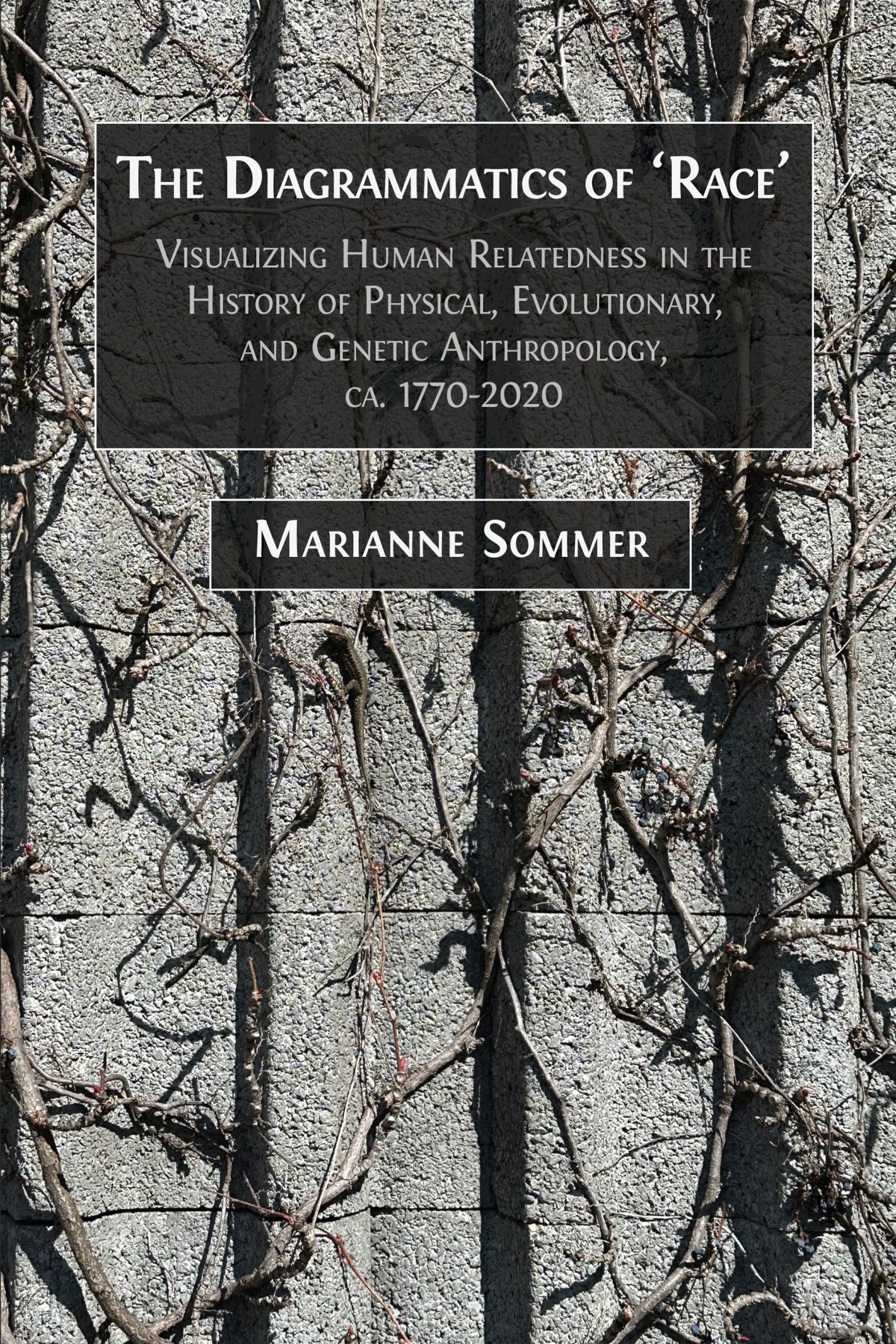

The Diagrammatics of 'Race'

Visualizing Human Relatedness in the History of Physical, Evolutionary, and Genetic Anthropology, ca. 1770-2020

Marianne Sommer

https://www.openbookpublishers.com

Marianne Sommer, *The Diagrammatics of 'Race': Visualizing Human Relatedness in the History of Physical, Evolutionary, and Genetic Anthropology, ca. 1770–2020*. Cambridge, UK: Open Book Publishers, 2024, https://doi.org/10.11647/OBP.0396

ISBN Paperback: 978-1-80511-260-0
ISBN Hardback: 978-1-80511-261-7
ISBN Digital (PDF): 978-1-80511-262-4
ISBN Digital eBook (EPUB): 978-1-80511-263-1
ISBN HTML: 978-1-80511-265-5

DOI: 10.11647/OBP.0396

Cover image: Photo by Marc Bloch, 2023, CC-BY
Cover design: Jeevanjot Kaur Nagpal.

PART II. MAPS, SCALES, AND TREES AS (INTERTWINED) DIAGRAMS OF HUMAN GENEALOGY AND EVOLUTION

> Genealogy became the great problem of zoology and botany, of palaeontology, and of all allied studies. The mighty maze of organic life was no longer without plan [...] Philology was remodelled; ethnology took a new face; sociology, as a complete science, first really began to be. Even such studies as law and history felt the remote effects of the great Darwinian wave. (Allen 1882, 307)

The man who wrote the above lines emphasized the revolution the genealogical approach meant for different scientific and scholarly endeavors – a revolution brought about by Charles Darwin. At the same time, the author of this obituary left no doubt about the fact that Darwin's work and writings were part and parcel of his time and of a certain tradition. After all, we have seen in Part I that the genealogical approach was central to pre-evolutionary scholars like Johann Friedrich Blumenbach and James Cowles Prichard, if only with regard to humankind or organisms that pertained to the same species. Accordingly, Darwin's *The Descent of Man, and Selection in Relation to Sex* (Darwin 1871ab) evidences ties to, as well as a break away from, the pre-evolutionary anthropology that was under concern in Part I. In *The Descent of Man*, Darwin treated some of Blumenbach's views (even if mostly through other authors), referred indirectly to Petrus Camper, and drew on Prichard (the third and fourth editions of *Researches*).

Scholars have described Prichard as a precursor to Darwin, in terms of the analogy with artificial selection in breeding and the concepts of natural selection and heredity, as well as in the application of evolution and progress to man's physical and mental characteristics, and/or

 https://doi.org/10.11647/OBP.0396.07

his understanding of geographical distribution and variation (see Stocking 1973). At the other end of the spectrum, some argue that the idea of Prichard as a precursor to Darwin is a myth born in secondary literature, and that Darwin was not much concerned with Prichard's writings. According to this perspective, considering his opposition to transformationism, Prichard can hardly be seen as a forerunner of Darwin (Augstein 1996, 20, 528–29). Nonetheless, Darwin wrote into his copy of the first volume of the fourth edition of Prichard's *Researches* (1851), "How like my Book this will be" (see *Catalogue of the Library of Charles Darwin*, Rutherford 1908, xi), and his references to Prichard also in the second volume of *Descent* (1871b) suggest that with regard to sexual selection, too, Darwin found inspiration in Prichard's writing.[1]

Samuel George Morton made only one appearance in *Descent*, when Darwin observed that even though 'man' was the best researched animal, the most renowned scientists disagreed vastly on the question of race, and that there existed estimates from one to sixty-three races, with Morton proposing twenty-two (Darwin 1871a, 226). Morton's *Crania americana* was on Darwin's list of books to be read, but seems to have remained there (Darwin 1838–51 – it still appears on that list of 1852–60). Darwin was acquainted with some of Morton's papers on species, 'races', and hybridization, as well as paleontology; and he did possess a copy of *Types of Mankind* (Nott and Gliddon 1854) (see *Catalogue of the Library of Charles Darwin*, Rutherford 1908, 31). However far Darwin might have been influenced by Prichard, he distrusted Morton's research and warned Charles Lyell: "I do not think Dr. Morton a safe man to quote from" (Darwin to Lyell, 2 June 1847, in Mitchell and Michael 2019, 77; CUL-DAR146.166 in Wyhe 2002).

The above must be seen in view of the fact that *The Descent of Man* was, in some measure, a reaction to the polygenist anthropology discussed in Part I. Adrian Desmond and James Moore show in their *Darwin's Sacred Cause* (2009) how Darwin moved in circles of abolitionists, with his mother's side of the family active for the cause. The authors meticulously reconstruct how the knowledge Darwin gained about genocide and

1 The last observation is true also with regard to William Lawrence's *Lectures on Physiology*. Note that already the Scottish naturalist Arthur J. Thomson (1909), following the British evolutionary biologist Edward Poulton, discussed Prichard as a predecessor of Darwin.

slavery, including the gruesome outcomes of its abolition, on the five-year voyage of the *Beagle* around the world (1831–36), radicalized him to a certain extent. Darwin was also aware of the involvement of science in 'racial' exploitation and violence, especially with the support that polygenist theories gave such social institutions in the American south. These doctrines were strongly contradicted by his observations in South America, especially in Brazil, where Europeans, Black Africans, and Indigenous peoples had intermixed and graded into each other.

However, in the course of time the constant wars between groups, evidenced by the Xhosa Wars, for example, would make more of an impression on Darwin than peoples' ability to find a way of coexisting. And a Darwin who was losing his religious faith rated ethnicities on the basis of his understanding of morality and civilization. He compared Europeans to domesticated animals, while the 'savages' had remained wild. Such 'savages' helped him to imagine 'his' progenitors, and ancestral ties between groups might be uncovered through relations between languages or comparisons of parasites. Such a paternalistic stance towards the 'primitives' was also taken by anthropologists like John Lubbock and Edward Tylor, with whom Darwin clearly felt more aligned than with the craniologists and polygenists. Furthermore, Darwin certainly applied to 'the human family' his understanding of the British class and gender systems, in which he perceived 'natural hierarchies', notwithstanding the concession that a lower-class member could become more refined and even women might improve themselves through education (Darwin 1871a, 232–34; Desmond and Moore 2009, especially Chs. 4–6, 13).

Taken together, the above observations amount to a complex mixture for developing a coherent theory and diagrammatic image of human descent. And the fledgling attempts at applying transformationism to humankind that were in place might not have been to Darwin's liking. According to transformationist theories like those of Jean-Baptiste Lamarck and Robert Grant, with which Darwin was acquainted, evolution did not amount to diversification from a common origin, but consisted in a series of parallel developments through the same pedigree. In this view, rather than humans and apes having branched from a common progenitor, humans had passed through the apes' phase on their own line. Some even envisioned such independent phylogenies

for the human 'races', meaning that the living 'races' did not share a common ancestor. Rather, White people constituted the oldest and highest form on the separate but parallel ladders of progress, a rung 'other races' had not yet achieved (Desmond and Moore 2009, 111).

Darwin's conception of descent stood in stark contrast to such views: "Common ancestry had been his innovation: a chartable pedigree for the whole of life, and not just for the human aristocrats" (Desmond and Moore 2009, 141). Desmond and Moore suggest that Darwin preferred 'descent' over 'evolution', because "[h]uman genealogy was more than a metaphor for Darwin's common-descent evolution. It was the prototype explanation" (375). And in accordance with this prototype explanation, Darwin worked with the image of the tree. Family genealogy suggested that some branches of the tree of life would flourish while others withered or perished, just like families rose to influential dynasties or died out; similarly, common 'racial' descent and 'racial' extinction reinforced the notion of a tree of life, with many branches having been wiped out. Indeed, Desmond and Moore propose that it is from Darwin's conception of the relationship between the human 'races' that he ventured into the entire animal kingdom and arrived at the notion of "the genealogy of all living beings" (Darwin to Joseph Hooker, July 13, 1858, in L. Huxley 1918, 499). In sum, "racial unity was his starting point for explaining the common descent of all life using a pedigree approach" (Desmond and Moore 2009, 126).

All of this suggests the tree as the perfect diagram to capture the descent of 'man' and contradict the polygenists. Indeed, Darwin did experiment with tree-like drawings of phylogenies. At the same time, we will see that his ideas and use of language evoke the great chain of being (Sommer 2021, 45–47). As the initial remarks regarding Darwin's hybrid stance towards human varieties imply, the two diagrams were not mutually exclusive, and both have a longer history within natural history and without. Before engaging with Darwin's own struggle to develop a diagrammatics to capture his new way of conceptualizing human relatedness, I therefore examine the ways in which genealogy and eventually evolution, the chain, and the tree were interlinked. Finally, another image was associated with the tree in the context of humanity, that of the map, and this trinity of map, chain, and tree is remarkably obvious in the first image I have discovered that included

the human 'races' in a tree-shaped system of classification. A close engagement with its visual references will lead us to the issues Darwin was tackling.

This means that the experimentality inherent in diagrams that I discussed for Charles Sanders Peirce in Part I will retain center stage in this part. It also means that diagrammatic metaphors will be a major concern. Peirce distinguished three subcategories of the icon – the image, the metaphor, and the diagram. While the image-icon shares simple qualities (such as color) with its object, the diagram is a skeleton-like sketch of its relations, and the metaphor represents an object by finding similarity in something else. As we have seen, the subcategories of this triad are not exclusive, however. Rather, an image can be read diagrammatically, and metaphors include both images and diagrams. The diagrammatic analysis of an object indeed seems to be a prerequisite for forming a typical metaphor, because through it one recognizes the fundamental structure of an object that in the metaphor is used to understand another phenomenon. The metaphor of the family tree requires that the basic scheme of the tree is applied to that of the family and, in my case, to 'the family of man' (Stjernfelt 2000, 358–60).