Introduction

The first volume of Edward Strutt Abdy’s *Journal of a Residence and Tour in the United States of North America* (1835) contains a surprising anecdote about the practice of science by African Americans in the early nineteenth century. Abdy was part of a delegation sent by the English government to tour American prisons. His journal intersperses accounts of the prison system with a narrative of his travels, especially as they reflected the author’s observations about race and slavery in the United States. During an account of his time in New York City, Abdy writes about his visit to St. Philip’s Episcopal Church in Lower Manhattan, whose members included many of the most prominent black families in the city. Given the popular dissemination of ethnographic accounts of slavery in transatlantic travelogues and newspapers, British readers would surely be interested to hear details about an Episcopal church run by free African Americans in the US North. But before taking readers into the pews of St. Philip’s to hear a sermon by the Reverend Peter Williams, Abdy dwells in the graveyard that belonged to the congregation on Chrystie Street, taking a surprising detour from black theology to black craniology.

There in the graveyard, Abdy recounts, he had a conversation with St. Philip’s sexton, the warden of the church’s cemetery and its head gravedigger. He is keen to relate the sexton’s own observations about the remains under his stewardship, especially his claim that the skulls that had been buried for many years in his graveyard—those, Abdy interjects, that “it may fairly be assumed” were the “remains of native Africans”—were “both thicker and more depressed in the front than those of recent interment.” The cemetery’s gravedigger further “believes that there is some difference between the European and African skulls.” Throughout the scene, Abdy refers to the sexton/gravedigger as his informant and establishes his expertise, not through class, social status, or education, but rather through his labor and proximity to the bodies and skulls
under his care. And just as white editors assured white readers about the reliability of black autobiographical writing in the antebellum period, Abdy notes that the sexton was a man of “highly respectable character” who would not assert a “falsehood” to satisfy a “favorite theory.” But the author’s concern with establishing the sexton’s legitimacy as a source of racial knowledge and as an informant on black skulls has at least one additional, and unintended result: Abdy effectively turns the sexton into a practicing scientist and the graveyard into his laboratory.

In addition to figuring the sexton as a vernacular craniologist, Abdy’s account of the observable differences between native African and European skulls also reinforces white supremacist theories of civilization from the period, in which African Americans were believed to be further evolved than native Africans because of their contact with European culture and influence in the New World. While seemingly abolitionist through its expressions of moral outrage over slavery and prejudice in the United States, Abdy’s book is ultimately built upon a characterization of Africans as intellectually deficient and uncivilized. But beyond reinforcing the typical anti-black views of a British anti-slavery sympathizer, what else does Abdy’s graveyard story reveal? Carla Peterson notes that St. Philip’s cemetery was established after the destruction of the African Burial Ground in 1795 and was intended to serve as a resting place not just for Episcopalians, but also for all black New Yorkers regardless of denomination or class. In Abdy’s account, the sexton emerges as a protector of the departed, a duty that included protecting skulls from the hands of doctors, medical students, and others interested in exploiting African American bodies for the benefit of science, medicine, or politics. His account also raises important questions about the sexton’s access to different forms of knowledge in his capacity as warden to the church’s cemetery—questions about his on-the-ground scientific training through his labor with corpses and skeletons and how such work possibly shaped his interests in fields like craniology and phrenology.

Curiously, Abdy goes on to undercut the sexton’s scientific authority and reliability as an informant by relaying “an amusing trick [the sexton played] against the late Dr. Paschalis—a physician in the city.” He recounts a scene in which Paschalis was pointing out to a small crowd those “peculiarities of form which he said distinguished the two races.”
The sexton then proceeded to walk up and present the “learned physiologist” with “a cranium from the cemetery under his care.”6 We then come to the heart of the sexton’s trick: the skull was “immediately pronounced [by Dr. Paschalis] to have belonged to a white,” but then, “the other [the sexton], who had taken off some hair that happened to be sticking upon it when he took it up, produced the woolly locks, and turned to laugh against the phrenologist.”7 In addition to questioning the expertise of the white physiologist while exposing the dubiousness of scientific claims that root racial difference in anatomy, the sexton’s joke makes a direct intervention into the discourse—and public performance—of racial science. The use of “against” twice in this short anecdote, as a trick played “against” Paschalis and the sexton’s laugh as directed “against” the doctor, also hints at the sexton’s oppositional use of craniology, pitted against racist science. After recognizing the sexton’s scientific knowledge and expertise, Abdy goes on to place him in the role of a “trickster.” This comic anecdote is thus also entangled with the history of minstrelsy, and it is worth pointing out that Abdy’s travel narrative was published in 1835, amid the growing popularity of minstrel shows in New York City and across the Northeast.

Despite the author’s attempt to discipline the sexton’s actions and appropriate his knowledge, the sexton’s joke ultimately escapes the disciplining grid of minstrelsy, revealing his trick to be a dead serious one. Stripped of Abdy’s trickster frame, the scene is recast as one of scientific exchange, in which an expert (the vernacular craniologist) presents alternative evidence (the skull) to another expert (the physician). Given these instabilities in the text, we might finally return to an important inconsistency in the passage: Abdy’s initial claim that the sexton believed there was “some difference between the European and African skulls.” By citing a black authority on skulls who supposedly believes in the anatomical differences between black and white people, Abdy authenticates his own position. However, the subsequent retelling of the craniological trick threatens to undo that very position, since the joke turns on the fact that the doctor is unable to tell the difference between a “white” and a “black” skull. The sexton’s laugh, cutting through the scene, ultimately confirms, not the “difference between the European and African skulls,” but rather the absolute absurdity of that position, as well as the program of research behind it. Moreover, through his craniological trick,
Paschalis is exposed as both a shoddy performer—unable to provide correct skull “readings” in public—and a quack scientist. Thus, while Abdy works hard to make the sexton ventriloquize his own theories, the text also briefly glimpses the sexton’s resistance to the use of his voice to authorize scientific racism.

This sketch of a black vernacular craniologist in the 1830s United States is part of a neglected story about race and science in the ante-bellum period. Historians have meticulously documented the regimes of scientific racism that emerged alongside the transition from natural history to comparative anatomy in the late eighteenth century.® However, in this same moment, the popularization of phrenology, anatomy, and physiology—as well as fields with no explicit connection to race science—created opportunities for African Americans both to critique racist science and to mobilize scientific knowledge in anti-slavery activism and adjoining forms of struggle. Natural science also provided a rich speculative terrain for African Americans in the period. *Fugitive Science* excavates this story, uncovering the dynamic scientific engagements and experiments of black writers, performers, artists, and other cultural producers who mobilized natural science and produced alternative knowledges in the quest for and name of freedom. Literary and cultural critics have a particularly important role to play in uncovering this scientific history since these engagements and experiments often happened, not in the laboratory or the university, but in print, on stage, in the garden, church, parlor, and in other cultural spaces and productions. Routinely excluded from institutions of scientific learning and training, black actors transformed the spaces of the everyday into laboratories of knowledge and experimentation.

As a concept and a window onto an alternative history, *fugitive science* is intended to accommodate a wide array of actors: professional and nonprofessional scientists, enthusiastic amateurs, eccentric experimenters, and wayward dabbler in many fields, from natural history and geology to astronomy, anatomy, and beyond. Fugitive science names a dynamic and diverse archive of engagements with, critiques of, and responses to racial science, as well as other forms of natural science. Fugitive science is not restricted to scientific practices by former slaves or fugitives in the act of escape, although those stories also find their way into this study. My definition of science is purposefully broad, and it
veers closer to “praxis” and “experiment” than to the specialized study of the natural world in institutional and academic contexts.

The very definition of science was capacious and flexible in early to mid-nineteenth-century contexts, and neither science nor medicine was professionalized in the United States until later in the nineteenth century. Across the early nineteenth century, science was legitimately claimed by a surprisingly broad range of practitioners and practiced in a number of nonacademic and noninstitutional spaces, from the parlor to the workshop, the church to the park. In this way, fugitive science refers to African American experiments with natural science, but it simultaneously describes the itinerancies and flexibilities of antebellum science more broadly. Thus, it is poised to intervene in the characterization and periodization of nineteenth-century science within the history of science. Fugitive science may not be completely reducible to the experiments of African Americans, but it is certainly the case that black interlocutors deployed fugitive science with the most sophistication and urgency in the period.

While the history of racial science is the story of knowledge built on the brutal exploitation of racialized subjects, it was not without its opponents. While scholarship that highlights “agency” and “resistance” has thoroughly shaped the study of slavery and its aftermath, accounts of racial science have been largely untouched by that model. Rather, the history of racial science has been understood primarily as one of unchallenged regimes of violent exploitation and near total subjection. This study is not interested in naively chronicling examples of resistance to racial science, but it does seek to tell a different story about race and science in the nineteenth century. Thus, it resists the “object” status of black subjects, doubly objectified as legal commodities under slavery and as frequent subjects of scientific exploitation, by focusing instead on the active practice of science by African Americans from the late eighteenth century through the coming of the Civil War. At the same time, black practitioners did not primarily use science to affirm their status as liberal subjects, as citizen(-scientists), or even, as white abolitionists would do for them, as fully human, though that fact sometimes served as the starting point for practitioners of fugitive science. More often, natural science served African Americans as a springboard for complex meditations on being, subjectivity, and existence. Fugitive science both
aspired to and enacted freedom in terms that challenged possessive individualism just as often as it asserted that black people were not, in fact, objects, but people. More than simply establishing the fact of black humanity, African Americans used natural science to profoundly meditate on the category of the human itself—on its possibilities, limits, and its complex relationship to blackness, a concept that exceeds a simply biological or even transparently empirical relationship to race. Fugitive science is thus what Michel Foucault calls a “counter-science,” a form of knowledge that “unmake[s]” the very human who is “creating and recreating his positivity in the human sciences.”

While working with an expansive definition of science that both reflects the diversity of nineteenth-century science and accommodates the many different ways in which African Americans engaged with science, I do not use pseudoscience to describe any of the fields discussed in the book since that term obscures the emergence of scientific fields out of nonscientific contexts as well as the processes by which those fields are legitimated as science. Too often, the term pseudoscience has been used to detach natural science from its nonscientific contexts, its roots in popular science, and its indebtedness to lay and folk knowledge. For example, while phrenology is today considered a pseudoscience, in the early and mid-nineteenth century, it was a legitimate and respected field that both relied on and contributed to developments in comparative anatomy. Phrenology also anticipated key concepts in early brain science, including the idea that localized sections of the brain correspond to particular faculties. Just as “quackery” was used in the nineteenth century to distance university-trained doctors from supposedly antiquated forms of lay practice and healing, the deployment of pseudoscience tries to imagine a scientific present unencumbered by an embarrassing scientific past.

Perhaps even more problematically, the term pseudoscience routinely works to exclude both nonprofessional and non-white practitioners from the field of knowledge production while discrediting valuable knowledge systems of the indigenous and the enslaved, including conjuring, astrology, and other forms of mysticism. Susan Scott Parrish has traced the significant role played by enslaved and indigenous peoples, as well as Anglo-American women, in the production of British metropolitan scientific knowledge about the New World in the seventeenth
and eighteenth centuries. Because of the Baconian method’s emphasis on repeated, accreted observations, experts in native environments were particularly valuable to British scientists, gentlemen travelers, and amateur naturalists who had no prior knowledge of the flora and fauna of the Americas. Parrish reveals that New World subjects were not simply exploited objects of British science and natural history, but were active agents who regularly used their technical expertise and knowledge about local environments to negotiate, navigate, and resist British encroachment on their lands and control of their bodies. Moreover, she reveals black and indigenous knowledge production in the New World to be central to the “discoveries” of the Scientific Revolution in the seventeenth century.  

Following Parrish’s understanding of black and indigenous knowledge production as a crucial, animating force of the New Science, I consider a number of fields, from phrenology and mesmerism to conjuring and astrology, as legitimate knowledge systems since they were valued and taken seriously by the writers, intellectuals, and performers under discussion. Early African American practitioners repeatedly questioned the very definition of science, radically expanding its borders while presenting themselves as vital scientific agents who had the power to manipulate and experiment with the objects of the natural world.  

_Fugitive Science_ focuses on a set of early African American writers, visual artists, and performers—some canonical, others lesser known—who participated in scientific debates, conducted eccentric experiments, and incorporated science into their writings and performances. Some of these figures were interested in building evidence and crafting arguments against racist science, while others were interested in how sciences with no particular connection to the science of race could be used to enact a radical concept of freedom. Examining the rich cross-fertilizations between natural science and early African American writing, _Fugitive Science_ chronicles early African American and Afro-Native writing as a response to the racism of the American school of ethnology; the influence of astronomy on Martin Delany’s serial novel _Blake; or, The Huts of America_ (1859–1862); Frederick Douglass’s reprinting and repurposing of scientific texts; the scientific-artistic cultures of black women’s education in antebellum Philadelphia; and the use of popular science in transatlantic abolitionist performance cultures. It stitches together a dy-
namic genealogy of African American science writing in the antebellum period and chronicles the influence of natural science on the origins of African American literary production. In what follows, I resituate racial science within its Atlantic and extra-institutional dimensions in order to clear a space for fugitive science in the existing historiography, outline the import of fugitivity and empiricism for this project, and provide an overview of the book’s trajectory and archive, as well as—to follow Kevin Young’s concept of the “shadow book”—the “shadow archives” of enslaved and working-class science that existed alongside the scientific production of black intellectuals in the US North and in transatlantic spaces.16

Atlantic Race Science

Although written accounts of physical differences among humans have their origin in classical antiquity, such theories were not used as ideological artillery in the defense of slavery in any sustained way until the eighteenth century. The modern science of race emerged alongside the spread of European imperialism, the rise of the slave trade, and the emergence of the Scientific Revolution in the seventeenth century. It secured its status in the eighteenth century under the auspices of natural history. During that period, European naturalists began to include the “varieties” of man in their taxonomies of animal and vegetable life. In *Systema Naturae* (1735), Carolus Linnaeus turned his binomial taxonomic system to the categorization of humans, defining five discrete races based on skin color and geographical origin. Among Europeans in the age of natural history, climatic, monogenetic theories of race prevailed: all humans were believed to be descended from Adam and Eve, but different races developed over time because of exposure to varying geographic climates. Climatologists presented a surprisingly flexible conception of race in their belief that the lower races could become more “white” and hence more civilized over time. Theories of monogenesis, which upheld scriptural authority on the unity of the races and viewed the “lower races” as degenerations of Caucasian peoples, prevailed in the early republic of the United States, and were the topic of major treatises like Samuel Stanhope Smith’s *An Essay on the Causes of the Variety of Complexion and Figure in the Human Species* (1787). The prominent
physician Benjamin Rush also subscribed to the theory of racial degeneration, arguing that blackness was produced by leprosy, and since it was caused by a degenerating disease, he believed that blackness could be “cured.” While the monogenetic theory of race maintained the unity of humankind and spoke of the eventual elevation of all races, it was marred by a deep condescension toward the “lower” races, the equation of whiteness with civilization, and the belief that blackness was produced through climatic degeneration.

Comparative anatomy became an attractive tool for categorizing and managing a motley population of European settlers, indentured servants, Africans, and Native Americans in the early republic. The transition from natural history to comparative anatomy had a dramatic influence on the classification and ordering of the races, making fungible, yet highly problematic, racial categories increasingly rigid and hierarchical. Martin Bernal observes that the “period from 1800 to 1850 in general was one of intense activity to find anatomical bases for the racial differences which every cultivated European ‘knew’ existed.” By the early nineteenth century, ideological presuppositions motored scientific investigations into race, and this was especially true in the United States. In the 1830s, racist, polygenetic theories—forwarded and promoted by a zealous group that Stephen Jay Gould and other scholars have called the American school of ethnology—began to gain traction amid anxieties over the rise of the abolitionist movement and the strengthening political mobilization of free black communities in urban areas across the Northeast. Departing from the theories of climatism and monogenesis that were dominant during the early national period, the polygenetic theory of the separate and unequal evolution of the races gained influence throughout the 1850s as a justification for the institution of slavery as well as the political disenfranchisement of free African Americans. Polygenetic theories of creation, which asserted that the races were different types of humans produced by separate divine creations, were buttressed by investigations in comparative anatomy that sought to explain differences among racial groups through the comparison of anatomical structures. Placing Caucasians at the apex of the evolutionary ladder, peoples of African descent were figured as physiologically and intellectually inferior to whites. While natural history mapped out geographical and environmental influences on morphology, comparative anatomy went deeper, seeking out the sources of
human difference and inequality in internal structures of the body that remained unseen to the untrained observer.

Katy Chiles has written about the surprising flexibility of race in eighteenth-century racial theory: a wide range of texts, both literary and scientific, featured scenes in which subjects could actually change their race. Such scenes of “transformable race” are almost unimaginable within the scientific regime of ossified racial categories and anxiety over miscegenation that would come to define the nineteenth century. In the early national period, scientific theories of race were also just as interested in the origins and descent of the country’s indigenous population as they were about an exponentially growing population of African captives. Works like Samuel George Morton’s *Crania Americana* (1839), which focused on the cataloguing of indigenous skulls from North and South America, both contributed to and were embedded in a popular obsession with Native American life and culture among Anglo-Americans, who were interested in making grand generalizations about “Indian character” at the same as they obsessed over the differences among tribes and nations.

Anglo-Americans flirted with models of Native incorporation while they feared becoming Black, and this dynamic shaped the theorization of race across the epistemic divide between natural history and comparative anatomy. From the beginning, Anglo-American settler-colonists were more confident in their ability to contain and assimilate Native Americans into the national body politic (and later, of separating them from it). Early national racial theory also engaged in a comparative ethnology, a discourse that contrasted and hierarchized “Blacks” and “Natives” against one another. For example, Thomas Jefferson’s *Notes on the State of Virginia* (1785, 1787) enquires into the state of race in the new nation by contrasting the faculties and capacities of Africans and Natives. Like uses of ethnology for pro-slavery agendas as well as various efforts aimed at restricting the rights of African Americans who were not enslaved, ethnological investigations of Native peoples helped to justify regimes of violence and dispossession at the hands of the US government. But ethnology focused on Native peoples never reached the ideological power of anti-black ethnology, and as Sean Harvey notes, Native ethnology was largely rooted in arguments about linguistic rather than biological difference. With the “Indian problem”
supposedly solved through the large-scale displacement of indigenous peoples by mid-century, racial science largely left behind its roots in comparative ethnology to fully commit to anti-Black theories that had political expediency in the struggle over slavery’s future in the US South. A quick glance at Charles De Wolf Brownell’s The Indian Races of North and South America (1854), published the same year as Josiah Nott and George Gliddon’s Types of Mankind, reveals the differences between ethnological approaches to African and Native peoples by the 1850s. While Nott and Gliddon’s Types of Mankind (1854) contains countless characterizations of the degeneracy of Africans and Afro-diasporic peoples, especially when these groups mixed with other races, The Indian Races of North and South America proceeds largely as a quaint ethnographic account of Native customs and habits. Another way to understand this distinction is to say that if Africans had no history and were forever relegated to their “primitive” physicality in an eternal present, Native Americans had only history and were an always disappearing people forever relegated to the past.

Although scientific defenses of slavery were widespread in the South, especially during the 1850s and early 1860s, the production and circulation of racial science was neither insular nor regional in scope. In his foundational study, The Mismeasure of Man (1981), Stephen Jay Gould reminds readers that the major advocates of polygenesis were classed together as the American school of ethnology by European scientists and polygenesis was itself celebrated as the first truly “indigenous” scientific theory to emerge from the young nation. However, the so-called American school cannot be reduced to a distinctively Southern or even national science since this school and its polygenetic theories emerged out of a series of transatlantic networks and avenues of exchange. Throughout the nineteenth century, the American school of ethnology was part of a network of scientists, theories, and experiments that spanned the globe and were conducted in places including Latin America, the Caribbean, Western Europe, and North and West Africa.

The leading figures of American polygenesis were not Southern, and in some cases, not even American. Gould points out that many of the Southern figures associated with the movement, including the Louisiana physician Samuel Cartwright, were actually considered fringe figures in their own time. The most important publications in the field, includ-
ing Samuel George Morton’s *Crania Americana* (1839), as well as Nott and Gliddon’s *Types of Mankind* (1854), which sought to popularize and extend Morton’s writings after his death, were published in the North. These texts were actually not widely cited by Southerners because of polygenesis’s rejection of scriptural teachings on the creation. Furthermore, pro-slavery arguments rooted in experimental science were primarily produced in the North and in Europe. Louis Agassiz, the most famous “American” race scientist of the period, was a Swiss immigrant who first came to the United States from France in 1846 to deliver the Lowell Lectures at Harvard, where he then became a professor geology and zoology in 1848. His notorious photographic experiments with Southern plantation slaves were part of transatlantic investigations into the “races of man” that also brought him to Brazil in 1864, at the close of the Civil War, to observe “the natives” in a desperate attempt to refute Darwinian evolution and its upholding of monogenesis.

Thus, even as it was used to affirm the sectionalist aspirations of the US South, nineteenth-century racial science was embedded in the production and circulation of scientific ideas and experiments across the Atlantic World. Scientific knowledge about the Black as well as the Native American body was produced and circulated through channels of expertise, collaboration, and exchange that flowed between the North and the South, especially between two major scientific metropoles in the United States: Philadelphia and Charleston. Moreover, these North-South exchanges were embedded in a larger transatlantic network, which linked Philadelphia, Charleston, Boston, and even Mobile, Alabama, to scientific metropoles like Edinburgh, London, and Paris, as well as to European colonial outposts in the Pacific, Caribbean, and South America. Darwin’s *Voyage of the Beagle* (1839) is perhaps better than any other work of nineteenth-century natural history in showing how ethnological and proto-evolutionary science was produced through the networks of European imperialism and the slave trade itself. American race science was also influenced by a growing cultural obsession with Egypt, which was opened to Western scientists, adventurers, and archaeologists after the Napoleonic campaign in Egypt in 1799. The first modern excavation of an ancient sphinx occurred in 1818, and Americans and Europeans would continue to pillage Egyptian sphinxes, tombs, and other sites for decades to come. In this way, nineteenth-century racial science was in-
debted not only to earlier histories of European colonization in the New World, but also to ongoing forms of imperialism and conquest in places like North Africa.

Important variations in racial science also existed between different settler-colonial societies in the Americas. For example, theories of race developed differently in Brazil’s complicated colonial context. Science in the Deep South and in the Caribbean often resisted the anthropomorphism of ethnology and comparative anatomy, pointing instead to the porousness among humans, animals, and plants in the American “tropics.” Although rarely acknowledged in their work, European and Anglo-American naturalists most certainly learned about indigenous and African theories of creation and group identity. Finally, Native Americans and Africans reconceptualized theories of their own origin, descent, and ancestry in the wake of the slave trade, Native removal, and other forms of racial dispossession and forced migration.

The reorientation of US racial science as a deeply Atlantic science not only illuminates a more global and diverse network of experiments, theories, and practitioners, but also counters the misunderstanding of these sciences as nothing other than hegemonic mouthpieces for the state. Racial science was actually composed of a wide variety of scientific fields, including comparative anatomy, craniology, phrenology, and ethnology, along with mesmerism, magnetism, and geology. Approaching racial science through its many subfields, including those usually associated with popular science rather than racial science, reveals a new set of interlocutors who regularly engaged in scientific debates and countered the tenuous claims, in Douglass’s words, of “the Notts, the Gliddons, the Agassiz[es], and Mortons.” Moreover, by the 1850s, racial scientists were touting their autonomy from the closed circuits of academic institutions. In the preface to their second edition of Types of Mankind (1857), Nott and Gliddon go so far as to present theirs as a science issued “from the people,” a noninstitutional, populist science dis-identified from the nation-state:

The frank concurrence of Messrs. LIPPINCOTT, GRAMBO & Co. has removed every obstacle to effective publication: and thus, through the liberality and thirst for information, so eminently characteristic of American republicanism, “Types of Mankind,” invested with abundant signa-
tures, issues into day as one among multitudinous witnesses [showing] how, in our own age and land, scientific works can be written and published without solicitation of patronage from Governments, Institutions, or Societies; but solely through the co-operative support of an educated and knowledge-seeking people.  

Nott and Gliddon’s presentation of polygenesis as a noninstitutional science is important, even if it is an exaggerated claim, since it illuminates the ways in which racial science was largely a popular science disseminated through the print sphere and emerging forms of mass culture. The popularization of racial science clearly unleashed a set of harmful racist theories among the masses and contributed more generally to the pathologizing of both enslaved and free African Americans and other subjugated groups, including Native Americans, as well as some white ethnic groups. But at the same time, the wide dissemination of race science through pamphlets, newspapers, lectures, theater, and other performance venues opened the field to an unlikely set of actors who not only critiqued scientific racism, but also constructed their own anti-racist science.

The noninstitutional status of racial science in the antebellum period thus produced horizontal networks of circulation and exchange that linked racist science and anti-racist critique. Publishing histories provide further evidence of overlapping circuits of dissemination, circulation, and reception. For example, when Douglass’s speech on “The Claims of the Negro, Ethnologically Considered,” a vicious attack on the American school of ethnology, was printed as a pamphlet in 1854, it entered the same popular print sphere as Nott and Gliddon’s just published *Types of Mankind*. Both “Claims of the Negro” and *Types of Mankind* were printed with easy and wide circulation in mind. In other words, black responses to ethnology often circulated in the same publishing and lecture circuits as ethnology itself. The popularity of race science allowed African Americans to regularly intervene in the field and change the terms of debate.

The Atlantic dimensions of racial science, especially the global discourse of race in ethnology, were also mobilized by David Walker, Frederick Douglass, Martin Delany, and later, Pauline Hopkins, to develop a rich diasporic imaginary. In addition to creating a global
imaginary of emancipation, the transatlantic dimensions of racial science allowed black interlocutors to forge more material connections to industrial workers outside of the United States (see Chapter 3 on Henry Box Brown’s performances in England). Ironically, the transatlantic networks mapped out by ethnologists in the defense of slavery became central to the articulation of an anti-racist science oriented toward transatlantic racial solidarity and the global abolition of slavery.

The rise of racial science under the banner of comparative anatomy was also part of a broader period of scientific discovery in the early nineteenth century. Thomas Kuhn argues that this period witnessed a second scientific revolution, which included paradigm-shifting developments in a number of scientific fields and broader technological transformations that were part of the industrial revolution. Abetted by technological improvements and the widespread uptake of Baconian, or empirical, methods, the second scientific revolution included the growth of geology, modern chemistry, and biology, alongside important developments in the study of electricity, heat, and magnetism. Natural science, which includes the five branches of science that investigate the natural world—biology, astronomy, earth science, chemistry, and physics—provided, in the words of Ian Frederick Finseth, rich representational “affordances” to anti-slavery activists and thinkers. While white abolitionists tended to ignore science or simply rejected racial science’s claim that Africans were not human, African Americans largely embraced the “new sciences” of the early nineteenth century, including fields that overlapped with racial science. They often made careful distinctions between the biased science of race and science as a whole, and put natural science to work in various practical, experimental, and speculative contexts. Throughout this book, “racial science” is usually interchangeable with “racist science,” though practitioners of fugitive science held out hope that a science of race could be forged that was unburdened by white supremacy.

Empiricism and Freedom

This book’s capacious definition of science is meant to capture the Atlantic currents of racial science, to match the diversity of scientific practice
before professionalization occurred later in the nineteenth century, and to accommodate the many different ways that African Americans produced knowledge in the period. *Fugitive Science* dovetails with more recognizable efforts at uncovering “African Americans in science,” but it also suggests a less familiar trajectory of ambitious but obscure experiments, of knowledges tried, frustrated, and aborted, and of scientific practices that cannot be accommodated within narratives of black professionalization and upward mobility.

In some ways, antebellum science seems a world away from the production of science in our own moment, deeply embedded as it is in global capital and the neoliberal university. At the same time, this is a period when natural science starts to look closer to what we in the twenty-first century also recognize as science. While in earlier centuries science (as scientia) referred to knowledge writ large, the nineteenth century witnessed the narrowing of science to those empirically driven fields engaged in the investigation of the natural world. That transition is reflected in the fact that *scientist* entered the English lexicon sometime around 1830. Science in the nineteenth century is thus a transitional and fraught category. Similarly, while antebellum racial science can seem antiquated and obsolete from a twenty-first century perspective, it was at the absolute center of a new regime of knowledge organized around the human that emerged in the period, one that continues to shape contemporary structures and institutions of knowledge. Today, racial science is being reanimated under new forms of appearance, especially in population genomics and other fields that investigate human difference, at the same time as it is wished away as a relic of an embarrassing past. In his 1919 essay, Sigmund Freud describes the uncanny (*unheimlich*) as “that class of the frightening which leads back to what is known of old and long familiar”; the uncanny registers a return of the repressed. The history and present of racial science are rife with such hauntings of earlier, repressed histories, especially eugenics. In this way, the characterization of racial science as a pseudoscience might also be understood as a disavowal of the uncanny feeling it exerts on the present.

Linked to its expansive concept of science, *Fugitive Science* works with a broad definition of empiricism, one that is related to but not reducible to science itself. More specifically, it seeks to theorize em-
piricism and fugitivity together, as concepts that are individually situated in the history of science and philosophy and in African American studies, respectively, but also share important points of intersection and overlap. In recent years, fugitivity and the attendant category of the fugitive have been rich sites of theorization for scholars of black literature and culture. This concept signifies in diverse and sometimes divergent ways for different scholars, whose studies address unique contexts and forms, including law, performance, poetry, visual culture, music, and the slave narrative tradition. Taken collectively, this body of scholarship makes a number of important contributions. First, it challenges grand emancipation narratives, showing the many similarities between the age of slavery and the age of emancipation. Second, it reveals fugitivity to be a practical, philosophical, and artistic method deployed both before and after Emancipation by people enslaved, fugitive, and nominally free. Third, it unhinges black escape from the grip of criminality, transforming “the fugitive” from solely a criminal or legal category to a kind of radical comportment to the world, a subterranean politics and furtive insurgency against both the Southern slaveholding power and Northern liberalism that does not necessarily end when one successfully escapes from slavery or when slavery is legally abolished. Finally, fugitivity names a critical method, or a particular mode of study that experiments with new ways of reading and analyzing texts and contexts from the nineteenth century to the contemporary moment.

Fugitive science stitches together two perhaps unlikely concepts, emerging at the intersection of scholarship on fugitivity and the theorization of minor science in the philosophy of Gilles Deleuze and Félix Guattari. Looking back to the privileging of heterogeneity, becoming, and “flux as reality” in the ancient atomism of Lucretius and Democritus (an atomism echoed in Martin Delany’s writings on astronomy), Deleuze and Guattari affirm the existence of an “eccentric science” that “seems very difficult to classify, whose history is even difficult to follow.” This eccentric science is a “minor science” that rejects the theorems, metrics, and categorizations of state science. Minor sciences refuse to count or to be held accountable. They “pose more problems than they solve”: problematics are their only mode. Minor science proceeds by a radical empiricism that, instead of selecting and reducing experience into
static epistemological categories, works to *amplify* experiences and build ever-proliferating connections and relations. State science captures and appropriates minor science, but minor science, which also goes under the name of “nomad” and “itinerant” science for Deleuze and Guattari, continually escapes the sovereignty imposed on its inventions. While state science establishes itself as a rigid and autonomous domain, minor science is constantly on the move, linking up nonscientific collectivities, marking and extending a territory, and tracing a line of flight. In other words, minor science is animated by the praxis of fugitivity. Oriented toward ongoing experiments in mapping, movement, and escape, minor science might also go under the name of fugitive science.

Fugitive science thus illuminates a history of science on the move in the antebellum period, a furtive, subterranean history of experiments and practices that both linked racial science to abolitionism across the Atlantic and mobilized popular science in more fleeting acts of resistance. Excluded from the ranks of professional science, the popular stage also became a key space upon which African Americans challenged the ascendancy of racial science, while enacting a fugitive science—a furtive science and praxis—that suggested ways that a wide array of popular sciences might be linked to emancipation struggles.

Across this study, I categorize three forms of fugitive science: oppositional, practical, and speculative. *Oppositional forms of fugitive science* are composed of explicit critiques of racial science that aim to make a direct intervention into scientific discourse. *Practical fugitive science* seeks to “instrumentalize” science and technology in the struggle for emancipation, as, for example, in the widespread promotion of the compass as a trusty tool for slaves escaping slavery. Finally, *speculative fugitive science* uses the rich imaginative landscape of science to meditate on slavery and freedom, as well as the contingencies of black subjectivity and existence. This speculative tradition is interested in large, existential questions about the self, the world, and the cosmos and may not explicitly reference race at all. Frederick Douglass’s 1854 speech “The Claims of the Negro, Ethnologically Considered,” is an excellent example of oppositional fugitive science since it takes shape through a direct critique of racist ethnology. Martin Delany’s writings on astronomy display the deep philosophical and existential dimensions of the speculative tradition of fugitive science. And David Walker’s surprising treatment of
Jefferson’s *Notes on the State of Virginia* as a book to be both reviled and studied, as well as his transformation of Jefferson’s text into a tool of emancipation, like the compass, reveals the practical genealogy of fugitive science. Walker’s *Appeal to the Coloured Citizens of the World* (1829) was a text written out of necessity and social contingency, not a writerly practice of slow meditation and expression. It is itself a practical tool that begs to be thrown into the cogs of slavery. This fact raises important questions about what kinds of critical reading practices best attend to the complexities of early African American texts, which were produced under conditions of urgency and contingency. Following John Ernest’s theorization of early African American writing’s emergence out of highly unstable social and political contexts, *Fugitive Science* experiments with a reading method that attempts to run alongside and keep up with the frenzied and dynamic experiments of early black writing and performance.45

The fugitive history of empiricism thus offers new materialist approaches and critical reading practices to both black science and literature. Through fugitivity, science emerges as a dynamic domain of practice, stretching from scientific to artistic domains. And practice shifts our attention to the various actions and activities of the oppressed that were excluded from politics proper in the contexts of enslavement and its aftermath. *Practice*, in Saidiya Hartman’s terms, marks a subterranean, insurgent politics “without a proper locus,” a politics that questions what has been recognized as the political in the contexts of liberalism and racial subjection.46 Forcibly removed from the polis—the space of rights, recognition, and personhood—the resistances of the enslaved and the disenfranchised often register in seemingly nonpolitical domains. Practice thus turns our attention to the diverse forms of what Paul Gilroy calls, following Ralph Ellison, the “politics of a lower frequency,” or what we might term, following Bruno Latour, a “politics by other means.”47

Furthermore, a focus on practice shifts the history of empiricism from one unduly focused on the production of knowledge to one constituted by ongoing, active experiments. This study is particularly interested in the various *uses* of science that are made en route to the production of knowledge. For example, enslaved and indigenous peoples regularly used scientific expertise and knowledge about local environments to ne-
gotiate relationships with colonial agents, to gain political power, and to increase agency in the contexts of enslavement and colonialism. While empiricism is traditionally defined as a theory of knowledge production that emerges from repeated sensory experiences, work by Deleuze as well as theorists of feminist standpoint theory has outlined ways of thinking about empiricism that instead highlight its role in the construction of subjectivity itself. In his 1952 book on the philosophy of David Hume, *Empiricism and Subjectivity*, Deleuze argues that while empiricism is normally understood as the use of experience and observation to solve a problem or reach a final conclusion, the empirical method, in its continual process of shuttling back and forth between experience and its theorization, interminably posits and reiterates the very problem of experience. In so doing, Deleuze transforms empiricism from a theory of knowledge to a theory of subject formation. Empiricism finds us always in the middle, in a line of flight or a line of escape—at the level of praxis and ongoing experiments—in the material realm of sensation and subjectivity rather than in the metaphysical plane of knowledge production. Such an approach necessarily widens empiricism from a narrow method within the sciences to include a broader set of experimental practices and modes of becoming in the world. In Deleuze’s terms, empiricism is a nomadic practice. As a method that depends on sense perception, continual observations, and a mobile, searching orientation toward the world, there is indeed something fugitive about empiricism itself.

Fugitive science makes good on the active experimentalism of experience that lies at the heart of empiricism: it reanimates the Latin sense of experiment, *experior*: to test or to try. Instead of hardening observations and trials into theorems and facts, it tarries in the multitude of experience, continually poses problems (for the state and the state of slavery), and transforms the passivity of knowledge production into the activity of invention. Fugitive sciences are ongoing experiments in freedom, radical empiricisms.

In addition to opening up the contours of nineteenth-century science, fugitive science transforms our understanding of black cultural production in the Atlantic World. Indeed, scholars have been perhaps too apt to suggest a rigid divide between cultural and scientific production during the period, obscuring, for our purposes here, rich genealogies of black engagements with natural science. Fugitive science, as critical geneal-
ogy and as method, turns our view to a concept of experimentation that traverses African American science, art, and physical expressivity. This then, is finally an appeal for new, transdisciplinary, and perhaps also undisciplined approaches to the study of black literature and culture, approaches traversing traditional divides between the natural sciences, the social sciences, and the humanities in order to excavate neglected genealogies of experimentation across the Black Atlantic. By taking science more seriously in African American studies, and by recognizing the dynamism of natural science in the antebellum period, new light may be shed on the origins and contours of early African American cultural production, particularly the permeable boundaries of and surprising cross-fertilizations between what we today rigidly categorize as “art” and “science.”

A fugitive understanding of empiricism also helps to illuminate experimental aesthetic practices like assemblage, collage, and juxtaposition, which populated the antebellum African American print sphere. For example, William Wells Brown’s *Clotel; or, The President’s Daughter* (1853) liberally lifts material from Lydia Maria Child’s “The Qua-droons” (1842), published slave narratives, newspaper accounts, and abolitionist tracts. In the context of fugitive science, *Clotel* comes alive as a deeply experimental novel, a collage of different texts and contexts that draws on the Baconian method in its incorporation and accumulation of different factual sources and forms of empirical evidence. In the final chapter, Brown notes that he composed his novel by reading widely and drawing on his own experiences as well as the experiences of other fugitive slaves he encountered during his travels. He then, in his words, “combined” these sources in order to make his own story. Brown’s daring experiment in “combination,” in searching out and gathering together a number of different sources and texts, animates the sense of fugitivity that lies at the heart of empiricism. “Combination” echoes both the method of empiricism and a nineteenth-century language of seditious gathering with the intent to revolt: fugitive science stands at that very intersection, at the cross-section of science and struggle. Ultimately, nineteenth-century fugitive science and literature activated the radical implications of Francis Bacon’s motto for the empirical method, drawn from Daniel 12:4: “Many shall run to and fro, and knowledge shall be increased.” In so doing, empiricism
was loosed from the grasp of antebellum racial science, linked to a radical politics of fugitivity, and set to work in the struggle for emancipation, a struggle that included but also exceeded the abolitionist movement.

Fugitive Science and Fugitive Literature

Recent scholarship has invigorated the study of African American literature before the twentieth century. This work includes studies that employ a book history approach, theoretical work on the significance of the return to the compromised and fragmented archives of slavery and freedom, burgeoning interest in race and nineteenth-century visual culture, and explorations of the dynamic relationship between black performance and literature.55 Studies of early African American print cultures, of literacy in its various forms (including alphabetic, oral, and social), of black literary societies and periodical cultures have all suggested that rather than further narrowing our definition of what counts as African American literature, scholars should be radically ramifying the definition of “literature” itself to accommodate all of the forms of writing and print with which people were engaged, from pamphlets and newspapers to broadsides and common-place books. This work is also drawing attention to African American editors, printers, compositors, engravers, illustrators, book-sellers, subscription agents, and the many others actors involved in the processes of print production, distribution, circulation, and reception.56 Both Elizabeth McHenry and Eric Gardner note that for African Americans in the nineteenth century, “literature” referred not just to fiction and other forms of imaginative prose, but to a wide variety of genres.57 Fugitive Science builds on this scholarship by revealing science writing to be a key genre of early African American print culture. In periodicals and newspapers, for example, scientific treatises routinely appeared alongside serial novels, short stories, and poetry, producing a dynamic space for cross-fertilization and exchange between literary and scientific texts.

In addition to chronicling the productive interanimation of black literary and scientific production across the antebellum period, Fugitive Science recovers a variety of neglected scientific writings in the early African American print sphere, while restoring some better-known