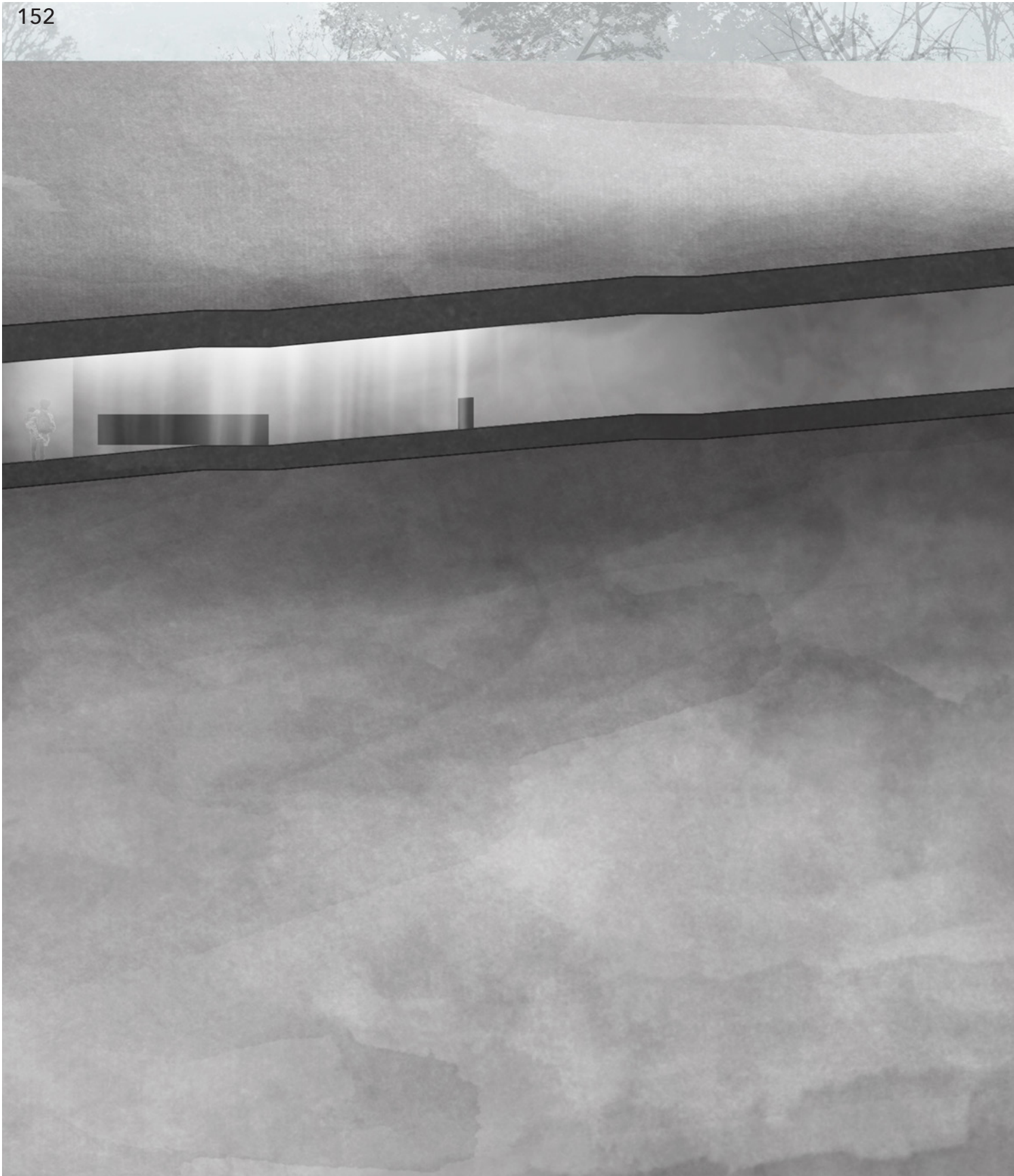




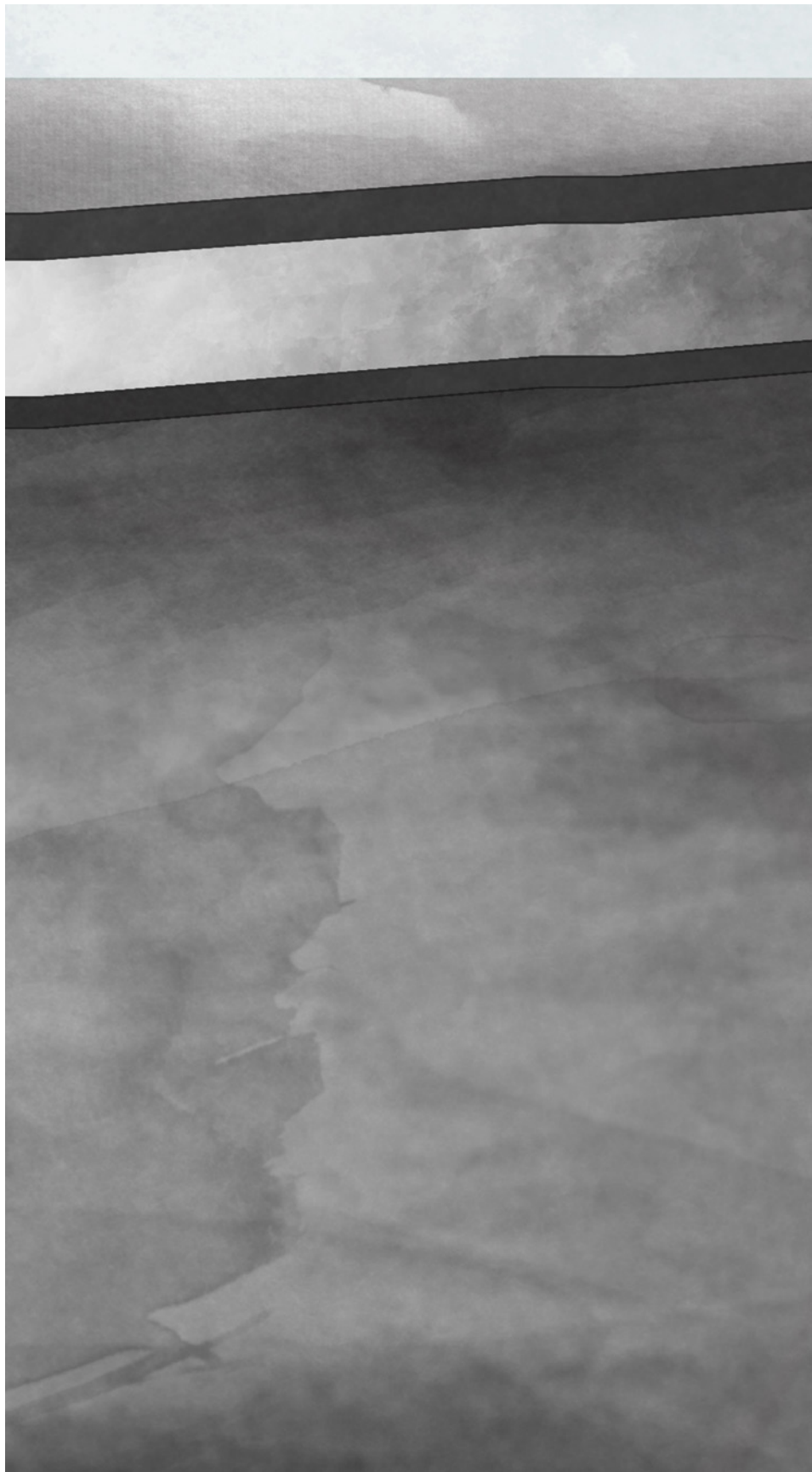




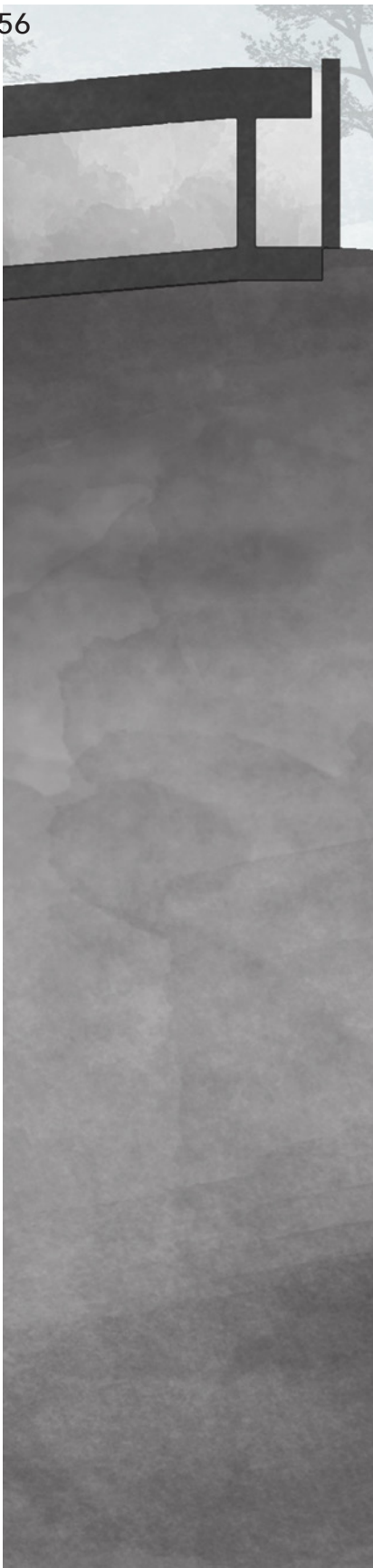














3

# INTIMACY







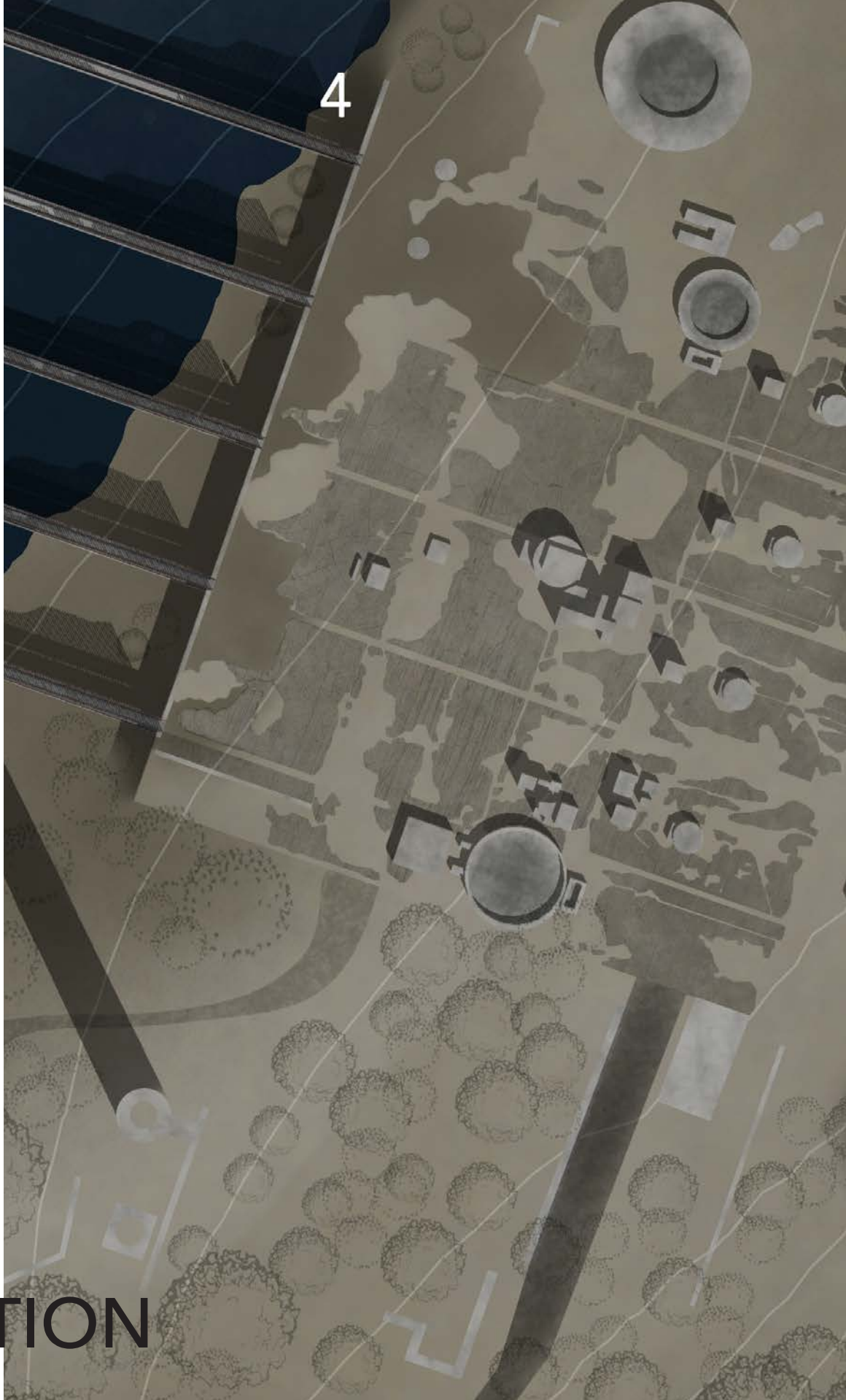






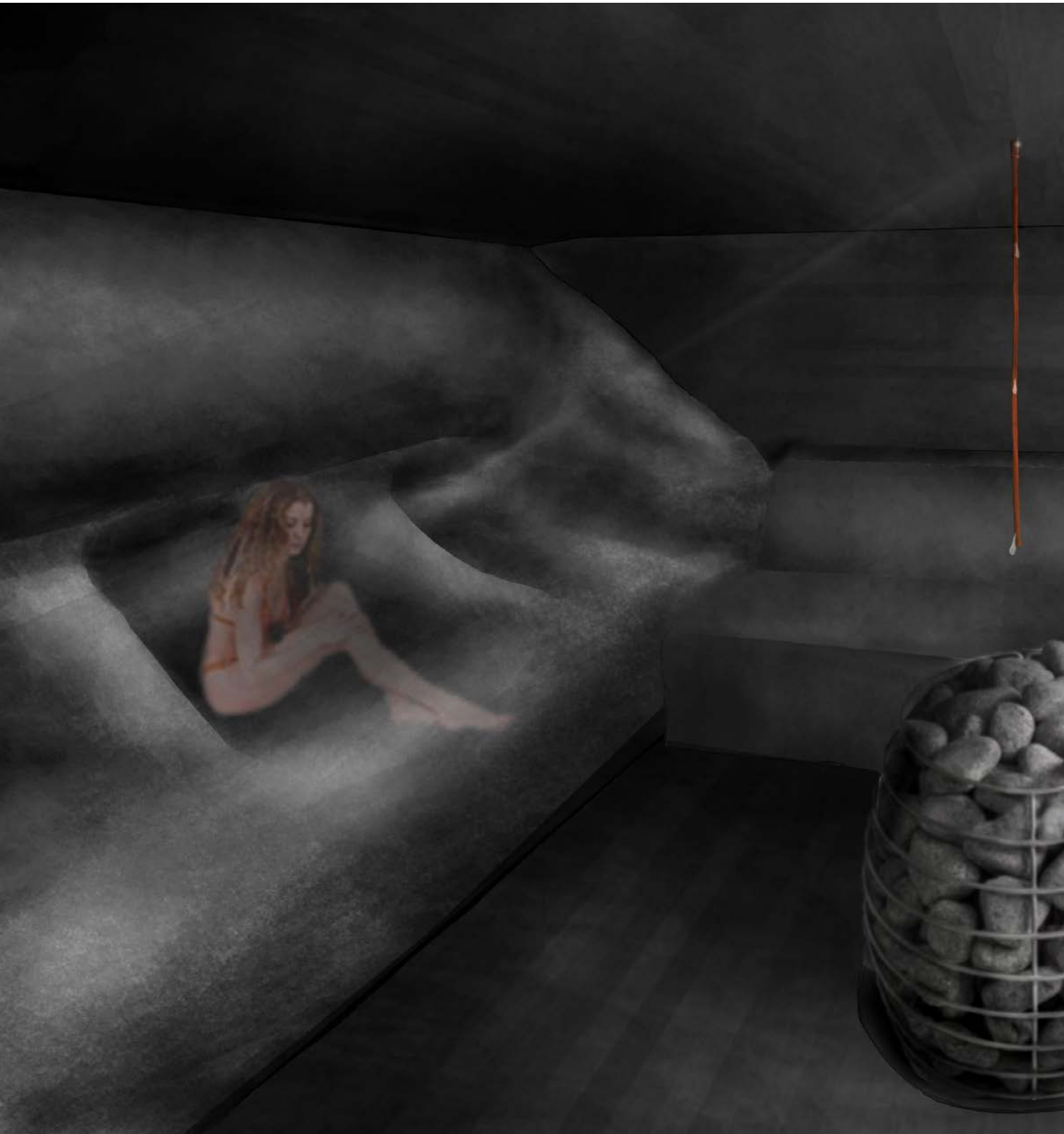


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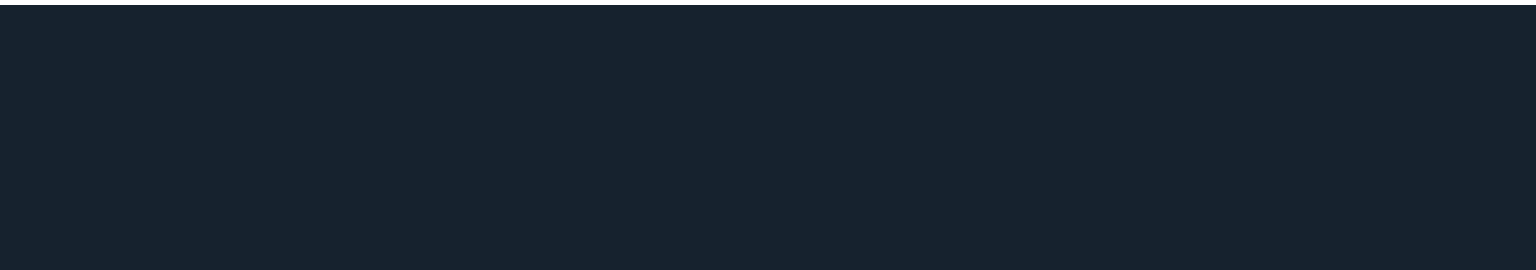
# AFFECTION



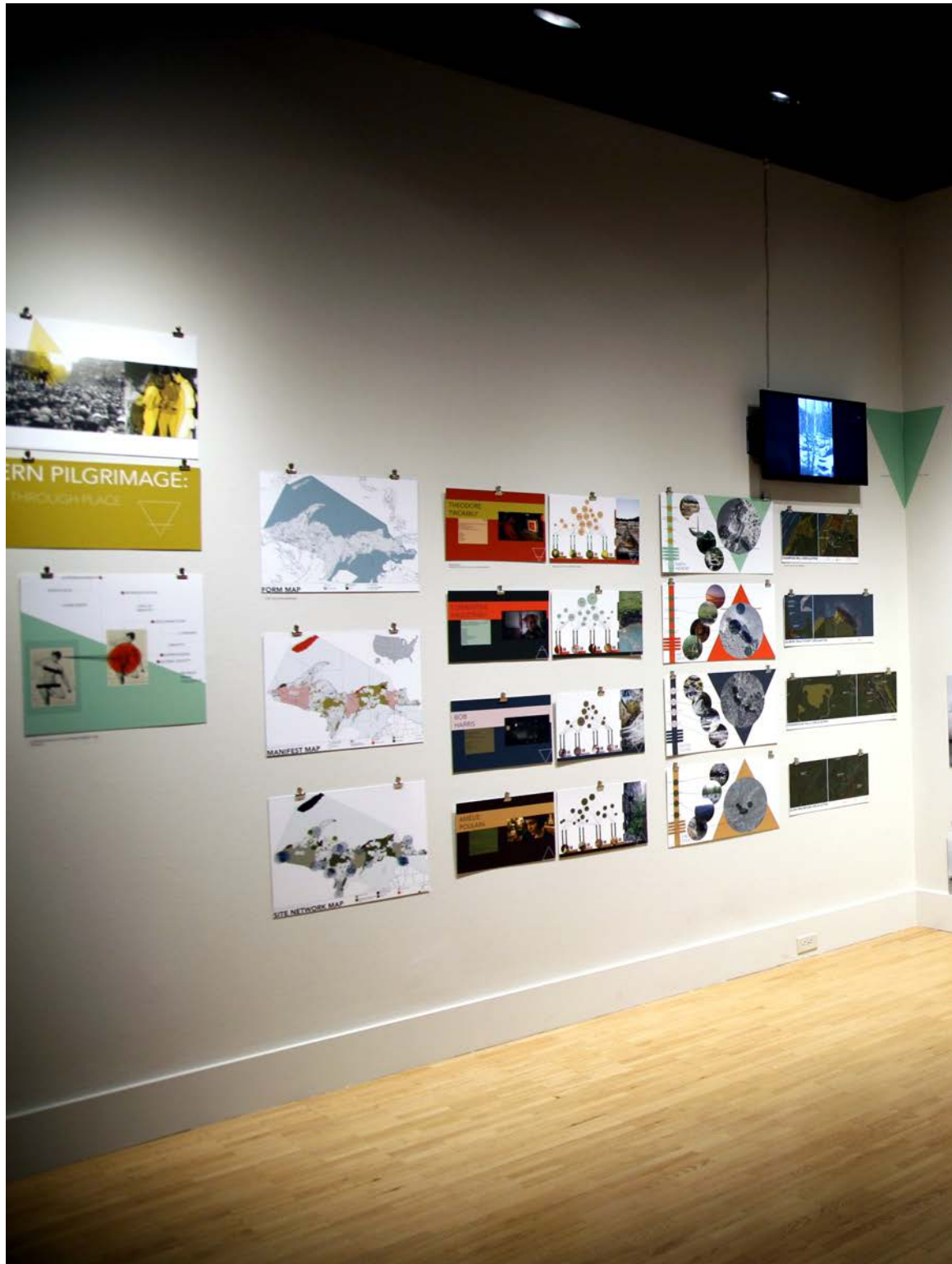








DESIGN PROPOSITION	<b>GALLERY EXHIBITION</b>
04.003	CHAPTER











<b>APPENDIX</b>		
05	CHAPTER	



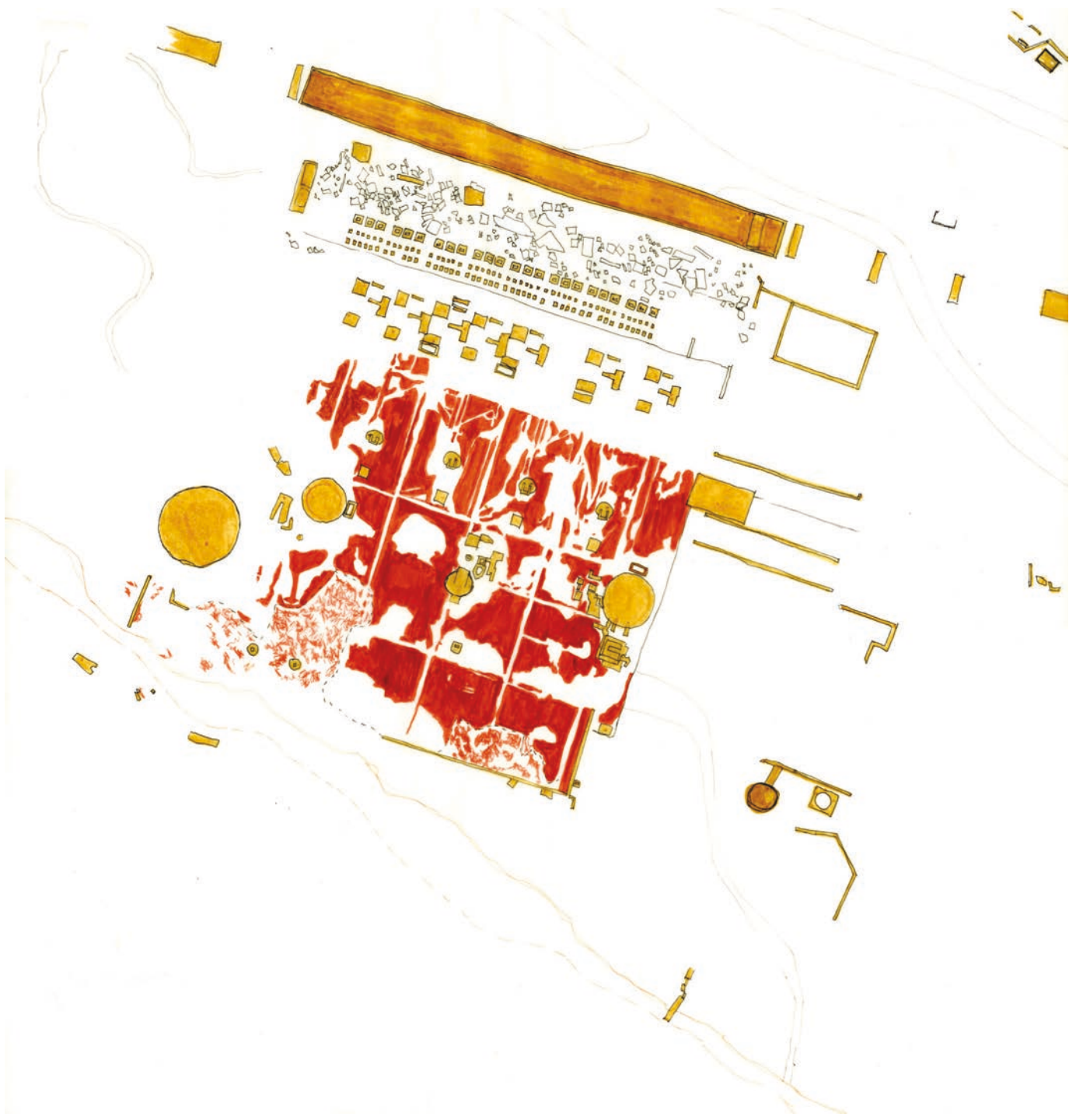


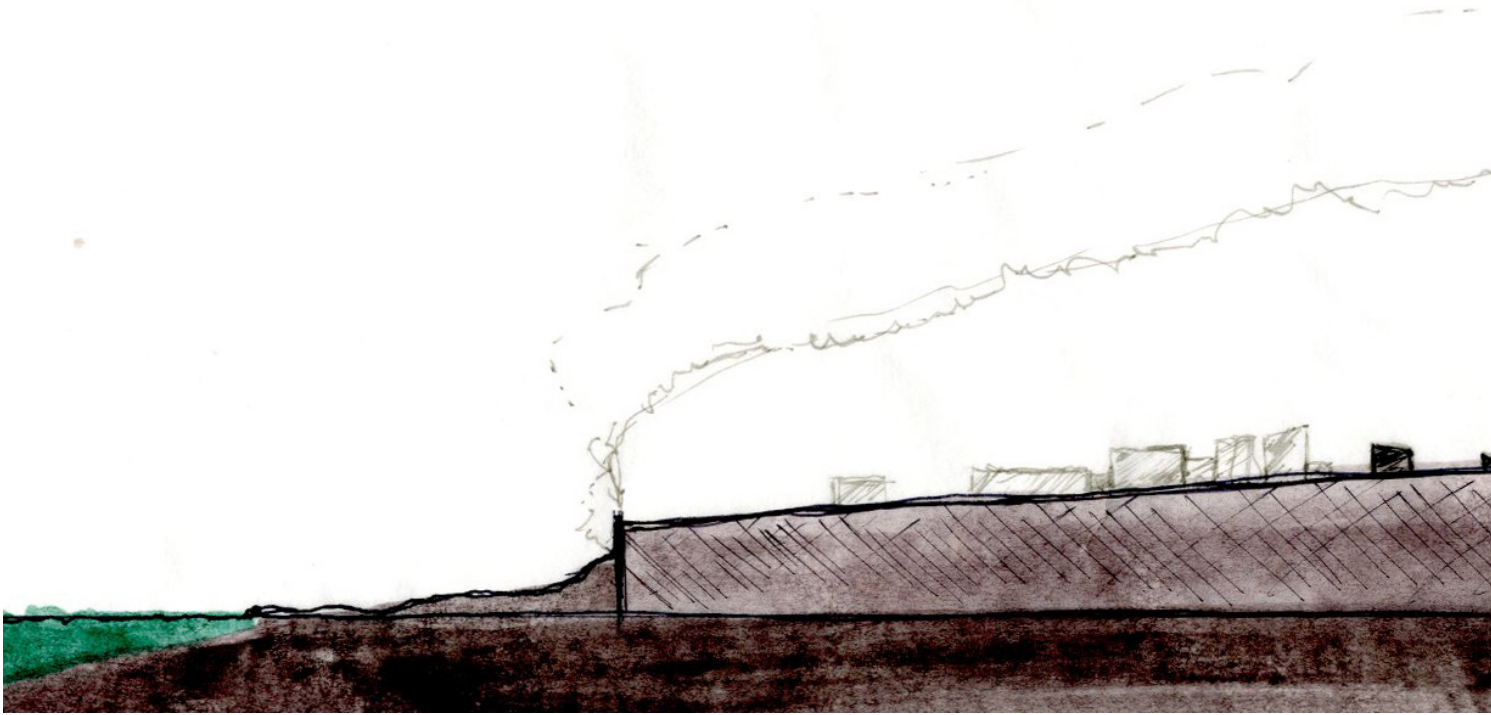
APPENDIX		<b>APPENDIX A: PROCESS WORK</b>
05.00A	CHAPTER	

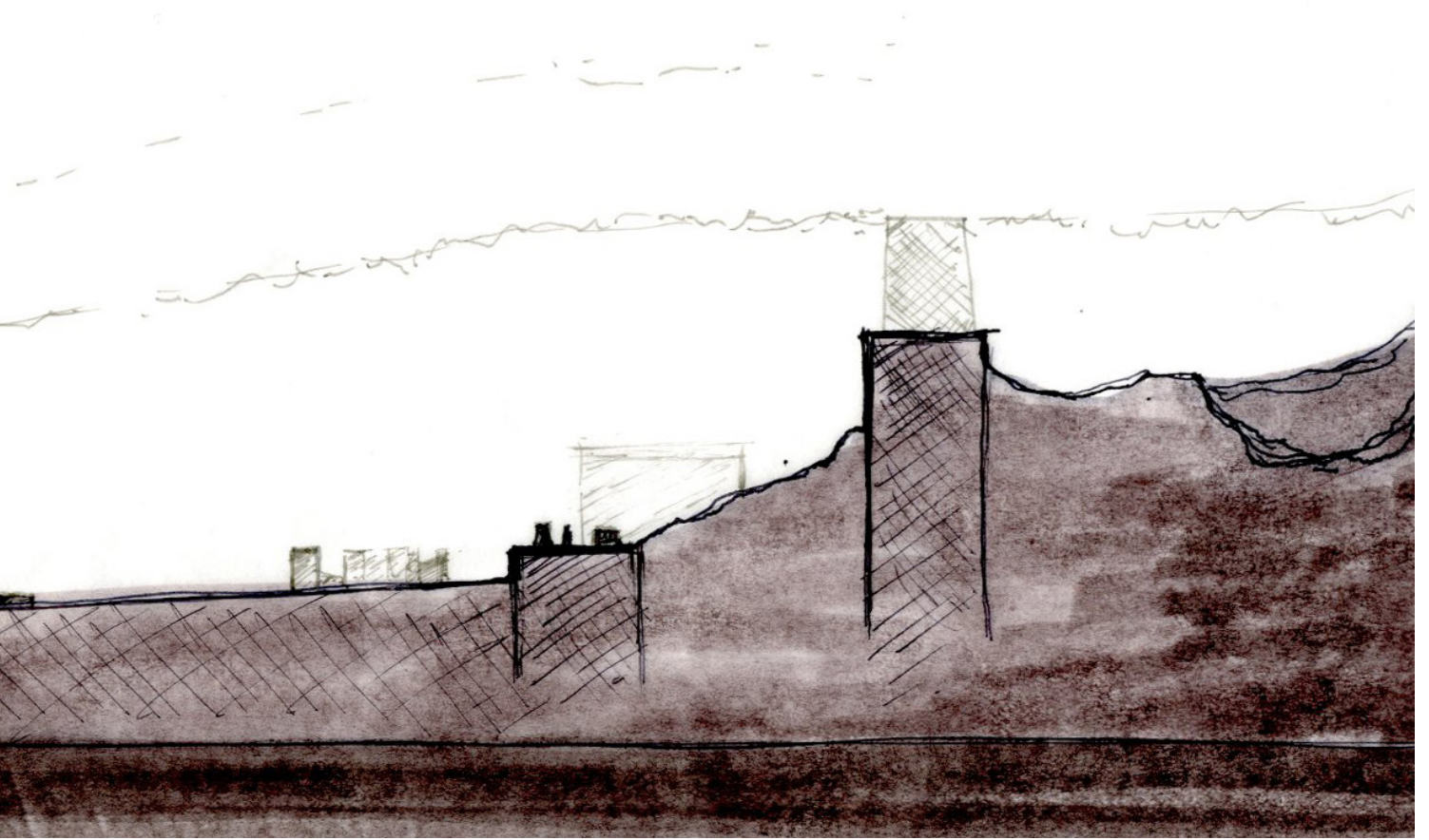


PROCESS WORK	SITE
--------------	------











- network of interventions that create different experiences, but relate to one another.
- reinterpretation of industrial era sites that have been abandoned.
- remains of mining sites must be left, but can be added onto/preserved/cleaned up
- "users" — not mainstream tourists.
  - ↳ These sites would not appeal to them — not comfortable and "user friendly."
- the journey is not specified/ but could be suggested.
- one could "stumble upon" these sites ~~by~~ through signs or going to a certain natural feature. There would be enough info to direct them to the network.

interruptions cannot be viewed f/ the road

areas of intervention will be foot traffic only

main natural features remain, but may be altered in a non-obtrusive way.



each intervention will create a certain feeling, but will not feel as if it was a complete journey in + of itself.

Modes of transport can vary.

- trail (walk)
- road (car)
- bike
- snow
  - ski
  - snowshoe
  - dogsled
  - snowmobile.
- atv
  - 4 wheelers
  - dirt bikes
  - side by side.
- bus
  - possibly bus service.

ZIP

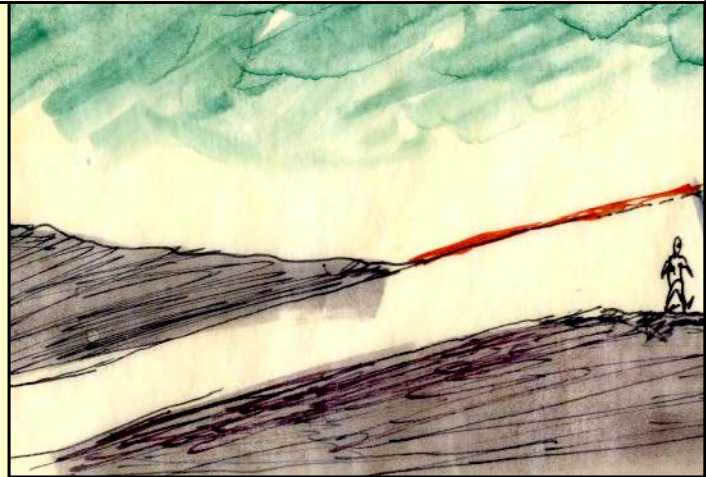
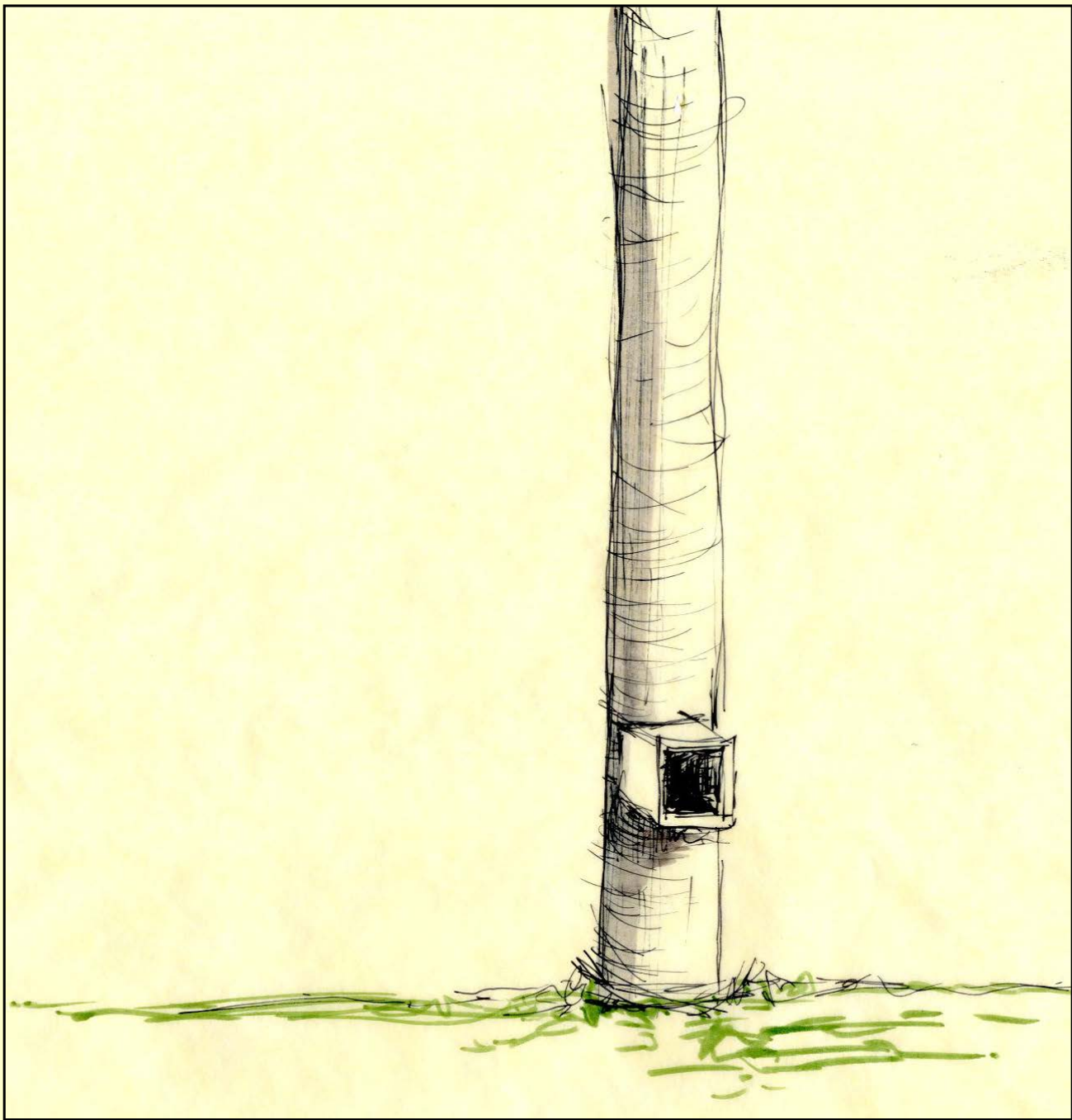
parking lots @ natural features & filled during warm season.

incentives for other modes } camp shower restroom etc.





PROCESS WORK	TUNNEL
--------------	--------



What if the  
light tunnel  
~~could~~ penetrated  
the ground in  
spots to glimpse  
the stack?



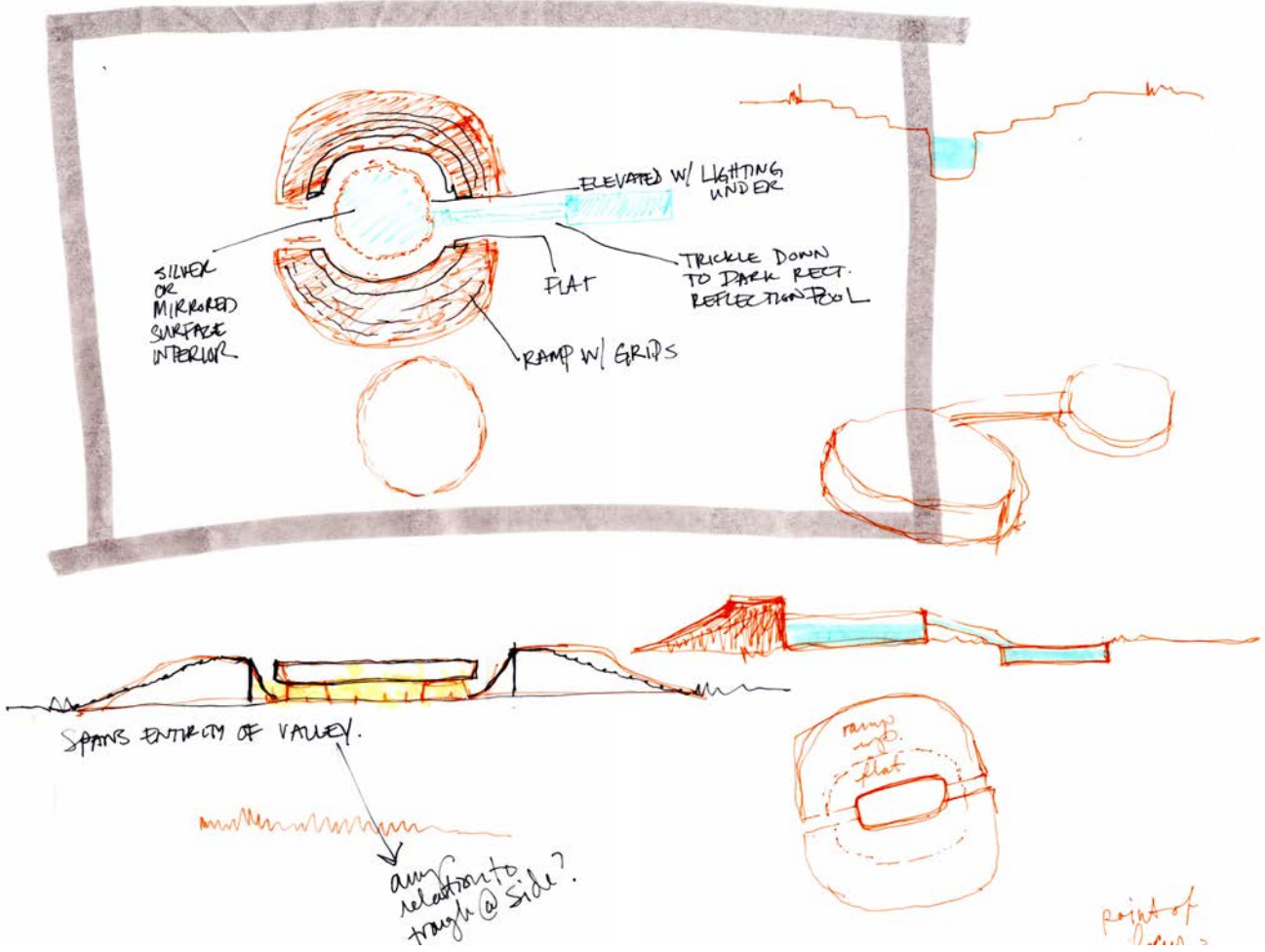


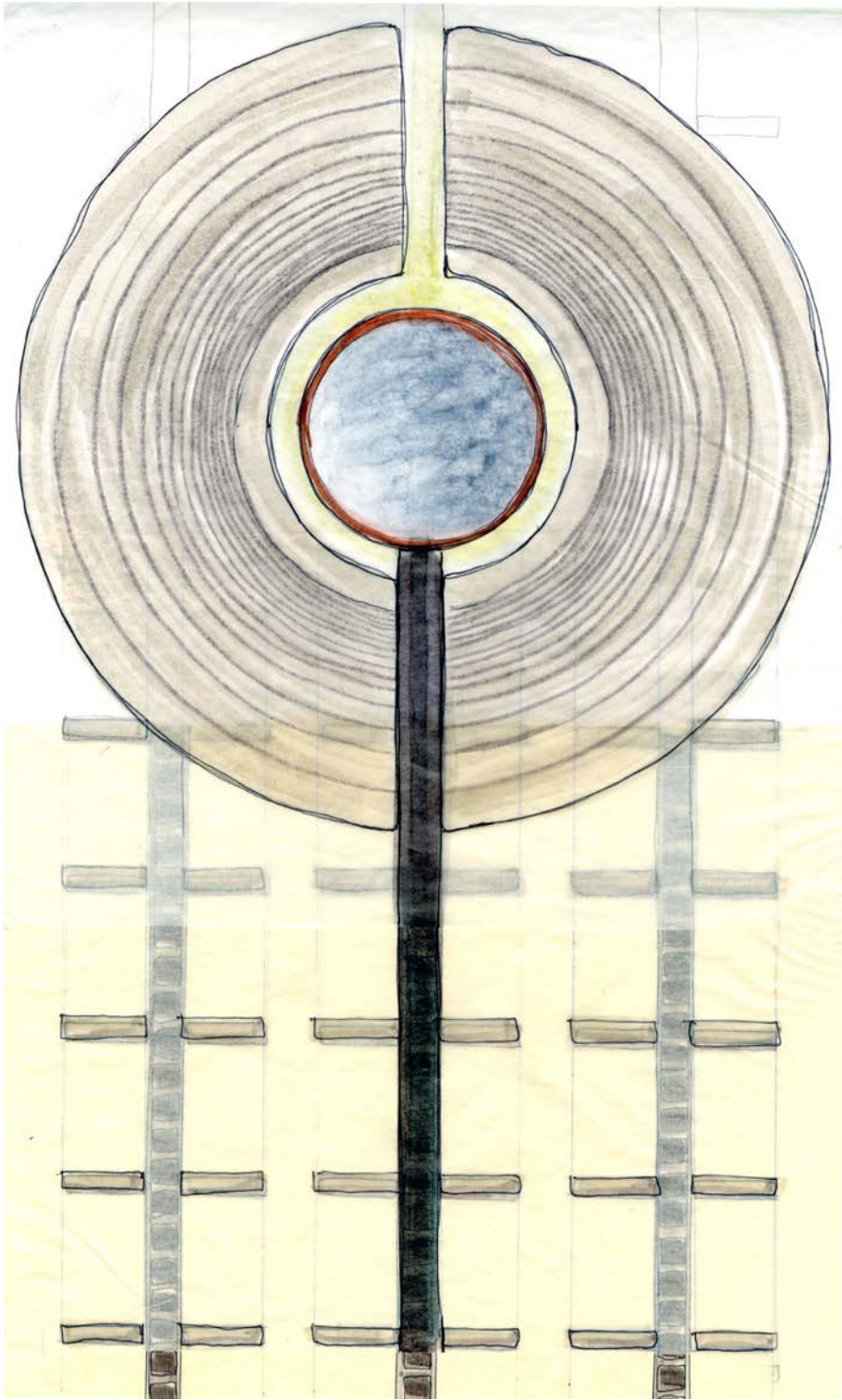
PROCESS WORK	STEAM PATH
--------------	------------





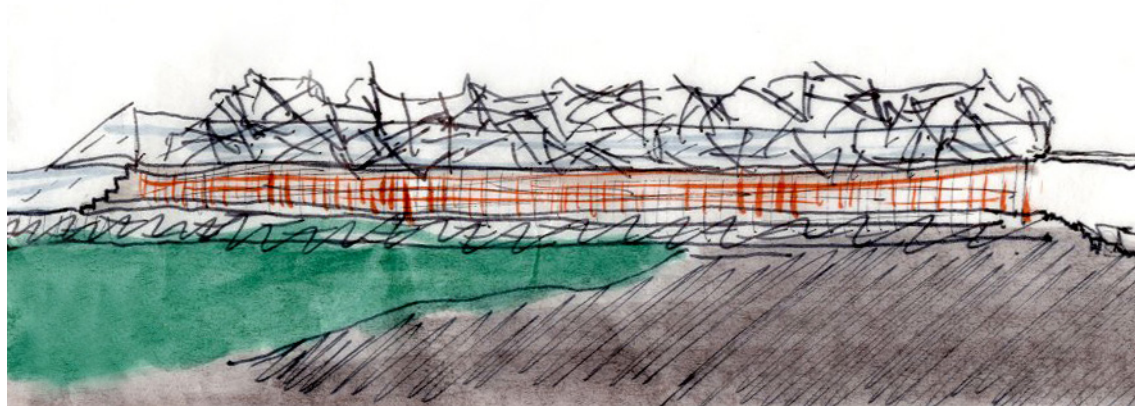


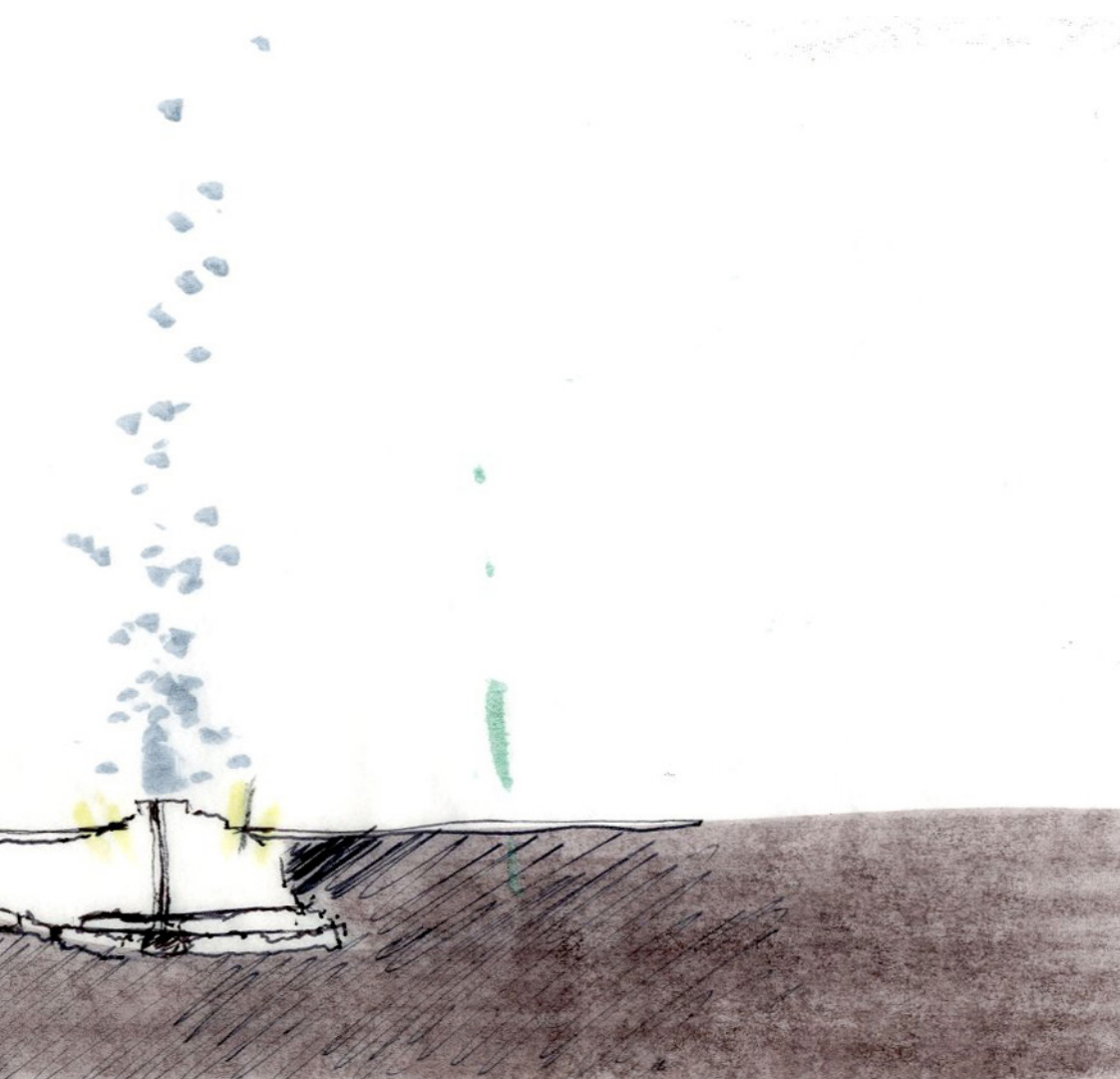




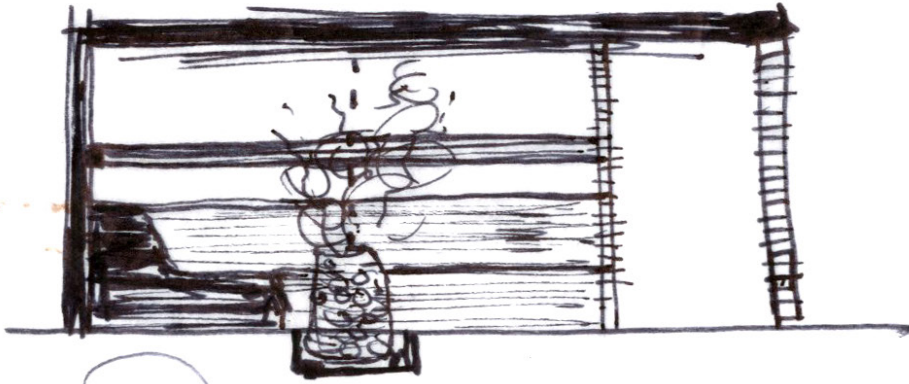


PROCESS WORK	SAUNA   PIER
--------------	--------------

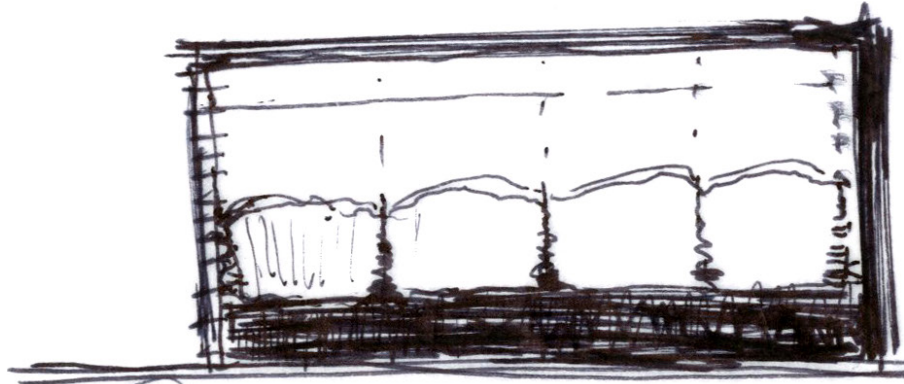




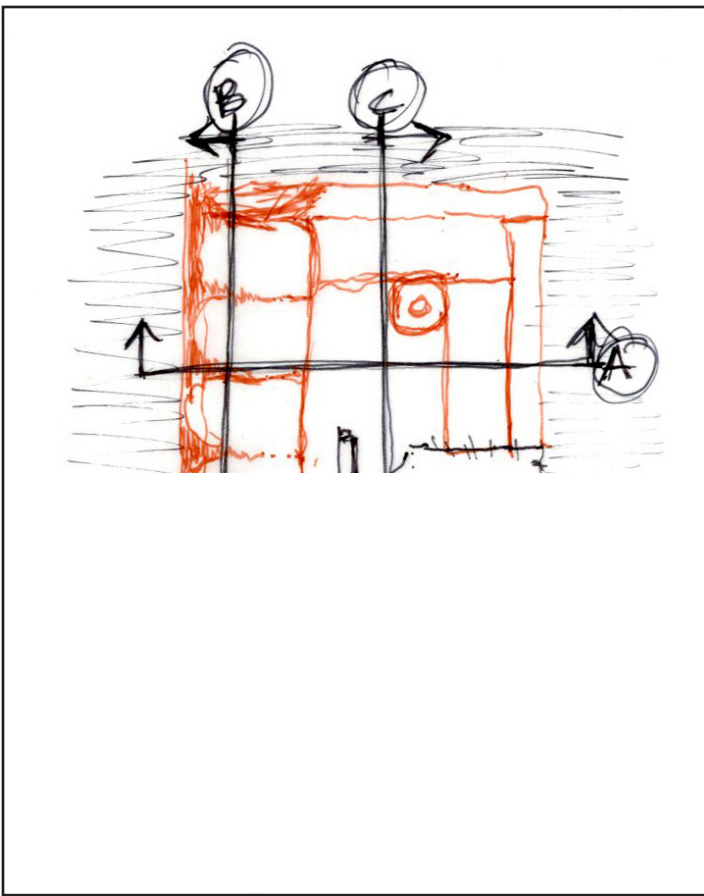




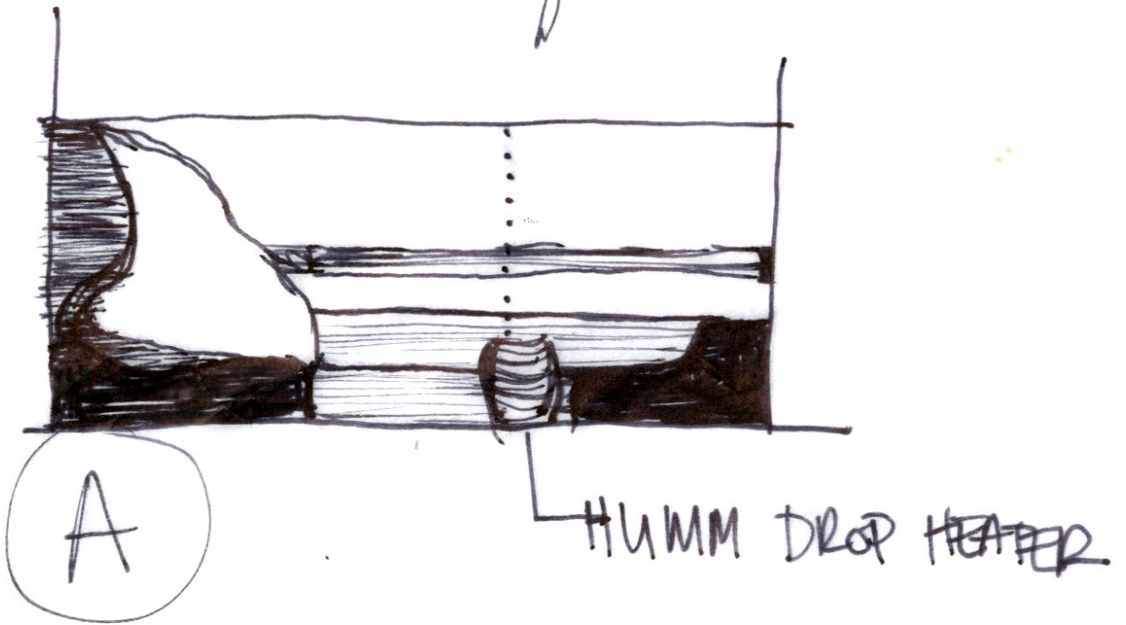
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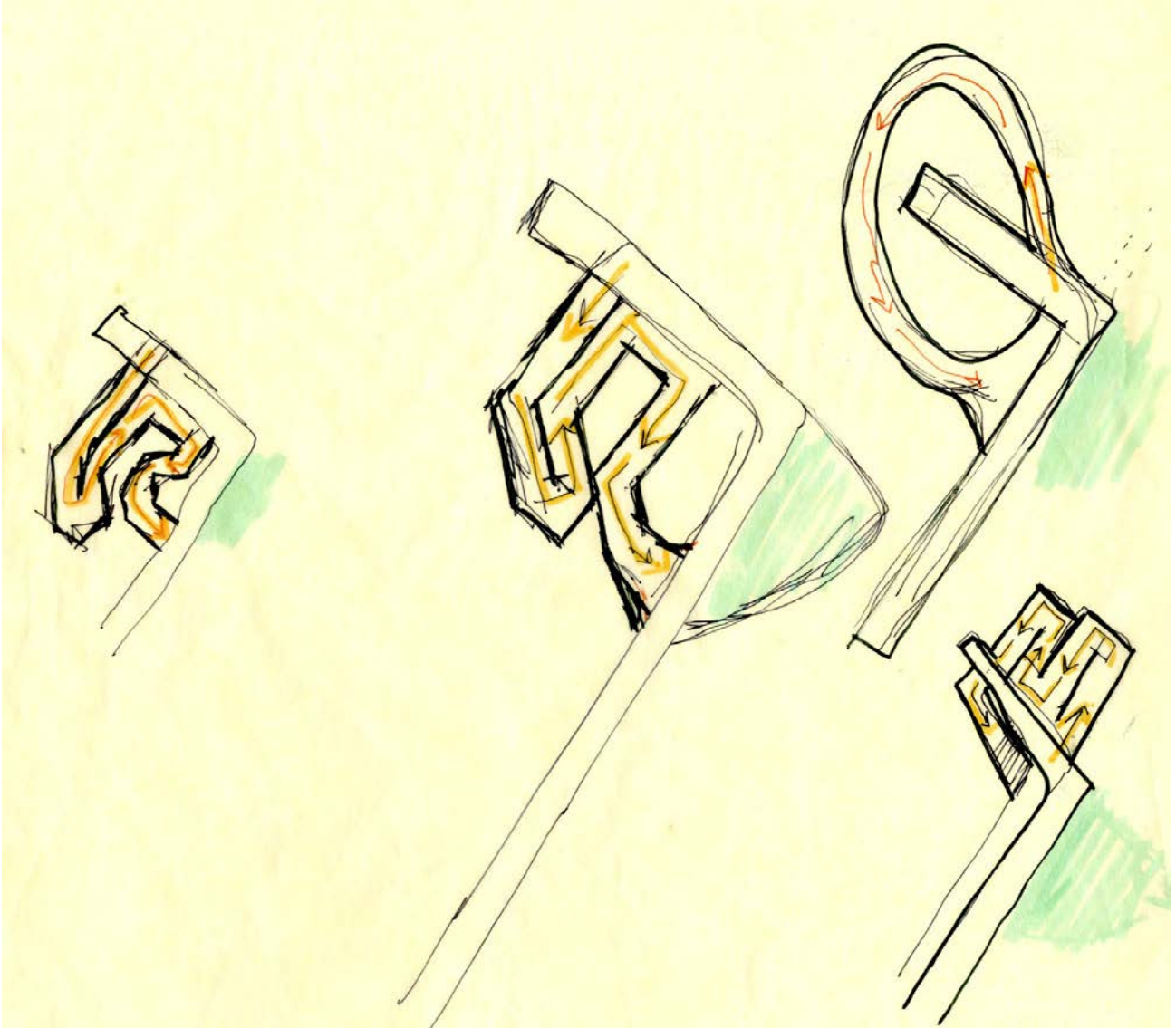


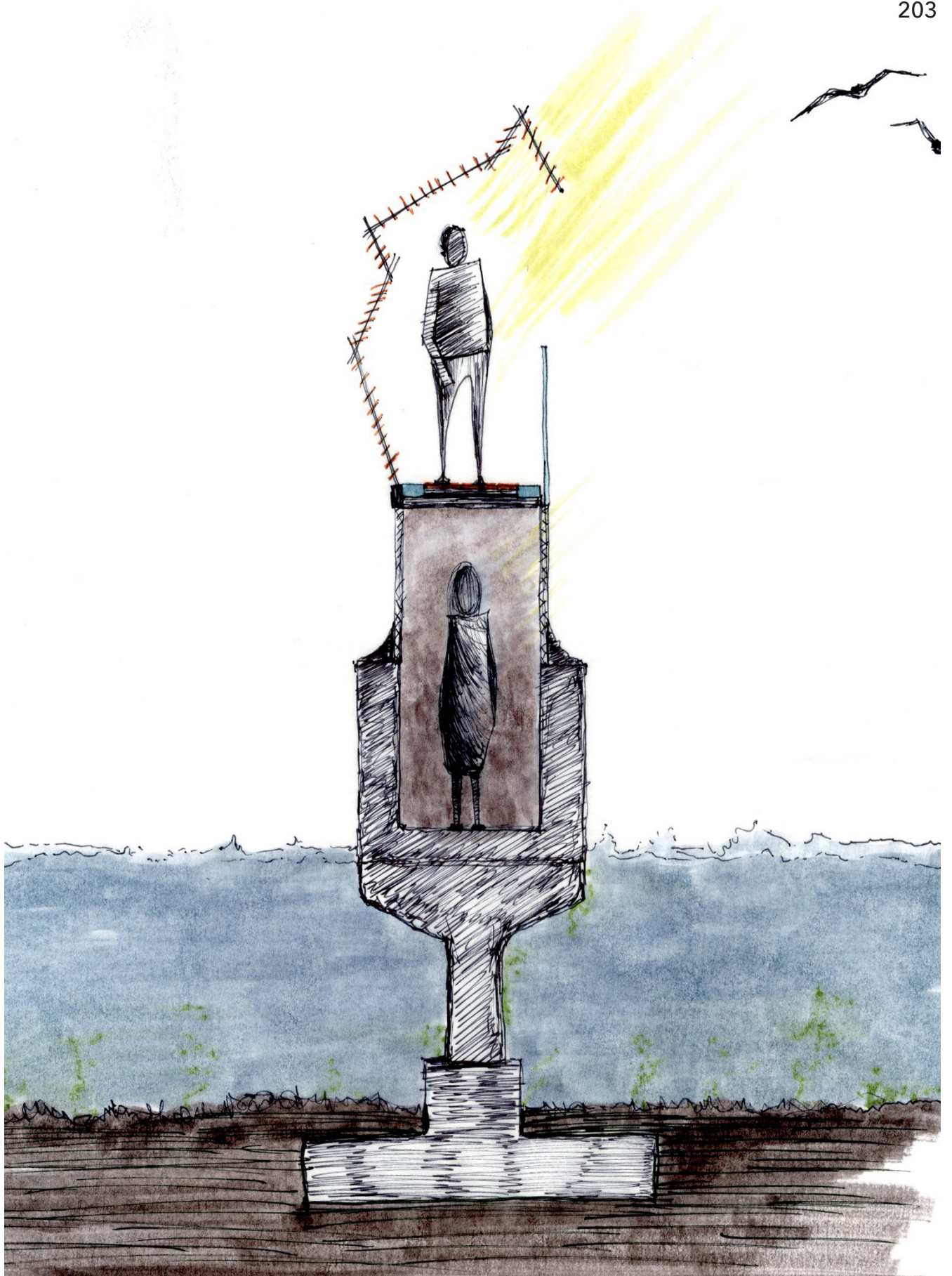
B



"Air  
Chain"









## APPENDIX

APPENDIX B:  
ROADS NOT  
TAKEN

05.00B

CHAPTER

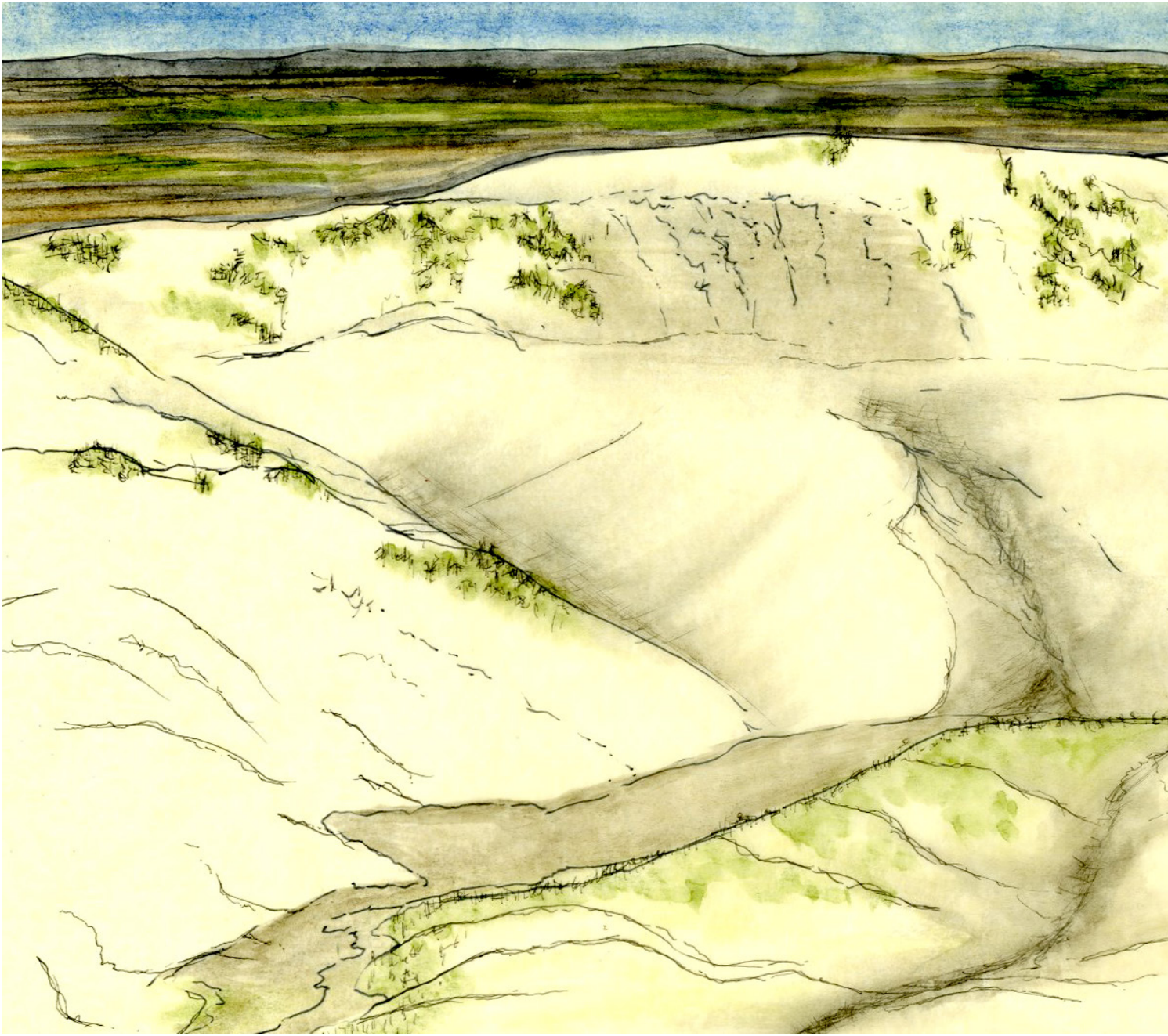
The following sites correspond to the other 3 personas that were previously investigated and analyzed. The design explorations for these sites began to follow the same path as the Champion Mill site. They were chosen based on their physical characteristics; existing and future possibilities, that would allow the needs of a

specific corresponding persona to be addressed. Only one site was chosen to be explored to completion, but these sites are no less important or interesting. Their explorative possibilities were only beginning and the spark of what could be begins to shine through in these limited, yet inspiring drawings.



ROADS NOT TAKEN	SILVER MOUNTAIN
AMELIE POULAIN	FIRE   TOUCH







is it ok to change a naturally beautiful form?  
↳ should I?  
↳ do I have that right?

what about the bats?  
touch

considerations:  
natural light bats water  
avoid falling

big snake rock - old haunted site.  
↳ pause location.

Adit shaft pit.  
use for entry.

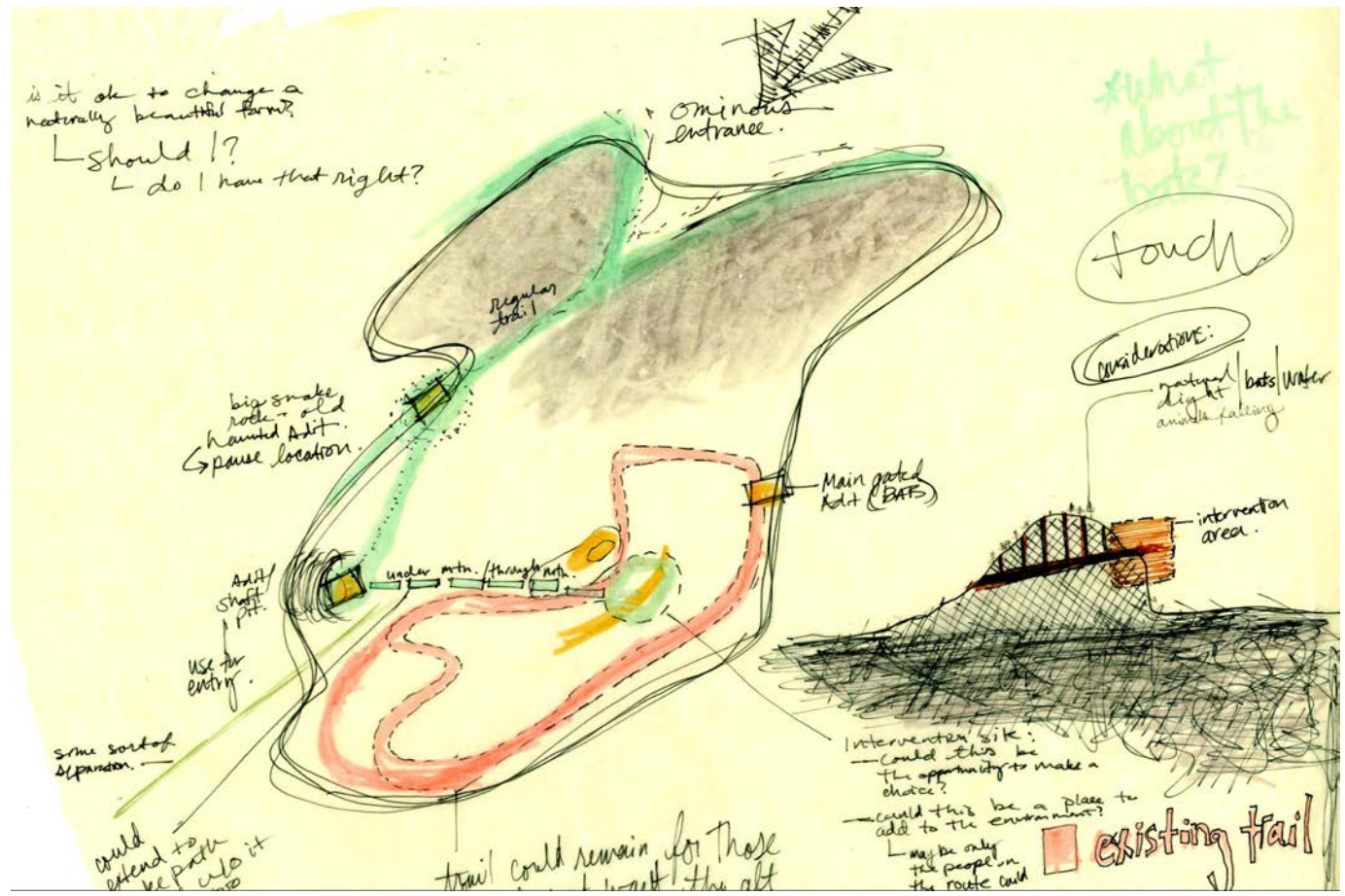
some sort of expansion

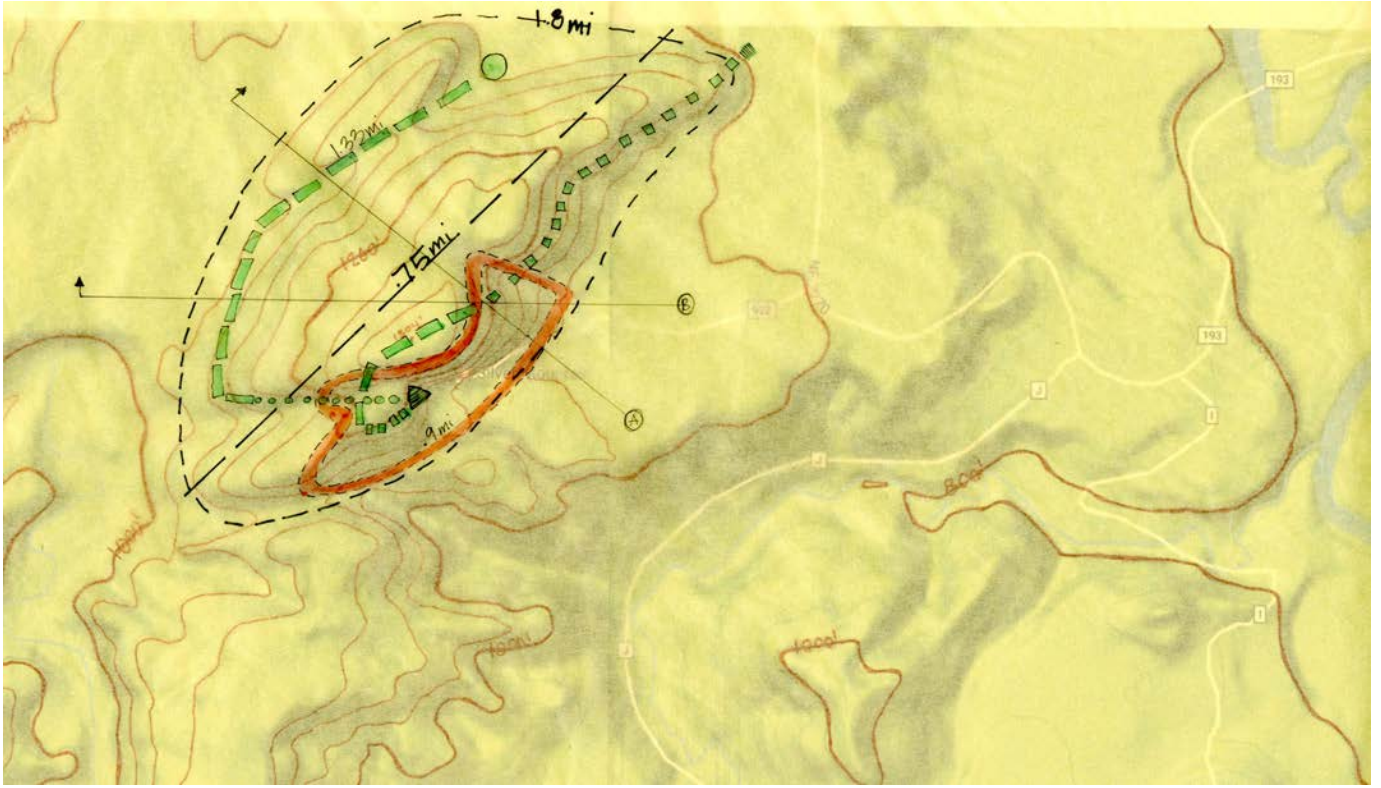
could extend to the path who it

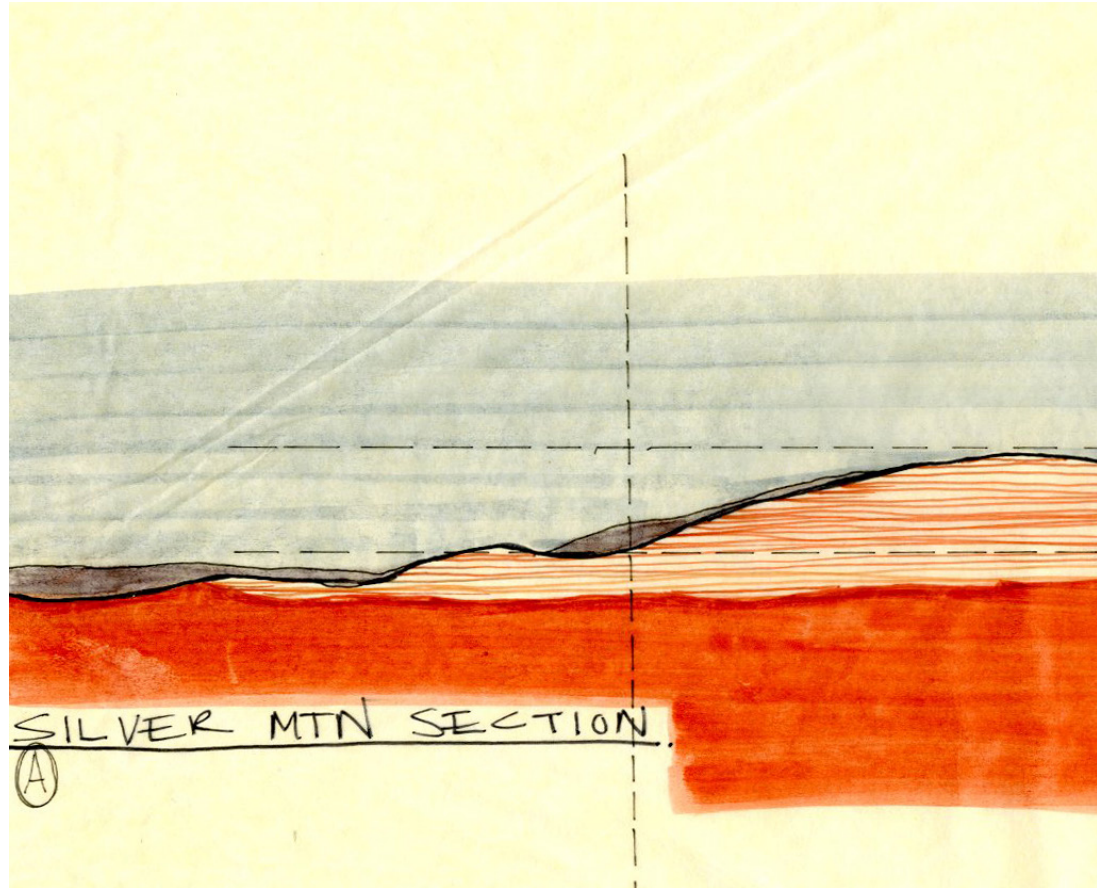
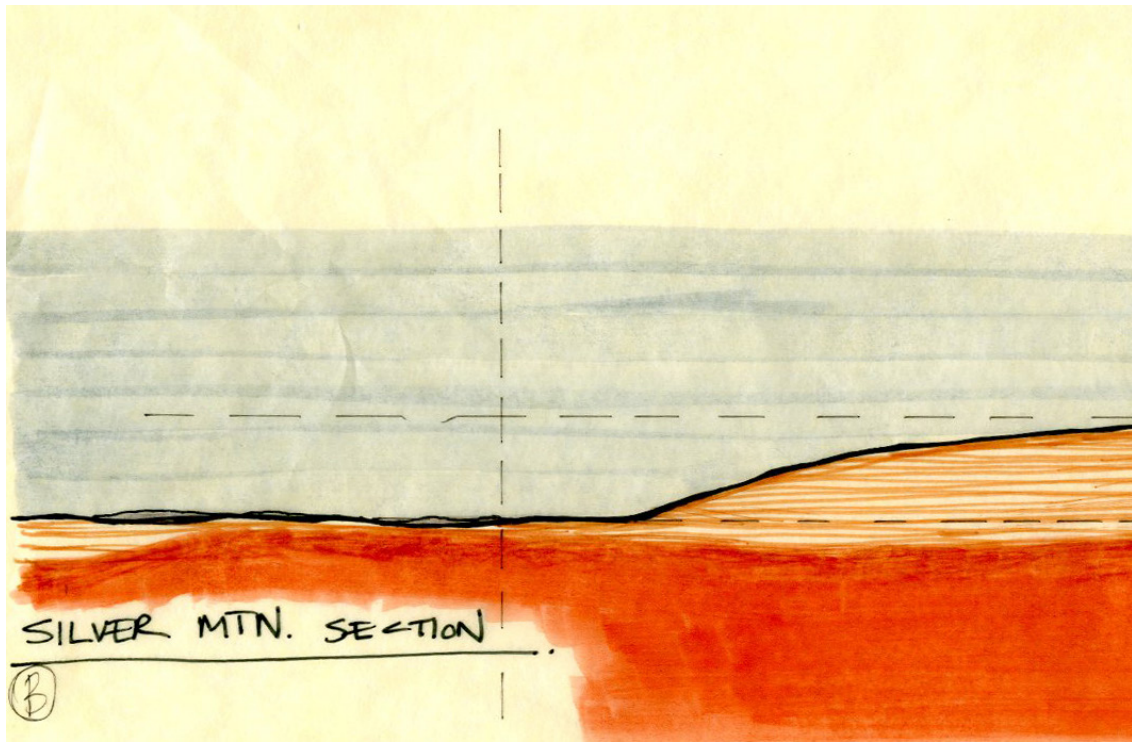
trail could remain for those who want the old

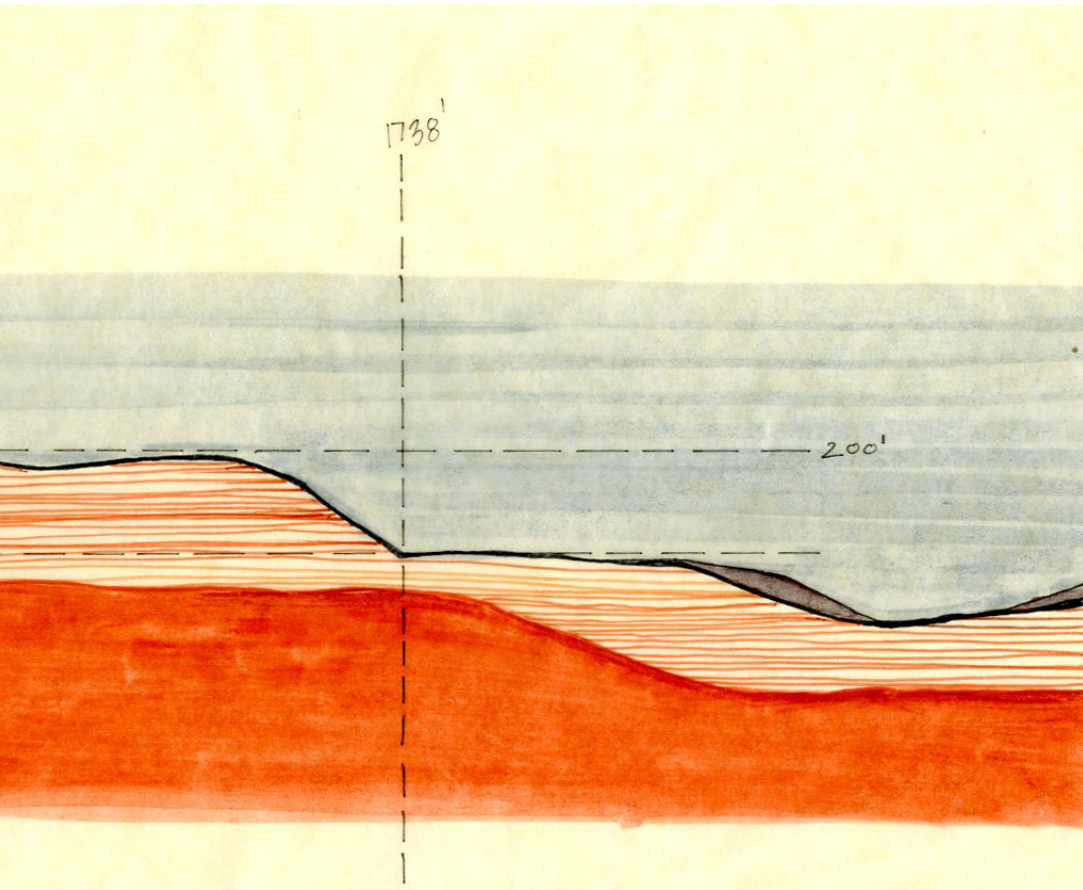
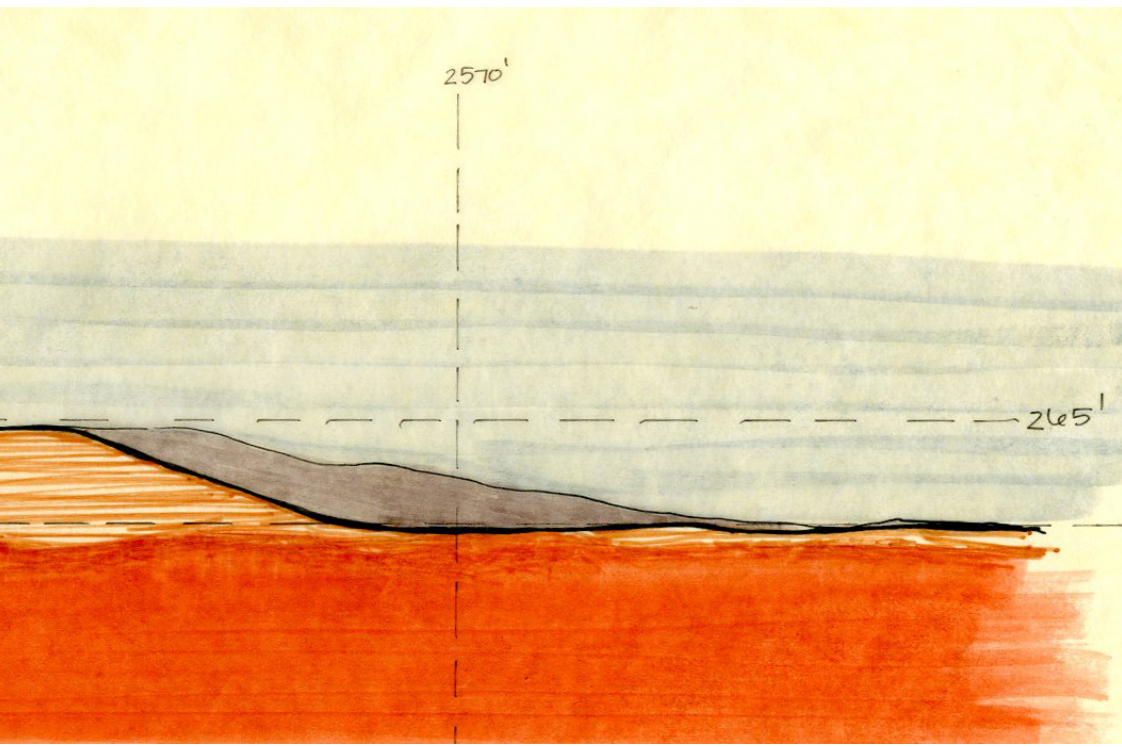
intervention site:  
- could this be the opportunity to make a choice?  
- could this be a place to add to the environment?  
↳ may be only the people on the route could

existing trail











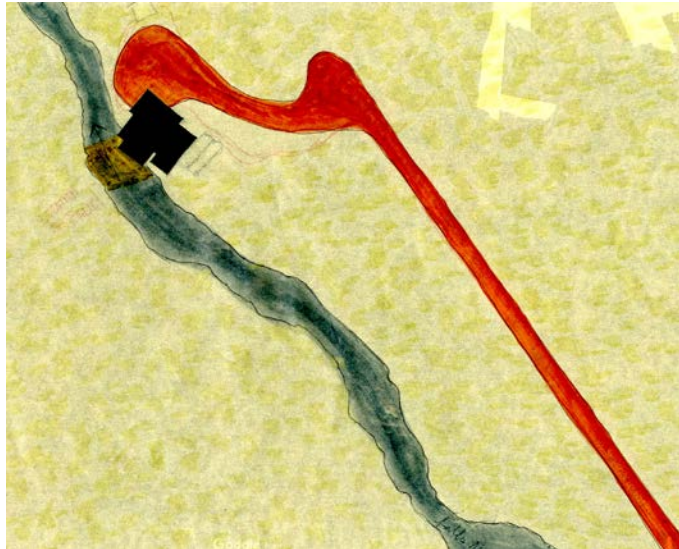






ROADS NOT TAKEN	POWERHOUSE FALLS
BOB HARRIS	WATER   SOUND





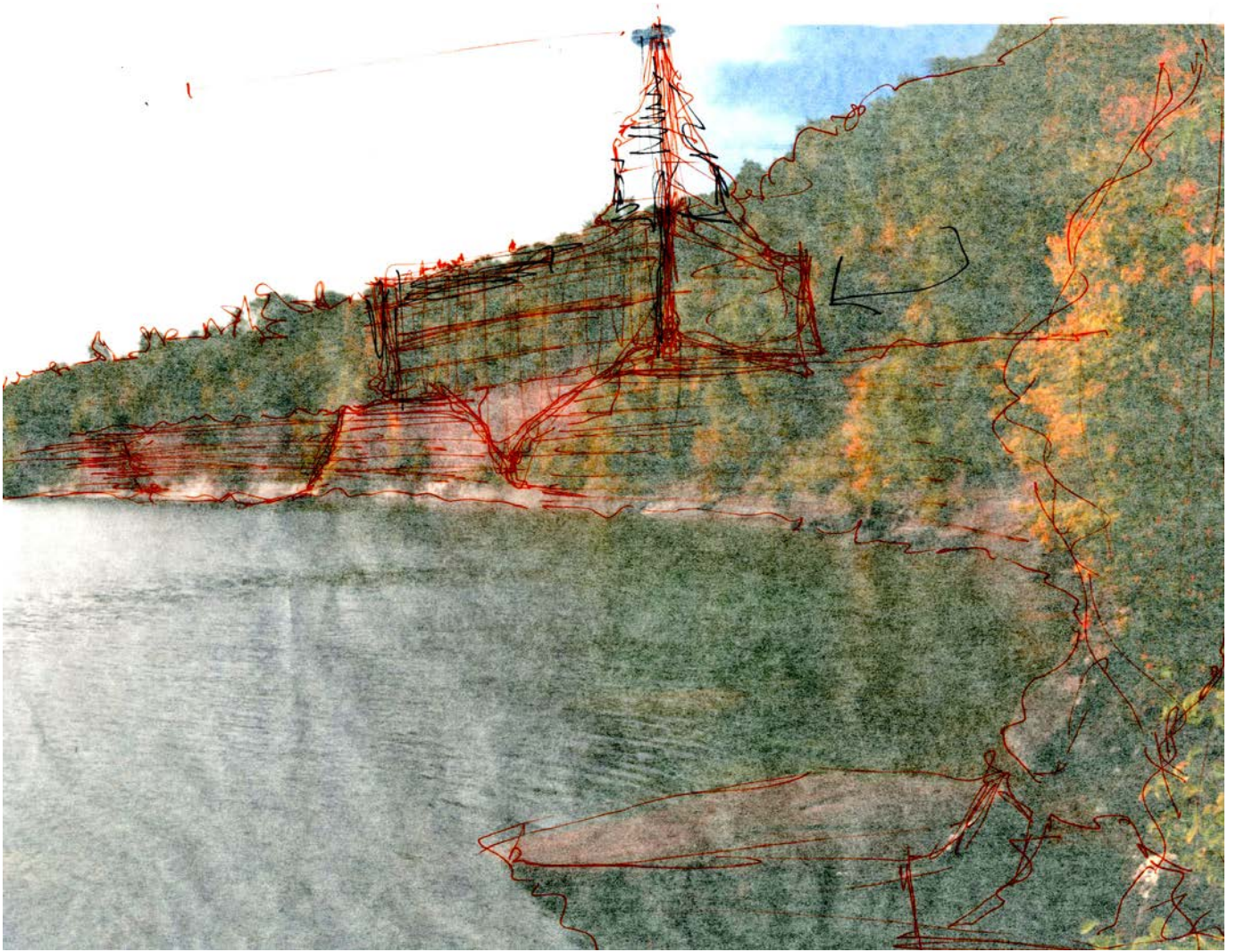


ROADS NOT TAKEN	SALMON TROUT POINT
CLEMENTINE KRUCZYNSKI	AIR   SIGHT













ROADS NOT TAKEN	THESIS PREP CONCEPTS
-----------------	-------------------------

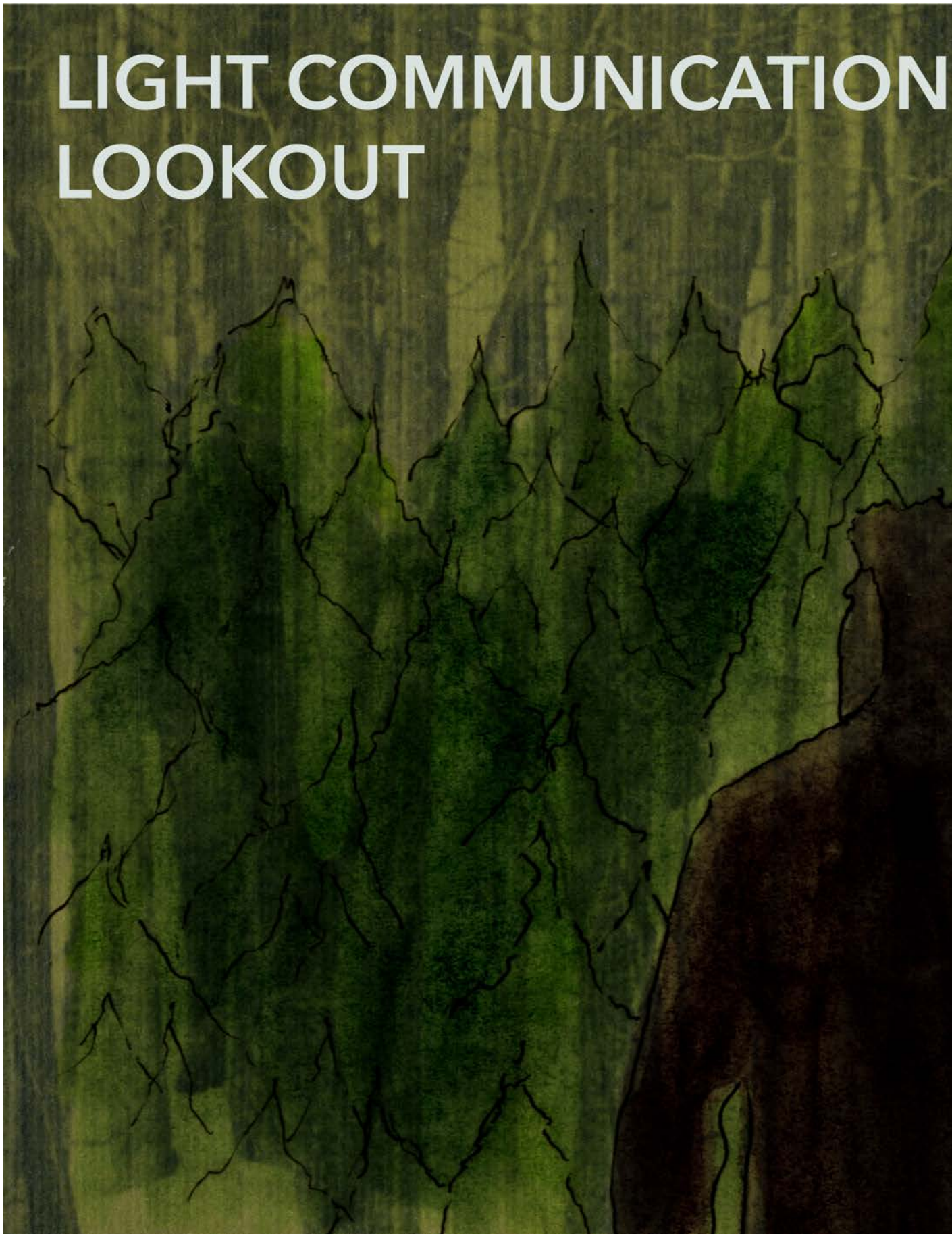


# MINE JUMP

# MESSAGE MINE



# LIGHT COMMUNICATION LOOKOUT



REPEATING ELEMENTS

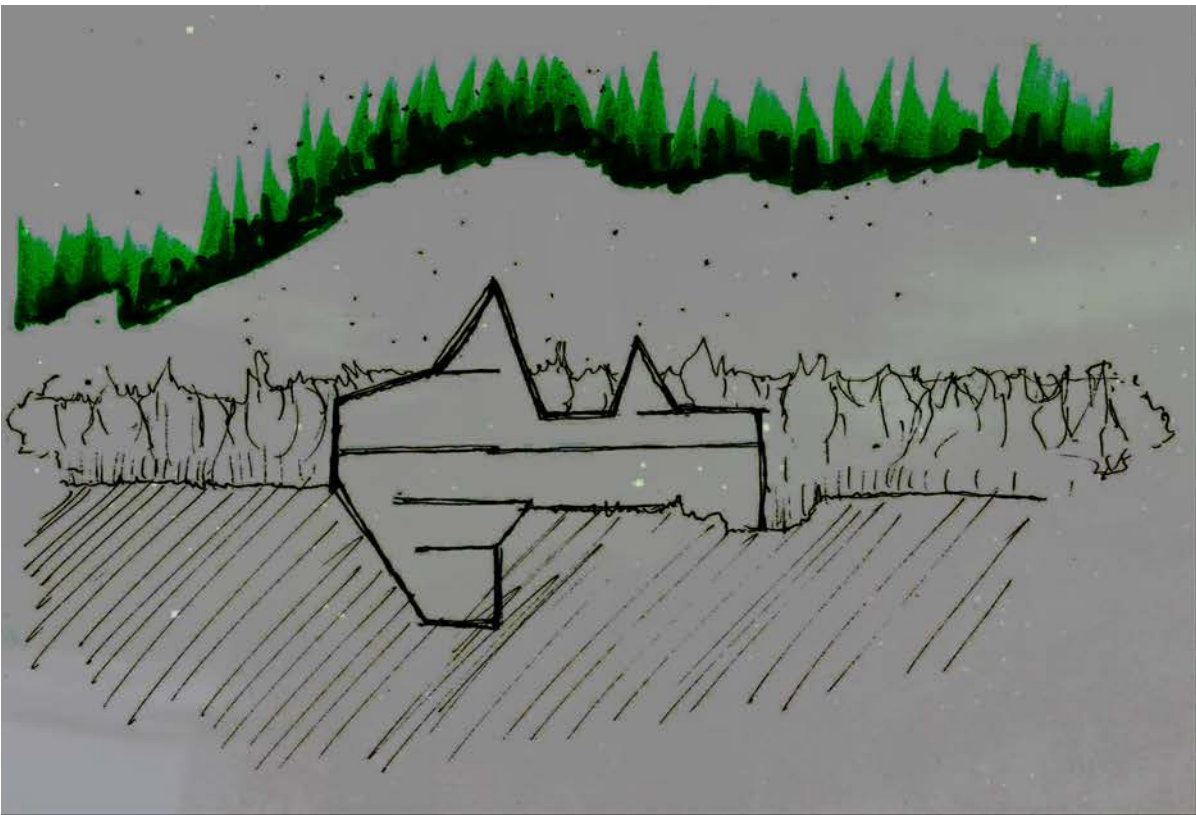
COMMUNICATION  
LIGHT TOWERS

USED BY A  
CREATED LANGUAGE  
OF LIGHT

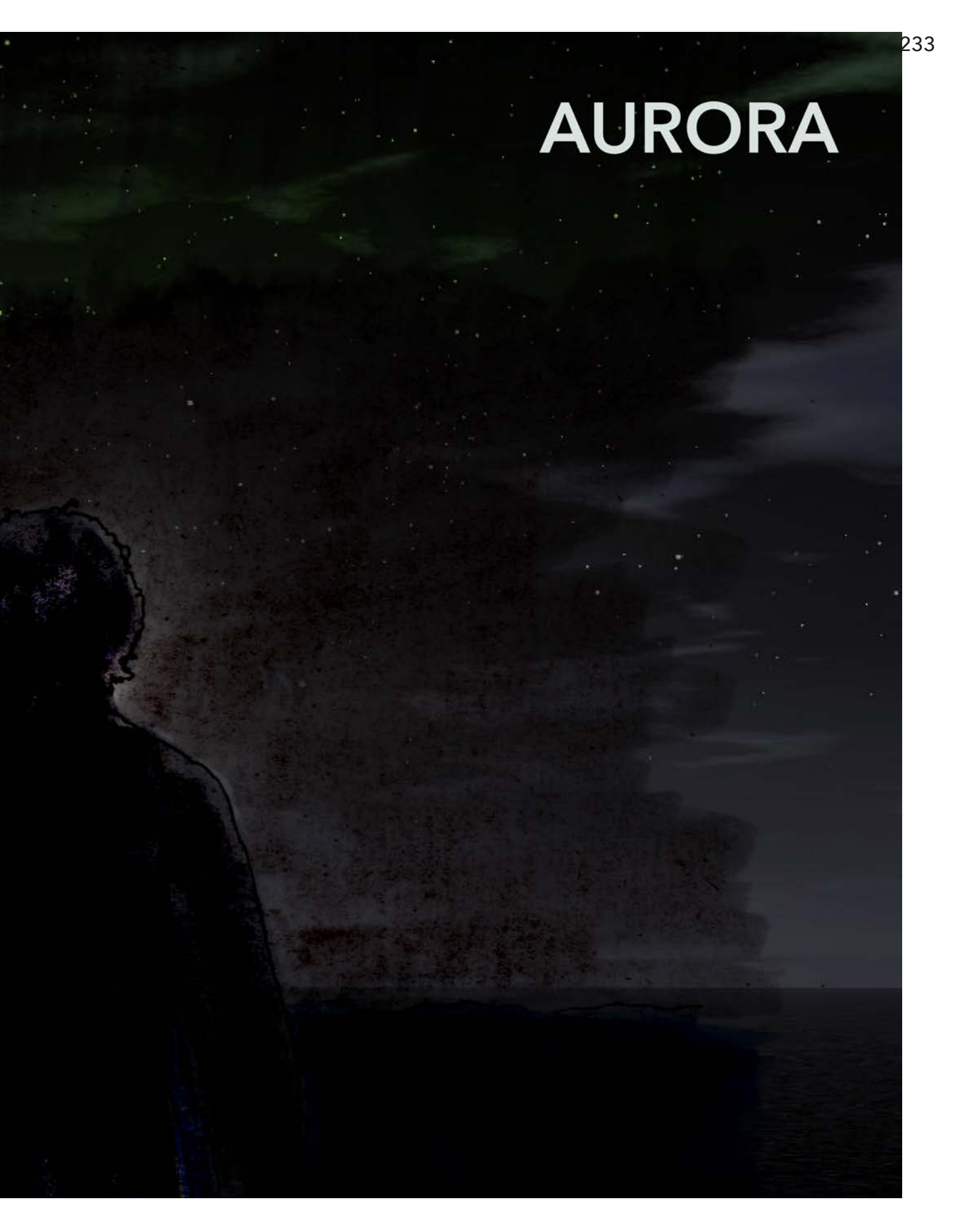
LEARNED AT  
THE LOCATION  
OR ON THE JOURNEY







# AURORA





ROADS NOT TAKEN	CONCEPT EXPLORATION
-----------------	------------------------





**SAUNA DAM SLIDE**



# ENCAPSULATED STAMP SAND BEACH







# CHARGING STATION





# HOT SPRINGS RIVER





APPENDIX	APPENDIX C: THESIS PREP RESEARCH
05.00C	CHAPTER

# THE CRISIS OF THE EVERY





# DAY

DISTRACTION

SOCIAL MEDIA

TECHNOLOGY

DISCONNECTION

SELF

VALUABLE  
INTERACTIONS

PERSONAL  
RELATIONSHIPS





MUNDANE  
ROUTINE  
HABITUAL

DISTRACTION

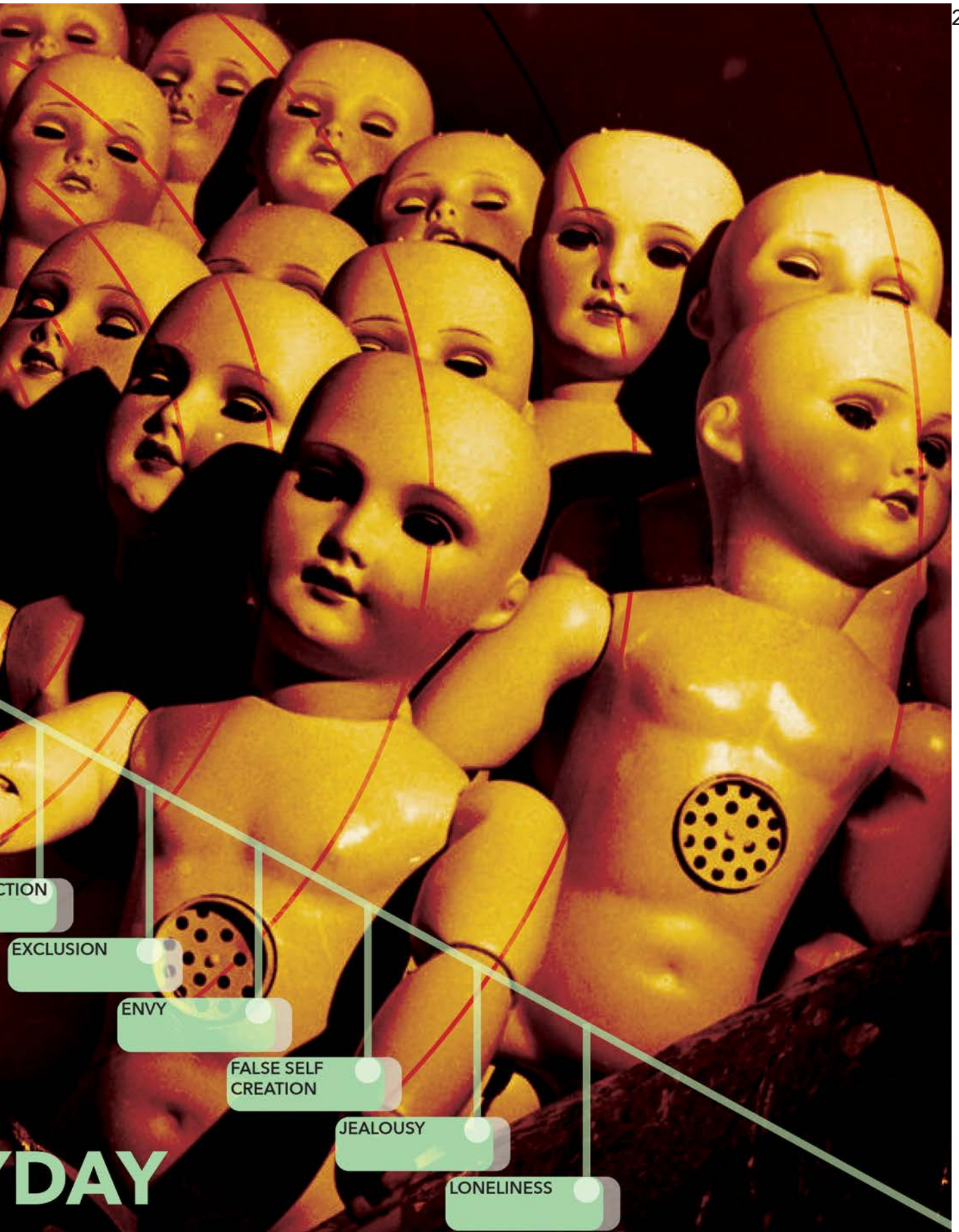
SOCIAL  
MEDIA

FOMO  
FEAR OF MISSING OUT

PERCEIVED  
INADEQUACIES

DISCONNECTED  
FROM SELF

# THE CRISIS OF THE EVERY



CTION

EXCLUSION

ENVY

FALSE SELF  
CREATION

JEALOUSY

LONELINESS

DAY

FOMO  
FEAR OF MISSING OUT

**JOMO**  
JOY OF MISSING OUT

PERCEIVED  
INADEQUACIES

**SELF-ACCEPTANCE**

DISCONNECTION  
FROM SELF

**CONNECTION TO SELF**

EXCLUSION

**INCLUSION**

**DESIRED CONDIT**

ENVY

CONTENTMENT

FALSE SELF  
CREATION

AUTHENTICITY

JEALOUSY

ADMIRATION

LONELINESS

CONNECTION

TIONS

# GAINS FROM SOCIAL ME

- SELF-AFFIRMATION
- SELF-EXPRESSION
- SELF-WORTH
- SELF-IDENTITY
- SOCIAL CONNECTIONS

EDIA

FORM OF SOCIAL CURRENCY

LIKES

FRIENDS

FOLLOWERS

TEXTS

NOTIFICATIONS

DOPAMINE

EXPERIENCE

CO

PHYSICAL

PERMANENT

SUSTAINABLE

VIRTUAL

TEMPORARY

UNSUSTAINABLE



# CONNECTION

## SOCIAL MEDIA

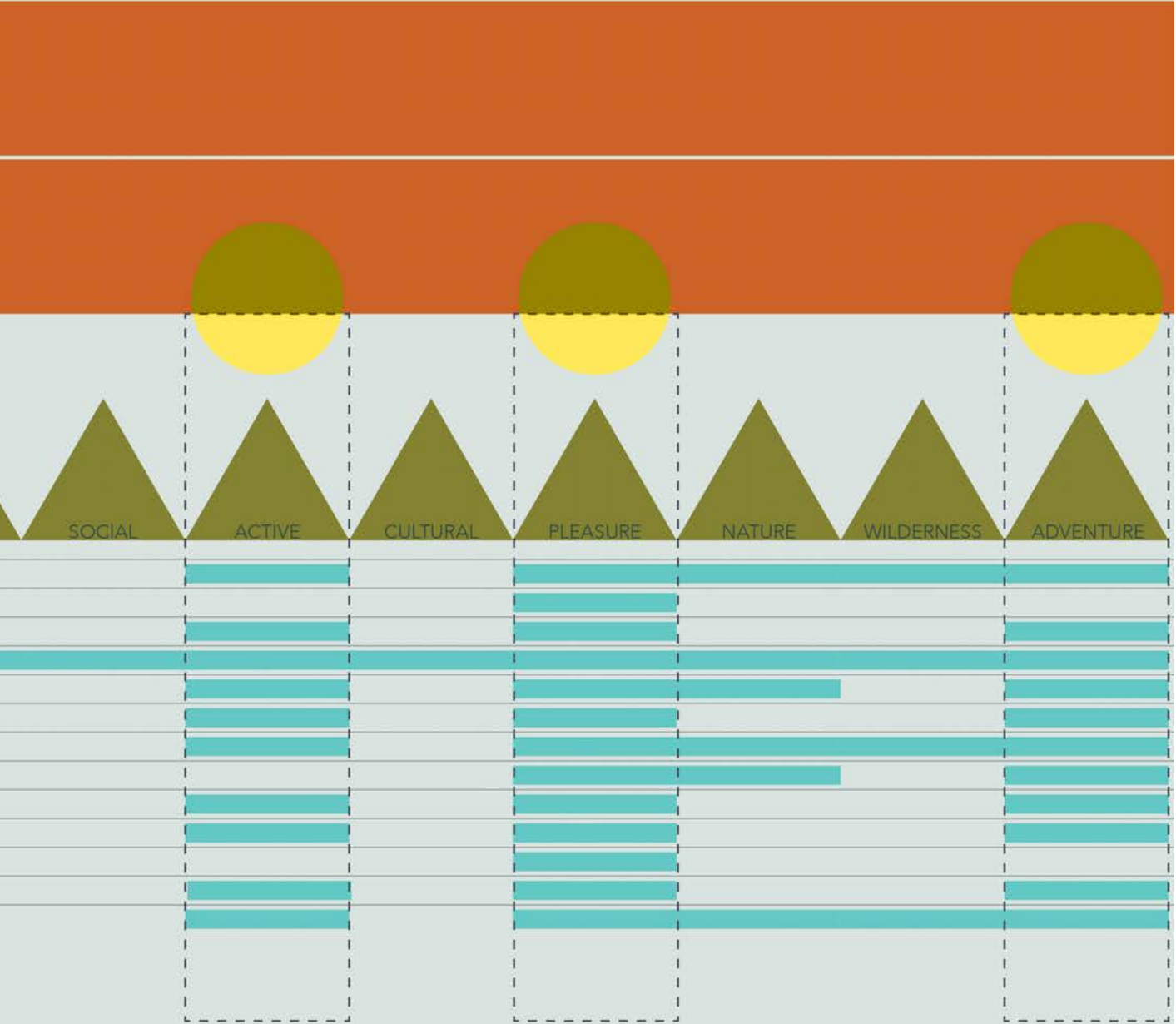




# TOURISM TYPES

## ACTIVITY RELATIONS





IT IS ALL ABOUT YOU

#QUESTIONMADMAN

MA

NATIVE

OBSESSED

DEVOTED

FREAKS

PIONEERS

PAIN

PERSPECTIVE

CULT

COMMUNITY

OUR POINT OF VIEW...

NESS (NORTHFACE)

SS

ALTERN

CRAZY

CALCULATED

MADNESS

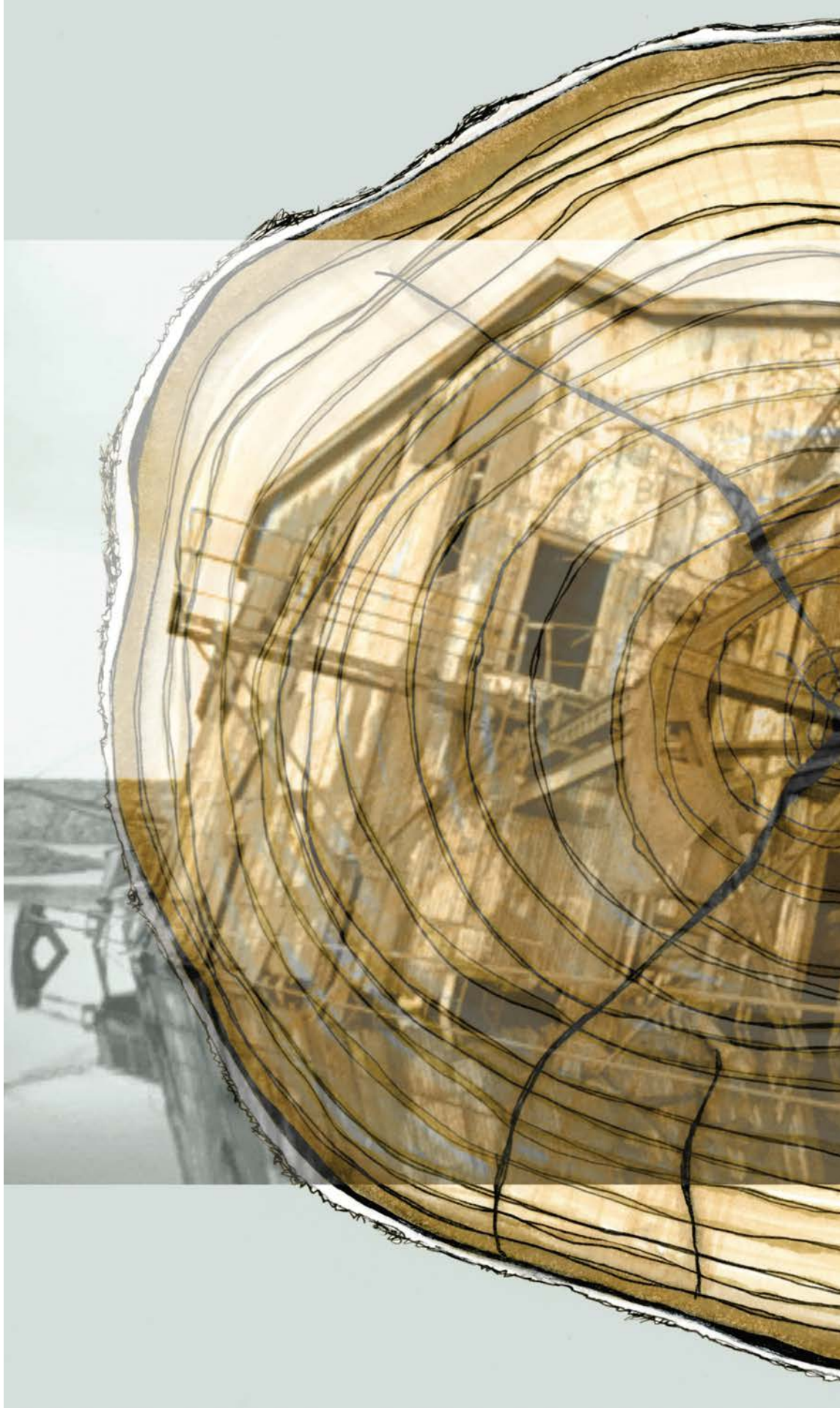
PROGRESS

WEIRDO

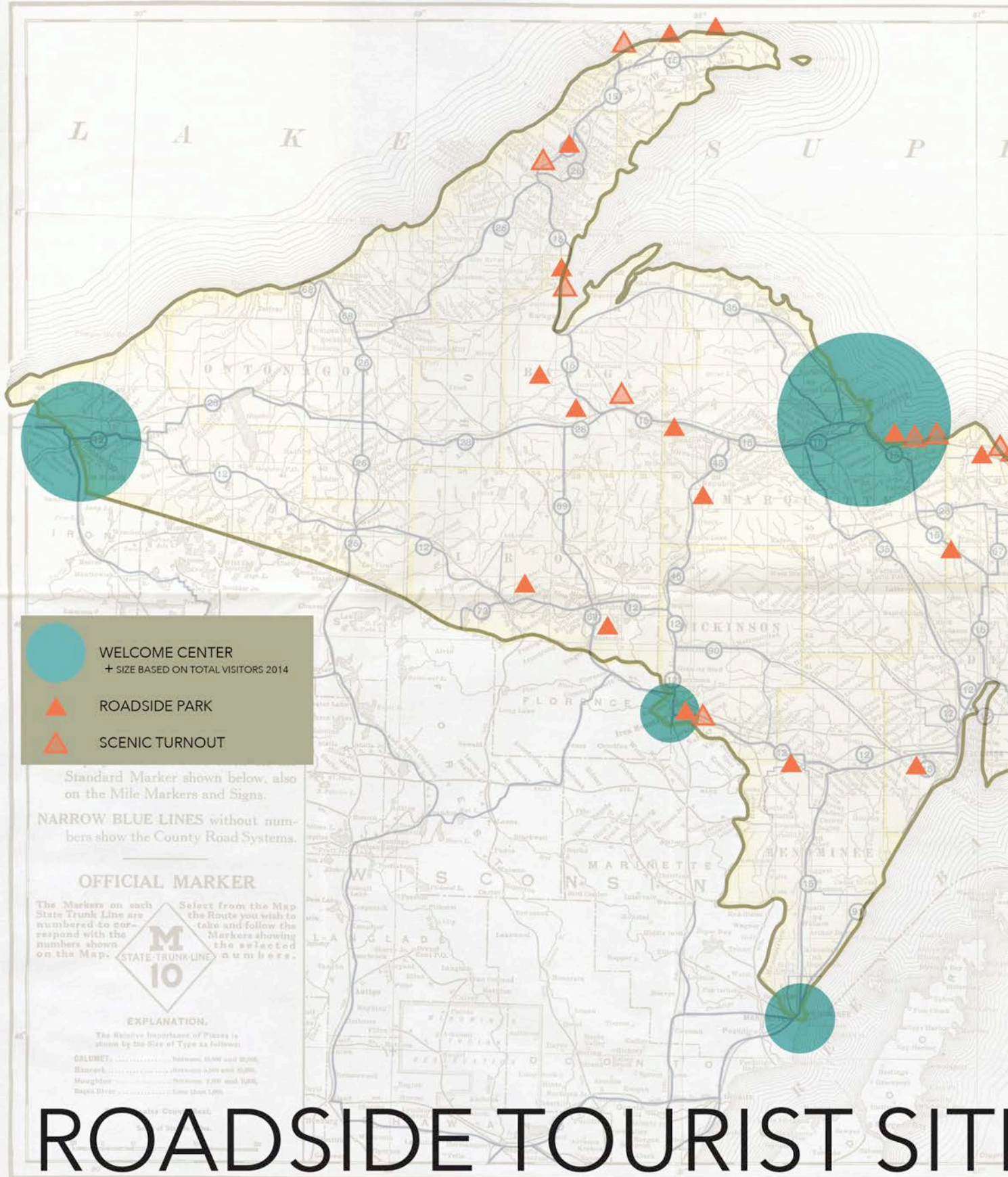
VISIONARY

FEAR

FREE







-  WELCOME CENTER  
+ SIZE BASED ON TOTAL VISITORS 2014
-  ROADSIDE PARK
-  SCENIC TURNOUT

Standard Marker shown below, also on the Mile Markers and Signs.

NARROW BLUE LINES without numbers show the County Road Systems.

**OFFICIAL MARKER**

The Markers on each State Trunk Line are numbered to correspond with the numbers shown on this Map.

Select from the Map the Route you wish to take and follow the Markers showing the selected numbers.



**EXPLANATION.**

The Relative Importance of Places is shown by the Size of Type as follows:

- CALUMET: ..... between 55,000 and 100,000
- Essex: ..... between 5,000 and 50,000
- Muskegon: ..... between 1,000 and 5,000
- Small Town: ..... less than 1,000

# ROADSIDE TOURIST SITES

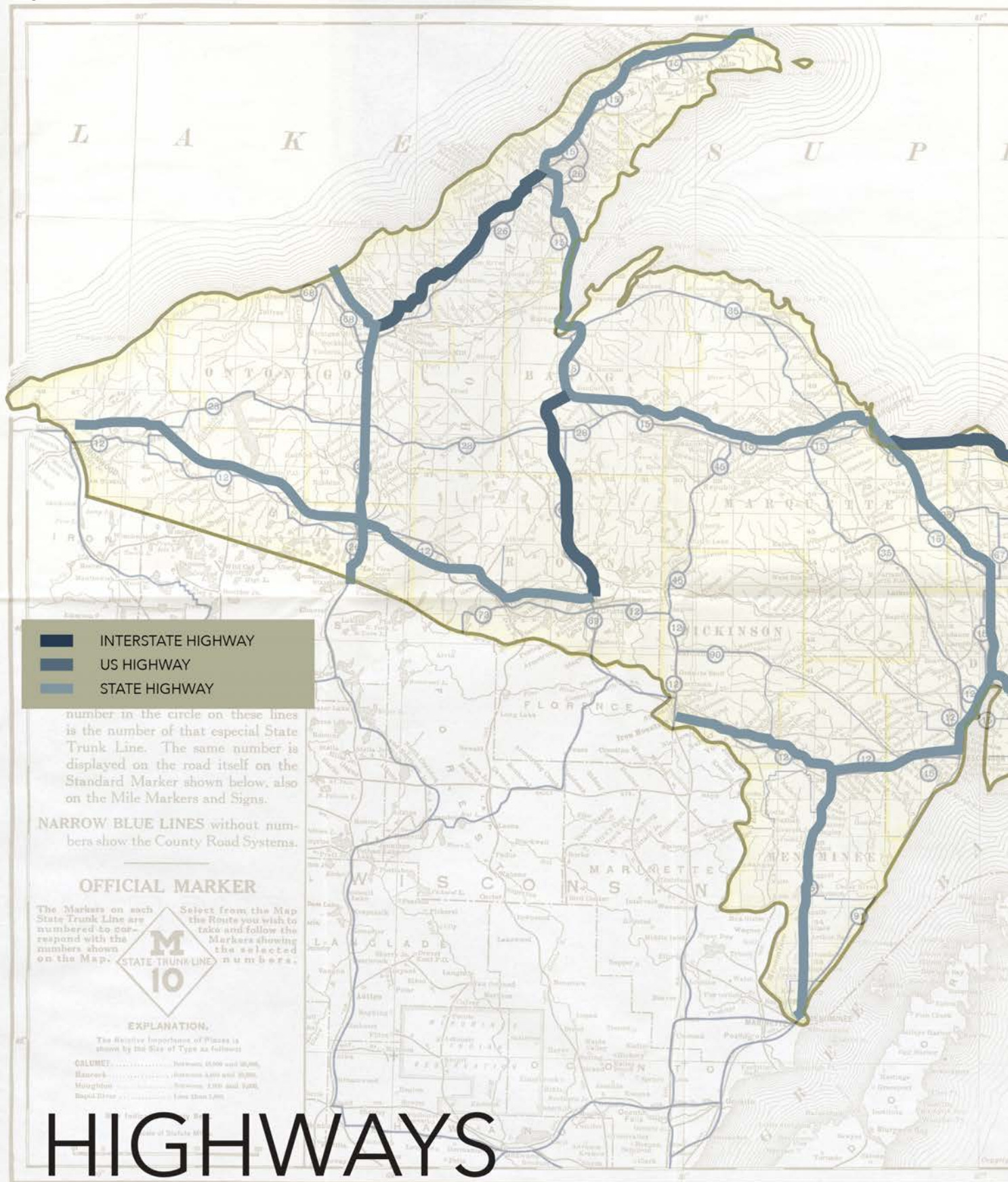
OFFICIAL MAP  
 OF THE  
 STATE TRUNK LINE SYSTEM  
 UPPER PENINSULA OF MICHIGAN  
*"The Cloverland of America"*




Showing the Numbered and Marked State Trunk Line System  
 FOR EXPLANATION, SEE LOWER LEFT CORNER



ES





-  INTERSTATE HIGHWAY
-  US HIGHWAY
-  STATE HIGHWAY

number in the circle on these lines is the number of that especial State Trunk Line. The same number is displayed on the road itself on the Standard Marker shown below, also on the Mile Markers and Signs.

NARROW BLUE LINES without numbers show the County Road Systems.

**OFFICIAL MARKER**

The Markers on each State Trunk Line are numbered to correspond with the numbers shown on the Map.

Select from the Map the Route you wish to take and follow the Markers showing the selected numbers.



**EXPLANATION.**

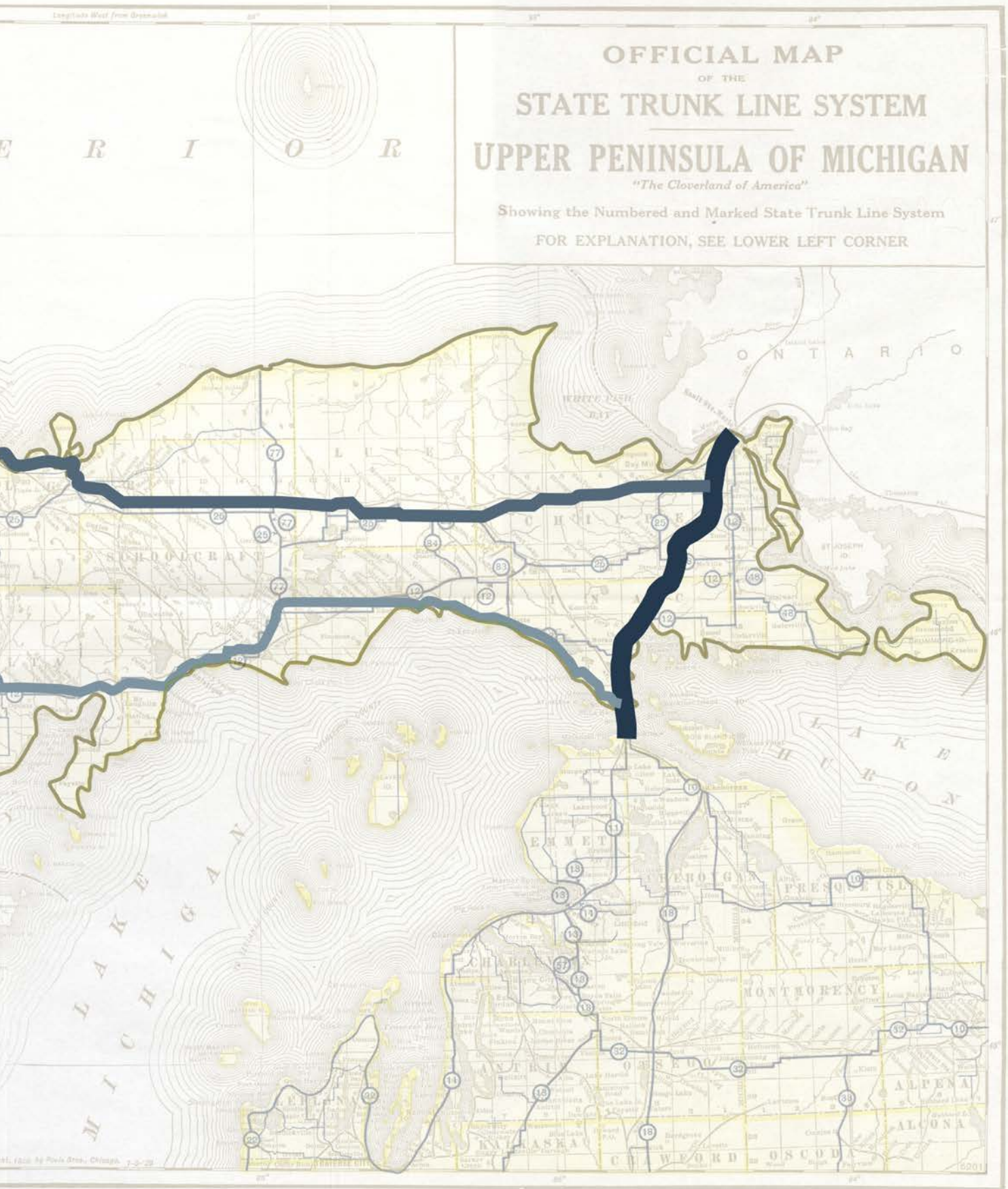
The Relative Importance of Places is shown by the Size of Type as follows:

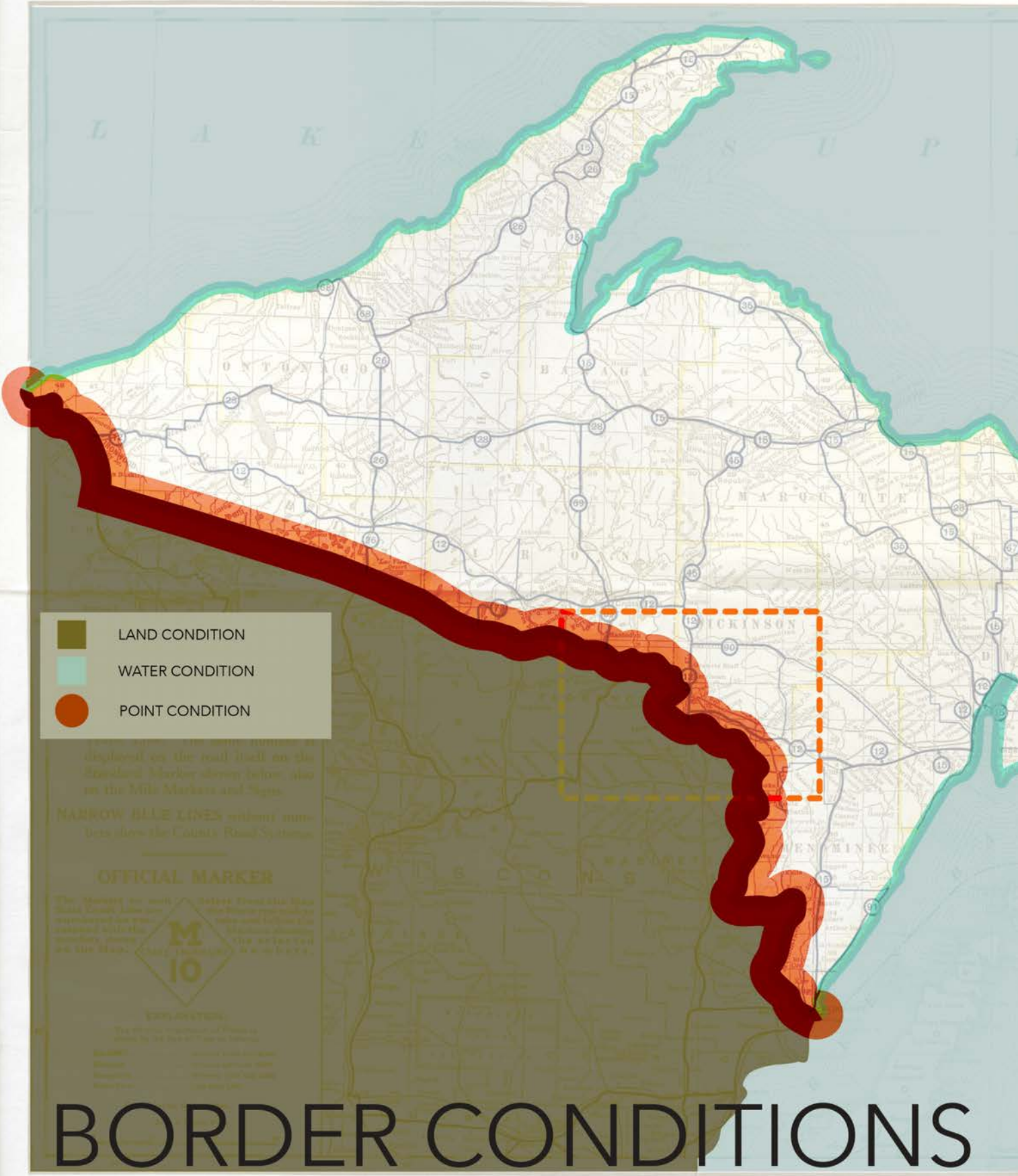
- COLUMBET ..... between 15,000 and 25,000
- Baronck ..... between 10,000 and 15,000
- Mighton ..... between 5,000 and 10,000
- Rapid River ..... less than 5,000

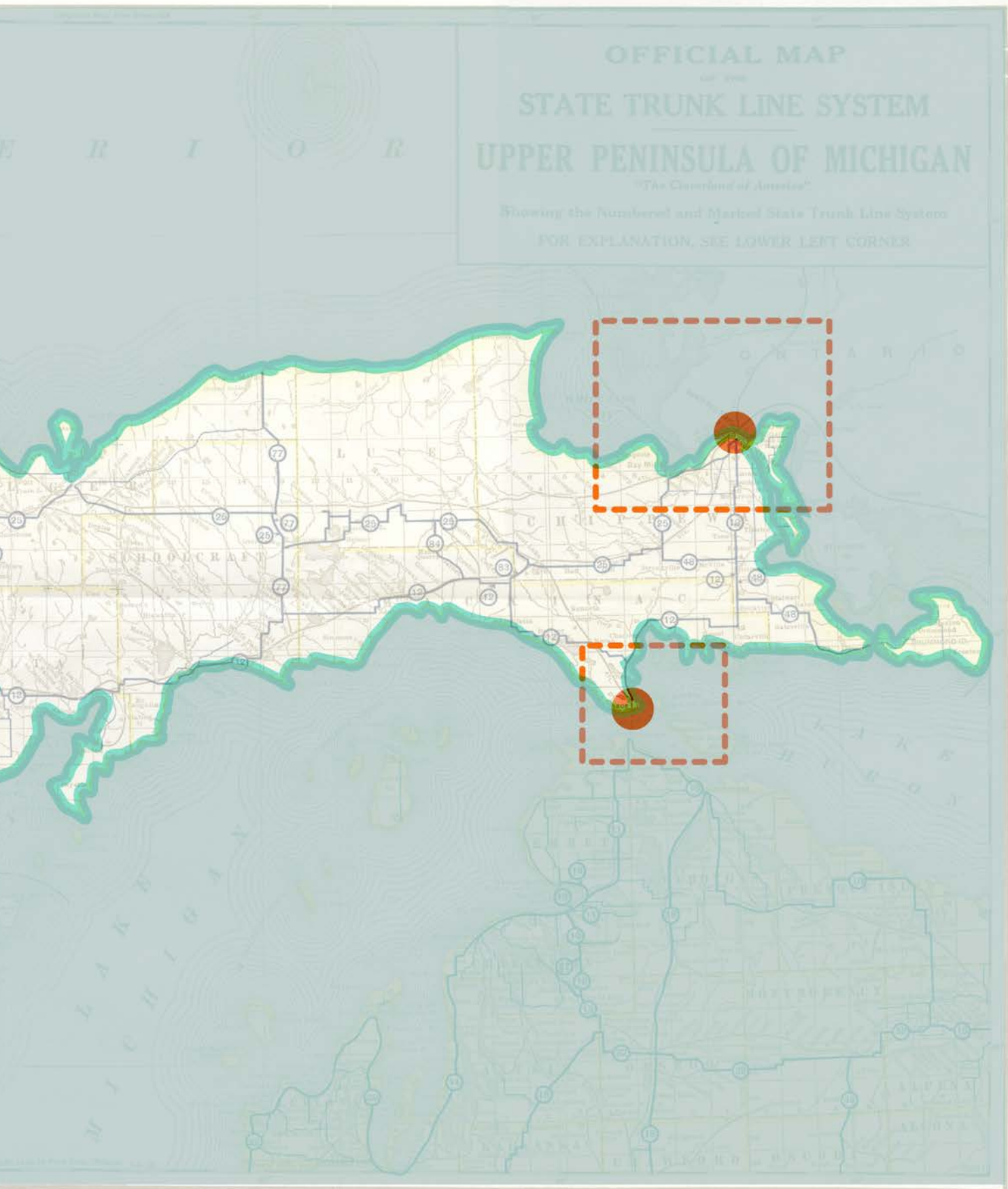
# HIGHWAYS

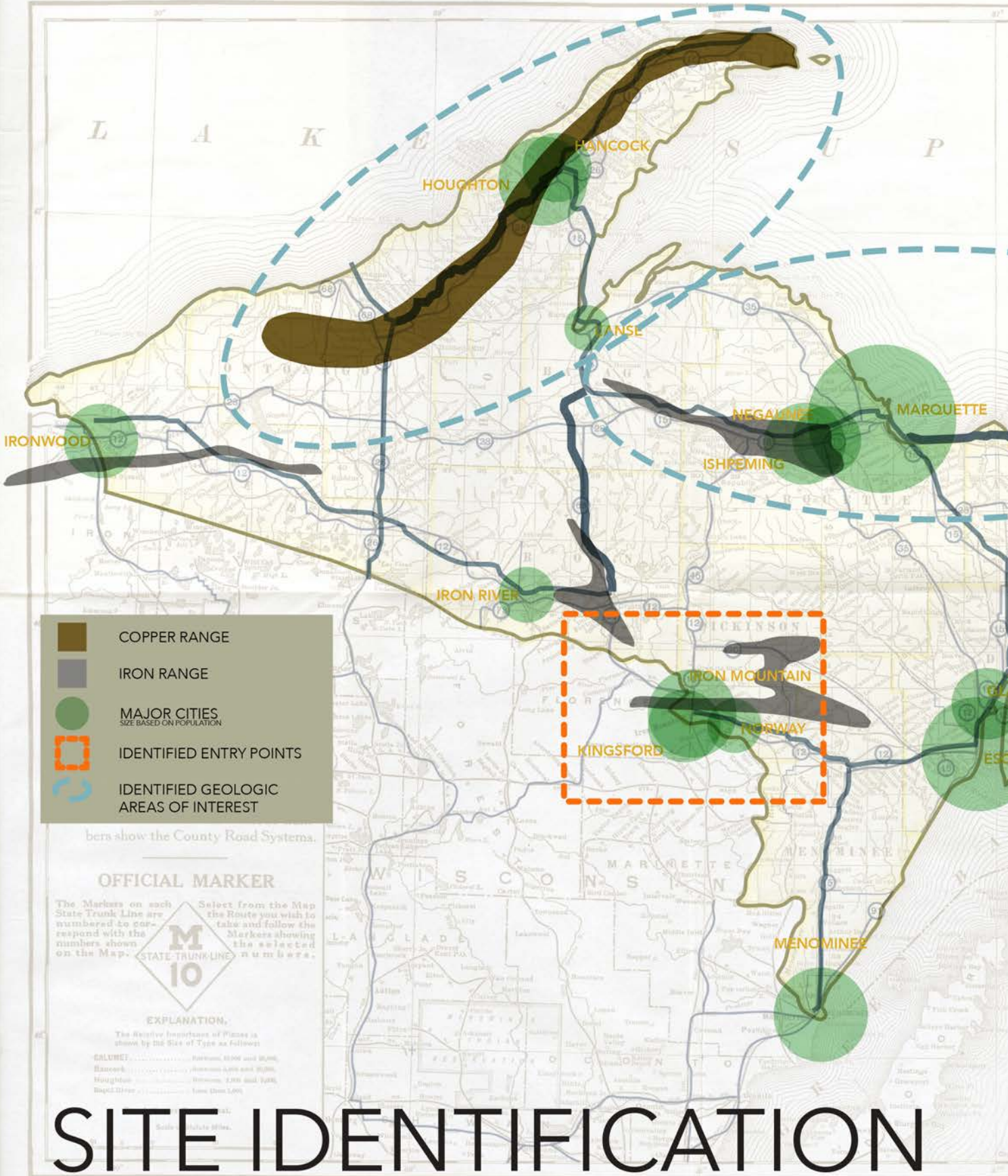
OFFICIAL MAP  
 OF THE  
 STATE TRUNK LINE SYSTEM  
 UPPER PENINSULA OF MICHIGAN  
*"The Cloverland of America"*

Showing the Numbered and Marked State Trunk Line System  
 FOR EXPLANATION, SEE LOWER LEFT CORNER









# SITE IDENTIFICATION

- COPPER RANGE
- IRON RANGE
- MAJOR CITIES  
SIZE BASED ON POPULATION
- IDENTIFIED ENTRY POINTS
- IDENTIFIED GEOLOGIC AREAS OF INTEREST

bers show the County Road Systems.

**OFFICIAL MARKER**

The Markers on each State Trunk Line are numbered to correspond with the numbers shown on the Map.

Select from the Map the Route you wish to take and follow the Markers showing the selected numbers.

M

10

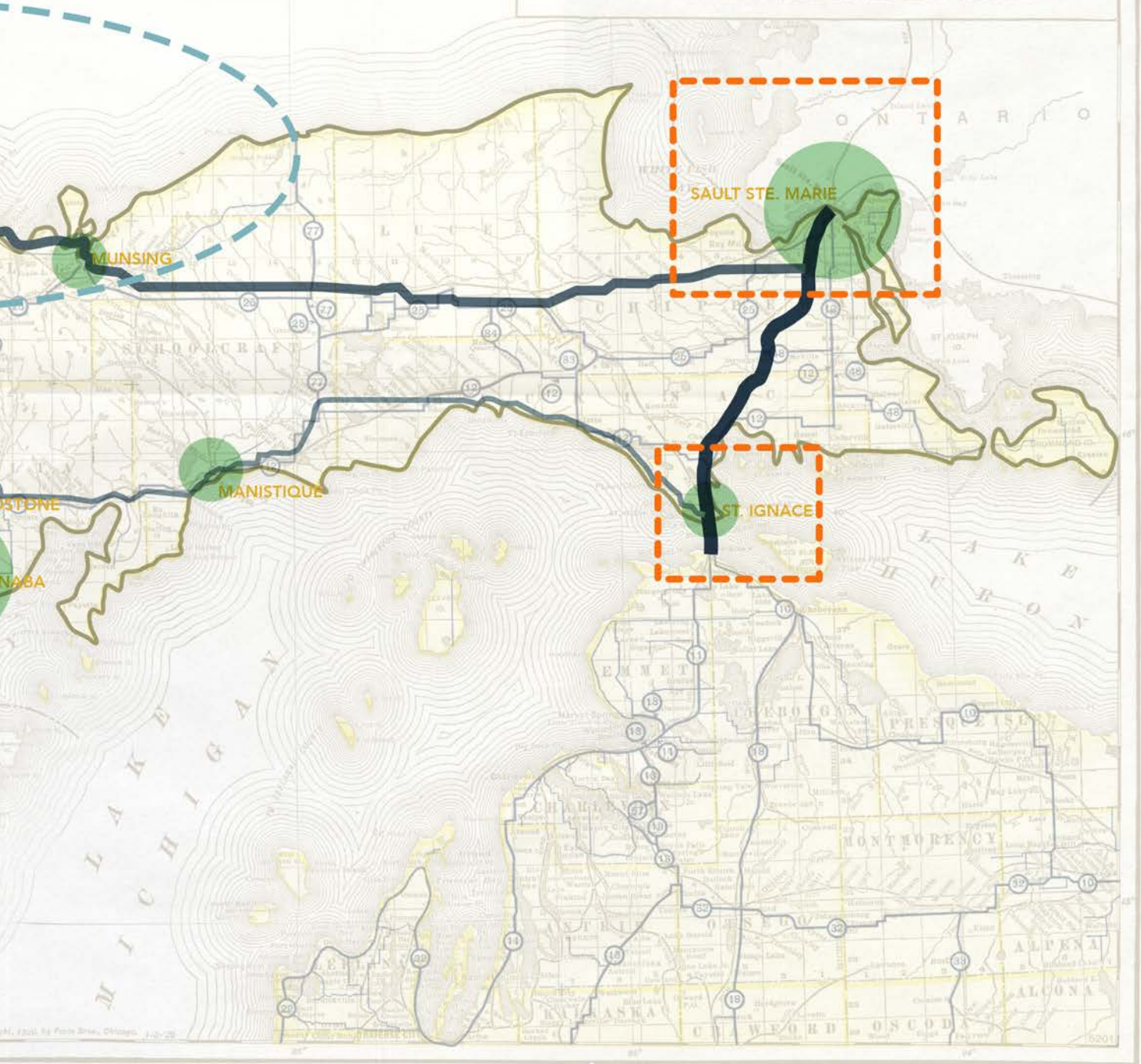
**EXPLANATION.**

The Relative Importance of Placettes is shown by the Size of Type as follows:

GLURET	.....	Distances 5000 and 6000.
Hancock	.....	Distances 4000 and 5000.
Houghton	.....	Distances 3000 and 4000.
Typical Street	.....	Less than 3000.

OFFICIAL MAP  
 OF THE  
 STATE TRUNK LINE SYSTEM  
 UPPER PENINSULA OF MICHIGAN  
*"The Cloverland of America"*

Showing the Numbered and Marked State Trunk Line System  
 FOR EXPLANATION, SEE LOWER LEFT CORNER



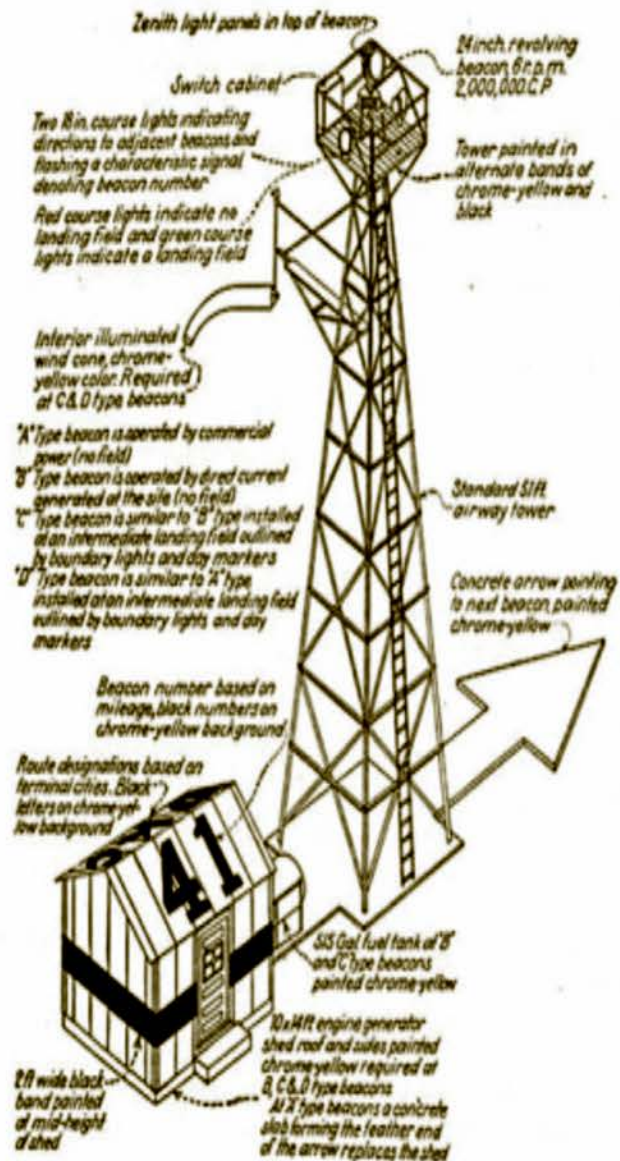
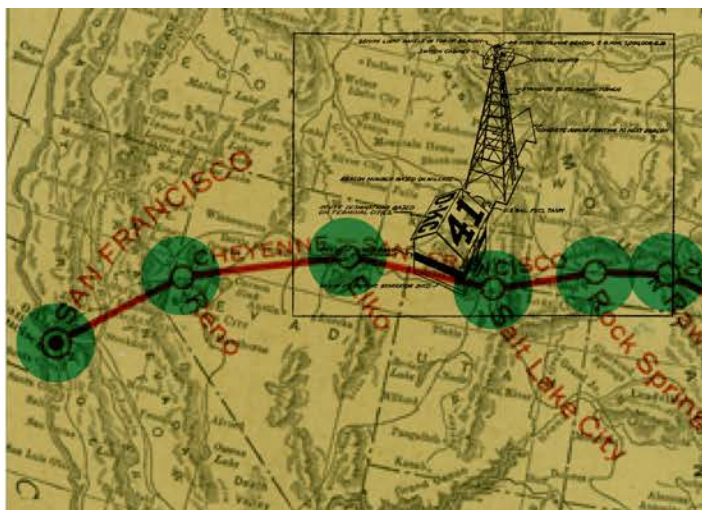


FIG. 301.—Standard installation airways beacon.



RATES OF POSTAGE

BETWEEN	New York	Baltimore	Cleveland	Bryn	Chicago	Iowa City	Omaha	North Platte	Cheyenne	Rawlins	Rock Springs	Salt Lake City	Elko	Reno	San Francisco
New York		8	8	8	8	15	18	18	18	24	24	24	24	24	24
Baltimore	8		8	8	8	15	18	18	18	24	24	24	24	24	24
Cleveland	8	8		8	8	15	18	18	18	24	24	24	24	24	24
Bryn	8	8	8		8	15	18	18	18	24	24	24	24	24	24
Chicago	8	8	8	8		15	18	18	18	24	24	24	24	24	24
Iowa City	15	15	15	15	8		8	8	8	15	15	15	15	15	15
Omaha	18	18	18	18	8	8		8	8	18	18	18	18	18	18
North Platte	18	18	18	18	8	8	8		8	18	18	18	18	18	18
Cheyenne	18	18	18	18	8	8	8	8		18	18	18	18	18	18
Rawlins	24	24	24	24	15	15	15	15	15		8	8	8	8	8
Rock Springs	24	24	24	24	15	15	15	15	15	8		8	8	8	8
Salt Lake City	24	24	24	24	15	15	15	15	15	8	8		8	8	8
Elko	24	24	24	24	15	15	15	15	15	8	8	8		8	8
Reno	24	24	24	24	15	15	15	15	15	8	8	8	8		8
San Francisco	24	24	24	24	15	15	15	15	15	8	8	8	8	8	

At such cities as show an arrival rate in the day by the Air Mail Schedule the use of special delivery stamps in addition to the zone postage will insure delivery on the date of receipt.

Postage eight cents an ounce, or fraction thereof, for each zone, or part of zone, in which mail is carried by plane. Transit mail forwarded to destination by Railway Mail Service will be rated to point carried by Air Mail Service.

Iowa City)	New Jersey	New York
Kansas	New York (Except	Cleveland
Kentucky	Brooklyn-	
Maine	Long Island &	
Maryland	Staten Island)	New York
Massachusetts	North Carolina	
Michigan	Ohio (Except	Cleveland
Minnesota	Bryan)	
Missouri		
Montana		
Nebraska		
Nevada		
New Hampshire		
New Jersey		
New York		
North Carolina		
Ohio		
Oklahoma		
Oregon		
Pennsylvania		
Rhode Island		
Tennessee		
Texas		
Vermont		
Virginia		
Washington		
West Virginia		
Wisconsin		
Wyoming		

Offices not located on the Air Mail Route may dispatch for example: Philadelphia may dispatch to Los Angeles by Cleveland, thence by air to San Francisco; thence by rail to Denver may dispatch to Los Angeles or Philadelphia; by r

# U.S. AIRMAIL BEACONS

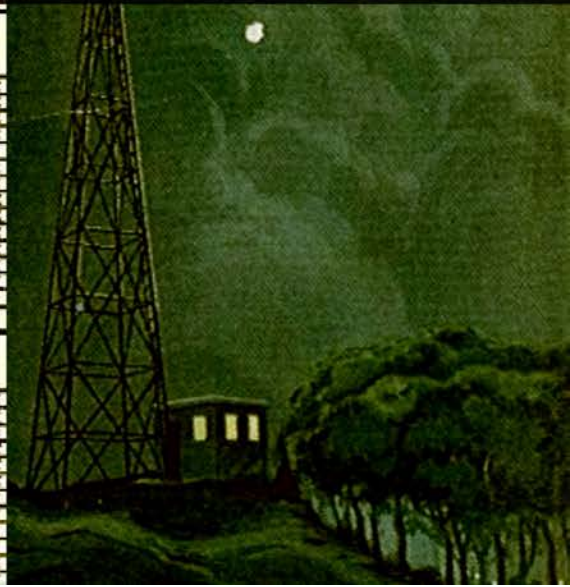


Utah Salt Lake  
 Vermont New York  
 West Virginia Cleveland  
 Wisconsin Chicago  
 Wyoming (Except Cheyenne  
 Rock Springs)  
 Trans-Atlantic, New York  
 Foreign

Ohio (Except Cleveland  
 Bryan)  
 Oregon Salt Lake  
 South Dakota Omaha  
 Utah Salt Lake  
 Wisconsin Chicago  
 Wyoming (Except Cheyenne  
 Rawlins-Rock Sprg)  
 Trans-Pacific, San Francisco  
 Foreign

by rail to connect therewith  
 rail to New York or  
 Los Angeles.  
 rail from Denver to Cheyenne,

SUMMER SCHEDULE					
WEST					
LEAVE			ARRIVE		
New York	10:00	A.M. E.T.	Bellefonte	12:20	P.M. E.T.
Bellefonte	12:40	P.M. E.T.	Cleveland	2:55	P.M. E.T.
Cleveland	3:10	P.M. E.T.	Bryan	3:55	P.M. C.T.
Bryan	4:15	A.M. C.T.	Chicago	6:15	P.M. C.T.
Chicago	6:30	P.M. C.T.	Iowa City	9:00	P.M. C.T.
Iowa City	9:20	P.M. C.T.	Omaha	12:05	A.M. C.T.
Omaha	12:20	A.M. C.T.	North Platte	3:15	A.M. C.T.
North Platte	2:35	A.M. M.T.	Cheyenne	5:10	A.M. M.T.
Cheyenne	5:25	A.M. M.T.	Rawlins	7:10	A.M. M.T.
Rawlins	7:30	A.M. M.T.	Rock Springs	9:00	A.M. M.T.
Rock Springs	9:15	A.M. M.T.	Salt Lake City	11:05	A.M. M.T.
Salt Lake City	10:30	A.M. P.T.	Elko	12:25	P.M. P.T.
Elko	12:40	P.M. P.T.	Reno	5:30	P.M. P.T.
Reno	3:45	P.M. P.T.	San Francisco	5:45	P.M. P.T.
34 Hours - 45 Minutes					
EAST					
LEAVE			ARRIVE		
San Francisco	6:00	A.M. P.T.	Reno	6:00	A.M. P.T.
Reno	8:45	A.M. P.T.	Elko	10:45	A.M. P.T.
Elko	11:00	A.M. P.T.	Salt Lake City	1:00	P.M. P.T.
Salt Lake City	2:15	P.M. M.T.	Rock Springs	4:30	P.M. M.T.
Rock Springs	4:15	P.M. M.T.	Cheyenne	7:00	P.M. M.T.
Cheyenne	7:15	P.M. M.T.	North Platte	9:45	P.M. M.T.
North Platte	11:05	P.M. C.T.	Omaha	1:50	A.M. C.T.
Omaha	2:05	A.M. C.T.	Iowa City	4:20	A.M. C.T.
Iowa City	5:10	A.M. C.T.	Chicago	7:20	A.M. C.T.
Chicago	7:35	A.M. C.T.	Bryan	9:25	A.M. C.T.
Bryan	9:45	A.M. C.T.	Cleveland	12:20	P.M. E.T.
Cleveland	12:35	P.M. E.T.	Bellefonte	2:35	P.M. E.T.







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06

CHAPTER



REFERENCES	<b>BIBLIOGRAPHY</b>
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06.002	CHAPTER

- Figure 1 Peter Zumthor, Summer Restaurant on Ufenau Island, Lake of Zurich, project, study model. Zumthor, Peter. Atmospheres. Basel: Birkhauser, 2006. 68.
- Figure 2 Peter Zumthor, Thermal Baths Vals, 1996, Val, Graubunden. Zumthor, Peter. Atmospheres. Basel: Birkhauser, 2006. 28.
- Figure 3 Jenn Hicks, Personal photograph, Salmon Trout Point, Michigan, 2017.
- Figure 4 Map of the rocks associated with the Midcontinent Rift along with the location of the Grenville Front. Superior Rifting EarthScope Experiment. SPREE. <http://www.earth.northwestern.edu/spree/Welcome.html> (accessed March 14, 2017).
- Figure 5 Portage Lake Volcanics - Schematic columnar section on Isle Royale. Not drawn to scale. Huber, N. King. The Geologic Story of Isle Royale National Park. Geological Survey Bulletin 1309, National Park Service, Washington, D.C.: U.S. Government Printing Office, 1975.
- Figure 6 Schaetzl, Randall J. Michigan's Copper Deposits and Mining. <http://geo.msu.edu/extra/geogmich/copperrange.html> (accessed March 10, 2017).
- Figure 7 Ibid.
- Figure 8 Gillespie, Robb and William B. Harrison III, and G. Michael Grammer. "Geology of Michigan and the Great Lakes." Cengage Brooks/Cole as part of Cengage Learning, 2008.
- Figure 9 Ibid.
- Figure 10 Arthur Lakes Library; Russell L. and Lyn Wood Mining History Archive; United States. Bureau of Mines. <https://dspace.library.colostate.edu/handle/11124/9551>
- Figure 11 Arthur Lakes Library; Russell L. and Lyn Wood Mining History Archive; United States. Bureau of Mines. <https://dspace.library.colostate.edu/handle/11124/6488>
- Figure 12 Pasty Central. <http://www.pasty.com/>.
- Figure 13 Forgrave, Mike. "Copper Country Explorer." Accessed March 16, 2017. <http://www.coppercountryexplorer.com/scrapbook/wp-content/uploads/paulpetosky/petosky-mills4.jpg>

- Figure 14 Benedict, C. Harry. Lake Superior Milling Practice: A Technical History of a Century of Copper Milling. Houghton, Michigan: Michigan College of Mining and Technology Press, 1955.
- Figure 15 Original: Barnes/Sincock Collection, Current: Shamar Collection. 2.14.1902
- Figure 16 MS029-008-012-001, Bill Brinkman Collection, Michigan Technological University Archives and Copper Country Historical Collections. Houghton, Michigan
- Figure 17 MS051-044-003-002, Daily Mining Gazette Photograph Collection, Michigan Technological University Archives and Copper Country Historical Collections. Houghton, Michigan
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- Figure 19 Roy Drier Photograph Collection. Michigan Technological University Archives and Copper Country Historical Collections. Houghton, Michigan
- Figure 20 Tyler, B. E. Michigan's Copper Country In Early Photos. Grand Rapids, Michigan: Black Letter Press, 1977.
- Figure 21 Ibid.
- Figure 22 Benedict, C. Harry. Lake Superior Milling Practice: A Technical History of a Century of Copper Milling. Houghton, Michigan: Michigan College of Mining and Technology Press, 1955.
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- Figure 24 Ibid.
- Figure 25 Wikipedia. [https://upload.wikimedia.org/wikipedia/commons/f/f3/LOC\\_MI0086\\_QuincyMine\\_TIF\\_00027a5.png](https://upload.wikimedia.org/wikipedia/commons/f/f3/LOC_MI0086_QuincyMine_TIF_00027a5.png)
- Figure 26 Benedict, C. Harry. Lake Superior Milling Practice: A Technical History of a Century of Copper Milling. Houghton, Michigan: Michigan College of Mining and Technology Press, 1955.
- Figure 27 Google patent search. <https://patents.google.com/>.
- Figure 28 Champion Stamp Mill. Freda, Michigan [map]. "Sanborn Fire Insurance Maps."

