CHAPTER FOUR
Anatomizing Race

It was not only the living Black body that Northern white medical men appropriated in their wartime pursuit of racial knowledge. The war's violence—as a military conflict, as a medical catastrophe, as an armed assault on a slaveholding republic—yielded a bounty of corpses. White medical personnel eager to take advantage of the wartime bounty of cadavers would claim, dissect, and disassemble thousands of Black war dead, both soldiers and civilian refugees from slavery. Regimental and contract surgeons, hospital stewards, and other medical employees performed tens of thousands of post-mortem examinations on soldiers and civilians, Black and white, who died from wounds and disease. The war abruptly expanded access to hands-on anatomical knowledge, regarded as the hallmark of medical professionalism.\(^1\) During the war as before it, surgeons and hospital workers made ample and focused use of the human remains of African Americans.

Prior to the war, dissection was central to the best medical training.\(^2\) As historians of medicine have noted, the medical autopsy was critical to the advance of medical knowledge, especially knowledge about anatomy and the disease process. By the time of the war, both autopsy and dissection were key research tools, not only for the anatomical knowledge and the experience gained in the technical disassembling of a cadaver, but also for the insight it allowed into pathological processes.\(^3\) For this reason, before the war many aspiring American physicians traveled to Europe for training, where clinics and hospitals were both more numerous and offered freer access to cadavers. In the nineteenth-century United States, cadavers were in short supply and therefore a commodified resource. They were typically secured, usually illicitly, from among marginalized populations who could not demand the dignity of respectful repose in death—executed criminals, paupers, individuals buried in Black cemeteries, and the impoverished and unfortunate who were unable to afford proper burial.

Southern anatomists relied primarily on cadavers of the enslaved, which were also trafficked to Northern medical schools.\(^4\) Historian Daina Ramey Berry, more than any other scholar, has revealed the commodification of enslaved people's human remains, the "ghost value" that slave owners and white medical practitioners extorted from the bodies of the
formerly enslaved. Michael Sappol has similarly noted a commercial trade in Black cadavers shipped South from Northern cities. Antebellum whites, who viewed the desecration of white burial yards and human remains with horror, turned a blind eye toward the targeted exploitation of Black human remains and cemeteries by body-snatchers and medical colleges.

The war’s abundance of death tragically and dramatically transformed access to the single commodity that marked the authority and experience of the penultimate medical professional. However, the wartime and post-war drive to explore the bodies of deceased African American soldiers and refugees from slavery was about something more complicated. Before the war, comparative anatomy typically focused on the exterior surface and appearance of the human body (with the exception of craniology). As the independent scholar Molly Rogers noted in her study of Louis Agassiz and his collection of “ethnological photographs” of African-born enslaved South Carolinians, “Looking, . . . was more important than cutting” when it came to the antebellum science of race. The war changed this. Some white medical practitioners appropriated and exploited African American bodies in pursuit of racial knowledge; others were motivated by opportunism—the availability of cadavers that whites deemed undeserving of dignity was an exploitable and valuable resource. However motivated (and motivations are rarely preserved in the archive), the disregard for Black human dignity was predicated on long-standing and popular practices of whites exploiting, objectifying, exhibiting, commodifying, and displaying Black bodies, particularly as ethnological specimens.

The display of living people and human remains was popular in the nineteenth-century United States and in Europe, and a means by which white audiences—professional and lay—could imagine themselves as astute observers of human difference. It was also a source of spectacle, of white pleasure and entertainment that was popular and widely practiced in print, on the stage, at learned talks, and in museums, circuses, and other venues. Britt Rusert argued that the visual archive of racial science was historically critical to its popularity. In the 1830s and 1840s, that archive was largely found in popular culture rather than in scientific texts: it appeared in joke books, broadsides, illustrated print forms, and ephemera emerging from the culture of minstrelsy. Rusert also has argued that shows—such as the freak show and the minstrel show—were “staging grounds for exhibiting human difference and making the supposedly deep and essential differences of African American bodies hypervisible on the antebellum stage.” This complemented
the popular anatomical lecture, the hospital operating theater dissections, and the display of specimens at fairs, museums, and zoos.\textsuperscript{11} Non-white people were used as objects of display. So, too, were people of any race perceived as “freaks”: the diseased, disabled, or disfigured.\textsuperscript{12} Black women—African and African American—were particularly fascinating to the white gaze, whether veiled in scientific authority or not. Joyce Heth, only one of P. T. Barnum’s many acts that exhibited Africans and African Americans as curiosities, was displayed by Barnum both as an unusually aged living person but also after her death. Like Saartjie Baartman, Heth would be dissected and anatomized, her human dignity rendered insignificant in light of the entertainment value that could be extracted from her human remains, at the crossroads of racist science and racial spectacle.\textsuperscript{13} According to historian Benjamin Reiss, 1,500 people paid fifty cents each to attend the autopsy performed on Heth, an audience that included medical students, newspaper editors, and clergymen, among others.\textsuperscript{14} The display of living people and their human remains was popular in the nineteenth-century United States and in Europe as a means by which white audiences—professional and civilian—trained themselves as astute observers of human difference and the racist ideologies that transformed difference into ranking and hierarchy.

The antebellum commodification of medical specimens, created without consent and used for personal or professional profit, played a role here as well.\textsuperscript{15} By the eve of the war, the visual representation of what whites viewed as racialized bodies began to serve not only a white visual culture of amusement, repulsion, and entertainment, but also as a scientific endeavor that was increasingly comparative and dedicated to validating the role of science in defining race and illuminating racial hierarchy.\textsuperscript{16} The bodies of the enslaved had long been commodified, whether alive or dead; we cannot expect white medical practitioners to have divorced themselves from the practices they had participated in and been accustomed to once the war began.\textsuperscript{17}

These practices fueled the wartime developments explored in this chapter. In his Circular No. 2, issued in 1862, Surgeon General William Hammond encouraged all Union surgeons to forward specimens for the newly created Army Medical Museum in an endeavor to document the medical history of the war and advance medical knowledge in the nation. Autopsy reports, specimens, and artifacts were all encouraged with the surgeon general’s assurances that the donor would be publically acknowledged both in museum displays and the museum’s printed catalogues. Just as survey respondents gained authority as experts in pursuit of racial knowledge, so did those who contributed to the museum’s collections.
In this context of racialized spectacle, vulnerability, and the commodification of Black bodies, this chapter considers military body-snatching, the anatomization of Black soldiers and civilians during and immediately after the war, and the different purposes associated with the dissection and anatomization of Black human remains.

Race and the Exploitation of the War Dead: Soldiers

The wartime interest in and commodification of the human remains of Black soldiers suggests a blurring of the distinction between autopsies (performed on subjects to ascertain cause of death) and dissection (performed on objects to gain anatomical knowledge). It also set apart the interests of the U.S. Sanitary Commission (USSC) (concerned with the living bodies of Black soldiers) from those of the army (which quickly became as interested in the dead as in the living). The surgeon general requested careful case notes from military surgeons detailing medical treatments as well as postmortem reports from autopsies in the effort to document the unique medical history of the war—especially the carnage created by modern weaponry. Historian Shauna Devine has argued that the war’s creation of unprecedented opportunities for postmortem examinations represented “the apex of wartime medical science.” It helped launch the centrality of research, new knowledge, and refined practices in American medicine. Military medical practitioners understood that their unprecedented access to the war dead not only could increase their knowledge and expertise but also, through their contributions to the surgeon general, could enhance their professional authority and standing.

What the surgeon general could not have predicted was the way in which his order and the creation of the Army Medical Museum emboldened military surgeons to pursue opportunities for anatomical dissection. Union nurse Cornelia Hancock described surgeons practicing on amputated limbs they retained from postmortems and embalming cadavers to keep them for consultation purposes. Burt Green Wilder (a comparative anatomist who would eventually serve as surgeon of the African American regiment, the 55th Massachusetts Infantry), while a medical cadet at Judiciary Square Hospital in Washington, D.C., spent hours in the hospital’s dead house studying arterial systems to aid his familiarity with surgical anatomy and his goal of qualifying as a contract surgeon.

The war may have launched American medicine toward scientific models in the pursuit of medical knowledge, but it also drew deeply on
long-established white practices of dismembering and commodifying Black bodies. Wartime medical research authorized and incentivized the dismemberment of the remains of fallen soldiers, but it also empowered some white practitioners to particularly target the remains of Black soldiers and civilians—either as cadavers that could be dissected without the same social costs associated with similar treatments of the white dead or because the remains were available in abundance.

In 1864, William Chester Minor—an 1863 graduate of Yale Medical School with an interest in comparative anatomy—privately published a pamphlet containing thirty-five autopsy case reports from postmortem examinations he conducted as an acting assistant (contract) surgeon in the U.S. Army at New Haven's Knight U.S. General Hospital. More than 23,000 patients were admitted to Knight Hospital over the course of the war, some of them members of the two Black regiments organized in Connecticut. Just over 200 deaths were recorded at the hospital. The significant number of deaths among soldiers, even as they mustered into their regiments, enhanced Minor's medical education. Minor is best remembered for his postwar life: his mental illness, the murder he committed, his incarceration in insane asylums, and his contributions to the *Oxford English Dictionary* while an asylum inmate. But during the war at Knight Hospital, he exemplified the young physician on the make. His wartime supervisors—well-known military surgeons—took great interest in his professional development, one describing him as “a skillful physician, an excellent operator, and an efficient scholar.” In 1865, one of his former professors described him as having “thorough knowledge” of human anatomy as well as a thorough acquaintance with comparative anatomy. He gained the latter “not from books alone, but also from extensive personal research.” During his time in Washington, D.C., hospitals, he prepared several specimens from dissections of Black soldiers and civilians, which he submitted to the Army Medical Museum. Minor’s decision to publish his autopsy reports from Knight Hospital suggests a medical man with an eye to professional reputation and esteem. Assembling and publishing these case reports indicates that Minor understood there was an audience for such publications and that authorship was of value to his career and reputation.

Minor’s autopsy reports are technical, detailed, precise, and reflect in one particular way his interest in comparative anatomy. Of thirty-five case reports, twenty-four cases involved Black soldiers, and eleven involved whites—a disproportionate ratio that did not reflect the balance between Black and white patients at Knight Hospital. In five of his reports on Black
soldiers and only one on whites, Minor commented on the subject’s genitals. In the instance of the white soldier, he commented on a discoloration. In his reports on Black soldiers, he noted large size, color, evidence of a sexually transmitted disease, and a scrotal hernia. Minor’s attention to disease, color, and size of genitals was unusual among published autopsy case reports, including those he would later write while posted at L’Ouverture and Slough General Hospitals, both in Alexandria, Virginia, where he conducted many more autopsies on Black soldiers, and from their remains, donated some sixty specimens to the Army Medical Museum. Minor’s observations suggest that a sexualization of Black men may have been part of the allure of securing cadavers to examine.

Ira Russell, who earned his medical degree from the University of New York in 1844, was already a well-respected physician when he enlisted in August 1861 as a Union surgeon. By the spring of 1862, his military medical career accelerated as he began a series of postings at Union army hospitals. In addition to his work organizing and directing Union hospitals, Russell maintained a very active research program throughout the war. In his own words, he conducted a host of “pathological investigations,” “in the wards and . . . in the dead house.” He published widely, in USSC and surgeon general volumes, in Austin Flint’s 1876 Textbook of Human Physiology, and he also wrote “Observations and Post-Mortem Results in Cerebro-Spinal Meningitis” as well as two other articles for the St. Louis Medical and Surgical Journal. These investigations drew on several hundred dissections he conducted or supervised, the majority of them on the bodies of Black soldiers. Russell kept detailed case summaries and tabular assessments of the progress of disease; he also anatomized, measured, and weighed the brains, lungs, livers, bowels, and other internal organs of the men whose bodies he opened.

An abolitionist, Russell supported the Emancipation Proclamation, gladly employed refugees from slavery in the hospitals he directed, and fought for the timely payment of their wages. He was a strong and public critic of the discrimination and maltreatment that African American soldiers experienced, and he was very interested in the status, health, and physiology of Black troops. Several Black regiments organized and trained at Benton Barracks while he was posted there, which was also a refuge for the formerly enslaved as well as white civilians fleeing the Confederacy and the violence of war. Tens of thousands came under his care and supervision while he was on duty in Missouri. Experiencing an upward career trajectory thanks to the
war, Russell did not hesitate to create and extract personal professional value out of the multitude of deaths that occurred under his charge.

Russell was an iconoclast when it came to the beliefs about race, susceptibility to disease, and ideas about the biology of race that were held by most white medical workers. He emphasized context when reporting his findings about the higher rates of infection and mortality in pulmonary infections in Black troops. He noted the exhaustion and exposure experienced by enlisted men when they first fled slavery; the severe winter conditions in 1863–1864; the denial of adequate shelter, heat sources, and hospital provisions for ill Black soldiers; and the arrival of white troops infected with measles, smallpox, and other diseases which then quickly spread to the Black troops. Slavery, severe weather, the conditions of war, and discriminatory treatment by white medical directors and surgeons ranked highest in Russell’s accounting for Black illness and death.34

Yet among his findings, Russell also focused on what he understood to be physiological differences between Black and white bodies. He did not find Black troops more vulnerable to tuberculosis than whites, “a fact differing I believe from the commonly received opinion upon that subject,” he noted. Russell did assert what he believed was evidence of a greater vulnerability to inflammatory pulmonary disease among African Americans. He found a greater occurrence of scarring on the lungs of the cadavers of Black men than among whites, and also that the lungs of African American men were on average four ounces lighter than those of whites. Russell wondered if this might explain what he described as the proven inability of Black soldiers to endure forced marches as well as whites. Even with his insistent attention to the material impact of slavery, racism, and discrimination on the health and survival of Black troops, Russell was nonetheless willing to seek out and accept the common argument that race was embodied, a biological fact, rather than an ideological justification for race-based slavery.35

We will return to Russell’s medical investigations in the following chapter’s attention to the care and disposal of the dead, but one additional point should be noted. Knowledge of Russell’s extensive practice of postmortem examinations and dismemberment of the Black war dead must surely have circulated among the Black troops stationed at Benton Barracks. This raises important questions: how did the soldiers and civilians at Benton Barracks respond to Russell’s disassembling of the dead? Former slaves and Northern Blacks alike must have been well aware of their unique vulnerability to white medical interest. Did this likely knowledge affect the willingness of Black
soldiers to seek medical care or hospitalization? There is evidence that white officers of Black regiments felt that the practice of dissecting Black bodies had to be hidden from Black soldiers to prevent unrest and erosion of discipline among the troops. Again, current sources only allow us to raise these questions, not answer them.

In March 1865, Surgeon George J. Potts, serving with the 23rd U.S.C.I., was court-martialed and dishonorably discharged for “unjustifiably mutilating the body of a deceased soldier in the presence of enlisted men of that command.” Because of the extant court-martial record, we have a much fuller record of the complex attitudes and motivations concerning the army’s and Pott’s individual views on the autopsy and dismemberment of Black soldiers. In this instance, the deceased soldier, Private Benjamin Anderson, had escaped slavery and enlisted in the 23rd U.S.C.I. during the war. He had much to live for, including his wife Sarah and his toddler son, James. Anderson’s unit saw a great deal of action in the eastern theater, including the Battle of the Crater, yet Anderson survived until an unknown illness struck him down as his regiment approached Richmond in March 1865. When he became ill, the regiment’s assistant surgeons diagnosed at least three different illnesses and prescribed a number of different treatments. Nothing seemed to help; Anderson could not perform his duty for several days. He died very suddenly, collapsing outside his tent and dying within an hour.

Bennett Bethel, the acting assistant surgeon who had last treated Anderson, asked Potts whether a postmortem should be made because the cause of death was unclear. Potts went to Anderson’s quarters, conducted a brief physical examination, and read his case files, quickly confirming that there was no clear diagnosis. Anderson’s was the third sudden and similarly inexplicable death in the regiment; in consultation with the regiment’s commanding officer, Lt. Col. Dempsey, Potts decided that an autopsy was necessary. He ordered the hospital steward to bring the body to the dispensary, an improvised log hut and tent shelter to the rear of the regiment’s encampment, where Potts conducted the postmortem later that evening by candlelight. Helping Potts was Private Leonard Gant, a Black soldier who served as an aid to the hospital steward and who had assisted with two other postmortems.

At that point, Potts directed Acting Assistant Surgeon Bethel to perform the autopsy, but Bethel refused, insisting that he had never performed one himself and, in fact, had never even seen a corpse opened—despite the fact that he had completed a medical degree at the University of Pennsylvania. Bethel remained, however, as an observer. Dempsey, the commanding officer
of the regiment, had expressed a desire to observe—according to Potts, he “had never seen a man opened and was anxious to see the case,” but Dempsey did not appear when Potts sent for him. Potts—who had before the war conducted over 100 postmortem examinations as a coroner—therefore conducted the autopsy. According to his narrative account of the procedure, it was thorough and typical—the opening incision, the removal and examination of organs, of arteries, of swollen glands. There is no suggestion in the surviving records that Potts was in pursuit of anatomical evidence of racial characteristics. However, it soon became clear that Potts’s interest was not limited to understanding the cause of Anderson’s death but also in securing medical specimens that he could forward to the Army Medical Museum. Potts remarked to Bethel he considered the case “of the greatest importance,” so he intended to “send all the viscera, including the Brain to the Surgeon General at Washington D.C. either . . . for microscopic examination or to be placed in the Medical Museum.” Potts insisted he was guided purely by “the elevation of our science,” to which he was sure he could make an important contribution (while also gaining professional recognition) from Anderson’s anatomized human remains.

Almost five hours into the dissection, the dispensary was besieged by rain coming in through the roof and flooding the floor, and Potts felt “perfectly exhausted” but still wanted to dissect Anderson’s brain. He sewed up the torso and then removed Anderson’s head from his torso with the brain intact. Aware that the body now had an “unsightly appearance,” Potts inserted a quart bottle and some canvas in place of the removed head. He decided that the body was now of sufficiently “normal” appearance that Anderson’s remains could be readied for interment. With the removed organs stored in the dispensary, Potts offered Private Gant a dollar to sleep in the hut and guard the remains while Potts retired to his quarters. During the night Potts grew anxious that the valuable specimens might be discovered by the dogs that ran through the camp and so he returned, retrieved the sack of organs, and brought them to his own quarters for safe keeping.

But Acting Assistant Surgeon Bethel was shocked by what he had observed during the examination. What Potts insisted as a “creditable autopsy” was represented by Bethel, in the court-martial that followed, as something very different—a “horrible mutilation” that left Anderson’s corpse in “a bloody and shameful condition.” Bethel testified that Potts had removed Anderson’s organs without properly ligating the blood vessels, so blood flowed freely over the scene. Bethel had complained immediately after the autopsy and dissection to the lieutenant colonel, who went to Potts’s quarters and demanded
the return of the organs and the head, which Potts reluctantly agreed to. Anderson was finally interred.43

Bethel’s complaint made its way up the chain of command, and it was agreed that rather than an autopsy Potts had conducted a dissection “for the purposes of practice rather than scientific information,” which threatened the army’s Medical Department with disrepute. At the court-martial, Bethel alleged that the “dissection” was improperly conducted in the presence of “several” enlisted men from the regiment (in fact, only the hospital steward and Private Gant observed the procedure). Bethel and the commanding officer of the regiment further asserted that “such actions as these upon being known to enlisted men of such a superstitious cast of mind as colored soldiers, will utterly demoralize and destroy all confidence and discipline among them.” No testimony was offered by enlisted men to support that allegation, but certainly word had spread about the treatment of Anderson’s remains throughout the regiment.44

Potts accused his critics of describing his work in the “the very worst light” and asserted that “non-medical men, especially illiterate men cannot understand these things.” The “ordinary horror with which a simple Post-Mortem is looked at by the vulgar” had led to exaggerated accounts. Potts was none-theless convicted and dishonorably discharged from the service in April 1865. He appealed to the adjutant general, and the secretary of war approved a reversal of the charges and Potts returned to his position a month later.45

Lurking behind Potts’s story as it emerged in the documentary evidence is a harder-to-reach story of race, military medicine, and designs on professional advancement. As noted earlier in this chapter, surgeon general William Hammond had issued a call for medical officers to forward specimens for study and display at the new Army Medical Museum in Washington, D.C. Hammond also announced that the name of each contributor would be appended to specimens. This would have been regarded at the time as a mark of professional achievement, and it certainly helped account for the flood of specimens to arrive in Washington over the course of the war and after.

Potts’s desire to participate in this form of personal and professional advancement was viewed skeptically by his fellow white officers. The charges they leveled against him portrayed the anatomization of Anderson as a personal indulgence rather than a professional exercise. Neither Potts nor his accusers spoke to the fact that Anderson was African American, and Potts offered no commentary that he was motivated by any desire to document racial characteristics. But his accusers were incensed that the dissection was
carried out in front of Black soldiers, who might have responded by creating disarray and discontent in the regiment—not because Pott’s actions would be understood as yet another racially motivated indignity to which Black soldiers were subjected, but because African Americans were “by nature” “superstitious.”

White officers’ concerns with regimental discipline were probably shaped by the June 1864 execution of Private William Johnson, one of the regiment’s members, for his alleged attempted rape of a white woman at Cold Harbor, Virginia, and for desertion.46 Performative executions of Black soldiers were, according to historian Jonathan Lande, often motivated by white officers’ presumption that Black soldiers who violated or witnessed violations of military discipline required severe reminders of their obligations to the army.47 The white officers of the 23rd U.S.C.I. may have feared that Anderson’s mutilation would inspire mutinous protest; certainly Anderson’s comrades, Henry Bush and Franklin Weaver, would attest to their knowledge of his postmortem two years later when Anderson’s wife applied for pension benefits.48 We cannot document the thoughts or feelings of his comrades or his widow about Benjamin Anderson’s anatomization, and neither can we track how or if ideas about race motivated Potts. The recorded history of the event tracks only the bitter exchange of arguments between white officers, men whom Potts had belittled and challenged on more than one occasion and who had grown to dislike him. Anderson, his widow, and the men of the 23rd U.S.C.I. fall away from the record. But Benjamin Anderson was among tens of thousands of African American soldiers and civilians whose cadavers came under the investigatory and intrusive eyes of white medical authorities.

MINOR, RUSSELL, AND POTTS were unique figures in Civil War medicine, yet all three shared an investment in dissection as a key element of professional performance. Historian Michael Sappol has described the medical anatomist as a charismatic figure, uniquely positioned to transgress rigid cultural boundaries “between life and death, purity and contamination . . . and the sacred and profane.” In focusing their work on the remains of Black soldiers, white surgeons avoided the opprobrium and wrath of white communities and survivors who would have challenged and decried similar use and abuse of their deceased racial kin.49 At the same time, their use of Black soldiers’ human remains was part of a larger pattern of racism in wartime military medicine.
Black Refugees as Medical Commodities

In December 1864, a white man passed over for appointment as superintendent of the Green Heights contraband camp at Arlington, Virginia, attempted to undermine his competitor by sending fraudulent complaints to President Lincoln. Writing two letters that purported to be from refugees from slavery, he accused his competitor of tolerating abuse and mistreatment of the camp’s Black residents. Prominent among the charges he made in the voice of “Sally Brown” was that the residents “are sadly treated by the Doctors who sell us after we are dead they put us into barrels and send us to the north for the New York and Philadelphia Docts to cut us up.”

Although the letter was fraudulent, the charge gives us reason to pause. After all, refugees from slavery died by the thousands in Washington, D.C., and neighboring Virginia both during and after the war. Human remains overwhelmed the hospitals, camps, and streets of the capitol city, but also provided medical practitioners with an abundance of a valued commodity: fresh cadavers, the source of essential professional experience and knowledge. Importantly, the made-up complaint had grounding in fact, according to Julia Wilbur, who volunteered among the refugee camps and hospitals in Washington, D.C., and Alexandria and kept a diary of her experience. In April 1864 she wrote, “There are deeds done at that Hos. that I think would not bear the light. In the Hos. here the dead were laid out decently. Now they are rolled up in the clothes they [died] in taken out at once & that is the last that is seen or known of them. I presume every woman that has died in the new Hospital has been dissected. It is not certain that all have been buried. One coffin was taken to the graveyard with nothing but a little dirt in it & it was brought back again!”

In the nation’s capital, no less than in St. Louis, New Haven, Baltimore, as in Union army camps and hospitals across the South, army surgeons, medical college faculty and students, hospital staff, and other medical practitioners found in the carnage of war a particular benefit: the unprecedented availability of fresh cadavers—male and female, civilian and soldier—on which they could perform postmortem examinations and dissections.

It was the human remains of Black soldiers that white surgeons like Minor, Potts, and Russell eagerly exploited in their pursuit of professional knowledge, skill, and standing. However, in Washington, D.C., the surgeons, hospital stewards, and health care workers also found in the quickly expanding population of civilian refugees from slavery a ready source of human remains to sharpen their skills on. The inclusion of so many civilian
postmortem examinations in the autopsy records of the Army Medical Museum contradicts the surgeon general's assertion that the museum's goal was to document the war's impact on soldiers.52

The war and its uncertain destruction of slavery created a vulnerable population, and medical employees and military officers were not above exploiting their access to the African Americans who fell victim to the war. Many of the 35,000 to 40,000 men, women, and children who came into Washington, D.C., during the war were voluntary refugees from slavery, seeking a place of safety (Congress ended slavery in the city in April 1862). The armies operating in the eastern theater of the war brought many more to Washington; for example, the army recruited refugees from Fortress Monroe, Virginia, and New Bern, North Carolina, to meet the army's ever-increasing need for laborers on Washington's fortifications.53 As historian Katherine Chilton has noted, fortifying the nation's capital against Confederate assault created an extraordinary demand for labor.54 One historian estimates that 10,000 were employed in this effort.55 By the end of the war, sixty-eight forts surrounded Washington, D.C., and their construction and maintenance relied very heavily on the labor of refugees from slavery. The more than two dozen military hospitals in the city also relied on their labor; as many as a third of Washington's hospital workers consisted of Black civilian employees who waited on surgeons and other officers, carried water and cleaned clothing, buried night soil and scrubbed privies, sawed wood and kept fires going in laundries and kitchens, cooked, and dug graves for the human and equine dead.56 Their labor was essential, as one surgeon explained: "Some of these duties require strong, vigorous men, and others are so repugnant to the soldiers, that they will not even imperfectly, perform them, except under the fear of punishment."57 The city itself was also a significant employer of refugees from slavery, for everything from the most demeaning labor of cleaning cesspools to building and maintaining the roads that were necessary for both commerce and military defense.58

The formerly enslaved coming into Washington faced tremendous obstacles in their struggle to secure basic shelter, food, clothing, and fuel. As desperate as the city and the army were for laborers, they made few preparations to house or care for the workers they relied on, especially the exhausted, ill, malnourished people whose bodies bore the scars and injuries of abuse and torture at the hands of former masters and mistresses. After temporarily housing refugees in the Old Capitol Prison, the city established its first camp for refugees from slavery early in 1862 in a group of tenements on Capitol Hill known as Duff Green's Row.59 This and eventually all the
area’s contraband camps—including those established across the Potomac in nearby Alexandria and Arlington—were created to serve dual purposes: as employment depots as well as housing for the homeless. Overcrowding and epidemic smallpox led to the army’s June 1862 relocation of healthier refugees to Camp Barker, while they left the smallpox patients at Duff Green’s Row, which became a smallpox hospital. Although situated in a dismal and unhealthy location, Camp Barker—formerly a cemetery and brickyard—had the advantage of military-style barracks, including forty-eight small huts and two sex-segregated hospital buildings. It served largely as an employment depot, with nearly half the residents employed as military or city laborers. Another camp, Mason’s Island, was established in 1864, also as an employment depot.

Camp Barker was quickly overcrowded and became the site of a deadly cholera outbreak; mortality among camp and hospital residents was severe—700 out of about 5,000 people died between June 1862 and June 1864. In December 1863 the army shut down Camp Barker’s barracks, and the residents were forcibly relocated to Freedmen’s Village at Arlington; many, however, rejected the move and made their way deeper into the city to fend for themselves. In neighboring northern Virginia, two buildings in Alexandria were dedicated to sheltering refugees, and soon after the construction of Alexandria’s L’Ouverture General Hospital (exclusively for Black soldiers and civilians), the army developed a contraband camp alongside. Five temporary camps were created in Fairfax and Arlington (in addition to Freedman’s Village).

Horrible mortality rates were the result of the arrival of an impoverished population of refugees in a city that relied on their labor but offered inadequate shelter and support. Persistent delays in paying wages that were desperately needed for food and shelter contributed to the precarity of life among refugees. Washington and neighboring northern Virginia were awash in death throughout the war, as evidenced by the flood of daily requests during and after the war to the city’s quartermaster for the removal and internment of corpses from contraband camps, hospitals, and the homes, streets, and alleys of the nation’s capital.

Daniel S. Lamb, Samuel S. Bond, and Adolphe J. Schafhirt exemplified the city’s white hospital workers who saw in this deadly consequence of war the opportunity to advance their personal and professional knowledge and standing. To a significant extent, they did so using the bodies of Black refugees who fell victim to the violence of war, to slavery’s violent collapse, or to the severe circumstances of refugee life and labor in Washington,
D.C., and nearby Virginia communities. Like many enlisted or contract medical workers during the war, they were influenced by wartime developments: an unprecedented access to human remains (freed from the encumbrance of legal or ethical restrictions) and the creation of the Army Medical Museum, with its call for specimens and its promise of professionally advantageous acknowledgment of those who contributed case histories and specimens. All three men shared employment ties to the museum as well. Their shared professional ambitions help us understand how and why they and so many others chose the anatomization of Black civilian human remains as a professional opportunity not to be missed.

Samuel S. Bond was born in 1835 in Pennsylvania; he joined a regiment of Pennsylvania cavalry in 1861 and served three years as a hospital steward. When his term of service ended in 1864, he requested and received appointment as hospital steward in Washington and worked at Harewood Hospital. A city directory from 1865 lists him as a clerk, but that year he completed his courses and earned his medical degree from Georgetown College. In 1866 he operated a private medical practice. By 1870 his practice had already secured him considerable financial success, and he continued working as a physician until his death in 1900. Bond anticipated that his wartime experience would be pivotal to his successful career as a physician. In 1867 he had established his medical practice in Washington, and he sought to increase his professional success with an advertisement in the Weekly Monitor (a Washington newspaper) announcing that he had served as a “late pathologist in the United States Army Medical Museum” and had “dissected and mounted most of the medical and pathological specimens” and “contributed a greater number of specimens to the museum than any one person.” He added that a “long experience in the army in postmortem examinations has given him superior advantages in that specialty.”

Daniel S. Lamb also came from Philadelphia to Washington. Lamb, who would become a central figure in the Army Medical Museum in later decades, started as an enlisted hospital steward, working from 1862 to 1865 in an Alexandria military hospital. There he observed autopsies and dissections conducted by a former Barbadian planter and slave-owner Thomas Bowen as well as by William Chester Minor (noted earlier in this chapter). Lamb was encouraged by his supervising surgeon to pursue his college degree. He began working at the Army Medical Museum after the war, organizing and collecting medical specimens, including postmortem work. He worked as an acting assistant surgeon at the museum from 1868 to 1892, when he was promoted to chief pathologist. In addition, he was on the medical college
faculty at Howard University and on the staff at Freedmen’s Hospital. An esteemed physician, Lamb was regarded as one of the city’s most skilled autopsy pathologists. From 1883 until 1917 he was crucial to the work of the museum, contributing over 1,500 specimens, and Lamb served as the chair of the anatomy department at Howard University from 1877 to 1923. He was regarded by some as an advocate for Black and female physicians in the District, but Lamb did not always act to support Black physicians: he failed to leave the white Medical Society of the District of Columbia when they rejected Black applicants for membership—who, in protest, formed the interracial National Medical Society. Furthermore, in 1877 Lamb supplanted Dr. Alexander Augusta—the highest-ranking Black physician during the war and one of the founders of Howard’s medical school—as head of anatomy at Howard University’s medical school. Augusta protested his replacement and left the faculty as a result.

Adolph J. Schafhirt, who had emigrated as a child to Philadelphia from Germany, served as an enlisted hospital steward—as did his brother Ernst and his father Frederic. All three served in Washington, D.C.: Adolph and Ernst as hospital stewards, their father Frederic at the Army Medical Museum from its very beginning. During and for a time after the war Adolph and his brother assisted their father in his work as the leading anatomist at the museum. Adolph worked as an artist, preparing battlefield paintings as backdrops to the specimens, as well as a “bone connoisseur.” Following his December 1865 discharge, Adolph pursued a career as a druggist, owning and operating his own pharmacy into the 1890s. Ernst would continue his work as an anatomist and clerk with the museum, and he made plaster and clay models for exhibits into the 1880s. Their father Frederic, a German-trained anatomist who was opposed to slavery but also had an established pedigree in racist science, brought Adolph and his brother into the museum work.

Frederic Schafhirt had worked with two of the world’s leading racial theorists. In Europe, he worked with Johann Blumenbach, acknowledged now as a founder of race-focused craniometry; after emigrating to Philadelphia, Frederic worked with the father of the racist “American school” of ethnography and advocate of polygenesis, Samuel Morton, assisting Morton in preparing Crania Americana, the 1839 text widely regarded as foundational to the development of scientific racism in the United States. Frederic also worked at the University of Pennsylvania under the renowned paleontologist Dr. Joseph Leidy, who was committed to the notion of biodeterministic racial difference and was a close correspondent with the foremost advocate of polygenesis, Josiah Nott. Fredric moved to Washington intending to
assume a position at Columbian College but found the medical faculty there so divided by their Civil War politics that he began to look elsewhere; he asked his former associate Professor Leidy to secure him a position with Louis Agassiz, another prominent public intellectual, naturalist, and advocate of racist science. In Washington, Fredric found a new path: he became a central figure in the early development of the collections at the Army Medical Museum. He was the museum’s first hospital steward, and he remained employed with the museum from 1862 until his death in 1880. His museum colleagues described Fredric as an admirable bone-cleaner and anatomist, and they admired his skill in preparing and organizing the display of specimens. He also lectured at the National Medical College and worked with the Smithsonian Institute. In addition, he created a personal collection of human specimens, which he willed, with its glass cases, to Adolphe’s son.

Lamb, Bond, and Adolphe Schafhirt, like many other white surgeons and hospital workers, found that the harvest of death among refugees from slavery offered the perfect opportunity to hone their professional skills. They consumed the war’s windfall—a grim abundance of corpses—to advance their study of human anatomy, yet another example of the contradictory logic of medical racism that posited Black bodies as simultaneously racially different and neutrally human. In 1865 and 1866, Freedmen’s Hospital—established in 1863 near the site of former Camp Barker—permitted the three hospital steward employees of the museum to perform autopsies on and dismember the hospital’s deceased patients. They gained invaluable anatomical experience, and their employer, the museum, gained 150 specimens that the three created from the autopsies. Although Schafhirt and Bond listed themselves as the authors of the manuscript casebook they had prepared for the museum documenting the postmortem examinations, Schafhirt conducted only nine of the 100 autopsies. Bond and Lamb conducted the vast majority.

It was more than fifty years later before Lamb acknowledged in print that their exploitation of freed people’s remains would not meet the ethical standards of the twentieth century. Lamb would recall, “The time was that, at least in the hospitals, if we wanted a post mortem examination we simply made it without asking leave of anybody. That time has passed. The consent of relatives or friends must now be first obtained, and this consent is often refused.” If we are to judge by the narrative case histories prepared by Bond, Schafhirt, and Lamb, Freedmen’s Hospital patients were not merely the anonymous poor that medical professionals had exploited. Some of the postmortem reports included case histories, presumably obtained from the
patient by the attending physician; these antemortem histories sometimes included considerable personal detail (such as names, ages, history of ailments, etc.). They also often indicated that a patient had been brought into the hospital by friends or family. Among them was Cinta Howard, aged about eighteen years old, who was very emaciated. Her friends had explained her symptoms to the attending physician: they had brought her to the hospital after she lost the ability to speak and fell into a comatose state. After she died, Adolph Schafhirt autopsied and anatomized her, forwarding a number of specimens from her remains. Like so many Black women autopsied for the museum, the specimens prepared from Howard’s remains included several made from her reproductive organs.82 This, too, was consistent with white ethnological fascination with the genitalia and reproductive organs of African and African American women.83 The logbooks that noted the arrival of specimens during and after the war and the accompanying case histories reveal that Black female deceased patients frequently had their internal reproductive organs removed and turned into specimens.84

Although the case histories offer a heartbreaking record of the physical trauma of slavery, war, and wartime labor on Black people, for the most part they do not reflect a systematic attempt to invent or document imagined racial characteristics (with the exception of the attention to women’s sexual organs already noted). Instead, the postmortem reports simply record the operator’s observations during his disassembly of cadavers, including a narrative and tabular record of the weight of fourteen major internal organs. This suggests that most white medical workers were not performing autopsies and dissections on African American human remains in the explicit pursuit of racial science; rather, they regarded the remains of African Americans as exploitable objects, not people entitled to a dignified burial. The combined effect of poverty and race, from the perspective of white surgeons, hospital, and museum employees, made the Black civilian war dead dispensable.

The records of the Army Medical Museum reveal that Bond, Lamb and Schafhirt were joined by dozens of additional surgeons and hospital stewards in using the human remains of refugees from slavery and, of course, Black soldiers to practice their skills at autopsy, dissection, and anatomy. The hospitals of Washington, D.C., were prominent among the contributors—due to the very large and concentrated population of former slaves as well as the ease of transferring records and specimens to the museum—but postmortem records and specimens came in from across the nation. The army’s medical officers and employees eagerly seized on their access to the war dead
to enhance their knowledge and authority in the profession. This included some of the few Black physicians enlisted and employed by the army. Alexander Augusta, his pupil Anderson Abbott, Jerome Riley, William Powell, Charles Purvis, John Rapier, Willis Revels, and Alpheus Tucker all served during or after the war at Freedman’s Hospital or the city’s various contraband hospitals—the strictures of segregation meant they could not serve at hospitals for white soldiers. They also conducted postmortem examinations, but if they prepared and submitted specimens to the museum, the surgeon general chose not to include them in the Medical and Surgical History of the War of the Rebellion.

Making Specimens, Making the Army Medical Museum

Beyond the opportunity to practice dissection, white medical workers disassembled the human remains of Black soldiers and civilians to create specimens for the growing collections held and displayed at the Army Medical Museum. Surgeon general Hammond’s 1862 Circular No. 2, establishing the Army Medical Museum to illustrate “the injuries and diseases that produce death or disability during war,” providing the opportunity to study and develop methods for alleviating the medical challenges of war. Hammond envisioned the museum as a place where knowledge would be created and where a new kind of medical and scientific learning could take place. By collecting and exhibiting specimens that exemplified battlefield medicine and the human damage of war, the museum would become the first nationally funded institution for medical research. Surgeon John Brinton, named by Hammond as the museum’s first curator, would clarify in later months the exact procedures for preparing and forwarding specimens. They should only be roughly prepared, tagged, and submersed in a keg of whiskey, allowing the museum’s staff to do the precision work of preparing specimens. The museum also solicited detailed case reports to accompany each specimen as well as the name of the contributor, who would be acknowledged both at the museum and in future publications. The museum covered the transportation costs.

The immediate flow of donations from surgeons and hospital stewards bore witness to the professional aspirations of medical officers and employees as well as their interest in contributing to wartime knowledge production. By the end of the museum’s first year, curator Brinton reported that the museum had already collected 1,349 objects, including 985 surgical specimens, 106 medical specimens, and 133 missiles mostly extracted from the
body, including bullets, shot, canisters, shell fragments, and arrows. Some of those specimens Brinton had collected himself from the aftermath of the battle at Fredericksburg. Brinton was quick to point out that the museum easily surpassed the size and significance of similar collections in Britain and France, and he insisted it was not “a mere museum of curiosities” but rather “a collection which teaches.”

The United States could finally claim international prestige in medical research. By the end of 1864, the museum’s collection had grown to include 3,500 surgical specimens, 500 medical specimens, 150 plaster casts and models, 100 drawings and paintings, and 1,100 microscopical preparations. Like the respondents to surveys described in chapter 3, the contributors understood that their participation in these nation-building and professionalizing efforts would bring individual acknowledgment and recognition. Many would have already been familiar with the “gift economy” that enhanced both private medical and anatomical collections as well as public museums wherein specimens were exchanged or donated with a view toward future reciprocation. And some, like surgeon Reed B. Bontecou (among many others), had already begun building private collections when they began forwarding specimens to the museum.

Bontecou was a well-known natural scientist, medical researcher, and physician when he enlisted in 1861 as a surgeon. Early in the war he had charge of Hygeia Hospital at Fort Monroe. From October 1863 to June 1866 he was the surgeon in charge of Harewood Hospital at Washington, D.C., one of the largest hospitals of the war with a capacity of 3,000 beds. He became known as one of the most prolific contributors to the Army Medical Museum and as a pioneering medical photographer, capturing preoperative and postoperative views of wounded soldiers. Before as well as during the war Bontecou was also an avid collector of natural history specimens—whether flora and fauna from his antebellum trip up the Amazon River, or specimens taken from the hospitals and battlefields of the war. While he was posted in charge of Hygeia Hospital, Bontecou collected human heads (not crania)—whether these came from deceased refugees from slavery or from soldiers is unclear, but it seems unlikely he would have risked opprobrium by mutilating the remains of white soldiers. Bontecou was one of several military surgeons called upon by the curators of the museum to deliver to the museum the privately held specimens they had collected during their military service. Bontecou had made a gift of the human heads to another physician, but curator Brinton demanded them as property of the army.
Hammond’s vision, the work of the museum’s curators and employees, and the enthusiastic responses of contributors accelerated the development of American medical science but did so as part of the development of scientific racism and the medical objectification of non-white people. It is impossible to imagine that the museum’s work was isolated from the increasingly popular scientific racism that was central to American medical science and practices at the time, especially in light of Frederic Schafhirt’s central role at the museum. Popular anatomical museums had already been established in several leading cities by midcentury, and they participated in practices of commodifying, appropriating, and displaying Black and especially enslaved human remains—along with those of paupers, criminals, and other marginalized people. Historians Stephen Kenny, Michael Sappol, Ann Fabian, and Samuel Redman agree that anatomy museums lent legitimacy and popular support to evolving notions about the biological determinism of race and racial hierarchies.

However, the racial project of the Army Medical Museum was inconsistent. The published catalogues of the museum’s collection of specimens clearly demonstrate less interest (either on the part of donors or museum curators) in Black bodies as exemplifying the human cost of war. Alfred Woodhull’s Catalogue of Surgical Section of the U.S. Army Medical Museum (1866) included only 223 specimens from African Americans out of more than 4,700. Edward Curtis’s Catalogue of the Microscopical Section of the United States Army Medical Museum (1867) referred to only ten specimens from African Americans out of 149; George Otis’s Catalogue of the Anatomical Section of the United States Army Medical Museum (1880) included only fourteen specimens from African Americans out of almost 7,000. Although the museum received hundreds of reports on postmortems and dissections conducted on African Americans, it would seem that most contributors to the museum’s collections were either not interested in taking specimens from African American bodies or assumed such specimens were not as useful or welcome as those taken from whites. Certainly white soldiers suffered battlefield wounds more frequently than African Americans, whose regiments were less likely to be deployed on the battlefield. Perhaps surgeons simply had greater access to white cadavers. Or, alternately, the curators may have preferred to display specimens from white soldiers in representing the human body; they could see Black bodies only as evidence of embodied race, not as examples of racially neutral consequences of war’s injuries and disease. Whatever the cause and motivation, the donation and creation of specimens underrepresented the cost of warfare on Black soldiers and civilians.
When and how the Army Medical Museum became more openly complicit in explicit scientific racism is part of the story of the wartime production of medical and scientific racism, particularly the rooting of race in biology. While neither the surgeon general nor the museum’s curators appear to have explicitly solicited specimens for the purposes of documenting “racial characteristics” in Black bodies during the war, at war’s end the museum charted a new path and purpose: What kinds of collections would they pursue? What would be the postwar future of a museum founded to document and commemorate the medical crisis of warfare? The answer, as Ann Fabian explained in her study of museums and collectors and their pursuit of scientific foundations for racial difference, was to turn to the army’s war on Native people in the western plains and collect Indian skeletons, crania, and other “objects of ethnological or archaeological interest.”

Military expeditions in the west and genocide against Native Americans generated a substantial wave of collecting, as did the looting of sacred mounds and burial sites. After the war and until the end of the nineteenth century, the museum’s central work focused on ethnology and comparative anatomy, fueling the museum’s then-explicit investment in scientific and medical racism. This endeavor was complemented by an 1869 exchange with the Smithsonian Institution in which the museum transferred “objects illustrating the manners and customs of the Indians” in exchange for the “entire collection of crania” at the Smithsonian. It is less well known that the museum’s postwar curators also continued to collect African American crania—both actively soliciting donations and purchasing individual crania as well as crania collections from medical colleges, from Southern physicians, and from individual collectors. A circular issued to the medical officers of the Freedman’s Bureau in 1868 directed them to participate in the collection of specimens for the museum, further evidence that African American remains were an important target of the museum’s postbellum collecting.

Samuel Morton’s influence—as the great popularizer of the notion that race had a biological basis—continued to shape the museum in the decades to come. In 1869, curator George Otis was excited at the prospect of having created a collection of crania that “will rival the famous Mortonian cabinet,” and by the mid-1870s the museum’s “Craniological Cabinet,” situated just off the main entrance, was arranged just as Morton arranged his, in an imagined hierarchical order. By 1871 the museum had collected over 900 skulls. Morton’s influence also played out in the methods used to measure crania, volume being (incorrectly) associated with intellectual ability.
After the war, many specimens were donated or purchased from nearby faculty and students at Washington-area hospitals and college dissecting rooms, including Columbia College, Georgetown College, and Howard University. Washington-area physicians were similarly interested in contributing specimens that would advance the museum’s ethnological interests. An ophthalmologist, Dr. S. M. Burnett, donated twenty-three specimens of eyes from Black patients, asserting that these specimens, too, could help the museum ascertain “how far this change in their condition has influenced their susceptibility to and immunity from certain diseases,” referring to the race work of Josiah Nott and George Glidden. Some contributions were accidental. Construction at the Washington, D.C., Soldiers Home apparently disturbed a Black burial ground there, from which another U.S. officer extracted and donated crania to the museum. Large numbers of specimens also continued to be taken from deceased patients at Freedmen’s Hospital.

Autopsies by Bond, Schafhirt, and Lamb from 1866 to 1867 generated some 150 specimens, but hundreds more were secured in the decades to follow. The museum continued to capitalize on the abundance of Black illness, injury, and death in postwar Washington. Late in the 1880s, even as the museum’s ethnological interest focused on Native Americans, the museum curator kept up a substantial correspondence with medical researchers and medical school professors in the South who were anxious to offer their various specimen collections of Black crania and skeletal remains that, they and the curator both believed, revealed anatomical racial characteristics.

The Army Medical Museum had a profound impact on American medicine. Beyond the authority offered to contributors and the great popularity of its collections with the American public as well as medical researchers, the museum collections (both material and textual) became an important source for the surgeon general’s second major project about medicine and the war. The 1862 circular that announced the formation of the museum also indicated the surgeon general’s intent to publish an official medical history of the war, the Medical and Surgical History of the War of the Rebellion. Composed of six volumes published between 1870 and 1888, the series offered a comprehensive account of military medicine and surgery, including thousands of case histories and autopsy reports. Like the volumes published by the U.S. Sanitary Commission, the surgeon general’s volumes would ultimately catalog and describe, rather than analyze, the tens of thousands of cases describing treatments of disease, wounds, autopsy results, and specimens that fueled the unprecedented number of dissections performed by medical practitioners at all ranks during and immediately after the war.
Like the work of the museum, the assembling of materials for the six-volume work would reveal the tensions inherent in a project where race held both definitive and precarious meaning in the production of medical knowledge. The first volume opens by noting the “scientific and historical” “propriety” of arranging medical data by race, so obvious a service to humanity that it needed no further explanation—silently affirming the centrality of whiteness to the project and the relegation of Black bodies to peripheral studies of “race.”110 The surgeon general announced that the volumes would contribute “to our knowledge of the influence of race-peculiarities on disease,” but that influence proved difficult to determine. As noted in chapter 2, the results did not always conform to existing assumptions about racial difference.

The surgeon general found it even harder to locate the meaning of race in the case reports assembled for the surgical volumes. Reports of surgery performed on Black patients are scattered throughout, but there were no conclusions suggesting “race peculiarities” in surgical outcomes.111 This mirrored the Army Medical Museum’s catalogs of presurgical and postsurgical specimens and case reports. In both catalogs and Baxter’s medical history, Army Medical Museum curator Otis solicited additional case information in several instances of surgeries performed on Black soldiers and civilians, but his aim was to gather complete information on particular procedures rather than grist for the field of comparative anatomy.112 In other words, case reports and specimens from Black bodies were simultaneously used as evidence of racial difference that suffused anatomy and physiology, yet also they were also used interchangeably with specimens and case reports from white bodies.113

Historian Katherine Cober has noted that on the eve of the Civil War anatomical illustration and modeling offered and created the Caucasian male as the universal body.114 To the extent that anatomical illustrations and representations included non-whites, they were most often used to exemplify deviation from the universal white norm. Yet medical students and physicians, even the strongest advocates of biological racism, did not give a second thought to their reliance on the cadavers of non-whites in gaining anatomical expertise. This core contradiction in the logic and science of race that should have troubled scientists and medical practitioners went unexamined, whether in the treatment of the ill and injured or, as we see in the next chapter, in the treatment of the dead.