

Nero and the Last Stalk of *Silphion*: Collecting Extinct Nature in Early Modern Europe

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Abstract

Many studies of early modern natural history focus upon observational, empirical techniques. Early moderns also contended with entities which could no longer be observed because they no longer existed. Although it is often assumed that extinction only emerged as a concept in the eighteenth century, the concept of natural loss appeared, often unproblematically, in areas outside natural philosophy. A survey of discussions of the extinct plant *silphion* across Europe in the sixteenth and seventeenth centuries shows that the possibility of natural loss was well aired. Paper technologies for collecting extinct nature ran parallel to investigations of newly found nature, and thus can place the latter in a new light. Although ideas of natural mutability often drew on ideas of historical or political change rather than philosophical concepts of natural constancy, techniques developed for extinct nature, such as the list of lost things, remained influential for the research agendas of naturalists.

Keywords

extinction – species – chain of being – *desiderata* – *silphion*

Paper Technologies for Lost Things

Many of the other articles in this issue explore the early modern tools developed to cope with an ever growing abundance of *naturalia*. How did early moderns

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contend, however, with the extinct parts of nature? At first glance, such a question should not even arise. It is generally assumed that, prior to the late eighteenth century, due to a widespread notion of the chain of being, parts of nature could neither arise nor go out of existence.¹ While certain metaphysical commitments might necessitate a stable natural order for many natural philosophers, many other realms of early modern life besides the philosophical suggested that nature could be inconstant.² Religion, law, politics, trade, exploration, antiquarianism and history all offered models of change which could be and were applied to nature.³

This essay samples discussions of a single extinct species, the ancient *silphion* of Cyrene (in modern Libya), by Italian, French, German, Netherlandish, English, Spanish, and Judaeo-Portuguese authors in the sixteenth and seventeenth centuries. The idea of extinction has been more often broached in recent historiography from the perspective of fossil remains.⁴ The fact that lost species existed merely on paper should not cause us to ignore the importance of the debates and techniques they engendered. The varying paper technologies early moderns deployed in managing nature can indicate underlying notions concerning the natural order. For instance, a well-organized, comprehensive, and

-
- 1 Eg. Stephen M. Rowland, "Thomas Jefferson, Extinction, and the Evolving View of Earth History," in Gary D. Rosenberg, ed. *Revolution in Geology from the Renaissance to the Enlightenment* (Boulder, CO., 2009), 225–246; here, 227; Mark Barrow, *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology* (Chicago, 2009), 23: "Thus the wide acceptance of the chain of being and notions of a balanced nature both contributed to a generally static view of the world. Species could not go out of existence or come into being without fundamentally threatening that natural order." More generally, see Arthur O. Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, 1936) and Marinus Cornelis Maria de Baar, *Order, Change and Chance in the European Perspective on Nature (1600–1800)* (Ph.D. thesis, Rijkuniversiteit Groningen, 2007).
 - 2 Richard Richards, *The Species Problem: A Philosophical Analysis* (Cambridge, 2010).
 - 3 John Davies, "The Concept of Denudation in Seventeenth-Century England," *Journal of the History of Ideas* 27 (1966), 278–284; Paula Findlen, "Jokes of Nature and Jokes of Knowledge: The Playfulness of Scientific Discourse in Early Modern Europe," *Renaissance Quarterly* 43 (1990), 292–331; Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860* (Cambridge, 1995); Peter Harrison, *The Fall of Man and the Foundations of Science* (Cambridge, 2007); Sarah Powrie, "Spenser's Mutabilitie and the Indeterminate Universe," *Studies in English Literature 1500–1900* 53:1 (2013), 73–89; Justin E. H. Smith and James Delbourgo, eds., *In Kind: Species of Exchange in Early Modern Science* (= special issue of *Annals of Science*) (April, 2013).
 - 4 Rhoda Rappaport, *When Geologists Were Historians, 1665–1750* (Ithaca, 1997).

easily consultable catalogue of *naturalia* might be a more useful tool for accessing a stable natural order. A rapid, essayistic style might be more suited to a natural order which was itself in flux. Many authors discussed here attempted to collect as many sources as possible about *silphion*, to offer authoritative material and literary evidence, and to fix *silphion's* appearance through careful representations of the plant drawn from ancient coins or modern purported specimens. By contrast, the short essays of Guido Pancirolli (1523–99) and the purposefully disordered lists of Georg Hieronymus Welsch (1624–1677) offered seemingly haphazard assortments of lost things. This more unfamiliar approach can be better understood as reflecting an inconstant nature.

Ancient Sources of *Silphion*

The idea that some parts of nature, such as the ancient Libyan plant *silphion* (Gr.) or *laserpitium* (L.) had suddenly appeared, and six hundred years later disappeared from nature, was already to be found in many ancient sources. *Silphion* began to appear as an emblem of Cyrene on their coins in the last decade of the sixth century BCE and continued until the last quarter of the third century BCE (see Fig. 1).⁵ It was so treasured by the ancient world that it became the subject of a proverb: something could be as highly valued “as the silphion of Battos.” *Silphion* was discussed by numerous Greek authors, including Aristotle, Aristophanes, Dioscorides, Galen, Herodotus, Hesychius, Hippocrates, Pausanias, Strabo, Tzetzes, and Theophrastus, and Latin ones such as Aelius Marcius, “Apicius,” Catullus, Petronius, Plautus, Pliny, Scribonius Largus, and Solinus. Such sources included natural philosophy, comedy, medicine, law, herbals, geography, history, poetry and recipes. These accounts, which often differed, offered many challenges to later interpreters. *Silphion* was not only known as *laserpitium* in Latin, but each part of the plant could have a different name, depending on the source: *Laser* or perhaps *Benzoin*, *Belzoin*, or *Benjuin* for the sap, *Maspetum* or *Silphion* for the stalk, *Magudaris* for the root, and *Malpetum* for the leaf.⁶

5 A. Laronde, “Le silphium sur les monnaies de Cyrène,” *Studi Miscellanei*, 29 (1996), 157–168 and Suzanne Amigues, “Le silphium – État de la question,” *Journal des savants*, 2 (2004), 191–226; 192.

6 For the ancient sources, see Johannes Petrus Thrice, *Res Cyrenensium* (Copenhagen, 1828), 304–315. A.C. Andrews, “The Silphium of the Ancients: A Lesson in Crop Control,” *Isis*, 33 (1941), 232–236; F. Chamoux, “Du Silphion,” in Graeme Barker, J. A. Lloyd and Joyce Maire Reynolds, eds., *Cyrenaica in Antiquity* (Oxford, 1985), 165–172; Amigues, “Silphium.” I will



FIGURE 1 *Cyrene Coin, 435BC–375BC, British Museum, 1914,1003.3. © TRUSTEES OF THE BRITISH MUSEUM.*

Both the plant's appearance and its demise seemed to be sudden. According to Theophrastus, *silphion* first appeared seven years before the foundation of the city Cyrene in Libya by Battos.⁷ *Silphion* would appear around Cyrene where there had been none before following the fall of a "pitchy" rain.⁸ Pliny and Strabo offered two differing accounts of the plant's loss (or near loss). According to Pliny,

For these many years past, however, it [*silphion*] has not been found in Cyrenaica, as the farmers of the revenue who hold the lands there on lease, have a notion that it is more profitable to depasture flocks of sheep upon them. Within the memory of the present generation, a single stalk is all that has ever been found there, and that was sent as a curiosity to the Emperor Nero. If it so happen that one of the flock, while grazing, meets with a growing shoot of it, the fact is easily ascertained by the following signs; the sheep, after eating of it, immediately falls asleep, while the goat is seized with a fit of sneezing. For this long time past, there has been no other laser imported into this country, but that produced in

focus on early modern interpretations. For the sake of consistency, I use the Greek term *silphion* except in the case of direct citation.

7 Theophrastus, *Enquiry into Plants*, Arthur Hort, trans., vol. 2 (London, 1916), 19 [6:3:3–5].

8 Theophrastus, *Enquiry into Plants*, Arthur Hort, trans., vol. 1 (London, 1916), 164 [3:1:5–11].

either Persia, Media, or Armenia, where it grows in considerable abundance, though much inferior to that of Cyrenaica ...⁹

This sudden disappearance of Cyrenaic *silphion* was the more striking considering that in the recent past,

in the consulship of C. Valerius and M. Herennius, there was brought to Rome, from Cyrenæ, for the public service, thirty pounds' weight of *laserpitium*, and that the Dictator Caesar, at the beginning of the Civil War, took from out of the public treasury, besides gold and silver, no less than fifteen hundred pounds of *laserpitium*.¹⁰

By contrast, Strabo offered a different tale:

Bordering on Cyrenaea is the country which produces silphium and the Cyrenaean juice, which latter is produced by the silphium through the extraction of its juice. But it came near giving out when the barbarians invaded the country because of some grudge and destroyed the roots of the plant.¹¹

While these two accounts differ, they agree in pinning the cause of *silphion*'s loss or near loss upon human activity. The barbarians who destroyed the crops and tax farmers who pastured their sheep on the plant sought only their own revenge or profit. It was only too fitting that the only stalk of *silphion* left should serve the notoriously self-interested Nero merely as a curiosity. Roman imperial iconography stressed that emperors investigated and conquered the world not for their own glory and profit, but for the common good. Pliny recorded many negative examples of tyrants who cared more for their own private profit or entertainment than for public benefit.¹²

Discussions of *Silphion* in Early Modernity

The loss of *silphion* raised several thorny issues for early moderns: was it possible for parts of nature to appear and disappear so suddenly? What was the human role in its destruction, and what should be the human role in its recov-

9 Pliny, *Natural History*, 19.15, John Bostock and H.T. Riley, trans., vol. 4 (London, 1846), 145.

10 Ibid.

11 Strabo, *Geography*, H. L. Jones, trans. (Cambridge, 1932), 204 [17.3.22].

12 Trevor Morgan Murphy, *Pliny the Elder's Natural History: The Empire in the Encyclopedia* (Oxford, 2004), 197.

ery? What did the appearance and extinction of *silphion* have to tell us about the rise and fall of a polity, to which it seemed to be attached? And, most practically, could the *silphion* some apothecaries were selling be considered real? Such questions were discussed in the diverse contexts of natural philosophy, medicine, botany, numismatics and antiquarianism, and political discourses.

Julius Caesar Scaliger

Julius Caesar Scaliger (1484–1558) developed a formal account of how species might change over time, according to which *silphion* might survive in a different outward shape, while remaining essentially the same plant. Each species was composed of a variety of dominant and subordinate forms, and a previously subordinate form might become dominant. Scaliger deployed this mechanism to explain the sudden appearance of *silphion*. As he argued in his commentary on Theophrastus, if what the ancients reported was true, “we are forced to confess that a new form can arise.”¹³ In addition to this formal apparatus, Scaliger also noted the ability of plants to change due to both art and nature, that is, through techniques such as grafting and through changes in the weather and the aspect of the heavens.¹⁴

Botanical and Medical Discussions

The debate over *silphion* could engage metaphysical questions as in the example of Scaliger. It might also engage practical concerns over the identity of various apothecary products. According to Jean Ruel (1474–1537), the best *silphion* of Cyrene had long not been found on earth, having been decimated by the Roman tax farmers who used it to pasture their sheep.¹⁵ The *asa foetida* found in shops today was brought from Media or Syria.¹⁶ Various other varieties were

13 Christoph Lüthy, “An Aristotelian Watchdog as Avant-Garde Physicist: Julius Caesar Scaliger,” *The Monist*, 84 (2001), 542–561; Andreas Blank, “Julius Caesar Scaliger on Plant Generation and the Question of Species Constancy,” *Early Science and Medicine*, 15 (2010), 266–286. Julius Caesar Scaliger, *Commentarii, et animadversiones, in sex libros De causis plantarum Theophrasti* ([Paris], 1566), 16. op. cit. Blank, 280.

14 *Ibid.*, 275.

15 Jean Ruel, *De Natura stirpium libri tres* (Paris, 1536), 719: “Multis iam annis in terra ea non inveniuntur...”

16 *Ibid.*, 720.

available, including a French one grown in gardens everywhere.¹⁷ Leonhart Fuchs (1501–1566) largely agreed with Ruel. Fuchs identified a local modern plant, known in the vernacular as *Meysterwurtz*, as a “German *Laserpitium*.” He also noted that *silphion* could come from Syria, Armenia, Media and Africa. The Armenian and African *silphion*, especially the Cyrene, had a sweet odor, whence “Cyrene sap” gained its name. The dried sap sold by apothecaries as “Belzoin” was this plant. However, the *silphion* from Media and Syria had an unpleasant odor, and it was what was sold by apothecaries everywhere as *Asa foetida*. From this one can discern that the *silphion* in use today comes from Syria, whence it is exported to Venice. German *silphion* comes from mountainous regions but is now grown in gardens everywhere.¹⁸ If one fears that the apothecary’s product has been adulterated, one could use the German version, as it was far cheaper and sufficiently efficacious.¹⁹

The physician Pierandrea Mattioli (1501–1577) at first agreed with those who had identified the item sold in apothecary shops as *Belzoin* with legitimate *Laser*, or sap of *silphion*. He supported this view through the testimony of the traveler “Ludovicus Romanus” (Lodovico de Varthema, 1461–1517).²⁰ The more noxious *Asa foetida* could be identified with *silphion* from Media and Syria.²¹ William Turner, in his 1568 *New Herball* retorted, “Matthiolus and all others that hold that Benzoin is the sweet Laser of Cyrene are reproved and founde faulty in a great error.”²² For his part, Turner affirmed, “I have neyther spoken with any man nor rede in any writer of this our time that durst say that he had sene the ryght Laserpitium whereof Theophrastus and Dioscorides make mention.”²³ “But as for assa fetida,” he continued, “I will not deny/but that it is Laser medicum or Syriacum/ as Matthiolus and other writers have taught in theyr wrytings.”²⁴

Mattioli had a change of heart. In the 1570 edition he admitted, “We used to believe that that gum of Laserpitium was nothing else but that pleasant and sweet-smelling sap which the pharmacists and perfumers call Belzoin.” However,

17 Ibid., 721.

18 Leonhart Fuchs, *De historia stirpium commenarii* (Basel, 1542), 762.

19 Ibid., 765: “... quod scilicet exigua admodum pecunia comparari possit, & viribus satis efficax sit.”

20 Lodovico de Varthema, *Ludovici Patritii romani novum Itinerarium* ([Milan], 1511).

21 Pierandrea Mattioli, *Commentarii, in libros sex pedacii Dioscoridis Anazarbei, de medica materia* (Venice, 1554), 376.

22 William Turner, *The First and Seconde Parts of the Herbal*, vol. 2 (Cologne, 1568), 31.

23 Ibid., 30.

24 Ibid., 31.

since the testimony of Strabo agrees with that of Pliny that the Silphium of the Cyrenes had been always missing up to their time, nor was it then to be found, it is then no wonder that it should also be missing from our time, since none has yet been brought to us which could be said to be legitimate.²⁵

Garcia de Orta (1501/2–1568), a physician in Goa, deployed his firsthand experience abroad in order to enter this debate. In a work first published in Portuguese in Goa, he vigorously disagreed with Lodovico de Varthema's account of *Belzoin* (or as he rendered it, *Benjuin*). He pointed out that Mattioli himself changed his views.²⁶ He defended *Asa foetida*'s identification with the ancient *silphion* through his eye-witness accounts of its use as a spice and a medicine in India.²⁷

Besides *Belzoin*, other apothecary products claimed a relationship to the ancient *silphion*. In a lengthy letter to a fellow physician, Giovanni Battista Cortesi (1554–1636) discussed the apothecaries' so-called "Cyrene powder." He concluded that it was inauthentic. In similar terms to Mattioli, he argued that it was clear from Strabo that both the plant and its sap had already utterly disappeared, and thus its sap should not be available now either.²⁸ Nor could *silphion* be equated with other plants such as *Asa foetida*, as Garcia de Orta had stated in his work on Indian plants, for their properties differed.²⁹

In 1570, Pierre Pena and Mathias de L'Obel disagreed that such ancient testimonies could prove the utter disappearance of *silphion*. "Even if we agree that that famous Cyrene Laser was already missing in the era of Pliny, we will not be completely persuaded that no Laser exists in nature," they wrote. "For besides the fact that metaphysical dogmas teach that no species can entirely disappear,

25 Petri Andreae Matthioli, *Commentarii, in libros sex pedacii Dioscoridis Anazarbei, de medica Materia* (Venice, 1570), 530: "Credidimus iam dudum Laserpitii lacrymam nihil aliud esse, quàm illud iucundi ac suavis odoris gummi, quod pharmacopoeis atque unguentariis Belzoinum nominatur." "Cùm igitur Strabonis & Plinii testimonio constet, Silphium Cyrenis eorum usque aetate defecisse, neque inibi inueniri, nil mirum videri debet, si nostra etiam tempestate defecerit, atque nullum iam ad nos aduehatur, quod legitimum dici possit."

26 Garcia de Orta, *Aromatum, et simplicium aliquot medicamentorum apud indos nascentium historia* (Antwerp, 1567), 33 and 28.

27 *Ibid.*, 21–29.

28 Giovanni Battista Cortesi, *Miscellaneorum medicinalium decades* (Messina, 1625), 707: "At hic nostris temporibus omninò incognitus est; nam cùm ex Cyrene asportari oporteat, temporeque Strabonis eam una cum omnibus plantis defecisse ex ipsius testimonio luce clarius appareat, sequitur & nos latere succum inde allatum."

29 *Ibid.*, 708.

the Assa foetida suffices for us to maintain the opinion of a Syriac, Armenian, and Lybic laser.”³⁰ Thus drawing attention to the philosophical implications of species extinction was unusual in such botanical works.

Pena and de L’Obel did not bother to review the extensive ancient sources on *silphion*, arguing that

In contrast to what is done today by those gleaners of authority, it did not please us to pile up pages on this history from the ancients, none of whom perhaps were acquainted with that plant ... which it seems was not seen by Dioscorides & Theophrastus, but only heard or read about. Therefore, there is no need for much wrangling of words, as is the practice today, but travel and painstaking inspection, since this is often limited among the ancients and more often does not exist at all.³¹

Instead, Pena and de L’Obel reproduced a plant sent to them by an apothecary of Marseille, which appeared more similar to the Cyrenaic plant than other candidates.

Numismatic Botany

These authors of herbals often prioritized eye-witness testimony, either from travelers or from garden specimens reproduced in woodblock prints. In the case of a possibly extinct plant, however, material sources from antiquity were largely lacking. Ancient coins offered the perfect intersection between erudite

30 Pierre Pena & Mathias de L’Obel, *Stirpium adversaria nova* (London, 1570), 311: “Ac tametsi Syrenaicum illud celeberrimum iam tum defecisse Plinii aevo assentimur, non tamen prorsum nullum extare in naturae familia Laser persuademur. Praeter enim quam quod speciem nullam penitus posse interire docent Metaphysica dogmata, tum verò nobis suppetit Assa foetida, quae potis est Syriaci, Armeniaci & Lybici laseris opinionem sustinere.”

31 Ibid., 312: “Contra quàm fit hodie ab istis autoritatum racematoribus, minimè nobis lubet multas acruare super hac historia paginas ex veteribus, quibus ne nunc quidem se viuerent forte essent ipsae plantae notae, Lastipitii dico Sagapen, permultuarumque eiusmodi gummificarum, quae videntur Dioscoridi & Theophrasto non visa, sed lectione aut auditione accepta. Eamobrem non multa hic verborum velitatione, ut moris hodie, sed sedula lustratione & peregrinatione opus esset, quando antiquorum manca saepe, saepius nulla extat.”



FIGURE 2 Detail, Antonio Agustín, *Discorsi ... sopra le Medaglie* (Rome, 1592), Plate v. University of Illinois at Chicago Library, Rare Books Collection.

philology and eye-witness observation.³² Through coins, investigators of *silphion* had ancient material evidence, although they still owed their knowledge that the plant pictured on the coin was in fact *silphion* to textual sources such as the twelfth-century Byzantine historian Joannes Tzetzes, who had described a Cyrenaic coin depicting the Cyrene people presenting *silphion* to Batto.³³

Antonio Agustín (1517–1586), in his 1587 *Diálogos de las medallas*, which was translated into Italian in 1592, reproduced two versions of one type of Cyrene coin, which showed *silphion* as a symbol of Cyrene, with horned Ammon on the obverse (see Fig. 2). Agustín noted that the ancient practice of putting *silphion* on Cyrene coins had been recorded by Aristotle, on the basis of the scholia on Aristophanes' *Plutus*. Through these coins, one might see “this plant unknown to our times.”³⁴

32 Vittoria Feola explores one example of numismatic botany in “Botanical, Heraldic and Historical Exchanges Concerning Lillies: The Background of Jean-Jacques Chifflet’s *Lilium Francicum* (1658),” in Sven Dupré and Christoph Lüthy, eds., *Silent Messengers: The Circulation of Material Objects of Knowledge in the Early Modern Low Countries* (Berlin, 2011), 13–42.

33 Joannes Tzetzes, *Variarum historiarum liber* (Basel, 1546), 105: “De Batto cyrenae Rege, & silphio.” “In numismate suo expressit insculptum, Cyrenaeos afferentes silphium illi.”

34 Antonio Agustín, *Discorsi ... sopra le Medaglie* (Rome, 1592), 8: “questa herba non conosciuta à nostri tempi.” Today, the Aristotelian source is known as Teubner fragment 528.

The Paduan professor Prospero Alpini (1553–1617) utilized a Cyrene coin with horned Ammon in order to identify a plant in the medical garden at Padua as *Laserpitium*.³⁵ Whether it was the true “Cyrenaic *Laserpitium*,” however, he dared not say.³⁶ Alpini reproduced the plant, but not the coin. The coin did appear in the 1629 *Plinian Exercises on Solinus* of Claude Saumaise (1588–1653). Saumaise also reproduced in facsimile an image of *silphion* from a thousand year-old codex of Dioscorides. It did not look at all like the plant on the coin. Saumaise admitted that he did not know if it was drawn after life or merely following the text of Dioscorides. He had likewise read about the production of *laser* in a very old Greek codex in the Royal Library.³⁷

The *silphion*/Ammon coin also appeared in the edition of Theophrastus of Johannes Bodaeus à Stapel (1602–1636) (see Fig. 3), who cited Alpini’s account at length. À Stapel claimed to have grown the plant Alpini had identified as “*Laserpitium*” in his own garden. He was also able to compare it as an eye-witness, he claimed, to the coin with the horned Ammon, for he had observed more than one of these coins, he said, in the collection of the merchant and political agent Joachim Wicquefort.³⁸

The diplomat Ezechiel Spanheim (1629–1710) devoted a chapter of his work on ancient coins to the botanical uses of coins, beginning with the example of

Aristotle, *Aristotelis qui ferebantur librorum fragmenta*, ed. V. Rose (Leipzig, 1886), 328.

35 Prospero Alpini, *De plantis exoticis* (Venice, 1629), 211: “Plantam in horto medico alimus quam primo vidimus Patavii in Horto Bembi vocato... Istiusque plantae caulis, antequam in ipsa umbra eruperit brachialis crassitie esset, atque in cacumine veluti conum habere viderimus, & tunc temporis magnitudine, & figura caulem laserpitii, qui in antiquis Iovis Amonis numismatibus impressus cernitur, prorsus aemulari videretur.”

36 Ibid., 212. “An vero Cyrenaicum sit non audemus affirmare ...”

37 Claude de Saumaise, *Plinianae exercitationes in Gaii Iulii Solini polyhistora* (Paris, 1629), 352–362; here 362: “Vtrum ad verum & naturae fidem eas pinxerit, an ex verbis Dioscoridis ad libitum effinxerit, nescio.”

38 Theophrastus, *de Historia Plantarum libri Decem... illustravit Ioannes Bodaeus à Stapel... Accesserunt Iulii Caesaris Scaligeri in eosdem Libros Animadversiones et Roberti Constantini Annotationes* (Amsterdam, 1644), 597: “Tale numisma non unum vidi apud Ioachimum Wicquefortium, virum Clarissimum, & exculpari curavi.” On Wicquefort and his collections, see Jaap van der Veen, “Liefhebbers, handelaren en kunstenaars: Het verzamelen van schilderijen en papierkunst,” in Ellinoor Bergvelt and Renée Kistemaker, eds., *De wereld binnen handbereik: Nederlandse kunst-en rareiteitenverzamelingen, 1585–1735*, (Amsterdam, 1992), 117–134; Marika Keblusek, “Mercator sapiens: Merchants as Cultural Entrepreneurs,” in Marika Keblusek and Badeloch Noldus, eds., *Double Agents: Cultural and Political Brokerage in Early Modern Europe* (Leiden, 2011), 11–26.

silphion. The form of this plant, so widely dispersed in antiquity, could only be known today by “modern collectors and interpreters of plants through coins.”³⁹

Guido Pancirolli’s Catalog of Lost Things

Our next source represents a departure from these vigorous efforts to accumulate evidence in order to resolve the *silphion* debate. Although otherwise a careful scholar of ancient sources, the Paduan jurist Guido Pancirolli (1523–99) did not thoroughly engage with either ancient sources or material evidence in his discussion of lost things. When discussing the loss of *laser* in his *Two Books of Things Lost and Things Found*, Pancirolli noted only Pliny and the writer on ancient tax law, Aelius Marcianus.⁴⁰ Pancirolli’s *Two Books*, a series of impressionistic essays, were composed, he says, as “a sort of catalog [quasi catalogum quendam]” addressing a particular audience.⁴¹

The *Two Books* had been requested from Pancirolli by Emanuele Filiberto (1528–1580), the Duke of Savoy, and they were dedicated to the Duke’s successor, Carlo Emanuele (1562–1630). As Cornel Zwielerlein has discussed at length, both Dukes were proponents of the fashionable reason of state. The latter, appearing in the genre of *discorsi*, reshaped political knowledge from a normative and abstract virtù into a flexible strategizing in response to changing circumstances. In the Savoyard court, drawing parallels between different periods was a popular genre. One such *discorso*, begun in Carlo Emanuele’s own hand, compared figures of ancient and modern history to each other as well as to natural phenomena.⁴² Pancirolli’s work also circulated in manuscript as an Italian *discorso*.⁴³ Pancirolli mentions that he had often discussed its content with Carlo

39 Ezechiel Spanheim, *De praestantia et usu numismatum antiquorum* (Amsterdam, 1671), 253–256: “...recentiores Herbarum collectores ac interpretas... ”

40 Guido Pancirolli, *Rerum memorabilium libri duo* (Amberg, 1599), 30.

41 Ibid., 2. See Aldo Bacchi Andreoli, *Alcuni studi intorno a Guido Panciroli* (Reggio-Emilia, 1903), Sergio Mamino, “La Grande Galleria come ‘Tipocosmo’. Interessi naturalistici e enciclopedismo in Carlo Emanuele 1,” in Giovanna Giacobello Bernard and Andreina Griseri, eds., *Le magnificenze del xvii-xviii secolo alla Biblioteca Reale di Torino* (Milan, 1999), 47–74; here 53 and 65, and Vera Keller, “Accounting for Invention: Guido Pancirolli’s Lost and Found Things and the Development of *Desiderata*,” *Journal of the History of Ideas*, 73 (April, 2012), 223–245.

42 Cornel Zwielerlein, *Discorso und Lex Dei. Die Entstehung neuer Denkrahmen im 16. Jahrhundert und die Wahrnehmung der französischen Religionskriege in Italien und Deutschland* (Göttingen, 2006), 327–538.

43 Cornel Zwielerlein, *Der gezahmte Prometheus: Feuer und Sicherheit zwischen Früher Neuzeit und Moderne* (Göttingen, 2011), 71.

Emanuele, and he described the book as a “parallel” in the style of Plutarch.⁴⁴ *The Two Books* appeared in print only posthumously in Latin translation in 1599–1602. One of Pancirolli’s auditors at Padua, the jurist Heinrich Salmuth, had received the little Italian book (“libellum”) from the physician and botanist Joachim Camerarius the younger (1534–1589), translated it into Latin, added a copious commentary, and published it.⁴⁵

According to Pancirolli, the contrast between lost ancient things and newly found modern ones would allow the Duke to

draw a Parallel and make a Comparison between the Latter and the Former [ages], and consider with Yourself, whether is the greater, our Gain or our Loss; just as Merchants compute their Receipts on one Page, and their Disbursements on the other, that by balancing their Accompts, they may know their Condition whether they gain or lose.⁴⁶

This parallel did not sift large bodies of evidence in order to come to well-reasoned conclusions about an object’s appearance or disappearance, but rather quickly jotted down new and lost things. As Salmuth commented, merchants composed waste-books or “*adversaria*” next to their books of accounts. “These *adversaria* are chaotic tables, or little books of notes and charts which they write quickly, lest something slip their memory. Later these could be edited into correct and permanent tables.”⁴⁷ And, Salmuth noted, commenting upon Pancirolli’s view of an always changing world, “one might well cite here ‘Nature daily hurries to produce new forms,’” from the twelfth-century *Liber Feudorum* (Book of Fiefs).⁴⁸ This legal principle ultimately derived from Justinian, who

44 Pancirolli, *Rerum*, 2.

45 Emilio Bonfatti, “Noctes noricae”: Joachim Camerarius d.J. und Guido Pancirolli’s *Raccolta Breve* (1599),” in Volker Kapp und Frank-Rutger Hausmann, eds., *Nürnberg und Italien: Begegnungen, Einflüsse und Ideen* (Tübingen: 1991), 195–21.

46 Pancirolli, *Rerum*, 2: “... ut ad Plutarchi exemplum, quasi parallelos sibi consituere, & haec cum illis comparare invicem, nec non perpendere secum possit Celsitudo Tua, utrum plus damni, an lucri fecerimus: non secus, ac Mercatoribus usuvenire solet, qui in altera quidem pagina, quod expensum; in altera verò, quod acceptum est, consignat: ut scilicet expensi & accepti subducta ratione sciant tandem, utrum creditores sint, an debitores.” Translation from Guido Pancirolli, *The History of Many Memorable Things Lost* (London, 1715), [A3v].

47 Ibid., 3: “Illis autem rationum libris *Aduersaria* opponuntur: quae sunt tumultuariae quaedam tabulae, aut libelli sive commentarioli & chartae: quae idcirco summatim conscribuntur, ne res memoria excidant; sed ut exhis postea tabulae justae & aeternae fiant.”

48 Ibid., 4: “non abs re dicitur, quod Natura novas cotidie deprøperet edere formas *libr. 2. Feudor. Tit. 24.*”

deployed it to support the creation of new laws responding to new situations.⁴⁹ Such a view of nature might counter natural philosophical views. Nevertheless it was widely cited and deployed in legal and political texts.⁵⁰

Although the *Two Books* also included artificial objects, political institutions, and cultural practices, the very first section of Pancirolli's *Two Books* was devoted to "Of Natural Productions which are utterly lost."⁵¹ He weighed these against new-found American botanicals such as sarsaparilla and sassafras. The title-page which first appeared in the 1629 edition dramatized Pancirolli's contest between old and new empires (see Fig. 4).

Federico Cesi

By far the lengthiest treatment of *silphion* to date was the thirty-one page manuscript of Federico Cesi (1585–1630), *On Laserpitium and Laserpitian Rains* ("*De Laserpitio et Laserpitii Pluvia*"). This work collected many of the approaches and authorities discussed above. It was part of a 78-page holograph manuscript which also included two other works: a thirty-nine page, "*De Melle, Manna, et Saccharo, Melleisque pluviis*" and a thirteen-page "*De Cera, Cereisque et pluviale Cera*."⁵²

Art historian David Freedberg has portrayed the Lincei as moderns who developed ways to approach an influx of new knowledge.⁵³ The collective edition of Francisco Hernández's "Mexican Treasury" published by the Academy of the Lincei, founded by Cesi in 1612, is well known.⁵⁴ Freedberg has suggested that Cesi, "seems to have had an inkling of the role of time in the formation of species."⁵⁵ Such attention to the temporal factors in the changing forms of

49 Theodor Mommsen, ed. and Alan Watson, trans., *The Digest of Justinian 1*, vol. 1 (Philadelphia, 1985), lxi: "... but the character of human law is always to hasten onward, and there is nothing in it which can abide forever, since nature is eager to produce new forms... "

50 Sten Gagnér, *Studien zur Ideengeschichte der Gesetzgebung* (Uppsala, 1960).

51 Pancirolli, *The History*.

52 Federico Cesi, *De laserpitio, et laserpitii pluvia*, Biblioteca dell'Orto Botanico di Padova, coll. Ar.B. XVIII.

53 David Freedberg, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History* (Chicago, 2002). See Paula Findlen's review article, "Science, Art and Knowledge in Seventeenth-Century Rome," *Metascience* 13 (2004), 275–302.

54 Francisco Hernández, *Nova plantarvm, animalvm et mineralvm Mexicanorvm historia* (Rome, 1651).

55 Freedberg, *Eye of the Lynx*, 386.

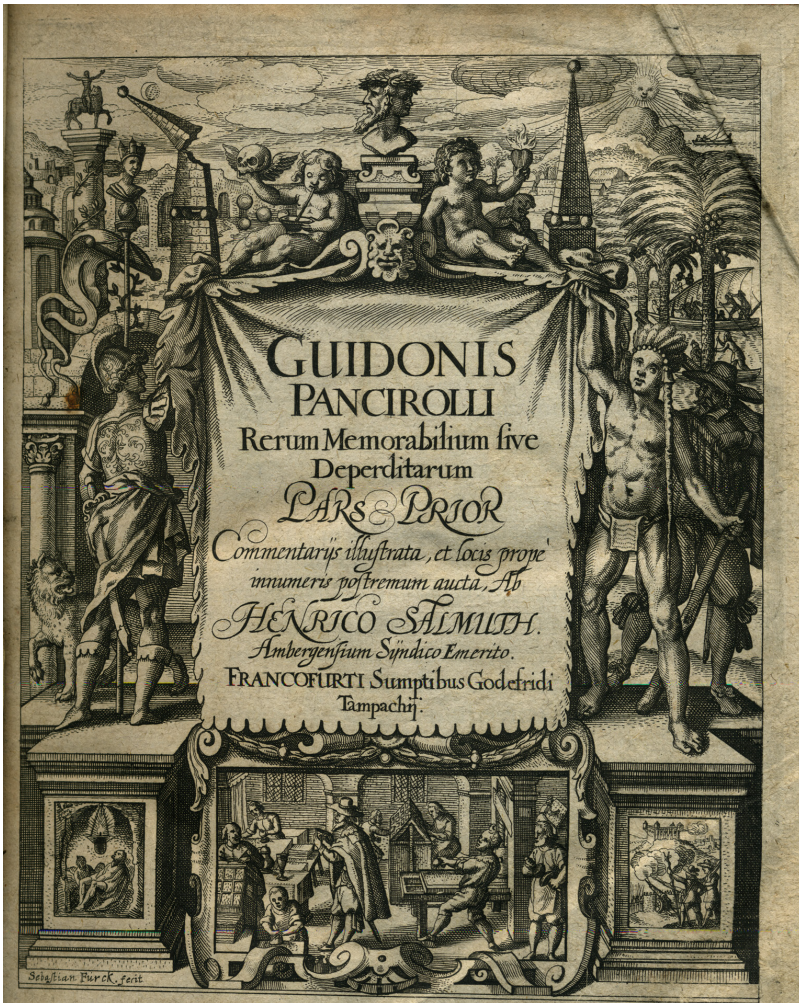


FIGURE 4 Title-page, Guido Pancirolli, *Rerum Memorabilium sive Deperditarum Pars Prior* (Frankfurt, 1629), *Rare Books T33. P18*, Courtesy Department of Special Collections, Stanford University Libraries.

plants can be linked not only to the influx of new botanical knowledge, but to Cesi's interest in lost ancient *naturalia*, which, as in Pancirolli's case, ran parallel to his interest in new *naturalia*.

In his study of *silphion*, Cesi thoroughly reviewed the ancient sources and sorted through philological, as well as numismatic questions, at length. He began with a description of the plant, a brief account of its unusual life cycle, and its names and various varieties. He described the well-nigh miraculous medical effects of the sap, which could cure more than seventeen types of ill-

ness and which tasted wonderful as well, as Plautus had testified. The plant was also of a beautiful color; “it was no wonder,” wrote Cesi, “that according to Solinus,” who also commended its delightful odor, “the Asbystae or Asbytae lived on laser.” “It is certainly greatly to be mourned if these special gifts of Nature are lacking to our times, especially to our physicians, and to our philosophers,” he lamented. “Matthiolus along with several others of the moderns assent to this loss, persuaded by reason of price and rarity already in ancient times,” he continued, offering Pliny and Strabo’s accounts of the inroads made by the barbarians and tax farmers into the *silphion* supply.⁵⁶

Cesi was intrigued by an alternative to complete extinction. Just because the plant was lost to the ancients did not mean, he said, that it could not appear again,

for over time the faculties of nature vary and they are spread and mature in different places. Did not the Cyrenes attribute the origin of laser to a deluge? Then why should not the same occur in other times and places? Certainly, the traffic in medicines and other goods is most mutable. We know that antiquity considered silk to be the greatest luxury, and it now clothes all the common folk. On the other hand, Agalloch was then so common that Dioscorides substituted it for Thuya wood, whereas today forty pounds of Thuya will buy one of Agalloch.⁵⁷

Many botanists, Cesi noted, had identified various local forms of *silphion*. Jean Ruel, for example, called Angelica the “French Laserpitium,” and Leonhart Fuchs identified a “German Laserpitium.”

It should be remembered that the variability of regions and the heavens through cold and heat as well as through diverse astral lights has the ability to shape plants, altering them in their powers as well as in their

56 Cesi, *de laserpitio*, [2r]: “Dolendum verò quam maxime nostris si desunt praecipua Naturae dona, temporibus, medicisque praesertim atque Philosophis. Huic amissioni Matthiolus compluresve ex Neotericis alii acquiescent argumento ducti, iam antiquae eius caritatis, et raritatis... .”

57 Ibid., [2v]: “...variantur temporibus Naturae facultates variis disseminantur, maturanturque locis, nonne Cyrenaei ab Imbue originem laseris repetebant, cur non aliis locis et temporibus id evenire potuerit, mercium certè tam medicinalium quam aliarum transportatio mutabilis est maximè. Scimus sericum antiquitus maximo in pretio habitur quo nunc Plebs tota contegitur. Agallochum illis temporibus adeò frequens erat, ut in Thuris locum a Dioscoride substitueretur; hodie apud Nos vie Thuris quadraginta libris Agallochi compensatur unica.”

appearance, so that we frequently identify plants according to local names and distinguish them by them.⁵⁸

Notably, Cesi set this variability of climate and nature in light of the variable history of commodities in global trade rather than in light of the plant's metaphysical form, as had Scaliger.

The various modern equivalents described by the botanists did bear a *laser*, or sap. While they were weaker than the true Cyrene *silphion*, these modern saps did offer certain medical benefits. "As the promoters of these plants show diligently enough, it stands to reason to recognize in these plants *silphion* in its European formThe weakness of powers, the differences of its parts, and the paucity of liquor can by justified by the climate of our regions, as often happens... ." ⁵⁹ Although Cesi thought that *silphion* might be considered not completely lost, he would, nevertheless "search through the remains of the earliest antiquity for at least an outline of its image."⁶⁰ He left space in his manuscript for illustrations of the two Cyrene coins published by Agustín (the space remains blank today).

Cesi's *On Laserpitium* offers but one indication of the attention Linceans paid to lost ancient species. The Lincean Fabio Colonna (1567–1640) devoted a study to the lost ancient purple.⁶¹ In a work on rare plants he also promised a future work on *silphion* (which he believed could be identified with the modern *Angelica*), but he never published one.⁶² The Lincean Francesco Stelluti (1577–1652) referred to Cesi's manuscript on *silphion* in his Italian translation of Persius. Best known for its discussion of the telescope, the edition of Persius also allowed Stelluti to discuss much ancient Roman material culture often

58 Ibid., [2v-3r]: "Reminisci primùm oportebit quid Regionum, et Coeli varietas tam algore, calore, quàm sidereis luminibus diversis in plantis valeant efformandis, earum tamen viribus quam effigie alterando, unde plantas non raro patriis nominibus indigitare, et distinguere solemus."

59 Ibid., [3r]: "Quo sat diligenter monstrant harum plantarum promotores, ut rationi consentaneum omnino sit, Europeum hisce representatione stirpibus silphium agnoscere... . Virium debilitas, partium aliqua varietas, et liquoris paucitas nostrarum Regionum temperie condonandae videntur ut in pluribus accidit... ."

60 Ibid., [3v]: "Perquiramus tamen in prisco vetustatis reliquiis si non exactam saltem adumbratam eius imaginem."

61 Fabio Colonna, *Purpura; hoc est de purpura ab animali testaceo fusa* (Rome, 1616).

62 Fabio Colonna, *Minus cognitarum rariorumque nostro coelo orientium stirpium ekphrasis* (Rome, 1616), 310: "... *Angelica nobis Silphium putata, de qua aliò Deo dante fusiùs dicemus.*"

considered lost, including natural objects such as cassia, true cinnamon, amomum, purple, and *silphion*.⁶³

Silphion was also prominent in Stelluti's edition of Cesi's plant taxonomy, which appeared as a series of branching dichotomous charts arranging plants according to various criteria. It was first published alongside the edition of Hernández. Such branching tables, referred to by the Linceans as a "diagraph," divided plants according to an array of factors. For instance, one chart organized plants according to their "nobility and fame," including the "Laserpitium of Cyrene, which was portrayed on coins, and in the proverb 'Silphium to Battos' indicated the greatest honor, was preserved even in the treasury at Rome, and was famous as a medicine, food, and perfume."⁶⁴

One graph discussed the sources for plant names and in doing so addressed the question of *silphion's* sudden appearance and possible extinction. Names should be based either on observation of the plant or discussion of the plant. The former applied to the case of plants whose appearance could be seen either within the book of nature or printed somewhere. Plants which could be seen could be divided into those which had been previously treated and those which had not been previously treated. Those which had not been treated might be new either to nature or merely to scholarship. Plants might be new to nature since nature was continually undertaking new things and was accustomed to produce diverse things on account of the variety of places. Cesi's example of such natural novelty was *silphion*, which was unknown before the Cyrenes, and had been first generated in a "pitchy rain."⁶⁵ The new appearance and qualities of these plants should be studied, for they might suggest a name for the new plant. If their novelty was very great, the plant might be considered a new class. If the novelty was less, it should be enquired where the plant should be placed in the order of known, older plants. If the plant was similar to some group of older plants, it should acquire its cognomen on the basis of its greatest difference.⁶⁶ Those plants that had been studied before could be divided between

63 Francesco Stelluti, *Persio tradotto in verso sciolto e dichiarato tradotto* (Rome, 1630), 72. He also discussed purple (73) and *amomum* (107–8).

64 Federico Cesi, *Phytophysicarum Tabularum ... primi pars*, printed following Francisco Hernández, *Nova plantarum, animalium et mineralium Mexicanorum historia* (Rome, 1651), 933: "Laserpitium Cyrenis, numismatibus expressum, Batti Silphium à summo honore dictum, in novi rarique honoris proverbium usque Romae aerario adservatum, medicamentis, condimentis, odoramentis famosum."

65 Ibid., 940: "Natura, quae novas semper in dies molitur, et producere solet diversas, habitatio ratione varietatis locorum: ut laserpitium invisum antea Cyrenis, piceo illo imbre primò genitum."

66 Ibid.: "In quo advertendum si se nova facie nobis offerat, & novis qualitatibus, ex quibus

those that were named by a single author without any controversy, and those which were the subject of controversy, such as the “*laserpitium* of Pena.”

Those plants whose names should be determined through discussion could also be divided into existing and non-existing plants. A plant might not exist either because it has died out (“*exoleta*”) or has been lost (“*amissa*”). It might be a plant which has been lost from current view and is no longer found. Here again, Cesi’s example was the “Cyrene *Laserpitium*.”⁶⁷ Led by a knowledge of ancient sources and a comparison with existing plants, one might replace one name for another.⁶⁸ Or, it might be a plant which has been entirely deleted from the book of nature, and which is nowhere to be found.⁶⁹ Nevertheless, the hope remains that such a plant might one day be seen again, if nature exerts her powers in order to produce it again through the revolving circle of causes.⁷⁰

Georg Hieronymus Welsch

Georg Hieronymus Welsch (1624–1677) of Augsburg, the author of several medical works, a facsimile edition of a Persian calendar, and a frequent contributor to the journal of the Academy of the Curious about Nature, was renowned in his time for his combination of linguistic abilities (Arabic, Hebrew, Persian, Ottoman Turkish, Greek and Latin), his classical erudition and vast knowledge of contemporary collections, and his careful medical observations.⁷¹ Welsch

novum quoque nomen obtinere possit planta. Si vel forte alicuius novae classis existimanda sit. Sin minus, inquirendum quo in ordine inter antiquas, & cognitatas constituenda sit.”

67 Ibid.: “Seu non existente, vel *exoleta*, & *amissa*:/ Ut ab aspectu nostro *semota*, & quae non reperiatur amplius, uti *Cirenense laserpitium*.”

68 Ibid.: “Hic autem solùm dives illa eruditio in promptu habenda est, quae ex antiquitatis cultu, & notitia derivat, cujus ductu, & labore quaerendi, & periculo alias pro aliis substituendi liberamur. Qua comparationem instituumus ad existentes plantas non sine harum illustratione.”

69 Ibid.: “Aut a naturae libro omnino deleta, ut quae *nuspiam* sit.”

70 Ibid.: “Supersit tamen spes eandem revisendi, si natura ad eam producendam rursus volente causarum circulo vires suas exerat.”

71 Lucas Schroeck, *Memoria Welschiana, sive historia vitae viri celeberrimi, Dn. Georgii Hieronymi Welschii, Augustani, in S.R.I. Societate Naturae Curiosorum dicti Nestoris* (Augsburg, 1678). Alfons Link, *Eine medizinische Programmschrift des siebzehnten Jahrhunderts* (Munich, 1955). Welsch is noted in Gianna Pomata, “Observation Rising: Birth of an Epistemic Genre, 1500–1650,” in Lorraine Daston and Elizabeth Lunbeck, eds., *Histories of Scientific Observation* (Chicago, 2011), 45–80; here 62–4.

composed many catalogues of collections, gardens, and other extant things.⁷² In contrast to these extant things, Welsch's collection *Axiologia Antiquorum*, now in Munich, assembled ten lists of one hundred unknown things each.⁷³ Welsch stressed that he composed these lists "in no order, or rather through a fortuitous one (nullo, aut certò fortuito ordine)," and he hoped to publish them in that state.⁷⁴ The purposefully slipshod nature of this omnium gatherum meant that *silphion* appeared in a number of categories. It could potentially appear as: Number 48 of "Select things of Hippocrates," "Ionic and Peloponnesian Laser (Laser in Ionica et Peloponneso)"; Number 68 of "Unknown Things of Theophrastus," "the sap of Laser (Succus Laseris)" (see Fig. 5); Number 1 of "Rare Things of the Athenians," "Asbyrace, a spice (Asbyrace, condimentum)"; Number 79 of "Rare Things of the Athenians," "Cyrene Plants (Cyrenaicae plantae)"; Number 11 of "Neglected and misunderstood things of Avicenna," "Libyan Magydar (Magydaris Libyca)."

Welsch did not distinguish in his list of 1,000 ancient things between those items which were simply forgotten and those which were irrevocably lost. Many of the former kind made a re-appearance on another kind of list he kept, the *Philomathetica*, or things which he desired to know. In the manuscript at Munich, the *Philomathetica* consisted of seven lists of one hundred items each.⁷⁵ Welsch later expanded this collection to 1,000 items, which he described, like the *Axiologia Antiquorum*, as "written in no order other than that in which they came to mind, lest they fall into oblivion."⁷⁶ These might be forms of knowledge known to others around the world currently but not to Welsch. Many of the items he had previously listed among ancient lost things made an appearance here too. Number 2 of the first century of *Philomathetica*, was, for example, "recalling purple according to the ancient example (purpura revocanda ad vet. Exemplum)." Welsch believed that purple could be recalled, and this was why

72 Augsburg, Staats- und Stadtbibliothek, 8° Cod. Aug. 24–29.

73 Bayerische Staatsbibliothek München, Clm 24123, *Axiologia antiquorum*, divided into "Selecta Hippocratis, Mirabilia Aristotelis, Incognita Theophrasti, Obscura Galenii, Ignorabilia Plinii, Rariora Athenii, Memorabilia Graecorum, Neglecta et non intellecta Ebsinae, Singularia Arabum et Orientalium, Notabilia Latinorum Medicorum."

74 Georg Hieronymus Welsch, "Epistola de scriptis suis ad bibliopolas et typographos S. Rom. Imperii," in Theodore Jansson ab Almelooven, ed., *Bibliotheca promissa et latens. Huic subjunguntur Georgii Hieronymi Velschi de Scriptis suis ineditis Epistolae* (Gouda, 1692), 94: "nullo, aut certò fortuito ordine pertractavi."

75 Bayerische Staatsbibliothek München, Clm 24122, G.H. V., "Philomatheticorum Syllabi Centuriati VII."

76 Welsch, "Epistola," 153: "Sunt autem decem illorum Centuriae, nullo quidem ordine alio, nisi quo in mentem venissent, ne oblivioni traderentur, conscripta... ."

purple made the leap from his list of forgotten ancient things (where it appeared as number 70 of “*Mirabilia Aristotelis*”) to the list of those he desired. The fact that purple could be recovered was proven by the fact that others had recovered it, such as the Lincean Fabio Colonna; Number 60 of the third century of *Philomathetica* was also “the violet purple of F. Colonna (*Purpura Violacea F. Colonna*).”⁷⁷

In contrast to its prevalence among Welsch's ancient things, *silphion* does not appear among his *Philomathetica*. Its continual appearance among the *Axiologia Antiquorum* showed how widely imbricated *silphion* had once been within ancient society before being rudely uprooted. Welsch's silence on the topic in the *Philomathetica* suggests that, in contrast to other ancient things such as purple, this was one of those ancient things which could not be recovered.

Conclusion: Paper Technologies and Views of Nature

With good reason, many scholars of natural history have focused more on the massive expansion of botanical knowledge in the early modern world than upon the study of ancient, lost species. New world discoveries and global exploration flooded Europe with unknown parts of nature.⁷⁸ Along with such spectacular increases came efforts to document, record, and control the flow of new knowledge through various observational and organizational technologies.⁷⁹ In recent historiography, such empirical techniques have drawn attention because they appear to indicate a new epistemic stance.

Lost ancient species were fellow travelers within the paper technologies developed for identifying extant *naturalia*. *Silphion* regularly appeared within sixteenth-century herbals alongside extant plants. Others, such as Cesi, Pancirolli and Welsch devoted specific studies to lost things, a practice parallel to their interest in newly found and extant things. Among these varied sources, no consensus was reached concerning the question of extinction and species

77 Johann Daniel Major, a fellow member of the German Academy of the Curious about Nature, issued a study of Fabio Colonna's work on purple. Johann Daniel Major, *In Fabii Columnae Tractatum De purpura, studio suo editum, annotationes* (Kiel, 1675).

78 Henry Lowood, “The New World and the European Catalog of Nature,” in Karen Ordahl Kupperman, ed., *America in European Consciousness 1493–1750* (Chapel Hill, 1995), 295–323.

79 See, i.a., Sachiko Kusukawa, *Picturing the Book of Nature: Image, Text, and Argument in Sixteenth-century Human Anatomy and Medical Botany* (Chicago, 2011); Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago, 2012).

constancy. The category of *silphion* could be broadened to include very dissimilar plants (Ruel, Fuchs, de Orta, Pena and de L'Obel), species could change over time (Scaliger and Cesi), or they could be thoroughly lost (Turner, the later Mattioli, Cortesi and Pancirolli).

Differing views of natural change might inform the varying paper technologies adopted for collecting lost things. Pancirolli, his commentator Salmuth, and Welsch, for example, all emphasized the hasty and disordered nature of their collections. These qualities seem the very reverse of the careful, empirical techniques associated with new epistemic approaches to nature. However, haphazardly composed miscellanies of lost things were not antithetical to empirical catalogs describing extant objects. The study of lost things can help to continue to contextualize and emphasize the nature of the early modern fact as contingent and open to change over time, like the structure of nature itself.⁸⁰

The catalog of lost things proved influential for future naturalists since research into lost things supported the utility of natural knowledge.⁸¹ Whether the fault of barbarians or tax farmers, an ill-conceived human destruction of *silphion* suggested how a self-interested treatment of nature could result in the loss of a common good. Cesi lamented the loss of this plant for moderns, and Pancirolli placed it among the “debits” of modernity. Later naturalists suggested that lost things ought to be rediscovered for the benefit of humankind. Robert Boyle, for instance, suggested searching for Pancirolli’s lost things as one way that the “Experimental Philosopher” might serve society.⁸²

Explorers long continued to seek out the ancient *silphion*; it was still on the *desiderata* list of the Society of Geography of Paris in 1824, when a prize was offered and awarded for its discovery.⁸³ For the concept of extinction, such long-lived attention was a double-edged sword. On the one hand, the ancient and modern opinions maintaining that such plants had truly disappeared from the realm of nature continued to be aired. On the other hand, some never lost hope that ancient plants could be rediscovered in new places. This very doubt, however, long kept the lost things among research *desiderata*.⁸⁴

80 Barbara J. Shapiro, *A Culture of Fact: England, 1550–1720* (Ithaca, 2000).

81 Keller, “Account for Invention.”

82 Robert Boyle, *Of the Usefulnessse of Experimental Philosophy, the Second Part* (Oxford, 1671), 30–1.

83 Jean Raimond Pacho claimed to have discovered the Cyrenaic silphion in *Relation d'un voyage dans la Marmarique, la Cyrénaïque, et les Oasis d'Audjelah et de Maradèh* (Paris, 1827), 54.

84 Vera Keller, “The ‘New World of Sciences’: The Temporality of the Research Agenda and the Unending Ambitions of Science” (Focus Section), *Isis*, 103 (2012), 727–734.