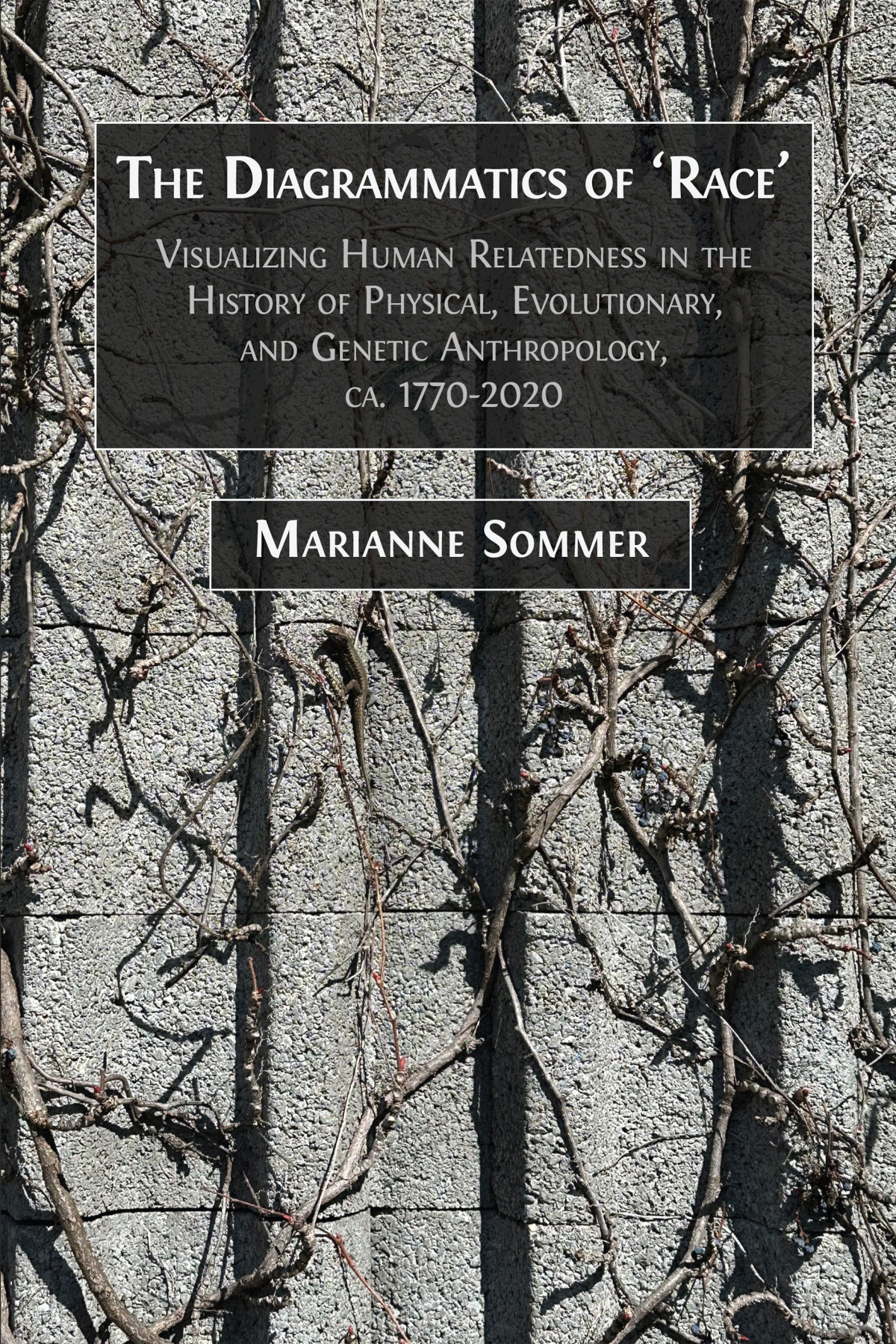

The Diagrammatics of 'Race'

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 I. BUILDING A DIAGRAMMATICS OF 'RACE' IN THE EMERGING FIELD OF ANTHROPOLOGY

In the fields of both anthropology and biology, when considering diagrams of relatedness, phylogenetic trees often come to mind. Indeed, as in the case of genealogy, tree diagrams have been identified as "canonical icons" in these realms (Gould 1995; 1997, 30),[1] and they will take center stage in following parts. However, in this part, we will see how other types of diagrams were an integral part of racial anthropology from the start. Various kinds of diagrams were introduced to construct 'racial categories' and to allow the comparison of these categories in the process of establishing the field of physical anthropology out of a more historical-comparative ethnology. The late Stephen Jay Gould has drawn attention to the development of a metric approach in physical anthropology in the nineteenth century that depended on novel instruments, in his now classic *The Mismeasure of Man* (1996 [1981], 62–141). While the constitutive new images were not Gould's focus, Christine Hanke (2007) has shown the connection between metric-statistical procedures and mechanical-objective visualizations, including tables, curves, and drawings, and its role in shaping concepts of race and sex in the context of the journal *Archiv für Anthropologie* during the later period between 1890 and 1915. The diagrammatic repertoire of anthropology more broadly has been the object of a special issue of the journal *History of the Human Sciences* on "Diagrammatic Renderings of Human Evolution and Diversity in Physical, Serological and Molecular Anthropology"; with the exception of the introduction, the issue focuses on the twentieth century (Sommer and Lipphardt 2015).

1 On anthropology, see Sommer, e.g., 2005b and 2015b.

 https://doi.org/10.11647/OBP.0396.01

However, it is the period to which the late George Stocking (1973, xii) has referred to as the dark ages in the history of anthropology, the last decades of the eighteenth to the mid-nineteenth century, that is of particular importance for an understanding of how diagrams came to play such a great role in anthropology. It was a time when practitioners were in the process of defining the field: whose methods would be adopted in the endeavor variously called 'anthropology', 'ethnology', or 'ethnography'? During the transition from environmentalism to physical anthropology, a prominent figure was James Cowles Prichard, who was regarded as the founder of modern anthropology not only by his British contemporaries but also, as will be of particular concern, by Americans. Even though Prichard was not an environmentalist, he stood for the traditional comparative-historical approach to the study of 'man'. At the same time, there were the fledgling beginnings of physical anthropology in the work of such influential authors as Petrus Camper and Johann Friedrich Blumenbach. On all of these drew the so-called father of American physical anthropology: the physician Samuel George Morton. To engage with the transition from a comparative-historical to a comparative-physical approach, I thus focus on a network of researchers whose work has been considered fundamental for the development of anthropology by their contemporaries as well as by historians of science.

Like Camper, Blumenbach, Prichard, and Morton, those who brought change to anthropology in the last decades of the eighteenth to the mid-nineteenth century were in large part trained in anatomy and natural history, and they looked to their fields for inspiration. In the new physical anthropology, skulls became central objects of study. Human skulls were already collected and studied in medicine. However, the new 'science of man' regarded the study of humans as part of natural history and was thus distinct from medical and medico-anatomical inquiry into human beings (Sloan 1995, 113). The comparing and measuring of skulls in anthropology was inspired by the classification efforts in comparative zoology and the nascent field of paleontology (e.g., Stanton 1960, 24–29, 42–43; Roque 2010, 130–31; Armstrong-Fumero 2014, 12–17). As Ann Fabian has put it for Morton: "Morton took up questions that comparative anatomists had asked about the shape and size of skulls of different animals, but instead of looking at various animals, he compared human races" (2010, 30).

However, Morton was also inspired by phrenology, which was entirely focused on the analysis of skull shapes and an important source of diagrammatic and metric methods. Furthermore, Camper especially drew also on diagrammatic techniques from art, another realm in which skulls were collected and studied, and we will see that early physical anthropologists retained some esthetic considerations in their work. Finally, Morton was regularly revered as 'the new Blumenbach' or even 'the new Prichard' already during his lifetime (Stanton 1960, 39), and, in histories of physical anthropology, Camper, Blumenbach, and Morton have long been 'credited' for pioneering the quantitative approach (e.g., Shapiro 1959, 373–76). But the focus on diagrams will reveal that Prichard criticized the metric approach as practiced by Morton and Camper, while beginning to integrate diagrams in his work, and that Blumenbach's method was diagrammatic without necessarily being metric. It was especially the diagrammatic approach, entailing the perception of bodies (and particularly skulls) in terms of proportions and relations, that lay the foundation for the new physical anthropology – a diagrammatic approach that was developed into a diagrammatics of 'race' through the introduction of instruments and measurements, not least in Morton's work.

I will therefore have to ask which qualities of diagrams suited the project of physical anthropologists. This may be approached through the diagrammatology of Charles Sanders Peirce on the basis of some types of diagrams that will be of central importance in this part. For Peirce, the icon is a symbol that is characterized by similarity to the object it represents. Diagrams are one subcategory of icons that are distinguished from the other two subcategories – the image and the metaphor – by representing "the relations [...] of the parts of one thing by analogous relations in their own parts" (Peirce 1998 [1903], 274), such as, in our case, the geometric drawings of the outlines of skulls that served to preserve the proportions of parts for measurement, for which there might be inserted lines. However, these subcategories are not strictly separated. The subcategory of diagrams also contains images, and images can also be read diagrammatically, as when the lithographs of realistic drawings of skulls were studied by observing the relations and proportions of their parts. In doing so, the observer performed a diagrammatic operation, making the image a diagram.

A diagram can also represent a set of objects that stand in rational relation to each other, such as, in our case, the tables containing numbers for the mean cranial capacities of different human groups. Diagrams may thus show relations between the parts of one thing and/or relations between a set of things, as also in a map of 'racial distribution'. Furthermore, there exist relations between diagrams. As rule-based representation of a phenomenon, an actual diagram is less apprehended as the elements and relations of the individual material object than read as a generalized type (as in the attempts to standardize schemata to represent skulls that allowed certain operations and measurements). This already suggests that diagrams are tools for mental experimentation and manipulation, as we will see in practice, for example, when skull types were diagrammatically morphed into each other. For Peirce, this is a great strength of diagrams, but, in operating with a diagram, there also lies the danger of taking the diagram for the thing itself. Characteristics that we associate with objects prior to their analysis – for instance 'primitive' or 'advanced' characters with specific 'races' – may thus enter the experiments carried out with diagrams and lead to the perception of misleading patterns. While diagrams do make knowledge perceptible – diagrams demonstrate something – commonsense, ideological prejudice as well as wishful thinking may enter the production of diagrams and affect how information is presented (Peirce 1998 [1903]; 1906; Stjernfelt 2000; 2007, 23–48).

Another central aspect of diagrams is that, in contrast to objects such as skulls, they can easily travel. The centrality of the processes of accumulation and circulation of objects (of knowledge) for scientific practice through the transformation of things into so-called 'immutable mobiles' has especially been analyzed by Bruno Latour. In *Science in Action* (1987), he investigated the transformations through which events, things, and humans are made into mobile and stable inscriptions that can be combined with each other. In the case under concern here, in cascades of successively higher degrees of abstraction, objects like skulls were transferred onto paper as drawings, transformed into numbers through measurements, and into means in comparative tables that categorized, ordered, and hierarchized. In this process, human remains such as skulls were decontextualized – they no longer carried the traces of their unethical acquisition in contexts of violence and exploitation.

Transformed into diagrams, they could be globally distributed, (re)used, and further processed in the project of sampling, standardizing, and ordering humanity.

In the following, I begin by engaging with Prichard's comparative-historical *Researches into the Physical History of Man* (1813) and ask how he reacted to the physical anthropology, or better craniology, of Camper and Blumenbach, which, as we will see, was esthetic, diagrammatic, and (in the case of Camper) also metric. I then analyze Morton's now decidedly diagrammatic and metric approach to human crania. A close reading of one of his skull atlases, *Crania americana* (1839), in particular, will reveal the intent to instruct in a kind of diagrammatics that had not yet prevailed. Besides making available his huge skull collection through the lithographs in the book's appendix, Morton used diagrams to introduce and explain measuring devices and the carrying out of measurements (on the use of diagrams in connection with instruments, see Gessner 2014 and Higton 2014). He taught the reader how to diagrammatically construct 'racial types'. I shall examine how Prichard was affected in his later editions of *Researches* by the new physical anthropology of Morton, and I will look at Morton's direct legacy through the work *Types of Mankind* (1854), authored by his friends Josiah Clark Nott and George Robin Gliddon: did his fervent supporters also carry through his diagrammatic and metric method?

As already hinted at, there was more at stake than the question of the right methodology or the pre-evolutionary explanation of the causes of human differentiation. Of central concern to the practitioners discussed here was the issue of human origins, of whether humans originated in one pair and in one geographical region, or whether the human varieties had separate origins and at different locations. The terms 'monogenist' and 'polygenist', used to describe the proponents of these views, were actually introduced only in the late 1850s by said Gliddon (Douglas 2008, 53). Connected to this debate was the question of whether humans constituted different varieties that belonged to the same species, or if they could be divided into several species. As we will see, Morton drew on French polygenist writings, and his work was not only foundational for what would be dubbed 'the American school of anthropology' that was associated with polygenism; Morton's crania atlases that instantiated his development of a seemingly rigorously diagrammatic

and metric approach triggered follow-up projects internationally and generally were a steppingstone in the development of a polygenist physical anthropology. I will therefore argue that while there was a diagrammatics of relatedness – a way of using diagrams to evidence close human kinship – diagrams were also used to deny genealogical relatedness, to create differences within humankind that amounted to the status of unrelated species. This 'diagrammatics of race', as I call it, was enmeshed in matters of 'racial' politics. Despite aspirations to objectivity, the history of physical anthropology makes it clear that diagrams were not purely epistemological but also political tools in the contexts of imperialism, colonialism, and the 'racial' violence associated with these forms of expansionism (Sommer 2023a, 2–5).