Bodies of Knowledge

Ole Worm & Collecting in Late Renaissance Scandinavia

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The first great collector in Scandinavia and a phenomenal figure in North European intellectual history, Ole Worm (1588-1654) has been claimed as a local founding father for several modern disciplines, including archeology, museology, philology, ethnology, and folklore. A professor of medicine at the University of Copenhagen, he set up a famous museum that came to form the basis for Denmark's National Museum, he engineered pioneering ethnological questionnaire surveys of the Danish kingdom, he wrote a monumental work on runes, and collected and published medieval folklore and literature. This article analyzes the life and work of Ole Worm in order to clarify the emergence of the scholar as a third power in Europe, alongside the clergy and the nobility, and to shed light on notions of virtue and virtuosity in the late Renaissance.

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In a letter penned in Copenhagen on February 5th 1644, the Danish Renaissance man Ole Worm offers a young friend this advice: "To seek unbeaten paths is the best way to find virtue" (Schepelern 1965–68, III:8, my translation from Danish). In May the same year, a German correspondent from the town of Wittenberg, August Buchner, extols the virtue and fame of Ole Worm in a letter addressed to him:

"... [your] name and glory is not only renowned among one people and nation, but across the earth, wherever scientific and learned studies are practiced and honored. For it is certainly not only mother Denmark and the countries by the Baltic, it is also learned Germany, erudite Italy, and eloquent France that wonder and marvel at my Worm and count him among those who, in addition to the pursuit of other great arts, have won immortality for themselves through the study of antiquities and the finer sciences" (ibid., 19–20).

This paper is about virtue and wonder, about

learning, erudition, and eloquence. It is about knowledge and power. It focuses on a professor of medicine in Copenhagen, Ole Worm. The primary data is Ole Worm's collected correspondence, as well as a museum catalogue he authored, describing the various objects in his collection.

If he is in focus here, however, then the background is the early modern project of knowledge production, expressed primarily in the activities of collecting, travelling, and corresponding, and in material manifestations such as cabinets of curiosities, botanical gardens, and publications of various sorts.

This production of knowledge, in turn, forms part of the larger social and historical complex of early modernity in Europe. By modernity I mean to designate political, economic, and cultural formations characterized by compression of space and time, by increased circulation (of commodities, information, people), by increasing centralization coupled with increasing surveillance, by heightened reflexivity, and by uncertainty and agitation. These characteristics, associated later with industrialization and high modernity, are evident also in the early modern period, albeit in a limited form compared to their later escalation and democratization: circulation, but for and of an elite; compression, centralization, and reflexivity, but on a relative scale and emerging quite slowly.

It is also in the early modern period that the scholar emerges as a third leading power in European societies, alongside the political and spiritual powers, the courts and the churches (Schulz 1990, 175; cf. Giard 1991, 19). Marking a break with the firm, finite, and immutable world-view associated with the middle ages, new vistas were opened up by the discovery of the "New World," which simultaneously revealed the contingency of the "Old World," while the authority of the medieval church was broken by the Reformation in Northern Europe and the Counter-Reformation in Southern Europe.

This historical break created interstitial spaces in which enterprising individuals could use their wits to establish themselves as technicians of knowledge. These were the "virtuosi" of the Renaissance, that is to say gentlemen with cutting-edge interest in natural history and the arts (Swann 2001, 4). Their travels and correspondence created networks of knowledge across the continent. Their collections of natural specimens and cultural artifacts were known as cabinets of curiosities, or Wunderkammern. The first Wunderkammer was established in Vienna in 1550. For a century and a half they were all the rage, a cultural vogue born of a range of social, political, and economic forces peculiar to the late Renaissance. The vogue dissipated around the turn of the eighteenth century, and the cabinets vanished as quickly as they had spread across the European continent.

The objects found in these cabinets were often of the kind that one might have to travel far and wide to see in their natural surroundings. Thus, ethnographic objects and natural specimens from the New World were highly valued. Other objects were separated by distance in time, rather than space, and hailed from antiquity. Yet other objects were removed from the ordinary, such as unicorn horns, or malformed foetuses, Siamese twins, and twoheaded sheep, illustrating God's powers to intervene in natural processes. All the objects exhibited were considered worthy of "curiosity" and "wonder" – epistemic principles fit for an era of expanding horizons.

The thrill and wonder of the curious, unusual, and antique, which characterized the Renaissance, should thus be set in the context of the opening of horizons - mental, political, and geographical. As Stephen Greenblatt has argued, wonder is "the central figure in the initial European response to the New World, the decisive emotional and intellectual experience in the presence of radical difference" (1991, 14). Contemporaneously, the newfound valuation of the vernacular in early modern Europe induced the antiquarian project (esp. in Northern Europe) and animated collecting efforts. At closer inspection, these emerge as elements of cultural politics in European post-Reformation histories.

Mirroring and inverting the expanding horizons of the era, knowledge production used condensing and universalizing forms of representation, capturing the multifarious world in one room, as with cabinets of curiosities, or in a small plot of land, as with botanical gardens. These spaces of collection and reflection were simultaneously sites of knowledge and power, commanding wonder and curiosity on both accounts. They reflected a general tendency towards centralization in this period-the condensation of knowledge in the collection paralleled the consolidation of political power. This consolidation is witnessed of course in empirebuilding, with its center-periphery colonial relations, but also in the emergence of absolute monarchies in various European states in the seventeenth century.

Networks of Knowledge

Narrowing my focus then, I want to discuss one of the virtuosi of the Late Renaissance, an avid collector, antiquarian, and polymath: Ole Worm. Claimed as a founding father for several modern disciplines in Scandinavia (except Sweden, which has its own roster of primal patriarchs), including archeology, museology, philology, ethnology, and folklore, Ole Worm is a phenomenal figure in North European intellectual history. He set up a famous museum that came to form the basis for Denmark's National Museum, he engineered pioneering ethnological questionnaire surveys of the Danish kingdom, he wrote a monumental work on runes (the ancient writing system of Scandinavia), he collected and published medieval folklore and literature, and those were just some of his "hobbies": his position at the University of Copenhagen was as a professor of medicine (on Ole Worm as a doctor, see Hovesen 1987).

Ole Worm was born in the town of Århus. Denmark, on May 13, 1588. Son of the mayor, he belonged to a family of public servants (his maternal grandfather was also a mayor). Some details of his formative years are known through an obituary published by the University of Copenhagen a week after his death on August 31, 1654. Danish philologist and Wormspecialist, H.D. Schepelern, has made this obituary available in his dissertation (1971) on the Museum Wormianum, a manuscript assembled by Ole Worm in the last years of his life and published posthumously in 1655, based on his lecture notes and dealing with the objects in his museum. Schepelern has also published Ole Worm's complete correspondence in Danish translation in three thick volumes.

Worm attended grammar school in Århus between ca. 1595 and 1601, but his travels began early for at the age of thirteen he was sent off to the German town of Lüneburg to continue his schooling at the distinguished Academy Johanneum. However, he only stayed there for a year, and in 1603 he moved to the former Hanseatic town of Emmerich on the Rhine where he stayed with relatives and studied at a Jesuit school for a period of three years. He returned to Denmark, but completing his studies at the University of Copenhagen was out of the question for the Danish king had recommended in 1604 that measures be taken to safeguard the integrity of such institutions against young Danes who had attended Jesuit schools.

In 1605, Worm set out on travels that would take him across Europe, to many of the cultural capitals of the Renaissance, and would last for eight years. This "grand tour" became fashionable in Renaissance Europe among the sons of



Ole Worm, 38 years old. Copperplate by Simon de Pas in the book Fasti Danici, 1626.

the nobility and the educated fraction of the emerging bourgeoisie, and came instead of a sedentary university education. We learn about Ole Worm's travels from his travelling autograph album, signed by all colleagues, professors, and dignitaries with whom he consorted on his travels – a collection of notables, if you will.

He stopped for shorter or longer periods of time in various university towns and centers of culture: Marburg, Hamburg, Giessen, Frankenberg, Kassel, Heidelberg, Strasbourg, Basel, Padua, Naples, Siena, Montpellier, Paris, Leyden, Enkhuizen, Amsterdam, and London. He studied philosophy, theology, anatomy, and medicine, visited museums, and served as a private tutor. In Basel, Switzerland, he received a doctorate in medicine in December 1611, for a dissertation that catalogued most diseases known to man and their various cures.

Somewhere along the line, he became an

active collector, and we do know that on his journey to southern Italy in the spring of 1609 he visited Ferranto Imperato, a famous collector in Naples. He spent six weeks or so in Kassel, a center of the German Renaissance, where he acquainted himself with one of Europe's most famous art collections, patronized by the Hessian Prince, Moritz the Learned. In Enkhuizen, he was received by the collector Bernhard Paludanus, who presented him with a fragrant reed and a coffee-bean for his collection - rarities from across the ocean, commodities from the burgeoning international trade, standing pars pro toto for the New World and the new worldview emerging in this period (Schepelern 1971, 42-85, esp. 43-46).

Travels like these, the "grand tour," created networks of knowledge in early modern Europe, centered in the intellectual hubs of the Renaissance, but dispersed throughout the continent. Complemented by vigorous correspondence between the virtuosi, the "grand tour" amounted to a methodology of knowing. If intellectual vagrancy - the "grand tour" - was thought to substitute for a sedentary university education, this affords us an insight into conceptions of knowledge in this period. The changes wrought by the virtuosi to the idea of knowledge and methods of knowing amounted to a paradigmatic shift towards empiricism. The Renaissance empiricists became interested in travel because it gave members of the educated classes an opportunity to cultivate themselves as well as to acquire "true knowledge," that is to say knowledge gained through observation (Stagl 1995, 65). It bears mentioning, however, that the virtuosi were not empiricists in quite the same sense as, say, Locke or Hume. Rather, theirs was an early empiricism, characterized by an interest in things, in physical objects and in tactile experience, but not by experimentation. Experience and observation were not yet the basis of knowledge, which was still sought in books, but they served increasingly to supplement the authority of the written word, to demonstrate and to verify that knowledge (cf. Collet 2003 for a more skeptical view of the applicability of empiricist labels to the Renaissance).

Ole Worm's grand tour of Europe ended with a sojourn in London, at the end of which he re-

turned to Copenhagen for a university position. For the next ten years, Worm consecutively held the chairs of pedagogy, Greek, and physics at the University of Copenhagen. In 1624, he became professor of medicine (Randsborg 1994, 135). The beginnings of Ole Worm's museum at the university, the Museum Wormianum, can be dated to ca. 1620 (Schepelern 1990, 81). The modest collection of geological, biological, and cultural curiosities he rounded up on his travels provided the initial basis for the collection, but the bulk of the museum was actually assembled through correspondence-he was a letter-writing collector. Worm was enmeshed in the cosmopolitan network of knowledge and virtue, and had connections with virtuosi from across the European continent, including such renowned figures as Athanasius Kircher, Fabri de Peiresc, Achille Harlay, Isaac Lapeyrère, and Jan de Laet (Schepelern 1990, 84). In addition to collectors, his correspondents included physicians, antiquarians, and various other learned men.

In Worm's correspondence, one finds frequent allusions to objects donated to the museum by his correspondents, as well as numerous exhortations such as this one: "If further along in your travels you should come across any rarities that might enrich my cabinet of *naturalia*, I ask you to keep me in mind" (Ole Worm in a letter to Christen Stougaard in Strasbourg, 19.5./ 13.10.1628, Schepelern 1965-1968, I:160, my translation from Danish). The growth of Worm's museum can thus be documented fairly well through the correspondence, as well as his dominant interests in various periods. The letters afford glimpses of the logic guiding the collecting effort, which in turn is an index of the modes of knowledge production in this period and their relationship to power.

The grand tour and its associated networks of knowledge and virtue were thus essential to the establishment and compilation of Ole Worm's museum in Copenhagen. The museum, in turn, was a node in the intellectual orbits of its time. By the time of Worm's death in 1654, it was held in such high regard that a visitor reported that in this museum

"is found and can be examined with wonder, odd and curious rarities and things among which a large part has not been seen before, and many royal persons and envoys visiting Copenhagen ask to see the museum on account of its great fame and what it relates from foreign lands, and they wonder and marvel at what they see" (qtd. in Dam-Mikkelsen and Lundbæk 1980, xix–xx).

Material Knowledge

If the pursuit of knowledge and virtue are inseparable in the activities of the virtuosi, these center around the practice of collecting. Gathering knowledge, gaining virtue, and amassing objects – all were tightly intermeshed as so many aspects of knowledge production. Renaissance empiricism made knowledge a physical virtue, embodied by the virtuosi, but also by the various things in the world. Knowledge came to revolve around material objects, and objects came to materialize knowledge.

In a letter to one of his regular correspondents, dated June 20, 1639, Ole Worm explains the rationale behind his museum (Schepelern 1965– 1968, II:132, my translation from Danish):

"As to the display of curiosities in my museum, I have not yet completed it. I have collected various things on my journeys abroad, and from India and other very remote places I have been brought various things: samples of soil, rocks, metals, plants, fish, birds, and land-animals, that I conserve well with the goal of, along with a short presentation of the various things' history, also being able to present my audience with the things themselves to touch with their own hands and to see with their own eyes, so that they may themselves judge how that which is said fits with the things, and can acquire a more intimate knowledge of them all."¹

Stressing the importance of intimacy, of touching with one's own hands and seeing with one's own eyes, Ole Worm articulates the embodied, tactile nature of knowledge in Renaissance empiricism. But above and beyond the empirical outlook, however, this scientific materialism should also be seen in the context of the materialism that characterized the Renaissance in general. Collecting is one mode of conspicuous consumption, also seen in the portraits of this era in which nobles and men of means are depicted surrounded by their worldly goods, by which their greatness may be measured (Jardine 1996, esp. 8–19). In this sense, the project of collecting is an expression of early capitalism; the virtuosi with their collections of natural and cultural objects exemplify an emerging ideal of self as owner – the self invested in possessions (Swann 2001, 5–6).

Renaissance empiricism thus involves literally an objectification of knowledge, but also an objectification of the self. Collecting was a project of objectification by which scholars created themselves as bodies of knowledge - as virtuosi. The collection, in other words, is both the product and the producer of its owner. Together, the collector and the collection produce and are produced by the particular constellations of modernity at play in Northern Europe in the seventeenth century. As a symbolic mirror of the cosmos, the collection condenses the world at large. This compression makes power claims for the collector, but also extends these claims to his patron – the prince or the king. Ultimately, the collections - through their work of condensation, classification, and display-demonstrate mastery of a large and complicated world.

The Renaissance museums thus repeat and underwrite the political logic of centralization in society at large, witnessed in the building of empires and the emergence of absolute monarchies in many European states (including Ole Worm's Denmark). As we've learned from cultural geographers like David Harvey, compression of space and time is one of the major characteristics of modernity. While in a much-tempered form compared to the post-modern implosion Harvey is best known for analyzing, this kind of compression is also at stake in the Renaissance, variously expressed in the domains of culture, politics, and economic relations.

The Catalogue

Already in the middle of the fifteenth century, the printing press created the conditions for new kinds of materializations of knowledge, a revolution in communications that allowed identical texts, "images, maps, and diagrams [to] be viewed simultaneously by scattered readers" across the European continent (Eisenstein 1979, 53). The hitherto unimaginable potential for reproduction and distribution of knowledge was fully exploited by the new technicians of knowledge of the sixteenth and seventeenth centuries. This period saw the emergence of an original genre of literature: the published catalogue. In the catalogue, the virtuosi invented a way of textualizing collections through an enumeration of their objects and a rendering of the erudition embodied in each object. The catalogue allowed collectors to display their objects of knowledge to a much wider audience, augmenting the profile of their museums while achieving greater distinction for themselves (Swann 2001, 9–10).

Ole Worm published a catalogue inventorying his museum in three editions. The first one, from 1642, was little more than an enumeration of its holdings. A second edition appeared in 1645, revised and updated but still a skeletal inventory. For the last few years of his life, however, Worm worked on a much-augmented version with a full account of the derivation, history, and significance of the objects found in his museum. The name-dropping in the catalogue entries reads like a who's who of the European world of virtuosi; through these, Ole Worm demonstrates his own membership in networks of prestige and power, presenting himself "as a collector of rare men as well as rare physical objects" (Swann 2001, 11).

This third, full-length edition of the catalogue was published posthumously, in 1655, as the Museum Wormianum (with the subtitle: seu, Historia rerum rariorum, tam naturalium, quam artificialium, tam domesticarum, quam exoticarum, quae Hafniae Danorum in aedibus authoris servantur). As was customary at this time, the catalogue divides the holdings into categories based on the three kingdoms of nature: mineral, plant, and animal, proceeding in that order, from the "lowest" to the "highest." It ends with a fourth category, artificialia, i.e., man's creations, but within that category the objects are listed in ascending order within subdivisions based on the natural materials in which they are wrought. Always the rare, alien, and curious is accentuated. Thus the classification celebrates the universe as divine creation, representing God's omnipotence through the more "wonderful" results of the creative act: the rarities, exotica, and monstrosities (cf. Kenseth 1991, 88). Man is numbered among animals, for in the last chapter of Book III, Worm discusses malformed foetuses from his collection, as well as a giant tooth and giant skull attributed to prehistoric gigantic races (mummies, however, are numbered last among the minerals in Book I; Schepelern 1971, 292-293). The giant tooth and giant skull bear out Susan Stewart's observation that "what often happens in the depiction of the gigantic is a severing of the synecdoche from its referent, or whole" (1993, 89). In this case, the referent must be seen as "antiquity," and the giant remainders testify to the radical difference of antiquity, its ontological as well as temporal distance from the present. All the while, in spite of man being numbered among animals in Book III, his position at the apex of creation is asserted, with human remains counted last in the hierarchical ordering. Moreover, the divine face of the human race is attested to in its own acts of creation, listed in Book IV, giving shape to the God-given naturalia.

Book II deals with plants in the collection, and may serve as an example of the catalogue's contents. It is richly illustrated, and subdivided into 35 somewhat arbitrary chapters (Schepelern 1971, 249). An introductory chapter is followed by two chapters on rare fungi, such as boletus cervi, thought to grow from semen that elks spill on the ground during mating season (ibid., 251). Chapters four through nine inventory exotic plants in the collection, including bambus and ficus Indica (which Worm says he cultivated in his botanical garden), to name just two examples (ibid., 251–254). The next five chapters discuss roots and leaves in alphabetical order, beginning with China roots. We are for example told that Worm was sent a Yuca root by his friend Thomas Bartholin, that it originates in the West Indies on the island of San Domingo (Haiti), and that it is used to make flour, which in turn is baked into biscuits that the natives call Casavi, which the Portuguese eat on their long voyages across the ocean - a "root metonym" for a whole complex of colonial relations.

Worm also discusses tea leaves, of which he

had procured a few dried ones; he put one of these in water and was thus able to restore its original shape, which is represented in his catalogue by a wood carving (ibid., 254-256). Chapters fifteen through nineteen tabulate and discourse on exotic types of trees, of which Worm had samples in his collection, beginning with Aloe from the New World, and proceeding alphabetically through trees from India, Arabia, Italy, Iceland, and Florida, to name a few. The nineteenth chapter is devoted to miscellaneous tree "monstrosities," i.e., trees that have the shape of animals or recognizable things (ibid., 256-260). Chapter twenty examines the bark of exotic trees and its sundry medical and culinary uses (ibid., 260). This is followed by three chapters on fruits, e.g., from Peru, Egypt, Brazil, Russia, the West Indies, and the East Indies (ibid., 260-267). The final four chapters are less fleshed out, comprising a short discussion of rubber, various solidified saps, marine plants, and zoophytes (ibid., 267-268).

Exotica and Antiquities

As this enumeration makes clear, Worm's cabinet is, among other things, a metonymic representation of the "New World," displaying tokens of the alien from overseas, whilst maintaining them in the space of the catalogue/cabinet as distinctly Other. Here, they are experienced as wonders – wonder representing, in this case, recognition of difference. As Stephen Greenblatt elegantly phrases it, wonder registers the presence of the European spectator's "fears and desires in the very objects he perceives and conversely the presence in his discourse of a world of objects that exceed his understanding of the probable and familiar" (1991, 75). Furthermore, wonder was adopted in the Renaissance as an agent of appropriation. The discourse of the New World in the early modern period is "a record of the colonizing of the marvelous" (ibid., 24-25).

In her writings *On Longing*, Susan Stewart has remarked on the similarities in the logic that makes "objects of desire" of both antiquities and exotica. In short, "the exotic object represents distance appropriated" (1993, 147), whereas "the antiquarian seeks to both distance and appropriate the past" (ibid., 142). This, too, may be observed in Worm's catalogue, where old worlds and new coincide, much as they would in the gaze of a European spectator in Worm's cabinet of curiosities. There is no attempt to separate the two; the absence of such an effort may be read as an affirmation of the power of the European machinery of representation. It establishes the ability to easily incorporate the "New World" into the "Old World" and its systems of knowledge and representation.

Book IV, De artificiosis, is divided into 12 chapters. It recapitulates the hierarchical ordering of nature in the first three books, progressing from objects forged from earth, stone, metal, and glass, through objects contrived from plants, tree, and fruit, to objects made out of animal furs, bones, and shells. Again, exotica feature prominently, although in this category antiquities are a close runner-up. In the chapter on objects wrought in metal, as we might expect, European antiquities are more numerous than exotic artifacts. We find, to be sure, a Chinese scale, two Indian swords, an Indian knife, lance, spear, pen, lock, and gold ring, as well as an American lance and harpoon. However, these are interspersed among Roman clasps, an ancient Danish bronze bracelet, bronze knives and swords excavated in Denmark, two iron battle-axes unearthed in Norway, various spurs attributed to historical kings of the Scandinavian kingdoms, and a small bronze horse (gift to Worm from the Danish chancellor), which, we read, two Norwegian witches used to wield magical powers over fishing (Schepelern 1971, 334 - 342).

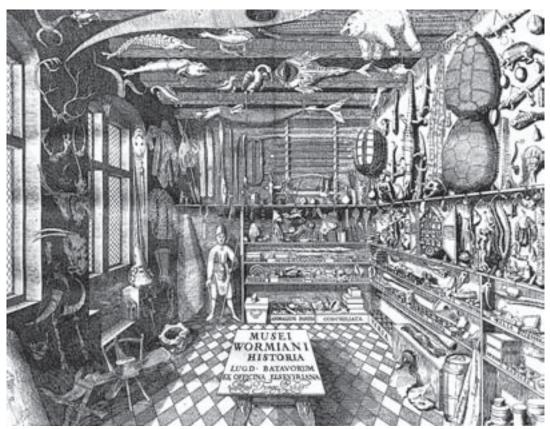
Among artifacts fashioned from wood, exotica outweigh antiquities: from Greenland we have a kayak oar, a spear, a harpoon, and an instrument of uncertain use; we find bows and arrows from America, Greenland, India, Persia, and Scythia, as well as from the Sami of northern Scandinavia, from whom we also find a reindeer sleigh; a Chinese fan with floral patterns; and various tobacco pipes from the New World. However, other wooden objects in Worm's museum are local antiquities: Danish runic calendars, Icelandic and Norwegian shields, Lithuanian and Icelandic flutes, to give some examples. Finally, two wooden artifacts imitate

nature in a novel and impressive way, demonstrating human power over and subordination of nature: mus rotis actus, a mechanical mouse, carved from wood and covered with mouse-hide, operated by a clockwork mechanism; and statua librata pondere mobilis, a human figure with flexible limbs operated by a wheel, which can run around and pick things up (Schepelern 1971, 348-355). The human figure, it should be noted, holds a spear in one hand and wears clothes and a hat that identify it as a "savage." Needless to say, such a depiction of "natives" as mechanical puppets reflects on colonial power relations and encapsulates the wider political significance of the various New World acquisitions in cabinets of curiosities (and, indeed, of ethnographic objects from the "savage" peripheries of Europe). Moreover, as Jean Baudrillard has said, "the automaton has no other destiny than to be ceaselessly compared to living man - so as to be more natural than him,

of which he is the ideal figure"(1983,93). In this, the automaton shares the destiny of the savage, who allows questions to be posed regarding the natural state of man and the cost of civilization. Ole Worm's savage automaton or automated savage thus holds up a mirror to the Western gaze, objectifying one aspect of the logic of the museum as a whole.

The Gift of Comprehension

The title page of the *Museum Wormianum* depicts some of its contents (including the human figurine). Whether we take the illustration to be an accurate depiction of Worm's cabinet, as has been maintained (Schepelern 1990), or a craftier tool of public relations, it is at any rate a representation of order, produced also inside the catalogue. It represents a particular conception of order(liness), which reproduces some of the cultural-historical characteristics of the Renais-



Museum Wormianum 1655. Frontispiece. The collection was bought by Frederik III the same year.

sance discussed above. Thus, its order contains no empty spaces, and was therefore "capable of filling every visitor with wonder by immediately conveying the idea of riches and variety" (Olmi 1993, 239). In much the same way, blanks are strikingly absent from the catalogue (in contrast to Enlightenment taxonomies by the likes of Linnaeus; cf. Campbell 1999, 80–82). The inventory inside the catalogue also names the objects, thus demonstrating a mastery of sorts, incorporating them into the representational machinery of (the Latin) language, this in addition to the attempt to impose order through hierarchical categorization.

On the other hand, the conventional wisdom of early modern scholarship sees in the titlepage illustration of Worm's museum an awesome juxtaposition. According to this position, the cabinet itself, through its arrangement, is an agent of wonder. In other words (those of Steven Mullaney), the cabinet of curiosity constitutes the objects it displays as wonders precisely because, unlike the inventory, it "lodges them beyond the bounds of cultural hierarchies or definitions" (Mullaney 1988, 67). Thus the cabinet arouses wonder by suspending categories, presenting its objects as entirely new and wholly unique, because unsystematized and out of context.

However, though this interpretation is certainly clever and rather convincing, it was effectively scrapped in a recent article by Camilla Mordhorst, at least as far as the illustration of Worm's museum is concerned. In a simple and compelling analysis, Mordhorst demonstrates that from an embodied perspective - the perspective of one physically entering the museum as it is depicted in the illustration – the display is actually quite systematic. Moreover, its logic is precisely the same as that of the catalogue; if one peruses the contents from right to left, the objects are arranged in the same order as Books I-IV, according to the classical division of nature into three kingdoms. The arrangement even closely resembles that of the chapters within the four books of the catalogue (Mordhorst 2002). The inventory and the illustration (and, presumably, the cabinet itself) thus depend on and demonstrate the same imposition of order onto nature.

The illustration of the museum also accompanied the 1642 edition of the catalogue and Ole Worm sent a copy to many of his correspondents. The following response from the learned Arngrímur Jónsson, dated August 11, 1642, is fascinating for what it reveals about the reception of such collections. It clues us in to the significance given to Renaissance collections by contemporaries:

"It remains to be said that I am taken with wonder over the mirror-image of Worm's Library [i.e., museum]; its distance from my brain's understanding, however, is as long and as great as the heavenly domain is said to be from the earth. Heavenly is this gift of comprehension, given to one man's intelligence, and God the Lord must be praised in all his works. Through such divine gifts he makes us wonder at that which we do not comprehend, rather than disdain it like animals. For this is the face of God, when he lets one man stand so high above all else, that we look and recognize how much greater the highest is than the lesser, and join together in praise to Him who provides" (Schepelern 1965-1968, II:384, my translation from Danish).

The epistemic principle of wonder is amply illustrated in this quotation. Moreover, we can see that wonder is a function of distance – the "distance from my brain's understanding," in the words of Arngrímur; the distance between the highest and the lowest; the distance from heaven to earth. As mentioned, the objects collected in the cabinet of curiosity were in one way or another removed from the ordinary – through spatial separation, through temporal separation, or through natural aberration. If the purpose of the objects in the collection is to evoke wonder, it is precisely their distance from the everyday life of the audience that allows them to accomplish this.

Arngrímur also praises "the gift of comprehension" given to one man, witnessed in the picture of Worm's museum. And that is what virtuosity is all about: comprehension – comprehending God's creation in all its complexity. We would do well in this context to recall the literal meaning of comprehension: to bring together – to collect, that is. Comprehension and collection in the Renaissance are coextensive; the more comprehensive the collection, the greater the compression achieved, the more powerful is the display of mastery. This is what makes this "gift of comprehension" "heavenly;" it is why virtuosity affords us a glimpse of "the face of God," as Arngrímur testifies. It demonstrates, that is, the inexorable union of knowledge and power.

Collections and catalogues reveal themselves as instances of space-time compression wielded by particular individuals who have carved out spaces for themselves in a time of uncertainty and agitation in this part of the world. Collections and catalogues emerge, in other words, as tactics and strategies by which a scholarly establishment constitutes itself as a power to be reckoned with, alongside the government and the church. Virtue is the particular power of virtuosi; it involves commanding knowledge, and through knowledge commanding renown, and through such distinction commanding people. It is a gift of comprehension, displaying mastery over the world by collecting it inside a room, naming it, organizing, cataloging, surveying, etc. To have virtue, in this sense, is to have wonder at your command. Accordingly, virtue is the scholar's claim to power through his knowledge, but it is also the claim of the powers that be on knowledge and its scholars.

The Deep Ocean of Antiquities

Ole Worm laid claims to virtue well beyond the walls of his museum. While cultural artifacts make up only a portion of Worm's museum, he is at least as well known for his antiquarian pursuits. These, too, took the form of collections of sorts.

In a letter to another virtuoso and antiquarian, dated 1626, he expresses his sense of elation, immersion, and total lack of bearings before the project of collecting and surveying: "I don't know what storms have driven me out onto this deep ocean of antiquities; I see no harbor; the dice are cast, whatever destiny in turn may bring" (Schepelern 1965–1968, I:114, my translation from Danish). The winds and tides of his time certainly swept many onto these same high seas. The rising tide of antiquities went hand in hand with a boom of interest in vernacular histories and natural history, as well as the codification of vernacular languages in the period following the Reformation – all of them undertakings steeped in ideology. The intellectual curiosity invested in these projects is directly tied to a sense of living in a world unmoored, in times of uncertainty and agitation. The particular projects, however, into which this intellectual curiosity is channeled represent efforts to ground empire in history, soil, and the divine.

The work that secured Ole Worm's reputation among Europe's literati, more so even than his museum, is a large compendium on runestones in the Danish kingdom (which at the time included Norway and the district of Skåne in the south of present-day Sweden, as well as the Atlantic territories of Iceland and the Faroe Islands). It was published in 1643 under the title Danicorum Monumentorum Libri Sex. The focus on runestones as historical monuments as material relics and revelations of antiquity is a conscious reproduction on a national scale of the Renaissance fascination with monuments and artifacts from classical antiquity. It is also in keeping with the early empirical practices of knowledge production characteristic of these times, the materialistic "acts of comprehension" previously discussed. For this undertaking, Ole Worm dispatched sketchers all over the kingdom to make accurate depictions of the monuments and their runic engravings (Randsborg 1994, 136). The core material, however, were reports from rural deans and vicars, submitted according to a royal ordinance to the office of the chancellor an official who worked closely with the king and took care of the business of government.

On August 11, 1622, a letter was sent to all the kingdom's bishops from the office of the chancellor with instructions to collect and send historical documents and parish descriptions from the priests in their respective parishes. A short missive signed by King Christian IV(1577– 1648), which lays out the directive in general terms, was followed by a detailed questionnaire. The questions were arranged under six headings and inquired about all kinds of historical documents, notable localities and their alleged origins and meanings, customs, and calendars in the runic writing system. In addition, the priests were queried about the location of any and all runic letters in their parish and asked to transcribe them (Hens 1972, 11).

With the chancellor's office both as the point of origin for these instructions and the return address for the reports, it is clear that Denmark's chancellor from 1616-1639, Christian Friis of Kragerup (1581-1639), played a central role in this initiative. In a report to the Danish Folklore Archives on "Traditional Material before 1817," Henrik Andreas Hens notes that questionnaires "had already been used several times to collect statistical data" (Hens 1972, 11, my translation). This correlation does not, of course, diminish the novelty of putting the questionnaire method in the service of antiquarian pursuits. However, the parallel is suggestive; the study of antiquities was in this case modeled on statistics, the science of the state and its administration, and I would suggest that this parallel carries well beyond mere method, that it sheds a light also on the social objectives of this survey.

While the extent of Ole Worm's involvement with these questionnaires is uncertain, they have traditionally been linked with his name (they were in fact published in the 1970s under the title *Præsteindberetninger til Ole Worm*, "Priests' Reports to Ole Worm;" Jørgensen and Sørensen 1970–1974). It seems likely that he played an important role in their making, and we do know that the responses wound up in his office.

The Chancellor's Great Joy in Antiquities

H.D. Schepelern makes much of the fact that Worm's museum was not patronized by the Danish king: "During his stay in Kassel he cannot have failed to realize the importance of princely support to collecting activities, but on returning to Denmark found no similar attitude on the part of Christian IV" (1990, 84). "In spite of that," Schepelern goes on to tell us, "he shouldered personally the task of forming a museum in Copenhagen, and not until after the death of Christian IV in 1648 did he benefit from any direct royal protection, maintaining close contacts with the new King for the last six years of his life" (ibid.). One might add, here, that after Worm's death, his museum was incorporated into the Royal *Kunstkammer*, founded a few years prior by the new king, Frederik III.

I have no compelling reason to doubt Schepelern on this count, though we do know that Ole Worm enjoyed King Christian IV's support in at least some of his projects, notably the initiative to collect historical-ethnographical information through questionnaires. However, for some mysterious reason (perhaps a misplaced desire to make Worm's efforts seem greater through his isolation?) Schepelern never mentions the intimate relationship between Ole Worm and Christian Friis of Kragerup, the chancellor of the Danish state. Worm and Friis were in fact close friends and partners in all things historical. The chancellor was a learned man in his own right, deeply invested in history and the antiquarian project, and had done the "grand tour" of Europe roughly a decade before Ole Worm (Degn 1988, esp. 9-14, 178-180). Not only that, they also lived next door to each other, bumping into one another on a daily basis (ibid., 107). Moreover, Ole Worm was the physician of the chancellor's children (ibid., 109). And the two shared a passion for antiquities, art, and science (Hens 1972, 11-12). Worm's corre-spondence, furthermore, reveals time and again that he carries on communications with learned men on the chancellor's behalf (cf. Degn 1988, 106-107). Worm, likewise, could count on the chancellor's support in the pursuit of knowledge, including arranging all sorts of deals for Worm's informants on antiquities. The following passage may serve as an example, from a letter to the Icelandic parish priest Magnús Ólafsson at Laufás, dated May 22, 1632 (Schepelern 1965-1968, I:261, my translation from Danish):

"I have again discussed your situation with our high Mr. Chancellor: if it suits you to give your parish over to your son on tolerable conditions, namely that he take on the duties of the office and make do with the salary he now receives, while you receive the revenues as long as you live, then he promised to work out with your governor Rosenkrantz [who was in charge of Icelandic affairs for the Danish crown] that your wishes be seen as legitimate, and that others be disillusioned of any hopes of succeeding you. He requested, meanwhile, that I ask you to collect for him all the old historical poems, as many as can be found, that you present them in Danish translation, with reference to the Skjöldung legends, as they are called, and that you send them to him; instead, he promised not to betray your son's needs. [...] I cannot tell you how great a joy this great man takes in the sorts of things that contain our antiquities, and how he seeks to make them known and of use to everyone, and how much he loves those, whom he sees are taken with this interest."

We learn from later correspondence that chancellor Friis and the royal governor of Iceland do indeed work things out to Magnús Ólafsson's advantage, and Ole Worm spurs him on:

"...you can see from this how your interest in antiquities has made such an important man attached to you, and how grateful he is to you for the service you have rendered us. I ask you to take care to stay henceforth in his good graces through this same medium; as ever, you will find me a reliable intermediary" (Schepelern 1965–1968, I:342–343, my translation from Danish).

The "old historical poems" requested by the chancellor refer to ostensibly historical literature - primarily sagas and eddas - recorded in Iceland in the thirteenth century and rediscovered as a result of the reengagement with vernacular history and antiquities in the Scandinavian Renaissance. This literature provided very nearly the entire written documentation of Scandinavia's medieval history. Hence, antiquarians such as Worm and chancellor Friis regarded Iceland as a repository of Danish history and were anxious to access all the Icelandic sources they could get their hands on. The "Skjöldungs," in which they express particular interest, are - according to some of these sources - the Danish royal lineage, named for Skjöldr, Denmark's legendary first king.

The chancellor's great joy in antiquities, and his efforts to "make them known and of use to everyone," should thus be seen in the light of contemporary efforts to legitimate empire through historical grounding – the major impetus for the rise of vernacular histories in the post-Reformation period. Such were the "storms" that drove Ole Worm "out onto this deep ocean of antiquities."

As to the Stories You Call Skiöldunga Saga

The "Skjöldung" material, however, proved elusive. Magnús Ólafsson at Laufás copied various manuscripts for Worm, and tried as best he could to bring his familiarity with medieval literature to bear on the problems with which Worm presented him. In 1635 he even composed a long poem honoring the chancellor, Christian Friis drápa (Degn 1988, 113). Yet he was of no avail in recovering the "Skjöldung legends": "As to the stories you call Skiöldunga Saga, I do not recall having read it, nor do I know where it may be had" (Schepelern 1965–1968, I:273, my translation from Danish). Ole Worm's primary collaborator in Iceland was Arngrímur Jónsson (qtd. earlier in connection with Worm's catalogue), known as "the learned" in his own country owing to his position as Iceland's first humanist to publish in Latin and first historian to write for an international audience (Benediktsson 1957, 71). Arngrímur and Ole Worm were in fact introduced by chancellor Friis, who wrote to Arngrímur in 1626 and asked him to help Worm to get a handle on the "old" language and literature (Degn 1988, 113).² With the support of Ole Worm, moreover, Arngrímur obtained a grant towards his studies from the chancellor in 1628, the revenue from seven church estates in Iceland for the rest of his life (Benediktsson 1957,23). When it came to the "Skjöldung poems," however, Arngrímur was also in the dark: "As far as I am able to see, they have not been heard of here, much less heard." Significantly, he holds out hope that perhaps they may still be recovered in oral tradition, embodied in a fragile old lady in the most remote corner of the island, already on the margins of Creation:

"But quite recently I heard that on our most distant coasts there lives a wise old woman, who is not unknowledgeable about antiquities of that kind. And if she is still alive, I will send a messenger, and a poet at that, who can ask her about such things, although time constraints have not yet permitted me to do so" (Schepelern 1965–1968, I:268, my translation from Danish).

Oral tradition notwithstanding, Arngrímur further suggested that the term "Skjöldung poems" might not in fact, as Worm and Friis thought, denote poetry about the royal lineage of the Danish kingdom. Rather, he advised, the term "Skjöldung" was more likely used here in its connotational capacity as a *kenning*, a poetical device common in the medieval literature, by which reference to a particular king, Skjöldr in this case, could stand in for any king. Thus, Arngrímur explained, "Skjöldung poems" might simply mean poetry about kings, and not necessarily Danish ones at that (Schepelern 1965– 1968, I:267–268).³

The notion that a "Saga of the Skjöldungs" or "Skjöldung poems" existed at all was actually based on an inference from *Ynglingasaga* and *Ynglingatal*, prose and poetic narratives, respectively, tracing the Swedish kings from the inception of that neighboring kingdom. These texts are found in Snorri Sturluson's *Heimskringla*, an early thirteenth century work. Ole Worm had this manuscript printed in 1632, as a contribution to the history of Scandinavia (Schepelern 1965–1968, I:260).

Historical Distinction

This brings us, in fact, to a critical point about the antiquarian project in early modern Scandinavia. Much like other aspects of the enterprise of collecting, it was integral to the cultural politics of the state. Led by Worm, the Danish antiquarians were in fact jostling with their Swedish counterparts for control of Scandinavia's past (cf. Benediktsson 1957, 50). There was a veritable race to write the history of the North, to document its monuments, and to claim it, much as new lands were claimed across the oceans. This was a matter of enormous consequence, for the locus of enunciation would be decisive for who would stand at the center of that history, and who would be relegated to the margins.

This rivalry was one aspect of a centurieslong struggle between the Danish and Swedish monarchies. The period from the Reformation until the early eighteenth century was characterized by constant strife between the states of Europe and for the bulk of this period, Denmark and Sweden were each other's principal opponents. During this period, the longstanding cold war between these kingdoms was interrupted seven times by armed conflicts that lasted a total of 29 years. During Ole Worm's lifetime, King Christian IV – who early in his reign described Sweden as "the bad neighbor"-waged war against Sweden twice, losing lands, prestige, and power in the process and gradually surrendering the dominant position in the Nordic region to the Swedish empire (Larsson 1999).

The colder parts of this war concerned, among other things, the culture and history of these northern parts of Europe. In Sweden, a special office of State Antiquary was established in the early seventeenth century as "part of a conscious quest for historical distinction" (Randsborg 1994, 138). The first to hold the new office was J.T.A. Bure, Worm's Swedish counterpart in all things antiquarian, who also wrote extensively on runes.

In a letter to Ole Worm from February 15, 1629, praising his work on runic monuments, while adding that he could learn a thing or two from J.T.A. Bure, the Swede Johannes Narssius warns Worm to "beware of counting anything as Danish antiquities that is Swedish; otherwise, a great, though friendly, war will result" (Schepelern 1965-1969, I:167, my translation from Danish). The point to be stressed here is that what counted as Danish and what as Swedish was plainly up for grabs in this period, as political borders shifted back and forth. Possession and control of the past was thus one aspect of the political and territorial conflict between these two Nordic kingdoms. This rivalry bears witness to a keen awareness that the truism that the victors write history is equally true when stated in reverse; those who control the past have a leg up on the future.

Conclusion

To sum up, then, the social practices of collecting, cataloguing, and surveying serve as points of convergence for a wide range of forces in early modern Europe – cultural, political, and economic. These include early forms of capitalism, empire building, power-claims and legitimization of monarchs, and the emerging positions of power for scholars, to name some. In the last analysis, to study these early modern modes of inquiry and reflexivity is to study the ways in which knowledge and power intertwine.

The life and work of Ole Worm provide a critical glimpse of these modalities of knowing. Worm's multiple projects of collection/comprehension – of *naturalia* and *artificialia*, of runic monuments, of antiquarian erudition (through surveying), and of historical sources – demonstrate in meticulous detail the various facets of empirical social and cultural research in the early modern period. Beneath the variety, however, we see the self-same logic repeating itself and reflecting the logic of political expansion and centralization in empire building and the constitution of absolute monarchy, grounding that logic all the while in vernacular history and soil.

Meanwhile, Worm's copious correspondence, his "grand tour" of Europe, and his collection of notables in his museum and catalogue testify to his participation in the networks of knowledge and prestige that criss-crossed the European continent, created by and consisting of the new technicians of knowledge, the virtuosi, whose emergence in the Renaissance marks the rise of the (secular) scholar to prominence as a third power in European societies, alongside the royalty and the clergy. This historical emergence ushered in a new phase in the associations of knowledge and power, summed up in the concept of "virtue." To pursue virtue was to fashion oneself as a body of knowledge, to gain command of the world through the gift of comprehension. To become virtuous was to lay claim to power through knowledge which itself was already a rehearsal of power relations (through collection and surveillance) and a simulacrum of the political processes of centralization (within the kingdom and through colonial relations) and

expansion (into new domains of everyday life and into the New World). In the words of Ole Worm, once more, "to seek unbeaten paths is the best way to find virtue."⁴

Notes

1. I should add that, according to colleagues who specialize in this area, this is a truly exceptional passage and Ole Worm seems to be a unique figure among the Renaissance virtuosi. The hands-on approach expressed in this quote and the pedagogical impulse with observation as a central method are rarely attested in contemporary works. I thank Dominik Collet for impressing this point upon me.

This passage should be supplemented with the only other one in which Worm speaks directly of the pedagogical rationale for assembling the museum and of the value of direct observation as a complement to reading. This second passage is in Worm's preface to his Museum Wormianum:

- "Then I began to ponder the options available to the intelligent, and to think of ways in which a collection of the most varied and beautiful phenomena of nature might be brought together and brought to the youth, so that through it the youth could be brought up from the quicksand and darkness of errors and into the clear light of day and the most beautiful meditation of God's works. From the moment I first began to teach natural science in this royal academy, I therefore avoided neither expense nor difficulty, but began to form a not inconsiderable gem-cabinet of natural phenomena. My goal was to be able to present it for the observation of everyone who felt attracted to nature, and to explain the various phenomena in such a way that I gave an overview of their names, nature, qualities, description, and use, to the extent that it was possible to research this from the best and most reliable authors, and thus to open them an easier way to nature's other secret chambers. This enterprise of mine was to many people's liking and these were untiring in supporting my efforts, so that in the course of a few years my gems grew to the dimensions displayed in this book" (qtd. in Schepelern 1971, 216, my translation from Danish).
- 2. That same year, 1626, Arngrímur sent the chancellor a manuscript of Snorra-Edda, a manual of Scandinavian mythology from the early thirteenth century, which Christian Friis gave to his friend Ole Worm, whose name the manuscript now bears: the Codex Wormianus (Degn 1988, 112).
- 3. The "Saga of the Skjöldungs" was in fact reconstructed and published in 1982 by Bjarni Gu∂nason (based on his dissertation from 1963) primarily from texts from the 1590s recorded by none other

than Arngrímur Jónsson. The fact that Arngrímur (and his learned colleagues in Iceland) flat out claims never to have heard of such a saga in 1632 casts rather serious doubt on the point of that exercise.

4. I would never have thought to look at Ole Worm had it not been for the encouragement and enthusiasm of Roger Abrahams, who, in turn, owes his interest to the late Danish folklorist, Bengt Holbek. In addition to Abrahams, I would like to express my gratitude to Dominik Collet, John Lindow, Allan Pred, and Mark Sandberg for their generous critical comments on various drafts of this article.

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