

The Architecture of Archaeology

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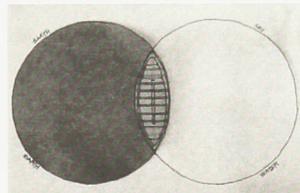
by

Kelly Riopelle

A thesis submitted to
The Faculty of Graduate Studies
in partial fulfillment of
the requirements for the degree of

MASTER OF ARCHITECTURE

M.ARCH. (Professional)



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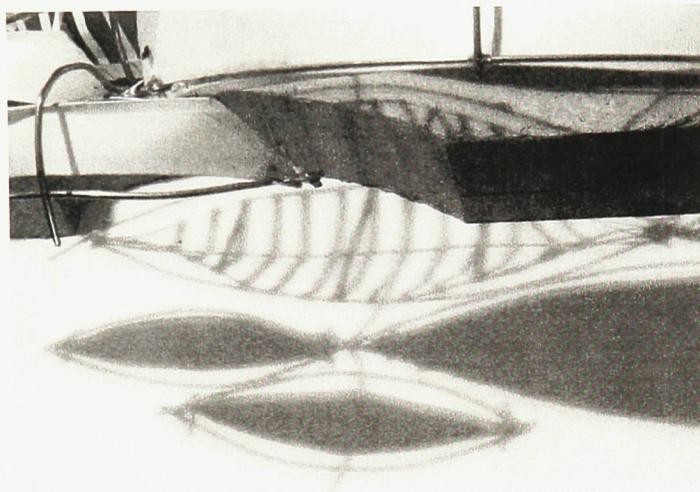
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"hic liber est mundus"
translates to **"the world is a book"**
Dalibor Vesely (on the medieval outlook on the world)



With the sincerest of thanks to:
Yvan Cazabon
Barbara Preston
Shawn Riopelle

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Abstract:

Using the methodology, the procédé, of the French author, Raymond Roussel, this thesis illustrates how a recently discovered Viking burial site, found in a glacial ravine, on Canada's Baffin Island:

1. Was erected in observance of the rituals of traditional Nordic ship burial, under the supervision of a dying Norse sailor, Farmaðr Aðalsteinsson; this in order to extend, into the afterlife, his honour to the Norse gods of old.
2. Is consecrated as a burial tomb, an architectural construction which emphasizes the sacred nature of two. The tomb observes rigid geometrical analysis, illustrated in its design, along with its clear architectural manifestations of spiritual duality; among them: thought and memory, rebirth and death, the sacred and profane.

Comment J'ai Ecris Certains parties de cette These [Mon Procédé]:

"The procédé developed, and I was led to take a random phrase from which I would derive images in distorting it, as little as one might develop images while devising a rebus."¹
Raymond Roussel, *Comment J'ai écrit certains de mes livres*, p.2

Over the course of the French author's lifetime (1877-1933), Raymond Roussel invented a personal and highly specific methodology for creating the content for his stories, novels and plays. The basis of this methodology was disclosed posthumously by the author in his book, *Comment J'ai écrit certaines de mes livres*. Coined as his *procédé*, (the closest translation in English would be a fusion of: procedure, process, and methodology.) The birth of his procédé came as a revelation for Roussel, who up until that point could best describe his process as prospecting,² which suggests a scattershot hunt for suitable material. Whether or not he ceased prospecting after discovering his procédé, Roussel was never to reveal. I expect that Roussel, whether subconsciously or not, continued prospecting for suitable puns upon which to construct his sentences, sentences that were so integral to the procédé. Although the procédé is a strong creative device, critical reasoning and reflection ensured that Roussel picked sentences and homonyms imbued with the greatest potential for narrative depth in his stories.

In his book, *Raymond Roussel and the Republic of Dreams*, Mark Ford states, "at the heart of the [Rousselian] procédé lies the pun."³ In *Comment J'ai écrit certaines de mes livres*, Roussel reveals how his stories were generated by finding two almost identical sentences, wherein each word within the sentence had multiple meanings [*doublures*], which contributed to an overall very different meaning to each of the two original sentences. Because of the physical resemblance of words, often with an identical resemblance of homonyms making up the structure of likewise identical sentences, Roussel himself describes his procédé as a *poetic method* analogous to that of rhyme.⁴

In truth, Roussel's procédé is just a step above the structure of rhyme in complexity, as it is not only the ending of words that are identical in spelling and pronunciation, but the entirety of the word and its identical context within other words. According to the procédé, two near-identical sentences composed of homonyms will create two overall separate and distinct syntactic meanings, while the individual words to the overall sentence also each contribute their own two distinct meanings. Roussel goes on to explain how it then becomes a simple matter of writing a story that could begin with the meaning of the first sentence and end with the meaning of the second sentence, and that, most importantly, it was from the *resolution* of this problem from which he drew his materials.⁵

The procédé, Roussel admits, is consequently not unlike solving a rebus word-puzzle.⁶ This is how the idea of resolution becomes the fundamental form-giver to Roussel's manuscripts, and how he weaves two seemingly unrelated sentences with unrelated meanings of words. This procedure illustrates why Mark Ford comments how the pun that lies at the very heart of the Rousselian procédé, but yet, how it is a mechanical compositional technique along the same lines as the structure of rhyme. Similar to rhyme, the procédé itself can offer no guarantee of artistic worth.⁷ Colin Raff elaborates on Ford's observations; he says, "the procédé [is] an elaborate word game [which exploits] the homonymic nature of French words, [and] determined the content of Roussel's texts."

My expectation, after analysing the writings of Roussel and Ford alike, is that both would agree with this definition of the procédé and that the artistic merit of it, used correctly, actually comes from the ingenuity of the resolution to link the two sentences together in a story—with perhaps some intuitive prospecting too. Like all literature, it is the uniqueness

- 1 Roussel.
- 2 Ford. xxiii.
- 3 Ford, . p.1
- 4 Ford, p.6
- 5 Ford, p.2
- 6 Roussel.
- 7 Ford, p.6

of the voice and the author's meticulous attention to detail that gives any story its artistic worth, and not simply the efficient use of rhyming mechanisms, or, in this case, the mechanical use of the Rousselian procédé. It would seem that it was the meticulous methodology of the procédé that garnered Roussel such critical attention outside of the avant-garde artists. However, it was his actual writings that could stand alone without the procédé, which ensured that the procédé never became understood as a mere gimmick.

For Raff, it was the author's inventive yet high detailed imaginative writing that commanded his attention, and not merely the initial curiosity of Roussel's compositional technique in the procédé. It is this imaginative context, combined with the author's voice that makes the works resonate—how Roussel wove the story together is a curious aside. It is therefore not surprising that Roussel's procédé leads his stories to feel suggestive "of a precocious insect spinning narrative in place of webs"⁸ because that is exactly what he is doing. Therefore, Roussel needn't have confessed his unique methodology of assembling a story at all in order for his audience to appreciate them. He merely succeeded to arouse a greater curiosity for the analysis given to his books because of this peculiar and intriguing methodology.

This point is illustrated when Ford suggests that the puns, which are the essence of the Rousselian procédé, are merely the *catalysts* for Roussel's imaginative oeuvres—and not their basis.⁹ Raff continues, "[Roussel's] pursuit of unreality extended from mere description of things to the very governing principles of his hermetic worlds. There is nothing "transcendental" in Roussel—the author's creative procedures are the final revelation."¹⁰ Further, "we [can] perceive Roussel's basic paradigm: an image or idea generating supplemental material, which, though seemingly infinite in scope, will always resolve itself with the original subject."¹¹ The consensus is that Roussel's resolution in ideas, the parameters of the procédé liberates him into to create an air-tight imaginative product of literature.

The application of the Rousselian procédé to architecture is likely apparent—the trick therein is the initial step of conjuring up the architectural pun at the macro and micro levels, much like the macro and micro levels of pun in the sentence and individual words, all under the rubric of prospecting. It is then a matter of selecting two seemingly identical architectural programs, each possessed of seemingly very different purpose and meaning.

Retaining the notion that it requires not merely a mechanical application of the procédé in order to create meaningful architecture, but also in the *resolution, linking and weaving of ideas* between the architectural puns, this thesis can begin.

8 Raff, Colin. <http://www.nypress.com/14/19/books/books.cfm>

9 Ford, Mark. p.10

10 Raff, Colin. "

11 Raff, Colin. <http://www.nypress.com/14/19/books/books.cfm>

Introduction:

Using the methodology of Raymond Roussel's procédé, I sought out to reconcile the archaeological evidence of the recently excavated Viking burial site in Baffin Island, the Farmaðr Aðalsteinsson's burial tomb, against the collectively accepted inventory of ideas based on previous archaeological excavations carried out in Greenland (Eiricksfjord, Disko Bay) and Newfoundland (L'Anse-de-Meadows) to recreate, and/or *reconcile* to borrow Roussel's terminology, the ephemeral merit of the tomb's architecture, both in its time as well as today.

The first chapter objectively focuses on the programmatic requirements that archaeologists hypothesize constrained the design parameters of the tomb. This chapter examines the suspected rationale for the tomb's situation and why it was built such as it was. It also touches on how the tomb is likely to have been built and its architectural ambitions outside of the simple programmatic requirements of protecting a tomb. The architectural evidence, including the invaluable runic text inscription carved into the tomb's easternmost boundary wall, in this first chapter all examine and suggest that the tomb was erected in observance of the rituals of traditional Nordic ship burial. However, since the tomb is an anomaly to its time period and location by both being the only Viking settlement west of Greenland as well as the only excavation site that presents no artefacts of Christian practices, the focus of this chapter will be to establish the real and un-biased motivation of sailor, Aðalsteinsson.

The second chapter intends more to provide a detailed examination of the deeper religious meanings behind the tomb's actual design, aside from the physical environmental and material considerations, as well as temporal constraints. The second chapter was inspired by the work of Raymond Roussel, whose literary works are said to be underlined by recurring dualities, no doubt as a consequence of his puns. Roussel provided a useful lens by which to analyze the many obvious relationships of duality within Aðalsteinsson's tomb. Although it was this anthetic quality present in Roussel's writings that initiated this study of dualities in the tomb, the tomb quickly developed a story and rationale of its own to explain its many internal and meaningful relationships of two. As such, Roussel's works were merely the starting point for an unravelling of architectural emphasis of duality. Dualities examined include the double arched portal entrance series, the mirroring of the sky onto the excavated pool of water surrounding the coffin, the inverted knar vessels and the dual geometry present in the formation of the roof structure.

Following chapter two are the conclusion and four appendices which give further insight into; the process of anticipating the architecture which is being excavated as the excavation proceeds slowly, the comparison of the architecture of the tomb to that of the gothic cathedral of Chartres in Paris and their many similar inspirations, and lastly, the academically consensual detailed accounts of the sagas of the Vikings to Greenland and Vinland in the same time period, of the 11th century, but prior to the excavation of the Aðalsteinsson's burial tomb.

Raske and I do as Christer asks and lead our traditional Norse clinker-built boat deeper into the Macbeth fjord. As we forge inward, the topography rises incrementally, the flora of the tundra intensifies as the wind subsides. Christer reminds us how the Norsemen sought shelter from the wind in these fjords, which also offered better grazing land inside these natural sheltering walls. As he explains, his counter clicks away another kilometre. He is measuring the number of nautical miles between Greenland and Baffin Island.

Christer is fascinated by the notion that the settlers in Greenland could have viewed this awe-inspiring mass of land and yet – though it was the nature of the Norsemen to settle new lands, a genetic wanderlust greater than any possessed by the Europeans of that time – they did not attempt to sail further, on to Helluland. Already, they had overcome the incredible challenges of the trans-Atlantic crossing and braved the inhospitable climes to settle in Groenland, Iceland, Vinland, and to some extent Markland. How, though, to successfully settle Helluland? There, their few crops would not grow, which would inevitably have led to a complete die-off of livestock.

Unlike Greenland, Helluland's topography goes from relatively flat for a long ways inland from the coast, until it is abruptly met by the Baffin Island mountain chain—which trumpets its height over any of Greenland's topography. Add to this that the nomadic Thule people had already immigrated from Alaska to Baffin Island, and there is a good chance that Norseman, calmed since the raids of the Viking Age, did not want to initiate a conflict by settling their territory.

Of course, Christer adds that this did not prevent them from naming the two highest mountain peaks after their ancient gods. Christer points towards the double peaks of Mount Asgard ahead and to the left. Just beyond Mount Asgard, he tells us, lies Mount Odin. Christer wonders if this is not another clue as to why the Norse explorers hesitated to settle Baffin Island. Perhaps it was some form of religious superstition fomented by the mountains of Asgard, home to the Norse Gods. According to Helge Ingstad, the archaeologist who discovered L'Anse-De-Meadows, the Norse believed that Asgard lay outside of the Midgard, high up in the mountains, and separated by Midgard only by a body of water.

This trip itself was made possible by Christer through a grant meant to fill a research gap in the field of the limiting factors of Viking Age exploration. Christer has been tracing the new world discovery of the Vikings for all of his twenty year in academia. For this trip, his goal is to create a firm hypothesis why the Norsemen's unwillingness to explore westward past Greenland. I am humbled that he hired me as his research assistant.

As the Fjord narrows, we are almost at its end, cast in the shadow of the Baffin Mountains, looming huge against the setting sun. Where the fjord ends, it is met by a number of small ravines, likely carved by seasonal glacial melt. Christer has almost measured out the final nautical kilometre of the shortest route from Greenland's Disko Bay to the foot of the mountains of Baffin Island. As we finish, Christer takes in the majestic view of the mountain's base. Suddenly, something catches his eye.

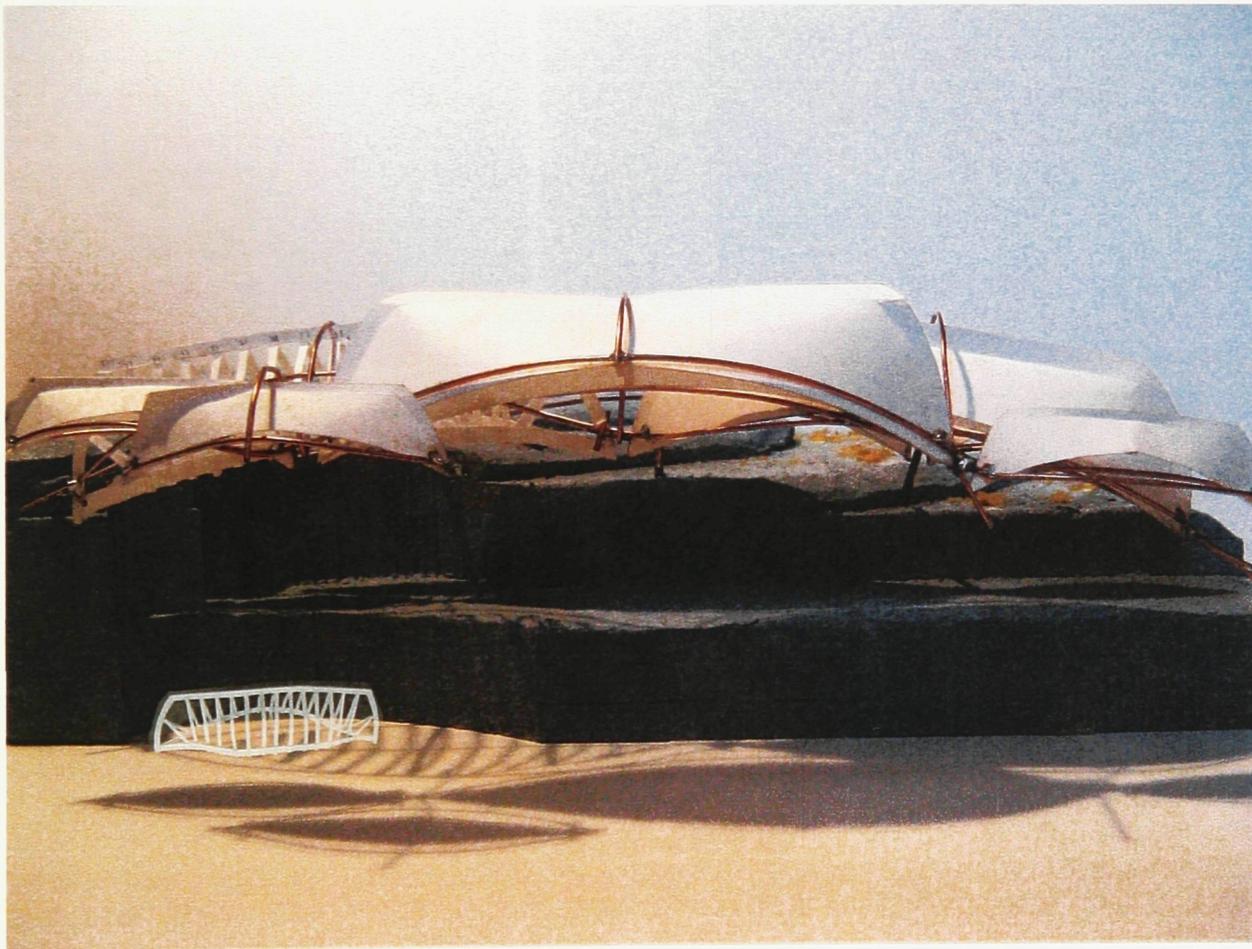
Christer immediately asks me to drop anchor and for us to follow him on land by foot. We travel up one of the dry ravines for some ways, and then see what looks like a bridge straddling the ravine ahead. It is certainly not a natural phenomenon, no mere erosion or glacial debris. Whatever it may be, it's well camouflaged by its surroundings.

We continue our approach, and within a few meters, we are mesmerized by the view ahead. Poking out of a glacial formation is the stern of what appears to be an inverted Viking boat. We struggle to see more of its curvature through the ice. It appears that two more inverted boats are joined to the initial, creating a symmetry of two arched doorways between the gunwales.

(Halvorsen, Bjorn. Farmaðr Adalsteinsson's Tomb. Archaeology Journal. vol. 6, 2003)

The Reconciliation of the Archaeological Evidence:

In late August, 2007, Danish archaeologist Christer Penge and his two research assistants stumbled upon the discovery of the Farmaðr Aðalsteinnson tomb. The tomb is located in a glacial ravine leading into the inner most end of Macbeth fjord, a fjord that feeds into Home Bay, in Baffin Island. It is directly 1796 nautical miles from Greenland's Disko Bay, where one can best view Baffin Island across the Davis Straight. (Illustrated later in Figure 14). Archaeologist Helge Ingstad suggests this view is that which inspired the Vikings to name Baffin Island as "Helluland" which translates from Old Norse as land of the plains.¹² The view from the most populated area of Greenland in the 11th century, the Disko bay area, is situated at one of the narrowest points of view across the Davis Straight towards Baffin Island and also towards some of the longest stretching coastal plains of most of Greenland and Baffin Island until the plains reach the foot of the Baffin Island mountain chain. During a research trip, and after remarking on this last observation, Penge set out to measure the shortest distance between the foot of the Baffin Island mountain chain to Greenland's Disko Bay. By a hunch for something not nearly as critical as a burial tomb, he made the discovery which could have only been made by approaching the site by land, owing to the embedded nature of the tomb into the bedrock, almost invisible to aerial scrutiny, never once noticed by Energy, Resources and Mines Canada in their topographical mapping of the Arctic until the 2003 discovery.



The tomb is also home, or perhaps can be considered the reliquary, to the personal story of the Norse sailor and explorer, Farmaðr Aðalsteinnson. Aðalsteinnson carved his life story, told in runes, into the ravine walls of the site. Presumably this was after the complete edification of the tomb and the abandonment of his crew, whilst he was awaiting his death. While archaeologists can only speculate on Aðalsteinnson's ulterior motives, archaeologists are certain that this is written document is the only known first-hand account of this eleventh century period, the only other textual accounts dating to the Vikings in this period having been written two centuries after the Greenland sagas by Christian-converted Icelandic poets.

Figure 01:
Sectional Model Representation of the excavated
Aðalsteinnson tomb



Figure 02: Sectional Study of the completed excavation of the Aðalsteinnson tomb

1. 10 meter long knarr
2. 10 meter long knarr (with clinker skin removed)
3. Meginhufur Iron Rod running length of gunwales of both knarrs (shown in red) tied into bedrock
4. Rough Excavated Bedrock
5. Polished Excavated Bedrock with Runic Inscription
6. Small Grave Boat of Karv-type Construction (under which Aðalsteinnson's bones were found)

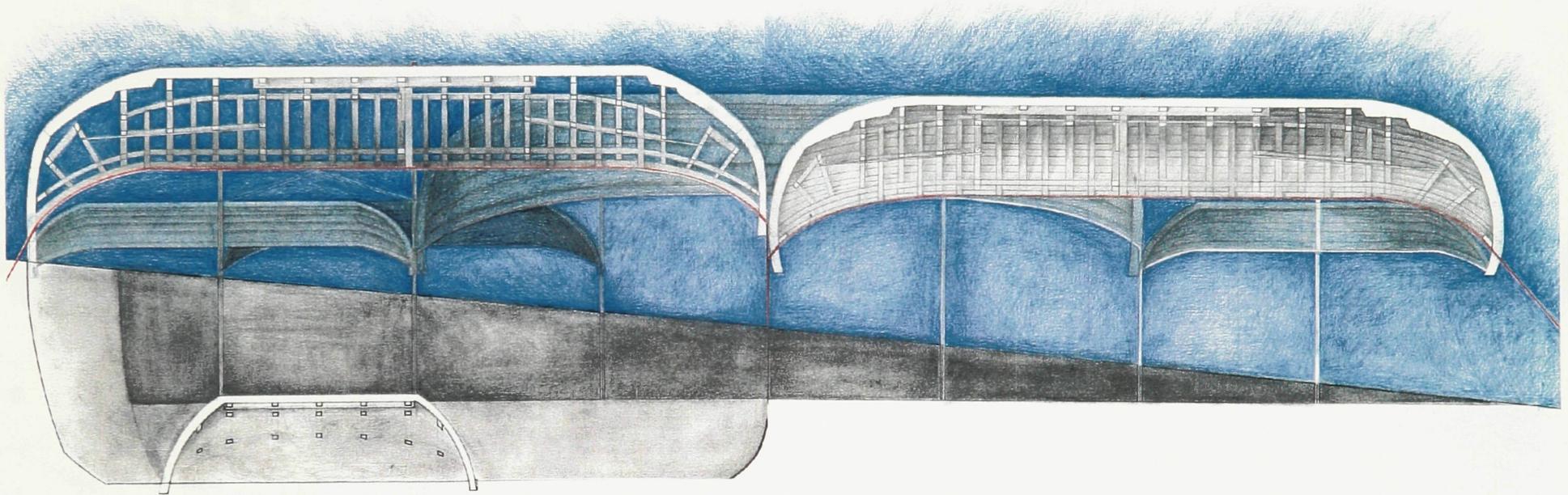


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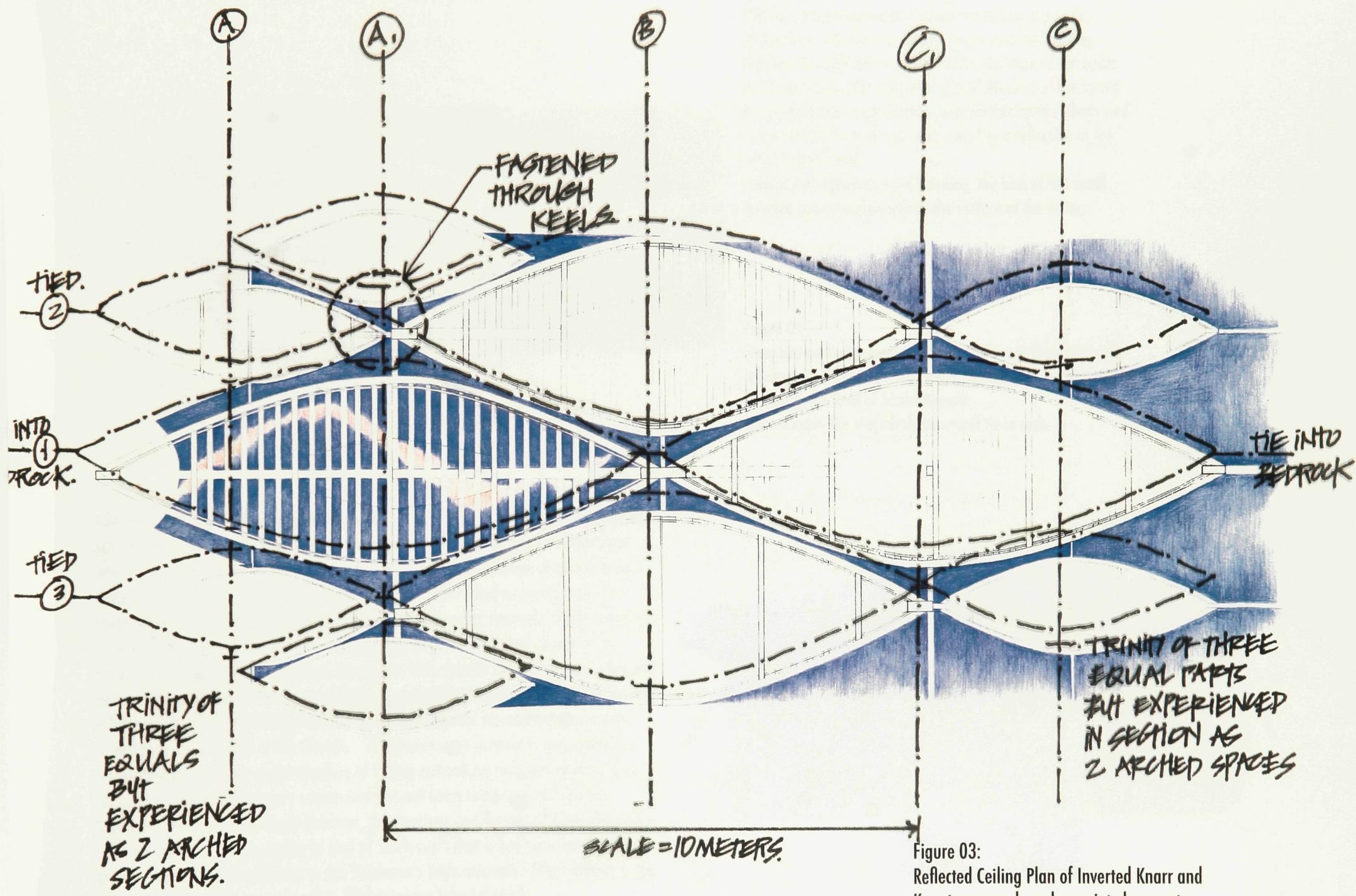


Figure 03:
 Reflected Ceiling Plan of Inverted Knarr and
 Karv type vessels and associated geometry

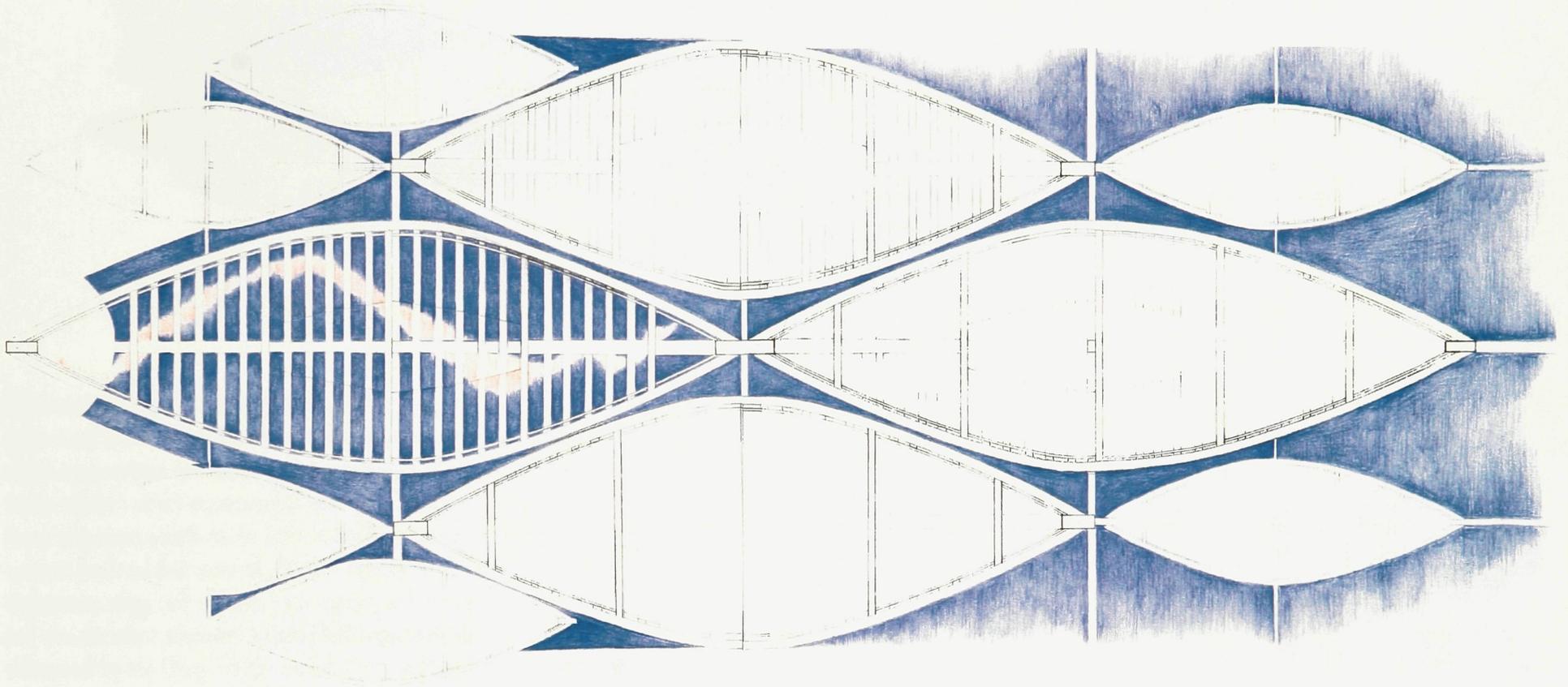


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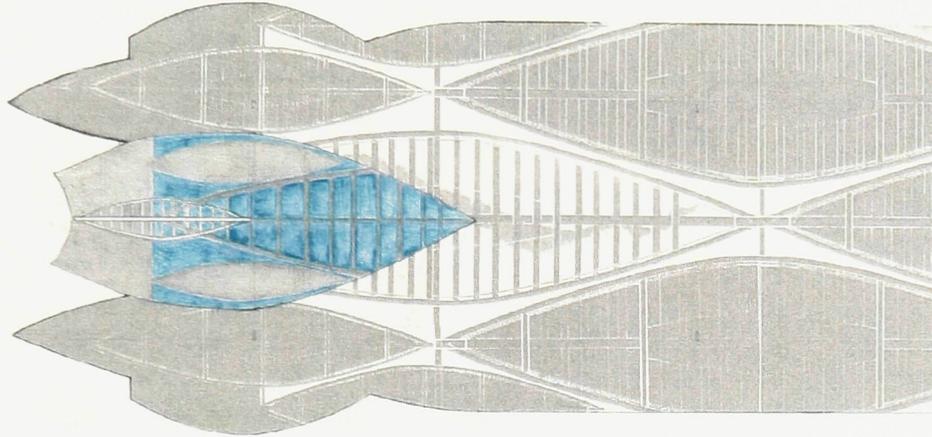
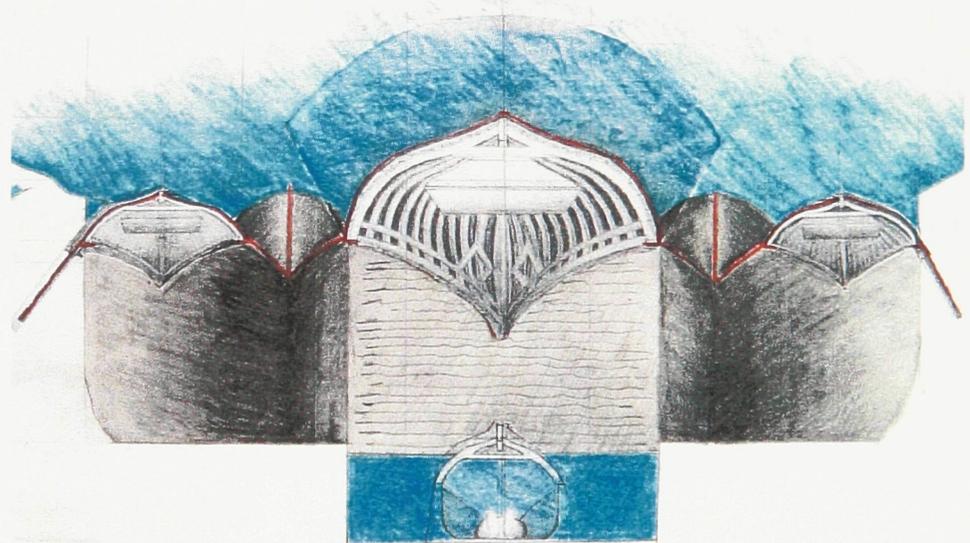


Figure 04:
Plan of completely excavated Aðalsteinnson tomb site. Shown here with the sun setting in the west and casting shadows through the overhead ceiling structure of the boats onto the ground plan and after glacial flooding of the spring has occurred and trapped water over Aðalsteinnson's body and at the foot of the runic text wall, creating a reflection of the structure overhead.

Even at the highest point of flooding, the keel of the small inverted grave boat punctures the surface of the water.

Figure 05:
Cross-Section facing towards the East taken at Gridline A with reference to Figure 02, cutting through skeletal knarr boat and the rest grave boat of Aðalsteinnson. Red indicates the Meginhufr structural tie-in rods.



Aðalsteinnson's textual account is invaluable, in that it confirms many of the events referenced in the Snorri Sturluson's epic sagas of the Norse settlers in Greenland which were written two centuries later and until now were treated suspiciously by many scholars as an accountable text. Aðalsteinnson's text supports many of these suspicious events in the later Icelandic accounts. For example, Aðalsteinnson's account confirms that most of eleventh century Greenlanders had converted to Christianity after Leif's return from Norway in 955, despite the skepticism of Ingstad and various other scholars. Ingstad had suggested that Sturluson's saga was heavily influenced by the Church in the period it was written, and his account was meant to enhance the prestige of the Church. Aðalsteinnson's account is invaluable for reconciling an accurate understanding of Viking outlook on religious construction because the data is a primary source and has not been tampered with by the Christian church. Interestingly however, the structure and format of Aðalsteinnson's runic narrative is still so similar to that of Sturluson's that it has contributed to a greater recognition of accuracy to the Sturluson's saga accounts. What follows is the translated text of the runes found in Aðalsteinnson's burial tomb.

Figure 06.A:
Aðalsteinnson's translated Runic Inscription

†
1 My journey to the rainbow bridge* has come to pass.
2 I, Falmadr*, son of Adalsteinn, son of Hallfrid The Just,
3 Having crossed the oceans vast, having landed on the
4 Shores of fabled *Helluland**, where I will build my tomb.
5 Here, I will make the tribute to the exiled gods of old.

6 Banished from the wasted homelands by the one god,
7 The lone god who has captured the spirit of my people.
8 Where have you gone, brave Odin? And where are your
9 Children gone? Who is this one god, this god of sword,
10 of slaughter, to challenge the pantheon of the Aesir?*

11 I come to honor the old ways, in this place of no roads,
12 Only bridges that fill the sky and vanish with the night.
13 I come to offer my remaining days, cursed with this
14 Blight*, stricken in the prime of my immortal youth.
15 I have left my homeland, my family, to find my death.

Line 1: "rainbow bridge" refers to the Bifrost, the sacred bridge of the Norse pagan faith which is the rainbow passage between Asgard and Midgard.

Line 2: Falmadr is a proper Old Norse name which also means sailor. It is suggested that Falmadr might have sailed in the Viking longboat, the drakkar, and raided villages and monasteries in Northern Europe and the British Isles.

Line 4: "Helluland" refers to the Baffin Island as it was then named.

Lines 6-10 refers to the new faith of Christianity, as pronounced the new faith of Norway by the king sometime before 955. It seems that Aðalsteinnson concluded that the Christian Church would retroactively punish him for his sins as his expertise in sailing and taste for adventure would likely have brought him into earlier, violent contact with the monasteries of the British Isles.

Line 14: "blight" is assumed to be in reference to Aðalsteinnson's leprosy. Through the process of forensic anthropology, scientists were able to analyze the DNA of Aðalsteinnson's bones for pathogenic bacteria, as is found in leprosy, the plague, cholera and syphilis. It is unlikely that Aðalsteinnson's crew knew of his suffering. Leprosy is one of the oldest, and most notorious, of diseases, the earliest account dating back to 600 BC. Although an airborne disease of which many people were immune, the transmittance of the disease was unknown at the time, and leper sufferers were exiled outside of the cities for fear of contagion.

Figure 06.B:
Aðalsteinnson's translated Runic Inscription

2
16 Set sail from Bergen in late August, when the ocean
17 is at its friendliest. Six knarr* with crew of sixty men.
18 Good supply of fourteen goats and forty-three hens.
19 We hoped to arrive in Gröenland by late September.
20 But the gods will not allow us to all find sanctuary.

21 Mighty fjords of Gröenland! Settlement of *Brattahald*.*
22 The one god precedes us, we have sailed too slow!
23 Everywhere I see His* corrupting influence, damned
24 Lief has betrayed our people. Our chieftains impotent,
25 Enthralled to Christian taxes.* Little hope to be found.

26 My illness spreads daily*. Two new patches overnight,
27 The total now to five. All prayers to Odin that the blight
28 Has not reached my face. The presence of their one god
29 Curses me, His very name plagues me. We must escape.
30 At dawn, we leave from Disko Bay*, and on to Helluland.

Line 17: "Knarr" refers to the most sea-worthy type of Viking vessel used to cross the Atlantic Ocean. One was found in the sculdelev boat wrecks, in the Roskilde bay, and was rebuilt according to its anticipated structure, and then tested in its capacity to sail with livestock across the same ocean, whereby it succeeded. The boat itself is much like a merchant ship, designed wider than a drakkar so that livestock can step in and out, but not designed for the type of quick manoeuvres associated with the boats the Vikings would have taken on raids, nor for nearly as many oarsmen. The knarr only requires ten to fifteen oarsmen, unlike the longship, the drakkar, which needs sixty or so and is intended for coastal voyage only,

Line 21: "Brattahald" refers to the first established settlement of Eirick the Red in Greenland.

Lines 21-25: "His" in reference to the Christian God. This account confirms Snorri Sturluson's later accounts of Lief Eirickson's, who it was said persuaded Greenlanders to become Christian, and furthermore, his mother, Thjodhild, to build the earliest church for the faith. As such, it is likely that Aðalsteinnson's references to taxes would presumably be the taxes that Thjodhild's church would collect, much like most churches did in the medieval period in Europe.

Line 27: Confirms the earlier reference to blight as the spreading illness he is suffering, Presumably the patches of which he is referencing are leprosy spots, which usually develop on the colder areas of the body such as the face and nose, but also the feet, legs and lower arms. Visible leprosy in this period bore a heavy stigma owing to a lack of understanding regarding the contagious nature of the disease, and also owing to its highly visible disfigurements to the body. It is now established that leprosy is caused by a combination of malnutrition and genetic lack of immunity to the disease. It is speculated too however, that perhaps the worst form of leprosy would have been contracted by those of upper class, whose diet consisted of more cholesterol, such as this chieftain, as we know the leper organism requires cholesterol for its growth. DNA Palenpathological testing in the Lund burial site shows that approximately 3% of the Viking population bore signs of the illness towards the end of the 10th century.

Line 28: Aðalsteinnson addresses what the excavation of his burial site confirms—that none of his crew was buried along with him. As such, the last leg of the journey to Helluland was largely unplanned. It seems his original intention was to escape to Greenland where he hoped Christianity was not being largely practiced. When he arrived and it was, he recognized the named and unsettled island just across the Davis Straight from Greenland and sought escape once more, likely coupled with his increasing illness as a motive.

Line 29: Confirms what Snorri Sturluson's sagas mentions, along with records of merchant ships from Europe that made the voyage to Greenland for precious items including narwhal teeth, walrus, seal, polar bear, musk-ox and caribou hides. Increased numbers of settlements were found around Disko Bay in Greenland, where Helge Ingstad suggests the southernmost boundary for some game.

3

31 Five nights of storm-tossed winds and rage of the *jätnar*.
 32 Five nights of homesick regret for what I have now done.
 33 I, Falmadr, son of Adalsteinn, son of Hallfrid The Just, have
 34 Betrayed my people, for what? To travel into this nothing,
 35 to achieve, through death, what I failed to win through life.

36 October and we have landed on the lip of Asgard's mouth*
 37 Now I must explore this new land and select a burial place
 38 Which will commemorate the traditional burial of my faith.
 39 Alas, there are no materials to be found, the land barren
 40 Shrub-less, this vast wasteland so like fabled Juttenheim.

41 We have taken the remaining *knarr* to use for materials.
 42 The crew will be our workforce. At dinner, the men agree.
 43 They will return to Gröenland and settle there, find wives,
 44 Sons, or barter passage on a merchant ship to Norway.
 45 The lone hammer of the smithy will echo in their wake.

4

46 And now I rest, at last my labour to the gods complete.
 47 The blight which wracks my body has now commenced to
 48 Seize my mind. Only by Odin's blessing has the sickness
 49 Remained a secret for so long, and from so many men.
 50 Now I will journey to my grave with my honour intact.

51 Into the known nine worlds*, by way of the rainbow bridge*
 52 There, forever my people remain safe from interlopers.
 53 Spared the ravages of the one god, the false prophets.
 54 *There I will escape their retribution for my blasphemy:*
 55 *Sufferance in the underworld pit which they term Hell.*

56 I, Falmadr, son of Adalsteinn, *son of Hallfrid The Just,*
 57 *Having crossed the oceans vast, have landed on the*
 58 *Shores of fabled Helluland, where I have built my tomb.*
 59 *Here, I pay tribute to the exiled and the endless god.*
 60 *Learn all, from what is done here, the old way forward.*

Figure 06.C & D:
 Aðalsteinnson's translated Runic Inscription

Line 36: References the mouth of what is now known as Macbeth fjord, which is at the foot of the twin peaks of Mount Asgard, and is adjacent to Mount Odin, peaks within the Baffin Island mountain chain.

Line 38: References how in the high Viking Age before the onset of Christianity, the highest honour in burial practice was of being buried with a highly ornamental boat, like that of the Oseberg or the Gokstad—sometimes crafted uniquely for the purpose of a burial boat, but often used leisurely beforehand.

Lines 41-45: In Adalsteinn's case, he is left without much of a decision in whether or not to use the remaining *knarr* vessels he has taken with him on his voyage to Greenland since Baffin Island is essentially desolate of any kind of building materials. Furthermore, in his use of the *knar*, there is no earth by which to bury the vessels as in traditional burial practice. Most likely this influenced Adalsteinn's decision to invert the boats and create shelter. Fortunately, the *knar* of the Viking Age, like many wooden boats today underwent wood preservation treatment. It is anticipated that the construction of most vessels of the Vikings were constructed over a period longer than a year, and that during winters, the Vikings immersed the incomplete boats in water and/or bog mud. The effect of the acid in the bog mud enabled the boat impermeability to water afterwards. It is made clear that only six *knarr* initially made the voyage to Greenland and that only the remaining *knar* were built into the design. Dechronlogy shows the four central boats are from oak in Norway, and that the smaller *knarr* are from timber from Labrador, or then called Markland. Ingstad documents how the Norse settlers would have voyaged to Markland in order to collect timber for the construction of smaller boats.

Line 51: The known nine worlds reference the nine fabled worlds of Aesir in Norse mythology. They include among them Midgard, the earth of humankind, Asgard, home of Odin, and a number of alternative heavens and hells for different types of deceased, or a fallen soldier, or a martyr. All nine worlds were believed to have been ruled by Odin, who with the help of his two ravens Huggin and Muninn, would supervise each of them.

Line 51: The Rainbow Bridge is again in reference to the holy bridge of Bifrost which linked Midgard to Asgard. It is probably no coincidence that the aperture in the boat directly over Aðalsteinnson's tomb is an architectural effort to create a passage for this bridge to Asgard. The intention of this aperture is a potent element of Aðalsteinnson's design, in that it not only creates a passage for transcendence of the gods to earth, but is actually made more believable in that seasonally it opens up to the northern lights, which happen to cross the sky in an array of colours, akin to the rainbow of Bifrost.

Line 59: "Here, I pay tribute to the exiled and the endless god" references Odin as the essential God. Not only is Odin the most revered god in Norse mythology, but he is said to have command over multiple

after-life worlds. Norse legend also explains that it was Odin who revealed the secrets of the runic language to mortal man, and as such, it was believed that Odin could be called upon by carving these runes. If so, this might help to clarify the reasoning behind the double entrance to the tomb facing Eastward. Perhaps the double arched entrance between the gunwales was made in an effort to consecrate a home suitable enough for Odin in Midgard. The double portals could be in reference to Odin's two ravens, Hugin and Muninn, to come and go through each portal by day and returned to Odin with their reports each night. It seems plausible then that Aðalsteinsson's intention for the tomb was not only to honour his death, and perhaps martyrdom, with a traditional Norse burial, but to also give his god Odin a seat in Midgard from which to rule the nine worlds of Aesir. It is academically accepted that the Viking boats represented a culmination in the advancement of boat-building skills, in both scale and in sophistication. According to Johannes Brøndsted, "the ships of the Vikings were the supreme achievement of their technical skill, the pinnacle of their material culture; they were the foundation of their power, their delight, and their most treasured possession. What the temple was the Greeks, the ship was to the Vikings; the most complete and harmonious expression of rare ability."

Brøndstad goes on to explain that Viking vessels should be considered sacred. This spiritual significance makes sense, when viewed against the culture of the time. Only boats would provide the Vikings with the means for local and distant transportation, for fishing, and for the riches brought back from raiding towns and monasteries. On water, the boats of the Vikings could far outmanoeuvre any other European contemporary boats. (The greater significance of the boat is further explored in appendix B.)

Clinker-built boatbuilding technology is generally attributed to Scandinavian heritage which culminated in the time of the Vikings. It may be that remote influences from skin boatbuilding traditions played a larger part in Scandinavia than in main European developments of the period. This led to the development of a special family of sensitive, aristocratic boats, boats associated with the activities of a very energetic and virile people, well recorded in the vivid poetry of the sagas, and sufficiently alien from the modern world to grip the imagination today.

It is established that only people of nobility were traditionally granted the honour of boat burial, usually in meticulously ornamented boats, like the Gokstad or the Oseberg ships. Farmaðr Aðalsteinsson's motivation for designing his own burial tomb, thus suggests he held a wish for his own salvation, following his death. By the end of tenth century, eventual conversion to the Christian faith would have been very difficult to escape in Scandinavia and, according to Aðalsteinsson, in Greenland also.

This hypothesis is bolstered by the ideas of religious historian Mircea Eliade. In his book, *The Sacred and the Profane*, Eliade argues that death is the supreme religious initiation, and second, that the death of the profane condition is always followed by rebirth and access to that of the sacred world. As such, for Aðalsteinsson, inscribing his life's account and building architecture of respect to his faith might be only an enrichment of the initiation of his death for his final access into one of the desirable spiritual worlds of the Norse pantheon.

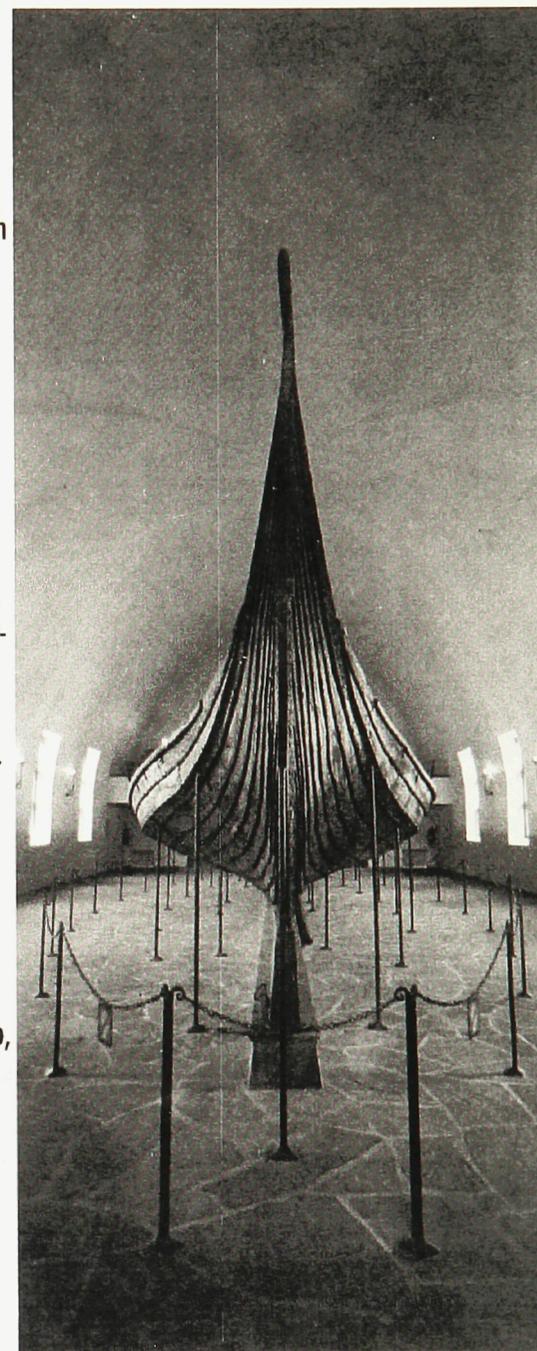
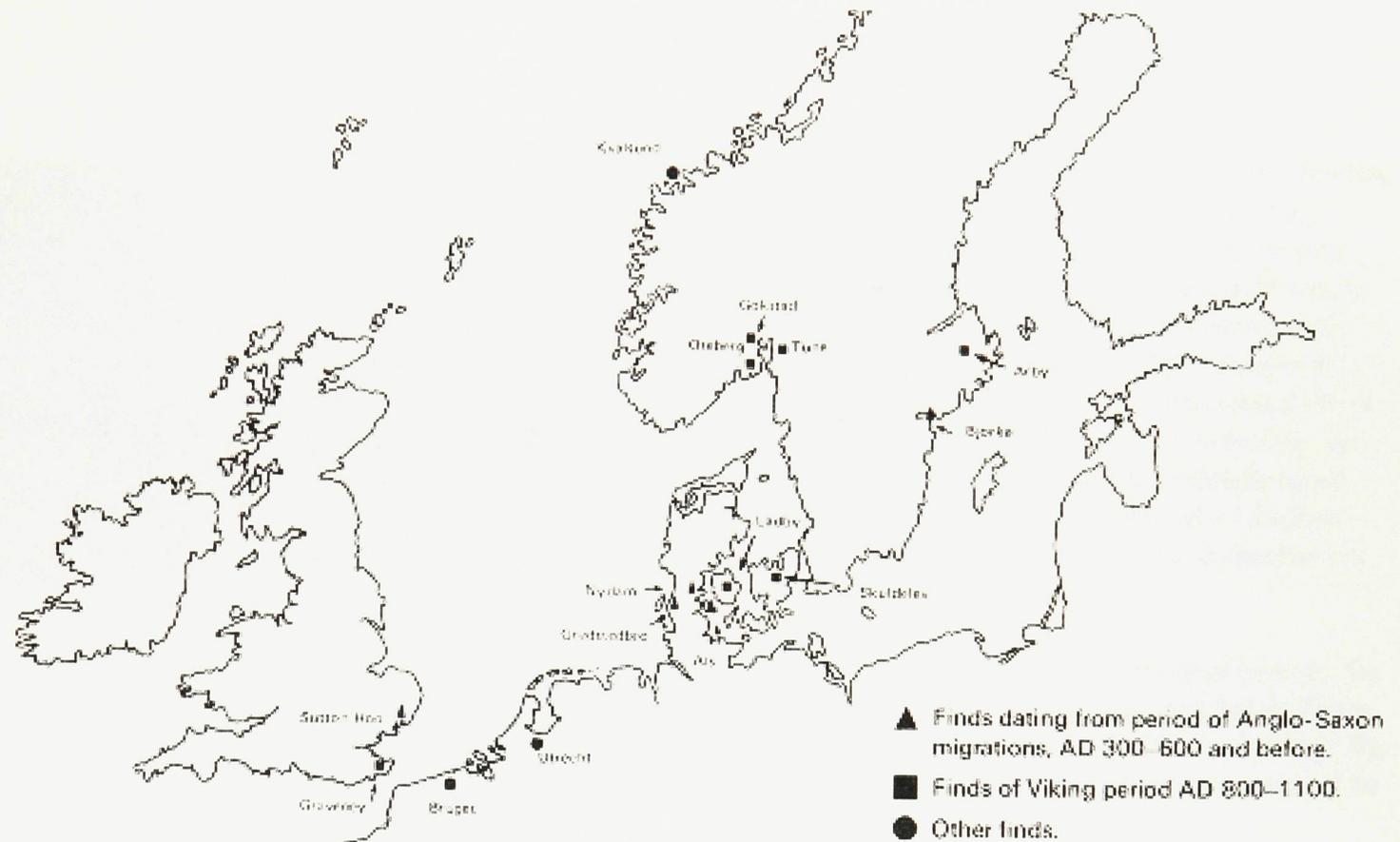


Figure 07:
Oseberg Burial Grave Ship

Figure 08
Map of Viking Burial finds.
 Interestingly, the Viking excavations have all been discovered and carried out only in the last two centuries.



Many of the Viking archaeological sites were found very recently too. A map of Scandinavia illustrates the a high proportion of archeological excavations, most of which were discovered in the 19th century or later.

Oseberg: Viking burial high ornamented karv boat dating back through the process of dechronology to approximately 815-820, discovered in 1904 in Tonsberg, Norway.

Tune: A boat excavated in a burial mound, a Båthaugen, in Ostfold, Norway which was excavated by archaeologist Oluf Ryah in 1867.

Gokstad: Royally decorated Viking burial boat found in Sandar, Norway, excavated in 1880. It dates back to 890. The ship was a "karfi" built, intended mostly for royal outings.

Ladby: a Viking raiding ship found in Funen Island, Denmark in the 1930s. The boat measured 20 metres in length and 2.9 meters in width with an overall ratio of 7:1. The reconstruction of this boat showed its great agility in moving with the utmost speeds, given a certain shallowness of the water and low height of waves.

Skuldelev Wrecks 1- 5: Five boats excavated, including two knar ships and two drakkar (long ships) that distinguish the two primary kinds of vessels in that period, from a Roskilde bog in Denmark, including the only found Viking ship capable of journeying across the Atlantic Ocean. It was discovered only in the 1960s.

Klåstad: Found in the fjord at Klåstad, Tjølling, Vestfold, Norway. It was built in around 800. It measures 21 meters in length, 4.5 meters in width, and is a clinker-built trade vessel, its ribs and strakes attached with wooden plugs. Excavated in 1970.¹



Figure 09: Ladby Burial Mound, Pre-Excavation Site (Above)
 Figure 10; L'Anse-De-Meadows Sod Dwellings (Below)

The principal explanation as to why these ancient ship burials remained undiscovered for so long is that in the ten elapsed centuries since their edification, nature has reclaimed any traces of man's environmental tampering. Also, traditionally, only Vikings or nobly were honoured with ship burial and were buried with their prize possessions and so, understandably efforts were made to isolate burial sites for fear of theft. Ship burial sites were covered with earth and turf and were not denoted apart from their mounds. This contributes to why archaeologists have only begun to discover the rich archaeological sites of the Vikings in the last two centuries. Traditionally however, even dwellings were buried in Norway. Archaeologists observe how Norsemen traditionally buried their architecture, the sacred and the profane, in the traditional sod dwellings of both Norway and again in the Norse settlements in L'Anse-De-Meadows and Eiricksfjord.

Buried architecture is favourable to archaeologists however, as it has preserved architecture that otherwise would not have survived the elements for the ten elapsed centuries. The recent discoveries of archaeological evidence dating back to the age of the Vikings are greatly aided by the acidity of the earth in its preservation. It is speculated that the Vikings were aware of the wood treatment advantages of the acidity in numerous bogs in Scandinavia, and accordingly, used bog to treat and strengthen their wood for ship-building.¹ This wood treatment has led to a much higher degree of preservation in the four principal Viking ships in Aðalsteinsson's tomb, invaluable in reconciling the architectural context of the said tomb.

Seasonally, the site of the tomb floods with glacial run-off in accordance with the longest days of the year, from the end of May until the beginning of August. At that time, the intensity of the sun persists day and night, and melts the ice from the Baffin Island string of mountains. Contrary to traditional Norse pagan burial mounds and Norse turf houses, Farmaðr Aðalsteinsson's tomb is not buried, per se. It is, however, similarly camouflaged into the landscape, which enabled the tomb to remain un-discovered for over ten centuries.

The actual tomb is constructed from ten clinker-built vessels; four larger knarr dated back to the late tenth century, and six smaller karv-type ships, which have undergone more decay. The four knarr show signs of previous use and are constructed in a similar fashion to the type of vessel that archaeologists have re-built and voyaged with across the Atlantic Ocean, while tracing out the epic sagas, as recalled by the Icelandic poet, Snorri Sturluson. It is about half as short as the drakkar, the type of longship illustrated in the Bayeux tapestry. The knarr found in the tomb measure ten meters in length, and three meters in width and resemble one of the only knarr ever excavated in Roskilde, Denmark; the Sculdelev 1, which is sixteen meters in length, and almost five meters wide.





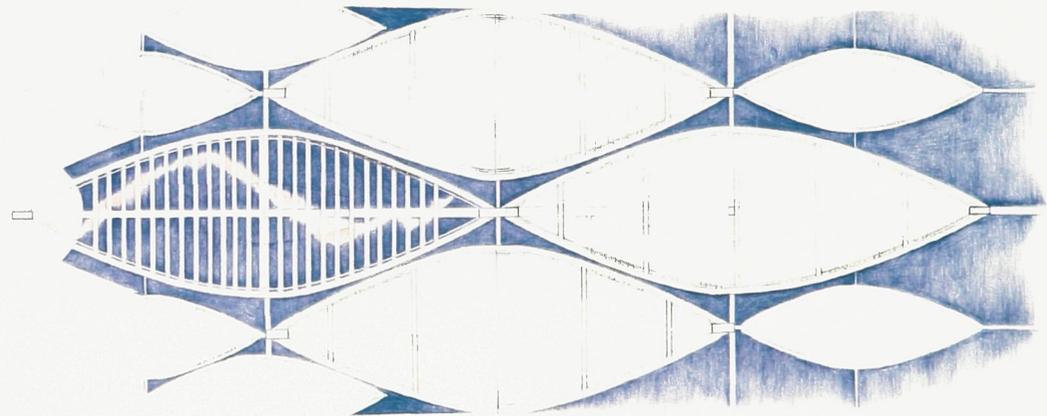
Figure 11: Cross Section of the Ladby:
A Viking Drakkar Rading Ship

The knarr, which is better suited to sea voyages than coastal raids because of its high gunwales and deep hull, but travels at half the speed of less than the drakkar. Inside the hull are reinforcing meginfuhr, cross-bracing the boat like a "Y", a "U" in the hull of the boat and reinforcing beams periodically between the gunwales. Its meginhufr, however, are modified in the central hull, which enables the knar to be loaded down with goods and livestock requiring transport. Overall, the knarr relies on its sail and rudder than it does on its few oarsmen, unlike the drakkar which relies on upwards of sixty oarsmen to sail the boat. Adjacent is a cross section of the Ladby drakkar, a boat intended for speed and coastal voyages, and without the same meginhufr technology as the knarr.

The smaller ships found in the tomb are the karvs, and are exactly half the size of the four knarr. Typically karv ships were built for the common people, used for merchant business and fishing. The karv in the tomb are dated only to the 11th century from local of what is now Labrador, or then-called Markland. Evidence would suggest that these boats were made either upon Adalsteinn's arrival in Greenland, if not Baffin Island and were used during the construction of the tomb perhaps to carry lumber for the on-site smithy. They are similar in proportion to the knarr, but without the cross-bracing meginhufr.

The overall arrangement of the knarr and karv is in an armada formation. All the prows face west and the sterns face east. The most western ship of the four knarr, underneath which the grave boat of Adalsteinn, is stripped of its clinkers, leaving behind only the skeletal meginfuhr, gunwales and boat ribbing. It is speculated that the treatment of the bare knarr is as an architectural response to the situated tomb below it, partially embedded into the ravine. All the knarr fit into one another in plan, the western-most ship's stern meeting the eastern-most ship's bow precariously, and where the prows and sterns of the boats meet, there is vertical iron structure to the ravine bottom.

Some archaeologists suggest too that the skeletal knarr overhead of Falmadr's tomb was an architectural response to the Norse pagan belief of the bridge of Bifrost. The Bifrost was said to be the passage between Midgard (Earth) and Asgard (home of the gods), and was believed to resemble a rainbow. Throughout the endless winter nights on Baffin Island, the aurora borealis would have been a constant and powerful presence. The phenomenon of northern lights would not be unknown to the new settlers, but perhaps the increased intensity of the northern lights in Canada's arctic against that of Scandinavia would have been held in greater reverence. In any case, the skeletal knarr would have allowed for a dramatic view of the northern lights dancing across the sky in an otherwise dark interior, as well as draw in dramatic light by day of the horizontal sun, all emphasizing the importance of the tomb below.



Recall the reflected ceiling
plan of the tomb
(Figure 02)

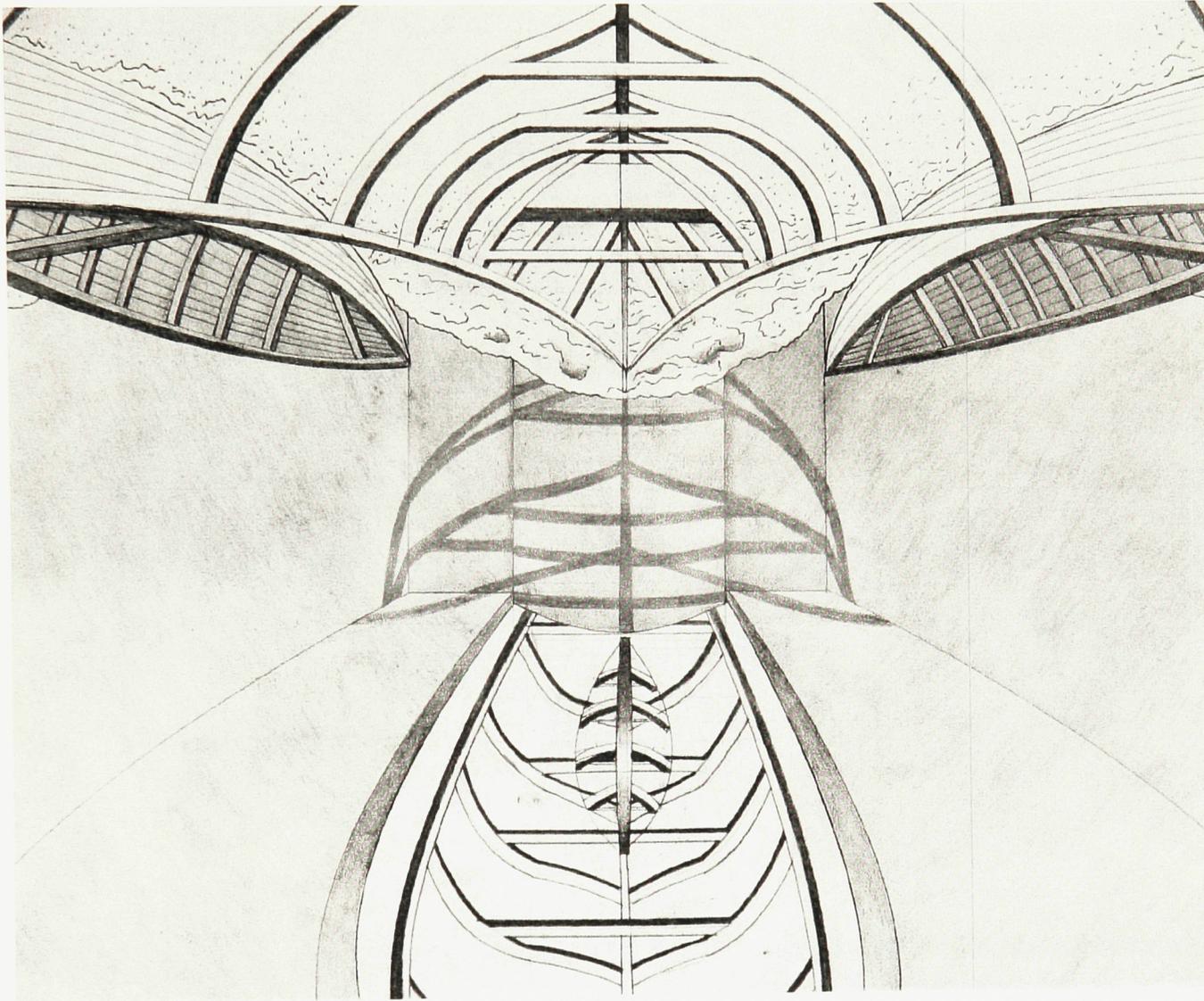


Figure 12:
Vignette inside of the tomb facing Eastward towards the
polished wall with Adalsteinnen's Runic inscription
at the foot of his tomb

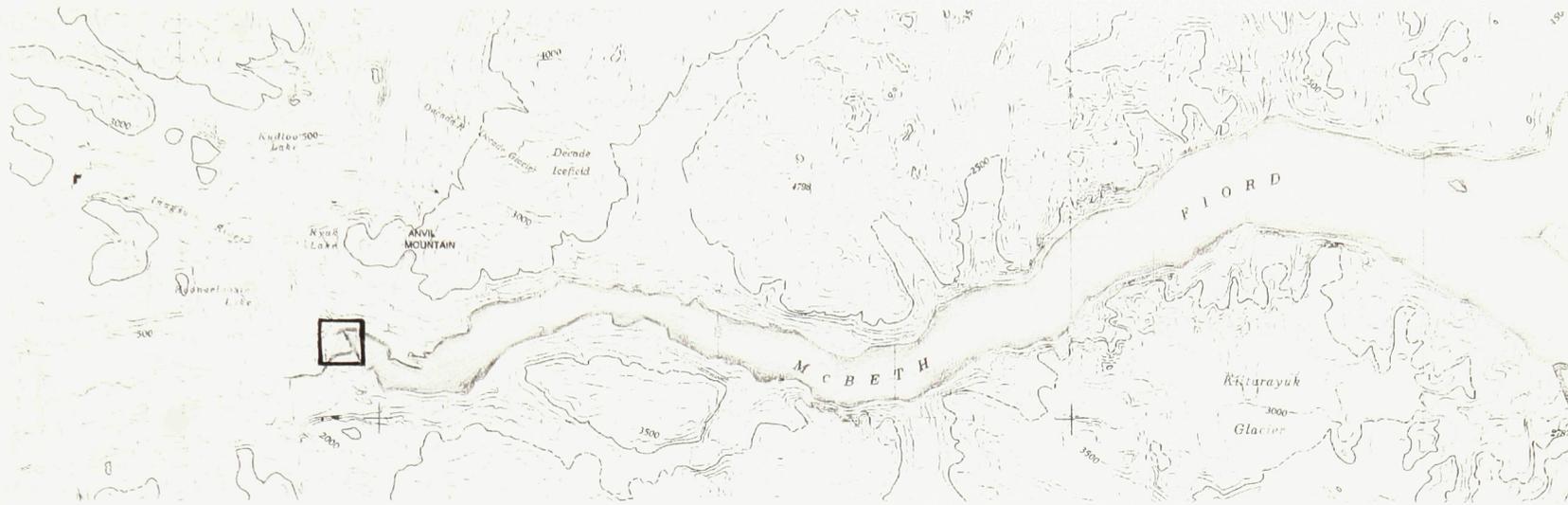
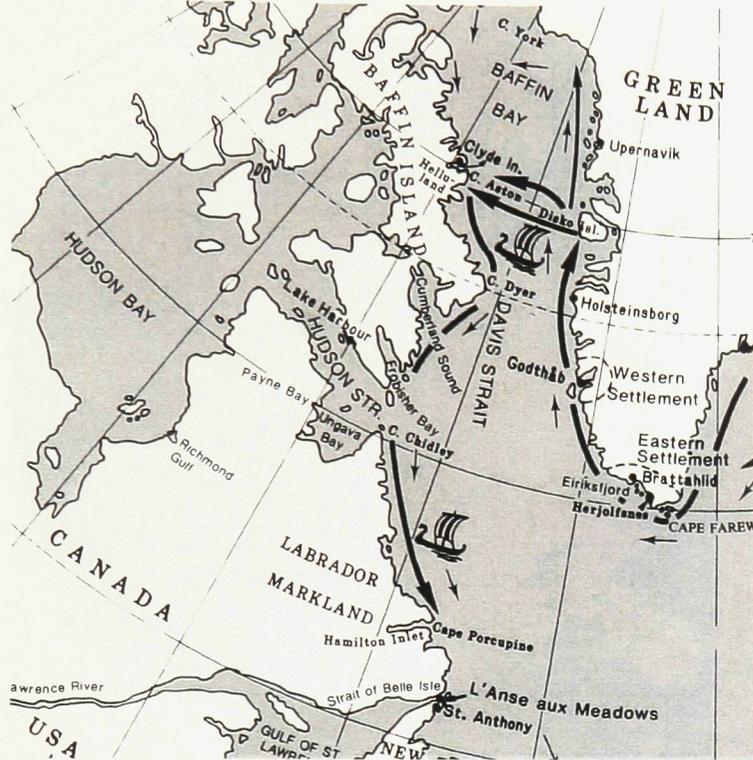


Figure 13: MacBeth Fjord Maps.
 Above: reproduction of Macbeth fjord at approximately 1:250 000. The location of the excavated site is within a ravine that feeds into the Macbeth fjord, which itself feeds into Home Bay on Baffin Island.
 Below: Approximated closer view of site topography closer to 1:50 000 until Energy, Mines and Resources Canada documents the site topography.

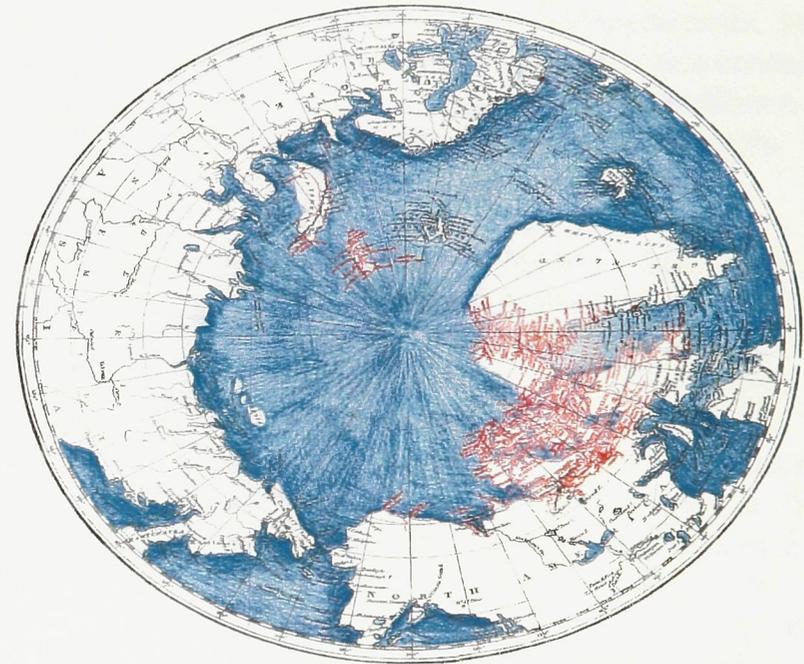
Above: Figure 14: Map of the antipated travels of Lief Eiricksson across the Davis Strait from Greenland to L'Anse-Des-Meadows. Where the straight is narrowest is where the site is on Baffin Island.

Below: Figure 15: Map of the Arctic in the late 1800s. Red shows the areas not yet explored since the Viking Age.



Zooming out, the following image shows how Macbeth fjord feeds into Home Bay, along with its relationship to Disko Bay just across the Davis Strait:

In the previous figure, we see the site is located directly across from Greenland's Disko Bay (near Holdsteinaberg) above the Cumberland sound. According to Ingstad, Disko Bay was presumed to have particularly good hunting grounds for musk-ox, seal and narwhal - all commodities highly sought after back in Europe. Ingstad states how musk-ox wouldn't roam much further south than the Arctic circle, which borders Disko bay. The inland fjords were said to have more wind protection and better soil conditions for the livestock. This helps explain why archaeologists today would have discovered such a large amount of evidence of Norse settlements in the Disko Bay region. The high degree of Norse occupation in this area



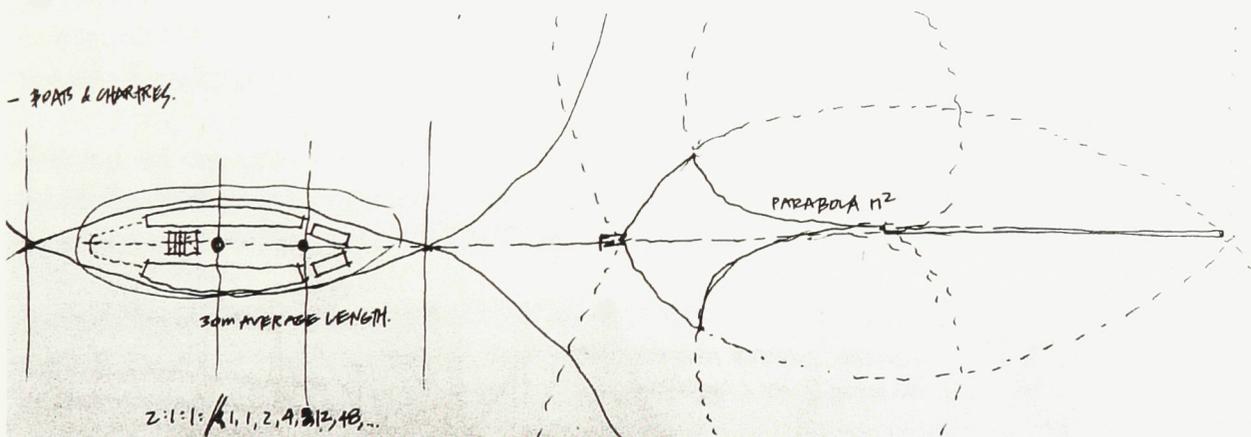
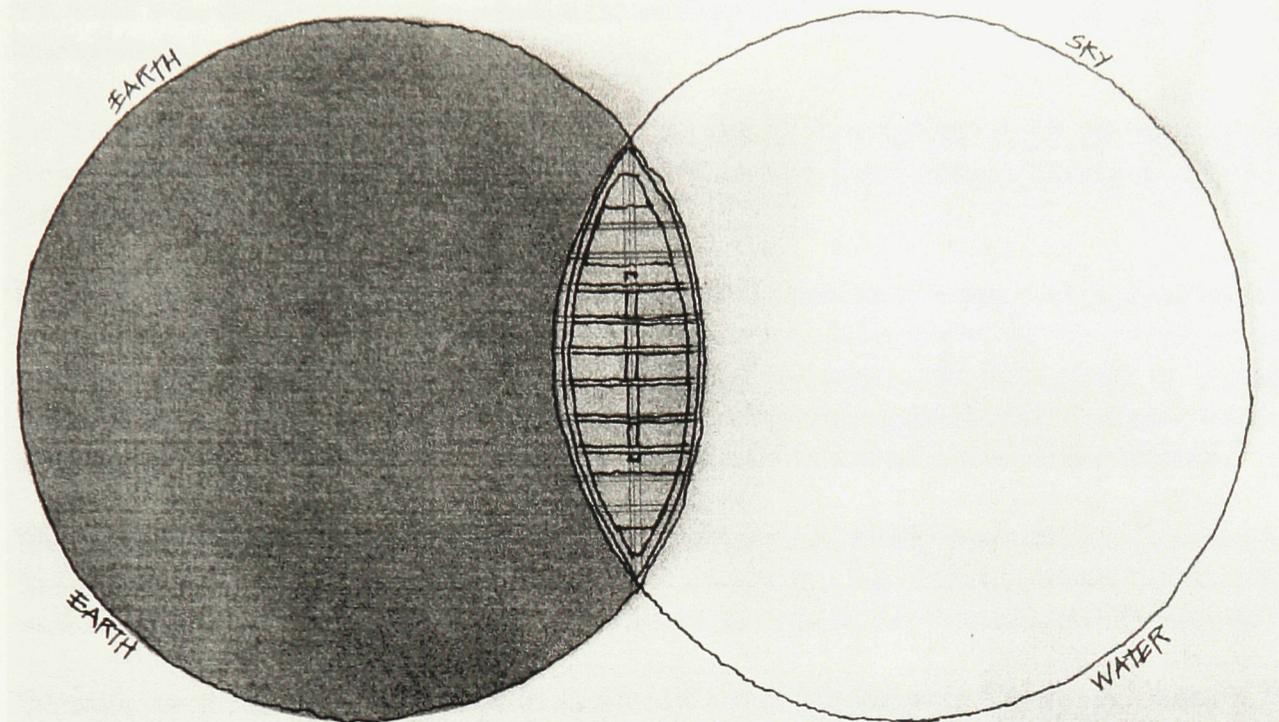
substantiates Raske Penge's research interest in Baffin Island's Home Bay, the nearest body of land visible on a clear day in the direction of the Aðalsteinnsson site.

It should also be mentioned that the Viking exploration of what is Canada's Arctic was greatly facilitated by the medieval period of global warming.² Researchers have found large temperature excursions during the Medieval Warm Period dating from about 800-1300... followed by other large temperature excursions dating from the following Little Ice Age, dating from 1400-1850, which quite possibly relate to changes in the strength of North Atlantic thermohaline circulation. This argument is reinforced by certain sediment findings in Piermont Marsh.³ Some scholars show how the medieval warm period was a real and global phenomenon, The global temperature then was up to 3 degrees Celcius warmer than today.⁴ While, centuries later, the ill-fated Franklin expedition would find itself trapped in the arctic frost, the water passages of this earlier medieval period, as far north as Ellesmere Island, were virtually ice-free.

² Broecker, Wallace.

³ Broecker, Wallace.

⁴ Monckton, <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/11/05/nosplit/nwarm05.xml>



Above: Figure 16: Norse "World Circle" or *Hemingskringla*, according to Snorri Sturluson.
 Below: Field-Study 17: Sketch by Raske Penge during archaeological excavation, 2003.

The Sacred Nature of Duality Embodied in the Tomb:

Many scholars have observed recurring antitheses in the writings of Raymond Roussel. Ford notes, after studying Roussel's many manuscripts, various recurring oppositions, such as "poetry/prose, black/white, male/female,"¹ which he suggests collaborate with Roussel's overall procédé. He adds that he feels that Roussel's stories are "derived by a systematic exploitation of linguistic duality."² The most obvious example of linguistic duality is the use of homonyms in the procédé. I agree with Ford in that the structure of the procédé itself already sets up a structure of oppositions, or dualities, merely by its use of multiple homonyms. Even if both of the possible definitions of the given homonym are not polar opposites of each other, it is sufficient to say that one definition will mean one thing, and the other definition will not mean that same thing.

After affirming the linguistic duality in Roussel's work, I re-evaluated the Danes' archaeological evidence of Aðalsteinsson's tomb excavation, with respect to the repetitious dualities and oppositions embedded in the design of the architecture. I intend to show that the design embodies precise architectural manifestations of duality in the final tomb of Farnaðr Aðalsteinsson. The tomb embodies diametrically opposed relationships of East and West, as well as of the sacred and profane, light and darkness, resurrection and burial, thought and memory, the real and the reflection, as well as other iterations of sacred dualities—the views towards the twin peaks of mount Asgard, the twin entrances of the tomb, and the recurring geometry of twos in the roof structure and plan of the tomb.

1 Ford, xxiv.
 2 Ford, 2.

According to Mircea Eliade, man tries to consecrate the world he will inhabit with the utmost intention of duplicating the actions of the gods, this in order to make a space sacred.³ It should be added that most scholars concur that the eleventh and twelfth centuries were, intellectually, an age of careful dialectics, a working out of relationships that construction could express them with the help of mathematics.⁴ As such, the many recurring dualities that will be revealed in this chapter should be considered in light of Eliade's statement with respect to the dualistic preoccupation embedded into the Viking belief system, particularly the overlapped circles of terra firma and water elaborated in Snorri Sturluson's Hemingskringla.

The precise westward orientation of the tomb also embodies the intention of emphasizing a duality. The tomb is oriented on an east-west axis, parallel to the orientation of Macbeth fjord, which coincidentally has a double mouth meeting Home Bay. Danish archaeologists agree that this orientation is specific to the sacred program of the tomb, likely in consideration of the often horizontal rising and setting sun.

The tomb's entrance faces East, it is suggested, in homage to the native homeland of Norway. Farnaðr Aðalsteinnson's actual tomb is in the absolute most west area underneath the structure. The view of the tomb is framed by the knarr, and faces west. This could be in reference to the yet unknown westward territory to the Vikings. Another interpretation is that it could be a reference to the fabled mountains of Asgard, said to lie outside of the world continent, the terra firma, according to Sturluson's Hemingskringla, text which means "World Circle", the text that embodies Norse Pagan beliefs. A more immediate explanation of the privileged orientation westward might also be the twin peaks of Asgard, two peaks on the Baffin Island Mountain chained named after Asgard, which lie south-westward of the excavation site.

Whereas the traditional boat burial renders a boat landlocked in its gravesite, Aðalsteinnson's tomb actually inverts multiple boat hulls, large and small, upside-down, such so that they are both land-locked by the walls of the ravine, and also rendered sky-locked. If one were to stand and look up from underneath the armada roof structure of the ships, one would catch glimpses of the sky around the contours of the ships' gunwales. As such, the orientation of the boat is diametrically opposed to its regular orientation.

This simple inversion of the boat hull towards the sky instead of towards land (and water) is another embodiment of the sacred duality present in the Aðalsteinnson tomb. In this case, the boat hull, in the practical sense, actually becomes the roof structure to the tomb. In a theoretical sense, this suggests how the boats are rendered sacred, perhaps as an offering to the Norse Pagan gods, or simply in reference to the unreal, imaginative idea of sailing the sky. At the most basic level, the inversion of the ship into the roof structure is an inversion of the real and the imaginary. The most meaningful justification for inverting the ships, I would argue, is the reverence of the boat as a sacred tool and provider—one that Odin himself provided to the Vikings—and thus, the boat symbolizes honour for Odin in Aðalsteinnson's tomb in its precarious inverted positioning as an offering. (Figure 05).

If the inverted ships create a threshold between land and sky, then the underside of the tomb predominantly emphasizes darkness, until one reaches the point where the natural light of the sun or moon or the lights of the aurora borealis punctures the tomb with light through its aperture through the western-most skeletal inverted vessel. It is however the architecture of the tomb that dramatizes the relationship of light to darkness—how one enters into the darkened tomb and the emphasis moment therein.

This inversion of boats is rendered further sacred significance when water is collected into the excavated deeper area of the ravine ground. There, a pool collects water from the seasonal glacial melt until it evaporates or freezes within the site. Periodically, the surface of the water pool reflects the vaulted boat ceiling structure of the tomb – another dualistic relationship that might be interpreted in a variety of ways, including the relationship of thought and memory, of real and unreal, of death and rebirth. Because the ground plan of the ravine is divided into two planes – one to accommodate the retention of seasonal glacial run-off. The other to allow its passage – we see another duality in these grade levels. Where the natural bottom of the ravine is excavated, until it evaporates, water is collected and retained throughout the summer. The seasonal flooding, like all weather, enters the tomb through the western-most skeletal ship.

3 Eliade, p. ____

4 Lopez, p.248

This written thesis itself can be considered as an example of mimetic exchange with the outside world.⁵ According to Michael Taussig, “mimetic faculty is the nature that culture uses to create second nature.” “It is the faculty to copy drawing on the character and power of the original, to the point whereby the representation may even assume that character and power.” Michael Taussig, who aligns himself with Walter Benjamin, agrees that mimesis only exists in the duality with the faculty of alterity, of the Other.⁶ As I intend to show, the concept of mimesis (and more importantly, the larger umbrella subject of duality), is a sacred force which is repeatedly manifested in the recent excavation of Farmaðr Aðalsteinsson’s tomb, as well as the writings of Roussel.

The treatment of the large knarr with respect to the karv also illustrates another relationship of duality, and mimesis, because the karv are constructed like the knarr, just in half their proportion. The karv are inverted just like the larger ships. Like the knarr, iron structural rods dip only to eye-level where their prows and sterns meet another. The karv also support the knarr laterally, where they tie into the side walls of the ravine. Most of the load is carried to the ground through the boats themselves where the meginhufr is run along the gunwales of the knarrrs and karvs, puncturing the keels only where prows touch bows, and transferring the load into the ground. There are also three points of lateral loads (recall the gridlines of Figure 02) whereby the meginhufr weave around the hulls of the boats and underneath the meginhufr of the gunwales running length-wise.

All of the inverted vessels are cross-braced with the mimed logic of the meginhufr so that the structure is solid, with the notable exception that the meginhufr in Aðalsteinsson tomb are made of iron and not wood. Most likely, this is for practical reasons, in that iron was traditionally worked by Vikings, who were the earliest people to discover the properties of iron working. When the rest of medieval Europe worked principally with bronze, the Norsemen did not have any copper available to them, and discovered the melting points and foundry techniques of iron instead. The excavations of the tomb, as well as the settlement in L’Anse-de-Meadows, clearly identify the furnaces of the resident smithy. In the tomb, the furnace was on land adjacent to the ravine, presumably so that construction of the meginhufr framing could continue through the weeks the tomb was flooded. However, it remains unclear why they chose to construct the meginhufr with iron rather than wood, as both would have required wood from Labrador, either as raw material or as fuel for the iron furnace. One interpretation is that it was meant to strengthen the architectural relationship with the old and sacred wood of the knarr against the new, practical use of iron to support the tomb’s roof.

The overall geometry of the tomb reinforces the sacred reverence of two. The tomb is entered by one of two twin entrances, revealed by the openings of the contours of the gunwhales of the three most easterly boat modules. Another duality is visible from the main entrance is the twin peaks of Mount Asgard, south-west of the tomb itself. Two of the four knarr are side to side on the widest section of the north-south axis, and stern to bow in the long section running east-west. The duality expressed of Hugin and Munnin (thought and memory), Odin’s two pet ravens, adds further insight into Aðalsteinsson’s dualistic preoccupation. Ingstad has stated that Odin was believed to answer he who carves out runes from stone. Evidence suggests that Aðalsteinsson’s burial tomb design was built to accommodate the comings and goings of Odin’s ravens, upon the father god’s return. Academics also point out that in Norse mythology, there is no hell underground per se, but rather nine worlds, of which some take place on Migard (Earth) and others in the sky (such as Asgard). This once more honours the sacred power of two.

5 Taussig, ix.

6 Taussia, xi.

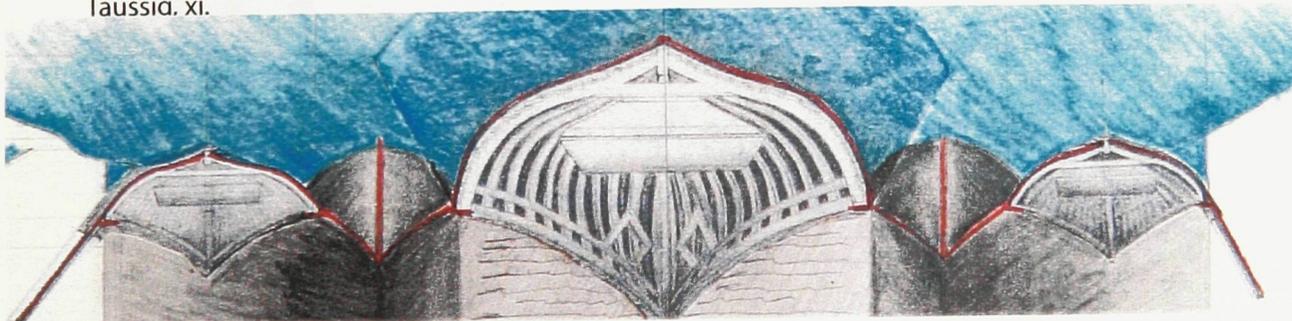
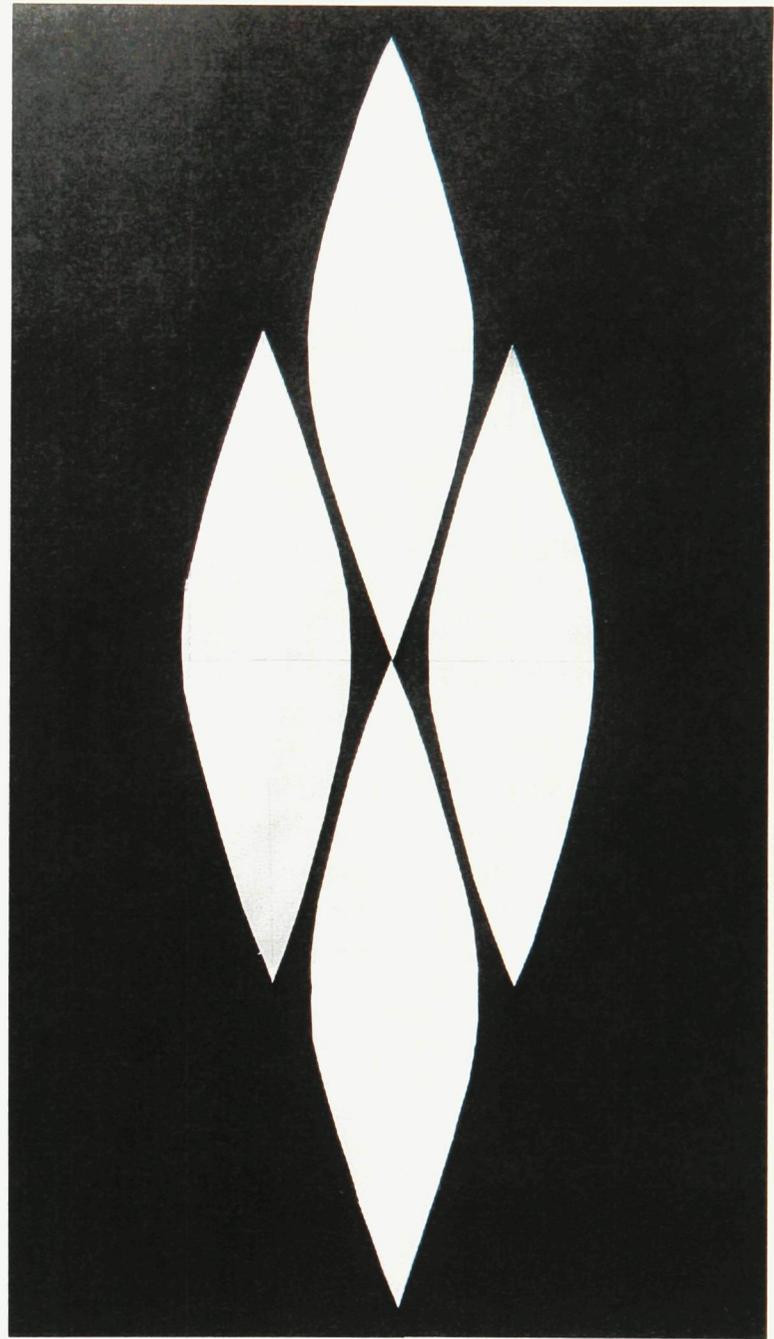
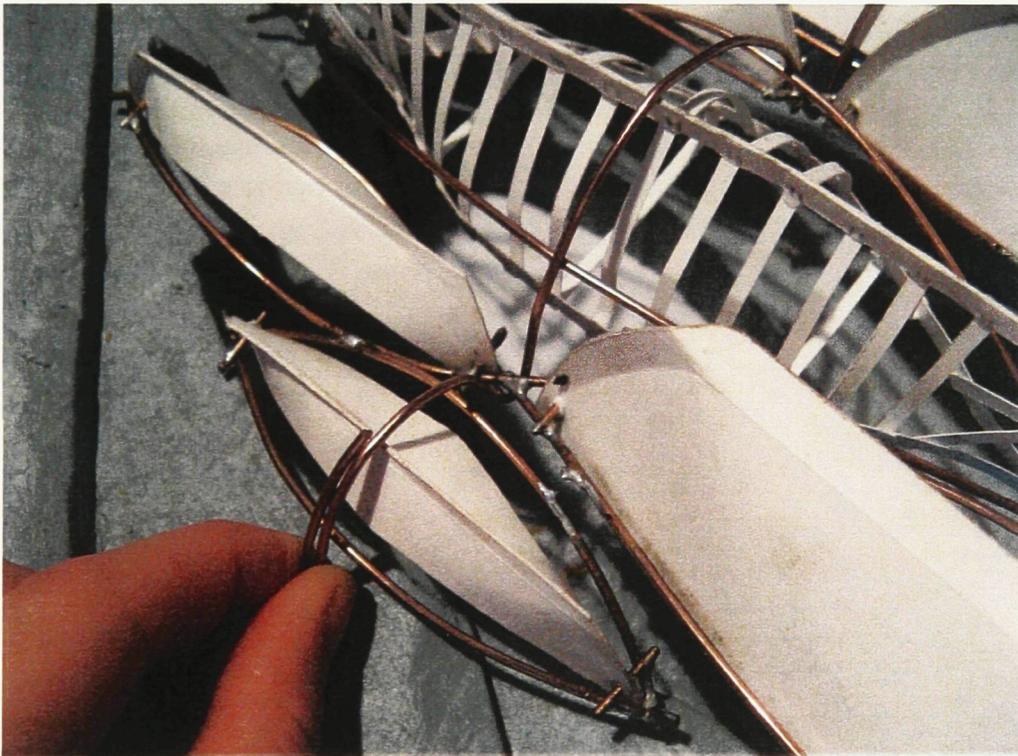
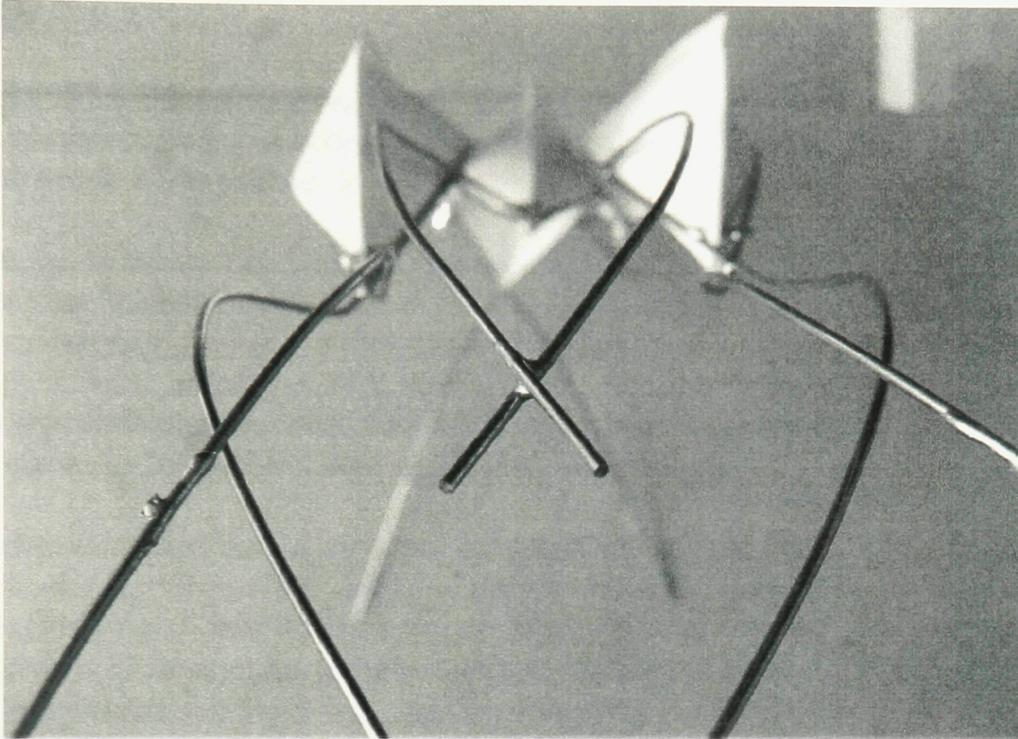


Figure 18:
Meginhufr Detail Shown in Red Tied into Bedrock
(Taken along Gridline A of Figure 02 facing East)



Left: Figures 19: Meginhufr Details on model of the tomb.
Right: Figure 20: Armada formation of four principal knarr vessels.

Conclusion:

Archaeology itself is a science of speculation followed then by its reconciliation which is similarly the integral steps of the Rousselian procédé. In order to create the most plausible story, one must draw from a large inventory of artefacts and facts, or established truths. In *Comment J'ai écrit certains de mes livres*, Roussel posthumously discloses the nature of his procédé; how he generates his story material in the *reconciliation* of two antithetic ideas, or sentences in his case.

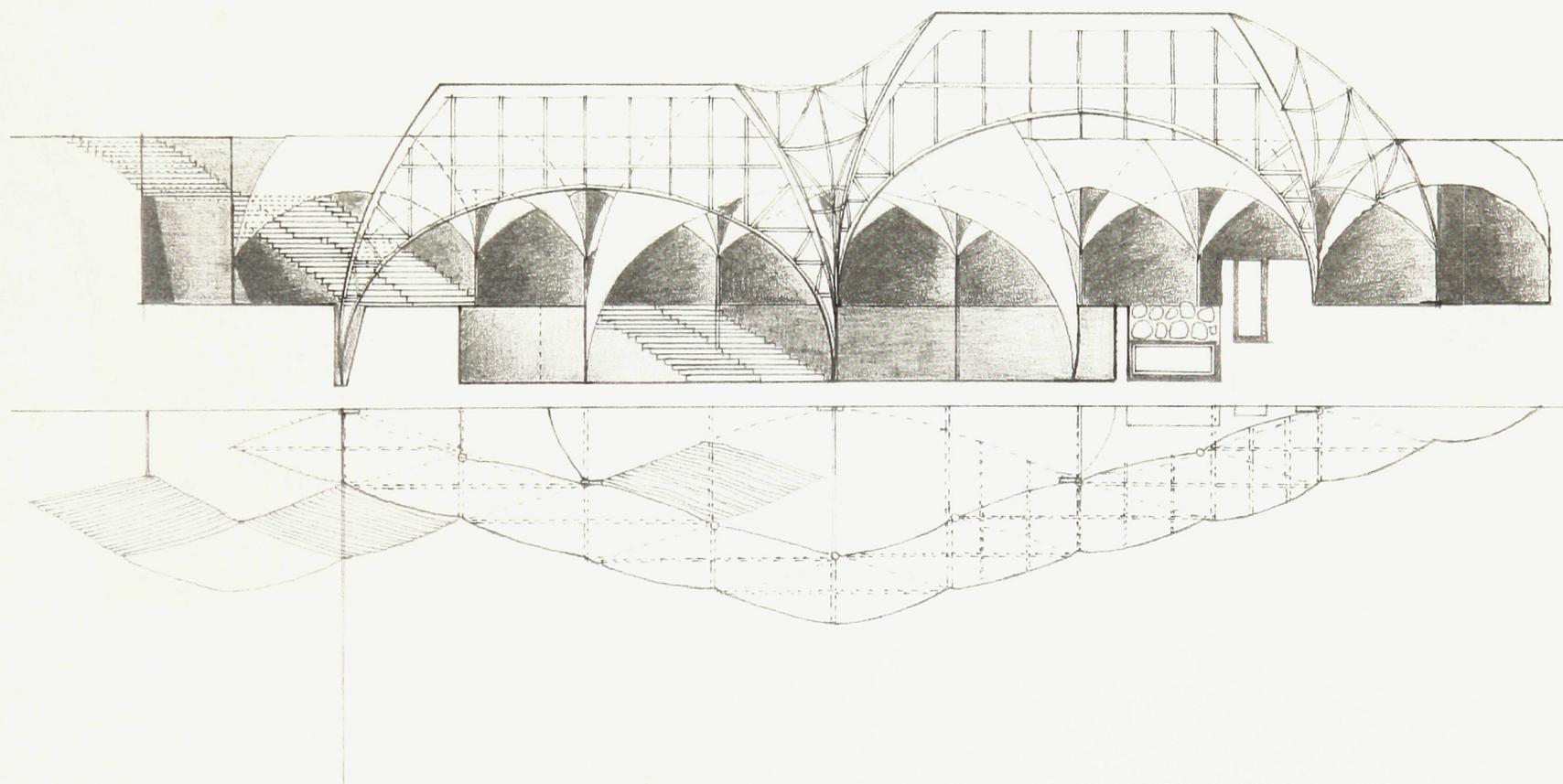
In this thesis, it is the less about the diametrically opposed ideas of Roussel as much as it about the application of the procédé into the domain of architecture. I too will now disclose posthumously how the Aðalsteinnson tomb was of my own *invention* according to the rigorous use of the same procédé. I italicize "invention" because, following the procedure of the Rousselian procédé, it was only out of an exhaustive inventory of established fact that I was able to invent the plausible architecture of the Aðalsteinnson tomb. In exhausting the inventory of scholarly articles based on the Norse Greenland settlers, the Vikings and their technologies in pre-Christian Scandinavia, medieval thought in central Europe and the degree of detail in topographical maps of the Arctic today, I intended to *reconcile* all the many established lines of thought, into the Aðalsteinnson tomb to make it believable enough in combination with excitement at the prospect of the fiction being real.

The final outcome of the tomb was to a large degree, pre-determined in a fashion like Roussel, and his two initial sentences of puns. I knew initially that I would be building a work of architecture that was centuries old in Canada's arctic and that it would have a real counterpart work of architecture, or a corresponding architectural pun, (which is discussed in Appendix B) with which it would be reconciled against. The figures in Appendix A are some of the reiterations of the Aðalsteinnson tomb design and they are labeled as "field-studies" and not as the inventions they are because they were each once true depictions of architecture which reconciled the inventory of facts known to it at the time—the issue being that the inventory of facts forever kept expanding throughout the investigation of the thesis.

Not coincidentally, *inventory* and *invention* contain the same root word, *invent*, just as the word *history* in any of the Romantic languages and *story* are derived from the same root of *storia*. And, there are no shortages of such examples where the ideas of inventory and invention, history and narrative story, or as anything generally accepted as truth sharing a root word with something that generally is fictitious. Thus, when Dalibor Vesely confirms the narrative nature of history and states, "historia is a narrative or program based on the contribution of narrators and poets,"⁷ the idea that history is never objective but rather subjective that is the most relevant point to emphasize, but rather the emphasis Vesely places on the narrator and the poet. This is because, for me, the credibility of the story is not in the delivery, but in the attention to detail of the story, or to the reconciliation of the inventory of facts. The more a story relies on the reasoning that is generally established, the more believable the invention.

Appendix A: Field Work Proceeds:

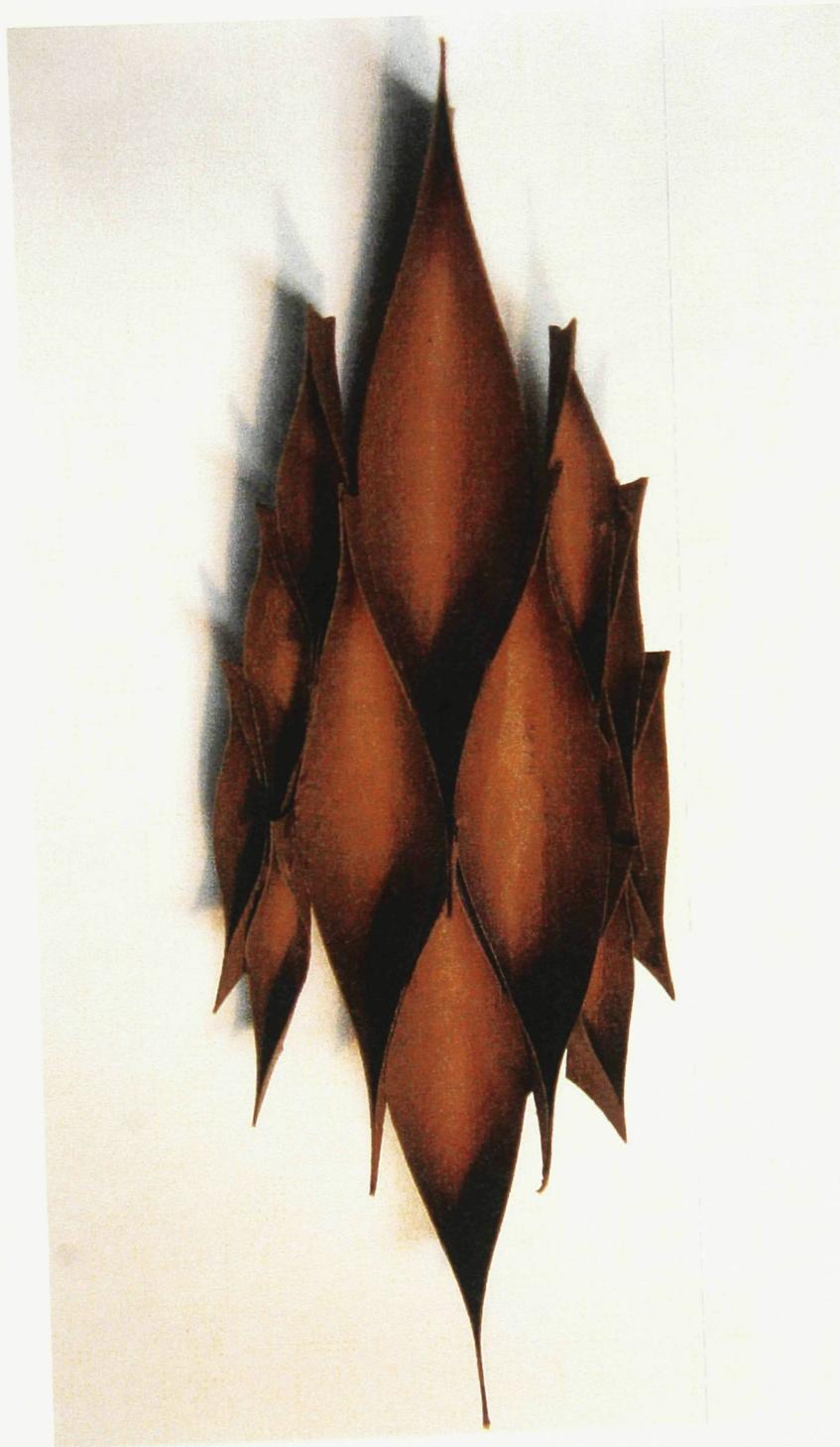
This appendix follows documents the *field-studies* carried out during the excavation process of the Aðalsteinnson tomb. Although none are accurate, they were all pivotal observations to understanding the nature and potential of the architecture in the time of their making.



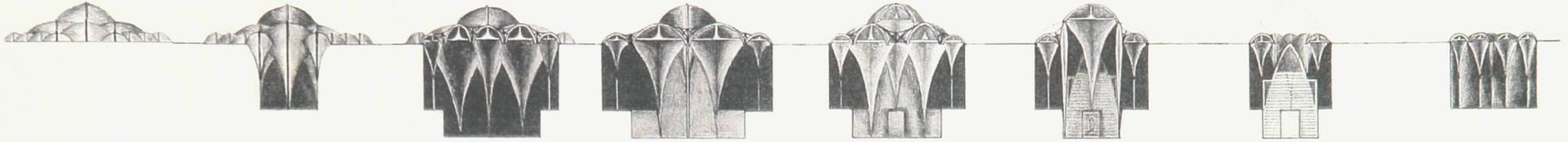
Field-Study 21:
Early Schematic
Long Section and
mirror half of
corresponding
to Anticipated
Architecture to be
excavated.



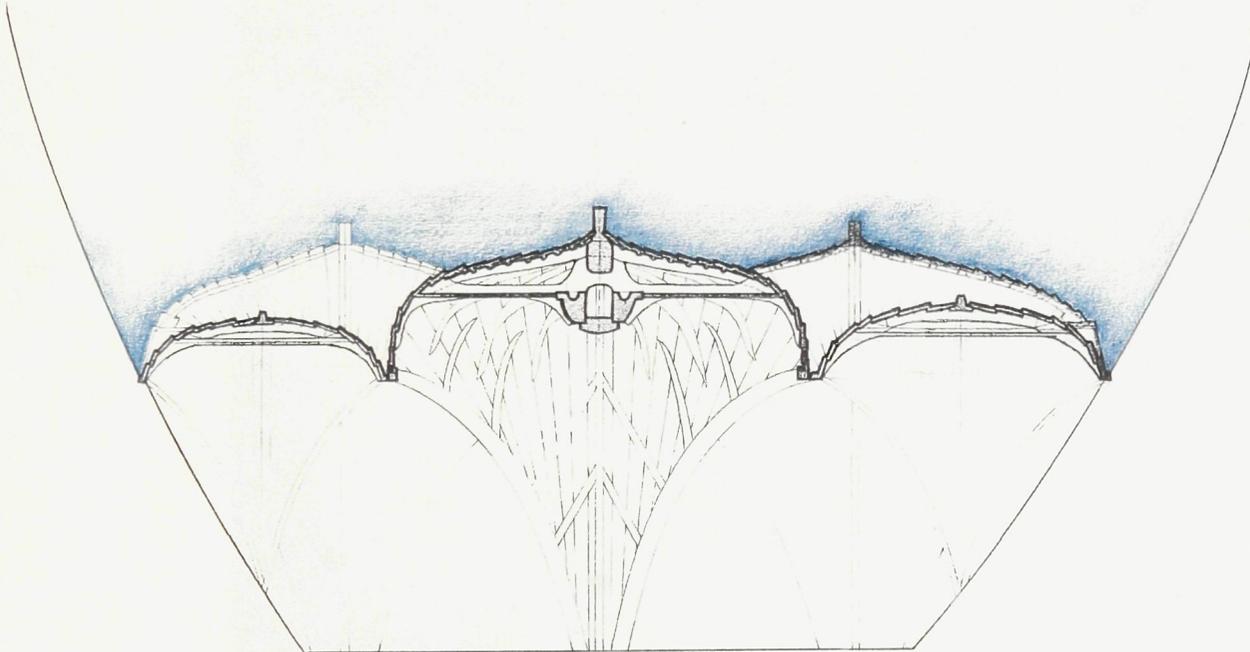
Field-Study 22:
Early Model of
Armada formation
of interlaced
Drakkar



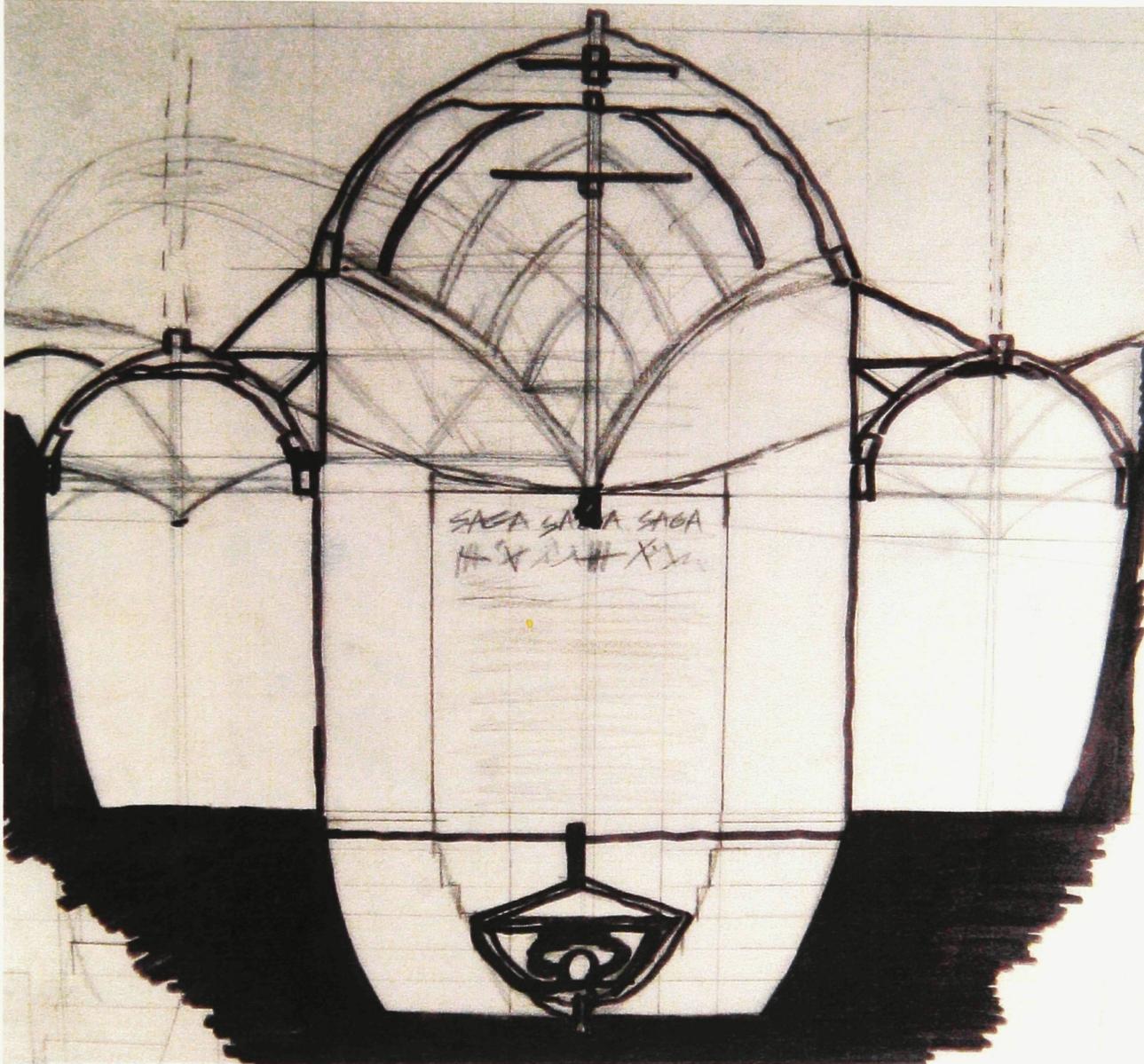
Field-Study 23:
Early Model Study of the Armada
Formation of interlaced Drakkar



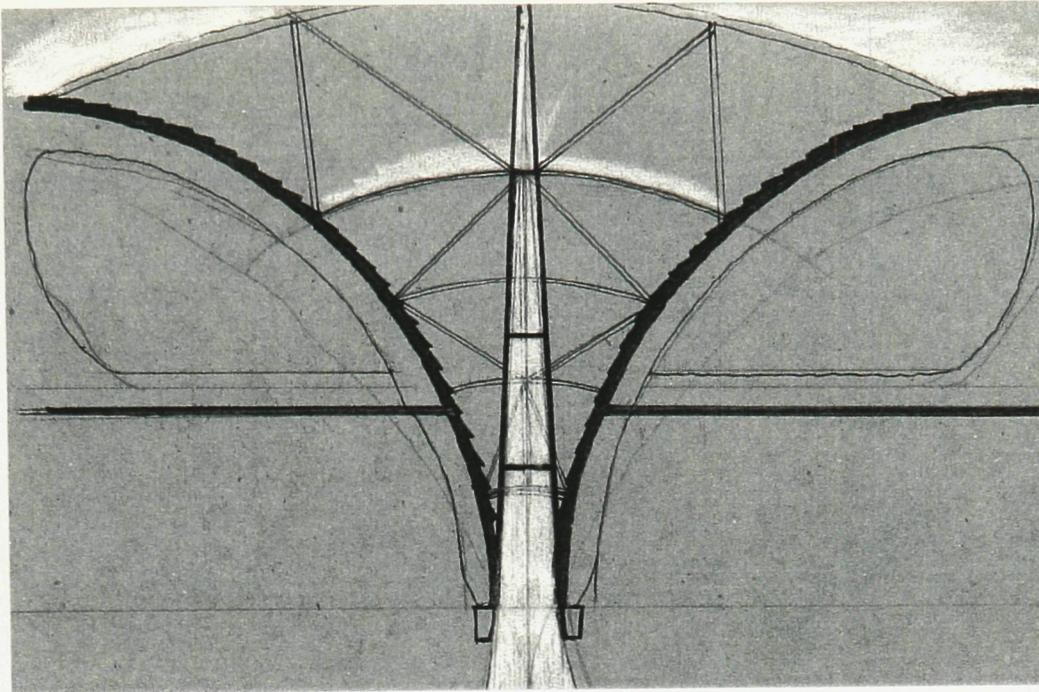
Field-Study 24:
Early Exploration of Tomb through Sections



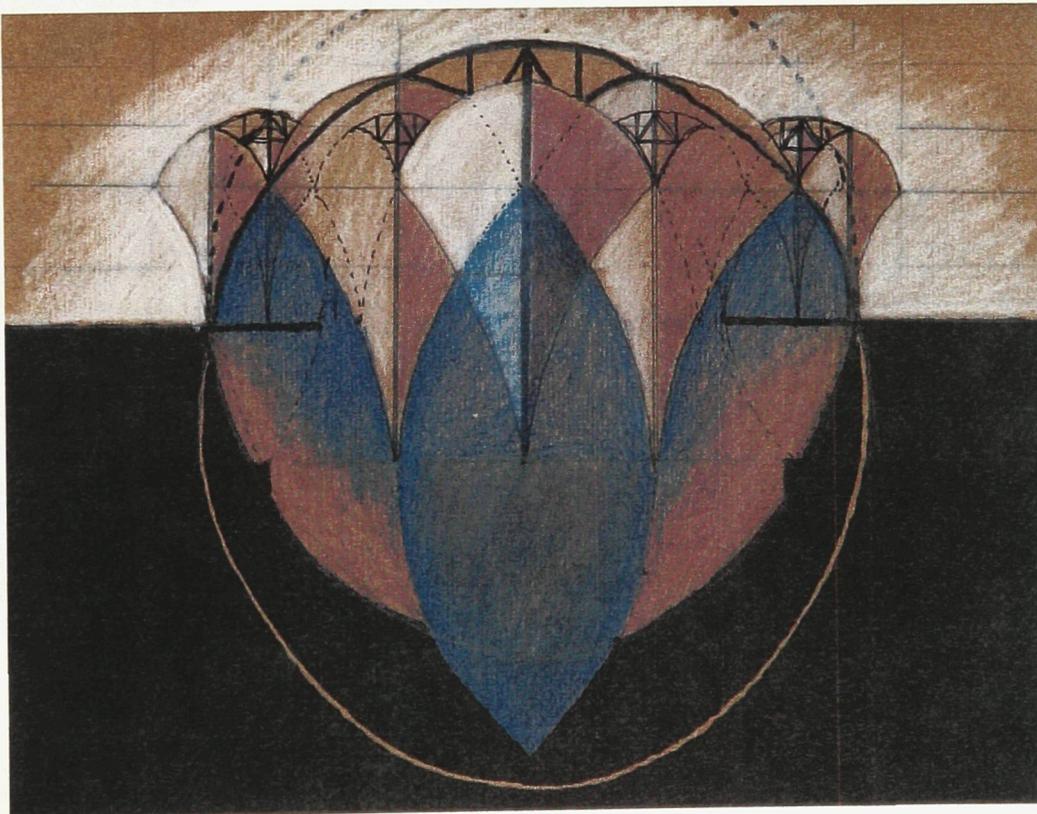
Field-Study 25:
Early Exploration of Double Arched
Entrances at Gridline C
on Figure 02.



Field-Study 26:
Earliest sketch section of
fully excavated tomb.



Field-Study 27:
Early Sketch of possible Meginhufr



Field-Study 28
Schematic Sketch of "Wrold Circle"
in Section as it relates to tomb.

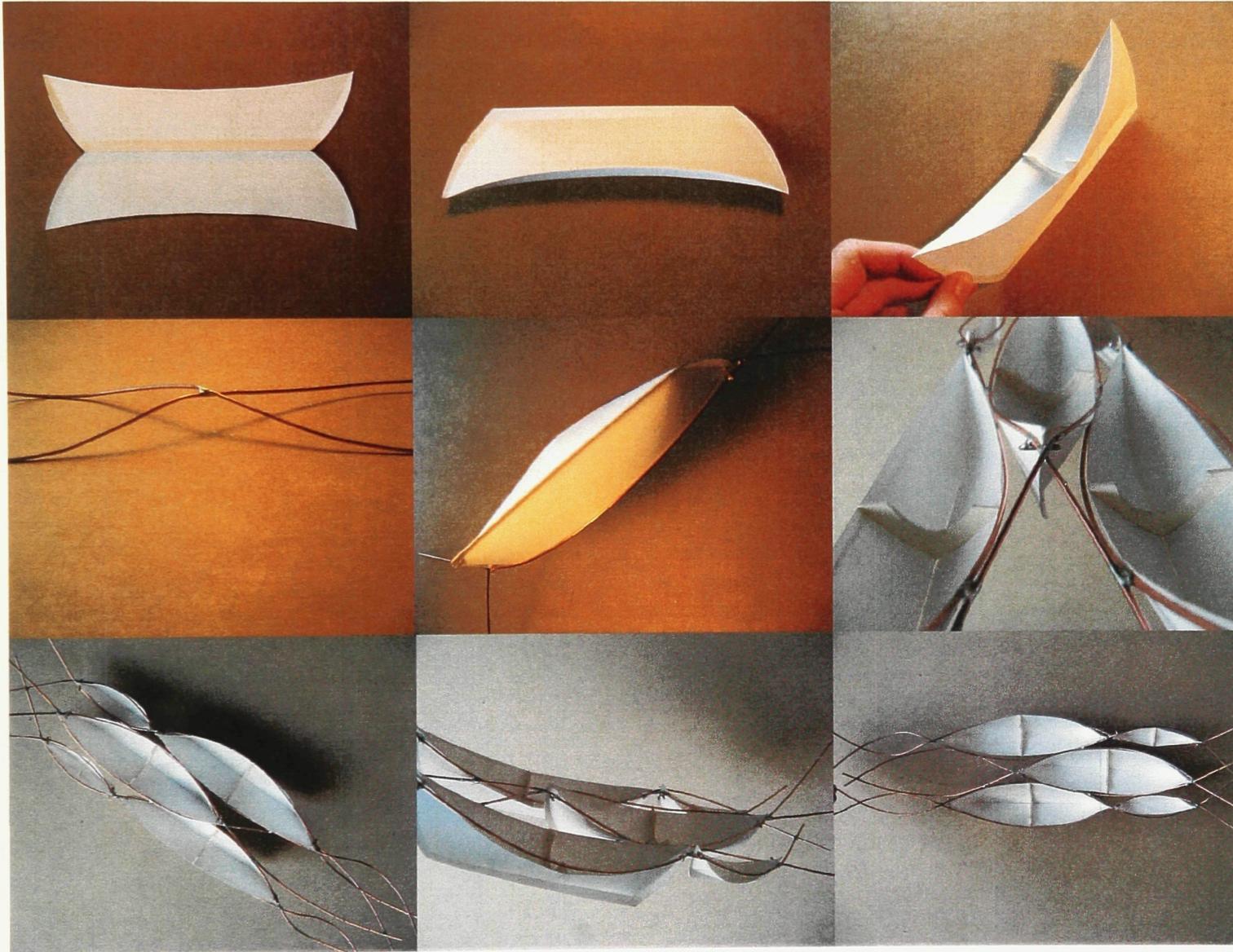


Figure 29A:
Model Making Documentation

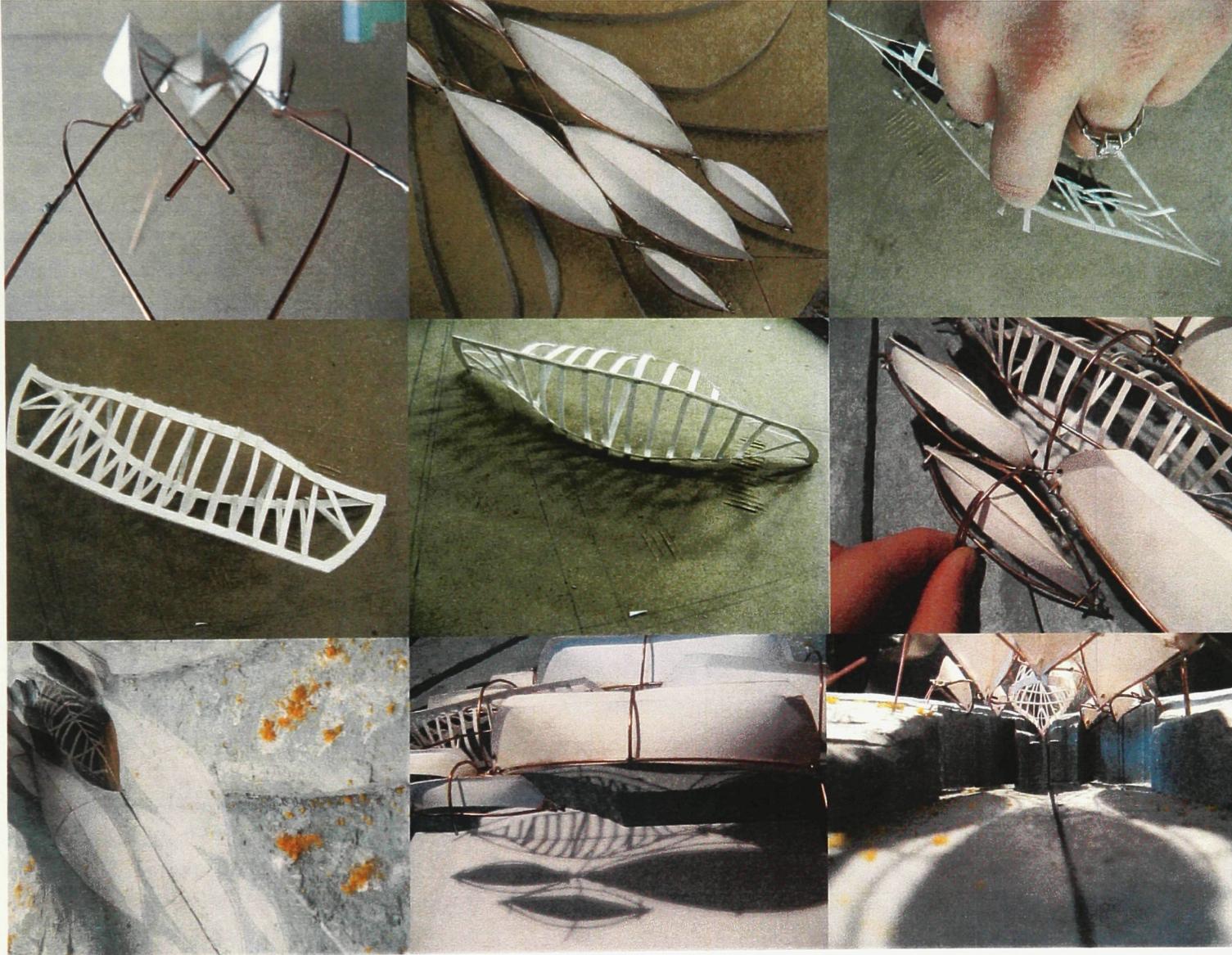


Figure 29B:
Model Making Documentation

Appendix B: Reconciliation of Tomb in Comparison to the architecture of Chartres Cathedral:

In the very same way that Raymond Roussel employs the homonym as a catalyst for reconciling his literary creations, the process of mimesis can be used in this appendix to trace out how Aðalsteinnson tomb and Chartres cathedral are derived from a similar source of inspiration, like the products of architecture were the letters of the homonym in a Rousselian literary pun. This appendix will analyze the structure, the program, the geometry, the sequencing of construction, along with such subliminal factors as the qualities of light, all found within the spaces of the Aðalsteinnson tomb and Chartres cathedral in Paris. The Aðalsteinnson tomb can be viewed as precedent architecture to Chartres cathedral if one can accept that the two works of architecture are dissimilar in their specific intentions, Chartres to honour the glory of Christianity, Aðalsteinnson tomb's to honour his opposing pagan faith in Norse gods, one can begin to see an architectural pun. Both works of architecture intend to honour diametrically opposed gods, but both are similar in their commitment to be a religious type of building, which makes the program like an architectural homonym.

The most powerful argument of how Aðalsteinnson's tomb can be understood as a precedent architecture for Chartres, is in observing how the Christian faith adopted so much of the precedent pagan symbolism and made it their own. This argument does not dispute the obvious notion that even Pagan faith relied on mimesis of nature for their initial symbols, but instead, merely intends to emphasize the various ways that the Christian faith adopted the pagan on a micro level of symbolism, and thereby hypothesize on the likelihood of the Christian faith adopting the structure, spatial relationships, etc, of the pagan in the overall architecture in the Church.

According to Mircea Eliade,

"For the Christian apologists, symbols were pregnant with messages; they showed the sacred through cosmic rhythms. The revelation brought by the faith did not destroy pre-Christian meanings of symbols; it simply added a new value to them. True enough, for the [Christian] believer this new meaning eclipsed all others; it alone valorized the symbol, transfigured it into revelation... Yet it remains true that the new valorization was in some sort conditioned by the very structure of the symbolism..."⁸

Eliade, Mircea. *The Sacred and the Profane*, 137

As a highly regarded scholar, Eliade emphasizes that symbols adopted by the Christian church can never fully escape their pagan origins. Instead, the symbols acquire further meaning. They continue to retain the older meanings while also describing the new. One potent example is the Norse pagan symbol of the Mjølfnir, which means "lightning". When worn as an amulet, it initially symbolised the respect for Thor's power over lightning and thunder, no doubt a real threat to the Vikings who would have frequently experienced storms at sea. As the Norse converted to Christianity, many continued to wear the traditional Mjølfnir amulet, which became known as the Dragon's Cross, itself a hybrid of Jesus' cross with its previous pagan symbolism.

Michael Taussig also suggests a form of compounded symbolic meaning attained through mimesis, going on to say, "mimetic faculty is the nature that culture uses to create second nature. It is the faculty to copy drawing on the character and power of the original, to the point whereby the representation may even assume that character and power. In older language, this is sympathetic magic."⁹ Taussig's choice of words, sympathetic magic, in many respects suggests a certain cultural advantage attained in the Christian church's early adoption of pagan symbolism. In so doing, they would have strengthened the numbers of converted Christian practitioners, since many pagan symbols and relics, such as the Black Madonna, continued to hold religious significance.

8 Eliade, 137

9 Taussig, xiii

The most important example of such semiotic recycling, as discussed in this thesis, is the adoption of the *veisica piscis* mandorla into Christian architecture. In the pagan Irish term of *Sheela-Na-Gig*, the 'gig' refers to a boat.¹⁰ According to Sheila Freitag, the *Sheila-na-gig* is an elongated boat whose form is reminiscent of the human vulva. Freitag also argues that there are numerous indications that these boats were a symbol of the womb, not only in Ireland, but also throughout medieval Europe. In the pagan festival of *Carrus Navalis*, of Germanic, and thus Norse heritage, a rite still practiced today, a boat is dragged through the streets to symbolise both physical and mental change, or, viewed more abstractly, to symbolise the relationship between the body and the mind.

It is further speculated that the expertise of this elongated form of the *Sheila-na-gig* is inherited from the shape of the Scandinavian clinker boat: a highly developed technology of boat-building advanced over centuries, and a technology that peaked in the early Viking Age, preceding the settling of Norsemen in the British Isles. According to Helge Ingstad, clinker boat-building technology was highly specialized in its development by the turn of the 10th century in Scandinavia, following centuries of technological modifications of correct ration numbers of oar holes and water displacement. The dechronological dating of the only ship burials found in the British Isles (which ironically are the sole such vessels to survive as artefacts), are the clinker-built Sutton-Hoo and Graveney boats—both of which date back to before the numerous earlier Viking boat excavations in Scandinavia. This suggests that the Viking ships influenced the symbolism of the *Sheila-na-gig*.

Sheila Freitag goes on to demonstrate how the pagan symbol of the *Sheila-na-gig* symbolizes the womb, ie. the vulva, and thus connotes the ideas of fertility and the feminine. It is no wonder that, in modern parlance, a boat is christened as a she. Freitag then shows how the pagan symbol of the *Sheila-na-gig* has influenced the Christian faith, in which the symbol is adopted into the pointed arch. She states, "Female figures prominently displaying the yoni [female genitalia] as a *veisica piscis* [Mandorla] were once common ornaments of Irish churches built [well] before the sixteenth century. As a rule the sheila-na-gig was carved into the keystone of a window or doorway arch."¹¹ In this way, the *Sheila-na-gig*, or the *veisica piscis* was interpreted by early converted Christians as a residual protective symbol carried over from pre-Christian goddess worship. This same symbol, later to become known as the Jesus fish in Christian symbolism, created the pointed arches of what became gothic-style cathedral doors, gothic-style pointed windows, but most importantly, continued to ornament the main west entrances of Christian churches, including those of Chartres. In the image below, Michael Schneider depicts the main western portal of Chartres cathedral against the essential geometry of two overlapped circles which generated it.

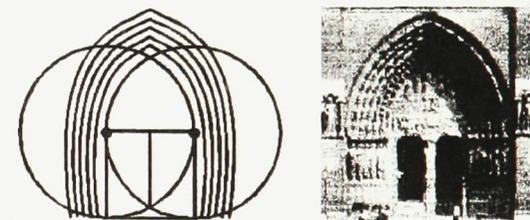


Figure 30: Geometry of West Portal Doorway

It is worth noting that the form of the *Sheila-na-gig*, or *veisica piscis*, is constructed by the same two overlapped circles as mentioned in chapters one and two, with reference to the sacred reverence the Norse pagan held for the idea of two. It is the overlapping of two off-centred circles, at right angles to each other, that gives birth to the *veisica piscis*.¹² This is why Schneider refers to the concept of two as the parents of the birth of the trinity. Schneider explains how these symbols, when used in doors, are "symbols of spiritual passage, we leave the street of Many and enter the domain of One." It is no wonder then that the *veisica piscis* is the ideal geometry to be re-used as the entrance way to a Christian church—its geometry alone depicts the threshold into birth. This is symbolically helpful to the church on many levels: by defining a threshold between the sacred and the profane, by consecrating the interior space, and by denoting the protection of the womb, its fruitfulness and fertility.

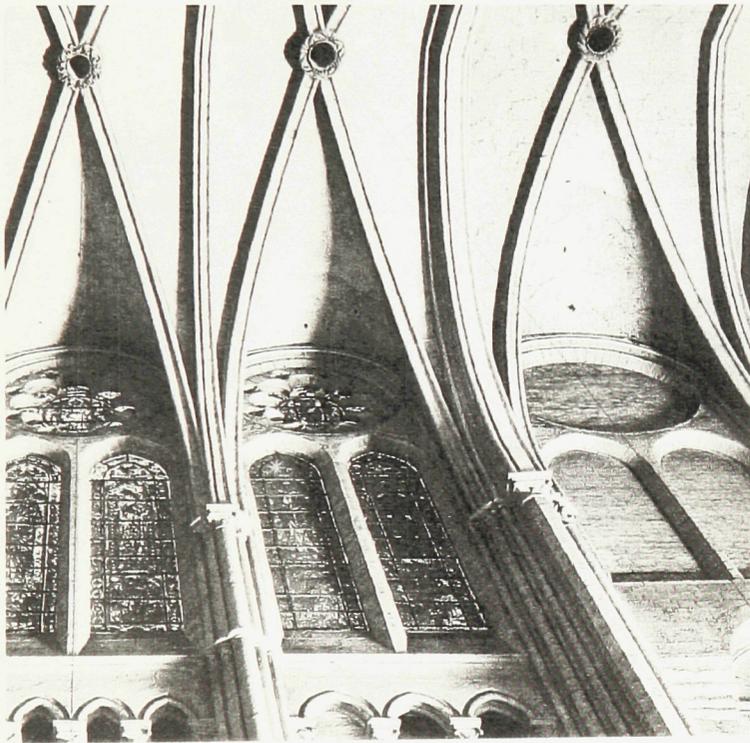
10 Freitag, Sheila. 61

11 Freitag, Sheila. 61

12 Schneider, 33.

Taking this notion a step further, it could be argued that the *veisica piscis* form bears an uncanny resemblance to the underside of an elongated boat (the pointed arch being only the upper portion of the *veisica piscis* form). According to Schneider, the *veisica piscis* in the Christian church is a form complete unto itself, further suggesting that the ground plane of the dissected *veisica piscis* is not the ground plane of the sacred geometry used to consecrate the church. He explains that the west façade of Chartres is designed as a circle descending from the heavens, above which intersects a circle rising from the earth, the area below which, he argues, is integral to the idea of Christian doctrine. The action of entering a cathedral symbolically places oneself in the space between heaven and earth, where transformation is possible.¹³ Therefore, the pointed archways of the church are indeed adopted *veisica piscis* mandorlas, and all previous pagan significance is also retained.

Further example of how Adalsteinnson's tomb shares similarities to Chartres is provided by examining the use of the *veisica piscis* form in both works of architecture. Inside the tomb, the ships in the planar form of the *veisica piscis* compose a vaulted ceiling. This creates a poetic architectural gesture beneath. The essential quality of the tomb's internal space is generated by the *veisica piscis* forms of the boats overhead. The same is true for the ribbed ceiling vaults. These contribute to the essential quality of lightness to Chartres cathedral. Also, the lightness of the contoured ribs which intersect in each vault is not unlike the repetitious modules of the ships overhead in Adalsteinnson's tomb.



While it is not uncommon for a roof to be anxiously anticipated during construction, it has always been preferable to construct the roof first in order to protect any exposed work,¹⁴ it was uncommon in the community of 11th century Chartres to pay such meticulous attention to creating a light roof structure, considering that the conventional roof in that time period and area was of basic wood. While we also know that the classic medieval builders preferred architecture that ceded to its meaning of execution¹⁵ and that those in charge of building operations were remarkably adept at fashioning a structure so that it aided its own erection,¹⁶ Chartres was the first architecture since Adalsteinnson's tomb to construct both practically (as an expression of its erection), as well as poetically (with a design intention of creating a roof that gracefully hovers above the building, not unlike the grace of the balanced ships in Adalsteinnson's tomb).

With Chartres, the earliest gothic cathedral, we see the first light-weight, stone rib construction, and can thereby draw a comparison to the inverted wood ribbing of the gunwales in Adalsteinnson's tomb. This, because of the sophistication in the lightness of inverted boat structure, and also because of the sophistication of craftsmanship¹⁷ underwent in the assembling of the contoured wooden pieces – pieces which would have required falsework, quarrying, rough-cutting and smooth-cutting of the stone in order to construct the cathedral roof. This similarity in roof treatment is carried through to the buttressing of the stone walls and the bronze meginhufr. Both reinforce their own poetic roofs and distribute the load evenly to the perimeter walls.

figure 31: Ribbed Naves of Chartres Cathedral.

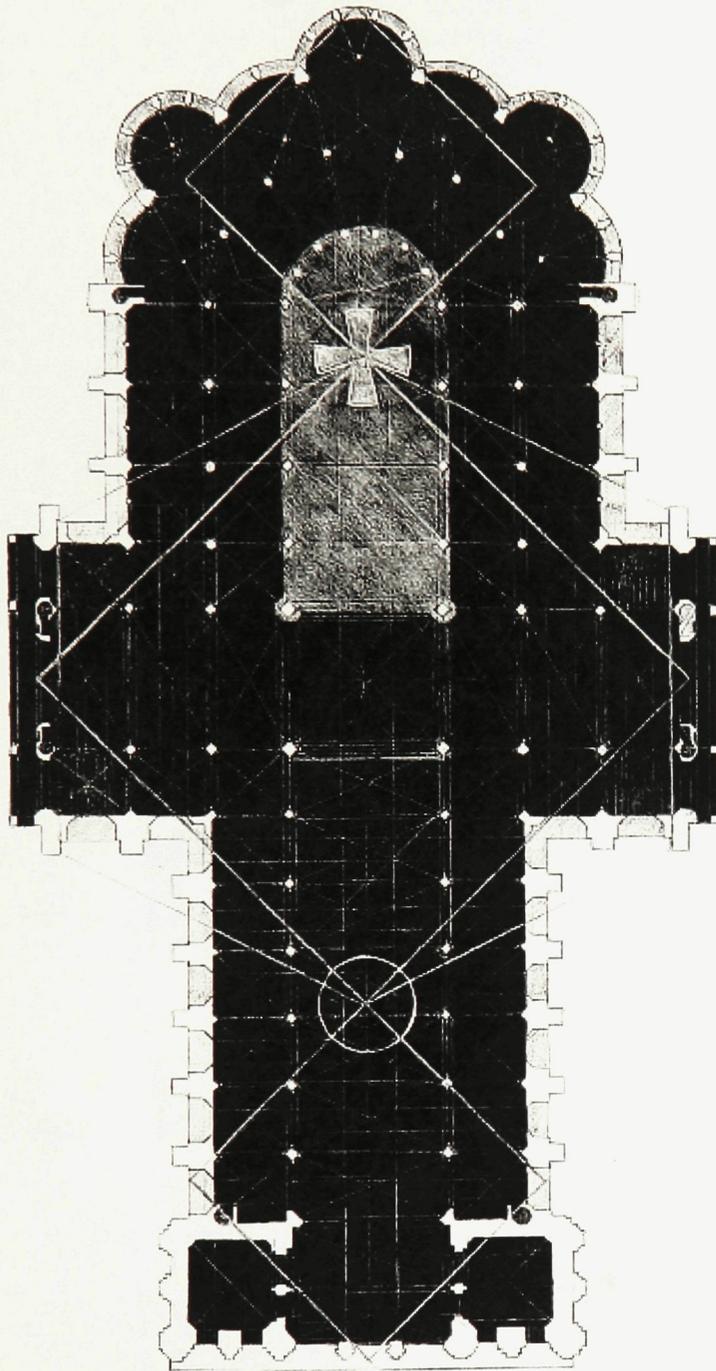
13 Schneider, 33.

14 Fitchen, 147.

15 Fitchen, 154.

16 Fitchen, 155.

17 Ingstad explains how Vikings pre-treated the wood of which they would construct their ships. It would be soaked in water to help its pliability and would be cross referenced against jigs of the shipbuilder. To weather-proof it, it is suspected that the wood would be treated in the highly acidic bogs for a year. Many of the best preserved Viking ships discovered today were found in bogs so we are certain of the acidic ability of preservation.

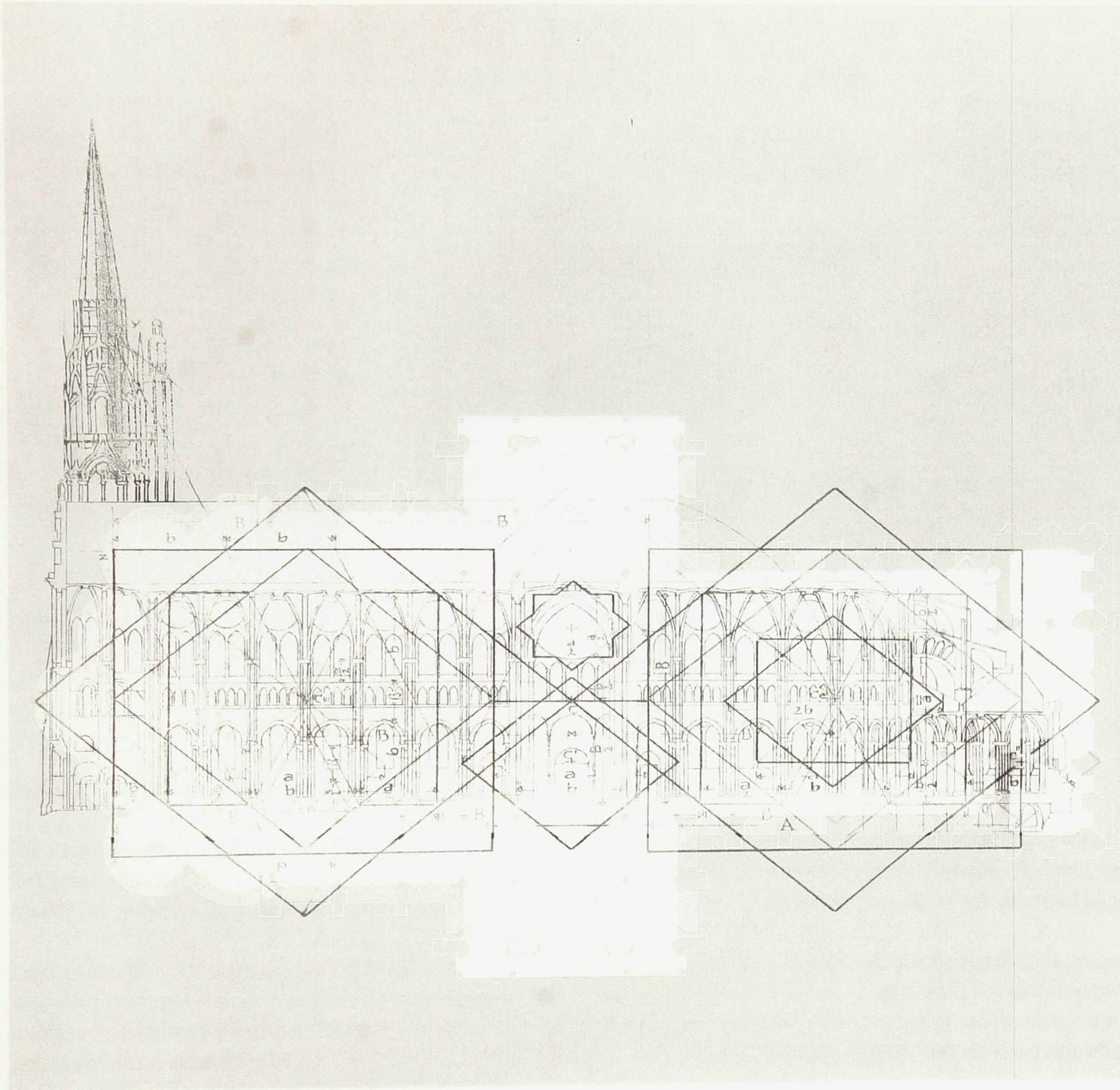


Next, I will observe the overall geometry of Chartres cathedral. Constructed in the 12th century overtop the ruins of the Romanesque church of Chartres, initially built with a wooden roof, but constructed in stone after a fire. The plan of the church forms a formal cross whereby the east-west orientation dissects the north-south axis at a perpendicular angle. The four arms correspond to the four cardinal directions, imitating in this case, the form of the inherited Judaic temple¹⁸.

The following illustration is the plan of Chartres. The plan is generated by the strictest of geometries and rules of proportion. The geometrical planning of the building was a rigorous undertaking, this in order to be considered worthy of the god who it honored, at a time when architecture embodied multiple relationships of proportion found in nature and the divine.¹⁹ We commonly accept the following intricacies in the design of the church plan of Chartres; that the width of the isles to the nave are in a ratio of 1:2, the altar is the exactly the same distance from the centre of the plan, as is the labyrinth, and the width of the north-south arms are exactly half the overall length of the East-West axis of the church plan.

Figure 32: Sacred Geometry in Plan of Chartres

- 18 Eliade
- 19 Eliade,



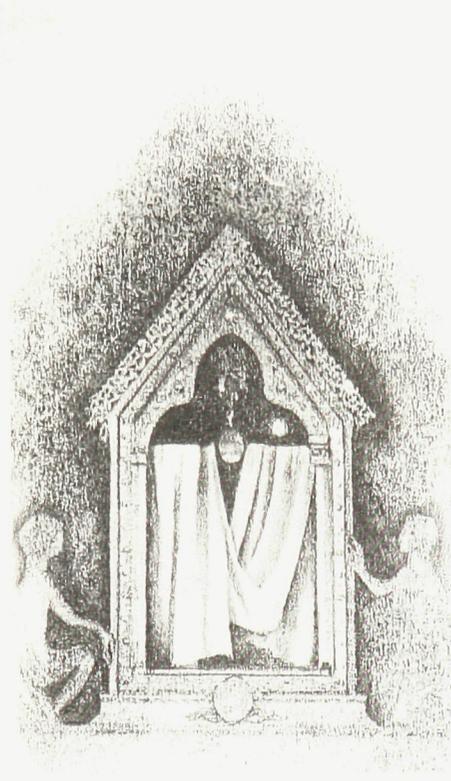
Michael Schneider, in his book *Beginners Guide to Constructing the Universe*, illustrates how Chartres cathedral respects the proportions of the Golden Ratio found in nature in the following illustration:²¹

In the middle Ages, the golden ratio was not a widely understood mathematical concept as it is today. Illustrations revealing the reoccurring ratio would likely have been considered magical, or alior. While the adoption of the golden ratio in Chartres is a mimetic calculation of the nature around us, a ratio derived through developments in mathematics, it would have taken on different meaning in the medieval time period. This is the time where all of society is in search for truth according to Erwin Panofsky²², the re-occurring persistence of this ratio in God's made world as such make it magical. This same rule of proportion, the golden ratio, is present in Aðalsteinnson's tomb.

Figure 34:
Plan and Elevation Overlapped of
Chartres.

²¹ Schneider.

²² Panofsky, 57.



To compare and contrast some of the programmatic elements in both Aðalsteinnson's tomb and Chartres cathedral. Among cathedrals, Chartres was particularly important because of the relics under its protection—Christian pilgrims on the holy pilgrimage road would seek out the Virgin Mary's veil, a pagan relic since Christianized as the black Madonna. Relics, which were said to have the potential of granting miracles to those who made the pilgrimage to pray for them, were the major attraction for churches in the middle ages, granted intentionally designed encasements, or reliquaries, for their protection, as well as to honour them. The centre image in the illustration below illustrates the highly-ornamented gold reliquary for the Virgin Mary's veil.

Field-Study 35: Possible Treatment of Relic in Stone

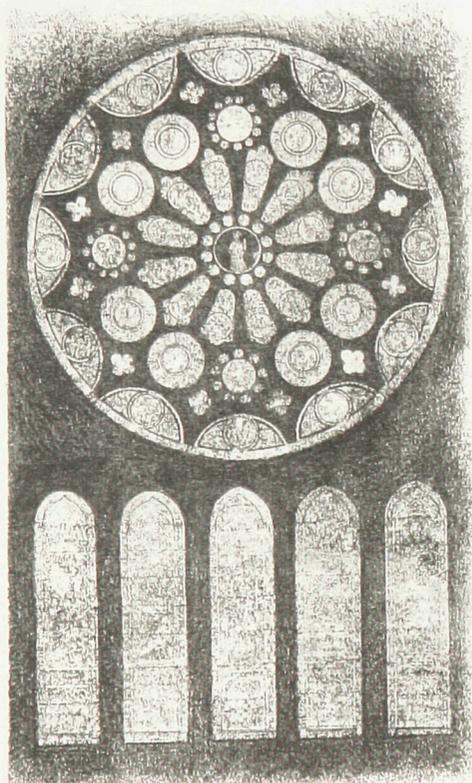
This honoured treatment of relics as found in Chartres is similar to the treatment of Aðalsteinnson's principal ships, the four of the greatest size, in how they are inverted, in how their prows and sterns delicately meet the ground of the ravine, and in the ornamental bronze meginhufr cross-bracing about the boats. Together, they reinforce the structural stability and enable the honoured interiors of the boats to be eternally protected from direct weather and preserved in their privileged height.

Continuing on the focus of programmatic comparisons, Ingstad states how medieval Christian thought ensured that the burials of the most prominent persons of the Christian faith were always to be either inside a church or, at the very least, in closest proximity to the church wall, so that water would drip on their grave. It was common thought that such a position would provide the dead with the greatest position of salvation.²³ The logic of burial in both Christian churches and the tomb is that the greater proximity one has to any consecrated sacred space, the more effective the soul's chances at salvation. Oddly enough, the crypt of Chartres does not house any actual burials, but rather, was left as a relic of the early church and as a space dedicated to the black Madonna.

23 Ingstad, 23.

Both Chartres and its precedent architecture, the Aðalsteinnson tomb, rely on heavenly ornamentation applied to the architecture, by which it delivers a literal narrative, or meaning. Today, Chartres cathedral is most famous for its rose window, along with its other windows, all intended to educate the parish members within stories from the Bible. The ornamented windows can be understood to educate with a heavenly intention because of the innovation that the new structure of the gothic cathedral carried in the 11th century. Here, for the first time, windows were capable of extreme size owing to the more efficient vault and rib structures of the ceiling.

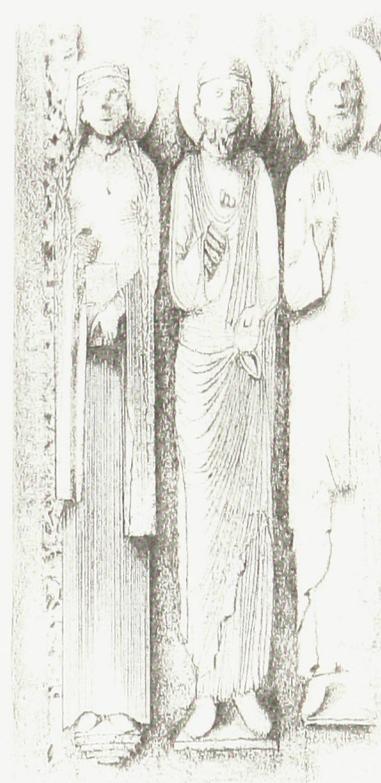
In reference to Dalibor Vesely, the brilliance of light entering through these highly ornamental windows in the Middle Ages can be understood when he says, "In the Christian interpretation..., light [as seen in the windows of Chartres] is seen as the paradigm of intelligibility, divine wisdom, and as a manifestation of the ineffable one—understood as the ultimate good, as a source of creation, or as God."²⁴ Barry Lopez, who compares icebergs to cathedrals in both scale and qualities of light, states in his book *Arctic Dreams*; "Not only was God light [in the eleventh and twelfth centuries] but the relationship between God and man was light."²⁵ In the same way that Chartres cathedral was built with the intention of connecting God with its people²⁶, as Lopez writes, Adalsteinn's tomb also builds with the intent of using light to make a connection with his God, Odin.



RECALLING HISTORY THROUGH VISUAL NARRATIVES IN ROSETTE WINDOWS



HISTORY BY CRITICAL SPIRITUAL ENGINEERS: RETAIN IT, AND IN GALL



HISTORY BY CRITICAL SPIRITUAL ENGINEERS: RETAIN IT, AND IN GALL

The very principal of carving runes in stone in Adalsteinn's tomb is used practically as both ornamentation, and for narrative description. However, much like the windows of Chartres, the medium of light behind the windows, or carving the rock with sacred symbols of runes, yearns for a connection to God. This is because carving runes was also understood that the basic action of carving runes of calling forth Odin, who according to Nordic mythology brought runes into being.

Field- Study 36:
Possible Treatment of Ornamentation as narrativ in Chartres and in stone.

- 24 Vesely, 114.
- 25 Lopez, 248.
- 26 Lopez, 248.

The name Chartres comes from *Carnutes*, a Druidic tribe that lived in the region. It is stated in Roman records that it was in the forest of the Carnutes that the druids of Gaul would gather once a year. Some believe that here, deep beneath the present cathedral; there was a cave which symbolised the realm of the Mother Goddess. Authors such as Jean Markale see this as the reason why the site was not purely dedicated to the Virgin Mary, but rather, a specific moment of her life: the Virgin on the threshold of giving birth, when the child was about to be released from the mother's womb.

The central four skuldelev also happen to correspond to the four cardinal directions, whereby East and West are privileged in the plan, and North and South are caught in a duality—a plan that is highly reminiscent of the plan of the Christian church, whereby the nave and the altar privilege the East and the West and the lesser arms of the transepts tie the North and the South orientations for equal meaning. Also, recall the two symmetrical archways created by the modulated structure of the inverted boats by which we enter the tomb. Just as the Christian church reinforces the sacred quality of the trinity throughout its architecture, through its the trinity of doors, of floors, of the triptych, of the father, son and the Holy Ghost, the burial tomb privileges instead the sacredness of duality.

Lastly, on the overall scale of any of Roussel's stories, we find attention paid to the macro, as well as the finer details of the story, the micro. Even one of the two identical sentences worked on the level of the entire sentence for one meaning, and on a more micro level of the differing meanings of each of the sentence's individual words. The variation of the procédé employed on both micro and macro scales alike contributes to the richness and innovation of Roussel's stories. However, no matter the scale of operating pun, the audience of any of Roussel's stories is always presented with the riddle first, which is then followed by a rational explanation that refreshes the original order (albeit briefly).²⁷ Chartres cathedral and Adalsteinnen's tomb alike operate programmatically on both micro and macro levels too; micro in terms of their careful geometry and programmatic elements, and macro in terms of their overall intentions to communicate with their own respective Gods.

Appendix C: New World Norse Sagas:

Eirik Thorvaldsson, best known as Eirik the Red because of his red hair, was born in Joederen, Norway around 935, as the son of Thorvald Arvaldsson. His father was exiled from Norway in the late Viking age of 950 AD because he committed several killings, and Eirik at his young age of fifteen, left Norway with his father for the coast of Iceland, which was an ungoverned state of Norway at the time, where he grew up. Eirik later became a Norse Chieftain in his clan in Iceland, yet many times through quarrels and life issues, he revealed a like temperament to that of his father's. In 981 AD, a serious quarrel erupted between Erik the Red-haired and his Icelandic neighbours. In the fight that followed, Eirik was responsible for the death of two men for which, even he was convicted of manslaughter, pronounced an outlaw, and exiled from Iceland for three years. To stay in Iceland, once convicted, would have meant anyone in Iceland was allowed to kill him legally, thus Eirik decided to set off and explore to the west of Iceland.²⁸

Eirik led a small fleet of little dragon-prowed ships with red sails westward from Iceland towards North America. However, according to Norse beliefs as documented in the Snorri Sturluson's *Heimskringla*²⁹, Somewhere in the grey Atlantic Ocean, their Norwegian outlaw leader Eirik the Red, along with his accompanying family, expected to find a new land. North Atlantic gales blew up. Many a little ship foundered, and its red-bearded Vikings drowned stolidly in their iron helmets and shirts of mail. However, Eirik and a fortunate few sailed on until they arrived at mountainous and green landscape, present-day Greenland, on which they settled. Perhaps Leif exaggerated Greenland's green character in order to attract other settlers when he pronounced it "Greenland", or perhaps, contrary to Greenland's glacial terrain today, it actually was green because of a supposed medieval warm period, which will later be discussed.³⁰ Eirik and his family settled on this land. He pronounced his particular settlement Brattahlid, located on the named Eric's fjord which is considered today to be Greenland's warmest coastal fjord³¹ where Eirik and his family lived in total seclusion. Brattahlid was also directly across from the visible eastern coast of what today is Baffin Island, inhabited by the Thule peoples, which will be relevant once Eirik's son Leif begins to explore the Canadian Arctic. Though most of the three years of Eirik's exile was spent exploring the south and west coasts of Greenland, his living arrangements in Greenland cannot be considered merely temporary. Furthermore, about four years later, Eirik returned to Greenland with an additional fourteen shiploads of colonists, survivors of twenty-five ships that had tacked away from Iceland. He continued to live in Greenland until his death in approximately 1001, also documented in *Heimskringla*.³²

At his village of Brattahlid, Eirik raised his children and headed his family. He had two wives, Thorhild and Thorbjarga, and four sons, Freydis, Thorvald, Thorstein, and Leif Eriksson. Among his sons, Leif grew up to be particularly similar in tastes to his father. Leif, like his father, was also a large and imposing man, but more so than Eirik, he was also known for his fair judgment and honesty. Having been reared under his father's adventurous hand, Leif shared his father's strong urge to travel and explore this surrounding unexplored north—then thought to be Eurasia, but now understood to be the Canadian Arctic.³³ Consequently, Leif and his men took advantage of ice-free seas to colonize Greenland and other outlying lands of the far north, which will soon be discussed in more depth.

Nearing the end of the tenth century, the story continues that Leif and his men traveled eastward, to his father's homeland of Norway. When he and his crew arrived in Nidaros, the now Norwegian city of Trondheim, they were well received by King Olav Trygvasson, who was preaching the word of Christian God and disseminating the Christian faith and practices since 995, contrary to the common faith and practices towards the traditional Norse Gods. Leif and his men were taught the foundations of Christianity over the course of a winter spent in Norway. Leif and his men were even baptised upon having accepted the Christian faith before embarking on their return to Greenland. Under the orders of the king

28 http://www.greenland.com/content/english/tourist/culture/the_history_of_greenland/the_viking_period

29 Snorri Sturluson was Icelandic Christian, who documented the Viking sagas in the 12th and 13th centuries which provide the largest degree of evidence of the Viking Age to us today. Although Christian, he possessed a great respect for his Norse forefathers and their respective Pagan beliefs.

30 An article in Time magazine explains that Erik pronounced it Greenland "not because his new land was briefly luxuriant in summer, but because "people would like better to come there if it had a good name,""

31 <http://www.greenland.com/content/english>

32 http://www.greenland.com/content/english/tourist/culture/the_history_of_greenland/the_viking_period

33 <http://www.viking.no/e/people/leif/e-leiv.htm>

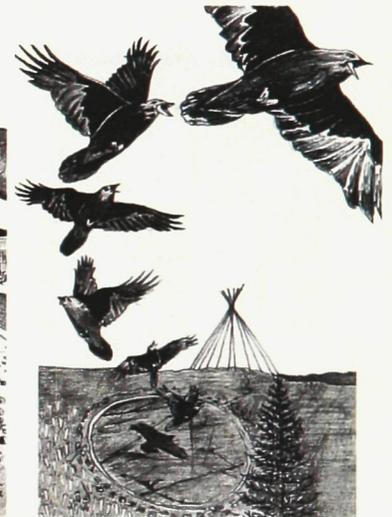
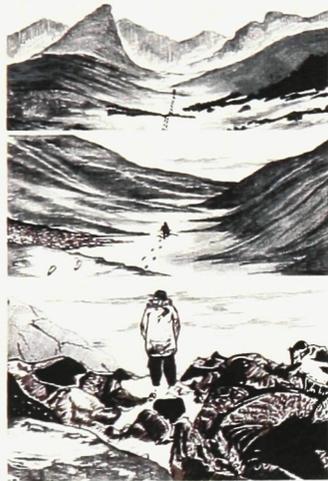
to convert Greenlanders to Christianity, like the King's orders to convert all of Norway, Leif took Christianity to heart and fulfilled his orders upon his return. August Neander writes, "Under the reign of Olof Tryggweson, the seeds of Christianity were first conveyed by Leif, an Icelander, in the year of 999, to Greenland, which had been discovered and peopled but a short time before."³⁴ Leif's dissemination of Christianity converted his mother, Tjodhilde, who then became a devout Christian. She was so devout in her Christian beliefs that she requested of her husband, Eirik the Red, to commission the construction of a suitable church in Greenland. Eirik did fulfill her request and the church of Tjodhilde was edified³⁵, but he himself never accepted the Christian faith or visited the finished church.³⁶ Nevertheless, the consecration of the first Christian church in the region represents the beginnings of the Christian church being embraced by the Norsemen.

Helge Instad suggests this is a fictive account intended to enhance the prestige of the Church.³⁷ In the 1960s, when Danish archaeologists began excavating Tjodhild's church, they found the church to be a mere 2m x 3m and many skeletons buried around the church, but not in coffins, and many of which in a mass grave site. Instad suggests that these skeletons were moved to the church cemetery site after the fact. The actual skeletons can't be identified as specific individuals outside of mere speculation; this speculation of who the skeletons are by way of what we know to be written in the sagas wrote a few centuries afterwards in Iceland. Only by way of the sagas can we assume Eirik the Red, Tjodhild and Lief Eiriksson to have been buried here, likely in the closest proximity to the church if so.³⁸

34 Neander, August. 307—refers to Muentner's *Geschichte der Einfuehrung des Christenthums in Danemark und Norwegen*, Bd.I s. 558
35 http://www.greenland.com/content/english/tourist/culture/the_history_of_greenland/the_viking_period/church_of_tjodhilde_in_brattahlid
36 <http://www.viking.no/e/people/leif/e-leiv.htm>

37 Instad, 18
38 Instad, 23

Appendix D: Initial images that inspired this thesis:



Figures 37` :
Inspirational seed images for this thesis taken from the graphic novel-in-progress, *Iceheart*, which explore a story told through magic-realism, set in Canada's Arctic.

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