

Scale

Edited by Jennifer L. Roberts

# THE

Terra Foundation Essays



ARTISTS  
MARKERS

INTEGRITY  
MARRIAGE

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# Arctic Matters in Early America

On May 30, 1578, the English privateer Martin Frobisher (1539?–1594) launched the last of three ill-fated voyages toward a northwest passage to Asia. His sixteen ships left Harwich one month later than planned, headed for eastern Greenland. Passage or no, Frobisher had a supplementary motive: he meant to mine and hoard a mysterious ore previously discovered on an island off the far northern coast of the New World, matter which when assayed back in England was found to bear thick clusters of gold, or so it appeared.<sup>1</sup>

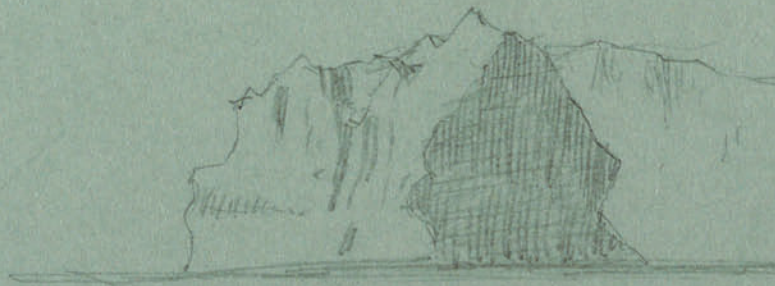
Four weeks into the trip, Frobisher's fleet encountered a blinding storm of fog, snow, and ice, which sank one of the vessels immediately and damaged five others beyond repair. The surviving crafts soon became separated from one another. One of the expedition's chroniclers, a sailor named Thomas Ellis, described what happened next: "The storm increased, the ice enclosed us . . . so we could see neither land, nor Sea. . . . The rigorousness of the tempest was such and the force of the ice so great that it raced the sides of the shippes. . . . Thus we continued all that dismall and lamentable night plunged in this perplexitie, looking for instant death."<sup>2</sup> One more of the smaller ships would go on to sink entirely, and two others were put so far off course that they ended up backtracking for weeks. Several battered vessels were eventually able to make landfall near Baffin Island. They succeeded in filling their holds with 1,370 tons of the curious ore, but not before ten sailors had died from malnutrition and disease. As they set

Frederic Edwin Church,  
*Icebergs, July 1, 1859*  
(detail, see fig. 2).





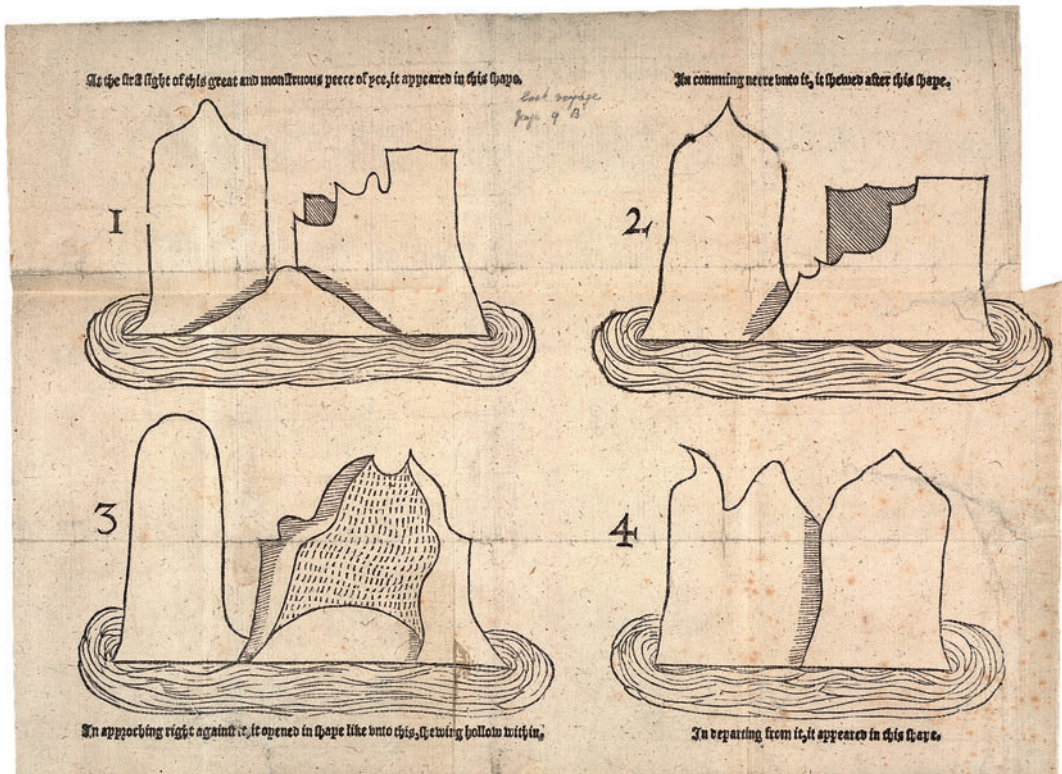
2-Blue expanse number  
Strong supernatural



off for home, more storms set in, however, and another twenty sailors were lost. When, finally, the hoards of Frobisher's stone were unloaded back in England that August, they were melted down and the results, as Frobisher himself wrote, "could not be worse." The stuff, it turned out, was entirely worthless. The ore was gradually dispatched as brickwork, still visible today in walls around Portsmouth in southern England.<sup>3</sup>

A remarkable pamphlet with Ellis's account was published later the same year. Along with the sailor's breathless prose, it contained only one illustration: a large sheet of an iceberg (fig. 1). This had been encountered by the expedition on July 4, 1578. Ellis apologized that the iceberg could not be "shewn" as a totality, but offered an almost filmic unfolding of four separate views, tracing the ships' drift past the giant floe: "1. At the first sight of this great and monstrous piece of ice, it appeared in this shape. 2. In coming near to it, it showed this shape. 3. In approaching right against it, it opened in shape like unto this, shewing hollow within. 4. In departing from it, it appeared in this state."<sup>4</sup> The woodcut staged four white prominences, delineated against a moat of surrounding sea on a foldout sheet. The separate

1  
Plate 1 from Thomas Ellis, *A True report of the third and last voyage into Meta Incognita, achieved buy the worthie Capteine, M. Martine Frobisher Esquire*, 1578. Woodcut, 7 5/8 x 10 3/8 in. (20 x 27 cm). The Huntington Library, Art Collections, and Botanical Gardens, San Marino, California, Rare Books, 18070.







2  
**Frederic Edwin Church,**  
*Icebergs, July 1, 1859,*  
 1859. Graphite, brush,  
 and white gouache on  
 green wove paper, 10  $\frac{1}{2}$  x  
 17  $\frac{7}{10}$  in. (27.5 x 45.5 cm).  
 Cooper-Hewitt, National  
 Design Museum, New  
 York, inv. 1917-4-298.

ice parts were distinguished from one another as they changed in relation to the ship. Constantly shifting, the berg bore no stable shape. Visual distinctions between water and air, figure and ground, “land and sea” were cast into flux. Through a gradual sequence, the ice’s solidity was ultimately revealed to be hollow.

The following notes are part of a larger investigation into the idea of the Arctic in early modern art and thought. Often, we historicize the pictorial imagination of the American Far North in terms of the nineteenth century: the paintings of William Bradford (1823–1892), the photography of John L. Dunmore and George Critcherson (act. 1860s), the landscapes of Frederic Edwin Church (1826–1900).<sup>5</sup> And yet, as this essay will argue, it was an earlier moment, a sixteenth-century moment, which enfolded the region far more spectacularly into some formative American thinking about art, landscape, and scale. Frederic Church actually composed a graphite drawing off Newfoundland in 1859 that is eerily reminiscent of Ellis’s print—and dated 281 years after it, almost to the day (fig. 2).<sup>6</sup> Church inscribed the recto of the sheet with two iceberg descriptions: “exquisite opalescent blue-green,” and “strange, supernatural.” What was for Ellis reportage becomes here picturesque, as one writer on Church put it in 1866: “The heroism and the martyrdom, the scientific knowledge and the wonderful adventure

. . . the record of Arctic expeditions has . . . made the iceberg a sublime symbol of daring achievement and a solemn memorial of human sorrow. . . . The iceberg seems the monument; its spectral pinnacles glittering in the moonlight, its vast proportions frowning in the darkness.”<sup>7</sup> And yet, for Ellis, icebergs (and the Arctic in general) were not part of a landscape in the sense familiar to us today — that is, they were not part of a stable *picture*, let alone a monument. Icy, unpopulated, commodity-poor, visually confusing, the Far North — a different kind of *terra incognita* for the Renaissance imagination — offered no clear *stuff* to be seen, mapped, or plundered. Neither a continent, nor an ocean, nor a meteorological circumstance, the early American Arctic forced explorers, writers, and early artists to grapple with a different kind of Renaissance no-place. Here, there were virtually no exotic animals, teeming forests, or enchanting civilizations to mythologize or to loot. In the frigid North circa 1600, that is, the idea of New World description as a kind of accumulative charting of marvels was thrown into question.

Ellis’s anthropocentric illustration suggested that the berg was transforming *itself*, as much as being observed, encountered as anything but “sublime symbol.” Introduced here was a confrontation with optical and somatic conditions that simply did not fit into European schemes of pictorial composition, selfhood, and communication — a confrontation that the following will examine in terms of *scale*.<sup>8</sup> Scale, understood as the relative magnitude or extent of something, was a giant problematic for explorers in the Far North in very physical ways, for example, in terms of navigation and depth sounding, or in distances between home and away. Such commonplace worries about *spatial* reckoning also led to curious meditations (in word and image) about *material* quantification, about what, precisely, was being scaled on such expensive voyages: space, vision, capital. Further, many early descriptions of the Arctic North took place under a decidedly image-ambivalent Protestant aegis; here, as we shall see, the value of any information gleaned from the senses was always potentially suspect.<sup>9</sup> At this pre-Frederic Church moment, the Arctic was not yet a landscape filled with expressive natural forms. Rather for Ellis, the iceberg itself — moving and melting — was part of a material circumstance, a disturbingly plural “perplexitie” that refused to coalesce into a legible vista along clean metrics of distance. Printed, the icy form’s lumpy unresolvedness stands empty on Ellis’s page — without backdrop, without scenery, without distance-fixing perspective, without the resplendence of an “opalescent blue-green.” Bespeaking



the Reformation milieu in which it was created (Frobisher was zealously evangelical), the image revels in a wondrous optical experience yet turns on a *suspicion* of the merely seen. To explore this strange suspicion, we need first to revisit Frobisher's expedition, and then to contextualize his moment's understandings of scale across some unexpected geographies.

### Coastlines

Frobisher's 1578 voyage is known through no less than six different accounts.<sup>10</sup> The precise sequence of the trip remains somewhat contested, however (thanks to the ore debacle, Frobisher himself was understandably eager to downplay certain aspects of the trip).<sup>11</sup> What seems to have happened was this: around 1575, Elizabeth I's advisor John Dee (an alchemist), in collusion with London merchants, had begun discussions about a potential expedition to the Atlantic Northwest. These led to privately funded voyages headed by Frobisher in the summers of 1576 and 1577. The 1576 trip had yielded, on the one hand, a "peece of a blacke stone . . . which by the weighte seemed to be some kind of metal or Mynerall,"<sup>12</sup> and, on the other, the first English contact with the Inuit, whom the discoverers assumed to be pagan (the crew actually abducted a young Inuit man and brought him back to London, where he promptly died). The financier Michael Lok, the chair of the joint-stock corporation that was underwriting the voyages, quickly organized a third expedition, selling subscriptions and assembling a fleet. For this third trip—the iceberg voyage—Elizabeth I even became involved, investing one thousand pounds. It now seems that the sparkle entrancing Frobisher and his backers was iron pyrite or mica.<sup>13</sup>

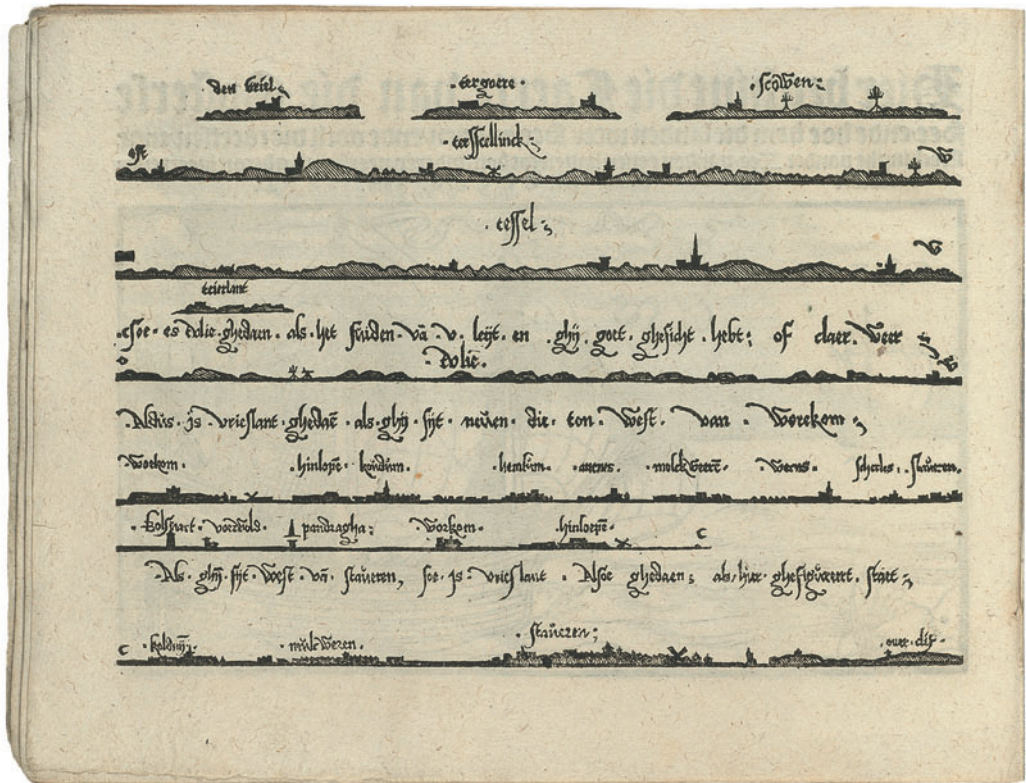
Incredulity dominates Ellis's narrative of the trip. There is the ice, the constant ice, which occupies his attention. Of the colossal "mountain" that he was able to draw (see fig. 1), he later went on to place the idea of confusion in numeric terms, even gendering the iceberg along the way:

*We came near a marvelous huge moutaine of yce, which surpassed all the rest that ever we sawe: for we judged him to be neere a foure score fadams above water, and we thought him to be a ground for any thing that we could perceive, being there nine score fadams deepe, and of compasse about halfe a mile, of which Island I have, as neere as I could, drawne and here set downe the true*

*proportion, as he appeared in diverse shapes passing  
alongest by him. . . . These Foure being but one Island  
of Yce, and as we came neere unto it, and departed  
from it, in so many shapes it appeared.*<sup>14</sup>

The geography is a plurality of forms rather than a linear list of objects. The precedent for Ellis might have been the striated coastal profiles of North European navigational books from midcentury, for example, the *Onderwijsinghe vander Zee* (fig. 3), authored by one Cornelis Anthonisz. (1505–1553), a Dutch painter with ties to the English court.<sup>15</sup> Such books' schematic views of the Baltic Sea coast, for example — which were also in woodcut, yet bound on oblong pages meant to be consulted on board ship — layered horizontal bands of shoreline with labels marking villages and islands along shipping lanes. They provided a means for sailors to determine a vessel's location. Yet as Anthonisz. warned in a preface, rocks, reefs, and sandbars were always shifting and must always be remeasured and compared, just as they are compiled.

3  
Fol. 6 from Cornelis  
Anthonisz., *De Onder-  
wijsinghe vander Zee*,  
3rd ed., 1558. 6  $\frac{5}{16}$  ×  
8  $\frac{3}{16}$  in. (16 × 21 cm).  
Harvard College Library,  
Cambridge, Massachu-  
setts. Houghton Library,  
NC5 An866 544oc.



Back on the Frobisher voyages, a lieutenant named George Best specifically attested to the breakdown of such coastal legibility in the face of the unknown North. Describing the gloomy rocks off Newfoundland, he was dismayed at “the thicke fogge . . . in long time hung upon the coast, and newe falling snow which yearly altereth the amongst great store of Ise in a place they knewe not, without any cleare of lighte to make perfile the coast.” He even went on to connect this difficulty to concrete measuring practices. Speaking of the navigation of (what is now) eastern Baffin Island, Best described frustration with the traditional mariner’s method of sounding depth with weighted rope and plumb: “If you shall sound upon the side or hollownesse of one hil or rocke under water, and have a hundredth, fiftie, or fortieth fadome depth, and before the next cast, ere you shall be able to have your leade again [that is, pull up the rope fully], you shall be upon the toppe thereof, and come ground, to your utter confusion.”<sup>16</sup> Submarine shelves and bars in the Arctic seas were so unpredictable that the gauging of distance was pointless. As for Ellis’s iceberg (see fig. 1), stable scaling collapses, as one species of matter (like water, like ore) continually presents itself as another—in form and in content: a condensed allegory, perhaps, of the once-futile search for the Northwest Passage.<sup>17</sup>

### **The Production of Scale**

Today, scale in the rhetorical sense always subsists in *explanations*—it is the way information of the real world (data, measurements) gets translated, gets made legible (“scale” derives from the Latin *scala*, “staircase,” signaling nuances of access, gradation, verticality, and dislocation).<sup>18</sup> The Egyptians and the Greeks all used scale compasses. The Renaissance rarely isolated it as a discrete metric,<sup>19</sup> yet architects and surveyors, unsurprisingly, had much to say about the way scale could negotiate between a preparatory drawing and actual-sized buildings.<sup>20</sup> Here, for example, is Antonio di Pietro Averlino, known as Filarete (1400?–1469), describing how the mechanics of scale permitted a virtual inhabitation of a picture: “By pretending that man is small, all the measures drawn from him are small. . . . Even though this drawing seems small in appearance to us who are large, if made and completed.”<sup>21</sup> In fact, pre-Descartes, scale appeared rarely as a matter of numerical dimensions in the mind (and certainly not as some code of standardization). Rather, scale remained a comparative vehicle reliant on the human senses. In 1435, Alberti began his famed treatise on painting (a vital source for Filarete) with an assertion of such:

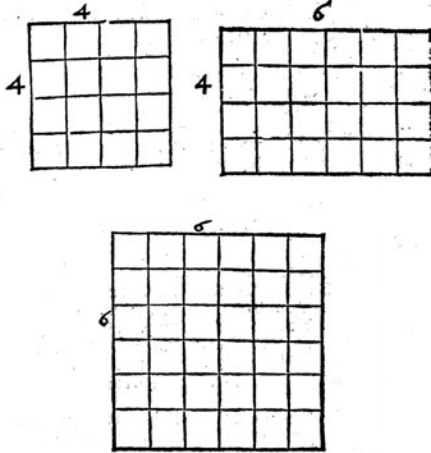


“Mathematicians measure the figures and shapes of things with the mind only, without considering the materiality of the object. We [painters], since we want an object to be seen . . . we shall express ourselves through good common sense.” And then: “if the sky, the stars, the sea, mountains and all bodies were to be made, the gods willing, smaller than half-size of what they are, everything seen would appear to us in no way diminished compared to what it is now. . . . All these things, then, are found out by comparison.”<sup>22</sup> Painting, Alberti implied, is at its core a scaling process. It rests on the creative instating of comparisons between a depiction and its experience.

It is perhaps telling that, to make his case, Alberti invokes the example of landscape—a pictorial concept defined not just by spatial relations but by a certain identification (or not) with a viewer’s own body. In fact, contemporary with the Frobisher voyages was Edward Worsop’s short treatise on *real* landscapes in surveying, *The Discoverie of Sundrie Errors and Faults* (1582) (fig. 4). Worsop explained scale as a process of simulation: “a measure used in platting, taken at the will of the plat maker . . . upon paper, or any other superface.”<sup>23</sup> Worsop even cited Atlantic voyages as evidence of the need for better measurement.<sup>24</sup> Yet for all its associations with power and property, Worsop’s surveying, and Alberti’s perspective (which, in fact, he goes on to outline immediately after the sky-stars-sea passage above), was worried about matter and objects. To give something scale, both claimed, is to pull it into a *system*; this is what Ellis is unable to do with his account of the iceberg, and which his own era’s mapmakers found impossible when picturing the Arctic. Some of the charts we know Frobisher carried (for example, maps by Mercator) abandoned scale altogether when picturing high latitudes.<sup>25</sup>

Early American travel writing is commonly discussed in terms of “spaces”—both physical and discursive. It often reads as a concrete topography inhabited by exotic creatures and flora, and a European intellectual conceit.<sup>26</sup> Indeed, this sixteenth-century America was fashioned for Western audiences within the various arenas of Renaissance culture and finance: the stage, the pamphlet, the map, and the stock exchange.<sup>27</sup> Within many published travel accounts, the story goes, points of contact with New World phenomena forced the issues of analogy. How to explain (say) pineapples and kayaks within old descriptive rubrics, or via the authority of the ancients? Tzvetan Todorov long ago pointed out how this incompatibility arose as a rhetorical conceit in and of itself, nourishing not only creativity and humanist soul-searching back in Europe, but also justification for material

A detection of lundry errors



Peter I see in deepe that iiii. every way maketh ybi. and that vi. euerie way maketh five and thirtie. and iiii. h2oave and vi. long make xxiiii. What meane you by this wo2de (Scale) which I see in so many places of your booke?

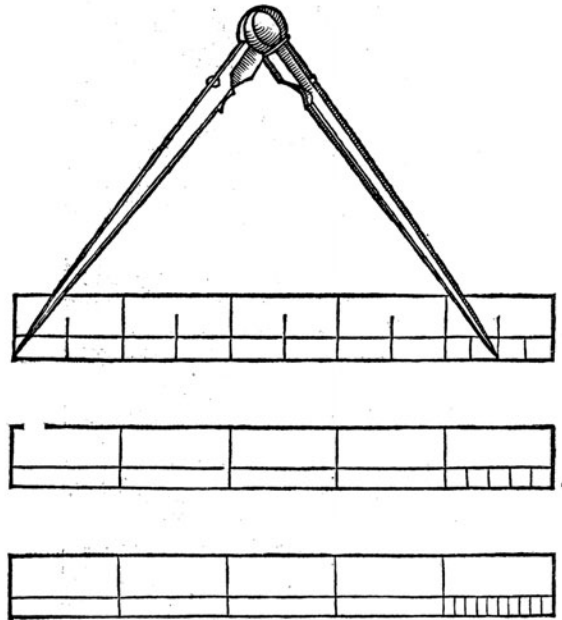
Worsop The Scale is a measure used in plattng, taken at the will of the plat maker, eyther greater, or lesse, to set forth the plat measured in true p2opozition, and Symetrie, vpon paper, or any o2ther superfice.

Watkins I vnderstand not this definition.

Worsop Here (as ye see) are lundry scales, and euerie of them is iust five inches long.

The

committed in Landmeating.



The first, hath one inche diuided into iiii. partes, the second into five, the third into ten. ye may apply these inches and diuisions, to

B 3

4  
Fols. B2v–B3r from  
Edward Worsop,  
*A Discoverie of Sundrie  
errors and faults  
daily committed by  
Landmeaters*, 1582.  
The Huntington Library,  
Art Collections, and  
Botanical Gardens,  
San Marino, California,  
Rare Books, 59261.

exploitation.<sup>28</sup> Within such a comparativism of “wonder”, the New World’s vast plane of bodies and things was tucked within the proportional systems of the Old: time and space, as in a gridded map, become immaterial, compressed.<sup>29</sup>

Yet a sailor like Ellis quietly extracts an exotic curiosity from a real-world context and brandishes its inconsistency with any single discursive system of make-believe. He animates this iceberg in relation to his own (mobile) frame of reference.<sup>30</sup> Later, the breakdown of such frames would foment its own amazement and align Arctic spaces with the pictorial sublime. Yet there is no immensity of Ellis’s experience, nor to his print. As much as Northern terrains refused to function as a “backdrop,” so too did they suggest a rethinking of picture-making itself as a mapping process. Fixed perspective, in the sense of what Albrecht Dürer, around 1525, termed a *Durchsehung*—a seeing through—had no place in the murky North; there scale became a metric bereft of transparency. Elizabethan

explorers hoping to plot coastlines, gauge distances, or make sense of icebergs on the basis of stable foreground-background cognition were fascinatingly disappointed.

### **Profusions of Dearth**

One of the most common tropes of Europeans traveling the Atlantic was that of unmet expectations: ideas about gold, giants, or cannibalism. (Columbus even felt the need to write to his backers in Lisbon that he had not, in fact, discovered any monsters.) *Naming* was famously the chief problem facing describers of the New World.<sup>31</sup> The struggle to find language and labels to adequately convey specifics of American things was a process generally imputed to more southerly explorers: there is Cortés's blustering 1519 report to Emperor Charles V on a Mexico market (first published in 1522), describing an encounter with obsidian mirrors, Aztec drums, and more:

*There are found . . . articles of food, as well as jewels of gold and silver, lead, brass, copper, tin, precious stones, bones, shells, snails, and feathers . . . deerskins dressed and undressed, dyed different colors; earthenware of a large size and excellent quality; large and small jars, jugs, pots, bricks, and an endless variety of vessels, all made of fine clay, and all or most of them glazed and painted. . . . They sell in the market everything else to be found in this land, but they are so many and so varied that because of their great number and because I cannot remember many of them nor do I know what they are called I shall not mention them.*<sup>32</sup>

Cortés's heavy-tongued linguistic inadequacy was given expression by similar written reports that tried, often unsuccessfully, to fit New World phenomena into a given European epistemological syntax. In the South, the dominant rhetoric of the explorers was abundance, visual overload, and ease—an encyclopedic confrontation with stuff, people, and light. Yet in the Far North, explorers' language rang of absence, difficulty, and bad luck—a philosophical and material impoverishment, dominated by coldness and denial. "In place of odiferous and fragrant smels of sweet gums & pleasant notes of musciall birdes, which other Contreys in more temperate Zones do yield," wrote a sailor on Frobisher's second voyage, "wee tasted the most boisterous Boreal blasts mixt with snow and haile."<sup>33</sup> "The aire is so darkened



with continuall mistes and fogs so neere the Pole, that no man can well see, either to guide his ship, or to direct his cause,” wrote another sailor.<sup>34</sup> Fighting the weather near Hudson Bay in 1578, Best described how “walls, mountains, and bulwarkes of yse, choaked uppe the passage, and denied us entrance.”<sup>35</sup> For both the Arctic straits and their recounting, there was simply, as Best later put it, “no waye to passe further in.”<sup>36</sup> Toil, sameness, and *inaccess* became features of the seascape and its representation. “We were,” wrote Thomas Fenton, second lieutenant on the third voyage, “by the great abundance of ize constrayned.”<sup>37</sup> Ellis’s straining account of battling the hostile climate is heroic in its own exhaustiveness; he substitutes a treasure of detail and description for what turned out to be an asset- and luck-poor expedition.

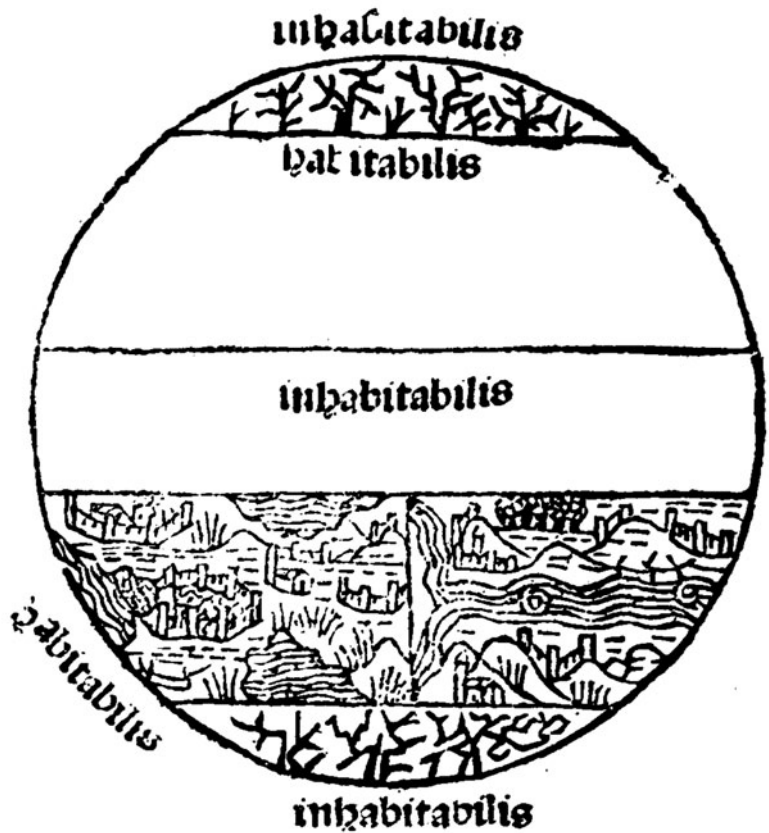
*Analogy*, of course, remained the chief means by which early modern New World reportage took place, in visual and textural terms; it was a move found in works like Gonzalo Fernández de Oviedo y Valdes’s *Historia general de las Indias* (compiled in Mexico in the 1530s) or Hans van Staden’s *Warhafftige Historia* (1557) about Brazil. Yet with virtually no exotic foods, glittering native handicraft, or enchanting civilizations to plunder, with perennially blurred, void topographies mingling land, sea, and air, the North seemed a region refusing inside-outside, and self-other dichotomies. Its dominant experience was not delight or fear but monotony.<sup>38</sup> For while everything from Florida south teemed with new bodies and things, with conditions mystifying but at once insistently *visible*, the dominant aesthetic of the Arctic was *aridity*, or even more basically, *absence*. It initially secreted no clear *stuff*, let alone stuff that could be seen, mapped, scaled. This real-world blankness was not just mirrored by the voiding strategies of certain writers or artists. For many, the most urgent questions became not the “what” or even the “how” of some cultural encounter, but an uncertainty as to whether anything had, in fact, been encountered at all.<sup>39</sup> For even at their most bizarre, new human or natural curiosities from the South (described in books, for example) were at least mappable onto contemporary notions of object-subject relationships: land as a stage, *curiosa* as props and cast, site as ground, exotic things as figure—a perspectival mode of description.<sup>40</sup> But if the geographic South—home to advanced Aztec and Inca civilizations—seemed to invite comparative judgments, the Far North repelled them. Blinding and intractable, the Arctic seemed to resist any stable “point of view,” let alone inventory.

### The Stars Down to Earth

To the ancient Greeks, the Arctic was a cosmological situation rather than a place. Their word *Artici* designated those earthly regions that lay beneath the stars in the constellation *arktos* (“bear,” hence “Arctic” from *αρκτικός*, or “near the bear”). It meant a zone of stars in the night sky that, unlike others, moved only in tight circles around a seemingly fixed point—bodies that were “ever-visible,” wrote Euclid.<sup>41</sup> Stars within this Arctic Circle (at least when seen from mainland Greece) did not migrate across the horizon over the course of weeks and months, as did other constellations. Thus was the idea inaugurated of a zone on the globe where the “permanent” stars were directly overhead and where, as Gemnius of Rhodes wrote in the first century BC, it was dark for half of the year.<sup>42</sup> Ptolemy fixed this Arctic Circle, an imaginary line, at around sixty-three degrees north of the equator.

Such a circle, however, was from its inception problematic: it was in essence an arbitrary cosmological value (the celestial Arctic varied depending on where on the surface of the earth you were observing it). This was an issue noticed early on (even today, the Arctic Circle is not a line but a constantly shifting zone, which is based on celestial movement). The geometer Posidonius (d. 51 BC), for example, identified the Arctic as a relative quantity. He was quoted by Strabo as asking, “How could one determine the limits of the temperate zones, which are non-variable, by means of the ‘arctic circles,’ which are neither visible among all men nor the same everywhere?”<sup>43</sup> This mismatch with universal determination (at least in spatial terms) became woven into the Arctic idea at its roots, affecting its alleged description. Posidonius spoke mockingly of Pytheas of Massilia, who very possibly sailed to Iceland in the fourth century BC.<sup>44</sup> Pytheas’s lost book *On the Ocean* described an encounter with a “sea lung” (*pleumōn thalattios*) in northern waters, where “the earth and the sea and everything else are suspended.” He called the region “Thule.”<sup>45</sup> Herodotus had spoken only of a vague *eremos aletheos*—a land of desolation, “where no nation of man lives.”<sup>46</sup> Neither water, nor solid, nor air (but somehow all three), the region’s very being did not fit into antique taxonomies of matter.

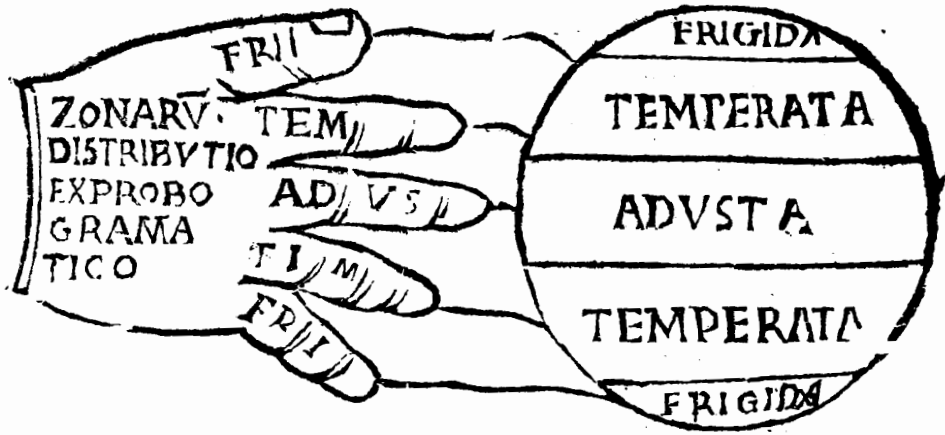
Thus, in the Greek imagination, the Arctic was not just a designation of empty earth, but a place where the elements blurred. It was, as Aristotle put it, one of the ζώνες (zones or bands) literally outside the realm of habitation. In sixteenth-century translations of Johannes de Sacrobosco’s *Sphaera mundi* (*On the Sphere of the World*; written ca. 1230), the extreme north and south of the earth were illustrated as



5  
 Fol. 5v from Johannes  
 de Sacrobosco, *Sphaera  
 mundi*, 1490. 7  $\frac{3}{8}$  ×  
 5  $\frac{1}{2}$  in. (19.4 × 13.6 cm).  
 University of Toronto,  
 Thomas Fisher Rare  
 Book Library, gal 00312.

cracked striations (fig. 5). These were contrasted with bands of towns and cities in the more “temperate” zones, marked off by the chords of a circle—with Arctic realms located at bottom.<sup>47</sup> Human civilization could survive only in those places protected from extremes. Such bands strayed into published adaptations of Ptolemy. The Saxon mathematician Peter Apian edited the extremely popular *Cosmographia* in 1524, a small book that later went through forty-five editions in four languages. In a rare 1532–1533 abridgement of the text published at Antwerp, Apian tied global bands to the five fingers of the right hand in a woodcut (fig. 6). These were distributed, as he wrote, “grammatically.”<sup>48</sup> As he explained, “Where the thumb is, there is the Arctic, which is called the North, and we understand that it is much too severe and uninhabitable.”<sup>49</sup> Apian offers a model for understanding that requires readers to think about how their own bodies are located in relation to other spaces.<sup>50</sup> Such digit-based analogy recalls medieval memory systems, and connects even the *zona frigida*—places of “perpetual ice”—to a kind of manual intimacy. Such mapping is still





6  
 Fol. 14v from Petrus  
 Apianus, *Cosmographiae  
 introductio: cum quibus-  
 dam geometriae ac  
 astronomiae principiis ad  
 eam rem necessarijs*, 1532.  
 Brown University,  
 Providence, Rhode Island,  
 John Carter Brown  
 Library, J533.A642cl.

reliant on the sturdy idea of body as measure, the framework of “feet” and “palms.” The poles were elements of scale most changeable between the body and the stars.<sup>51</sup>

### The Arctic as Movement

In Tudor England, the polar realm suggested a foil to Iberian enterprises in the South: “There is left one way to discover, which is into the North,” wrote a courtier to Henry VIII in 1527.<sup>52</sup> Near the end of Henry VIII’s reign, pamphlets began to appear touting the viability of such enterprises, dubiously asserting the preferability of its frigid temperatures to the “intemperate Climats” found in the tropics.<sup>53</sup> Colonies, argued investors, would be the solution to the growing problem of (say) poverty in London, which was a direct result of the century’s increased de-feudalization of large estates. Land enclosure, combined with Henry VIII’s dissolution of the monasteries, had flooded English cities with migrants during the 1560s.<sup>54</sup> Tudor and Elizabethan ventures placed great faith in technology to transform barren places to habitable sites. Even more so than those at Roanoke and Jamestown, English would-be settlers of the Arctic were under astonishing levels of confidence that everything known about the Far North since the ancients was wrong: that it was devoid of resources, perennially dark, too cold for human life. An English Arctic, many convinced themselves, could be successfully charted, measured, and overcome — if not by human prowess, than by the machinations of faith-based capitalism.

Such is the thinking quietly signaled in Hans Holbein the Younger’s (1497–1543) the *Ambassadors*, a 1533 double portrait of Jean de Dintville and Georges de Selve (fig. 7). It is a work known for its

7  
Hans Holbein the Younger, *The Ambassadors*, 1533. Oil on oak panel, 81  $\frac{3}{8}$  x 82  $\frac{3}{8}$  in. (207 x 209.5 cm). The National Gallery, London, inv. NG1314.

mimetic extravagance, its assemblage of devices dependent on number. Yet is centered, unexpectedly, on the Far North. On the bottom shelf of the table, rests a terrestrial sphere, tilted to show both Europe and the North Pole; it is a model of the earth unmounted in a stand (the globe was meant to be handheld)<sup>55</sup> based on an actual orb fashioned in Nuremberg around 1530.<sup>56</sup> At the time of the painting, Holbein was working for the Tudor court, and the globe is shown with England's potential dominions given visual prominence. While the Western Hemisphere is mostly in shadow, one section of the orb is starkly and dramatically lit: the Arctic (fig. 8). Holbein shows an open sea just above what is now Hudson Bay. This specific latitude passage is tipped toward an unseen light source, revealing details of the polar





8  
Detail of Holbein,  
*The Ambassadors*  
(see fig. 7).

cap as a white void atop a sea channel in the extreme north of America, ringed by an Arctic Circle painted in red. This is just below the simple label “DESERTII” (desolation). Set hopefully, tantalizingly close to mainland Europe, this Arctic is lashed by a meridian that distinguishes Spanish and Portuguese dominions (the Treaty of Tordesillas of 1494 had split the known earth into Occidental and Oriental realms) to reveal a wished-for northwest passage near Labrador, visible just astride a shadow.

In Holbein’s painting, the globe aligns with a multisurfaced celebration of technological innovation, and with painting’s ability to *frame* that innovation as possession. The dream of an open polar sea—and with it access to some conjoined American-Asian supercontinent—enchanted cartographers throughout Holbein’s day (fig. 9). It also motivated investors to fantasize about truly global speculative enterprises of their own. Around the *Ambassadors’* own orb lie armillary spheres, set squares and dividers, an open printed book: charting tools, but also luxury goods. These are all not only precious but also new; during the commission, Holbein was working with Henry VIII’s court astronomer and designer of instruments, Nicolas Kratzer.<sup>57</sup> Holbein used the same crimson paint to mark the globe’s longitudinal grids as he did for the book cover lying nearby, which is propped open with a T-square. This book, visibly opened to show sums and addition tables, has been identified as the *Kauffmanns Rechnung* (Merchants’ Arithmetic), a 1527 tract published at Ingolstadt—by the same Peter Apian of the *Cosmographiae* (see fig. 6).<sup>58</sup> On Holbein’s lower shelf, then, are linked computation and





cartography, as combined means to gauge Europe's new discoveries. Even the woolliest wilds of the unknown Northern Hemisphere, the picture suggests, may be quantified, overseen, and managed by a humanist intelligence.<sup>59</sup>

Yet a grayish smear famously tears through the painting's lower half. When viewed from an oblique angle, this floating patch, of course, resolves into a giant human skull in shadow. While anamorphic projection was not exactly new at the time, even in England,<sup>60</sup> the *vanitas* symbolism on such a scale was unprecedented. The death's head is actually one of two in the picture, the other in the form of a tiny hatpin atop Dintville's black cap at left. A silver crucifix secreted in the extreme upper left of the picture posits a visual rhyme with the slanting skull. Such facets traditionally allude to the

9

Oronce Fine (publisher),  
*Nova, et integra vniversi  
 orbis descriptio . . .*, 1531.  
 Hand-colored engraving,  
 11 3/8 x 16 1/2 in. (29 x 42 cm).  
 Library of Congress,  
 Washington, DC. Geog-  
 raphy and Map Division,  
 inv. G 3200 1531 F5.



transience of human pursuits and voyages, the folly of human actions undertaken without faith (we know that both de Selve and Dintville were liberal Catholics).

And yet, as befits the occupation of the sitters, the unique construction of the skull makes the picture not just about vanity but ultimately about movement. To view the full amassment of scalar things (rulers, lutes), one must physically dislocate one's actual body. What is "revealed," then, is not just some hidden iconography, but the relational dependence of such emblems on particular somatics of picture viewing, world viewing, on the mobile self. And yet, unusually for a portrait (usually about stasis, about identity), the work thus becomes about travel and unfamiliarity—with the Arctic at its center. This is a dim echo of the medieval idea of the Christian as a *homo viator*—a wayfarer between heaven and afterlife.<sup>61</sup> But on a more immediate level, such thematization of travel refers, of course, to what exactly it is that ambassadors do (we know that at the time of the commission, de Selve was journeying to England in secret, negotiating the divorce proceedings of Henry VIII).<sup>62</sup> The painting thus connects discovery—such as of the Arctic—with displacement, with experiential rupture. In Holbein's picture, as much as this movement shows death, so does it ingeniously *dramatize* a confrontation with unformed matter, presenting its resolution as a wholly individual act—one conditioned by operations of number and (more uncannily) scale. For Holbein's skull is not just distorted; it is enormous: utterly out of proportion with the bodies of Dintville and de Selve. Precisely as would Ellis's iceberg, a "true form" emerges only to shift again—as a viewer changes orientation in the face of disjunctive size.

### Dissimilarity as Aesthetic

In North Europe, Arctic reportage was often vocally Protestant in its outlook. Descriptions of the far North traded on the idea of a new world that would be different from Spanish America in confessional as well as geographical terms. Arngrimur Jónsson, for example, published his 1571 description of Iceland, *Brevis commentaries de Islandia*, as a deliberately Lutheran riposte to "papist" image policies and what he called "church" mystifications about the barbarous Far North. Frobisher's voyage accounts reveal a particular fascination with Inuit notions of religion.<sup>63</sup> In such a case, the Arctic's wasteland-like state was often transformed along familiarly Christian lines into a potentially desirable condition: "he saw nothing and he believed" (John 20:8). In fact, for a few visitors to the actual Arctic, a common point of

comparison for the landscape was the desert. It was a terrain “vast and void,”<sup>64</sup> as one explorer wrote, fraught with biblical overtones of barrenness, confusion, and itinerancy—but also of deliverance, refuge, interiority.<sup>65</sup> As Stephen Parmenius, a Hungarian poet who sailed to Newfoundland (and drowned there in 1583) rhetorically posed, “What shall I say . . . when I see nothing but solitude?”<sup>66</sup> Being *like* nothing else, the Arctic was particularly dumbfounding. John Davis is typical: “a strange quantity of ice, in one intyre masse, so bigge, as that we know not the limits thereof . . . incredible to be reported in truth as it was, and therefore I omit to speake any further of.”<sup>67</sup>

Such speechlessness emerged as a literary convention in ethnographic description *across* the New World (recall Cortés). But in the North, this silence was matched by the landscape’s endemic demotivation of vision. Figural description turned away from lists of things seen, tabulating instead the specifics of the Atlantic crossing itself or recounting, remarkably, voyagers’ *internal* wrestling with the removal of normal means of recognition, of sight. One sixteenth-century English pamphleteer poetically told of the “unmerciful strenesse of the Northern Pole,” of the “penetrating cold that, boring out the inhabitants’ eyes, gives them the source of hunger.”<sup>68</sup> A different account of a 1580 voyage through the Asian Arctic described one sailor’s frustration at being unable to distinguish earth from sea.<sup>69</sup> Of a later trip to Greenland, Davis related an anecdote of illusory conquest; thinking his crew had hit solid land, he “sent our pinnesse [a small boat] off to discover it, but at her return we were certainly informed that it was only ice.”<sup>70</sup>

And yet many explorers steeped in a culture of “defiantly Protestant polemics” came to the New World acutely sensitive to illusion and to the appearance of illusion, as Ernst Gilman has noted.<sup>71</sup> Narrated accounts carried with them a very complex set of anxieties about, on the one hand, worldly things and sensory experience and, on the other, an ambivalence about how visual information—vital for the description of New World phenomena—could be reconciled with a faith that often privileged what could *not* be seen. English Protestantism was specifically rife with worry about idolatry and images. When confronted with phenomena like hull-crushing ice storms and mountains of rock, chroniclers, as we have seen, reverted to language of the incommensurate or the mystical. But an equally common response to arctic circumstances was, as was Davis’s, silence.

The idea of a Northern continent as an immeasurable but hopeful wilderness would dominate literary constructions of America in the



late eighteenth and early nineteenth centuries.<sup>72</sup> Then, it was the infant nation's vast geographical distance from European civilization, its "atmosphere . . . transparent, unoccupied, empty . . . throughout the entire horizontal plane" that secreted its quixotic promise.<sup>73</sup> Early writers touted what America did *not* have (aristocrats, bishops, "great riches," "great refinements of luxury") rather than what it did.<sup>74</sup> The obviating roots of such poetics can be traced to Puritanism, surely, with its preference for simplicity and unlikeness. The specific geography of the far northern continent, however, *was* the first landscape of English America. In accounts of the Far North, descriptive inadequacy summoned something different than in those reports written from balmy climes. To believe in a permanently habitable Arctic, you must disbelieve everything your body tells you and willfully suspend the idea of vision as a means to truth, even in terrifying circumstances. The Arctic meant not just a new realm to draw into early modern mapping schemes. In its messy obduracy, it refused to stay cleanly "apart" from its dwellers and describers. It remained, as Eric Wilson has written, "a negative geography."<sup>75</sup>

If, as another scholar puts it, "English voyages to the north blended creativity with desperation,"<sup>76</sup> such mixing occurred within an Atlantic visual culture grappling not only with new places and peoples, but with changing technologies of art-making and reportage. As the 1578 reports made clear, the Arctic experience subsisted not just in *what* was seen, but in a productive anxiety about *how* the act of seeing itself was transformed once its geographical circumstances resisted—in a very real sense—some stable humanist contingency betwixt subject, object, and image. If nineteenth-century explorers and artists conceptualized the Far North as a sublime or terrifying indeterminacy within the period's increasingly systematized networks of communication, technology, and trade—a phantasmic oasis in modern webs of mercantile quantifiability—the dominant Renaissance experience of the Arctic was of the intractability and reality of matter.<sup>77</sup> The barren and visually impoverished lands of the Arctic bred terror, worry, and fright, but also the imaginative possibility of new and alternative realities.

Pictures were crucial to the definition of the Arctic; as a site, it consisted of both a specific topography and circulating images of its marvels. And yet in a physical terrain in which there was, quite often, *nothing* to see, such images bore the quixotic task of delivering information, and yet downplaying visual experience as sourcing that information, in favor of belief. Books like Ellis's, that is, upheld the superiority of what had *yet* to be seen, rather than what had.



This is not just to foist some environmental determinism on the early European words and images about the Arctic, as if some inchoately “unformed” language of description depended upon the North’s strange conditions. The terrain that confronted Ellis was not yet a “landscape” — in the sense of a governed, charted finitude.<sup>78</sup> It was a worryingly borderless concern, one characterized by unsure conditions of belonging, a space *defined* by newly financialized instruments of risk. In the sixteenth century, the Arctic remained a world away from courts, cities, and riches; it was everything the rest of the world was not; indeed, it remained (quite literally) that world’s polar opposite. The Arctic experience was important — but the essaying of its conditions was equally critical, and not just for how it informed later narratives of can-do American identity, the myth of nationhood planted atop the wilderness, with locals swept aside.<sup>79</sup> For the Arctic was never, of course, truly empty (fig. 10).

The traditional cognitive model of exploration is the model of the hunt; but exploration was not always so goal oriented, of course, and the process of voyaging was often like the process of pilgrimage. It is perhaps important, in this respect, that so many of the Arctic’s early images were made “on the move” and were militantly portable themselves (e.g. a colored broadsheet of an Inuit family seen by Frobisher, printed at Strasbourg in 1578, fig. 10). As both object and apparition, these float through space and fix an image within a world. This dynamism speaks to the representational conditions under which descriptions of the Arctic were made. But it also engages the broader challenges posed to notions of the early modern artwork itself in the wake of Reformation image controversies. These wrought anxieties over mobility as well as reference, over the frightening realization that *every* image, in a sense, would from now on be adrift, forever shuttling between idol and idea, matter and vision, obstacle and passage.

### Epilogue: After Images

In September 1969, Lawrence Weiner (b. 1942) flew to the settlement of Inuvik (68.3° N) within the Arctic Circle.<sup>80</sup> Here he, accompanied by several other North American artists and curators, spent two days creating ephemeral artworks. The pieces were for a show entitled *Place and Process* at the Edmonton Art Gallery.<sup>81</sup> Most of them involved the movement of earth, stones, or waterways. In three different iterations of *A NATURAL WATER COURSE DIVERTED REDUCED OR DISPLACED*, for example, Weiner constructed a dam out of found rocks. For other actions, tree branches and gravel were piled across streams, and in one

Merkliche Beschreibung / sampt eygenlicher Abbildung eynes frembden unbekanten Volcks / eyner Neu-er-  
 fundenen Landschaft / oder Insel / nentlicher zeit vom Herrn Martin Frobiser / durch vngewöhnliche vnd nie vnterstandene  
 Schifffart auß England zogen Verinal-Dradent / zu troff vnd ergebnis der ganzen Ertstreckey erkündigt.



**D**ie Welt begreift allest Wunder / vnd Es mit  
 Wundern versehen kann erdinger weichen / Man  
 willfahret gleichwol Got der Herr nach hien /  
 vnd seiget innen täglich die wunderliche Wun-  
 der / vnd die dile gewissste seiden seiner Jung-  
 len Safforte / Welches nämlich nach seiner sibe-  
 eygenen vorgeben den sag / dits ist das tum vngewiss über  
 alle Wälder sein Reich / das ist der Christliche Glaub / sich inn die  
 ganze Welt / von eygen Mäts in dem andern erziehen werde.  
 Solches erregt er hien vnd vnd das die Chaffen in Ma-  
 pa vnd nicht die Taffen auß Mien / laisset die Feindgelegen-  
 vnterfandene Wilde / Ende der Welt. da man euer Euer-  
 geschick Menschliche wohnung gesuchet hiet / erfinden / beid-  
 eiden vnter / in / vnd inn 700 jacht vnd 1000000 pangen.  
 Dann nach manmal der Spanfren / Feindgelegen  
 vnd Feindfren Märfren / als die man gewiss bekant vnd  
 beschreyt / sich geschreyt / So will ich alleyn hie der gar neulich  
 sein / vnd noch ganz vnterhanden Schifffart der Engländer inn  
 fremde Inseln gedencken / vnd sie hamp den Latin / so dain  
 gefanden werden / farenlos / ditschicken.

Vergangenem LXXVII. Jahr / hat Herr Martin Frobiser /  
 bliff inn England der Funf der Cosmographe oder erkünd-  
 gung der Welt gelegenheit / vnd der erforschen des Hies / ganz  
 geschickter Man / inn nachrechnung so viel gefunden / das seit zur  
 fern vnter dem 2. langreich / Teulan / / Inseln oder Land / in  
 gen misan / welche einweder bewohnet / oder wol vnterwoben  
 waren / hat beschriben alle erden sich vierfang in / durch das  
 vnterhande Mä / die solche jacthandigen. Inn beschreyung / wo er  
 inn / in / durch / Rauff / manchen eyren garen gewinn / sampt den  
 frantz / beschriben. Auff diese hin ist er von England mit eyren  
 Schiff / ab / gefahrt / vnd für die Man / gegen des Teulan-  
 Inseln / gegen / die / gegen / den / lauff / garen. Das dem er man  
 vnterhande vnterhande / hat er nach dem viererwoben sag  
 Land / gegen / nach dem in also gefahrt hat. Als er aber nach  
 eyren vnterhanden / sind / oder / Post / hiet / da er ein / auf / das  
 er eilich die / in / auf / das / Land / auff / die / hat er eilich / Schiff  
 der / hiet / er / vnterhande / die / mit / der / auf / Schiff

fen / wie die fütgemalt / beydes den Fischen vnd Vögeln nach  
 hielten / vnd sie dand / vider / In / hien / wie der gläubet auch  
 bicangen- / y / fingen. Welches sie die / wunderliche / wie es sie  
 vnd / dits / getalt der / Inseln / dits / er / er /  
 des / sich der / vngewöhnliche / als wann sie eyr Mä /  
 schen / fiden nach / darvon / da das Schiff sich vnterhanden  
 begunnet. Der Herr Frobiser / er / in / nach / hien / er eilich / von  
 jnen für / fünd / auff / er / in / dits / aber / sie / war / in / in / mit  
 jeren / Schiff / vnter / in / dits / ward / eyner / so / fed / dits  
 die / an / st / die / Schiff / dits / er / wart / in / dits / locket / der  
 Herr Frobiser / mit / guten / worten / vnd / frantz / hien / gebunden /  
 der / zu / jeren / in / nach / von / ferne / alle / ley / hien / hien / wach / so / lang  
 bis / er / in / hebet / inn / das / Schiff / vnterhande.

Albald er inn Schiff war / bis / sich / Frobiser / das / man / in / bins  
 der / darmit / er / mit / das / Wasser / sprang / vnd / schwimmend / darvon  
 flos. Folgende hat er auch der Manns Schiff / in / seinen / jacht /  
 dann er nach den Vögeln / schiff / inn / Schiff / genom. In / sol  
 cher / Wä / beladen / ist / er / hien / vnterhande / nach / England / gefart  
 das / als / als / er / an / geland / gewen / dar / er / gleich / der / An /  
 gen / vnterhande / Land / dits / er / in / jnen / fremden / Menschen / sampt / dem  
 Schiff / vnter / in / gefoh / gewiss / als / garen / alles / dits / so  
 sonst / vngläublich / was / er / wind / liff / er / er / von / gelegenheit /  
 vnd / beschriben / der / fremden / Land / vnd / wie / man / so / luff /  
 ann / England / dits / schiffen / fone. Auch / beschriben / Fro-  
 biser / hat / mit / jeren / er / dits / vnterhande / in / eyr / lauff / gemacht / gleiches / falls  
 dits / neue / Land / jact / handigen. Wie / das / bald / hien / dits / 2mal  
 Schiff / inn / auff / gefahrt / woden / dits / Frobiser / sampt / vnterhande /  
 gen / von / dits / inn / solche / gedacht / In / ist / gefahrt / dits /  
 geland / vnterhande / da / gelegenheit / zum / fluffigen / er / faren. Aber / dies  
 weil / er / die / des / vnterhande / hin / ist / eyr / Schiff / kaum / gläubiger  
 fiden / die / sie / er / fünd / er / jact / hien / wollen / wir / vnterhande /  
 auf / dits / papier / die / galt / vnterhande / der / fremden / Menschen-  
 der / auf / der / faren / In / ist / inn / England / ist / gedacht / woden / jact  
 beschriben.

Die / st / von / gefahrt / den / vnterhande / gleich / Mund / maffiger / farb-  
 doch / nicht / pleid / ganz / schwarz / baar / welche / den / Mannen / bis /  
 auf / die / Achseln / den / Weibern / auf / dits / sich / er / fiden / ist / auch

auff dem schiedlich vngewiss / auch on band / vnd / dits / vnter-  
 fiden. Das / In / ist / hien / sie / auf / man / dits / er / we / die / ang /  
 prau / fiden / mit / fiden / blauen / hien / vnterhande / gleich / wie / auch  
 das / fin. Der / Man / fluff / in / eyr / jeren / dits / vnterhande /  
 baut / garen / an / wä / er / sie / zu / Winter / set / das / rauch / einwendig  
 fiden / in / dits / er / er / auff / vnterhande. Dits / baut / ist / eyr / Kapp /  
 anders / auch / von / der / gleich / baar / welche / er / für / eyr / Kapp /  
 dits. Die / Kapp / der / Kapp / ist / schon / von / schwarzen / Seilen / best-  
 dits / das / foder / the / am / Kapp / bant / kaum / vnterhande /  
 das / hien / bey / die / auf / die / feren / Geben / gefahrt / vnterhande /  
 von / der / gleich / er / dits / baar / welche / auch / ist / schon / fin. Der  
 Weib / er / fluff / ist / der / Mann / er / nicht / fast / vnterhande /  
 one / mit / den /  
 dits / in / welche / sie / zu / Winter / set / das / rauch / einwendig  
 fiden / in / dits / er / er / auff / vnterhande. Dits / baut / ist / eyr / Kapp /  
 anders / auch / von / der / gleich / baar / welche / er / für / eyr / Kapp /  
 dits. Die / Kapp / der / Kapp / ist / schon / von / schwarzen / Seilen / best-  
 dits / das / foder / the / am / Kapp / bant / kaum / vnterhande /  
 das / hien / bey / die / auf / die / feren / Geben / gefahrt / vnterhande /  
 von / der / gleich / er / dits / baar / welche / auch / ist / schon / fin. Der  
 Weib / er / fluff / ist / der / Mann / er / nicht / fast / vnterhande /  
 one / mit / den /

other, *The Arctic Circle Shattered*, Weiner fired bullets across the tundra with a borrowed .22 caliber rifle, creasing rocks in a gravel pit.

The critic Lucy Lippard (b. 1937), who accompanied Weiner, photographed many of the actions and published a diary-essay of the trip in the *Hudson Review* the same year (fig. 11). Although not explicitly political, Lippard's piece alluded to the bizarre culture of resource exploration coeval with the art actions (Inuvik had been founded ex nihilo in 1958 to support mining and petrochemical enterprises nearby).<sup>82</sup> Lippard's greatest interest, however, remained with the relation between these human environmental conditions and their "barren" Arctic topography, an interest redolent of Frobisher and rooted in *scale*: "Northern spaces are grand, bleak, infinite, and reject autonomous man-made objects almost by definition. . . . Under such conditions, imposed somewhat differently by a rolling tundra and a flat snow landscape, a work of art has no scale, or rather no relative scale, and does not compete with nature, partly because few people will see it, partly because it need be compared to no other art, partly because it is impermanent anyway."<sup>83</sup> In Lippard's reading, Weiner's Arctic pieces sought to demotivate not just physical presence but pictorial monumentality: made with the most mundane of gestures, wielding detritus from the vast Arctic wasteland, the pieces denied the idea of the artwork as something heroically, systematically fabricated, something that conquered its spatial surroundings. This was a very different Conceptualist gesture than other work executed on the Inuvik junket, among them pieces by Iain and Ingrid Baxter's pseudocorporate N.E. Thing Co. (NETCo) (act. 1967–1978). The latter took the extragallery situation of the landscape as a given, reading the Arctic environment itself as a documentable object. Yet within Lippard's writing, the indeterminacy of the Arctic topography hosted a tension between natural vastness and what would later be called "abstract discursive denominations"<sup>84</sup>—cartographic phenomena like the "Arctic Circle" that, as we have seen, even the Greeks had found problematic.

The article's murky black-and-white photograph of one Weiner piece struggled to represent the conditions on and in the land (fig. 12). Here an empty cigarette package—importantly *part* of the work, not an appendage to it—lay within the frame. When photographed, the pack appeared as an identificatory bit of human making, as if imparting size information to what would otherwise appear to be an "empty" patch of tundra—like the scale ruler in archaeological dig photos.<sup>85</sup> Yet for Lippard, Weiner's travesty of body-object relations was not just aimed at the disavowal of sculptural bigness or smallness

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*Merckliche Beschreibung sampt eygenlicher Abbildung eynes frembden unbekanten Volcks . . .*, 1578.  
Hand-colored woodcut and letterpress, 14 × 11 ½ in. (35.7 × 28.4 cm).  
Zentralbibliothek  
Zürich, PAS II 15/32.



LUCY R. LIPPARD

## Art Within the Arctic Circle

SEPTEMBER 24: FROM NEW YORK to Edmonton, Alberta, with Lawrence Weiner, artist, to meet Bill Kirby, Director of the Edmonton Art Gallery and the N. E. Thing Company (Vancouver artist Iain Baxter and his wife Elaine), and then fly to somewhere within the Arctic Circle, where Weiner, NETCo and Harry Savage, an artist from Edmonton, will execute works of art proposed for that location. Virgil Hammock, an Edmonton journalist and professor, and I will document the proceedings. The trip is sponsored by the Art Gallery as part of their "Place and Process" exhibition, featuring outdoor and temporary work; the show itself will consist primarily of film and photographic documentation of works done in Edmonton and other parts of the world by the participating artists (place ranges from the Sahara to the Arctic Circle to New York, process from an inane cornflake-spreading piece to the rather more provocative contributions of artists such as Richard Long, Dennis Oppenheim and Robert Morris). The Arctic expedition arose from Weiner's piece, conceived before the exhibition: "An abridgement of an abutment to on near or about the Arctic Circle."<sup>1</sup>

September 25: Spent night in Edmonton and set out on the 1200 mile flight to Inuvik, Northwest Territory, free passes courtesy of the Pacific Western Airlines. The distances involved are impressive. Edmonton itself is about 2400 miles from New York, near the 55th parallel; Inuvik is some 60 miles within the Circle, almost to the 70th parallel, in the delta of the great Mackenzie River, main thoroughfare to the North (all provisions go up by barge, or plane, since the gravel highway goes only as far as Yellowknife), and a short distance from Beaufort Sea—the relatively "warm" section of the Arctic Ocean. The land mass of the Canadian North is immense, the barren spaces awesome. The placid geometrically furrowed fields of central Alberta give way to huge forests; halfway through the trip the land begins to crumble into water—innumerable lakes, ponds and rivers. The first stop, Hay River, on the southern edge of the Great Slave Lake, is bleak but spotted with brilliant yellow birches. Yellowknife, on the northern edge, is blue water, black muskeg bogs and ledges that are gray from the ground but pinkish from above. In the hour and a half we have there we see the old part of this goldmining town (dirt roads, shacks, tarpaper and log cabins, Indian children, huge black

<sup>1</sup> I shall concentrate here on Weiner's work since I recently discussed Baxter's at length (*Artscanada*, June 1969) and am not acquainted with Savage's outside of that discussed here.



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Lucy R. Lippard, "Art within the Arctic Circle," *Hudson Review* 22, 4 (Winter 1969–1970): 665.

altogether, along lines charted by so many other artists in the second half of the 1960s. (A similar interest colored Lippard's review of the Corcoran's *Scale as Content* exhibition of 1968 from exactly a year before the Arctic trip.)<sup>86</sup> Rather, laid bare across the Inuvik pieces (and Lippard's writing about them) was both a very historical interest in the Arctic's storied aesthetic of visual indeterminacy *and* the role journalistic reportage plays in the transmission and fashioning of that aesthetic.

For Lippard, the journey to the site, the scale of distance between home and away, read as much a part of the piece as any arrangement of sticks and dirt: "Spent night in Edmonton and set out on the 1200 mile flight to Inuvik," she recounts. "The distances involved are impressive. Edmonton is itself about 2400 miles from New York, near the 55th parallel."<sup>87</sup> Indeed, scale figures in the essay as a metric of global travel away from the East Coast artworld, a journey that became "dematerialized," by jet travel and car. Lippard's further tales of mundanity also recall voyage accounts from centuries past: "What

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Lucy R. Lippard, "Art within the Arctic Circle," *Hudson Review* 22, 4 (Winter 1969–1970): plate after page 672.



LAWRENCE WEINER

*An abridgement of an abutment to on near  
or about the Arctic Circle*

makes the arctic so uninteresting to describe . . . is the infinite sameness of the terrain,” she writes. “The landscape is not so exotic as I had expected.”<sup>88</sup> Yet as elsewhere, the narrative of journey “to” the art-site was part of the piece; Lippard relayed anecdotes about truck drivers, drunken locals, and oil wells. At the same time, her photodocumentation established (as in so many records of land art) a sense of moving around the pieces, of the phenomenological relation between the works and a particular (image-making) body. Lippard’s essay even quoted the nineteenth-century Norwegian explorer of the Arctic Vilhjálmur Stefánson, who wrote: “One sees things under circumstances that give one no idea of the distance, and consequently one has no scale for comparison. . . . Under certain conditions of Arctic light, [there is] nothing to give you a measure of the distance, nothing to furnish a scale to determine size by comparison.” This is an antiproperty aesthetic, Lippard contended, akin to “the Eskimo language [which] contains no words for measurement of space or time.”<sup>89</sup>

The Romantic (some would say naïve) faith in an objectless art, somehow resistant to commodification, appears curious in retrospect. For one, it appeared at precisely the moment in US history, the late 1960s, when a goods-based economy was giving way to a finance culture of vast abstraction (of futures, derivatives, options, and swaps)—a culture which Frobisher’s age helped to invent. All transactions were now somehow transnational transactions, in effect *cancelling* any object-oriented concepts of scale. And Lippard later realized this. Wiener disavowed this take right out: “No one dematerializes objects, that doesn’t mean anything.” Wiener went on to say, “As soon as you know something, it’s an object.”<sup>90</sup> The Baxters, in fact, cannily wielded the “wilderness” angle of the Inuvik works toward their professional, art-market advantage.<sup>91</sup>

For their part, Weiner’s Arctic works were perhaps most profound less for their *countering* of the object (and accordingly, some supposed resistance to a conventional gallery system) than for their privileging of the *material* over the *optical* properties of the northern landscape—for exploring the Arctic as stuff rather than scenery. It was the relation *between* objects and people—the basis for scale—which structured Weiner’s understanding of sculpture: “Art is and must be an empirical reality concerned with the relationships of human beings to objects and objects in relation to human beings,” he later said.<sup>92</sup>

Lippard’s account brings full circle the Arctic’s earliest clash with Renaissance ideas of environment and media—nature

understood as a pictorial rather than an ecological concept, something almost simulative.<sup>93</sup> If anything, Ellis's icebergs, too, bespeak an aesthetic where discovery is not just about difference, experience, and possession, but about unformed matter, unsure perceptual and social relations—not quite a landscape but, as Ellis put it, a “ground for any thing that we could perceive.” This is not just disorientation for disorientation's sake—a neoliberalist sublime *avant la lettre*. As in Weiner's project, the issue of scale mattered not just in terms of a discrete locale of “experience,” but in the relation between a concrete physical site and its medial re-presentation. Lippard's black-and-white photos, Ellis's chunky woodcuts—both practices *constructed* rather than patly *documented* the various situations staged in and by the Arctic, presenting them to a larger world through information networks.

So many 1960s land art pieces too, as one period gallerist put it, framed themselves as “expeditions . . . into uninhabited regions.”<sup>94</sup> Like the North of Frobisher, such undertakings only became known via their scattering among large-scale environments of media.<sup>95</sup> And were caught up, perhaps, in an equally ambivalent colonialist impulse—foreigners as aesthetic masters of a distant, Northern void.<sup>96</sup> It is perhaps fitting, then, that where once the traditional history of the Far North as a featureless expanse, an abstraction that is all but invisible, spoke to the language of colonization, in more recent years, it has (again) become an image abetting corporate resource exploitation, which continues to benefit from the myth of some Nordic *tabula rasa*, as if keeping Frobisher's ore quest alive (the Lippard expedition took place only a year after oil was first discovered in Prudhoe Bay in North Alaska).<sup>97</sup> At stake across both might be the historical issue of what to image when your subject is a “non-site” or, more accurately when speaking today, a rapidly disappearing site.

Much of the well-founded outrage characterizing environmental advocacy today participates in the same mythic sense of nature as a sanctuary or “place”—something pristine and demarcated. The adoration of natural experiences “away from it all” remains an arguably American obsession.<sup>98</sup> This territorial approach thinks too small, as Timothy Morton has suggested. But at the same time, might not thinking too “big” depoliticize the arctic itself, falsely universalizing the human forces responsible for its immanent dissolution? Perhaps it is the awestruck human *separateness* from the Far North that imputed the Arctic (and elsewhere) an undeserved foreignness that, by turns, nourished wonder (think Frederic Church) and licensed exploitation

(Inuvik's Yukon).<sup>99</sup> This nature-culture fissure might also have special import for the history of American art, with its particular attachment to myths of frontier.<sup>100</sup> Maybe today "Arctic" is better imagined as a condition, practice, or mode, rather than as a physical place or a cold feeling. Perhaps understanding the Far North as something different from a "landscape" — paradoxically — might undo this dream of its otherness. Might help to dislodge its contextualization from bluntly ethnographical or ecological discourses. And perhaps might help to materialize the Arctic's reality as a situation where, as Frobisher learned, what you see cannot always be trusted, and, as Lawrence Weiner once put it, "if you make a mistake, you die."<sup>101</sup>



**This essay—whatever its merits may be—would not exist without the intellectual generosity of Jennifer Roberts. Thanks also to Abigail Newman, Katie Pfohl, and an anonymous referee. All translations are my own unless otherwise noted.**

1 Details of the vessel contents can be found in James McDermott's lengthy introduction to *The Third Voyage of Martin Frobisher to Baffin Island, 1578* (London: The Hakluyt Society, 2001), 1–51. It seems that Frobisher himself expressed hesitation about the attempt to seed a colony on the same voyage; see *ibid.*, 60.

2 Thomas Ellis, *A True report of the third and last voyage into Meta Incognita; achieved buy the worthie Capteine, M. Martine Frobisher Esquire* (London: Thomas Dawson, 1578), fol. A7v. On the various retellings: see James McDermott, "Frobisher's 1578 Voyage: Early Eyewitness Accounts of English Ships in Arctic Seas," *Polar Record* 32, 183 (1996): 325–34. Aside from this book, nothing is known of Thomas Ellis himself.

3 The tabulations of loss are in McDermott, "Frobisher's 1578 Voyage." Frobisher's three voyages could certainly be seen as an investment bubble; see William N. West, "Gold on Credit: Martin Frobisher's and Walter Raleigh's Economies of Evidence," *Criticism* 39, 3 (Summer 1997): 315–36. On more general rhetorics of failure underpinning the intellectual setting for early American exploration, see Julian Yates, *Error, Misuse, Failure: Object Lessons from the English Renaissance* (Minneapolis: University of Minnesota Press, 2002).

4 Ellis, *True report*, fol. B1r. In one of the few intact Ellis copies (HEH 18070, Huntington Library, San Marino, CA), the iceberg plate is quite large—much larger than the trim size of the book (13 × 8 cm, roughly). The sheet is 20 × 27 cm and folds out in four stages. Almost echoing the workings of the text, the paper sheet "reveals" its subject matter through a time-based sequence of inspection.

5 J. C. H. King and Hentietta Lidchi, eds., *Imaging the Arctic* (Seattle: University of Washington Press, 1998).

6 Eleanor Jones Harvey, *The Voyage of the Icebergs: Frederic Church's Arctic Masterpiece* (New Haven, CT: Yale University Press, 2002): 46–49.

7 Henry T. Tuckerman, "Frederic Edwin Church," *Galaxy: An Illustrated Magazine of Entertaining Reading* [New York], July 1866, 422, quoted in Katie Pfohl, "American Painting and the Systems of World Ornament" (PhD diss., Harvard University, 2014), 44–45.

8 On art practice and the iceberg metaphor (which was first applied to human consciousness by the psychologist Gustav Fechner [1801–1867]), see Christina Peretti, *Geologisch Metaphorik in meinem Arbeit* (Lucerne, Switz.: Hochschule für Gestaltung und Kunst, 2007): 52–53

9 On Protestant worldviews and early Arctic exploration, see Joyce Chaplin, *Subject Matter: Technology, the Body, and Science on the American Frontier* (Cambridge, MA: Harvard University Press, 2001), 39–40.

10 Apart from the little book by Thomas Ellis, these are the written accounts of George Best and Thomas Wiars (both published in Hakluyt's *Principal Navigations*); and narratives of Charles Jackman, Edward Fenton, and Edward Selman (in manuscript). See Michael Householder, *Inventing Americans in the Age of Discovery* (Aldershot: Ashgate, 2010), 82n5.

11 Walter A. Kenyon, *Tokens of Possession: The Northern Voyages of Martin Frobisher* (Toronto: University of Toronto Press, 1975), 15ff.

12 George Best, quoted in David Beers Quinn, "The Northwest Passage in Theory and Practice," in *North American Exploration*, vol. 1, *A New World Disclosed*, ed. John Logan Allen (Lincoln: University of Nebraska Press, 1997), 311–12.

13 See Sharat K. Roy, "The History and Petrography of Frobisher's 'Gold Ore,'" *Field Museum of Natural History Geological Series* 7, 2 (May 1937): 21–38.

14 Ellis, *True report*, fol. A8v.

15 Arend W. Lang, *Die "Caerte van oostlant" des Cornelis Anthonisz, 1543* (Bremerhaven, Ger.: Deutsches Schiffahrtsmuseum, 1986), 77–87. More broadly on Dutch navigational publications in Britain: Thomas Randolph Adams, ed., *English Maritime Books Printed before 1801: Relating to Ships, Their Construction and Their Operation at Sea* (Providence, RI: John Carter Brown Library, 1995).

- 16 George Best, *A True Discourse* [1578], in McDermott, *Third Voyage of Martin Frobisher*, 228.
- 17 Wayne Franklin, *Discoverers, Explorers, Settlers* (Chicago: University of Chicago Press, 1978), 141. While Atlantic icebergs—caused naturally by the seasonal calving of polar ice—were described in Norse legends, there survives very little discussion of them in Europe before the seventeenth century. See Mariana Gosnell, *Ice: The Nature, the History, and the Uses of an Astonishing Substance* (Chicago: University of Chicago Press, 2007).
- 18 *OED*, s.v. “scale,” accessed Jan. 22 2015, <http://www.oed.com/view/Entry/171737>. The legibility aspect is noted by Gunnar Olsson, *Abysmal: A Critique of Cartographic Reason* (Chicago: University of Chicago Press, 2007), 442n15.
- 19 Antoni Malet, “Renaissance Notions of Number and Magnitude,” *Historia Mathematica* 33 (2006): 63–81. The first English maps to include scale rulers appeared in 1540; see P. D. A. Harvey, *Maps in Tudor England* (Chicago: University of Chicago Press, 1993), 8.
- 20 Paul Emmons, “Size Matters: Virtual Scale and Bodily Imagination in Architectural Drawing,” *Architectural Research Quarterly* 9, 3–4 (2005): 227–35.
- 21 *Filarete’s Treatise on Architecture*, trans. John R. Spencer (New Haven, CT: Yale University Press, 1965), 1:82 (Book 7, 47r).
- 22 Leon Battista Alberti, *On Painting: A New Translation and Critical Edition*, trans. Rocco Sinisgalli (Cambridge: Cambridge University Press, 2011), 22, 38.
- 23 Edward Worsop, *A Discoverie of Sundrie errors and faults daily committed by Landemeaters* (London: Henrie Middleton, 1582), B2v.
- 24 Andrew McRae, *God Speed the Plough: The Representation of Agrarian England, 1500–1660* (Cambridge: Cambridge University Press, 1996), 171.
- 25 A copy of the world map published in 1569 by Gerhard Kramer, known as Mercator, was in Frobisher’s personal ship’s library during his first voyage to the Northwest in 1576, where it was inventoried as “a great mapp universall of Mercator in prente”; see D. W. Waters, *The Art of Navigation in England in Elizabethan and Early Stuart Times* (New Haven, CT: Yale University Press, 1958), 531, under appendix no. 10, sec. C, item (k).
- 26 Jess Edwards, *Writing, Geometry and Space in Seventeenth-Century England and America: Circles in the Sand* (London: Routledge, 2006).
- 27 For example, Percy G. Adams, “The Discovery of America and European Renaissance Literature,” *Comparative Literature Studies* 13, 2 (June 1976): 100–115; Stephen Greenblatt, *Marvellous Possessions* (Chicago: University of Chicago Press, 1991); Russell West, *Spatial Representations and the Jacobean Stage: From Shakespeare to Webster* (Basingstoke, UK: Palgrave, 2002); Peter C. Mancall, “Richard Hakluyt and the Visual World of Early Modern Travel Narratives,” in *Richard Hakluyt and Travel Writing in Early Modern Europe*, ed. Daniel Carey and Claire Jowett (Burlington, VT: Ashgate, 2012), 87–101.
- 28 Tzvetan Todorov, *The Conquest of America*. Trans Richard Howard (New York, Harper and Row, 1984), 183–218.
- 29 Michael Gaudio, “The Space of Idolatry: Reformation, Incarnation, and the Ethnographic Image,” *RES* 41 (Spring 2002): 73–91.
- 30 But see also David Summers, *Real Spaces* (London: Phaidon, 2003), 414–15; and, more materially (and lucidly), Jennifer Roberts, *Transporting Visions* (Berkeley: University of California Press, 2014), 104–6, 162–64. The phrasing of “make-believe” in relation to landscape scale is found in Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), see esp. 85–100.
- 31 See, for example, Seymour Schwartz, *The Mismatching of America* (Rochester, NY: University of Rochester Press, 2003).
- 32 Hernán Cortés, *Letters from Mexico*, trans. and ed. Anthony Pagden (New Haven, CT: Yale University Press, 1971), 104.
- 33 Dionyse Settle, *A true reporte of the laste voyage into the west and northwest regions, &c. 1577. worthily atchieued by Capteine Frobisher . . .* (Imprinted at London: By Henrie Middleton, Anno. 1577), fol. A7r. On this passage, see also Mumford Jones, “O Strange New World,” in *The American Scene*, ed. Robert D. Marcus and David Burner

(New York: Meredith Corporation, 1971), 19. Cf. Mary Fuller, "The Poetics of a Cold Climate," *Terrae Incognitae* 30 (1998): 41: "Cabot and Columbus happened upon two utterly different Americas . . . a formidably northerly America of foggy seas, ice-scarred lands, and punishing winters [and a] tropical America, a paradisiacal America of green-covered islands and perpetual warmth."

34 Hakluyt's *Collection of the Early Voyages, Travels, and Discoveries of the English Nation [1598–1600] A New Edition, With Additions* (London: R. H. Evans, 1810), 3:40.

35 *The Three Voyages of Martin Frobisher*, ed. Richard Collinson (London: Hakluyt Society, 1867), 234.

36 Best, *A True Discourse*, 211.

37 MS 1125 ("Fenton Journal"), fol. 10, Pepys Library, Magdalene College, Cambridge. See Walter Kenyon, "The Canadian Arctic Journal of Captain Edward Fenton, 1578," *Archivaria* 11 (Winter 1980/81): 173.

38 Monotony was a facet often echoed in the actual tone of the travel accounts themselves—both of the Arctic and elsewhere. See Mary C. Fuller, "His Dark Materials: The Problem of Dullness in Hakluyt's Collections," in Carey and Jowet, *Travel Writing*, 231–42.

39 On the individual as new measure in early modern travel writing, see Mary B. Campbell, *The Witness and the Other World* (Ithaca, NY: Cornell University Press, 1988), 3–13.

40 Roland Mushat Frye, "Ways of Seeing in Shakespearean Drama and Elizabethan Painting," *Shakespeare Quarterly* 31, 3 (Autumn 1980): 323–43.

41 J. L. Berggren and R. S. D. Thomas, eds., *Euclid's Phaenomena: A Translation and Study of a Hellenistic Treatise in Spherical Astronomy* (London: Mathematical Society, 2006), 44. On the practical importance of a geometric Arctic and Antarctic for the construction of globes in antiquity, see Otto Neugebauer, *A History of Ancient Mathematical Astronomy* (New York: Springer, 1975), 2:582, 865–66, 733.

42 Margaret Small, "From Jellied Seas to Open Waterways: Redefining the Northern Limit of the Knowable World," *Renaissance Studies* 21, 3 (2007): 317.

43 Strabo, *Geography* 2.2.2, as in *The Geography of Strabo*, trans. Horace Leonard Jones (Cambridge, MA: Loeb, 1917–1932), 1:365.

44 Roman coins from the third century AD have been found in eastern Iceland. See Duane W. Roller, *Through the Pillars of Hercules: Greco-Roman Exploration of the Atlantic* (New York: Routledge, 2006), 83n194.

45 Pytheas, quoted in Small, "Jellied Seas," 321. The literature on Pytheas's (purported) journey is extensive. For an overview, see R. Chevallier, "The Greco-Roman Conception of the North from Pytheas to Tacitus," *Arctic* 37, 4 (Dec. 1984): 341–46; and Germain Aujac, "L'île du Thulé, de Pythéas à Ptolémée," in *Geographie du monde au Moyen Âge et à la Renaissance*, ed. Monique Pelletier (Paris: CTHS, 1989), 181–90. The textual fragments of Pytheas appear in Christina Horst Roseman, *Pytheas of Massilia: On the Ocean* (Chicago: Acres Publishing, 1994).

46 Herodotus 4.18.3, as in *Herodotus*, trans. A. D. Godley (Cambridge, MA: Harvard University Press, 1920), <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0126%3Abook%3D4%3Achapter%3D18%3Asection%3D3> (accessed Nov. 2, 2015).

47 See Denis Cosgrove, *Apollo's Eye* (Baltimore: Johns Hopkins Press, 2001), 69–73.

48 Little has been written about the 1532–1533 abridgement of the *Cosmographia*. For its publication history, see the editions listed in Karl Schottenloher, *Die Landschuter Buchdrucker des 16. Jahrhunderts, mit einem Anhang: Die Apianusdruckerei in Ingolstadt* (Mainz: Gutenberg-Gesellschaft, 1930), 72, nos. 19–21.

49 Petrus Apianus, *Cosmographiae introductio* (Ingolstadt, 1532), fols. 14r-v, and more fully: "Zonarum discrimen bell Probus Grammaticus ait, è manu accipi posse, si leuam contra ora nostra in ortum solis versa, digitis expansis introspeximus: ut ubi pollex est, ibi zonam esse arcticam, quae et Septentrionalis vocatur, intelligamus, nimio rigore inhabitabilem. Pollici proximo digito temperatam nostram, quàm aestivalem nominant, indicari. Ut medius digitus aequinoctiali ali adustae, et inhabitabili secundum vetustos, respondebit. Quartus alteram temperatam ostendet, quam hyemalem Probus nominat, quòd sol in eam inclinans

nobis hyenem relinquit, sicut in nostram ascendes, aestatum aperit, diesque longiores facere solet. Digitus minimus quintam zonam referet, Notiam et Australem dictam ob gelu perpetuum, et sicut Septentrionalis nostra, inhabitabilem.”

50 Tom Conley, “A Topographer’s Eye: From Gilles Corrozet to Peter Apian,” in *Early Modern Eyes*, ed. Walter Melion (Leiden: Brill, 2010), 62.

51 *Cosmographiae introductio*, ch. 28.

52 As in David Beers Quinn, Alison M. Quinn, and Susan Hillier, eds., *New American World: A Documentary History of North America to 1612* (New York: Arno Press, 1979), 1:180. On the propagandistic value to the English crown of this “waie of the Northe,” see Helen Wallis, “England’s Search for the Northern Passages in the Sixteenth and Early Seventeenth Centuries,” *Arctic* 37, 4 (Dec. 1984): 453.

53 George Wateson, *The Cures of the Diseased, in Remote Regions . . .* (London: Felix Kingston, 1598), fol. B. On this phenomenon, see Karen Ordahl Kupperman, “Fear of Hot Climates in the Anglo-American Colonial Experience,” *William and Mary Quarterly*, 3rd ser., 41, 2 (Apr. 1984): 213–40.

54 John F. Pound, *Poverty and Vagrancy in Tudor England* (London: Routledge, 2014), esp. 37–75.

55 The orb was possibly meant as a portable travel-globe; see Daniela Roberts, “*Imago Mundi*”: *Eine ikonographische und mentalitätsgeschichtliche Studie ausgehend von Hans Holbein d. J. “The Ambassadors”* (Hildesheim, Ger.: Olms, 2009), 146. On possible changes to the globe by later restorers (including, perhaps, the handle itself), see Elly Dekker and Rudolf Schmidt, “The Globes in Holbein’s Painting “The Ambassadors,”” *Der Globusfreund* 47/48 (1999): 19–52.

56 See the related globe by Johannes Schöner, discussed in Wolfgang Pülhorn and Peter Laub, eds., *Focus Behaim Globus* (Nuremberg: Germanisches Nationalmuseum, 1992), 2:673–74. The Holbein identification appears in Elly Dekker and Kristen Lippincott, “The Scientific Instruments in Holbein’s Ambassadors: A Re-Examination,” *Journal of the Warburg and Courtauld Institutes* 62 (1999): 93–125.

57 Jeanne Nuchterlein, *Translating Nature into Art: Holbein, the Reformation, and Renaissance Rhetoric*

(University Park: Penn State University Press, 2011), 169. See also Richard Helgerson, “The Folly of Maps and Modernity,” in *Literature, Mapping, and the Politics of Space in Early Modern Britain*, ed. Andrew Gordon and Bernhard Klein (Cambridge: Cambridge University Press, 2001), 249–50.

58 Petrus Apianus, *Eyn neue unnd wolgegründte underweysung aller Kauffmans Rechnung in dreyen Büchern : mit schönen Regeln und fragstucken begriffen . . .* (Ingolstadt, 1527). The methods shown in the open page in Holbein’s painting would have been, in the 1530s, quite advanced for their reliance on abstract symbols rather than abacus-based calculation. See Jessica Buskirk, “Portraiture and Arithmetic in Sixteenth-Century Bavaria: Deciphering Barthel Beham’s *Calculator*,” *Renaissance Quarterly* 66, 1 (Spring 2013): 35–80.

59 See Nate Probasco, “Cartography as a Tool of Colonization: Sir Humphrey Gilbert’s 1583 Voyage to North America,” *Renaissance Quarterly* 67 (2014): 425–72.

60 Fernand Hallyn, “Holbein: La mort en abyme,” *Gentse bijdragen tot de kunstgeschiedenis* 25 (1978–1980): 1–13; and on the broader phenomenon, Michael Schuyt, *Anamorphosen: Ein Spiel mit der Wahrnehmung* (Cologne: DuMont, 1990). For Lacan, famously, Holbein’s skull marked the irreconcilability of signifier and real.

61 Kenneth Charlton, “Holbein’s Ambassadors and Sixteenth-Century Education,” *Journal of the History of Ideas* 21, 1 (Jan.–Mar. 1960): 99–109.

62 Susan Foister, *Holbein and England* (New Haven, CT: Yale University Press, 2004), 214.

63 Peter Mancall, “The Raw and the Cold: Five English Soldiers in Sixteenth-Century Nunavut,” *William and Mary Quarterly* 70, 1 (Jan. 2013): 11. On the importance of analogous thinking in New World representation, see Anthony Pagden, *The Fall of Natural Man: The American Indian and the Origins of Comparative Ethnology* (Cambridge: Cambridge University Press, 1982), 1–4; and Campbell, *Witness*, 90–91, 189.

64 As in Richard Bevis, *The Road to Egdon Heath: The Aesthetics of the Great in Nature* (Montreal: McGill-Queen’s University Press, 1999), 16.



- 65 Cf. medieval English pilgrimage accounts of North Africa, as discussed in Gerhart B. Ladner, "Homo Viator: Medieval Ideas on Alienation and Order," *Speculum* 42, 2 (Apr. 1967): 233–59; and, more broadly, Yi-Fu Tuan, "Desert and Ice: Ambivalent Aesthetics," in *Cambridge Studies in the Visual Arts*, ed. Salim Kemal and Ivan Gaskell (Cambridge: Cambridge University Press, 1993), 139–57.
- 66 "Caeterum quid narrem . . . quando praeter solitudinem nihil video?" Original from Hakluyt's *Collection of the Early Voyages, Travels, and Discoveries* (London: R. H. Evans, 1810), 3:204.
- 67 John Davis (1550–1605), as in *The Voyages and Works of John Davis the Navigator*, ed. Albert Hastings Markham (London: Hakluyt Society, 1880), 1:24.
- 68 Arthur Hall (1539?–1605), *A letter sent by F.A. touchyng the proceedings in a priuate quarell and vnkindnesse betweene Arthur Hall, and Melchisedech Mallerie gentleman . . .* [H. Bynneman for Arthur Hall, 1576?], fols. F2r–F2v.
- 69 For example: "There appeared a shadow of land to us East Northeast, and so we ran with it the space of 2. houres, and then perceiving that it was but fogge, we hald along Southeast." Hugh Smith, *The discoverie made by M. Arthur Pet and M. Charles Jackman, of the Northeast parts, beyond the Island of Vaigats with two Barks: the one called the George, the other the William, in the yeere 1580*, as in *The Principal Navigations, Voyages, Traffiques . . .*, ed. S. Douglas Jackson (London: J. M. Dent & Sons, 1907), 229.
- 70 Davis, *The Voyages*, 1:24.
- 71 Ernest B. Gilman, *Iconoclasm and Piety in the English Reformation* (Chicago: University of Chicago Press, 1986), 190. Of the vast literature on the general idea of a Protestant aesthetic of "scarcity," most relevant to art-making practices remains Joseph Koerner, *The Reformation of the Image* (Chicago: University of Chicago Press, 2003).
- 72 Richard Helgerson, "Inventing Noplace, or the Power of Negative Thinking," in *The Power of Forms in the English Renaissance*, ed. Stephen Greenblatt (Norman, OK: Pilgrim Books, 1982), 101–21; and, more broadly, N. Nenko, "Projections on Blank Space: Landscape, Nationality, and Identity," *German Quarterly* 169/3 (Summer 1996): 305–21.
- On the limitations of all narratives of modernity as "subtraction stories," however, see Charles Taylor, *A Secular Age* (Cambridge, MA: Harvard University Press, 2007), 22ff.
- 73 Sylvester Judd, *Margaret, A Tale of the Real and the Ideal* [1845], quoted in Terence Martin, "The Negative Structures of American Literature," *American Literature* 57, 1 (Mar. 1985): 1. Also relevant here is the amazing Robert Watson, *The Rest Is Silence: Death as Annihilation in the English Renaissance* (Berkeley: University of California Press, 1994).
- 74 *Letters from an American Farmer* (London: T. Davies, 1782), quoted in Martin, "Negative Structures," 2.
- 75 Eric Wilson, *The Spiritual History of Ice: Romanticism, Science, and the Imagination* (New York: Macmillan, 2003), 148.
- 76 Chaplin, *Subject Matter*, 43.
- 77 On nineteenth-century American artists' conceptualizations of the Far North, see Pfohl, "American Painting," 51–53, and Chauncey C. Loomis, "The Arctic Sublime," in *Nature and the Victorian Imagination*, ed. U. C. Knoepfelmacher and G. B. Tennyson (Berkeley: University of California Press, 1977), 95–112.
- 78 Russell A. Potter, introduction to *Arctic Spectacles: The Frozen North in Visual Culture, 1818–1875* (Seattle: University of Washington Press, 2007), 3.
- 79 Sophie Lemerrier-Goddard and Frédéric Regard, "Introduction: The Northwest Passage and the Imperial Myth: Project, History, Ideology, Myth," in *The Quest for the Northwest Passage: Knowledge, Nation, and Empire, 1576–1806*, ed. Frédéric Regard (London: Pickering and Chatto, 2013), 1–54.
- 80 Rhordri Liscombe, "Modernist Ultima Thule," *Revue d'art canadienne* 31, 1/2 (2006): 64–80.
- 81 Lucy R. Lippard, "Art within the Arctic Circle," *Hudson Review* 22, 4 (Winter 1969–1970): 665–74. The Edmonton show was organized by Iain and Ingrid Baxter. See Nancy Shaw, "Siting the Banal: The Extended Landscapes of the N. E. Thing Company," in *Beyond Wilderness: The Group of Seven, Canadian Identity, and Contemporary Art*, ed. John O'Brian and Peter White (Montreal: McGill-Queen's University Press, 2007), 63–68; and Grant Arnold and Karen

- Henry, *Traffic: Conceptual Art in Canada, 1965–1980* (Vancouver: Vancouver Art Gallery, 2012), 73–74.
- 82 See Kathryn Chiong, “WORDS MATTER: The Work of Lawrence Weiner,” (PhD diss., Columbia University, 2013), 25.
- 83 Lippard, “Arctic Circle,” 672–73. Cf. a late nineteenth-century anecdote of Arctic exploration: “A Swedish explorer had all but completed a written description in his notebook of a craggy headland with two unusually sculptural valley glaciers, the whole of it part of a large island, when he discovered what he was looking at was a walrus.” Retold in Barry Lopez, *Arctic Dreams* (New York: Vintage, 1986), 239.
- 84 Benjamin Buchloh, “The Posters of Lawrence Weiner,” in *Neo-Avantgarde and Culture Industry: Essays on European and American Art from 1955 to 1975* (Cambridge, MA: MIT Press, 2003), 567.
- 85 On the conceptual ambiguity of scale *itself* as a valid class of measurement, see (for one example) S. S. Stevens, “On the Theory of Scales of Measurement,” in *Philosophy of Science*, ed. Arthur Danto and Sidney Morgenbesser (New York: Meridian, 1960), 141–49, esp. 141–42; as well as Jennifer Roberts’s introduction to this volume.
- 86 Lucy Lippard, “Escalation in Washington” [1968], reprinted in *Changing: Essays in Art Criticism* (New York: Dutton, 1971), 237–54.
- 87 Lippard, “Arctic Circle,” 665.
- 88 *Ibid.*, 666.
- 89 *Ibid.*, 673.
- 90 “Keiner dematerialisiert Objekte, das macht keinen Sinn. Sobald man etwas darüber weiß, ist es ein Objekt.” Original in Sabine B. Vogel, “Lawrence Weiner ‘Kunst ist ein Spielzug für Intellektuelle’: Ein Gespräch mit dem Künstler,” *Artis* 42, 3 (Mar. 1990): 37.
- 91 Charity Mewburn, *Sixteen Hundred Miles North of Denver* (Vancouver: Morris and Helen Belkin Art Gallery at the University of British Columbia, 1999), 28.
- 92 Lawrence Weiner, “Section 2,” *Artforum* 20, 9 (May 1982): 65. This and other (unresolved) statements by Weiner on the dynamics of language-as-material are discussed in Birgit Pelzer, “Disassociated Objects: The Statements/Sculptures of Lawrence Weiner,” *October* 90 (Autumn 1999): 76–108.
- 93 Kenneth Olwig, *Landscape, Nature, and the Body Politic: From Britain’s Renaissance to America’s New World* (Madison: University of Wisconsin Press, 2002).
- 94 Virginia Dwan, “On Changing Boundaries,” quoted in Philip Kaiser and Miwon Kwon, “Ends of the Earth and Back,” in *The Ends of the Earth: Art of the Land to 1974* (Los Angeles: LACMA, 2012), 93–4.
- 95 James Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s* (Cambridge, MA: MIT Press, 2014), 93; see also Nisbet, “Coast to Coast: Land Work between the N.E. Thing Co. and Lucy Lippard,” *Archives of American Art Journal* 47, no. 1–2 (Spring 2008): 58–65.
- 96 Mewburn, *Sixteen Hundred Miles*, 25–29.
- 97 Peter Coates, *The Trans-Alaska Pipeline Controversy: Technology, Conservation, and the Frontier* (Bethlehem, PA: Lehigh University Press, 1991); and, more polemically, Sam Hall, *The Fourth World* (New York, Vintage, 1987).
- 98 Robin Kelsey, “Landscape as Not Belonging,” in *Landscape Theory*, ed. James Elkins and Rachael Z. DeLue (London: Routledge, 2010), 203–12.
- 99 On the assumption, shared by both post-1970s environmental activism and climate-change deniers, of the idea of nature-as-other (for humans to by turns live in “balance” with or exploit), see Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 99–133. But see also Andrew Cole, response to “A Questionnaire on Materialisms” *October* 155 (Winter 2016), 23–25.
- 100 Alan C. Braddock and Christopher Irmscher, eds., *A Keener Perception: Ecocritical Studies in American Art History* (Tuscaloosa: University of Alabama Press, 2009).
- 101 Lawrence Weiner, with Karlyn de Jongh and Sarah Gold, *Skimming the Water (Ménage a Quatre)* (’s-Hertogenbosch, Neth.: Luisicius, 2010), 130.



Introduction:  
*Seeing Scale*  
Jennifer L. Roberts



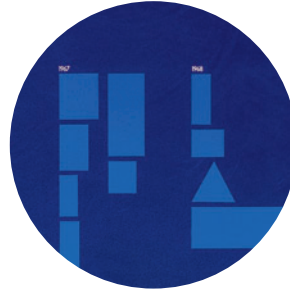
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