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SNAIT B. GISSIS∗

Visualizing “Race” in the Eighteenth Century

ABSTRACT

This paper looks at the conditions of the emergence of “race” as a new scientific category during the eighteenth century, arguing that two modes of discourse and visualization played a significant role: that on society, civility, and civilization—as found principally in the travel literature—and that on nature, as found in natural history writings, especially in botanical classifications. The European colonizing enterprise had resulted in an extensive flow of new objects at every level. Visual representations of these new objects circulated in the European cultural world and were transferred and transformed within travelogue and natural history writings. The nature, boundaries, and potentialities of humankind were discussed in this exchange within the conceptual grid of classifications and their visual representations. Over the course of the century the discourse on society, civility, and civilization collapsed into the discourse on nature. Humans became classified and visually represented along the same lines as flora, according to similar assumptions about visible features. Concurrently, these visible features were related necessarily to bundles of social, civilized, and cognitive characteristics taken from the discourse on society, civility, civilization, as found in the contemporaneous travelogue.

KEY WORDS: race, classification, travel, nature, society, civilization, visualization

INTRODUCTION

Two modes of discourse and visualization underlay the emergence of the scientific category of “race” in the sciences discourse at the end of the eighteenth century: the discourse on society, civility, civilization (hereafter, the discourse

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The following abbreviations are used: HL, Houghton Library, Harvard University; LGH, Library of Gray Herbarium, Harvard University; MCZ, Museum Comparative Zoology, Harvard University; TL, Tozzer Library, Harvard College Library; WL, Widener Library, Harvard College Library, Harvard University.

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on society), as found principally in the travel literature; and the discourse on nature, as found in natural history writings.

Over the course of the century the discourse on society collapsed into the discourse on nature. Humans became classified and visually represented along the same lines as flora, according to similar assumptions about visible features. Concurrently, these visible features were related necessarily to bundles of social, civilized, and cognitive characteristics taken from the discourse on society, civility, civilization, as found in the contemporaneous travelogue. As this process took place, three features stood out: the emergence of a dynamical conception of individuals and of collectivities; the waning significance of the merely visual; and an increasing emphasis on structures—conceptual, anatomical, and linguistic.

Two qualified negations form the background of my argument. First, during the eighteenth century, “race” was not a clearly defined category with a well-delineated reference; and second, the appellations “race” and “human varieties” were not conceived solely or even primarily in terms of whiteness and blackness, nor were they visually represented solely as such.

The assumed robustness of “race” during the eighteenth century results from the projection of the modern usage onto that of the past. In fact, the use of the category of “race” was much more fluid than generally assumed and hardened only toward the last decades of the eighteenth century. Throughout the eighteenth century, the terms “races” and “human varieties” were used interchangeably. Both polygenists and monogenists (with few exceptions) posited blacks at the extreme lower pole in descriptions and classifications of human varieties, even toward the end of the eighteenth century when the abolishment of slavery became the object of political and economic conflict. The polygenist classification, or clustering, placed blacks closer to apes and excluded white Europeans.

Color in general, and whiteness versus blackness in particular, were highly significant but not the sole elements of discussions with regard to the boundaries of humanity or human diversity. Color and admixture of colors and their translation into social and economic hierarchies—as in the Castas painting depicting New Spain—did play a significant role in the countries whose economies were based on slavery and, more generally, in the New World. An issue that remains open is the exact nature and means of transfer across the Atlantic of attitudes, positions, discourses on non-Europeans, and sentiments related to the specificities of the Americas and the status of whites within them. My paper focuses on British and French discourses on non-Europeans. It primarily
uses widely disseminated visual materials of the eighteenth century, and builds upon a large corpus of historical studies of art.1

THE TWO DISCOURSES—GENERAL VIEW

During the eighteenth century the European expansion overseas and beyond its eastern frontiers, toward territories that had previously been considered uninhabitable, served to create a visible presence, exert influence, import materials, and export ready-made goods (e.g., clothing).2 Gathering information was high on the list of priorities for the colonial institutions, whether governmentally or privately supported. The information was not channeled primarily to scientific institutions, but rather served as a foundation for further expansion, enabling metropolitan power-centers to consolidate, sift, select, and organize the unfamiliar or partially known realities.3 These colonial enterprises introduced to


2. Cipolloni notes that it is only in the late eighteenth century that Europe was situated between an East and West considered as oppositional. Marco Cipolloni, “The Old Wor(l)d and the New Wor(l)ds: A Discursive Survey from Discovery to Early Anthropology,” in The Anthropology of the Enlightenment, ed. Larry Wolff and Marco Cipolloni (Palo Alto, CA: Stanford University Press, 2007), 295–331. The same was true for North and South America.

Europe a plethora of new items, ranging from the abstract to the concrete. This profusion of information on the diversity of nature and social groupings undermined the self-evident character, stability, and usability of familiar pillars—namely, mores, morality, and religion—that formerly defined society, nature, and humankind’s place in them. Consequently, the abundance of novelty reframed previous ways of organizing, classifying, quantifying, representing, and narrating. Travel writing reached new readers and contributed to the rapidly expanding global network of information about the non-European world. It sparked an intense interest in the human objects/subjects on a global scale, and enhanced the rhetoric of universal scientific knowledge. Nevertheless, one should also keep in mind the institutional and national frameworks within which people and objects traveled and acquired identities—and in particular, the role of the centralized nation-state. As Maxine Berg has argued, the colonial


enterprises provided the enabling conditions, as well as the incentives, for the local fabrication of numerous luxury items that became staple commodities for the rising middle classes. These processes were complex, rich in details, and gradual. Furthermore, there were significant differences between perceptions and viewpoints in England, Scotland, France, Germany, and Holland, due not only to distinct cultural and scientific traditions, but also to economic and social patterns, and in particular to the specificities of the respective national colonial enterprise, and to its uses of natural history knowledge.

Sensations, and seeing in particular, were of central importance in the philosophical, scientific, literary, and governmental discourses during the eighteenth century. Throughout the latter part of the century the term “sensibility” was used in philosophy, natural history, the sciences, culture/art, morals, politics, medicine, and literature. The term was polysemic, although it referred primarily to the senses and the ability to use the senses as an avenue into the world of phenomena and meaning, over and above reflection, and above the response of sentiment to sensation. Toward the end of the century, sensory experience and sentiment constituted the foundations of the self, subjectivity, and sociability. During the revolutionary decade in France sensibility was translated into a moral-political idiom.

The eighteenth century also nurtured—in modern anachronistic parlance—the nonprofessional or amateur cultivation of interest in natural history. The use of the telescope and the microscope proliferated, undermining the accepted divisions between the living and the nonliving, and between the various realms of the living. Furthermore, underwater observations and fossils extended the boundaries of the living. This extension worked in two directions—achieving clear-cut classifications and eliminating opacity, and grasping and accounting for that which is protean and productive in nature. Analytical modes of viewing the

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7. Though originating in Locke’s sensationalist epistemology, Rousseau, Helvetius, Condillac, Buffon, and Diderot can be viewed as some of its principal proponents.

natural and the social, distinct from the lower—entertaining and diverting—modes, slowly crystallized.9

**The Diversity of Visual Representations**

In the eighteenth century each of these two worlds—the social and the natural—was presented as simultaneously unified and diverse. Both were perceived as containing a bountiful, almost limitless, richness, and in each world there was always more to be discovered, disclosed, unearthed, and journeyed to. The existing modes of representation, particularly of visual representation, depended not only on artistic conventions but also on preexisting modes of organizing the social and natural worlds.10

Visual presentations flourished in public and private spaces. Gradually, presentations for general audiences started to differ from those designed for scientific audiences. These differences concerned the presentations of both individual items and whole collections.11 The result was a parting of the ways in the visual representation of objects that belonged by convention either to

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nature or society. There was a great emphasis on the visual representation of nature outside Europe. Persons with natural history skills, especially in flora and fauna, were recruited for colonial journeys quite early on.\textsuperscript{12} They were expected to provide well-drawn sketches, which were later elaborated on by professional artists, specializing in illustrations of flora and fauna.\textsuperscript{13} The need to report on living nature facilitated the study of humans encountered on these journeys as part of the study of nature. Toward the last third of the century, professional artists joined governmentally financed journeys, such as those of Captain Cook.\textsuperscript{14} There was a marked inclination to use the ship as a nomadic sea-castle, from which one went ashore and returned with one’s findings, drawings, and troves of objects. Representations of natural history objects, particularly

\textsuperscript{12} These skills could be acquired by studying medicine, at least in France (and also Scotland), as almost all French naturalists on scientific voyages had some medical training. For another perspective see Harold J. Cook, “Physicians and Natural History,” in *Cultures of Natural History*, ed. Nicholas Jardine, James A. Secord, and Emma C. Spary (Cambridge: Cambridge University Press, 1996), 91–105.


of flora, tended to come under the sway of classificatory notions much earlier in the century, isolating objects from their rich and varied environment. These representations subtracted individual, contingent differences from objects in order to create a representational type. There was less copying from and less transfer of earlier visual materials to later ones.

The situation regarding visual representations in travel literature was quite different from the one described above. There had been a long-standing tradition of copying, while also altering, visual representations and other materials from earlier books. In the second half of the eighteenth century this was less noticeable in newly written travel books than in the work of compilers of anthologies who usually collected, translated, and adapted materials from late seventeenth- and early eighteenth-century travelogues. The travelogue compilations reintroduced older materials to an expanding readership. Concurrently, accounts, narrations, and illustrations of new travels flourished. The convergence of the two enhanced the travelogue, merging science and art, exemplified by *Histoire Générale des Voyages* (1746–1759) by Abbé Prévost. The principal sources for his illustrations were travelogues published decades earlier in Holland, France, and Portugal, as well as the anthology *A New General Collection of Voyages and Travels* (1745) by his contemporaries, John Green and Thomas Astley. Prévost’s illustrations were re-created on new plates, adorned or simplified, altered in accordance with changing artistic conventions, and modified even more emphatically in accordance with novel modes of representing non-Europeans. Prévost served as one source, among others, for some of the famous late eighteenth-century anthologies published in Great Britain and in North America.

While the early eighteenth-century sea journeys often relied on the rough drawings of members of expeditions, the later reports relied on specialized painters and illustrators who were part of the crew and responsible for depicting flora and fauna, as well as humans. Since compilers sometimes included new images based on the travel narratives in their anthologies, their illustrations followed the then-existing aesthetic norms and conventions (e.g., neoclassicism)

15. Saunders summarizes succinctly: “As botanical science has developed, it has dictated to the artist as to what an illustration should include, and how it should represent what is included.” Saunders, *Picturing Plants* (ref. 13), 14.


when representing people. These conventions also applied to the depiction of certain background scenes of the natural setting.

The images of human groups from various regions and continents underwent non-uniform modifications throughout the eighteenth century. Nonetheless, toward the end of the century one can detect a homogenization of the basic visual patterns for the depiction of non-European groups, indicating a hardening uniformity of the conceptual grid through which these groups were perceived.

During the first quarter of the eighteenth century, publishers had gradually stopped making woodcuts, i.e., woodblock illustrations, and began availing themselves of copper-plate and even wood engravings, which made book and booklet images and prints markedly cheaper. The late 1740s also saw a cheaper method of producing colored illustrations from copper-plate, which were widely disseminated during the next decades. This transformation took place in the context of the contemporaneous controversies on the epistemological status of black and white prints—i.e., whether, despite their lack of color, they could be considered similar to, or representative of, or in any way referential in relation to, what they depicted. The multiplication of illustrations by means of engravings (on both wood and metal) enhanced the richness of visuals and made printed visual representations available to a larger segment of European societies, and became a significant resource for scientists, and naturalists in particular.

Commonalities


19. “By the end of the early eighteenth century, it was a settled matter that works of natural history, anatomy and other observational sciences required illustrations.” See Daston and Galison, *Objectivity* (ref. 9).
shaped both individuals and groups.\textsuperscript{20} This was a precondition for arguing for nonrigidity, plasticity, and even reversibility in the formation of features of individuals and groups. For example, Georges-Louis Leclerc, Comte de Buffon (1707–1788) in his \textit{Variétés dans l’Espèce Humaine} argued that there could be two modes of interaction of humans with the environment: namely, a developmental system of civilization or a nondevelopmental one of savagery, the latter with wide-ranging consequences.\textsuperscript{21}

The second generally upheld assumption concerned monogenesis and polygenesis. Theists, deists, and materialists all accepted the Bible’s affirmation of the common ancestry of humankind, i.e., monogenesis. Until the last quarter of the century very few people believed that humanity was created as separate, distinct groups. Voltaire, David Hume, Lord Kames (Henry Home), and Cornelius Pauw were among the prominent exceptions.\textsuperscript{22} Immanuel Kant, in his geographical and anthropological writings, was an interesting case of a monogenist with a marked difference as to his stand on human races.\textsuperscript{23} Kant’s views


on human races were, and still are, a source of embarrassment to philosophers and historians of philosophy. More often than not, they prefer to ignore Kant’s anthropological and geographical writings for that specific reason, and concentrate on his universal view of the human person. Kant held a biologically deterministic hereditary view with regard to “races.” In contemporaneous debates, such as the one with Forster, Kant expressed a firmly monogenist position, in line with his universalistic vision. Yet his insistence on the irreducibility of the boundaries of non-European “races,” the innate impossibility of changing their extremely limited potentialities for progress, and for critical reflective capacities, puts him on par with the determinism of other eighteenth-century polygenists.

Without attempting to explain here the whys of polygenism, I will only note that at the time a polygenist position was usually adopted either on the basis of an argument regarding the irreducible plurality of languages (e.g., Henry Home) or on natural history grounds. The latter argument was especially prominent toward the end of the century when generation, development, and biological heredity became the dominant factors, overriding environmental influences. By adopting this position one could eliminate the inner tension between the

newly arising conceptions of human variety based on heredity, i.e., the perception of differences as original, irreducibly and irreversibly transferred transgenerationally, and the perception of the differences as stemming from some primordial unitary source.\(^{28}\)

Throughout most of the eighteenth century the quantity, diversity, and richness of visual materials at hand were staggering, thereby enhancing a preoccupation with visual representations. Visual skills were regarded as important tools in the scientific enterprise to eliminate equivocations and opacities, yet, toward the end of that century, the role of the conceptual, the abstract, the nonvisible, that which was language-related, gradually became more central, particularly in emerging scientific disciplines, e.g., chemistry. This process of abstraction is particularly evident in many visual representations of scientific experiments and tables of botanical classification.\(^{29}\) It can also be detected in a growing number of visual representations pertaining to the discourse on natural history.

**THE DISCOURSE ON NATURE**

The discourse on natural history, when confronted with the plethora of novel objects, raised such questions as: How was the great variety of nature to be described and explained? How was this variety and diversity to be classified? What forms of organization existed in nature and how were they maintained? Could classifications really cut nature at its joints? How could processes that happened in time be classified and visually represented within the prevalent modes of explanation? It was assumed that nature’s diversity pointed to a discoverable order, whose discourse was visually represented in natural history collections, cabinets, books, botanical gardens, and by art-proper forms.

The emergence of botany as an autonomous field during the eighteenth century took place amid a widespread inclination to look upon nature as a source of moral as well as aesthetic authority, a tendency to relate the natural and the sensible, and the equating of nature with rationality—openness to reasonable discussion—rather than traditional authority. The social became observed and

\(^{28}\) Johann Friedrich Blumenbach’s (1752–1840) anthropological treatises exemplify the tension between two perceptions of varieties/races that underlay the difference between his early and late writings.

analyzed through the natural—explained on the basis of natural (e.g., geographical, geological, climatic) conditions.

Moreover, the public cultivated natural history. The popularity of Georges-Louis Leclerc, Comte de Buffon’s many volumes on natural history, as well as Spectacle de la Nature of the Abbé Pluche (1688–1761), attests to this. The influx of new flora had a conspicuous place, in private and public botanical and acclimatization gardens, collections, cabinets, and herbaria. Botanical commerce, carried out by private people and governmental and semi-governmental institutions and agencies, grew significantly in volume during the second half of the century.

The classifications of flora, already prominent during the first decades of the eighteenth century, informed the category of “race,” particularly when addressing the question of whether new species could arise by hybridization or through degeneration. Visual representations of flora became significant

30. E. G. Daubenton, “Histoire Naturelle,” in Diderot and d’Alembert, eds., Encyclopédie, vol. 8 (ref. 10), 228. Roger L. Williams, Botanophilia in Eighteenth-Century France: The Spirit of the Enlightenment (Boston, MA: Kluwer Academic Publishers, 2001), claims that the cultivation of natural history was much more pronounced in France than in Britain, but the prevalence of collections and writings attests to its prominent place also among the British public.


in colonial travel reports and travel literature from the late 1730s on. To collect, classify, and establish new species—by means of herbaria, seeds, botanical gardens, and visuals—was just one aspect of the intense interest in utilizing new plants economically, whether by acclimatizing them in Europe or elsewhere.

Botanists were looking for a system of classification, faithful to what they perceived to be nature’s order and laws—a system that was stable and rational, guaranteed a common foundation, including naming, and which was capable of integrating the constant flow of new flora coming from outside traditional European boundaries. Despite deep disagreements on the epistemological and ontological status of the concepts of botanical classifications, especially those of species, there was nevertheless an underlying assumption common to all of them. Most natural historians from the late 1740s agreed to classify in accordance with sets of chosen observable features, based on similarity of structures that had common modes of functioning, e.g., the reproductive organs in the system of Carl Linnaeus (1707–1778). These sets were considered by contemporaries to be empirically tested by natural history-botany “proving practices,” based upon the assumption, differently perceived by supporters of rival identification methods, that the sets could be re-identified since they represented components in a repeatable cycle: that of the living plant, of the dried plant in a herbarium, of its seed, and of the resulting nurtured or acclimatized plant.

For some naturalists, individual differences within the system did not count. Others pointed to the impossibility or arbitrariness of rigid classifications that


36. It has been convincingly argued by Müller-Wille, “Collection and Collation” (ref. 32), that this choice reflected inductive strategies, and thus was based on biological consideration of reproductive relations among organisms rather than on metaphysical grounds.
stretched between families and genera. This mode of organizing flora, applied to living as well as inanimate nature, created hierarchies based on the extension of the particular class and the relations among the various classes. Linnaeus and Buffon, for example, applied their classifying grids to human diversity. Though Buffon was one of the first to use the term “race” in its novel meaning, his particular usage actually indicated that the differences in the classificatory table—between “race,” “biological species,” and family within human variety—were in the beginning very slight and elusive. This was in accordance with his views about the general conceptual difficulties in cutting an essentially continuous nature at its “joints.” Buffon was neither one of the founders of anthropology nor the initiator of “race” as a scientific object. His texts on human varieties and on the human person, which placed humanity at the center of nature, were an amalgam of sensualist science, ethnography, and philosophy, and thus very much part and parcel of the contemporaneous discourse.

Throughout most of the eighteenth century, the debate turned on such questions as, can relationships (resulting from classifications) be marked hierarchically, or as of mutual affinity? Also discussed was the nature of the possible connection between the modes in which organisms were organized and the ways

40. Linnaeus in the introduction to his Genera Plantarum (1737/1754) vs. A. L. Jussieu in his Genera Plantarum 1789. See also Daubenton, “Histoire Naturelle” (ref. 30), 277; Müller-Wille and Reeds, “Translation” (ref. 38); and Peter F. Stevens, Antoine-Laurent de Jussieu et le Système Nature: Comment Subdiviser une Nature sans Articulations (Paris: Editions du Muséum National d’Histoire Naturelle, 1997). It should be noted that in these debates over the principles of classification, the question of the ontological and epistemological status of the components of the classificatory grid was addressed; not only that of species and genera in particular, but also those of classes, families, and orders, as well as questions concerning the notion of natural kinds vs. artificial kinds.
in which they were formed. It was asked, first implicitly and then explicitly, whether classifications illustrated theological principles or consequences of historical, natural processes.

These debates and their resolutions can be discerned in the visual representations of tables of botanical classification. These tables illustrate the processes of schematization, reduction, and abstraction involved in classifications. At the beginning of the eighteenth century, botany books were lavishly illustrated. In the second half, books for amateur botanists, while still replete with illustrations, showed a marked tendency to emphasize precision and faithfulness to nature. However, books for a more professional audience mostly included either more abstract representations with accompanying texts (Fig. 1), or diagrammatical representations exemplifying abstract universalizing forms. These tables used abbreviated signifiers or markers for external morphological features. This transition can be traced by comparing Linnaeus’s first and second tables of classification—the later English version (1760) having the characteristic schematized geometrical forms (Figs. 1–4).

42. Michel Adanson, Familles des Plantes, introduction by Frans A. Stafleu (New York: Stechert-Hafner Service Agency, 1966). Though Linnaeus played an important role, I suggest that while putting 1735 as the crucial date, as Pratt does—Mary Louise Pratt, Imperial Eyes: Travel Writing and Transculturation (London and New York: Routledge, 1992)—may be didactically helpful, it does not convey either the complexity of the ongoing debates nor does it reflect the numerous alternative systems within natural history. Furthermore, it makes it rather difficult to understand how evolutionary notions and the sundering of the great chain of being came about in the last quarter of that century as a result of these debates. See additionally Giulio Barsanti, “Schèmes Biologiques de la Descendance (XVIII–XIX Siècles),” in La Paradigme de la Filiation, ed. Jean Gayon et J. Wunnenburger (Paris: Harmattan, 1995), 33–60; Paul Lawrence Farber, “Research Traditions in 18th Century Natural History,” in Bernardi and La Vergata, eds., Lazzaro Spallanzani (ref. 27), 397–403; Michael J. S. Hodge, “Species in Lamarck,” in Colloque International Lamarck, ed. Joseph Schiller (Paris: Blanchard, 1971), 31–46.
43. Karen Reeds, “When the Botanist Can’t Draw: The Case of Linnaeus,” Interdisciplinary Science Reviews 29, no. 3 (2004): 248–58, argues that Linnaeus’s position can be attributed also to his own personal difficulty with drawings. Yet she agrees that even when preparing the sumptuously illustrated Hortus Clithoritanus, Linnaeus had already shown a preference for “clear, detailed and technical descriptions,” which, as Müller-Wille argues, allowed him to adopt an inductive strategy vis-à-vis new knowledge, offering the map rather than the scale as a metaphor. Müller-Wille, “Collection and Collation” (ref. 32), but also Staffan Müller-Wille, “History Redoubled: The Synthesis of Facts in Linnaean Natural History,” in Philosophies of Technology: Francis Bacon and his Contemporaries, ed. Claus Zittel et al. (Leiden: Brill, 2008), 515–38. On metaphors in the eighteenth century see Giulio Barsanti, La Scala, la Mappa, l’Albero: Immagini e Classificazioni della Natura fra Sei e Ottocento (Florence: Sansoni, 1992).
FIG. 1 Classification of Roots, 1723. Source: Tilli, Catalogus Plantarum Horti Pisani (ref. 48), table 20, p. 45. Permission granted by the LGH, Pre Linn Fol. T.
FIG. 3 Diagrammatic Table (adaptation of Linnaeus in English), 1760. Source: James Lee, An Introduction to Botany, Containing an Explanation of the Theory of that Science, Extracted from the Works of Dr. Linnaeus (London: Printed for J. and R. Tonson, 1760), Table of Classes and Orders, p. 75. Permission granted by the LGH, Text L51 1760.
Table of Classes and Orders (adaptation of Linnaeus in English), 1783. Source: Carl von Linné, A System of Vegetables: According to their Classes, Orders, Genera, Species with their Characters and Differences, translated from the 13th edition of the Systema Vegetabilium and the Supplementum Plantarum by a Botanical Society at Lichfield, vol. 1 (Lichfield: John Jackson for Leigh and Sotheby, 1783), Foliation, plate X. Permission granted by the LGH, Text L35c 1783.

<table>
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<th>CLASSES</th>
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<td>1. Monandria</td>
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<td>2. Dianandria</td>
<td>3. Trigynia</td>
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<tr>
<td>7. Heptandria</td>
<td>1. Monogynia</td>
</tr>
</tbody>
</table>

FIG. 4. Table of Classes and Orders (adaptation of Linnaeus in English), 1783. Source: Carl von Linné, A System of Vegetables: According to their Classes, Orders, Genera, Species with their Characters and Differences, translated from the 13th edition of the Systema Vegetabilium and the Supplementum Plantarum by a Botanical Society at Lichfield, vol. 1 (Lichfield: John Jackson for Leigh and Sotheby, 1783), Foliation, plate X. Permission granted by the LGH, Text L35c 1783.
These served as a formulaic vocabulary, and by referring to them, the standardized parts of the classificatory definitions could dispense with any visual image of actual plants. Linnaeus’s earlier works, as exemplified by the table from the Encyclopédie, which was presented sequentially with that of Joseph Pitton de Tournefort (1656–1708), thus exemplified these two predominant principles of classification.

How to visually or textually represent an individual that would be a signifier of a group (species) was a key concern for naturalists and artists. The difference between eighteenth-century and contemporary views are highlighted sharply by Michael Lynch: “The question is not, ‘How do objective properties correspond to graphic devices for isolating and ordering those properties?’; it is, ‘How do graphic properties merge with and come to embody the natural object?’” Thus natural historians and botanists had to choose which features would be representative of an ever-widening range of items to accommodate an already existing system. The item’s visual representation, and later its diagrammatical or textual representation, had to find a balance between what Lorraine Daston has called “realism of individual” and “realism of type”; that is, it had to achieve a synthesis uniting individuals of a kind and extracting the underlying common structure. In that way the variability, diversity, and continually expanding range of specimens would be disciplined by the widest possible gaze of the classifier who, while abstracting, nonetheless remained firmly anchored in experience. The desired transmissibility of knowledge depended on an agreed upon solution to these entangled matters.

**MODES OF VISUALIZING NATURE AND SOCIETY**

I have contended that the visual representations embody ordering codes based on perception, hierarchies, and their aesthetic and evaluative assumptions, colonial regimes, and the daily practices of authors, compilers, and readers. I will now examine the structural affinities and differences of three exemplary pairs of visual representations, with one member of each pair belonging to the discourse on society, the other to the discourse on nature. The six representations

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44. Lynch, “Production of Scientific Images” (ref. 1). 217.
45. See Müller-Wille’s argument about the nature of Linnaeus’s Collation, in Müller-Wille, “Collection and Collation” (ref. 32); see also Müller-Wille, “Nature as a Market Place” (ref. 34), on the practical implications of this approach in the arrangement of Linnaeus’s herbaria.
46. Daston and Galison, *Objectivity* (ref. 9).
introduce three modes of isolating, combining, and comparing objects—modes that coexisted during a large part of the eighteenth century.

The mode of constructing a natural surrounding is the older one, and it gradually disappeared towards the latter part of the eighteenth century. Conventionally accepted symbolic or emblematic signs allowed the viewer, by indicating the embedding, to construct a surrounding. Isolated, enhanced objects appeared more frequently from mid-century on, side by side with comparative classificatory representations. Grouping such isolated objects by assumed similarity and difference was prevalent throughout the second half of the century, though the conceptual grids behind these groupings changed significantly.

All three modes of representation underwent significant modifications in the latter part of the eighteenth century. Often there was a time lag between the appearance of a mode of representation in the discourse on nature and its appearance in the discourse on society.

The first pair of visual representations consists of items in their natural surroundings (Figs. 5 and 6), with both amphibians and Chinese mandarins depicted in their natural or cultural habitat. This implies that the frogs were naturally adapted to their surroundings, while the Chinese mandarins culturally created their adaptation. Except for the emblematic items, Figure 5 places amphibians in an admixture of land and water, with vegetation typical of a damp environment. The image served as the frontispiece of Historia Naturalis Ranarum Mostratium (1753–1758), written with apposite Latin and German texts, by the German entomologist and painter Rösel von Rosenhof (1705–1759). The second half of the book contained detailed watercolor and line drawings of the physiology, anatomy, processes of reproduction, digestion, growth, and metamorphosis of tadpoles into frogs, toads, and salamanders. Still, even in the analytic watercolors and line drawings, the symbolic environment was not eliminated, and the lower section of the page provided an image of the whole animal in a small-scale natural environment—a section of a spring, of a shore, of land and water, together with a couple of freshwater plants. (See tables 1, 2, 3, 10, 11, 14, 17, 22, and 26 in von Rosenhof’s book.)

The Mandarin Garden (Fig. 6), drawn by F. S. A. Alexander and engraved by G. Cooke, includes elements from the reports of Lorenz Lange, Peter the Great’s emissary to the Peking court; John Bell (1691–1780); and Johannes Nieuhof (1618–1672). Though the caption provides the date of November 29,

FIG. 5 Amphibians in Their Habitat, 1758. Source: Von Rosenhof, Historia Naturalis (ref. 47), frontispiece. Permission granted by the MCZ, collection MCZ F688.
1793, the source of this scene is presumably much earlier. Chusan (or Zhoshan), a town outside Hangzhou Bay, had been closed to foreigners due to trade restrictions of the early 1760s. A 1793 request by the British ambassador to allow British tradesmen access to that area was denied by the emperor. The depicted scene was a cultural trope, especially in England, where it could be found not only in travel books but also on imported Chinaware. It encapsulated the European view of Chinese high culture and its manners and customs. The image included the various elements—human, material, floral, and architectural—that were deemed necessary to provide the natural surroundings of Chinese high culture, as well as Chusan’s specific vegetation. The latter was acclimatized in Europe in the nineteenth century.

The second pair (Figs. 7 and 8), characterized by the striking absence of surroundings or background, consists of isolated items, which enhanced human beings and floral objects as particularized items. Their environment could be
FIG. 7 Iasminum Indicum [Indian Jasmine], 1723. Source: Tili, Catalogus Plantarum Horti Pisani (ref. 48), table 30, p. 87. Permission granted by the LGH, Pre Linn Fol. T.
gauged only by the captions. The isolation emphasized the objects’ distinct features, yet presented them by the characteristics that were common to them and other objects of the same class. It allowed the object to stand in a somewhat independent relation to the descriptive text for which it served as an illustration. While specific, no attempt was made to individualize it.

Michelangelo Tilli (1655–1740), who taught at the University of Pisa and served as the prefect of Cosimo the Third’s botanical (medicinal) garden, introduced greenhouses to acclimatize non-European plants that he had gathered in his travels around the Mediterranean, particularly its African shores. His *Catalogus Plantarum Horti Pisani* (1723), figured as one of the most exhaustive lists of extra-European plants found in European gardens. It depicted the blossom and full flower alongside the plant with its branches spread out to exhibit their shape, and included a display of the leaves on the branches and of the overall silhouette.  

Enhancing isolation together with costume and posture are the salient features of the image of the Uzbek Tartars, in Green and Astley’s *A New General Collection of Voyages* (ref. 17), 482–83. Permission granted by WL, Geog 4157.45.

Collection of Voyages and Travel. Since it was part of a collection, this image was undoubtedly copied/adapted from a former travelogue. The page on which it appeared depicted many couples of isolated figures in full-length frontal position exhibiting implicit body structure and explicit costumes and hairstyles. (The image with the title “Uzbek Tartars” appeared again in John Pinkerton (1758–1826), from which it is taken.) Similar figures appeared in other seventeenth-century travel books, including those of Jean-Baptiste Du Halde (1674–1743), Johann Grueber (1623–1680), and Olfert Dapper (1639–1689). However, the positing of single couples as separate images on separate pages appeared only much later in the eighteenth century, as in Green and Astley’s depiction of Karazum and the Silk Road.

The third pair consists of tables of classifications (Figs. 9 and 10), apparently grouped according to the principle of external similitude and difference. In fact, other assumptions—about functions or patterns of behavior—underlay these groupings. Visual similarity played a subsidiary role in the natural history table and the social one, with the (assumed) unseen similarity—such as function and degree of civility—playing a principal role.

The classification table in the third pair, Figure 9, is taken from *Nova Plantarum Genera*, 1729, by Pier Antonio Micheli (1679–1737), a professor at the University of Pisa and the head of the botanical garden of Florence. Micheli was known for research with the microscope and his classification of fungi, which refuted the spontaneous generation hypothesis. Micheli defined and classified plants using Tournefort’s method and concept of genus, i.e., in contradistinction to John Ray (1627–1705) and some of his followers. Besides the practical purposes of this table, meticulously detailed classificatory analysis of the plants’ corolla was based on combined similarity of function and structure.

The classification of humans in Figure 10 appeared as the frontispiece of a collection compiled by Thomas Osborne (?–1767), a book dealer and printer, familiar to scholars for the numerous catalogues he printed of private libraries. His compilation, *A Collection of Voyages and Travels* (1745), included items never published before in England from the rich travelogue found in the Harley collection of printed books that he had acquired in 1741 after the death of the second earl of Oxford. The manuscript part of that collection was sold to the

Parliament, and became one of the cornerstones of the British Museum Library. Similar tables had already appeared at the turn of the eighteenth century, when naturalists and humanists increasingly clustered natural and artificial objects in accordance with coherent schemes. The various couples were classified by a conjunction of costumes and locality.
FIG. 10 Description of the Habits of Most Countries in the World, 1747. Source: Osborne, *Collection of Voyages and Travels* (ref. 50), frontispiece. Permission granted by WL, Geog 4157:04F.
Some couples were considered much less civilized—in particular, a black couple and a Lapland couple with a baby. A closer look reveals that implicit gradations of civility—expressed in clothing, hairstyle, the positioning of male and female vis-à-vis one another with emblematic gender differences—formed the underlying grid of difference and similarity within each grouping of couples and among the various groupings in the resulting table (there was also another implicit ordering element; namely, rivalry with England). Thus the first row consisted of an almost straightforward array of Asian couples: (from left to right) Chinese, Mogul, Persian, Turk, and Tartar; the second row included couples from the outskirts of civilized Europe (save one), Polander, Muscovite, Laplander, Hungarian, and Dutch; the third, Spaniard, Hottentot, Negro, Moor, and Mexican; and the fourth, Virginia Indian, Florida Indian, and Scots Highlander. One can find somewhat analogous single couples in seventeenth-century travelogues, but this frontispiece from Osborne’s Collection gathered some of the more familiar into a single panorama.

That panorama could be looked upon as suggesting that to classify peoples meant to locate them in time, on the varying rungs of development, and in space. The coordinates of both time and space were conceived in relation to the changing boundaries of Europe as their axis—what was beyond, and before.

THE DISCOURSE ON SOCIETY, CIVILITY, AND CIVILIZATION

The second half of the eighteenth century increasingly emphasized the dynamic character of individuals and collectivities, and with it the search for the boundaries of humanity and a universalized definition of humanity.\(^5^1\) The latter was to differentiate humans from nonhumans (e.g., apes), involving issues such as rationality, language, individual self-interest, forms of sociality, and the nature of social well-being.

The notion of perfectibility, or Bildung,\(^5^2\) embodied this dynamic disposition at the individual level, and the notion of progress at the collective

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level. It underpinned the discussions of non-European peoples and served to order hierarchically varieties of human groups, including the lower classes—the poor. By the end of the eighteenth century, humans who lacked the potential for perfectibility—especially compared with white Europeans—were regarded as partaking only partially in humanity, and were placed lower in the hierarchical classification of humanity.

What were the significant features of the time? Though John Locke still dealt with static faculties—reason and language—he nevertheless set the stage for later developments by emphasizing the distinction between outer structure and inner constitution, suggesting possible filiations, if not quite causal relations, between them. For Rousseau these faculties became but a tool for the principal characteristic of humans, the ongoing civilizing process, i.e., the dynamic, open-ended, self-forming process—perfectibilité. Soon afterwards, the Scottish Enlightenment shifted from the concept of the abstract individual toward an historically grounded perception of human nature, with a view of the civilizing process as referring to collectivities, to collective well-being, regarded as an accumulative transfer of learning of abstract bodies of knowledge and of social practices. Inter alia, in spite of Ferguson’s universalizing discourse on humankind, this view distinguished between varieties of human collectivities by ordering them in accordance with their position in the civilizing process. Note that there was a deep disagreement within this discourse: A few people looked upon newly discovered non-European social groups—primarily around the Mediterranean—as forms of frozen stages of past civilizations. Some tended to look critically on the contemporaneous globalized commerce, while others—Abbé Raynal, Denis


54. Stocking, Race, Culture, and Evolution (ref. 27).


56. Jean-Jacques Rousseau, Discours sur l’Origine et les Fondemens de l’Inégalité parmi les Hommes (Amsterdam: chez Marc Michel Rey, 1755). See, in particular, footnote X.


58. These could therefore also be described using terms from those civilizations, as in the case of Lafitu describing North American Indian religious practices (Joseph-François Lafitu, Customs of the American Indians Compared with the Customs of Primitive Times, ed. and trans. William N. Fenton and Elizabeth L. Moore (Toronto: Champlain Society, 1974–1977).
Diderot, and Adam Ferguson—strove to show that commerce enriched European society and was an enabling condition for the rise of sociability and disciplined individualism. The discussion of “race” in eighteenth-century intellectual thought can thus be seen as an attempt to delineate the boundaries of humanity, and in particular, as an attempt to decide: Who was to be included within them? Who was to be excluded? When so? By whom, and why?

The European discourse on society indicated how non-European societies were organized, how people were kept together, how social hierarchies were constituted and maintained, and what it meant to be civilized. It dealt with religious beliefs and practices, social organization, patterns of authority, customs and habits, means of living, food practices and preferences, familial practices, clothing, grooming of hair and skin, and so on, elucidating what were considered not-directly-visible properties and characteristics and especially temperamental inclinations and proclivities. López-Beltrán regards this attribution of temperaments as a transfer from the Hippocratic-Galenic medical tradition, which served as an implicit assumption for Montesquieu, Buffon, and other eighteenth-century authors, and as an important component of the Spanish New World medicine, locally accounting for the interaction between bodies and their environments. Thus, should these temperamental inclinations relate to the discourse on nature or on society? My answer is contingent on the fact that the bodies of non-Europeans were accounted for on many levels, and that within those accounts, temperament served as part of the explanation of social behavior, civilized or noncivilized. Since the eighteenth century’s bounding of the social did not overlap with today’s practices, one has to place these nonoverlapping components according to their roles and functions in the two discourses.

Attitudes of non-Europeans toward Europeans were another component of the discourse on the non-Europeans in the travel literature and higher art forms. Toward the latter part of the eighteenth century, travelers increasingly saw themselves as more powerful and less dependent on the goodwill and cooperation of indigenous peoples see also Ingjerd Hoëm, “The Scientific Endeavor and the Natives,” in Miller and Reill, Visions of Empire (ref. 3), 305–25.


indigenous people. Consequently, they began to see the indigenous people as less cooperative and more hostile toward their presence. While the various groups were usually described as being very much part of their natural environment, they were also regarded as specifically human collectivities with their own forms of civilized existence (or conversely, absence of it). Distinctions were drawn within the larger groups, usually called varieties; for example, between the various North, South, and Central American Indians, and between the Africans of different regions.

In the second half of the century authors paid more attention to the credibility of information, and often sought to present their writings as veridical reports, guided by the ideal of precision, supported rather than demonstrated by visual representations. In the last third of the century there was a noticeable tendency toward comparative descriptions, the presentation of measures of economic affluence, and estimations of the degree of progress and of the potentiality or possibility of progress of the collectivities being discussed. The criteria of progress did not necessarily overlap with those of civilized existence that had been implicitly assumed earlier. Aesthetic judgments were implicit in both textual and visual representations.

61. There has been an ongoing debate on the changing nature of both descriptions and attitudes. Recently Douglas has argued that in some areas, such as Oceania (Indonesia, Australia, New Guinea, New Zealand, and the Pacific Islands), the changing attitudes to non-Europeans also had to do with interactions between travellers and local peoples. She claims that traces of these interactions also allow investigators to reconstruct the lost voice of the local peoples. “[T]he agency of indigenous people in actual encounters left latent counternarratives in the very language, tone and content of travellers’ empirical representations on which the deductions of the emergent science of man fed.” Brownen Douglas, “Slippery Word, Ambiguous Praxis: ‘Race’ and Late 18th Century Voyagers in Oceania,” *Journal of Pacific History* 41, no.1 (2006): 1–29, on 1; also “Introduction,” chaps.1–3, in *Foreign Bodies, Oceania and the Science of Race 1750–1940*, ed. Brownen Douglas and Chris Ballard (Canberra, Australian Capital Territory: ANU E Press, 2008), 3–155. For another perspective see Michael Bravo, “Ethnological Encounters,” in Jardine, Secord, and Spary, eds., *Cultures of Natural History* (ref. 12).

62. Cañizares-Esguerra relates it to the rise of the philosophical travel compilations as well as the “philosophical traveler,” equipped with textual critical tools, with differing methodological assumptions on the nature of textual evidence, and with differing conclusions on both nature and society. Cañizares-Esguerra, *How to Write the History* (ref. 1), 1–90; Smith, *European Vision* (ref. 14), relates the growing amount of visual materials to the selfsame critical attitude.

The genre of travel writing underwent significant change during the eighteenth century and proliferated into a number of specialized subgenres for particular regions and audiences, interested in such topics as scientific investigations, adventure, education, and edification. There were also major publishing undertakings in the form of popular travelogue anthologies, which used primarily earlier material from the sixteenth century onwards, and rarely incorporated more recent and translated textual and visual materials.64 There was also the subgenre of imaginary travelogues—such as Diderot’s Supplement to the Voyage of Bougainville (1772) and Jonathan Swift’s Gulliver’s Travels (1726)—which reveal the gradual change in the European views of non-Europeans and their views of themselves. This subgenre served not only to entertain by depicting an imagined nature and cultural interactions, but also as a critique of sociopolitical, religious, and sexual institutions.65

Analyzing Visual Representations

From the beginning of the eighteenth century to the late 1760s, numerous visual representations brought home the message that non-European groups were inherently human by virtue of their social and cultural civility, and, more generally, by virtue of their civilization. In other words, non-Europeans were conceived as having customs and rituals that testified to the existence of systems of authority

64. Though some, e.g., Pinkerton’s, included (vol. 5) even a summarized translation from the Latin of Benjamin of Tudela’s twelfth-century account.

and social organization, religious belief, class conventions, specialized skills, and a division of labor. The existence of private property, which became an important criterion of civilization later in the century, could only be depicted indirectly in travel-book illustrations. The visual depiction early on in Dapper (1668) of the City of Loango as a well-ordered African metropolis, an image which was subsequently copied and recopied in travel books until the mid-eighteenth century, exemplified this.66 Later on in the century, some of these images underwent revisions. Others were used as aids in depicting humankind’s infancy in the emerging anthropological and philosophical narratives that sought to restructure the history of humankind. Still other images formed an implicit visual grid for the later perception and depiction of human groups as partaking, albeit only partially, in the civilizing process that marked them as human.

Looking at the changes in the images depicting the sophisticated Chinese civilization, science, and technology, reveals another facet of the discourse on society. Admiration of this civilization resonated with both Voltaire and Gottfried Leibniz. Basing himself on earlier Jesuit writings, Du Halde (1736) presented Chinese silk production as rationalized because of its division of labor.67 But with growing emphasis on “progress” found in the discourse on society, Chinese technologies, when depicted in later images of silk production, started to be described as comparatively simple, and Chinese science (e.g., physics, astronomy, and anatomy) as ingenious but lacking depth, or frozen in its past achievements.68 Thus the transformation of images throughout the century


serves as an indication of the changing views on different non-European groupings and their potential capacities.

**The Coronation of the King of Juida**

The city of Juida, situated on the west coast of Africa, in today’s Benin, was the capital of an independent kingdom. From the late seventeenth to the nineteenth centuries it served as a trading center for palm oil and particularly slaves, first for the Portuguese and French, and later for the English and Danes.

Like the depiction in *City of Loango*, *The Coronation of the King of Juida* served to inform on the local population and natural history items. Of significance here are the changes in subsequent reproductions (Figs. 11 and 12), the principal difference being that non-Europeans, the Africans in this case, gradually lose their standing as individualized, civilized human beings, capable of progress.

In the earliest image by Labat (1731), the courtyard is depicted as a medium-sized enclosure surrounded by two kinds of houses and by sparse, supposedly representative, vegetation. The point of view is of someone on the outside and above, looking down on the four walls, the surroundings, and all that goes on inside. A small group of European representatives is seated on European-looking chairs and differentiated from the natives as nationals of specific countries by their clothes and hats, the attires of their servants and guards, and a single flag, without any emblem, behind them. In contrast to these representatives, the guards and servants either sit on the ground (just like the blacks), or stand with weapons in hand. All blacks—servants, soldiers, drummers, priests, the audience, and the king himself, who is seen sitting on his throne, fully dressed—wear shorter or longer clothing only on the lower part of their bodies. Their grouping has the appearance of being functionally differentiated and orderly, whether seated, standing, or marching. The cone-like dwelling of the snake—their sacred animal—and the snake itself are drawn in a straightforward manner. Outside the enclosure, three cannons are operated by blacks, one of which is being fired, suggesting power, modernity, and the close relations of

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FIG. 11 Coronation of the King of Juda, 1731. Source: Labat, Voyage du Chevalier, vol. 2 (ref. 69), 57. Permission granted by HL, SA 7977.24.
FIG. 12 Coronation of the King of Juida, 1748. Source: Prévost, *Histoire Générale des Voyages*, vol. 5 (ref. 16), 404–05. Permission granted by HL, KG 1807.
the king with European powers. The various groups and objects have been numbered and described in the text.

The second version, published in Green and Astley, is a mirror image of the original, but on a larger scale with a few minor differences: a strong emphasis on the blackness of the figures; and though the cannons are still present, it is no longer clear who operates them, since the instruments of operation have disappeared from the hands of the blacks standing next to them.\footnote{Green and Astley, \textit{New General Collection} (ref. 17); Child is mentioned as the engraver.} The first dramatic changes appear in the Prévost version—Figure 12.\footnote{Prévost, ed., \textit{Histoire Générale} (ref. 16). Schley is mentioned as the engraver of Fig. 12, and the subtitle is in Dutch, as if after Des Marchais. Parts of Prévost’s edition were printed in Holland. At some stage there was a parting of the way of the author-editor, the printer, and the engraver because of misappropriations of credits.} The courtyard widens, drawn in perspective, as if from the inside, or as if the whole ceremony has taken place on some open, expansive stage. Whereas Labat’s Des Marchais’s figure marks the year as 1725, here it is marked as 1723. The surroundings, both houses and flora, are squeezed into the margins, and have been changed to some extent to suit the prevalent conventions of exotica. A tall tree from whose long bare trunk a black figure hangs, monkey-like, peering down, has been added, and the figure of the sacred snake has become more ominous. There are two further significant changes. First, the number of people of European descent has increased dramatically, with some still seated on chairs, and most standing, but with none seated on the ground, providing a clear distinction between European and native customs. The Europeans are divided into four groups, and the indistinct flag of the Des Marchais version (Fig. 11) is now emblazoned with a fleur-de-lys. Second, many blacks are now depicted in large disorderly crowds, either huddling together or sitting on the ground. Furthermore, with the exception of the king, who sits on a throne, and a few other figures, all blacks are almost totally nude with completely bare buttocks, except for a narrow frontal loincloth held by either a slender cloth or a bead girdle. The disorderly crowds and bare bodies signify a much lower level of civilized life.

Khoi-Khoi

Numerous scholars have commented on the varying descriptions by eighteenth-century travelers of the Khoi-Khoi of South Africa, named Hottentots by Europeans in the seventeenth century.\footnote{Most notably Leonard Guelke and Jeanne Kay Guelke, “Imperial Eyes on South Africa: Reassessing Travel Narratives,” \textit{Journal of Historical Geography} 30, no. 1 (2004): 11–31; Nicholas} Most scholars tend to agree that...
the Khoi-Khoi were depicted as more and more savage, and, toward the latter part of the century, described as depraved. They disagree, however, on the particulars of how and why this process unfolded the way it did.

A number of insights gleaned from this controversy significantly strengthen my argument. Throughout the seventeenth century, travelers on their way to Asia had reported on the Cape of Good Hope. I use Peter Kolb’s book as a starting point. Kolb (1675–1726) was sent to the Cape in 1705 to perform astronomical measurements for his patron, the Prussian privy councilor Bernhard Friedrich von Krosigk. He stayed for eight years, possibly becoming an administrator in the Dutch colony, which had originally been established by the Dutch East India Company and later became populated by settlers.

Most of Kolb’s book, written upon his return to Germany, dealt with the Khoi-Khoi/Hottentots and provided detailed natural history accounts and depictions of local objects. It also discussed the Dutch colonists and their exploitative attitude toward the indigenous people. Kolb was overtly sympathetic to the Khoi-Khoi, describing them as a cohesive social group with a social organization, collective religious practices and beliefs, and familial practices; in other words, they exhibited all the signs of a civilized people. Kolb argued that they had a visible god—the moon—and an invisible one. Since the Khoi-Khoi practiced a type of circumcision and had not become Christianized, Kolb attributed to them a connection to the ancient Jews, i.e., to the biblical Hebrews. Numerous translations of his work (Dutch, 1727; English, 1731, 1738; French, 1741) made Kolb’s descriptions of the Khoi-Khoi’s cultural, social, and religious practices famous throughout the century. Later references to the book either denied Kolb’s views of the Khoi-Khoi, or adopted them as

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73. Rowland Raven-Hart, Cape of Good Hope, 1652–1702: The First Fifty Years of Dutch Colonisation as Seen by Callers (Capetown, South Africa: A. A. Balkena, 1971).

74. Peter Kolb, Caput bonai spei hodiernum (Nuremberg: Peter Conrad Monath, 1719).

Whether the book undermined contemporaneous conventional discourse on the Africans, or actually enhanced the colonial position and perspective, has been the underlying issue in recent discourse. The visual representations in Kolb’s original German edition depict the Khoi-Khoi as a close-knit and coordinated group, based on bonds that included cooperation and mutuality. This civilized mode of living (see Fig. 13) is further confirmed by the covered bodies—and, at times, heads—and measured bodily movements. I argue that Kolb was indeed trying to describe “what he saw and


77. This has been sparked to some extent by the application of Pratt’s general thesis in her *Imperial Eyes* (ref. 42) to a reading of Kolb and three others books depicting the Hottentots throughout the century. See Guelke and Guelke, “Imperial Eyes” (ref. 72), and Hudson, “From ‘Nation to Race’” (ref. 72).
observed,” in contradistinction to previous reports which he considered fictitious. One interesting facet of this was his inability to grasp the difference between the mere subsistence economy of the Khoi-Khoi community and their separate households, and the increasingly profit-oriented, budding capitalistic economy of the Dutch.

A significant change was noticeable already in the 1727 Dutch edition (Fig. 14), where mostly naked bodies and a great deal of wild commotion moved to the fore. This edition, which also inverted Kolb’s initial intention by assigning more relative importance and page space to the settlers than to the Khoi-Khoi, was the source for later radical changes of the original images. Contrary to Pratt’s thesis, where crucial importance is attributed to Linnaeus’s 1735 classification, this happened before Linnaeus’s first book, and probably had to do with the Dutch settlers’ interest in taking over the land.78 Immediately following Kolb’s departure the Khoi-Khoi population was decimated by a smallpox epidemic (1713) and an influx of colonists, who pushed them to the margins of their original territory, forcing most of them to become hired laborers and thus lose the ability to retain their autonomous culture and mode of life.

The original Kolb edition did not include scenes of Hottentot dancing that would in any way suggest the Dutch 1727 edition, with its illustration of musical instruments and dancing. This scene with almost naked natives, which brings to mind the later illustrated versions of dance, was named “Der Hottentoten Musicale Instrumenten.” The background trees, the vegetation at large, and the distant mountains in this musical scene, which had not appeared in any of the original Kolb edition illustrations, served as the basis for variations in both Green and Astley and in Prévost (Fig. 15), making the absence of civilization among the human subjects of the visual representation all the more conspicuous. Thus both the image shown here, and those from Green and Astley, and Prévost used certain typical original features—e.g., the shape of the homes—but found their inspiration on how to depict the Hottentot dance elsewhere. One possible source for the latter could be the much-stereotyped representations of so-called Negro primitive dancing, whose significant components were almost completely naked bodies, the “lascivious pairing” of males and females, and the absence of the stereotyped secondary emblems and symbols of civilized life. Similarly, the depiction entitled “Negro playing upon

78. Pratt, *Imperial Eyes* (ref. 42), 24–66, esp. 44.
FIG. 14 Der Hottentotten Musicale Instrumenten, 1727. Source: Peter Kolb, Naakeurige en uitvoerige Beschryving van Kaap de Goede Hoop, vol. 1 (Amsterdam: B. Lakeman, 1727), 104–05. Permission granted by the Library of the Arnold Arboretum, Harvard University, Oversize ka k79n, 1727 [26787–26788].
Kalabasses” became an example and model that underwent variations during the first decades of the eighteenth century.\(^79\)

Manioc/Cassava Root

As discussed earlier, a certain process of abstraction, related to a changing attitude toward the merely visual and its role, took place in the latter part of the eighteenth century. Though it occurred in both discourses, it manifested itself much later in the discourse on society than in the discourse on nature, as exemplified by a pair of visual representations of the technical preparation of the manioc/cassava root.\(^\text{80}\) The Portuguese had brought this root from the Amazon area to West Africa in the early sixteenth century. Samuel Brun (1580–1668) and Dapper described and illustrated the root’s handling: its principal use was to feed the Portuguese settlers on the mainland and along the West African coast, and slaves working on the Portuguese plantations in Africa, the Iberian peninsula, or in passage to the Americas. It was considered the staple slave food in the French colonies.\(^\text{81}\) By the king’s edict (also called the black edict), issued in Versailles in March 1685, the inhabitants on the French islands were expressly ordered to feed each of their slaves, aged at least ten years, the amount of two and a half pots of Manioc flour per week; the pot had to contain two pints. In case of a shortage of flour, they could substitute three Cassava roots, each weighing two-and-a-half-pounds.\(^\text{82}\) The elaborate preparation of the root was necessary, as the linamarin of the root turned into cyanide in the human digestive system without prior fermentation. Hence, travelogues of South America reported extensively on this process.\(^\text{83}\)

Figures 16 and 17 nicely exhibit the process of abstraction. The top section of the first image, taken from Green and Astley, shows the fort town of Kachao Bissao, while the lower section depicts the various stages in the preparation of the manioc/cassava (mandihoca) root.\(^\text{84}\) Green and Astley’s image presents five stages, illustrated by human activities and accompanied by explanatory titles. The Encyclopédie’s image was similarly configured into two parts, with one of them further subdivided into two, and created under the same convention.

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80. See the article on manioc in Diderot and d’Alembert, eds., *Encyclopédie*, vol. 10 (ref. 10), 38–39.
82. “Manioc,” Le Romain, in ibid., 39.
FIG. 16 Kachao; Preparing the Manioc Root, 1745. Source: Green and Astley, New General Collection (ref. 17), Town and Fort of Kachao; Negroes of Kachao. Preparing the Manioc Root, 98–99. Permission granted by WL, Geog 4157.45 vol. 2.
Encyclopédie image concerns both indigo production and manioc processing. The manioc processing stages, in the lower section of the picture, are exemplified by the various tools and instruments used (with markings for the accompanying explanatory text), but without any human figure or any symbolic parts of it (such as hands). 85

I have argued in this section that the visual representations of non-Europeans changed during the period from the early 1700s until the late 1760s. Earlier on, to varying degrees, non-Europeans were depicted as bearing signs and emblems of civilized life, which were manifested in their social and religious organization and practices, their body demeanor, and their hair arrangements. These gradually disappeared, giving rise to stereotyped depictions of chaotic social grouping, wild and/or savage body comportment, and elementary modes of labor.

VISUALIZING “RACE”

Eighteenth-century botanical classifications offered various modes of clustering the global flora, the most widely adopted of which relied on a selection of external observable properties. These differing modes produced boundaries between the various levels of the classified/clustered flora. For some naturalists the boundaries were more flexible or porous. In the seventeenth century anatomy had come to the forefront in some European centers, and toward the last third of the eighteenth century, anatomical and physiological investigations became prominent in natural history and in medicine. 86 Discussions of the

85. Fig. 4 (on the right) in the Encyclopédie image related to a manioc press, as used primarily in Africa, while the second (Fig. 5, on the left) represented the press used in the Caribbean Islands.

boundaries of humanity and the criteria for ordering its diversity now became more narrowly focused on sets of external, supposedly observable characteristics. Whatever was perceived to be a natural marker, such as skin color, jaw shape, and quantity of body hair, in fact became such a marker by the very act of choosing it to fulfill that function in a specific cultural and scientific context. There was a noticeable tendency—in discourses on human diversity—to use unilinear models of dynamic progress incorporating more or less definite stages. Concurrently, hierarchical classificatory models, drawn principally from botany, were conceived in hereditary biological terms. Carlos López-Beltrán has drawn a sophisticated picture of the debates, particularly among medical people, concerning the generation and conservation of type within a genealogical line. He argued that the separation of causal spaces at the turn of the nineteenth century was significantly different from the later nature/nurture division: “Resemblances, degenerations and the transmission of form through generation could be now seen as having similar causal dependencies.” Thus the fluidity between that which was determined by the physical surrounding and that which was permeable to it disappeared. This fluidity had characterized the debates throughout the century, and the change—from the prevalence of the fluidity assumption to its disappearance—made it possible for both the act of clustering and constituting boundaries among “races” to become rigid and to permanently assign and fix individuals carrying selected general properties within them. This could be likened to a stable hereditary physiological transfer of the species form, as though dictated by natural laws, even when conceived as a constant succession of similar individuals reproducing themselves, thus forming the foundation of a collective clustering of families, groups, and races, rather than the passing on of individual features.

The boundaries of humanity, and in particular those of civilized humanity, were thus sharply redrawn, and excluded various nonhumans (such as apes) that had been a topic of debate. Of particular significance was the still reversible and fluid coupling of external empirical features with the seventeenth- and

89. López-Beltrán, “Natural Things” (ref. 88), 79.
eighteenth-century social–temperamental stereotyped attributes of various human groups.

A much less fluid hierarchy was established within the boundaries of humanity, with Europeans at the top. Sets of observable features, originally important in the natural history classificatory discourse, were applied to humans and became disconnected from what was considered an environmentalist grid. These features were posited as irreversible, and often came to signify degeneration from the “true type,” as in the case of skin color.90 These sets of physiological differences were looked upon as both racially defining and definitive. They were paired with sets of cognitive, behavioral, and affective characteristics, which were taken over from the discourse on society. Consequently, just as in the botanical classificatory system, human individuals did not have to exhibit each and every external feature of a group in order to be classified as belonging to it.91 It was enough that at least two of the principal ones were displayed in individuals in order for them to be considered as having both the external, physical features and the cognitive, behavioral, affective characteristics.

The term “race,” originally interchangeable with “human varieties,” took on its new significance in the late 1760s, its use increasing by the late 1770s. At that time it referred neither to politically nor culturally distinctive groups within Europe, except for collectivities at its very margins, for example, the Lapps (Sami). Later on, one no longer discussed “human varieties” or “nations,” but rather distinct, well-delineated large groupings—“races.”92 This may be viewed as the emergence of “race” as a new scientific object,93 which occurred concurrently with the dissemination of notions of social progress and the beginning of writing on evolution in nature.94

90. The debates on Kolb, the Hottentots, and the significance of their color and its cause and origin illustrate the point. See Merians, Envisioning the Worst (ref. 72).
91. One way is by quantifying over properties rather than over individuals. See also Margaret Gilbert’s suggestions on group membership in On Social Facts (London and New York: Routledge, 1989), 408–44.
92. In the nineteenth century, the term “nation” was primarily reserved for the Europeans. Douglas in “Slippery Word” (ref. 61) notes that “race” was rarer and much less systematic in its signification in British travel narratives than in the French Voyage literature of the last decades of the eighteenth century.
94. For authors who discuss the question whether there was a transition, see C. A. Bayly, “The British and Indigenous Peoples: 1760–1860: Power, Perception and Identity,” and Kathleen Brown, “Native Americans and Early Modern Concepts of Race,” both in Empire and Others: British Encounters with Indigenous Peoples, 1600–1850, ed. Martin Daunton and Rick Halpern.
Representing “Race”

Until rather late in the century, travel visual representations presented complex, often personalized images of both individuals and groups, and their various social practices and clothing (“customs and habits”). These images did not allow for a simplistic interpretation of their subjects. Gradually, however, the human figure no longer came to represent a specific individual, and underwent either abstraction or dramatization in accordance with the expectations of the readership. More often than not, these images depicted the natives as harboring either aggression and violence or implicit eroticism, or both.

Toward the end of the eighteenth century and in the beginning of the nineteenth, the classificatory/physiological/hereditary turn also produced anatomical analyses of various body parts and their geometrical relations, skeletal representations, or even the visual analysis of skin structure, instead of full-blooded people in their clothing and in their natural habitat. These analyses can be found in the later, widely quoted works of Petrus Camper, Johann Caspar Lavater, Johann Friedrich Blumenbach, and Charles White.95 Blumenbach is an


interesting case in point: It is only gradually, and with Kant’s writings on race in mind, that Blumenbach moved toward a clear-cut division of humankind into five distinct races. This change is can be seen across the span of editions (1775, 1782, 1806) of his well-known On the Natural Variety of Mankind. The division into distinct races was still sharper in the 1806 edition, which included skull illustrations. However, that edition emphasized a certain gradation of color. Blumenbach openly introduced an aesthetic standard and estimate—the Caucasian ideal type—and relativized that aesthetic ideal type vis-à-vis the blacks, since he did not consider them as essentially inferior in any way.

It is not the case that a sharp break took place, and that these later modes of representation completely replaced other, more humanizing modes. Rather, one finds side by side with the new mode a variety of visual representations of non-Europeans, based on the then-prevalent artistic styles and conventions, together with a growing tendency to ethnographic precision in depiction and further stereotyping of human groups. This stereotyping increasingly employed more easily recognized visual codes of absence of civility, and of savagery and degeneration. These changes in the narrative and visualization of the journeys percolated into the depiction of non-Europeans in travel collections at large. A significant factor in this process was the above-mentioned diminishing dependence of European journeys on the hospitality of the indigenous peoples. This change of attitude had its parallel in the changing character of European colonialism.

As indicated earlier, there was a continual transfer and transformation of images among various travel texts throughout the century. The conventions regarding human depiction in the travel books were transferred to the later editions of natural history books, which earlier had been without such images. This continual transfer created a relatively stable visual object and representation of non-European peoples. This in turn served as a vehicle for typing groups of humans, and functioned as a prelude to stereotyping and racializing them. Moreover, this seeming stability nurtured the view that Europe was constantly changing and progressing, while beyond it, inertia ruled. Thus, though the


extension and intension of the concept of “race” only gradually stabilized, and
differentially so in British and French practices, it nonetheless accumulated an
ontological robustness in the process.

There was another aspect: the growing inclination to deploy structures—
conceptual, anatomical, linguistic—both in description and in explanation.
This proclivity showed in the rejection of the use of imagination in the sciences,
the scientific rhetoric of aloofness and disinterestedness, and the gradual sub-
stitution of the seeing subject with analytically and mechanically mediated
perspectives.97 There arose a preference for common forms that allowed gen-
eralizations in novel ways, forms that allowed distinctions between deeper
structures—e.g., anatomical ones—and surface phenomena, and allowed for
causal relationships between them, as in the discussions of skin color or skin
structure. Furthermore, differences among human groups were conceived of
and investigated within these new, primarily linguistic and anatomical, gradu-
ally emerging structures. The “race” groups became observable, and measurable,
within such conceptual grids.

The process of both abstracting and transferring between travelogue and
natural history books is evident in the greatly shortened English translation of
Buffon’s Histoire Naturelle, published in the mid-1770s.98 Its images found their
way, in novel combinations, to an edition of Oliver Goldsmith’s natural history
book of 1791. I present here images of a horse and a Hottentot, taken from the
English version of Buffon’s work (Figs. 18 and 19).99 Only the illustration of the
horse first appeared in Buffon’s original Histoire Naturelle, in his discussion of
mammals in the chapter on the horse. Buffon also wrote a separate treatise on
the breeding and raising of horses. Note that in Buffon’s multivolume and
widely read oeuvre there were no visual representations of humans differenti-
ated either by groupings or by continent of origin. The images of humans
which appeared in the relevant Buffon volumes were either merely physiological
or related to the “expressions of emotions.” Thus, one can surmise that the
identical framing of both humans and animals in the English Buffon produced
a naturalization of the stereotyped humans. Each of the human figures appeared
separately. Their features (such as hairstyle, clothing, and body positioning), as

97. See Sörlin, “Ordering the World for Europe” (ref. 5).
98. Buffon, Histoire Naturelle (ref. 21).
99. Comte de Buffon, Natural History of Animals, Vegetables and Minerals; with the Theory of
images could already be found in the 1779 edition of Goldsmith’s Natural History (Philadelphia:
printed for Mathew Carey, no. 118, Market Street, 1795).
FIG. 18  A Horse (image without caption), 1775. Source: Buffon, Natural History of Animals, vol. 1 (ref. 99). Permission granted by HL, S 7605.10.5.
well as the personal and background emblematic objects that indicated their status on the civility ladder, were compounds of elements taken from travelogues. Three features exemplify this for the Hottentot image: The palm tree in the background is similar to both the palm trees around the yard in the coronation images (Figs. 11 and 12) and the one illustrated between the two black couples in Figure 10. The man is almost naked, which fits the depiction of the Hottentots in later versions after Kolb (Fig. 15) and of the blacks in the Prévost version of the coronation (Fig. 12). However, the man holds a short broad stick and something that looks like a cloak in front of the lower part of his body, similar to what can be seen tied around the necks of the Hottentots both in the original Kolb (Fig. 13) and the Hottentot couple in the early classification table (Fig. 10). Note, however, that this particular cloak seems to be made of the skin of an animal whose tail trails behind the man. Indeed, as early as 1508 and as late as the end of the seventeenth century, as well as in Kolb, there were descriptions and illustrations of (well-to-do) Hottentots wearing such skins.100

Though Linnaeus’s division of humans into races (particularly those in the first edition and in the tenth “reformata” edition of 1758) dominates discussions of the eighteenth-century concept of “race,” I question the significance of this division for the later scientific concept of races. In the 1766 edition of his *Systema Naturae* Linnaeus argued that separate groupings with permanent differences in nature also applied to human groupings (this presumably based on theological assumptions). Yet there were naturalists and social thinkers who argued the opposite, and suggested causal mechanisms to explain this. In 1762 Linnaeus wrote instructions for travelers, in which he asked them to include aspects of the natural environment, social groups (e.g., “economica, vegetabilis, diatetica, operationis propagatio, morbi, . . .”), culture, and history. Contrary to other manuals, then, the instructions did not contain references to specific human groups, and it sharply criticized the type of knowledge drawn from travelogues. Buffon’s discussion of human differences and their embeddedness in the natural and social environment, and consequently their reversibility, carried much weight at the time.

Oliver Goldsmith’s book ran through twenty editions, starting in the mid-1770s until well into the nineteenth century. The image used here (Fig. 20), for which well-known engravers were employed, appeared in a 1790 edition.

Goldsmith, an Anglo-Irish physician and poet, who amalgamated components of both Linnaeus and Buffon in his view on human classification, divided humankind into six groups. Human figures, grouped together from the Buffon edition by the publisher (with a mirror-image copying change of direction), were called “varieties of the human race” rather than “human species,” the Buffonian expression. Note that only five were presented, as Goldsmith’s book did not include any representation of white Europeans, and all of the five figures now appeared without the background emblematic objects that had indicated their state of civility and sociality in the earlier English Buffon edition.

An interesting case exemplifying the production of dramatized, and at times eroticized, non-Europeans is provided by the engravings prepared by William Blake for John Gabriel Stedman’s book on the slave uprising in Surinam, Dutch Guiana, and its cruel suppression. Of the eighty images in the book,


102. See Debbie Lee, Slavery and the Romantic Imagination (Philadelphia: University of Pennsylvania Press, 2002); Pratt, Imperial Eye (ref. 42); Richard Price and Sally Price, eds., John Gabriel Stedman: Narrative of a Five Years’ Expedition against the Revolted Negroes of Surinam, transcribed
most were of nonhumans, with only twenty-three images of humans. In some copies of the book, particularly those of the second edition, the engravings, including all of Blake’s, were hand-colored.

The engraving “Flagellated Samboe Woman” (Fig. 21) shows a young woman who has been whipped, two “Negroe drivers,” the overseer—who had given the whipping orders—and Stedman himself. Stedman was in Surinam as a soldier with the Dutch army fighting to quell the slave rebellion there. He was deeply shaken by the Dutch landowners’ atrocities and their sheer cruelty toward black slaves. Thus, in the situation narrated in the book, he tried to help the woman slave after she was hung to be whipped. Stedman reported that she was whipped twice over because he had asked to stop it. This, according to him, was her punishment for not responding to the overseer’s sexual advances. Stedman also explained that a Samboe was a native “between a mulatto and a black,” with “a deep copper-colored complexion” and “dark hair that curls in large ringlets.” According to him the Samboes, by virtue of being more handsome, were mostly employed in household chores.

A striking feature of “Flagellated Samboe Woman” is the erotic quality of the engraving as a whole: the dance-like positioning of the woman’s body, whose features appear hardly affected by pain or being hung by her wrists. Her face is crafted by descending lines from the eyebrows to the chin and her figure presented in free-floating lines, whereas the other figures in the picture are drawn with very crowded lines. In the hand-colored edition, there are vertical red lines across the torso signifying blood—one of them actually dripping. All of the four men in the picture, one of whom is presumably the author and a witness to the torture, are depicted as if in a choreography of cruelty and violence. These figures’ miniaturized presence in the lower background is probably meant to indicate that this was a recollection—that there was distance in both time and space between them and the actual torture. Similar evocations of choreographic eroticism can be found in other pictures by Blake depicting cruelty toward the slaves.

Some historians, for example, Richard and Sally Price, claim that all the images in the book, including Blake’s, were done with Stedman’s watercolors for the first time from the original 1790 manuscript (Baltimore, MD: Johns Hopkins University Press, 1988); Marcus Wood, Blind Memory: Visual Representations of Slavery in England and America 1780–1865 (New York: Routledge, 2000). As Lee stresses in chap. 4, Slavery (above), out of the twenty-three with human figures, thirteen were done by Blake. See Robert N. Essick, William Blake Printmaker (Princeton, NJ: Princeton University Press, 1980).
as models, including the coloring. If so, the mixture of the erotic and the cruel should be attributed to Blake, possibly working under instructions by Joseph Johnson, the publisher, who drastically revised the book in order to turn it into a travelogue with an erotically titillating story. Furthermore, beside the story of the cruel Dutch military expedition and the plight of the rebel slave society, the book contained reports on natural and social history, as well as an autobiographical-romantic-dramatic episode, all of which contributed to the book's attraction. The 1988 edition restored the original censored materials of Stedman's 1790 manuscript, which contained a quite different version of his romance, and a severe indictment of Dutch slave society. Blake and Stedman were in close contact during those years, meeting frequently and corresponding extensively with one another, and Blake identified with the position that Stedman took in the original manuscript. It clearly made a deep impression on Blake, as can be seen from the text and drawings of his Daughters of Albion. Given that, one could also view Blake's human figures as an intentional effort to undermine the accepted racialized notions of beauty by depicting black women and men as inordinately beautiful and graceful and not merely sensuous. Such a reading can find support in the famous visual representation in that book of the three female figures—echoing the three Graces—that symbolize Europe (supported by), Asia, and Africa.

Stedman's book, immediately very popular, surpassed twenty-five editions and was translated into several languages in an abridged version. The first Dutch edition was based on both the first English edition of 1796 and the first French edition of 1798. Beside the story of the cruel Dutch military expedition and the plight of the rebel slave society, the Dutch edition contained reports on natural and social history, as well as the aforementioned semi-autobiographical episode.

An image from Charles White's book, An Account of the Regular Gradation in Man and in Different Animals and Vegetables; and from the Former to the Latter, exemplifies the turn toward naturalizing hierarchies based on medical-anatomical-physiological reasoning, as well as the reduction and schematization of the visual representation of nonwhite races into abstracted, discrete, scientific elements such as skin, skull, portion of a bone, etc. (Fig. 22).

103. Price and Price, John Gabriel Stedman (ref. 102), argue that Stedman, most of whose work had been lost long ago, was a capable and versatile artist and a perceptive ethnographer.


105. White, Account of the Regular (ref. 95). The report presented in 1795 following a lecture by John Hunter on skulls and their gradation.
schematized images could be found in earlier, seventeenth-century anatomical work, it was their prevalence and the meaning and function attached to them within the new cultural-scientific context described earlier that I stress.\textsuperscript{106}

White, a prominent provincial surgeon with a specialization in obstetrics and a member of the Royal Society since 1762, had a deep interest in botany and its classifications. He founded the first general hospital for obstetrics and midwifery in Manchester, and his book on obstetrics became a standard reference, translated into several European languages.\textsuperscript{107}

In his representations of skulls and heads, tables of measurements of anatomical features, and discussion of physiological functions and reactions to diseases and parasites, White suggested a downward gradation from humans to birds, with Africans closest to animals. Yet, he specifically supported abolitionism, arguing (contrary to Locke at the beginning of the eighteenth century) that differential intellectual capacities among humans should not determine the measure of individual freedom. White referred to and argued with both Lavater and Camper, insisting that generally gradation works from the white

106. Frederik Ruysch (1638–1731), for example, who is considered one of the founders of histology, presented an actual piece of skin operated on and preserved by his special method of embalming tissue. See, e.g., M. Formey, “Ruisch Envoya à Heister une Portion de la Peau d’un Nègre,” in Diderot and d’Alembert, eds., Encyclopédie, vol. 11 (ref. 10), 78. This was used by Camper in his discussion of the skin color of blacks, on the origin of color of negroes in his entry “Negro” in both the Encyclopédie and the 1798 American edition of the Encyclopedia Britannica. See also Harold J. Cook, Matters of Exchange: Commerce, Medicine, and the Science in the Dutch Golden Age (New Haven, CT: Yale University Press, 2007), esp. chap. 7.

European downwards (e.g., p. 56). “Races” could be distinguished and bounded through attention to descent, to continued measurable and/or observable features/properties, and thus through scientific investigation of similarity and difference. There were also some extensive quotes from Samuel Thomas von Soemmerring in the appendix to his book. He discussed the properties of muscles, hair, sweating, sexual organs, speech and language capacity, memory, etc., of the various human groupings from that comparative perspective. Africans were placed higher in the gradation scheme in some of the parameters introduced to measure and quantify faculties that were considered distinctive animal traits, such as hearing, smell, and chewing.

In White’s book, considered an important and significant underpinning for polygenesis, he assumed the validity of the great chain of being, which he applied to the description, classification, and analysis of human groups. His report was embedded in the contemporaneous anatomical, medical, natural history discourse on human races, showing people of color at the bottom of the human chain. White was perceived as an anti-environmentalist concerning human races. His stance was most explicit when he explained color differences, where he relied on Le Cat’s discussion of skin structure and the role of blood circulation. Yet he argued that different physical-climatic zones would have different graded hierarchies of living organisms. His work exemplified the changes emerging side by side with the perseverance of older models.

CONCLUSION

I have argued that, when disseminated, visual representations can create objects—persons, places, ideas; that is, a world with social dimensions. The visual representations analyzed here circulated in the European cultural world. They were transferred, transposed, and transformed concurrently with the expanding colonizing enterprise of the European nation-states, which intensified with the use of new and cheaper engraving techniques and technologies. The widespread circulation of colonial goods—goods which were not merely objects of amusement or diversion but also foci of economic, political, and scientific

109. See Claude Nicolas Le Cat, Traité de la Couleur de la Peau Humaine en Général, de celle des Nègres en Particulier, et de la Métamorphose d’une de ces Couleurs en l’Autre, soit de Naissance, soit Accidentellement (Amsterdam: [i.e., Rouen?], 1765).
endeavors—stimulated interest in the travelogue. Their visual representations closely reflected the colonizing enterprise and were related to epistemic positions, observational perspectives, and conceptual technologies. Throughout the eighteenth century these relations were embodied in the continuous and gradual transformation of the representations and their cultural messages in the changing contexts. This process helped shape the identities of both individuals and institutions, contributing to the creation of new categories of European identity, vindicating colonialism, and stabilizing racialized stereotypes of human groups that belonged to both the natural and the social. The scientific concept of “race” that emerged at the end of the century seemed stable to contemporaries. However, when considered *qua* the investigator, rather than *qua* the investigated, “race” becomes an unstable, hybrid, contextual category operating within the various sciences at the interface of the social and the biological. The plasticity and fluidity which, to some extent, characterized the European view and thus the visual depiction of non-European peoples—“human varieties”—was replaced during the last decades of the eighteenth century and the beginning of the nineteenth century with a more rigid, hierarchical, linear classification of “races,” and ultimately with a strictly hereditarian view of human races.

Thus, by the end of the eighteenth century the proclaimed, universalized boundaries of humanity locked some of its inhabitants into meticulously parcelled and seemingly immovable cells.

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