An "American Humboldt"?: Memorializing Philadelphia Physician and Race Supremacist Samuel George Morton

Author(s): John S. Michael

Source: *Pennsylvania History: A Journal of Mid-Atlantic Studies*, Vol. 87, No. 2 (Spring 2020), pp. 279-312

Published by: Penn State University Press

Stable URL: https://www.jstor.org/stable/10.5325/pennhistory.87.2.0279

AN "AMERICAN HUMBOLDT"?

MEMORIALIZING PHILADELPHIA PHYSICIAN AND RACE SUPREMACIST SAMUEL GEORGE MORTON

John S. Michael
University of Pennsylvania Museum of Archaeology and Anthropology

ABSTRACT: Samuel George Morton was a nineteenth-century anatomy professor and paleontologist who gained fame for the extensive collection of human skulls he collected and curated at the Academy of Natural Sciences of Philadelphia. An early scholar of physical anthropology in America, Morton promoted race supremacy, asserting that Germanic Europeans had the largest brains and highest intelligence of all human populations. When he died, four Philadelphia physicians eulogized him. Their writings have served as the foundation for most modern interpretations of Morton. An examination of rarely cited nineteenth-century documents indicates that his eulogists exaggerated the importance and reception of Morton's anthropological research and omitted or misrepresented details of his personal life. Studies of Morton by anthropologists, philosophers of science, or scholars studying race in America should therefore take a highly skeptical view of the memoirs written by Morton's nineteenth-century colleagues and admirers.
KEYWORDS: Samuel George Morton, physical anthropology, Philadelphia, race supremacy, skulls

On May 15, 1851, Samuel George Morton (1779–1851), a Philadelphia-born physician and anatomy professor, passed away at his home on Arch Street in Center City Philadelphia.[1] His twelve-foot tall grave marker at Philadelphia's Laurel Hill Cemetery bears the inscription:

> President of the Academy of Natural Sciences of Philadelphia, Author of Crania Americana, etc. etc. Wherever truth is loved or science is honored, his name will be revered. *Non moritur cujus fama vivat* [He dies not whose fame lives].[2]

doi: 10.5325/pennhistory.87.2.0279
PENNSYLVANIA HISTORY: A JOURNAL OF MID-ATLANTIC STUDIES, VOL. 87, NO. 2, 2020.

As his tombstone indicates, Morton was the president of the Academy of Natural Sciences, where he spent decades studying invertebrate paleontology and "ethnology." At that time, "ethnology" referred to the study of human racial variation from an anatomical perspective, which is now the purview of physical anthropologists.[3] Today Morton is best known for having acquired a collection of hundreds of human skulls from throughout the world.[4] Most of these were skulls of Native Americans, whom Morton discussed in his most famous book, *Crania Americana: or a Comparative View of the Skulls of the Various Aboriginal Nations of North and South America*.[5]

During his thirty-year career, Morton authored a number of ethnological publications in which he openly espoused race supremacy. This outlook endeared him to some of the scholars of his era, but has tainted his reputation among most twentieth- and twenty-first-century science historians and anthropologists.[6] Although Morton has been examined in numerous studies, there is currently no book-length biography dedicated to him.[7] The most detailed account of his life and work can be found in a few chapters of William Stanton's impressive 1960 book, *The Leopard's Spots: Scientific Attitudes toward Race in America, 1815–59*. Stanton significantly derived his examination of Morton from four eulogies to him, all penned between 1851 and 1854 by Philadelphia physicians who either knew or worked with him. Following Stanton's lead, modern historians—most notably Gossett (1963), Bell (1974), and Brace (2005)—have also relied on these eulogists for basic biographical information on Morton.[8]

This article demonstrates that Morton's four eulogists presented an overly romanticized vision of him, which is understandable given that they were grieving his loss. Nonetheless, as historical documents all of the eulogies are flawed by factual errors and significant omissions, which when viewed as a whole exaggerated Morton's limited contributions to science. As detailed below, all four inaccurately portrayed Morton as a man whose ethnological research was almost uniformly hailed by the leading scholars of both America and Europe, which was not the case.

The four also misrepresented aspects of Morton's personal life, including his ethnic heritage, his religion, and the social standing of his parents. In some instances, statements included in the eulogies had little to do with Morton, but instead were an expression of the eulogist's own views regarding race, the practice of medicine, or other tangential topics. Finally, evidence is presented that one of the eulogists tailored his portrayal so as to support the pro-slavery ideology espoused by two of Morton's close

associates, Josiah Clark Nott (1804–73) and George Robbins Gliddon (1809–57).[9]

This article intends to provide a more balanced understanding of Morton's life and research by analyzing his eulogists' claims. To that end, key statements presented in the four eulogies will be evaluated based on information gleaned from primary source documents including Morton's own notebooks and letters, some of which have not been examined in the scholarly literature.[10] Also, explanations are offered for why some of the inaccuracies about Morton came to be published. It is hoped that the biographical details regarding him as presented here will be of use to modern anthropologists, scholars of race relations in America, and historians of science and the Philadelphia scientific sphere. They have little option but to rely on Stanton's 1960 examination of Morton, which was well crafted but, after more than half a century, badly needs an update.

THE PHYSICIAN–ANATOMIST–PALEONTOLOGIST–ETHNOLOGIST AND HIS EULOGISTS

Morton earned his living as a physician in private practice, a staff physician with the Philadelphia Almshouse, and a professor of anatomy at the "Medical Department of the Pennsylvania College, at Philadelphia," sometimes called the "Pennsylvania College". He received medical degrees from both the University of Pennsylvania and Scotland's Edinburgh University. He also edited the first edition of Mackintosh's *Principles of Pathology*, as well as authoring his own anatomy textbook and a treatise on pulmonary consumption. Now regarded as the founder of invertebrate paleontology in the United States, Morton studied fossils from the Delaware Valley, as well as those collected by the Lewis and Clark Expedition.[11] Morton was and still is best known for his personal collection of human skulls, which at the time was one of the largest in the world.[12] Beginning around 1839, Morton and his lab assistant John Smith Phillips (1800–1876) measured the braincase volume—or "cranial capacity"—of hundreds of these skulls and published the measurements as data sets.[13] Thus, Morton and Phillips were "craniologists," the term for scholars who study skulls. Based on this research, Morton concluded that Europeans had the largest brain cases of any human population, while claiming that Sub-Saharan Africans, "American-born Negroes," and Australians had the smallest.[14]

Morton published two major works on craniology: *Crania Americana* (1839) and *Crania Aegyptiaca; or Observations on Egyptian Ethnography Derived from Anatomy, History and the Monuments* (1844). In these works he asserted that Native Americans were unrelated to Asians from Siberia, and that existing human races were, and always had been, distinct. Because he advocated for the inherent inequality of races, Morton is usually portrayed by modern historians as a race supremacist and a major figure in the development of "race science" in America. He has also been recognized as a founder of physical anthropology in America, largely because he was the first American to conduct extensive studies describing and measuring anatomical variation among diverse human populations.[15]

Morton's four eulogists were Charles Delucena Meigs (1792–1869), George Bacon Wood (1797–1879), William Robertson Grant (1811–52), and Henry Stuart Patterson (1815–54). They were all prominent Philadelphia physicians, whose lives and careers will be briefly detailed. Scholarly institutions sponsored the eulogies authored by Meigs, Grant, and Wood which were printed as articles in meeting minutes or "proceedings of" the institution with which they associated. An obituary article of this kind was referred to as a "sketch," a "biographical memoir," or more concisely a "memoir."[16] Patterson's eulogy was unusual in that it was written as a chapter in the book *Types of Mankind*, published in Philadelphia by one of Morton's closest research associates, the aforementioned Josiah Nott.[17]

Nott's views regarding race warrant mention because, as the editor and publisher of Morton's eulogy, he had an impact on Patterson's text. The son of a judge from a leading Connecticut family, Nott was a talented surgeon and scholar of infectious diseases from Mobile, Alabama, who also owned a lucrative slave plantation. Nott received his medical degree from the University of Pennsylvania, and subsequently received specialized surgical training in Paris. In his later years, Nott relocated to New York City, where he became a leading gynecologist. Nott was best known for writing articles and presenting lectures in which he endorsed slavery, decried race mixing, and argued that West Africans were mentally, morally, and physically inferior to whites.[18] It was Nott's contention that "the negro attains his greatest perfection, physical and moral, and his greatest longevity, in a state of slavery."[19]

In order to contextualize Morton and the physicians who eulogized him in early nineteenth-century Philadelphia, it is necessary to briefly review the history of religious, mercantile, and intellectual life in the "Quaker City." Philadelphia, established by William Penn (1644–1718) in 1681, was both

a commercial venture and a haven for his fellow Quakers. By 1800 it had become the largest city in Anglo-America as well as one of the young nation's most prosperous shipping and industrial centers.[20]

Philadelphia's wealth permitted its elites to establish cultural institutions such as the Library Company of Philadelphia (1731), the Pennsylvania Academy of Fine Arts (1805), the Athenaeum of Philadelphia (1814), the Franklin Institute (1824), and the Historical Society of Pennsylvania (1826). In 1794 Charles Willson Peale (1741–1827) opened what is now regarded as America's first significant natural history museum. Peale's "American Museum" consisted of his personal collection of paintings and natural history specimens, which grew to include over 100,000 items. Botany and plant collections also flourished in Philadelphia through the work of John Bartram (1699–1777), Benjamin Smith Barton (1766–1815), and Thomas Nuttall (1786–1859), among others.[21]

Philadelphia also became a center of medicine whose luminaries included Benjamin Rush (1745–1813) and two Quakers, Casper Wistar (1761–1818) and Philip Syng Physick (1768–1837). All three, like Morton, received education at Scotland's University of Edinburgh. Physick taught at the University of Pennsylvania, a uniquely nonsectarian institution founded in 1751, whose medical school was modeled on Edinburgh's. Also, a Quaker physician named Joseph Parrish (1779–1840) operated a highly regarded private physicians' school. Morton and two of his eulogists—Wood and Patterson—all received their initial medical training at Parrish's school. Philadelphia was also a central hub for the sale of corpses used for medical school dissections, many of whom were deceased slaves.[22]

In 1743 Benjamin Franklin (1706–90) helped found the American Philosophical Society, which in time acquired a reputation for elitism under the leadership of Wistar. In response, a group of freethinking (even atheist) scholars created an alternative organization: The Academy of Natural Sciences of Philadelphia (ANSP). Founded in 1812, it was initially financed by its eccentric but wealthy first president, William Maclure (1763–1840), a globe-hopping Scottish-born merchant and a talented geologist. The ANSP's early members of note included a short-tempered mammologist Richard Harlan (1796–1843) and an absent-minded conchologist Thomas Say (1787–1834). In 1825 Say and Maclure moved to the utopian socialist community of New Harmony, Indiana, which only lasted a few years. After that, the ever-footloose Maclure moved to Mexico, where he spent the rest of his life.[23]

With the departure of Maclure, the ANSP declined and was at risk of folding. It was revived by its second president, the irascible George Ord (1781–1866), a wealthy retired merchant and ornithologist.[24] According to Warren, Ord and his young assistants, Samuel Morton and Richard Harlan, "brought Philadelphia science to the attention of their European counterparts." They "ruthlessly eliminated amateurish, descriptive work and insisted upon a higher level of scientific professionalism."[25] After Ord retired and Harlan moved to Louisiana, Morton became a pillar of the ANSP, making it his scientific home until almost literally the day he died.[26]

Morton also became a well-connected figure in Philadelphia's scientific community, largely due to his taking a major administrative role in the ANSP from 1827 to 1851. This sort of desk work likely suited him, given his chronic ill health. When Morton was twenty-one years old, he contracted an undiagnosed disease which left him frail, limiting his ability to travel abroad. He adapted by becoming active in the ANSP.[27]

AN ANGLO-SAXONIST RACE SUPREMACIST IN THE CITY OF BROTHERLY LOVE

When examining Morton's life and work, it is also necessary to examine how he, as an early nineteenth-century Philadelphian, viewed race and bigotry. Although Morton never used offensive racial slurs in any of his books or letters, he readily published statements asserting the inherent intellectual and moral inferiority of various ethnic groups, including the Irish, certain Indian peoples, "Esquimaux," Polynesians, and most Native American tribal nations.[28] Morton was, using the terminology of his era, a "race supremacist"; the English word "racism" originated in the early twentieth century and came into common usage as a descriptor for the Nazi ideology.[29] As noted, Morton asserted that the most superior people on the earth were Anglo-Saxons, who by his definition included Englishmen, Germans, Scandinavians, and Scots, but not what he called the "Celts." He held that the "most unsophisticated Celts were of southwest Ireland, whose wild look and manner . . . recall the memory of a barbarous age."[30] Morton was not exactly a "white supremacist" akin to the modern, post–Civil War usage of the term because he did not view all white European nationalities as possessing racial superiority.[31]

Morton stated that he was (with his emphasis) "in favor of the doctrine of *primeval diversities* among men."[32] He therefore supported polygeny, the

notion that humankind was composed of distinct races, each of which had a unique and separate origin. In Europe Henry Home, Lord Kames (1696–1782), a jurist from Edinburgh, Scotland, popularized polygeny.[33] Morton's friend Charles Caldwell (1772–1853), a slave owner, was the first major American scholar to publicly refute the Bible and assert that there was "original plurality of races, which bear to each other a relation of species."[34] Some polygenists, however, opposed slavery, such as Julien-Joseph Virey (1791–1862), a French pharmacist and race theorist. Virey asserted that there were two species of humanity, one with dark skin and another with tan to light skin. Yet, Virey argued that intellectually superior Europeans should help the supposedly inferior races to reach their full, albeit limited, potential.[35]

Unlike Virey, Morton never publicly opposed slavery. It was only in a private notebook that Morton expressed his preference for "a more gradual emancipation" of slaves because it would "contribute equally to the happiness of the negro, and much more to the security of the master."[36] Morton, an Episcopalian, was reticent to discuss slavery, as was common among antebellum members of that church. Because Episcopalian congregations were located in both slave and free states, the church was at risk of splitting over the issue of emancipation. As Shattuck described it, "Abhorring ecclesiastical schism more than the suffering of the people held in bondage, white Episcopalians had argued that slavery was a purely political question, and as such, beyond the church's concern."[37]

As a polygenist, Morton was out of step with mainstream Christian theology. The majority of American Christians endorsed monogeny, the notion that all humans shared the same origin, as set forth in the biblical narrative of Adam and Eve. Morton asserted that the Bible presented only a "general account of the creation" of humankind with Eden presented as the birthplace of the "Adamic Race, and not a collective centre for the whole human family."[38]

Consistent with Morton's Anglo-Saxonist bias was his own family history. Morton's father, George, was born in Ireland to a family of Episcopalian colonists from England. Reginald Horsman traces the idea of Anglo-Saxon supremacy to the reign of England's first Anglican king, Henry VIII (1491–1549). During his reign, English historians promoted a narrative in which the English people originated with the Anglo-Saxons rather than the Celtic Britons, Romano-Britons, or Norman French all of whom had, at times, ruled Britain. Of all these populations, the Anglo-Saxons were thought to have been most independent of papal ecclesiastical governance, a feature that early Anglican historians emphasized for propaganda purposes.[39]

EULOGIZING MEDICAL AND SCIENTIFIC LUMINARIES IN THE EARLY NINETEENTH CENTURY

In order to fully contextualize the four Morton eulogies, it is necessary to appreciate the role that a formally published eulogy (or "memoir") had in the medical and scientific community of mid-nineteenth-century America. There is rather a dearth of literature specifically addressing such memoirs. However, the essays written by Morton's eulogists as presented here demonstrate commonalities useful in understanding the genre. For example, a scientific or medical organization often commissioned a memorial to one of its leading members. Wood published his memorial of Morton in the journal of the Philadelphia College of Physicians (PCP), an organization to which Morton had belonged. Grant wrote his on behalf of the Philadelphia College of Pharmacology, where Morton taught. The ANSP, where Morton conducted his research, sponsored Meigs's memoir. All three noted that they composed their memoirs of Morton only after being formally selected to do so by a committee appointed by their respective institutions. Once each memoir was completed, its author would read the final version aloud at an official meeting of its sponsor organization. Only then would the memoir be published.[40]

In addition to an obituary notice, a memoir also served as a marketing tool promoting the value of the sponsoring organization. When a eulogist praised a deceased member of an organization, he was also providing evidence that the organization fostered great men. For example, Wood wrote not only Morton's memoir, but also that of Joseph Parrish and Benjamin Franklin Bache (1801–81), both members of the PCP.[41] By authoring these, Wood also elevated his own profile by showcasing his writing and rhetorical skills in front of his PCP colleagues. Indeed, the biographical memoirs of Philadelphia's nineteenth-century medical and scientific institutions were not simply clinical reports. As we shall see, such was also the case for the four eulogies penned in memory of Morton.

His eulogists all celebrated him for his publications and his participation in Philadelphia's scientific and medical community. But when it came to Morton's ethnological masterwork, *Crania Americana*, the eulogists offered subtly different interpretations, which give insights into how each of them viewed his theories of race and human equality. As will be documented, not all of Morton's colleagues were entirely supportive of his ethnological research. This interpretation differs from historians like Stanton or the

paleontologist Stephen Jay Gould (1941–2002) who asserted that virtually all of his contemporaries warmly received Morton's ideas.[42]

Charles D. Meigs published the first memoir commemorating Morton in 1851. Meigs spent much of his youth in Athens, Georgia, where his father was a college president. In 1809 Meigs graduated from the University of Georgia, receiving his medical degree from the University of Pennsylvania in 1815. He established a practice in midwifery and taught obstetrics at Philadelphia's Jefferson University. During the 1840s and 1850s, Meigs wrote a number of well-received books on obstetrics and related topics.[43] He learned French as a boy and was an ardent admirer of, and correspondent with, Joseph-Arthur Gobineau (1816–82), the French race supremacist whose 1853 book, *Essay on the Inequality of Human Races*, warned against race mixing and emphasized the superiority of the so-called Aryan race of Germanic Northern Europeans. Meigs reported that he read Gobineau's book ten times and found it to express a "principle; or law" that was as "true as Kepler's or Newton's."[44] Meigs's grandson recalled his grandfather:

> always put himself among the Aryan or noble race, and he liked to discover in his grandchildren the unmistakable marks of the Aryan outline. . . . The prosperity of our country . . . were by him referred to the weight of Aryan blood in our veins; and the chief source of his disgust was the backsliding which he foresaw from the terrible "commingling of the nations."[45]

Like Morton, Meigs was a polygenist Anglo-Saxonist. In 1846 he presented a lecture addressing the zoological concept of "genus" and "species." In it, he claimed that "a genus is of all things the most indestructible," indicating that there was no evolution. To his audience he said:

> You are the same sort of young men that used to ride about the streets of Ancient Thebes, or that galloped over the plains of Marathon, or that conquered the world under the consuls of Rome; and the issue of your loins shall be walking about the earth perhaps tens of thousands of years hence; and they will resemble their fathers, as you resemble your progenitors.[46]

In his eulogy Meigs hailed Morton as an "American Humboldt" who had "the reputation of being one of the most considerable physio-philosophers

of the Western Continent"[47] (the term "physio-philosopher" is generally synonymous with "scientist," a word rarely used in the nineteenth century).[48] Meigs, the polygenist, made a point of noting that Morton professed a "belief in a primitive distribution of mankind into races in the sense of their having been originally adapted to their local destination." Meigs also quoted, verbatim, passages from Morton's books that stated that "Negroes were numerous in Egypt. Their social position in ancient times was the same that it is now, that of servants or slaves," and "The physical or organic characters which distinguish the several races of men are as old as the oldest records of our species."[49] Indeed, by celebrating Morton's polygenic theories on race, Meigs validated his own polygenic views.

William Robertson Grant published the second memoir of Morton in 1852 on behalf of the college where both men had taught. Grant, a Nova Scotia–born son of Presbyterian Scottish immigrants, received his medical degree from Philadelphia's Jefferson Medical College in 1839. Because his career was stunted by ill health, Grant authored but a few medical publications. His memoir largely addressed Morton's success as a physician and college professor.[50] When it came to Morton's ethnological studies, Grant offered a limited summary, writing that:

> Perhaps the most prominent and peculiar of his varied and extensive contributions to science, were those great works, the *Crania Americana* and *Crania Egyptiaca* which immediately placed their distinguished author in the front rank of archaeologists and ethnographers throughout the world.[51]

Grant credited *Crania Americana* with opening up "a new department of research," adding that "few scientific labours . . . had a more powerful effect in directing the course of future investigations." Grant then cautioned that "its full effect is yet to be ascertained," noting "its real value can be developed only, when other races of men are studied and tabulated, on a similar plan, and when a comparison of the averages given would enable us to determine the characteristic differences among the races."[52] As Grant saw it, Morton's research was significant, but it might eventually be improved upon, or perhaps even disproved.

George Bacon Wood's 1853 eulogy of Morton presented an even more muted assessment of *Crania Americana*. Wood was a nationally famous Philadelphia physician born in New Jersey to a family of successful Quaker

farmers. He received his medical degree in 1818 from the University of Pennsylvania and in 1822 began teaching at the Philadelphia College of Pharmacology.[53] From 1831 to 1859 Wood was a staff physician at the Philadelphia Hospital. He was a professor at the University of Pennsylvania from 1834 to 1860.

A talented author, Wood co-wrote many of the revisions of the *United States Pharmacopoeia* (USP), a compendium of drug information. Flannery wrote that Wood's textbook, *Treatise on the Practice of Medicine*, "became the standard fare for the nineteenth-century medical student," such that Wood's name was well known to "any worthy American physician." During his later years Wood became quite wealthy. He donated tens of thousands of dollars to the Philadelphia College of Physicians and the University of Pennsylvania's museum and hospital.[54]

Wood began his memoir of Morton by explaining that he would not detail Morton's scientific research, because Meigs had already covered that. Thus, Wood dedicated but one paragraph to *Crania Americana*, noting that it contained excellent illustrations of skulls and was a "monument to science, honorable to his [Morton's] country, and likely to remain as a durable memorial of his own zeal, industry, and scientific attainment." However, Wood did not endorse its findings or even mention them. Similarly, Wood praised Morton's *Crania Aegyptiaca* for its fine drawings and its examination of Egyptian artifacts, while glossing over the book's race supremacist conclusions.[55]

Wood perhaps demurred from discussing Morton's race supremacist theories because he did not agree with them. In 1840 Wood revealed his own opinions on race and slavery in a memoir he composed for Joseph Parrish. Wood wrote that Parrish, a fellow Quaker, was a "strenuous advocate . . . for the rights of his fellow men," such that:

> The wrongs of the poor Indian were not unfrequently the subject of his pen; and his sympathy for the degraded negro was ever active though preserved by his sound judgment within the bounds of propriety. Like all the members of his sect, an uncompromising opponent of slavery, he never hesitated to express his sentiments upon the subject, nor to yield his aid and counsel in individual cases He was long a member, and ultimately President of the old Pennsylvania Abolition Society, in which office he had been preceded by Drs. Wistar, Rush, and Franklin.[56]

Morton's most hyperbolic eulogist was the Philadelphia-born Henry Stuart Patterson (1815–54), the son of an immigrant from Northern Ireland who married the daughter of a Revolutionary War colonel. A graduate of the University of Pennsylvania medical school, Patterson was a physician and medical professor who in 1846 became the physician-in-chief at the Philadelphia Almshouse Hospital. Henry Simpson, in his *Lives of Eminent Philadelphians* reported that Patterson was lying on his deathbed, unable to lift "his head from the pillow" when he penned his memoir of Morton: "It was most affecting to behold the dying eulogizing the dead."[57] Years before, in 1852, Patterson described "the late lamented and world-renowned Dr. Samuel George Morton."[58] Clearly, he had been an admirer of Morton well before he wrote the memoir.

Patterson's memoir of Morton included a book-report style recapitulation of *Crania Aegyptiaca* and *Crania Americana*, the latter of which he lauded by noting that "the reception of the book by the learned was all he could have desired." Within his text, Patterson expressed his own race supremacist views. In describing the nonwhite races living in North America, including the Chinese in California, Patterson wrote that the "management of these people" by the white race:

> must depend, in a great measure, upon their intrinsic race character. While the contact of the white man seems fatal to the Red American, whose tribes fade away before the onward march of the frontier-man like the snow in spring (threatening ultimate extinction), the Negro thrives under the shadow of his white master, falls readily into the position assigned him, and exists and multiplies in increased physical well-being.

Patterson further stated that Adam's descendants were whites only, such that "all the nations and tribes mentioned in the Pentateuch" belonged to the "Caucasian race."[59] All nonwhite races, he argued, originated from some ancestor other than Adam. Unlike Grant, Wood, and Meigs, Patterson freely laced his memoir of Morton with race supremacist ideology. But then again, Patterson was not writing for a stentorian scholarly journal; he was writing a chapter in an openly race supremacist book edited by the well-known advocate for slavery, Josiah Nott.

THE "AMERICAN HUMBOLDT" WHO REFUTED THE ACTUAL HUMBOLDT

All four eulogists concurred that *Crania America* was Morton's scientific magnum opus. Patterson claimed that "everywhere it received the warmest commendations," while Meigs asserted that Morton's scholarly work granted him a level of "fame in Europe equal at least to his competitors."[60] Indeed, *Crania America*, basically a field guide to the skulls of Native American tribal nations, was the inspiration for a number of similar European publications like *Crania Helvetica*, *Crania Britannica*, *Crania Germaniae*, and so on.[61] English ethnologist James Cowles Prichard (1786–1848) was quite impressed with the lithograph illustrations in *Crania Americana*. The French physiotherapist Eugène Dally (1833–87) and the Swiss-American paleontologist Louis Agassiz (1807–73) also admired Morton's ethnological research. The French anatomist Paul Broca (1824–80) likewise praised Morton's craniological work.[62]

The eulogies penned by Meigs, Grant, and Woods leave the impression that Morton had no critics, domestically or abroad. Patterson's memoir mentions two critics of Morton: Alexander von Humboldt (1769–1859), discussed below, and John Bachman (1790–1874), a Lutheran minister from South Carolina and also one of America's leading mammologists. Bachman faulted Morton's claim that each human race was a separate species created independently by God, thus contradicting the biblical narrative that all humans were descended from Adam and Eve.[63] Patterson's essay included footnotes quoting letters written by Morton, in which he defends himself against what he sees as the scientifically weak claims of Bachman and Humboldt.[64]

The four eulogists provided minimal discussion of Morton's critics, which likely explains why Stanton wrote that there was "surprising little opposition" to Morton's arguments.[65] However, there is abundant evidence that scholars throughout the world rejected Morton's research. In 1846 a Cuban journal published a translation of Morton's writings regarding the characteristics of "*la raza de la aborígene de la América* [the aboriginal race of the Americas]" and the translator, one José María Calvo y O'Farrill (fl. mid-nineteenth century), asserted that Morton's polygenist views were contrary to both the Old Testament and "to the current doctrines of natural philosophy [*á las doctrinas actuales de la filosofía natural*]."[66] Upon reading this article, Cuban philosopher and educator José de la Luz y Caballero (1800–1862) concluded that "the author [Morton] lacked insight [*Al autor le falta cacumen*]."[67]

In 1850 Robert Jameson (1774–1854), Morton's former professor at Edinburgh, lambasted Morton's race-based tabular listing of cranial capacity as a "ridiculous blunder." Jameson wrote, "What strikes me in Dr. Morton's tables completely invalidates his conclusions—he has not distinguished male and female crania."[68]

Humboldt, who was arguably the world's most respected naturalist during the first half of the nineteenth century, also criticized Morton. Humboldt initially hailed *Crania Americana* as one of two publications that constituted "the most valuable contribution to archeology and ethnology of America."[69] But, as Popkin et al. noted, the ardently abolitionist Humboldt eventually grew to fear what he considered the "moral and social implications" of Morton's race supremacist work.[70]

In the English version of Humboldt's 1849 masterwork, *The Cosmos: A Sketch*, he complimented Morton in a footnote, saying, "On the American races generally, see the magnificent work of Samuel George Morton, entitled *Crania Americana*."[71] However, Humboldt also asserted that the observations and measurements in *Crania Americana* disproved the book's central thesis, which was that the "American Race differs from" all other races, including "Mongolians." Humboldt concluded that *Crania Americana* provided evidence supporting "the theory of the unity of the human race, as, for instance in the many intermediate gradations in the color of the skin and the shape of the skull." That was the exact opposite of Morton's conclusion.[72]

Humboldt then went on to dispute the very notion of racial supremacy, writing (with his footnote in brackets):

> Whilst we maintain the unity of the human species, we at the same time repel the depressing (*désolante*) assumption of superior and inferior races of men.* There are nations more susceptible of cultivation, more highly civilized, more ennobled by mental cultivation than others—but none in themselves are nobler than others. All are in like degree designed for freedom. [*The very cheerless, and in recent times, too often discussed doctrine of the unequal rights of men to freedom, and of slavery as an institution in conformity with nature, is unhappily found most systematically developed in Aristotle's *Politica*, i. 3, 5, 6.][73]

Morton forcefully refuted Humboldt's egalitarian assertion, arguing that "Humboldt's word *désolante* is true in sentiment and in morals—but as you observe, it is wholly inapplicable to the physical reality." Morton added,

"It makes little difference whether the mental inferiority of the Negro, the Samoyede [indigenous Siberian] or the Indian is natural or acquired; for, if they ever possessed equal intelligence with the Caucasian, they lost it." Morton's chilly feelings toward Humboldt also seem to have surfaced when an admirer of Morton once suggested that he was the "American Humboldt." Morton responded, "I beg you never to repeat that. I assure you, it will be disagreeable to me ever to hear of it again."[74]

Charles Darwin (1809–82), perhaps the most renowned critic of Morton, found fault with one of his papers on hybridity.[75] In an 1847 letter to Charles Lyell (1797–1875), Darwin explained that he was

> glad to have seen Dr. Morton's article: my opinion of it, as you ask for it, is that it is in main part, a merely tabulated compilation from Griffith's Cuvier, with a few other facts interpolated. He is, I think, too credulous . . . there is a want of exactness in the manner Morton gives the facts. . . . In conclusion, therefore, I do not think Dr. Morton a safe man to quote from.[76]

Darwin's description of Morton as "merely" compiling "Griffith's Cuvier" was a critique shared by Bachman, who faulted Morton for "so constantly" overquoting *Griffith's Animal Kingdom by Cuvier*, a book that included chapters written by three authors. Morton's paper cited each author in this book separately, an approach Bachman regarded as an unfair ploy to make it appear that the authors of multiple publications supported Morton's argument.[77]

There is similar evidence that Joseph Leidy (1823–91), who served as the president of the ANSP from 1881 to 1891 and is now hailed as "the founder of vertebrate paleontology in America," also held Morton's research in low esteem. Leidy's statue currently stands near the entrance to the ANSP. In 1849, while employed as curator there, Leidy edited a well-regarded anatomy textbook in which he made no mention of Morton's craniological research. At that time, Morton was the president of the ANSP, and basically Leidy's boss. Yet instead of citing Morton, Leidy quoted an 1837 craniological study authored by Friedrich Tiedemann (1781–1861), a German physiologist who measured the cranial capacity of over 480 skulls from throughout the world.[78] Contrary to Morton, Tiedemann concluded that the "negro brain" was equivalent to that of whites both in terms of anatomy and intelligence. Tiedemann's craniological studies were also quoted at length in Bachman's above-noted critique of Morton's polygenic claims.[79]

Leidy's disregard for Morton's craniological research was not surprising since they never shared the same outlook on scientific matters. When Leidy was a young man, the ANSP board hired him to be a curator, though Morton opposed it. It is also likely that Leidy choose not to promote Morton's race supremacist findings because Leidy was an anti-race supremacist. Leidy was quite public about his close friendship with his childhood companion, Cyrus Burris (fl. 1820–1900), an African American who became a non-degreed practicing physician in Philadelphia.[80] Furthermore, Leidy once publicly rebuked Morton's lab assistant John Smith Phillips, after Phillips expressed his opinion that only white people were descended from Adam.[81]

Morton received additional criticisms after his death. In 1852 Scottish Canadian archaeologist Daniel Wilson (1816–92) personally examined Morton's skull collection. Wilson concluded that Morton's classification of Native Americans into two groups (Barbarous tribes and Toltecans) was "arbitrary, indefinite, and valueless."[82] His 1863 critique of *Crania Americana* dismantled Morton's conclusions regarding the crania of Native Americans.[83] In 1860 Hungarian-born Austrian anatomist Josef Hyrtl (1810–94), whose skull collection is now housed at the College of Physicians of Philadelphia, wrote that Morton's results did not deserve "full trust [*volles Vertrauen*], as he neglected to take the sex of the crania he studied into consideration."[84] In 1856 Irish surgeon John McElheran (d. 1859) found it "incomprehensible" that Morton could have "come to the conclusion that the mere internal capacity of skulls indicates the degree of intellect or the type of race." McElheran asserted that "Morton's tables, when viewed fairly . . . completely overturn his own conclusions that capacity is a measure of intellect."[85]

In 1853 Joseph-Arthur Gobineau, the race supremacist ideologue noted above, stated that "Morton should have taken a far greater number of skulls, and further, have given details as to the social position of those to whom the skulls belonged." Gobineau dismissed Morton's results as "a mere matter of chance . . . quite incomplete and unscientific." Patterson's 1854 memoir of Morton in *Types of Mankind* did not mention Gobineau's refutation of Morton. In fact, Gobineau's comments do not appear anywhere in *Types of Mankind*, even though Nott, fluent in French, had personally published the 1845 English translation of Gobineau's *Inequality of Races*. It would appear that Nott knew that Gobineau did not support Morton but chose to suppress it, which is consistent with Nott's penchant for cherry-picking the facts. When Nott translated Gobineau's *Inequality of Race*, he left out the text in

which Gobineau called for an end to slavery in America because it facilitated race mixing. Gobineau publicly chastised Nott for this omission.[86]

THE "AMERICAN SCHOOL OF ETHNOGRAPHY"

Stanton (1960), Horseman (1987), and Barnhart (2005) have documented that Morton conducted his ethnological research in concert with a clique of like-minded polygenist scholars. This included Nott as well as Ephraim George Squier (1821–88), a journalist and diplomat who pioneered the archeology of North and Central American Native peoples. A fourth key member of this group was the Egyptologist George Robbins Gliddon (1809–57), an immigrant from Britain who coauthored with Nott *Types of Mankind*, the book that published Patterson's memoir of Morton. Modern historians commonly describe these four polygenists as the "American School of Ethnology" and credit Morton as its leader or founder.[87]

C. Loring Brace wrote that Morton was "best known . . . for having founded" the American School. Similarly, Stephen Jay Gould asserted that Morton "provided 'facts' that won worldwide respect for the 'American School' of polygeny." Other authors have also described Morton as the "leader" of the American School.[88] And yet nowhere in Morton's publications or personal letters is the term "American School" or anything akin to it ever mentioned. As demonstrated below, there is ample evidence that the so-called American School was actually a marketing ploy concocted by Nott and Gliddon as a means to sell their book, *Types of Mankind*.

In his memoir Patterson expressed a desire to present Morton as "virtually the founder of that school of Ethnology, of whose views this book may be regarded as an authentic exponent." In other words, Patterson made two assertions. One of his claims was that *Types of Mankind* authentically represented Morton's views, which was only partially true. *Types of Mankind*, in agreement with Morton's support for polygeny and race supremacy, periodically strayed from Morton's outlook. For example, the book dismissed those who accepted the Bible as a reliable information source. As Nott put it (his emphasis) "the diversity of races must be accepted by Science as a *fact* independently of theology."[89]

Patterson's other claim was that Morton had founded, in America, a whole new "school" of ethnology. This assertion—missing from the memoirs of Meigs, Grant, and Wood—appeared in Patterson's essay with no explanation,

as if it were simply his own idea. However, elsewhere in *Types of Mankind*, Nott and Gliddon unambiguously described Morton as the "Founder of the American School of Ethnology." They further claimed that the American School was first recognized by the British journal editor Luke Burke (fl. mid-nineteenth century), a little-known figure who died around 1881. Nott and Gliddon even quoted a passage in which Burke wrote that Morton's "general efforts in the cause of science" had a "powerful influence in forming the present school of American Ethnologists."[90]

Nott and Gliddon lauded Burke for setting forth the "first truly philosophical view" of ethnology as a "new and important science." They passed Burke off as a leading European expert, "the bold and able Editor of the *London Ethnological Journal*," who had insightfully defined ethnology as "a science which investigates the mental and physical differences of Mankind." In reality, Burke was an obscure race supremacist lawyer who argued that all of humanity's races belonged to either a "physical" branch or an "intellectual" branch, the latter of which included the "most pleasing . . . Caucasian type." He held that the intellectual branch originated in the "now submerged island of Atlantis."[91]

Burke was also a long-time collaborator of Gliddon's. In 1849 Burke wrote the introduction to Gliddon's book *Otia Aegyptiaca*, based on a series of articles Gliddon had published in Burke's own *Ethnological Journal*. In the introduction, he effusively praised Gliddon, noting that in the "United States, there is no scientific subject which has, of late, excited so much interest" as Egyptology, which was due "entirely to the energy and enthusiasm of a single mind," namely that of Gliddon.[92]

It was only after Nott and Gliddon coined the term "American School" that it took root in the press. London's *Westminster Review* noted that Morton was "the first rank among American Ethnologists," whose death "deprived the school of Ethnology of its head and founder." However, a chilly review of *Types of Mankind* in New York's *Putnam's Magazine* asserted that it was not Morton, but rather Nott and Gliddon who had "founded a new school of Ethnology, which they call the American school." Morton was described as having only "assisted" them. The *London Quarterly Review* discredited the "American School of Ethnology" as little more than "Mr. Gliddon and his friends."[93]

Evidence of Nott's penchant for indirectly publicizing a positive narrative of Morton is also evident in an obituary for him written by Robert Gibbs (1809–68), the editor of the *Charleston Medical Journal*. Gibbs stated that

"we of the South should consider him [Morton] as our benefactor, for aiding most materially in giving to the Negro his true position as an inferior race." Gibb's admiration of Morton was most certainly influenced by Nott, as the two men were personal friends and business partners. By 1850 Gibbs was corresponding with Morton, likely due to an introduction arranged by Nott.[94]

The documents cited above indicate that Nott, with the help of Gliddon and Patterson, conducted what would now be called a public relations campaign to portray Morton as an internationally celebrated man of science who supported not just polygeny, but also slavery. For Nott and Gliddon, there was a clear financial benefit to associating themselves with Morton. They had books to sell and they needed to market them.

MISUNDERSTANDINGS REGARDING MORTON'S FAITH, ETHNICITY, AND SOCIAL CLASS

Morton was an Episcopalian whose father, George Morton, was an English colonist born in Ireland to a family of merchants. After immigrating to Philadelphia in 1773, George Morton worked for shipping firms until 1785, when he became a partner in a shipping business that failed. In 1790 he then took a modest civil service position as a "clerk in the Custom Department" at the Port of Philadelphia. Modern authors have commonly described his son Samuel George Morton as Quaker, a man of Irish ancestry, or as Gould put it, a well-heeled "Philadelphia patrician."[95] These less than accurate modern descriptions of Morton are consistent with Stanton, who gathered biographical details about Morton from his four eulogists.[96] However, there is solid evidence that the eulogists fell short when it came to reporting Morton's heritage, faith, and social class, all of which are important to consider when contextualizing his views of race, race supremacy, and slavery.

None of Morton's eulogists stated that George Morton was of English heritage, but instead offered vague testimony suggesting that Morton had Irish ancestry. Meigs reported that Morton's father was a "native" of Ireland. Wood noted that George Morton came from a "family residing at Clonmel, Ireland." Grant simply wrote that, as a young man, Samuel George Morton had traveled to "warm hearted Ireland, the land of his ancestors." Patterson made no mention of the father, who died in a 1799 yellow fever epidemic a few months after Morton was born.[97] It is possible that neither Morton nor his eulogists knew much about his father's heritage.

The reason why twentieth-century scholars commonly described Morton as a Quaker is likely because his eulogists consistently emphasized how much he had been influenced by them. Patterson wrote that the "early training of Morton was in strict accordance with the principles of the Society of Friends, of which his mother was a member." Similarly, Grant wrote that Morton was "brought up in connexion with the Society of Friends." Meigs never mentioned the faith of Morton or his father, but noted that his mother converted to Quakerism only after being widowed, a fact also reported by Wood.[98]

Jordan's *Colonial Families of Philadelphia* documented that Morton's mother, Jane Cummings, came from a family of merchant Quakers. When she wed Morton's father in 1785, she converted to his Episcopalian faith. In 1800 the recently widowed Mrs. Morton returned to the Society of Friends and in 1811 married a Quaker. Morton spent his childhood being raised by his Quaker mother and stepfather, who sent him to Quaker schools in Westchester, New York, Westtown, Pennsylvania, and Burlington, New Jersey.[99]

The ways in which Morton's eulogists emphasized his relationship with Quakers supports Gary Nash's observation that mid-nineteenth-century historians writing about Philadelphia's origins tended to focus too much on Quakers, as if they had an "almost holy importance" not found in other early Philadelphians.[100] By highlighting Morton's Quaker heritage, Morton's eulogists associated him with the admirable founding elites of Philadelphia. They chose not to characterize him as the son of a clerk from the city's merchant community.

The eulogists therefore made minimal mention of Morton's merchant-class roots. Wood charitably described George Morton as an immigrant from a "highly respectable" family in Ireland who relocated to Philadelphia, where he "engaged in a mercantile business on his own account." Meigs was a bit more sanguine in reporting that Morton's father left Ireland to "augment his fortune," but died before he acquired the "golden fruits of fortune." Meigs, however, provided an interesting hint as to Morton's mercantile origins. According to Meigs, Morton's first job was an apprentice clerk in a Philadelphia "counting house, with a view to be fitted for management of a general business." Brace's claim that Morton was "born and raised to be a physician" is unsupported by nineteenth-century sources.[101]

The above evidence detailing Morton's faith, ethnicity, and class adds a new interpretive dimension to his biography. For example, Morton has become famous for organizing his skull measurements into spreadsheets.

Yet he likely learned this skill through his business training, not his lofty university coursework. Morton's clerical training is also evident in his extant notebooks, which are quite literally commercial business ledgers.[102] Furthermore, Morton's talent for acquiring skulls shipped into Philadelphia from overseas was more akin to that of a commercial importer than a natural philosopher.

Morton's lifelong association with abolitionist Quakers also offers insights into his outlook on slavery and egalitarianism. He had strong relationships with leading Philadelphia abolitionists like Maclure and the Philadelphia lithographer John Collins (1814–1902), a Quaker cousin of Morton's wife, who drew the detailed skull illustrations Morton published in *Crania Americana*. Morton stayed friends with his old Edinburgh medical school chum, the Quaker activist Thomas Hodgkin (1798–1866). A well-known crusader for the rights of indigenous people, Hodgkin vocally opposed slavery and fought against antisemitism.[103] Although Morton was repeatedly exposed to egalitarian values that were freely expressed by Quakers he knew in Philadelphia and elsewhere, he instead embraced race supremacy and allied himself with pro-slavery polygenists like Nott.

FOUR INTERPRETATIONS OF MORTON, 1852 TO 2018

From the mid-nineteenth through the mid-twentieth century, four disparate views of Morton emerged. The first, as presented by Wood, Grant, and Meigs soon after Morton's death, celebrated the insightful physician-naturalist who helped elevate the medical and scientific community of Philadelphia to a level comparable with Europe. Then in 1854, Patterson, Nott, and Gliddon reframed Morton as the founding father of a new school of ethnology whose research provided unassailable scientific justification for slavery.

A third evaluation of emerged after the Civil War, when Morton's key supporters, including Nott and Gliddon, had either died or retired and Darwin's Theory of Natural Selection became known. Late nineteenth-century Darwinist scholars rejected Morton for his anti-evolutionary notion that human races had never been altered by the environment. Throughout the 1860s and 1870s, support for Morton's anthropological theories dwindled. For example, in 1847, the Swedish anatomist Anders Retzius (1796–1860) wrote a letter to Morton praising him for having "done more for ethnography than any living physiologist." But in 1860 Retzius criticized *Crania Americana* as being "but little satisfactory." After reading it, Retzius "arrived

at a wholly different" conclusion, and wondered if Morton had "allowed his extensive philology and great learning to affect his vision as a naturalist."[104]

In 1862 French Egyptologist, Franz Ignaz Pruner (1808–82), dismissed Morton's work, refuting the claim that Morton had "founded an entire science" [craniology] when in fact, "he founded nothing at all [*Il n'a rien fondé du tout*]." In 1864, Karl Christoph Vogt (1817–95), a German-Swiss zoologist and race supremacist, faulted Morton for failing to measure a random sample and for using a flawed craniometric technique that provided "no exact measurement." In 1866 James Aitken Meigs (1829–79), who became the curator of Morton's collection after he died, criticized Morton for failing to recognize the wide diversity of skull shapes found among Native Americans. Meigs, the son of Morton's eulogist Charles Meigs, faulted Morton for ignoring the craniological findings of some of the leading anatomists of his era, even though Morton was "thoroughly conversant with them."[105]

In 1867 British craniologist Joseph Davis (1801–81) also critiqued Morton for failing to "distinguish the skulls of women from those of men when calculating averages." In 1870, the distinguished ethnologist Lewis Henry Morgan (1818–81) charged that Morton had "reached his conclusions" about "Eskimos" before Morton had even "examined any Eskimo skulls." With the dawn of the twentieth century, scientists viewed Morton's research as thoroughly antiquated. In 1911 Aleš Hrdlička (1869–1943), the Smithsonian Institute's first curator of physical anthropology, cautioned that Morton's "measurements and observations are only of very little value today." Yet Hrdlička was still willing to recognize Morton as the "father of American anthropology."[106]

In 1978 Stephen Jay Gould, an invertebrate paleontologist best known as a popular science writer, conducted an examination of Morton's published skull measurements but not the skulls themselves. Based on this investigation, Gould asserted that, circa 1839, Morton had unconsciously but systematically mismeasured the skulls in his collection so as to generate results that conformed to Morton's own supposedly culturally informed racial bias. Gould widely publicized this interpretation of Morton in his best-selling 1981 book, *The Mismeasure of Man*.[107] Citing this publication, numerous modern authors have presented Morton as a canonical example of how any scientist's racist bias could insidiously corrupt his or her scientific research.[108] Conversely, other modern scholars diverged from Gould's interpretation because they regarded his writings on Morton to be misleading, one-sided, overpoliticized, or insufficiently researched. Nonetheless, during the 1980s

and 1990s, a new portrait of Morton emerged as a man who mismeasured his skull collection due to his unconscious, culturally derived racial bias.[109]

In recent years, yet another impression of Morton has emerged which diverged from that publicized by Gould. This new interpretation holds that Morton's measurements were reasonably accurate but that his overall research was flawed by a combination of bad math, arbitrary assumptions, and overall sloppy scholarship. This latest iteration of the Morton story came about as a result of three studies, two of which (1988 and 2011) remeasured samples of the skulls. The third study (2018) conducted a statistical analysis evaluating some of Morton's unpublished handwritten datasets, which Gould never saw. Taken together, these three technical investigations came to a general consensus which essentially agreed with Daniel Wilson's largely forgotten critiques of Morton: his measurements were sound, but his basic assumptions were arbitrary and informed by the biologically invalid race supremacist ideology he espoused.[110]

Both Gould and his detractors asserted that Morton was, as Gould put it, "widely hailed as the objectivist of his age." Similarly, C. Loring Brace—a physical anthropologist highly critical of Gould's methodology—concurred that Morton was "internationally recognized as one of the very most distinguished scientists in America."[111] But, as the primary source evidence presented here indicates, Morton was not quite the scholar that Meigs, Grant, Wood, Patterson, Stanton, Gould, Brace, and so many others have made him out to be.

Morton was, instead, largely a figurehead whose biologically dubious ethnological research is of historical significance largely because it was cited by nineteenth-century race supremacists and anti-abolitionists in need of a supposedly unimpeachable man of science to validate their poorly reasoned ideology. Regardless, future scholars of Morton—be they anthropologists, philosophers of science, or simply individuals interested in the history of race relations in America—should not uncritically rely on the hagiographic and exaggeration-prone narratives of Morton published by his nineteenth-century eulogists.

The findings presented above concur with Hrdlička, who in 1943 faulted prior biographical sketches of Morton as "all more or less wanting."[112] Simply put, the narratives published by Morton's four eulogists included some key assertions unsupported by the corpus of nineteenth-century documents now available. Modern histories of Morton, beginning with Stanton, have also tended to be somewhat wanting when it came to sufficiently contextualizing

the narratives offered by the eulogists. But now there is credible evidence that Morton's eulogists exaggerated his achievements, while Nott and Gliddon fabricated a narrative that claimed that Morton founded the so-called American School of Ethnology.

There is no question that Morton was an overt Anglo-Saxonist who espoused the small-minded and cold-hearted ideology of race supremacism. Nonetheless, he was also responsible for certain noteworthy paleontological and osteometric discoveries that were comparable to those made by his less well-known colleagues at the ANSP, like Harlan and Say. Furthermore, Morton was quite competent when it came to museum administration. But an "America Humboldt," he was not. Exaggerating Morton's scientific legacy—in the service of race supremacy, egalitarianism, or any other cause—is a fruitless exercise that ultimately serves no one.

JOHN S. MICHAEL is a professional demographer and independent scholar from West Chester, PA. He is a consulting scholar with the University of Pennsylvania Museum of Archaeology and Anthropology. His primary focus is the origins of physical anthropology in Philadelphia and Germany, 1750–1850. He has published in *Current Anthropology* and *NTM Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin.*

NOTES

The author would like to thank the peer reviewers for their constructive comments, as well as Janet Monge and the Consulting Scholar Program at the University of Pennsylvania Museum of Archaeology and Anthropology. He would also like to thank Paul Wolff Mitchell of the University of Pennsylvania, Ann E. Michael of DeSales University, Nicolaas Rupke of Washington and Lee University, Judith Michael, Karen Marshall, and Carolyn Conwell. Translations were provided by Alejandro Arevalo, S. Sharon Ashok, and Eleanor Susan Haney.

1. William Grant, *Sketch of the Life and Character of Samuel George Morton* (Philadelphia: John Royer, 1851), 4–5, https://archive.org/details/b28044022/page/n2.
2. The translation is from J. L. S. (*sic*), *A Collection of Latin Quotations from the Most Celebrated Authors* (Jersey, England: P. Payne and Co., 1833), 277.
3. Charles Meigs, *A Memoir of Samuel George Morton, M.D.* (Philadelphia: T. K. and P. G. Collins Printers, 1851), 18–20, https://archive.org/details/memoirofsamuelge00meig; Henry Patterson, "Memoir of the Life and Labors

of Samuel George Morton" (hereafter "Memoir"), in J. C. Nott and George R. Gliddon, *Types of Mankind* (Philadelphia: Lippincott, Grambo, and Company, 1854), xvii–lvii, https://archive.org/details/typesofmankindor01nott/page/n10; George Wood, *A Biographical Memoir of Samuel George Morton, M.D.* (Philadelphia: T. K. and P. G. Collins, 1853), 7, 9–10, 13, https://archive.org/details/101212618.nlm.nih.gov/page/n4.

4. C. Loring Brace, *"Race" Is a Four-Letter Word: The Genesis of the Concept* (New York: Oxford University Press, 2005), 167; William Stanton, *The Leopard's Spots: Scientific Attitudes toward Race in America, 1815–59* (Chicago: University of Chicago Press, 1960), 27–28; Thomas Gossett, *Race: The History of an Idea in America* (New York: Oxford University Press, 1963), 58–59; Whitfield Bell, "Morton, Samuel George," in *Dictionary of Scientific Biography*, vol. 9, ed. Charles Gillespie (New York: Charles Scribner and Sons, 1974), 540; Paul Erickson, "Morton, Samuel George (1799–1851)," in *History of Physical Anthropology*, ed. Frank Spencer (New York: Garland, 1997), 689–90; Robert Peck and Patricia Stroud, *A Glorious Enterprise: The Academy of Natural Sciences of Philadelphia and the Making of American Science* (Philadelphia: University of Pennsylvania Press, 2012), 92–103; For a historical background on the skulls acquired by Morton see Emily Renschler, "An Osteology of an African Diasporic Sample" (PhD diss., University of Pennsylvania, 2007); Emily Renschler and Janet Monge, "The Samuel George Morton Cranial Collection: Historical Significance and New Research," *Expedition* 50 (2008): 30–38, https://www.penn.museum/sites/expedition/the-samuel-george-morton-cranial-collection; Emily Renschler and Janet Monge, "Crania of African Origin in the Samuel G. Morton Cranial Collection," *South African Archaeological Society Goodwin Series* 11 (2013): 35–38.
5. Morton dedicated 150 pages to describing Native American skulls in Samuel Morton, *Crania Americana: or a Comparative View of the Skulls of the Various Aboriginal Nations of North and South America* (Philadelphia: J. Dobson, 1839), 96–246, https://archive.org/details/Craniaamericana00Mort/page/n9; Samuel Morton, *Catalogue of the Skulls of Man and the Inferior Animals in the Collection of Samuel George Morton*, 3rd ed. (Philadelphia: Merrihew and Thompson, 1849), viii, https://archive.org/details/101202253.nlm.nih.gov. For Morton's views on Native Americans see Robert Bieder, *Science Encounters the Indian, 1820–1880* (Norman: University of Oklahoma Press, 1986), 55–103.
6. Erickson, "Morton, Samuel George," 690; Brace, *"Race" Is a Four-Letter Word*, 88; Stanton, *The Leopard's Spots*, 39, 68, 83; Della Cook, "The Old Physical Anthropology on the New World," in *Bioarcheology*, ed. Jane Buikstra and Lane Beck (Amsterdam: Elsevier, 2006), 34–41; Jane Buikstra, "Introduction," in *The 2009 Reprint Edition of Crania Americana* (Davenport, IA: Gustav's Library, 2009), xxvi–xxx.
7. Publications addressing Morton that are not cited elsewhere in this article include Franz Boas, *The Mind of Primitive Man* (New York: Macmillan,

1938), 22–23; J. Percy Moore, "The Samuel George Morton Letters," *Library Bulletin of the American Philosophical Society* (1946): 83–88; "Samuel George Morton (1799–1851)," *Nature* 187 (1951): 754–55; George Fredrickson, *The Black Image in the White Mind* (New York: Harper and Row, 1971), 74–78; John Haller, *Outcasts from Evolution* (Carbondale: Southern Illinois University Press, 1971), 32; Lawrence Quade, "American Physical Anthropology: A Historical Perspective" (PhD diss., University of Kansas, 1971); C. Loring Brace, "The 'Ethnology' of Josiah Clark Nott," *Bulletin of the New York Academy of Medicine* 50 (1974): 509–28; Anthony Walsh, "The New 'Science of the Mind' and the Philadelphia Physicians in the Early 1800s," *Transactions and Studies of the College of Physicians of Philadelphia* 43 (1976): 397–413; Terry Parssinen, "Discussion: George Combe and Samuel George Morton," *Transactions and Studies of the College of Physicians of Philadelphia* 43 (1976): 413–15; Paul Erickson, *Phrenology and Physical Anthropology*, Occasional Papers in Anthropology 6 (Halifax, Canada: Saint Mary's University, 1977), 46–50; Dana Nelson, "No Cold or Empty Heart," *Differences: A Journal of Feminist Cultural Studies* 11, no. 3 (1999): 29–56; Fernando Armstrong-Fumero, ""Even the Most Careless Observer,"" *American Studies* 53, no. 2 (2014): 5–29; Pamela Geller and Christopher Stojanowski, "The Vanishing Black Indian," *American Journal of Physical Anthropology* 162 (2017): 267–84; James Poskett, "National Types," *History of Science* 53 (2015): 264–95.

8. Stanton, *The Leopard's Spots*, 202–3, 24–44; Wood, *Biographical Memoir of Samuel George Morton*, 3; Patterson, "Memoir," xvii; Meigs, *Memoir of Samuel George Morton*, 3; Grant, *Sketch of the Life and Character of Samuel George Morton*, 3; Gossett, *Race*, 466; Bell, "Morton, Samuel George," 541; Brace, *"Race" Is a Four-Letter Word*, 77–80.
9. Brace, *"Race" Is a Four-Letter Word*, 84, 100.
10. These letters are housed at the American Philosophical Society (APS), the Library of the Academy of Natural Sciences of Philadelphia of Drexel University (ANSP), the National Library of Scotland (NLS), and the Historical Society of Pennsylvania (HSP).
11. A well-researched but rarely cited Morton family genealogy is included in John Jordan, *Colonial Families of Philadelphia*, vol. 2 (New York: Lewis Publishing Company 1911), 1,712–19. The "Medical Department of the Pennsylvania College, at Philadelphia" was founded in 1839 and dissolved in 1859. See American Medical Association, *American Medical Directory*, 6th ed. (Chicago: Press of the American Medical Association, 1918), 86.
12. Brace, "*Race*" *Is a Four-Letter Word*, 81–82; Stanton, *The Leopard's Spots*, 27–28; C. Loring Brace, "Physical Anthropology at the Turn of the Last Century," in *Histories of American Physical Anthropology in the Twentieth Century*, ed. Michael Little and Kenneth Kennedy (Lanham, MD: Lexington Books, 2010), 29; Bell, "Morton, Samuel George," 540; Erickson, "Morton, Samuel George," 689.

13. Morton never publicly recognized that Phillips had measured some of the skulls Morton studied. However, previously unpublished letters indicate that Phillips measured an unknown number of the skulls that were the subject of Morton's *Crania Americana*. In an 1839 letter to Combe, Morton wrote that "Mr. Phillips and myself have nearly completed our internal capacity of upwards of one hundred Indian Crania," which were then published in *Crania Americana*. See Samuel Morton, *Letter to Combe, May 6, 1839*, NLS, Morton (Samuel George) American Physician and Naturalist, Letters of (1839), f.175. In an 1840 letter to Morton, Benjamin Silliman (1779–1864) described Phillips as Morton's "able coadjutor." See Benjamin Silliman, *Letter to Morton, March 27, 1840*, B M843–Samuel George Morton Papers, Series 1, APS. Also, Henry Rowe Schoolcraft (1793–1864) described Phillips as "Dr. Morton's assistant and scientific manipulator." See Schoolcraft, *History of the Indian Tribes of the United States* (Philadelphia: Lippincott, 1857), 574.
14. Morton, *Catalogue of the Skulls of Man*, viii.
15. Morton, *Crania Americana*, 260; Samuel Morton, *Crania Aegyptiaca; or Observations on Egyptian Ethnography Derived from Anatomy, History and the Monuments* (Philadelphia: John Pennington, 1844), 65–66, https://archive.org/details/craniagyptiacaoooomortgoog/page/n5; Aleš Hrdlička, *Physical Anthropology, Its Scope and Aims* (Philadelphia: The Wistar Institute, 1919), 41.
16. Meigs, *Memoir of Samuel George Morton*, 3; Grant, *Sketch of the Life and Character of Samuel George Morton*, 1; Wood, *Biographical Memoir of Samuel George Morton*, 1.
17. Patterson, "Memoir," xvii–lvii.
18. Reginald Horsman, *Josiah Nott of Mobile: Southern Physician and Racial Theorist* (Baton Rouge: Louisiana State University Press, 1987), 6–26, 43–52, 142–49, 317–22.
19. Josiah Nott, "Statistics of the Southern Slave Population," *Commercial Review of the South and the West* 4, no. 3 (1847): 275–87, esp. 280.
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