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# Il bosco

Biodiversità, diritti e culture  
dal medioevo al nostro tempo

*a cura di Alessandra Dattero*

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### III

## *Saperi e linguaggi botanici*



ANGELA ANDREANI

## False “cacographees” and “correct” English names: the quest for perfect botanical naming in early modern England

### 1. *Introduction*

In the Renaissance there was an unprecedented increase in the known plant species, from the few hundreds described by Pliny the elder and the Greek herbalist Dioscorides, whose work still largely laid the basis for botanical learning in the 16<sup>th</sup> century, to the thousands plant species listed «in a growing flood of books» by 1600.<sup>1</sup> As has been pointed out, it was not only new discoveries that triggered the explosion, but also the desire to describe the vegetal world with care and precision, «making ever smaller distinctions between varieties or species», which resulted into vast numbers of new plants.<sup>2</sup> As the number of plants grew, the vocabulary to designate them grew even more, as each discoverer, herbalist, naturalist, or physician named new species. The sources for much of this vocabulary were herbals, a genre with ancient roots that expanded significantly in England during the early modern period. If «nineteen or so» botanical or horticultural books were published in England between 1500 and 1600, a number which does not factor in reprints and editions,<sup>3</sup> this number grew to about a hundred by the end of the 17<sup>th</sup> century.<sup>4</sup>

In the preface of his *magnum opus*, William Turner (1509/10-1568), one of the leading English naturalists of the period, famously complained

1. Brian W. Ogilvie, *The many books of nature: Renaissance naturalists and information overload*, in «Journal of the History of Ideas», 64, I (2003), p. 30.

2. *Ibidem*.

3. Blanche Henrey, *British botanical and horticultural literature before 1800. Volume 1: the sixteenth and seventeenth centuries*, London, Oxford University Press, 1975, p. 3.

4. *Ibidem*, p. 77.

about the state of botany in England. He especially targeted popular compilations such as *The Grete Herball*, published in 1526 and reprinted in several editions through the century, but «al full of vnlearned cacographees and falselye naminge of herbes».<sup>5</sup> If Turner was the first English naturalist to explicitly address the problem of accuracy in the existing botanical nomenclature, he was not alone in his concerns over the “correct” naming of plants. In fact, the development of a lexicon to designate and identify known as well as newly discovered trees, shrubs and herbs was a collective endeavour that involved naturalists and physicians throughout the century. Before the binomial nomenclature began to be applied as the method for designating plants (and animals) universally, early modern naturalists across Europe experimented extensively with plant names. Some of the problems with nomenclature, variously addressed in herbals and botanical compilations, concerned plants that had no name, plants that had several names, as well as plants that had the “wrong” names. But what made these names “false” or “cacographies”, and what counted as a correct name at this stage in botanical learning?

## 2. Naming plants

Credited as the earliest «scholarly link between British and continental botany»,<sup>6</sup> William Turner is notable because he had «set himself a task that had really never been faced before: to identify the plants mentioned in the classical treatises and to provide them with their corresponding English names».<sup>7</sup> In fact, he became the creator of several plant names, which entered the English language around the mid-16<sup>th</sup> century, and his herbals, published between the 1530s and the 1560s, bear evidence of what has been termed «a lifelong wrestling with the problems of attaching the right Latin and English names to plants».<sup>8</sup> Turner travelled extensively through

5. William Turner, *The first and seconde partes of the Herball*, Cologne, Birckman, 1568, sig. \*iii.

6. Mats Rydén, *William Turner and the English plant names*, in *Studies in Early Modern English*, edited by Dieter Kastovsky, Berlin-Boston, De Gruyter Mouton, 1994, pp. 349-370 (356).

7. F.J. David Hoeniger, Judith F.M. Hoeniger, *The development of natural history in Tudor England*, Washington, Folger Shakespeare Library, 1969, p. 23.

8. *Ibidem*, p. 26.

Germany, Switzerland and Italy, where he came in contact with the most important European natural historians of the time, such as Conrad Gesner, Luca Ghini, and Antonio Musa Brasavola. He obtained an M.D. from the University of Bologna or Ferrara, and through his travels he gained first-hand knowledge of several plants that he would not have been able to study back in England.

In the early 1540s Turner was in the Po Valley between Cremona and Ferrara. There, for the first time in his life, he apparently saw a «great plentye» of white poplars «by the ryuer sede», where, he noted, they are called «albera».<sup>9</sup> He remarked that he had not seen this species «in any place of England», but should it be found there «it may be called a whyte Asp or a whyte popler because the vndersyde of the lefe is as whyte as any paper».<sup>10</sup> He created a name and provided an explanation for it: the name derived from an observable physical characteristic of the plant. Turner further remarked: «The Populus is called with vs by two names / som call it a Poppler / and other an Asp or an esp tre. But not euery tre in England called Popler or Esp / is the ryght Populus nigra».<sup>11</sup> Turner attempted then to clarify the situation by differentiating species based on the different habitats in which they could be found, before turning to a lengthy discussion of the name given to the poplar by one of his sources, the Greek philosopher Theophrastus, author of two botanical books:

But in Theophrast is ther yet an other kynde called in Greke κερκις of hym. But why that it hath that name / I can not perfittly perceyue / κερκις is as much to say in Latin as Radius / which betokeneth in our speche a beam / a spoke in a whele / the lesse bone in a mannis arm and a weuers instrument named a shittel. But I se no cause that κερκις the thyrd popler / shuld haue hys name of any of these. But if that ther had bene in the stede of κερκις κεκρε or κεκρις, (which word it is possible that it hath ones bene in the text of Theophrast / and afterward changed by som writer into κερκις) it were easye to tell / of what properti it were called κεκρε.<sup>12</sup>

Since he could not make sense of the name given by Theophrastus, κερκις, Turner sought for an explanation in a scribal error, supposing that the original Greek κεκρις (i.e. noise) had been incorrectly transcribed as

9. Turner, *The Herball*, f. 99.

10. *Ibidem*.

11. *Ibidem*.

12. *Ibidem*, ff. 99-99v.

κερκις (i.e. a ray of light, the spoke of a wheel or the bone radius). According to Turner, the etymology would thus make sense, since «κερκε in Greke is as much to say in Englishe / a spytefull noyse», and the name would describe the sound made by the branches and leaves of the poplar as they tremble in the wind: «and we se that in ye wod popler / that it hath leues euer trymbling and mouyng / & with in but a small wynde crackyng», as already observed by the ancients, «Whiche propertie Pliny in diuerses places geueth vnto the popler tre».<sup>13</sup>

Turner's etymological discussion is significant in that it reveals what a false name may be: a false "cacography", as opposed to "orthography" could very literally mean a name spelt incorrectly. Names of plants derived from books and textual sources were in fact subject to errors in transmission, and Turner's interpretation of the Greek name of the poplar is an illustrative example of the extent to which this risk was contemplated by herbalists. Besides the problems connected with textual transmission, this example seems to expose an additional important element. In Renaissance thought denominations, the relationship between signifier and signified, were not considered to be arbitrary, but rather the «expression of the true nature of things»,<sup>14</sup> or, as this case suggests, of an intrinsic property of the plant. The name «κερκις» rather than «κερκις» must be the right one because it referred to one of the properties of this tree, observed since Antiquity.

We can explore the question further, focussing on the question of "false" naming through the example of another plant observed by Turner in his travels in Lombardy, and the development of its nomenclature in herbals through the 16<sup>th</sup> and the first half of the 17<sup>th</sup> century. In the *Names of Herbes*, Turner wrote,

Coniza is of two sortes, the greater and the lesse. I haue sene both the kyndes in Italy betwene Cremona and Farraria by the Padus banke, the lesse groweth muche in Germany by the Rhene, they are both hote and dry in the thyrde degree. Coniza maye be called in englishe Flebayne.<sup>15</sup>

13. *Ibidem*, f. 98v.

14. The problem is of course much more complex; see for instance Peter Harrison, *The Bible, Protestantism, and the rise of natural science*, Cambridge, Cambridge University Press, 1998, quotation at p. 249.

15. William Turner, *The names of herbes in Greke, Latin, Englishe, Duche [and] Frenche*, London, John Day and Wyllyam Seres, 1548, sig. C4v.

Another case of a plant lacking an English name, to which Turner provided.

The term “conyza” is of obscure origin but it probably entered in English from Greek via Latin.<sup>16</sup> Today it designates a genus that includes several species of plants from the Americas, so it is likely that what Turner saw travelling from Ferrara to Cremona in the mid-16<sup>th</sup> century were species of plants currently identified as belonging to the genus *Erigeron* or *Pulicaria*, with which *Conyza* is related. In fact, these genera are all part of the family of the Asteraceae, also known in English as the aster, daisy, composite or sunflower family, one of the largest with over 32,000 known species of flowering plants, and over 1,900 genera.<sup>17</sup> If we compare this number with Turner’s «two sortes» in the quotation above, it appears evident that the knowledge of these plants was still extremely limited in the Renaissance, and their identification only in its very early stages. In English the term “fleabane” coined by Turner is still used as a name for various plants, i.e. “tall fleabane”, “blue fleabane”; as a book-name for the genus “*Inula*” or “*Pulicaria*”, or for the genus “*Erigeron*”; and applied to a different herb, “*Plantago Psyllium*”.<sup>18</sup>

The term “fleabane” is a compound of flea + bane, and it is worth noting that compounding is a very productive strategy in the field of botany<sup>19</sup> and *-bane* a rather productive element for plant names. The word means “poison”, “slayer”, and, as can be expected, it is found in the names of plants which are toxic or are in some way harmful to people or other animals. Other plant names of this kind in English are “leopard’s bane”, “wolf’s bane”, “henbane” and “dogbane”.

These are exocentric compounds in which the *determinatum* (i.e. the plant) remains outside the combination (an endocentric compound would include the term “herb” or “plant”).<sup>20</sup> In other words, it is not explicit that

16. It has been linked with the acrid smell of the plant or the Greek “kònopos”, meaning flea, see Giuliano, 2007 in avanti – “*Erigeron sumatrensis* Retz. {ID 2945} - Saepolla di Naudin.” In *Acta Plantarum, Forum*. Accessed 25 June 2021. <https://www.floraitaliae.actaplantarum.org/viewtopic.php?f=95&t=931>.

17. I am grateful to Ilda Vagge for her help on current botanical nomenclature.

18. “fleabane, n.” *OED Online*, Oxford University Press, June 2021, [www.oed.com/view/Entry/71334](http://www.oed.com/view/Entry/71334). Accessed 25 June 2021.

19. Terttu Nevalainen, *Early modern English lexis and semantics*, in *The Cambridge History of the English language. Volume 3*, edited by Roger Lass, Cambridge, Cambridge University Press, pp. 332-458 (409).

20. Hans Marchand, *The categories and types of present-day English word-formation: a synchronic-diachronic approach*, Wiesbaden, Otto Harrassowitz, 1960, p. 11.

the compound designates a plant; in addition, the name does not really define any particular observable feature of the plant, but it rather tells something about its properties, effects or functions. Morphologically, some of these coinages are genitive compounds, or internal possessives,<sup>21</sup> but semantically, the relationship is not strictly genitive (i.e. N1 has N2); moreover, “fleabane” (as well as “dogbane” and “henbane”) appears to have dropped, or to have never had, the linking –s, so rather than possession the relationship between N1 and N2 may be understood as N2 for N1,<sup>22</sup> or “poison for fleas”. In fact, as one of our herbalists makes clear: «*Gaza* translateth it *Pulicaria*, and we in English Fleabane accordingly, because being burnt or laid in Chambers, it will kill Gnats, Fleas, or Serpents, [...]».<sup>23</sup>

The etymology reveals that “-bane compounds” maybe calques, or loan translations. “Leopard’s bane” was introduced by Turner for one species of *Aconitum* called *doronicum pardalianches*,<sup>24</sup> «whiche we may call in englishe Libardbayne or one bery».<sup>25</sup> The term *pardalianches* is derived from *πάρδαλις* “*párdalis*” (“leopard” or “panther”) and *ἄγχω* “*àncho*” (“strangle”). According to David Gledhill the name was given by Aristotle to plants poisonous to wild animals.<sup>26</sup> Another loan translation introduced by Turner, “wolf’s bane”, designated the highly toxic plant *aconitum lycoctonum* (*lyco* + *ctonum* = “wolf’s slayer”), a plant that seems to have derived its name from its use among Germanic people as poisonous bait against wolves.<sup>27</sup> But the model “animal + bane” was present in English before Turner. Another compound of this type is in fact attested in Norman

21. Nevalainen, *Early modern English*, 411; Laurie Bauer, *Compounds and minor word-formation types*, in *The handbook of English linguistics*, edited by April M.S. McMahon and Bas Aarts, Malden, Blackwell, pp. 483-506 (491).

22. Levy cit. in Bauer, *Compounds*, p. 495.

23. John Parkinson, *Theatrum Botanicum: the theatre of plants*, London, Thomas Coates, 1640, p. 127.

24. Acta Plantarum, 2007 in avanti – “*Doronicum pardalianches* L. - Scheda IPFI, Acta Plantarum.” Accessed 25 June 2021. [https://www.actaplantarum.org/flora/flora\\_info.php?id=2735](https://www.actaplantarum.org/flora/flora_info.php?id=2735).

25. Turner, *The Names*, sig. A5v.

26. David Gledhill, *The names of plants*, 4<sup>th</sup> ed., Cambridge, Cambridge University Press, 2008, p. 291.

27. Silvano Radivo, 2008 in avanti – “*Aconitum lycoctonum* L. emend. Koelle {ID 287} - Aconito strozzalupo.” In *Acta Plantarum, Forum*. Accessed 25 June 2021. <https://www.floraitaliae.actaplantarum.org/viewtopic.php?f=95&t=7967>.



times according to the *OED*, this is “henbane”, which seems to have been named from its toxicity to domestic fowl.<sup>28</sup> Finally, “dogbane”, based on the same model, was introduced by John Gerard in his *Herball* in 1597. Here again we have a loan translation, since Gerard seems to have derived the name from one of his classical source, Dioscorides, who named the plant *κυνοκτόνον*, killing dogs.<sup>29</sup> Therefore, the new names all date to the 16<sup>th</sup> century and were influenced or directly derived by the English naturalists from Greek or Latin sources. The existence of “henbane” may have provided a model to follow for both Turner and Gerard.

The English name for conyza, “fleabane”, must have been influenced by the traditional Latin and Greek nomenclature that herbalists certainly knew from their sources. Additionally, since the plant was used as a remedy against fleas or other parasites (and also against bites, epilepsy, jaundice, ailments connected with childbirth, and by some as an abortive), the name reflected its primary function, or its main use.

Naming after the properties, effects or functions of a plant was one of the models available since Antiquity. Other analogous coinages introduced by Turner are for instance “fig-wort” (to cure the “figs”, a popular name for haemorrhoids), “herb-grace” (apparently so called for its many good properties), “parthenium” (for childbirth), “spurge-wort” (a purgative), and the interesting “heal-dog”, not a cure for dogs, but rather a plant used to heal the wounds from the bites of rabid dogs. A “utilitarian” conception of the vegetal world is underscored by coinages indicating the uses and values of plants for people, but in the early modern English botanical nomenclature we also find “descriptive” names, such as “axweed” (from the shape of the leaves); “cotton-thistle” (covered with a white cottony down); “bindweed” (their growth as climbing plants, a translation of Latin “*convolvulus*”); “choke-weed” (also called stranglers, plants that parasite and choke others); or “calves-snout” (for its physical resemblance). These names display an interest in the characteristics or structures of plants in their own right, as they place prominence on the plant for what it looks like, the way it grows or its behaviour in relation to other plants.

28. “henbane, n.” *OED Online*, Oxford University Press, June 2021, [www.oed.com/view/Entry/85892](http://www.oed.com/view/Entry/85892). Accessed 25 June 2021.

29. “dogbane, n.” *OED Online*, Oxford University Press, June 2021, [www.oed.com/view/Entry/56502](http://www.oed.com/view/Entry/56502). Accessed 25 June 2021.

Interestingly, in 1568 Turner changed his mind regarding the name of fleabane/conyza, proposing that the plant «may be called in English Conise»,<sup>30</sup> going back to the Latin/Greek loan, but adapting its spelling – and as has been seen discussing the etymology of poplar, Turner did not leave spelling to chance. This single instance cannot be considered indicative of any shift in Turner’s approach to the study and naming of plants between the 1540s and the 1560s, but given his precision with names it would be interesting to compare any other such instances in his treatises. Whatever Turner’s misgivings about the name “fleabane”, they were not shared by the naturalist Henry Lyte, who retained the term in his 1578 translation (via French) of the important herbal by the Flemish physician Rembert Dodoens:

Of Conyza or Flebane. These herbes are called in Greeke *κονύζα*: *Plinie* in some place calleth them *Cunilagines*: *Theodor Gaza* calleth them *Policariae*, and *Pulicariae*: vnknown in shops: one kinde of it is called in English Flebane: some call it in high Douch Durwurtz, and Donnerwurtz: in Spanish *Attadegua*.<sup>31</sup>

It is interesting to note that Lyte both adopted Turner’s neologism and retained the Latin-Greek loan, with a conservative spelling, rather than the adapted form “conise” proposed by Turner. In fact, Lyte derived much of his nomenclature from Turner and from the standard reference dictionary of the time, Thomas Cooper’s *Thesaurus Linguae Romanae et Britannicae* which had reached its third edition.<sup>32</sup> It would seem that Lyte, not a naturalist himself, in spite of his penchant for herb lore, was less concerned with precision in naming or with the usage of particular names, and rather more intent on getting his meaning across. In fact, in his preface he remarked that what had prompted him to translate Dodoens’ herbal was that no English version existed of this important work whilst other languages had their own.<sup>33</sup>

30. Turner, *The Herball*, p. 158.

31. Rembert Dodoens, *A niewve Herball, or Historie of Plantes [...] first translated out of French into English*, by Henry Lyte Esquier, Antwerp, Henry Loë, 1578, p. 34.

32. Hoeniger, Hoeniger, *The development of natural history*, 54. The dictionary contained many English names of plants drawn from Turner (DeWitt T. Starnes, *Renaissance Dictionaries, English-Latin and Latin-English*, Austin, University of Texas Press, 1954, p. 74). Turner would be a source also for dictionaries published later on in the 16<sup>th</sup> and 17<sup>th</sup> centuries, which is indicative of his significance in the history of lexicography too.

33. Dodoens, *A niewve Herball*, sig. \*III.

Before the end of the century another famous herbalist, John Gerard, challenged the naming of “fleabane”:

Conyza from time to time hath been called in English Fleabane, but without reason, considering there is another herbe so called: but if it were possible to root out auncient errors, I would gladly have Conyza to be called in English Fleabane Mullet, to make a difference between two herbes that beare one name.<sup>34</sup>

Like Turner, Gerard showed a special care about names. This passage exposes the problem of plant identification when the same name is attributed to different plants, thereby producing a situation of multiple referents. Evidently, Gerard was worried about a potential confusion, but the fact that he adopted, adapting it, Turner’s neologism, despite his reservations, clearly indicates that “fleabane” was becoming the established name for this plant. Still, he separated two herbs often confused according to him: the one fleabane and the other named «in English Fleawort, not because it killeth fleas, but because the seeds are like fleas». The existence of two compounds sharing the same element (flea) to designate different plants generated some confusion:

Some holde that the herbe strowed in the chamber where many fleas be will drive them away; for which cause it tooke the name Fleawoort: but I thinke it is rather because the seede doth resemble a flea so much, that it is hard to discerne the one from the other.<sup>35</sup>

Here Gerard offers an etymological explanation for the name. It is not a “bane for fleas”, but rather a “wort (= herb) like fleas”; the semantic relationship is metaphoric extension, and the transfer of the lexeme “flea” onto the vegetal world is based on similarity in shape or size.<sup>36</sup> This explanation of the semantics of the name was not merely an etymological question, but had pragmatic implications, as it was intended to clarify matters concerning how to employ the plant correctly. What is underscored by Gerard’s observations is that an error in name results in an error in use,

34. John Gerard, *The Herball or generall historie of plantes. Gathered by Iohn Gerarde of London master in chirurgerie*, London, Iohn Norton, 1597, p. 391.

35. Gerard, *The Herball*, pp. 471-472.

36. This is in fact another common type of compound in English, in which the semantic relation is N2 [is like] N1, very common in botanical nomenclature, and more generally in areas of extensive lexical growth (Nevalainen, *Early Modern English*, p. 444).

and *vice-versa*. We can see here that the correct name functioned as a sort of “instruction” to the correct usage of the plant, if understood properly. Hence the energies dedicated by these herbalists to the etymological explanation of some names.

In the entry for fleabane/*conyza* Gerard continued: «it is called [...] of Gaza Pulicaria, and Pulicaria; yet it differeth from Psyllium, which is also called Pulicaria, Fleawort».<sup>37</sup> Yet, different names ought to distinguish plants that are different, and accordingly in Gerard’s herbal we find different entries for “fleabane”, *conyza*, and “fleawort”, *psyllium*.<sup>38</sup> We can see that these names begin to be used as generic names.<sup>39</sup> Turner’s classification was limited to a “greater” and a “lesse” fleabane, but with Gerard the nomenclature becomes more complex: “*conyza maior*”, “*conyza minor*” and “*conyza minima*” are translated into English as “great fleawort” [sic.], “fleabane mullet” and “dwarfe fleabane”.<sup>40</sup> “Fleawort” translates instead *psyllium*, and we have the two varieties “*psyllium sive pulicaria*” and “*psyllium sempervirens* L’Obelij” rendered into English as “fleawort” and “never dying fleawort” respectively.<sup>41</sup>

What this example illustrates is an additional function of naming, used to classify the vegetal world: different names designate different herbs, whereas different “sorts” or “kinds” of the same herb are labelled creating further compounds adding a modifier to the name. However, as the example of fleabane/fleawort shows, these compounds could lead to grouping plants together based on misunderstandings that became embedded in the language, which is precisely what later botanists would be trying to avoid through the development of different principles of naming and classification.<sup>42</sup>

37. Gerard, *The Herball*, pp. 390-391.

38. *Ibidem*.

39. Although designations per genus and differentiation, i.e. combining generic and specific names go back to antiquity (cf. Aristotle), a direct connection or continuity with botanical nomenclature has been contested (John L. Heller, *The early history of binomial nomenclature*, in «*Huntia*», 1 (1964), pp. 33-70.

40. Gerard, *The Herball*, p. 390.

41. From a lexicosemantic point of view, the compound flea + wort works differently from “fleabane”. It is endocentric, i.e. the *determinatum* is part of the compound, in fact *wort* is a Germanic word meaning “herb” (a cognate of German *Wurzel*).

42. Many thanks to Justin Begley for discussion on this and other points and for reading an earlier draft of this paper.

The overall structure of Gerard’s *Herball* is also more complex than Turner’s. In both *The Names* and *The new Herball*, Turner resorted to alphabetical arrangement – there appears to be no intention to classify plants based on their characteristics, habitat or uses in his works, the arrangement is completely artificial, in contrast with later naturalists. Gerard’s herbal was in fact organised into books including in book 1 grasses, corn, flags, bulbous and onion-rooted plants; in book 2 herbs for meat, medicine or sweet smelling; and in book 3 trees, shrubs, bushes, fruit-bearing plants, roses, heath, mosses, mushrooms and corals, and more.

Continuing down our timeline the world of fleabane becomes more and more crowded; a page from John Johnson’s edition of Gerard’s herbal from 1633 aptly illustrates the “explosion” referred to in the introduction of this paper. We have 10 different “sorts” of *Conyza* or Fleabane, and names given by other herbalists are listed in the descriptions of the plants, which include sections dedicated specifically to their names. Johnson abandoned the distinction between “fleawort” and “fleabane” introduced by Gerard. His complex nomenclature reflects a classification of varieties based on multiple criteria:

Table 1. Johnson’s nomenclature (1633)

	Latin	English
1.	<i>Conyza maior</i>	great fleawort
2.	<i>Conyza minor vera</i>	small fleabane
3.	<i>Conyza media</i>	middle fleawort
4.	<i>Conyza minima</i>	dwarfe fleabane
5.	<i>Conyza folijs leciniatīs</i>	great jagged leaved fleabane
6.	<i>Conyza palustris serratifolia</i>	water snipt fleabane
7.	<i>Conyza Austriaca Clusij</i>	Austrian fleabane
8.	<i>Conyza incana</i>	hoary fleabane
9.	<i>Conyza Alpina pilosissima</i>	hairy fleabane of the Alps
10.	<i>Conyza Caerulea acris</i>	blue flowered fleabane

“Fleabane” is used to designate a “kindred” in Johnson’s terms, and the different nomenclatures for «plants belonging to this kindred» reflect size, physical characteristics of the leaves, habitat or provenance, colour and other physical features. We can observe “hairiness”, for instance, ren-

dered as “hairy” to designate plants covered with hairs, or “hoary”, in the sense of “canescent”, to translate the Latin “incanus” and denoting a plant covered with white or whitish hairs.

The third species of fleabane catalogued by Johnson is particularly interesting: «This is *Conyza media* of Matthioli, Dodonaeus, and others. Some have referred it vnto the Mints, as Fuchsius, who makes it *Calamintha* 3. genus; and Lonicerus, who calls it *Mentha Lutea*».<sup>43</sup> Here we have an explicit reference to the fact that the name provides an indication of the *genus* of a plant. Of particular value for language historians, then, is the evidence we find in this entry of dialectal and of social/professional variation, as Johnson reports: «In Cheape-side the herbe-women call it *Herbe Christopher*, and sell it to *Empericks*, who with it (as they say) make Medicines for the eyes, but against what affect of them, or with what successe I know not.»<sup>44</sup> This is not the only example of a name used by herb women we find in herbals,<sup>45</sup> which suggests that recording this alternative nomenclature was something of a habit for herbalists, often done with polemical intents. As this example makes clear, women healers and “empiricks” were in fact identified as a different community allegedly using and naming herbs in an unlearned, approximate, and wrong way. University-trained physicians and apothecaries, such as Johnson, evidently attempted to assert their authority and to separate their practice from that of “unorthodox” practitioners, though apparently with only very limited success in the 17<sup>th</sup> century.<sup>46</sup>

As can be seen, “*Herbe Christopher*” is formed as N1 + proper noun. The *determinatum* is present in the compound (herb) as in “fleawort”, but it precedes the determinant, which is not typical of English so much as the word order of Romance languages. These compounds are in fact generally

43. John Gerard, *The Herball or generall historie of plantes [...] Enlarged and amended by Thomas Iohnson citizen and apothecarye of London*, London, Adam Islip Ioice Norton and Richard Whitakers, 1633, pp. 482-483.

44. *Ibidem*.

45. Other regional/popular names include lady-laces (*Gramen pictum*), honesty (*thlaspi alterum*), welcome-to-our-house (sea spurge), live long, or live forever (cotton weed).

46. Justin Begley, Benjamin Goldberg, *The medical world of Margaret Cavendish: a critical edition*, forthcoming. See also Leah Knight, *Of books and botany in early modern England. Sixteenth-century plants and print culture*, New York-London, Routledge, 2016.

translations or loans from French or from Latin, or, when they are new coinages they are formed after this model. The name “Herb Christopher” is certainly medieval, as it is attested also in the 15<sup>th</sup> century herbal *Agnus Castus*. The *OED* establishes that the family of plants to which it refers is not the conyza, but rather «the common Eurasian baneberry, *Actaea spicata*» of the family of the Ranunculaceae.<sup>47</sup> Therefore, the name “herb Christopher” attributed to fleabane is either a regional use or the erroneous conflation of two different plants, as it would seem from Johnson’s skepticism regarding its use.

Less than ten years after Johnson, the *Theatrum Botanicum* published in 1640 by Parkinson added the new discoveries by other European naturalists. Parkinson returned to a distinction between Fleabane and Fleawort as different herbs, and within the same genus he listed different “sortes” or “kinds”:<sup>48</sup>

Table 2. Parkinson’s nomenclature (1640)

	Latin	English
1.	<i>Conyza maior verior Dioscorides</i>	truest fleabane
2.	<i>Conyza maior montana Germanica</i>	great mountain fleabane of Germany
3.	<i>Conyza Helenitis mellita incana</i>	hoary sweet fleabane mullet
4.	<i>Conyza Helenitis pilosa</i>	hairy fleabane mullet
5.	<i>Conyza montana pilosa</i>	hairy mountain fleabane
6.	<i>Conyza odorata caerulea</i>	sweet purple fleabane
7.	<i>Conyza caerulea Alpina major</i>	great blue mountain fleabane
8.	<i>Conyza caerulea Alpina minor</i>	small blue mountain fleabane
9.	<i>Conyza minor vera Penae</i>	truest small fleabane
10.	<i>Conyza minor Rauwolfij</i>	small Syrian fleabane

The nomenclature chosen by Parkinson was also based on characteristics of the plant, with some exceptions, such as 1, one of the first varieties to be identified, also named after Dioscorides in Latin; 9, named after the French botanist Pierre Pena; and 10, named after the German botanist Leonard Rauwolf. Interestingly, the names of the botanists were invariably omitted in the translation into English, although in the name of variety number 10, the substitution of the name “Rauwolfij” with the country ad-

47. “Christopher, n.” *OED* Online, Oxford University Press, June 2021, [www.oed.com/view/Entry/32493](http://www.oed.com/view/Entry/32493). Accessed 25 June 2021.

48. Parkinson, *Theatrum Botanicum*, pp. 125-128.

jective “Syrian” maintained, if obscuring it, the connection with the German naturalist who had conducted botanic expeditions in the Levant and Mesopotamia in areas corresponding to Syria. Concerning the names describing characteristics of the plant, we can see that size is a feature (small, great), in alternative to, or in combination with, colour (purple, blue), hairiness (hairy, hoary), location or habitat (Germany, mountain, Syrian), similarity with other plants (mullet), and a significant addition, smell (sweet), not present in Johnson-Gerard.

Such variety in the nomenclature of different specimen of “fleabane” may be in part a reflection of the broader debate regarding which structures may be said to constitute the defining characteristics of a plant, whether smell, colour, location, reproductive apparatus, or something altogether different. The amplification of the nomenclature that can be appreciated in Johnson’s and Parkinson’s herbals is an indication of significant developments in the study of plants in the first quarter of the 17<sup>th</sup> century. In 1623 Gaspard Bauhin’s *Pinax Theatri Botanici* had been published and went on to become an indispensable work for all engaged in the study of plants in Renaissance Europe. It represented the height of botanical learning of the time, and was the first work to apply binary designation composed of a generic and a specific name.<sup>49</sup> Johnson surely knew the *Pinax* and he used it for his entry for conyza/fleabane.<sup>50</sup>

Finally, a word may be spent about the general treatment of plants in Johnson’s and Parkinson’s herbals. If Johnson retained the division into books established by Gerard, reflecting in part a division into *arbor*, *frutex*, *suffrutex* and *herba* reminiscent of Theophrastus,<sup>51</sup> Parkinson proposed a mixed system that I have not yet identified and could be perhaps in part his own creation. It comprised seventeen “tribes” including «Sweete smelling Plants»; «umbelliferous plants»; trees and shrubs separated from grasses and from mosses, mushrooms and sea plants; as well as «purging plants» and «*Uenemous, Sleepy, and Hurtfull Plants, and their Counterpoysons*», a miscellanea section and «Strange and Outlandish Plants».<sup>52</sup> In fact, another influential work by the Italian botanist and physician Andrea Cesalpino, *De Plantis*, first published in 1583, had

49. Heller, *The early history*, pp. 33-34

50. Gerard, *The Herball [...] Enlarged and amended*, p. 485.

51. *Ibidem*, sig. A1.

52. Parkinson, *Theatrum Botanicum*, sig. [(a)4].



debunked the Teophrastian classification of flora into trees, shrubs, undershrubs and herbs;<sup>53</sup> however, neither Johnson 1633 nor Parkinson in 1640 appear to have followed this system.<sup>54</sup>

### 3. Concluding remarks

Sifting through the pages of these herbals it becomes clear that they were not just catalogues of the known plant species, but they also included numerous references to other works in the field, and hence alternative nomenclatures, as is shown by entries such as this: «The seventh and eight *Bauhinus* calleth *Conyza caerulea Alpina major & minor*. The 9. is called *Conyza minor vera*, both by *Pena, Clusius, Gesner, & others*».<sup>55</sup> A section dedicated to names in vernacular languages and names given by other naturalists became in fact a regular feature in these herbals; this practice was not just connected with the effort of identifying plants in the real world, but it also represents a significant stage in the development of a ‘scientific’, unambiguous terminology shared by an international community of scholars.<sup>56</sup>

As has been seen, the period 1540-1640 was one of intense experimentation in the field of botanical nomenclature. The examples discussed show various aspects connected with the idea of perfect, or correct, naming in the vegetal world, whilst they illustrate shifting approaches to naming: as an instrument of knowledge of the behaviour, properties, and use of plants; or as a tool to make sense of an expanding and increasingly complex world.

In answer to the questions posed at the beginning of this paper, we may observe that the notion of correctness in naming was complex and shifting, and it had multiple dimensions. For instance, a textual one, since

53. Phillip R. Sloan, *John Locke, John Ray, and the problem of the natural system*, in «Journal of the History of Biology», 5, I (1972), 1-53 (p. 12). Cesalpino’s primary division was into two major groups, hard and medullary substance (trees), and soft and fleshy matter (herbs); subordinate divisions considered variations in the number, location, shape, and structure of the parts of reproduction.

54. Sloan notes that Cesalpino’s influence began to register later from the 1660s (*Natural system*, pp. 13-14).

55. Parkinson, *Theatrum Botanicum*, p. 128.

56. Heller, *The early history*.

a false name was very literally in some cases a matter of textual corruption. Before Turner, much of the knowledge concerning plants in England was anthological, derived from books and written sources, and plant names were expected to be permeable to transcription errors through the chain of textual transmission, as exemplified by Turner's discussion of the etymology of the Greek name for "poplar". Another dimension was pragmatic or utilitarian. We cannot forget that from a practical point of view, plants were the main source for medical preparations, and one paramount concern was to identify them correctly in order to use them in the right way. It is worth recalling both Gerard's polemic over the naming of "fleabane" and "fleawort", and Johnson's skepticism with respect to the use of the plant named Herb Christopher by women healers. These attitudes to the naming and usage of plants testify to the existence of multiple actors and views in early modern English herb lore. The notion of correctness must then also be linked with the role played by plant names in the development of botanical taxonomy. Naming reflected the progress of the scientific observation of plants, as the number of identified plants grew, and naturalists attempted to develop a viable system to identify similarities and differences between varieties and groupings. These dimensions all coexisted throughout our period, and naturalists resorted to one or the other oscillating between anthropocentric views of the vegetal world, in which what was underscored was the value of plants to humans, and "natural" principles attentive to observing them in their own right.