

The Anthropology of Josiah Clark Nott

Paul A. Erickson

Introduction

The histories of physical anthropology and medicine have always overlapped. In the early 1800s, physicians and surgeons formed the largest single group of men whose avocational interest in anthropology helped move the science beyond strict ethnology. In Europe, this movement culminated in the founding of professional anthropology societies, notably the Anthropological Society of Paris in 1859 and the Anthropological Society of London in 1863. The pre-Darwinian history of physical anthropology and medicine has been investigated by a variety of scholars (Bynum 1974; Druian 1978; Erickson 1974a; Quatrefages 1883; Retzius 1860; Shapiro 1969; Stocking 1964, 1973; Topinard 1883; Wilson 1863).

In North America, the so-called American School—the name given to the collective racial views of such notables as Louis Agassiz (1807-73), George R. Gliddon (1809-57), Samuel George Morton (1799-1851), Ephraim George Squier (1821-88), and Josiah Clark Nott (1804-73)—was the closest approximation to these early European professional societies. These men accepted the tenets of polygenism, the doctrine that human races are distinct and immutable, with separate origins. Polygenism is in direct contrast to monogenism, the older ethnology-associated doctrine, which held that races are similar and mutable, with a recent common origin. Disagreement between the polygenists and the monogenists was a major theoretical focus of physical anthropology in the decades preceding professionalization. Several histories are available (Frederickson 1971; Gossett 1963; Haller 1971; Jordon 1965; Quade 1971; Stanton 1960).

In approaching anthropology, physicians and surgeons such as Nott naturally looked to medicine for their model of science. Physical anthropology was to be an extension of medicine, detached from ethnology, with its focus on geography, history, and philology. In medicine, polygenists turned especially to anatomy, and anatomy in turn led to craniometry, a preoccupation of the time. The stereotypical craniometrist was the physician Morton, whose *Crania Americana* (1839) and *Crania Aegytiaca* (1844) were important influences on the polygenists of Europe (Brace 1982; Erickson 1974b).

Anatomy was immensely valuable to the American School, but 19th-century medicine was a diversified subject. In addition to anatomy, it included chemistry, materia medica, pathology, physiology, and surgery, among other specialties. How did these other specialties affect anthropology?

One medical specialty in particular influenced physician Charles Caldwell (1772-1853), a lesser light of the American School. Caldwell derived most of his polygenism from standard sources: craniometry, Biblical criticism, and racism. Yet Erickson (1981) has shown that he also derived it from (or perhaps justified it by) physiology. Caldwell was a physiological vitalist who believed in the spontaneous generation of life. He believed that the various organisms produced by spontaneous generation possessed primordially different vitalities. For this reason, evidence that animals hybridize satisfactorily

and are transformed by climate could not be used to support monogenists' assertion that human races do the same. Spencer (1983) suggested that Morton was also a physiological vitalist. Physiology, the study of organic function as contrasted with the anatomical study of organic form, was central to the contentious issues of racial hybridity and acclimation. And vitalism, the doctrine that life is the cause rather than the effect of organic function, complements Brace's (1982) description of 19th-century anthropology as Romantic. Could physiological vitalism have been used by other early anthropologists to a greater extent than historians of anthropology now recognize?

Nott in Medicine and Anthropology

To assess the influence of physiological vitalism, it is instructive to consider the career of Josiah Clark Nott. Nott was a Southern physician who lived most of his life in Mobile, Alabama. He was coauthor of *Types of Mankind* (1854) and *Indigenous Races of the Earth* (1857), two books which were as important as Morton's in the American School bibliography. In fact, Nott was expected to become leader of the American School after Morton's death (Mackenzie 1868). Historians of medicine credit Nott with important medical contributions. Polk (1913) and Souchon (1917) acknowledge his excellence in surgery, particularly obstetrics and gynecology. Bean (1974), Downs (1974), Duffy (1962), Garrison (1914), Holmes (1921-28) and Holt (1928) commend his suggestion that yellow fever might be transmitted by an insect vector. For decades, Nott helped treat victims of yellow fever, which plagued Southern seacoast cities (Ramsey 1934; Walker 1932). He helped establish the Medical College of Mobile, precursor of the University of Alabama School of Medicine and, before the American Civil War, established in Mobile an infirmary for the treatment of free Negroes and slaves (Anderson 1877). Nott practiced medicine in four states and during the Civil War served actively in the Confederate Army as a surgeon (Jarcho 1974). In his long and distinguished medical career, Nott's anthropological publications account, by number, for less than one fourth of his total (Carmichael 1948).

Despite Nott's diversified medical accomplishments, histories of his anthropology concentrate on craniometry, Biblical exegesis, and racism. With the exception of general histories of anthropology, this is true of the fullest anthropological biography by Stanton (1960), and also of Brace (1974), Haller (1971) and, to a lesser extent, Wilensky (1968). Further investigation, however, shows that much can be learned by viewing Nott's anthropology as an extension of his medicine.

An Account of Nott's Life

Nott was born on March 31, 1804, in Columbia, South Carolina, the son of Judge and Mrs. Abraham Nott. He was one of eight children, two of whom also became successful doctors. In 1824, Nott graduated from South Carolina College after serving a preceptorship under Dr. James Davis of Columbia. The next year he entered the College of Physicians and Surgeons (later Columbia University) in New York City, where he studied for one year under the eminent surgeon Dr. Valentine Mott (1785-1865). He then transferred to the University of Pennsylvania, where he completed his M.D. in 1827, submitting a graduation thesis on costiveness (Pepper 1928). Nott remained in Philadelphia for two more years to intern at the Philadelphia Alms House and work as anatomy demonstrator for Dr. William Edmonds Horner (1793-1853) and Dr. Philip Syng Physick (1768-1837) at the University of Pennsylvania Medical School. Bean (1974) speculates that Nott developed his interest in anthropology during these postgraduate years.

In 1829, Nott returned to his home town, Columbia, and practiced medicine there for the next six years. In 1832, he married Sarah Deas, and the couple proceeded to have eight children, all but one of whom died before them. Nott had not attended medical school in Europe, which was then fashionable among leading physicians, so in 1835 he began a one-year sabbatical tour of leading European medical institutions, especially in Paris. The Paris visit was an act demonstrating Nott's respect for contemporary French medicine (Bean 1974; Duffy 1976).

Shortly after their return from Europe, the Notts moved to Mobile and settled in Spring Hill, then about five miles from the urban core of yellow fever infestation. With the exception of one temporary relocation to New Orleans, they remained in Mobile until after the Civil War. Nott's patients included many of Mobile's social elite and—as Nott would later find amusing—many of the city's prominent clergymen. In 1841 he helped establish the Mobile Medical Society, and in 1848 he and some friends established J.C. Nott's Infirmary, a small hospital for free Negroes and slaves in downtown Mobile. While in Mobile, Nott devoted much of his practice to the victims of yellow fever, the dreaded disease that killed five of his own children. His reputation as a surgeon grew, and by all accounts, Dr. Warren Stone was his only rival in the area.

In 1857, Nott moved temporarily to New Orleans. He had not held a university appointment since his days as anatomy demonstrator in Philadelphia thirty years earlier. Now comfortably middle-aged, he accepted an offer of appointment to the Chair of Anatomy at the University of Louisiana (Tulane University), where his brother Dr. Gustavus Adolphus Nott taught. He remained in New Orleans one year. In his letter of resignation from the University (Nott 1858a), Nott cited his desire to rejoin his wife's family in Alabama, a need to return to private practice, and his belief that an energetic younger anatomist was needed to build up the program. Dr. and Mrs. Nott returned to Mobile in 1858. Back in Mobile, he helped the State of Alabama create the Medical College of Mobile. The College operated from 1859 until 1861 and then again from 1868 until 1907, when it became affiliated with the University of Alabama. Nott, who was Professor of Surgery at the College, was therefore the official founder of the University of Alabama School of Medicine (Walker 1932).

During the Civil War, Nott served actively as medical director in the Confederate Army. He operated on wounded soldiers and assisted other surgeons in hospitals throughout the conflict, which took the life of two of his sons; his experiences are written up in a small book on the treatment of gunshot wounds (Nott 1866c). In 1867, despairing at the post-War state of affairs in the South, Nott moved to Baltimore. There he began practicing gynecology, but he found the city unstimulating and stayed only one year, moving on at the invitation of friends to greener pastures in New York City. In New York, Nott worked diligently to build up a medical practice in order to regain some of the wealth he lost during the Civil War. He was too busy to attend meetings of the local anthropology society (Nott 1868), and his publications for this period concern only surgery and yellow fever. After a long period of hard work, advancing years and harsh Northern winters began to take their toll. Knowing that his health would not hold out much longer, Nott left New York and, after a brief visit to South Carolina, returned to Mobile in 1873. There, reunited with friends, he died on his 69th birthday, probably of tuberculosis.

Influence of French Clinical Medicine on Nott's Work

Before his initial move to Mobile, Nott produced one or two publications. Both were translations of French medical treatises. According to Wilensky (1968), Nott translated Francois Joseph Victor Broussais' (1772-1838) *On Inflammation* while still a student in Philadelphia. Then, in 1831, while living in Columbia, he translated J.M.A. Goupil's *An Exposition of the Principles of the New Medical Doctrine* (Nott 1831). Broussais and Goupil belonged to the Paris clinical school of medicine. This is the medicine into which Nott was socialized years before he began to write about anthropology.

The era of French clinical medicine was 1800-1840, with its peak popularity in the 1820s and 1830s. The school made contributions to physiology and pathology, then called the Institutes of Medicine. Late 18th-century medical diagnoses had come mainly from sickbeds and libraries, and late 19th-century medical diagnoses would come mainly from laboratories, but French clinical medicine came from hospitals. In hospitals, clinical diagnoses could be tested against evidence from autopsies, an approach that encouraged physicians and surgeons to collaborate (Ackerknecht 1950; Long 1962). Influential French clinicians were Marie-Francois-Xavier Bichat (1771-1802), Pierre-Charles-Alexandre Louis (1787-1872), Theophile-Rene-Hyacinthe Laennec (1771-1826), and Broussais, whom Nott thought was "nearer right than any one who ha[d] preceded him" (Nott 1831:3).

The Paris school had superseded the earlier Edinburgh school of medicine. During the 18th century, Edinburgh had achieved preeminence in Western medical education and philosophy. In America, during the late colonial and early national periods, doctors looked to Edinburgh for guidance. The important medical philosophers there were William Cullen (1710-1790) and his student John Brown (1735-1788). Cullen and Brown theorized that the flow of nervous energy was the regulator of health and disease. According to Brown, whose philosophy was called Brunonian, life required continuous stimulation. Excitability, the ability to respond to stimuli, was the basis of health, and disease was the result of too little or too much of it. In their day, Cullen and Brown achieved international reputations as great medical systematists. Their disease taxonomies, called nosologies, were popular until French physicians exposed the errors in them (Bowers and Purcell 1976; Harris 1971; Shryock 1960, 1966).

American medicine grew to early prominence in Philadelphia, where the foremost medical scientist, Dr. Benjamin Rush (1745-1813), was a graduate of Edinburgh. Rush had studied under Cullen many years before joining the University of Pennsylvania in 1791 as Professor of the Institutes of Medicine. At Pennsylvania, he began introducing a modified version of Cullen into the medical curriculum. Following Brown, Rush concentrated on the ability of the body to respond to stimulation—that is, excitability. Rush believed that excitability was transmitted not by nerves, but by arteries. Disease, including all "fever," was caused by disturbed arterial motion, leading to an excess of excitability. Disease was to be treated by reducing excitability, mainly by altering or reducing diet, purging, and—notoriously—bleeding. Rush helped train more than 3,000 doctors, and through them, bleeding became a dominant American medical therapy. Although it was controversial, Rush's therapy, called heroic medicine, remained popular for many years. So stultifying was its effect, according to Shryock, that by 1800, after a decade of domination by Rush, "physicians practically worked in the dark" (1966:209).

Nott attended medical school at a time when Philadelphia doctors had begun to criticize Rush and his medical philosophy. There was adverse reaction to excessive systems and disease taxonomies. Heroic therapy—bleeding—simply did not work, so orthodox physicians declined in prestige (Bryan 1964). As doctors searched for more sensible therapies, they turned away from Edinburgh, and Paris became their popular destination, especially after the end of the Napoleonic wars (Ackerknecht 1967). Between 1820 (when the trend

began in earnest) and the outbreak of the Civil War (which interrupted it), more than 600 American physicians studied in Paris (Jones 1973). In addition to Nott, they included Eli-sha Bartlett (1804-1855), Oliver Wendell Holmes (1809-1894), and Morton (Duffy 1976; Long 1962).

Even though Nott often labeled himself an anatomist, from the outset he allied himself with the French physiological approach. His 1831 translation of Goupil, his first located publication, is dedicated to Dr. Samuel Jackson (1787-1872), Rush's successor at Philadelphia as Professor of the Institutes of Medicine. Jackson was a transitional thinker who tried to integrate the newer approach of Broussais into the older approach of Rush (Long 1962). He had been Nott's teacher at Philadelphia, and Nott praised him as "the first to raise the standard and fight the battle of Broussais in the United States" (Nott 1831: preceding Table of Contents). Contrary to Bean's (1974) speculation, Nott may have developed his interest in anthropology under the influence of Jackson instead of Horner and Physick.

Like Cullen and Browns' physiologies, Broussais' physiology began with the concept of irritation. A vital force—something like excitability—activated the body and allowed its organs to respond to external stimuli. Unlike Rush, however, Broussais believed that disease could be caused by deranged nerves as well as arteries, and that different parts of the body responded to stimulation in different ways, allowing deficiency and excess of vitality to coexist within the same individual. Beyond this, body parts were sympathetically interconnected, so symptoms of disease could be mimicked by an organ that was healthy, complicating therapy. Broussais, wrote Goupil, provided an advance over Brown, who showed "ignorance of the diversity of the phenomena of vitality in the different organs, and of the influences which they exercise on each other" (Nott 1831:8-9). Diversity of symptoms naturally required diversity of therapies, for which heroic remedy was inadequate. Despite criticisms, Nott and Goupil characterized Brown's insight that life must be sustained by stimulants as "the triumph of vitalism over the vain theories of humoralists, mechanicians and animists" (Nott 1831:350).

Nott's medical career bears imprints of his French philosophy. Whenever possible, he performed autopsies to confirm the causes of his patients' deaths and published the autopsy results along with his premortem clinical diagnosis (Nott 1850e, 1855b, 1858b, 1858d, 1866a). He often visited hospitals, and he himself established a hospital—J.C. Nott's Infirmary—in Mobile. Spurning the excessive systems and nosologies of the Edinburgh school and following Broussais, he came to believe that both nerves and arteries could cause disease—irritability in nerves and inflammation in vessels. In this connection, he praised the work of Charles Bell (1774-1842), the scientist who differentiated the function of sensory and motor nerves (Nott 1844a). Rush had treated "fever" as a distinct disease entity that was the cause instead of the effect of disease. Because he was more empirical, Nott was more skeptical, believing that doctors had not yet determined the essence of disease and should therefore treat only disease symptoms (Nott 1861). In 1861, Nott wrote a syllabus of lectures on surgery for his new Medical College, in which he followed the approach of the eminent surgeon Dr. Samuel Gross (1805-1884) and offered a cornucopia of disease therapies. They included diet, tonics, astringents, poultices, incisions, sleep, ventilation, chlorides, wine, ammonia, camphor, and cod liver oil, to name only a few (Nott 1861). Therapy had come a long way since the near monopoly of bleeding a half century earlier.

Nott's interest in physiology even extended to the fringe of mesmerism. Mesmerists believed in the existence of an imponderable medium through which people might communicate under hypnosis. Although by the 1840s mesmerism had fallen into the hands of charlatans, Nott believed that the doctrine had scientific merit: the mesmeric medium was

a kind of self-generated vitality. During a three-year period, Nott performed some 50 mesmeric experiments in the parlors of his Mobile friends. He claims to have induced catalepsy, sleep, and insensitivity to pain, during which some subjects' teeth were removed (Nott 1846a).

Nott was only one of many doctors who dabbled in pseudosciences of the day. Morton flirted with the pseudoscience of phrenology, and Caldwell embraced phrenology outright (Erickson 1977, 1981). The appeal of phrenology was largely anatomical, reinforcing craniometric bias. But the appeal of mesmerism was more physiological, reinforcing the idea that the nervous system was the center of vital powers. Nott's involvement with mesmerism shows that, in addition to organic form, organic function was an important part of his medical philosophy.

The Emergence of Nott's Anthropology

Although Nott is best known for *Types of Mankind* (1854) and *Indigenous Races of the Earth* (1857), his anthropology emerged long before these books were published. Nott's coauthor Gliddon was the driving force behind both books, and they should be considered his rather than theirs. Beyond this, the books were collections of essays by several authors, so Gliddon and Nott were really only coeditors rather than coauthors. Nott's own anthropology is contained in personal essays that restated views from the early 1840s.

Nott began publishing in anthropology at about the same time he began publishing in surgery and yellow fever, and his continued interest in both anthropology and medicine is seen in his subsequent publications. "The study of man, physical and moral," he later wrote, "belongs legitimately to the medical profession" (Nott 1850a:287). Nott began his career in anthropology to show how races are distinct biological species because they hybridize unsatisfactorily. He converted this attempt into a campaign promoting scientific as opposed to Biblical explanations of the origins of races. In the course of this campaign, he accumulated evidence of the antiquity and permanence of racial types. Throughout, he was guided by his practical medical experience and philosophy.

Nott himself identified his first anthropological publication as an 1842 article in the *Philadelphia Medical Journal*, but the first publication that can be located is the one cited by Stanton (1960), an 1843 article in the *American Journal of the Medical Sciences*, entitled "The Mulatto a Hybrid-Probable Extermination of the Two Races If the Whites and Blacks Are Allowed to Marry" (Nott 1843). Nott ventured into anthropology to express agreement with the anonymous author of an article published the preceding year in the *Boston Medical and Surgical Journal*. Citing notoriously inaccurate medical statistics, Boston author "Philanthropist" had tried to show that mulattos and free Negroes living in that city were neither as strong nor as healthy as whites living there ("Philanthropist" 1842). Nott added that southern mulattos also suffered depressed stature and intelligence; they were less prolific than whites; and, for some unexplained reason, they were largely immune to yellow fever. Because mulattos were degenerate, they were hybrids of distinct natural parent populations which Nott called species. Sooner or later, hybrid mulattos would become extinct or revert to one of the parent species (Nott 1843).

Before Nott's time, monogenists had used hybridity to show that blacks and whites belonged to the same species. Nott's attempt to show the opposite—that they belonged to different species because the hybrids were degenerates—was a theme derived from earlier anthropologists. It became an important defense of polygenism. The hybridity argument had nothing directly to do with craniology, and Nott was not Morton's "student," as is sometimes erroneously reported (Lurie 1954; Schiller 1979). But the hybridity argument did impress Morton and, through him, impressed leading mid-century European

polygenists. Nott himself learned about polygenism from French scientists of an earlier period. Like Morton, he borrowed ideas from Jean Baptise Bory de Saint Vincent (1778-1846), A. Desmoulins (1796-1828), and Julien Joseph Virey (1775-1846), a trio of Paris-based scientists who believed in racial separateness (Nott 1845, 1849a). Nott bought his books from Europe (Nott 1851c), and several polygenist works were available there, including Bory de Saint Vincent's *L'homme: Essai zoologique sur le genre humain* (1827), which described the separate creation of several human species in separate parts of the earth, and Virey's *Histoire naturelle du genre humain* (2nd. ed. 1824) and *Histoire des moeurs et l'instinct des animaux* (1822), which related intelligence and instinct to functioning of the central nervous system. At least some of Nott's American School ideas were imported from France in the era of Bory de Saint Vincent, Americanized, and then exported back to France in the era of Broca.

The doctrine that different species could hybridize required a definition of species that was independent of hybridity. Nott borrowed his definition, ironically, from the foremost monogenist of the day, Englishman James Cowles Prichard (1786-1848). Nott read the several editions of Prichard's *Researches into the Physical History of Mankind* (1813, 1826, 1836-47), taking pleasure in watching Prichard try to "squirm out" of the Mosaic account. His definition of species was "a race of Animals or Plants, marked by peculiarities of structure, which have always been constant and undeviating" (Nott 1844b:17). To prove that blacks and whites were different species, Nott needed evidence of racial distinctness through time.

In 1844, Nott published *Two Lectures on the Natural History of the Caucasian and Negro Races* (Nott 1844b), the first of several such publications that antagonized clergymen. "Our avowed object, from the start," he recalled later, "was to cut the natural history of man loose from the Bible" (Nott 1850a:391). Nott doubted that the Mosaic account could shed any reliable light on racial origins because there was so much disagreement among scholars about Biblical chronology. Besides, even generous Biblical chronologies were contradicted by accumulating archaeological evidence of racial antiquity, especially in Egypt. Nott proposed instead that there had been several divine creations, destructions, and recreations preceding the creation described by Moses. The animals on earth today were created after the time of Noah and were distinct from the antediluvian animals. Whether created before or after the Flood, true Negroes were omitted from the Mosaic narrative. This explanation shows clearly the influence of the great French paleontologist Georges Cuvier (1796-1852). Nott was a catastrophist (Nott 1844b).

Nott's *Two Lectures* was full of racism, Biblical criticism, and some craniology, which he had begun to learn through a budding correspondence with Morton. It also was full of Nott's medical philosophy. Its stress on science over scripture is consistent with the empirical, inductive methodology of the Paris clinical school. Appealing to experience, Nott reinforced his hybridity argument with his own clinical statistics of differential racial susceptibility to disease, especially yellow fever. Animal domestication showed how some organisms could be transformed, and Nott met this threat to polygenism by rejecting animal/human analogies as logical rather than observational. Each kind of organism was observed to have its own physiological laws; domesticated animals and people were just different. This is the vitalistic physiology of Charles Caldwell, cited by Nott (1844b, 1849b) as a source of his information. Nott called Caldwell's *Thoughts on the Unity of the Human Species* (1830) a "triumphant" refutation of Prichard (Nott 1850b).

In addition to Prichard, Nott read books by surgeon William Lawrence (1783-1867), another prominent English monogenist and author of *Lectures on Physiology* (1819). He rejected both Prichard's influences of climate and Lawrence's accidents of nature as agents of racial change. Accidents of nature simply were not observed, while in order to change

race, influences of climate would have to be heritable, and this was not observed either. Generation after generation, whites failed to acquire immunity to yellow fever, nor was sun-tanned skin transmitted to offspring. Nott tried to discredit monogenism by associating it with Lamarckism, which he ridiculed. For Nott, the only way races could change was through hybridization, and this kind of change was degenerate (Nott 1844b).

Nott welcomed the opportunity to argue with clergymen that scripture was falsified by science. His first major antagonist was Reverend Moses Ashley Curtis of Hillsboro, South Carolina, whom he debated in pages of the *Southern Quarterly Review* ("C" 1845; Nott 1846c). With satisfaction, Nott wrote to Morton in 1847, "My Niggerology, so far from harming me at home, has made me a greater man than I ever expected to be—I am the big gun of the profession here" (Nott 1847a). These highly publicized squabbles captured the attention of English diplomat and Egyptologist Gliddon and were the beginning of their relationship. In 1848, Nott also began to correspond with archaeologist Squier, coauthor with Edwin Hamilton Davis of *Ancient Monuments of the Mississippi Valley* (1848). Nott praised Squier and Davis' book as an important demonstration that races were ancient in the New World as well as the Old World (Nott 1850a).

In 1848, at the invitation of his influential friend James DeBow (1820-67), editor of *DeBow's Review*, Nott delivered two lectures at Louisiana University in New Orleans. Published as *Two Lectures on the Connection Between the Biblical and Physical History of Man* (Nott 1849b), they were essentially restatements of views published five years earlier. Biblical chronologies are in such disarray, Nott wrote, that "no divine revelation has even been made on this subject; or, if made . . . it has long since been lost" (Nott 1849b:71). He had strengthened his commitment to the idea of human prehistoric antiquity, now stating that fossil human bones had been found in archaeological association with fossil antediluvian animal bones. In addition to Morton, Gliddon and Squier, Nott now consulted Charles Pickering (1805-78) and Elisha Bartlett. Pickering was a Philadelphia physician and naturalist, member of leading scientific societies and author of *Races of Men and Their Geographical Distribution* (1848). Bartlett, a better-known New England physician and student of the Frenchman Louis, wrote on fevers and was author of *An Essay on the Philosophy of the Medical Sciences* (1844), an influential book that Ackerknecht (1950) has shown to be a systematization of French clinical medicine.

Louis Agassiz, the eminent Swiss-born geologist, sided with Nott in 1850. Nott had become interested in the history of Jews, because Jews were the race mentioned most often in the Bible and because they were only slightly modified after centuries of geographical dispersion. Nott arranged to read a paper on Jewish history at the 1850 meeting of the American Association for the Advancement of Science in Charleston. His *Two Lectures* had created a stir among Charlestonians, and local scientists and clergymen alike looked forward to the meeting. In his paper (Nott 1850c), Nott pronounced that Jews were a distinct racial type almost 4,000 years old. The pronouncement prompted much discussion, in the course of which Agassiz let it be known that he had changed from the unity to the plurality position and now agreed with Nott's statement about Jews: "God has put a mark upon them, by which they may be always known, and for the mere purpose of distinguishing them from other races" (Nott 1850d:13).

A few years before the Charleston meeting, distinguished English geologist Charles Lyell (1797-1875) had come away from a Southern visit believing, much to Nott's distress, that blacks eventually could be educated to the level of whites (Nott 1846b). Agassiz's visits to the South, however, had convinced him that blacks and whites were distinct. His joining the American School enhanced significantly its scientific reputation (Lurie 1954). Agassiz's scheme divided the world into distinct zoogeographical realms, each with its own flora, fauna, and, now, races. Each realm encompassed a variety of climates so the

essential homogeneity of races within realms demonstrated that the human constitution resists the impact of climate. Nott incorporated this idea into his catastrophism (Nott 1853).

Another important event of 1850 was the beginning of Nott's long feud with Rev. Dr. John Bachman (1790-1874) of Charleston. Bachman was Professor of Natural History at Charleston College and a Lutheran clergyman in the city. He monitored the controversy over Nott's *Two Lectures* (1849b) and attended the 1850 meeting of the American Association for the Advancement of Science. That same year he published his defense of monogenism—chiefly Prichard's monogenism—in a book, *The Doctrine of the Unity of the Human Race* (1850). Nott's review (Nott 1851a) gave him an opportunity to present once again his views on hybridity, Biblical chronologies, and criticisms of animal/human analogies. His philosophy of science—sounding very much like Bartlett's version of French clinical medicine—still was that experience, not reason or authority, must be the arbiter of truth. Thirty years of studying the anatomy, physiology, and pathology of blacks and whites showed him that these races simply did not change. Nott was confident of defeating Bachman. With optimism and a sense of accomplishment, he wrote Morton in 1850, "It is gratifying to see what rapid progress Ethnology has made in the last few years—we have now day light and fair play and the truth will soon be as fully acknowledged in this department, as it is in Geology and Astronomy" (Nott 1851d). A few weeks later, Morton, leader of the American school, died.

Types of Mankind and Indigenous Races of the Earth

After Morton's death, Nott's friend Gliddon persuaded him to help publish a book dedicated to Morton's memory. Nott already knew Gliddon when he visited Mobile in 1852, and they issued a prospectus (Nott 1852). Successfully subscribed, the book appeared two years later as *Types of Mankind* (1854). Historians of anthropology usually identify *Types of Mankind* and *Indigenous Races of the Earth* (1857) as follow-ups to Morton's books on craniology. In fact, only a small part of either book is devoted to craniology.

Nott knew that Gliddon's zeal to falsify scripture was excessive. Even before issuing the prospectus for *Types*, he expressed disapproval. "I hope most devotedly that I shall never hear the words Mono- & Polygenists, pronounced," he complained to Squier, and "I have no longer any doubt about his insanity on the subjects" (Nott 1851b). Nevertheless, Nott agreed to help Gliddon, because he liked him personally and did not want to prevent him from earning money to support his family (Nott 1857a).

Types of Mankind was a disorganized collection of articles of uneven length and quality. One part was written principally by Nott, two parts principally by Gliddon. There was a memoir on Morton by Philadelphian Henry S. Patterson, a sketch on zoogeography by Agassiz, and an article on geology and paleontology by William Usher, a physician friend of Nott's from Mobile. Patterson's job was to publish material made available by Morton's widow, while Agassiz showed how the natural geographical boundaries of animals and races correspond, and Usher surveyed archaeological discoveries that he believed pushed back the antiquity of American Indians to more than 56,000 years. Gliddon's contribution came last. It was a ponderous discourse on Biblical chronology and anthropology written in a style so awkward that Nott called it Gliddon's "scrap book" (Nott 1854b).

Nott's part of *Types* expanded ideas published five years earlier in *Two Lectures* (1849b). He clarified his opposition to Prichard's theory of climatic influence by juxtaposing Agassiz's theory of zoological realism of separate racial creations. He also emended his definition of racial distinctness. In addition to species, defined by both separate origin

and constancy of characters, Nott now allowed permanent varieties, defined by constancy of characters alone. The bulk of Nott's essay was devoted to the racial histories of Jews, Egyptians, Negroes, and American Indians, bringing together his and others' previously published information. He concluded with a discussion of the comparative anatomy of races, in which he reviewed Morton's work on cranial capacity. Beyond crania, Nott was reluctant to compare races anatomically because, he explained later, "internal anatomical differences do not necessarily indicate different species" (Nott 1854e).

After *Types* appeared, Gliddon left America for Europe to collect information for another book. In his absence, Nott complained to Squier and his friend, paleontologist Joseph Leidy (1823-91), about his collaborator's conduct. Thinking that the whole book should be reorganized and rewritten, he promised Leidy, "One thing at least is certain that I will not allow my name to go before the world again, in any but a purely Scientific book, entirely free from all personalities & religious controversy" (Nott 1854d). About *Types*, he confided to Squier, "I probably feel as little personal interest, or excitement about it as any man in the United States—I don't care a curse what people say about it or think about it—the devil was in me & as soon as he got out the excitement passed away" (Nott 1854a). Nott tried to resist helping Gliddon again. "I have begged him to enlist somebody else," he wrote Squier again, "& I have resolutely refused to commit myself to him by any promise," yet "he seems to have made up his mind that he cannot & will not do without me" (Nott 1854c). But, in the end, Nott decided to help make their second book better than the first.

During the three years between *Types of Mankind* and *Indigenous Races of the Earth*, Nott busied himself with his medical practice and writings on yellow fever and surgery. In anthropology, while continuing to skirmish with Bachman (Nott 1855c), he launched another project. He supervised the English translation of Joseph Arthur de Gobineau's (1816-82) *Essai sur l'inegalite des races humaines*. Like Nott, Gobineau attributed political decline to racial hybridization (Nott 1855b). The actual translating was done by a young linguist friend of Nott's, H. Hotz, and the book appeared in 1856 as *The Moral and Intellectual Diversity of Races*. Nott appended an essay on the unity and plurality of species that held Gobineau's views to be incontrovertible but incomplete, because Gobineau stopped short of accepting that races had distinct origins (Nott 1856). This translation project of Nott's shows his continued interest in promoting French ideas.

When *Indigenous Races of the Earth* was published, it was another disappointment. Gliddon did most of the editing (such as it was), and his prefatory remarks included statements by Agassiz and Leidy. Alfred Maury wrote about how language and race classifications correspond, and there were articles on art and race by Francis Pulsky and on crania and race by J. Aitken Meigs. As in *Types*, Gliddon's part came last—a long, erudite, but inscrutable discourse on monogenism, polygenism, and the Bible (Nott and Gliddon 1857).

Nott tried to make *Indigenous Races* scientific. The subject of his essay was acclimatization, and its lesson was that races fail to acclimatize. Nott divided climate into two types, physical climate and medical climate, and in his essay concentrated on the latter. Drawing on his own medical experience, he presented evidence that races differ in their susceptibility to disease. Due to disease barriers, whites had been unable to colonize the tropics fully, while mortality among blacks was higher in Northern than in Southern states. Although in 1853 some blacks did suffer from yellow fever, the general rule was that they escaped its ravages. "I hazard nothing in the assertion," he wrote, "that one-fourth negro blood is a more perfect protection against yellow fever, than is vaccine against small-pox" (Nott and Gliddon 1857:367). In addition to yellow fever, blacks were more resistant than whites to inflammatory diseases, requiring less blood-letting when

treated in Nott's Mobile Infirmary. On the other hand, blacks were more susceptible than whites to cholera, typhoid fever, and other diseases Nott called malarial marsh poisons. Years before, Nott had become an advisor to life insurance companies and compiled for them life expectancy statistics for blacks and whites (Nott 1847c). These statistics showed that disease susceptibility was not a simple matter of latitude, as Prichard believed, but instead a "physiological law of race" (Nott and Gliddon 1857:393). For many of his ideas, Nott was indebted to French physician Dr. Boudin, chief physician at l'Hospital Militaire du Roule in Paris—another French influence (Nott and Gliddon 1857).

Nott was satisfied with his essay in *Indigenous Races* but was critical of the book as a whole. Following its publication, he wrote to Leidy, "I suppose Gliddon's book is out by this time—he has provoked me so by his vulgar theology, that I have not read ten pages of his proofs and do not know that I shall ever read any more of his articles" (Nott 1857b). A few months later, Gliddon died of fever, ending their curious relationship. After Gliddon's death, Nott turned his attention away from scientific anthropology, publishing only one article on the antiquity of dogs (Nott 1858d). He occupied himself with his move to New Orleans and, upon his return to Mobile, his new Medical College. Then Nott's home State of South Carolina seceded from the United States and Civil War engulfed the country.

The Politics of Slavery

From the perspective of today, Nott deserves the label Brace gives him: "At bottom . . . a prototypical Southern racist" (Brace 1974:516). Nott himself refused to accept such a label. To him, anthropology was no mere excuse for the politics of slavery. Instead, anthropology showed scientifically how well slavery suited the Negro's nature!

Nott's special attention to the medical needs of blacks was practical as well as humane. Slaves were property, and it made good financial sense to keep property well maintained, in this case by keeping it healthy. Wealthy plantation owners often provided their slaves better health care than poor Southern whites provided themselves (*Management of a Southern Plantation* 1857; Shryock 1966). It was helpful to identify diseases to which Negroes were susceptible, and as advisor to insurance companies, Nott made it his business to determine how best Negroes might be insured. Economic considerations also figured in J.C. Nott's Infirmary. Nott thought that epidemic diseases might be prevented if Negroes received medical care in a hospital rather than in their cramped and dirty living quarters (Nott and Crawford 1849). He believed that under the care of whites, American slaves were better off than African slaves, free Northern Negroes, and blacks living in West Indian nations. A slave owner himself, he opposed abolition and advocated emancipation only if some unforeseen circumstance promised to make Southern Negroes happier than they were in servitude (Nott 1847b).

Nott defended slavery as a Southern partisan. Addressing the Southern Rights Association of Mobile in 1850, he branded Negroes "the lowest point in the scale of human beings" and the prospect of their interbreeding with whites "insulting and revolting" (Nott 1851d:330). He usually submerged politics in his "legitimate" anthropology publications of the 1840s and 1850s, but when sectional conflict threatened to escalate into military conflict after 1860, his publications about race made politics overt. Once Nott predicted that the entire South would secede, he declared himself a secessionist and vowed to fulfill his military duty (Nott 1860a).

Nott did not remain long in the South after defeat of the Confederacy. He had turned 60 while serving in the Confederate Army, lost two sons in the conflict, suffered major professional and financial setbacks, and watched his Medical College taken over by the Freedman's Bureau and turned over to Negro students. He predicted ruination of the South's economy. Part of the character of a race, he argued, was its instincts, and, instinctively, the Negro race was unsuited to free agricultural labor. Because the tropics, where blacks originated, had a more extreme climate than did the temperate regions, where whites originated, blacks were naturally less adaptable than whites. Nott predicted that instinctively industrious whites would supplant blacks in agriculture, and blacks, unable to move north, would remain idle and unproductive in the South—an impossible drain on its financial resources. He decided that the South was no longer fit for a white man (Nott 1865; 1866b; 1866e; 1866g).

Nott believed that blacks had been blacks for almost 4,000 years, so he showed little patience with the Freedman's Bureau when it claimed that their character could be changed, by comparison, almost overnight. In 1866, he published an open critical letter to the Superintendent of the Freedman's Bureau, in which he predicted that the Bureau was doomed to failure (Nott 1866g). This letter found sympathy among English anthropologists, who had a history of disagreement with English ethnologists about abolition of slavery in European colonies. The letter was reprinted in *The Popular Magazine of Anthropology*, organ of the new Anthropological Society of London. Many Society members were polygenists, and the *Magazine's* editor called Nott "the greatest living anthropologist of America" (Nott 1866f:102).

Nott's Anthropology Discontinued

Between 1859, when his Medical College opened, and 1867, when he moved to Baltimore, Nott put politics before the science of race. Charles Darwin's *Origin of Species* was published in 1859, but the submergence of Nott's scientific anthropology cannot be attributed to inauguration of the Darwinian era. Darwin's dynamic world view contrasted with Nott's static world view, but Nott had already accommodated evolution and saw it as no threat to his central thesis about the permanence of race.

Nott actually liked one aspect of *Origin of Species*—its anti-clerical implications. It was the scientific theory itself that troubled him. After skimming Darwin's book in 1860, he wrote Squier that it was "a capital dig into the parsons," but "the man is clearly crazy" (Nott 1860a), and in 1871, when many scientists had come to accept Darwinism, he quipped again to Squier, "You may be kin to frogs but I ain't" (Nott 1871). In print, Nott stood strongly neither for nor against evolution, because he believed that evolution was peripheral to anthropology. The process was too slow. "This school requires millions of years to carry out the changes by infinitesimal steps of progression," he reasoned, and "with such theories, or refinements of science, our present investigation has no connection, as the Freedman's Bureau will not have vitality enough to see the negro experiment through many hundred generations, and to direct the imperfect plans of Providence" (Nott 1866d). Even though evolution might throw open the question of the ancient origins of races, Nott had already stated in *Types of Mankind* that constancy of character by itself was sufficient to make races: if not true species, then at least permanent varieties. Whether species or permanent varieties, the result was the same—no racial change for the foreseeable future (Nott 1866d).

After Nott left Mobile, he continued to publish articles on surgery and yellow fever, but not a single article on race. The Civil War had ravaged his family and career, and its outcome convinced him that his kind of anthropology would not be implemented in politics. Nott left anthropology for practical financial reasons as well. In New York, he had to spend so much time making money that he had no time for anthropology. Several times (Nott 1868, 1869) he declined Squier's invitations to become involved in the New York anthropology society because he had no money to buy anthropology books. If only someone would guarantee him an annual income of \$10,000, he lamented, "I will live in the library & devote myself to Anthropology" (Nott 1858a). In the end, Nott had to sell his books to finance his last trip back to Mobile, where he died in 1873.

Nott as Early Medical Anthropologist

In this account of Nott's anthropology, it may appear that an inordinate amount of attention has been directed to his clinical medicine. However, there are two reasons for this. The first is that this approach shows in detail how Nott's polygenism was part of his medicine, in a way that makes him recognizable as an early medical anthropologist. The second reason is that Nott's medicine affected his polygenism.

Nott's medical anthropology was both domestic and imported. The practical part of it was home-grown. It derived from first-hand experience treating black and white patients in the American South. Nott's racial hybridity argument originated in medical statistics, and his ideas on race acclimatization came from intimate knowledge of how diseases affected races differently. While Morton worked with skulls, Nott worked with people as patients, and it is natural that he became involved with physiology as well as anatomy. Nott's ideas about racial antiquity involved physiology, because he was interested in the antiquity of organic function as much as form. Nott's part of *Indigenous Races* (given his disapproval of Gliddon, the only part of which he certainly approved) was fundamentally an essay on race, climate, and disease. Even in pseudoscience, Nott was more interested in physiological mesmerism than anatomical phrenology.

Nott was a good doctor, and in an era when American medicine was bad, he turned to Europe for philosophy. A French connection pervades his work. It was established at least as early as his student days in Philadelphia, where faculty members like Jackson were challenging the authority of Rush and the Edinburgh school. It showed up in his affiliation with French clinicians like Broussais; his admiration for French medical education; his trips to Paris for consultation and equipment; and his respect for Americans like Bartlett who themselves were French sympathizers. Nott's polygenism in particular was connected to France. There was his version of Cuvier's catastrophism and Agassiz's modification of it; his use of Boudin, Bory de Saint Vincent, Desmoulins, and Virey; and his decision to promote Gobineau. Physiological vitalism was a common French medical theme.

What was Nott's ethos? Some of the key features of his medical anthropology include physiological vitalism, his racial typology and idea of permanence of racial types, his disbelief that races acclimatize or are transformed by nature, and his lack of scientific experimentation. All of these imply a kind of Platonic essentialism, in which life is separate from nature and some kinds of organisms are separate from others. Such separation is foreign to the modern ethos of science, in which all organic and inorganic things are interconnected. Nott's medical anthropology was certainly not religious, but neither was it positivistic. There are many features of it that fit with what Brace (1982) has called the "Romantic" ethos, an anti-egalitarian, anti-rational, and anti-materialistic reaction to the 18th-century Enlightenment. Nott was part of that trend.

Notes

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