Journey to the Centre
Of the Shield

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

The land of deep water lies in Ontario's north, atop the boundless rock of the Shield. It holds the secret of an island once blossoming with copper ore. Here primordial elements dance in the ancient landscape and invite us to join them in their awakening. Liquid portals, layered ancient rock and plunging mine shafts unearth a cosmic order born of chaos. Myth, geology and alchemy all fuse together in defining this place.

This thesis is a journey to centre of the Shield, through the deep water, rock and voids that encircle it. It is an expedition into the multiplicities of time through the poetic imagination. Here on the bridge to preconsciousness, we are invited in.

At the heart lies Copperfields, a mine isolated on an island in Temagami. Once bearing some of the purest copper on Earth, it now sits abandoned amidst fragments of its former glory. The design proposed reclaims these elements and animates them as gateways to the dynamic Shield. In the folds of time, quivering between thought and the preconscious, a fiction rich in meaning and experience is offered up.

Let us now embark on our journey to the centre of the Shield.

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To my friends and peers: your support, humour and inspiration throughout this process will not be forgotten. Thank you again for your friendship and wise words.

And most importantly, to my family- your unending love and support throughout the years has truly touched my heart. A girl could never ask for a better bunch to call a family.

To my mother

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PREFACE

Getting into the car, I am hit with the excitement of our upcoming adventure. The unknown, both frightening and fascinating, as I travel to a place I know so well in my imagination, but have never experienced first hand. The thrill of inhabiting the world of the Copperfields mine takes over as we head to Temagami in Ontario's north.

Driving further away, the landscape transforms before us. Cities and their built up frameworks disappearing as lakes, giant mounds of rock and boundless forest take over. Leaving our known reality behind we enter the world of the Canadian Shield. The north is stripped of the noise of the city. It whispers the stories of Shield through its water, rock and hidden voids.

Veering off of Highway 11 we head down the access road rumbling the car with every gravel rock we drive over. The surrounding forests blurred as dust rises from the road. Clouds of speckled gray fall as we arrive at Mine Landing, the first threshold of our journey. Walking towards the dock I look for our water taxi. A portly older gentleman waves us down, waiting in a small white boat. Looking past him I see the island. It was just as I had imagined it, a

carpet of pine forest atop a large expanse of exposed rock.

The excitement of our meeting was overwhelming. Would the island be the all that I had created in my head? Would I still be able to find the fragments of the mine amidst a sea of vegetation?

We all pile into the tiny boat and head out onto the lake. Skipping across the water other islands appear in distance, like a constellation of stars born of rock and vegetation. Pulling up to the old barge landing silence once again takes over. The island is cautious in welcoming new visitors and so it quietly observes our entrance.

Stepping off the boat and away from the water, the journey to find the opening to Copperfields begins. Rusted equipment, abandoned buildings and green copper paths lie ahead, each becoming an industrial ruin tracing the past of the mine. Like the network of islands beyond, they too tell the poetic fiction of this place.

Fig. x.1: Toronto to Temagami.

Journey to the Centre of the Shield
INTRODUCTION

"Next day there was still no sun, but on Sunday, the 28th of June, with the new moon came a change in the weather. The sun streamed into the crater. Every little hillock, every rock, every stone was bathed in sunlight and shot its shadow along the ground…At noon, when the shadow was at its shortest, its point touched the lip of the central chimney. The professor gave a cry of joy. Then he spoke, in Danish: "To the centre of the Earth!"…'Let's go', said my uncle, trembling with excitement". [i]

Jules Verne
Journey to the Centre of the Earth

Fig. x.2: Map of Temagami Island and Copperfields site with surrounding areas.

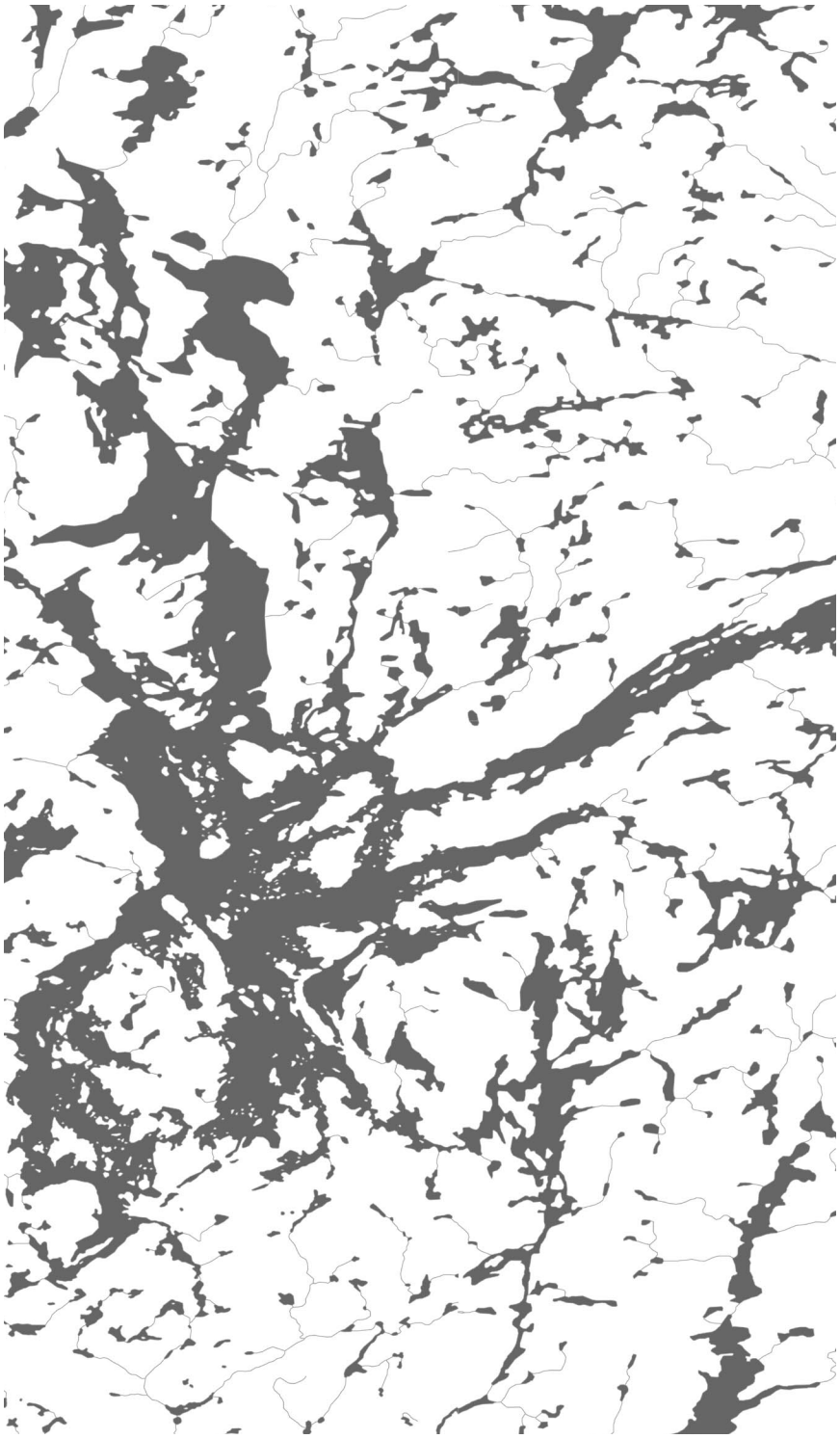

Fig. x.3: Map of Lake Temagami and the surrounding areas.

Deep beneath the Temagami area there lies a vast network of ancient rock, alive with activity and history. Ore pumps through its veins hidden in the bones of the Earth, coursing slowly over eons of time. It is a land encircled by deep water, made of deep rock and the deep voids of the mines that animate its belly.

Located in Northern Ontario, north of the city of North Bay the region is most known for its logging and mining industries. Its life and spirit tied to its connection with the rock and earth of the Canadian Shield. History here forms in strata, building the area from the ground up, while myth weaves in and out time linking its primordial elements with geologic anomalies and modern day alchemy. Myths shape our cultures; they define our cosmogony and sculpt the way we live.

> Narrating "a sacred history, it relates an event that took place in primordial Time, the fabled time of the "beginnings". In other words, myth tells how, through the deeds of Supernatural Beings, a reality came into existence, be it the whole reality, the Cosmos, or only a fragment of reality- an island, a species of plant, a particular kind of human behavior, an institution...In short, myths describe the various and sometimes dramatic breakthroughs of the sacred (or the "supernatural") into the World. It is this sudden breakthrough of the sacred that really establishes the World and makes it what it is today". [ii]
>
> Mircea Eliade
> *Myth and Reality*

Seeing a place with one's own eyes often reveals only a fragment of its complexities. Time, history and the mystic, as Eliade states, all fold into one aiding to define a place at a specific interval. It is in this folding and the space between the fragments where our journey begins.

Charged with metals deep in its belly, the region is home to several major mining sites in Canada. Some still operational extract nickel, silver, copper and gold, but many of them have reached ore exhaustion, closing their doors and leaving the sites abandoned. The jewel of the area's mining industry was undoubtedly the Copperfields Mine on Temagami Island. Embedded in the

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i. Verne, Jules, *Journey to the Centre of the Earth*, Translated by Joyce Gard (London: The Random House Group Vintage, 2011)
ii. Eliade, Mircea, *Myth and Reality*. Translated from the French by Willard R. Trask. (New York: Harper & Row, 1963) 5-6

deep rock of the Shield it sat unlike the others at the centre of an island. Only few had actually ever seen in person as its isolation kept it at distance and shrouded it in mystery. Once a producer of Canada's purest copper deposits, this site now lies forgotten.

Without the poetic imagination Temagami Island would remain geologic and industrial ruin, but with it, it can grow into a fiction extending beyond what the eye can see. It becomes a canvas of primordial elements fusing together and then separating to tell stories of the island's awakening. At the centre is the Copperfields mine, an intersection of both the water, rock and void as well the three cosmic zones of heaven, earth and the underworld. It is the axis mundi of the fiction, the spine that holds all of the elements together.

This thesis is a journey to the centre of the Shield, an adventure into preconsciousness. It is an invitation to fully immerse oneself in poetic fiction in the hopes of emerging from it with a better understanding of place and self. The designs proposed feed this imagination of place. Reclaiming what is forgotten from the island's industrial past, the architecture becomes the portal and gateway to experiencing the multiplicities of time.

Through the passage of water, rock and void the narrative of this expedition is fully revealed. Chapter I, Land of Deep Water, marks the start of the journey. It offers up water as a liquid portal, flowing through stories of creation, formation and separation. Cradling the island in its blue arms it protects it and watches over it as time slowly passes. In Chapter II, Land of Deep Rock, the visitor finds themselves standing on the shores of the island. Building up layers of time and history, the rock presents itself as a palimpsest of traces. Narratives of rock, as a framework and skeleton from which the primordial can grow are brought forth. Finally, Chapter III, Land of Deep Void follows, penetrating the ancient water and rock of the Shield. Vast blackness consumes the elements tempting them back to the start of their formation. Here in the darkness of the mine shaft, the fantasy of Copperfields is designed.

Rooted deep within this journey is a desire for a sublime experience, where one can ultimately try to connect all of the fragments that make up a place. The following chapters hope to construct a context in which this experience can unfold and where the narrative of the island can manifest itself.

Fig. x.4: Looking up the well in Orvieto.

TEMAGAMI
Chapter I: Land of Deep Water

"Far in the grim Northwest beyond the lines that turn the rivers eastward to the sea, set with a thousand islands, crowned with pines, lies the deep water, wild Temagami: wild for the hunter's roving, and the use of trappers in its dark and trackless vales, wild with the trampling of the giant moose, and the weird magic of old Indian tales. All day with steady paddles toward the west our heavy-laden long canoe we pressed: all day we saw the thunder-travelled sky purpled with storm in many a trailing tress, and saw at eve the broken sunset die in crimson on the silent wilderness."

Archibald Lampman

Fig. 1.1: By Author. Mine Landing

How a place is named has always fascinated me; some places are named after great people in history while others are named after a unique or significant feature in the land. In the story of Temagami, its etymology alludes to the prominence and importance of the lakes, as its name directly translates into "land of deep water" from the indigenous Ojibwa language. Everything in sight emerges from and recedes back into water, making the liquid material the beginning and end of all things in the area.

Much as water is an origin for the region's name, it is also the source for the myth and imagination of the place. It holds the secrets of the lake's many islands and of what lies beneath. Clarity dissolves towards the centre as a heavy blue rolls in below the surface. Water darkens and so too does the known world.

All journeys here start in water, for water is an agent of transportation and transmutation. A liquid amalgam and portal of sorts, it is a fundamental piece in the tapestry of the Canadian North. It can carry you to an island or move you closer to the world of your own imagination. As a physical element it intensifies connections, providing a home coming if you will, with the first materials of our world. Instantly it offers orientation within the vastness of our cosmos and the sublime immensity of time. Psychologically water invites one to journey inside of themselves and into the inner workings of their mind. It allows for the escape into a place where what lies in front of you can metamorphose into whatever and wherever your imagination can take it.

The journey to Temagami Island starts in this very deep water. It gives support on an adventure and warmly invites all into the world of the Copperfields mine. Stepping onto the boat and crossing the lake is like passing through a threshold of time. Drawing nearer to the island's shore, mystery and the adventure of discovery begins to consume me.

Fig. 1.2: By Author. Land of Deep Water

The water is calm as no one is out on the lake today, its surface so mirror-like that all that you can see is a reflection of the sky above. Flowing through an endless liquid sky, I am surrounded by the silence of the uninhabited lake. The boat cutting through the water and my own heartbeat, pounding with the excitement of setting foot on the island are the only sounds that flow past my ears.

This lake is dotted with tiny islands as far the eye can see. As water turns around one corner several new islands reveal themselves, a sublime maze of infinite networks of rock and water. I look to the water once more and staring beyond my own reflection the infinite blackness of the deep abyss below appears. Close to the shore and islands I feel grounded, assured by all of the exposed rock by the docks, but here in the centre the depth is unfathomable.

The water encircles my imagination welcoming me into its liquid arms. Diving in with every part of my mind I am ready to inhabit the heart of the land of deep water. Surrounded, all inhibitions swim away. The world of every story and myth about water dances in the folds of the lake. Feeling its cool silky kiss, time begins to twist and dissolve with the current. Melting, it finds its way to a period before time had started when the world was in its infancy. Here islands born of primordial waters grow from the imagination as images of mounds of earth rising up from boundless black pools become animated.

I am instantly comfortable here for these mythical stories have intersected with thousands of memories have that spanned my lifetime. Folding into the imagination this archive of memories is made more vivid, forming a truly grand dreamland. The water, liquid in nature ebbs and flows with tales of myths while the islands remain deeply connected to the body of my memories. Holding the secret of its connection to the rock below, the island always remembers its origins amidst a sea of twisting stories.

Fig. 1.3: By Author. Deep Water

Fig. 1.4: By Author. Water of Temagami 1.

Water as SOURCE

Water is always intrinsic to stories of origins: it is the partner to the age of chaos and the catalyst for the "breaking of the formless into form" [1]. Existing latently within the primordial void, it quivers with life in its immanent emergence [2]. As it flows river like out of chaos it becomes the beginning of movement and the start of creation. Much as the original void is boundless, so too are the primordial waters of becoming.

In mysticism, specifically in alchemy, *prima materia*, or first matter, is a central component in creation. As water is often at the source of life and myth it can naturally be classified as a first material. For the alchemist, this matter was a combination of mysterious yet illustrious elements described as both physical matter and as a state of mind. In some texts it is called the ultimate divine illumination while in others it is the blood and mother of chaos [3]. What remains constant in the varying descriptions is its connection to creation.

> "Prima materia is the earth and the serpent hidden in the earth, the blackness and the dew and the miraculous water which brings together all that is divided. The water is therefore called 'mother'… who also 'gathers together all my divided and scattered limbs" [4].
>
> Nathan Schwartz-Sallant
> *Alchemy and the Transformation of the Self*

Prima materia can find its form in the dark earth, the molecules that make up the original void or in pools of life giving water. As a liquid this material is a unifier: a force that brings together physical elements as well as the conscious with the subconscious. Operating autonomously it remains the root of itself, the source and beginning of everything, a liquid Mobius strip [5].

This water as chaos finds its way into many mythologies found throughout history. One of the clearest examples of this alliance is in early Egyptian

1. Campbell, Joseph, *The Hero with a Thousand Faces* (Princeton, N.J.: Princeton University Press, 1949) 233
2. Miller, Naomi , *Heavenly Caves : Reflections on the Garden Grotto* (New York : G. Braziller, 1982) 12
3. Schwartz-Salant, Nathan, *The Mystery of Human Relationship: Alchemy and the Tranformation of the Self* (London: Routledge, 1998) 33
4. (Schwartz-Salant, 140)
5. (Schwartz-Salant, 32)

mythologies involving the Nun. A deification of the universal watery abyss, the Nun, existed before everything else [6]. From it rose the creator god who in turn generated the primordial island of beginning [7]. For the Egyptians, water and origin are one in the same acting both as a cradle for life to unfold from.

Other perspectives reveal water as a product of chaos, along with several other primal elements. This exemplifies creation by separation, where primal elements are pulled apart from one another in the void to create the world that we know. One such myth is the early Chinese tale of the Five Ancients.

> "Before heaven and earth had become separated from each other, everything was a great ball of mist, called chaos. At that time, the spirits of the five elements took shape, and then developed into five ancients. The first was called the Yellow Ancient, and he was the master of the earth. The second was called Red Ancient, and he was the master of fire. The third was called the Dark Ancient, and he was the master of water. The fourth was called the Wood Prince, and he was the master of wood. The fifth was called the Metal Mother, and she was the mistress of metals.
>
> Now each of these five ancients set in motion the primordial spirit from which he had proceeded, so that water and earth sank downward; the heavens soared aloft and the earth became fast in the depths. Then the water gathered into rivers and lakes, and the mountains and plains appeared. The heavens cleared and the earth divided; then there were sun, moon, and all the stars, sand, clouds, rain and dew. The Yellow Ancient gave play to the purest power of the earth, and to this were added the operations of fire and water. Then there sprang into being the grasses and trees, birds and animals, and the generations of snakes and insects, and fishes and turtles. The Wood Prince and the Metal Mother brought light and darkness together and thereby created the human race, as man and woman. Thus gradually appeared the world…." [8]
>
> Richard Wilhelm
> *Chinese Folk Tales*

Though water is often associated with the mythic origins of the earth and mankind, it also a deep source of psychological conception. Associated with life-giving properties, water becomes tied to the act of creation and fertility and it can be seen as an element derived from the feminine. This notion of

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6. Reymond, E. A. E, *The Mythical Origin of the Egyptian Temple* (Manchester, England: Manchester University Press, 1969) 72
7. (Reymond, 71)
8. Wilhelm, Richard , *Chinese Folk Tales*, trans. Ewald Osers (London: Bell, 1971) 29-31

fecundity is explored in depth in Gaston Bachelard's "Water and Dreams". In this text he offers the notion that "all liquid is a kind of water for material imagination" [9]. As water flows, so too does the imagination, hence they are one in the same. Furthering this theory Bachelard strengthens his argument by likening water to the milk of the universe [10]. This maternal water not only feeds the earth, but it also nourishes our need to connect with the "infinity of the love for a mother" [11].

> "It is not because the mountain is green or the seas blue that we love it, even if we give these reasons for our attraction; it is because some part of us, of our unconscious memories, finds that it can be reincarnated in the blue sea or the green mountain. And this part of us, of our unconscious memories, is always and everywhere a product of our childhood loves, of these loves which in the very beginning went out only to the one who was our source of shelter, our source of food, who was our mother or our nurse." [12]
>
> Gaston Bachelard
> *Water and Dreams*

Water transforms itself into a symbol of femininity; it becomes a metaphor for the infinite love for a mother. In demonstrating a love for water, one also loves the symbol itself. It is through this connection that a new metaphor and objective meaning for water is formed; water, like maternal love, is the infinity of the universe [13]. When in contact with water these memories return, forming and reforming one's relationship to the mother as well as the cosmos. In the presence of water we become dreamers who remember [14].

Physically, psychologically and spiritually water is always a source; it is the origin of myths, the root of alchemical ideology and the mother of chaos. Through these roles one can reveal the intense connection between water and humankind, as it has nourished the bodies and minds of man throughout history. It is an element of deep significance and one that finds itself in a perpetual state of becoming.

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9. Bachelard, Gaston, *Water and Dreams : An Essay on the Imagination of Matter* (Dallas: Pegasus Foundation, 1983) 117
10. (Bachelard, 117)
11. (Bachelard, 116)
12. (Bachelard, 116)
13. (Bachelard, 125)
14. (Bachelard, 116)

Fig. 1.5: By Author. Fountain of Ephesian Diana. Villa D'Este in Tivoli, Italy.

Fig. 1.6: By Author. Water of Temagami 2.

Glacial
BEGINNINGS

Tales of glacial ages and deep time flow through the water of the Temagami region. Resting on rock billions of years old, the water, in ways, is a storyteller of the life of the Canadian Shield below. Filling up the pockets of the carved out landscape it remains a dynamic trace of the area's immense history and transformation throughout eons of time.

Ice first dominated the ancient Northern Ontario landscape, shaping its surface and dictating its future. It not only covered the prehistoric rock below, but it also pushed against it for centuries. During the Pleistocene era, in the Quaternary glaciation the Laurentide ice sheet covered most of North America [16]. The ice sheets, in places, were so immense that they reached thicknesses of over 3km [17]. Under this great pressure the Shield's surface began to slowly change. Meltwater from the glaciers aided in shaping the land as the waters themselves formed streams and lakes in pockets below the ice sheets showing that the greatest transformation during this age occurred beneath the glaciers. At this level, several sub-environments were formed causing varying thermal and erosion conditions: frozen bed patches, ice streams, ice stream tributaries and lateral shear zones [18].

As the glaciers retreated northward during the last ice age a new landscape was revealed. The result was a less mountainous more sculpted surface covered with glacial meltwater. Recovering from the pressure of the ice sheets the land rebounded causing areas of great water coverage to be reduced to a network of several smaller lakes and islands [19]. These islands were therefore traces of the higher nodes of ancient rock below. After a distinguished history of hydrologic and geologic transformation, the Temagami area now sits quietly amidst a matrix of water and rock.

Dominated by water, the hydrography of the area is the intersection of several key lakes and watersheds: Lake Temagami, several smaller lakes and

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15. Encyclopedia Britannica Online, s. v. "Laurentide Ice Sheet," accessed April 25, 2012, http://www.britannica.com/EBchecked/topic/332438/Laurentide-Ice-Sheet.
16. National Geogrpahic Encyclopedia, s.v. "Ice Sheets: How Ice Sheet Form" retrieved April 2, 2012, from http://education.nationalgeographic.com/education/encyclopedia/ice-sheet/?ar_a=1&ar_r=3#page=1
17. Hugh M. French et al. *Changing cold environments : A canadian perspective* (Chichester, West Sussex, UK ; Hoboken, NJ: Wiley-Blackwell, 2012), 29
18. Geological Survey, of Canada, *Geology and Economic Minerals of Canada*, eds. R. J. W. (Robert John Wilson) Douglas, th ed (Ottawa: Dept. of Energy, Mines and Resources, 1970), 11

the Sturgeon, Montreal and Ottawa rivers. Much like the other lakes, Lake Temagami contains a number of islands within its boundaries, over 1,200 to be precise [20]. Of these islands, Temagami Island is by far the largest.

Before the colonial era when people first began to occupy the area, the region was a secluded wilderness, the land of the Teme-Augama Anishnabai tribe. Water not only played a central part in their spirituality and history, but it also was an essential element within their every day lives. Using the waterways, wildlife and forest to sustain themselves the aboriginals set up several temporary camps around the lake to collect furs and fish. As the English and French settled in, trading posts began to spring up. Since Lake Temagami was not located directly on the great fur-trade routes, they had to travel north at first to sell their goods [21]. As trading companies merged in the late 1600s and began to move inland, posts were eventually set up in the areas surrounding the lake. The American Fur Company was first to set up a small post while the Hudson's Bay Company later established a fort on Temagami Island [22]. As years past these posts fell into disarray, since keeping staff on the island grew too much to cope with. With the arrival of commercial steamships in the late 1800s, the region solidified its reliance on water systems. As the railways reached the area and Dan O'Connor, the town's founder, created the Temagami Boat line, the ships in the lake were not only used for trading purposes, but also for pleasure[23]. The lake was soon transformed into a Northern getaway for wealthy families and adults. Luxury hotels, camps and cottages sprang up over night, as the arrival of steamer allowed visitors to hop from island to island [24].

After the industrial boom faded, Temagami once again returned back its wild state. Nature now consumes any fragment or trace of industry that remains, reclaiming it and keeping it secret. From its glacial beginnings to the grandeur of the vacation steamers, this region is tied to its water. Glaciation, lakes, streams and rivers have not only sculpted its landscape, but they have also molded its people from the aboriginal tribes of the area, to its industrial founders to the nature seekers who hike and canoe in the summer. It easy to imagine why Temagami is known as the land of deep water, for the water is deep in history, meaning and time.

19. Barnes, Michael, *Temagami* (Toronto, Ontario: Stoddart Publishing Co. Ltd., 1992), 28
20. (Barnes, 28)
21. (Barnes 29)
22. (Barnes, 59)
23. (Barnes, 59)

Fig. 1.7: By Author. Water of Temagami 3.

Originary
ISLANDS

Carved out by glaciers in ancient times, Ontario's North is a landscape embedded with lakes: a tapestry of pine and rock surrounded by water. This is a place where islands reign and water inhabits any and every crevice within the massive rock of the Shield. The island is a geologic ruin bordered by a lake of ancient waters. Isolated in its geographic context, it also holds the mystery to inspire mythical and psychological meaning. The geography and symbolism is best defined and explored in Giles Deleuze's essay "Desert Islands" where he captures the psyche of two distinct types of islands:

> "Geographers say there are two kinds of islands. This is valuable information for the imagination because it confirms what the imagination already knew. Nor is it the only case where science makes mythology more concrete, and mythology makes science more vivid. Continental islands are accidental, derived islands. They are separated from a continent, born of disarticulation, erosion, fracture; they survive the absorption of what once contained them. Oceanic islands are originary, essential islands. Some are formed from coral reefs and display a genuine organism. Others emerge from underwater eruptions, bringing to the light of day a movement from the lowest depths. Some rise slowly; some disappear and then return, leaving us no time to annex them… Continental islands serve as a reminder that the sea is on top of the earth, taking advantage of the slightest sagging in the highest structures; oceanic islands, that the earth is still there, under the sea, gathering its strength to punch through to the surface." [25]
>
> Giles Deleuze
> *Desert Islands*

Using this definition as a platform, one can classify the islands of the Shield as originary, tied to the earth with an umbilical chord of ancient rock. They are grounded for they are eternally secured and supported by the strength and fertility of the earth. These islands are therefore as old as the rock beneath and are beating with life both above and below the water. It's surface acts as a skin accumulating topsoil to give life to the old pine forests. It's body is a layering of primordial rock and prehistoric volcanoes: exposing the movement of millions of years of growth and transformation.

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25. Giles , Desert Islands and Other Texts (Los Angeles, CA: Cambridge, Mass.: Semiotext(e) ; Distributed by MIT Press, 2004) 9

Fig. 1.8: Brodsky and Utkin. Diomede IM. 1998/1990.

The notion of the originary island is quite a fascinating one for it infers a sense of origin and place of beginning. Water, in many cultures, is a source of life giving way to the first traces of earth and humankind. In mythology, these earth remnants are often described as islands of creation. Since many of them are both physically and spiritually at the centres of the myth, they can be classified as a place of origin, but not necessarily as orginary according to Deleuze. Ancient Egyptian creation stories reveal a primordial mound called the "Island of Creation", "Island of the Egg" or sometimes "The Province of Beginning", which they believed to be the nucleus of the Earth [26]. This mound, born of the Nun, the primeval matter of the universe, was fertilized to produce the emergence of mankind [27]. In this case, the original matter is water, an element deeply connected to fecund cosmos, while the island is the first matter of the earth or cosmos. This type of origin from island is even present in the local aboriginal mythology of the Teme-Anishnabe people, who also recount an island of beginning. As the Sky Woman was cast down from the Sky World several elder animals rescued her and proceeded to create a place where she could call home.

> "Land was first formed from a mere handful of mud taken from the ocean floor by a heroic animal spirit that must have dove to great depths for it. After the animal spirit succeeded in extracting this mud from the seabed, the sediment itself is transformed into an island- a land that emerged from the primordial deep". [28]
>
> Christopher Buck
> *Religious Myths and Visions of America*

A cultural and mythic representation of a true originary island can be taken from the mythic lotus flower in the Eastern tradition. Lotus flowers are essential symbols in many cultural and religious tales representing fertility, birth and rebirth [29]. The flower can be likened to the primordial earth mound or bountiful island. However, the difference in the classification lies in the flower's connection to the earth. Much as the originary island is rooted in the earth by its stem of ancient rock, the lotus flower is linked to the earth by its stalk and roots.

Its association with the feminine once again connects it to the fertility of the

26. Reymond, E. A. E, *The Mythical Origin of the Egyptian Temple* (Manchester, England: Manchester University Press, 1969) 66
27. (Reymond, 64)
28. Buck, Christopher, Religious Myths and Visions of America: How Minority Faiths Redefined America's World Role (Westport, CT: Greenwood Publishing Group Inc., 2009) 13
29. Chevalier, Jean and Gheerbrant, Alain, *The penguin dictionary of symbols*, trans. John Buchanan-Brown (London: Penguin Books, 1994) 616

Fig. 1.9: Bernard Picart. Puzza ou la Cybele des Chinois. 1783

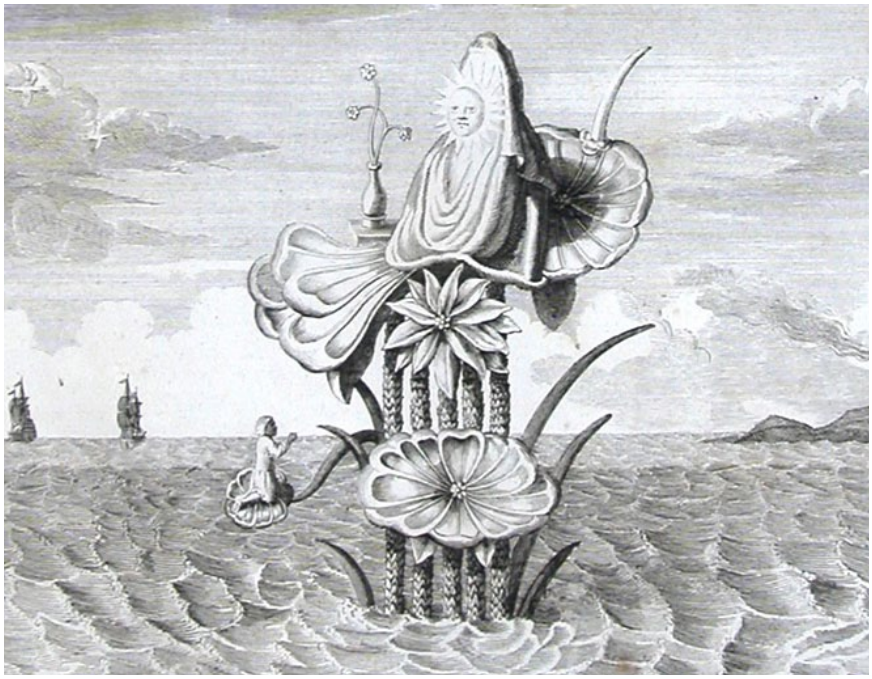

Fig. 1.10: Bernard Picart. Puzza sous une forme parallele a isis assise sur la fleur de lotos. 1783

primordial waters derived from the chaos state. However, it distinguishes itself by blossoming from chaos, commanding purity, union and order in its presence.

> "Rising from the depths of water and expanding its petals on the surface, the lotus (kamala, Padma) is the most beautiful evidence offered to the eye of the self-engendering fertility of the bottom. Through its appearance, it gives proof of the life supporting power of the all-nourishing abyss. This is why the goddess Lotus (kamala, Padma) is an appropriate consort or Shakti of Vishnu-Vishnu being the cosmic water itself, the infinite ocean of that liquid life substance out of which all the differentiated phenomena and elements of the universe arise, and back into which they must again dissolve". [30]
>
> Heinrich Zimmer
> *The Art of India Asia*

One can further dissect the notion of the island as a symbol and myth by looking at how it has been physically manifested throughout history. Due to its geographic isolation it has also become a place of earthly delights, playing the role of a utopic paradise and a Garden of Eden. For the royal and wealthy members of society, islands became pleasure destinations, sites for hosting grand dining parties amidst pavilions and bathing pools. The island in this light becomes the origin and perpetuator of pleasure and desire. The aviary of Marcus Terentius Varro is a prime example of this type of idyllic island retreat [31]. Described in detail in Book III of the *De Re Rustica*, the aviary comes across as an island world where fantasy and desire are manifested through the experience of dining amidst exotic birds.

> "There are two kinds of ornithon one merely for pleasure, such as our friend Varro has built near Casinum, which has found many admirers, and the other for profit…I own, near the town of Casinum, a stream which runs through my villa, clear and deep, with a stone facing, 57 feet wide, and requiring bridges for passage from one side of the villa to the other...." [32]
>
> Agricola
> *De Re Rustica*

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30. Zimmer, Heinrich Robert, The Art of India Asia: Its Mythology and Transformations (New York: Pantheon Books, 1955), Volume 1, 165
31. Agricola, De Re Rustica Book III Chapter 4
32. Agricola, De Re Rustica Book III Chapter 4

Although the island at times can separate and isolate, it can also connect and reunite. The originary island is more grounded and retains an immense and strong relationship to the earth. It is a mythic place, defining its own rules and existing outside of the realm of the known. It is a place shrouded in mystery, showcasing the fertility and beauty in the chaos. Ever connected to the ancient rock below, these islands sit surrounded by deep waters waiting for someone to discover the life within.

Fig. 1.11: Arnold Bocklin. Detail from the Isle of the Dead. Third Version. 1883

Fig. 1.12: By Author. Temagami Island Barge Docking.

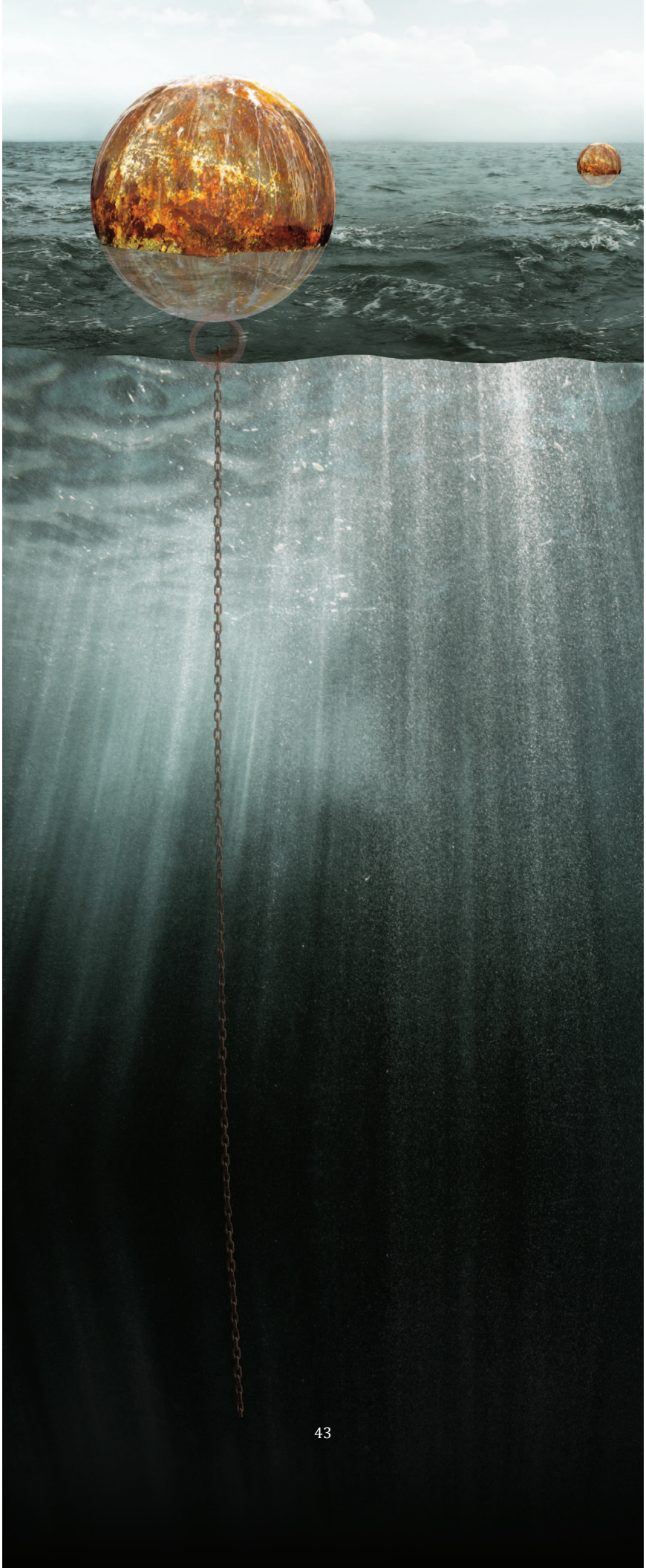
Copper Buoys
ORB GATEWAYS

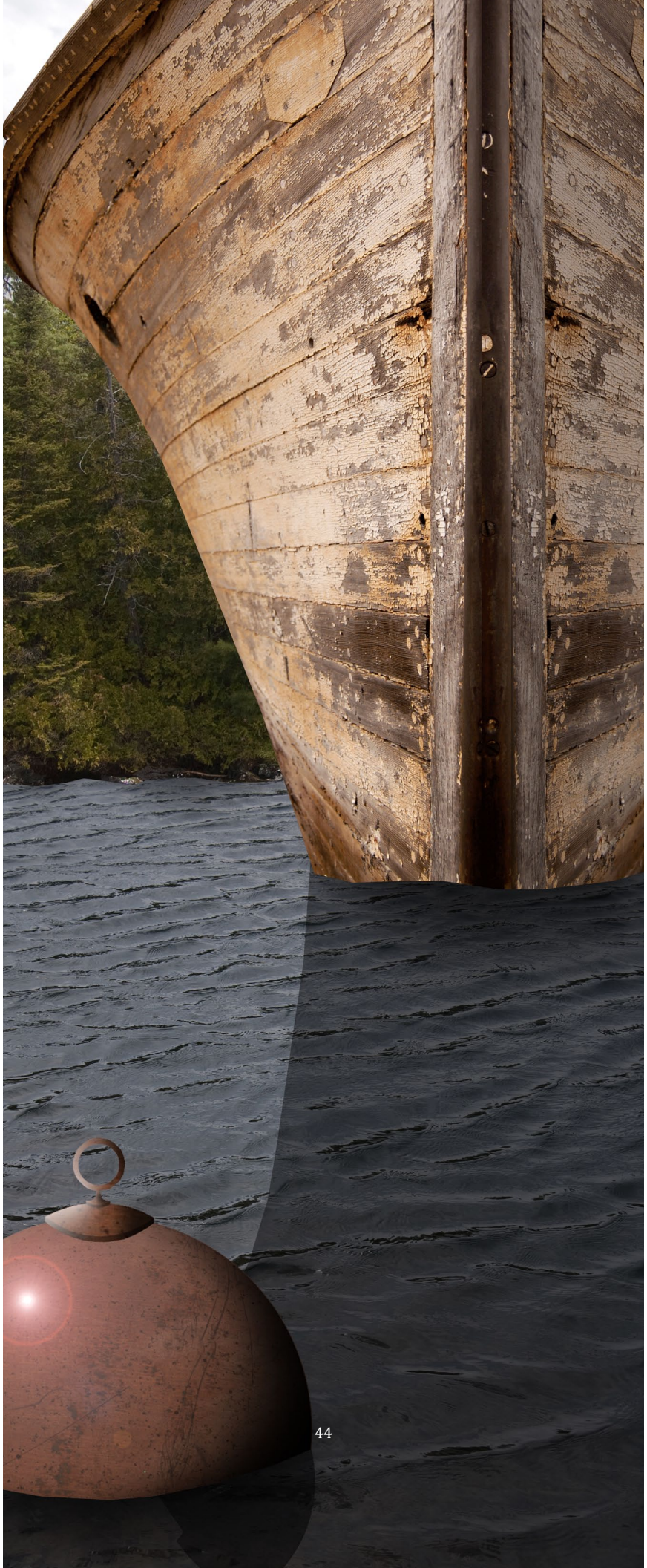
An orb shines in the distance, sunlight dancing on its metallic skin. It is not the only globe on the lake for several others are scattered around the shore. Each is a marker of place and a symbol of the mystic world of Copperfields.

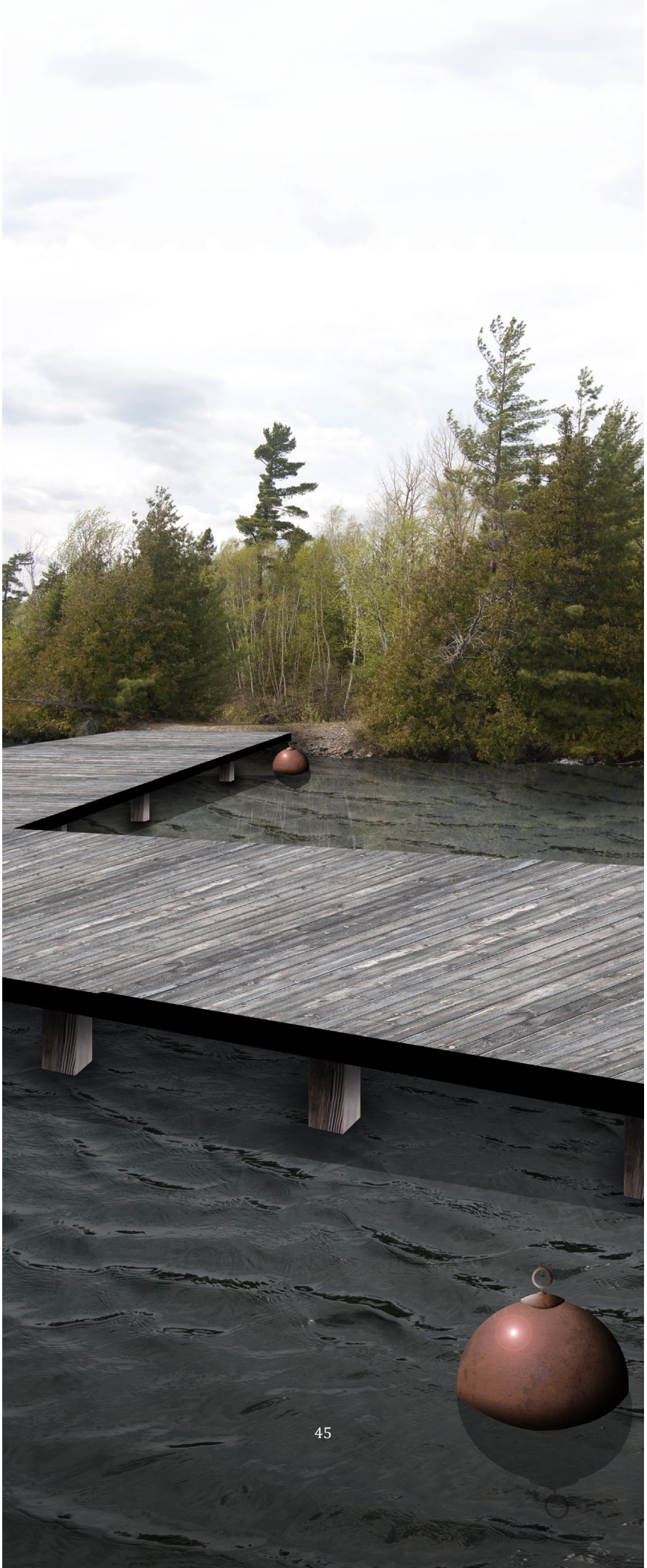
Water hugs from below as the sky distorts itself along the copper surface. Bobbing in the liquid the orbs silently watch as I grow closer and closer to the island. Beyond the shell a blown glass sphere is at its heart, holding the orbs afloat. Like the islands they surround, they too are tied to the Shield chorded to the rock below with robust chain and anchor.

Over time they will rust and wear a coat of green patina, a badge of their time served in the watch. They too will one day become part of the palimpsest of traces that make the island what it is.

Fig. 1.13: Copper orb detail
Fig. 1.14: (opposite page) Buoys in lake 1
Fig. 1.15: pg. 44 Buoys in lake 2
Fig. 1.16: pg. 45 Buoys in lake 3







CANADIAN SHIELD

Chapter II: Land of Deep Rock

Asleep
In this blue nylon tent
On this rocky point
I dream

This sky is my sky
This rock is my rock
This sky is all sky
This rock is the world rock
Nothing else is

Sky Hovers
Glows
Recedes above me

Rock
pressing my back
is all rock
and this is
the centre
nothing else is

only sky
and rock
and I am the centre
while the sky swirls
and the rock
remains

Jim Flosborf

Fig. 2.1: By Author. Forest Path

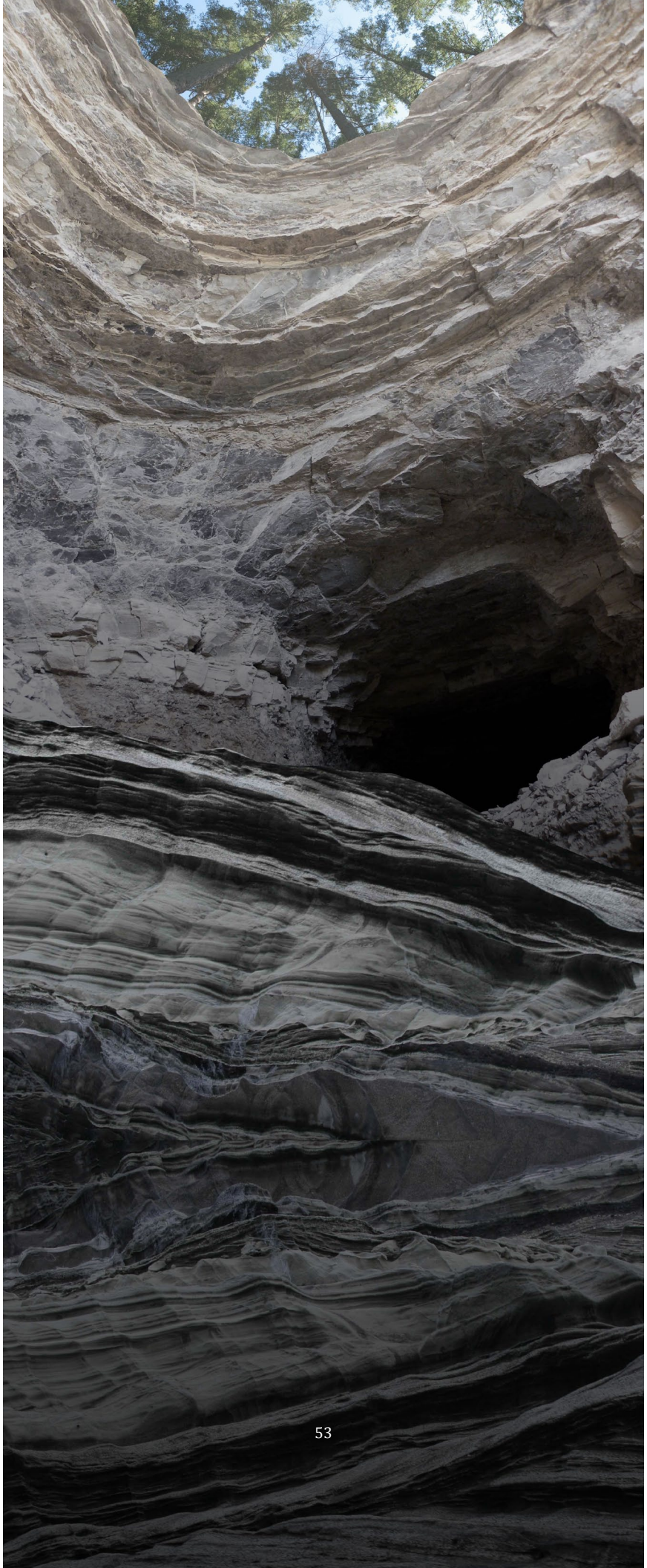
Land of deep water it is, for thousands of lakes inhabit the region, but the rock of the Shield runs even deeper here. For every lake there is rock beneath and for every forest there is rock to keep it rooted. Although it may not appear as a fluid material it bears the markings of a history of transformation, a lifetime of change. From its days as an explosive belt of volcanoes, to its hibernation under the glaciers of the ice age, the rock has adapted through every eon of time. Its striations, markings and colour all a badge of its life's adventures. It is very much alive, an entity as old as the earth itself.

Much as the surface alters, its belly also changes. Layers of sediment fold into one another banding the rock with brilliant colours as hollows begin to appear between them. As more time passes many of these caverns will become home to precious metals, protecting them and helping them reach maturity. Like a body forming, the Shield evolves, its resilient rock materializing into the bones of the earth, and its ore coursing through it like veins.

Alive on the surface the rock's skin reveals its story, but below in the belly the story is grown in one's imagination. These caves are ripe with life for they remain hidden hundreds of meters below. Surrounded by the unknown and buried in immense depths they have become tied to many myths from all around the world. For some cultures, they are the lobbies to the underworld, the home of the first humans and for others capsules of the cosmos. Whatever the interpretation may be, all of these stories animate the rock exposing it as a framework for creation to blossom from. This prospect of conception only fuels the mystery of the land of deep rock for one's imagination is encouraged to conceive their own story of not only how deep the depths of the Shield are, but also how fecund the hollows within it are.

This world is the realm of the alchemists and of the great writer Jules Verne, where even students such as myself can venture to the centre of the Earth. Much as the professor and his nephew trekked down a volcano vent, I too am invited to travel down into the ancient passageways of the volcanic belts of the Shield. Here, where my imagination intersects with research, memories and stories I can begin to build the infrastructure of the underground labyrinth that has laid in wait for decades.

Fig. 2.2: By Author. Land of Deep Rock



From the shore the lake emerges in a different light. It is no longer an immense canvas for floating islands, but rather a deep basin of liquid infinity sitting atop the Canadian Shield. Here in Temagami the rock is ever present whether it is exposed, hidden by soil or submerged under water. It forms the bones of the landscape that lies right before your eyes.

As we dock on the island, it is as though we were standing on the back of a whale, for the island was only a fragment of the mass that lies beneath. I cannot see the bottom of the lake, but I know the rock of the Shield is there. Standing on the head of this pin I roam the forest in search of an opening to the centre of the Shield. The mine is a glimpse into the cosmic cellar of the rock, into its limitless tunnels and passageways, which burrow below the large volumes of water in the lakes. The longer I walk, the more dreaming about this mystic labyrinth consumes me. It is not enough to experience the surface, for beyond the skin lies a secret world only alchemists have imagined.

The path is not covered in leaves, but rather littered with tailings from the old mine. In some places the scattered stones are even beginning to show a green patina, transforming the route into a mosaic of colour and pattern. The tailings whispering their own history, tell stories of their life in the Shield.

From the copper rocks below the focus shifts to the ruins of the abandoned mine right before me. The clearing is a palimpsest of traces, a layering of old ore deposits, mining equipment and concrete foundations from hoist houses, head frames and mining shafts. Each remnant is a clue to the mystery of the island. This alien landscape where industrial foundations coexist with terrestrial and celestial elements is a map and history book of the island. Its traces breathing stories that help to better understand the inner workings of this world.

Fig. 2.3: By Author. First Clearing. Copperfields Ruin.

Life in Stone
PETRA GENETRIX

Rock commands the imagination and has inspired many different cultures throughout the centuries. It has amazed with its infinite vastness, rich layered history and its ability to act as a framework for the creation of other forms. An absolute material, it is bound by its indestructible nature. In mythology, rock is depicted in two similar perspectives: the first concerning "men born from stone" and the second "regarding the generation and ripening of stones and ores in the bowels of the earth" [1]. Both viewpoints present rock as a fertile entity, alive with life and the ability to transform other entities.

The first manifestation of stone in mythology lies in its anatomization as the 'bones of the earth'. Since bones are the strongest element within the human body they naturally lend themselves to be compared to stone within the body of the Earth. This type of myth can be seen in the ancient Greek tale of Deucalion and his wife Pyrrha *. Advised by the Titan goddess Themis, Deucalion was told to "leave [the] temple, veil your heads, loosen your robes, and, as you go, throw behind you the bones of your great mother" [2]. The bones were not literal ones, but rather the stones in the body of the earth. Losing their rigidity and shape the indestructible stone transformed into bone, "the veins stayed veins; and quickly, through the power of the gods, the stones the man threw took on the shapes of men" [3]. These bones represent the *Urgrund*, a primal cause or ultimate cosmic principle, which in turn provides the matrix for the emergence of mankind. Establishing a tradition where stone is viewed as a living entity only furthers the notion of petra genetrix, or a "birth from stone".

This birth is seen in many creation myths worldwide. Often times these stories centre around an Earth belly that acts as a cosmic womb that feeds the unborn forefathers until they are ready for their emergence. Several cultures believe these wombs to be located within primordial caves either carved into the mass of mountains or into rock by varying forms of water.

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1. Eliade, Mircea, *The Forge and the Crucible*. Translated from the French by Stephen Corrin. (London: Rider) 43

* Similar to the Christian biblical story of Noah's Ark, Deucalion and his wife found themselves to be the only two people left on Earth after a great flood. Bewildered as to how to continue on in the emptiness and silence of the new world Deucalion sought out the help of the Titan goddess Themis.

2. Ovid, *Metamorphoses*, Ed. George Sandys (New York : Garland Pub. Co., 1976) 381-415

3. (Ovid, 381-415)

Fig. 2.4: Otto Greiner. Gaia. State XVI of XIX. 1911.

In Zuni mythology, primitive humans were believed to have been born in vast "chthonian cave wombs' and guided by mythical twins towards the Earth's surface [4]. Many ancient South American cultures also believed that their ancestors were born in sacred caves. Tribes associated with the Aztec culture held Chicomoztoc or "the place of the seven caves" as the birthplace of their forefathers. The seven caves then became the foundations of sacred towns because they were "built at the very centre of the cosmos… the place of human creation…the generative womb of the Earth" [5].

Using the mythic belief that stone is the framework for the house that creates, one can transpose this notion onto the ores found within the Earth. In giving human qualities to rock the ore is given life as well. Much as eggs and embryos mature within the body, ore ripens within rock until perfection. Ore is also categorized as "seeds within the body of the earth" [6]. Unlike the vegetable or human gestation, this incubation is a slow process and it nonetheless yields an extractable product in the form of metallic materials.

> "God did not create all these things in order to leave them idle. The stars and the planets are not…the sea is in constant motion… the earth likewise is not idle…what is naturally consumed within her, she renews and refashions forthwith, if not in one way then in another. Everything, including the exterior of the Earth, exerts itself to bring something forth; likewise, interior and matrix strains itself in order to reproduce". [7]
>
> Mircea Eliade
> *The Forge and the Crucible*

Pregnant Earth housed in rock very much alludes to the practice of mining. As a doctor would aid in the birth of a child, the miner aids in the delivery of ore. This process frees the ore allowing it to realize its new life as a metal. In ways, the miner is working alongside Nature to do the work of Time to collect the ore as it becomes ready.

> "What Nature did in the beginning we can do equally well by following Nature's processes. What perhaps Nature is still doing, assisted by the time of centuries, in her subterranean solitudes, we

4. (Eliade, 40)
5. Aguilar-Moreno, Manuel, *Handbook to Life in Aztec World* (New York: Oxford University Press, 2006) 31
6. Leeming, David Adams, *Creation Myths of the World*: *An Encyclopedia. Volume 1. Second Edition* (Santa Barbara, California: ABC-CLIO, 2009) 23
7. (Eliade, 46)

> can make her accomplish in a single moment, by helping her and placing her in more congenial circumstances. As we make bread, so we will make metals. Without us, the harvest would not ripen in the fields; without our millstones the corn would not turn to flour; nor the flour to bread by stirring and baking. Let us then co-operate with nature in its mineral as well as in agricultural labours, and treasures will be opened to all" [8]
>
> Mircea Eliade
> *The Forge and the Crucible*

Hence the miner gains an important role within the life of the ore, aiding its maternal stone to release it to the surface. This relationship between the stone and the ore forms the basis of the myths which surround the world of the subterranean. It sheds light on the life within stone and attributes to it human and vegetative qualities. This body of rock is the body of the Earth providing a skeleton for origins to grow from. Its strong bones protect its copper seeds and golden eggs; its veins do not pump blood, but rather pure ore. The rock, although indestructible, holds within the activity of the life of metal.

Fig. 2.5: Germaine Arnaktauyok. Earth Mother. 2000

8. (Eliade, 47)

Fig. 2.6: By Author. Traces of Copperfields 1.

The Birth of GEOLOGY

"Understanding preset forces is the key to interpreting Earth's past". [9]

James Hutton
The Theory of Earth

As mysticism around the inner life of rock grew, there was a natural urge to explore it using science. Notions of the subterranean were all of a sudden propelled to a scale that the world had never seen. The Renaissance brought with it the discovery of the New World, while Copernicus and then Galileo turned the world on its head, by presenting a heliocentric universe. These discoveries shattered and discredited previously accepted myths, leaving the door open for science to begin to explain the universe. This shift in thinking was a momentous occasion as new perspectives on nature and a rediscovery of Greek and Arabic geometry gave way to the start of the Scientific Revolution [10]. Springing from the Renaissance and pouring into the Enlightenment or Age of Reason, this revolution in thinking inspired a move towards rationalism, individualism and modern technology. Desires to further discover more cosmic and earthly relationships grew. The advent of the search for the "whole meaning" had begun. While the cosmos was being studied, so too was the rock that supported the Earth's surface. This experimentation blossomed into the field of geology, as the need to answer what lay at the centre of the Earth grew.

Geology was one of the many sciences that sprang from this age, but it was one of only a few that directly dealt with questions of the earth's history and composition. It dealt "with spatial relationships of a wide range in scale, from the level of the cosmos, to the solar system, the whole Earth, its zones, and down to crystals and their unit cells, so one would expect that the history of geology would intertwine with the history of understanding spatial relationships in the other sciences" [11]. During the early phases of the field, the core scientific concepts were fused with alchemical ideology. This pairing was quite natural as alchemists established their studies on the transformation

9. Hutton, James. *The Theory of the Earth* (Sioux Falls, South Dakota: NuVision Publications, LLC, 2007) 56
10. *The Revolution in Geology from the Renaissance to the Enlightenment*. Ed. Gary D. Rosenberg (Coulder, Colo.: Geological Society of America, 2009. Print) 1
11. (Rosenberg, 2)

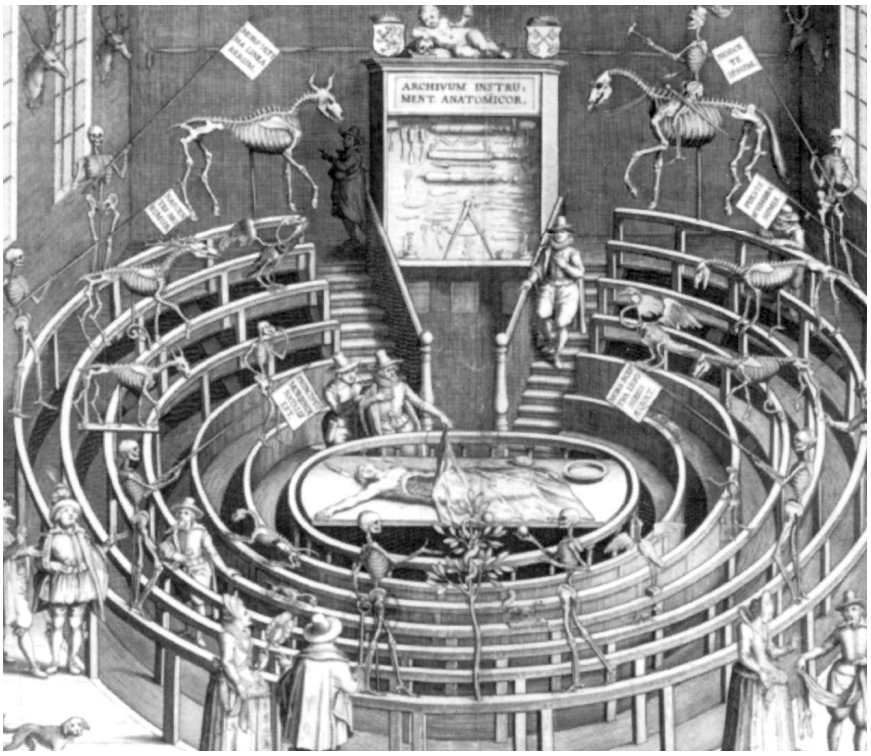

Fig. 2.7: Willem van Swanenburgh. Theatrum Anatomicum. 1610.

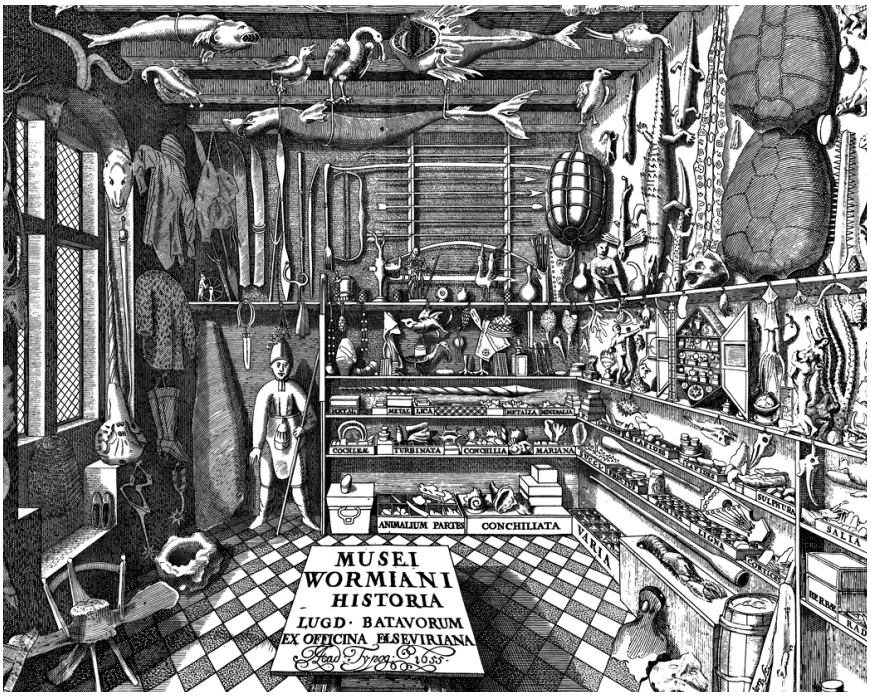

Fig. 2.8: Ole Worm. Museum Wormianum . Leiden 1655.

of base metals into gold all of which form within the Earth's bowels. Since several key questions could not be addressed using facts, scientists and alchemists often relied on mysticism to fill in the blanks.

> "The whole spatial world…[no matter what the scale, whether at the level of the cosmos, the world, or smaller]…appears to be built according to a definite model…Thus, just as there is a magical anatomy in which particular parts of the human body are equated with particular parts of the world, there is also a mythical geography and cosmography in which the structure of the Earth is described and defined in accordance with the same basic intuition. Often the two, magical anatomy and mythological geography, merge into one." [12]
>
> Enrst Cassirer
> *The Philosophy of Symbolic Forms*

This fusion of science and alchemy marked the start of the narrative on geology. During its genesis several key figures from varying fields surfaced. Some characters began as artists, some were world famous alchemists, while others came from a clergy background. Each brought a new piece to the puzzle and helped gain a clearer picture of what makes up the solid mass of the Earth.

One alchemist who showed an interest in geology was Michael Sendivogius, a mining official for the emperor Rudolf II. He brought forth a reinterpreted theory of the traditional alchemical principles that dealt with mercury, sulfur and salt in his *Novum Lumen Chemicum* or New Chemical Light [13]. Using the body and its functions as a point of comparison, Sendivogius presents the notion that the Earth has a centre, a "point of seed or sperm". This seed or "mercury of the philosophers" is dubbed as *prima materia*, which has the ability to conjoin with all things and encourage new formation. Envisioning the Earth as a person, its centre or womb then "digests the seed of the elements, ejecting their excrementitious superfluity in the form of stones. This expulsion is due to the fact that at the centre of Earth exists a *sol centralis*, another sun that has a force driving matter outward toward Earth's surface, just as the celestial sun projects its own rays down to Earth"[14]. It is this eruptive action that gives way to the possibility of different metals and minerals forming in the heat, dryness and moisture encountered in the Earth's

12. Cassirer, Ernst, *The Philosophy of Symbolic Forms*. Translated by Ralph Manheim (New Haven: Yale University Press, 1961-1964)
13. (Rosenberg, 42)
14. (Rosenberg, 42)

pores. This anthropomorphic process of fertilization is further described as Sendivogius discusses how metals form after principal substances like sulphur and mercury are expelled from the centre. He goes on to explain that metal deposits are not only reliant on atmospheric conditions, but also on location.

> "But the metals which we advise you to take are living and have vital spirits. Fire is the life of metals while they are still in their ore, and the fire of smelting is their death. But the first matter of metals as a certain moisture mixed with warm air. Its appearance is that of oily water adhering to all pure and impure things; yet in some places it is found more abundantly than in others because the earth is more open and porous in one place than in another, and has a greater magnetic force…The sperm which appears in Saturn is the same as that which is found in gold, silver, copper, etc.; their difference is caused by the place, and by the time during which Nature was at work upon them, the procreation of silver being achieved sooner than that of gold, and so with the other metals." [15]
>
> Michael Sendivogius
> *New Chemical Light Fourth Treatise*

Ideas that metals were dependent on not only their location and conditions, but also a spiritual seed catalyst, propelled alchemical science into new geologic theories gaining the interest of noted scientists of the day.

An alchemist at heart, Isaac Newton was a prolific scientific figure in history. Known first and foremost for his discoveries as a physicist in gravitational movement, Newton also had a fascination with the movement of metals within the Earth. In his text *Humores Minerales* he employed his knowledge of physics and the observation that metallic solutions always appear to drip down the walls of mines. This lead to his hypothesis that all metals continually fall.

> "With the metals continually drawn downwards, never ascending so long as they remain metals, it would be necessary that in a few years the greatest part would have vanished from the upper earth". [16]
>
> Isaac Newton
> *Humores Minerales*

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15. Sendivogius, Michael, *New Chemical Light. Twelve Treatises*. translated by Jerry Bugas. (http://www.levity.com/alchemy/newchem1.html)
16. Newton, Isaac, *Humores Minerales*, 2006a, fol. 6v

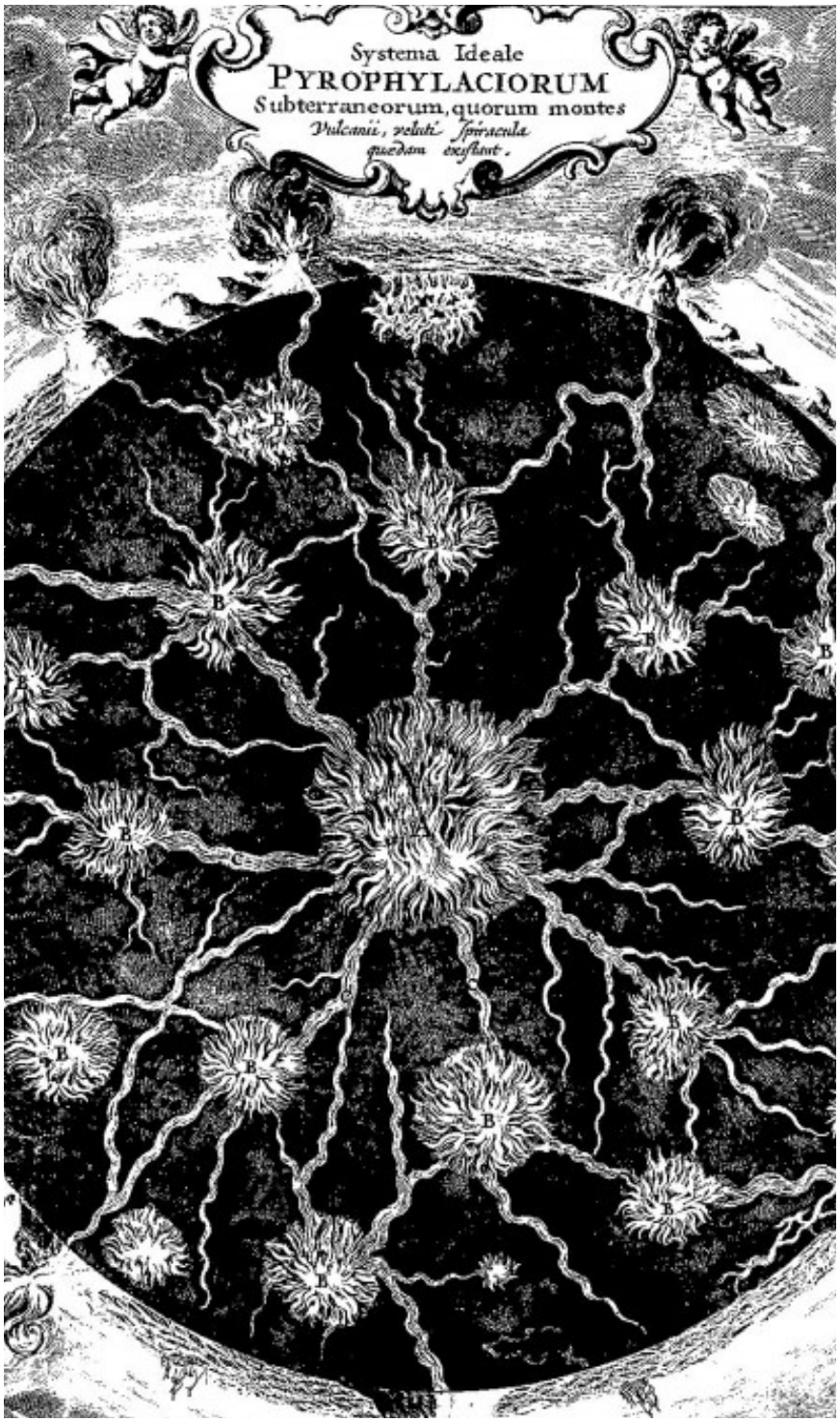

Fig. 2.9: Athanasius Kircher. *Mundus subterraneus*: "Systema Ideale PYRO-PHYLACIORUM Subterraneorum, quorum montes Vulcanii, veluti spiracula quaedam existant" 1664-1665

Aside from rationalizing the settlement of metal due to gravity, Newton also used the logic of Sendivogius and his concept of a mystic catalyst, to better explain this process:

> "Indeed, these spirits meet with metallic solutions and will mix with them. And when they are in a state of motion and vegetation, they will putrefy [and] destroy the metallic form and convert [it] into spirits similar to themselves. Which can then ascend again and thus a perpetual circulation of metals takes place." [17]
>
> Isaac Newton
> *Humores Minerales*

In Newton's eyes, it was this perpetual circulation of mercurial and sulfuric spirits that allowed new deposits of metals and minerals to form. From alchemy to physics, the study of geology continued to evolve. Soon noted religious philosophers showed an interest and hermetic interpretations of geology appeared. The German Jesuit and polymath, Athanasius Kircher, was great figure during this period for his writing and diagrams were pivotal in highlighting the relationship between the inner workings of the mind and the Earth's centre.

Working at the cusp of the Enlightenment, right when science began to tackle questions concerning the immensity of time, Kircher presented his two volume *Mundus Subterraneus* in 1664 and 1665. Aside from scientific observations from lowering himself into a crater of Mount Vesuvius, Kircher like Newton and Sendivogius called upon other worldly philosophies to fully form his theories on the subterranean [18]. Diving into the realm of the *geocosm* and *geocosmos* he explored geology from the multiple scales, looking into the inner workings of a single volcano to the complex networks of fire and water existing within the solid mass of the planet. Although the work was controversial and received poor reviews likening it to "a textbook in general science…[which] does not broach new frontiers of knowledge" [19] it managed to capture the essence of the budding field as well as the transformation of holistic thinking from the medieval period into the Enlightenment. Its collection of lavish and complex illustrations only further propelled speculation as to what lay between the Earth's surface and its centre.

As Kircher dissected the planet through speculative illustrations, the idea of

17. Newton, Isaac, *Humores Minerales*, 2006a, fol. 6v
18. (Rosenberg, 64)
19. Godwin, J, *Athanasius Kircher: A Renaissance Man and the Quest for Lost Knowledge* (London, UK: Thames and Hudson Ltd, 1978) 96

the collection and the museum were also being developed in the late 1600s. At the forefront of this movement was Niels Stensen (Steno), a curator, collector and friend of Kircher. Starting off with collections of biological significance, he naturally became involved with the dissection of specimen. It was in the inspection of a shark's tooth that he realized its resemblance to a fossil. With further observation Steno postulated that some fossils could actually be "shark's teeth rather than products spontaneously generated in a process intrinsic to Earth" [20]. He recorded these findings in the *Canis carchariae dissectum caput* (The Head of a Shark Dissected), a text that enters the realm of geology on the basis of medical observation. As Steno jumped further into his study of fossils, he became confronted with issues of crystal and minerals formations as well as stratigraphy [21]. Utilizing Descartes' particle theory based on chemical and hydrological observations, he further developed the notion of stratigraphy. In describing sedimentation Steno relied heavily on the relationship between organic matter, gravity and water, stating:

> "For whether a cream-like crust of stone hardens on the surface of the water, sinking to the bottom when it has become heavier, or particles of stones are produced evenly throughout the water, settling out gradually, the sediment grows only at a slow rate, thus, only those things which are already adhering to the bottom, whether they be dead animals, skins of dead creatures, or living animals unsuited for locomotion, will be covered over by new sediment; the rest of the living animals, striving above the said sediment, fill the waters with numerous progeny before a new sediment is laid down there". [22]
>
> Niels Stensen (Steno)
> *Steno: Geological Papers*

It was work such as this that catapulted the study of geology from its alchemical roots to a true modern science. However, throughout this evolution, geology still holds onto its mystical past and today, remains a science very much fused with the mystic. The study of Earth's rock is therefore a genuine symbiosis of science and myth where one cannot fully exist without the other.

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20. (Rosenberg, 93)
21. (Rosenberg, 104)
22. Scherz, G, *Steno: Geological Papers* (Odense, Denmark: Odense University Press, 1969) 370

Fig. 2.10: Stamp designer Kenneth Bassford, engraving by Arne Kohlmann. Drawings of Fossil Animals from Old Books. Stamps issued in May of 1988 in Denmark.

Fig. 2.11: By Author. Traces of Copperfields 2.

The Land of VOLCANOES

The mystic belly of the town hiding below the surface, has the most epic story to tell. For Temagami its beginnings can be traced back to the history of the rock on which it is built. Nestled in Northeastern Ontario within the Canadian Shield the region has one of the most dynamic and fascinating connections to geology and lithology in all of Canada.

The region's story begins before the glacial ages, in a time where the Shield was a land dotted with volcanoes. Comprised of mafic rock, or ancient base rock, the Shield in and around Temagami is time-classified as Paleoproterozoic. This era is the oldest division in the Precambrian eon that occurred between 2,500 and 1,600 million years ago [23]. Looking beyond the first geological layer and into the lithology of the area, an even richer history of events is unearthed. The Precambrian rock lies on top of, and in places is folded into ancient Archean rock. The Precambrian rock is rich in volcanic, sedimentary and intrusive rock, which has been metamorphosed to form metavolcanic rock. Underneath this layer is the most ancient and rare rock, which was formed in the Archean period 3,500 to 2,500 million years ago [24]. This rock is a combination of volcanic and sedimentary rock. During this period the area was quite mountainous and was alive with volcanic activity [25]. In fact, the Shield is home to some of world's oldest extinct volcanoes, many of which were located under water at one time or another. These submarine volcanoes are considered to be island systems having pyroclastic cones existing above sea level [26]. Volcanic activity during the Archean age has not only shaped the physical geography of the Shield, but also the geography of the rock, which lies below it. Consequently, volcanology is of great importance when looking at the history of the Temagami region.

It was this connection to volcanoes that gave way to the formation of Temagami greenstone belt. These rock formations are mostly composed of volcanic rock, with basalt and sedimentary rock weaving through it. Simply put it is a geologic condition comprised of solid recrystallized rock from the ancient

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23. Geological Survey of Canada, *Geology and Economic Minerals of Canada*, eds. R. J. W. (Robert John Wilson) Douglas, th ed (Ottawa: Dept. of Energy, Mines and Resources, 1970) 54
24. (Geological Survey of Canada, 51)
25. Ontario Geological Survey, Eds. John Wood and Henry Wallace, *Volcanology and Mineral Deposits* (Toronto, ON: Ontario Ministry of Northern Development and Mines, 1986) 8
26. (Ontario Geological Survey, 5)

volcanic belts in the area. Rock of this age and makeup is rarely exposed as a surface condition and the Temagami area is one of the very few places in the world where it is revealed. This unique geologic condition gives way to "block and ash" flows, lava domes, phreatic eruptions and debris flows, some of which mineralized into precious metals [27]. Within this rich underground network many massive banded iron formations were discovered along with several other precious metal deposits including gold, nickel, zinc, copper and silver. These veins of precious metals usually lie within the vestiges of ancient volcanic vents and centres [28].

Now all that remains of the land of volcanoes are exposed traces of pillow lava and precious metals. Although this lithology only shows itself in small glimpses it plays a boundless role in the history and memory of the island. The greenstone belt is as much a part of its identity as the primordial waters that rest upon it.

Fig. 2.12: Pillow Lava formation in the Temagami area.

27. (Geological Survey of Canada, 161)
28. (Geological Survey of Canada, 157)

Fig. 2.13: By Author. Traces of Copperfields 3.

The Cosmic
CELLAR

The notion of an active earth can sometimes be an intangible one. It is obvious in agriculture where activity is witnessed seasonally and at the surface level, but it is substantially harder to imagine the life in stone, for it is immense both in its depth and time. This rings true for we rarely get to experience the underground condition. In turn, this cloaks the subterranean with great mystery allowing for mediums such as visual art and literature to explore them through the imagination. Many of the anatomic perspectives are interpreted using physical built forms. Bodily elements are translated into architectonic components. In this reinterpretation, the body of the earth and its mystic belly and bones are transformed into a labyrinthine cellar. The body becomes a deep foundation, the bones mutate into walls and columns and the belly into a limitless chamber. Henri Bosco explores this concept in his text entitled L'Antiquaire, which is further developed in Gaston Bachelard's "Poetics of Space". This cosmic cellar is given shape, texture and form through a physical expression of one's psychological state in the space.

The cellar for Bachelard is a space where "darkness prevails both day and night", where "even when we are carrying a lighted candle, we see shadows dancing on the dark walls" [29]. For Bosco, the cellar is a much more cosmic event, for it is a maze of cellars which sit in tension between "the aerial and terrestrial" [30]. In this presentation, the cellar is no longer a place for the sinister, but rather a cosmic axis mundi. Emerging from a primordial darkness, the cellar begins its formation much like a cave being sculpted by the forces of ancient waters. The result is a underground realm shaped by the mystic and earthly dynamic systems of both the mind and the physical world.

> "Water!...An immense body of water!...And what water!...Black, stagnant, so perfectly smooth that not a ripple, not a bubble, marred its surface. No spring, no source. It had been there for thousands of years and remained there, caught unaware by the rock, spread out in a single, impassive sheet. In its stone matrix, it had itself become this black, still rock, a captive of the mineral world. Under this heavy weight, its very nature appeared to have been changed as it seeped through the thicknesses of the lime slabs that held its secret fast. Thus it had become the densest fluid element of the underground mountain. Its opacity and unwonted

29. Bachelard, Gaston, *The Poetics of Space* (Boston: Beacon Press, 1969) 19
30. (Bachelard, 22)

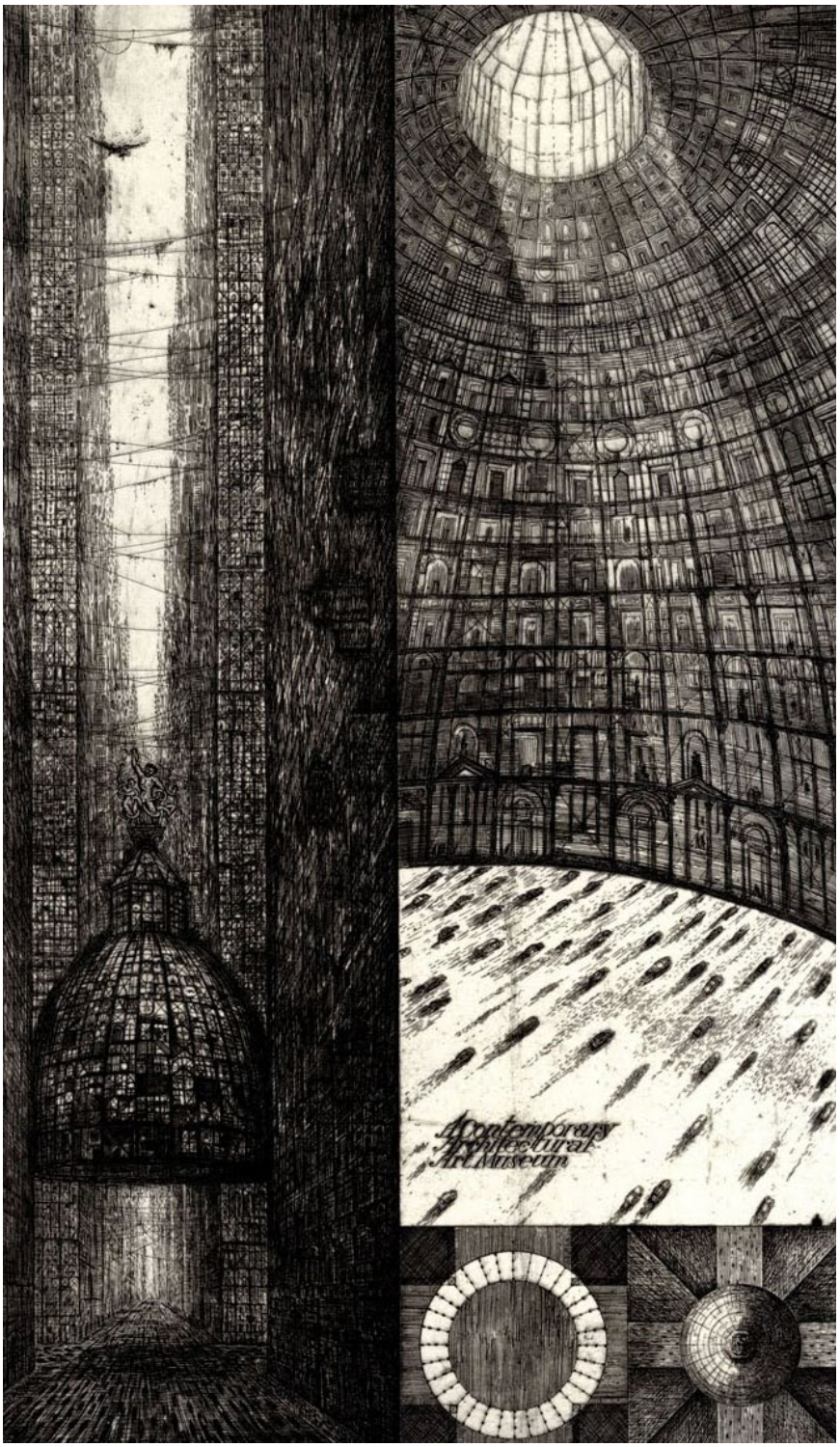

Fig. 2.14: Brodsky and Utkin. Contemporary Architectural Art Museum. 1988-1990.

Fig. 2.15: Edouard Riou. Journey to the Centre of the Earth 35. 1864

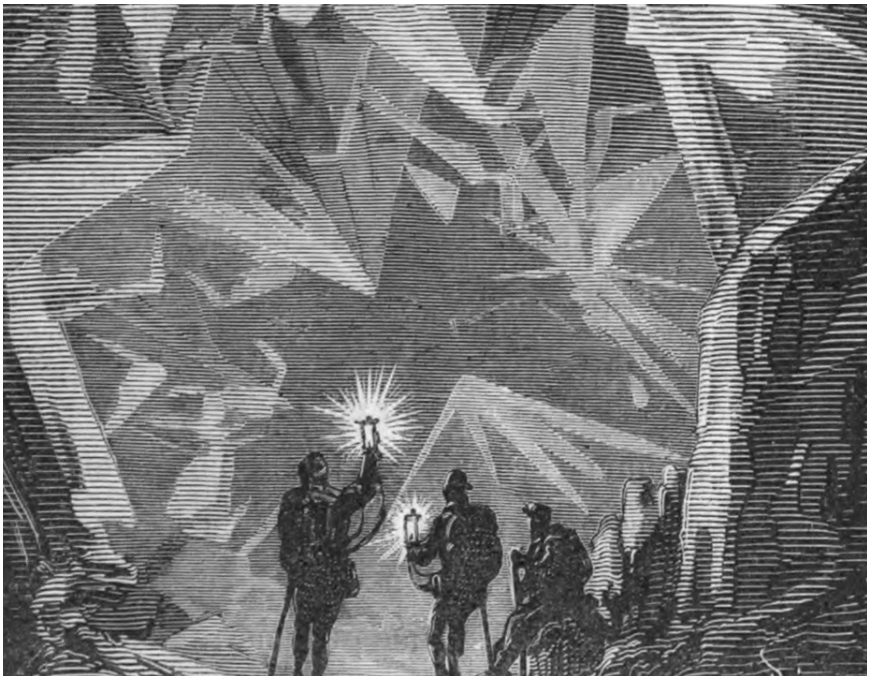

Fig. 2.16: Edouard Riou. Journey to the Centre of the Earth 30. 1864

Fig. 2.17: Edouard Riou. Journey to the Centre of the Earth 27. 1864

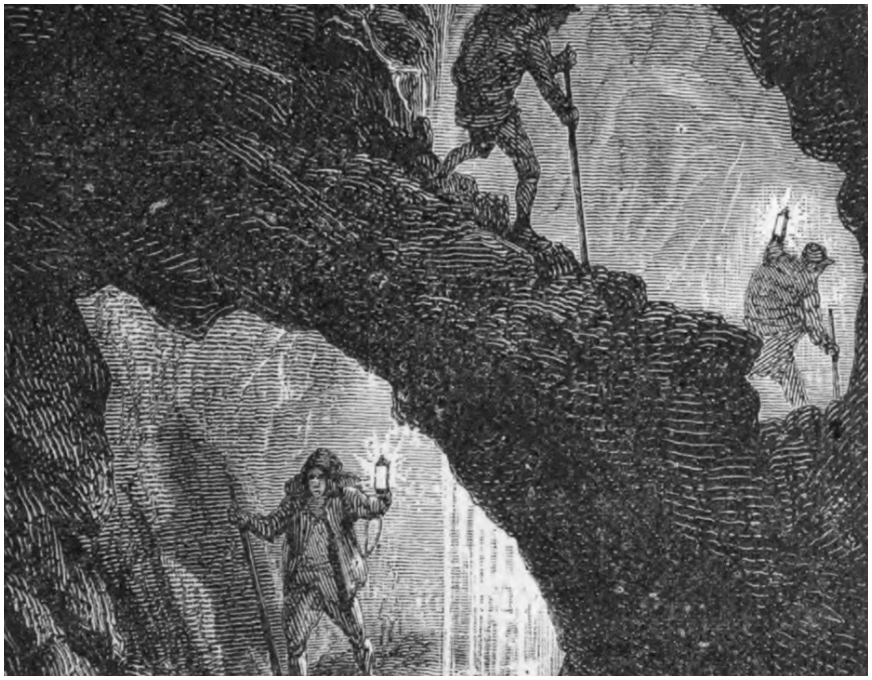

Fig. 2.18: Edouard Riou. Journey to the Centre of the Earth 32. 1864

> consistency made an unknown substance of it, a substance charged with phosphorescences that only appeared on the surface in occasional flashes. These electric tints, which were signs of the dark powers lying on the bottom, manifested the latent life and formidable power of this still dormant element. They made me shiver". [31]
>
> Henri Bosco
> *L'Antiquaire*

The shiver reveals the cellar's position as the axis mundi of the mind and body. It is the intersection of the heavens, the earth and the underworld as well the subconscious and conscious. Hence, it is also a place that exists in the immensity of time connecting one's future to its present and most noticeably to its past. The cellar, in its subterranean state is boundless in time, for it is boundless in depth. As the earth below the surface is vast, so too is the limitless potential of the cellar.

Many a fantasy and alternate realities are born out of this infinity and the anatomic and cosmic references only heighten the fantastical qualities of the subterranean world. It is from this tradition and imagination that several whimsical tales of journeys to the Earth are created. The most notable of those stories is Jules Verne's "Journey to the Centre of the Earth" where Professor Otto Lindenbrock and his nephew, Axel, traverse through the mouth of an Icelandic volcano, down its throat and into the universe of its cosmic cellar below. Every wall, cavern and hollow is given lifelike like qualities, as they are compared to bellies, throats and skins. Exploring the underworld, it focuses on a oneness with time rather than dwelling on the perceptual barriers associated with darkness. Here the black realm is celebrated and playfully dissected through an mystic lens.

In translating an alchemical parchment, the professor reveals the following message:

> "Go down into the crater of Snaefells Jokull which the shadow of Scartaris caresses before the calends of July, bold traveller, and you will reach the centre of the earth. This I have done." [32]
>
> Jules Verne
> *Journey to the Centre of the Earth*

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31. Bosco, Henri, *L' antiquaire* (Gallimard, 1954) 154
32. Verne, Jules. J*ourney to the Centre of the Eart*h (London: The Random House Group Vintage, 2011) 20

These words are extremely similar to the alchemical Rosicrucian dictum Visita Interiora Terrae Rectificando Invenies Occultum Lapidem, which translates into "visit the interior of the Earth and by rectification you shall discover the hidden stone" [33]. The hidden stone refers to the Philosopher's Stone, the ultimate substance and state in alchemy. In embarking on this journey, the professor enters the cosmic cellar, the world of chaos, as he and his crew descend closer and closer to the origin.

In bringing the realm of geology into the fantasy of literature an amazing collision occurs; our conscious mind is met with the unconscious world and we are better able to formulate our vision of what our prima materia is, whether it be a divine wisdom or the water of life. In this way of thinking, the domain of the subterranean is a region belonging to both the cosmos and chaos, where in chaos one finds the order of the cosmos and oneself.

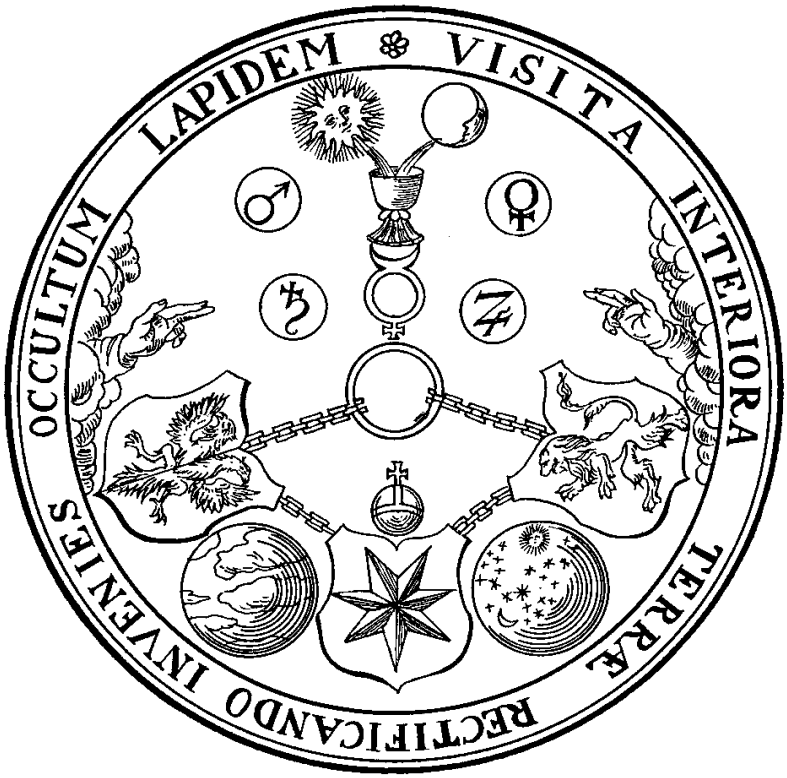

Fig. 2.19: Alchemical Rosacrucian Dictum Crest. Visita Interiora Terrae Rectificando Invenies Occultum Lapidem

33. Courtis, Jack, Secret Symbols of the Rosicrucians, 1998. Retrieved on June 16, 2012 from http://www.crcsite.org/Tabulatext.htm

Fig. 2.20: By Author. Traces of Copperfields 4.

The Garden
OF TRACES

Black pools fill the hollows of the abandoned mining buildings. Crystal clear reflections replace the tailings that once were. Now the liquid mirrors encircled by concrete fragments dominate the landscape, forming the heart of the garden of traces.

Masking themselves in the reflections of the sky, the pools hold the secrets of what lie beneath. Beyond the surface they reveal the depths of Copperfields; the channels plunging boundlessly into the rock of the Shield and exposing the vast network of tunnels below.

Every pool divulges a fragment of the mines past while providing a glimpse into its present and future. In time the clarity of these portals will fade and they too will be welcomed into the world of traces until someone comes along and wills them back into the present.

Fig. 2.21: Copper bowl Details
Fig. 2.22: (opposite page) Forest Path
Fig. 2.23: pg. 90 Gadren of Traces 1
Fig. 2.24: pg. 91 Gadren of Traces 2
Fig. 2.25: pg. 92 Black Pool 1
Fig. 2.26: pg. 93 Black Pool 2

COPPERFIELDS

Chapter III: Land of Deep Void

The tao that can be told
is not the eternal Tao.
The name that can be named
is not the eternal Name.

The unnamable is the eternally real.
Naming is the origin
of all particular things.

Free from desire, you realize the mystery.
Caught in desire, you see only the manifestations.

Yet mystery and manifestations
arise from the same source.
This source is called darkness.

Darkness within darkness.
The gateway to all understanding

Lao Tzu
Tao Te Ching

Fig. 3.1: By Author. Ridge Path

The first clearing lies close to the shore while the second sits inland only accessed by a steep ridge made of tailings. Walking across this bridge of rock I know that I am at the cusp of arriving at the main mining site of the Copperfields project. Surrounded by more pine and birch forests it is a hidden place wrapped by the secrets and silence of the island. Here in the second clearing my calls for adventure are answered as I stumble on the main entrance of the 500m shaft.

A concrete slab covers the chute's opening, muzzling it from announcing its presence. The void no longer accessible now fades in with the other mining ruins. Although it remains sealed, I still can feel the depth of the pit below. Standing at the lip of its concrete plug my imagination begins to take over. Soon the slab shatters revealing the abyss of the mine. The shaft appears to go on for forever, vanishing into the chaotic wilderness of the darkness beyond.

Much as Alice falls down the rabbit hole only to find Wonderland, I too fall into the unknown reality of Copperfields. Leaving the deep water and rock behind, space and time become distorted as I surrender to the void. Descending further down, passing by layers of archaic rock and exposed tunnels, the blackness of the abyss consumes me. This descent is entirely of my own making born of the merging of my conscious and subconscious, but it too holds a power for revelation. Here in the infinite black I can find the secrets and untold life of the Shield.

Fig. 3.2: By Author. Land of Deep Void

Fig. 3.3: By Author. Second Clearing. Main mining site for Copperfields.

Copperfields
MINE ISLAND

Nestled within the vast century old pine forests of Temagami Island, the Copperfields mine lies in wait of its rediscovery. Abandoned and partially sealed, it has been forgotten by most. A clearing in the woods and some scattered mining equipment are all that remain on the surface, but there is still life in the rock and underground tunnels. This productive force may not lie in its ore deposits, as they have now been exhausted, but rather in its potential to utilize its existing subterranean infrastructure as a framework for imagination. The miner's cage still calls for adventure; its desire to descend into and then emerge from the deep space of the void is stronger than ever. The Shield welcomes us home again to the body of the Earth.

This mine was not always a forsaken place, but once functioned as one of Canada's most vibrant precious metal mines. The Temagami Mining Company opened Copperfields (originally called the Temagami Mine) in 1954 after a lengthy surveying period. At first the area showed no signs of metal deposits and it was only after a magnetic anomaly detector was used, which was typically used by the navy to detect submarines, that ore was discovered during an aerial survey [1]. With the precise location of the deposits known, no surface drilling was required. This enabled much of the existing natural landscape on the island to remain intact. Surrounded by the pine forest, the mine sat side by side with Nature and only a few tourist sites on the island.

> "Not many mines need a landing barge to keep it supplied. And not many mines have pine trees growing within a few feet of the mill. In an industry that doesn't often do much to beautify the countryside, the Copperfields Mine on Temagami Island has to satisfy the department of lands and forests, plus a horde of anxious tourist operators". [2]
>
> The North Bay Nugget
> *"Copperfields Mine has a Unique Site on an Island"*

The only evidence of the mine was its head frame structure peaking over the tree line and the barges that shipped miners and ore back and forth from the

1. Unknown author "Norman Keevil", Canadian Mining Hall of Fame, 2010. Accessed on March, 2nd, 2012. (http://mininghalloffame.ca/inductees/j-l/norman_bell_keevil/)
2. Unkown Author, "Copperfields Mine has a Unique Site on an Island", The North Bay Nugget, July 28th, 1967, (http://news.google.com/newspapers?nid=1638&dat=19670728&id=4Ck6AAAAIBAJ&sjid=PioMAAAAIBAJ&pg=1572,6343455)

Fig. 3.4: By Author. Cross Lake II. Copperfields barge 1.

Fig. 3.5: By Author. Cross Lake II. Copperfields barge 2.

town. In ways the island became a great mystery for all who did not work there, as its secret labyrinth remained hidden from the world.

This mystery was greatly due to its unique geographic context. Mines are usually associated with great expanses of rock and the fact that Copperfields was located on an island distinguished it from the norm. Different from the typical mining condition, Copperfields, like a lotus flower, was encircled by deep water; its core connected the rest of the Shield by a resilient pillar of ancient rock. This condition also gave way to a ritualized daily routine for the miners. Not only did they have to travel by barge across the lake, but they also had to trek through the forest to access the mine. "To reach it in the summer, miners and supplies have to be ferried across the water in a converted landing barge. And in the winter a road is laid out across the ice" [3]. Hence, the miner's journey did not begin at the hoist house or the cage, but rather at the shore where they would wait to board the barge every morning.

Adding to the magic of the mine was the quality and purity of the metals that emerged from its belly. Aside from a vast reserve of silver, gold and nickel it yielded some of Canada's high-grade copper and chalcopyrite ore[4]. This separated Copperfields from other mines in the region for copper throughout history has been one of the most desirable precious metals for both its beauty and utility. As copper was discovered and first utilized centuries ago it revolutionized the craft of making and building, becoming one of the first utilitarian metals [5]. Moving humankind into the Copper and later Bronze Age, copper had the workability and malleability that stone did not. This age ushered in new tools, weapons and jewelry, while in turn popularizing the practice of mining.

As the cost for transporting the ore via barge down the northeastern arm of Lake Temagami grew too expensive a plan for alternate transportation was devised. A new access road from Highway 11 was constructed eastward towards the shore to cut the barge trip in half [6]. This road became known as the Lake Temagami Access Road and in its realization transformed the efficiency of the mine.

As the Temagami Mining Company merged to form the Copperfields Mining Corporation, associated with Teck Corporation, the mine continued to be

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3. ("Copperfields Mine has a Unique Site on an Island")
4. ("Norman Keevil")
5. Aitcheson, Leslie, A History of Metals, Volume 1 (London: MacDonald & Evans Ltd. 1960) 19
6. Barnes, Michael, *Temagami* (Toronto, Ontario: Stoddart Publishing Co. Ltd., 1992) 76

operational for several years [7]. With decades of extraction the mine moved quickly towards ore exhaustion and was officially closed in February of 1972 [8]. During its life it produced roughly 230,00 ounces of silver, 13,000 ounces of gold and 80 million pounds of copper, totaling a profit of over 34 million Canadian dollars [9]. Upon its closure the shafts were covered and the hoist dismantled. Now all that remains are fields of copper tailings hidden in the forest and a scattering of rusted old equipment, acting a reminder of what once was.

Fig. 3.6: Aerial view of the islands of Lake Temagami.

7. Unknown author, "The Northern Miner 1979-Miner of the Year", The Republic of Mining, Jan. 10th, 2009 (http://www.republicofmining.com/2009/01/10/the-northern-miner-1979-"mining-man-of-the-year"-norman-b-keevil-jr/)
8. (Barnes, 76)
9. (Barnes, 76)

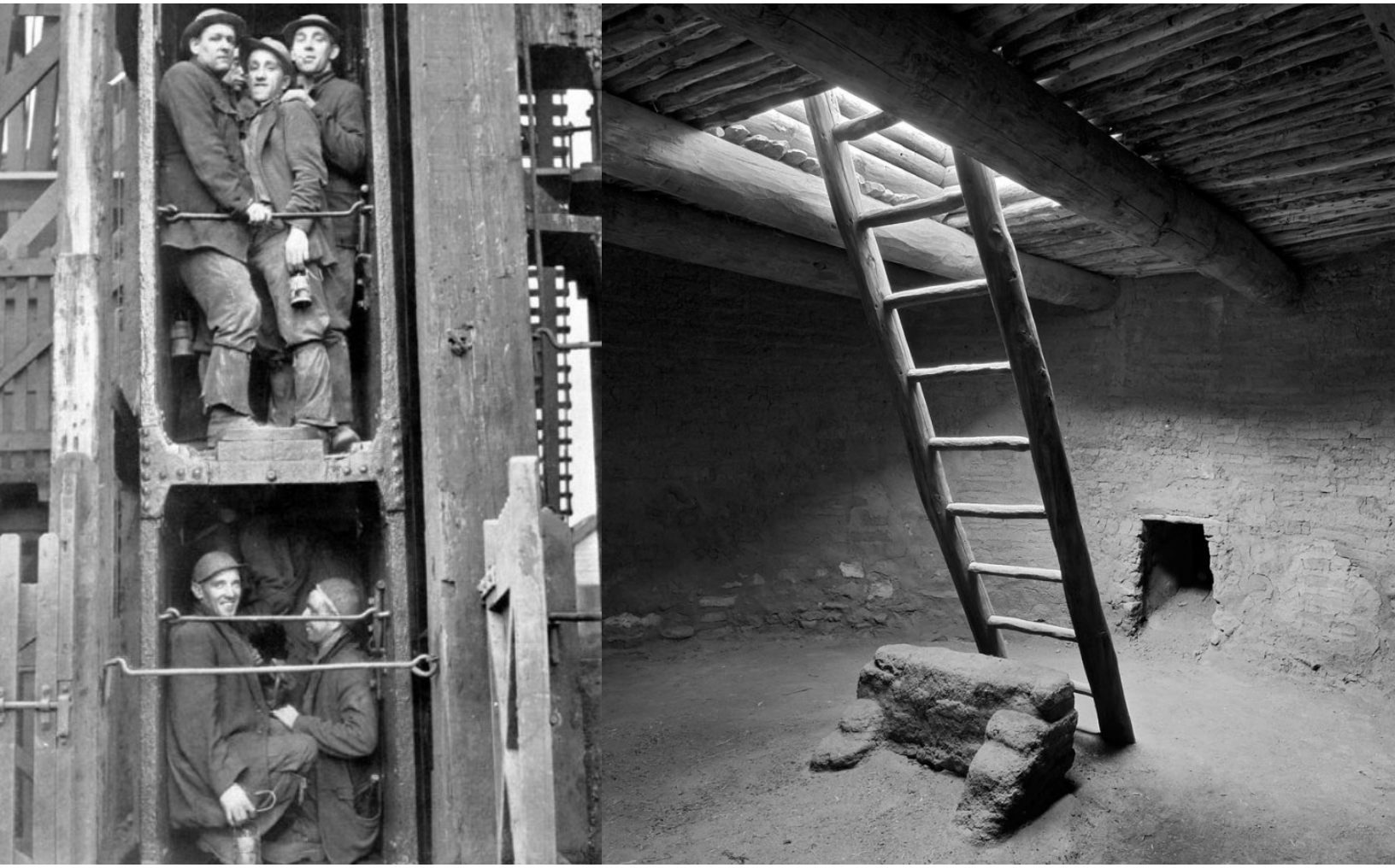

Fig. 3.7: Descending into the earth.

The Art of
MINING

Springing from the world of alchemy, mining expresses itself as a true mixture of both science and mysticism. At times the practice of mining was absolutely based in science, the miner viewed as a skilled hand utilizing modern day technique and systematic knowledge. Other times, the miner was regarded as much more of a spiritual creature, an artist of the earth responding to the life hidden within the rock.

Before the Renaissance, mining as well as ore extraction were approached mostly from a spiritual place. This way of thinking was deeply rooted in alchemical philosophy and practice. In alchemy the finite goal was always to transform base metals into noble metals. This objective although centred on a physical transformation, also focused on the journey of the alchemist's soul. With every experiment the alchemist moved closer to discovering divine illumination, making the actual practice of alchemy and metallurgy immensely influenced by mystical enlightenment. During this period, in trying to understand the earth, alchemists often attributed human characteristics to what they were studying. When dissecting the earth, it inherited female qualities, complete with a belly full of ore.

> "Very early on we are confronted with the notion that ores 'grow' in the belly of the earth after the manner of embryos. Metallurgy thus takes on the character of obstetrics. Miner and metalworker intervene in the unfolding of subterranean embryology: they accelerate the rhythm of the growth of ores, they collaborate in the work of Nature and assist it to give birth more rapidly. In a word, man, with his various techniques, gradually takes the place of Time: his labours replace the work of Time". [10]
>
> Mircea Eliade
> *The Forge and the Crucible*

Though there is some mention of scientific and technical knowledge in texts written during the period, the emphasis was almost always on the phenomenon of the geologic occurrence. In this sense, mining moved beyond

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10. Eliade, Mircea, *The Forge and the Crucible*. Translated from the French by Stephen Corrin. (London: Rider) 8

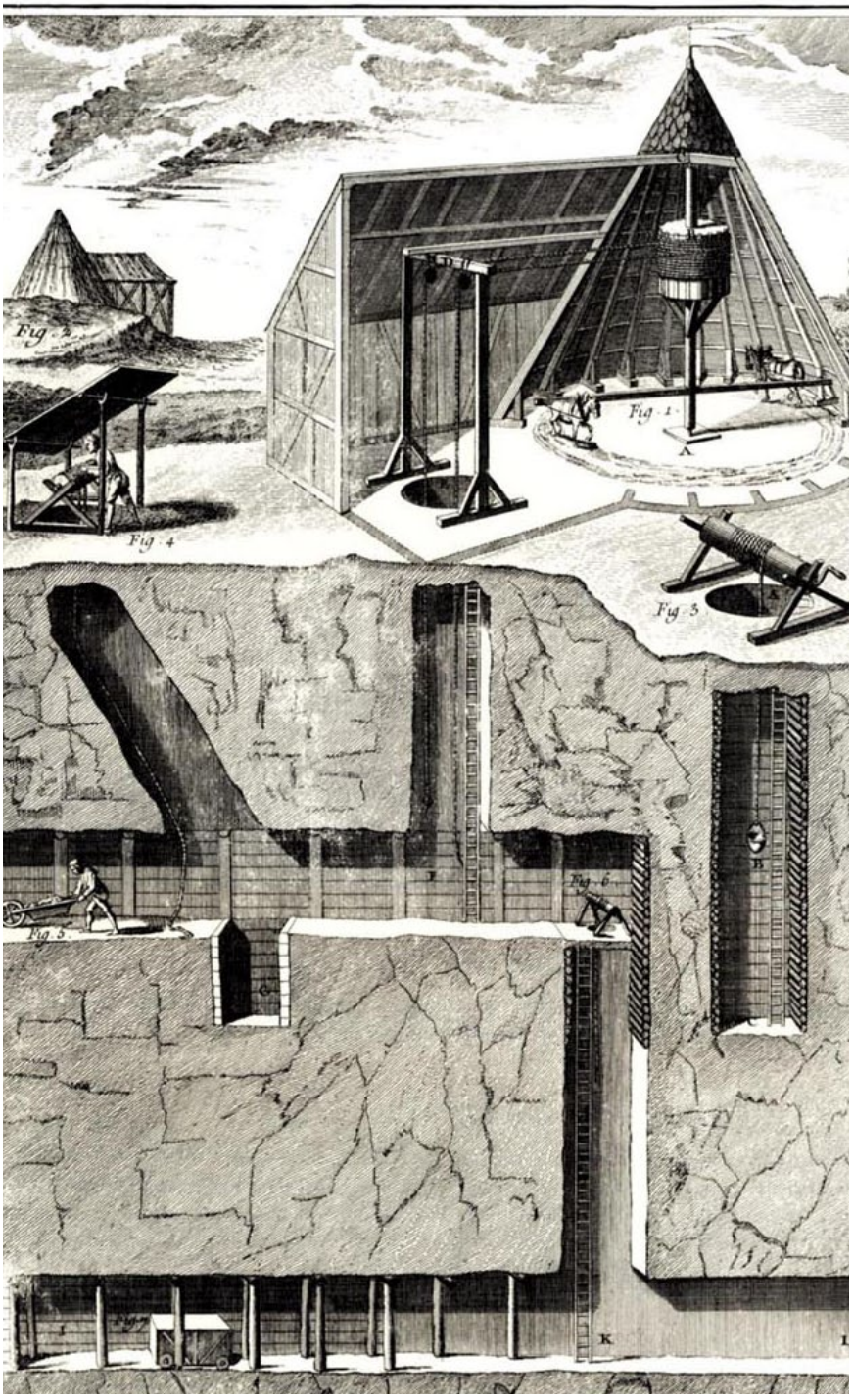

Fig. 3.8: Diderot. Plate 133 Mining Treatise.

efficient extraction methods and proper equipment and into the space of time. Here the miner is seen as an agent of time, existing in its infinity and slipping in and out of it to bring the ore to its maturity.

The archetype of the miner then underwent a change with the birth of geology as true science. Mining as industry became a universal standard as it made known the necessary information to predict the locations of ore deposits and what specific metals could be associated with the finds. During this age the miner became stripped of his mystic roots and was presented as a methodical, knowledgeable technician of the earth. No text is more representative of this technical era of than Georgius Agricola's book the *De Re Metallica*, which was published in 1556 [11]. Mining methods, equipment assembly and modes of extraction were all described and drawn in detail revealing the modern responsiveness of the practice. The miner is presented as the most diligent and careful man in the field of acquiring wealth, for the act of mining did not require stealing or deceit, but rather skill and patience:

> "For a miner must have the greatest skill in his work, that he may know first of all what mountain or bill, what valley or plain, can be prospected most profitably, or what he should leave alone; moreover, he must understand the veins, stringers, and seams in the rocks. Then he must be thoroughly familiar with the many and varied species of earths, juices, gems, stones, marbles, rocks, metals and compounds. He must also have a complete knowledge of the methods of making all underground works". [12]
>
> Georgius Agricola
> *De Re Metallica*

Though poetic in nature, the Agricola text was first and foremost a technical piece, marking a shift from the alchemical to the scientific. During this period mining began to be compared to agriculture. As agriculture was a harvesting of the earth surface, mining was the harvesting of the earth's rock core. Agricola took it upon himself to raise mining to the level of art that agriculture was considered to have at the time.

> "Most illustrious Princes, often' have I considered the metallic arts as a whole, as Moderatus Columella considered the agricultural arts, just as if I had been considering the whole of the human body; and when I had perceived the various parts of the subject,

11. Dibner, Bern, *Agricola on Metals* (Burndy Library, 1954) 25
12. Agricola, Georgius, *De Re Metallica* (Kessinger Publisher, 2003) 34-35

like so many members of the body, I became afraid that I might die before I should understand its full extent, much less before I could immortalize it in writing…Without doubt, none of the arts is older than agriculture, but that of the metals is not less ancient; in fact they are at least equal or coeval, for no mortal man ever tilled a field without implements…for this reason the metals are of great necessity to man." [13]

Georgius Agricola
De Re Metallica

With this, mining became a mainstream practice developing into one of the world's largest industries. Though it has lost some of its status as an art form and has transformed into a working man's profession, mining still centres on tradition, techniques and a profound knowledge of the inner workings of the Earth's belly. Working in extreme heat, compromised air conditions and unstable settings, the miner still hangs on to his mystical beginnings. He is an adventurer in the underworld; bravely holding the stories of the labyrinths of rock below and controlling the machines that live well beyond the surface.

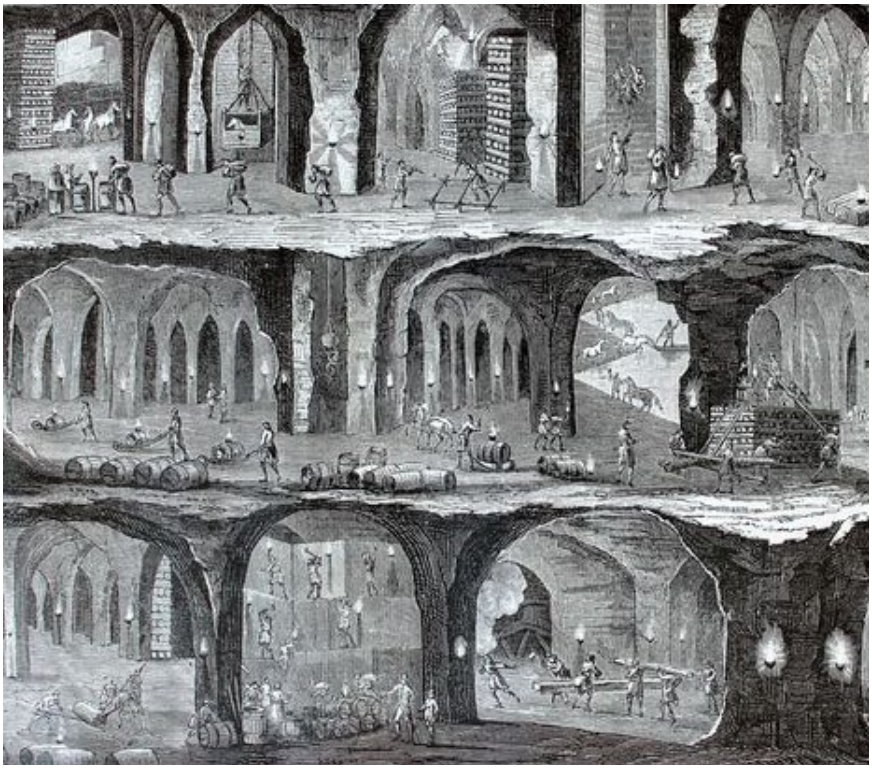

Fig. 3.9: Unknown author. The Polish salt mine Weiliczka at Krakow. Engraving from 1760.

13. (Agricola, 26)

Fig. 3.10: In the heart of the mine.

Down the
RABBIT HOLE

> "The darkness wrapped her round tenfold, twentyfold, it filled the collar, the sleeves of her kimono, the folds of her skirt, wherever a hollow invited. Further yet: might it not have been the reverse, might not the darkness have emerged from her mouth and those black teeth, from the black of her hair, like the thread from the great earth spider?" [14]
>
> Jun'Ichiro Tanizaki
> *In Praise of Shadows*

Without the guidance of light, the blackness of the mining tunnels is overwhelming. Walls fold into shadows as the abyss takes over. Although there is excitement in this void there is also a memory of fear, confusion and primal desire. These are the products of a lifetime of stories, memories and lessons where we were taught that darkness is something to be feared. Nightmares, dirt, death and evil all lurk in the folds of blackness.

Dualities are natural components in any culture and none is more prevalent than the one existing between light and darkness. Each becomes a signifier with light encompassing the rational and darkness embodying all that is chaos. In Western religious ideologies this duality takes on a new life where darkness develops into a mask of evil. This state is then transposed onto most underground spaces as they all are associated with the traces of the fall of Satan from heaven into hell:

> "When Satan had been flung out of heaven for his pride and disobedience, he was supposed to have fallen like a flaming comet and, when he struck the earth, to have plowed right through to its centre. The prodigious crater that he opened thereupon became the fiery pit of hell." [15]
>
> Joseph Campbell
> *Myths to Live By*

Craters, mines and caverns are all touched by these memories and fall into the arms of the sinister. These abysses whether it is Hades from classic mythology, Dante's Inferno or a Christian biblical hell all conjure up images

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14. Tanizaki, Jun'Ichiro, *In Praise of Shadows* (New Haven, Conneticut: Leete's Island Books 1977) 36
15. Campbell, Joseph, Myths to Live By (New York: Viking Press, 1972) 5

Fig. 3.11: By Author. Folds of the Void.

of barbaric troglodism, primitivism, decomposition and demise [16]. Culturally and psychologically we accept these associations and continually project them onto any spaces that evoke darkness. In doing so, perceptual barriers are built, their roots so deeply engrained in our collective unconscious that negativity toward the underground is now a standard attitude. Extending into everyday places such as sewers, subways and basements, the perceptual barriers live on. Seemingly, our social order has contrived to keep the lower classes and the less mobile underground, and quite literally out of sight" [17]. The mystery of a place is not enough to pull someone into the void for the reluctance to enter still remains. Some of these barriers have originated from cultural myths and psychological symbols while others stem from personal experiences and memories [18].

These barriers exist at a scale larger than the individual unconscious and move into an obstacle facing the whole architectural profession. The notion of architecture as a combination between the cave and tent according to Norman Foster is not dominant any more [19]. One could say that while the idea of the tent or above ground space has been developed, the cave or sub grade space has been left undeveloped. This condition relates back to the barriers formed in our collective unconscious over time. If broken down and revisited, darkness can transform beyond chaos and into cosmos, becoming a fusion of states of being. Instead of running from it, we can follow its invitation into the void of becoming and leave it with better sense of place, time and self.

Existing in the fusion of chaos and cosmos, darkness and the world of shadows operates outside of time and boundaries, filled with nothing and yet everything at once [20]. Within this void of nothingness a primordial awakening is stirred.

Aside from water, which has been identified as an agent of creation as well as chaos, darkness is also wrapped with the mysteries of conception. While water holds a more physical connection to this act of creation, darkness is linked on a much more subconscious level. In darkness, the mind naturally builds its surrounding world as the eyes no longer can.

The poems of the Tao Te Ching by the ancient Chinese philosopher Lao Tzu,

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16. Labs, Kenneth, *The Architectural Use of Underground Spaces: Issues and Applications* (Saint-Louis, Missouri: K. B. Labs, 1975) 121
17. (Labs, 122)
18. (Labs, 121)
19. Meijenfeldt, Ernst von, *Below Ground Level: Creating new Spaces for Contemporary Architecture* (Basel, Boston: Birkhauser, 2003) 18
20. Tzu, Lao, *Tao Te Ching,* translated by Ch'u Ta-Kao (London: published for the Buddhist Society by Allen and Unwin,1970)

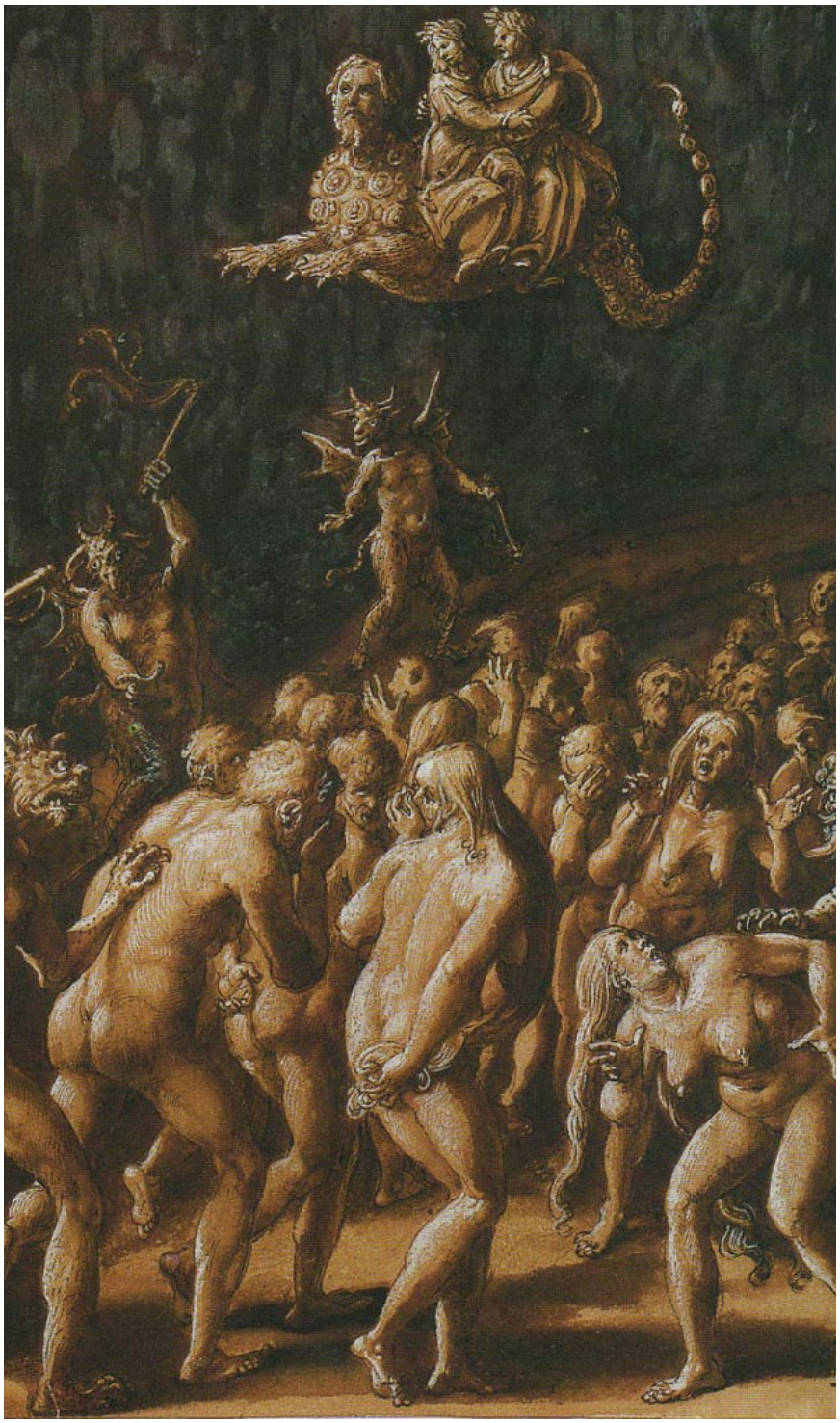

Fig. 3.12: Giovanni Stradano. Canto 17 of Dante's Inferno. 1587

speak to this notion of an all-encompassing female darkness. They expose the idea that this "nothingness" is the "deep source of everything" [21].

> "Before the world was
> And the sky was filled with stars…
> There was a strange, unfathomable Body.
> This Being, this Body is silent
> And beyond all substance and sensing,
> It stretches beyond everything spanning the empyrean.
> It has always been here, and it always will be.
> Everything comes from it, and then it is the Mother of Everything.
> I do not know its name. So I call it TAO." [22]
>
> Tao Te Ching
> Poem

Associated with female energy, darkness can be seen as pregnant with immanence. Possibility can manifest itself through the birth of "waters, a drop of milk, the primal mound, a mysteriously appearing birth sac, or, most especially, the cosmic egg" [23]. These opportunities for becoming are as infinite as the physical darkness existing in the chaos state.

From a physical birth out of darkness comes a psychological transformation as well. The dark void acts a state of pre-consciousness where amongst intense emotion and desire one can truly begin to understand themselves and all that is around them. For in this darkness lays the opportunity for full consciousness and self-awareness. Or better put, as the Tao states, it is "a gateway to all understanding" [24]. In darkness, perceptions shift "silencing the waking consciousness and freeing the mind from the limitations of the alter ego, allowing self transcendence and awareness undisturbed by the external world" [25].

Copperfields mine is hence a portal to preconsciousness. It moves beyond its perceptual barriers and provides an opportunity to reconnect with the intricacies of time and the complexities of self.

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21. (Tzu, Poem 1)
22. (Tzu, Poem 1)
23. Leeming, David Adams, *Creation Myths of the World*: *An Encyclopedia. Volume 1. Second Edition* (Santa Barbara, California: ABC-CLIO, 2009) 15
24. (Tzu, Poem 4)
25. Keller, Catherine, *The Face of the Deep: A Theology of Becoming* (New York: Routledge, 2003) 14

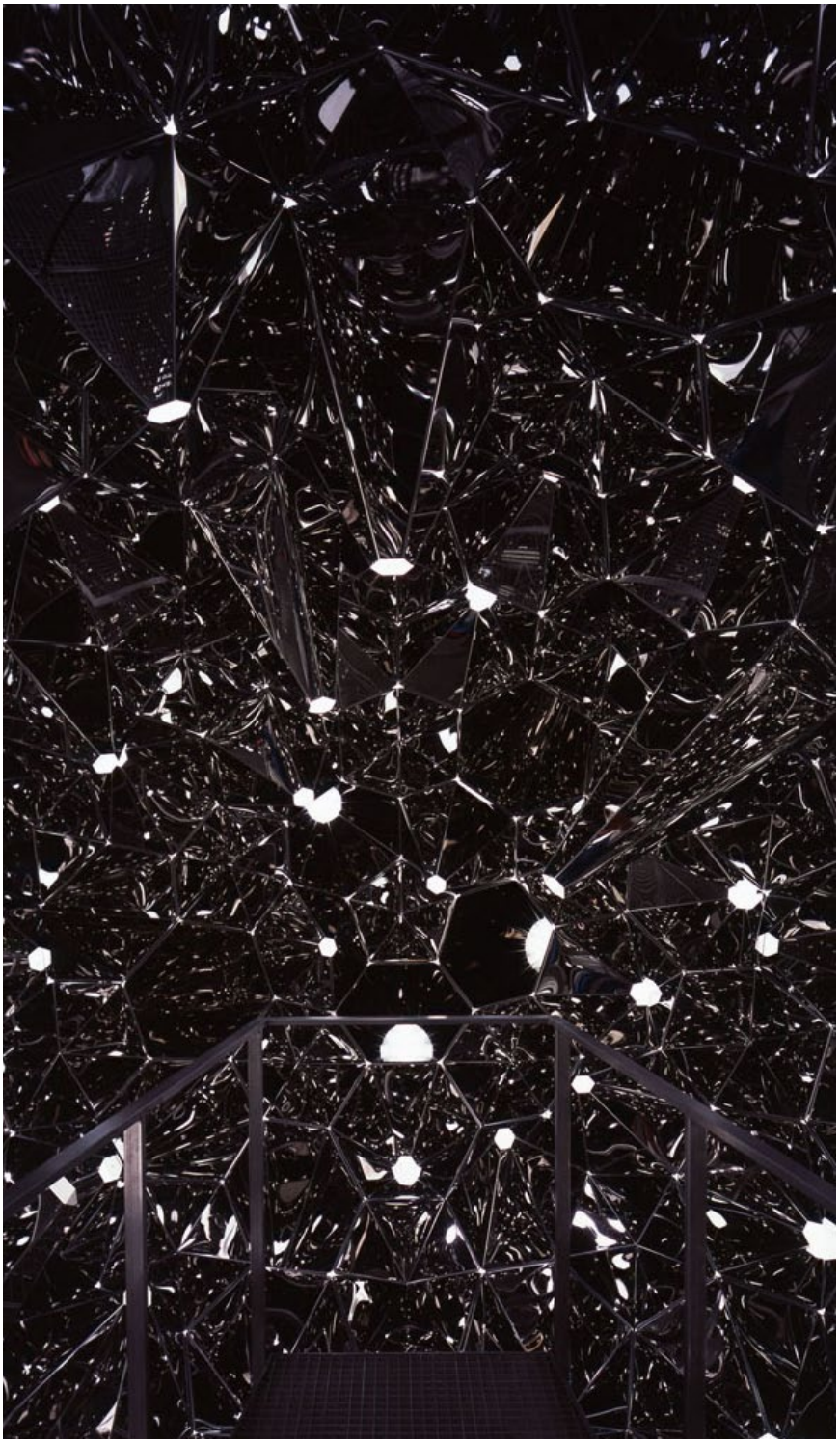


Fig. 3.13: Olafur Eliasson. Anti-spective Installation

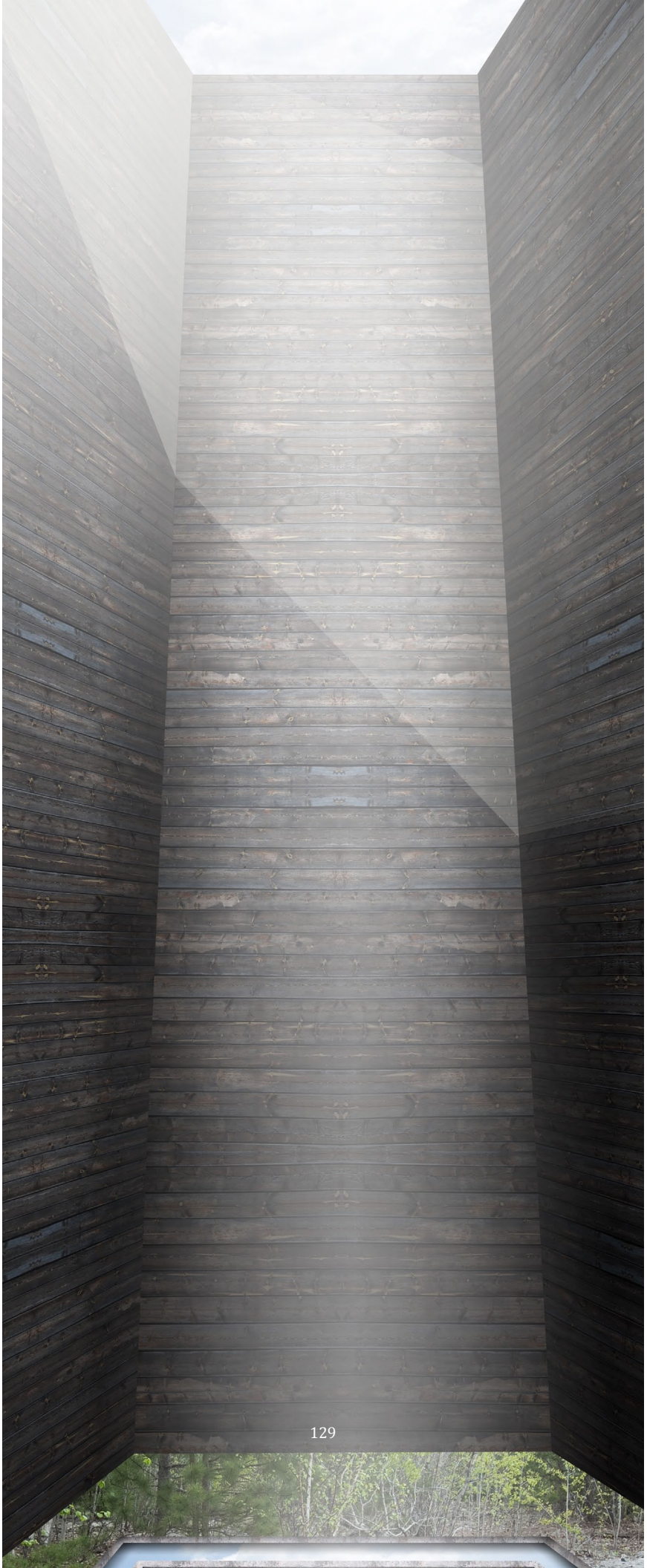
Fig. 3.14: Stills from the movie “The Third Man”.

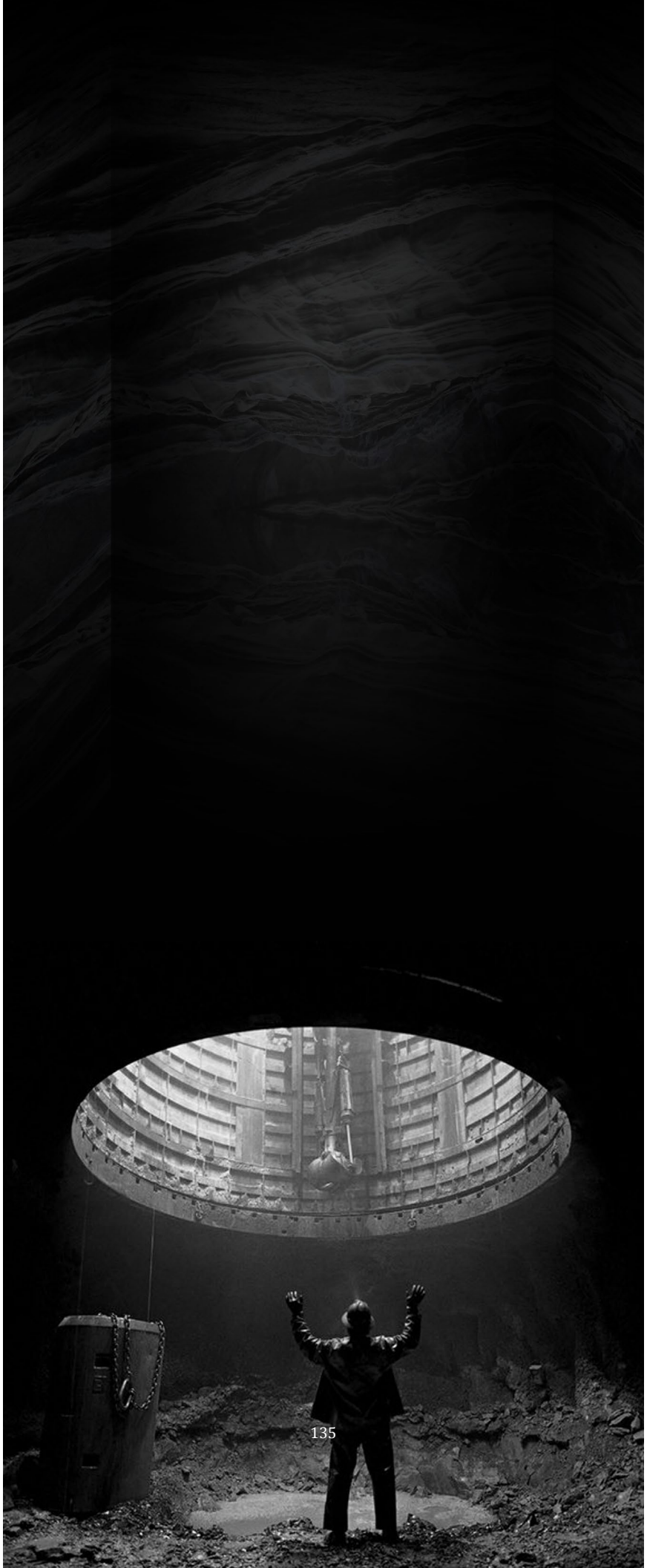
The Tower
OF THE DEEP

Weaving in and out the forest, a tower clad in weathered pine disappears and reappears through the trees. Every glimpse reveals more of its entirety as it begins to expose itself as a solitary mass in the distance.

Unfolding into a clearing of ruins the forest path ceases as I find myself in the presence of the tower of the deep. It emerges suspended in the air surrounded by a moat of deep water. Hovering above the ground it is a vertical extrusion of the mining pit below. Separated, the two sit in tension.

Moving closer, the opening of the pit still remains hidden as I walk across a small slab that bridges over the recessed pool. A concrete lip, standing around chest height, supports the band of separation. Here the tower is lifted from the lip as a channel of water fills the space between. Looking past the glowing ring of water and the tower above, the darkness of the Copperfields pit is revealed.





EMERGENCE

Reflections of the sky and forest settle in the channel of water, distorting the known world, as I prepare to look down. Over the concrete lip, the centre of the Shield remains hidden still. Lighting falling from the oculus and down the walls of the tower is consumed by the black chasm below until all that is left is a dynamic infinity. Preconscious thought intersects reality as myth knits with geology in our poetic imagination. Here we remember our way down, imagining layers of time and strata of history.

Though the journey across water, rock and void culminate here, the narrative of the time dances on. In this emergence we become Shield, connecting with the complexities of time in our imagination. The world around us becomes more vivid as we place ourselves in the cosmos. Hence, the story does not end in the depths of Copperfields, but rather extends into all of the islands of our imagination.

"It was from there that we emerged, to see – once more – the stars."

Dante
The Inferno

Fig. x.5: Looking up the well in Orvieto.

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