Samuel George Morton's Influence on the Penn Medical Curriculum, 1825-1853

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Abstract:

The Penn in Slavery Research Project is an ongoing community of historians uncovering the University of Pennsylvania's connection to slavery. Starting in 2017, the project has consisted of numerous undergraduate researchers investigating instances in which the university benefited from or supported slavery. From university finances to racist science and medicine being taught at the university, this project has shed light on the complicated nature of the relationship between the university and slavery. From the original size of five to countless student reports later, the project has grown tremendously and continues to make strides in uncovering the buried history of the university. As I have dived into my own research this semester, I've developed a deep passion for conducting historical research and examining archival records to reveal the past and the present. Over the semester, through intensive research, I focused my efforts on a project that establishes the connection between Samuel G. Morton and the Penn Medical School, particularly his teaching of racist science and medicine to medical students during the mid-nineteenth century.

Research Process:

When I initially contemplated what I was to research, the life of American physician Samuel Morton and his work on craniology strongly appealed to me. Morton published numerous notable works in the mid-nineteenth century and was one of the first American scientists to detail theories about multiple races, otherwise known as polygenism. Morton's work became pivotal to countless individuals learning about the idea of race through a scientific lens. I wanted to investigate if Morton's publications influenced the curriculum of the Penn Medical School during his own time there and if individuals studying in the medical school were influenced by his work on craniology and racist medicine. Morton gained most of his notoriety after publishing *Crania Americana* in 1839, a comparative study on the skulls of individuals living in North and South America. However, there was less mention of Africans andAfrican Americans in this publication, which focused on Native Americans rather than Africans. I then decided that I wanted to focus on *Crania Aegyptiaca* (1844) and the influence of both

publications on the Penn Medical curriculum. If I could find some links between Morton's work and the medical curriculum, it would provide a direct connection between the racist theories proposed by Morton and the Medical school's incorporation of those theories. The connection did not have to lie precisely in the curriculum itself, as I also wanted to learn whether Morton had a connection to Penn faculty teaching courses in the medical school or to the students studying in the medical school.

Sources and Research Methods:

I started in the university archives, looking at notes and records from lectures, school attendees, faculty, and curriculum. If I could identify what was being taught at the medical school, for example, if the anatomy lecturer mentioned African American crania, I could potentially connect Morton to the curriculum. If I could discover a medical school faculty's relationship with Morton, I could draw inferences about what they might be teaching and whether Morton had influenced them. I was also interested in whether specific school attendees were of a similar background to Morton or if some other connection existed. Finally, and perhaps most importantly, if I could delve into the research projects that students were producing, I could see if they were focusing on topics related to Morton's study of craniology. Additionally, the list of individuals for whom Morton served as preceptor might reveal subjects related to his work and provide a means for connecting the university curriculum more directly to racist science and slavery.

Background of Samuel G. Morton:

Samuel G. Morton was an American physician and anatomist who published numerous notable works in the mid-nineteenth century. Based on his efforts in the nineteenth century, Morton was considered the father of American anthropology and "the founder of American invertebrate paleontology," and, as mentioned above, one of the first figures to propose theories about the existence of multiple races.[1] Morton was born in Philadelphia on January 26, 1799, to Irish immigrants George and Jane Cummings Morton. His father died six months after he was born, and following his death, Morton moved to West Farms, New York. He was educated at

[1] See, e.g. *The Samuel George Morton Papers*, Mss.B.M843, The American Philosophical Society (Philadelphia) https://search.amphilsoc.org/collections/view?docId=ead/Mss.B.M843-ead.xml

West Farms Schools until his mother remarried and moved the family back to Philadelphia. After moving back, Morton went to West Town Friends School in Chester County, Pennsylvania. He later attended Friends School at Burlington in New Jersey in 1813, where he studied mathematical sciences. As a young intellectual, Morton spent most of his free time reading, and his thoughts were more interested in history, poetry and other forms of fine literature.[2] His mother later died in 1817, and following her death, Morton decided to become a physician. According to sources, Morton made this decision after reading Dr. Rush's sixteen Introductory Lectures[3] and watching the frequent attendance of physicians [during his mother's illness, including] several of the most distinguished practitioners of Philadelphia .[4] Morton later attended the University of Pennsylvania and earned his Doctor of Medicine degree in 1820, a year of profound national debate about slavery, resulting in the Missouri Compromise. Following graduation, Morton traveled to Ireland, attended classes at the University of Edinburgh in Scotland, and traveled throughout Europe. He later graduated from the University of Edinburgh in 1823, building upon his strong academic background.[5]

In 1824, Morton returned to Philadelphia and began practicing medicine. In addition to his medical practice, Morton was involved with the Academy of Natural Science of Philadelphia, of which he would be an active member until his death. He began writing scholarly articles on the subjects of both natural sciences and medicine. His medical expertise expanded the more he practiced, and he later became employed at the Philadelphia Almshouse Hospital in 1829 as a physician. Furthermore, he became a medical teacher in 1830, specifically a professor of anatomy at the Pennsylvania Medical College (1839-1843). Through his devotion to the natural sciences, he slowly climbed the ladder of leadership at the Academy of Natural Sciences and was elected as Vice President of the Academy of Natural Sciences in 1841. In 1849, he was elected President, a position he held until he died in 1853. He was also elected to the College of Physicians of Philadelphia in 1845.

Morton's principal works, *Crania Americana* (1839), *Crania Agyeptica* (1844), and his various works on hybridity define the ideas that he produced. These works drew upon his

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[2] George Bacon Wood, *A Biographical Memoir of Samuel George Morton, MD, prepared by appointment of the College of Physicians of Philadelphia, and read before that body, Nov. 3, 1852* (TK & PG Collins, 1853), 6.
[3] Wood. *A Biographical Memoir of Samuel George Morton, M.D,* 6-7.
[4] Wood. *A Biographical Memoir of Samuel George Morton, M.D*, 6-7
[5] Wood, *A Biographical Memoir of Samuel George Morton, M.D,* 7-8.

extensive skull collection. Throughout his work, Morton argued that there were distinct races in the world, and some were superior to others, and this position evolved throughout his career. A sample of his work on Native Americans states, one race consisting of two distinct "Great families," one of which was mentally superior to the other. The superior family was the Toltecan Nations, including the Aztecs, Inca, and the Mound Builder Indians who once flourished in the Mississippi Valley. All other Native Americans were simply designated as Barbarous Tribes.[6] Morton also presents claims on African Americans, stating that in disposition, the Negro is joyous, flexible, and indolent; while the many nations which compose this race present a singular diversity of intellectual character, of which the far extreme is the lowest grade of humanity…"[7] Morton's racist beliefs dominated his work and gained him significant notoriety and popularity.

Background of the state of racial science in the country at the time:

During the antebellum period, racist science justified slavery and colonialism. As the concept of racial science expanded, it became deeply entrenched in the prevailing ideas of race - that African Americans and Indigenous people were inferior to Caucasians. The concept of race itself was often seen through a lens of hierarchy, with white Europeans and their descendants considered superior to all other races. Morton contributed to this hierarchy with the publications discussed above.[8] By arguing for the inferiority of certain races based on crania size, among other physical traits, Morton was able to claim a scientific basis for his racial categories to justify the supremacy of White Americans over Native Americans. For example, in *Crania Americana*, Morton claimed, "in their mental character, the Americans are averse to cultivation, and slow in acquiring knowledge; restless, revengeful, and fond of war, and wholly destitute of maritime adventure."[9] This statement is a direct reflection of Morton's racist ideas-- ideas that drew from and anchored the racist medical culture of the mid-nineteenth century.

Nevertheless, it is crucial to remember that these theories were shaped by historical, social, political, and economic circumstances rather than solid scientific data-- with lasting consequences. Morton's racial classifications were still used in the 20th century to rank and

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[6] The Penn Museum. *Biography of Morton's Cranial Collection*, https://www.penn.museum/sites/morton/life.php
[7] Samuel George Morton, *Crania Americana* (1839)
[8] See E. Carson Eckhard, "Spring 2019 Report," The Penn & Slavery Project, 2019, http://pennandslaveryproject.org/files/original/6cb25ad85c2635d6620ffd04abeadb33.pdf.
[9]Samuel George Morton, *Crania Americana* (1839)

classify human populations. Morton is notorious for using this allegedly scientific reasoning in his publications titled *The Size of the Brain in Various Races* and *An Illustrated System of Human Anatomy*. In these works, Morton used craniometry to rank races based on facial angles and cranial volume rather than on actual scientific processes. He also created the racial groups he ranked by describing them in detail before listing the number of skulls he had in each racial group and their cranial volumes, which he used to measure intellectual capacity. Morton and other medical experts' classifications offered a purportedly scientific explanation for the enslavement of African-descended and Indigenous populations and other forms of colonial oppression. Overall, antebellum racial science was marked by defective methods, skewed interpretations, and a manifest goal of bolstering pre-existing power systems rather than pursuing objective scientific knowledge. Racist science became medical science during the 1830s-1850s and continued to be at the center of U.S. medicine after the war because the nation remained committed to white supremacy.

Research Findings:

To trace Morton's intellectual and pedagogical influence, I examined two Penn Medical students, Samuel J. Oakford and Abram Ormsbee Blanding, and Morton's influence on their educational journeys through the school. In addition to these two case studies, I considered Morton's role as a private lecturer at the Philadelphia Almshouse, a central institution for training Penn Medical students.

Samuel J. Oakford:

Samuel J. Oakford graduated from the Penn Medical School in 1846, and Morton was his preceptor. Graduation from the Penn Medical School required that Oakford had attained the age of twenty-one years, had applied himself to the study of Medicine for three years, and had been, during that time, the private pupil, for two years at least, of a respectable practitioner of Medicine.[10] The individual who served as the respectable practitioner and mentor was known as the preceptor. Research in the Library Company of Philadelphia collections revealed that Oakford and Morton had a strong relationship. A preceptor serves as a professional role model,

[10] University Archives & Records Center, *Catalogues of the Trustees, Faculty, and Students of the University of Pennsylvania (1841-1849)* University of Pennsylvania Archives

and he and his student must have a close connection. Furthermore, Morton only precepted a few individuals.

After Oakford graduated, he continued to contact Morton, exchanging letters for three years. Morton used his student as a source for Native American crania. Oakford traveled to Lima, Peru, in 1847 and 1849 to conduct international research and wrote to Morton outlining his travels and experiences in South America. By this time, Morton had established himself as a craniologist, having published both *Crania Americana* and *Crania Aegyptiaca*. In a letter to Morton in June of 1847, Oakford speaks of his experiences with "Indians," stating how "in fact, the natives, although good Catholics are by no means civilized, they retain very many of the customs of their ancestors."[11] The description of the natives is just one example of the racist remarks that medical professionals used when describing other races. Oakford critically noted in his letter to Morton, "I regret to say that I have not been able to do much for you in the way of aboriginal remains as the mounds are situated in the interior, and it is difficult to get up there."[12] Oakford detailed his efforts, noting that he opened "some 10-12 graves in which the mummies were in a broken and decayed state, we came to one which appeared to have been the grave of a chief with his family"[13].

Oakford's correspondence with Morton about grave-robbing for him and actively searching for remains to send back to him reveals the influence Morton had over the younger man. Oakford later wrote, "I am very sorry that I was not allowed to send you better specimen…I am not engaged in collecting specimens from the Hracas of Iruxillis and the Province of Fiura, these are curious in form and workmanship."[14] The access to skulls overseas allowed Morton to expand his studies on crania and species and expand as well as develop his racist ideals. On another occasion, Oakford shared more than human crania: "I will also send some heads of three or four different seals."[15] The numerous accounts of Oakford serving Morton and providing him with the remains of humans and non-human animals testified to Morton's mentorship of Oakford fostered through the Penn Medical School. Morton's work and

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[11] Samuel J. Oakford, *regarding collecting Indian relics*, 1847 June 14, 1847 November 10, The Library Company of Philadelphia, Samuel George Morton Collection, https://findingaids.library.upenn.edu/records/LCP_LCP.MORTON.
[12] Oakford. *regarding collecting Indian relics.*
[13] Oakford. *regarding collecting Indian relics.*
[14] Oakford. *regarding collecting Indian relics.*
[15] Oakford. *regarding collecting Indian relics.*

professional influence likely motivated Oakford to seek out crania for him. Oakford again reached out to Morton in November of 1849, stating, "I have quite a collection of Indian crania, huaguitos, skulls of animals to send to you by the first opportunity."[16]

Oakford's efforts to source human remains for Morton occasionally brought him close to illegal acts. When Oakford mentioned sending remains back to Morton, he noted, "I cannot promise when this would occur…as all Indian remains and natural curiosities are prohibited being exported from Peru, they would be seized by the custom house."[17] Oakford's comment on the removal of remains from Peru being "prohibited"[18] points to the presence of laws preventing their exportation. Given that some remains eventually did make it back to Morton, it is possible that Oakford broke laws in order to aid Morton. Oakford is an example of the way Morton cultivated his students to further his own research. Oakford's desire to source for Morton is a testament to Morton's significant influence, both intellectually and as a mentor. Oakford continued to serve Morton after he graduated from Penn Medical. By developing relationships with students, Morton was able to enlist them to collect remains from across the globe.

Abram Ormsbee Blanding:

Another medical student influenced by Morton is Abram Ormsbee Blanding. Attending Penn Medical from 1845 to 1848, Blanding also interacted with Morton often, as Morton also served as his preceptor. Originally from Rehoboth, Massachusetts, Blanding had a close relationship with his uncle, William Blanding. William Blanding had a personal relationship with Morton and occasionally corresponded with him on several different occasions. Blanding wrote to Morton often regarding his nephew, Abram, stating, "I hope it may be convenient for you to admit him into your office, should you have space this season."[19] His desire to get his nephew acquainted with Morton was successful: Morton served as a preceptor to Blanding and mentored him throughout his medical school journey.

The city of Philadelphia has limited records on Blanding; however, I had the opportunity to travel to the Smathers Library at the University of Florida, where I examined the Blanding

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[16] Oakford, Samuel J., *regarding Indian remains near the River La Chira*, 1849 November 15, The Library Company of Philadelphia, Samuel George Morton Collection.
[17] Oakford. *regarding Indian remains near the River La Chira*
[18] Oakford. *regarding Indian remains near the River La Chira*
[19] Blanding, William, regarding his nephew Abram, 1847 September 18, 1848 March 27, The Library Company of Philadelphia, Samuel George Morton Collection.

collection in their Area of Special Collections Room. This collection included numerous diary entries that Blanding kept, his medical theses on Medical Topography, his daybooks, and certifications he later received following his graduation from Penn Medical. Analyzing his diaries reveals several instances in which he mentions Morton, ranging from Morton visiting Blanding's home to check up on his uncle to him traveling to Morton's office after his class lectures. The abundance of times that Morton is mentioned in Blanding's diaries over a three-year period is striking. The countless encounters between the two reveal Morton's influence over Blanding at Penn Medical. A notice for Blanding following his graduation mentioned explicitly that Blanding had also graduated "after having passed several years in study, under the tuition of Dr. S. G. Morton of Philadelphia"[20].

Additionally, Blanding, in his diary, mentions his time at the Academy of Natural Sciences. Morton became the Academy's Vice President in 1841 and eventually became its President in 1849. The academy was a hub for scientific discourse related to the medical profession. Blanding notes how he spent time at the academy and listened to a lecture on one occasion. Morton oversaw Blanding's progress toward his degree requirements, as outlined in his theses and the university catalogues, and had friendship ties to Blanding through his uncle. Their relationship, considered in the context of Morton's life, places Blanding in the middle of Morton's most prominent years as a medical professional. During this time, Morton would be advancing his career to new heights and was doing so while bringing Blanding alongside him as a mentee. Like Oakford, Blanding is another example of a student influenced by Morton, who in turn, contributed to Morton's work as a racist scientist.

Morton's work at the Philadelphia Almshouse

During the early nineteenth century, the medical school required that in addition to the courses students had to take, they also needed to attend a lecture for clinical instruction at the Philadelphia Almshouse Infirmary. The Almshouse, during its time of establishment, housed poor and sickly individuals. While there, the city provided food, shelter, clothing, and medical care in exchange for hard labor and forfeiture of freedom. This was often protested by those who lived in the Almshouse, who resisted relinquishing their privacy and dignity just because the city

[20] Correspondence / Receipts, 1850-188. Blanding A.O. Collection, https://findingaids.uflib.ufl.edu/repositories/2/resources/32

was funding their needs. Decades after the Almshouse was established, it soon became overcrowded, and the rights of those living in the Almshouse became even more subject to regulation. As the "Bettering Houses," as it was otherwise known, got shut down in 1835 due to corruption, overcrowding, and lack of funding; the Almshouse opened the same year in an attempt to reform where the previous house had failed. The new institution's founders hoped to succeed by completely institutionalizing the poor. The new house was located in West Philadelphia in an area formerly known as Blockley Township and thus nicknamed the "Blockley House." Eventually, the Blockley House evolved to become the Philadelphia Hospital in the twentieth century.

As an institution providing free resources to poor people who could not get them elsewhere, the Almshouse made it easy for medical students to use the bodies of poor residents to practice medicine and study science.[21] By mandating students to study at the Almshouse, where every thirty-five African Americans were housed for every four Caucasian the medical school encouraged unfettered access to poor people's bodies and perpetuated the practice of medical students on black bodies, as these individuals could not forbid the intrusive exams and procedures.[22] The lack of autonomy that Black individuals had over their bodies in the Almshouse was representative of the larger medical situation in America at the time.

In 1830, Morton lectured at the Philadelphia Almshouse on demonstrative anatomy. He served as a physician in the infirmary and was active in overseeing the care of these individuals.[23] The medical school requirement that students attend a lecture at the Almshouse and practice with clinicians meant that Morton was lecturing at the same place where students engaged in clinical practice. In the decade before he became famous for *Crania Americana*, Morton stayed active as a lecturer at the Almshouse, teaching many Penn Medical students about

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[21] Paul Wolff Mitchell, "Black Philadelphians in the Samuel G. Morton Collection," *The Penn Program on Race, Science, and Society*, 2021, https://prss.sas.upenn.edu/projects/penn-medicines-role/black-philadelphians-samuel-george-morton-cranial-collection

[22] John L. Puckett, "Transforming 'Old Blockley': The Philadelphia General Hospital," *West Philadelphia Collaborative History Project,* https://collaborativehistory.gse.upenn.edu/stories/transforming-%E2%80%9Cold-blockley%E2%80%9D-philadelphia-general-hospital

[23] "Introductory lecture to a course of demonstrative anatomy," delivered December 11, 1830 by Samuel George Morton. Public Domain Mark. Source: Wellcome Collection. https://wellcomecollection.org/works/qwwfbfns

anatomy. Morton also served as a private lecturer for students, including Blanding, as his diaries revealed.

Significance of Findings:

Morton had a direct influence on both medical students and the Penn Medical curriculum. Throughout his career, Morton worked heavily on the crania and became renowned for his claims about races based on cranial volume and shape. He has since been proven to be scientifically incorrect and, instead, is now understood to be an individual who advanced racist ideas. Nevertheless, Morton was an important figure in the medical world during the mid-nineteenth century, and he had a significant impact on those he interacted with, especially students attempting to learn about aspects of the medical field so that they could eventually practice medicine. In addition to publishing, he taught students his ideas about racial anatomy and, therefore, shaped the medical curriculum. During the 1830s, Morton lectured at Philadelphia's Almshouse, an institution where medical students were required to fulfill their clinical practice and where they learned directly from him. Morton also served as a preceptor to Penn Medical students.[24] Putting this into perspective, the Penn Medical School aided Morton in influencing these students and allowed the physician to benefit from their subsequent work sourcing human remains for him. The administration of Penn Medical acknowledged Morton and his racist beliefs and proceeded to allow him to be such an influential figure to many students. They were continuing the cycle of racist science by giving Morton a platform. Not only did they condone his beliefs, but they were proud of him and supported him by allowing him to teach and mentor students.

Shortcomings and New Questions:

Although this project made great strides in uncovering the influence of Morton on the Penn Medical School, I ran into dead ends when searching for specific information. Many of the theses by students for whom Morton served as preceptor were unavailable in any collection or on the internet. I focused on only two individuals, but Morton was a preceptor to many more. One could easily conjecture that these other students reflected Morton's teaching and intellectual

[24] *Catalogue of Trustees, Officers, and Students of the University of Pennsylvania, Session 1845-1846*, University of Pennsylvania Archives and Records Center (Philadelphia, PA)
https://archives.upenn.edu/wp-content/uploads/2017/10/catalogue-1845-46.pdf

influence. A more detailed conclusion is difficult to reach. The Penn archives have not preserved the texts assigned to students in specific classes. Additional questions might yield new research in the future. For example, what were the main influences in the medical curriculum besides Morton? Did other doctors on the faculty embrace his ideologies? During the 1840s, racist science was rampant in the country, as many medical professionals were endorsing ideas that were blatantly racist. Pursuing research into actual faculty that worked at Penn Medical and seeing if any of the lecturers presented and showcased racist ideas in classes and lectures would provide a direct example of racist science being taught at Penn Medical School. Lecturers like William Horner, professor of anatomy, and Hugh Hodge, professor of Obstetrics and of the disease of women and children, were all consistent lecturers. The Penn & Slavery Project has already uncovered some of the tenets of their racist medical claims, but it would help to examine student notes from classes or their lecture notes. Also, looking more into the Academy of Natural Sciences and attempting to establish how Penn faculty interacted with Morton and used his work in their teaching would further reveal how Morton influenced the Penn Medical curriculum.

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