

The Indigenous versus the Exotic: debating natural origins in early modern Europe

ALIX COOPER

ABSTRACT During the early modern period, a series of debates arose around the relative value and desirability of 'exotic' vs. 'indigenous' European natural objects. Focusing on such highly visible imports as coffee, tea, chocolate and tobacco, but also scrutinizing a wide range of foodstuffs and medicines (often to be found in the new botanical gardens), 17th- and 18th-century pamphleteers—especially physicians—alternately praised and disparaged the substances in question. While some lauded the new imports, others issued cautions about them and called for renewed attention to 'indigenous' European natural worlds, successfully urging the production of what we might nowadays call local floras and environmental surveys of their own European landscapes. In the 17th-century Netherlands, the works of Jan van Beverwyck, Lambert Bidloo and Jan Commelin provide a particularly rich introduction to the themes of the indigenous–exotic debate.

KEY WORDS: indigenous, exotic, Netherlands, local floras, history of environmental surveys

Introduction

In 1644, Jan van Beverwyck, a physician and local official in the Dutch town of Dordrecht, chose to write a book on what he called 'indigenous medicine'. In it, he complained extensively about the many 'exotic' natural substances that, he felt, were currently flowing into Europe with the all-too-eager assent of his contemporaries. He was especially concerned about Europeans' fascination with the strange new foods, drinks and medicines made available by recent voyages to the Americas, Africa and Asia. He expressed his concern in no uncertain terms: "Foreign herbs don't suit our bodies any more than foreign customs suit our souls ..." (Beverwyck, 1644, p. 76). Why, he asked over and over again, did Europeans go to so much effort and expense to import unknown and possibly harmful natural objects from overseas, when nature at home supplied everything they could ever really need? Europeans, Beverwyck argued, were guilty of the greatest negligence. In their chase after the 'exotic', they had ignored the 'indigenous' natural productions of their own native lands, and they were now paying doubly for their folly, through lighter wallets and worse health.

Alix Cooper, History Department, SUNY-Stony Brook, SBS S-339, Stony Brook, NY 11794-4348, USA. E-mail: acooper@notes.cc.sunysb.edu

0142-6397 Print/1469-9710 Online/03/010051-10 © 2003 Landscape Research Group Ltd. DOI: 10.1080/0142639032000042789

Beverwyck was not alone in the sentiments he expressed. The early modern period in Europe saw the rise of a series of debates over the desirability of the 'indigenous' versus the 'exotic'. As expanded trade in the wake of the Columbian voyages of exploration brought new and previously unheard-of plants, animals and peoples to Europe, residents of the continent struggled to make sense of their experiences with the exotic. Scholars have argued that, in fact, it took centuries before the full intellectual, cultural and economic impact of the new discoveries began to be felt (cf. Elliott, 1970), but at any rate, by the 17th century many Europeans were aware that they lived in greatly changed times. One of the ways this awareness manifested itself most strikingly can be seen in the new kinds of attention given to the origins of natural objects. 'Indigenous' and 'exotic' nature came to be constituted almost as polar opposites, and intellectuals rushed to take sides, like Beverwyck, on the relative virtues and demerits of each. In the process of doing so, they contributed to the revaluation of both European and non-European nature.

In early modern Europe, 'exotic' materials were spread surprisingly widely, from farmers' fields to urbanites' drawing rooms. As substances from far-flung destinations were commodified and shipped to Europe, internal trading networks took them and distributed them throughout the continent. Many of these substances then worked their way into Europeans' everyday lives. One of the most striking examples of this phenomenon is, of course, the arrival of the new luxuries of tea, coffee and chocolate on the European scene (cf. Mathee, 1995; Schivelbusch, 1992). As individuals drank these novel beverages, sweetened with plantation-grown sugar (cf. Mintz, 1985), new forms of sociability, like that of the English 'coffeehouse' or Continental cafe, arose in response to these new forms of consumption. Europeans cultivated and ate foodstuffs whose origins lay in the New World, including such now-staple items as potatoes, tomatoes and maize; .sampled much-hyped medicines from far-off places; and some smoked another new import, Nicotiana tabacum (Hobhouse, 1987; Schlesinger, 1996, pp. 81-98; Viola & Margolis, 1991). Europeans also, of course, encountered New World microbes, brought over unintentionally on the same ships that profited so greatly from the new commodity trades; but these were imports about which they knew very little (Crosby, 1972). On a very material basis, then, the natures of both Old and New Worlds became more and more intertwined.

European intellectuals took notice. And against the seemingly unstoppable tide of 'exotics', many of them began to issue guarded criticisms, and to urge renewed attention to the 'indigenous'—a term which, in their writings, almost always referred to the natural products of Europe itself, in contradistinction to the exotic. Appointing themselves de facto custodians of natural order, writers attempted their own assessments of the new 'exotic' substances in use. Literally hundreds of treatises, for example, were written debating the virtues and potential hazards (not to mention recommended dosages) of the new imports; some of the most well known include those of James I, King of England (1604) and of Philippe Sylvestre Dufour (1671), the latter of which appeared across Europe in numerous pirated editions and translations. Some of these writers stressed broader economic and moral concerns: for example, advocates of the Western European 'mercantilist' school of thought, who thought national wealth was best gained by accumulating bullion, urged sharp cutbacks on almost all imports, as did proponents of the Central European 'cameralist' school, who promoted economic self-sufficiency and tended to take a dim view of trade altogether. But it was learned physicians and other members of the medical professions who saw themselves as most qualified to comment on the new exotic arrivals, owing to their academic training in understanding not only the nature of the human body, but also nature or *physis* itself more generally (cf. Cook, 1993). And physicians gladly entered into the fray, issuing judgments, for example, on the evidence for and against the dangerously aphrodisiac properties of chocolate, and its effects once ingested on the various systems of the human body (cf. Schivelbusch, 1992, p. 92).

But some learned physicians went further. Rather than limit themselves to expressing their concerns about any one specimen of exotic nature, they decided to address the question of exotic nature in its entirety. And their conclusions were sobering. Europeans, they argued, in their rush for new and glamorous exotica, had violated the basic order of nature. They had neglected the natural productions of their own lands which, while seemingly 'domestic' and even 'common' or 'vulgar', were actually far better for European purposes than their foreign rivals. Some physicians thus began to issue appeals for the renewed study of 'indigenous' European nature. And it is around this time, in the 17th century, that the earliest explicitly local floras, or plant catalogues of a given area, began to be published in Europe, and especially in the German territories, where opinion tended to be especially suspicious of exotics. Authors of local floras, almost always physicians, enthusiastically rehearsed the kinds of arguments discussed above. They cited as one of their chief motivations for writing their works the desire to rehabilitate the reputation of the 'indigenous' species of their town or territory, and to free their readers from their excessive reliance on exotics. These local floras would in time lead to larger-scale inventorieswhich again would document the 'indigenous' nature of Europe far more thoroughly than that of anywhere else—and ultimately to the modern environmental survey (Cooper, 1998). The debate between the indigenous and the exotic would thus have considerable implications for the development of the environmental sciences.

One particularly interesting site for studying this debate is the early modern Netherlands. Major promoters of international trade, the 17th-century Dutch were heavily invested in the importation of exotics of all sorts (Lambert, 1985, p. 207). Their botanical gardens were spectacularly well supplied with the rarest plant species, helpfully shipped to them through the channels of the Vereenigde Oost-Indische Compagnie or VOC (the Dutch East India Company; see Wijnands, 1988). And their involvement in the flower trade, in which grossly inflated prices made some exotic plants like tulips literally worth their weight in gold, is legendary (cf. Krelage, 1942). However, residents of the Dutch Republic were not insulated from broader European intellectual trends—indeed, if anything, they were probably more aware of them, owing to their international connections—and thus it is that two of the most thorough accounts of the indigenous–exotic debate that we possess were published in the United Provinces. These works illustrate particularly well some of the concerns that lay behind this debate, and their shifting nature over time.

"Lands Warmed by Another Sun"

In 1644, Jan van Beverwyck, the Dordrecht physician and town councillor whom we encountered above, published his *Batavian Autarky*, or, an Introduction to

Indigenous Medicine (Beverwyck, 1644). The title of this book deserves a word of explanation. Like other Dutch intellectuals of his day, Beverwyck was fascinated by stories of the ancient Batavi, the Germanic tribe that had originally inhabited the region of the Low Countries before the arrival of the Romans. Earlier humanist writers, in the throes of the Dutch Revolt against the Spanish and Austrian Hapsburgs, had seized on the Batavi as symbols of Dutch national pride and hoped-for independence. By the mid 17th century it had become commonplace to use the term 'Batavian' as practically synonymous with 'Dutch', but the label's earlier patriotic resonances continued to echo for readers (Schama, 1988).

Beverwyck's use of the term 'autarky' was likewise freighted with meaning. What the word literally meant, in its original ancient Greek usage, was a situation of utter economic self-sufficiency, usually encountered only in wartime, in which trade with other nations had ceased completely. Central European cameralists, like those of the various tiny German territories, cut off from direct access to the new colonial trades, would come to embrace this concept over the next century, turning necessity into a virtue (Coleman, 1969; Schorer, 1941). Hence Beverwyck's use of the term, in a Dutch context, is indeed striking. What Beverwyck seems to have intended to evoke through his book's title was a sense of the patriotic necessity, which he urged upon his countrymen, to rush to the defence of that 'indigenous medicine' he recommended in his subtitle. The Dutch, as he saw it, had been overwhelmed over the previous decades with 'exotic' influences; the only way to restore balance and harmony would be to return to an earlier presumed state of self-sufficiency, in which the Dutch would again re-learn to rely on their own 'indigenous' or 'domestic' resources. (Here a note on terminology might be worthwhile; in general, Beverwyck seems to have used these two terms fairly interchangeably. For a discussion of a subsequent Danish work with a similar agenda but preferring the latter term, and an excellent recent analysis of it, see Bartholin (1666) and Baldwin (1998). Very rarely, the term 'native' might also be used, but the two previous terms predominated.)

Beverwyck's approach to the debate between the 'indigenous' and the 'exotic' drew heavily on the ideals and methods of classical humanism. He cited one ancient author after another to support his claims that the perils of 'foreign' substances had been recognized even in Greek and Roman times. He used the materials and environments of the ancient Mediterranean world as a primary point of reference, comparing and contrasting these with their northern European counterparts. And, he felt, the ancient Batavi would have agreed heartily with the classical authors whose strictures against exotics he cited. "Indeed I for my part could not believe that the ancient Batavians", before entering into world trade "so that they might return burdened with the spoils of the Orient, would not have made use for preserving health, or recovering it, of their indigenous herbs." Indeed, he observed, "they would otherwise have been more stupid than ... cats and dogs, who know about domestic remedies, and do not set sail in search of grass or mint" (Beverwyck, 1644, pp. 53–54). Beverwyck traced the history of modern commerce back to the Venetians, who bought their 'exotics' from Egypt, subsequently yielding their primacy in trade to the Spanish, and ultimately to the Dutch themselves (Beverwyck, 1644, p. 54). Putting the controversy over exotics into historical perspective, Beverwyck thus felt free to cite a wide range of authors, from the ancients to contemporaneous raconteurs of Dutch voyages to both the East and West Indies, to support his case for repudiating 'exotic' in favour of 'indigenous' or 'domestic' nature.

Why did Beverwyck so strongly condemn the use of exotics? He gave numerous reasons. God, he felt, "would never have forced miserable mortals to fetch things from distant lands", "lands warmed by another sun" (Beverwyck, 1644, pp. 39–40). Exotics had only become popular in his day because Europeans, curious and gullible, had let themselves be deceived by the glamour attached to exotic imports, mistaking high prices for true value. Referring to 'exotic medicaments' in particular, Beverwyck sourly followed Pliny in observing that they were "more helpful for enriching pharmacists, than for curing sick people" (Beverwyck, 1644, p. 68). People who bought exotic remedies like balsam or tamarind were, he felt, all too commonly sold a bill of goods; the herbs and roots they purchased were often adulterated with other substances, or had simply gone stale from too much transit time. As a result, not only were these exotic substances unnecessary, but they could, even worse, be positively damaging to health (Beverwyck, 1644, pp. 71, 72, 74–75, 91).

In contrast to exotics, Beverwyck argued, 'indigenous' natural objects were safer, more reliable, and generally superior for all purposes. "On the contrary [i.e. to exotics], nothing can be more certain than indigenous plants, which we see every day" (Beverwyck, 1644, p. 71). In order to understand why he felt this way, why he saw Europeans' local natural worlds as not merely more conveniently located for their use, but in some sense healthier and more morally sound, we need to turn to ideas at the time about the relation between natural landscapes and the living beings that inhabited them. Descended in many cases from the ancient Hippocratic theory of 'airs, waters, and places' (cf. Miller, 1962), these ideas held that living beings existed in a close relationship or 'sympathy' with their surrounding natural environments, which affected them in ways more deeply than human beings could ever hope to understand. Each region, in particular, had its own specific endemic diseases, which only native medicines could cure. European plants and animals, insisted Beverwyck, thus shared a special bond with European people, "since they live under the same sky with us, and in the same soil, and they consume the same food, known to us, and they assume a nature harmonious to our nature" (Beverwyck, 1644, pp. 76-77). This harmonious relationship ensured, for example, that a food, drink or medicine could be consumed and would not injure, or be violently rejected by, the body of the person or creature who ate it. More generally, this material harmony of influences and ingredients spoke to a deeper sense of natural and divine order, in which living beings, and indeed non-living objects as well, 'fit' their environments in a perfect match.

Travel, whether of men, beasts or plants, was seen as disrupting this harmony. Beverwyck cited the well-known fact that tropical plants brought to Europe, like aloes, tended to do badly in their new surroundings. He attributed this not only to harsh European winters, but also to a more fundamental imbalance. Transplanted species "fight with a hostile sky and soil", he explained, "and they're not able to enjoy their native and familiar food, and thus cheated out of their spirit, they gradually wither and eventually die" (Beverwyck, 1644, pp. 43, 105–108). As with plants, so with people; Europeans too, Beverwyck felt, tended to degenerate in their morals, customs and general health when they travelled outside their native lands (Beverwyck, 1644, p. 112; cf. Schmidt, 2001, pp. 281–310).

It is in this context that Beverwyck proposed a renewed attention to the 'indigenous' natural products of the Netherlands. Holland, he maintained, was a virtual "storehouse of fertility", blessed with "affluence" in its natural endowments as well as its banking institutions (Beverwyck, 1644, p. 5). Beverwyck admitted that Holland did, indeed, owing to its small size and geographical situation, conspicuously lack some of the natural resources enjoyed by neighbouring countries, such as metal deposits to be mined, or adequate forest cover to burn for fuel; but he argued that, if studied closely enough, the land would reveal sufficient 'indigenous' resources to cover all of its needs. Take, for example, the case of fuel; even in the absence of sufficient quantities of wood, peat deposits amply sufficed to meet Dutch energy needs (Beverwyck, 1644, pp. 18–19, 30; cf. Keuning, 1979). He argued against the excessive importation of colonial sugar, devoting an entire section of the book to the advantages of native honey as a substitute (Beverwyck, 1644, pp. 99-103; cf. Baldwin, 1998, p. 169). Similarly, he proposed that those tempted by exotic oils should simply use butter, the product of the thriving Dutch dairy industry; he did acknowledge butter's tendency to go rancid, but discussed possible preservatives (Beverwyck, 1644, pp. 103-105). He scorned the new foreign drinks, lauding Dutch beer instead (Beverwyck, 1644, pp. 25-27). And he pointed to Dutch herbs which were known to cure local diseases, arguing that if only physicians and other patriotic individuals turned their minds to the task, borrowing a leaf or two from wise rustics in the process, the Netherlands could be shown to possess a full complement of 'indigenous' resources in this regard as well.

In short, Beverwyck drew on the themes of the indigenous-exotic debate, drawing out the moral and social implications of 'foreign-ness' for both plants and people, to articulate a strong defence of 'indigenous' European nature. Although his focus was primarily on Dutch examples, the book proved much more widely influential; over the course of the next century, it was frequently cited by authors from both France and the German territories. In particular, naturalists cited the book as support for the compiling of local floras or 'catalogues of indigenous plants' from a number of different European regions. Clearly, what they took from the book was not so much any conviction of the indispensability of Dutch nature in particular, as rather the broader point that Beverwyck was making: namely, that the indigenous-exotic debate had raised crucial intellectual problems, which Europeans could best address by making a thorough study of their own 'indigenous' natural productions.

"Cast Down Here from Other Shores"

In 1683, several decades after the appearance of Beverwyck's book, a new treatise on the topic was published. Its title told very little about its contents— Dissertation on Botanical Affairs—but the way in which it was presented to its readership provides us with some clues as to why, despite its dry title, this treatise entered directly into the indigenous-exotic debates. For the treatise was bound together with, effectively as an (extremely extended) preface and introduction to, the first explicitly local flora of the Netherlands—the famous botanist Jan Commelin's Catalogue of the Indigenous Plants of Holland (Commelin, 1683). Commelin, at first glance, might seem far from an obvious candidate for the authorship of such a book. A merchant and importer of exotic medicines by profession, who had done well enough for himself to be appointed to various posts in the Amsterdam city government, he had profited greatly from exactly the kind of enthusiasm for exotics Beverwyck had so decried. And in the same year his local *Catalogue* was published, Commelin had just been selected as director of the new Amsterdam botanical garden, which under his leadership would eventually come to possess one of the widest selections of exotic species of any garden in Europe (Hunger, 1924; Wijnands, 1983). But for him, as for Beverwyck, his familiarity with exotics and with the indigenous-exotic debate had clearly only whetted his curiosity about 'indigenous' nature. Basing his *Catalogue of the Indigenous Plants of Holland* on botanizing he had done around his own country estate in Haarlem, Commelin recruited the Amsterdam apothecary Lambert Bidloo to introduce it to his readers. Far from writing a brief and merely ornamental preface, though, Bidloo chose to write a full-fledged treatise, one that would engage many of the issues surrounding his own and Commelin's careers.

Bidloo's treatise directly addressed itself to the readers of Commelin's *Catalogue of the Indigenous Plants of Holland.* "If you, dear reader, look at Commelin's ... volume, you will see a tiny book, but given the amount of labor assembled for it, a work quite large enough. For [to produce it] indeed what a number of fields, forests, thickets, hills, and beaches had to be crawled through!" (Bidloo, 1683, p. 3). Praising Commelin's achievements in scrutinizing the "corners, valleys, and remote vaults" of their native land, and thereby finding "many indigenous plants hitherto unknown", the treatise moved on to explore a number of contemporary controversies in botany: most noteworthy among these, of course, the controversy over Commelin's chosen object of study in his catalogue, 'indigenous plants'. Although Bidloo occasionally left this topic to explore other botanical trains of thought, he always circled back to the indigenous-exotic debate; and it is worth seeing what he had to say.

Bidloo's stance on this topic was, on the whole, quite similar to Beverwyck's. Indigenous species, he felt, had been unjuštly ignored in the rush to study and consume all things exotic. He attributed the popularity of exotic substances to a craving for novelty ("for one kind of person, nothing will suffice unless it's new"), and compared changing tastes in food, drink and medicines to those in the fashion world, referring contemptuously to girls' dresses as an example of this, adding the contemptuous remark "away with you Dutch herbs! family doctors are now prescribing tea, coffee, and chocolate" (Bidloo, 1683, p. 34). Bidloo warned of excessive passion for exotics, ominously hinting, like Beverwyck had, that this trend heralded decline: "due to the wares of foreigners, weakness, luxury, and gluttony are now stealing over our people, as happened to the Romans in their day ..." (Bidloo, 1683, p. 24). To illustrate his point, he cited the case of tobacco: "Have men increased their longevity in our age, in which the use of nicotine has increased so greatly? On the contrary, as seen from examination of cadavers of the dead, as many anatomists have noted" (Bidloo, 1683, p. 36).

Bidloo's analysis of the roots of the problem likewise mirrored Beverwyck's. Objects and environments, he insisted, were linked in an intricate balance, which must not be disrupted. "The soil and the sky of every region mutually harmonize together and are connected, for men as for plants, in a universal relation on all sides" (Bidloo, 1683, p. 8). Consuming foreign substances violated this natural order. Bidloo reported, for example, that plants from the Indies, if eaten by Europeans, commonly caused bloody diarrhoea, vomiting, paralysis, "and other serious symptoms". For Bidloo, the same general rule held true in Europe, just to a lesser degree, since distances were shorter and environmental differences

therefore less extreme; thus an Englishman would probably get sick on a diet of Norwegian fish (Bidloo, 1683, pp. 8–9). Bidloo acknowledged that proponents of exotic medicines had begun to call these kinds of arguments based on affinities and "sympathies" between "earth, water, and sky" into doubt, questioning them as to both their rational grounds and their state of empirical proof. Admitting that indeed he could not 'prove' the connections he saw with any kind of 'mathematical' certainty, he maintained that the overwhelming weight of the evidence, and of common sense itself, was on his side (Bidloo, 1683, p. 9). Here too, then, Bidloo chose to accept Beverwyck's basic theoretical model, arguing that it was the only one that made sense of the observations Europeans had accumulated about the historical interactions between objects and their environments.

If one examines Bidloo's 'dissertation' closely, though, signs can be seen that distinctions between 'indigenous' and 'exotic' were becoming increasingly difficult to make. Bidloo observed, for example, that although many exotic plants grew only feebly, if at all, upon transplantation to the Netherlands, a few had, in fact, after solicitous care from their gardeners, eventually succeeded in acclimatizing to their new environment, where they were now thriving quite nicely (on subsequent 18th-century acclimatization efforts, see Koerner (1999) and Spary (2000)). "Many things from lands and skies quite unlike our climate are now growing here abundantly, as if in their own natural soil. Aren't the Canadian chrysanthemum and the Peruvian potato ... now grown in our fields?" In the case of the potato, what had once been a strange import had now become a staple, been given its own Dutch name (Aard-Appel) as if it had always been there, and become fully naturalized into Dutch life (Bidloo, 1683, p. 73; cf. Salaman, 1949). Bidloo reported that he could name at least 600 other such cases; however, he did not do so, but contented himself with referring to the notorious example of tobacco, of whose hazards he had earlier warned. As he pointed out, entrepreneurial Dutch farmers had begun to cultivate tobacco plants with surprising success. "What about Nicotianum, occupying vast fields of ours, and very happily springing forth?" (Bidloo, 1683, p. 73; on the origins of Dutch tobacco growing during this period, see Roessingh, 1978). Nor were commercial crops the only neophytes to prosper; as Linnaeus would shortly thereafter remark, the introduced medicinal plant Acorus calamus now grew wild and "luxuriant along the Dutch canals" (cited in Sykora, 1990, p. 46). If foreign species could clearly not only find acceptance among Dutch people, but also thrive in Dutch soils, what did this say about the relationship between the indigenous and the exotic?

These kinds of concerns can be seen as coming to the fore in the very way that Bidloo chose to define the 'indigenous'. Whereas Beverwyck had never fully stipulated what he meant by the term, establishing its parameters more through example and through stark contrast with the 'exotic' than by explicit definition, Bidloo seems to have felt compelled to clarify how he understood the term. He did so quite early in the book, on its second page. By the term 'indigenous', he commented, he understood "not only these things, which originated here of their own accord since before the memory of men, but also those which, cast down here from other shores, owing to their frequent cultivation here, having grown accustomed to our sky and soil, have now been granted citizenship" (Bidloo, 1683, p. 4). By explicitly including acclimatized exotics in this definition, to justify their inclusion in Commelin's catalogue, Bidloo thus framed a generously wide understanding of the scope of the 'indigenous'. In the process, he highlighted the increasing difficulty of distinguishing between natural objects based on their geographical origin, in a world where species had come to be interchanged on an ever-more-frequent basis. "Many *exotica* are *indigena* by cultivation ... Indeed it would be a tough and unpropitious business without doubt, to determine which plants grow here and not elsewhere, whether of their own accord, or by seeds that have been brought here ..." (Bidloo, 1683, p. 5). And indeed, Commelin did go on in his *Catalogue of the Indigenous Plants of Holland* to list not just *Acorus* by the canals, but tobacco itself, "lots of it, in the fields by Amersfoort" (Commelin, 1683, pp. 2, 78). For Bidloo and Commelin in the late 17th-century Netherlands, distinctions could no longer be drawn so clearly between the 'indigenous' and the 'exotic'; the categories were permeable, and travel between continents could, and did, change them.

Bidloo's and Commelin's redefinition of the 'indigenous', and their incorporation of the 'exotic' within it, did not mean that the debate over the relationship between the two principles, and over natural origins more generally, had lost any of its force. The former went on, as we have seen, to make this very debate central to his treatise's exposition of contemporary botanical controversies. But Bidloo's and Commelin's equivocation suggests that, in the Netherlands at least, some sense seems to have arisen that the interpenetration of exotics into European life had reached, and gone well beyond, a point of no return. Many intellectuals continued to view 'exotics' with suspicion. Authors of local floras and subsequent works of localist natural history continued to use rhetoric similar to that of Beverwyck and Bidloo well into the 18th century, justifying their own inventories of European species as attempts to rehabilitate the 'indigenous' and thus to recover some sense of intellectual and moral balance in the natural world (Cooper, 1998). But in a world where 'exotics' could become 'indigenous', as Europeans incorporated them into their everyday routines, memories and understandings of the origins of natural objects inexorably shifted. As this paper has attempted to show, debates about the 'indigenous' versus the 'exotic' played a crucial role not only in stimulating early modern Europeans' investigations into their own continent's natural worlds, but also in shaping their ideas of self and of other, as seen in the natural world. But as Europeans continued to criss-cross the globe, the 'indigenous' could no longer remain a truly stable point of reference-for anyone.

Acknowledgements

The author would like to acknowledge the support of the National Science Foundation and of the Mellon Foundation in conducting some of the research for this article. Among the many people with whom the author discussed this project, thanks go particularly to Paula Findlen, Martina Kaup, Lisbet Koerner, Brian Ogilvie, Simon Schama and Emma Spary. Many thanks also to Marcus Hall and Peter Coates for their helpful comments, and for their work in bringing this special issue to fruition.

References

- Baldwin, M. (1998) Danish medicines for the Danes and the defense of indigenous medicines, in: Debus, A.G. & Walton, M.T. (Eds) Reading the Book of Nature: the other side of the scientific revolution, pp. 163–180 (Kirksville, MO, Sixteenth Century Journal Publications).
- Bartholin, T. (1666) De medicina Danorum domestica (Copenhagen, Typis Matthiae Godicchenii, Sumptibus Petri Haubold Acad. Bibl.).

Beverwyck, J. van (1644) Autarkeia Bataviae, sive introductio ad medicinam indigenam (Leiden, ap. Joh. Maire).

Bidloo, L. (1683) Dissertatio de re herbaria (Amsterdam, Apud H. & viduam T. Boom).

Coleman, D.C. (Ed.) (1969) Revisions in Mercantilism (London, Methuen).

Commelin, J. (1683) Catalogus plantarum indigenarum Hollandiae, cui praemissa Lamb. Bidloo Dissertatio de re herbaria (Amsterdam, Apud H. & viduam T. Boom).

Cook, H.J. (1993) The cutting edge of a revolution? Medicine and natural history near the shores of the North Sea, in: Field, J.V. & James, F.A.J.L. (Eds) Renaissance and Revolution: humanists, scholars, craftsmen and natural philosophers in early modern Europe, pp. 45-62 (Cambridge, Cambridge University Press).

Cooper, A. (1998) Inventing the Indigenous: local knowledge and natural history in the early modern German territories, Ph.D. dissertation, Harvard University, Cambridge, MA.

Crosby, A.W. Jr (1972) The Columbian Exchange: the biological and cultural consequences of 1492 (Westport, CT, Greenwood Press).

Dufour, P.S. (1671) De l'usage du caphé, du thé, et du chocolat (Lyon, Chez Jean Guin, & Barthelémy Rivere).

Elliott, J.H. (1970) The Old World and the New 1492–1750 (Cambridge, Cambridge University Press). Hobhouse, H. (1987) Seeds of Change: five plants that transformed mankind (New York, Harper & Row).

Hunger, F.W.T. (1924) Jan of Johannes Commelin, Nederlandsch Kruidkundig Archief, pp. 187-202.

James I, King of England (1604) A Counter-Blaste to Tobacco (London, R[obert] B[aker]).

Keuning, H.J. (1979) Kaleidoscoop der Nederlandse Landschappen. De regionale verscheidenheid van Nederland in historisch-geografisch perspectief (The Hague, Nijhoff).

Koerner, L. (1999) Linnaeus: nature and nation (Cambridge, MA, Harvard University Press).

Krelage, E.H. (1942) Bloemenspeculatie in Nederland: de tulpomanie van 1636-'37 en de hyacintenhandel 1720-'36 (Amsterdam, P.N. van Kampen).

Lambert, A.M. (1985) The Making of the Dutch Landscape: an historical geography of the Netherlands (2nd edn) (London, Academic Press).

Mathee, R. (1995) Exotic substances: the introduction and global spread of tobacco, coffee, cocoa, tea, and distilled liquor, sixteenth to eighteenth centuries, in: Porter, R. & Teich, M. (Eds) Drugs and Narcotics in History, pp. 24–51 (Cambridge, Cambridge University Press).

Miller, G. (1962) 'Airs, waters and places' in history, Journal of the History of Medicine and Allied Sciences, 17, pp. 129-140.

Mintz, S. (1985) Sweetness and Power: the place of sugar in modern history (New York, Viking Penguin).

Roessingh, H.K. (1978) Tobacco growing in Holland in the seventeenth and eighteenth centuries, Acta Historica Neerlandicae, 11, pp. 18-54.

Salaman, R. (1949) The History and Social Influence of the Potato (Cambridge, Cambridge University Press).

Schama, S. (1988) The Embarrassment of Riches: an interpretation of Dutch culture in the Golden Age (Berkeley, CA, University of California Press).

Schivelbusch, W. (1992) Tastes of Paradise: a social history of spices, stimulants, and intoxicants (New York, Vintage Books).

Schlesinger, R. (1996) In the Wake of Columbus: the impact of the New World on Europe, 1492-1650 (Wheeling, IL, Harlan Davidson).

Schmidt, B. (2001) Innocence Abroad: the Dutch imagination and the New World, 1570-1670 (Cambridge, Cambridge University Press).

Schorer, E. (1941) Der Autarkiebegriff im Wandel der Zeiten, Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich, 65, pp. 47-82.

Spary, E.C. (2000) Utopia's Garden: French natural history from old regime to revolution (Chicago, IL, University of Chicago Press).

Sykora, K.V. (1990) History of the impact of man on the distribution of plant species, in: di Castri, F., Hansen, A.J. & Debussche, M. (Eds) *Biological Invasions in Europe and the Mediterranean Basin*, pp. 37-50 (Dordrecht, Kluwer).

Viola, H.J. & Margolis, C. (Ed.) (1991) Seeds of Change: a quincentennial commemoration (Washington, DC, Smithsonian Institution Press).

Wijnands, D.O. (1983) The Botany of the Commelins (Rotterdam, Balkema).

Wijnands, D.O. (1988) Hortus auriaci: the gardens of Orange and their place in late 17th-century botany and horticulture, *Journal of Garden History*, 8, pp. 61-86.