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# A New Way of Writing History: Ulisse Aldrovandi's Encyclopedic Cabinet of Nature

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A NEW WAY OF WRITING HISTORY:  
ULISSE ALDROVANDI'S ENCYCLOPEDIA OF NATURE  
by  
CHRISTINA MARIE PUTMAN

B.A., Regis University, 2001

A thesis submitted to the  
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This thesis entitled:  
A New Way of Writing History: Ulisse Aldrovandi's Encyclopedic Cabinet of Nature  
written by Christina Marie Putman  
has been approved for the Department of Art and Art History

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Claire Farago, Ph.D.

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Date \_\_\_\_\_

The final copy of this thesis has been examined by the signatories, and we  
Find that both the content and the form meet acceptable presentation standards  
Of scholarly work in the above mentioned discipline.

Putman, Christina Marie (M.A., Art History, Department of Art and Art History)

A New Way of Writing History: Ulisse Aldrovandi's Encyclopedic Cabinet of Nature

Thesis directed by Professor Claire Farago

For many fifteenth and sixteenth-century scholars, antiquity and Nature together could serve the interest of signaling the divine order of God's cosmos. Following this assertion, the realm of science and scientific discovery confirmed the programs set by ancient authorities.<sup>1</sup>

A Renaissance humanist prided himself on a possession of the world through intellect.<sup>2</sup> Examples of collections devoted to art, history, and nature flourished; among the most notable those of Cosimo I in Florence, Frederico da Montefeltro in Urbino, and Rudolf II in Hradcany, Prague. This project will focus on one such 'cabinet of nature' devised by Ulisse Aldrovandi in Bologna.

Aldrovandi dealt with the fragments of antiquity and nature, conceiving relationships between past, present, and future. For the sixteenth century collector-scholar, history and science were one; the encyclopedic nature characteristic of such collections were exercises in linking language to artifact, and arranging these reconstructions spatially.

Such is the method in which writing history is conceived of in this early modern era; Direct observations intersected with language, creating seamless world-view narratives and definitions of natural phenomena. The natural objects are decontextualized, and then recontextualized in the artificial space of the gallery. The mental and physical spaces overlap.

This thesis will examine the collection of Ulisse Aldrovandi (1522-1605), a sixteenth century Bolognese scholar whose documents are among the most expansive and encyclopedic volumes of natural history in the late Renaissance period. Aldrovandi's 'cabinet of nature', his accumulation of natural artifacts, produced a visual narrative—a history—of an early modern scientist's world view. From his fragments of nature, this early modern historian brought light to nature's mysteries.

Aldrovandi's methods of classification and organization can be seen as characteristic of the 16<sup>th</sup> c. episteme, focused on the relationships between microcosm and macrocosm. The history written and collected by Aldrovandi established a method of connecting the aesthetic and linguistic nature of artifacts. The collecting practices of Ulisse Aldrovandi are a material form of history writing.

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<sup>1</sup> Rowland, Ingrid. The Place of the Antique. P. 2.

<sup>2</sup> *Ibid.*, P. 55.

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# CHAPTER I

## ORDER AMIDST CHAOS

History writing, like collecting, is an activity of recontextualization; fragments are selected, then placed in new arrangements. These new assemblages can be made to look as part of a larger narrative, or made to look as exceptions, or anomalies. Foucault reminds us that an examination of the archaeology of such histories, that is, an understanding of how such activity was historically possible, helps one to understand how varied epistemes came to be. For the writing of a history is characteristic, for Foucault, of the era's episteme.

The organization of the specimens, the collecting and selecting, created a comprehensible whole that "confirmed a philosophically ordained pattern".<sup>1</sup> To comprehend the schema employed by Aldrovandi in his writing/collecting of a natural history, it will be helpful to examine his introduction to Aristotelian and Plinian models; formulas that established a framework for his own investigations.

### **Aristotle and Pliny: Natural History predecessors**

Trained in logic by Bernardino Tomitano, professor of medicine at Padua, Aldrovandi's introduction to Aristotelianism allowed for the development of a structure for critical thought.<sup>2</sup> This was an Aristotelianism that had been modified in the thirteenth and fourteenth centuries, and continued in the sixteenth. Naturalists such as Aldrovandi took upon themselves to investigate the 'particulars' of nature that would allow, in turn, for one to master the Universal

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<sup>1</sup> Findlen, Paula. Possessing Nature. P. 61.

<sup>2</sup> *Ibid.*, P. 59.

Truths.<sup>3</sup> For this, his method included a greater amount of sensory experience, and more attention paid to such particulars.<sup>4</sup>

Aristotle's career as a naturalist was particularly fruitful. Describing well over 500 species, the ancient philosopher shunned all particulars, unless such isolated events led to the discovery of causes.<sup>5</sup> Examples were evident in Aristotelian philosophy, but were always illuminators of general claims. One could not define an individual, but only the species that individual was a member of; such larger divisions were not fluctuating material entities.<sup>6</sup>

The early modern taxonomists and natural historians set out in the Aristotelian tradition to define the single trait of each organism. If, according to Aristotle, each organism consisted of essential properties as well as accidental properties, the scientist must consider the essential qualities more significantly than the accidentals. Defining the essence allowed one's science to stand on flawless ground; essences never changed.<sup>7</sup>

Aristotelian natural philosophy dominated the field well into the sixteenth century, with the help of papal encouragement and institutionalization. The next major writer of natural history was Pliny the Elder, whose text, *Natural History*, expanded upon the work of Aristotle. Pliny did not challenge the ancient author's claims; his text was devised as an extension of the previous scholarship.

Dedicated to Titus in A.D. 77, *Natural History* included almost 40 books, and included information concerning astronomy, geography, human biology, zoology, botany, medical botany, metallurgy, and geology. Pliny claimed that his work drew on 100 earlier authors and included

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<sup>3</sup> Ibid., P. 60.

<sup>4</sup> Ibid., P. 51.

<sup>5</sup> Datson, Lorraine. "Marvelous Facts and Miraculous Evidence in Early Modern Europe", P. 260.

<sup>6</sup> Asma, Stephen T. Stuffed Animals and Pickled Heads. P. 117.

<sup>7</sup> Ibid., P. 107.

20,000 “facts” of nature. His texts present a fascinating mix of careful observations and subsequently supported scientific facts---interlaced w/myths, false reports, exaggerations and fanciful stories. The work became a standard source for classical knowledge about the natural world.

Pliny’s *Natural History* was first published in 1469, and by 1550 had been published in at least 46 editions, in various languages.<sup>8</sup> The text was not rediscovered during the Renaissance, it was a present source of ‘unimpeachable lore’.<sup>9</sup>

Pliny’s *Natural History* is a helpful starting point for the study of art history as a discipline. The history of art objects should follow a history of natural objects because of the fact that works of art are made of natural materials.<sup>10</sup> As a human response to their natural environment, art history develops out of the natural history taxonomy.

Pliny’s progressive history is in the form of anecdotes; in this manner, Aldrovandi described the species he collected, but also catalogued other various facts such as history, habitat, legends, and symbolism relating to the animals and plants. In this way, naturalists such as Aldrovandi made the connection between man and nature more significant.<sup>11</sup>

### **An Early Encyclopedia**

In the Alexandrian world, an ancient encyclopedism defined the practice of knowledge accumulation and organization. The establishment of connecting links would allow for the individual to navigate through databases efficiently. The principles governing the Alexandrian library, founded at the beginning of third century B.C. had roots in Aristotle’s Lyceum. Scholars

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<sup>8</sup> Lazzaro, Claudia. “Animals as Cultural Signs”, P. 210.

<sup>9</sup> Barkan, Leonard. Unearthing the Past. P. 91.

<sup>10</sup> Ibid., P. 67.

<sup>11</sup> Ibid., P. 212.

using the library at Alexandria saw the collection as both object and instrument for their research.<sup>12</sup> As Christian Jacob explains, information from the library was extracted, then decontextualized, and then formulated into a new collection. New objects of knowledge are thus produced.

The Greeks' understanding of *ekloge/sulloge* (selection/collection) guided their intellectual pursuits. Questioning the components that produce systems of knowledge, such theorizing discerned the logic that guides collecting practices.

This method of collecting information and reproducing/reorganizing characterized the scholarly work of Pliny. And as one who saw himself immersed in continuing Pliny's project, Aldrovandi continued this approach. The largest project undertaken by Aldrovandi was the *Pandechion Epistemonicon*, self-defined as "a universal forest of knowledge, by means of which one will find whatever the poets, theologians, lawmakers, philosophers and historians...have written on any natural or artificial thing one wished to know about or compose."<sup>13</sup>

The *Pandechon* proper consisted of 83 volumes composed of scraps of paper which Aldrovandi had written bits of information throughout the years, until 1589.<sup>14</sup>

The sixteenth century marks a reemergence of sorts of the visual encyclopedic tradition. As Foucault described in *The Order of Things*, resemblance and similitude provided the basis for understanding relationships between things. After this period, difference and identity became key.<sup>15</sup>

Adapting an approach from Aristotle, Aldrovandi created a system of tables, a visual network that enabled him to classify and distinguish different modes of knowledge. Writing in

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<sup>12</sup> Jacob, Christian.

<sup>13</sup> Findlen, Paula. *Possessing Nature*, P. 64.

<sup>14</sup> *Ibid.*, P. 65.

<sup>15</sup> Freedberg, David. *Eye of the Lynx*, P. 4.

1572 “in our *Universal Method of the Different Genuses of All Animate and Inanimate objects* we have defined and explicated [these things] so that every visible thing known may be reduced to the nearest genus, in order to properly define and describe it.”<sup>16</sup> These “synoptic tables” organized knowledge in a hierarchy. This, when positioned with the museum itself, allowed Aldrovandi to further capulate the enormity of data he confronted. In addition, it allowed one to constantly make references and connections between the various materials.

This organization can be described as emblematic, according to scholar William B. Ashworth, Jr. The emblematic worldview saw that “every kind of thing in the cosmos had myriad hidden meanings and that knowledge consists of an attempt to comprehend as many of these as possible.”<sup>17</sup> Hence the inclusion, in Aldrovandi’s *Natural History*, of the proverbial as well as first-hand experience knowledge. The primary affect of such inclusion was an extensive web of associations that allowed for multitudes of interpretations.

### **Microcosm/Macrocosm**

The concepts of microcosm/macrocosm greatly informed the intellectual environment of the fifteenth and sixteenth centuries. “The relationship of ‘microcosm’ to ‘macrocosm’ established links between ‘man’ and the ‘universe’.”<sup>18</sup> According to Foucault, this term was one of the most frequently used with regard to knowledge.<sup>19</sup> Foucault quotes, in *The Order of Things*, from a Renaissance text, illustrating this:

But we men discover all that is hidden in the mountains by signs and outward correspondences; and it is thus that we find out all the properties of herbs and all that is in stones... There is nothing in the depths of the seas, nothing in the heights of the

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<sup>16</sup> Ibid., P. 60.

<sup>17</sup> Ibid., P. 144.

<sup>18</sup> Hooper-Greenhill, Eilean. *Museums and the Shaping of Knowledge*. P. 36.

<sup>19</sup> Foucault, Michel. *The Order of Things*. P. 31.

firmament that man is not capable of discovering. There is no mountain so vast that it can hide from the gaze of man what is in it; it is revealed to him by corresponding signs.<sup>20</sup>

Every object of nature, for the Renaissance scholar, could be read and interpreted as signs of a greater 'echo'. Man, in this episteme, occupied a privileged and central role. Man, as microcosm, established new relationships with the world, as macrocosm. Aldrovandi organized his 'cabinet of the world' in such a way to reveal the order of the world.<sup>21</sup>

Out of their original context, the natural history specimens take on a new meaning; it was the cabinetry and museal space that guided Aldrovandi's aestheticizing and classifying as much as scientific divisioning. The divisions that existed between the public and private, as well as what was included and excluded in Aldrovandi's collection, allowed for the naturalist to control the meanings of the objects, as well as the grander narrative that was thus produced.

These meanings, in the case of sixteenth and early seventeenth century museums, can be described as complex and often limitless. Echoing the curious order of Nature, naturalists such as Aldrovandi were able to create webs of reference, and often-secret readings of their collected material.<sup>22</sup> Secret, that is, because of the visual and private nature of such readings.

### **The Renaissance Episteme**

Foucault echoes this reading in identifying three epistemes (or world-views), in which knowledge is organized and made meaningful: the Renaissance, the Classical, and the Modern. The Renaissance episteme, according to Foucault, is characterized by interpretation and similitude. This system valued the possible hidden relationships inherent in objects; all of

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<sup>20</sup> Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge, P. 38. (Foucault quoted by Hooper-Greenhill)

<sup>21</sup> Ibid., P. 90.

<sup>22</sup> Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge. P. 12.

Nature is linked by a series of vast connections. The visible signs could be analyzed in order to delve into the underlying invisible connections.

Such connections could be articulated within the space of the sixteenth century natural history collection: the ordering of texts and objects could visually reflect the order of knowing as a library or encyclopedia.<sup>23</sup>

This reading of Renaissance meaning making may help the scholar to understand the encyclopedic tendencies of sixteenth-century naturalists. Since every connection-- whether of legend, hearsay, or via experiment---could be 'true' in this sense.<sup>24</sup>

The single objects of Aldrovandi's collection, when understood in the greater narrative he wished to elicit, serve to extend the boundaries of understanding. This narrative is a historical writing, as Aldrovandi wished to 'tell the truth' about the objects.<sup>25</sup> As contemporary viewers of this collection, our reading of the texts and the objects that remain requires active meaning making; we analyze our relationship to these objects as Aldrovandi did; participating in a new dialectical relationship of meaning making.<sup>26</sup>

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<sup>23</sup> Ibid., P. 45.

<sup>24</sup> Ibid., P. 15.

<sup>25</sup> Pearce, Susan. "Objects as Meaning", P. 138.

<sup>26</sup> Ibid., P. 139.

## CHAPTER II

### ON MEMORY

An interesting component of the way in which Aldrovandi arranged and linked texts with objects is the element of memory exists here. The cabinet created by Aldrovandi allowed one to articulate the multitude of identities and meanings of the objects via their visibility in the collection. One would be able to recall information through the power of visualization.

“...by memory in the depths of time one conserves every sort of knowledge and wisdom in the human mind.” --- Ulisse Aldrovandi, c.1581.

The relationships between museum and memory unfold around a peculiar relationship, as intimate and essential as that of a snail and its shell: one houses and protects the other.---  
Susan A. Crane

Aldrovandian scholar Paula Findlen points out that memory was the central feature of the expansion in museums and collecting occurring in Renaissance Europe.<sup>1</sup> As part of the classicizing canon established at this time, memory creates links between words and images.<sup>2</sup>

The medieval mnemonic bible, *Ad Herrenium*, suggested that ideas could be best remembered if they were imagined as strong images. The communication of ideas via spaces became compared to the art of writing in this text. “For the places are very much like wax tables or papyrus, the images like the letters, the arrangement and disposition of the images like the script and the delivery is like the reading”<sup>3</sup>

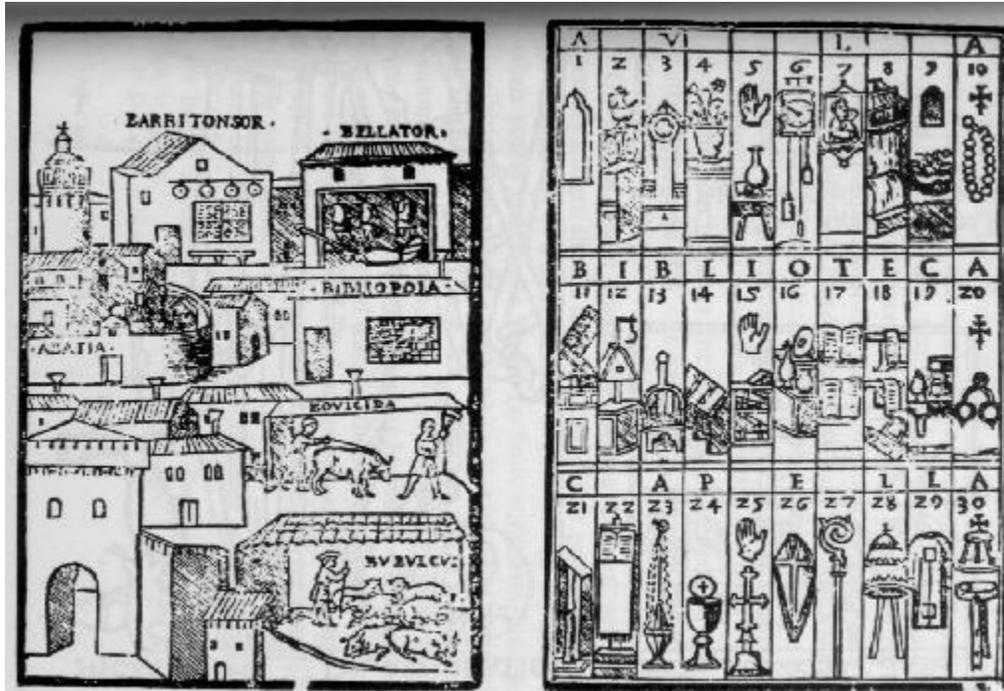
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<sup>1</sup> Findlen, Paula. “Renaissance Collecting and Remembrance”, P. 162.

<sup>2</sup> Bolzoni, Lina. *The Gallery of Memory*. P. xv.

<sup>3</sup> As quoted in Hooper-Greenhill, *Museums and the Shaping of Knowledge*, P. 126.

Lina Bolzoni has carefully related the art of memory to that of collecting. She sees this connection as a result of a desire for humans to make mental and physical places overlap.<sup>4</sup> That is, according to the ancient arts of memory, memory could be imprinted via a series of locations. An architectural structure could be used, where each space contained images. When memory was required, one could re-visit these spaces and demand their holdings.



### Camillo's Theater of Nature

A Venetian gentleman, Giulio Camillo, devised such a system to aid in memory, using an architectural model as his guide. His *Theater of Memory* aimed to present a tangible structure to memory and knowledge organization. Born in 1480, Camillo achieved a good amount of fame for his work on memory and his magical theater. Constructed in France, at the court of Francis I, the theater was a wooden space, big enough for two people, which held many little

<sup>4</sup> Bolzoni, Lina. The Gallery of Memory. P. 237.

boxes.<sup>5</sup> The theater rose seven steps, divided by seven gangways that represented the seven planets. Labels were hung from the walls that contained explanatory text, and from the viewpoint of the person at the middle of this intricate organization, one could have the world before his eyes.<sup>6</sup>

Every level of this theater represented a metaphorical level in God's divine plan. All of creation was categorized, and fell into a rational order. The primary concepts were painted on doors, and the secondary information would be placed behind the door. The concepts were most often allegorically displayed, using classical mythology to symbolize notions.

The theater, however, contained many complexities that needed its composer, Camillo, to explain or demonstrate.<sup>7</sup> Eilean Hooper-Greenhill suggests that this control over knowledge, man standing symbolically at the center of all creation, was the very reason the theater was built at the court of Francis I. Information unavailable or 'hidden' to his subjects would only be available to the king.<sup>8</sup>

Giulio Camillo's Theatre of Memory allowed, as one visitor put it, "...Whoever is admitted as spectator will be able to discourse on any subject no less fluently than Cicero."<sup>9</sup> Camillo's theatre serves as an example of this humanist desire to make knowledge tactile.

He calls this theatre of his by many names, saying now that it is a built or constructed mind and soul, and now that it is a windowed one. He pretends that all things that the human mind can conceive and which we cannot see with the corporeal eye, after being collected together by diligent meditation may be expressed by certain corporeal signs in such a way that the beholder may at once perceive with his eyes everything that is

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<sup>5</sup> Hooper-Greenhill, Eilean., P. 98.

<sup>6</sup> Ibid., P. 99.

<sup>7</sup> Ibid, P. 100.

<sup>8</sup> Ibid., P. 100

<sup>9</sup> Viglius Zuichemus, writing to Erasmus from Padua in 1532, as quoted in Paula Findlen, "Renaissance Collecting and Remembrance", P. 162.

otherwise hidden in the depths of the human mind. And it is because of this corporeal looking that he calls it a theatre.—Viglius Zuichemus writing to Erasmus<sup>10</sup>

Aldrovandi first evoked this metaphor of theater after writing his *On Ancient Statues* in 1556. This was one of the first guidebooks to Rome's antiquarian collections, and Aldrovandi described its conception as being formed by "writing and collecting, as if in a Theater"<sup>11</sup>

Aldrovandi, however, found books and devices such as Camillo's useless. He considered it a vain project to impose artificial schemes in the attempt to define a sense of reality. The organization employed by Aldrovandi created a huge filing cabinet of nature. Each specimen serving the role of index card.<sup>12</sup> As we see with the collection of Ulisse Aldrovandi, more often these memory 'theaters' took material form.<sup>13</sup>

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<sup>10</sup> As quoted by Eilean Hooper-Greenhill, who quotes F. Yates. In Museums and the Shape of Knowledge. P. 97.

<sup>11</sup> Ibid., P. 162.

<sup>12</sup> Ibid., P. 131.

<sup>13</sup> Eilean Hooper-Greenhill notes that in the Renaissance era, 'theater' generally meant a 'compilation' or 'compendium'. Ibid., P. 98.

## CHAPTER III

### AESTHETICIZING NATURE: REPRESENTING THE WORLD IN ONE ROOM

**rep-re-sent** v.

1. vt to act or speak on behalf of somebody or something
2. vt to symbolize or stand for something
3. vt to go or be present somewhere on behalf of somebody or something
4. vt to speak and act for somebody else in an official way
5. vt to express or explain what is happening or what people think
6. vt to be somewhere in large or small numbers
7. vt to be a sign or equivalent of something
8. vt to portray or present an image of somebody or something as being something in particular
9. vr to describe yourself as something you are not
10. vt to portray or perform a character or role on stage

To *represent* the entire of nature, with its endless relationships and meanings: this was the task of the natural historian and collector, as devised by Ulisse Aldrovandi. The base on which Aldrovandi established his knowledge was not secure; it was undifferentiated, and the validity of the similitudes established would rest upon each other.<sup>1</sup>

“If the predominant value of an object or idea for the person possessing it is intrinsic, i.e., it is valued primarily for use, or purpose, or aesthetically pleasing quality, or other value inherent in the object or accruing to it by whatever circumstances of custom, training, or habit, it is not a collection. If the predominant value is representative or representational, i.e., if said object or idea is valued chiefly for the relation it bears to some other object or idea, or objects, or ideas, such as being one of a series, part of a whole, a specimen of a class, then it is the subject of a collection.”---W. Durost, *Children’s Collecting Activity Related to Social Factors*.<sup>2</sup>

As most disciplines before the nineteenth century, ‘Art’ as a distinct body of knowledge and objects was not conceived or institutionalized at this time. That is not to say that there did not exist a proper respect for artistic effort, however. Towards the end of the sixteenth century, efforts can be seen to develop an ordering of material objects in such a way as to control and know the world in a defined space. As displayed objects, a web of connections could be drawn from not only the inherent meanings in the individual things themselves, but in the aesthetic relationships that occurred within the display organization itself.

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<sup>1</sup> Foucault, *The Order of Things*. P. 31.

<sup>2</sup> Bal, Mieke. “Telling Objects”, P. 97.

Natural History museums are essentially aesthetic representations of science. Aldrovandi represented nature in an enclosed space. The artistic and nondiscursive characters of such museums were extremely important.<sup>3</sup> Representing nature can be equated with narration. In the case of this particular collection, the narration was ‘written’ in visual terms.

The flood of new specimens from New World expeditions served to enhance the prestige of collectors such as Aldrovandi. Their museums became increasingly open to the public, and this exposure led to a deeper awareness of the aesthetics of display. As Giuseppe Olmi notes, “...the arrangement of the products of nature within this setting was often determined by the desire for symmetry and a pleasing appearance.”<sup>4</sup> Olmi further states that the arrangement of sixteenth-century museums should be regarded as based on aesthetic criteria more so than on creating complete series of objects.

This proves true when Aldrovandi’s display schemas are examined; the collection was not ordered according to comparative or functionalist principles.

“Related items are rarely catalogued together, and where they are, they have irregular rather than consecutive numbering, as though they had been displayed according to the idea of alternate microsymmetry...It is likely that principles of correspondences have been used to order things within visible relational sequences that both demonstrate and constitute the meaning of these things.”<sup>5</sup>

Each of the objects stood as an example of a higher reality, in a Neo-Platonic sense. When pieced together, functioning in numerous possible narratives, the artifacts became exemplum; they were cut out and removed from some whole.<sup>6</sup> Staged, as if in a theater, objects once separated by time and space are allowed to interact, and the emerging meanings become cross-disciplinary. The display is a new medium in which to write a history.

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<sup>3</sup> Maruies, Patrick. Cabinets of Curiosities. P. 242.

<sup>4</sup> Olmi, Giuseppe. “Science-Honour-Metaphor”, P. 133.

<sup>5</sup> Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge. P. 124.

<sup>6</sup> Lyons, John D. Exemplum. P. 9.

## CHAPTER IV

### ENCYCLOPEDISM

“Nothing is sweeter than to know all things”—Ulisse Aldrovandi

“If nature speaks to us through these metaphors, it follows that an encyclopedic collection, as the sum of all possible metaphors, must logically become the all-encompassing metaphor for the world.”---Emanuele Tesauro.

“we need only recall what importance a particular collector attaches not only to his object but also its entire past, whether this concern the origin and objective characteristics of the thing or the details of its ostensibly external history: previous owners, price of purchase, current value, and so on . All of these—the “objective” data together with the other—come together, for the true collector, in every single one of his possessions, to form a whole magic encyclopedia, a world order, whose outline is the *fate* of his object.”<sup>1</sup>

In sixteenth-century Italy, the natural object became a commodity. The influx of new objects and animal and plant species from the New World played a large role in the early modern intellectual world. These artifacts widened the Aldrovandi’s world-view so as to reaffirm the sixteenth-century epistemic characteristic that the visible order of the highest spheres is indeed found reflected in the darkest depths of earth.<sup>2</sup> The ordered space of Aldrovandi’s museum, with its multitude of specimens and examples, would reflect the wealth of the real world.

For these early naturalists, single specimens did not function well; a desire to order and establish connections and links between various objects took hold. These groups, or species of objects, would allow the collector to create a visual narrative of natural history.

The natural history collection devised by Ulisse Aldrovandi in Bologna, as well as those of Francesco Calzolari in Verona, and Ferrante Imperato in Naples are dissimilar from their predecessors who focused on metaphorical orders. These collections were centered on natural history objects; although artificialia was included, the naturalists focused on the systematization

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<sup>1</sup> Benjamin, Walter. The Arcades Project, Convolute H-The Collector. P. 207.

<sup>2</sup> Foucault, Michel. The Order of Things. P. 31.

and organization of nature itself. In Imperato's museum books, natural specimens and a stuffed crocodiles exist side-by-side. As an apothecary, Imperato's focus was the research and manufacture of medicines.<sup>3</sup>

A direct goal of each of these museums was to provide an opportunity for experimentation and engagement with a great variety of natural species so as to build upon the ancient natural historical rhetoric devised by Aristotle and continued by Pliny.

The Aristotelian rhetoric held through the Middle Ages, and scholars demanded that the observations of things themselves should take priority over the accumulation of words.<sup>4</sup> This importance of direct observation and the materiality of objects fed the humanist tradition in the fifteenth-century.

We must remember that the collecting practices of Ulisse Aldrovandi and his contemporaries was not informed by a neutral attitude. The love of rarity took hold in the natural history museums, and it was often such exotic specimens that conferred status upon the collector.

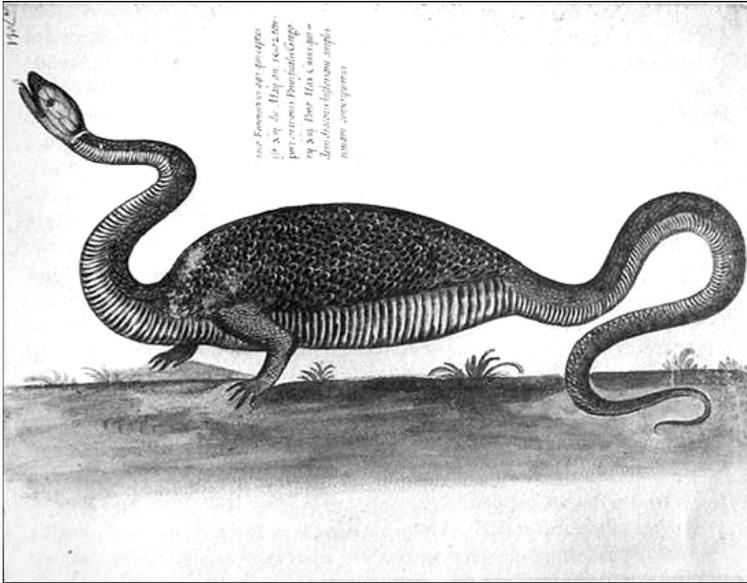
### **The Dragon of 1572**

In May of 1572, an odd and 'fearsome' dragon was found near Bologna, a sure sign of an omen. When a senator of Bologna, Orazio Fontana, was notified of this creature, he immediately called upon his brother-in-law Ulisse Aldrovandi, a well-known expert in animalia, and specifically draconology. This event occurred on the same day that Ugo Buoncompagni had returned to his hometown of Bologna to be conferred as Pope Gregory XIII. As the newly elected Pope's cousin, Aldrovandi's role in this event ensured a good amount of attention.

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<sup>3</sup> Mauries, Patrick. Cabinets of Curiosities, P. 10.

<sup>4</sup> Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge. P. 32.



The dragon was transferred to Aldrovandi's museum, where it garnished a good amount of curiosity. Soon after, Aldrovandi began a treatise on the dragon.<sup>5</sup> The inclusion of this rare species, along with the attention it received due to its impeccable timing, insured Aldrovandi's reputation as a reputable man of science.<sup>6</sup> The reporting of the 'dragon' allowed the Bolognese naturalist to become authority on a new subject.

Aldrovandi dedicated his *Draconologia* to the nephew of the Pope, Filippo Buoncompagni, Cardinal San Sisto. As Gregory XIII did not have the time to entertain the muses of a collector, albeit his own cousin, he was, however, intrigued by the odd occurrence of this dragon. For it was a dragon that appeared on the heraldic shield of the Buoncompagni family.<sup>7</sup> Gregory therefore supported his cousin's scientific endeavors in providing full evidence for this dragon, in order that it may not appear as omen.

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<sup>5</sup> "In that time, I wrote a Latin history of that dragon in less than two months, divided into seven books and entitled the *Dracologia*." Written by Aldrovandi in a letter to the Grand Duke of Tuscany, Francesco I. As quoted in Paula Findlen's *Possessing Nature*, P. 18.

<sup>6</sup> *Ibid.*, P. 18.

<sup>7</sup> *Ibid.*, P. 21.

Aldrovandi did just this; he described the serpent as evidence of Nature's plentitude, rather than stress its diabolic implications. This 'normalizing of the marvelous' characterized much of the sixteenth and early seventeenth-century natural history.<sup>8</sup>

Like no one previously, Aldrovandi aimed to display and recreate the variety of nature using visual means. Hiring artists to draft illustrations and prints of everything he could, Aldrovandi's main objective was to create a thorough collection of objects from nature. This thoroughness often lead the Bolognese collector to include the monstrous and bogus, which were placed next to those more viable specimens. In this vein, Aldrovandi's efforts follow the example left by Pliny more so than Aristotle.<sup>9</sup> When a specimen could not be found, Aldrovandi would instruct the artist to depict the objects using descriptions that often bordered on folklore.

What resulted was an impressive natural history of specimens complemented by artistic renderings. A total of 8,000 tempera illustrations and 18,000 actual specimens composed the museum.<sup>10</sup> Enthralled by the size and extent of his collection, Aldrovandi would obsessively count these thousands of objects on a regular basis, tracking the growth of material. In a letter to Alfonso Pancio, physician to the d'Este family, Aldrovandi wrote

“[I am] hoping to see something beautiful in your care, not ever being sated by the learning of new things. Not a week passes—I will not say a day---in which I am not sent something special. Nor is it to be wondered at, because this science of nature is as infinite as our knowledge.”<sup>11</sup>

For Aldrovandi, the ability to visually document nature's plentitude would enable him as a scientist to understand the variety of life.

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<sup>8</sup> Ibid., P. 22.

<sup>9</sup> Ibid., p. 69.

<sup>10</sup> Olmi, Giuseppe. “Science-Honour-Metaphor”. P. 132.

<sup>11</sup> Hooper-Greenhill, Eilean. Museums and the Shaping of Knowledge. P. 63.

## Normalizing the Marvelous

It was in the sixteenth century that wonders of nature, particularly monsters, began to be interpreted less as bad omens, and more frequently admired as products of a bountiful Nature.

Aldrovandi's *Monstrorum Historia*, published in 1642 by a student of Aldrovandi, documented every known instance of animal or human monstrosity. The text contained images of both real (hairy people, giants, dwarfs, and conjoined twins) and imaginary monsters (stories taken from Pliny, Satyrs and Sciapodes).

In the case of the long-necked man, Aldrovandi writes that this specimen is highly skeptical, but in some parts of Asia a group of 'wild humans' with excessively long necks could exist.



An illustration of a mermaid, however, is believed to be real. According to Aldrovandi, the famous scientist Gesner reports that these monsters from the sea were fished and transported to Rome for the Pope's viewing. The torso is human, hair blond, the belly from bones, the arms without joints, but the lower torso arranged like a fish. One of the monsters looks like a woman, the other appears as a man.



Again, another illustration in the text shows an unlikely young boy with an elephant head. Aldrovandi suggests that this type of deformity is rare, but in the history of Virgilius Polydorus, as well as in the tales of reliable men, there is a history of a Hungarian boy with an elephant head that came into the world.



In a chapter of the text where Aldrovandi offers true pieces of wonder from foreign countries, he writes of the story of this dragon from Ethiopia. The 'Draco Aethiopicus' was stuffed and sent to Paris. It had no hair or feathers, and the two feet had claws. Covered in green scales, it had two flightworthy wings and a long, flexible tail.



Often, the specimens are humorous to the modern observer. The ‘monster Marinum effigie Monachi’ is a sea-monster in the shape of a religious monk. One of such species, found in Norway, was imprisoned. After three days, the animal died, only speaking sad sighs while held captive. Aldrovandi does not doubt the report, for from the depths of the sea ‘sighs’ would often be heard.



### **The odd, bizarre and artificial**

The bulk of Aldrovandi’s work focused on direct observation of natural specimens, but of interest is the desire of this naturalist to include the unbelievable, the bizarre, and *artificialia* that

held these early moderns particularly captive. Although sixteenth century naturalists such as Aldrovandi were praised for their encyclopedism and display of numerous varieties of species, their fame would rest on the revealing of a fantastic object of nature (whether truly of nature, or artificial).

Examples of the odd and bizarre proliferate the illustrations and musings by Aldrovandi of New World species, but also made their way into the naturalia collections of the museum.

The hybrid species that earned positions in this collection are particularly fascinating. These most often found their way into the *Monstrorum historia*, and the illustrations prove that mythology and lore were no strangers to such categorization.

It must be remembered that in the worldview of sixteenth-century naturalists, inclusion was extremely necessary, even when such species verification was most likely doubtful. These bizarre specimens existing in the folkloric traditions and stories of the time found their way into the pages of these volumes. The fantastic, in these cases, established awe and curiosity in the readers of Aldrovandi's *Natural History*.

It should be understood that the oddities that existed in Aldrovandi's natural history museum were not seen as unscientific; the strange objects proved even more thoroughly 'Nature's inexhaustible plentitude'.<sup>12</sup> Much of the content of Alrovandi's museum was accompanied by a story, told by a guide.<sup>13</sup>

The Cabinets of Curiosity set to establish the congruity among naturalia and artificialia.<sup>14</sup> "The juxtaposition of versions of reality was a rhetorical exercise of sorts; marvelous objects

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<sup>12</sup> Crane, Susan A. "Curious Cabinets and Imaginary Museums" P. 70.

<sup>13</sup> This guide, was in fact a dwarf, contributing to the curiosity of the collection itself.

<sup>14</sup> Mauries, Patrick. Cabinets of Curiosities. P. 73.

challenged accepted systems of classification and the limits of the visible world.”<sup>15</sup> This reiterates the Renaissance episteme, as described by Foucault. The seemingly endless nature of the visible and textual connections would allow for a naturalist such as Aldrovandi to have a life-long project; one in fact, that could be passed on to future generations.

The encyclopedism that characterized the collections of this era can be seen to bridge the gap between art and nature. The sheer multitude of objects that Aldrovandi was able to amass attests to the desire he had of finding those often-hidden connections and meanings inherent in the objects that might spell out to the collector the order of nature.

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<sup>15</sup> Ibid., P. 114-116.

## CHAPTER V

### THE NEW WORLD: SHOCK OF THE NEW

It soon became the animal and plant species of the New World that attracted the attention of natural history scholars. The exoticism of such specimens was embraced by those following an encyclopedic framework as collectors. Historian Germain Bazin likens this to associations with the *Historia Naturalis* of Pliny, which encouraged a taste for the monstrous and bizarre. Such work was prepared by Ovid's *Metamorphoses*, which expected the limitless boundaries of creation to manifest itself most deeply in oddities than in normal specimens.<sup>1</sup>

Incorporating objects from the New World into their collections allowed 16<sup>th</sup> c Italian naturalists to expand the horizons of their world-view. As his collection grew, so did Aldrovandi's understanding of the world. Eileen Hooper-Greenhill notes,

The functions of these 'cabinets of the world' were twofold: firstly, to bring objects together within a setting and a discourse where the material things (made meaningful) could act to represent all the different parts of the existent; and secondly, having assembled a representative collection of meaningful objects, to display, or present, this assemblage in such a way that the ordering of the material both represented and demonstrated the knowing of the world. In addition to this, both collecting together of the material things, and their ordering, positioned the ordering subject within that system of order.<sup>2</sup>

The New World was understood within older frameworks, primarily those of Christian and classical cultures.<sup>3</sup> The "exotic" species were made familiar as they became assimilated into the classical tradition.<sup>4</sup>

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<sup>1</sup> Bazin, Germain. *The Museum Age*. P. 62.

<sup>2</sup> Hooper-Greenhill, Eileen. *Museums and the Shaping of Knowledge*. P. 82.

<sup>3</sup> Lazzaro, Claudia. "Animals as Cultural Signs", P. 210.

<sup>4</sup> Claudia Lazzaro notes that the term "exotic" was not in use until the eighteenth century; the Renaissance Italians would most likely referred to those species that deferred from the norm as "strange". "Animals as Cultural Signs", P. 212.

Aldrovandi owned two copies of the letters of Christopher Columbus, as well as the Italian versions of Oviedo's and Acosta's natural histories of the Indies.<sup>5</sup> Aldrovandi became fascinated with the sheer possibilities that the New World offered; his intended trip to the region was cancelled, due to Aldrovandi's concern with his health.

Olmi notes that like other sixteenth-century naturalists, Ulisse Aldrovandi's attitude towards various cultures was one of an all-embracing collector. In the image of *Regina insulae Floridae plumario tecta uelo* (*Calusa o Timucua della Florida*), an illustrator has rendered a individual from the New World, paying careful attention to the colorful costumes that fascinated European naturalists. Of note in this illustration is the object in the figure's hand, a botanical specimen from this area.



<sup>5</sup> Findlen, Paula. Possessing Nature. P. 314.

In the following figure, Aldrovandi's illustrator exhibits this same native, providing a verification for accounts of travels to the New World in his text, *Monstrorum historia*.



The new specimens often posed a challenge to Aldrovandi's hired illustrators. These Italian artists relied heavily on more familiar forms to structure their representations.

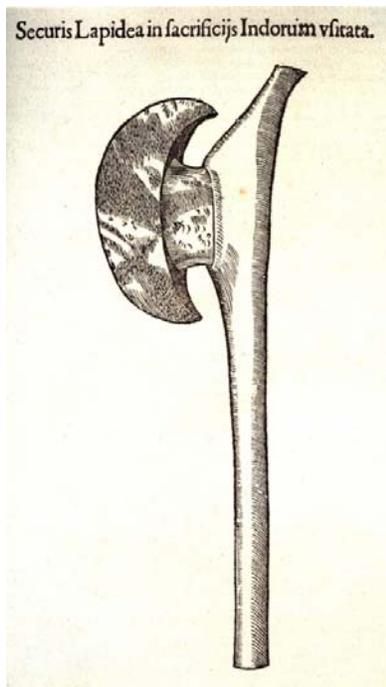
“The unfamiliar shapes and proportions of the Mexican idols reproduced by UA in the *Musaeum metallicum* evidently posed greater problems for the illustrator. The draughtsman did not succeed in avoiding a rather crude simplification. Hieratic forms of an exotic culture became vague and clumsy. The forms of Mexican gods are changed to grimacing caricatures. The strict stylizing of the originals is interpreted naturalistically and from a psychological viewpoint.”<sup>6</sup>

In accordance with his embracing attitude toward all material from the New World, Aldrovandi includes an axe, attributed to the Brazilian Amazonian region, found at Rio Parahyba. The axe was also made an illustration in the *Musaeum metallicum* text. This axe, made of a long rosewood stick, was cylindrical for two-thirds its length, and a vaguely trapezoidal shape at the end held the black semi lunar blade. According to scholar Carlo Nobili, a similar axe has been found in the Pignorini Museum. This axe, says Nobili, is said to have been covered in a cotton cloth, then greased with mastic. The cotton would have been decorated

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<sup>6</sup> Heikamp, Detlef. “American Objects in Italian Collections of the Renaissance and Baroque” P. 460.

with ink and colored feathers. Aldrovandi inherited this particular object from the collection of Antonio Giganti.<sup>7</sup> The illustration found in *Museum Metallicum* is quite true to the object found in Aldrovandi's museum. We see how the illustrator, Bononiae, is concerned with depicting the object in considerate detail.



Aldrovandi's interest in the fauna of the New World is highly evident in his records. Below is a colored illustration of a variety of corn found in the Indies that, once brought to Europe, became rapidly diffused. *Maizum seu Triticum bactrianum fructu albo et flavo n.1.2* *Maizum se Triticum Bactrianum fructu rubro n. 3*. This illustration is found in Aldrovandi's *Tavole di piante, fiori, e frutti*, I, c.70c. It was Christopher Columbus who introduced this species to Europe in 1493.

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<sup>7</sup> Bologna e il Mondo Nuovo. P. 133.



It was often the aesthetics of a new plant species that fascinated our naturalist. Located in the *Tavole di piante, fiori, e frutti* is an example that particularly fascinated Aldrovandi. *Persea seu Mamey Indorum Quoyqnd Colorado Hispanis*, is an example of a tropical plant found in America. It is not known whether the insects depicted also derive from the same area as the plant itself. As to the splendid colors of such species, Aldrovandi is quoted, “tutte le cose sensate che conosciamo al mondo, le conosciamo per questo accidente inseperabile del colore, il quale e oggetto certissimo del vedere”<sup>8</sup>

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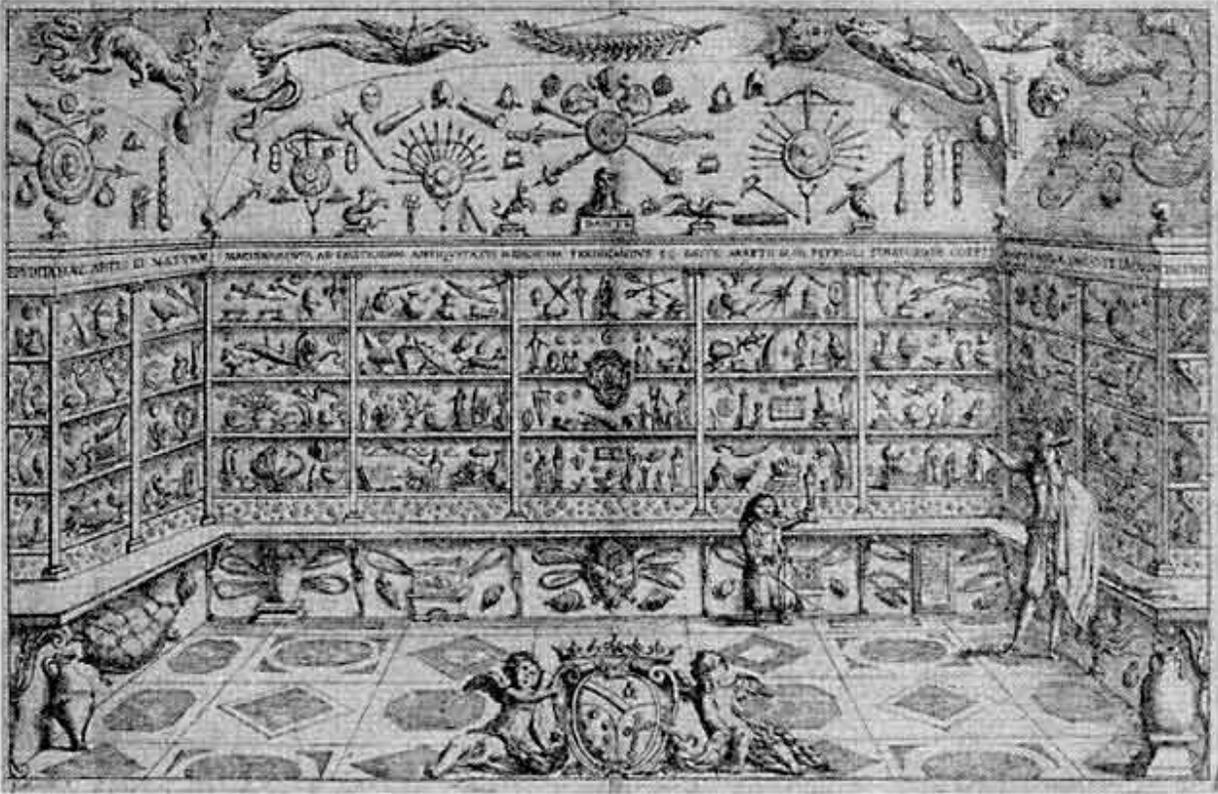
<sup>8</sup> As quoted by Maria Cristina Tagliaferri in Bologna e il Mondo Nuovo. P. 142.



Due to the increased interest by the general public of foreign and mysterious lands, Aldrovandi's fame and prestige was greatly enhanced as a result of his collections. Those guests visiting the 'cabinet' of Aldrovandi's wonders would be impressed by the amount of awe-inspiring, concrete evidence of recent geographical expeditions. Aldrovandi was careful to display the objects from the New World in such a manner as to enhance their aesthetic properties and exoticism; appealing to the eye of the visitors.<sup>9</sup>

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<sup>9</sup> Olmi, Giuseppe. "Science-Honour-Metaphor", P. 133.



## CHAPTER VI

### DEFINING THE SELF

*I can imagine seeing collecting as a process consisting of the confrontation between objects and subjective agency informed by an attitude.*----Mieke Bal

A fascinating aspect to the collections and written works of Ulisse Aldrovandi lies in the narrative that is created in the published works as well as in the organization and display of his numerous artifacts. As a collector, Aldrovandi believed that the whole was greater than the sum of its parts. Relating a sequence of objects in a cohesive account considering origin, function, and aesthetics, a collector creates a system. Such a system, or narrative, consists of beginning, middle, and end, as defined by the first narratologist of the Western world, Aristotle.<sup>1</sup>

A narrative is created by the collector, who defines the boundaries that determine the collection's meaning. The collection is a mode of control for the collector, and in the case of natural history museums, a way of controlling knowledge itself. As an encyclopedic collection, Aldrovandi had no ending in mind, as Nature itself had no boundaries either. In the constructions of his hierarchy and through the organization of the specimens, Aldrovandi constructed the concept of Nature as well.

In the space of the museum or text, Aldrovandi's arrangement and presentation of data positioned him as an authority. In addition, by defining new species and categories, the collector contains knowledge. In Eugenio Donato's essay, *Bouvard and Pecuchet*, he writes,

The set of objects the Museum displays is sustained only by the fiction that they somehow constitute a coherent representational universe. The fiction is that a repeated metonymic displacement of fragment for totality, object to label, series of objects to series of labels, can still produce a representation which is somehow adequate to a nonlinguistic universe. Such a fiction is the result of an uncritical belief in the notion that

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<sup>1</sup> Bal, Mieke. "Telling Objects", P. 88.

ordering and classifying, that is to say, the spatial juxtaposition of fragments, can produce a representational understanding of the world.<sup>2</sup>

Defining the self, via amassing objects, is a strategy employed by collectors whose identity becomes immersed in the entirety of such objects. This collecting culture reached its European heights, naturally at the time when the human figure became the “‘universal’ measure of culture”.<sup>3</sup> This, in turn, achieved the naturalist a good amount of fame. For he was able to connect himself to the past, that is, put himself in the direct lineage of scholars headed by Aristotle himself.

The culture of humanism, in fact, can show how individuals discovered that through the reinterpretation of the classical tradition, they were defining their modern selves. The collectors, the most famed among the humanists, composed themselves “of the fragments of the culture they had inherited.”<sup>4</sup>

Aldrovandi, like many other Renaissance collectors, demanded mortality for their museums. By donating his museum to the Senate of Bologna after his death, Aldrovandi insured that the contents of his museum would continue to be a resource for generations to come. Part of his 1603 agreement with the Senate stipulated that they continue to publish his work after his death.<sup>5</sup>

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<sup>2</sup> Stewart, Susan. On Longing, P. 161-2.

<sup>3</sup> Bhabha, Homi K. “Double Visions”, P. 237.

<sup>4</sup> *Ibid.*, P. 296.

<sup>5</sup> Findlen, Paula. Possessing Nature. P. 25.

## Death and the Material World

Gather ye rosebuds while ye may,  
Old Time is still a-flying:  
And this same flower that smiles today  
Tomorrow will be dying.<sup>6</sup>

The sixteenth century marked an increasingly secular and capitalist society; the attitudes surrounding death and one's relationship to material goods was evolving from the Medieval Christian perceptions. "For men like Aldrovandi, the awareness of the mortality of the world's splendors only spurred them on to make their collections a testament to future generations."<sup>7</sup>

The preservation of the collection was carried on by the custodians, who persevered in continuing Aldrovandi's work until the 1670s, when the scientific community found this early naturalist's methods less helpful.<sup>8</sup> The museum remained a significant establishment, conferring status to the city of Bologna well into the seventeenth century.

This desire to ensure the livelihood of his collection after his own death testified to the *public* dimension of Aldrovandi's activities. In 1617, the museum was transferred to six rooms in the Palazzo Pubblico, where until 1742 it remained. It was then moved to the Istituto delle Scienze in Palazzo Poggi; during the eighteenth century, much of the collection was dismembered and distributed to institutions in and outside Bologna. The remaining items were brought together in a room in 1907, where the collection currently resides.<sup>9</sup>

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<sup>6</sup> Herrick, Robert (1591-1674), 'To the Virgins To Make Much of Time,' quoted by Philip Blom, in *To Have and To Hold*. P. 21.

<sup>7</sup> Blom, Philip. *To Have and To Hold*. P. 22.

<sup>8</sup> Bolzoni, Lina. *The Gallery of Memory*. P. 237.

<sup>9</sup> "Ulisse Aldrovandi Museum" in *Guide to Palazzo Poggi Museum: Science and Art*. Ed. Walter Tega. Bologna: Editrice Compositore. 2002.

As a medium of sense-making display, the museum of Ulisse Aldrovandi aestheticized history and natural history objects. Aldrovandi's dreams were projected onto his collection. His principles determined the space and structure the objects inhabited. The collection, for Aldrovandi, became the object and instrument of his research. As in the Alexandrian Museum, information and objects were decontextualized from their environments, brought into new relationships and contexts; a rewriting of Nature occurred.<sup>10</sup>

Does the collection exist without the curator? Did the intents of Aldrovandi live on, even after his death? Or did these objects become curiosities lost in a doubtful framework?

Aldrovandi articulated a knowledge of nature that reflected the intellectual climate of sixteenth-century Italy. His collection, a ghost of his musings, contained a multitude of narratives, existing visually as well as symbolically. He, as curator/collector, controlled the meanings of such narratives, and therefore defined scientific collecting practices. The collection stands as an example of the fascination the early moderns experienced, when faced with a plentiful Nature that appeared boundless.

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<sup>10</sup> Jacob, Christian. "The Library and the Book"

## CHAPTER VIII

### CONCLUDING REMARKS

“The historian’s existence was defined not so much by what he saw as by what he retold, by a secondary speech which pronounced afresh so many words that had been muffled.”—Michel Foucault.

The all-inclusive history written by Ulisse Aldrovandi cannot be separated from the aesthetic and linguistic plan he employed. The collecting—the ordering itself—became a way of writing this history.

The mode of knowing for a collector consisted of the cross-references made. The system of resemblances and representations brought the world before the gaze of the collector. This aesthetization of natural history positioned the subject, Ulisse Aldrovandi, as master narrator. As such, he could make the objects ‘speak’. These were the early signifiers of a distinction between subject/object that characterized the modern episteme.

The discourse surrounding the early forms of natural history regards the many representations in which that history could be presented. Naturalia, artificialia, folklore, myth, and inherited classical tropes were located within this encyclopedic framework. In the case of the Bolognese collection of Aldrovandi, narrative existed as text and as material display; the history ‘written’ was both literal and tactile/visual.

Aldrovandi engaged with objects in order to understand the world; not only a place where specimens could be preserved, his museum was the loci and medium in which relationships could be formed.

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