The Harvard Crimson

Louis Agassiz, Under a Microscope

BY SAIMA S. IQBAL, CRIMSON STAFF WRITER
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Agassiz examines a sea urchin. By Courtesy of Schlesinger Library, Radcliffe Institute Harvard University

Content warning: Vivid description of racist language and actions.

In 1847, the crowd for a lecture given by the famous Louis R. Agassiz would have been extensive — in Charleston, South Carolina, it was feverish.

The local naturalists at The Literary Club of Charleston were preoccupied with a question they suspected only Agassiz, a newly initiated professor of zoology at Harvard, could answer: were Black and white men indeed separate species? Before he relocated to the United States, Agassiz had accepted the scientific consensus of the time, that all men belonged to the same species. But in the lectures he delivered in Cambridge, he began to hint at the more fringe theory of polygenism.

In Charleston, Agassiz took his first steps towards publicizing his theory — a decision which would forever alter his legacy as a scientist. He declared that Black people were, in profound ways, anatomically distinct from white people. He presented racist speculation after racist speculation, saying even that "the brain of the Negro is that of the imperfect brain of a seven month's infant in the womb of a White."

Following the lecture, fueled in part by the enthusiasm of the crowd, Agassiz became a more avid scientific racist and is largely remembered as such today. During his life, however, the public generally overlooked Agassiz's views on race for other aspects of his larger-than-life persona — a persona he actively sought to construct.

In his long, prolific scientific career, Agassiz had scaled the Alps to track the movement of glaciers, dredged up deep sea creatures, and canoed up the length of Lake Superior. In his writings, he was conscious of leaving the public with a particular image of himself: that of a scientist working at breakneck speed, willing to sacrifice his well-being to discover the truth about the world.

He succeeded at mythologizing himself, if only for the time being.

Weeks after Agassiz died in 1873, the Boston Society of Natural History held a memorial service for him. The former president of the group, George B.

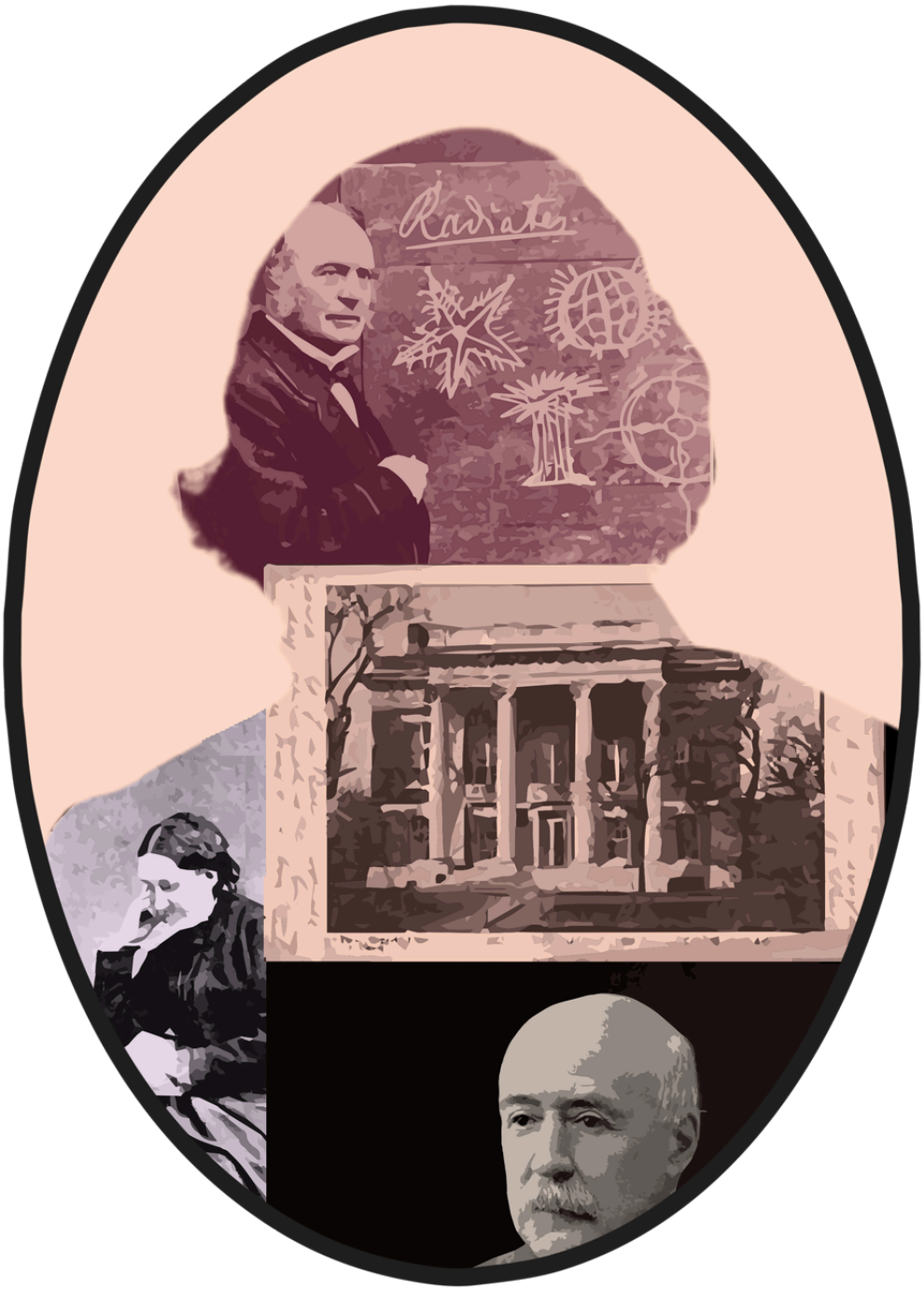
Emerson, lamented his short-lived relationship with Agassiz, blaming it in part on insecurity. “I did not deem myself worthy to occupy so much of his time, concensecrated, as it was, to science and the good of mankind,” he explained.

Like many scientists in his generation, Agassiz was a devout creationist: He believed that the world was fixed exactly as God had created it and thus merited especially careful observation. He approached his work with a reverence the public could not help but admire, at least at first.

As the decades passed, however, the scientific community began to perceive his religious beliefs as more of a hindrance than an asset. Agassiz lived long enough to see the community renounce creationism for Darwin’s theory of evolution, but vehemently resisted the shift himself — to embrace evolution would be to overturn many of the conclusions of his own work.

But the largest stain on Agassiz’s reputation comes from one of the corollaries of his belief in creationism: his belief in polygenism. Agassiz not only supported efforts to rank and segregate people of different races, but propagated the unfounded theory that different races were different species altogether. His fans occasionally used his ideas in defense of slavery, making him one of America’s leading scientific racists.

Though some historians argue it is difficult to reconcile these two visions of Louis Agassiz — one gentle and reverential, the other rigid and bigoted —, they may simply be two sides of the same coin. Agassiz prided himself on his ability to distinguish and characterize species. With his theory of polygenism, he created taxonomies not only of turtles and jellyfish but also of human beings.



A portrait of Louis Agassiz, with photographs courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University and the Schlesinger Library, Radcliffe Institute, Harvard University. By Tran Nguyen

I first learned of Agassiz while reporting on a local effort to rename the Agassiz neighborhood in Cambridge. I imagine most Harvard students know of him from Tamara K. Lanier's high-profile lawsuit against the Peabody Museum. For the past 10 years, Lanier has argued that Harvard unlawfully possesses and

profits from daguerreotypes taken of two of her enslaved ancestors, Delia and Renty — daguerreotypes Agassiz commissioned to support his theory of Black inferiority.

Her fight with Harvard has brought attention to the school's additional ties to the controversial scientist, which include numerous on-campus buildings that bear the Agassiz name as well as the origins of the Museum of Comparative Zoology (often called the MCZ), an institution Agassiz founded in 1859.

Harvard maintains that several of these buildings honor members of Agassiz's family, rather than Agassiz himself. Agassiz's wife, Elizabeth C. Cary Agassiz, served as the first president of Radcliffe College. His son, Alexander E. Agassiz, worked as the director of the MCZ until his death in 1910. The University argues that it is only fair to treat his family members as distinct individuals, untainted by their association with him.

The MCZ has adopted a similar approach, condemning Louis Agassiz while celebrating Alexander. Last spring, the museum published a brief statement rejecting Agassiz's role in "fostering ideas of racial disparity and inequality" and removed most traces of the scientist from its website, letterhead, and exhibits. It has yet, however, to publicly clarify why it's done so or how exactly it sees Agassiz today.

How to positively engage with Agassiz's legacy evidently remains an unresolved question at Harvard. The students behind the Harvard Coalition to Free Renty have advocated for a specific fix: returning the daguerreotypes of Renty and Delia to the Lanier family. But when it comes to Agassiz's mark on campus, few have answers. Agassiz's great-great-great granddaughter Marian S. Moore, who supports Lanier's lawsuit, suggests that it's up to local communities to make their own value judgments.

Ultimately, the question of how to reckon with Agassiz's past only raises more questions: Who was Louis Agassiz, behind the smokes and mirrors, and what exactly is his legacy? And just what information do we need to address it?

The Plan of Creation

Agassiz was born in the Swiss village of Môtier, which is situated between a lake and the Bernese Alps. As a boy he liked to observe the local fish he collected in the water basin behind his house. He came from a long line of Protestant ministers and was expected to become one himself, but decided to honor God in a different way: by examining His creations.

Agassiz studied under some of Europe's leading naturalists, Georges Cuvier and Alexander von Humboldt, before becoming a professor himself at the University of Neuchâtel. He achieved success in the field at a young age. In addition to publishing a well-received book on the anatomy of Brazilian freshwater fish, he was one of the first scientists to provide compelling evidence for a theory that was highly controversial at the time: the premise of periodic ice ages.

His work tracking the movement of glaciers over time won him international acclaim, but little income. To publish his scientific reports, he had, according to his grandson's early 20th century writings, "exhausted the resources of his relatives, friends, and indeed, the entire little community of [Môtier]."

In 1846, he received an invitation to deliver a set of 12 paid lectures for the Lowell Institute in Boston on the different orders of animals. He couldn't leave for America quickly enough.

This lecture series, titled "The Plan of the Creation, Especially in the Animal Kingdom," was an immediate hit, and the following fall, Agassiz brought it to New York. Agassiz had managed to make zoology accessible and thrilling to the public. He demonstrated with starfish and oysters he pulled out of his back pocket and covered whole whiteboards with his notes and drawings. He tied every point he made to a larger message: he believed that the careful study of animal specimens could reveal God's plan for the Earth. When he flaunted his extensive scientific knowledge — say, by making a show of how to reconstruct a fish fossil from a single scale — he appeared prophetic.

Agassiz's vision of science prized meticulous observation of the world above textbook knowledge. In the middle of one of his scientific articles for the Atlantic, Agassiz explained his fervent belief that every small detail could shed light on the principles governing the planet: "Nature is so good a teacher that, the moment we touch one set of facts, we are instinctively, and almost unconsciously, led to connect them with other phenomena, and so to find their true relations." He wanted to be known as a clear-eyed and objective observer — and for most of his career, he was.

At the start of his lectures, Agassiz often apologized for his poor English and quipped that natural history was, thankfully, fascinating enough all on its own. Yet it was clear from his provocative scientific claims and poetic analogies that he set out to charm his audience. By the end of the winter, he built up so much support among the Boston elite that the president of Harvard created a new professorship solely for him.

Agassiz wanted to make the most of his time at Harvard. The summer after he officially became a Harvard professor, his home on Oxford Street had begun to resemble that of a mad scientist's. His household included not only an eccentric mix of artists and naturalists but numerous live animals he was studying, not limited to snakes, eagles, and fish. His tables were littered with specimens.

In April of 1850, Agassiz married a woman he had courted for years: Elizabeth C. Cary. Cary came from one of Boston's oldest and wealthiest families; she could trace her family's origins in the area back to the 1600s with the Puritans. She had first heard of Agassiz from her mother, who was so impressed with his Lowell lectures that she recommended Elizabeth marry a man like him. Later on, when she met Agassiz at a dinner party held by the wife of a fellow Harvard professor, she was smitten. Her biographer described them as a strong match: "His eager, buoyant personality was balanced by the quiet steadiness of her own."

Elizabeth Cary Agassiz seated at the New England Women's Club. By Courtesy of Schlesinger Library, Radcliffe Institute Harvard University

The relationship opened up new possibilities for the both of them. Agassiz acquainted himself with the Boston Brahmin; Cary found herself not only a partner for life but a new intellectual passion: zoology.

Cary provided the necessary structure for Agassiz's career, though sometimes at her own expense. When Agassiz was still adjusting to speaking in English, she attended and took notes on his lectures so that he could polish and standardize them. And when his scientific ventures inevitably demanded more money than they had on hand, she gladly cut corners at home, serving as his personal secretary and asking her relatives for loans. To help keep their family out of poverty, she even opened a private school for girls in their home which inspired the precursor to Radcliffe College, the Harvard Annex.

In the process she gained her own scientific expertise. She regularly joined her husband on scientific expeditions, even donning men's trousers and boots to explore the terrains with the rest of the crew. Her detailed accounts of their trips played a vital role in his publications and towards the end of his life, they often co-wrote their scientific monographs. Despite this, Cary continuously downplayed her own skills and contributions to science.

In most early biographies of Agassiz, they went unacknowledged, too.

"With Agassiz In the War the Battle Is Ours"

In his very first year in Boston, Agassiz met someone else who would transform the trajectory of his career: a sickly physician named Samuel G. Morton.

By 1846, Morton had acquired over 700 human skulls — many as gifts mailed to his doorstep. Morton, then one of America's most famous scientists, was on a mission to rank the human races by skull size and shape. In his 1839 paper, "Crania Americana," he presented a hierarchy of human intelligence as follows: Caucasian, Mongolian, Malay, Native American, and Negro.

In the decade to come, he sought to prove that these differences were constant and innate — to prove, against both scientific consensus and biblical doctrine, that men of different races belonged to different species. Soon after arriving in Boston, Agassiz set out on a professional tour of the Northeast. He ended up spending the majority of it in Philadelphia, keeping the company of one man: Morton. He was hooked.

In a letter to his mother, Agassiz expressed his astonishment at the vastness of Morton's collection and at what it represented: an attempt to empirically study the differences between men. He implied that he embraced polygenism for its scientific rigor. "Nothing like this exists anywhere else," he wrote. "This collection, by itself is worth a trip to America."

It makes sense that Agassiz took easily to Morton's theories; they were a natural extension of his own. A devout but peculiar creationist, Agassiz believed God designed each animal species to inhabit a specific location in specific numbers for all of eternity; in his work, he divided species by "center of creation."

But the letter reveals he had another reason to support Morton, one that was less logical, less objective.

Agassiz had never seen an Black person at home in Switzerland. During his stay in Philadelphia, he noticed that all the servants at his hotel were Black men. When he looked at them, he saw a "degraded and degenerate race." Entrenched in the Western ideals of his home country, he experienced great horror and disgust. "It is impossible for me to repress the feeling that they [the men] are not of the same blood as us," he confessed to his mother. "In seeing their black faces with their thick lips and grimacing teeth, the wool on their head, their bent knees, their elongated hands, their large curved nails, and especially the livid color of the palms of their hands, I could not take my eyes off their face in order to tell them to stay away."

That winter, when Agassiz delivered his very first lecture in America, he hinted at his belief in polygenism: he suggested that Black people may have descended from different ancestors as white people. As the months passed, he became less discreet. At an 1847 lecture at the Charleston Literary Club in South Carolina, he told a rapt crowd of naturalists that Black people were physiologically and anatomically distinct from white people. In 1850, after spending several winters in South Carolina, he decided to throw his full weight behind polygenism, defending the theory to the public in the Christian Examiner.

To some Christians, the idea of polygenism was blasphemous — not because of its racist implications but because of its revisionist ones. Advocates of slavery often pointed to the Bible to argue that as the descendants of Noah's cursed son, Ham, Black people were inherently inferior to white people. Still, even that

claim was less radical than Agassiz's. Agassiz maintained that Black people could not be descendants of Adam and Eve because the Bible only described one act of creation: that of white people.

In his essay for the Christian Examiner, Agassiz attempted to reconcile the two by arguing that all men, regardless of origin, were equal in the eyes of God, but emphasized that neither religious dogma nor politics was relevant to what he deemed a purely scientific inquiry. "Here we only have to do with the question of the origin of men; let the politicians, let those who feel themselves called upon to regulate society, see what they can do with the results," he implored. Yet, pages later, he prescribed his own plan: that men of different races occupy their distinct positions in society.

It was impossible to separate the racist science from its political environment. Though Agassiz considered himself an opponent of slavery, he maintained that there were profound differences between the races which made them unequal. In his ideal world, the groups would not mix at all but live segregated from one another in areas similar to their "centers of creation." His most fervent supporters, however, marshalled his theories in defense of slavery. One of the most vocal, a doctor by the name of Josiah C. Nott, penned racist pamphlets like "Types of Mankind" and "Two Lectures on the Natural History of the Caucasian and Negro Races." He wrote to Morton: "With Agassiz in the war the battle is ours."

It is hard to understand how Agassiz could have expected that his arguments could be used otherwise. One of his biographers, Edward Lurie, suggested in 1954 that as a foreigner, Agassiz could not understand the full significance of his actions but was nonetheless drawn to the flame of public attention.

Another answer may lie in Agassiz's vision of science. To Agassiz, the natural world was a window into the mind of God. He was so focused on the philosophical and the divine that he often overlooked the material implications of his research. But while his work on fish fossils and glaciers had few political stakes, his theory on the origins of men had countless ones. For Agassiz to argue that he was simply concerned with matters of science, he had to insist that he saw Black people strictly as specimens and nothing more — an inherently false position.

In March of 1850, Agassiz commissioned J.T. Zealy, a local daguerreotypist, to photograph seven enslaved people from plantations in Columbia, S.C. He had

just traveled to Charleston to attend a scientific meeting on the polygenism debate when he received an invitation to examine African-born enslaved people in Columbia. Delighted, Agassiz cancelled several paid lectures to make the trip. In 1808, Congress had banned the further importation of enslaved people to the United States, making it a rare opportunity to observe a “pure” African person.

The insignia of J.T. Zealy imprinted in the case holding the daguerrotype of Renty, commissioned by Louis Agassiz. 35-5-10/53037. By Courtesy of Harvard Peabody Museum of Archaeology and Ethnology

Agassiz was interested in the effects new environments could have on “types" of bodies — namely those of enslaved people — and sought to first establish a standard “African body” for comparison. He toured at least four plantations, inspecting the enslaved people present before selecting seven for study. Their names were Alfred, Fassena, Jack, Jem, Renty, Delia, and Drana. Though the majority of the captives were born in African countries, Delia and Drana were born in the United States. Delia was Renty’s daughter. Drana was Jack’s.

At some point after Agassiz left for Cambridge, the seven enslaved people were brought to Zealy's studio. First, they were instructed to sit for traditional portraits. Then they were commanded to strip naked and stand before the camera, likely for long stretches at a time. Agassiz had requested photographs of their bodies from the front, side, and rear views. A religious believer in the power of observation, he hoped the collection of images would identify the unique phrenological and physiognomic features which distinguished the enslaved people as members of a separate species.

In the haunting images, the enslaved people look directly at the camera as they undress. Some, notably Delia, have tears in their eyes. Others stare straight ahead, seemingly unemotional or resigned.

These are believed to be the earliest known photographs of enslaved peoples to date.

It is unclear what Agassiz intended to make of them. A newspaper report from the Boston Daily Evening Traveler indicates that soon after he received the photos, he put the daguerreotypes on display during a meeting of the Cambridge Scientific Club. But the report focuses less on the conclusions he drew from the images than on the blasphemy of his beliefs. He may have gestured to the daguerreotypes to complicate — but not refute — his previous ideas about the "African type." At the end of his essay in the Christian Examiner, he wrote: "We generally consider the Africans as one, because they are chiefly black. But if we take the trouble to compare their different tribes, we shall observe that there are as great differences between them as between the inhabitants of Asia."

He bragged about his ability to discern between the groups, to see what others could not: "The writer of late has devoted special attention to this subject, and has examined closely many native Africans belonging to different tribes, and has learned readily to distinguish their nations, without being told whence they came; and even when they attempted to deceive him, he could determine the origin from their physical features."

Curiously, Agassiz made no further mention of the daguerreotypes in his future writings. He neither studied the photographs nor published them; he may not have even displayed them after that initial year. It is possible he may simply have moved onto other projects. After all, he largely left it to Morton to formally study and validate polygenism. It is also possible that the photographs may not

have shown him what he wanted to see: they may not have been the clear-cut evidence he had hoped they would be.

The next time the photographs were made public was after 1976, when a staff member at Harvard's Peabody Museum of Archaeology and Ethnology discovered them in an unused, dusty storage cabinet. They initially appeared innocuous. They were contained in small, red velvet-lined leather cases and framed with gold borders, just like most daguerreotypes from that period. Compact and delicate, you could hold them in your palm or slip them into your pocket — say, to employ during talks and lectures.

The Origins of "The Agassiz Museum"

Eventually, Agassiz began running out of space for his specimens.

When he first settled in Cambridge, he decided to store a portion of his precious items in the basement of Harvard Hall and another in a shack by the Charles River. By 1850, both locations proved insufficient and Agassiz was forced to transfer the collection to a larger building on the grounds of Harvard Stadium. Yet the move couldn't solve his true problem: a limitless desire for specimens. Agassiz's collection kept growing and growing. He felt compelled to create a museum to store and showcase it.

Most museums at the time aimed to highlight the wide diversity of plants and animals found on the planet. But Agassiz wanted to call attention to the striking similarities between creatures in shape, development, and geographic distribution — what he saw as signs of Creation. He hoped to set up a room which could serve as "the epitome of the whole animal kingdom." It would be filled to the brim with so many skins, skeletons, and alcohol-preserved samples of species that it would compel even a lay person to recognize the "direct proof of the existence of a thinking God." He imagined a museum that could rival even the greatest institutions in Europe, a museum which would serve as the first of its kind in the world.

In 1854, Agassiz began working furiously to raise funds for a museum of comparative zoology. Within the span of four years, he coaxed the Harvard Corporation to grant him an allowance for the care of his collection, obtained

$100,000 in support from the state legislature, and charmed individual philanthropists out of over $70,000.

Once he secured the adequate funding, Agassiz turned his eye to the collection he wished to build. He arranged for new specimens to arrive every day of the week by mail, train, and personal messenger, and enjoyed watching his students characterize them.

He was driven by more than just his typical ambition. Towards the end of the 1850s, Agassiz got his first taste of scientific pushback. Put on the defensive by Darwin and his supporters, he seemed to have yearned for the public support of his theories. The same year that Darwin published “On the Origins of Species,” the MCZ — then known simply as “the Agassiz Museum” — opened its doors.

Agassiz never accomplished his broader goal of overturning evolution — in fact, his focus on comparative anatomy unwittingly made the case for the theory stronger — nor his local one of creating a “synoptic room” as his first exhibit. Instead, the majority of the specimens he collected piled up in boxes at the museum. The selection on display was hard to interpret, arguably incoherent.

Agassiz ultimately left the museum in a poor state for his son, Alexander, to inherit. While Alexander largely viewed the MCZ as a burden, as director from 1873 to 1910, he managed to oversee its two-fold expansion.

Today, the Museum of Comparative Zoology preserves millions of specimens as part of the largest university-based natural history museum in the world. By Caleb D. Schwartz

The museum's current director, James Hanken, feels comfortable with his title as an Alexander Agassiz Professor of Zoology. In his mind, Alexander is more responsible for the MCZ's long-term development than Louis is. Hanken also suspects Alexander did not share his father's views on race, though that suspicion is based in part on an absence of evidence otherwise — while Alexander never publicly decried his father's beliefs, he accepted evolution, a theory which was fundamentally incompatible with polygenism.

Hanken surmises that were Louis Agassiz to see the museum today, he would be "spinning in his grave." Although Agassiz intended for the museum to disprove Darwin, it has since become one of the most preeminent centers for the study of evolutionary biology.

Since last spring, the MCZ has implemented a slew of "cosmetic but meaningful changes" in response to Agassiz's racist legacy, removing portraits and busts of Agassiz from public spaces in the museum and striking his name from its website, letterheads, and main conference room. According to Hanken, the resurgence of the Black Lives Matter movement prompted the staff to realize

that the Agassiz name might deter students from engaging with the museum. “If our failing to publicly and prominently depict Louis Agassiz’s scientific racism was making [students] feel that they didn't belong, we didn't realize it,” he explains. “And that was a mistake.”

Hanken says more substantial initiatives like formal statements and educational exhibits will come soon, as staff members return to campus. Due to several staff vacancies as well as the effects of the pandemic, the organization the MCZ typically relies on to develop its programs — the Harvard Museums of Science and Culture — has been especially short-staffed, delaying progress on the MCZ’s potential projects. Beyond the MCZ, he emphasizes that the research of the Harvard and the Legacy of Slavery Initiative will “inform the discussion” on Agassiz’s complex legacy.

Ultimately, polygenists like Agassiz and Nott lost the battle of ideas. As evidence built for Darwin’s theory of evolution in the 1860s, scientists had no choice but to reject polygenism as fundamentally unsound. The public, too, had little use for the theory. Racists and slaveowners could rely on a plethora of other arguments to justify racial inequality and slavery, ones that did not directly contradict the Bible.

But while Agassiz failed to convince the public of polygenism, his support for the theory had a long-lasting impact on one group of people: the enslaved people he examined to test his hypotheses and their descendants. The existence of the Lanier lawsuit — as well as the student activism around it — suggests the harm he inflicted reverberates to this day.

— Staff writer Saima S. Iqbal can be reached at saima.iqbal@thecrimson.com.

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