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**Botanical Things Considered: Plants and Imperialism in Pliny the  
Elder's *Historia Naturalis***

**APPROVED BY  
SUPERVISING COMMITTEE:**

Andrew Riggsby, Supervisor

Adam Rabinowitz

**Botanical Things Considered: Plants and Imperialism in Pliny the  
Elder's *Historia Naturalis***

**by**

**Samantha Meyer**

**Report**

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## **Dedication**

This report is dedicated to my dearest feline friend, Cleocatra, for her immense patience when I could not give her treats or attention as I was working on this project, and for knowing exactly when a good cuddle was needed.

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## **Abstract**

### **Botanical Things Considered: Plants and Imperialism in Pliny the Elder's *Historia Naturalis***

Samantha Meyer, MA

The University of Texas at Austin, 2021

Supervisor: Andrew Riggsby

Pliny the Elder's *Historia Naturalis* is unique among documents from antiquity for many reasons, and has inspired an extensive and varied corpus of scholarship. Recent work on Pliny's *Historia Naturalis* has focused on critical discussions of its relationship to the cultural ideals of the aristocracy or the literary culture in first-century, as well as on the connections between the text and Roman imperialism. The following study joins in these efforts by examining the representations of plants in the text, focusing on botanical spices and foreign plants within the framework of botanical imperialism. This report begins with a discussion of Pliny the Elder's personal history and positionality, and a contextualization of the work in genre categories and structuring elements. Next, diving into a curated selection of botanical episodes, we argue that Pliny's presentations of these foreign plants reveal specific imperial ideologies and anxieties about luxury and foreign botanical goods in Roman society. A comparison of the text with Roman triumphal processions and themes helps to understand part of Pliny's larger project while grappling with the intertwined and complex ideologies rooted in the text.

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## **Introduction**

Pliny the Elder's *Historia Naturalis* is unique among documents from antiquity for many reasons, and has inspired an extensive and varied corpus of scholarship. Recent work on Pliny's *Historia Naturalis* has focused more on exploring themes within the work rather than questions of sources or accuracy, as the historiographers of the early and mid-twentieth century explored. Critical discussions of its relationship to the cultural ideals of the aristocracy or the literary culture in first-century Rome have contextualized the work, as have studies on the connections between the text and Roman imperialism. The following study joins in these efforts by examining the representations of plants in the text, focusing on botanical spices and foreign plants within the framework of botanical imperialism. This report begins with a discussion of Pliny the Elder's personal history and positionality and a contextualization of the work in genre categories and structuring elements; next, diving into a curated selection of botanical episodes, we argue that Pliny's presentations of these foreign plants reveal imperial ideologies and anxieties. A comparison of the text with Roman triumphal processions helps to understand part of Pliny's larger project while grappling with the intertwined and complex ideologies rooted in the text.

## Pliny the Elder

Pliny the Elder, born in 23 or 24 CE,<sup>1</sup> came from Cisalpine Gaul, likely the town of Novum Comum (Como), since his nephew's connections to that locale are well-attested.<sup>2</sup> Novum Comum was a multi-ethnic community, as it had received an influx of colonists in the first century BCE on two occasions, and Pliny's family, being of equestrian class, enjoyed a situation of relative wealth and standing.<sup>3</sup> It was not uncommon at this time for a man of equestrian status to attain at least one posting as an army officer; after receiving some legal education in Rome, Pliny entered the army as a junior officer at about the age of 23. He held several posts in Germania, serving in the Julio-Claudian campaigns, before holding the procuratorship of Hispania Tarraconensis.<sup>4</sup>

Pliny's three courses of military service in Germany consisted of holding posts as *praefectus cohortis*, military tribune, and *praefectus alae*.<sup>5</sup> At this time, he also served with the future emperor Titus. Pliny alludes to his *contubernium* (the "companionship of the camp") with Titus in his preface.<sup>6</sup> According to Suetonius, Titus was a *tribunus militum et in Germania et in Britannia*;<sup>7</sup> based on Titus' relative age and certain literary mentions,

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<sup>1</sup> This date is calculated based on the Elder Pliny's age (56 years) at the time of his death at Stabiae in 79 CE, famously linked with the eruption of Mount Vesuvius.

<sup>2</sup> *CIL* V.5262 and *CIL* V.5667 link Pliny the Younger with the city of Como.

<sup>3</sup> On the influx of colonists to Novum Comum, see Hardy 1924; On Pliny's family situation, see *CIL* V.1.3442.

Reynolds ("The Elder Pliny and His Times" in French and Greenaway 1969: 1-10) reads Pliny's background as belonging to the municipal governing class, due to his inclination to criticize luxury and see it as the root of those parts of society which he deplored.

<sup>4</sup> Hispania Tarraconensis was the largest province in the area which is modern-day Spain.

<sup>5</sup> Syme 1969; He began his military career as a *praefectus cohortis* under Gn. Domitius Corbulo in Germania Inferior in 47 CE, taking part in Rome's battles with the Chauci. Later, Pliny was promoted to military tribune and transferred to the command of Publius Pomponius Secundus in Germania Superior, where he participated in campaigns against the Chatti. After this post, Pliny was transferred back to Germania Inferior as a *praefectus alae* (prefect of a cavalry unit) under the command of Pompeius Paullinus. A *phalera* (harness piece) was found at Castra Vetera with in name on it, attesting to his role as a *praefectus alae* (*CIL* xiii.10026).

<sup>6</sup> *HN* praef. 3; translation by H. Rackham

<sup>7</sup> Suet., *Divus Titus* 4.1

Germania Inferior seems the most likely locale for Pliny the Elder and Titus to have served together.<sup>8</sup> According to Pliny the Younger, his uncle and adoptive father wrote his first literary work during this period of his life, *De Jaculatione Equestri* (*On Throwing the Javelin from Horseback*), and began the first of his larger works, *Bella Germaniae* (a history of Rome's German Wars), although neither of these works have survived.

After these posts, Pliny took a break from his impressive military service and lived in the city of Rome – where he witnessed the construction of Nero's Domus Aurea.<sup>9</sup> At this time Pliny managed a legal practice, and also spent a great deal of time on his literary pursuits; he published his second work, a two-volume biography of his former commander Pomponius Secundus;<sup>10</sup> completed the *Bella Germaniae*; published a six-volume manual on rhetorical education (*Studiosus*); and issued an eight-volume grammatical treatise titled *Dubii Sermonis* (now lost). His nephew's biographical comments of Pliny the Elder in certain epistles provide a snapshot of the author as a quintessential armchair scholar who used every bit of leisure time available to study.<sup>11</sup> Pliny the Younger recounts even that his uncle preferred to be carried on a litter rather than walk so that he could use the time to read or be read to by enslaved workers.

At this point, the building political crises in Rome came to a head. Nero fled Rome and died; chaos ensued with the Year of the Four Emperors, and Rome once again fell into civil war as Galba, Otho, Vitellius, and finally Vespasian made bids for the imperial throne. Ultimately the victor in 69 CE, Vespasian, with whom Pliny had interacted before and who trusted Pliny as he restructured and refilled the upper echelons of the Roman governing

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<sup>8</sup> See Syme 1969: 206; Pliny records details about two adjoining governors of the province: Pompeius Paullinus and Duvius Avitus.

<sup>9</sup> *HN* 36.24

<sup>10</sup> Pliny the Younger, *Ep.* 3.5

<sup>11</sup> Pliny the Younger, *Ep.* 3.5; 6.16; and 6.20 in particular.

classes, placed Pliny, perhaps on the recommendations or advice of Titus, in several profitable procuratorships. Scholars have theorized that Pliny served between two and four of the following options for procuratorships:<sup>12</sup>

- (1) 70 CE in Gallia Narbonensis
- (2) 70-72 CE in Africa
- (3) 72-74 CE in Hispania Tarraconensis
- (4) 74-76 CE in Gallia Belgica

The reconstruction of this series of appointments is based largely on passages from the *Historia Naturalis* which suggest personal experience in these provinces. Suetonius describes Pliny's procuratorships as *procurationes splendidissimae et continuae*, portraying them as situated in continuous succession, without interruption.<sup>13</sup> The only procuratorship known with any certainty is Hispania Tarraconensis; a letter by Pliny the Younger mentions that while Pliny was procurator in Spain he met Larcus Licinus, *iuridicus* in Tarraconensis.<sup>14</sup> Additionally, as Beagon points out, "Spain indeed receives praise from Pliny which is unsurpassed except by his descriptions of Italy herself."<sup>15</sup> Such enthusiastic or especially detailed descriptions of locales have been interpreted as indications of Pliny's personal experience with the region.

Pliny rose to some prominence through the patronage of the burgeoning Flavian principate. According to his nephew, his relationship with Vespasian can be characterized as *amicitia principum*, signaling that Pliny the Elder had a standing appointment to consult with the emperor Vespasian in the mornings. He returned to Rome around 75-76 CE, and

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<sup>12</sup> See Syme 1969; Reynolds and Greenaway 1986; Beagon 1992.

<sup>13</sup> Suetonius, *De Illustr.*

<sup>14</sup> Pliny the Younger, *Ep.* 3.5.17; the man offered Pliny the Elder 400,000 sesterces for his notebooks, apparently.

<sup>15</sup> Beagon 1992: 4

was likely in the city when the *Historia Naturalis* was published in 77 CE. While he was in Rome he attended to Vespasian as a client, and it's worth noting here that the *Historia Naturalis* was dedicated to Vespasian's son and heir of the incipient Flavian dynasty, Titus. After this stint in Rome, Pliny was appointed commander of the imperial fleet at Misenum, and remained there until his death in 79 CE.<sup>16</sup>

Pliny the Elder had served the later Julio-Claudian campaigns, and was in Rome for the last years of Nero's deteriorating reign (although he seems to have kept his head down). He was active in the elite circles of the Roman government, and therefore would have been familiar with the issues and concerns of the governing elite at this critical moment of dynastic transition. Pliny dedicated himself (and the *HN*) to the new Flavian dynasty; to understand Pliny's positionality within the text of the *Historia Naturalis*, it is important to keep in mind how intimately experienced the author would have been with the mechanics and politics of the empire.

Pliny the Elder's text was informed by his own military service and administration in the Roman provinces, as well as other facets of his life, as a landowner in northern Italy and among the aristocratic elite.<sup>17</sup> This work remains a product of the Elder Pliny's class, role, and interactions with the Afro-Eurasian network of exchange in his position as an elite Roman military officer. His service, though primarily in the west and north, included managing military supply chains in various capacities throughout his career, and put him in touch with individuals and networks across the empire. Pliny's opus relies on references to the scholarly contributions made by other equestrian authors of this period throughout the *Historia Naturalis*; in fact, in Book 9, he generally cites "distinguished members of the

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<sup>16</sup> Pliny the Younger, *Ep.* 6.16, 6.20; Pollard notes that "it was Pliny's curiosity that resulted in his death" (Pollard 2009: 313).

<sup>17</sup> Syme 1969: 202 – he perhaps also owned land in Campania.

order of the equites” as expert voices on the matter of “a sea creature in every part of its body resembling a man” which had been spotted in the Gulf of Cádiz. Everything known through the *HN* was able to be shared and transmitted because of the military expansion and authority of the Roman empire; fed by this military conquest, the encyclopedia, in turn, helped to reinforce, support, and perpetuate the empire and the aristocratic classes which led it.

The *Historia Naturalis* was written in the 70s CE, but the volumes represent a lifetime of research and traveling; although much of the text consists of excerpts and information from other authors and authorities, it is informed and structured by Pliny’s positionality and ideological opinions.<sup>18</sup> The thirty-seven-book opus, addressed and dedicated to Titus, covers a host of topics of natural history.<sup>19</sup> In sum, Pliny relates that *sterilis materia, rerum natura, hoc est vita, narratur*<sup>20</sup> and that it incorporates 20,000 pieces of information.<sup>21</sup> The text is broken down by subject, and therein subsidiary parameters: geographical situation (moving east to west), the size of the objects, chronology, etc. depending on the subject. The first book consists of a table of contents laying out the structure and components of the rest of the text; this portion allows the reader to see that the text is organized thematically, rather than, say, alphabetically.<sup>22</sup> This thematic arrangement, which reflects a particular pattern of thought and value, remains more

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<sup>18</sup> Syme 1969: 202: “No book, Pliny used to say, was so bad that it could not somewhere be of use.”

<sup>19</sup> Daisy Dunn, author of a biography of the Elder Pliny, has described it as a David Attenborough-style tour of the natural world.

<sup>20</sup> *HN* praef. 13: the subject of the work is a barren one – the world of nature, or in other words life.

<sup>21</sup> *HN* praef. 16; in actual fact, the numbers fall closer to 30,000 pieces of information.

<sup>22</sup> Pliny uses the term *summarius*. Doody 2001 argues for the use of this term rather than the anachronistic “table of contents” though Riggsby 2007: 89 makes the case for using the modern appellation since there does not appear to be one term used in antiquity across the extant examples of tables of contents, though clarifies that such usage should include considerations of the differences among the example and with Doody’s concerns in mind.

conducive to the sorts of themes Pliny wanted to emphasize throughout the project.<sup>23</sup> The subjects of these 37 books include astronomy, meteorology, geography, geology, anthropology, biology, physiology, botany, agriculture, horticulture, medicine, pharmacology, metallurgy, art and art history (including sculpture, metalwork, portraiture, painting), and gemstones. Interspersed through these academic subjects are digressions on ethnography and mythology, as well as the economic and social dimensions of any one of his subjects. Italo Calvino stated that “what Pliny is doing is taking us on a guided tour of the Roman imagination.”<sup>24</sup> He includes both the marvelous and the banal, and this comprehensiveness contributes to the characterization of this work as the first encyclopedia.

The topic of genre will be discussed more below, but here we will point out that the sheer breadth of Pliny’s *Historia Naturalis* represents a sort of totality of the known world. The text is an “equation of external reality and internal representation” presenting Pliny’s authorial agenda as objective fact.<sup>25</sup> Of course, Pliny cannot actually include *every* fact or narrative, and thus this totality is itself a balancing act of inclusion and exclusion. Yet Pliny uses continual references to this dynamic of belonging to re-emphasize the enormity of his task, and frames his practices in the language of obligation suggesting that his is an objective representation of reality, rather than personal, subjective judgement.<sup>26</sup> Questions of the actual accuracies of Pliny’s work are unnecessary for the purposes of this study; suffice it to say, the *Historia Naturalis* is correct some of the time and wrong much of the time.

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<sup>23</sup> See Riggsby 2007 for further discussion of tables of contents; Although the focus of this study is not the table of contents, the discussion of Pliny’s table of contents as a reenactment of the work as a whole (in its claims to totality and authority) are significant (see especially 101-102, 104-107).

<sup>24</sup> Calvino 1982

<sup>25</sup> Carey 2003: 20

<sup>26</sup> E.g. *HN* 34.137-8 and *HN* 37.91

## ENCYCLOPEDIA AND GENRE

While we will not spend much space on a discussion of the “genre” of encyclopedia and its relation to Pliny’s *HN*, we must address the question momentarily in order to contextualize this work within the literary community and to work toward a better understanding of Pliny’s project and positionality. The use of this textual medium, with its distinctive framing and results, is guided by and itself reinforces Pliny’s authorial agenda.

How are readers meant to use and consider Pliny’s text? The opus has usually been labeled as an encyclopedia due to its universal scope and intention to present a gathered mass of human knowledge; nevertheless, there has been discussion among scholars to interrogate the use of this terminology.<sup>27</sup> Codoñer and Fowler have distinguished between two types of ancient encyclopedia: those which strive to educate the reader on any of the various arts (e.g. rhetoric, grammar), taking their inspiration from the *enkuklios paideia* system of education; and those which deal in the natural world.<sup>28</sup> Of the latter sort, only Pliny’s *Natural History* exists – in modern categorization. Aude Doody makes the argument that there was no genre of the “encyclopedia” that ancient readers understood as cohesive; rather than authorial intent or the perceptions of the ancient audience, the category of “encyclopedia” relies on the modern history of scholarship.<sup>29</sup> While Mary Beagon suggests that Pliny’s use of the term *enkuklios paideia* allows him to contextualize his textual endeavor within a particular system of education, uniting the ancient canon of *artes* within a theme of Nature, Doody argues that the context was the general field of abstruse Greek knowledge.<sup>30</sup>

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<sup>27</sup> Doody 2010: 2

<sup>28</sup> Ibid.: 3-4

<sup>29</sup> See Doody 2010: 3-5, 10-17 for discussion of Pliny’s use of the term *enkuklios paideia* in his preface. Doody’s thesis suggests that the designation of an encyclopedia by authors such as Cato, Varro, Celsus, and Quintilian relies more on the author as a figure who knows everything, rather than a single book that contains everything.

<sup>30</sup> Beagon: 1992: 13-17

Another literary category to consider is that of the technical manual, such as the works of Cato, Varro, Columella, Quintilian, or Vitruvius, *inter alia*. There exists much scholarship on categorization of this genre as well;<sup>31</sup> here, we understand a definition for this category to be works offering an introduction to a practical skill or a field of theoretical learning (*e.g.* agriculture, architecture, or oratory). Although there is debate about whether the ancient audience would have recognized this as a formal genre (similar to discussions of the “encyclopedia”), there is sufficient evidence that this was a fairly common category of writing, if not a formal genre. Might Pliny’s *Historia Naturalis* fit within this grouping?

The answer here is: not in a strict sense, since this text does not provide information or instructions in order for the reader to learn or execute a particular, explicit skill. However, the *HN* does present an example of ancient technical thinking with regard to the organization and processes of the natural world; additionally, while not explicit, a pervading philosophy of the text is the practical bounty of Nature and Pliny’s synthesis of fiscal concern and natural history (more on this below). Therefore, while considering the category of “technical manual” doesn’t explicate the question of classifying the *HN* into a particular genre, it does highlight other aspects of the text to consider. There are certain similarities between texts we may characterize as “technical writing” and Pliny’s project – similarities which the ancient Roman audience might have recognized in its structure and context. The *HN*, as a culturally-embedded document, provides a lens into Roman culture.

Thus, for us, “encyclopedia” can be a useful term, not because there was a formalized genre in which Pliny or the audience saw his work fitting into (in fact, Pliny admits to breaking the mold on this one in his preface), but because this term encapsulates

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<sup>31</sup> See, for example, Saastamoinen 2003 on Frontinus; Horster and Reitz 2003 on technical writing in general.

the immensity of the project and intentions of the author.<sup>32</sup> A useful definition here might be borrowed from Arnar 1990, who defines the genre as “a self-contained book that encapsulates a total or universal body of knowledge, organizing it in order to preserve it and make it accessible to a larger audience.”<sup>33</sup> This definition brings to the fore the explicit intention of the author to act as conservator of the knowledge they wish to impart: preserving the data, cataloging it, and presenting it to a wider audience in an accessible format. In doing so, this medium objectifies and authorizes knowledge, breaking it down into smaller components, removing the data from the sphere of uncertainty or instability to objective fact.

#### THE AUTHOR AND THE AUDIENCE

Another question to address for this study is that of the audience for the text, both intended (as much as can be ascertained) and actual, in order to understand how the audience, in interacting with the text, becomes positioned in relation to the Roman empire. First, we can turn to the preface of the text, which is addressed to Titus Caesar Vespasianus, son of Vespasian. By this time, Titus held censorial rank, tribunician power, and had been consul six times.<sup>34</sup> As noted above, Pliny served with him in some military capacity in Germania. The preface of the *HN* dedicates the whole work to Titus, addressing him as *iudex* of the opus.<sup>35</sup> Titus, therefore, is *an* audience of the work, at least in name, but Pliny clearly intends a larger public to read this work, referring to a collective *vobis* in discussing

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<sup>32</sup> *HN* praef. 14: Pliny claims in the preface that *praetera iter est non trita auctoribus via nec qua peregrinari animus expetat: nemo apud nos qui idem temptaverit invenitur, nemo apud Graecos qui unus omnia ea tractaverit*; “Moreover, the path is not a beaten highway of authorship, nor one in which the mind is eager to range: there is not one person to be found among us who has made the same venture, nor yet one among the Greeks who has tackled single-handed all departments of the subject.”

<sup>33</sup> As cited in Murphy 2004: 11

<sup>34</sup> *HN* praef. 3; see also Cassius Dio, *Roman History* 65.1. At this point, Titus would not assume the principate until a couple years after the publication of the *HN* in 79 CE when Vespasian died.

<sup>35</sup> *HN* praef. 6

his process of writing.<sup>36</sup> He also refers to Titus' sharing or dissemination of the text to others at the end of the preface, when pointing out his table of contents.<sup>37</sup>

So, who would this wider audience have been? Pliny mentions that *humili vulgo scripta sunt, agricolarum, opificum turbae, denique studiorum otiosis* - but this quote lies within a rhetorical question the Pliny the Elder asks of the appropriateness of dedicating the work to Titus.<sup>38</sup> In discussing his inclusion of a table of contents, he instructs Titus that *tu per hoc aliis praestabis ne perlegant, sed ut quisque desiderabit aliquid id tantum quaerat, et sciat quo loco inveniatur*.<sup>39</sup> Additionally, at *HN* praef. 16, he also notes that he regards well those “who have preferred the useful service of overcoming difficulties to the popularity of giving pleasure” in referring to those who have a place in learning.<sup>40</sup> From these clues, a picture of the audience comes through as one of a generalized “public” who has an interest in any particular aspect of the *HN* – not necessarily the whole work – and, by necessity, has the education, inclination, and leisure to spend on reading it. The quantity of citations and references to other authors throughout the work suggests a certain level of educated readership, though not necessarily exclusionary. The majority of the authors that Pliny cites for his immense number of facts are Greek or Roman (or at least wrote in those languages), as evidenced by the lists of *ex auctoribus* in his table of contents, indicating a certain cultural context for the audience. However, the particular reasons or interests of readers of the *HN* could have varied widely, considering the variety of material which the text covers. Overall, the organization, politics of citation, and overall themes of the *HN*

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<sup>36</sup> *HN* praef. 18; H. Rackham translates this as “you, the public, ...”

<sup>37</sup> *HN* praef. 33

<sup>38</sup> *HN* praef. 6: “It was written for the common herd, the mob of farmers and of artisans, and after them students who have nothing else to occupy their time.”

<sup>39</sup> *HN* praef. 33: “You, by these means, will secure for others that they will not need to read right through them either, but only look for the particular point that each of them wants, and will know where to find it.”

<sup>40</sup> *HN* praef. 16: *qui difficultatibus victis utilitatem iuvandi praetulerunt gratiae placendi*

assume a level of knowledge about the Roman cultural experience and make the audience complicit in the imperial venture of which this text was born.<sup>41</sup> This public, whatever their actual identity, becomes collectively “Roman” through the project of the *Historia Naturalis*.

#### **SOURCES AND *MIRABILIA***

There has been much ink spilled on the question of Pliny’s sources for his information; this is not the focus of this study, though we will say a few words about Pliny’s literary precedents in order to better understand his framing of *mirabilia*.<sup>42</sup> Pliny claims that he gleaned his facts from one hundred authors, and added to those from his own observation and experience.<sup>43</sup> As Murphy states, Pliny “would have seen how government was conducted, and authority transmitted, over vast distances... he would have seen how knowledge of the periphery was gathered, how it was used locally, in what shape it was sent to the center of power, and the uses to which it was put when it arrived there.”<sup>44</sup> Pliny’s opus cannot be removed from his context and role as an agent of empire; our author actively constructs knowledge. Pliny, as noted above, seems in certain places in the *HN* to have embellished information from other scholars with his own observations garnered on campaign and as magistrate, but the majority of his information comes from cataloguing and framing the knowledge he has gathered from other authors. His positions and experience within the imperial apparatus, in the provinces and in Rome, contribute to this construction and framing of knowledge. His is not a passive act, however much the *Historia Naturalis* is at times presented as such; and there is an ideological component to

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<sup>41</sup> Murphy 2004: 16

<sup>42</sup> On Pliny’s sources: Syme 1969: 219-25; French 1994: 218-230. (In fact, a whole German term is used for this topic: *Quellenforschung*.)

<sup>43</sup> *HN* praef. 17-18

<sup>44</sup> Murphy 2004: 5

the expressed paternity of information as participating, here, in a construction of national identity.

A particular type of source which is of note to this study is the precedents set by the paradoxographers, who extracted facts and stories about ‘paradoxical’ objects (things strange yet true) from other writings.<sup>45</sup> Callimachus’ *Collection of Marvels*, *On Marvelous Things Heard* by pseudo-Aristotle, and *A Collection of Inquiries on the Strange* by the third century BCE author Antigonus of Carystus fall into this category.<sup>46</sup> The tales of wonder in these texts, besides amusing their audience, give some shape to the extremes of what can exist in the world – both known and as-yet-unknown. Paradoxically, these collections of the marvelous and strange could be soothing, contrasting with and emphasizing the solidity of that which was familiar and near. This fascination with oddities and marvels – *mirabilia*, both man-made and natural – can be traced back to Homer’s *Odyssey*, if not further, but the literary boom comes about with the Hellenistic custom of writings on things strange-yet-true. In particular, the increased military expansion of the first century may have helped to encourage fantastic stories, especially as audiences would have been hungry for curiosities and grand tales from returning countrymen. Pliny’s presentation of such *mirabilia* exhibits some of that tension; he must include the fantastic and strange elements of the world in order to exhibit the world in its totality, but in doing so he reveals those things which he believes have contributed to moral decline in Rome. With conquest and military expansion comes an interest by the public in new things now available for wonder, for purchase, for the taking.<sup>47</sup> Pliny himself comments on the interest even of famous rulers

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<sup>45</sup> Murphy 2004: 21 and Beagon 1992: 8-11. This “genre” is also one whose terminology is post-classical and whose categorization relies on modern history of scholarship. However, there are enough identifiable similarities in this type of literature to consider the literary practice as a whole (see Geus and King 2018).

<sup>46</sup> Geus and King 2018; Gianni 1965: 221-314

<sup>47</sup> See Naas 2011

in the knowledge gained through conquest, such as Alexander the Great and Mithridates, thus helping to legitimize such conquest and appropriation of local knowledge.<sup>48</sup> His inclusion of marvels does not simply follow from scientific and literary trends, but also aligns with Pliny's intentions to celebrate the diversity and power of Nature – and of Rome.

There is a certain necessity to incorporating the marvelous with the more mundane; they help to establish a field of reference and demarcate the audience's imagination. The fantastic and extreme explicitly and implicitly contrast with what is 'normal' and provide tools for organizing the world, reminding the audience of what is familiar and dependable.<sup>49</sup> The measuring rod is always Rome, the standard by which everything Pliny mentions is valued and judged. *Mirabilia* are particularly associated with the margins of the empire, but by including them in this text, Pliny enacts a triumph and brings them into the center, into Rome.<sup>50</sup> Particularly when the native regions for these marvelous objects are quite far away, their knowability and inclusion in Pliny's opus reveals the greatness of the Roman empire and the strength needed to possess that knowledge (or, occasionally, that object).<sup>51</sup> In making the unknown known and the marvelous more familiar, Pliny switches up the game a bit: the thing most worthy of admiration is Rome's authority and civilization, which can control such wonders.

### STRUCTURING THE *HISTORIA NATURALIS*

Cosmologically speaking, Pliny the Elder saw a governing principle across the physical world: nature, which he viewed as itself divine. He discusses the *numen* of the world as eternal, immeasurable, which neither began to exist nor will ever perish.<sup>52</sup>

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<sup>48</sup> On Alexander the Great: *HN* 8.44; on Mithridates: opening of *HN* Book 25.

<sup>49</sup> Murphy 2004: 96-105

<sup>50</sup> Carey 2003: 101

<sup>51</sup> See Parker 2002: 41-55 for his discussion of the "materiality of distance."

<sup>52</sup> *HN* 2.1: *aeternum, immensum, neque gentium neque interituum umquam.*

Through a series of paired or contradictory attributes (*e.g.* finite yet infinite, certain yet uncertain) Pliny rhetorically sketches out some philosophical underpinnings of his study. Pliny conceived of Nature as generative and providential, with great skill, though not perfect. Pliny is rather inconsistent in distinguishing between *natura* conceived of as a deity (with a number of human qualities) and *natura* conceived of as a collective force.<sup>53</sup> Nevertheless, the overarching principle is that this *natura* retains a balance in the world, and the motivation for this balance is humankind: Nature created wheat to be fertile because it was a staple for the diet of humans.<sup>54</sup> In this, the anthropomorphic characteristics of Pliny's *natura* are most apparent, as she is a sort of guide and collaborator with humans. The products of nature as well take on human aspects, having likes or dislikes, or emotional reactions. For example, Pliny explains that reeds have an affinity for asparagus, while radishes and vines are averse to each other.<sup>55</sup> Some of these relationships come from the individual purposes of plants or creatures, while some emerged because of their environment, but Pliny does not explicate an overarching governing mechanism for them beyond their existence. That Pliny's text operates on this framework of balance is significant in considering humankind's relationship with Nature and the natural world; humans are always dependent upon nature's products, and the desire to control more affects how humans interact with both nature and each other. Nature, in her turn, desires to help humanity, and provides bounty and balance.

In conjunction, a key aspect of the text is a Plinian optimism that focuses on the positive, pragmatic aspects of his subject matter. As opposed to the "over-theorizing" of Greek philosophy, a central theme in the *HN* is the more practical applications of his

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<sup>53</sup> See French 1994: 197-206

<sup>54</sup> *HN* 26.21, see also *HN* 7.1

<sup>55</sup> *HN* 16.67 and 19.44; Book 20 opens with a discussion of the (Greek) principles of sympathy and antipathy.

collected knowledge. Pliny's text contributes to a self-presentation of the opinion that all work should benefit the public in some way, providing factual knowledge that could be quite useful in any number of economic or commercial activities. French notes that the encyclopedic "genre" has as much to do with scientific curiosity as with commercial and military interests. As will be discussed later, Pliny's entries on botanicals and their products indicates a preoccupation with the prices and purities of these commercial goods, and thus a certain market mentality on the part of our author.

Pliny's duties as an agent of the Roman empire, serving in military as well as administrative capacities, is not divisible from his work as a scholar and encyclopedist. The text itself can be seen as a survey of the available resources for the use of Rome, organized in part by the history of the Roman empire's growing power and extent. In her study of the "ethics of care" in Pliny the Elder's *HN*, Marchetti notes how the author presents the imperial project as a civilizing force for the world.<sup>56</sup> Even in his occasional sympathy for the other and sensitivity for the vulnerable, he continues to subscribe to the paternalistic view that Roman military conquest was virtuous and brought wellbeing to conquered peoples. His description of, for example, a German people at *HN* 16.2-4 reveals Pliny's opinion that whatever harm they faced in the process, conquered regions ultimately benefitted from Rome's military control; politically and economically, the Roman empire, as led by the late Julio-Claudians and Flavians, could only benefit the rest of Pliny's circumscribed world. Beagon notes that "[Pliny's] view of the Roman empire has a strong element of philosophic idealism in it. He draws parallels between the rule of Rome and the rule of *Natura* in *HN* 27.2-5 and portrays commerce as a means of general human welfare, not just practical profit-making."<sup>57</sup>

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<sup>56</sup> Marchetti 2017: 73-80

<sup>57</sup> Beagon 1992: 189

This text, by its subject and its organization, filters the physical and cultural world of the Roman empire for its audience, preserving older information as well as generating new information for the collective property of the empire.<sup>58</sup> In the process, the text collectivizes the identity of the readership as “Romans” participating in the same imperial structures and culture, complicit in its military and economic schemes. The *Historia Naturalis* itself demarcates knowledge and sets the boundaries of the empire as it draws from the margins and to the center. The encyclopedic medium is suited to this agenda; conquest allows cataloguing, so cataloguing becomes a sort of conquest, molding the geography of the world into a display of Roman power.<sup>59</sup> The *HN* exhibits a mutually beneficial relationship between Roman expansionism and the encyclopedic project.

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<sup>58</sup> Murphy 2004: 15

<sup>59</sup> Carey 2003: 34-36

## Pliny on Plants

The next portion of this study turns to Pliny's discussion of plants, specifically foreign plants, in order to tease out aspects of Roman imperialism in the natural sciences. A useful framework that has gained some scholarly attention is that of "botanical imperialism."<sup>60</sup> Pollard defines botanical imperialism as "the ideological and practical constructs and claims of cultural hegemony and military power that develop out of that transplantation and study [of plants]."<sup>61</sup> Manolaraki defines this term as "the physical and cognitive appropriations of flora to establish cultural primacy."<sup>62</sup> Both of these definitions serve the purposes of this study, though here the focus remains on the cognitive and ideological ramifications within Pliny's work rather than the actual physical appropriations of foreign plants. In writing about such transplantations in the *Historia Naturalis*, Pliny translates the physical authority of the act of appropriating foreign plants into the Roman imagination. This acts not only as evidence of the Roman empire's ability to control their provincial lands, but specifically serves as a panegyric to uphold the dominion of the Flavians, especially the dedicatee Titus, whose conquest and jurisdiction made such as text possible.

The first century CE experienced intensified connectivity and a substantial opening up of trade routes, especially in large-scale commerce between Rome and India in the Augustan period, particularly in luxury goods. This was founded in part by its decades of military expansion. The *Periplus Maris Erythraei* is a useful resource for reconstructing the ancient trade across the Indian Ocean. Dated to the mid-first century CE, this handbook

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<sup>60</sup> See in particular Pollard 2009 and Totelin 2012.

<sup>61</sup> Pollard 2009: 322 f.34; Pollard also distinguishes this definition from colonial botany, which she defines as "the process by which this imperial power collected and transported plants for study ... although the economic components often associated with this term are of a different scale and character at Rome than is usual in later historical periods."

<sup>62</sup> Manolaraki 2015: 1

for merchants details the sea and land trade routes between Roman Egypt and eastern Africa, Arabia, and India. The trade network between Rome, India, and intermediary regions such as Egypt and Arabia was primarily (though not exclusively) a prestige goods network which transported items high in value and low in weight. Such a trade network also carried with it other types of exchanges besides the economic: political and military networks, and information and cultural exchange. Utilizing the *Periplus*, whose author appears to have been an Egyptian Greek of a merchant or trading profession, as well as other primary sources including contemporary Tamil poetry, the Muziris papyrus, and much archaeological evidence, we have substantial supplementary evidence reinforcing that the kinds of trade which Pliny references in the *Historia Naturalis* were indeed happening.

The majority of Pliny's audience would likely not have intimate, working knowledge of the local geography of the regions he was discussing; the cognitive geography his readers would associate with the discussions of various plants or animals was based on Pliny's descriptions of the landscape.<sup>63</sup> Thus, Pliny shaped the spatial representation of the region to emphasize rhetorical or ideological points. Pliny interspersed his discussion of botanicals and agriculture with ethnographic digressions about the inhabitants of the same lands, such that people, plants, and their native landscapes are structurally and conceptually tied together in the *HN*. This synthesis of geography and ethnography had the potential to elide Pliny's characterization of the human inhabitants of a particular region with his characterization of the botanical inhabitants.

Where this matters particularly for our study is in the imaginative connections made between the "strangeness" of the inhabitants of eastern regions such as India and the

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<sup>63</sup> Cf. Riggsby 2018

plants there. For example, India and Ethiopia were home to many half-human beasts in the *HN*, as Pliny relates, drawing largely from the writings of Greek authors on the East, texts that were disseminated about India after Alexander the Great's conquests in the region, or paradoxographers such as Ctesius. According to Pliny, the biggest animals and loftiest trees could be found in India, as well as communities like the Choromandae who scream instead of having speech and have hairy bodies and the teeth of dogs;<sup>64</sup> or those who live near the mountain of Nulus who have eight toes on their feet, which are turned around backwards.<sup>65</sup> The Monocoli, also called the "Umbrella-foot tribe," only have one leg, which they apparently used to jump around at surprising speeds or, when it was too hot, to shade themselves from the sun as they reclined on their backs.<sup>66</sup> Such characterizations of the inhabitants of the Indian region present the whole region as uncivilized; they live and act differently from the Romans, lacking proper speech (or speech at all), and without sophisticated technology like the Romans. In fact, these narratives portray these people as not even entirely human. This questionable humanity contributes to an "othering" of these groups, reducing them to strange marvels to catalogue and classify in an implicit hierarchy.

Pepper, within the broader Roman imagination and the *HN*, was particularly associated with India, while frankincense was unique to the Arabian region.<sup>67</sup> These plants, like their human associates, are characterized as the strange and marvelous, though delegated to the realm of the uncivilized. There is some tension in this botanical 'othering' – for foreign plants, their roles as objects within the market economy places them into

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<sup>64</sup> Pliny cites Tauron for the information on this forest tribe in *HN* 7.2.24.

<sup>65</sup> Megasthenes is the source for this information at *HN* 7.2.22-23.

<sup>66</sup> Ctesias was Pliny's source for this factoid at *HN* 7.2.23.

<sup>67</sup> *HN* 12.30 – no country besides Arabia produces the aromatic resin; contrast this with Pliny's later discussion of myrrh at 12.35, which he portrays as not holding as much religious or cultural value as frankincense because other countries Arabia produce this substance.

direct contact with Rome, so the narrative is complicated because of their luxurious connotations.

### ***LUXURIA IN THE HISTORIA NATURALIS***

Pliny's commentary on the plants from the East cannot be separated from literary and ideological *topoi* about *luxuria*.<sup>68</sup> Imperial discourse on luxury had a long tradition and came out of a particular view of Rome's past and the projection of luxury to the East. Parker discusses at length the readiness of Roman literary sources to associate spices such as pepper with the generalized East and subsequent moral decline. Such rhetoric was influenced by Greek ideas on Persian luxury and related morality, which can be identified even in certain passages of Pliny's *Historia Naturalis* as well. In his discussion of cinnamon and cassia, for example, Pliny narrates the fantastical stories connected with the sources of these spices, describing how cinnamon is harvested from birds' nests, and in particular from the nest of the phoenix. The nests are knocked down from the inaccessible rocks either by arrows weighted with lead or by the birds themselves when they bring back food. Cassia, meanwhile, is harvested from marshland which is guarded by terrible clawed bats and winged serpents; so the stories go. Pliny interjects that these narratives are false, made up by native communities to raise the price of their resource, highlighting the moral turpitude of such eastern peoples and the resultant debasement of Roman coin and respectability.

In several sections of the *HN*, Pliny's writing comments on and explicates a greater moral anxiety in the Roman imagination; for most of our examples, the author, and his Roman audience, chew on the problem of eastern *luxuria* and its impacts on the civilized

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<sup>68</sup> On the *topos* of *luxuria*, see Young 2001, 14–18, 205–7; Murphy 2004, 96–122, 96–105. Regarding Pliny's response to this concept, the context brings a lot of weight: Carey 2003, 91–101; Lao 2011.

Roman domain. This follows trends in other surviving Roman texts.<sup>69</sup> Like previous authors, Pliny expresses distress at the perceived moral decline of the Roman people from an idealized rustic past governed by virtues such as simplicity and a harmony with their natural surroundings. Indeed, humanity's imagined symbiotic relationship with Nature forms an important part of Pliny's conception and presentation of Roman identity, as evidenced by his commentary on the bounty of Nature's gifts and the balance thereof. In his discussion of the earliest Roman surnames at *HN* 18.10, he emphasizes that such names were rooted in agriculture. Of course, this conceived past occurred before contact with foreign lands introduced luxury to the populace; the conquest of foreign lands becomes a double-edged sword, expanding and glorifying the Roman state while also facilitating the influence of extravagance and inferior morality. Objects and goods which the Romans considered luxurious are often presented as ignoble and disgusting, participating in morally shameful practices – both in their native lands, and once these objects arrive in Rome.<sup>70</sup> These goods are intimately associated with the acquisition of empire, as their introduction onto the market and popular awareness was brought about through military expansion and resulting trade connections. This does not translate to a strict one-to-one comparison of objects which are luxurious with objects which are marvelous, but there does appear to be some overlap in perception. In particular, foreign plants which enter the market as economic commodities retain an ideological connection with their native lands, generally speaking. The following examples in this section, hailing from especially distant and 'exotic' eastern locales, thus fall into such categories, with a tension between their allure as wonderful and the repellent of *luxuria*.

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<sup>69</sup> For example, Cato the Elder, Sallust, Livy; as early as the 5<sup>th</sup> c. BCE Twelve Tablets there is evidence of a resilient moral discourse connected to economic matters and concerns.

<sup>70</sup> Murphy 2004: 100-102

We see this anxiety of Roman investment in morally dubious products as well in Pliny's discussions of pepper.<sup>71</sup> Pepper was especially associated with the region of India. Both *Piper nigrum* and *Piper longum* are indigenous to the Indian subcontinent.<sup>72</sup> Hippocrates, Theophrastus, and Diphilius of Siphnos all discuss the medicinal qualities of black pepper, and within the Roman period the culinary uses of this condiment gained popularity. All three authors above mention that pepper aids in digestion, while the recipes found in the work of Apicius, a Late Antique author, cites pepper in many of its dishes, savory and sweet. While the average Roman probably would not have conceptualized this spice with the same kind of specificity of geographical origin which Pliny is dedicated to in his opus when they encountered it in their daily lives, certainly the spice was known to be from the far eastern reaches of Roman control.

Pliny's discussion of pepper focuses mainly on the economic value of the spice, with more lamentation than usual of the Roman investment in such an exotic good from an economic angle. He remarks several times on the spice's popularity, given that its only pleasing quality is its pungency (*usum eius adeo placuisse mirum est: in aliis quippe ... sola placere amaritudine, et hanc in Indos peti!*).<sup>73</sup> He characterizes the sale of pepper and ginger as equivalent to that of gold or silver by weight (*pondere emitur ut aurum vel argentum*), detailing that long pepper sells for fifteen denarii per pound, white pepper at seven denarii

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<sup>71</sup> HN 12.14

<sup>72</sup> *Piper nigrum* originated in the forests of the Western Ghats along the southwestern coast of India, while *Piper longum* originates (and still grows wild) in the northern evergreen forests of the subcontinent (see McDuff 2019: 16-19). Since *Piper nigrum* was slightly further south, it may be presumed that *Piper longum* was the spice that first was available to the overland trade routes to the Mediterranean region. However, black pepper was known and available very early on through trade over the Indian Ocean as well, as suggested by peppercorns found in the mummy of Ramses II (see van Alfen 2002: 61). Shipwrecks dating to the Bronze Age provide evidence that pepper was imported by Phoenicians to the Mediterranean region as early as the second millennium BCE. Literary evidence shows that since the time of Homer, spices and aromatics were used in ritual offerings and sacrifices, and the treatises associated with Hippocrates indicate the use of pepper specifically in medical remedies.

<sup>73</sup> HN 12.14: It is remarkable that the use of pepper has come so much into favor ... to think that its only pleasing quality is pungency and that we go all the way to India to get this!

per pound, and black pepper at four denarii a pound; elsewhere, he relates that every year India alone exhausted fifty million sesterces of the empire's wealth, with Indian goods being sold at one hundred times their original cost.<sup>74</sup> Contemporary Tamil poems shed some light on the comparison here, describing Roman ships that arrived with gold and left with pepper.<sup>75</sup> We can see here the underlying anxiety of our author for what he sees as the inordinate investment in eastern goods – Indian pepper in particular and, as related below, perfume. However, there is a slight, though not insignificant distinction, between the specific aspect of these anxieties. The concern with this exorbitant investment in pepper stems from the view that this is a financial excess; pepper, as an agricultural product, is itself neutral as a product, but the wholesale transactions of such large quantities of the product lead to a process of internalization that turns the neutral to a negative immoderation.

Another source of anxiety for Pliny is the import and use of perfume, though this anxiety concerns more the internalization of products that are already negative. In the introductory comments for Book 13 Pliny discusses the origins of perfumes, stating that luxury took all the scents which could be extracted from the forests and, for the purposes of pleasure, mixed them into one scent, thus inventing perfume.<sup>76</sup> This *luxuria* is quickly equated with the Persians, after Pliny assures his audience that such excess was not partaken of in the days of the Trojan war (when their own heroic ancestor Aeneas lived).<sup>77</sup> Pliny accredits the Persians with the first use of perfume, using such impersonal language

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<sup>74</sup> *HN* 6.26.101

<sup>75</sup> Casson 1989: 296

<sup>76</sup> *HN* 13.1: *Hactenus in odoribus habent pretia silvae, erantque parum-per se mira singula, iuivique luxuriam omnia ea miscere et e cunctis unum odorem facere: ita reperta sunt unguenta.*

<sup>77</sup> *HN* 13.1: *Iliacis temporibus non erant, nec ture supplicabatur: cedri tantum et citri suorum fruticum et in sacris fumo convolutum nidorem verius quam odorem noverant, iam rosae suco reperto; nominatur enim hic quoque in olei laude.*

as to make this statement a matter of fact rather than opinion: *unguentum Persarum gentis esse debet*. He emphasizes the excess of the Persians as well, stating that they make themselves drip with the perfume (*illi madent eo*). Only after the narrative has passed through the hands of Alexander the Great does Pliny discuss the Roman use of the product, though the practice is now associated with the virtues *honestissima* and *honos*, principally related to rituals for the deceased.<sup>78</sup> In introducing such a luxury, whose ingredients number among the aromatics already discusses in this study, Pliny “civilizes” a practice and product of Eastern, and specifically Persian, origin, transforming it in part from an luxurious excess into a virtuous way to honor the dead. However, the transformation is partial; the tension between eastern luxury (and associated moral decline) and Roman civility remains, as Pliny cannot deny the pleasure of perfume (*voluptas eius*).<sup>79</sup>

Nevertheless, while the moral value of these objects is degraded in the Roman perspective, their economic and symbolic value cannot be denied; in large part, their value comes from the long distances such goods travel in order to get to Rome. A prime example of this is can be found in Pliny’s entry on frankincense, which Murphy describes as “an ethnographic description of how nature’s creations become luxuries.”<sup>80</sup> At *HN* 12.30 he states:

... **tura praeter Arabiam nullis, ac ne Arabiae quidem universae**. in medio eius fere sunt Astramitae, pagus Sabaeorum, capite regni Sabota in monte excelso, **a quo octo mansionibus** distat regio eorum turifera Sariba appellata—hoc significare Graeci mysterium dicunt. spectat ortus solis aestivi, undique **rupibus in via** et a dextera **mari scopulis inaccesso**. id solum e rubro lacteum traditur. **silvarum longitudo est schoeni xx, latitudo dimidium eius ...** attolluntur **colles alti**, decurruntque et in plana arbores sponte natae. terram argillosam esse

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<sup>78</sup> *HN* 13.1: primum, quod equidem inveniam, castris Darii regis expugnatis in reliquo eius apparatu Alexander cepit scrinium unguentorum. postea voluptas eius a nostris quoque inter lautissima atque etiam honestissima vitae bona admissa est, honosque et ad defunctos pertinere coepit.

<sup>79</sup> *HN* 13.1: see above, ... postea voluptas eius a nostris quoque ...

<sup>80</sup> Murphy 2004: 99

convenit, **raris fontibus ac nitrosis**. attingunt et Minaei, pagus alius, **per quos evehitur tus uno tramite angusto**. hi primi commercium turis fecere maximeque exercent, a quibus et Minaeum dictum est: **nec praeterea Arabum alii turis arborem viderunt**, ac ne horum quidem omnes, feruntque non amplius esse familiarum quae ius per successiones id sibi vindicent, **sacros vocari ob id**, nec ullo congressu feminarum funerumque, cum incidant eas arbores ut metant ...

... **no country beside Arabia produces frankincense, and not even the whole of Arabia**. About in the middle of that country are the Astramitae, a district of the Sabaei, the capital of their realm being Sabota, situated on a lofty mountain; and **eight days' journey** from Sabota is a frankincense-producing district belonging to the Sabaei called Sariba—according to the Greeks the name means ‘secret mystery.’ The region faces north-east, and is **surrounded by impenetrable rocks**, and on the right hand side bordered by **a seacoast with inaccessible cliffs**. The soil is reported to be of a milky white color with a tinge of red. **The forests measure 20 schoeni in length and half that distance in breadth ...** There are **hills rising to a great height**, with natural forests on them running right down to the level ground. It is generally agreed that the soil is clay, and that **there are few springs and these charged with alkali**. Adjacent to the Astramitae is another district, the Minaei, through whose territory the transit for the export of the frankincense is along **one narrow track**. It was these people who originated the trade and who chiefly practice it, and from them the perfume takes the name of ‘Minaean’; **none of the Arabs beside these have ever seen an incense-tree ...** <sup>81</sup>

The language here emphasizes the geographic remoteness and unfavorable setting of the resource area, as well as the mystery and exclusivity associated with its location and procurement. Pliny starts off by stating that this plant is not to be naturally found in any other country. Once the journey has been narrowed down to the particular region within this singular country (*tura praeter Arabiam nullis, ac ne Arabiae quidem universae*), he notes the distance in time for the journey just to the district of production (*a quo octo mansionibus*) – and thus, implicitly, the investment needed in such a venture. Next, he records the relative inaccessibility of the path: the route options are limited, and pass through a variety of environments, including impenetrable rocks (*rupibus invia*), seaside cliffs (*mari scopulis inaccessis*), wide forests (*silvarum longitudo est schoeni xx, latitudo*

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<sup>81</sup> Translation by H. Rackham (LCL); emphasis my own.

*dimidium eius*), tall hills (*colles alti*). One would have to use much forethought and preparation for such a journey, especially since these environments are described as hostile, ill-suited for proper human habitation (the springs tend toward the alkaline, *raris fontibus ac nitrosis*). Additionally, Pliny emphasizes the monopoly on the knowledge of the area needed to actually get there; none of the Arabians have seen the frankincense tree. Pliny continues in the next section to state that there is much disagreement about what the frankincense tree even looks like, as descriptions by Greek authors vary, and he does not know of a Latin author who has undertaken a description, although the Romans have carried out operations into the region.<sup>82</sup> Pliny thereby highlights the esteem of knowing *anything* about the plant; considering the distance required and the difficulty of extracting the resin, combined with the secrecy of the extraction, the fact that Pliny, a Roman, relates any information about it enhances Rome's superior position – or, at least, Pliny's. This can read as Pliny's remark on his own privilege within the information network, but in sharing this knowledge here, he economizes the information, and thereby makes this the (Roman) audience's privilege as well. Once the groves are reached and the sap harvested, there is only one narrow track along which to export the product (*per quos evehitur tus uno tramite angusto*).

Pliny also notes the labor involved in the production and trade of the product at *HN* 12.32, contrasting the local practices on the orchards with practices at export cities, especially Alexandria. In the groves in the Sariba area, the resin is collected twice a year – formerly, there was only one harvest each year, but the current trade has compelled a

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<sup>82</sup> *HN* 12.31: *Nec arboris ipsius quae sit facies constat. res in Arabia gessimus et Romana arma in magnam partem eius penetravere, Gaius etiam Caesar Augusti filius inde gloriam petiit, nec tamen ab ullo, quod equidem sciam, Latino arborum earum tradita est facies. Graecorum exempla variant: alii folio piri, minore dumtaxat et herbidi coloris, prodidere; alii lentisco similem subrutilp folio; quidam terebinthum esse, et hoc visum Antigono regi allato frutice.*

second harvest.<sup>83</sup> Here, the forest is divided into portions for harvesting, though there is no concern for theft and therefore no security needed for the plots, either from outside trespassers or from other growers. However, Pliny notes, there is no security that is sufficient to protect the goods in the Alexandrian warehouses from external threats, nor are the warehouse workers trusted – they have to take off all their clothing for inspection before they can leave the premises each day.<sup>84</sup> Thence from Alexandria, the crop is transported to Sabota, then through the country of Gebbanitae to the Mediterranean coast at Gaza in Judaea, incurring tithes and taxes all along the way.<sup>85</sup>

In addition to this emphasis on the labor needed to collect the frankincense, Pliny spends considerable time noting how frankincense alters in value along its way. As noted above, during the transport of the crop from its native groves to the Judaeian coast for trade, each shipment incurs certain fines; first, in Sabota, the priests take a tithe by measure for the god Sabis – the incense is only allowed to be traded for economic value on in the market after this religious tithe is made. At additional points along the controlled trade route through Gebbanitae, portions are set aside for various kings and priesthods. Not only does this practice sharply increase the price for the incense, but it also highlights the change from religious to economic object. Pliny began his narrative of this botanical commenting on the exclusive nature of its native environment and the sanctity of the growers (see above, 12.30.54), but by the end he focuses on the commercial costs of the product, and the various

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<sup>83</sup> *HN* 12.32.58 – 60

<sup>84</sup> Beagon 1992: 78 notes that this is the only passage in the text which praises “barbarian simplicity” (of the Minaeans) at the expense of a “civilized” area – Alexandria: *tanto minus fidei apud hos poma quam apud illos silvae habent*. However, she also comments that significantly, Rome is not the “civilized” area which is criticized, and the morals of the Alexandrians are generally disparaged in the text

<sup>85</sup> *HN* 12.32.63-65

ways that it may be adulterated.<sup>86</sup> Throughout the narrative, frankincense transitions from an object primarily of religious value to a high-priced commodity, a luxury. Yet even from the beginning, Pliny comments on how its religious use serves to increase the price (*ita religione merces augetur*); his focus is primarily on the commercial value of this botanical, with cultural information as a secondary benefit. As Manolaraki comments in her study, throughout Pliny's work we see the "enmeshment of fiscal appreciation and botanical typology."<sup>87</sup>

The commodification of a culturally intrinsic product operates as part of the larger Roman imperial project. Kopytoff argues that a homogenizing of value is part of the process of commodification, which contrasts with the discrimination and multiplicity of value within a culture.<sup>88</sup> This commodification process also serves to assert and affirm power differentials, as the hierarchy of value places economic capital above foreign cultural or symbolic value. However, reality does not usually work as cleanly as the model suggests. Although there is significant change and transition in the above narrative about the worth of frankincense, the end result is a product that still maintains some cultural meaning (even though it has been filtered) and, due in part to this meaning, is an exorbitantly expensive luxury item. Although the frankincense resin has become primarily an economic export over the course of Pliny's narrative, the remnants of cultural capital attached to it cannot be completely bought out; thus, the product retains a connotation of eastern *luxuria*, problematic in its moral influence. Pliny's intention to educate his audience, as potential consumers, is as much about potential purchases or investments as

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<sup>86</sup> HN 12.30.54: ... *ac ne horum quidem omnes, feruntque non amplius esse familiarum quae ius per successiones id sibi vindicent, sacros vocari ob id, nec ullo congressu feminarum funerumque, cum incidant eas arbores ut metant, pollui, atque ita religione merces augetur.*

<sup>87</sup> Manolaraki 2015: 637; this proprietary interest shows up especially, as Manolaraki notes, in Pliny's entry on balsam, which will be discussed below.

<sup>88</sup> Kopytoff 1986: 73

about botanical (and other) knowledge re-centers reality on a Roman market place, rather than the margins of the empire; however, in doing so, this must admit to the ideological problems of the foreign colliding with the domestic.

### **TRIUMPHAL *HISTORIA NATURALIS***

For at least some of these considered cases, imperial expansion is the source of the problem as well as the imagined solution; these attempts at supplanting the native cultural significance with objectification (as things conquered by Roman markets) find expression in triumphal language and narratives. In several episodes, Pliny comments on the display of the botanical object of inquiry in a Roman triumph; for example, he notes that ebony was exhibited in Rome in Pompey's triumph celebrating his victory over Mithridates<sup>89</sup> and that Vespasian first displayed crowns of cinnamon in the Templum Pacis and on the Capitoline in Rome.<sup>90</sup> His account of balsam's display in the triumph of Vespasian and Titus on the occasion of their victory over Judaea is quite famous and will be dealt with far more below.<sup>91</sup> Such triumphal processions and displays affirm the power of Rome over

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<sup>89</sup> *HN 12.9: Romae eam Magnus Pompeius triumpho Mithridatico ostendit.*

<sup>90</sup> *HN 12.42: coronas ex cinnamo interrasili auro inclusas primus omnium in templis Capitolii atque Pacis dicavit imperator Vespasianus Augustus.* Of course, while Pliny does not specify here, as he does with ebony or balsam, that the cinnamon plant was paraded in the procession with other captives and objects of Roman victory, the context and framing would have called to mind the kinds of ceremonies and dedications associated with a triumph, especially as Pliny notes that he dedicated the cinnamon crowns at a temple on a Capitoline, the final stop of the triumphal procession.

Regarding the Templum Pacis, construction begun in 71 CE, funded by the Flavian sack of Jerusalem and spoils from the Temple. Pliny's emperor Vespasian and the dedicatee of this text, Vespasian's son Titus, led the suppression of those Jewish revolts. The Templum Pacis was located near the Forum Romanum and the Curia and connected to those by the Argiletum (a sort of shopping corridor); it was nestled by the Forum Transitorium among the other imperial fora. The complex included a library and sort of museum, an open-air altar, and garden beds (perhaps pools). Destroyed by a fire in 192, it was rebuilt by Septimius Severus ~203, including storage of the Forma Urbis Romae in there. While there is not enough space here to dive into the significance of the Templum Pacis to Pliny's treatment of spices or the Flavian architectural program, suffice to say the complex evokes an interesting discussion of the relationship of war and "peace" in Rome (see also the prevalence of *Pax* on Flavian coinage). See Pollard 2009 and Totelin 2012 for further discussion, as well as Tucci 2017 for more on the Templum Pacis.

<sup>91</sup> *HN 12.54: ostendere arborum hanc urbi imperatores Vespasiani, clarumque dictu, a Pompeio Magno in triumpho arbores quoque duximus.*

lands subjugated, either by the Roman military or markets.<sup>92</sup> The extent of this reach of Roman power is shown in the introduction to Pliny's twenty-seventh book:

**Scythicam** herbam a Maeotis paludibus, et euphorbeam e **monte Atlante** ultraque **Herculis columnas** ex ipso rerum naturae defectu, parte alia **britannicam** ex oceani insulis extra terras positis, itemque **aethiopidem** ab exusto sideribus axe, **alias praeterea aliunde ultro citroque humanae saluti in toto orbe portari, immensa Romanae pacis maiestate** non homines modo diversis inter se terris gentibusque verum etiam montes et excedentia in nubes iuga partusque eorum et herbas quoque invicem ostentante. aeternum quaeso, deorum sit munus istud! adeo Romanos velut alteram lucem dedisse rebus humanis videntur.

To think that the **Scythian** plant, for example, is brought from the marshes of Maeotis, euphorbia from **Mount Atlas** and from beyond the **pillars of Hercules**, where the works of Nature actually begin to fail; on another side **Britannica**, from islands in the ocean lying beyond the mainland, **Ethiopia** too from the clime scorched by the constellations of heaven, and **other plants moreover passing hither and thither from all quarters throughout the whole world for the welfare of mankind, all owing to the boundless grandeur of the Roman Peace**, which displays in turn not men only with their different lands and tribes, but also mountains, and peaks soaring into the clouds, their offspring and also their plants. May this gift of the gods last, I pray, forever! So truly do they seem to have given to the human race the Romans as it were a second Sun.<sup>93</sup>

Pliny sketches a map of the Roman empire from Scythia to the Atlas Mountains and the Pillars of Hercules, from Britannia to Ethiopia. Here, the many riches and resources of the world have been made available by the bounty of Nature and the might of Rome. The movement and knowledge of the plants of the world comes out of the Pax Romana, aided in large part by the military victories and national unity provided by the Flavians (*alias praeterea aliunde ultro citroque humanae saluti in toto orbe portari, immensa Romanae pacis maiestate*). This peaceful exchange of plants, it is noted, is for the benefit of humanity, providing countless healthful and medical ingredients as well as horticultural

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<sup>92</sup> See especially discussions by Beard, Totelin and Östenberg.

<sup>93</sup> Translation by H. Rackham (LCL); emphasis my own.

bounty.<sup>94</sup> This prayer emphasizes not only the *imperium* of Rome, which triumphal processions perform, but describes the immense good which that authority spreads across the empire. Pliny ends this prayer rejoicing on the existence of the Romans as the *alteram lucem* of the rest of humanity, a gift of the gods that he prays lasts for eternity. Rome stands in as a sort of intermediary force which distributes the abundances of the gods throughout the empire. While the landmarked map of the empire generated here recalls the kinds of maps and models that would have been on display in triumphs, Pliny's use of universalizing language – *humanae, in toto orbe, immensa* – glosses over the physicality of the geography mentioned in favor of a conceptually endless empire.

Indeed, Pliny often quotes the *Fasti Triumphales* as well as the *commentarii* of famous Roman generals as reliable sources throughout the *Historia Naturalis*.<sup>95</sup> Not only do such triumphal individuals lead the physical expansion of the empire via military campaigns, but they also serve as fonts for the intellectual expansion of the Roman populace. Flemming discusses the connections between empire and knowledge; though focusing on medical knowledge in the Hellenistic world, she states that “the management of knowledge – its continued but controlled generation, its rightful ordering, differential possession, and ongoing productivity – counts amongst the most vital technologies of colonial rule.”<sup>96</sup> This idea maps on well to Pliny's encyclopedic project, taking into account our previous discussions of the genre's intentions towards cataloguing and ordering, as well as Pliny's pervading proprietary interests.<sup>97</sup> There is a parallel in triumphs as

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<sup>94</sup> Note, again, the conflation of botany, ethnography, and geography here: *immensa Romanae pacis maiestate non homines modo diversis inter se terris gentibusque verum etiam montes et excedentia in nubes iuga partusque eorum et herbas quoque invicem ostentante.*

<sup>95</sup> e.g. Aelius Gallus on Arabia, Suetonius Paulinus on the Atlas Mountains, Domitius Corbulo on Armenia

<sup>96</sup> Flemming 2005: 449

<sup>97</sup> Display was not only carried out in triumphal processions, but in domestic gardens as well. The same Roman audience reading Pliny's text was practiced in transplanting flora to Rome and Italy from across the empire. Pollard 2009: 320 notes that citrus fruits from the East, cherry trees from the Pontic region of Asia

educational moments and education, in encyclopedic form, as triumph.<sup>98</sup> Triumphal processions themselves served to instruct the people of Rome about the character and assets of those regions whose conquest had been fulfilled; such edification was religiously and ideologically formed out of the foundations for the triumphal procession.

The *Historia Naturalis* is itself a triumph for the conquest of the empire writ large: an orderly, categorized procession of marvels from across the whole of the empire and beyond, cataloguing the wealth and resources of the Roman imperial project. Pliny's opus is premised on the centrality of Rome, as the wonders from the fringes and margins are put on spectacle in the ideological center of the world, marking the success of victorious commanders and their military troops as they return home. As such, the text acts both as propaganda for the Roman state, displaying its greatness and favored status, and as an educational tool, sharing with the audience the information gained through such great acts. The geography of the *Historia Naturalis* goes beyond the borderlines of the empire; Pliny here delineates new imagined boundaries of the empire, merging the world known by himself (and by extension, the Romans) through various facets of imperial control: military and political, but also economic and diplomatic. In physical triumphs, the audience would be the population of the city of Rome who could make an appearance along the processional route or any of its stops; this literary triumph, in expanding the audience of the triumph, also expands the geography of the "conquered" territories. Pliny thus suppresses a distinction or potential tension between the Roman and the universal by treating the two as synonymous, without further comment.<sup>99</sup>

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Minor, peaches from Syria, and pomegranates from North Africa were among the literal fruits of conquest for Roman gardens. These practices followed earlier importation trends among Assyrians and Egyptians, so the tradition was not new in Rome (see Bower 2004: 43-49). Pliny himself comments on such transplanting; see *HN* 12.7 on the citron. There is a wealth of seminal and recent research on Roman gardens: Jashemski 1979; von Stackelberg 2009; Giesecke 2007 among others.

<sup>98</sup> See Östenberg 2009

<sup>99</sup> See Naas 2011 on *orbis Romanum* and/versus *orbis terrarum*.

To return to the example of Pliny's entry on balsam, we shall explore in more detail the language of conquest and subjugation in this passage, and touch back on previous discussion of the elision of plants and human societies in the *Historia Naturalis*. Pliny borrows from the works of several other ancient authors in his introduction to this plant, though from the start his emphasis remains on the plant's productive capabilities.<sup>100</sup> Pliny cites Judaea as the only home of the balsam shrub, although Diodorus Siculus states that it was also found in southern Arabia.<sup>101</sup> Most Romans would probably have only had experience with the resin or bark of the shrub, rather than the plant itself, of which Pliny describes three varieties. The resin is listed as an ingredient in several fragrances, including the perfume of the Parthian kings<sup>102</sup> as well as a component of much medical use.<sup>103</sup> However, the initial entry at *HN* 12.54 appears much more ideologically informed:

Sed omnibus odoribus praefertur balsamum, uni terrarum Iudaeae concessum, **quondam in duobus tantum hortis, utroque regio**, altero iugerum viginti non amplius, altero pauciorum. **ostendere arborum hanc urbi imperatores Vespasiani**, clarumque dictu, a Pompeio Magno **in triumpho arbores quoque duximus**<sup>104</sup>. **servit nunc haec ac tributa pendit cum sua gente**, in totum alia natura quam nostri externique prodiderant; **quippe viti similior est** quam myrto ... **seritque nunc eum fiscus, nec unquam fuit numerosior**; proceritas intra bina cubita subsistit.

But every other scent ranks below balsam. The only country to which this plant has been vouchsafed is Judaea, **where formerly it grew in only two gardens, both belonging to the king**; one of them was of not more than twenty *iugera* in extent and the other less. This variety of shrub was **exhibited to the capital by the emperors Vespasian and Titus**; and it is a remarkable fact that ever since the

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<sup>100</sup> See Jos. *AJ* 8.174; Paus. 9.28.3; Diosc. *De Mat. Med.* 1.19; Plut. *Ant.* 36.3; as well as Str. 16.2.41, 17.1.15; Diod. 19.98; Th. *HP* 9.6.4; and Diosc. 1.19.1–5.

<sup>101</sup> Dio. Sic. 3.46

<sup>102</sup> *HN* 13.8, 13.11, 13.13, 13.15–16, 15.30

<sup>103</sup> At *HN* 23.92, Pliny details how the oil distilled from the sap can be effectively used for a whole host of medical concerns, such as snake bites, catarrh, asthma, excessive bleeding, ear ache, head-ache, and convulsions.

<sup>104</sup> Östenberg 2009: 188 notes particularly that the verb *ducere* was used only for living beings, such as animals and prisoners, who were displayed in a triumph, and not for objects.

time of Pompey the Great **even trees have figured among the captives in our triumphal processions**. The balsam-tree is **now a subject of Rome**, and **pays tribute together with the race to which it belongs**; it differs entirely in character from the accounts that had been given of it by Roman and foreign writers, **being more like a vine** than a myrtle ... **It is now cultivated by the treasury authorities, and was never before more plentiful**; but its height has not advanced beyond three feet.<sup>105</sup>

Pliny explicitly casts this tree as a conquered subject of the Roman empire, who is paraded as if a captive victim in the triumph of the Flavians<sup>106</sup> (*ostendere ... urbi imperatores Vespasiani; in triumpho*), and as a subject of Rome (*servit nunc haec*) now pays tribute like the inhabitants of Judaea (*tributa pendit cum sua gente*) – whose defeat this triumph celebrated.<sup>107</sup> Pliny emphasizes that this plant can only be found in Judaea, and in fact, within this whole region, he notes that the shrub only grew in two gardens, both of which were owned by the king (*quondam in duobus tantum hortis, utroque regio*); this exclusivity recalls his passage on frankincense, and stresses the total control the Romans now hold over this plant – and its native land.

However, as Manolaraki notes, the whole passage on balsam aestheticizes the destruction of Judaea as a compliant and productive integration into the empire.<sup>108</sup> In particular, Manolaraki discusses the comparison of the balsam tree with the vine, a signature product of Italy: *quippe viti similior est quam myrto*. Manolaraki argues that this comparison extracts the balsam from its Judaeian context while naturalizing the plant to its Roman one. I see a slightly different process occurring; the balsam plant is presented as a

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<sup>105</sup> Translation by H. Rackham (LCL); emphasis my own.

<sup>106</sup> This was the triumph awarded in 71 CE to Titus for his and his father Vespasian's victory in the First Jewish-Roman War. The event was commemorated on the Arch of Titus, a triumphal arch along the Via Sacra on the south-east of the Forum Romanum; this arch was built in 81 CE, shortly after the death of Titus, commissioned by his brother, Domitian (who is shown accompanying Vespasian and Titus in the triumphal procession), in order to commemorate Titus' deification.

<sup>107</sup> See Östenberg 2009 for recent work on the Roman triumph, especially 184-188 for the use of trees in triumph; see also Beard 2007.

<sup>108</sup> Manolaraki 2015: 660

model conquered population, both aligned with and compared to the Judaeen population. Unlike most other entries in the *HN*, this plant is explicitly mentioned as belonging in a triumphal procession, and that of the Flavians no less. Additionally, Pliny notes that this plant has been effectively commodified; Pliny relates the tree's remarkable increase in productivity while in the care of the *fiscus*.<sup>109</sup> This tree, uniquely identified with the Judaeen landscape in Pliny's account,<sup>110</sup> has become 'Romanized' – and in the process, has become much more fertile and profitable. The mention of this particular triumph, in this entry on the balsam tree, is the only reference to the Judaeen triumph – a nod here to the prowess of the emperors, the peace and stability of their imperial rule.<sup>111</sup> Pliny's entry here emphasizes the increased productivity of the tree, rather than lamenting, as with frankincense or cinnamon, the exorbitant prices of the luxury good due to the surcharges of other foreign states. This is not to say that Pliny portrays the balsam as having become 'naturalized' as Roman, but that the plant, cultivated by Roman authority, has acclimatized to produce within the boundaries of the empire. The triumphal context does not include the balsam into the Roman community, but, as Murphy notes on triumphs in general, emphasizes its difference: "spectacular exhibition of the foreign, in both triumphal procession and in ethnography, instills in its audience a sense of cultural divide between itself and what is on display."<sup>112</sup> Östenberg also notes the role of the triumph as a presentation of the once dangerous but now defeated and 'tamed' other.<sup>113</sup> The balsam, as

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<sup>109</sup> The "treasure authorities" as H. Rackham translates it. Probably a part of the *aerarium populi Romani* at Totelin notes, see Östenberg 2009: 187 for this translation.

<sup>110</sup> *HN* 12.54: *uni terrarum Iudaeae concessum, quondam in duobus tantum hortis, utroque regio, altero iugerum viginti non amplius, altero pauciorum.*

<sup>111</sup> This triumph has been noted for the foundational significance placed upon it by the Flavians; see Telford 1991, 291; Baldwin 2005, 58–59; Eberhardt 2005, 261–63; Chapman 2009, 111–12; Norman 2009, 42–50.

<sup>112</sup> Murphy 2004: 158

<sup>113</sup> Östenberg 2009: 189-261

a properly subjugated Roman tributary, remains “other” while adapting to Roman expectations in ways that add to its commercial success.

Compare this description to Pliny’s reference to the ebony tree being displayed in Pompey’s triumph over Mithradates (*Romae eam Magnus Pompeius triumph Mithridatico ostendit*), and his description of the plane-tree as occupying soil which pays tribute to Rome (*tributarium etiam detinens solum*).<sup>114</sup> These plants have taken on roles as political bodies, with personified biographies, emotions, and reactions to their changing situations. The Roman audience, who may both view the imperial triumphs and read Pliny’s text, could make the connection between the conquered people on display in triumphs (the kings, royal families, and conquered generals) and these anthropomorphized plants. The symbolic capital in such display is obvious, and the economic capital involved in the control of dominated bodies and plants is highlighted in Pliny’s focus on productivity, cost, and the dangers of adulterations. Indeed, the verb *servit* to describe balsam’s new role as a tribute-paying member of *sua gente* recalls the economics involved as well; the tree is enslaved to the Romans as many Judaeans were over the course of the wars and the Roman victory, relegated to a commercial machine. Passed into the hands of imperial treasury authorities, the plant’s output directly benefits the state, and such productivity is directly tied to its new Roman context.

Plants such as cinnamon and balsam were exotic objects as well. The rather simplified triumphal agenda and commodification intentions of Pliny introduced thus far are complicated by this additional ideological layer of Rome anxiety on *luxuria*. As discussed above, spices and aromatics become commodities open to abstraction from their cultural context and association with luxury. In part, this reflects the economic

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<sup>114</sup> *HN* 12.9 and *HN* 12.3, respectively.

commodification of these products in the Roman market; their Indian or Arabian origins (whether real, or imagined from fantastic narratives) added cost to the merchandise as a sense of the exotic.

This tension appears throughout Pliny's discussions of eastern spices and aromatics. As discussed above, our author identifies objects, especially botanicals, with places; however, even in Pliny's geographically-bound opus, regions such as India take on a veneer of the strange and enchanted.<sup>115</sup> In the Roman worldview, India and similar areas become as much an imagined place as a real one; as Parker puts it, "To Roman consumers, the actual existence of so distant a place, directly visited by so few people of note, was far less important than its impact on the imagination."<sup>116</sup> This imagination was braced and reiterated through the narrative of Roman imperial control and refinement in such regions. The literary tropes discussed here reflected real anxieties on the part of Pliny and his fellow Romans. However, some of this anxiety found release in displays – physical or literary – of Roman triumphalism and control over these real and imagined lands. Of note here is how Pliny ends his discussion of cinnamon, by declaring that this spice was first dedicated at a temple in Rome by his emperor Vespasian: *coronas ex cinnamo interrasili auro inclusas primus omnium in templis Capitolii atque Pacis dicavit imperator Vespasianus Augustus.*<sup>117</sup> Despite a market overpriced with tall tales of phoenixes and winged serpents, the Roman empire, through its military force, is able to maintain some level of symbolic control at least over such eastern botanicals, in that quintessential performance of Roman imperium, the triumph.

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<sup>115</sup> See Pollard 2013 in particular for the association of magic with luxury and the East.

<sup>116</sup> Parker 2002: 90

<sup>117</sup> *HN* 12.42

Pliny's *Historia Naturalis* serves as a useful window to explore Roman imperialism in the natural sciences. His treatment of botanical topics in the *HN* is not particularly different from his overarching treatment of other broad categories (animals, mineralogy, art). However, the ways in which Pliny frames his discussion of foreign plants provides particular insight into Roman ideological concerns about the benefits and effects of empire, both Rome's military expansionism and its economic force. At this point, despite the internal struggles of the late Julio-Claudian dynasty and the Year of the Four Emperors in 69 CE, the Roman state had returned to relative stability with the rule of the Flavians. Pliny the Elder served under a number of generals and emperors prior to the Flavians, but the text of the *HN* is profusely dedicated to Titus, and the structure of the work reflects ideology on the supremacy of the Romans.

The effects of that supremacy in terms of military-political control and economic strongholds from the pacified regions in the wake of this conquest consequentially create a collision of foreign and domestic attitudes; *spolia* means increased money to spend, and trade connectivity means more products on the market. The tension from these collisions threatens the universal authority of the great Roman empire. Pliny's philosophical optimism presents the situation that Nature, bountiful in so many ways, has provided Rome as well for the welfare of humanity in its many nationalities. In our examples, his triumphal framing acts as a representation of this beneficial *imperium* and attempts to ease Roman anxieties about luxuria by presenting the subjugation of foreign *mirabilia*. The literary procession brings these foreign plants under Roman control, thereby moving his necessary inclusion of the margins into the center, as Rome becomes the most marvelous of these. This triumphalism works in conjunction with his practical interests, providing his readers with information on how these botanical products operate within the market.

While these anxieties remain threaded through the *HN*, Pliny's treatment of foreign plants provides his audience with information, and a triumphal narrative of botanical imperialism which, through his anthropomorphic descriptions of the plants, reinforces the broader imperialistic project. The *HN*, as part of the encyclopedic genre, is uniquely suited to extol the benefits of empire, demonstrating the power and authority of the Romans, and re-present the totality of the world as within the confines of being "Roman." Nature may have created plants, but Roman military power, which Pliny had personally experienced and actively perpetuated, brought botanical marvels into the Roman sphere of influence, and Pliny's text brought them into the Roman literary imagination. The structure and language of this text presents this imagined world as *the* totality of the real world; the implicit understanding communicated to the readers is that if it is not mentioned or included here, in the *HN*, is it insignificant to Rome. The narrative of the *HN* taken altogether is one of Rome as a centralizing and civilizing force, subduing even the plants of foreign nations to Roman observation and authority.

## Concluding Thoughts

This study has presented this triumphal reading of the role of plants in Pliny's *Historia Naturalis* as an expression of botanical imperialism; Pliny's cognitive and imaginative geography of plants integrates and reproduces ideological claims of cultural hegemony, spurred by and reinforcing Rome's military power. The practical effects or impacts of this expression of botanical imperialism are fodder for a different study, though they are alluded to in the context of the instructive aspects of this work and its encyclopedic genre. Plants, in their role as commodities, as objects of knowledge, as representatives of their native lands, serve in this opus as models of the successes of Rome, measured in glory, profit, and "civilizing" impacts. The text exposes tensions in these successes, with competing and parallel anxieties, while continuing to construct an incessantly triumphal account.

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