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A CONFEDERATE EDUCATION IN THE NEW SOUTH:
SOUTHERN ACADEMIA AND THE IDEA OF PROGRESS IN THE
NINETEENTH CENTURY

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of History

by

Dan R. Frost

B.A., California State University, Fullerton, 1984

M.A., California State University, Fullerton, 1988

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ABSTRACT

The idea of progress inspired former Confederate officers who entered academia to transform Southern higher education from its antebellum classical and republican orientation to a postbellum focus on science and utility. Defeat taught these academics that Southern institutions had failed to supply graduates with the scientific skills necessary to compete economically, industrially, and militarily with the North. They concluded that the Confederacy's collapse demonstrated the necessity of abandoning the republican conception of progress, characterized by fears of cyclical decay, in favor of the modern idea of progress which emphasized inevitable and unlimited material and social improvement. Confederate-veterans-turned academics believed scientific education promised to create a prosperous New South founded upon industry and technology. Furthermore, they concluded that progress, controlled by an all-knowing Providence, necessitated Confederate defeat in order that the United States could resolve the problems of slavery and secession so the nation might fulfill its destiny of achieving a perpetual and progressive republic. They also applied their faith in science to history in an effort to prove scientifically that the war was not fought for slavery but

for democratic principles. This permitted Confederate veterans-turned-academics to honor the memory of the Confederacy, reconcile with the North without recrimination for their failure to win Southern independence, and move forward to build the New South. These academics did not see the Lost Cause and the New South as separate or competing myths or creeds, but instead viewed them as part of a single progressivist ideology. The Civil War generation of academics intellectually defined the Southern idea of progress and passed it on to their students, thereby creating a perpetual expectation for the arrival of the New South.

INTRODUCTION

"From Gen. Robert Lee, down, a large number of eminent military men were summoned to the office of president and professor in the collegiate...schools--revived or newly established in the years after 1865," observed the native of Massachusetts and Unitarian minister Amory Dwight Mayo in an 1889 address to a meeting of the National Educational Association in Nashville. "No class of able Southern gentlemen," Mayo continued,

have done so much in the educational revival of the past twenty years as these men; who hung up sword to wield the professor's 'pointer' and retired from the well-fought field of arms to maneuver, on the blackboard, the columns of symbolic signs that prophesy the coming civilization of a continent.¹

Mayo's observation revealed his understanding of the convictions prevalent among Confederate officers who entered academia and combined the hope of postbellum reconciliation with a millennial idea of progress. Historians, however, have generally ignored or rejected both Mayo's assessment of the role former Confederate veterans played in revitalizing Southern higher education and his insight into the mind of postbellum Southern academics. This neglect results partly from a lack of academic monographs on postbellum Southern

¹A. D. Mayo, The Training of Teachers in the South: A Paper Read Before the Normal Department, National Educational Association, Nashville, Tenn., July, 1889 (n. p., [1889]), p. 2.

higher education, especially for the years between the end of the Civil War and the turn of the century. Furthermore, the studies that exist describe the Civil War generation of postbellum educators as incompetent and inimical to educational reform. The image of these academics is also colored by a historical interpretation that views former Confederate officers as beholden to Old South attitudes and hostile to innovation and change. Consequently, Confederate veterans who entered academia after the war are viewed as antagonistic or apathetic to changes in curricula and teaching methods that occurred elsewhere in the United States.²

²Thomas G. Dyer, "Higher Education in the South Since the Civil War: Historiographical Issues and Trends," in The Web of Southern Social Relations: Women, Family, and Education, eds. Walter J. Fraser, Jr. and Jon L. Wakelyn (Athens: University of Georgia Press, 1985), pp. 127, 130; Frederick Rudolph, The American College and University: A History (New York: Alfred A. Knopf, 1962), p. 244; Allan M. Cartter, "The Role of Higher Education in the Changing South," in The South in Continuity and Change, eds. John C. McKinney and Edgar T. Thompson (Durham, North Carolina: Duke University Press, 1965), pp. 281-289; Joseph J. Mathews, "The Study of History in the South," Journal of Southern History XXXI (February 1965): 4; Joseph M. Stetar, "Development of Southern Higher Education, 1865-1910: Selected Case Studies of Six Colleges" (Ph. D. dissertation, State University of New York at Buffalo, 1975); Joseph M. Stetar, "In Search of a Direction: Southern Higher Education after the Civil War," History of Education Quarterly 25 (Fall 1985): 343-357; Charles Reagan Wilson, Baptized in Blood: The Religion of the Lost Cause 1865-1920 (Athens: University of Georgia Press, 1980), pp. 68, 81-6, 139-160; Harvey Neufeldt and Clinton Allison, "Education and the Rise of the New South: An Historiographical Essay," Education and the Rise of the New South, eds. Ronald K. Goodenow and Arthur O. White, (Boston: G. K. Hall and Co., 1981), p. 259.

Historians have not adequately explored the ideas and actions of Southern academics. Did postbellum Southern academics of the Civil War generation move in concert to develop a particular type of education, either conservative or innovative, for the defeated South? Or did they create a quilt of idiosyncratic New South experiments and Old South museums throughout the region? Were these academics adherents to a common ideology that allowed them to proceed with their educational efforts despite the potential paralyzing despair wrought by military defeat? These questions are largely unexamined because historians have neglected or denied intellectual status to the Civil War generation of Southern academics.

Higher educators attempted to create a common education for the South in the postbellum period. Southern academics, especially former Confederate officers who served as presidents and professors at state universities and agricultural and mechanical colleges, (but not excluding private and parochial schools), introduced scientific and technical curricula into their institutions for the purpose of training chemists, civil, mechanical, and mining engineers, geologists, and scientific agriculturalists whose expertise promised to transform the South into a modern society. In the process, these educators hoped to promote

sectional reconciliation. The idea of progress served as the intellectual motivator for their actions.³

Southern academics who used their understanding of progress to inspire and support their activities and policies identified with the New South. The Southern idea of progress, however, represented more to these educators than a mere euphemism for the New South. Progress suggested not an abandonment of the Lost Cause in favor of the New South but intricately linked future material and spiritual progress to a proper understanding and respect for the past. The men who attempted to revive Southern higher education over the first three decades after Appomattox served the

³J. B. Bury's often cited or summarized definition of the idea of progress remains the clearest and most useful. He defines it as the belief that "civilisation has moved, is moving and will move in a desirable direction." There are differences among adherents as to the types of progress, however (for example, spiritual or technological); the movement of progress (for example, "rectilinear" or "spiraliform"); the pace of progress (for example, discontinuous or constant); and the agent of progress (for example, Providence or nature). The amorphousness of the concept leads W. Warren Wagar to conclude that "the idea of progress is a thought-form, not a doctrine with a specific ideological context." See J. B. Bury, The Idea of Progress (London: MacMillan & Co., 1928), p. 2; John Andrew Bernstein, Progress and the Quest for Meaning: A Philosophical and Historical Inquiry (Rutherford, NJ: Fairleigh Dickinson University Press, 1993), pp. 17-18; Christopher Lasch, The True and Only Heaven: Progress and Its Critics (New York and London: W. W. Norton & Co., 1991), p. 47; Roger Nisbet, History of the Idea of Progress (New York: Basic Books, Inc., 1980), pp. 4-5; David Spadafora, The Idea of Progress in Eighteenth Century Britain (New Haven and London: Yale University Press, 1990), p. 4; W. Warren Wagar, Good Tidings: The Belief in Progress from Darwin to Marcuse (Bloomington and London: Indiana University Press, 1972), pp. 3-10.

Confederacy either as military officers or government officials. These former Confederates refused to concede that defeat left them on the losing end of history. The idea of Providential and inevitable progress allowed Confederate veterans-turned-academics to cherish the antebellum South, honor the memory of the Confederacy, and reconcile with the North without recrimination for their failure to win Southern independence.

Postbellum Southern academics imbibed the Victorian confidence in the scientific method to enable humankind to comprehend both the mysteries of natural science and human social behavior. Progressivist⁴ Southern academics believed that the scientific examination of historical facts revealed the inevitability of Confederate defeat. The South lost because of antebellum Southerners' refusal to embrace the scientific and utilitarian education necessary to spur industrialization. These academics blamed their defeat on the North's overwhelming industrial advantage which they attributed to the superior technical education Northern schools provided their students. Southern antebellum institutions, they believed, had failed to supply college graduates with the practical scientific skills necessary to compete economically, industrially, and militarily with the

⁴I have selected the adjective and noun "progressivist" to describe and refer to Southern academics who adhered to ideas of progress instead of "progressive" in order to avoid confusion with the latter word's more typically understood historical connotations.

North. Confederate defeat Providentially demonstrated to Southerners the necessity of embracing modern material progress. Furthermore, Northern victory necessitated that any future Southern glory must transpire within the confines of the Union.

Former Confederates who entered academia recognized the South's strenuous attempt to industrialize during the war in order to compete with the North's advantage in materiel. Emory Thomas argues that the impact of this industrialization revolutionized Confederate society. He believes, however, that this "revolutionary experience did not survive the total defeat and destruction of the Confederate state."⁵ Thomas is incorrect, however, in his assessment that Union forces eliminated the effects of industrialization. Many Southern military officers who participated in the Confederacy's attempt to transform the South from an agrarian to an industrial society brought that experience with them into academia after the war. This "revolutionary experience" convinced postbellum Southern supporters of scientific education that their section needed to acquire and implement the technical skills necessary to

⁵Emory M. Thomas, The Confederacy as a Revolutionary Experience (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971), pp. 87-99, 135-136. See also Raimondo Luraghi, "The Civil War and the Modernization of American Society: Social Structure and Industrial Revolution in the Old South before and during the War," Civil War History 18 (September 1972): 243-246; Frank E. Vandiver, Ploughshares into Swords: Josiah Gorgas and Confederate Ordnance (Austin: University of Texas Press, 1952).

wean itself from economic, if not political, dependence on the North.

The progressivist Southern academics' belief in inevitable defeat allowed them to disclaim responsibility for their loss. Furthermore, the scientific investigation of history offered them the opportunity to prove to an exultant North the justness of the South's cause. Unbiased historical research, they argued, would prove that white Southerners waged a war not in the defense of slavery but in the defense of Constitutional principles. The South failed to win its independence, progressivist educators believed, because progress toward an emerging industrial order and a permanent Union made slavery and secession anachronistic.

Their faith in history and progress contained both dialectical and millennial elements. Providentially inspired progress required the dialectical confrontation between the industrial North and agrarian South followed by a Union victory necessary to convince Southerners to embrace modern progress. With the problem of secession and slavery forever settled, the reunited nation could fulfill its millennial destiny through the demonstration of its unmatched material and spiritual progress and continue its role as the hope of nations. Northern academics and intellectuals accepted much of their Southern counterparts' progressive paradigm because it corresponded well with their own ideas about progress.

Southern academics viewed the idea of progress and the Lost Cause, not as antithetical ideologies, or as convictions that needed reconciling, but as intricately linked creeds. It is not surprising that Southern academics joined science and history in this manner because the idea of progress is a view of history closely tied to technological advancement. Roger Nisbet observes that "respect for and acceptance of the past is absolutely vital to the theory of progress; without a past, ...no principle of development, no stages emerging from one another, and no linear projection to the future are possible." Southern progressivist academics created a Lost Cause past capable of sustaining their New South hopes for the future.⁶

Their progressivist vision allowed Southern academics to give themselves the crucial role for its fulfillment. The means by which material and spiritual progress would be carried forward would be through higher education: technical training to accomplish the former and historical training to effect the latter. Although Southern adherents of progress generally believed in its inevitability, they also believed society must actively work to obtain it.

The religious origins for the idea of progress corresponded to the millennial expectations of Southern Protestantism. Southern faith typically mixed conceptions

⁶Nisbet, p. 103. See also Madsen Pirie, Trial & Error & the Idea of Progress (LaSalle & London: Open Court, 1978), pp. 10-12, and Wagar, p. 6.

of Calvinistic predestination and Arminian grace with a general expectation of a millennial Parousia. These ideas blended with the more secular faith of inevitable progress wrought through human actions that would eventually lead to a distant and undefined utopia. Southern academics often fused secular and religious millennial themes in their public addresses.

Southern progressivist academics, like most Americans, advocated a laissez-faire society: free markets, religious liberty, academic freedom, free association (save between the races), and decentralized government. They believed competition, in all areas of life, acted as a major component in the creation of progress; however, they believed that scientific inquiry served as the primary agent of progress. Southern academics drew on Victorian ideas about progress and education--provided by Darwin, Huxley, Spencer, and others--to forge a view of progress they believed met the needs of the devastated South. Although conservative in their view of government's function in society, most not only accepted but advocated public education at all levels. Southern academics believed government should provide education to enable individuals to compete more effectively and therefore accelerate progress. Southern academia's support for tax supported schools enabled them to accept other areas government might operate to stimulate not only material, but social, progress.

Southern academics often championed the use of government to ban child labor, enforce prohibition, promote public health, and regulate railroads, all in the name of progress.

Additionally, their embrace of progress led some progressivist academics to suggest that African-Americans might also advance, especially materially (though never as far or as fast as other Americans). Southern progressivists also called for an expanded roll for white women when warranted by their intellectual talents or manual skills.

The progressivist expectations of the Civil War generation of academics and their allies remained unfulfilled because most white Southerners ignored their appeals, delivered at agricultural and mechanical fairs, to alumni association meetings, before commencement audiences, and reported in newspapers, to help effect progress in the South. They charged that common white Southerners disregarded their calls to provide state and private aid to colleges and universities necessary to supply the technological expertise to fuel the New South. The South, therefore, continued to trail the North economically and the wealth differentials between the sections remained either static or increased. White Southerners thus failed to meet the New South expectations of academics. Despite these discouragements, enough economic and industrial progress occurred in the South over the immediate decades following Appomattox to enable the Civil War generation of Southern

academics to sustain their progressivist faith. The image of progress forged in these years endured to the point where the subsequent generation of postbellum academics adopted their predecessors progressivist ideals.

Although the immediate postbellum generation of scholars failed to bring about an economic or scientific renaissance, they successfully fashioned an ideology combining the South's two most cherished postbellum myths--the New South and the Lost Cause--that provided the intellectual justification for reconciliation. It is not true that postbellum Southern academics possessed little or no mind in the intellectual sense; nor does the generalization, suggested by Mark K. Bauman that "intellectual trends (educational ideas are illustrative) take about a generation longer to have an impact on the south [*sic*] than the North," apply to the postbellum idea of progress.⁷ Southern academics joined their Northern colleagues in celebrating progress. Public and private sentiments expressed by Southern scholars and the curricular reforms they enacted in state universities, agricultural and

⁷W. J. Cash, The Mind of the South (New York: Vintage Books, 1941), pp. 141-145; James C. Cobb, "Does Mind No Longer Matter? The South, the Nation, and The Mind of the South, 1941-1991," Journal of Southern History LVII (November 1991): 681-718; C. Vann Woodward, Origins of the New South 1877-1913 (Baton Rouge: Louisiana State University Press and the Littlefield Fund for Southern History, University of Texas, 1951, 1971), pp. 436-446; Mark K. Bauman, "Confronting the New South Creed: The Genteel Conservative as Higher Educator," in Education, eds. Goodenow and White, p. 109n.

mechanical colleges, and private schools indicate the existence of a coherent progressivist philosophy at the forefront of Southern academic thought.

This study examines the connection between higher education and the idea of progress in the nineteenth century South. Prior to the Civil War, conservative educators dominated Southern academia despite calls by progressivist reformers for more science and less Latin in curricula. Convinced of the need for educational reforms by the South's defeat, postbellum presidents and professors at most Southern state, and numerous private, colleges and universities embraced the ideas of a handful of antebellum advocates of scientific and technical education. During the tumultuous postwar years these educators constructed a Southern idea of progress that enabled them to sustain a vision of a rebuilt and reconciled South that fully shared in the nation's material wealth and spiritual brilliance. In order to obtain that end, they exchanged their swords for pointers and implemented educational policies they believed would provide graduates the ability to fulfill that vision.

CHAPTER 1

PROGRESS AND ACADEMIA IN THE ANTEBELLUM SOUTH

Antebellum Southern academics, intellectuals, and other spokesmen for higher education typically viewed the idea of progress in terms of slavery. Most approached progress cautiously because they feared it potentially threatened the institution. In order to mitigate their fears, they incorporated slavery as a necessary corollary for progress. The classical studies that dominated the curricula of antebellum denominational colleges and state universities reflected conservative attitudes toward progress. A minority of educational advocates, however, either discounted any threat progress posed to slavery or argued that it promised to help protect the institution. Inspired by the idea of material progress, they attempted curricular reform, particularly the expansion of programs in applied science, in an effort to provide Southerners with the technical skills to compete with the North's industrial advantage.

The half century that followed American independence witnessed sporadic attempts to establish Southern state colleges and provide them curricula beyond the classics which dominated American higher education. The 1776 constitution of North Carolina charged that all "useful learning shall be duly encouraged and promoted in one or

more [public] Universities." The University of North Carolina finally opened in 1795. The legislatures of Georgia, South Carolina, and Virginia also established state schools over the next twenty-five years. Southern state universities typically received legislative land grants to provide endowments; however, low property values, which resulted from the widespread availability of land on the frontier, meant the schools generally received few funds from interest on sold properties. Erratic legislative appropriations often forced state schools to depend variously on revenue from escheats, lotteries, tuition, and occasional private donations.¹

The South's first state universities attempted to establish curricula that included some scientific and

¹Robert Polk Thomson, "Colleges in the Revolutionary South: The Shaping of a Tradition," History of Education Quarterly 10 (Winter 1970): 399-412; Kemp Plummer Battle, Sketches of the History of the University of North Carolina, Together with a Catalogue of Officers and Students, 1789-1889 (n. p.: University of North Carolina, 1889), pp. 2, 39, 47-48; Henry McGilbert Wagstaff, Impressions of Men and Movements at the University of North Carolina (Chapel Hill: University of North Carolina Press, 1950), p. 5; Jurgen Herbst, "The Eighteenth Century Origins of the Split between Private and Public Education in the United States," History of Education Quarterly 15 (Fall 1975): 277; Donald G. Tewksbury, The Founding of American Colleges and Universities Before the Civil War: With Particular Reference to the Religious Influences Bearing Upon the College Movement (New York: Columbia University Press, 1932), pp. 166-182; Alma Pauline Foerster, "The State University in the Old South: A Study of Social and Intellectual Influences in State University Education," (Ph. D. dissertation, Duke University, 1939), Chapter I; Thomas G. Dyer, The University of Georgia: A Bicentennial History, 1785-1985 (Athens: University of Georgia Press, 1985), pp. 3-21.

utilitarian training. University of North Carolina's first curricular committee recommended instruction in astronomy, architecture, botany, and theoretical and practical agriculture. Joseph Caldwell, a mathematics professor and the university's first president (1804-1812 and 1816-1835) attempted to put scientific education into the curriculum. Classical studies, however, rose to prominence despite his efforts. Under the traditional system, professors taught the "pure" sciences--the study of science for its own sake--and ignored their potential utilitarian value. Professors thought practical applications of scientific discoveries inconsequential or plebeian. Caldwell's successor, David L. Swain, confirmed the classical character of the university. His parsimony led him to balk at purchasing expensive scientific equipment. One tutor, Kemp Plummer Battle, blamed Swain's "hard and fast" curriculum of "Latin, Greek, and mathematics, with a little philosophy and rhetoric," for students' chronically low morale and poor discipline in the classroom.²

²Kemp P. Battle, History of the University of North Carolina, 2 vols. (Raleigh: Edwards & Broughton, 1907), vol. 1, pp. 48-55, 98-99, 780; Archibald Henderson The Campus of the First State University (Chapel Hill: University of North Carolina Press, 1949), p. 107; Laurence R. Veysey, The Emergence of the American University (Chicago and London: University of Chicago Press, 1965), pp. 23-24, 121-126; Kemp Plummer Battle, Memories of an Old Time Tar Heel, ed. William James Battle (Chapel Hill: University of North Carolina Press, 1945), pp. 80-81.

The most recent historian of the University of Georgia found it "at the forefront of educational change" at the start of the nineteenth century. The curriculum included bookkeeping, botany, chemistry, navigation, and surveying in addition to the classics. Under the leadership of Josiah Meigs, professors often employed the new method of teaching natural science through illustrative experiments. Faculty traditionally taught all collegiate courses by the recitation method. Students memorized portions from texts or lectures and verbally repeated, or "recited," these passages to the professor. The instructor awarded the student points determined by the precision of his performance. Nascent sciences offered new possibilities for ways to teach students; however, the emphasis on science at Georgia quickly vanished. Poor funding and the appointment of the classicist Moses Waddel as president in 1819 ended the university's early experiment in scientific education.³

South Carolina College opened in 1805 and its curriculum emphasized ancient languages, elocution, logic, and moral

³Thomas G. Dyer, Georgia, pp. 11-15, 21-26; Robert Preston Brooks, The University of Georgia Under Sixteen Administrations 1785-1955 (Athens: University of Georgia Press, 1956), pp. 19-23; John S. Brubacher and Willis Rudy, Higher Education in Transition: A History of American Colleges and Universities, 1636-1968 (New York, Evanston, and London: Harper & Row, 1968), p. 84; James Gregory McGivern, First Hundred Years of Engineering Education in the United States (1807-1907) (Spokane: Gonzaga University Press, 1960) p. 127; E. Merton Coulter, College Life in the Old South (Athens: University of Georgia Press, 1951), pp. 34-35.

philosophy. Thomas Cooper's arrival as president in 1820 secured scientific instruction a place in the curriculum. Cooper, an immigrant from England, had taught in a college in Pennsylvania. His religious skepticism prevented him from obtaining a position at the University of Virginia despite the support of his friend and the school's founder, Thomas Jefferson. Cooper brought to South Carolina College an ability to teach chemistry, geology, and mineralogy. Unopposed to the teaching of the classics, he nonetheless believed the study of agriculture, commerce, and manufactures more important than the classical instruction that prepared students for the professions of law, medicine, and theology. One student under Cooper, Maximilian LaBorde, later claimed that Cooper's criticism of theological tenets earned him a reputation as "the great adversary of the Church." Revelations of his impolitic skepticism aroused public hostility and led to his resignation in 1834. Conservative educators served as president until the Civil War and returned the school to its original classical orientation.⁴

⁴Maurice Kelley, "Additional Chapters on Thomas Cooper," University of Maine Studies XXXIII (August 1930): 10-25, 64-65; Thomas Cooper, Address to the Graduates of the South Carolina College, December, 1821 (Columbia: D. Faust, 1821), pp. 6-15; M. LaBorde, History of the South Carolina College (Charleston: Walker, Evans & Cogswell, 1874), pp. 158-177; Daniel Walker Hollis, University of South Carolina, 2 vols. (Columbia: University of South Carolina Press, 1951), vol. 1, pp. 126-174.

The Southern state university most commonly associated with early nineteenth century scientific education, the University of Virginia, opened in 1825. The scientific and utilitarian ideas of the university's foremost supporter, Thomas Jefferson, coincided with those of Thomas Cooper. Jefferson, like Cooper, enjoyed the classics but questioned their usefulness to the new republic. Jefferson believed classical instruction in ancient languages, pure mathematics, moral philosophy, and theology suited Old World aristocrats but not New World republicans. The curriculum he proposed for the University of Virginia included astronomy, botany, commerce, geography, modern languages, and zoology. Jefferson saved his foremost praise for the study of agriculture which he called "the crown of all other sciences."⁵

The extreme importance Jefferson placed on agricultural instruction is readily understandable. The classical idea that civilizations underwent cycles of birth, growth, decay, and death haunted Jefferson and most republicans of his

⁵Daniel J. Boorstin, The Lost World of Thomas Jefferson (Chicago and London: University of Chicago Press, 1948, 1981), pp. 213-225; Thomas Jefferson to Thomas Cooper, 25 August 1814, in Thomas Jefferson, The Writings of Thomas Jefferson, XX vols., ed. Albert Ellery Bergh (Washington, D. C.: Thomas Jefferson Memorial Association, 1907), vol. XIV, pp. 123-125; Thomas Jefferson to Thomas Cooper, 10 July 1812, in Thomas Jefferson, The Writings of Thomas Jefferson, 9 vols., ed. H. A. Washington (Washington, D. C.: Taylor and Maury, 1854), vol. 6, pp. 72-74; Thomas Jefferson to David Williams, 14 November 1803, in Jefferson, Writings, ed. Bergh, vol. X, pp. 428-430.

generation. Hunting and gathering characterized society at its birth. The subsequent agricultural stage represented a youthful period of growth. Commercial and manufacturing formation, indicative of maturity and decline, replaced the agrarian stage. Republicans believed American society stood at the agricultural phase of development, which they considered the most prosperous and beneficial, and which consisted primarily of yeoman farmers whose independence enabled them to act virtuously by placing public interest over self-interest. Republicans hoped to delay the commercial stage which resulted in overcrowded cities and decreased land availability. These led to impoverished masses dependent upon manufacturers for subsistence, encouraged demagogic politicians, and established intrusive government, all of which encouraged selfishness that threatened virtue, and in turn, property and liberty. Republicans hoped the West offered enough land to prevent overpopulation indefinitely.⁶

Republicans discovered that American farmers produced more than the domestic market consumed. Unless farmers

⁶Stow Persons, "The Cyclical Theory of History in Eighteenth Century America," American Quarterly VI (Summer 1954): 147-163; J. G. A. Pocock, The Machiavellian Moment: Florentine Political Thought and the Atlantic Republican Tradition (Princeton: Princeton University Press, 1975), pp. 333-552; Lance Banning, The Jeffersonian Persuasion: Evolution of a Party Ideology (Ithaca & London: Cornell University Press, 1978), pp. 42-69, 126-160; Drew McCoy, The Elusive Republic: Political Economy in Jeffersonian America (New York & London: W. W. Norton & Co., 1980), pp. 13-119.

located new markets, too little demand threatened to reduce yeomen to subsistence agriculture which offered little incentive to labor because it promised no rewards beyond mere existence. Subsistence farming promoted idleness which contradicted republican conceptions of industry. Republicans turned to foreign markets to prevent this from happening; however, overseas trade stimulated the importation of European luxuries that promoted acquisitiveness, encouraged self-interest, and therefore threatened virtue. Many republicans comforted themselves with the hope that agrarian life enabled Americans to import luxuries without suffering corruption. Thus, republicans abandoned their classical opposition to commercial development and encouraged trade in hopes of maintaining their agrarian republic. European embargoes and the War of 1812 closed ports to American shipping and demonstrated the unreliability of foreign markets. Their limited potential ultimately forced republicans to accept manufactures. They believed this necessary to encourage farmers to produce beyond subsistence by providing them with a domestic market of nonagricultural workers. Republicans hoped the ability of laborers to move west and obtain their independence through agriculture would force manufacturers to keep wages

above subsistence, and thus guarantee the virtue of urban workers.⁷

Jefferson's educational thinking mirrored the republican ideological journey from abhorrence to acceptance of a commercial and manufacturing economy. Although Jefferson maintained his support for agricultural education, the nation's economic vulnerability led him to embrace other types of practical scientific instruction as well. Jefferson wrote in 1814 that he wanted Virginia to "make an establishment...where every branch of science, deemed useful at this day and in our country should be taught in the highest degree." The institution he proposed included schools of agriculture, military science, and "technical philosophy." Jefferson claimed that the last school would train carpenters, distillers, machinists, opticians, and other craftsmen.⁸

Jefferson hoped to protect American independence through the discovery and dissemination of useful knowledge necessary for the development of commerce and manufacturers. He also believed that scientific instruction promised to

⁷McCoy, pp. 105-119, 166-235; John F. Kasson, Civilizing the Machine: Technology and Republican Values in America 1776-1900 (New York: Grossman Publishers, 1976), pp. 3-51.

⁸Harold Hellenbrand, The Unfinished Revolution: Education and Politics in the Thought of Thomas Jefferson (Newark: University of Delaware Press, 1990), pp. 136-140; Jefferson quoted from Roy J. Honeywell, The Educational Work of Thomas Jefferson (New York: Russell and Russell, 1964), p. 225.

elevate the masses beyond mere subsistence. Jefferson noted that individuals who applied science to their labors benefitted both themselves and the public. Therefore, science promised to reconcile self-interest and public-interest in order to maintain the republic's virtue. "Science," Jefferson wrote Josiah Meigs "is indispensably necessary for the support of a Republican government." Jefferson's pedagogical prescription for avoiding cyclical decay emphasized instruction in technical studies which promised to sustain the republic.⁹

Jefferson's sanguine view resulted from his observation that scientific inventions continually elevated the human physical condition which allowed people the leisure to cultivate their moral faculties. Jefferson denied "that man is fixed, by the law of his nature, at a given point; that his improvement is a chimera, and the hope delusive of rendering ourselves wise, happier or better than our forefathers were." Humankind's rapidly increasing ability to change the environment through the application of science to physical problems convinced Jefferson of the likelihood of continued improvement. "[W]e need look back half a century," Jefferson observed, "to times which many now living remember well, and see the wonderful advances in the

⁹Jefferson, quoted from Honeywell, pp. 250-251. Jefferson is the author of this report which the other commissioners accepted; Thomas Jefferson to Josiah Meigs, 20 May 1803, quoted from Wm. M. Meigs, Life of Josiah Meigs (Philadelphia: n. p., 1887), Appendix D, p. 125.

sciences and arts which have been made in that period." He credited this progress to education.¹⁰

Jefferson believed improvement, or progress, possible because knowledge accumulated and passed from generation to generation provided the basis for the discovery of new knowledge. He wrote his somewhat skeptical friend John Adams "You possess...too much science, not to see how much is still ahead of you, unexplained and unexplored. Your own consciousness must place you as far before our ancestors as in the rear of our posterity." Jefferson also noted science itself prevented retrogression. "The art of printing alone, and the vast dissemination of books," Jefferson stated, "will maintain the mind where it is" if "hordes" of "barbarians" ever threatened the world's knowledge.¹¹

Yet, for all Jefferson's faith in the improvability of humankind, he never fully accepted the idea of unlimited

¹⁰Arthur Alphonse Ekirch, Jr., The Idea of Progress in America, 1815-1860 (New York: Columbia University Press, 1944), pp. 31-32; Persons, p. 161; Kasson, p. 38; Jefferson, quoted from Honeywell, p. 251.

¹¹Letter from Thomas Jefferson to John Adams, 15 June 1813, Writings, ed. Bergh, vol. XIII, pp. 252-256; letter from Thomas Jefferson to John Adams, 12 September 1821, in Lester J. Cappon, ed., The Adams-Jefferson Letters: The Complete Correspondence Between Thomas Jefferson and Abigail and John Adams, 2 vols. (Chapel Hill: Institute of Early American History and Culture, 1959), vol. 2, p. 575. Thomas Cooper shared Jefferson's faith in generational advances in knowledge. "Thank God, old men are not destined to live forever in this world," Cooper declared, "The improvements that take place, take place always by means of the rising generation." See Thomas Cooper, Address to the Graduates of the South Carolina College, at the Public Commencement, 1830 (Columbia: S. J. M. Morris, 1831), p. 10.

progress embraced by later nineteenth century progressivists. "I see a prospect of great advancement in the happiness of the human race," Jefferson wrote in 1822, "and that this may proceed to an indefinite, although not infinite degree." Earlier, he wrote that, while the generational transmission of accumulated knowledge must advance "the well being of mankind," this would not occur "indefinitely, as some have said, but *indefinitely*, and to a term which no one can fix or foresee." Jefferson, despite his faith in generational improvement, feared during the crisis over slavery in Missouri that the present generation failed to match the wisdom of their fathers. He lamented that the sacrifices made "by the generation of 1776, to acquire self-government and happiness to their country, is to be thrown away by the unwise and unworthy passions of their sons."¹²

Jefferson's qualified vision of progress represents a transition from traditional republican fears about cycles to a new enthusiasm for perpetual progress that increasingly marked the intellectual temper of the nineteenth century. Confronted with the scientific progress of the recent past, yet haunted by classical theories of inescapable cycles,

¹²Letter from Thomas Jefferson to Cornelius Camden Blatchly, 21 October 1822, Writings, ed. Bergh, vol. XV, pp. 399-400; Honeywell, p. 251; letter from Thomas Jefferson to John Holmes, 22 April 1820, in Thomas Jefferson, The Works of Thomas Jefferson, 12 vols., ed. Paul Leicester Ford (New York & London: G. P. Putnam's Sons, 1905), vol. 12, pp. 159-160.

Jefferson placed his faith in education and utilitarian science to help republican society postpone decay. He never seriously considered the possibility of infinite scientific or social progress, yet he doubted the likelihood of intellectual retrogression. Science and society would advance to some unforeseen point where progress ceased but retrogression would not occur. What happened after this Jefferson's teleology left unanswered. Unlike Christian millenarians who believed in humankind's ability to reform itself in preparation for the Second Coming and subsequent Christian paradise, Jefferson's doubts about the perfectibility of human nature forced him to discount the possibility of a similar scientific and secular utopia. "I do not, with some enthusiasts," Jefferson noted, "believe that the human condition will ever advance to such a state of perfection as that there shall no longer be pain or vice in the world."¹³

Nonetheless, Jefferson believed his plans for the University of Virginia promised to advance human progress for as long as possible. With much of his modern curriculum in place shortly after the university opened, Jefferson died sanguine about his school's prospects. The university also provided an elective system that allowed students to select

¹³Letter from Thomas Jefferson to Dupont de Nemours, 24 April 1816, in Writings, ed. Bergh, vol. XIV, pp. 487-493; see also letter from Thomas Jefferson to William Ludlow, 6 September 1824, Writings, ed. Bergh, vol. XVI, pp. 74-76.

their own course of instruction. This differed from the single classical course of study usually required by colleges. Many of the school's offerings, however, stressed the classics and gradually the university de-emphasized instruction in applied science. The university's engineering program, for example, collapsed in the wake of economic depression in the 1840s.¹⁴

Public favor for utilitarian state universities started to dissipate by the end of the 1820s. The Yale Report of 1828 reaffirmed academic orthodoxy with its claim that mental discipline, instilled into students by the recitation of the classics, remained the proper objective of collegiate education. The report influenced curricular development in schools nationwide, especially in the numerous

¹⁴Philip Alexander Bruce, History of the University of Virginia 1819-1919, 5 vols. (New York: Macmillan Co., 1920), vol. I, pp. 51-55, 321-343; Wayne Hamilton Wiley, "Academic Freedom at the University of Virginia: The First Hundred Years--From Jefferson Through Alderman" (Ph. D. dissertation, University of Virginia, 1973), pp. 92-96, 113-119; Rudolph, pp. 124-128; O. Allan Gianniny, Jr., "The Overlooked Approach to Engineering Education: One and a Half Centuries at the University of Virginia, 1836-1986," Proceedings of the 150th Anniversary Symposium on Technology and Society, ed. Howard L. Hartman (Tuscaloosa: College of Engineering, University of Alabama, 1988), pp. 151-155.

The only other Southern state college organized in the early national period, East Tennessee College, was established in 1808. The school suffered from a chronic shortage of funds and students that resulted in occasional closures. The school's administration remained faithful to the classics throughout the antebellum period. See James Riley Montgomery, Stanley J. Folmsbee, and Lee Seifert Greene, To Foster Knowledge: A History of the University of Tennessee 1794-1970 (Knoxville: University of Tennessee Press, 1984), pp. 15-35, 48-57.

denominational colleges that appeared in the aftermath of the Second Great Awakening. Evangelical sects, especially Baptists and Methodists, viewed colleges as places that taught infidelity. These Protestant denominations' ambivalence about a formally educated clergy inhibited evangelical enthusiasm for higher learning. Gradually they modified their attitudes toward colleges and developed the idea that under the proper guidance such institutions promised to help spread the Gospel. To fulfill this mission, the denominational colleges provided students moral and religious training which took precedence over other academic concerns.¹⁵

Many antebellum schools closed, leaving uncertain the number of colleges organized before the Civil War. Numerous schools that claimed the prestigious appellation "college" or "university" actually operated as secondary schools. One study found 172 colleges organized between 1830 and 1860 with an attrition rate of nearly twenty-three percent. Protestant denominations formed the vast majority of these

¹⁵"Original Papers in Relation to a Course of Liberal Education [Yale Report]," American Journal of Science and Arts 15 (1829): 297-351; Richard Hofstadter and C. DeWitt Hardy, The Development and Scope of Higher Education in the United States (New York: Columbia University Press, 1952), pp. 15-16; Joe L. Kincheloe, "Building God's Kingdom: The Holy Mission of Antebellum Evangelical Colleges," Southern Studies II (Summer 1991): 103-112; Melvin I. Urofsky, "Reforms and Response: The Yale Report of 1828," History of Education Quarterly 5 (March 1965): 53-67; David B. Potts, "American Colleges in the Nineteenth Century: From Localism to Denominationalism" History of Education Quarterly 11 (Winter 1971): 368.

predominantly classical schools in rural communities. These institutions served from fewer than a dozen to over three hundred students. The faculty usually varied between six and twelve members. Students accepted by these schools ranged between thirteen and thirty years of age.¹⁶

The promotional efforts of land speculators, religious denominations, and unemployed educators to encourage communities to build colleges, resulted in the parallel formation of academic institutions and the duplication of educational effort. Critics of these parallel ventures argued they dispersed capital necessary to provide for academically and financially sound colleges. J. D. B. De Bow's *Commercial Review* complained of the high failure rate and poor quality of Louisiana's schools. It observed that the state had chartered and endowed many colleges, all of which had "fall[en] entirely short of anything that might have been expected from them." Furthermore, the *Review* believed that "the strength of the state has been diffused rather than strengthened" and that "a single *efficient* institution is preferable to a score of such as we have

¹⁶Potts, pp. 363-8; Brubacher and Rudy, pp. 61, 417; Tewksbury, pp. 66-131; Burton J. Bledstein, *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America* (New York: W. W. Norton & Co., 1976), pp. 237-43; Ellwood P. Cubberly, *The History of Education* (Boston: Houghton Mifflin, 1920), p. 705. Disagreement exists over the mortality rate of antebellum schools. See Robert T. Blackburn and Clifton F. Conrad, "The New Revisionists and the History of Higher Education," *Higher Education* 15 (1986): 215-217.

had." Philip Lindsley, who struggled to develop scientific education at Cumberland College (later the University of Nashville) in Tennessee, complained that "A dozen or more colleges and universities have been chartered in Ohio and Kentucky and we find five in Tennessee. Not more than three or four can, in reason, be pronounced equal to good second-rate grammar schools."¹⁷

Lindsley adhered to a cyclical view of history and feared societal degeneration. Unlike Jefferson, Lindsley believed "Learning cannot be inherited like money and lands. The same, tedious painful process must be repeated with every new generation." He claimed the "difficulty, in the most advanced stages of society, is to keep men up to the standard of excellence which has been already reached." Like Jefferson, Lindsley recognized that scientific progress appeared to ameliorate this problem. "The art of printing," he noted, "has arrested the march of the destroyer, and

¹⁷"University of Louisiana," Commercial Review of the South and West I (May 1846): 431n. Emphasis is original. Periodical hereinafter cited as De Bow's Review; Philip Lindsley, "Baccalaureate Address at Cumberland College, 1829," in The Works of Philip Lindsley, D. D. (Nashville: W. T. Berry & Co., 1859), pp. 160-161. The proliferation of colleges is representative of an antebellum phenomenon described by Robert H. Wiebe as "parallelism" in which private entrepreneurs and governmental entities engaged in various types of competitive and duplicative enterprises that evolved in isolation from each other. These included the building of canals, railroads, utopian communities, and other ventures. See Robert H. Wiebe, The Opening of American Society: From the Adoption of the Constitution to the Eve of Disunion (New York: Alfred A. Knopf, 1984), pp. 287-290, 360-369.

given stability to the inventions, discoveries and productions of genius." Lindsley believed the nineteenth century "an enlightened age of discovery, invention, and improvement," but feared education lagged behind the progress he observed elsewhere in society. Lindsley, an advocate of public higher education, partially blamed the proliferation of denominational colleges for this because "their mutual jealousy and distrust, effectually prevent the usefulness and prosperity of any one institution."¹⁸

The growth of denominational colleges produced what Richard Hofstadter termed the "great retrogression" in American higher education. Sectarian colleges retarded the development of modern curricula, undermined popular support for public education, and thwarted the creative secular academic efforts that initially followed American independence.¹⁹

¹⁸Philip Lindsley, "Inaugural Address, Delivered at Nashville, January 12, 1825," in Lindsley, pp. 16-32; Lindsley, "Baccalaureate Address...1829," pp. 202-206.

¹⁹Richard Hofstadter, "The Age of the American College," in Richard Hofstadter and Walter P. Metzger, The Development of Academic Freedom in the United States (New York: Columbia University Press, 1955), pp. 209-223. Most historians initially accepted Hofstadter's interpretation of the negative impact of sectarian colleges on higher education. Revisionists argue that denominational colleges enhanced academic opportunities and that science education prospered.

That students obtained more educational possibilities with the expansion of denominational colleges is conceded by the arch-critic of sectarian higher education and darling of "retrogression" historians, Philip Lindsley. (See Philip Lindsley, "Anniversary Commencement," in Lindsley, p. 353). Little revisionist evidence exists, however, that

Some academics attempted to move higher education away from its classical orientation. Francis Wayland, the president of Brown University (1827-1855), implemented a program of utilitarian studies but it ultimately failed. His proposals sparked calls in the North and South to develop secondary, technical, and normal schools, modeled after those in Germany and France. These demands largely remained unheeded. Other institutions that established scientific schools, for example Harvard and Yale, continued to place more emphasis on the traditional curriculum and trivialized the work of students enrolled in scientific studies.²⁰

demonstrates scientific courses proliferated among these colleges. For revisionist interpretations, see James Axtell, "The Death of the Liberal Arts College," History of Education Quarterly 11 (Winter 1971): 339-352; Blackburn and Conrad, pp. 211-230; Jack C. Lane, "The Yale Report of 1828 and Liberal Education: A Neorepublican Manifesto," History of Education Quarterly 27 (Fall 1987): 325-338; Potts, pp. 363-380; and Douglas Sloan, "Harmony, Chaos, and Consensus: The American College Curriculum," Teachers College Record 73 (December 1971): 221-251.

²⁰Francis Wayland, Thoughts on the Present Collegiate System in the United States (Boston: Gould, Kendall & Lincoln, 1842), pp. 32-42, 76-111, 132-149; Francis Wayland, The Educational Demand of the People of the United States (Boston: Phillips, Sampson & Co., 1855); Francis Wayland, Report to the Corporation of Brown University and Changes in the System of Collegiate Education, (Providence: George H. Whitney, 1850); Henry P. Tappan, University Education (New York: George P. Putnam, 1851), pp. 35-67; J. S. B. Thacher to Governor A. G. Brown, 24 November 1848, printed in Governor's Message Delivered at the Biennial Session [of the Mississippi State Legislature] January, 1848 and Accompanying Documents (n. p., [1848?]), pp. 17-26; Brubacher and Rudy, pp. 108-109.

Southern supporters of practical instruction stressed the benefits science offered planters and farmers. Isaac Croom complained to the Greensboro (Alabama) Agricultural Society that "Our institutions of learning have made no provision, appropriated no department, for agricultural instruction," despite the fact that the overwhelming majority of Alabama's people depended on farming. Croom argued that, although "accidental discoveries" which inefficiently expanded agricultural knowledge previously sufficed, "old things have passed away. The times have changed and we must change with them." He urged the establishment of agricultural schools and colleges to systematically discover and transmit agricultural knowledge. B. L. C. Wailes, president of the fledgling agricultural society at Jefferson College in Mississippi, observed that in the "progress of improvement...new products were discovered, and new wants were supplied. Sciences before unknown, unfolding in successive ages the mysteries of nature, lent their aid, and the mechanic arts came to mitigate the toil and multiply the gains of the husbandmen." Mississippi, Wailes argued, needed manual labor schools with experimental farms to disseminate new discoveries and teach farmers to apply scientific principles to their work.²¹

²¹Isaac Croom, Address Delivered Before the Greensboro Agricultural Society on the 2d of May, 1850 ([Greensboro, Alabama]: n. p., [1850?]), p. 7; B. L. C. Wailes, Address Delivered in the College Chapel Before the Agricultural, Horticultural, and Botanical Society, of Jefferson College

The faith of Wailes and others in agriculturally centered manual labor schools to provide training in applied science proved unfounded. Advocates borrowed the idea of manual labor schools from the system of education created by Philip Emanuel von Fellenberg in Switzerland. Schools in the United States failed in part because proponents offered different and contradictory views of the mission of manual labor institutions. All agreed that the schools offer poor students an opportunity to help pay for their tuition. Some proponents, however, wanted the schools to teach students agricultural and mechanical science in the classroom and apply what they learned to their labors in the field or shop. Others argued for combining labor with classical instruction. They believed the latter conferred dignity upon the former. Still others wanted the schools to

(Natchez: Daily Courier Office, 1841), pp. 5-7. See also excerpts from Edmund G. Ruffin's "Premium Essay on Agricultural Education," quoted in Ch. H. Williams, "Agricultural Education," Southern Planter 13 (July 1853): 217-219; "Agricultural Schools," Farmer's Register 1 (January 1843): 16-17; "Constitution of the Texas Agricultural Society," Transactions of the Texas State Agricultural Society I (1853): 6; J. D. B. De Bow, "Commerce and Agriculture Subjects of University Instruction," De Bow's Review III (June 1847): 502-506; A. Yell, Governor's Message, 8 November 1842, Journal of the House of Representatives...of the State of Arkansas, Appendix, pp. 11-12. On Southerners' interest in science in the antebellum period, see Ronald L. Numbers and Janet S. Numbers, "Science in the Old South: A Reappraisal," Journal of Southern History XLVIII (May 1982): 163-184; and Paul F. Paskoff, "Invention and Culture in the Old South, 1790-1860," unpublished paper delivered at Works-in-Progress Seminar, Department of History, Louisiana State University, 1993.

reinforce the republican idea of personal independence obtained through one's own labor. Religious supporters claimed that manual labor schools reinforced the biblical command to toil.²²

The schools' curricula reflected these varied expectations. Classical studies prevailed at the Methodist Conference Manual Labor School in Georgia and at Emory and Henry College, also Methodist, in Virginia. Donaldson Academy in North Carolina and Georgia's Mercer Institute (Baptist) also emphasized the classics. Other schools, including Wake Forest Institute (Baptist) in North Carolina and Emory College (Methodist) in Georgia, incorporated lessons in utilitarian science into their labor requirements. Manual labor schools accepted males from their early teens to their early twenties. Students labored between two and four hours in the afternoon.²³

Augustus B. Longstreet, a Methodist minister and president of Emory College, wanted to unite mental and

²²Carl B. Wilson, "The Baptist Manual Labor School Movement in the United States: Its Origin, Development and Significance," Baylor Bulletin XL (December 1937): 9-159; L. F. Anderson, "The Manual Labor School Movement," Educational Review XLVI (June-December): 369-386.

²³Edgar W. Knight, ed., A Documentary History of Education in the South Before 1860, 5 vols. (Chapel Hill: University of North Carolina Press, 1953), vol. 4: Private and Denominational Efforts, Chapter 2. On manual labor schools in Virginia, see Cornelius J. Heatwole, A History of Education in Virginia (New York: MacMillan Co., 1916), pp. 155-164, and John B. May, "The Life of John Lee Buchanan" (Ph. D. dissertation, University of Virginia, 1937), pp. 12-18.

manual labor "in indissoluble bonds, and to consecrate the union with the spotless robes of piety--to elevate manual labor to its legitimate rank, by blending it with mental endowments which shall *command* for it respect." Longstreet chastised critics who claimed the experiment would fail because older youths would refuse to work. "I know that this opinion is to be found in some older heads than are to be found in college classes," Longstreet claimed, "but from the birth of Cincinnatus to the death of Washington, I never heard of the truly wise *republican* who harbored it, even for a moment."²⁴

Nevertheless, concern that the pursuit of easy riches degraded labor, either through speculative enterprises or the professions, resided at the core of the manual labor school movement. Proponents of manual labor schools in the South especially feared that slavery threatened to degrade all labor. Isaac Stevens, a cadet attending West Point from Massachusetts, wrote his uncle in 1836 that many of the students, especially those from the slave states, "have a great contempt for our Yankee farmers, and even pretend to compare them with their slaves. They have the greatest contempt for all those who gain a subsistence by the sweat of their brows." Advocates of the Southern schools believed

²⁴Augustus B. Longstreet, Address Delivered before the Faculty and Students of Emory College, Oxford, Georgia (Augusta: W. T. Thompson, 1840), pp. 9-11. Emphasis is original.

such institutions promised to change the opinion of Stevens and other Northerners that white Southerners were lazy. The *Baptist Weekly Journal* reported that Wake Forest hoped "to overcome southern habits and prejudices against manual labor and to promote habits of economy and industry." The *American Annals of Education and Instruction* praised the work of two Georgia schools in 1833 and approvingly noted that several respectable and wealthy families "have made application on behalf of their sons, with the special object of having them work....These and similar institutions will do much...to remove the impression that white people cannot labor in the Southern States." Two years later, the *Annals* reported that it "is gratifying to see that prejudice is giving way so fast at the South, in regard to the consistency of labor with respectability, that manual labor schools are multiplying."²⁵

The journal's optimism proved unfounded. The manual labor school movement collapsed by the mid-1840s. The schools were unprofitable for promoters and unpopular with students. Saleable goods produced by school farms and shops failed to raise the revenue intended to reduce student

²⁵Isaac I. Stevens to Dear Uncle, 6 July 1836, cited from Hazard Stevens, The Life of Isaac Ingalls Stevens, 2 vols. (Boston & New York: Houghton Mifflin & Co., 1900), vol. 1, pp. 37-38; Baptist Weekly Journal 16 November 1832, cited in Carl B. Wilson, pp. 101-102; American Annals of Education and Instruction III (January 1833): 92-93; American Annals of Education and Instruction V (August 1835): 377.

tuition. Students often rebelled against labor provisions and refused to work. The schools also withered under severe criticism. One antebellum Davidson College professor disparaged that school's manual labor system as a "utopian scheme" equivalent to the ill-fated efforts to raise silk-worms in the South.²⁶

Some believed the experiments failed because they tried to fuse classical studies and manual labor "which had no natural relations to each other." Others charged the schools collapsed because they failed to adequately unite labor and science. Longstreet attempted to accomplish this at Emory. He believed the application of science to labor elevated the laborer, and that discoveries resulting from this union benefitted everyone. Nevertheless, even Longstreet assured Emory's youth that he intended not to "reconcile [them] to a life of useless drudgery."²⁷

²⁶Carl B. Wilson; Knight, ed., vol. 4, pp. 124-132; Floridian (Tallahassee), 24 January 1832; letter from C. D. Fishburne to D. H. Hill, Jr., 8 February 1890, box 94.6, Daniel Harvey Hill, Jr. Papers, North Carolina Department of Archives and History, Raleigh. In at least one case, advocates of manual labor schools attempted to combine the two "utopian" schemes. The South Carolina Agricultural Society recommended that South Carolina establish manual labor schools and that their students raise silkworms. See Proceedings of the Agricultural Convention and of the State Agricultural Society of South Carolina, from 1839 to 1845... (Columbia: Summer and Carroll, 1846), pp. 17-19.

²⁷Charles D. Johnson, Higher Education of Southern Baptists (Waco: Baylor University Press, 1955), pp. 147-148; Wm. H. Ruffner, J. R. Anderson, and W. T. Sutherlin, "Report of Committee for the Plan of Organization for the Virginia Agricultural and Mechanical College," in Virginia Agricultural and Mechanical College. Its History and

Herein existed the primary ideological obstacle for Southern utilitarian education advocates to overcome. Southerners struggled to distinguish undignified toil, or "useless drudgery," associated with slavery, from honorable work, or the "useful" application of intelligence to labor. Proponents of utilitarian education tried to convince white Southerners that intelligence applied to agricultural and mechanical pursuits deserved as much respect as traditional professional knowledge. To accomplish this, advocates of scientific education confronted the difficult task of either divorcing manual labor from agriculture and mechanical science or elevating labor by its mere association with science, as Longstreet suggested. William Gilham, professor of agriculture at the Virginia Military Institute (VMI), chose the former approach. Gilham claimed that to attract Southern youth to the institute's proposed agricultural department it must appeal to the planter class. "Our agricultural system is peculiar, and must be so," Gilham observed, "as it is modified in very many of its details by the institution of domestic slavery. All or nearly all farm labor is performed by the slave." Therefore, "Our young farmers should be so educated, that they may with efficiency and skill direct the labors of others, rather than for the performance of manual labor themselves. We want scientific

Organization (n. p., n. d.), p. 31; Longstreet, Address, p. 12.

farmers--not mere laborers." Furthermore, Gilham believed agricultural students should "not waste time in the acquisition of a species of practical knowledge, that never could be of much service to him" and that "the farmer's education should not be too technical."²⁸

Lindsley, who like Longstreet wanted manual labor schools to instruct students in applied science, tried both strategies. He argued that utilitarian education elevated the "labouring classes," but assured planters such an education need not turn their sons into manual laborers. Lindsley claimed that should "it be objected that well-educated youth will not labor for their support; that if they become farmers or manufacturers, they will, at most, merely superintend and direct the labours of others, I answer...[we] need thousands of such men."²⁹

Northern advocates of applied science, including Horace Mann, argued that science applied to mechanics promised to furnish all of humankind's material desires and lessen the need for manual labor. Similar sentiments occasionally appeared in the South. Thomas N. Wood gushed before the literary societies of the University of Alabama that the

²⁸William Gilham, "Report," attached to Francis H. Smith, Special Report of the Superintendent of the Virginia Military Institute, on Scientific Education in Europe (Richmond: Ritchie, Dunnavant & Co., 1859), pp. 57-59. See also "University Lectures," De Bow's Review II (March 1852): 336.

²⁹Lindsley, "Inaugural Address...January 12, 1825," in Lindsley, pp. 28-45. Emphasis is original.

"scientific mechanist has almost annihilated distance, and has so increased the productiveness of human labor, as to give rise [to the belief] that manual labor will be entirely superseded by machinery." Cooper, with a republican eye open to a new stage in societal development, observed that the

period of manufactures among us, is hardly yet arrived, but it is fast approaching. Skill in machinery...will gradually compensate for dearness of labour; and we shall soon begin to work up our own materials for domestic consumption to an extent far beyond what is commonly supposed.³⁰

Nevertheless, the advantages of laborsaving machinery appeared of less immediate import to Southerners. The expense and scarcity of free labor encouraged Northern farmers, more than slaveholding Southern planters, to embrace mechanization. Furthermore, as people who engaged in little manual labor themselves, planters possessed little immediate personal incentive to develop laborsaving measures. Proslavery ideologues charged that African-American slaves, locked permanently in their caste, permitted whites the leisure to pursue more exalted

³⁰Merle Curti, The Social Ideas of American Educators (New York: Charles Scribner's Sons, 1935), pp. 102-123; Ernest Lee Tuveson, Redeemer Nation: The Idea of America's Millennial Role (Chicago & London: University of Chicago Press, 1968), p. 76; Thomas Newton Wood, An Address Delivered before the Two Literary Societies of the University of Alabama, in the Rotunda, July 4th, 1840 (Tuskaloosa: M. D. J. Slade, 1840), p. 16; Cooper, Address...December, 1821, p. 7. See also Jacob Thompson, Address Delivered on Occasion of the Opening of the University of the State of Mississippi...November 6, 1848 (Memphis: Franklin Book and Job Office, 1849), p. 5.

intellectual activities, especially elocution and other classical studies, required for advancement in politics or the professions. Planters and their sons often considered themselves too worthy to engage in practical pursuits. Nonslaveholding farmers, economically and politically dependent upon planters, hoped to obtain slaves themselves and showed little interest in any type of education. Both planters and small farmers generally viewed "book farming" with suspicion and preferred empirical methods of agriculture production. Both groups also opposed taxes to support public education. The former educated their children in private schools and the latter needed their children's labor at home. Therefore, the South failed to develop extensive public school systems, unlike the North. The South's small and politically unimportant white artisan class proved either unable or unwilling to provide public or private support for technical schools. Technical education offered the most promise to the "labouring" or working classes, which in the South, consisted of African-American slaves. White Southerners, however, to judge by state laws that prohibited slave literacy, wanted to limit black educational opportunities to solidify the slaves' position as a permanent underclass.³¹

³¹Gavin Wright, The Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century (New York & London: W. W. Norton & Co., 1978), pp. 7-8, 44-55, 107-108, 116-118, 123; Heatwole, pp. 100-124; letter from Eug. W. Hilgard to L. L. Williams, 31 January

Lettered Southerners' attitudes toward slave labor influenced their beliefs about progress and affected their attitudes toward higher education. They understood that change, inherent in the modern idea of progress, potentially threatened traditional authority. Therefore, their approach to progress necessitated caution lest too rapid change undermine the South's labor system. James W. Massie, an intermittent professor of mathematics at VMI and a member of the House of Delegates, praised slavery in 1857 as "a conservative element in society" and claimed that it "is a mistake to suppose that *progress*, necessarily involves cardinal change. Change is the child of error, like Death or Sin; progress is development, enlargement, growth."³²

1859, folder 1, box 1, Eugene W. Hilgard Papers, Mississippi Department of Archives and History, Jackson; Leonidas Polk and Stephen Elliot, Address of the Commissioners for Raising the Endowment of the University of the South (New Orleans: B. M. Norman Publisher, 1859); De Bow's Review (March 1852): 336; Roger W. Shugg, Origins of Class Struggle in Slavery and After, 1840-1875 (Baton Rouge: Louisiana State University Press, 1936, 1968), pp. 69-75; Hugh McQueen, An Address Delivered Before the Alumni and Graduating Class of the University of North Carolina...June 26, 1839 (Raleigh: Raleigh Register, 1839), pp. 24-25; "On Public Education in Virginia," Southern Literary Messenger 13 (November 1847): 686-687; Eugene D. Genovese, Roll, Jordan, Roll: The World the Slaves Made (New York: Vintage, 1974), pp. 561-563. On proslavery ideology, see Drew Gilpin Faust, ed., The Ideology of Slavery: Proslavery Thought in the Antebellum South, 1830-1860 (Baton Rouge and London: Louisiana State University Press, 1981), pp. 1-20, and David Donald, "The Proslavery Argument Reconsidered," Journal of Southern History XXXVII (February 1971): 3-18.

³²A. Clarkson, "The Basis of Northern Hostility to the South," De Bow's Review III (January 1860): 11-12; Wm. R. Barksdale, The True Office of the College. An Address, Delivered Before the Alumni Association of the University of

James H. Hammond, a former governor of South Carolina, told the literary societies of the state college that it "is no paradox to say that permanence--that permanence which is created by a just, and wholesome and somewhat stringent restraint of action--is the starting point of genuine progress." Mobile public school superintendent W. T. Walthall claimed a teacher "should be *progressive*" and "keenly and vividly susceptible" to improvement; however "it is...still more important that he should be *conservative*." He warned the "age is wild with rage for fantastic novelties and pretended reformations in government, society, literature and education" and that "the growing contempt for all authority, human and divine" lay "in the false and perverted ideas of liberty and 'progress,' that...too often find entrance even into our schoolrooms, and tarnish the pages of our textbooks." The "false and perverted" idea Southern intellectuals feared most was abolitionism.³³

International abolition prevented Southern intellectuals from comfortably assuming progress guaranteed

Mississippi, July 15, 1857 (Memphis: Bulletin Company, 1857), p. 12; James W. Massie, An Address Delivered Before the Society of Alumni of the Virginia Military Institute, July 3rd, 1857 (Richmond: MacFarlane and Fergusson, 1857), p. 34. Emphasis is original.

³³James H. Hammond, An Oration, Delivered Before the Two Societies of the South Carolina College, on the Fourth of December, 1849 (Charleston: Walker and James, 1850), pp. 22-23; W. T. Walthall, First Annual Address: Delivered Before the Mobile Teachers' Institute, December 15th, 1856 (Mobile: Daily Register, 1857), pp. 7-15. Emphasis is original.

the continuation of slavery. Therefore, they fashioned a progressivist vision little resembling that of the rest of Western society in which slavery served as a prerequisite for human advancement. William Harper, a trustee of the University of South Carolina, shared the belief of his friend and professor of political economy at William and Mary, Thomas R. Dew, that slavery served as the basis for civilization. Harper argued that man refused to labor beyond what was needed to sustain his existence. "The coercion of Slavery alone," he believed, "is adequate to form man to habits of labour. Without it, there can be no accumulation of property, no providence for the future, no taste for comforts or elegancies, which are the characteristics and essentials of civilization." Harper apparently found no role for technical progress to play in alleviating the odious burden of labor and provide for the "essentials of civilization."³⁴

Proslavery theorists essentially maintained a traditional republican approach to progress. Harper claimed that "Mutation and progress is the condition of human affairs. Though retarded for a time by extraneous or

³⁴Samuel A. Cartwright, "The Education, Labor, and Wealth of the South," in Cotton is King and Pro-Slavery Arguments..., ed. E. N. Elliot (Augusta, GA: Pritchard, Abbott, & Loomis, 1860), p. 882; William Harper, "Memoir on Slavery," in The Pro-Slavery Argument as Maintained by the Most Distinguished Writers of the Southern States... (Philadelphia: Lippincott, Gramb & Co., 1853). pp. 3-4; [Thomas Roderick Dew], "Abolition of Negro Slavery," American Quarterly Review XII (September 1832): 189-265.

accidental circumstances, the wheel must roll on." Population, he argued, naturally expanded, which increased the difficulty of obtaining sustenance. Competition developed among a constantly growing number of workers, thereby deflating wages, and ultimately turning the unemployed into paupers. Harper pointed to England as evidence of the poverty, misery, and vice of the working class created by industrial free labor. Even in so-called free societies, Harper charged, "servitude is the condition of civilization."³⁵

Southern proslavery theorists sought to delay or escape the manufacturing stage of societal progress responsible for the evils of free labor, industrialization, and urban development. Massie adhered to the traditional republican desire to prevent decay through spatial expansion. He claimed the South's "vast and unpeopled forests" operated "as a safety-valve" that prevented the necessity of cities and manufacturers. Massie deplored the "selfish" and "avaricious" society of Massachusetts which depended upon manufacturers and merchants for its wealth. The low wages that resulted from the centralization of capital prevented male laborers from providing for their wives who then

³⁵George Fitzhugh, "Southern Thought," De Bow's Review, XXIII (October 1857): 338-350; William H. Stiles, Southern Education for Southern Youth: An Address Before the Alpha Pi Delta Society of the Cherokee Baptist College, Delivered at the Commencement on the 14th July, 1858 (Savannah: Power Press of George N. Nichols, 1858), pp. 14-24; Harper, pp. 22-25. Emphasis is original.

organized into their "garrulous and ludicrous women's rights associations." Eventually, Massie predicted "Northern society [would] burst out into a fearful war between the oppressed and the oppressor--the poor and the rich."³⁶

Southern intellectuals understood progress to mean material development. One other definition of progress they adhered to however, defined it as the removal of a person or object from one point on a course, passage, or journey to another point. Thus slavery operated as the basis for material progress and societies that abandoned that institution invariably progressed cyclically from growth to maturity to decay. Southern intellectuals lacked the faith in progress expressed by their Northern and European counterparts who regarded virtually all definitions of progress as beneficial. Although Southerners agreed with Northerners about the inevitability of progress, the latter observed inevitable improvement, while the former generally viewed inevitable cycles. White Southerners believed that progress which threatened slavery was dangerous and therefore, they refused to construe abolition as progress--except as a progressive stage in a declining civilization. Fear of abolitionism limited much of Southern progressivist thought to an archaic republican conception of cycles.³⁷

³⁶Massie, p. 44-53.

³⁷For definitions of progress in the antebellum period, see Noah Webster, An American Dictionary of the English Language..., 2 vols. (New York: S. Converse, 1828), and also

Very few Southern intellectuals adhered to the abolitionist position that slavery stifled progress. Two North Carolinians, Hinton Rowan Helper and Benjamin S. Hedrick, proved exceptions. Helper, who expatriated himself from the South, criticized slavery in his *The Impending Crisis of the South* (1857) for the impoverishment of Southern soil, the poverty of nonslaveholding whites which prevented them from rising economically through capitalist competition for their labor, and the creation of a society that trailed the North by most educational, industrial, and material standards. Helper believed slavery degraded all labor and he charged that from Delaware Bay to the Gulf of Mexico "progress and prosperity are unknown; inanition and slothfulness ensue;...ignorance and prejudice sit enthroned over the minds of the people...everywhere, and in

for editions published in 1852, 1855, and 1859. All definitions of progress given by Webster's in 1828 and 1859 are virtually identical. See also J. E. Worcester, Comprehensive Pronouncing and Explanatory Dictionary of the English Language... (Burlington, VT: Chauncey Goodrich, 1831) and Charles Richardson, A New Dictionary of the English Language, 2 vols. (Philadelphia: E. H. Butler & Co., 1847). On mainstream Western conceptions of inevitable and beneficial progress, see Bury, p. 2; Clarke A. Chambers, "The Belief in Progress in Twentieth Century America," Journal of the History of Ideas XIX (April 1958): 198; Pirie, pp. 9-10; Charles E. Rosenberg, No Other Gods: On Science and American Social Thought (Baltimore & London: Johns Hopkins University Press, 1961, 1962, 1976), p. 140; Wagar, pp. 3-10.

everything...are the multitudinous evils of slavery apparent."³⁸

Hedrick, the University of North Carolina's first occupant of the "Chair of Chemistry Applied to Agriculture and the Arts," created a controversy when he revealed his desire to vote for John C. Frémont in the 1856 presidential election. Hedrick, a graduate of the state university, supported Frémont's opposition to the western expansion of slavery because the professor believed it threatened North Carolina's prosperity. Hedrick also indicated that the "Pathfinder's" scientific reputation enticed him to Frémont's candidacy. Public anger against Hedrick attracted the attention of Helper who started a correspondence with the beleaguered professor. Helper wrote Hedrick that if the election "could be postponed six or eight months I have no doubt several of the Southern States would bring out an Electoral ticket in favor of *something* free--say, free speech, free soil, free labor, free presses, free schools, or Frémont." The professor communicated to Helper that while in attendance at a state teachers' convention in Salisbury, "quite a firm and able attempt was made to mob me." The university's board quickly fired Hedrick who refused to resign. In 1859, Helper asked Hedrick to allow the use of his name in the dedication of a new edition of

³⁸Hinton Rowan Helper, The Impending Crisis of the South: How to Meet It (New York: Burdick Brothers, 1857), pp. 41, 56, passim.

The Impending Crisis. Hedrick moved to Washington, D. C. and spent the Civil War in the United States Patent Office.³⁹

Helper and Hedrick's belief that slavery, or its expansion, endangered Southern progress threatened the view that progress depended upon slavery. Proslavery theorists refusal to consider the retrogressive aspects of slavery exposed their lack of concern about progress in general. If slavery retarded, instead of promoted progress, this suggested the possibility of emancipation and a complete transformation of Southern society. If Helper, Hedrick, or any Northern abolitionist had demonstrated that slavery impeded progress in any conclusive manner, proslavery theorists most likely would have abandoned the idea of progress and defended the institution anyway. Human property and the status quo, more than progress, interested most Southern intellectuals. Nevertheless, they recognized the positive connotation the word "progress" carried in the

³⁹Kemp P. Battle, History, vol. 1, pp. 654-656; clipping from an unidentified newspaper from North Carolina, in 1856, box 3, folder 31, Benjamin Sherwood Hedrick Papers, Southern Historical Collection, Wilson Library, University of North Carolina, Chapel Hill. Hereinafter collection cited as SHC-UNC; letter from H. R. Helper to Prof. Hedrick, 15 October 1856, folder 7, box 1, Hedrick Papers. Emphasis is original; letter from B. S. Hedrick to H. R. Helper, 27 October 1856, folder 7, box 1, Hedrick Papers; letter from H. R. Helper to Prof. B. S. Hedrick, 5 May 1859, folder 15, box 2, Hedrick Papers. Hedrick's name appears in the dedication to Helper's Compendium of the Impending Crisis of the South (New York: A. B. Burdick, 1860).

nineteenth century and it proved too indispensable to allow Helper, Hedrick, or anyone else to use it against them.

Southern academics and intellectuals attempted to discredit abolitionism by associating it with the host of other "isms" they believed proliferated in the North. Albert T. Bledsoe, professor of mathematics at the University of Mississippi, decried "Socialism and Fourierism, and Fanny Wrightism, and the whole swarm of miserable *isms* that is continually buzzing in our ears." George Frederick Holmes, the first president of the University of Mississippi, denounced these along with "Mormonism," "St. Simonism," and "Agrarianism." William H. Stiles, a prominent lawyer from Georgia, identified Southern institutions unalterably "with *slave* institutions, *slave* property and *slave* labor....[Northern institutions are] equally identified with *free* society, *free* labor and even *free* love." James H. Thornwell, president of South Carolina College, remarked that the opposing parties in the sectional conflict

are not merely abolitionists and slaveholders--they are atheists, socialists, communists, red republicans, jacobins on the one side, and the friends of order and regulated freedom on the other. In one word, the world is the battle ground--Christianity and atheism the combatants; and the progress of humanity the stake.

John Murdoch told an Oakland (Mississippi) College commencement that the Southern boy educated in the North returned "a full grown reveller, a debauchee, a libertine." The great Northern colleges, Princeton, Harvard, and Yale,

he noted, lay near cities where "[t]heir omnibuses and railroads stand ready at a moment's notice to whirl your sons to every haunt of secret and open dissipation." He charged that when "this work of destruction is done, talk not to me of preserving our peculiar Institutions, our Southern manners and habits."⁴⁰

Murdoch's linkage of urbanism and technical progress to dissipation reflected the republican suspicion of cities, and the industrialization associated with them, as threats to virtue. Southern hostility to "isms" revealed republican fears of societal decay. Massie claimed all "*isms* are but the efforts of individuals to congeal public sentiment to effect the same purpose which centralized government would subserve," namely "materialism," "Unitarianism," and "utilitarianism."⁴¹

Many Southern educators and their supporters reserved almost as much hostility for utilitarianism as for abolitionism. Southern classicists, intensely familiar with

⁴⁰Albert T. Bledsoe, Address Delivered at the First Annual Commencement of the University of Mississippi, July Twelfth, 1849 (Oxford: Organizer Office, 1849), p. 15. Emphasis is original; George Fred[eric]k Holmes, Inaugural Address, Delivered on Occasion of the Opening of the University of the State of Mississippi, November 6, 1848 (Memphis: Franklin Book and Job Office, 1849), p. 19; Stiles, p. 8. Emphasis is original; Thornwell quoted in Cash, p. 83; John Murdoch, Home Education and the Claims of Oakland College Delivered Before the Belles Lettres Society and Adelphic Institute of Oakland College on Commencement Day, June 29th, 1854 (New Orleans: Office of the Picayune, 1854), pp. 30, 37, 40.

⁴¹Massie, pp. 31-44. Emphasis is original.

republican theories of cyclical growth and decay, opposed curricular reform because they associated applied science with the materialism and utilitarianism that they feared led to progressive decline. George D. Junkin, at his inauguration as president of Washington College, claimed that "No better system has ever yet been invented for training the intellect than the ordinary college curriculum." He argued that to abandon the classics would lead higher education "downward toward barbarism." Washington College maintained its classical curriculum intact until after the Civil War.⁴²

William M. Wightman, president of the Methodist Southern University in Greensboro, Alabama, claimed that in his school "I see more than the groveling utilitarianism which would fain foster science because it may invent a machine, intensify a manure, or enlarge a crop; or in a

⁴²Barksdale, pp. 4-12; R. D. Hamilton, An Address, Delivered Before the Students of Jefferson College, Washington, Mississippi, at the Commencement, July 25, 1855 (Natchez: Daily Courier Book and Job Office, 1855), pp. 3-11; G. H. Martin, Address Delivered before the Philomathean and Hermenian Societies, at Clinton, Miss., July 25, 1859 (Vicksburg: Daily and Weekly Whig Steam Book and Job Office, 1859), pp. 17-24; Holmes, Inaugural Address, pp. 19-20; J. H. Thornwell, Letter to His Excellency Governor Manning on Public Instruction in South Carolina (Columbia: R. W. Gibbes & Co., 1853), p. 6; Walthall, p. 10; George Junkin, Christianity: The Patron of Literature and Science. An Address Delivered February 22, 1849. On the Occasion of the Author's Inauguration as President of Washington College, Virginia (Philadelphia: n. p., 1849), p. 32. Emphasis is original; Catalogue of Washington College, Lexington, Virginia, ...1860 (Richmond: MacFarlane & Fergusson, 1860), pp. 9-13.

word, help us to make more money." Wightman rhetorically asked, "Can the old Republican simplicity of manners long survive [the nation's] inundation of wealth." Yes, he believed, as long as colleges realized they are not in the business of teaching occupations but concerned only "with the highest possible improvement of the mind." The curriculum most capable of accomplishing this goal consisted of the Bible, the classics, belles lettres, and abstract mathematical science.⁴³

Classicists believed true education resided in an aristocracy of mind attainable only by a relatively few privileged members of society. They rejected the idea that the education of farmers and mechanics whose occupations required utility, necessitated a superior, or even equal, level of education with that of gentlemen who chose to contemplate ancient languages and pure science. John Pratt, a professor of English literature at the University of Alabama, charged that the hostility of those who demeaned classical education emanated "from the prejudices of the uneducated mass, these prejudices are directed against an aristocracy of mind, as of wealth."⁴⁴

⁴³W. M. Wightman, Inaugural Address Delivered at the Opening of the Southern University, Greensboro, Alabama (Marion, Ala.: George C. Rogers, 1859), pp. 3-11.

⁴⁴Thornwell, pp. 17-8; John Wood Pratt, An Address Delivered Before the Society of the Alumni of the University of Alabama, July 8th, 1850 (Tuskaloosa: M. D. J. Slade, 1850), pp. 6-7. On conservative fears that the dynamic economy of the antebellum period threatened social

Southern intellectual thought rejected the Northern progressivist faith that the alleviation of poverty that resulted from material progress allowed for the moral improvement of individuals, and therefore the possibility for social reformation. They rejected this because of their strict adherence to the Christian dogma of the fall and depravity of humankind. Bledsoe, an Episcopalian clergyman, blamed misguided educators, philanthropists, and statesmen, who kept these "odious fact[s] so much in the back-ground," for the "countless multitude of wild and visionary schemes for the improvement of mankind." The failure to acknowledge humankind's inherent sinfulness led them to falsely believe that "men will do right, provided they are furnished with the requisite light and knowledge. As this doctrine supposes ignorance to be the only source of evil; so the only remedy it proposes is the universal diffusion of knowledge." The Reverend G. H. Martin claimed the wrong type of education, particularly one that failed to provide classical instruction, left a youth no more than "an educated but lawless nuisance" who lazily yielded "to the

distinctions, see Michael P. Johnson, Toward a Patriarchal Republic: The Secession of Georgia (Baton Rouge & London: Louisiana State University Press, 1977), and T. Michael Parrish, Richard Taylor: Soldier Prince of Dixie (Chapel Hill & London: University of North Carolina Press, 1992), pp. 16, 38-39, 51-52, 112-123.

whimperings of voluptuousness, or to the revels of debauching pleasure."⁴⁵

Harper believed that even if a society contained numerous churches and schools to teach people virtue, utopia remained unobtainable because "the greatest source of human misery is not in external circumstance, but in men themselves--in their depraved inclinations, their wayward passions and perverse wills." Thornwell criticized "ingenious theories which undertake, from principles of human nature, to explain the history of man's progress from barbarism to refinement, are nothing better than speculative romances." He claimed that "man was created in the image of God, and the rudeness and coarseness of uncivilized communities are states of degradation which he has apostatized and sunk, and not his primitive and original condition."⁴⁶

The idea that "uncivilized communities," specifically Native American and African societies, indicated degradation and depravity conveniently fit proslavery theorists' belief that these groups were incapable of civilization. Southern intellectuals equated "civilization" with North American and European ideals of literary and technical progress. Hammond told the literary societies of South Carolina College that

⁴⁵Curti, Social Ideas, pp. 102-123; Kasson, p. 8; Rosenberg, p. 140; Bledsoe, Address, pp. 8-14; Martin, p. 24. See also Walthall, pp. 13-15.

⁴⁶Harper, pp. 92-3; Thornwell, p. 19.

technical progress belonged only to the "Caucasian race." Jefferson lauded Euro-American advances in the arts and sciences and criticized Native Americans for their rejection of European civilization. He believed they remained chained "to their present state of barbarism and wretchedness" because they refused to look to the future but instead longed "to return to the days of eating acorns and roots." Jefferson also maintained considerable doubts about African progress.⁴⁷

Southern intellectuals argued that slavery served as the only means to civilize blacks. They claimed that without slavery African-Americans would return to a complete state of barbarism. James P. Holcombe, an avid proponent of classical studies at the University of Virginia and a professor of law, believed the only option for black Africans consisted of slavery or "the extinction or further deterioration of [their] race." A professor at the University of Louisiana, Josiah C. Nott, limited Jefferson's idea of the generational accumulation and transmission of knowledge to whites. Nott charged that for blacks "one generation does not take up civilization where the last left

⁴⁷Josiah C. Nott, "Two Lectures on the Natural History of the Caucasian and Negro Races," in Ideology of Slavery, ed. Faust, p. 235; Hammond, pp. 8-9; Jefferson quoted from Honeywell, p. 251; Hellenbrand, pp. 111-114, 130-136; Boorstin, pp. 93-98, 224.

it and carry it on as does the Caucasian--there it stands immovable."⁴⁸

Southern intellectuals adapted their Protestant religion to reinforce their proslavery and anti-progressivist attitudes. Northern and Southern Protestants believed God allowed history to progress until Jesus Christ's return to earth. Bledsoe assured his listeners that he believed in "slow and resistless progress" despite his doubts about education's ability to alleviate human depravity. His progressivist faith, however, resided not in humankind but Divine Providence, under which both the natural and political world "has each succeeding night, all things considered, been less gloomy than the preceding." Many Northern Protestants believed the progressive moral perfection of humankind required an end to slavery as a necessary preparation for the millennial advent. Southern Protestants claimed that slavery was ordained by God and

⁴⁸Albert T. Bledsoe, "Liberty and Slavery: or, Slavery in the Light of Moral Political Philosophy," in Cotton is King, ed. Elliot, pp. 295-296, 342, 382-417; Stiles, p. 23; James P. Holcombe, An Address Delivered Before the Society of Alumni of the University of Virginia, At its Annual Meeting, Held in the Public Hall, June 29th, 1853 (Richmond: MacFarlane & Fergusson, 1853), pp. 9, 19-23; J. P. Holcombe, An Address Delivered Before the Seventh Annual Meeting of the Virginia State Agricultural Society, November 4th, 1858 (Richmond: MacFarlane & Fergusson, 1858), p. 9; Nott, p. 235.

therefore might possibly survive, or even flourish, in the millennium.⁴⁹

Southern academics chastised their Northern counterparts who argued that slavery violated the will of God. They pointed to Biblical sanctions of slavery in both the Old and New Testaments. They specifically attacked the theological antislavery arguments of the Baptist minister and utilitarian educator Francis Wayland, who believed in humankind's ability to discern God's "higher law" that existed independently of Scriptural revelation and condemned slavery. Exposure of Southern students to Wayland's moral philosophy texts in Northern colleges especially piqued Southern intellectuals.⁵⁰

Many Southern academics and intellectuals viewed abolitionism, materialism, and utilitarianism as symptoms of societal decay. Northern progressivists, such as Mann and

⁴⁹Bledsoe, Address, p. 20; Jack P. Maddex, Jr., "Proslavery Millennialism: Social Eschatology in Antebellum Southern Calvinism," American Quarterly XXXI (Spring 1979): 46-62.

⁵⁰Bledsoe, "Liberty and Slavery," pp. 290-311, 338-358; A. B. Longstreet, "Letters on the Epistle of Paul to Philemon, on the Connection of Apostolical Christianity With Slavery," in "The Letters of Augustus Baldwin Longstreet," ed. J. R. Scafidel (Ph. D. dissertation, University of South Carolina, 1976), pp. 170-222; Stiles, p. 10; An Address on Southern Education Delivered July 18, 1859, Before the Faculty, Trustees, Students, and Patrons of "Madison College," Sharon, Mississippi (Washington: n. p., 1859), pp. 5-9; Francis Wayland, Elements of Moral Science (New York: Cooke & Co., 1835). Wayland published other editions of this work in 1835 and 1865. In each of these editions, he hardened his position against slavery.

Wayland, included abolition, which they considered social progress, and technical development in their progressivistic vision. Abolition required white Southerners to reject the idea of social progress integral to Northern intellectuals' (and ultimately the modern) progressivist vision. Furthermore, change, or progress, created by rapid technological development and associated with utilitarianism, unsettled many in Southern academia because it potentially threatened to upset the South's social order.⁵¹

Not all Southern academics, intellectuals, and proponents of higher education fretted over what Hammond called "the grandest problems of Human progress."⁵² Advocates of applied science believed technical change

⁵¹Ekirch, Jr., pp. 206-207, 214-215. Ekirch, Jr. argues that Southern intellectuals, as opposed to their Northern counterparts, provided a "qualified affirmation" of the idea of progress for the South. He is correct in noting that some Southern intellectuals accepted the materialistic aspects of progress and understood the importance of progress in the public's imagination. He is also correct in his observation that Southerners united slavery with idea of progress. Ekirch, Jr. fails, however, to recognize that many of the Southern intellectuals he identifies as progressivists, including Hammond, Harper, Nott and Thornwell, feared progress as much as they affirmed it. Unlike Northern progressivists, they remained apprehensive about republican cycles, lacked faith in the inevitability of progress, tied progress to the conservative institution of slavery, rejected moral progress, and limited the idea of progress to Caucasians. Southern academia also largely rejected materialism and utility, both necessary components for scientific progress. See Ekirch, Jr., pp. 225-251.

⁵²Hammond, pp. 24-28.

inevitable and argued the South must acquire the skills to develop their natural resources in order to promote agriculture and manufacturers. Scientific progressivists wanted Southern schools to offer technical subjects in order to provide graduates capable of freeing the South from material dependence on the North. Proponents of physical progress either avoided the subject of slavery, or argued progress enabled the South to better defend the institution. Southern scientific progressivists believed in the inevitability of progress, but they also concluded people must choose to encourage and support the progressive developments around them. Otherwise, progress passed those who failed to aid its advance. Faith in progress resembled the message of Protestant ministers, familiar to most Southerners, who taught the inevitability of the millennium, yet enjoined the faithful to prepare for the Second Coming lest they not share God's glory. Scientific progressivists argued that unless Southerners worked for progress, they risked forsaking its blessings, while others more faithful--Yankees, in particular--received its rewards.

Advocates of scientific education tried to scare or shame Southerners into embracing scientific education. William W. Avery, an alumnus of the University of North Carolina, rhetorically asked the literary societies of that university: "Is [North Carolina] not immeasurably behind many of her compeers?...Do you require evidence that she

occupies a position so low on the scale of progress?" Avery found little evidence of public improvements or private enterprise. He demanded to know where "are the striking exhibitions of our inventive genius, indicating the skill of our artizans [*sic*] in mechanism....Where are [North Carolina's] discoveries in Science...to promote the comfort of mankind?" Furthermore, he claimed that the state university contributed little to North Carolina's development. He complained that North Carolinians' love of orators and statesmen, of whom the university contributed its share, discouraged commercial and industrial pursuits. Avery lauded the "astounding discoveries of science," especially the telegraph, but he also noted--not disapprovingly--of the "new theories of ethics, new philosophies of life, and new systems of religion." The world, Avery observed, was in the midst of a social, moral, and political revolution. He warned that the state "cannot float safely in that impetuous stream of Progress upon which I would have you launch her, without Science and Learning at the helm."⁵³

Francis W. Keyes warned the University of Mississippi's alumni association that the "State which turns a listless

⁵³Alexander M. Clayton, Address Delivered at the First Annual Commencement of the University of Mississippi...July 12, 1849 (Oxford: Organizer Office, 1849), pp. 5-16; W. W. Avery, Address Delivered before the Two Literary Societies of the University of North Carolina, June 4, 1851 (Raleigh: William W. Holden, 1851), pp. 10-22.

eye upon the march of intellect, and withholds its fostering for the mental culture of its sons, impedes its own progress and tramples upon its own highest interest." Keyes claimed that for Mississippi to provide citizens with useful scientific knowledge required expensive apparatus. He argued that a well equipped university would help guarantee the educational independence of Mississippi.⁵⁴

Scientific education required larger funds than historically necessary to operate collegiate institutions, but Southern proponents justified the expense. One Texas legislator defended the cost of building and outfitting the proposed University of Texas by calling it a "temple of futurity" necessary for the state's preservation. Ashbel Smith, educated at Yale and a native New Englander who ventured south to find fortune, believed costly scientific equipment more important than faculty salaries. Smith claimed the South needed a large, well equipped university to aid in the war of opinion waged by the North against the Southern states. "The mind of our people must be cultivated, educated, [and] disciplined to turn back the onslaught made on us by the North," Smith asserted, "We need a University, where shall be given instruction as thorough and extensive as is furnished in any of the Colleges or Universities of the Northern States." Professor F. A. P.

⁵⁴F. W. Keyes, An Address Delivered Before the Alumni Association of the University of Mississippi on the 5th Day of July, 1859 (Oxford: n. p., 1859), pp. 8-13, 20-21n.

Barnard complained in 1854 that "no respectable college" managed a chemistry department on the budget he received at the University of Alabama and lamented the board of trustees ignored his requests for equipment.⁵⁵ The cost of purchasing and maintaining apparatus, farms, and laboratories for scientific subjects discouraged many administrators from promoting scientific education when confronted with budget difficulties.

Walter Monteiro lauded "the bright destiny that awaits...all who devote themselves to science," and claimed those who pursued knowledge recognized the "eternal progress of human intellect and human freedom." Monteiro told students of Virginia's Hampton Academy that they "will be urged daily to [devise] new methods to enlarge the ever-widening circle of knowledge." He wanted them to remedy the fact that the South claimed virtually no native scientific talent and depended on the North for advances in industry.

⁵⁵A. B. Norton, Remarks of A. B. Norton in the Texas House of Representatives Upon the University Question... (Austin: John Marshall & Co., 1858), pp. 6-8; Elizabeth Silverthorne, Ashbel Smith of Texas: Pioneer, Patriot, Statesman 1805-1886 (College Station: Texas A & M University Press, 1982), pp. 3-57; Ashbel Smith, Letter from Doctor Ashbel Smith to the Trustees of the Memphis University..., 25 January 1849, ([Memphis]: Enquirer, n. d.), pp. 3-7; Reports of the Department of Chemistry by F. A. P. Barnard to the University of Alabama Board of Trustees, ms, 4 July 1854, folder 1519, box 7, Trustee Records, Record Group 1, University Archives, University of Alabama, Tuscaloosa. See also Reports of the Department of Chemistry by R. T. Brumby to the University of Alabama Board of Trustees, mss, 13 December 1841, 7 December 1843, and 17 December 1845, folder 1519, box 7, Trustee Records, Record Group 1, University Archives, University of Alabama.

He lamented that in "scientific discovery," the South boasted no Franklin or Morse. Monteiro believed the region needed to financially support its own scholars to refute the abolitionist charge that slavery yielded a backward and cruel Southern civilization.⁵⁶

Philip St. George Cocke, president of VMI's Board of Visitors and an avid proponent of scientific agriculture, shared Monteiro's admiration for Yankee inventors. Benjamin Franklin, Samuel Morse, Eli Whitney, and Robert Fulton, St. George Cocke observed, "have come to seize and wield the hitherto secret laws and unknown powers of nature, and to become demi-gods of knowledge, of power and of progress." He called for an expansion of VMI's curriculum in 1859 to provide for the special education of agriculturists, engineers, manufacturers, and merchants.⁵⁷

⁵⁶Walter Monteiro, Address Delivered Before the Neotrophian Society of the Hampton Academy, on the 28th of July, 1857 (Richmond: H. K. Ellyson, 1857), pp. 7-19.

⁵⁷Letter from Philip St. George Cocke to B. S. Ewell, 30 June 1859, box 1, Benjamin Stoddert Ewell Papers, University Archives, College of William and Mary, Williamsburg, Virginia; Philip St. Geo. Cocke to Henry A. Wise, February 1859, in Francis H. Smith, Special Report, pp. 4-5. Progressivist Southerners joined other Americans in the celebration of native inventors who, Kasson (p. 41) notes, "became the objects of a national cult" during the mid-nineteenth century. See also Wm. T. Hamilton, Address on the Importance of Knowledge Delivered ...December 11th, 1841 (Tuscaloosa: Office of the Independent Monitor, 1841), p. 10, and Aaron V. Brown, Address Delivered Before the Literary Societies of the University of North Carolina, ... May 31, 1854 (Nashville: J. F. Morgan, 1854), p. 7.

Francis Henney Smith, VMI's superintendent, argued that instruction in applied science promised to resurrect the fortunes of a declining state, and in effect escape or delay the cycle of decay expected to befall all societies. "The age we live in is one of progress," Smith observed, "especially physical progress." He rhetorically asked, "What is wanting in this great state [Virginia] to place her again in the lead of her sister states but the development of her immense physical resources?" If only Virginia embraced science and applied it to "her energies and to develop her wealth," he urged, "we shall soon witness a change in the growing prosperity of our people."⁵⁸

The oceanographer Matthew Fontaine Maury told graduates of the University of Virginia that "the influence of Virginia, the force of her example, the weight of her authority among her confederates, are not as great as they used to be." The loss of "influence" he attributed not to a decline of Virginians' virtue, but to too little commerce and science. "Commerce is king," Maury announced, and "in seeking the power for your state to achieve social conquests by virtuous example, and to hold again the moral sway she one held with her sister states, you should subsidize commerce." He united virtue with commercial prosperity and

⁵⁸Francis H. Smith, Superintendent's Report, 25 June 1851, Report of the Board of Visitors of the Virginia Military Institute, July 1850, p. 7. Report hereinafter cited as RBVVM I.

progress and rejected fears that materialism threatened Southern virtue. Maury ignored slavery and sectional tensions in his address, but instead praised the United States as a republic with a "future of boundless prosperity and inconceivable greatness." Yet, Maury warned the Virginia graduates that

Movement--progress, is a law of the physical world; there, rest and decay are correlative terms. The stars cannot stand still and keep their places; a planet by going back would be hurled into destruction....And so it is in the moral world: the progress of man must be upward and onward, or downward and backward....To stand still is death; to go backwards is worse.

The choice of progress or decay, he asserted, resided with them.⁵⁹

Governor Aaron Brown of North Carolina believed technical progress enabled the United States to fulfil its destiny as a refuge from tyranny for humankind. Brown lauded the nation's millennial role to the literary societies of the state university. He credited the inventions of science for the rapid territorial expansion that helped build an "Empire" where the civil and religious liberties of Americans and their descendants "should be secured and established forever." The telegraph, railroad,

⁵⁹M. F. Maury, Address Delivered Before the Literary Societies of the University of Virginia...28th June 1855 (Richmond: H. K. Ellyson, 1855), pp. 12-15, 18-24. Emphasis is original. On the integral relationship between millennialism and the idea of progress, see Tuveson and Ekirch, Jr.

and steamboat, he believed, strengthened the Union and compelled Americans to abandon their fears about expansion. Brown looked to higher education to provide scientific training in agriculture and industry to further the nation's progress.⁶⁰

Ashbel Smith shared Brown's millennial view of the United States. The nation's "increase in population, in the development of the resources of the country in all the elements of strength," Smith claimed, "is unparalleled. I have read nothing which approaches it, on so grand of scale." He attributed American progress to education. Smith, president of the Texas Agricultural Society and a Corresponding Member of the *Société Nationale et Centrale d'Agriculture de la France*, fervently believed in scientific agriculture. He advocated educating farmers who would enable the United States to "bread and clothe Christendom."⁶¹

⁶⁰Aaron Brown, pp. 9-19.

⁶¹Ashbel Smith, First Semi-Annual Report of the Public Schools of Galveston; Together with...An Address on Education by Ashbel Smith... (Galveston: News Office, 1847), pp. 22-26; Ashbel Smith, Address Delivered before the Texas State Agricultural Society, at Austin, February 5 1853 (Austin: J. W. Hampton, 1853), pp. 19-23.

Thomas Jefferson's progressivism also contained a millennial strain. He wrote John Adams: "I do believe we [the United States] shall continue to grow, to multiply, and prosper until we exhibit an association, powerful, wise and happy, beyond what has yet been seen by men." Jefferson to Adams, 21 January 1812, in Writings, ed. Bergh, vol. XIII, pp. 122-125. See also Jefferson to Adams, 1 August 1816, in Writings, ed. Bergh, vol. XV, pp. 56-59.

Scientific progressivists wanted Southern institutions of higher learning to embrace utilitarian education in order for the South to survive in a technologically progressive world. Hugh B. Grigsby, a friend of Benjamin S. Ewell, the president of the College of William and Mary and a proponent of scientific education, called for an end to the classical approach to the study of mathematics. New discoveries, Grigsby believed, compelled students to study the applications of mathematics to the mechanic arts.⁶²

Despite Grigsby's hope that applied mathematics would supersede the classicistic emphasis on pure mathematics, and the calls for more scientific courses from other utilitarians, Southern schools remained wedded to traditional approaches to higher education. Denominational schools lagged behind public institutions of higher learning in their attempts at curricular reform.⁶³ Most efforts to expand scientific studies at Southern state universities, however, failed.

William Mitchell, chairman of the Board of Trustees Prudential Committee, led the University of Georgia's reform effort. Mitchell wanted the school to offer a modern course

⁶²Hugh Blair Grigsby, Oration, Delivered Before the Students of William and Mary College, July 4, 1859 (n. p., n. d.), p. 4.

⁶³Albea Godbold, The Church College of the Old South (Durham, NC: Duke University Press, 1944), pp. 164-165. Godbold remains one of the most cited sources on the subject of denominational higher education. An updated study is needed.

of study to "obviate the necessity [of] sending our Southern sons to Massachusetts." He complained Southern colleges "are still dependent on the North frequently for the men and always for the education." Mitchell wanted Georgia to establish two schools of applied science: one in the industrial arts, and the other in agriculture. He hoped these schools would train engineers, artisans, manufacturers, agriculturists, chemists, and miners.⁶⁴

The state failed to provide funds for curricular expansion despite the recommendations of Mitchell and the committee. President Alonzo Church demonstrated little enthusiasm for reform and engaged in petty squabbles that cost the school its most competent faculty members. These included the celebrated scientists John and Joseph LeConte who resigned in 1855 and 1856 respectively after Church continually harangued them for failure to enforce the school's strict discipline code. Despite losing John LeConte, Church told the Board of Trustees "that mere science, will not qualify a man for a Professor." The failure to implement the Prudential Committee's report and a high turnover of professors forced the university to

⁶⁴Report of the Prudential Committee, 6 November 1855, Minutes of the Board of Trustees of the University of Georgia, typescript copy, University Archives, University of Georgia, Athens.

maintain its classic leaden course for the rest of the decade.⁶⁵

Reform also failed at the University of North Carolina. The university established a "School for the Application of Science to the Arts" in 1852 intended to offer extensive science classes that included agricultural chemistry, botany, engineering, geology, mineralogy, and zoology. Scientific matters stirred the imagination of some students at the university. They addressed the subject of scientific progress throughout the 1850s with orations entitled, "Inventive Genius," "Science, Nature's Compliment," "The Mechanic Arts," "Farming Becoming One of the Learned Professions," "The American Engineer," and "Revolution an Element of Progress." Most students, however, confined their subject matter to the classics, literature, poetry, and conservative politics.⁶⁶

The university's focus remained firmly on the classics despite efforts at modernization. The sciences occupied a student's time for only three hours per week over a nine

⁶⁵Report of A. Church, Trustees' Minutes, University of Georgia, 6 November 1855, and 15 October 1856; Trustees' Minutes, University of Georgia, 2 November 1859; Catalogue of the Trustees, Officers and Alumni of the University of Georgia, From 1785 to 1894 (Atlanta: Foote & Davies, Co., 1894); Joseph LeConte, The Autobiography of Joseph LeConte, ed. William Dallam Armes (New York: D. Appleton and Co., 1903), pp. 155-158, 163-164.

⁶⁶Robin Brabham, "Defining the American University: The University of North Carolina, 1865-1875," North Carolina Historical Review 57 (October 1980): 431; Kemp P. Battle, History, vol. 1, pp. 650, 670, 686.

month session. The professor of mathematics focused on pure rather than applied mathematics, and engineering and geology matriculates studied in the field only once or twice a year. John Kimberly, who replaced Hedrick as professor of agriculture and chemistry, upon his arrival found the laboratory consisted of inoperable equipment and the floor covered with broken glass. He complained that he "had no materials in [the] laboratory to work with" and no textbooks for students. When Kimberly, a graduate from Harvard's Lawrence Scientific School, asked President Swain how he should teach without apparatus, Swain replied "Lecture, lecture...no matter about what." The classicist Swain opposed reform and he helped throttled a request by the trustees in 1859 to develop a true polytechnic school at the university.⁶⁷

The University of Alabama opened in 1831 and adhered to the traditional curriculum. The school's Baptist president, the Reverend Basil Manly, issued an unreserved defense of classical instruction to the board of trustees in 1852. "The danger of colleges," Manly reported "is not that they will preserve a stereotype or fossil evidence, and thus lose their relative importance; but rather that they will too

⁶⁷Kemp P. Battle, History, vol. 1, pp. 552-553, 660-661; letter from Jno. Kimberly to My Dear Hal, 12 February 1857, folder 7, box 1, John Kimberly Papers, SHC-UNC; Minutes of the Board of Trustees for the University of North Carolina, 26 January 1859, University Archives, University of North Carolina, Chapel Hill.

readily accommodate themselves to what they consider popular demand." Manly claimed that colleges cannot "comprise every actual trade, business, calling and profession, in full and successful experiment" because of too little capital and time available to provide such a broad education. Manly charged that every effort in the United States that had abandoned classical studies for courses in applied science had proved "an utter failure."⁶⁸

His successor, Landon C. Garland, likewise supported the classics. A Virginian and a graduate of Hampden-Sidney College, he joined the faculty at Alabama as chair of the department of English in 1847. He replaced Manly as president in 1855. Garland claimed the ancient languages and pure mathematics improved the mind, and he also sustained logic, belles lettres, and mental philosophy in the curriculum. He argued that for agriculture and the mechanic arts students must look to special schools. The new president, however, proved less dogmatic than his predecessor. Garland suggested that colleges include botany, chemistry, geology and other new areas of study necessary to provide "the first principles of all the professions and the pursuits of life." The university attempted some reform in the fifties and implemented a

⁶⁸Basil Manly, Report on Collegiate Education, Made to the Trustees of the University of Alabama, July 1852 (Tuskaloosa: M. D. J. Slade, 1852), pp. 8-17. Emphasis is original.

limited elective system and added lectures in agricultural chemistry and civil engineering (the latter delivered by Garland) for part of the senior year. Nevertheless, the university continued to require ancient languages every term of a student's four year career.⁶⁹

The other southwestern state university, the University of Mississippi, engaged in little academic innovation before the Civil War. George Frederick Holmes served as the school's first president upon its opening in 1848. The twenty-eight year old defender of classical education previously taught ancient languages at the University of Richmond and political economy at the College of William and Mary. Holmes dabbled in the positivist thought of Auguste Comte. He was attracted to the French philosopher's belief that order and progress complimented, rather than contradicted, each other. He eventually discarded Comtean philosophy because it rejected the necessity of Christianity for progress. Holmes opposed curricular innovation and considered practical studies a "lower order of education."

⁶⁹Address of Dr. Landon C. Garland, Minutes of the Convention, Which Formed the Alabama Educational Association...July 24-25, 1856 (Selma: Selma Reporter and Job Printing Office, 1857), pp. 8-13; Willis G. Clark, "The Promise of Education," in Memorial Record of Alabama, 2 vols. (Madison, Wis.: Brant & Fuller, 1893), vol. 1, p. 159; James B. Sellers, History of the University of Alabama, 2 vols. (University, Alabama: University of Alabama Press, 1953), vol. 1, pp. 78, 153-155; Robert J. Norrell, A Promising Field: Engineering at Alabama, 1837-1987 (Tuscaloosa and London: University of Alabama Press, 1990), p. 27.

He believed ancient languages and moral philosophy to be the most important academic subjects. Holmes considered mathematics rightly "one of the least esteemed studies" and ranked natural science "very nearly [at] the bottom of the scale" in scholarly value.⁷⁰

He accomplished little at the University of Mississippi and abandoned the school four months after it commenced because of administrative difficulties, discipline problems, and poor health. The trustees replaced Holmes with Augustus Longstreet who previously served as president of Emory. Although Longstreet advocated instruction in applied science and manual labor at Emory, he demonstrated little interest in inaugurating such programs at Mississippi. The university's curriculum heavily emphasized the classics and the responsibility for teaching botany, chemistry, geology, mineralogy, and physics resided in a single professor.⁷¹

⁷⁰G[eorge]. F. H[olmes]., "Sir William Hamilton's Discussions," Southern Quarterly Review 8 (October 1853): 299-336; Holmes, Inaugural Address, pp. 15-18; Auguste Comte, The Essential Comte: Selected from Cours de Philosophie Positive, ed. Stanislav Andreski (New York: Barnes & Noble, 1974), pp. 126-127; Drew Gilpin Faust, A Sacred Circle: The Dilemma of the Intellectual in the Old South, 1840-1860 (Baltimore and London: Johns Hopkins University Press, 1977), p. 64; Neal C. Gillespie, The Collapse of Orthodoxy: The Intellectual Ordeal of George Frederick Holmes (Charlottesville: University of Virginia Press, 1972), pp. 123-150.

⁷¹John N. Waddel, Historical Discourse Delivered on the Quarter-Centennial Anniversary of the University of Mississippi on Wednesday, June 25th, 1873 (Oxford, Miss.: Board of Trustees, 1873), pp. 10-11, 18-21; John Donald Wade, Augustus Baldwin Longstreet: A Study of the Development of Culture in the South (Athens: University of

Longstreet remained at the University for seven years. The trustees appointed Frederick A. P. Barnard president upon Longstreet's resignation in 1856. A native of Massachusetts and educated at Yale, Barnard tinkered in astronomy, photography, and surveying. Prior to his appointment, he taught mathematics, chemistry, and physics at the University of Alabama. Despite Barnard's scientific reputation, he attempted no curricular innovations at the University of Mississippi. Previously, he opposed the moderate elective system put into place during his tenure at Alabama. Barnard also rejected utilitarian studies and believed pure research the proper sphere of a university. He vigorously defended the classics and claimed that collegiate courses in the physical sciences, modern languages, and civil engineering "must be pronounced to be uncalled for and unnecessary" from an "educational point of view."⁷²

Barnard's attitude toward practical education and the classics changed dramatically after the Civil War. As postbellum president of Columbia College, he proposed that colleges expand the number of courses they offered in the applied sciences and create elective systems in which

Georgia Press, 1969), pp. 296-313; Allen Cabaniss, The University of Mississippi: Its First Hundred Years (Hattiesburg: University and College Press of Mississippi, 1971), pp. 3-20.

⁷²F. A. P. Barnard, Improvements Practicable in American Colleges (Hartford: F. C. Brownell, 1856), pp 3-15.

students could select classical or scientific studies. Barnard argued that colleges and universities must adjust to the demands of a new age.⁷³

Nevertheless, Barnard attempted little reform while at the University of Mississippi. The curriculum remained largely unchanged four years after his appointment as president. Three quarters of a century later, William Faulkner accurately described the university attended by his characters Charles Bon and Henry Sutpen--Barnard's university--as no more than a "small new provincial college" in "the Mississippi hinterland."⁷⁴

South Carolina College also failed to catch the progressivist spirit. Longstreet obtained the presidency of that college in 1857. He replaced Charles F. McCay, a professor of mathematics, who previously taught at the University of Georgia. Born in Pennsylvania, McCay followed James Thornwell, a classicist, as president and created a curricular controversy when he convinced South Carolina

⁷³William J. Chute, Damn Yankee!: The First Career of Frederick A. P. Barnard Educator Scientist Idealist (Port Washington, NY & London: National University Publications, Kennikat Press, 1978), pp. 188-190.

⁷⁴Ms Minutes of the Board of Trustees of the University of Mississippi, 25 June 1860, Archives and Special Collections, Williams Library, University of Mississippi, Oxford; William Faulkner, Absalom, Absalom! (New York: Vintage Books, 1987 [Originally published by Random House in 1936]), pp. 89, 115, 474. The number of students at the university declined under Barnard from 264 to 198. See Waddel, Historical Discourse, p. 13.

College's board of trustees to lessen its emphasis on the classics by eliminating the chair of belles lettres. Opposition from classical professors and riotous behavior by students quickly forced McCay from office. The school returned to its traditional curriculum upon Longstreet's accession to the presidency. Longstreet spent most of his time enforcing discipline, defending slavery, and campaigning for secession.⁷⁵

Longstreet joined the LeConte brothers who obtained positions at South Carolina College after their departure from Georgia. Although the LeContes improved South Carolina's scientific instruction, they initiated no curricular reformation. Similar to Barnard, Joseph LeConte preferred pure, over applied, research. Benjamin F. Perry, a trustee of the college and an avowed Unionist, proposed that the board expand the college's scientific courses. Perry complained the school provided three times more Greek than Harvard. Longstreet opposed the effort to expand scientific offerings which he thought required students to remain for an extra year of study. He believed students refused to remain in college for five years and that the proposed expansion would fail for lack of patronage. Longstreet suggested the college simply allow interested students to receive special instruction after graduation instead of taking the "novelty" of science instruction "too

⁷⁵LeConte, pp. 164-177; Hollis, vol. 1, pp. 194-211.

far" with the addition of more courses. He argued that if this failed "no evil will result from it." He ignored the possibility of curtailing classical instruction to allow room for the new sciences and the effort to expand scientific instruction floundered.⁷⁶

As previously noted, the University of Virginia largely abandoned practical instruction by the 1850s. More students attended Latin on the eve of the Civil War than any other elective course. Charles S. Venable, professor of mathematics at South Carolina College, delivered an address to alumni of the University of Virginia in which he praised the resiliency of the ancient languages which for centuries survived the fall of empires and preserved knowledge for generations. He claimed that only classical learning survived the passing ages.⁷⁷

The curricular reform efforts that occurred over the first three decades of the century and the subsequent manual labor school movement failed to transform Southern higher education. Most Southern institutions remained under the

⁷⁶Dyer, Georgia, p. 89; James Moore Goode, "The Confederate University: The Forgotten Institution of the American Civil War" (Master's thesis, University of Virginia, 1966), p. 15n; letter from A. B. Longstreet to ?, [30 November 1859] in "Letters," ed. Scafidel, pp. 586-589.

⁷⁷Catalogue of the University of Virginia. Session of 1860-'61 (Richmond: Chas. H. Wynne, 1861), p. 22; C. S. Venable, An Address Delivered Before the Society of Alumni of the University of Virginia (Richmond: MacFarlane & Fergusson, 1859), pp. 3-24.

control of classicists uninspired by the idea that their schools might provide graduates capable of aiding Southerners' march to greater moral and scientific progress. Most Southern schools demonstrated this through their commitment to the classics and defense of slavery. Only when confronted by war, would classicists finally start to surrender some of their control over Southern academia to progressivistic utilitarians.

CHAPTER 2

SEPARATIST EDUCATION AND THE LESSON OF CIVIL WAR

"In these troublous and disloyal times, we can render our mother State no better service," Francis Smith told the cadets of the Virginia Military Institute in the late summer of 1856, "than by making her *independent*--by affording a home education for all her sons--and her daughters too." Smith believed that the specter of disunion generated by the abolitionist doctrines of that "most disloyal State of Massachusetts" demanded that Virginia prepare for any threat. Smith announced that VMI stood ready to do its part in the state's hour of need and reminded the cadets of "the benefits which this institution has exercised and is now exercising over two of the most important interests of the State--*her internal improvements--and her military defenses.*" Southern progressivist academics, like Smith, took advantage of the sectional crisis and civil war to propagandize the benefits of utilitarian studies through the "home education" and military school movements.¹

Southern academics and their supporters deplored the tendency of parents, who deemed Northern schools superior to those in the South, to send their sons north for collegiate

¹Francis H. Smith, Introductory Address to the Corps of Cadets of the Virginia Military Institute, on the Resumption of Academic Duties, September 2nd, 1856 (Richmond: MacFarlane & Fergusson, 1856), pp. 21-22. Emphasis is original.

instruction. Proponents of Southern education appealed to state and sectional pride in an effort to encourage parents to keep their children at "home" and build Southern institutions. Furthermore, the influence of abolitionist professors upon Southern youth worried the South's intellectuals and provided another argument in favor of "home education." William Stiles claimed that "the injury to Southern youth from a Northern education would not only unfit them for their native institutions but at the same time implant in them a deadly hostility to the institution which nothing but its destruction could possibly appease."²

The fear of foreign education originated with the birth of the republic. Thomas Jefferson warned in 1785 that the young man who attended college in Europe learned drinking and gambling and acquired a taste for European "luxury and dissipation" that threatened virtue. The student returned to his native country, Jefferson charged, a foreigner. Ironically, John Adams warned Jefferson, who ignored the New Englander's advice, not to employ foreign professors at the

²Rachel Bryan Stillman, "Education in the Confederate States of America, 1861-1865" (Ph. D. dissertation, University of Illinois, 1972), pp. 65-69; "The Great Southern Convention in Charleston," De Bow's Review XVI (June 1854): 638-639; "Our School Books," De Bow's Review III (April 1860): 434-440; Stiles, p. 9.

University of Virginia lest they subvert the republican natures of their students.³

Prior to the intensification of the sectional crisis in the late 1850s, proponents of home education in the South tended to advocate a national and republican education. Reverend William A. Scott told a New Orleans school board in 1845 that "We want a thorough Home Education," that emphasized American and not European values. Public education, Scott argued, promised to help secure the perpetuity of the Union. Governor Aaron V. Brown of North Carolina lauded the nationalist orientation of American education and credited it for much of the material progress and political freedom the United States enjoyed beyond that of all other nations past or present. Brown thought there existed no reason why the Union ought not to eventually reach "fifty or one hundred states." By the end of the 1850s, however, Southern educators transformed the term "home education" to mean a separate Southern, and not an American, education.⁴

³Letter from Thomas Jefferson to J. Bannister, Jr., 15 October 1785, Jefferson, Works, ed. Ford, vol. 5, pp. 186-187; letter from John Adams to Thomas Jefferson, 23 January 1825, Adams-Jefferson Letters, ed. Cappon, vol. 2, pp. 606-607.

⁴W. A. Scott, The Education We Want. A Discourse, Pronounced on the Twenty-Third of November, 1844... (New Orleans: Besancon, Ferguson & Co., 1845), pp. 13-15; Aaron Brown, pp. 7-19.

Stiles noted that the Georgia legislature's 1785 act creating a state university charged that sending students "abroad to other countries for education...will always be the cause of so great foreign attachments" harmful to republican government. He rhetorically asked whether the danger from a foreign collegiate education was "less from one obtained in New England than from one acquired in *Old* England, less from an education obtained in the abolitionized [sic] and inimical States of Massachusetts and Connecticut?" Another critic of Northern colleges claimed that it "is hard to comprehend how southern parents will continue sending their children to these nurseries of abolitionism." Secession eventually provided the home education movement with its ultimate justification: Yankee education indeed equaled foreign education. After the outbreak of civil war, the Mercer University catalogue admonished parents not to send their sons to school "in a *foreign nation*." The South's separation from the idea of a national education, like its withdrawal from national politics and national religious denominations, represented another step toward the dissolution of the bonds that tied the Southern states to the Union.⁵

⁵Stiles, pp. 26-27. Emphasis is original; Monteiro, p. 10; Catalogue of the Officers and Students of Mercer University. 1860-61 (Penfield, Georgia: n. p., 1861), [p. 8]. Emphasis is original. See also Southern Education, p. 5.

The hostility of home educators to Yankee letters extended beyond their opposition to Northern colleges. Proponents of home education also feared the influence of textbooks written and manufactured in the North and widely used in all types of Southern schools. They worried that abolitionist messages contained in the texts threatened to undermine the support of Southern students for slavery. They wanted texts that extolled the benefits and virtues of slavery and that promoted positive images of the South to the rest of the nation.⁶

Home educators also condemned Southern schools that hired professors from nonslaveholding states. Advocates of home education believed professors and teachers held the power to form and shape youthful opinions and they feared that abolitionism infected Southern classrooms. J. S. B. Thacher proposed that Mississippi establish normal schools because he claimed some Northern instructors teaching in Natchez's public schools demonstrated an inclination to the principles of abolitionism, which, "if indulged in, we may presume they are not slow to impart to their pupils. And,

⁶"Our School Books," pp. 435-440; "Great Southern Convention," pp. 638-639; "Future Revolution in Southern School Books," De Bow's Review V (May-June 1861): 606-614; letter from Anthony Vallas to G. Mason Graham, 19 July 1859, folder 162, box 12, Anthony Vallas Letters, Walter L. Fleming Collection, Louisiana and Lower Mississippi Valley Collections, Louisiana State University Libraries, Louisiana State University, Baton Rouge. See also John S. Ezell, "A Southern Education for Southrons," Journal of Southern History XVII (August 1951): 303-325.

although, we might safely confide that a residence in a slave State for a season would remove such prejudices, we are certainly not called upon to hazard that risk."

Suspicion of Northern educators extended even to Frederick Barnard, whose twenty-two year professorial career in the South failed to protect him from accusations that he harbored abolitionist sympathies. While chancellor of the University of Mississippi, the board of trustees tried Barnard on charges that he accepted the testimony of a slave against that of a student, held "unsound" beliefs on the "slavery question," and arranged unnecessarily to have university documents printed in the North. The board ultimately acquitted Barnard, a slaveholder, and tendered the chancellor their vote of confidence. Nevertheless, Barnard's presence forced the University to endure allegations that it served as "an hot-bed of Abolitionism" and a "nursery of Yankeeism."⁷

Proponents of scientific instruction attempted to use the home education movement to their advantage. In his

⁷Letter from Thacher to Brown, 24 November 1847, in Governor's Message...and Accompanying Documents, p. 20. See also Edward Baptist, Address Delivered Before the Trustees, Faculty, and Students of Howard College...November 16, 1846 (Tuskaloosa: M. D. J. Slade, 1846), p. 8; A Review of the Actions of the Trustees in the Trial of Chancellor F. A. P. Barnard, and Defence of the Prosecutor (n. p., [1860]); Record of the Testimony and Proceedings, in the Matter of the Investigation, by the Trustees of the University of Mississippi, on the 1st and 2nd of March, 1860, of the Charges Made by H. R. Branham Against the Chancellor of the University (Jackson, Miss., Mississippian Office, 1860); Keyes, p. 19.

unsuccessful appeal for expanded scientific education at the University of Georgia, William Mitchell lamented "the necessity of sending our Southern sons to Massachusetts" for technical instruction. He also complained of Georgia's dependence on Northerners for the operation of its railroads, manufacturers, and mines. A school of applied science in Athens, Mitchell argued, would give Georgia natives the practical training to conduct and develop industries that required scientific knowledge.⁸

The *Louisiana Democrat* applauded the Dolbear Commercial College in New Orleans for its plan to establish an agricultural and mechanical department. The program promised to alleviate the necessity of students leaving the South in order to find facilities that provided technical education. A Southern school of applied science, the newspaper noted, allowed youth to receive utilitarian instruction without imbibing the "poison of opposing sentiments" taught in Northern schools.⁹

Mercer University, shortly after it established a three year "Scientific Course," inaugurated another "new feature" to its instruction: "a special study of the subject of slavery." The course offered "every argument on both sides logically tested, in order that our young men may be

⁸Trustees' Minutes, University of Georgia, 6 November 1855.

⁹Louisiana Democrat (Alexandria) 13 July 1859.

qualified to defend the institutions of their country." Apparently, the "logical" outcome of the debate would never be in doubt.¹⁰

Southern Episcopalians attempted the most ambitious effort to fulfill the demand for home education at the university level. Led by the Bishop of Louisiana, Leonidas Polk, Episcopal clerics raised funds to establish what they hoped would develop into the South's preeminent university. The proposed University of the South, located at Sewanee, Tennessee, promised to offer every classical and scientific course of study. The Board of Trustees planned thirty-two schools in all, which included nine schools of ancient and modern languages, and schools of agriculture, commerce, fine arts, and mining. Polk explained to the bishops of nine slave states that the proposed university would offer an education comparable to that provided in the North. He claimed that the poor quality of Southern higher education required that "our children [be] expatriated or sent off to an inconvenient distance, beyond the reach of our supervision or parental influence, exposed to the rigors of an unfriendly climate, to say nothing of other influences not calculated...to promote their happiness or ours."¹¹

¹⁰Catalogue of the Mercer University...1860-61, pp. 28-32. Only ten of the university's 153 students enrolled in the scientific course.

¹¹Constitution and Statutes of the University of the South..., Article VI, (Nashville: Bang, Walker & Company, 1860); Leonidas Polk, A Letter to the Right Reverend

The laying of the university's cornerstone occurred on October 10, 1860, amidst great fanfare with Frederick Barnard and Matthew F. Maury as featured speakers. Efforts to open the university, however, ceased after the outbreak of sectional hostilities and did not resume until after the Civil War.¹²

Another failed attempt to establish a preeminent Southern university occurred at the University of Louisiana in New Orleans. Claudius W. Sears, a graduate of West Point, the dean of the collegiate faculty, and professor of mathematics and natural philosophy, claimed he discovered Louisiana students in all of the Northern colleges. Sears complained that "long and freely have we been giving of our wealth to those who now scornfully taunt us with our dependence and our inferiority in the progress of civilization." Sears argued for an expansion of his school's scientific offerings in order to rectify Louisiana's technical inferiority in agriculture and industry. He believed if applied science could be taught adequately at the university, no reason would exist to send

Bishops... (New Orleans: B. M. Norman, 1856), pp. 1-3.

¹²"Account of the Ceremonies, &c., at the Laying of the Corner Stone of the University of the South, Wednesday, Oct. 10, 1860," in University of the South Papers, Ser. A, No. 1, (Sewanee, Tenn.: University of the South Press, 1888).

Louisiana students north where they absorbed the spirit of abolitionism along with scientific knowledge.¹³

Sears' views on scientific education agreed with those of a curricular committee established by the university's Board of Administrators. In its report, the committee applauded colleges that over the previous twenty years had added new scientific courses of study to their predominantly classical programs. The committee recommended that the Board of Administrators establish a school of natural sciences that included "chemistry, geology, mineralogy, mechanics, agriculture, and natural philosophy in all their more popular departments and applications." Despite the efforts of Sears and the committee, the proposed expansion failed for lack of financial support and students. Although a state university, it received little legislative patronage and private donations failed to keep the school in operation past the start of the Civil War.¹⁴

The failure of state universities in Louisiana and other slaveholding states to adopt utilitarian curricula led some proponents of applied science to look instead to the

¹³Letter from C. W. Sears to the Board of Administrators, University of Louisiana, no date, in J. S. Copes, Report of a Committee of the Board of Administrators, of the University of Louisiana, Upon the Organization of the Collegiate Department. Read, December 23d, 1856, Appendix M (New Orleans: E. C. Wharton, 1857).

¹⁴Copes, pp. 6-12; John P. Dyer, Tulane: The Biography of the University 1834-1965 (New York and London: Harper and Row Publishers, 1966), p. 27.

South's growing desire for military education as a means to promote their program. The military school movement in the South started in earnest in the late 1830s and continued through the secession crisis. Public demand on the Southern frontier that states provide the militia with qualified officers in case of conflict with Native Americans, the instillation of discipline in youths, and a love of things military have all been offered as explanations for the establishment of private and state military academies in the South during the 1830s and 1840s. Advocates of martial education also organized private military academies north of the Ohio River. The military school movement in the South, however, included the establishment of state military schools which represented a movement separate from the national effort. As sectional tensions intensified, increasing numbers of Southerners supported the creation of public military colleges, ostensibly to provide graduates capable of combating slave revolts. Northern critics charged that proponents wanted the schools to train graduates who could help the South militarily resist Federal authority.¹⁵

¹⁵John Hope Franklin, The Militant South 1800-1861 (Cambridge, Massachusetts: Belknap Press, 1956), pp. 129-170; Lester Austin Webb, "The Origin of Military Schools in the United States Founded in the Nineteenth Century" (Ph. D. dissertation, University of North Carolina, 1958), pp. 51-53, 73-113, 257-261.

Another aspect of the development of Southern military academies has been neglected. Many of those responsible for organizing Southern military schools wanted to instruct youth in applied science as well as drill and tactics. As the 1850s progressed, proponents of scientific education took advantage of the South's growing fear of slave rebellions and the possibility of intersectional war to promote applied science through military academies. Supporters of this type of education concerned themselves less with the development of martial skills than with the production of technical talent capable of freeing their section from its dependence on Northern manufacturers.

That some Southerners looked to military schools to help remedy this situation is not surprising because martial and scientific education are historically connected. Applied mathematics, chemistry, mechanics, mineralogy and other technical sciences have military applications. The United States Military Academy at West Point, New York, proved the most significant scientific institution in the antebellum period and served as the model for utilitarian reformers. The academy, supported by Jefferson while President of the United States and established by Congress in 1802, served as the nation's first school of applied science. Strongly influenced by the *École Polytechnique* in Paris, the academy's course of study also emphasized natural science. The school excluded ancient languages and

literature, as well as the "pure" (as opposed to "applied") sciences. The academy initially focused on military engineering, but quickly included civil engineering in its course of study. Engineering carries military connotations and the term "civil engineer" gained popularity in the eighteenth and nineteenth centuries as a means to discriminate between civilian and military engineers. Both types engaged in similar activities, particularly the design and oversight of the construction of bridges and roads. Supporters of West Point expected the institution's graduates to apply their skills to civilian works after their discharge from the army. By the mid-1820s, the academy's regulations required cadets to study public works. Many officers fulfilled the hopes of proponents of the United States Military Academy when they left the army and found employment as civilian engineers and worked on canal or railroad projects. Well over one hundred academy graduates worked as civilian engineers by the end of the 1830s.¹⁶

¹⁶Sidney Forman, West Point: A History of the United States Military Academy (New York: Columbia University Press, 1950), pp. 25-82; James Kip Finch, A History of the School of Engineering: Columbia University (New York: Columbia University Press, 1954), pp. 4-5; Daniel Hovey Calhoun, The American Civil Engineer: Origins and Conflict (Cambridge, Massachusetts: Technology Press, Massachusetts Institute of Technology, 1960), pp. 37-53; H. G. Good, "New Data on Early Engineering Education," Journal of Educational Research 29 (September, 1935--May, 1936): 37; "Report of the Board of Visitors to the Secretary of War, United States Military Academy, 20 June 1839," in Army and Navy Chronicle IX (4 July 1839): 1-5; McGivern, pp. 29-38.

Not even West Point, however, proved immune from the "great retrogression." Although Francis Wayland claimed that "the single academy at West Point...has done more toward the construction of railroads than all our one hundred and twenty colleges united," between 1830 and 1860 the number and percentage of academy graduates who pursued careers in civil engineering actually declined each decade. George B. McClellan, who graduated from West Point in 1846, criticized the lack of practical training at the academy "in the actual use of instruments, both surveying and astronomical, topography and field sketches, railway engineering, etc." McClellan advised William T. Sherman, also an academy graduate and the first superintendent of the Louisiana State Seminary of Learning, to expand his school's practical instruction beyond that of West Point. While Secretary of War, Jefferson Davis encouraged the academy's officers to study the impact of technical developments in artillery and small arms upon tactics and incorporate their findings into West Point's military courses. The academy's administration focused instead on the development of classical courses. In 1854, West Point's superintendent, Robert E. Lee supported and implemented an expansion of the school's four year course to five years in order to include more traditional studies. These included elocution, law, mental and moral philosophy, and an increased emphasis on military, as opposed to civil, engineering. The proponents

of the expansion hoped to create finished gentlemen as well as officers.¹⁷

Some Southern educators understood that military institutions provided graduates who pursued industrial and technical occupations in the domestic economy. As the United States Military Academy moved away from technical instruction in the decade before the Civil War, the South's first public military academy, the Virginia Military Institute, vigorously embraced applied science. Founded in 1839 at Lexington with its curriculum and organization fashioned after the United States Military Academy, VMI quickly developed one of the strongest scientific programs in the South. Proponents of VMI's curriculum emphasized the industrial, scientific, and technical aspects of the instruction and the pragmatic benefits the school offered Virginians, rather than the military value of the education. VMI's governing board wanted the school to "do for Virginia what West Point has done for the United States" by giving students the "very best training in the scientific and

¹⁷Wayland quoted in Tappan, p. 55; Forman, West Point, p. 13; Sidney Forman, "The First School of Engineering," Military Engineer XLIV (March-April 1952): 112; Raymond H. Merritt, Engineering in American Society 1850-1875 (Lexington, Kentucky: University Press of Kentucky, 1969), p. 4; letter from George B. McClellan to W. T. Sherman, 23 October 1859, miscellaneous Mc file, box 10, Fleming Collection; James L. Morrison, Jr., "The Best School in the World": West Point, the Pre-Civil War Years, 1833-1866 (Kent: Kent State University, 1986), pp. 44, 115; Walter Creigh Preston, Lee: West Point and Lexington (Yellow Springs, Ohio: Antioch Press, 1934), pp. 43-47.

industrial pursuits." The institute, its proponents believed, would enable Virginia to keep pace with national progress. Philip St. George Cocke, president of the Board of Visitors, claimed that it "is scarcely possible that in this country of progress, and in this age of physical progress, such a school will not at all times be crowded." At VMI, he added, "our young men...will come out learned in science, skillful in practice, with power to wield all the laws of nature in behalf of the physical, intellectual, and moral progress of their country." The president boasted in 1850 that throughout the entire South, only his school provided thorough and exclusive instruction in the physical sciences.¹⁸

The institute's superintendent, Francis Smith, argued that Virginia's future prosperity depended on the institution's success in the graduation of scientifically trained alumni. Smith claimed a dual role for his school in order to help Virginia adjust to industrial change and compete in the national economy. First, he noted, VMI provided the state with engineers to build railroads, geologists to exploit mineral resources, and agronomists to improve agriculture. Smith boasted in 1857 that over VMI's first eighteen years of operation the institute graduated

¹⁸RBVVMI, July 1850, pp. 3-4; Francis H. Smith, Special Report, p. 17; Philip St. George Cocke quoted by Francis H. Smith in "Superintendent's Report," RBVVMI, July 1857, p. 25.

fifty students who found employment as engineers on state internal improvement projects. Second, Smith wanted VMI to serve the state in more direct ways. He offered the services of the institute's professor of chemistry to analyze soils and fertilizers for farmers and planters in order to furnish them with information capable of improving the quality of their crops and the quantity of their yields. Smith also encouraged the legislature to commission professors at VMI to conduct an exhaustive geological survey of the state in order to locate various types of natural resources. He also emphasized that VMI, as a scientific institution, aided the development of the state's commercial and manufacturing interests.¹⁹

Despite the accomplishments he credited to VMI, Smith believed the state legislature failed to provide the school with adequate appropriations. The superintendent claimed in 1856 that the United States Military Academy band received more funds annually than the support received by VMI. Smith wanted his institution to become the "*great scientific school of the South*," and he believed this required more legislative funding. The institute depended upon interest

¹⁹Francis H. Smith, "Superintendent's Report," RBVMI, July 1850, pp. 7-8; Francis H. Smith, "Superintendent's Report," RBVMI, July 1857, pp. 23-24. Emphasis is original.

from a legislative endowment and various building and operational appropriations, tuition, and private gifts.²⁰

By the authority of the Board of Visitors, Smith undertook a tour to investigate the state of scientific education in Europe in 1858 and reported his findings to the board upon his return the following year. Smith especially praised the practical scientific education provided by the *École Polytechnique*. The tour, Smith claimed, convinced him that VMI's scientific instruction needed to expand and improve, which required more funds. He wanted to adapt the institute's course in engineering and mechanics to the study of industrial machinery which necessitated the purchase of expensive equipment and models. Smith also hoped to enlarge the departments of English and modern languages plus add a course in modern history. In order to help accomplish these goals, he recommended that the school hire three additional professors.²¹

The Virginia legislature, perhaps as a result of increased sectional tension and the response to John Brown's raid, which intensified popular support for military education, acted upon Smith's recommendations and provided funds that helped VMI add five professors and establish three new schools. The institute also received a \$20,000

²⁰Smith, "Superintendent's Report," RBVVM I., July 1856, pp. 5, 51; Smith, "Superintendent's Report," RBVVM I., July 1857, p. 25.

²¹Francis H. Smith, Special Report.

gift from St. George Cocke that enabled the school to establish a chair of scientific agriculture.²²

VMI quickly emerged as the strongest school of scientific education in the South. Smith claimed VMI "paved the way" for the introduction of modern scientific curricula at other Virginia schools. He believed that VMI's reputation enabled other graduates of West Point, like himself, to join academia, especially Edward C. Courtnay at the University of Virginia, Benjamin Ewell at the College of William and Mary, and Daniel H. Hill at Davidson College in North Carolina, and promote scientific education at their respective schools. Smith noted that his school, by the mid-1850s, provided the model for both operational and proposed public military schools in Arkansas, Georgia, Louisiana, Mississippi, and South Carolina. By the start of the Civil War, Alabama, Florida, and Tennessee also took steps toward the establishment of state military academies. At least two state schools, the Louisiana State Seminary of Learning and Military Academy in Pineville and the West Florida Seminary in Tallahassee, eagerly sought and employed graduates of VMI as professors shortly before the Civil War.²³

²²Letter from F. H. Smith to G. Mason Graham, 12 July 1859, folder 150, box 11, Fleming Collection; Acts of the [Virginia] General Assembly, 1859-1860, in Documentary History, Knight, ed., vol. 4, pp. 235-236; Webb, p. 94.

²³Francis H. Smith, Introductory Address...1856, pp. 12-13; letter from Francis H. Smith to Wm. H. Richardson, 14 January 1854, in RBVMI, 1854, p. 7; Webb, pp. 84-99; The Louisiana institution hired the nephew of Francis Henney

As the decade of the 1850s progressed, state legislatures intensified their efforts to establish state military schools and lent support to existent private academies. By the eve of the Civil War all the states that joined the Confederacy, with the exception of North Carolina and Texas, directly supported military education in some form. These schools joined the multitude of private military academies that emerged throughout the South in the decade before the Civil War. Many of the schools especially touted the practical nature of their courses of study. At least two schools incorporated the word "polytechnic" into their names in order to clearly signify to prospective students the nature of the instruction. The term "polytechnic," *De Bow's Review* explained, "derived from two Greek words signifying 'many arts,'" and polytechnic education referred to education that provided training in

Smith, Francis W. Smith, a graduate of VMI, to serve as professor of chemistry and geology. See the letter from F. H. Smith to G. Mason Graham, 12 July 1859, folder 150, box 11, Francis H. Smith Letters, Fleming Collection; and Mrs. Francis W. Smith, "Lieut-Colonel Francis W. Smith, C. S. A.: Professor of Chemistry and Geology and Commandant of Cadets at the Louisiana State Seminary," Alumnus [Louisiana State University] V (October 1909): 12-14; The Florida seminary hired George M. Edgar, a graduate of VMI, in 1859 as professor of mathematics and military tactics. After his resignation the following year, the school replaced him with another graduate of VMI, James H. Lane. Lane also quickly resigned and the seminary hired still another alumnus of VMI, J. Lucius Cross, to fill the post. See the letter from D. McNeill Turner to D. S. Walker, 25 August 1859, in Floridian and Journal (Tallahassee), 10 September 1859. See also Floridian and Journal, 3 September 1859, 7 July 1860, 22 September 1860, and 1 December 1860.

the "industrial professions" particularly chemistry, engineering, manufacturing, architecture, and metallurgy. The journal also reported that polytechnic instruction remained closely identified with military instruction, both provided originally by the *École Polytechnique*, "the military school of the first Napoleon." One school avoided any confusion that the Greek derived word might create by simply identifying itself as a "military and scientific school" and claimed it emphasized instruction in machinery construction, geology, mineralogy, and scientific agriculture.²⁴

The argument that the scientific nature of military instruction would enable the South to develop its own industrial talent appeared with increased frequency as the prospect of violent sectional conflict heightened. *De Bow's Review* claimed in 1859 that it "becomes those of us who are identified with great Southern educational movements to seek

²⁴Webb, pp. 53-113, 257. The aforementioned schools that incorporated "polytechnic" in their appellations are the Searcy Polytechnic School in Searcy, Arkansas and the Southern Polytechnic Institute in La Grange, Alabama. See Acts Passed at the Twelfth Session of the General Assembly of the State of Arkansas, p. 189, and Webb, p. 91; "Polytechnic Education," De Bow's Review, new ser., II (October 1859): 486. According to Webster's Ninth Collegiate Dictionary (Springfield, Massachusetts: Merriam-Webster Inc. 1983), the word "polytechnic" is derived from the Greek word *polytechnos*, which is defined as "skilled in many arts." The word entered the English language in 1805; Official Register of the Faculty, or Academic Staff, and Military Staff with the Rules and Regulations of the Alabama Military and Scientific Institute, Near Tuskegee, Ala. (Tuskegee, Ala.: Macon Republican, 1845). See also the Raleigh Register and North Carolina Gazette, 25 August 1826.

so to mould our system that it too shall bear upon the development of our industrial resources." The journal praised the Polytechnic School of Pennsylvania for its ability to aid that state's mining industry through its technically trained graduates and noted that the South needed similar scientific education in order to develop its "industrial resources." The journal hoped that the forthcoming establishment of the Louisiana State Seminary of Learning, with its planned scientific and military organization (the latter of which the Pennsylvania school lacked), might provide similar benefits to Louisiana.²⁵

George Mason Graham, who attended but did not graduate from West Point, served as vice-president of the Board of Supervisors of the Louisiana State Seminary of Learning, a post which required him to attend to the immediate problems that concerned the seminary's organization. The board's primary interest revolved around the determination of the school's course of study. Graham wanted to model the curriculum, organization, and system of discipline after that of VMI and the United States Military Academy. He especially wanted the seminary to provide students with utilitarian education. Graham wrote Louisiana Governor Thomas O. Moore that he hoped the school would teach "everything necessary to a useful, practical education." He observed that "there are plenty of other schools where those

²⁵"Polytechnic Education," p. 486.

can go who desire to acquire a finished classical education," but there "is no school in the state, and but few out of it, of the utilitarian that [the board of trustees] desire to give to this one, where those arts and sciences shall be taught which are of practical use in the every day employments of life." Moreover, Graham rejected any deviation from that purpose. He informed Governor Moore that he opposed the inclusion of Greek and Hebrew in the curriculum because "they take too much time from studies of greater utility." In the matter of utilitarian education, Graham received most of the board's support and the new school opened in January of 1860 with a scientific orientation.²⁶

Daniel H. Hill also greatly admired the scientific instruction offered at military schools such as West Point and VMI. He encouraged the South to establish military academies that promised to provide the region with technical as well as military training. Furthermore, Hill wanted

²⁶George Mason Graham, "The Autobiography of George Mason Graham: Contributed by His Grandson, Dr. G. M. Stafford," Louisiana Historical Quarterly 20 (January 1937): 46-47, 54-57; letter from G. Mason Graham to W. T. Sherman, 7 September 1859, in Walter L. Fleming, ed., General W. T. Sherman as College President (Cleveland, Ohio: Arthur H. Clark, 1912), pp. 34-37; letter from G. Mason Graham to Governor [Thomas O.] Moore, 26 May 1860, in Fleming, ed., pp. 215-218; William T. Sherman, Memoirs of General William T. Sherman, 2 vols. (New York: D. Appleton and Company, 1875), vol. 1, pp. 146-147; Official Register of the Officers and Cadets of the State Seminary of Learning and Military Academy of Louisiana, Near Alexandria, Parish of Rapides, for 1860-[186]1 and [186]2 (Alexandria: Louisiana Democrat Office, 1862).

farmers to read agricultural journals and thereby embrace scientific agriculture. The native South Carolinian advocated home education and wrote an algebra textbook with mathematical examples that chided Yankees for their supposed parsimony. Hill deplored the low esteem in which Southerners regarded scientists and their labors. Teachers of science, he complained, "rank, in the estimation of many, as first class overseers." Hill hoped, however, that attitudes toward science were changing. He believed that the internal improvements derived from applied science, including bridges, factories, and railroads, gradually convinced many people to reject the "foolish and anti-American notion" that the professions deserved higher status than "vulgar mechanics." He further praised West Point and the United States Naval Academy at Annapolis, Maryland, for the scientific education they bestowed upon their cadets. Graduates of these schools, Hill noted, easily found employment for their services as either engineers or teachers. He attacked as incompetent the one hundred twenty or so colleges in the United States that taught four years of ancient languages. "Where," Hill asked rhetorically, "is the body of accurate classical scholars to be found?"²⁷

²⁷Franklin, pp. 139-140, 165-166; North Carolina Journal of Education III (December 1860): 357; D. H. Hill, A Consideration of the Sermon on the Mount (Philadelphia: William S. & Alfred Martien, 1858), pp. 8-9; D. H. Hill, Elements of Algebra (Philadelphia: J. B. Lippincott & Co., 1857). See Hal Bridges, "D. H. Hill's Anti-Yankee Algebra," Journal of Southern History XXII (May 1956): 220-222;

Hill attempted to help rectify the South's dearth of scientific institutions when he established the North Carolina Military Institute at Charlotte in 1859. The school, patterned after VMI and West Point, offered practical scientific, as well as military, instruction and claimed one hundred fifty cadets by the start of the Civil War. Only one cadet enrolled in an optional ancient languages course. When war came, a student remembered that Hill warned his excited students it would "last as long as the Revolutionary war and we would all get enough of it, [and] he mentioned the contrast of the resources of the North and the South, both in men and means and said many other things that pacified us at the time."²⁸

The Tuscaloosa *Independent Monitor* called for the establishment of a publicly supported military academy, not simply to prepare the state for invasion, but also to provide training for "all the occupations of life, in which the exact sciences in their application to the arts are of the greatest usefulness." The newspaper praised West Point

"Southern School-Books," De Bow's Review I (September 1852): 258-266. Emphasis is original. Marguerite Gilstrap believes evidence indicates that Hill is most probably the author of this article. See Gilstrap, "Daniel Harvey Hill, Southern Propagandist," Arkansas Historical Quarterly II (March-December 1943): 46.

²⁸Franklin, pp. 165-166; Henry E. Shepard, "Gen. D. H. Hill--A Character Sketch," Confederate Veteran XXV (September 1917): 411-412; letter from J. W. Ratchford to D. H. Hill, [Jr.], n. d., box 94.6, Daniel Harvey Hill, Jr. Papers.

for the practical scientific instruction it offered the Southern cadets who attended that institution.²⁹

Southern military institutions, their supporters argued, provided an additional benefit other than technical education. The South's military and scientific academies guaranteed that students would not receive the progressive social ideas, particularly abolitionism, supposedly proffered in Northern schools. Military institutions' emphasis on discipline and order offered Southerners the opportunity to enjoy the benefits of physical progress without the perils they associated with moral progress. The *Independent Monitor* claimed that Alabama's "progress" required not only a scientifically educated "class of young men," but one "imbued with the strongest love of her institutions" which domestic military schools promised to provide. VMI's Committee on Instruction unanimously recommended in 1856 an extension of the institute's four year curriculum to a five year program, in part, to provide room for a course on the "principles of slavery, as expounded by the textbook of Professor [Thomas R.] Dew."³⁰

²⁹Independent Monitor (Tuscaloosa), 10 October 1859.

³⁰Independent Monitor, 10 October 1859; Aug. J. Smith, James L. Kemper, and Wm. H. Richardson, "Report of Committee on Instruction," in RBVVM, July 1856, p. 9. The work referred to is possibly Thomas R. Dew, An Essay on Slavery (Richmond: J. W. Randolph, 1849). See also "Southern School-books," pp. 265-266.

Despite the increased interest in martial and scientific instruction, military education failed to generate universal enthusiasm in the South. Braxton Bragg, a Louisiana planter and West Point graduate, complained to the superintendent of the Louisiana State Seminary and Military Academy that "high literary institutions are growing up around us in every direction, but in the scientific and military we are sadly deficient." The lack of interest in scientific instruction in the South seemed incomprehensible to Bragg. "No class of people on the face of the earth," he charged, "are more dependent upon science and discipline than planters." Plantations depended upon the construction of canals, levees, steamships, and field machinery, he observed, which required scientific knowledge.³¹

Bragg failed to fully grasp the republican hostility and suspicion that many Southerners felt toward anything military. Antebellum republicans feared standing armies and resented the aristocratic pretensions of military organizations. A letter to the editor of the *North Carolina Standard* complained of the poor attendance at the public examinations of the North Carolina Military Academy at the end of the fall session in 1845. Students at the University of North Carolina debated the question, "Are standing armies

³¹Letter from Braxton Bragg to W. T. Sherman, 16 December 1859, in folder 12, box 7, Braxton Bragg Letters, Fleming Collection.

useful," and decided the question in the negative. A University of Alabama report which advocated that the school adopt a martial organization, also recognized public skepticism about military institutions. The report acknowledged that although "it is not the policy of our country to maintain large standing armies," the authors defended military colleges because they trained militia officers capable of leading the state's "undisciplined yeomanry" necessary for Alabama's defense. The United States Military Academy consistently received criticism from opponents, including Southerners, who opposed the academy as an anti-republican drain on the public treasury.³²

James Thornwell opposed the South Carolina legislature's establishment of public military academies at Columbia and Charleston. He claimed they lacked defined educational goals and therefore served no academic purpose.

³²Bernard Bailyn, The Ideological Origins of the American Revolution (Cambridge, Massachusetts and London, England: Belknap Press, 1967), pp. 61-65, 112-119; Banning, pp. 49-50, 222-224, 259-264, 277-278; Charles Royster, A Revolutionary People at War: The Continental Army and American Character, 1775-1783 (Chapel Hill: Published for the Institute of Early American History and Culture, Williamsburg, Virginia, by the University of North Carolina Press, 1979), pp. 35-38, 358-360; letter from D. to Mr. [Wm. W.] Holden in North Carolina Standard (Raleigh) 3 December 1845; Kemp P. Battle, History, vol. 1, p. 82; L. C. Garland and J. J. Ormond, [Military Department--University of Alabama] (n. p., [1861]). The title page is missing from this report located in the Alabama Collection, Gorgas Library, University of Alabama, Tuscaloosa; Ashbel Smith, Address on Education, p. 28; Morrison, Jr., p. 103; Public Acts Passed at the First Session of the Twentieth General Assembly of the State of Tennessee, 1833, in Documentary History, Knight, ed., vol. 4, pp. 163-164.

Thornwell, who resisted implementation of utilitarian instruction at South Carolina College, suggested that the legislature convert the academies into true scientific schools in order to improve their usefulness.³³

Despite doubts and opposition from some Southern educators, the tide of events favored military instruction. Sectional conflict intensified throughout the decade of the 1850s and the prospect of disunion combined with John Brown's failed slave insurrection in October of 1859 confirmed the need for military education in the minds of many Southerners. "Military education is what our sons want," editorialized *De Bow's Review*, "as in all probability, they will soon be called upon to defend their hearthstones and their liberties." The authors of the report on military education for the University of Alabama claimed that "the abolition raid of 1859 into the borders of Virginia opened the eyes of the Slave States" to the need for military schools. Former governor of Louisiana and graduate of West Point, Paul O. Hebert, wrote George Mason Graham that "whether it be the result of natural martial spirit, or a foresight anticipating coming domestic troubles, it is nevertheless true that schools with military discipline and instruction have been within a few years established in nearly all the Southern States." He added

³³Thornwell, p. 5; "South Carolina Military Academies," *Southern Quarterly Review* X (July 1854): 191-204.

that "to foster and increase these is as an act of wisdom. What the pregnant womb of time may bring forth we cannot tell--yet we should be prepared for the worst."³⁴

William T. Sherman noted in a letter to his wife that he heard "a good deal" of talk that "the Southern States by [establishing] military colleges...were looking to the dissolution of the Union." Two months later, Sherman reported that "it may be that [Southerners] design these military colleges as a part of some ulterior design, but in my case I do not think such to be the case." Instead, he believed the seminary's board of supervisors adopted a military organization "because it was represented that southern gentlemen would submit rather to the showy discipline of arms than to the less ostentatious government of the faculty." Critics of martial discipline, such as the Reverend Simeon Colton, president of Mississippi College, observed that in military institutions "men are usually kept in subordination through fear," however, "in a literary institution, we suppose that there is an elevation of character that will secure obedience through good principle." Student rebellions and riots occurred often in the antebellum South, however, and many advocates of military instruction argued effectively that youths required

³⁴De Bow's Review, III (February 1860): 239; Garland and Ormond, p. 1; letter from P. O. Hebert to G. M. Graham, 14 February 1859, folder 91, box 8, P. O. Hebert Letters, Fleming Collection; Graham, "Autobiography," pp. 54-57.

martial discipline in order to maintain good conduct on collegiate campuses.³⁵

Not all advocates of martial discipline concerned themselves only with student rebellion. Landon C. Garland publicly touted other benefits that the adoption of a military organization offered the University of Alabama. He claimed that military discipline and exercises would improve student behavior and physical health. Privately, he believed the conversion of the university into a military school promised to provide the state valuable service when Alabama left the Union.³⁶

³⁵Letter from W. T. Sherman to Mrs. Sherman, 29 October 1859, in ed. Fleming, pp. 43-45; letter from W. T. Sherman to Thomas Ewing, Jr., 23 December 1859, in ed. Fleming, p. 89. Sherman most likely accurately judged the intentions of the board of supervisors. It is unlikely that they, if their plans for the school included aiding secession, would have appointed an Ohioan with a reputedly abolitionist brother (United States Representative John Sherman) as its superintendent, or hired two foreign professors, Anthony Vallas of Hungary and E. Berte St. Ange of France, which resulted in non-Southerners representing more than half the five member faculty. See W. L. Bringhurst, "Recollections of the Old Seminary," Alumnus V (October 1909): 15-16; Simeon Colton, An Address Delivered at His Inauguration to the Presidency of Mississippi College, July 30, A. D. 1846 (Jackson: Southron Office, 1846), p. 22; Caleb Huse, The Supplies for the Confederate Army. How They Were Obtained in Europe and How Paid For (Boston: T. R. Marvin & Son, 1904), pp. 5-6. On student rebellions in the antebellum South, see John A. Reesman, "A School for Honor: South Carolina College and the Guard House Riot of 1856," South Carolina Historical Magazine 84 (October 1983): 195-213, Clark, vol. 1, p. 156, Kemp P. Battle, History, vol. 1, pp. 100, 200-204, 619, and Coulter, College Life, p. 72.

³⁶Garland and Ormond, p. 5; Sellers, p. 263.

Garland overcame the opposition of many legislators, parents, and his own professors to convince the legislature to transform the university into a military institution in 1860. He toured and reported favorably on the military academies in Charleston, Nashville, Lexington, and West Point in 1860. VMI particularly impressed Garland and, in part as a result of John Brown's raid, legislative and public support allowed for the conversion of the university into a military school. The primary change in the curriculum consisted of the addition of military engineering to a fledgling civil engineering course taught by a graduate of VMI, James T. Murfee. Unlike VMI, however, the University of Alabama maintained traditional departments of Ethics, Greek, Latin, and Logic, Rhetoric and Oratory.³⁷

D. McNeill Turner, president of the West Florida Seminary, wanted to turn his classical school into a military institution. He toured various military academies in the summer of 1859 and met with Daniel H. Hill at his North Carolina Military Institute where the two men discussed the advantages of martial instruction. The editor of the *Floridian and Journal* advised the school to proceed with caution in its effort to convert the three year old

³⁷Clark, p. 160; Sellers, pp. 258-263; Garland and Ormond; Regulations for the University of Alabama at Tuscaloosa... (Nashville: Southern Methodist Publishing House, 1861), pp. 26, 39; Catalogue of the Officers and Students of the University of Alabama for 1860-1861 (Nashville: Southern Methodist Publishing House).

West Florida Seminary into a military institution. The process, the editor argue, must "be very gradual and only so much of it at a time as circumstances may render expedient." The conversion, however, occurred very quickly, perhaps hastened by news of John Brown's raid in October. The following summer the seminary's cadets paraded before the public at the Fourth of July celebration in Tallahassee.³⁸

The administration of the state university in Mississippi proved more reluctant to convert that institution into a military school. The board of trustees resisted public pressure to change the organization of the university until after the state seceded. The subject of military instruction first officially appeared before the board in June 1861 but the trustees took no action on the matter. Instead, they sent Chancellor Barnard on a tour of Southern military academies to report on the best martial organization applicable to Mississippi's state university. Barnard opposed any change in organization. He criticized VMI's curriculum because it included military science and tactics. The chancellor also asserted that the University of Mississippi did not require military regulations in order to maintain student discipline on account that the school seldom suffered from riotous behavior. Barnard believed that the recent reorganization of the University of Alabama,

³⁸Floridian and Journal, 10 September 1859 and 7 July 1860.

which incorporated liberal, as well as military studies into its curriculum, required more time in operation before the board could properly consider whether that school ought to serve as a model for the University of Mississippi.³⁹

The board of trustees, confronted by legislative and public pressure, moved ahead and established a military department at the university despite their own and Barnard's misgivings. The trustees shortly thereafter ordered that "present exigencies," in other words, civil war, required that they declare the chairs of governmental science and law, Greek, pure mathematics, English literature, and ethics, vacated. They voted to continue mathematics, mineralogy, and the new chair of military studies. The board also decided to continue a recently inaugurated civil engineering course. The trustees subsequently, owing to a shortage of funds, promptly suspended the engineering program along with a new course in agricultural chemistry, both of which the board acknowledged that "the South has so especial need."⁴⁰

³⁹F. A. P. Barnard, Report on the Organization of Military Schools, and to the Trustees of the University of Mississippi, November, 1861 (Jackson: Cooper & Kimball, 1861); published Report of the Trustees of the University of Mississippi, 21 November 1861, pp. 5, 11. The title page is missing from this report located in the Mississippi Department of Archives and History.

⁴⁰Trustees' Minutes, University of Mississippi, 25 June 1860 and 1 October 1861; Report of the Trustees of the University of Mississippi, 21 November 1861, pp. 8, 10-11.

Despite attempts to keep the university open, faculty and students quickly abandoned the school in order to participate in the war effort. The departures forced the institution to close before the end of 1861. Barnard opposed disunion but maintained his post at the university until it officially closed. The board of trustees claimed that the chancellor's resignation allowed him to consider a government position offered by Confederate president Jefferson Davis, and that Barnard's "vast scientific knowledge may prove of eminent service to the government during the war." Barnard, however, maintained no intention of serving the Confederacy in a military capacity and wanted to leave the South and return to the North. In response to the sectional crisis that surrounded the Compromise of 1850, Barnard while a professor at the University of Alabama, cautioned the citizens of Tuscaloosa of the consequences Southerners faced if the Union dissolved. Although Southerners prided themselves on their agricultural abundance, Barnard observed, they depended on the manufactured goods produced by "their more progressive neighbors" in the North. He told them that "the labor of one artizan [sic] is twice or thrice as valuable as that of an agriculturist; and, consequently, that the wealth of the progressive people has become double or triple of what it was at first." Barnard believed that manufacturing and science held the keys to human progress. A manufacturing

nation, he observed, "is in the easy enjoyment of every thing which art has invented for the promotion of human happiness; and is rapidly multiplying new comforts and new luxuries as time goes on." If the South seceded from the Union, Barnard believed that their existed little chance it might win its independence because "the army, the navy, all the stores and munitions of war, the custom-houses of the great seaports, and more than all, the immense superiority of numbers, will remain on the side of the [Union]." He scoffed at the idea of European intervention on behalf of the South. "You propose that England shall become your ally in the war [that follows secession]," but he warned "What is to prevent her becoming the ally of the North against you?"⁴¹

Barnard's Unionism and his prophetic insight into the demise of the Confederacy convinced him not to help the South's war effort, although he met with Jefferson Davis who wanted the former university chancellor to conduct scientific work on behalf of the Southern cause. Nearly ten years earlier, Davis expressed concern over the lack of college graduates in the South capable of building internal improvements, especially bridges, dams, roads, and mining operations, for the region. He questioned whether Southern

⁴¹Report of the Trustees of the University of Mississippi, 21 November 1861, pp. 7-8; F. A. P. Barnard, An Oration Delivered Before the Citizens of Tuscaloosa, Ala., July 4th, 1851 (Tuscaloosa: J. W. & J. F. Warren, 1851), pp. 17-22, 30-32.

higher education directed and properly prepared students to engage in utilitarian pursuits. Davis also feared what he perceived as the unnatural growth of Federal power. He told graduates of the University of Mississippi in 1852 that each of them must guard against abuses of government authority. "Already has centralism advanced so far as to deny that [the] States are, or ever were sovereign and independent," Davis asserted, "and to assent that the Constitution was the creation of the people of all the states as a collective mass." The implication of the growth of Federal power appeared clear to Davis. If the national government ever reached the point where it provoked a conflict with the slave states, the South must develop through education the industrial and scientific capacity to defend itself. As Confederate commander in chief, the graduate of West Point needed to recruit as much scientific talent as possible in order to help forge the industrial means to wage war. The Confederate government denied Barnard's request to cross into Union lines and he stayed in Alexandria, Virginia until that town fell to Federal forces and reunited him with the Union on May 10, 1862.⁴²

⁴²Frederick A. P. Barnard, Memoirs of Frederick A. P. Barnard, ed. John Fulton (New York and London: Macmillan and Co., 1896) pp. 286-289; Jefferson Davis, Address Before the Phi Sigma & Hermean Societies, of the University of Mississippi, Oxford, July 15, 1852 (Memphis: Appeal Book and Job Office, 1852), pp. 4-16.

Akin Barnard, another Northern educator and Unionist in the Deep South doubted the Confederacy's ability to wage a successful war for independence. William T. Sherman asked David French Boyd, professor of ancient languages at Louisiana State Seminary and Military Academy, "where are your [the South's] men and appliances of war, to contend against [the North]?" Sherman observed that "the Northern people not only greatly outnumber the whites at the South, but they are a mechanical people, with manufacturers of every kind, while you are only agriculturists." Southerners, Sherman argued, could not manufacture for themselves steam engines or rails, and could barely make a yard of cloth or a pair of shoes; "in all history no nation of mere agriculturists ever made successful war against a nation of mechanics....Yet you are rushing into war with one of the most powerful, ingeniously mechanical and determined people on earth--right at your doors. You are bound to fail." Sherman remained at the school until February of 1861, when he resigned shortly after Louisiana's secession and headed north to join the Union army.⁴³

President David Swain, despite public pressure, prevented the University of North Carolina's transformation into a military school. Nevertheless, the state did not

⁴³David F. Boyd, "William Tecumseh Sherman: First Superintendent of the Louisiana State Seminary, Now the Louisiana State University," Alumnus V (October 1909): 9-10; Sherman, vol. 1, pp. 152-161, 164.

lack schools that offered martial pomp. In addition to Daniel Hill's North Carolina Military Institute, two other schools established in 1859, the Hillsborough Military Academy and North Carolina College, also offered military instruction. The latter institution added the "military feature" to its classical curriculum in its second year in light of "the political condition of the country." Perhaps in order not to scare off parents of students with Unionist sympathies or those suspicious of military institutions, the college's catalogue added that "secondly, and more especially," martial instruction offered to improve "the health and physical development of the students by a regular and systematic course of exercise."⁴⁴

The home and military education crusades, both in effect Southern separatist movements, resulted from educators' fears of Northern hegemony in moral and utilitarian science. These endeavors succeeded in keeping youth in the South. The number of Southern students who went North for higher education increased three-fold in the decade between 1840 and 1850 but remained static thereafter while enrollment in the South's collegiate schools

⁴⁴Kemp P. Battle, History, vol. 1, p. 725; Allen Alexander Lloyd and Pauline O. Lloyd, History of the Town of Hillsborough 1754-1982, (n. p., n. d.), pp. 148-149, in North Carolina Collection, University of North Carolina Library, Chapel Hill; Catalogue of the Officers of North Carolina College at Mount Pleasant...Second Collegiate Year Ending July, 1861...Chartered January 1859 (Salisbury, N. C.: North Carolina Watchman Office, 1861), p. 16.

increased. The Civil War, however, almost destroyed Southern higher education. Only two state schools, the universities of North Carolina and Virginia, remained open for the duration of the war. The overwhelming majority of the region's private colleges also closed. Students and faculty alike abandoned their schools to join the Confederate cause in either a military or political capacity. Some schools attempted to remain open through lowered age requirements and newly established preparatory departments for students too young to fight.⁴⁵

Initially, however, secession and war appeared to provide, like the sectional conflict that preceded them, another opportunity for progressivist academics and their supporters to shift Southern higher education away from classical and ornamental studies toward scientific and utilitarian instruction. "There is something radically wrong in the system of education heretofore pursued," a writer for *De Bow's Review* noted in the winter of 1862. The progress of civilization required that Southern schools dispense with the classics in favor of scientific studies. The author

⁴⁵Wayne Flynt, "Southern Higher Education and the Civil War," Civil War History XIV (September 1968): 211-225; Goode, pp. vi, 3-5, 51, 67-71; William H. Battle, Address Delivered Before the Two Literary Societies of the University of North Carolina, June 1st, 1865 (Raleigh: Wm. B. Smith & Co., 1866), p. 5; Gianniny, Jr., p. 158; Bringhurst, "Recollections," pp. 15-17; Henderson, pp. 181-185; Brabham, p. 435; Heatwole, pp. 151-157; C. A. Graves, "General Lee at Lexington," in General Robert E. Lee After Appomattox, ed. Frank L. Riley (New York: MacMillan Co., 1922), pp. 38-39n.

believed that "the only hope for the country, for the patriotic, those who are rushing to the field of battle for their country, their families and their homes, is to force scientific education upon the whole people." The writer advocated the establishment of an university "with the most able corp of scientists that can be secured....Around them, and under their supervision and direction practical schools would be established." Furthermore, the contributor charged that "the revolution which is upon us has all the symptoms of a struggle for existence from which we cannot escape" and required that the Confederate Congress act to establish this university to serve as the "corner stone" of the new nation. "Our salvation is in the Lord," the author reminded the journal's readers, "and He is in the corner stone."⁴⁶

Historians note that Confederates frequently appealed to Divine sanction as justification for secession and slavery. Invocations to the Divinity also appeared on behalf of a revolution in education as well. Edward S. Joynes, professor of Greek literature at William and Mary, equated Southerners' drive for independence with the apostle Paul's description of the newly saved Christian. "For this people," Joynes' claimed "'old things have passed away, and all things have become new.'" Southerners "stand, indeed, on the threshold of a new civilization." Joynes declared

⁴⁶"Agricultural Requirements of the South," De Bow's Review, VII (January and February 1862): 87-103.

that the Union robbed the South of its commercial and industrial independence. But more importantly, he deplored the South's antebellum dependence on the North for teachers and textbooks which "had these influences not been happily arrested, they would have undermined our opinions, our politics, our institutions...rendering their dominion complete, and revolution for us impossible." Joynes envisioned teachers, trained in newly established normal departments in Southern colleges and universities, leading the Confederate revolution in education that would transform Southern society. "This is an age of mighty activity--of wondrous thought--of new and teeming ideas," Joynes claimed, and "it will soon be an age of mighty progress." He believed that the war offered an opportunity to lay the foundations for future material prosperity through the establishment of public supported programs to train teachers. Since so many Southern young men served in the army, these programs must enroll women and train them to work as the future teachers of the postbellum Confederacy. Women, he noted, must continue to be educated to serve as good wives and mothers. The war, however, promised to disturb the ratio of females to males and the postbellum increase in unmarried women who would need economic support provided an opportunity for them to work as teachers. Joynes postulated that "woman's sphere" could be safely

enlarged to include the educational training of the next generation of Southern youth.⁴⁷

A contributor to the March 1861 edition of *De Bow's Review* observed that a "hundred years ago the dead languages were properly considered a part of every polite education, for there was little else to teach." Presently, however, the writer noted the emergence of botany, chemistry, engineering, geology, mechanics, mineralogy, scientific agriculture, and other nascent sciences, all of which necessitated many years of study in order to master. "The farmer, the engineer, the merchant, the manufacturer, the sailor, the miner, the soldier," the author claimed, "require a knowledge of physical science." The prosperity of the Confederacy depended upon advances in science. The article warned that "where there is no progress, there is

⁴⁷Edward S. Joynes, The Education of Teachers in the South: Embracing a Letter from Prof. Edw'd S. Joynes to Geo. P. Tayloe, Esq.... (Lynchburg: Virginia Power-Press Book and Job Office, 1864), pp. 4-20. Joynes' Biblical quotation is from II Corinthians 5:17. See also Francis H. Smith, Discourse on the Life and Character of Lt. Gen. Thos. J. Jackson, (C. S. A.) Late Professor of Natural and Experimental Philosophy in the VMI (Richmond: Ritchie & Dunnivant, 1863), pp. 3-5. On the importance of religion to Confederate identity, see Drew Gilpin Faust, The Creation of Confederate Nationalism: Ideology and Identity in the Civil War South (Baton Rouge & London: Louisiana State University Press, 1988), pp. 22-40, 60-62, and Mitchell Snay, Gospel of Disunion: Religion and Separatism in the Antebellum South (New York: Cambridge University Press, 1993), pp. 1-2, 211-218. See also "Education of Southern Women," De Bow's Review VI (October-November 1861): 381-390 for a view similar to that expressed by Joynes with regard to the education of Southern women.

sure to be retrogression."⁴⁸ For this writer, progress no longer meant movement onto the next cyclical stage which classical republicans believed resulted in societal decay; on the contrary, stagnation led to the decline of civilization. Confederate schools must serve as a vehicle to move the South economically, industrially, and scientifically forward.

And yet, both this contributor to *De Bow's Review* and Edward Joynes shared the anxiety of antebellum republicans that the materialism and utilitarianism associated with progress and encouraged by the war threatened to undermine the morals and therefore, the virtue, of Southern youth. Both commentators found a vital place for traditional studies in Southern education. The contributor to *De Bow's Review* called for a dual system of higher education in which some students would attend only progressive scientific classes while others enrolled only in conservative classical courses. This promised to keep the negative aspects of each type of education in check. Those persons educated in utilitarian pursuits would provide Southern society with physical progress while classically educated students would give the South its moral and political leadership. Joynes, likewise, worried that the war would give Southerners an "extreme predilection for the so-called *practical* studies to

⁴⁸"The Dead Languages," *De Bow's Review*, new ser., V (March 1861): 316-320.

the exclusion of those that are more purely intellectual and moral, and therefore better fitted for purposes of discipline and culture." Joynes wanted Southern higher education to continue to emphasize literary studies after the war.⁴⁹

Most higher educators and their supporters, however, remained sanguine about the revolutionary potential for progress the Confederacy offered Southerners. They believed educational autonomy would ensure the South's political sovereignty and also promise the Confederacy its economic and industrial independence. They vigorously defended slavery as the safeguard of not only Southern, but human progress, and believed the war would ultimately demonstrate the superiority of their labor system over all others by defeating the abolitionist army of the United States. A group of North Carolina academics proclaimed that "we will carry on this war in the pulpit, in the school-room, at the fireside, and at every other point where we are assailed by the great enemy of human progress."⁵⁰

⁴⁹"Dead Languages," pp. 317-319; Edward S. Joynes, Education After the War. A Letter Addressed to a Member of the Southern Educational Convention, Columbia, S. C., 28th April, 1863 (Richmond: MacFarlane & Fergusson, 1863), pp. 6-15. Emphasis is original.

⁵⁰Proceedings of the Convention of Teachers of the Confederate States Assembled at Columbia, South Carolina, April 28th, 1863 (Marion, Ga.: Burke, Boykin & Co., 1863), pp. 7-8; C. H. Wiley, et al., Address to the People of North Carolina (n. p.: [c. 1861-1865]), pp. 2-15.

Historians of Confederate higher education, however, view academics as unenthusiastic supporters of the Confederate cause. Typically, they are portrayed, especially those at the state universities of North Carolina, South Carolina, and Virginia, as obstructionists who resisted the conscription of their students and the impressment of university property for military purposes by Confederate authorities.⁵¹

Landon Garland, president of the University of Alabama, serves as the best example of an administrator who placed the needs of his school over those of the Confederacy. The university served as a state military post, and Garland took his command and his rank of colonel seriously. He accused students who left the university for the Confederate army of desertion. Garland vehemently opposed conscription and eagerly followed the orders of Alabama's governor not to allow Confederate induction officers onto the campus. As a result, the university quickly developed a reputation as a refuge for shirkers. Garland realized this, but he nevertheless believed that the military education and training provided by the university served the defense of Alabama better than sending untrained youth into the Confederate army. Garland justified his unpatriotic conduct with the declaration that the "allegiance I owe to the

⁵¹Goode, pp. 71-78, 83-86, 147-174; Flynt, pp. 216-217.

Confederate Government is *under* that I owe first to Alabama."⁵²

In the spring of 1863, a rumor spread through the university that Union troops besieged the nearby town of Elyton. The report offered Garland an opportunity to lead his cadets, most under the age of eighteen, into battle and prove the value of his school's military instruction. In a military operation akin, though with less tragic results, to Samuel Clemens' "The Private History of a Campaign that Failed," Garland ordered his boys to march six or seven miles east of the university to search for Union raiders. The cadets found no enemy troops and a frustrated Garland demanded that the governor grant him the right to impress horses in order that his corps might respond more quickly to future threats, imagined or real. Union troops found the university nearly two years later, however, and burned the campus.⁵³

⁵²Letter from L. C. Garland to Jno. G. Shorter, 17 February 1863, folder 3, box 636, Landon C. Garland Letters, William Stanley Hoole Special Collections Library, University of Alabama, Tuscaloosa; letter from L. C. Garland to T. H. Watts, 17 March 1864, folder 3, box 636, Garland Letters; letter from L. C. Garland to Thomas H. Watts, 25 January 1864, folder 3, box 636, Garland Letters. Emphasis is original.

⁵³Letter from L. C. Garland to Gov. Shorter, 1 May 1863, folder 3, box 636, Garland Letters; Mark Twain [Samuel L. Clemens], "The Private History of a Campaign that Failed," in Twain, The American Claimant and Other Stories and Sketches (New York: P. F. Collier & Son Company, 1899), pp. 255-282; Flynt, p. 217.

The inclination of Confederate academics to obstruct the war effort resulted from the fact that most able-bodied faculty members either obtained leaves of absences or resigned their posts to support the South's effort to win its independence. Their departure left behind faculties that consisted largely of the aged, the physically unfit, foreigners, academic ideologues (who valued their institutions more than the Confederacy), and closet Unionists, all protected by state and national laws that exempted professors from conscription, many of whom felt little inclination to aid the Confederate cause militarily.⁵⁴

Despite frequent expressions of opposition toward conscription officers and other military measures that concerned their campuses, the characterization of collegiate administrators as a hindrance to the Confederate war effort, is somewhat inaccurate. At the outbreak of the hostilities, academia provided the Confederacy with capable men who flocked from the schools into military and political positions. Many of those who remained behind, however, feared the wholesale abandonment of higher education by Southerners and sought to find a role for themselves and their institutions in the cause of Southern independence.

⁵⁴Battle, History, vol. 1, pp. 733-737; Thomas G. Dyer, Georgia, p. 106; H. A. London, "The University During the War," University of North Carolina Record (June 1911): 78-82; Wagstaff, p. 13; Flynt, pp. 216-217; Bringhamst, "Recollections," p. 16.

Although they desired to accommodate the use of their institutions as barracks, headquarters, and hospitals by Confederate authorities, these functions threatened to disrupt what they viewed as their academic contributions to the war effort. Higher educators, especially those at military schools or with newly added military departments, attempted to impress upon Confederate authorities the folly of sending uneducated and untrained boys into battle, only to die for want of training, and thus lose the "seed corn" of the Confederacy's future.⁵⁵

Some advocates of utilitarian education believed the war provided an excellent opportunity for the conversion of classical schools into scientific institutions. They argued that utilitarian science courses that trained men in chemistry and engineering, talents in short supply in the Confederacy, served as the most effective justification for keeping their schools open and in full operation. Their close association with legislatures enabled state schools, unlike their privately supported counterparts, to seek public funds by claiming that new expenditures promised to

⁵⁵Paul Brandon Barringer, James Mercer Garnett, and Rosewell Page, eds., University of Virginia: Its History, Influence, Equipment and Characteristics..., 2 vols. (New York: Lewis Publishing Co., 1904), vol. 1, pp. 131, 136, 172-173; Bringham, "Recollections," pp. 15-8; "Forty Years Ago," Alumni Bulletin of the University of Virginia 4 (October 1904): 288; Lawrence A. Cremin, American Education: The National Experience 1783-1876 (New York: Harper & Row, 1980), pp. 511-12; Flynt, pp. 219-223; Wagstaff, p. 13.

help the Confederate military. Such support, however, rarely appeared.

After the commencement of hostilities, the new chancellor of the University of Georgia, Andrew A. Lipscomb, claimed that "a new Era must soon begin in the history of Southern education, and I therefore think we should keep the University progressing, so as to avail ourselves promptly of any advantage [the war] may offer." Lipscomb wanted the board of trustees to create a School of Engineering. The Methodist minister argued that the "industrial interests of the Confederacy will necessarily stimulate [that] department of professional life in an unusual degree, and hence I do not know a better service that you can render the State than by immediately adopting measures for the organization of a school for engineers." Lipscomb also argued that engineering instruction promised to provide the basis for the future development of Georgia's industry. The board approved of the proposal and Lipscomb found an engineering professor, but the university's financial straits, created by inflation and a decline in students, prevented the school from hiring him. The university suspended classes early in 1864 and remained closed through the rest of the war.⁵⁶

⁵⁶Trustees' Minutes, University of Georgia, 1 August 1860, 1 July 1862, 1 July 1863, and 30 June 1864; A. A. Lipscomb, "Report," in Trustees' Minutes, University of Georgia, 4 July 1861.

The Board of Visitors of the University of Virginia also embraced utilitarianism in an effort to continue operating. They organized a school of military science and civil engineering in May of 1861. Like the University of Georgia, the Virginia school's dismal financial position forced the board to abruptly stop the experiment within a few months of its inauguration.⁵⁷

Landon Garland justified the continued maintenance of his University of Alabama and the state military academies of South Carolina, Georgia, and Virginia, by emphasizing the skilled engineers they provided Confederate armies. Francis Henney Smith also stressed the importance of military schools to the war effort and opposed the conscription of his cadets at VMI. The death of the former professor of natural philosophy at VMI and Confederate hero, General Thomas J. Jackson, provided Smith with an opportunity to propagandize the importance of scientific instruction to the Confederacy. He claimed that public opinion prior to the war turned against VMI's scientific curriculum and put pressure on the Virginia legislature to transform the course of studies into that of an "ordinary college." Smith

⁵⁷Minutes of the Board of Visitors of the University of Virginia, 27 May 1861 and 16 July 1861, Manuscripts Department, Alderman Library, University of Virginia, Charlottesville; Catalogue of the University of Virginia...1860-'61, p. 4; Gianniny, Jr., pp. 155, 158; Bruce, vol. 3, pp. 311-312.

observed that the outbreak of war, however, necessitated that the institute strictly adhere to its scientific course of instruction by "which the experience of the last four years has shown to have been most effective for the cause of our oppressed country." The implication of Smith's message was clear: the instruction at VMI promised to provide the Confederacy with future scientifically trained "Stonewall" Jacksons. The quality of VMI's education manifested itself, Smith noted late in 1864, through the officers it provided for the army and the contribution of its corps of cadets to the Confederate victory at New Market, Virginia. After Federal troops burned the institute one month after that battle, Smith successfully argued for its continuance at a new campus in Richmond.⁵⁸

The need for scientifically trained officers quickly manifested itself. At the outbreak of the war, a contributor to *De Bow's Review* observed that the Confederacy's vast territory lacked fortifications which required engineering skill to construct. The writer lauded Robert E. Lee's appointment as a general officer because he "is a practical and scientific soldier, and his services are absolutely needed to direct the general course of defence or

⁵⁸Letter from L. C. Garland to Th. H. Watts, 29 March 1864, folder 3, box 636, Garland letters; Francis H. Smith, Thos. J. Jackson, pp. 3-5; Francis H. Smith Introductory Lecture Read before the Corps of Cadets, on the Resumption of the Academic Duties of the Virginia Military Institute, at the Alms House, Richmond, Va., December 28, 1864 (Richmond: MacFarlane & Fergusson, 1865), pp. 1-2, 6-7.

invasion, and to devise plans for the many fortifications we shall need." Burwell Boykin Lewis, a twenty-four year old lieutenant in the Second Alabama Cavalry and a postbellum president of the University of Alabama, noted in January 1863 the military qualifications of northern born Confederate generals Gustavus W. Smith and John C. Pemberton, who were both educated at West Point. "These men are," Boykin happily observed, "scientific generals" of the type the Confederacy so desperately needed. Lewis trusted that these Yankees "have identified themselves with us, [and] will struggle manfully and heroically for our success."⁵⁹

War quickly demonstrated to the Confederate government the importance of locating men with scientific knowledge capable of operating munitions factories, maintaining railroad lines, constructing fortifications, and building gunboats. The Confederacy's various colleges, institutes and universities, however, failed to supply the demand. The Confederate Ordnance Department, which required technically

⁵⁹"The Times and the War," De Bow's Review VI (July 1861): 3; letter from Burwell [Boykin Lewis] to Rose [Garland], 16 January 1863, box 1, Burwell Boykin Lewis Papers, Special Collections Library, Duke University, Durham, North Carolina. G. W. Smith hailed from Kentucky and John C. Pemberton from Pennsylvania.

Expressions of approval for scientific generals also appeared in the North. William T. Sherman lauded U. S. Grant's military ability as "scientific." Sherman admirers praised the modern means he used to conduct military operations. See Charles Royster, The Destructive War: William Tecumseh Sherman, Stonewall Jackson, and the Americans (New York: Alfred A. Knopf, 1991), pp. 337, 366.

trained officers, initiated examinations in order to eliminate the large numbers of unqualified applicants for the commission of captains and lieutenants in the fall of 1862. The department inaugurated the tests at the suggestion of Major William LeRoy Broun, a former professor of mathematics at the University of Georgia. The examinations, administered by a committee chaired by Broun, revealed the inadequacy of antebellum Southern higher education in the preparation of students for scientific and technical subjects. Josiah Gorgas, Chief of Confederate Ordnance, noted that of the more than five hundred initial applicants, fewer than one hundred attempted the examinations and only forty or fifty managed to pass. The tests required that the applicant demonstrate an understanding of algebra, chemistry, physics and trigonometry. Gorgas noted that the captaincy examination in effect required that the applicant have previously passed a college mathematics course. The only candidates with the mathematical skill to pass this test, Gorgas observed, graduated from the University of Virginia. The Ordnance Department awarded commissions for the rank of lieutenant to applicants who basically demonstrated a secondary school level of education.⁶⁰

⁶⁰William LeRoy Broun, "Confederate Ordnance During the War," Journal of the United States Artillery IX (January-February): 1-13; P. H. Mell, "Dr. William LeRoy Broun," Confederate Veteran X (May 1902): 225; draft of a letter from William LeRoy Broun to M. L. Butler, n. d. [probably

The effort by progressivist academics to use the separatist home education and military school movements to foster scientific curricula accomplished little that proved of benefit to the Confederacy. The improvement in Southern scientific academic programs that resulted from the these educational crusades appeared too late to provide the South the means needed to help fashion its independence. Southern academia and state legislatures did not begin to acquiesce to the demands of a smattering of progressivist educators and start serious efforts to improve or implement scientific courses until the late 1850s. Too few students capable of building the industrial base necessary for the Confederacy to compete materially with the Union's highly industrialized military effort graduated from these programs prior to the war. Furthermore, the destruction of collegiate buildings and scientific apparatus during the war by both Union and Confederate forces during the conflict wiped out the physical manifestations of progressivist educational reform.

The Confederacy relied heavily upon graduates from the United States' military and naval academies along with a handful of science professors to build its military

September or October 1888], folder 78, box 6, William LeRoy Broun Collection, University Archives, Auburn University, Auburn, Alabama. This draft is a response to a letter from M. L. Butler to William LeRoy Broun, 27 September 1888, folder 77, box 6, Broun Collection; Josiah Gorgas, "Notes on the Ordnance Department of the Confederate Government," Southern Historical Society Papers XII (January-February 1884): 90.

industrial complex. Gorgas, Chief of Ordnance, graduated sixth in his class at West Point in 1841. Professor Broun commanded the vital Richmond arsenal. John W. Mallet, former professor of chemistry at the University of Alabama, directed the Confederate ordnance laboratories. John M. Brooke, graduate of the United States Naval Academy, served as Chief of Naval Ordnance. George Washington Raines, a graduate of West Point, commanded the powder works in Augusta, Georgia. South Carolina College professors John and Joseph LeConte worked for the Confederate Nitre Bureau. Other professors who worked at one time or another for the Confederacy in a scientific capacity included the University of North Carolina' professor of agricultural chemistry, John Kimberly, who attempted to manufacture sulfuric acid; and John Lee Buchanan, professor of mathematics at Emory and Henry College, who removed saltpeter from caves to aid in the production of gunpowder.⁶¹

⁶¹Frank E. Vandiver, Ploughshares into Swords: Josiah Gorgas and Confederate Ordnance (Austin: University of Texas Press, 1952); Trustees' Minutes, University of Georgia, 15 October 1856; Clark, pp. 159-160; Francis P. Venable, "Sketch of John William Mallet," typescript in folder 134, box 3, Francis Preston Venable Papers, SHC-UNC; Mark Mayo Boatner III, The Civil War Dictionary (New York: David McKay Company, Inc., 1959), p. 88; Geo. W. Rains, History of the Confederate Powder Works: An Address by Invitation Before the Confederate Survivors Association... April 26th, 1882 (Augusta, Ga.: Chronicle and Constitutionalist, 1882), pp. 3-30; LeConte, pp. 184-185; letter from Capt. J. W. Mallet to Prof. Kimberly, 11 June 1862 in folder 37, box 3, Kimberly Papers; May, pp. 53, 63.

Although the Confederacy failed to develop anything that resembled industrial parity with the Union, the Confederate army's Ordnance Department managed, albeit with great difficulty, to sustain Southern troops throughout the war. The Confederacy built and operated various types of ordnance manufacturing works at Atlanta, Augusta, Charlotte, Columbia, Jackson, Knoxville, Richmond, and Selma. Industrialization revolutionized Confederate society. This revolution included the establishment of a relatively strong central government in the South with a large measure of government control over the economy; heretofore unknown employment opportunities for women in ordnance factories; and ultimately an offer to emancipate African-Americans who agreed to serve as Confederate soldiers. In essence, the Confederate revolution violated everything its founders supposedly set out to defend: states' rights, passive women, and slavery.⁶²

Although Union troops destroyed the industrial infrastructure built by the Confederacy, they failed to

⁶²Typescript copy of J. Gorgas, "Editorial Recounting Operations of the Ordnance Bureau," Daily Richmond Enquirer (Virginia) 24 November 1864 in folder 5, box 678, Gorgas Family Papers, Hoole Special Collections Library; Broun, "Confederate Ordnance," pp. 1-13; Gorgas, "Notes on the Ordnance Department," pp. 67-94; J. W. Mallet, "Work of the Ordnance Bureau," Southern Historical Society Papers XXXVII (January-December 1909): 1-20; Walter L. Fleming, "Industrial Development in Alabama During the Civil War," South Atlantic Quarterly III (July 1904): 260-272; Thomas, pp. 87-99, 135-136.

completely eradicate the experience of industrialization. Like many Northerners who participated in the war effort, many Southerners also learned from that experience an appreciation of what the combination of science, industry, and government could accomplish. Some eventually believed that women and African-Americans might also play an active role in the postbellum progress of their section. The Southern military officers most responsible for the effort to transform the Confederacy from an agrarian to a more industrial society--Brooke, Broun, Gorgas, Mallet, Raines, among others--found employment in Southern higher education after the war. These officers carried the experience of successfully industrializing the Confederacy's war effort, which they accomplished through governmental initiative and the application of scientific knowledge to industrial problems, into postbellum academia with them. Many believed that the Confederacy's industrial deficiencies, particularly in the production of textiles for adequate uniforms and the maintenance of a transportation system capable of delivering foodstuffs and materiel to the troops, resulted from the antebellum South's failure to develop adequate manufacturers and educate sufficient numbers of engineers to accomplish these tasks. These men realized that their enormous effort at industrialization, while impressive, proved too much to accomplish in too short of a period of time.

Confederate field officers who served as postbellum professors also discovered that their experience, which included chronic food shortages, inadequate clothing, and confrontations with well equipped Union soldiers, taught them that the antebellum South's failure to embrace science and industrialize led to their defeat. The handful of scientific progressivists in Southern academia before the war, such as Daniel Harvey Hill and Francis Henney Smith, believed the destruction of the Confederacy vindicated their antebellum calls for an industrially independent South. Other antebellum Southern academics, such as David Boyd, who returned to higher education after Appomattox but expressed little antebellum interest in the utilitarian value of science, eagerly embraced scientific education after the conflict as a means of placing the South on the road to progress. A new generation of Southern academics, who fought in the conflict, but only entered higher education after its conclusion, also interpreted Confederate defeat as sign that the South needed to embrace science and develop its material resources.

After the war, all these academics concluded that progress demanded an economically independent but politically reconciled South integral to the progressivist destiny of the United States. They recognized the failure of antebellum Southern academics to establish a republic that embraced scientific progress but excluded the social

progress associated with it, particularly the abolition of slavery. Progressivist educators, freed after the war from the encumbrance of conservative charges that change threatened slavery, undertook a crusade to lead the New South away from Old South education. The lesson of the Civil War for the men who entered postbellum Southern academia taught them that the antebellum South failed to measure up to the demands of progress. Confederate defeat, they concluded, demonstrated the value of science to society, and they believed that scientific education offered the means by which to obtain the benefits of progress. As postbellum academics, they promoted practical scientific higher education through their research, teaching, and various other propagandizing efforts. They also kept the Confederate revolution flickering in the form of Southern higher education.

CHAPTER 3

PROGRESS AND THE ACADEMIC ORIGINS OF THE NEW SOUTH

The Civil War devastated Southern higher education. Union and Confederate armies severely damaged collegiate campuses throughout the South. Federal troops often burned schools they suspected of aiding the Confederate effort and seized or destroyed university records. Both sides plundered campuses for apparatus, art, books, and furniture. The destruction levied against Southern schools prevented most from reopening quickly after the cessation of hostilities. Furthermore, many school administrations invested their antebellum endowments in Confederate bonds, rendered worthless upon the Confederacy's defeat, which left colleges and universities dependent upon the interest derived from this source of income completely destitute.¹

Southern colleges and universities lost the services of professors who died in the war. Five members of the University of North Carolina faculty perished in the conflict, and they represented one-third of the school's antebellum teaching staff. Institutions throughout the South suffered comparable losses. Southern schools also lost the services of Northern born or Unionist educators,

¹Charles Forster Smith, "Southern Colleges and Schools," *Atlantic Monthly* LIV (October 1884): 543. Stillman, pp. 417-418; Flynt, pp. 218-225; Stetar, "Development of Southern Higher Education," pp. 35, 113.

such as Barnard, Sherman, Professor Robert Strong of the University of East Tennessee, and Professor E. C. Boynton of the University of Mississippi, who quit their institutions and headed North as a result of the war. After the conflict, many Southern academics left the region to obtain higher salaries offered by more prosperous Northern and Western schools. Prominent academics who deserted institutions in the former Confederate states for more profitable employment elsewhere included Eugene W. Hilgard of the University of Mississippi, who earned a doctorate from the University of Heidelberg, Basil L. Gildersleeve, the University of Virginia's foremost classical scholar, and the LeConte brothers. Southern higher education also lost students who abandoned schools to join the army at the outbreak of the war, and as a result of death or impoverishment, never returned to academic life.²

²Goode, p. 52; Catalogue of the Trustees, Faculty and Students of the University of North Carolina, 1860-'61 (Chapel Hill: John B. Neathery Book, Job & Card, 1861), pp. 8-9; Mrs. Francis W. Smith, pp. 12-14; Flynt, pp. 218-225; Report of the Trustees of the University of Mississippi [1861], pp. 5-7; Arkansas Industrial University, Official Report of Col. Geo. M. Edgar, President, Fayetteville, June 7th, 1885, ms, box 2, Board of Trustee Records 1868-1934, University Archives, University of Arkansas, Fayetteville; Eugene Hilgard, "A Confederate Scientist at War," ed. Walter E. Pittman, Civil War Times Illustrated XXV (March 1986): 20-25; John K. Betterworth, "'The Cow in the Front Yard': How a Land-Grant College Grew in Mississippi" Agricultural History 53 (January 1979): 62; LeConte, p. 243; Flynt, p. 224.

Historians generally agree that the damage to Southern higher education that resulted from the war inhibited the formation of modern academic programs, especially scientific curricula, in the South before 1900. They argue that devastation of the region left Southern colleges too impoverished to fund expensive technical courses. They also portray the leaders of Southern institutions in the immediate postbellum years, largely former Confederate officers and politicians, as wedded to the classics and stubbornly resistant to curricular innovation.³

Confederate veterans, however, were not academic conservatives. True, Southern colleges and universities pursued former Confederate officers to serve as presidents and professors, and veterans sought these positions. Postbellum opportunities often failed to satisfy the expectations of men who believed that their stature entitled them to careers as planters, politicians, or professionals. These occupations proved either difficult to obtain in the economically devastated South, or, as in the case of political office, closed to most former high ranking rebel officers during Reconstruction. These men parlayed their

³Rudolph, p. 244; Stetar, "Development of Southern Higher Education"; Stetar, "Search of a Direction," pp. 343-357; Cartter, pp. 281-289; Woodward, p. 436; Mathews, p. 4; Neufeldt and Allison, p. 259; Charles Reagan Wilson, Baptized in Blood, pp. 68, 81-86, 139-160; Charles W. Dabney, "The Progress of the Renationalization of the South," [1911], typescript in folder 318, box 25, ser. 5, subser. 5.2, Charles W. Dabney Papers, SHC-UNC.

status as heroes to gain employment in fields where their reputations acted as a boon rather than a detriment. Former general officers often found employment on corporate boards and as representatives or sales agents in speculative enterprises, particularly with insurance companies, who hoped to use the veterans' reputation to attract customers and respectability. Academia provided a similar outlet for unemployed veterans to find acceptable professional positions. Collegiate boards of trustees sought the services of former officers because they hoped to use their reputations to attract students and donations.⁴

⁴Unsigned fragment of letter to Samuel H. Lockett, 3 October 1879, folder 27 box 2, Samuel Henry Lockett Papers, SHC-UNC; letter from William Preston Johnston to R. E. Lee, 26 October 1866, Robert Edward Lee Papers, Washington and Lee University, Lexington, Virginia; application for bankruptcy by William LeRoy Broun, 10 March 1869, District Court of the United States for the Northern Georgia District, box 2, folder 22, Broun Collection; letter from R. E. Lee to Wm. M. Green, 23 September 1868, Robert Edward Lee Papers; "Richard Morton Venable," Louisiana State University Quarterly 6 (April 1911): 86; Harrison Hale, University of Arkansas 1871-1948 (Fayetteville: University of Arkansas Alumni Association, 1948), p. 80; Edmund Berkeley and Dorothy Smith Berkeley, A Yankee Botanist in the Carolinas: The Reverend Moses Ashley Curtis, D. D. (1808-1872) (Berlin and Stuttgart: J. Cramer, 1986), pp. 208-209. Former Confederate generals or politicians employed by insurance agencies included Stephen D. Lee, see "S. D. Lee, Superintendent of Agencies, Alabama Gold Life Insurance Company," stationary, n. d., John Francis Hamtramck Claiborne Papers, Selected Items, University Archives, Mississippi State University, on microfilm provided by SHC-UNC; James Longstreet, see the letter from General James Longstreet, president, Great Southern and Western Life and Accident Insurance Co., New Orleans to Stephen D. Lee, 2 May 1866, Stephen D. Lee Papers, on microfilm, University Archives, Mississippi State University, original manuscript collection in Stephen Dill Lee Papers, SHC-UNC; D. H. Maury, see the letter from General D. H. Maury, Special Agent of

At least eleven former Confederate generals served as presidents of Southern colleges and at least seven others served as college professors. Numerous junior officers and politicians also obtained academic positions. The Confederacy's highest ranking and most celebrated general, Robert E. Lee, accepted the presidency of Washington College in Lexington, Virginia, shortly after the war's end thereby setting a dignified precedent for others to follow. The demand for prominent Confederates often placed former officers in competition with each other for academic positions. Southern veterans sought letters of recommendation from Lee, whose endorsement impressed potential employers, including members of collegiate boards, which aided applicants in their efforts to obtain appointments.⁵

the Equitable Life Assurance Society, New York City, to Stephen D. Lee, n. d., in Stephen D. Lee Papers; A. P. Stewart, see William B. Hesseltine, Confederate Leaders in the New South (Baton Rouge: Louisiana State University Press, 1950), p. 80; John B. Gordon, see the letter from Jno. B. Gordon, president Southern Life Insurance Company, to William LeRoy Broun, 2 December 1868, folder 21, box 2, Broun Collection; and Braxton Bragg, see the letter from Bragg to Josiah Gorgas, 22 June 1870, folder 13, box 674, Josiah Gorgas, Incoming Correspondence (Various) 1839-1878, Gorgas Family Papers. On the profitability of life insurance companies in the postbellum United States, see Bledstein, p. 46.

⁵Hesseltine, p. 78; J. Randolph Tucker, Life and Character of Col. William Allan Late Principal of McDonogh School. An Address Delivered November 21, 1889 (McDonogh, Maryland: Published by Boys of the School, 1889), p. 9; letter from Jefferson Davis to Edmund Kirby Smith, 1 September 1875, folder 56, box 4, Edmund Kirby Smith Papers, SHC-UNC; Sellers, p. 327; letter from R. E. Colston to

Veterans who entered academia brought not only their fame but their wartime experience as well, which included a brief encounter with industrialization and the legacy of defeat. They used their experience to transform Southern higher education from a classical to a progressivist orientation. Southerners did not doubt the appropriateness of former Confederates at the reins of Southern academia. As one commencement speaker at the University of Mississippi noted approvingly, the men of the Civil War generation "stand out in history as the sentinels of progress to mark the pathway of successive generations."⁶

Veterans, more than other Southerners, witnessed and understood the magnitude of Confederate defeat. William Preston Johnston, president of Tulane University and a former aide-de-camp to Jefferson Davis, told a commencement audience at the Alabama Polytechnic Institute in Auburn, that the North "overwhelmed" the Confederacy with "superior force," and that "neither honor, nor common sense demanded that we should invite and endure further disaster." The

William LeRoy Broun, folder 35, box 3, Broun Collection; letter from Alexander M. Clayton to Matthew Fontaine Maury, 22 August 1869, vol. 31, Matthew Fontaine Maury Papers, Library of Congress, Washington, D. C.; letter from James H. Lane to Robert E. Lee, 20 November 1865, Robert Edward Lee Papers; letter from William Preston Johnston to Robert E. Lee, 26 October 1866, Robert Edward Lee Papers.

⁶J. W. Clapp, Address Delivered at the University of Mississippi on Behalf of the Board of Trustees on Commencement Day, June 29, 1866 (Memphis: Public Ledger Office, n. d.), p. 12.

Institute's president, former commander of the Richmond arsenal, William LeRoy Broun, who invited Johnston to address the students, also understood the totality of the Confederacy's collapse. Broun remembered that upon the Confederate Congress' authorization to recruit black troops near the war's end, congressmen expected the Ordnance Department to furnish arms for an anticipated fifty thousand African-American soldiers. Broun claimed, however, that the destruction by Union armies of Confederate resources made this impossible. "I knew," he recalled, "we could not possibly arm five thousand." Atticus G. Haygood, president of Emory College and a former Confederate chaplain, called the South's defeat "utter and overwhelming." Other Confederate veterans who entered academia expressed similar sentiments.⁷

Veterans in academia often credited the South's defeat to the North's superior material and technical resources. Former general Daniel H. Hill, a postwar editor and

⁷William Preston Johnston, Problems of Southern Civilization: An Address Delivered Before the Polytechnic Institute of Alabama, ... June 10, 1891 (n. p., [1891]), p. 7; letter from Wm. LeRoy Broun to Wm. Preston Johnston, 14 February 1891, folder 21, box 30, William Preston Johnston Collection, Manuscripts and Rare Books, Howard-Tilton Memorial Library, Tulane University, New Orleans, Louisiana; Broun, "Confederate Ordnance," p. 11; Atticus G. Haygood, The New South: Gratitude, Amendment, Hope. A Thanksgiving Sermon, for November 25, 1880 (Oxford, GA.: n. p., 1880), p. 8. See also D. H. Hill, The Old South: An Address... June 6, 1887, Before the Society of the Army and Navy of the Confederate States in the State of Maryland (Baltimore: Andrew J. Conlon, 1887), p. 4.

president of Arkansas Industrial University, repeatedly noted the South's inability to compete with Northern industry. "A state of war found [the Confederacy] without the machinery to make a single percussion cap for a soldier's rifle, or a single button for his jacket," Hill observed. The Confederate army, he claimed, "was the worst fed, worst clothed and worst equipped army in the world." It lacked medical supplies, shoes, tents, wagons and all manner of ordnance. The North, however, Hill argued, "was the best equipped...army in the world." The president of Louisiana State University (LSU), David Boyd, claimed that the power of Northern manufacturing forced the South to fight the equivalent of fourteen million more men than the Union actually put in the field. The outcome of the war, Boyd believed, demonstrated to the South that it stood "in need of *Mechanics*--mechanical education and the Mechanic Arts." A. J. Peeler, a member of the first Board of Trustees for Texas Agricultural and Mechanical College and a former Confederate captain, told a commencement audience that "during the late war we saw how helpless a country was that manufactured nothing at home."⁸

⁸Hill, Old South, pp. 18-19; D. H. Hill, The Confederate Soldier in the Ranks. An Address...Before the Virginia Division of the Association of the Army of Northern Virginia,...October 22, 1885... (Richmond: Wm. Ellis Jones, Book and Job, 1885), p. 6; D[aniel] H[arvey] H[ill], "Education [Part I]," Land We Love I (May 1866): 9; D[aniel]. H[arvey]. H[ill]., "Education [Part III]," Land We Love I (August 1866), pp. 235-239; Official Register of the Louisiana State University and Agricultural and Mechanical

Southern academics who hoped to rectify the South's material and technological inferiority within the reconstructed Union believed higher education could eventually transform the South into a dynamo of industry and science. Academics and their supporters who wanted Southern higher education to embrace scientific and technical education pointed to the Confederate experiment as both proof of the efficacy of industrialization and the South's ability to industrialize. The Confederacy, they argued, proved capable of holding off defeat for four years because of the immense industrial and technical efforts conducted by the Confederate Ordnance department. Hill praised the industrial accomplishments of ordnance officers John Brooke, George Washington Rains, and others, for enabling the Confederacy to put up a good fight. William M. Burwell, a former editor of *De Bow's Review*, boasted to the faculty and students of Louisiana State University that during the war the Confederacy's "production of explosives and fixed ammunition was wonderful." Burwell also advocated the

College, 1877-1878 (New Orleans: A. W. Hyatt, 1878), p. 46. Emphasis is original; A. J. Peeler, Address Before the State Agricultural and Mechanical College of Texas, Thursday, June 26, 1877 (Austin: Statesman Steam Book and Job Office, 1877), p. 22; Sid S. Johnson, Texans Who Wore the Gray ([Tyler, Texas: n. p., 1907]), pp. 71-72;]]. See also Stephen D. Lee, "The Seed Corn of the Southern Confederacy," clipping from an unidentified newspaper in Blewett Lee Scrapbook, vol. 1, Stephen D. Lee Museum, Columbus, Mississippi.

establishment of schools of applied science which he believed necessary in order to create a prosperous South.⁹

Former Confederate Colonel of Engineers, Samuel H. Lockett, a postbellum professor of engineering at Louisiana State University and the University of Tennessee, emphasized the importance of scientifically trained generals to the Confederate war effort. "At the beginning of the war there were many *legal, theological, and political* generals," Lockett observed, "but the last great battles were fought [by] men like Lee, Johnston, Bragg, Beauregard, Hood, and Hardee...all men who had received technical military educations." Lockett advocated the establishment of technical schools, similar to the Stevens Institute of Technology in Hoboken, New Jersey, and the Columbia School of Mines in New York City, to provide the South with mechanical engineers capable of helping rebuild the region.¹⁰

⁹D[aniel]. H[arvey]. H[ill]., "Education [part 2]," Land We Love I (June 1866): 90-91. See also Francis H. Smith, Gymnastic and Technical Education in the Virginia Military Institute...An Introductory Lecture on the Resumption of Academic Exercises in the Institution, September 5th, 1871 (New York: D. Van Nostrand, 1871), pp. 20-21; Wm. M. Burwell to Matthew F. Maury, 5 January 1869, vol. 28, Maury Papers; W. M. Burwell, Address Delivered Before the Faculty and Students of the Louisiana State University, On Wednesday, 25th June, 1871... (n. p., Price Current, [1871?]), pp. 7-8.

¹⁰Samuel H. Lockett, "Technical Education," ms, n. d. Internal evidence indicates Lockett wrote this manuscript c. 1873. Folder 52, box 3, ser. A, Samuel Henry Lockett Papers, SHC-UNC. Emphasis is original.

Yet, the failures of Confederate industrialism proved more glaring than its successes because the South ultimately lacked the industrial skill necessary to defeat the North. Veterans-turned-academics considered antebellum higher education largely responsible for that failure. Former Confederate general Stephen D. Lee, who after the war served as president of Mississippi Agricultural and Mechanical College, noted the chronic shortage of educated persons capable of working as telegraph operators in the Confederacy. Lee, who commanded troops at Vicksburg, credited the technical skill of two operators with saving that city from Union forces in December of 1862. Most of the operators in the South, Lee charged, consisted of Northerners who headed home shortly after the war started. Armies needed such technically trained men, he explained, in order to successfully fight a modern war. David Boyd, who served as a Confederate engineering officer, recalled Sherman's warning that the South's lack of industrial resources would guarantee its defeat. "I never saw our poor Southern boys half-naked and half-starved," Boyd remembered, "nor rode on a ri[c]kety train behind a broken-down, wheezing engine...but I thought of him." Lawrence Sullivan Ross, a former Confederate cavalry officer and a postbellum president of Texas Agricultural and Mechanical College, related a wartime experience which he believed exemplified the failures of antebellum Southern higher education. Ross

and his troops captured a Federal train that carried supplies which Confederate troops desperately needed. Fearing enemy reinforcements would shortly arrive, Ross searched for someone in his command capable of operating the train and move it out of danger. An exasperated Ross found that none of his soldiers possessed the technical knowledge necessary to operate the engine. Superior numbers of Federal troops soon arrived and forced Ross to abandon the train. Such experiences led Lee, Boyd, and Ross to vigorously promote scientific education after the war.¹¹

The understanding that the North maintained an enormous industrial advantage over the South relieved white Southerners from a certain degree of responsibility for defeat. Their recognition of Union industrial superiority enabled former rebels to argue that Southerners fought courageously, but that no amount of bravery or patriotism could overcome the materiel disadvantages they faced. Therefore, defeat acquired an inevitable aura that allowed Southerners to uphold their collective sense of honor by proudly pointing to the courage that they displayed and the

¹¹Stephen D. Lee, "Details of Important Work by Two Telegraph Operators Christmas Eve, 1862, Which Prevented the Almost Complete Surprise of Confederate Army at Vicksburg," from a clipping in an unidentified newspaper, Blewett Lee Scrapbook, vol. 1; Stephen D. Lee, "Address at Industrial Institute and College," [c. 1900], from a clipping in an unidentified newspaper, Blewett Lee Scrapbook, vol. 1; Boyd, "Sherman," p. 10; Spencer Ford, "Address," Battalion [Texas A & M] (January 1898): 22-23. See also H[ill]., "Education [Part III], pp. 238-239.

feats that they accomplished in the face of overwhelming physical force. Southern academics who espoused this view of the war, also argued that defeat required Southerners to embrace science and industrialization in order to lift the South out of its poverty and economic dependence on the North. They believed that higher education offered Southerners the means by which to accomplish this task.

Daniel Hill specifically attributed the Confederacy's technical deficiency and its defeat to inadequate antebellum standards of higher education. Hill complained that the "dead languages, the English classics, political economy, rhetoric, elocution, law, etc., engrossed the time and the energies of Southern youth." As a consequence, Southerners failed to develop practical scientific skills comparable to those of Northerners, who he claimed--with some exaggeration--eagerly embraced technical education before the war. "Let the studies pursued when prosperity crowned the land," Hill pleaded, "be buried with that prosperity."¹²

Isaac Taylor Tichenor received a classical education in his native Kentucky before moving to Alabama before the war. He served the Confederacy as a Baptist chaplain with the rank of captain in the Seventeenth Alabama regiment. After the war, he became an ardent proponent of scientific utilitarian education and president of the Alabama Agricultural and Mechanical college. Although he praised

¹²H[ill]., "Education [part I]," pp. 3-4.

the bravery and fighting ability of Confederate soldiers, Tichenor charged that the antebellum education received by Southerners inadequately prepared them for war. He claimed that Southern politicians "never comprehended that steam engines and railroads, that looms and shuttles, that plows and hoes and reapers constituted a prime element of a nation's strength upon the field of battle. They knew not how to make these fight." Tichenor claimed that Alabama needed scientific instruction in order to lay the future foundation of the state's agricultural and industrial prosperity.¹³

Antebellum proponents of scientific and technical education, such as Francis Smith and Daniel Hill, believed themselves vindicated by the outcome of the war. "It is not necessary that I should dwell...on the importance of the scientific course that claims the attention of this school," Smith told VMI's cadets in 1866, "The events of the last few

¹³Typescript copy on microfilm of Isaac Taylor Tichenor, Sixth Annual Report to the Board of Directors of the Agricultural and Mechanical College of Alabama, 25 June 1877, in Isaac Taylor Tichenor Papers, Special Collections, Draghon Library, Auburn University. See also ms fragment entitled "Southern Agriculture," located in folder 4, box 2, William C. Stubbs Papers, SHC-UNC. Although the manuscript's author is unidentified, the writer refers to his Kentucky birth and large passages bear identical wording to the Sixth Annual Report noted above. Tichenor also befriended and worked with William C. Stubbs (in whose collection the manuscript is found) at Alabama A & M which strongly suggests the manuscript originated with Tichenor; typescript copy on microfilm of Isaac Taylor Tichenor, Fifth Annual Report to the Board of Directors, 8 January 1877, Tichenor Papers.

years, and the circumstances of the country at this time, fully vindicated the policy which has regulated the educational system from the [school's] beginning." Hill believed that defeat taught Southerners that they needed to revolutionize their entire system of education and that they must exchange aesthetic studies for scientific utilitarian education. In order to compete with the North economically the South required engineers, machinists, manufacturers, miners, and scientific farmers to develop the region's natural resources. Hill looked to Southern higher education to provide courses in agricultural science, chemistry, geology, mineralogy, and meteorology in order to provide graduates capable of creating the industries needed to lift the South out of its impoverished condition.¹⁴

Confederate veterans who entered academia believed Southerners' defeat required that they embrace a new type of education. Edward Joynes asked Matthew Maury to address an 1869 meeting of the Virginia Educational Association on the topic "The Changes which the rapid progress and development of Physical discoveries, and the altered condition of our people, have made necessary, in the system of Southern education." Maury, at his inauguration as president of the

¹⁴Francis H. Smith, Introductory Address to the Corps of Cadets of the Virginia Military Institute, on the Resumption of the Academic Exercises, September 10, 1866 (n. p., Published by Order of the Board, [1866]), p. 10; H[ill]., "Education [Part I]," pp. 3-4, 9-11; H[ill], "Education [Part III]," pp. 235-239.

University of Alabama in 1871, told the audience that "great changes...have been wrought throughout the South," which required the school to offer courses in the physical sciences. "In our mastery over these forces," he claimed, "consists the progress of the age, the greatness of nations and the prosperity of peoples....This is what our university must do, and enable the South, to take her true position in the onward and upward march of nations." John Mallet, the former superintendent of the Confederacy's ordnance laboratories who served as professor of chemistry at the University of Virginia after the war, wrote that "weighty reasons of a special kind" existed for the South to embrace applied science instruction. Exhausted by war, its fields barren, its few manufacturers destroyed, Mallet believed that the South must look to technical education to "raise her from the dust."¹⁵

Robert Lee wrote the inventor Cyrus McCormick of the necessity of raising money in order to expand Washington College's curriculum to include a variety of scientific courses. "Such a course of instruction," Lee claimed "is requisite to meet the present wants of the country

¹⁵Letter from Edward S. Joynes to M. F. Maury, 10 November 1869, vol. 32, Maury Papers; M. F. Maury, "Inaugural Address of the President of the University of Alabama," from a clipping in an unidentified newspaper, vol. I, scrapbook, [1871], Eugene Allen Smith Collection, Hoole Special Collections Library; J. W. Mallet, Chemistry Applied to the Arts: A Lecture Delivered Before the University of Virginia, May 30, 1868 (Lynchburg: Schaffter & Bryant, 1868), pp. 13-14.

[Virginia]." William Preston Johnston criticized the "ancient halls of learning" for slowly perceiving the necessity of technical education in "those arts and sciences that will fit [young men] for eminence in the stations of life to which active civilization calls them." The courses the "ancient halls" needed to offer included the study of bridges, foundries, manufactures, mines, railroads, and sewerage.¹⁶

The idea that the South could build an industrial and prosperous society through education received confirmation in the minds of Confederate veterans who entered academia with the Prussian victory in the Franco-Prussian War of 1870-1871. The sudden French defeat surprised many military men. Josiah Gorgas, while a faculty member at the University of the South, claimed that "nothing could be more astounding than the total and utter defeat of the French forces." The administrators and professors of the United States Military Academy, heavily influenced by French military thought before the war, afterwards placed greater emphasis on the Prussian experience. Confederate veterans who entered academia quickly overcame their surprise at the war's outcome by comparing the French experience to their

¹⁶Letter from R. E. Lee to Cyrus H. McCormick, 28 November 1865, Letter book I (copy), Robert Edward Lee Papers; see also R. E. Lee to J. B. Baldwin, 22 November 1865, Robert Edward Lee Papers; William Preston Johnston, "Lecture First: The Uses of History," ms, [c. 1870s], folder 1, box 48, Johnston Collection.

own. These veterans attributed Prussia's victory to its scientific and technical preeminence over France--their explanation for the North's victory over the South. Southern academics especially credited Prussia's superior educational system with providing that nation with the industrial strength requisite for winning the war. William LeRoy Broun claimed that scientific schools enabled Prussians "to display that skill and power which in a few months changed the map of Europe, and drew from the French an acknowledgement that their humiliation was due to [Prussia's] more general diffusion of scientific schools." William Preston Johnston observed that "Germany has tested and proved the theory that the best trained heads win the game of war." He also claimed that France, in the years that followed the war, "accepted and improved that lesson." Southerners, these veterans argued, like the French needed to learn from their defeat and embrace science education in order to resurrect the South's fortunes. "As German universities conquered at Sedan," Jabez L. M. Curry told students at Alabama A & M, "so you are to win victories on broader and more useful spheres." The example of Prussia's victory over France and the lesson that it carried for the South to embrace education, science, and technology, remained a favored subject for speakers at alumni society

meetings, commencements, and other ceremonial occasions through the end of the century.¹⁷

Southern college students and graduates embraced the message they heard so often. The Reverend Robert L. Dabney,

¹⁷Josiah Gorgas, *Diary, ms*, 17 January 1871, folder 3, box 676, Gorgas Family Papers; Morrison, p. 97; Forman, *West Point*, p. 139; Frank L. Riley, "What General Lee Read After the War," in *General Robert E. Lee After Appomattox*, ed. Frank L. Riley (New York: MacMillan Company, 1922), p. 158; Wm. Preston Johnston, *An Address Before the Louisiana State Public School Teachers Association...December 28th, 1893* (New Orleans: L. Graham & Son, Ltd., 1894), p. 16; D. F. Boyd, "Some Ideas on Education: The True Solution of the Question of 'Color' in Our Schools, Colleges, and Universities, etc.," ms, 1875, folder 7, box 2, Louisiana State University Official Papers, Fleming Collection; Wm. LeRoy Broun, *Science-Education: An Address...Delivered at the Annual Commencement of the A. and M. College of Ala.* (Auburn, Alabama: n. p., 1880), pp. 7-8; William Preston Johnston, *High Schools in Louisiana and Tulane University* (New Orleans: n. p., 1893), pp. 5-6; J. L. M. Curry, *Address Before the Alabama Polytechnic Institute, Auburn, Alabama, June 14th, 1899* (Montgomery: Brown Printing Co., 1899), pp. 21-22; D. H. Hill, *University Address by Gen. D. H. Hill of Georgia. Delivered on Commencement Day, June 20, 1888, before the Regents, Faculty, and Students of the University of Texas* (Austin: State Printing Office, 1888), p. 6; Francis H. Smith, *Gymnastic and Technical Education*, pp. 20-21; Kemp P. Battle, "The Head and the Hand. The Practical Side of College Life--Problems of the Day. Anniversary Oration Before the Students of South Carolina College Delivered June 23, 1886," typescript, folder 345, box 28, Charles W. Dabney Papers, UNC-SHC; Tichenor, Sixth Report, 25 June 1877, Tichenor Papers; Benjamin H. Hill, "Speech Delivered Before the Alumni Society of the University of Georgia...July 31, 1871," in Benjamin H. Hill, *Senator Benjamin H. Hill of Georgia: His, Life, Speeches and Writings*, comp. Benjamin H. Hill, Jr. (Atlanta: T. H. P. Bloodworth, 1893), p. 347; Hilary Herbert, *An Address Delivered Before the Society of Alumni of the University of Virginia, On Commencement Day, June 29, 1887* (Lynchburg, Va.: J. P. Bell & Co., 1887), pp. 8-9; B. M. Palmer, *The Address...Delivered on the First Day of the New Year and Century in the First Presbyterian Church, New Orleans, La.* [title page is missing on the copy found in the Rare Book Room of the Gorgas Library, University of Alabama, Tuscaloosa, n. d.], pp. 6-16.

who feared that greed and moral degeneracy followed the unrestricted pursuit of material riches, complained at the 1882 commencement of Hampden-Sydney College that he too frequently heard the cry that "'the North triumphed by its wealth,'" and therefore Southerners ought to emulate Yankee ways. Dabney lamented that

I hear our young men quote to each other the advice of the wily diplomat Gorstchacoff, to the beaten French: 'Be strong.' They exclaim: Let us develop! [D]evelop! [D]evelop! Let us have, like, our conquerors, great cities, great capitalists, great factories and commerce and great populations; then we shall cope with them [Northerners].

Dabney's friend Daniel Hill, however, saw no reason why the South should not learn from the North. "It is lawful to be taught," Hill believed, "by those who have far excelled us in developing the resources of the country." Johnston also wanted Southerners to learn from their Northern relations' superiority in the mechanic arts. "When in anything my brother is doing better than I am," Johnston claimed, "let me understand it and make myself his equal in that thing. It is an honest ambition."¹⁸

¹⁸R. L. Dabney, The New South. A Discourse Delivered at the Annual Commencement of Hampden Sidney College, June 15, 1882, before the Philanthropic and Union Literary Societies (Raleigh, N. C.: Edwards, Broughton & Co., 1883), p. 12. The diplomat referred to is Aleksandr Mikhaylovich Gorchakov, Russia's Imperial Chancellor (1868-1882) and Minister of Foreign Affairs (1856-1882); letter from R. L. Dabney to D. H. Hill, folder 2, box 1, Daniel Harvey Hill Papers, SHC-UNC; H[ill]., "Education[Part I]," p. 11; Johnston, Problems of Southern Civilization, p. 5.

The idea that industrialization provided the key for both Union and Prussian victory allowed former rebels to escape a certain degree of responsibility for their defeat. Confederate soldiers believed they fought bravely enough to more than satisfy the demands of honor, and that Southern civilians courageously suffered the hardships placed upon them by an enormously powerful foe. Yet, individual honor and courage proved inadequate against the faceless reality of industrial war. It remained important, however, for former Confederates reared on these virtues to convince themselves, and others, that their actions satisfied all the demands that honor and courage required. White Southerners remained sensitive long after the war to the charge that they abandoned their cause before military necessity required them to do so. Confederate veterans, especially academics, seized public opportunities to laud their "feats of arms, which the world has never seen surpassed," and "skillful generals whose nobility won them the admiration of the world."¹⁹

¹⁹William Preston Johnston, Decoration Day [Address] at the Graves of Lee and Jackson. June 2nd, 1875 (Lexington, VA: n. p., 1875); Tichenor, Sixth Report, 25 June 1877, Tichenor Papers. See also D. H. Hill, Confederate Soldier, pp. 4, 18-19; D. H. Hill, Old South, p. 4; William LeRoy Broun, "Address Delivered on Memorial Day Before the Students of the Alabama Polytechnic Institute in May, 1891," in William LeRoy Broun, Dr. William LeRoy Broun, comp. Thomas L. Broun (New York: Neale Publishing Co., 1912), pp. 232-236; Clapp, p. 4; Benjamin H. Hill, "Address Delivered Before the Southern Historical Society, at Atlanta, Ga., February 18, 1874," in Hill. ed. Benjamin Hill, Jr., p. 406.

Southern academics who embraced technical education deflected individual responsibility for defeat by blaming antebellum education for the South's failure to industrialize. Because white Southerners collectively bore the responsibility for this inadequacy, former Confederates who entered academia further sought to divert accountability for the Confederacy's demise by eagerly embracing the idea that Providence determined the outcome of the war.

Raised in a Protestant tradition, most Southerners accepted the Christian notion that Providence--the implementation of God's predetermined will--controlled their destiny. Southern academics' belief that Northern industrialism led to the inevitable destruction of the Confederacy suggested that Providence permitted an inevitable Union victory. The material advantages of Union troops, Daniel Hill told veterans of the Army of Northern

On the defensiveness and sensitivity of white Southerners toward their defeat see Waldo W. Braden, "'Repining Over an Irrevocable Past': The Ceremonial Orator in a Defeated Society, 1865-1900," in Rhetoric of the People: "Is there Any Better or Equal Hope in the World?", ed. Harold Barret (Amsterdam: Rodopi NV, 1974), pp. 273-301, and Gaines M. Foster, Ghosts of the Confederacy: Defeat, the Lost Cause, and the Emergence of the New South (New York and Oxford: Oxford University Press, 1987), pp. 20-35, 115-119.

On the importance of honor to Southerners and other Americans, see Cash, Bertram Wyatt-Brown, Honor and Violence in the Old South (New York and Oxford: Oxford University Press, 1986), and Gerald Linderman, Embattled Courage: The Experience of Combat in the American Civil War (New York: Free Press, 1987).

Confederate veterans transmitted their sensitivity to defeat to subsequent generations of Southerners. Not even W. J. Cash proved immune. See Cash, p. 69.

Virginia, guaranteed Confederate soldiers "no hope of ultimate success." He noted, however, that his faith in God allowed Hill "to bow with adoring reverence to His decree which destroyed our hopes of Southern independence. I would not reverse that decree if I could do so." The equally mysterious forces of industrialization and Providence offered Southerners a rationale to accept defeat and move toward national reconciliation. Josiah Gorgas, confused by the Almighty's decision to allow Union victory, nevertheless advised Southerners to "bow in submission and learn to curb our bitter thoughts."²⁰

In order for white Southerners to fully accept the dictates of Providence, they needed to understand its purpose for their defeat. Gorgas lamented that nothing remained of the Confederacy after "the bitter end of four years of toil and sacrifices" and wondered "Is it possible we were wrong?" Yet Gorgas, like most white Southerners, refused to believe that defeat resulted from any moral failings with regards to slavery or secession. They also

²⁰Hill, Confederate Soldier, pp. 18-19; Gorgas, Diary, 31 August 1865; See also "Address of Prof. Wm. Preston Johnston of Washington and Lee University, before the Educational Association of Virginia, at Stanton, Va., July 10, 1872," from a clipping in an unidentified newspaper, folder 24, box 15, Johnston Collection; A. C. Avery, Memorial Address on [the] Life and Character of Lieutenant General D. H. Hill, May 10th, 1893 (Raleigh, N. C.: Edwards & Broughton, 1893), p. 12; Francis H. Smith, Address...1866, p. 12; and Herman Hattaway, General Stephen D. Lee (Jackson: University Press of Mississippi, 1976), p. 207.

struggled to find greater meaning behind their defeat than simply that the North overpowered the South.²¹

Confederate veterans in academia quickly emerged to provide an explanation that removed any need for guilt over defeat, secession, or slavery. They accepted the progressivist belief that Providence controlled human progress for a Divine purpose. Their faith in Providence allowed them to develop the idea that national progress necessitated Confederate defeat in order that the United States could resolve the problems of slavery and secession and fulfill its destiny of achieving a perpetual republic. "In the wisdom of *Omniscient Providence*, the question of the Right of Secession, thus referred to the arbitration of the field, was decided...irrevocably and forever," Broun observed, "and what we now know to have been an element of division and weakness in our government, has been forever removed, and to-day we stand one people, one nation, under one flag, an indissoluble union of indestructible states." The end of debilitating sectionalism also required an end to slavery. "Providence wanted the Union," David Boyd noted, "but He wanted the Union without slavery." Furthermore, progressivist academics argued that the South's retention of slavery prohibited the region from embracing industrialization, granting dignity to labor, and pursuing science. Jabez L. M. Curry, a former Confederate

²¹Gorgas, *Diary*, 31 August 1865.

congressman and cavalry officer, who after the war served as a college president, English professor, and administrative agent for the Peabody Fund for Southern Education, called slavery "a great blunder" that hindered the region's economic, political, and social progress. He claimed in 1882 that "the South rejoices that it is gone--irrevocably gone." Atticus Haygood expressed similar sentiments. Nevertheless, these academics refused to condemn slavery or secession in moral terms. They argued that slavery provided civilization to African-Americans and that secession impressed upon all Americans the importance of self-government. The twin pillars of antebellum Southern politics, however, ceased to serve the interest of the republic and therefore Providence necessitated their removal. Accordingly, individuals, who strived only to perform their appointed roles in the Divinely ordained human drama, need not bear any responsibility for the war or its outcome.²²

²²William LeRoy Broun, "Memorial Address," typescript dated April 1896 in Leroy Stafford Boyd Collection, folder 8, box 1, University Archives, Auburn University; Boyd, "Sherman," p. 4; J. L. M. Curry, "Education at the South," Texas Journal of Education, II (March 1882): 80-2; Haygood, pp. 8-9; B. B. Lewis, Baccalaureate Address Delivered at the Fiftieth Annual Commencement of the University of Alabama, July 7, 1881 (n. p., n. d.), pp. 2-4, in Alabama Collection, Hoole Special Collections Library; Dabney Lipscomb, "General Stephen D. Lee: His Life, Character, and Services," Publications of the Mississippi Historical Society X (1909): 30-1; Johnston, Problems of Southern Civilization, pp. 7-9; William Preston Johnston, The Work of the University in America: An Address before the South Carolina College on Commencement Day, June 25th, 1884 (Columbia: Presbyterian

Progressivist academics interpreted their Confederate experience as evidence of the antebellum South's failure to embrace progress. Burwell Boykin Lewis, president of the University of Alabama, claimed that the South failed to win its independence because it "failed to catch the great industrial spirit of the age." Lewis believed that antebellum Southerners rejected free labor, manufacturers, and physical science. He argued that "no civilization can exist that antagonizes these fundamental ideas and tendencies of modern progress." Veterans in academia wanted Southerners to learn from their defeat and build a stronger postbellum civilization. "The man trained by the world has the advantage of not having kind guides," William Preston Johnston claimed, "Defeat has been his most useful master. From defeat he has learned the best lesson we ever get here below." The destruction of slavery and the physical devastation suffered by the South convinced Johnston and other academics that Southerners needed to forget slavery and start a progressive "new era" by constructing a "new civilization" built upon industry and science. The hope for a reborn South led quickly to the emergence of the idea that a "New South" would soon emerge. Joseph W. Taylor told the literary societies of the University of Mississippi in 1869

Publishing House, 1884), pp. 4-5, 19.

On the symbiosis of Providence and progress, see Spadafora, pp. 4, 104, 369. On the concept that the Civil War allowed the United States to continue its progressivist destiny, see Royster, Destructive War, pp. 383-385.

that "Providence has in reserve for this blasted and trampled land of ours a bright and prosperous future. From the mighty ruins of its past, from the blood of its martyred sons...there may arise...a New South of the future, grander and more beautiful than the Old."²³

Confederate veterans associated with postbellum academia proved integral to the formulation and promotion of the New South ideology that developed after the Civil War. They joined an assortment of editors, industrialists, middle class professionals, planters, and politicians, who encouraged Southerners to build an industrial base, engage in diversified and scientific agriculture, and develop the South's raw materials. New South proponents urged Southerners to encourage immigration into the region in order to provide requisite capital and industrial skills to help accomplish these goals. They also encouraged an appreciation of the dignity of labor in an effort to

²³Lewis, Address...1881, p. 4; typescript copy on microfilm of Isaac Taylor Tichenor, Fifth Annual Report to the Board of Directors of the Agricultural and Mechanical College of Alabama, 8 January 1877, Tichenor Papers; B. B. Lewis, Memorial Address...At the Laying of the Memorial Stone of the New University Hall, May 5, 1884 and Baccalaureate Address, Delivered on Commencement Day, June 18, 1884 (n. p., n. d.), p. 4, in the Alabama Collection; Curry, "Education at the South," pp. 80-82; William Preston Johnston, "Higher Education in the South," Regents' Bulletin 9 (August 1892): 12-25, in folder 21, box 49, Johnston Collection; Joseph W. Taylor, The Young Men of the New South: Their Education, Duties and Rewards. An Address Delivered before the Phi Sigma and Hermean Societies, at Commencement of the University of Mississippi, on June 23, 1869... (Memphis: Hite & Corwine, 1869); Clapp, p. 5. See also Haygood, p. 12.

encourage white Southerners to provide for themselves. Advocates of the New South also called for national reconciliation in order to end the sectional political conflict that distracted Southerners from the work before them.²⁴

Although the most conspicuous proponents of the New South creed outside of academia ignored Southern education until after 1900,²⁵ New South academics of the Civil War generation created and advanced the ideology's tenets through classroom lectures, journal articles, institutional reports, and public addresses. They interpreted Confederate defeat as the result of the antebellum South's failure to espouse the cause of industrial and technical progress. In order to rectify this deficiency, they reasoned that the "New South" demanded "a new education."²⁶

²⁴See Edward L. Ayers, The Promise of the New South: Life After Reconstruction (New York & Oxford: Oxford University Press, 1992); Paul M. Gaston, The New South Creed: A Study in Southern Mythmaking (New York: Alfred A. Knopf, 1970); Dewey Grantham, Southern Progressivism: The Reconciliation of Progress and Tradition (University of Tennessee Press, 1983); Howard N. Rabinowitz, The First New South (Arlington Heights, IL: Harlan Davidson, Inc., 1992); Jonathan M. Wiener, Social Origins of the New South: Alabama, 1860-1885 (Baton Rouge and London: Louisiana State University Press, 1978); Woodward.

²⁵Gaston, pp. 105-106.

²⁶D. F. Boyd, Address to the Graduating Class, Delivered June 30th, 1869 (New Orleans: Jas. A. Gresham, n. d.), p. 10; Henry D. Clayton, "Commencement Address," typescript, n. d. [c. 1886-1889], folder 9, box 318, Henry DeLamar Clayton Collection, Hoole Special Collections Library; Horace Harding to the Board of Trustees of the University of Alabama, 17 October 1876, folder 1520, box 7, Record Group

The term "New South" in effect served as an analogue for progress. Academics and their supporters who embraced progress defined the idea as the predestined millennial march of civilization toward ever greater industrial and scientific accomplishments. The idea of inevitable progress served Southern academics in two ways. First, it enabled them to escape blame for the South's defeat. Second, faith in progress provided them with hope that the South would regain its prosperity. New South academics believed that the North's industrially supported armies inescapably brought devastation upon their region. Therefore, they reasoned that the progress that had destroyed the

1, Trustee Records, University Archives, Hoole Special Collections Library; letter from Walter B. Hill to Mary Clay Hill, [3?] July 1869, in Walter B. Hill, College Life in the Reconstruction South: Walter B. Hill's Student Correspondence, University of Georgia, 1869-1871, ed. G. Ray Mathis (Athens: University of Georgia Libraries, Miscellanea Publications, No. 10, 1974), p. 97; address of Stephen D. Lee in Clarion-Ledger (Jackson, MS), 20 June 1889; Wm. Preston Johnston, The University. Its Dangers and the Remedies. An Address...at the Commencement of the University of Texas, June 14, 1884 (Austin: Warner & Co., 1884), p. 22; Lewis, Address...1881, pp. 3-4; Samuel H. Lockett, "Immigration to Louisiana. Her Fitness for White Immigrants, How to Get Them," ms, [c.1867-1873], folder 49, box 3, Lockett Papers; Official Register of the Louisiana State Seminary...1869 (New Orleans: n. p., 1869), pp. 16-17; J. W. Mallet, Chemistry Applied to the Arts, pp. 4-7; M. F. Maury, "Circular," vol. 26, Maury Papers; Ashbel Smith, "Address on the Laying of the Corner Stone of the University of Texas," in Catalogue of the University of Texas for 1883-84 (Austin: E. W. Swindells, 1884): 55; Montgomery Advertiser, 22 April 1886; Tichenor, Reports, 8 January 1877 and 25 June 1877, Tichenor Papers; Francis H. Smith, Address...1866, p. 10; William LeRoy Broun, "Industrial Education," in Report of the Board of Supervisors of the Louisiana State University...1878 (New Orleans: Office of the Democrat, 1878), appendix, p. 17.

Confederacy would ultimately rebuild an even more prosperous postbellum South.

Southern progressivists subscribed to a faith in progress that can be described as scientific millennialism. Reared in a Protestant tradition that taught of Christ's millennial return and the establishment of a paradisiacal kingdom, progressivist academics and their supporters easily fused this doctrine with their secular faith that inevitable scientific progress would eventually create a Southern paradise. The South, after suffering the death and destruction of the Civil War, could find resurrection and redemption through industry and science. Those who believed that scientific education promised to raise up the New South frequently infused Biblical language into their predictions of progress. The classically educated former Confederate general Jonathan T. Morgan assured the literary societies of the University of Alabama in 1875 that science guaranteed Alabama's future progress. "Alabama is a representative Southern State of the new era," Morgan claimed, "now just beginning to dawn after a long period of sad humiliation." He claimed that the future development of the state's natural resources would enable Alabamians to "behold with rapturous gaze the dawning revelations of her [Alabama's] coming glory and pray for lengths of days that we may be here to enjoy its effulgence with our children." Atticus Haygood urged Southerners to "press forward, following the

pillar of cloud and fire always" toward the New South of free labor and industry. Joseph Taylor believed that university graduates would be "at the forefront of the march" in the imminent "industrial regeneration of the South." He claimed to "see them with banners" and hear their "jubilant shouts of victory" as they entered the promised land of "rich pastures and the flowing abundance of the New South of the future. Blessed and crowning consummation, let it come--let it come!"²⁷

The rapid development of new technologies, which generated enormous material wealth in the nineteenth century, greatly impressed New South academia. Former Confederate general Edmund Kirby Smith, professor of mathematics at the University of the South, expressed amazement at the scientific progress he viewed around him. It led Smith to believe humankind would "move onward, inevitability, the wave of progress until all that is great

²⁷John T. Morgan, Address...Before the Erosophic and Philomathic Societies, of the University of Alabama, July 6th, 1875 ([Tuscaloosa?]: n. p., 1875). The Biblical reference is to Proverbs 3:2; Boatner, III, pp. 566-567; Haygood, pp. 9, 12. See Exodus 13:21 and 14:19, 24; Taylor, Young Men of the New South, p. 23. Compare with Revelation 22:20; see also Robert A. Hardaway, "Condition of the South," typescript transcribed from a clipping from an unidentified newspaper in Robert A. Hardaway, "Book," pp. 104-107, compiled between 1870 and 1900, on microfilm #3006, SHC-UNC. On the South's religious tradition see Anne C. Loveland, Southern Evangelicals and the Social Order 1800-1860 (Baton Rouge: Louisiana State University Press, 1980), pp. 264-265, Faust, Confederate Nationalism, pp. 22-33, and Charles Reagan Wilson, "The Religion of the Lost Cause: Ritual and Organization of the Southern Civil Religion," Journal of Southern History 46 (May 1980): 219-238.

and good and godlike in the race shall have been evolved and developed." A. G. Clopton noted, in his eulogy for the president of the Board of Regents for the University of Texas, Ashbel Smith, that "human progress is accelerated beyond anything the minds of our ancestors could conceive." Southern academics marveled at physical powers unleashed by the steam engine and electricity. "We live in an age of steel, steam, and electricity," Broun observed, "Never in the history of the human race was more activity manifested than in the present." Broun attributed all of the "boasted civilization of the Nineteenth Century" to "progress in science." Johnston echoed that science "harness[ed] all the forces of nature as steeds of progress."²⁸

The enormity of nineteenth century material progress that stemmed from scientific invention led New South academics and their supporters to abandon republican fears

²⁸Edmund Kirby Smith, undated and untitled ms draft of commencement address to an unnamed school for girls, in folder 67, box 5, Edmund Kirby Smith Papers; A. G. Clopton, "From the Eulogy on the Life and Character of Ashbel Smith," in Catalogue of the University of Texas for 1886-7 (Austin: State Printing Office, 1887): 105; [William] LeRoy Broun, "Technical Education: Baccalaureate Address of President Leroy Broun, of the A. & M. College," Montgomery Weekly Advertiser, 7 July 1885, clipping in folder 21, box 3, McBryde Family Papers, SHC-UNC; Broun, "Industrial Education," p. 17; William Preston Johnston, "Address before the Camera Club," ms, folder 20, box 49, Johnston Collection. See also Mallet, Chemistry Applied to the Arts, pp. 4-7; [Francis Henry Smith], untitled ms address [n. d., draft of a speech on technical education] in Harrison, Smith, and Kent Family Papers, box 1, Manuscripts Department, Alderman Library, University of Virginia; Benjamin H. Hill, "Speech Delivered...July 31, 1871," p. 335; Maury, "Inaugural Address."

of societal decay and embrace the idea of "permanent" or "perpetual progress." They believed that the continued development of new technology would resurrect the fortunes of the South and enable American society to escape cyclical degradation. The idea that progress offered "permanent improvement," "permanent prosperity," and "permanent wealth," pervaded the discourse of New South academics. Technological achievements appeared immune from retrogression. As commencement speaker John Goode noted at the University of North Carolina in 1887, "the achievements of the inventor are permanent. They flow on in a perennial and an undying stream, and influence the most distant posterity."²⁹

New South academics replaced the belief that progress through societal stages ultimately led to decay with the concept that progress prevented declension. John Lee Buchanan, professor of ancient languages at Emory and Henry college, argued that human progress need not know any limits. "God," Buchanan claimed, "hath not said to the

²⁹Burwell, Address, p. 7; Benjamin H. Hill, "Speech Delivered...1871," p. 340; Eug[ene]. W. Hilgard, Address on Progressive Agriculture and Industrial Education, Delivered Before the Mississippi Agricultural and Mechanical Fair Association, at Jackson, November 14th, 1872 (Jackson, Miss.: Clarion Book and Job Office, 1873), p. 5; William T. Sutherlin, Address Delivered Before the Mechanics' Association of Danville, Va. March 11, 1867 (Richmond: Enquirer Steam Presses, 1867), pp. 26-27; Morgan, pp. 4-6; Tichenor, Report, 8 January 1877, Tichenor Papers; Harding to the Trustees, 17 October 1876; Lewis, Address...1881, p. 3; Goode quoted in Battle, History, vol. 2, p. 385.

nations as He has to the ocean,' thus far shalt though go and no farther....Growth or decay must be our history. Of most other nations it has been growth *and* decay." Likewise, Broun favorably quoted Francis Wayland's opinion that "God intended us for progress, and we counteract his design when we deify antiquity and bow down and worship an opinion, not because it is either wise or true, but merely because it is ancient."³⁰

Although progressivist academics embraced the idea of inevitable human advancement, they warned Southerners, akin to their Evangelical doctrine that one must choose to accept Christ to receive salvation, that they must elect to embrace progress lest they be denied its blessings. "The age is progressive," observed Taylor, and "as the car of improvement rushes on with lightning speed, laggards in the race, whether they be individuals or communities, are left in the rear." Boyd criticized the slow pace of Southern development after the war, which he believed "would seem to speak badly of our spirit of enterprise and our progress as a people." William Burwell warned the faculty and students

³⁰John Lee Buchanan, "Address Delivered before the Calliopean & Hermesian Societies, June 16th, 1874," in May, appendix, pp. 98, 106. Emphasis is original; Wm. LeRoy Broun, Improvements Required in Southern Colleges. Read before the Teachers' Association of Georgia, in Macon, Decb'r 19th, 1867 (Macon, GA: J. W. Burke & Co., 1868), p. 3n. See also Andrew A. Lipscomb, Report to the Board of Trustees of the University of Georgia, in Trustees' Minutes, 25 July 1871, and Hillary Herbert's quote of William H. McGuffey, professor of moral philosophy at the University of Virginia, in Herbert, p. 8.

of LSU in 1871 that "Progress is a locomotive, you can either ride on or be run-over by it at your option." Eugene Hilgard, professor of agricultural chemistry at the University of Mississippi, criticized the South's slow development of scientific agriculture. "How much more ought we to do," the former scientist for the Confederate Nitre Bureau charged, "with the additional advantages given us by the gigantic progress of the arts and sciences, advancing hand in hand so fast that but few of us are able to fully keep up with their progress."³¹

Broun cautioned Southerners that they could no longer plant cotton, debate politics, and ignore the social revolution wrought by the Civil War. "We cannot stand still," he warned, "To stand still now is to lag behind. We must go forward; we must keep pace of the age, we must diversify our industries." For New South academia, stasis, not progress, brought eventual societal decline. Burwell claimed that "the price of liberty is not," as traditional republicans believed, "eternal vigilance. It is perpetual progress." Stephen Lee cast aside republican fears of population density when he told a Mississippi audience not

³¹Taylor, Young Men of the New South, p. 10; D. F. Boyd, Address of [the] Superintendent Louisiana State Seminary, to the Graduating Class, Delivered June 30, 1869 (New Orleans: Jas. A. Gresham, 1869); Burwell, Address, p. 7; Hilgard, Progressive Agriculture, pp. 11-12, 26-31. Emphasis is original.

Concerning the human effort necessary to bring about the millennium, see Cremin, National Experience, pp. 17-18, 36-7, 57.

to worry about the lack of immigration into the state. Immigrants would come, Lee assured his listeners, because Mississippi was destined to acquire a dense population. Whereas, antebellum republicans hoped to discover a means by which societies could sustain the agricultural phase of social development, postbellum progressivist academics wanted to move society forward to the next and, what they believed to be, perpetual and industrial stage.³²

New South academics believed that the outcome of the Civil War demonstrated the inability of republican agrarianism, supposedly the most viable of societal stages and epitomized by the Old South, to economically or militarily compete against a modern, complex, and industrial society. "In our own country," Horace Harding, professor of engineering at the University of Alabama observed in 1876, "compare in the past as well as in the present, the agricultural South, with the agricultural, commercial, and manufacturing North." Harding, who managed the Mobile and Ohio Railroad for the Confederate government, believed the South fared less well by comparison. Broun argued that Southerners needed to wean themselves from the region's dependence on agriculture. "No nation of agriculturalists,

³²Broun, Science Education, pp. 14-15; Burwell, Address, p. 7. Benjamin Hill, "Speech Delivered... July 31, 1871," p. 335; Clarion (Jackson, MS) 23 June 1886. See also David F. Boyd, "Appeal to the People of Louisiana," in Official Register of the Louisiana State University...1871-1872 (New Orleans: A. W. Hyatt, 1872): 74-75.

ever in the history of the world, has successfully competed with a nation of mechanics," claimed Broun, echoing words nearly identical to those that his friend David Boyd heard from Sherman. "Herein consisted, as past years demonstrated," Broun concluded, "the great weakness of the Southern States."³³

New South academics and their supporters believed that in order for Southerners to join the progress of civilization they needed to reconcile themselves with the Union. Progressivist educators proclaimed reconciliation an easy task and pointed to the willingness expressed by most white Southerners to return to the Union as evidence that Providence meant for the perpetual progress of the Republic. Dr. Bartholomew Egan, Louisiana's state chemist during the war and a member of the Louisiana State Seminary's board of supervisors, told a seminary audience in 1866 that Southerners presented a "spectacle unparalleled in the annals of nations. They accept with dignified submission inevitable results...[and] only ask...[that] they be permitted to aid in working out the great destinies ordained of God for this, the greatest Republic of all time." A. J. Peeler told an audience at the Texas Agricultural and

³³Harding to the Board of Trustees, 17 October 1876; Broun, "Industrial Education," p. 27. Compare with Boyd, "Sherman," p. 10, noted above in Chapter 2, p. 117. On the friendship between Boyd and Broun, see their correspondence in box 7, folder 57, W. LeRoy Broun Letters (1873-1887), Fleming Collection and in the Broun Collection.

Mechanical College that Americans would remember their civil war as "one of the most magnificent instances of faith in national unity and destiny, shining out from beneath the clouds of national adversity the world has ever seen."

William L. Bringhurst, a former Confederate ordnance officer and variously professor of English, history, and physics at Texas Agricultural and Mechanical College, exulted "let us be glad and thank Heaven that the Union lives."³⁴

Commencement speakers urged their young listeners to sustain the Union and lauded the material benefits that awaited a reconciled South. Confederate defeat, New South academics claimed, demonstrated Southerners' dependent circumstances. "Better a State in the Union, than a Cuba, Canada, or Algeria," Burwell warned, "You have only to look around and see every garment, implement and weapon, imported in foreign vessels...to feel that a people so dependent could not maintain a position among independent nations of the Earth." Similarly, Richard M. Venable, a former

³⁴Bartholomew Egan, Address Delivered at the Commencement Exercises of the Louisiana State Seminary and Military Academy (Alexandria: n. p., 1866), pp. 5-7; A. J. Peeler, Address...1877, p. 2; Josiah Granville Leach, History of the Bringhurst Family with Notes on the Clarkson, De Peyster and Boude Families (Bossier City, LA: Everett Companies, 1989), pp. 66, 83-84; Andrew B. Booth, ed., Records of Louisiana Confederate Soldiers and Louisiana Commands, 3 vols. (Spartanburg, SC: Reprint Co., 1984), vol. 1, p. 118; Bringhurst quoted in typescript copy of "Davis Memorial Day," College [Texas A & M] Journal I (December 1889): 11-13, in W. L. Bringhurst Vertical File, University Archives, Texas A & M, College Station. See also Clapp, p. 4, and letter from N. H. R. Dawson to B. S. Ewell, 11 May 1887, box 2, Ewell Papers.

Confederate officer and a postbellum professor of engineering at the Louisiana State Seminary, wrote Boyd that "If not tied to the U[nited] S[tates], she [Louisiana] would sink to the level of the Central American States."³⁵

Some Southern academics hoped to relieve the pecuniary needs of their institutions through the cultivation of reconciliatory sympathies. Benjamin Ewell, adjutant general under Confederate General Joseph E. Johnston, repeatedly solicited the help of prominent Northerners, especially Union generals, after the war to raise funds in the North for his beloved but destitute College of William and Mary. Henry Ward Beecher, Ulysses S. Grant, George B. McClellan, George G. Meade, William T. Sherman, among others, responded favorably to Ewell's appeals. Possibly in gratitude to Grant for his efforts on behalf of the college, Ewell publicly supported the former Union general in his reelection campaign for the presidency in 1872.³⁶

³⁵Burwell, Address, pp. 13-14; letter from R. M. Venable to David Boyd, 30 September 1873, in Richard M. Venable Letters and Related Items, 1865-1882, folder 164, box 12, Fleming Collection.

³⁶Letter from Benjamin S. Ewell to Charles S. Sumner, 16 March 1867, box 1, Ewell Papers; copy of printed letter from Henry Ward Beecher to [potential William and Mary subscriber], 9 April 1867, box 1, Ewell Papers; letter from U. S. Grant to Benj. S. Ewell, 30 April 1867, box 1, Ewell Papers; letter from U. S. Grant to the Public, 22 December 1868; letter from A. E. Burnside to Benj. S. Ewell, n. d., box 1, Ewell Papers; letter from W. T. Sherman to [potential William and Mary subscriber] 19 April 1869, box 1, Ewell Papers; letter from Geo. B. McClellan to Benj. S. Ewell, 6 December 1869, box 1, Ewell Papers; Circular, 18 May 1872 [announcement of Ewell's support for Grant's presidency],

Shortly after the end of Reconstruction in Louisiana, David Boyd demonstrated that he harbored no resentment against the North by encouraging Northern parents to send their children to the financially strapped Louisiana State University. Where, Boyd enticed, they "will be welcome-- well taught and well treated by kind generous Southern people." There is little doubt as to the sincerity of Boyd's reconciliatory attitude, however. Only four years upon war's end, Boyd praised his friend Sherman at a seminary commencement as "one of the great captains of the age, [who] as a reward for his brilliant services, now commands the armies of the Union." Boyd's son LeRoy remembered that after the war his father cheerfully entertained numerous former Union officers in his home, including Grant, David Farragut, Winfield Hancock, George H. Thomas, and Sherman.³⁷

Hill expressed his reconciliatory sympathies when he claimed Abraham Lincoln as a Southern president. Josiah Gorgas engaged in his effort to effect national reconciliation when he asked President Ulysses S. Grant to appoint Gorgas' son to West Point in January 1876. Grant

box 1, Ewell Papers.

³⁷D. F. Boyd in Official Register of the Louisiana State University and Agricultural and Mechanical College 1877-1878, pp. 80-82; D. F. Boyd, Address...1869, p. 3; Leroy S. Boyd, "Recollections of the Early History of Nu Chapter of Kappa Alpha Fraternity at the Alabama Polytechnic Institute, Arlington, Virginia, November 22, 1933," in Leroy Stafford Boyd Collection, University Archives, Auburn.

failed to oblige the former Confederate ordnance chief's request because the president had already exhausted his appointments. Tichenor wanted Alabama A & M's board of directors to provide funds in order that the college's eighty-eight students could go celebrate the Union's centennial at the national exposition in Philadelphia. In an effort to encourage capitalists to invest in Alabama, he also hoped the school would provide an exhibit exemplifying the state's industrial and natural resources.³⁸

New South academics viewed their Northern counterparts as "men of science," whose interest in scientific curricula, support for public education, and faith in progress, nearly approximated their own. Southern educators exploited informal friendships and formal contacts with Northern academia to solicit advice about curricula reform and university organization. They joined national education organizations. Southern collegiate presidents and faculty also quickly resumed the antebellum practice of touring expensively equipped and well funded Northern colleges and universities in order to examine and familiarize themselves with new scientific apparatus and discuss the latest pedagogical methods. Both Northern and Southern educators

³⁸H[ill]., "Education [Part I]," pp. 5-8; Hill, Old South, p. 11; Vandiver, pp. 301-302; Tichenor, Fourth Annual Report to the Board of Directors of the A and M College of Alabama, 12 July 1875, Tichenor Papers.

noted publicly and privately the reconciliatory character of their encounters.³⁹

The assassination of President James A. Garfield also offered New South academics a public opportunity to display reconciliatory sentiments. Daniel Hill, while president of the Arkansas Industrial University, agreed to a request from the faculty to deliver a memorial address on Garfield's

³⁹Letter from Richard Sears McCulloch to David F. Boyd, 17 October 1877, Richard S. McCulloch [sic] Letters and Related Items, folder 116, box 10, Fleming Collection; Proceedings of the Third Annual Convention of the Association of American Agricultural Colleges and Experiment Stations...1889 (Washington: Government Printing Office, 1890), p. 11; Trustees' minutes, 19 June 1869, University of Mississippi; Patron of Husbandry (Columbus, Mississippi), 26 June 1880; letter from Eugene A. Smith to W. G. Clark, 11 June 1887, folder 86, box 4, Record Group 1, Trustee Records, University Archives, University of Alabama; letter from Charles Phillips to John Kimberly, 8 July 1875, folder 55, box 4, Kimberly Papers; Montgomery Daily Advertiser 20 September 1883; letter from William C. Stubbs to D. F. Boyd, 25 May 1885, in folder 4, box 1, David F. Boyd Papers, University Archives, Auburn University; letter from John Eaton to William LeRoy Broun, 28 April 1880, folder 53, box 4, Broun Collection; letter from J. M. Gregory to Wm. LeRoy Broun, 13 July 1868, folder 19, box 2, Broun Collection; Johnston, University: Dangers and Remedies, pp. 8-9; Samuel H. Lockett, "Report of Visit to Various Schools, Colleges, Universities and Public Works in the Northern States and Canada" in Annual Report to the Board of Supervisors [of Louisiana State University] for 1871-1872 (New Orleans: n. p., 1872): 73-85; letters from various academics to David F. Boyd included in Annual Report of the Louisiana State University, for the Year 1874, to the Governor of Louisiana, (New Orleans: Republican Office, 1875), pp. 34-65; Battle, History, vol. 2, p. 122; letter from C. S. Venable to William LeRoy Broun, 9 April 1878, folder 46, box 3, Broun Collection; Alexander Hogg, "Lacks and Needs of the South Educationally: The Development of Her Natural Resources, the Remedy," Addresses and Journal of Proceedings of the National Educational Association...1876 (Salem, Ohio: Office of the National Teacher, 1876), pp. 73-76; Mayo, Training of Teachers in the South.

behalf. Ashbel Smith claimed to sympathize "with my whole heart in the universal joy that the President's life was saved. And I rejoiced exceedingly at the manifestations by the whole South of our horror and indignation of the crime and of our sincere rejoicing at the failure [of] the pitiful assassin." Louisiana State University's president, William Preston Johnston, expressed his "profound regret at so horrible a crime" and offered his and the board of supervisors' "sincere sympathy for [the president's] recovery and welfare" to Garfield and his family. Several years after Garfield's death, Johnston put the dead president in the same company as Daniel Webster and John C. Calhoun as among the nation's most eminent "public men."⁴⁰

In an effort to ease the trauma of reconciliation and the shock of the South's defeat, New South proponents, including educators, joined their Northern counterparts in celebrating the "Cult of the Anglo-Saxon," which appeared with increasing frequency as the nineteenth century progressed. Antebellum advocates of Manifest Destiny,

⁴⁰Ms Minutes of the Faculty, Arkansas Industrial University, on microfilm, 23 September 1881, University Archives, University of Arkansas; typescript copy of letter from Ashbel Smith to Oran M. Roberts, 19 July 1881, in Oran Milo Roberts Papers, Box 2F476, Barker Texas History Center, University of Texas, Austin; ms Minutes of the Board of Supervisors for the Louisiana State University and Mechanical College, 2 July 1881, in the Louisiana and Lower Mississippi Valley Collections; letter from William Preston Johnston to Dear Wife, 3 July 1881, folder 12, box 20, Johnston Collection; Johnston, University: Dangers and the Remedies, p. 15. See also [Louisiana] Journal of Education 3 (November 1881): 211.

including Southerners, advanced the idea of Anglo-Saxon superiority in the 1840s to justify national expansion across the North American continent at Mexico's expense. They viewed national advances in material progress as evidence that American civilization surpassed all previous cultures. They claimed the material prosperity of the United States resulted from the intellectual superiority of the Anglo-Saxon "race" which immigrated to North America from Great Britain. Occasionally, American intellectuals celebrated the fusion of Anglo-Saxon, German, Norman, or Celtic "races" which they believed created an unique all "conquering, world subduing race." They asserted that God's plan for Anglo-Saxons required their expansion to the Pacific in order to develop the resources of the entire continent.⁴¹

⁴¹A. D. Mayo, The Third Estate in the South: And Address delivered before the American Social Science Association, at Saratoga, N. Y., Sept. 2d, 1890 (Boston: George H. Ellis, 1890), p.16; Alva Woods, Valedictory Address, Delivered December 6, 1837, at the Close of the Seventh Collegiate Year of the University of the State of Alabama (Tuscaloosa: Marmaduke J. Slade, 1837), pp. 3-7; Ashbel Smith, Address Delivered in the Chapel at West Point Before the Officers and Cadets of the United States Military Academy...June 16, 1848 (New York: W. L. Burroughs, 1848), pp. 7-16; John A. Campbell, Address Delivered Before the Alumni Society of the University of Georgia (Athens: J. S. Peterson, 1853); W. W. Avery, p. 13; Alexander M. Clayton, Commencement Address...Read Before the Law Students of the University of Mississippi on the 26th Day of June, 1860 (Oxford, Mississippi: n. p., 1860), p. 6.

On the "Cult of the Anglo-Saxon" in American thought, see Paul F. Boller, Jr., American Thought in Transition: The Impact of Evolutionary Naturalism, 1865-1900 (Lanham, NY: University Press of America, 1981), pp. 212-226, Richard Hofstadter, Social Darwinism in American Thought

After the Civil War, New South academics minimized the importance of Confederate defeat and the apparent lack of technological progress in the South by celebrating the material and moral accomplishments of "Anglo-Saxon," "Anglo-Norman," or "Teutonic" culture, in which Southerners claimed to share. "The history of the Teutonic Race is the history of man's highest achievements," declared Burwell Lewis, "and their peculiar environments in America have given distinctive features to their progress in the New World." Southern academics used Anglo-Saxonism as a means of promoting sectional reconciliation by offering most white Americans a common heritage after a divisive war. William Preston Johnston touted the racial progress and unity of Northerners and Southerners when he told a New York audience in 1892 that the

Southern people, like yourselves, are with few and inconsiderable exceptions of pure British origin ...[and] are eminently a superior race, high in the peerage of nations. They are the elect of the same blood and lineage as yourselves, descendants of sires who were next of kin, indeed to your own sturdy Dutch Ancestors and Pilgrim fathers.

Southern academics praised Anglo-Saxon family life, political skills, inventive genius, and language. They only occasionally asked themselves, however, why the South

1860-1915 (Philadelphia: University of Pennsylvania Press, 1945), pp. 146-154, and Peter Novick, That Noble Dream: The "Objectivity Question" and the American Historical Profession (New York: Cambridge University Press, 1988), pp. 80-84.

appeared to trail the rest of the so-called Anglo-Saxon world in material progress.⁴²

The glorification by American academics and intellectuals, North and South, of Anglo-Saxon culture stemmed from their celebration of progress. They embraced the Social Darwinist notion that competition generated material and moral progress. They also believed that racial superiority could be determined by measuring the progress of each race. American academics frequently cited the technological progress of the nineteenth century, which they credited almost entirely to Saxon ingenuity, as evidence of the racial superiority of Anglo-Saxons. Blacks, Social Darwinists charged, demonstrated comparatively little or no progress.⁴³

Southern academics familiarized themselves with the evolutionary and progressivist ideas of Charles Darwin, Thomas Huxley, and Herbert Spencer. Most, at least publicly, rejected as blasphemous the concept that humankind physically evolved through competition and natural

⁴²Lewis, Address...1881, p. 2; Hill, University Address...1888, pp. 4-6; Johnston, Problems of Southern Civilization, pp. 6-7. See also his "Origin of the English People," ms, n. d., folder 9, box 49, Johnston Collection; Edmund Kirby Smith, undated and untitled ms draft of commencement address to an unnamed school for girls; H[ill]., "Education [Part II]," p. 85; Broun, Science Education, p. 9; Kemp P. Battle, History, vol. 2, pp. 535-536; Curry, Address...1899, pp. 3-5.

⁴³Boller, Jr.; Hofstadter, Social Darwinism, 1944), pp. 147-153; Nisbet, pp. 286-295.

selection. The dramatic progress of physical science, however, convinced Southern academics to accept the idea that human capabilities evolved through this process. They found little difficulty in accepting the progressivist (pseudo-) science that fit their racial and theological beliefs, and rejecting that which did not. The New South academics of the Civil War generation, in particular, adopted the language of Social Darwinism because it helped them to understand the historical connection between conflict and progress. "The war and reconstruction left southern society sadly seamed and scarred in divers ways," observed Johnston in 1891, "but they sifted and winnowed the weak and base material and the south is to-day tougher, more self-contained, more versatile and better trained for the hard contest of modern civilization than ever before." The New South which emerged from this process, Johnston claimed, "is the direct evolution of the old south." Kemp P. Battle, professor of history at the University of North Carolina, believed his academic field provided humankind with "a logical view of the great stream of human events and the evolution of races and nations." Hilary Herbert argued that technical education aided social evolution. He encouraged government to provide the resources for scientific research and training in its universities whereupon "we shall have

'the survival of the fittest,' and great men in every branch of science."⁴⁴

The belief maintained by some academics that African-Americans would eventually disappear or cease to work in the face of labor competition from whites also helped foster Southern academia's acceptance of Social Darwinism. Some postbellum Southern academics embraced the racist fantasy that the destruction of slavery would result in the ultimate disappearance of African-Americans from the South. "The negro," wrote Gorgas, "will disappear in any event before the moral and intellectual superiority of the whites." Southern academics claimed African-Americans lacked the supposed progressivist predisposition of whites. Maury commented on the "constantly diminishing numbers" of African-Americans after the war, which he attributed to "the proverbial improvidence of the race." Stephen Lee claimed that from "a statistical standpoint, the outlook for the

⁴⁴Battle, Memories, pp. 266-267; Broun, Improvements, p. 27; Lewis, Baccalaureate Address: A Plea for Popular Institutions (n. p., n. d.), pp. 4-7, pamphlet located in Burwell Boykin Lewis Verticle File, Hoole Special Collections Library. The Montgomery Daily Advertiser also published the address 19 September 1883; H. H. Dinwiddie, Industrial Education in Our Common Schools...A Paper Read Before the Texas State Teachers Convention...at Waco, Texas, July 1, 1885 (Fort Worth, TX: Loving Printing Co., 1886), p. 5; Buchanan, "Address," in May, appendix, pp. 97-107; William Preston Johnston, untitled typescript labeled "Speech at a Meeting of Scientists," in Untitled Addresses, Johnston Collection; "In Memory of Professor [John W.] Mallet," Alumni Bulletin [University of Virginia] VI (January 1913): 21; Johnston, Problems of Southern Civilization, p. 9; Catalogue of the University of North Carolina...1890-1891, p. 51; Herbert, pp. 6-10.

negro is not encouraging." He argued that without the progressivist influence of whites, African-Americans tended to "retrograde." Southern academics also believed that blacks would refuse to work without slavery. Robert A. Hardaway, a former artillery officer in the Army of Northern Virginia who served as professor of engineering at Alabama Agricultural and Mechanical College and the University of Alabama, advised Southern whites that "it is useless to be casting about for Sambo or Ah Sin to be a laborer for you. When we laid down the musket at Appomattox we had to take up the shovel and hoe." Hill claimed that "the negro population...can no longer be classed as a laboring element." In order to compensate for the South's supposed labor shortage, progressivist academics claimed scientific education would provide white Southerners the ability to develop labor-saving machinery.⁴⁵

Southern academia embraced Anglo-Saxonism because it provided white Southerners a share in the generation of

⁴⁵Gorgas, Diary, 13 January 1867; Matthew Fontaine Maury, Physical Survey of Virginia, Her Resources, Climate and Productions. Preliminary Report. No. II...July 1, 1877 (Richmond: N. V. Randolph, 1878), pp. 35-36; S. D. Lee, "The South After the War," in Confederate Military History, 12 vols., ed. Clement Anselm Evans (Atlanta: Confederate Publishing Co., 1899), vol. 12, p. 349; Robert A. Hardaway, "Condition of the South," typescript transcribed from a clipping in an unidentified newspaper in Robert A. Hardaway, "Book," pp. 104-107; H[ill]., "Education [Part II]," p. 84. See also Taylor, Young Men of the New South, pp. 18-19, Charles Gayarre, "Mr. Cable's Freedman's Case in Equity," Times-Democrat (New Orleans), 11 January 1885, Mallet, Chemistry Applied to the Arts, p. 6, and Tichenor, Report, 25 June 1877, Tichenor Papers.

progress. New South academics accepted Social Darwinism because it explained how progress occurred through competition and conflict. They turned to history to explain why progress only slowly reached the South and why the Confederacy lost the Civil War.

Postbellum Southern academics of the Civil War generation who promoted progress and embraced the New South vigorously engaged in the study of their region's recent past. Confederate veterans looked to history to vindicate their reasons for fighting the war. Former Confederate officers especially wanted to use history to provide proof of their wartime prowess and defend themselves from charges of incompetence. Personal assertions of bravery and skill proved little in the atmosphere of acrimony and recrimination that prevailed among veterans who wrote addresses, articles, and letters defending their actions in order to escape censure and blame others for personal military failures.⁴⁶

⁴⁶Hal Bridges, Lee's Maverick General: Daniel Harvey Hill (New York: McGraw-Hill Co., Inc., 1961), pp. 1, 273-277; Wilson, Baptized in Blood, p. 37; Harold Eugene Mahan, "The Final Battle: The Southern Historical Society and Confederate Hopes for History," Southern Historian 5 (Spring 1984): 32. See also A Correspondence between Generals Early and Mahone (n. p., [c. 1871]), folder 97, box 3, James H. Lane Papers, University Archives, Auburn University; letter from J. B. Hood to S. D. Lee, 29 November 1866, Stephen Dill Lee Papers, on microfilm, Mississippi State University, courtesy of SHC-UNC; letter from Stephen D. Lee to J. H. F. Claiborne, 15 May 1878, Claiborne Papers.

The defense of their personal honor led many Confederates, especially those in academia, to gather evidence in the form of battle reports, maps, orders, and remembrances of eyewitnesses in order to justify their wartime actions. Confederate veterans who entered academia joined Northern academics in embracing the idea that the "modern" study of history required that this "innovative" discipline be studied as a "science." William Preston Johnston believed the study of history should be included with the new technical studies that increasingly appeared in the college curricula after the Civil War. The accumulation and proper interpretation of factual evidence, Southern academics believed, could be used to justify personal and societal behavior alike. Former Confederates believed that historical documents, carefully collected, sifted and impartially examined, promised to demonstrate white Southerners' military ability while simultaneously explaining why the Confederacy failed. Southern academics also believed that the scientific study of history offered them the opportunity to demonstrate the justness of their cause.⁴⁷

⁴⁷William Preston Johnston, "History: Its Place in a Liberal Education. Address of Wm. Preston Johnston, of Washington and Lee University, before the Educational Association of Virginia, at Staunton, Va., July 10, 1872," in bound volume entitled Addresses and Essays, First President of Tulane (n. p., n. d.), pp. 7, 10-11, 13, in Rare Books, Howard-Tilton Memorial Library, Tulane University; Johnston, "Lecture First: The Uses of History"; Tucker, pp. 14-15; letter from Jefferson Davis to S. D. Lee,

Southern academics helped form and joined regional and state historical societies and memorial associations dedicated to defending the region's history and Confederate military feats against supposedly slanderous attacks by Yankee critics. "We [must] not," Daniel Hill wrote Stephen Lee, "let the Yankee account of this struggle be transmitted to posterity." Hill hoped to use his journal, *The Land We Love*, to "vindicate the truth of history," as well as promote technical education and the development of Southern resources.⁴⁸

The Southern Historical Society, founded in New Orleans in 1869, counted Hill, who later served as president of Arkansas Industrial University, and Robert E. Lee, president of Washington College, among its vice-presidents. Upon the society's reorganization four years later, academics William Preston Johnston and Charles S. Venable served on its executive committee. All of these educators promoted

n. d., Stephen Dill Lee Papers; Hill, Old South, pp. 14-20; Riley, "What General Lee Read," pp. 160-161; J. B. Henneman, "Historical Studies in the South Since the War," Sewanee Review I (May 1893): 320-339; Wendell H. Stephenson, "Herbert B. Adams and Southern Historical Scholarship at the Johns Hopkins University," Maryland Historical Magazine XLII (March 1947): 2-19; Novick; Bledstein, p. 326.

⁴⁸Circular [c. 1870], Robert E. Lee Memorial Association, Stephen Dill Lee Papers; Alabama Historical Reporter (January 1880): 4, in folder 108, box 316, Clayton Collection; Louisiana Historical Association identification card issued to William Preston Johnston, folder 7, box 31, Johnston Collection; letter from C. M. Wilcox to Samuel H. Lockett, 3 November 1879, folder 27, box 2, Lockett Papers; letter from D. H. Hill to S. D. Lee, 29 June 1866, Stephen Dill Lee Papers.

scientific and technical instruction as well as historical studies. The society wanted to collect, classify, preserve, and publish "all the documents and facts bearing upon the eventful history of the past few years." The Southern Historical Society denied that it intended to cultivate a "purely sectional" or "partisan character," and like Daniel Hill, desired only to "vindicate the truth of history." Johnston claimed the organization wanted to prevent the perversion of "history--Northern and Southern" through the transmission of "a true record of the war" which required the preservation and unbiased evaluation of source materials necessary "to vindicate the truth of history."⁴⁹

While the organization's members clearly intended it to serve as a repository for evidence that they believed would ultimately justify white Southerners' behavior in connection with the Civil War, they also emphasized the reconciliatory nature of their endeavor. The society's Official Circular stated that "everything which relates to this critical period of our national history, pending the conflict, antecedent or subsequent to it, from the point of view of either, or both the contestants...is to be industriously collated and filed." The society's members believed that

⁴⁹Southern Historical Society, Official Circular, folder 99, box 3, Lane Papers; William Preston Johnson, untitled ms, [c.1870s], folder 12, box 50, Johnston Collection. Emphasis is original. See also Benjamin H. Hill, "Address Delivered...February 18, 1874," p. 405, and letter from R. L. Gibson to William Preston Johnston, 7 April 1891, folder 3, box 31, Johnston Collection.

the accumulation of primary source material would ultimately lead future "disinterested," or objective, historians to find "the secret thread...running through all history, upon which its single facts crystallize in the unity of some great Providential plan."⁵⁰

The academic members of the Southern Historical Society believed they could understand progress through the scientific study of history. Faith in progress requires a conception of the past which recognizes developmental change in successive events which account for the present and portend the future. Progressivist Southern academics turned to their Calvinist understanding of the linear movement of history toward a Providential destiny to help them intellectually accept national reunification. "We have a right to assume...that there is a Plan of Providence,--that a Divine law prevails in History as elsewhere," claimed Johnston while professor of history at Washington and Lee University. "To discover the workings of this law...to trace the development of man and society, to disclose order, adaptation, and causation in the progress of humanity," Johnston believed, "is the noble and fascinating province of the philosophy of History."⁵¹

⁵⁰Southern Historical Society, Official Circular.

⁵¹Southern Historical Society, Official Circular; Nisbet, pp. 47-48, 103; Tuveson; Buchanan, "Our Relations to the Past and the Future," n. d., in May, appendix, pp. 170-174; William Preston Johnston, "History: Its Place in a Liberal Education," pp. 6, 10, in Rare Books, Howard-Tilton

Ex-Confederates wanted an ideology capable of convincing themselves, and Northerners, that the former warranted an active role in the reunited nation's future. If white Southerners remained wedded to archaic defenses of secession and slavery, they promised to contribute little to the nation's progress and to receive only continued disparagement and hostility from Northerners. Yet, in order for Confederate veterans to feel secure and confident about their role in the reconstructed Union, required that they define their past in a manner that psychologically allowed them to embrace the future. This led New South academics to help create the intellectually connected ideologies of the "Old South" and the "Lost Cause."⁵²

The men who entered Southern academia immediately after the war and embraced the New South did not intend to denigrate their past. On the contrary, they held a psychic stake in elevating it. New South academics turned to history to defend the antebellum South and the performance of Confederate soldiers in the war. They claimed that the Old South raised up a race of men who brilliantly and gallantly battled a foe who possessed overwhelming resources. Those men staved off inevitable defeat for four years in their hopelessly Lost Cause for Southern independence. The sources they examined proved to the

Memorial Library, Tulane University.

⁵²See Foster, Gaston, and Wilson.

satisfaction of Confederate veteran-historians that the war occurred because of a misunderstanding between the sections over Constitutional principles. The almost universal moral stigma that arose in Western society against slavery in the nineteenth century, combined with the humiliation of Confederate defeat, encouraged most white Southerners, including academics, to cease defending slavery. The South's amateur and professional historians claimed that both Southerners and Northerners maintained morally correct reasons for going to war. The South fought for states' rights and the defense of their property (which they claimed only incidentally included slaves), while Northerners engaged in the equally honorable task of forging a more democratic and centralized Union.⁵³

Samuel Lockett observed that the purpose of the memorial celebration in Montgomery, Alabama, he addressed in 1875, was to honor those "who sacrificed their lives for the 'Lost Cause.'" Nevertheless, he felt compelled to tell the audience that "I for one am perfectly willing to acknowledge that the masses of the northern people were animated by pure and unselfish motives." He believed "it was their most sacred duty to answer the call" to save the Union.⁵⁴

⁵³William Preston Johnson, untitled manuscript, [c.1870s]; Broun, "Address...1891," p. 237; Lewis, Address...1881, pp. 3-4.

⁵⁴Samuel H. Lockett, "Address at Memorial Celebration," [Montgomery, Alabama], ms, 1 May 1875, folder 23, box 2, Lockett Papers.

New South academics realized, however, that Southern society failed to meet the task of defeating the North. Although advocates for change sometimes found themselves under attack because some white Southerners believed that praise for the New South implied criticism of the antebellum South, academics of the Civil War generation who promoted progress rejected the implication.⁵⁵

Johnston "welcome[d] the new south," but asked that "before we part with the old south let us see what it was, and what it did for the national welfare and glory." He praised antebellum Southern political achievements and slavery's supposed civilizing influence on African-Americans. He claimed Confederates lost the war only because the Union's superior resources "overwhelmed" them. Johnston argued that the New South, one in which he believed commerce, sawmills, mines, manufacturers, and railroads flourished, "draws its sap and vitality from a taproot deep down in the strong soil of a distant past." Likewise, Boyd noted that "we hear much of the new South. It is the same old South--risen Phoenix-like from the ashes...You, young men, are the rich legacy of the old South to the new South. It is old wine in new bottles--strong bottles that will not burst." Furthermore, Boyd claimed that the New South was

⁵⁵E. Merton Coulter, "The New South: Benjamin H. Hill's Speech Before the Alumni Society of the University of Georgia, 1871," Georgia Historical Quarterly 57 (Summer 1973): 183.

the South of Andrew Jackson and John C. Calhoun. Daniel Hill asked young Southerners to "admire and imitate whatever was grand and noble" of the Old South and to "reject whatever was wrong and defective."⁵⁶

Progressivist academics conceded that the antebellum South failed to satisfy the demands of progress because history demonstrated the ultimate inadequacy of slavery as a labor system and the supremacy of the Union over the states. Former Confederates in academia yielded intellectually what they previously surrendered on the battlefield, namely, to the necessity of abolition and a perpetual Union. The lessons of history demanded that Southerners accept reconciliation and embrace science and technology in order to build a physically prosperous New South. Through the application of scientific methodology to both the South's history and material resources, New South academics offered white Southerners psychic justification for their past and material hope for their future. They developed a progressivist vision of history that interpreted the New South, the Old South, and the Lost Cause, not as rival ideologies, but as interdependent creeds.

⁵⁶Johnston, Problems of Southern Civilization, pp. 3-19.; D. F. Boyd, Address...on the Anniversary of the Delta Rifles 4th Louisiana Regiment Confederate States Army at Port Allen, West Baton Rouge, La., May 20th, 1887 (Baton Rouge: Capitolian-Advocate Book and Job Print, 1887), pp. 4-7, 11. Emphasis is original; Hill, Old South, p. 6.

Ultimately, the honor of Confederate veterans proved more important to these men than national independence. The dogma of the "Old South" and "Lost Cause" stressed both the nobility and the inevitable failure of Confederate independence which enabled veterans to separate their conception of honor from that of victory. They sought to demonstrate their honor by developing a historical record of their courage, integrity, and military skill. They acknowledged, however, the truly "lost" notion of an independent South. History demonstrated the impossibility of Southern independence because the South's lack of antebellum material progress left the region incapable of defeating the industrial North. Higher education, New South academics argued, promised to serve as the vehicle by which Southerners would keep step with progress.

The first generation of New South academics, especially former Confederate officers, concluded that the Confederacy's failure demonstrated the necessity of abandoning the republican conception of progress, characterized by fears of cyclic societal decay, in favor of the modern idea of progress which emphasized inevitable and unlimited material improvement. These academics believed utilitarian education promised to create a prosperous New South founded upon industry and technology. Their belief in inevitable defeat permitted Confederate veterans-turned-academics to cherish the antebellum South, honor the memory

of the Confederacy, and reconcile with the North without recrimination for their failure to win Southern independence.

Colleges and universities administered by progressivist academics served as the vehicles which they used in their effort to convince white Southerners to accept their past and look forward to the future. Students learned of the coming New South in their classrooms. Graduates, parents, students, and others in attendance at alumni society and commencement day addresses listened to predictions that the South would rise from the ashes of its defeat and create a new, superior, industrial, and perpetually progressive civilization.⁵⁷ The New South academics of the Civil War generation strived to use technical education to turn their vision of a New South into reality. To accomplish this, however, progressivists needed to overcome the opposition of those who did not share their dreams.

⁵⁷On the immense popularity of commencements and other ceremonial speaking occasions in the nineteenth century, see E. Merton Coulter, "A Famous University of Georgia Commencement, 1871," Georgia Historical Quarterly 57 (Fall 1973): 347-361, and Waldo W. Braden and Harold Mixon, "Epideictic Speaking in the Post-Civil War South and the Southern Experience," Southern Communication Journal 54 (Fall 1988): 48.

CHAPTER 4
OBSTACLES TO PROGRESS

Progressivist academics believed that in order to "meet the wants of the New South" they needed to control at least some of the region's colleges and universities.¹ The Confederacy's collapse appeared to justify their charge that Southern higher education failed to provide the kind of instruction necessary to sustain a modern state. Defeat convinced many collegiate boards to employ personnel capable of organizing the scientific courses that promised to restore the South's prosperity. The persons hired to fill this role consisted of Confederate officers--many of whom received scientific training at military academies before the war--and progressivist academics whose antebellum and wartime warnings that the South's educational inadequacies could result in military disaster had apparently proved correct. Nevertheless, opposition to progressivist educators quickly emerged threatening to undermine their goals.

Confederate veterans in the immediate postwar years frequently criticized the predilection of antebellum white Southerners to look to politics to solve the South's sectional problems. The failure of classically educated politicians to secure the South's independence and the

¹[Tichenor], "Southern Agriculture," Stubbs Papers.

political uncertainties whites faced with Congressional Reconstruction taught many Southerners to reject politics and turn to academia to find a means of restoring prosperity. David Boyd claimed Southerners engaged in too much politics and exhibited too little enthusiasm for the mechanical arts before the war. He urged LSU's graduating class of 1870 to reconstruct the state, but "not so much *political* reconstruction [as] moral, social, and material!" Hardaway Hunt Dinwiddie, in his valedictory address to VMI's class of 1867, criticized those who "have been unmindful that educational systems looking to political preferment as the highest aim of student ambition must now be abandoned, while necessity...introduces a practical training that leads to achievements in the boundless fields of mathematical and technical science." Dinwiddie, who had interrupted his education at VMI to fight for the Confederacy, later taught chemistry and physics at Texas A & M, before becoming that school's faculty chair in 1883. Andrew Lipscomb, the chancellor of the University of Georgia, told a student preparing an address for his school's 1869 commencement not to include anything political and counseled that "our minds should be made to dwell as little as possible on the politics of the day."²

²H[ill]., "Education [Part I]," pp. 8-9, and "Education [Part III]," p. 239; Tichenor, Sixth Annual Report, 25 June 1877, Tichenor Papers; Boyd quoted in Germaine M. Reed, David French Boyd: Founder of Louisiana State University (Baton Rouge: Louisiana State University Press, 1977), p.

Progressivist academics developed an almost unshakable faith that scientific and technical instruction would create a new South. "There is no progress in modern civilization," asserted William LeRoy Broun, "without technical education." With little capital and virtually no industrial base left in the South, education offered an attractive and potentially self-reliant means for a defeated and depressed people to recover their prosperity. Technical education promised to provide Southerners with the inventive genius and skilled labor necessary to generate industrial development. To obtain these, they turned to their colleges and universities.³

"The first step of upward progress," Benjamin Hill declared before the University of Georgia Alumni Society in 1871, "is to build up our universities." Hill wanted

93. Emphasis is original; Hardaway Hunt Dinwiddie, "Valedictory Address, Class of 1867, Virginia Military Institute, July 4, 1867," photocopy from Alumni Review [VMI] (1985) in Hardaway Hunt Dinwiddie Vertical File, University Archives, Texas A & M; "Hardaway Hunt Dinwiddie," photocopy from Texas Farm and Ranch [1 January 1888], Dinwiddie Vertical File; Fifth Annual Report of the Agricultural and Mechanical College of Texas. Session 1880-1881 (Brenham, TX: Sentinel Print, 1881), p. 4; Report of the Agricultural and Mechanical College of Texas [1885], p. 5; letter from Walter B. Hill to Barnard Hill, 27 June [1869], in Student Correspondence, ed. Mathis, p. 94. See also James Allen Cabiniss, A History of the University of Mississippi (University, MS: University of Mississippi, 1949), pp. 79-89, and Paul H. Buck, The Road to Reunion 1865-1900 (Boston: Little, Brown and Co., 1947), pp. 35-38.

³William LeRoy Broun, "Baccalaureate Address Delivered at the Agricultural and Mechanical College, Auburn, Ala., June, 1888," in Broun, Dr. William LeRoy Broun, p. 245.

Southern schools to establish departments of agriculture, commerce, manufacturers, mining, and technology. Although the speech drew the ire of those who believed that his call for a New South disparaged the Old South, Hill's insistence that schools add courses in applied science to their curricula had already been heeded by many Southern colleges and universities. These schools, including the University of Georgia, wanted men who had put their scientific training to practical use--criteria met by most Confederate officers during the war--to build their programs in applied science.⁴

The University of Georgia, under the threat of Union forces, suspended operations in early 1864 and remained closed until January, 1866. Shortly after its reopening, Lipscomb urged the board of trustees to add classes in applied science to the curriculum. "Education...feels the revolution through which we have passed," he observed, and "must be adjusted to the new order of things." On July 4, 1866, the university established a civil engineering school. It also added agricultural science to the duties of the professor of natural philosophy. The trustees hired William LeRoy Broun to fill that position and changed his title to Professor of Chemistry, Geology, and Agriculture.⁵

⁴Benjamin H. Hill, "Speech Delivered...July 31, 1871"; Coulter, "New South," p. 183.

⁵Brooks, p. 46; Thomas G. Dyer, Georgia, pp. 107-111; Trustees' Minutes, University of Georgia, 28 June 1866 and 4 July 1866.

Lipscomb found a friend and ally in Broun who eagerly supported the chancellor's effort to reconstruct the university's curriculum. The week before Christmas, 1867, Broun delivered an address to the Georgia Teachers' Association entitled "Improvements in Southern Colleges," in which he claimed that the "altered condition of the people of the South" required them to adapt their system of higher education in ways capable of promoting prosperity. Broun called upon Southern colleges to adopt or expand technical studies, which he noted, entailed the purchase of expensive equipment. He also recommended that the South's schools follow the example of his alma mater, the University of Virginia, by adopting the elective system which would allow parents and students to choose their own course of study. This would enable Southern youths to specialize, which he claimed was necessary for them to master specific and increasingly complex sciences. The traditional prescribed course of studies, Broun complained, overemphasized ancient languages at the expense of technical studies. He argued that science education promised to give youth the skills to generate material prosperity, while antebellum classical educations had only taught young Southerners "to despise work and energy, and industry." Broun claimed that the fact four-fifths of those who passed the examinations he prepared for the Confederate ordnance department graduated from the

University of Virginia demonstrated the superiority of the elective system.⁶

Broun's speech pleased George Washington Rains, the University of Georgia's professor of chemistry and the former administrator of the Confederacy's powder works in Augusta. Rains' endorsement of Broun's views paralleled that of others who read the published version of the speech which circulated among academics in both the North and the South, where Broun quickly found himself recognized as one of the foremost proponents of curricular reform.⁷

With Lipscomb's support, Broun proposed a reorganization and expansion of the University of Georgia that would put his reforms into action. The university's trustees adopted the elective system in 1869, and Georgia was not alone in implementing optional courses. At least thirty-five Southern schools joined many of their Northern counterparts and adopted some aspects of the elective system in the two decades after the Civil War. In 1872, the University of Georgia also approved a plan to expand the school's scientific curriculum which closely followed

⁶Letter from Andrew A. Lipscomb to William LeRoy Broun, folder 17, box 2, Broun Collection; Broun, Improvements.

⁷Letter from S. Maupin to Wm. LeRoy Broun, 21 July 1868, folder 19, box 2, Broun Collection; letter from Geo. W. Rains to William LeRoy Broun, 27 July 1868, folder 19, box 2, Broun Collection; letter from W. M. Shirley to William LeRoy Broun, 28 November 1870, folder 27, box 2, Broun Collection; letter from J. M. Gregory to W. LeRoy Broun, 13 July 1868, folder 19, box 2, Broun Collection.

Broun's recommendations. The trustees wanted to establish a school of applied science that would teach all branches of engineering, metallurgy, and scientific agriculture. The plan also contemplated the establishment of professorships of "economic geology" and "industrial mechanics." The board ultimately adopted courses in bookkeeping, history, mechanics, and scientific agriculture.⁸

The importance of this training to the future prosperity of Georgia, Lipscomb believed, could not be overestimated. He believed that "education will prove itself a positive agency of Providence by connecting planters and manufacturers more closely with workshops, mines and factories." He wanted the university placed "in living condition with the industrial economy of Georgia" through its alumni who would work the state's factories, foundries, laboratories, and mines. Ultimately, he hoped that they would enable Georgia to free itself from its economic and industrial dependence upon "others."⁹

The most celebrated effort to rebuild the South through industrial education, however, occurred at Washington

⁸Ms draft of a proposal for the reorganization of the University of Georgia, 13 November 1868, folder 21, box 2, Broun Collection; Charles Forster Smith, p. 553; Board of Trustees for the University of Georgia, Present Organization, and Proposed Plan of Expansion of the University of Georgia (Athens, Georgia: Southern Banner, 1872); Trustees' Minutes, University of Georgia, 28 July 1869 and 2 August 1869.

⁹Trustees' Minutes, University of Georgia, 28 July 1874, 28 July 1869, and 25 July 1871.

College in Lexington, Virginia. Edward S. Joynes, the professor of modern languages and a wartime advocate of educational reform, declined an offer from Broun to come to Georgia in 1868 because "We are in the midst here of a great undertaking--precisely that which you have set so dearly before yourself in Georgia--that of reformation and progress, in the organization and work of our institution." Broun and Joynes eventually did unite in 1875 to aid in the development of the curriculum at Vanderbilt University. In the interim, however, Joynes chose to remain at Washington College under its president, Robert E. Lee, who had embarked on a program to add applied sciences to the school's traditional classical courses. The trustees of the college appointed Lee to the presidency less than four months after Appomattox, and they hoped the general's renown would attract both contributors and students.¹⁰

Lee extolled the benefits that applied science offered Southerners. He believed technical courses "requisite to meet the present wants of the country." Southern youth, Lee

¹⁰Letter from Edward S. Joynes to W. L. Broun, 24 August 1868, folder 19, box 2, Broun Collection; letter from Milton W. Humphreys to Colonel Broun, 28 January 1902, in Broun, Dr. William LeRoy Broun, pp. 55-56; Milton W. Humphreys, "William LeRoy Broun," in Broun, Dr. William LeRoy Broun, p. 48; letter from Edward S. Joynes to C. C. Thach, in Broun, Dr. William LeRoy Broun, pp. 57-58; Robert E. Lee, Jr., "Why General Lee Accepted the Presidency of Washington College," in General Lee, ed. Riley, pp. 16-21; Thomas L. Connelly, The Marble Man: Robert E. Lee and His Image in American Society (Baton Rouge: Louisiana State University Press, 1977), p. 28.

argued, needed to learn to apply "scientific knowledge and research to agriculture, mining, manufacturers, architecture, and the construction of ordinary roads, canals, bridges, etc.," in order to develop the region's natural resources. His efforts received the support of the board who hoped to add classes in applied mathematics and physics. Lee and the trustees recognized that to teach applied science properly, however, required expensive apparatus. The general complained to one potential contributor that "while other colleges with enlarged means have been enabled to keep pace with the progress of science, civilization, and improvement," Washington College had "stood still." In an effort to provide the revenue necessary to expand the curriculum, Lee undertook an extensive fund-raising campaign. In 1866, the college received contributions from two benefactors which alone totaled \$25,000. Lee's name also attracted students, not only from all the former Confederate states but from ten loyal states as well, including one from Massachusetts. Enrollment increased from 146 students in 1866 to 348 students two years later, and the faculty grew from fourteen to nineteen over the same period. Lee's success at soliciting donations and luring paying students enabled the college to inaugurate departments of applied mathematics, civil engineering and modern languages in his first year as

president. The following year, the college added the departments of applied chemistry, geology, and history.¹¹

Although many faculty members and trustees helped develop and promote reform, it was Lee's advocacy of utilitarian education that particularly heartened academic reformers--some of whom did not hesitate to use the general's stature to propagandize their own efforts. In Broun's endeavor to convince Southern colleges to offer alternatives to the classics, he noted that under Lee's leadership an elective system had been inaugurated at Washington College. After his death in 1870, proponents of technical instruction attributed Washington College's reforms solely to Lee and frequently associated him with their cause. Kemp Battle praised "the warrior Lee" as "pre-

¹¹Letter from R. E. Lee to J. B. Baldwin, 22 November 1865, copy of Lee Letter Book I, Robert Edward Lee Papers; letter from R. E. Lee to Cyrus H. McCormick, 28 November 1865, Robert Edward Lee Papers; letter from R. E. Lee to C. H. Latrobe, 18 January 1867, copy of Lee Letter Book II, Robert Edward Lee Papers; ms Minutes of the Board of Trustees of Washington College, 24 October 1865, University Archives, Washington and Lee University; letter from R. E. Lee to M. G. Harman, 22 November 1865, copy of Lee Letter Book I, Robert Edward Lee Papers; Catalogue of the Washington College, Virginia, for the Collegiate Year Ending June, 1866, pp. 5-12; Catalogue of the Washington College, Virginia, for the Collegiate Year Ending June, 1869, pp. 6-7, 16; Edward S. Joynes, "Lee, the College President," in Robert E. Lee Centennial Celebration of His Birth Held Under the Auspices of the University of South Carolina on the Nineteenth Day of January 1907 (Columbia: State Company, 1907), p. 29n.

eminent in science" in an address supporting technical instruction at South Carolina College.¹²

Other Southern schools quickly adapted their curricula to meet what Socrates Maupin, chairman of the faculty at the University of Virginia, called the "requirements of the times" by hiring technically trained professors capable of offering new courses in applied science. "The changed condition of Southern society," Maupin wrote, compelled the school to add professorships in "applied mathematics" and "applied chemistry." The university appointed John Mallet to the latter position, and he hoped to use technical instruction to generate the capital, industry, and skilled labor necessary to return material prosperity to the South.¹³

The Virginia Military Institute continued to stress scientific education under Francis Henney Smith. The school

¹²Ms Extract of Faculty Minutes provided by E. C. Gordon, June 1868, in folder 172, Trustee Papers, University Archives, Washington and Lee University; letter from R. S. McCulloch to R. E. Lee, 18 February 1869, Robert Edward Lee Papers; Broun, Improvements, p. 15; Southern Collegian (Lexington, VA), 29 October 1870; Kemp P. Battle, "The Head and the Hand. The Practical Side of College Life--Problems of the Day. Anniversary Oration Before the Students of the South Carolina College Delivered June 23, 1886," typescript, folder 345, box 28, Charles W. Dabney Papers, SHC-UNC. See also Burwell, Address, pp. 9-13, and Joynes, "Lee the College President." On Lee's popularity after his death, see Connelly, pp. 27-162.

¹³Letter from S. Maupin to Wm. LeRoy Broun, 21 July 1868, folder 19, box 2, Broun Collection; Catalogue of the University of Virginia...1867-68, pp. 24-28; Mallet, Chemistry Applied to the Arts, pp. 13-14.

added John M. Brooke to its faculty and Smith used him to demonstrate the institute's commitment to utilitarian instruction. Smith lauded Brooke's ability as chair of the department of "Practical Engineering" by noting that his technical education enabled the naval academy graduate to clothe "the steamer *Merrimac* with the iron armor of the *Virginia*." Smith's meaning was clear: proper scientific education could transform the agrarian Old South into an industrial New South.¹⁴

The architect assigned to rebuild the University of Alabama, James T. Murfee, the school's former commandant of cadets and a graduate of VMI, also proposed a plan in 1867 to reorganize the university's curriculum. Murfee advocated establishing colleges of agriculture, commerce, and engineering, whose graduates he believed would develop the economic resources of the state. He criticized the traditional curriculum for its failure to equip students with a specialized education necessary for success in the postbellum South. "Under the system of slavery, ignorance and idleness might acquire and maintain wealth," Murfee acknowledged, but "under free institutions, the individual must depend upon habits of order, system, self-reliance, and a disciplined mind, stored with knowledge pertaining to his special pursuit." Reconstruction difficulties, particularly

¹⁴Francis H. Smith, Introductory Address...1866, pp. 10-11; Francis H. Smith, Gymnastics and Technical Education, p. 21.

violent threats from conservative Democrats that chased several would-be Republican presidents from the university, initially prevented any serious efforts to implement Murfee's plan. Finally, in June of 1871, the conservative alumni association and the Republican controlled Board of Regents agreed to model the university on VMI and appoint a professor from that institution with impeccable Confederate credentials, Matthew Maury, as president. Not surprisingly, the plans of the former professor at VMI resembled those of Murfee, an alumnus of that institution. The university increased its faculty from five to twelve and added new professorships in applied mathematics, chemistry, geology and mineralogy, military engineering, and modern languages. Maury, however, feared the university lacked the means to carry out his proposals to build a first-rate scientific institution and resigned less than four months after his election.¹⁵

The board replaced Maury with the professor of chemistry, Nathaniel T. Lupton, who formerly served as a chemist for the Confederacy's Nitre and Mining Bureau. Lupton followed Maury's plans for the university. He tried to solve the school's pecuniary difficulties by securing

¹⁵James T. Murfee, A New Scheme of Organization, Instruction, and Government for the University of Alabama with Report on Construction of Building (Tuskaloosa: John F. Warren, 1867); letter from N. T. Lupton to W. LeRoy Broun, 11 January 1872, folder 33, box 3, Broun Collection; Sellers, pp. 291-317; Norrell, pp. 35-40.

Alabama's portion of the funds designated for agricultural and mechanical colleges by the Federal Morrill act. The legislature chose instead to establish a separate A & M college at Auburn. In spite of this, Lupton continued his efforts to provide utilitarian education.¹⁶

Louisiana State Seminary, closed for much of the war, reopened in October of 1865 under superintendent David Boyd with its curriculum focused upon technical instruction. After the Confederacy's defeat, Boyd became an avid supporter of applied scientific education and much of what he knew about the subject he learned from his correspondence with William LeRoy Broun. Boyd hoped that the education provided at the school would enable graduates to "make a new Louisiana and a new South." The seminary offered a bachelor's degree in science and established a Special School of Engineering which awarded a degree in civil engineering. Boyd boasted that the seminary (renamed Louisiana State University in 1870) put together a faculty dominated by scientifically trained graduates of VMI, University of Virginia, and West Point. The teaching corps also consisted of Confederate veterans, many of whom had obtained practical technical experience in the field to complement their academic training. Boyd, professor of

¹⁶Historical Catalogue of the Officers and Alumni of the University of Alabama, 1821 to 1870 (Selma: Armstrong & Martin, 1870), p. 35; University of Alabama, Circular, [1871 or 1872], in Eugene Allen Smith Collection, Scrapbook, vol. II, 1872-1879; Maury, "Inaugural Address."

chemistry, Edward Cunningham, Jr., professor of mathematics, Samuel Lockett, professor of engineering, Richard Morton Venable, and professor of natural and experimental philosophy, John A. A. West, all served as engineering officers during the war.¹⁷

The University of Mississippi also added courses in applied science to its curriculum. The school hired former Confederate general Claudius W. Sears, the architect of the University of Louisiana's ambitious antebellum plan to organize a scientifically oriented curriculum, as vice-chancellor and professor of mathematics in 1865. The board of trustees also selected another Confederate general and graduate of West Point, Francis Asbury Shoup, to serve as professor of physics, astronomy, and civil engineering. They joined Eugene Hilgard, a professor of experimental and agricultural chemistry who previously worked as a scientist for the Confederate nitre bureau, to serve as the nucleus of the university's effort to provide technical education. Hilgard created a plan that would have established chairs of

¹⁷Letter from D. F. Boyd to William LeRoy Broun, 23 October 1873, folder 40, box 3, Broun Collection; letter from D. F. Boyd to William LeRoy Broun, 11 December 1877, folder 51, box 4, Broun Collection; Report of the Board of Supervisors for the Louisiana State University...1877-1878, appendix, p. 17; Reed, David French Boyd, p. 93; Official Register of the Louisiana State Seminary...1866, p. 10; Official Register of the Louisiana State Seminary...1867, pp. 15-16; Report of the Board of Supervisors for the Louisiana State Seminary...1870 (New Orleans: n. p., 1870), p. 23; letter from D. F. Boyd to Wm. H. Fishback, 30 July 1887, in Letters, University Archives, University of Arkansas; "Richard Morton Venable," p. 86.

"Technology and the Mechanic Arts" and "Practical Agriculture." The South needed these type of courses, he claimed, because throughout American history, Southern farmers repeatedly cleared new land, exhausted the soil, and then moved further into the frontier to repeat this cycle. He believed that farmers who remained in the South had "long passed this stage of development" and needed "to be looking forward to a state of things that can endure permanently." Hilgard claimed that industrial education and scientific agriculture offered Southerners the means to furnish their own material goods and replenish the soil, both of which he considered necessary for restoring the region's prosperity.¹⁸

Although much of Hilgard's ambitious proposal remained unrealized, the university added classes in agricultural chemistry, civil engineering, and geology. Further emphasizing its appreciation of scientific education, the university conferred honorary LL.D.'s upon two ardent advocates of reform, John Mallet (1872) and William LeRoy Broun (1874). The school also appointed a graduate of West Point and former Confederate general Alexander P. Stewart, as chancellor in 1874. Under Stewart, the university

¹⁸Historical Catalogue of the University of Mississippi 1849-1909 (Nashville: Marshall & Bruce Company, 1910), pp. 18-21; Hilgard, "Confederate Scientist," pp. 21-3; Hilgard, Progressive Agriculture; Eug. W. Hilgard, Report on Organization of the Department of Agriculture and the Mechanic Arts, August 29, 1871 (n. p., n. d.).

strongly emphasized the importance of its scientific apparatus for the education of Mississippi's youth. His successor, Edward Mayes, who served in the Fourth Mississippi cavalry during the war, reorganized the curriculum in order to place further emphasis on scientific instruction. As part of his effort, Mayes attempted--but failed--to secure the services of William LeRoy Broun.¹⁹

Some former Confederate officers in academia attempted to organize their own scientific schools. General Raleigh Colston, with the aid of two other former officers and graduates of VMI, William A. Obenchain and D. Truehart, reopened the Hillsborough (North Carolina) Military Academy, the founder of which, C. C. Tew, had been killed at Antietam. Colston hoped the school would serve as a place where Southern students "may come to learn the Arts of Peace and of Science and Industry, which will yet make their beloved native land smile and blossom like a rose." The faculty designed a course of instruction that promised to enable the South's young men to develop the region by

¹⁹Trustees' Minutes, University of Mississippi, 15-17 August 1870; Historical Catalogue of the University of Mississippi 1849-1909, pp. 74-76, 98; Catalogue of the Officers and Trustees of the University of Mississippi at Oxford, Mississippi. Twenty-second Session (Oxford: n. p., 1874), pp. 19, 28-30, 38-40, 44-47; "In Memory of Professor Mallet," pp. 3-47; Board of Trustees of the State [Mississippi] University, Where Shall I Send My Son? An Address to the People of Mississippi (n. p., [1876]), pp. 8, 14-19; Clarion-Ledger (Jackson, MS) 4 July 1889, 7 July 1889, and 11 July 1889; letter from E. Mayes to William LeRoy Broun, 22 July 1889, folder 81, box 6, Broun Collection.

focusing on "its agricultural improvement and its immense industrial resources." The course included instruction in agricultural chemistry, engineering, geology, industrial drawing, and placed heavy emphasis on mathematics.²⁰

Immediately after the war, Daniel Hill organized a school in an effort to put his considerable educational ideas to work. Edmund Kirby Smith opened the Western Military Academy in 1869 in Henry County, Kentucky. The school's curriculum included botany, engineering, geology, history, and mineralogy. Samuel Lockett acquired Calhoun College in 1873 at Jacksonville, Alabama, which he transformed from a classical to a polytechnic school. Lockett viewed himself as something of a missionary bringing progress and science to the unenlightened people of Alabama's piedmont. "The sciences," he wrote David Boyd, "have never been taught in these parts," a deficiency Lockett hoped his school would rectify.²¹

²⁰"Hillsborough Military Academy," Circular, [1867], in folder 18, box 2, John Lancaster Bailey Papers, SHC-UNC.

²¹Joseph M. Hill, Biography of Daniel Harvey Hill: Lieutenant General, Confederate States of America: Educator, Author, Editor ([Little Rock, Arkansas?]: Official Publications of the Arkansas History Commission, n. d.), p. 32; letter from E. Kirby Smith to William Preston Johnston, 31 August 1869, with "Western Military Academy," circular, in folder 15, box 14, Johnston Collection. Smith's school should not be confused with the Western Military Institute which operated in Georgetown, Kentucky, and permanently closed shortly after the start of the Civil War. See Mabel Altsetter and Gladys Watson, "Western Military Institute, 1847-1861," Filson Club History Quarterly X (April 1936): 100-115; letter from S. H. Lockett to D. F. Boyd, 28 July 1873, folder 105, box 9,

Despite the hopes of Colston, Hill, Smith, and Lockett, their enterprises failed primarily because they lacked the financial resources to keep them in operation. The schools, like many private and public colleges in the South, depended heavily upon tuition. Few students, however, could afford the fees necessary to pay for the high cost of scientific equipment and professors' salaries. The problem intensified during the depression of the early and mid-1870s, which both private and public collegiate administrators blamed for dwindling enrollments and decreasing funds.²²

Not even Washington College proved immune from economic hardship. In 1869, flush with money and students, the school embraced an expensive plan supported by Lee, but created by a faculty committee that included William Preston Johnston, Richard Sears McCulloh²³, a chemist for the

Samuel H. Lockett Letters and Related Items, Fleming Collection; Lockett, "Technical Education."

²²Lloyd and Lloyd, pp. 150-151; Joseph Howard Parks, General Edmund Kirby Smith, C. S. A. (Baton Rouge: Louisiana State University Press, 1954), p. 497; Joseph M. Hill, p. 32; letter from Samuel H. Lockett to D. F. Boyd, 2 December 1873, folder 105, box 9, Lockett Letters; Second Annual Report to the Board of Directors of the A and M College of Alabama, 30 July 1873, Tichenor Papers; Trustees' Minutes, University of Georgia, 27 July 1877; letter from Eug. W. Hilgard to D. F. Boyd in Annual Report of the Louisiana State University... 1874, p. 531.

²³McCulloh also spelled his name "McCulloch," which is the traditional spelling of the family name. He used "McCulloh" while a professor at Columbia College (1854-1863) and both spellings while at Washington College. He consistently used the third "c" in his name by the late-1870s. See Milton Halsey Thomas, "Professor McCulloh of Princeton, Columbia, and Points South," Princeton University

Confederate Nitre and Mining Bureau, and William Allan, chief of ordnance for Thomas J. (Stonewall) Jackson's corps, to further broaden the school's curriculum. The plan included the organization of new departments of agriculture, commerce, and mechanical and mining engineering. The proposition aimed at providing graduates capable of moving the South away from a labor-intensive plantation economy toward developing one founded upon scientific agriculture, business expertise, and industrial innovation. Students in the agricultural department would take "rural engineering" and study irrigation systems and mechanized agriculture. The commercial department promised to teach students how to administer various business enterprises, including banks, canals, and railroads. Mechanical engineering students would discover how to construct factories, steam engines, mills and locomotives. In addition to learning to work mines and identify ores, mining students would study the manufacture of iron and steel. The ambitious plan appeared in *De Bow's Review*, which claimed that if Lee lived to see it succeed "he will have won the lost cause in the freedom

Literary Chronicle 9 (November 1947): 18n; Catalogue of the Washington College, Virginia, for the Collegiate Year Ending June, 1869, p. 6; letter from R. S. McCulloch to R. E. Lee, 18 February 1869; letter from R. E. Lee to R. S. McCulloch, 28 September 1869, Robert E. Lee Letter, Mississippi Department of Archives and History; and the correspondence between McCulloch and D. F. Boyd in Richard S. McCulloch [sic] Letters and Related Items, folder 116, box 10, Fleming Collection.

and happiness of the South, redeemed and perpetuated through the education of her sons."²⁴

Before applied scientific instruction could salvage the Lost Cause however, Southerners needed to pay for it. Following Lee's death, the trustees replaced him with his son, Custis, and changed the name of the school to Washington and Lee University in a bid to keep it connected to the lucrative Lee name. The university also obtained the endorsement of thirteen former Confederate generals who supported expansion of the school's utilitarian programs. The board hired Colonel Joseph W. Taylor of Alabama, an advocate of internal improvements, industrial diversification, and scientific agriculture, to stump the South in order to raise money for the university's ambitious plans. Nevertheless, all of these efforts served as poor substitutes for the Confederacy's premier general for raising donations and attracting students. Economic depression, mismanagement, and the revered general's death resulted in a dramatic decline in contributions and enrollments during the 1870s which forced the school to virtually abandon its curriculum of applied science.²⁵

²⁴Catalogue of the Washington College...1869, pp. 56-61; Tucker, p. 7; William M. Burwell, "General Lee As Teacher," De Bow's Review VI (July 1869): 540-547.

²⁵Circular, "To Our Friends in the United States," endorsed by W. F. [sic] Hardee, Alex. P. Stewart, R. S. Ewell, C. M. Wilcox, W. N. Pendleton, F. S. Marmaduke, [P.] G. T. Beauregard, R. Taylor, S. B. Buckner, F. [sic] B. Hood, Braxton Bragg, and J. A. Early, in folder 6, box 55,

The high cost of technical instruction convinced many progressivist academics and their supporters that state schools, which could potentially draw upon large public resources for support, were the proper vehicles for providing scientific education. Denominational colleges, the most common form of private schools, received their support from a limited sectarian pool of contributors and students. Therefore, progressivists believed these schools would usually lack the resources to acquire the faculty and purchase the equipment necessary for proper scientific instruction. Reformers contended that denominational colleges performed satisfactorily furnishing low cost classical, but not scientific or postgraduate, education. Even supporters of sectarian institutions, who feared competition from state subsidized schools, occasionally acknowledged the importance of public universities for "deepen[ing] the springs of learning" through science, while denominational colleges supplied moral and religious instruction. Together, the sectarian and state schools

Johnston Collection; Taylor, Young Men of the New South, p. 19; Joseph W. Taylor, Address Before the Literary Societies of Washington and Lee University, on Commencement Day, June 22, 1871 (Baltimore: J. Murphy, 1871); Catalogue of Washington and Lee University...1877, pp. 10, 16-24; Connelly, pp. 30-32.

promised to "harmonize in the one great work of advancing Christian civilization and learning."²⁶

During Reconstruction, however, state universities often found their efforts disrupted, not by disputes over curricular reform, but because of political conflicts over who would control the schools and over whether or not they would be racially integrated.

The marriage of the daughter of David Swain, the president of the University of North Carolina, to a United States Army general in 1867, hampered her father's effectiveness in convincing the public to support his institution. A new board of trustees, appointed in 1868 and dominated by Republicans, accepted Swain's resignation and vacated all the professorships in order to replace the school's Democratic faculty with Republicans. The move interrupted the reform effort led by a displaced trustee, Kemp Plummer Battle, to add courses in applied science and establish the elective system. Solomon Pool, the university's Republican president, continued reform, but fears by whites that the new administration would allow racial integration discouraged many parents from sending their children to the university and enrollment declined.

²⁶S. D. Lee, The Agricultural and Mechanical College of Mississippi: Its Origin, Object, Management and Results, Discussed in a Series of Papers (Jackson, Miss. : Clarion-Ledger, 1889), p. 14; News and Courier (Charleston, SC), 26 August 1885 and 26 June 1885; Charles W. Dabney, "President Battle and the University," typescript, 1928, folder 274, box 21, Charles William Dabney Papers.

Although blacks never attended the university during Reconstruction, the lack of public support forced the school to suspend operations in 1871. Reconstruction in North Carolina ended that same year, but the university remained closed until 1875. Conservatives replaced the Republicans on the school's governing board and in 1876 elevated Battle to the presidency. Battle, who served during the war as president of a North Carolina railroad organized to haul coal from Chatham county to Confederate ordnance manufacturers, promptly resumed his efforts at curricular reform.²⁷

In the months that followed the end of the Civil War, the trustees of South Carolina College temporarily transformed that institution into the University of South Carolina and embarked on a program to add technical studies and adopt the elective system. The board acquired a graduate of West Point and Confederate General Edward Porter Alexander to serve as chair of the school of mathematics, civil and military engineering, and construction. The LeContes returned to the university where John chaired the school of natural and mechanical philosophy and astronomy, and Joseph directed the school of chemistry, pharmacy, mineralogy, and geology. The trio of professors provided the new university with a solid basis for developing a

²⁷Battle, History, vol. 2, pp. 9-11; Brabham, pp. 427-455; Henderson, pp. 194-195; Battle, Memories, pp. 172-198, 247; Battle, History, vol. 1, pp. 764-767.

strong program in scientific education. Their courses were immensely popular, and with the elective system in place, they attracted considerably more matriculates than the university's four classically oriented schools.²⁸

After the advent of Congressional reconstruction in 1868, the university's focus shifted from its curricular reforms to integration. The state's new Constitution mandated that the university be open to all races. Fears over integration led many white students to withdraw from the university and deterred others from enrolling which resulted in a decline in attendance. The possibility of desegregation ultimately led to the resignation of the entire faculty. Conservative trustees also quit the university. The first black student finally entered the university in 1873, and two years later approximately half the student population of 166 consisted of African-Americans. The new faculty and trustees curtailed the elective system but attempted to offer utilitarian courses. The restoration of conservative control over the state government in 1877 ended integration at the University of South Carolina. A new board suspended operations and the

²⁸By-Laws of the University of South Carolina as Revised and Adopted by the Board of Trustees, at the Annual Meeting in 1866... (Columbia, SC: W. W. Deane, 1867); Prospectus of the University of South Carolina MDCCCLXVI (Columbia, SC: Southern Presbyterian Review, 1866); LeConte, pp. 235-239.

school emerged three years later as the South Carolina College of Agriculture and Mechanics.²⁹

The hostility of white Mississippians to integration also threatened the academic reforms undertaken at the University of Mississippi. Chancellor John Waddel announced publicly in September of 1870 that he and the entire faculty would resign if the Republican legislature forced the university to admit African-Americans. The state's Republican governor, James Alcorn, averted the mass resignation by convincing the legislature to establish a separate black school, Alcorn University, and allowing the University of Mississippi to remain segregated.³⁰

White fears over integration also endangered the operation of Louisiana State University. The school's superintendant, David Boyd, managed for eight years after the war to keep the university operating successfully. Boyd's antebellum secessionist sympathies, his respectable

²⁹LeConte, pp. 235-239; Reorganization of the University of South Carolina in 1873, and Catalogue for 1872-'73 (n. p., n. d.); Catalogue of the University of South Carolina 1872-'73 (n. p., n. d.); B. B. Babbitt, Report of the Chairman of the Faculty of the University of South Carolina in Response to a Resolution of the House of Representatives and of the Senate Passed February 18, 1875 (Columbia, SC: Republican Printing Co., 1875); Hollis, vol. 2, pp. 3-79; Fisk Parsons Brewer, "'South Carolina University--1876,'" ed. William P. Vaughn, South Carolina Historical Magazine 76 (October 1875): 225-231.

³⁰Historical Catalogue of the University of Mississippi 1849-1909, p. 74; Cabaniss, History, pp. 79-89; Josephine M. Posey, Against Great Odds: The History of Alcorn State University (Jackson: University Press of Mississippi, 1994), pp. 3-4.

military record, and his effort to place former Confederate officers in all the faculty positions, satisfied conservatives as to his fitness to oversee the higher education of Louisiana's youth. Yet, Boyd's outspoken support of reconciliation and his friendship with high ranking United States officers, including Sherman, also convinced Republicans that Boyd should remain as the university's superintendent. He successfully balanced the demands of conservatives and radicals until 1873 when the legislature directed LSU to integrate.³¹

Boyd personally believed there existed no academic reason why African-Americans should not attend LSU. "I would no more deny access on account of race or color, to the temple of learning," he claimed, "than I would exclude one, on account of race, from the temple of faith. Who may be permitted to enter the kingdom of Heaven, let us not exclude from the Republic of Letters: let him enter our University." Boyd believed that racial conciliation led ultimately to material progress--a proposition he hinted that Europeans understood. "Try to conceive of the University of Paris or Berlin, or Oxford, refusing admission to an Indian, or Chinee [*sic*], or African," Boyd suggested, "How absurd. Such an idea enlightened Europe would not for a moment entertain; and such an idea we of the South must

³¹Supervisors' Minutes, Louisiana State University, 5 April 1886; Reed, Boyd, pp. 55-190.

discard." He wanted Southern whites to set aside their racial prejudice and discard their common belief that blacks were incapable of benefitting from higher education. Providence linked the fates of Southern blacks and whites together, Boyd argued, and their mutual prosperity depended upon instruction in the applied sciences. Louisiana required men, regardless of their race, trained in mechanical engineering and scientific agriculture who could efficiently increase the productive power of the state.³²

Although most Southern academics lacked Boyd's enthusiasm for integration, many progressivists did advocate providing at least some education for African-Americans. The instruction they envisioned, however, usually differed from that which they proposed for whites. The higher education academics planned for whites required them to obtain scientific knowledge and apply it to building an industrial South. White academics wanted the education of African-Americans, however, limited largely to manual training schools where they might learn various trades. Southern academics claimed that the region still needed blacksmiths, carpenters, wheelwrights, and other types of artisans. This type of education, white educators argued, would enable the freedmen to work and provide for their material needs. Academics, in effect, encouraged blacks to learn skills still utilized in agricultural pursuits and

³²Boyd, "Ideas on Education."

therefore valuable to landowners and planters who would presumably benefit from more skilled black field hands, sharecroppers, and tenant farmers. This type of employment would also enable African-Americans to purchase goods produced in the New South, while limiting them to the peripheral occupations of an industrializing society. J. L. M. Curry, while the chief administrator of the John F. Slater Fund which provided money for black education, stressed manual training for African-Americans and released funds only to those schools that offered vocational training. His advocacy of trade schools for blacks received the enthusiastic support of the most prominent African-American progressivist educator of the late nineteenth century, Booker T. Washington.³³

Most Southern states by 1890 provided some support for public institutions of higher learning for blacks, usually either in agricultural and mechanical colleges or normal schools. Initially, some of these schools provided advanced instruction that included botany, calculus, physics, and

³³Hugh C. Bailey, Liberalism in the New South: Southern Social Reformers and the Progressive Movement (Cora Gables, Florida: University of Miami Press, 1969), p. 34; Horace Mann Bond, Negro Education in Alabama: A Study in Cotton and Steel (Washington, DC: Associated Publishers, 1939), pp. 105-115, 198-203, 214-225; W. Stuart Towns, "Atticus G. Haygood: Neglected Advocate of Reconciliation and a New South," Southern Studies 26 (Spring 1987): 39; typescript fragment of a draft of a letter from J. M. McBryde to A. P. B[utler]., n. d., folder 23, box 3, McBryde Family Papers; Benjamin Hill, "Speech Delivered...July 31, 1871," p. 343; Battle, "Head and the Hand"; Bauman, pp. 96-98.

trigonometry. A dearth of public schools in the South forced many of the collegiate institutions, however, to also provide black youth with secondary, or even primary, education. Louisiana's Southern University in New Orleans, for example, served as a college, normal school, manual training institute, high school, and grammar school. The propensity for Southern states to provide more funding for white schools than their black counterparts encouraged them to consolidate their resources and embrace coeducation before most white state colleges and universities. Chronic shortages of funds often prevented black colleges from purchasing the expensive equipment necessary to consistently provide for applied scientific instruction. Furthermore, state education boards and legislatures often stipulated that black schools teach primarily vocational subjects. Ultimately, most public African-American colleges resembled trade schools that graduated carpenters rather than colleges that graduated scientists.³⁴

³⁴"Branch Normal College of the Arkansas Industrial University, Pine Bluff, Arkansas," in Eighth Catalogue of the Arkansas Industrial University...for the Year Ending June 10th, 1880 (Little Rock: Ark. Democrat, 1880), pp. 91-114; "Georgia State Industrial College for Colored Youths," in University of Georgia. General Catalogue. 1900-1901 (Atlanta: Foote & Davies Company, 1901), pp. 155-250; Reports. Southern University 1899-1900, (New Orleans: n. p., [1900?]), pp. 25-32; Bond, pp. 262-269; letter from A. H. Colquitt to D. H. Hill, 17 December 1878, Daniel Harvey Hill Papers, box 93.2, North Carolina Department of Archives and History; Brubacher and Rudy, p. 79; Caesar F. Toles, "Regionalism in Southern Higher Education" (Ph. D. dissertation, University of Michigan, 1953), pp. 75-78; Bauman, p. 96; Biennial Report Southern University and A and

Progressivists not infrequently couched their concerns for the education of the freedmen with paternalistic rhetoric in an effort to shame whites into accepting some public funding for black schools. A. J. Peeler, a member of the board of directors for Texas' normal school for African-Americans, claimed that duty required "the superior race" to do all in its power to "educate and elevate our colored citizens." Kemp Battle observed that the black man "is here, and he is here to stay. Educate him....We are the superior race. Let us make him better."³⁵

Prior to the mass disfranchisement of Southern African-Americans in the 1890s, progressivists frequently claimed that educated blacks would not be swayed by the supposedly pernicious teachings of demagogues or vote for Republicans who potentially threatened the political power of the South's conservatives. Education, however, failed to influence African-Americans in the manner white progressivists hoped. After noting the work of Atticus

M College Sessions 1910-1911; 1911-1912 (New Orleans: n. p., [1912?]), p. 25; Oran M. Roberts, General Message on the Judiciary, Education, the Department of Insurance, Statistics and History, Railroads, Etc., to the Seventeenth Legislature of the State of Texas...January 11, 1881 (Galveston: News Book and Job, 1881), p. 10; Report of the Prairie View Normal School Located in Waller County [Texas] (Austin: Smith, Hicks & Jones, 1889); Wagstaff, p. 35.

³⁵Letter from A. J. Peeler, for the Board of Directors of the State Normal School of Texas, for Colored Students, to Governor O. M. Roberts, 7 January 1881, in Message Accompanying the Report of the Board of the Agricultural and Mechanical College of the State of Texas (Galveston: News Book & Job, 1881), pp. 47-8; Battle, "Head and the Hand."

Haygood, Curry's predecessor as agent for the Slater Fund, one Mississippi critic complained in 1889 that despite the instruction given them, African-Americans still advocated Federal regulation of state elections and denounced segregationist legislation.³⁶

Not all progressivist academics welcomed the idea of giving African-Americans even rudimentary industrial education. Lockett dismissed whites' notions of their inherent superiority and feared that an educated black race might eventually surpass the material progress of Caucasians. Lockett believed in the existence of an innate conflict between the races and perceived it in Social Darwinist terms. He insisted that "There is a fierce struggle for supremacy going on in our Southern states between the two races." Lockett warned Southern whites not to neglect their schools because

just as sure as fate, if we of the white race retrograde in our educational attainment, the black race will become our superiors. We may talk of their lack of capacity and inability to go beyond a certain point in intellectual improvement as much as we please and console ourselves with our assertions, but the truth is the negroes are making rapid strides in self advancement.

Lockett credited the gains of African-Americans to their desire for education (which he believed surpassed that of whites), private donations given to black schools by

³⁶Peeler, Address, p. 15; Battle, "Head and the Hand"; "Negro Education," Clarion-Ledger, 4 July 1889.

Northern "negrophilists," and public funding provided by the Southern states.³⁷

Even David Boyd's support for black education, especially with regard to integration, proved lukewarm. Definitively, he joined conservative efforts to prevent integration at LSU because he feared that whites would not attend or support a biracial school. Ultimately, he believed the school needed the support of Democratic voters and their legislators in order to guarantee public funding and success. In 1873, Louisiana's Republican legislature discontinued state appropriations to LSU because of its refusal to desegregate. The loss of state funds, fear of integration, and the depression resulted in a dramatic decline in faculty and students. The campus population decreased from 175 students and fifteen faculty for the 1871-1872 session to four matriculates and three professors at the end of the 1874-1875 term. Despite the university's difficulties, Boyd kept the school open, but closed to blacks. The return of control over the state government to conservatives in 1877 ended any consideration of integration at LSU for nearly a century.³⁸

³⁷Lockett, untitled address delivered at Calhoun College and Jacksonville Female Academy, [29 June 1874], folder 130, box 8, Lockett Papers. See also letter from H. R. Thomas to the Editor, News and Courier (Charleston, SC) 22 July 1887, clipping in folder 21, box 3, McBryde Family Papers.

³⁸Walter L. Fleming, Louisiana State University 1860-1896 (Baton Rouge: Louisiana State University Press, 1936), pp. 146-159, 221, 256-258; Reed, Boyd, pp. 67-71; Germaine

Arkansas Industrial University in Fayetteville, established in 1872, however, suffered few problems directly related to Reconstruction. The university's first board, established by a Republican legislature, consisted primarily of Northerners, including eight Union veterans. Although initially the university could not legally exclude African-Americans, the school admitted only two or three black students during Reconstruction. The university's acting president, Noah P. Gates, segregated these from the rest of the students and taught them personally. His successor, former Union general Albert W. Bishop, who served as president of the university from 1874 to 1875, embarked on a plan to organize the school's curriculum around scientific instruction in agriculture, engineering, and the natural sciences. During Bishop's tenure, conservatives gained control of the legislature and established a new board of trustees that consisted of both Union and Confederate veterans. Shortly thereafter, Bishop resigned, but he claimed that no acrimony existed between himself and the new trustees, and Gates returned briefly as acting president. After a failed attempt to obtain former Confederate general Joseph E. Johnston, the trustees secured Daniel Hill for the

A. Reed, "David Boyd, LSU, and Louisiana Reconstruction," Louisiana Studies 14 (Fall 1975): 259-276; Official Register of the Louisiana State University...1872, pp. 5-6, 10; "Roll of Officers and Cadets of the Louisiana State University, Session 1874-1875," typescript, folder 7, Louisiana State University Official Papers.

presidency, who largely continued Bishop's program. The public universities of Georgia, Tennessee, and Virginia, like Arkansas Industrial University, largely managed to avoid the disruption that occurred because of political conflicts during Reconstruction.³⁹

Obstacles to the implementation of applied scientific instruction in Southern state schools remained after the restoration of conservative state governments. Opposition to public funding for higher education quickly arose from the supporters of denominational colleges. They claimed that government subsidies unfairly provided state colleges and universities with a secure source of income unavailable

³⁹Harrison Hale, University of Arkansas, pp. 9-40; Thomas S. Staples, Reconstruction in Arkansas 1862-1874 (New York: Longmans, Green & Co., 1923), pp. 328-335; Guerdon D. Nichols, "Breaking the Color Barrier at the University of Arkansas," Arkansas Historical Quarterly XXVII (Spring 1968): 3; Harrison Hale, "Glimpses of University of Arkansas History," Arkansas Historical Quarterly VI (Winter 1947): 436; "Catalogue of the Arkansas Industrial University for 18[74-75]," in Third Report of the Arkansas Industrial University (Fayetteville: Democrat Book & Job, 1875), pp. 8-11; A. W. Bishop, "Farewell Address," in Third Report of the Arkansas Industrial University, pp. 108-110; Sixth Catalogue of the Arkansas Industrial University (Little Rock: A. H. Sevier, 1878), pp. 15-17; Thomas G. Dyer, Georgia, pp. 109-122; James Riley Montgomery, Stanley J. Folmsbee, and Lee Seifert Green, To Foster Knowledge: A History of the University of Tennessee 1794-1970 (Knoxville: University of Tennessee Press, 1984), pp. 65-86; Hollis, vol. 2, p. 44.

No public collegiate level school operated in Florida during Reconstruction. See William G. Dodd, History of West Florida Seminary (n. p., [1952]), pp. 44, 48, 51, 68. The University of Alabama suffered from little partisan conflict after Maury's election to the presidency in 1871 through the end of Reconstruction in Alabama in 1875. See Sellers, pp. 310-320.

to private schools. The efforts by administrators of public institutions to obtain tuition waivers from state legislatures for some or all of their students further alienated proponents of sectarian education.⁴⁰

Advocates of denominational colleges hoped to undermine popular support for public higher education by repeating charges first made in the antebellum period, that professors at state schools encouraged infidelity among their students. Advances in the natural sciences, especially biology and geology, had created doubts among many academics as to the accuracy of the Biblical account of creation. Proponents of sectarian education criticized the study of these sciences outside of denominational colleges, which, prior to the Civil War, had started to furnish countervailing interpretations of scientific evidence in apologetics courses. Proper religious instruction offered students explanations, such as one provided by Reverend S. A. Goodwin, for apparent contradictions between Scripture and science. Goodwin admonished: "Ye followers of Darwin, and Tyndal[1], and Huxley...hide your faces in shame!" for inaccurately interpreting scientific evidence and spreading superstition. Goodwin exemplified the errors of these "proud boasters of reason" by claiming they had miscalculated the age of the earth. Proper interpretation of the geological record, he declared, transformed geology

⁴⁰Hollis, vol. 2, pp. 131-132, 138-139, 141.

from a "carping infidelity" atheistic academics used to repudiate the Mosaic cosmogony, into a "handmaiden of religion" that ultimately proved the accuracy of Genesis by demonstrating the occurrence of the Great Flood.⁴¹

Progressivist educators responded to such attacks by attempting to minimize or reconcile apparent contradictions between Christianity and science. B. B. Lewis maintained that "the destruction of faith by science on the part of so many intelligent people, is merely temporary; and as science becomes broader and religion more fully transcribes the true spirit and methods of Christ, all conflict will cease, and one become the complement of the other." George Soule, a former Confederate colonel who operated a commercial college in New Orleans, defended evolution, a favorite bugbear of religious educators. Soule declared that "Evolution...with his torch of progress," far from being antithetical to

⁴¹Waddel, Historical Discourse, p. 11; Dumas Malone, The Public Life of Thomas Cooper 1783-1839 (Columbia: University of South Carolina Press, 1961), pp. 259-270, 337-367; Kelley, pp. 18-23; S. A. Goodwin, Commencement Sermon Delivered Before the Students of the University of Columbus, Sunday, June 26th, 1876...Subject: Excellency of the Knowledge of Christ (Columbus, Miss.: Excelsior Book and Job, 1876), pp. 2-5; Catalogue of the Trustees, Faculty & Students, Wofford College, Spartanburg, S. C. MDCCCLXI (Spartanburg: Express Office, 1861), p. 15; Catalogue of the Officers and Students of Mercer University. 1860-61, p. 29; Catalogue of the Officers and Students of the Furman University for 1860-'61 (Charleston: Evans & Cosswell, 1861), p. 25.

Christianity as sectarians charged, served as "God's master-workman" in shaping the world humans inhabited.⁴²

F. Henry Smith, professor of natural philosophy at the University of Virginia and who served as Commissioner of Weights and Measures for the Confederacy, called Darwin's work "brilliant" and claimed that the study of the Bible, like biology and geology, was an imperfect science. Biblical scholars, Smith asserted "must concede the existence and value of another 'revelation'--that of material nature....The Biblical student cannot be indifferent to those conclusions of physical science which bear upon the Bible." He encouraged exegesis and cautioned both natural and scriptural scientists from rashly proclaiming contradictions between--or harmonies among--the two "modern sciences." History demonstrated that both Biblical interpretation and scientific theories underwent continuous transformation and therefore the conciliation of Scripture and physical science in one era might turn into discord in the next, or vice versa. Smith encouraged practitioners of Biblical and physical science to honestly

⁴²Lewis, Address...1881, p. 5; Glenn R. Conrad, ed., Dictionary of Louisiana Biography, 2 vols. (New Orleans: Louisiana Historical Association, 1988), vol. 2, pp. 759-760; George Soule, Address by Col. Geo. Soule, President of Soule Commercial College and Literary Institute, New Orleans, La., at the 32nd Anniversary and Commencement, June 30th, 1888 (n. p., [1888?]), pp. 3-4.

pursue their work and let time, perhaps as much as a thousand years, reveal the truthful nature of both.⁴³

Progressivist academics found their institutions, and occasionally themselves, under attack by religious critics. Prominent Methodists in Alabama charged David Boyd, while president of the state agricultural and mechanical college, with agnosticism and atheism for endeavoring to implement a plan of scientific instruction proposed by his friend and predecessor William LeRoy Broun. Boyd, who belonged to no church, defended his efforts by telling the commencement audience of 1884 that "Science and Scripture both tell us there is a survival of the fittest." Boyd resigned from the college shortly thereafter and returned to serve as president of LSU following a four year absence. Broun, after leaving Auburn for a more lucrative post at the University of Texas, resumed the presidency of Alabama A & M after Boyd's departure, where he remained until his death in 1902. As the price exacted for his return, the board of directors agreed to allow Broun, who had helped Boyd obtain

⁴³Barringer, et al., eds., vol. 2, pp. 4-5; Francis H[enry]. Smith, Thoughts on the Discord and Harmony between Science and the Bible: Delivered before the American Institute of Christian Philosophy, 27th July 1888 (New York: Wilbur B. Ketchum, [1888?]). See also Samuel H. Lockett, "The Correlation of Medicine with the Exact Sciences and Mechanic Arts," [1881?], ms with typescript copy in folder 28, box 2, ser. A, Lockett Papers.

On the efforts by Victorians to reconcile Christianity and evolutionary science, see James R. Moore, The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870-1900 (London: Cambridge University Press, 1979).

the presidency, to turn the college into a school of applied science.⁴⁴

William Preston Johnston anticipated criticism for his planned scientific curriculum at Tulane University in New Orleans. Johnston left Lexington in 1880 for Louisiana in order to serve as president of LSU. The *Louisiana Capitolian* hailed his arrival in the state and asserted that it was people like Johnston who were "to lead in the march toward progress and enlightenment." In early 1883, Johnston resigned from LSU in order to accept the presidency of the inchoate Tulane University. Johnston assured the board of administrators of the orthodoxy of his proposed curriculum by quoting Yale's president Noah Porter, who claimed that the sciences "not one or all together have made Atheism

⁴⁴Letter from Robert L. Stuart to Col. [D. F.] Boyd, 4 October 1883, folder 1, box 1, David F. Boyd Papers, University Archives, Auburn University; letter from Thos. D. Boyd to D. F. Boyd, 23 October 1883, Boyd Papers; letter from James H. Lane to D. F. Boyd, 29 May 1885, folder 4, Boyd Papers; letter from D. F. Boyd to H. D. Clayton, 9 February 1884, folder 2, box 1, Boyd Papers; letter from D. F. Boyd to J. T. Murfee, 5 April 1884, Boyd Papers; announcement by D. F. Boyd to [the] Young Gentlemen of the Corps of Cadets, 26 September 1883, General Orders No. 1, in ms, folder 1, box 1, Boyd Papers; David F. Boyd, "Commencement Address 1884," ms, folder 2, box 1, Boyd Papers; letter from J. S. Newman to William Leroy Broun, 4 January 1884, folder 62, box 5, Broun Collection; Leroy S. Boyd, "Recollections"; letter from Ashbel Smith to W. Leroy Broun, 16 November 1882, folder 55, box 4, Broun Collection; photocopy of letter from W. LeRoy Broun to H. D. Clayton, 7 May 1883, folder 56, box 4, Broun Collection, original cited as located in H. D. Clayton Papers, Special Collections, University of Alabama; photocopy of letter from William LeRoy Broun to H. D. Clayton, 31 May 1883, folder 56, box 4, Broun Collection, original cited as located in Clayton Papers.

intellectually more attractive, or the denial of Providence more rational." The endowment provided by Northern industrialist Paul Tulane enabled the university to become one of the few private universities in the South able to purchase the equipment and hire the faculty necessary to offer extensive courses in the applied sciences.⁴⁵

Clerical criticism also concerned George M. Edgar, a former Confederate colonel who succeeded Hill as president of Arkansas Industrial University in 1884. Edgar spent some of his time writing histories of Civil War battles and fantasizing about Southern independence. The Confederacy he imagined embraced progress and paralleled the New South. Confederate defeat, however, had not left Edgar in complete despair. He transferred his vision of an industrialized Confederacy to Arkansas and attempted to use his university to help that state win its economic independence from the North. Edgar embarked on a program to expand the school's curriculum to include courses in business, mechanical and mining engineering, and modern languages. He nevertheless felt compelled to say that his efforts to improve Arkansas'

⁴⁵Louisiana Capitolian (Baton Rouge), 6 November 1880; Dinah Daniel Richard, "The Southern Oratory of William Preston Johnston" (Ph. D. dissertation, Louisiana State University, 1982), pp. 38-40; William Preston Johnston, Report...to the Board of Administrators on the Plan of Organization of Tulane University, June 4th, 1883 (New Orleans: A. W. Hyatt, 1883). See also William Preston Johnston, typescript, [Speech at a Meeting of Scientists (probably the New Orleans Academy of Sciences)], n. d., folder 21, box 49, Johnston Collection.

material condition would not threaten the spiritual welfare of students. The university's professors, Edgar claimed, "should be chosen from that class who are God-fearing, and who derive their notions of sociology from the teachings of God's Word."⁴⁶

Sectarians also criticized progressivist education-- increasingly epitomized by public universities--for promoting crass materialism at the expense of spiritual enlightenment. Their fear that materialism undermined the spirituality of students paralleled the republican notion that luxury undermined the virtue of the Republic. Bishop William M. Green, chancellor of the Episcopal University of the South at Sewanee, Tennessee, assailed the materialism embodied by progressivists who "believe in Evolution, in Natural Selection, in a school without a Bible, in a self-made world, and in a universe that can take care of itself." If Americans followed these advocates of "Progress and

⁴⁶George M. Edgar, "A Contribution to the History of the Battle of New Market, May 15th, 1864," typescript, n. d., folder 16, box 2, George M. Edgar Papers, UNC-SHC; George M. Edgar, "Studies of the Wilderness," typescript, n. d., folder 18, Edgar Papers; George M. Edgar, "History of the Battle of Winchester, 19th September 1864," ms, folder 18, box 2, Edgar Papers; George M. Edgar, "Outline of Advantages the South Would Have had in Entering the Family of Nations, if Successful," in vol. 4, ms notebook, folder 24, box 2, Edgar Papers; George M. Edgar, Biennial Report of the Board of Trustees of Arkansas Industrial University to His Excellency, Simon P. Hughes, Governor of Arkansas (Little Rock, Ark.: A. M. Wooduff, 1886); "Arkansas Industrial University Official Report of Col. Geo. M. Edgar, President, Fayetteville, June 7th, 1885, ms, box 2, subser. 2, ser. 2, Board of Trustees' Records, University Archives, University of Arkansas.

Civilization," Green feared the nation would suffer the fate of "prostrate Rome," corrupted by wealth, extravagance, factional strife, physical expansion, and foreign immigration.⁴⁷

Progressivist educators denied materialism contradicted Christianity or threatened the Republic, but on the contrary, coincided with the former and enhanced the latter. "We are invoking science to transmit, by its wondrous alchemy, the beaded drops that fall from the brow of honest labor, into large stores of golden grain," claimed Isaac Tichenor on behalf of the scientific goals pursued by the faculty at Alabama A & M. "We are working for humanity," he continued, "for the children of our common Father." Lockett told medical students at the University of Tennessee that the work of Darwin, Huxley, and Tyndall would aid physicians in their inevitable victory over pestilence and disease. Medical advances during the century, Lockett claimed, "gives good ground for hope that the day of deliverance is not in the very distant future." Broun forthrightly acknowledged the materialistic bent of progressivist academics. "While we adopt Kant's definition that 'the duty of education is to reveal to our consciousness--to evolve--the inherent ideal of divinity in man,'" Broun claimed, "we must say with

⁴⁷William Mercer Green, Address Delivered before the Board of Trustees of the University of the South, Sewanee, Tenn., Monday of Commencement Week, July 28, 1878 (Sewanee, Tennessee: Mountain News, [1878?]), pp. 7-8.

Herbert Spencer, the important question for us, is 'how to live.'"⁴⁸

The board of directors of Texas A & M claimed that industrial education was necessary to protect a nation's economic security. They credited the work of Spencer, Huxley, and others on behalf of industrial education, for saving the British textile industry from the depredations of continental manufacturers. The directors argued that Americans' support for technical education in other states proved at least as successful in protecting their economic interests. The board urged Texans to support their A & M college so that it likewise might produce scientifically trained graduates capable of improving the state's economic health and security.⁴⁹

Bishop Green's vitriolic outburst against materialism may have been prompted by his own school's financial inability to provide for effective utilitarian instruction. The university opened several years after the war and attempted to offer extensive scientific courses as envisioned by its antebellum originators. The board of trustees sought notable Confederates to serve as the vice-chancellor, the school's chief administrative post, in an

⁴⁸Isaac Tichenor, Fifth Annual Report of the President of Alabama A & M, 1 January 1877, Tichenor Papers; Lockett, "The Correlation of Medicine with the Exact Sciences and Mechanic Arts"; Broun, Improvements, p. 27.

⁴⁹Report of the Agricultural and Mechanical College of Texas [1885], pp. 11-12.

effort to attract benefactors and students. Robert Lee and Matthew Maury both declined the honor which prompted the board to settle for another scientifically trained and experienced Confederate officer: Josiah Gorgas. The former chief of ordnance arrived at the school in 1868 after the financial collapse of a foundry he jointly owned and operated with his friend John Mallet at Brierfield, Alabama. The trustees also appointed graduates of West Point and Confederate generals Francis Shoup and Edmund Kirby Smith to the faculty. The vice-chancellor wanted the University of the South to move away from classical instruction and embrace more practical studies. By the mid-1870s, the curriculum included chemistry, engineering, and physics.⁵⁰

Unfortunately for Gorgas, the depression severely impaired enrollment and fund raising which hampered his efforts to provide expensive scientific instruction. Conflict also appears to have developed between the graduates of West Point on the faculty, who advocated a scientific curriculum, and classicists who feared practical

⁵⁰Draft of the Constitution and Statutes of the University of the South (New Orleans: Bulletin Book and Job Office, 1860); Arthur Benjamin Chitty, Jr., Reconstruction at Sewanee: The Founding of the University of the South and its First Administration 1857-1872 (Sewanee: University Press, 1954), pp. 105-179; "In Memory of Professor Mallet," p. 18; Vandiver, pp. 288-289; George R. Fairbanks, History of the University of the South, at Sewanee, Tennessee from its Founding by the Southern Bishops, Clergy, and Laity of the Episcopal Church in 1857 to the Year 1905 (Jacksonville, Florida: H. & W. B. Drew, Co.), pp. 160-161; Gorgas, Diary, 16 June 1865, 3 May 1866, 1 July 1866, 3 March 1868, and 7 June 1868.

instruction undermined the virtue of students by encouraging materialism. Dissatisfaction with the school's administration and poor financial condition led the trustees to terminate Gorgas' tenure at the end of 1878 by declaring that only a cleric, which Gorgas was not, could hold the vice-chancellorship. This action also effectively halted the university's efforts at technical instruction. Gorgas briefly considered starting his own military and scientific school, but instead accepted the presidency of the University of Alabama, which also wanted him to head the engineering department.⁵¹

The administrators of state universities took measures to defend their schools from clerical charges that they taught infidelity. Arkansas Industrial University, the University of Mississippi, and the University of South Carolina, offered classes in "Evidences of Christianity." Under Hill's administration, the Arkansas school also required students to attend religious services every morning and Bible class on Sundays. Under Lipscomb's successor,

⁵¹Fairbanks, pp. 176-334; Chitty, Jr., pp. 105-106, 125, 142, 179; letter from J. Gorgas to William LeRoy Broun, 25 October 1877, folder 51, box 4, Broun Collection; letter from J. Gorgas to S. H. Lockett, 31 January 1878, folder 26, box 2, Lockett Papers; Vandiver, p. 304; letter from N. H. R. Dawson to J. Gorgas, 5 July 1878, folder 12, box 674, Gorgas Family Papers; Minutes of the Board of Trustees of the University of Alabama, 4 July 1878, on microfilm, University Archives, Hoole Special Collections Library. Gorgas also received an offer to serve as professor of engineering at Louisiana State University, see letter from D. F. Boyd to J. Gorgas, 15 July [1878], folder 13, box 674, Gorgas Family Papers, and Gorgas, Diary, 16 July 1878.

Rev. Henry H. Tucker, the University of Georgia's trustees authorized the chancellor to teach "Evidences of the Christian Religion." The University of North Carolina continued the antebellum practice of presenting Bibles to graduating classes into the twentieth century, with, according to Battle, "not a word of opposition...uttered by educational or religious critics."⁵²

Progressivist academics also faced the opposition of many classical educators who feared that the elective system and technical courses threatened to diminish the number of students they received. Many classicists also equated technical education with apprentice or vocational instruction which they considered beneath the dignity of the collegiate curriculum. Significant opposition by classicists to applied science flared at several public universities, including the University of Tennessee and the University of Georgia.⁵³

⁵²First Report of the Arkansas Industrial University with a Normal Department Therein, pp. 21-2; Seventh Catalogue of the Arkansas Industrial University [1879], p. 21; Catalogue of the Officers and Students of the University of Mississippi, at Oxford, Mississippi, p. 31; Catalogue of the University of South Carolina MDCCCLXVII, pp. 4, 7; Sixth Catalogue of the Arkansas Industrial University, p. 37; Trustees' Minutes, University of Georgia, 5 August 1874; Battle, History, vol. 1, p. 475.

⁵³Burwell, Address, p. 11; letter from Roy [Broun] to Dear Father [William LeRoy Broun], 8 April 1884, folder 66, box 5, Broun Collection; Montgomery, Folmsbee, and Green, pp. 92-93; Trustees' Minutes, University of Georgia, 27 July 1877.

The University of Tennessee's president, Reverend Thomas W. Humes, a Unionist during the Civil War and a committed classicist, consistently fought reform efforts from his election in 1865 to his resignation eighteen years later. Humes barely survived a challenge to his leadership in 1877 when fifteen trustees voted to elect the progressivist David Boyd president, but they fell two votes short of a majority. Nevertheless, Humes had to contend with progressivists on his faculty, including the reform-minded professor of elocution, Edward Joynes, professor of agriculture and former Confederate cavalryman and civil servant, John McBryde, and professor of mathematics, Samuel Lockett, who all fought to advance the school's utilitarian curriculum. Dissatisfaction with Humes contributed to both Joynes and McBryde resigning and accepting posts at South Carolina College in 1882. The following year McBryde assumed that college's presidency and embarked on organizing its scientific curriculum. Humes' resignation in 1883 finally allowed reformers to fully implement a course of study that contained classes in applied science.⁵⁴

⁵⁴Fred A. Bailey, "Oliver Perry Temple and the Struggle for Tennessee's Agricultural College," Tennessee Historical Quarterly XXXVI (Spring 1977): 44-61; Montgomery, Folmsbee, and Green, pp. 70, 77, 92-100, 106-170; State (Columbia, SC), 12 January 1912, located in folder 21, box 3, McBryde Family Papers; draft of a letter from [Samuel H. Lockett] to Thos. W. Humes, n. d., folder 26, box 2, Lockett Papers. Internal evidence suggests Lockett wrote this draft between November 1877 and September 1878; clipping from an unidentified newspaper, June 1882, folder 21, box 3, McBryde Family Papers; Hollis, vol. 2, pp. 103-115.

Reformers also suffered challenges at the University of Georgia. The depression of the 1870s put a severe financial strain on the university and crippled its effort to provide expensive technical instruction. After Lipscomb's resignation as chancellor in 1874, the trustees appointed Henry Tucker, a Baptist minister and dedicated classicist, who opposed the elective system and the expensiveness of applied scientific courses. Tucker's efforts to increase the importance of classical instruction succeeded largely because financial difficulties hobbled the development of the scientific curriculum. Tucker's administration also ended Lipscomb's open elective system in favor of a curriculum of multiple courses with fixed criteria. Tucker's outspoken opposition to utilitarian science, however, ultimately led to his removal by reform minded trustees in 1878.⁵⁵

Although annoyed by obstructionist clerics and classicists, progressivists believed that the public served as the biggest hindrance to the fulfillment of their educational goals. After Reconstruction, Southern state legislatures generally balked at the high expenditures required to provide for utilitarian scientific instruction at state universities. The parsimony of legislators may have endeared them to the comparatively low expenditures

⁵⁵Trustees' Minutes, University of Georgia, 28 July 1875 and 27 July 1877; Thomas G. Dyer, Georgia, pp. 122-132.

needed for classical instruction or to the zero costs to the public purse provided by denominational colleges. Yet progressivists at state schools rarely criticized the legislative bodies that controlled the fate of public higher education. They preferred instead to blame the South's white "masses" for their disinterest in education and their desire for low taxes. Progressivists aimed to educate the public, especially the "working classes," to the importance of scientific instruction offered in state schools. Ultimately, progressivists hoped that enlightened popular opinion would force legislatures to provide state colleges and universities with ample funds.⁵⁶

Higher educators faced a difficult task, however, convincing the public to supply them with comfortable salaries and modern facilities. After touring Louisiana to promote LSU in 1883, President James W. Nicholson discovered

⁵⁶D. H. Hill, "Report to the Board of Trustees for the Arkansas Industrial University," ms, box 93. 5, Daniel H. Hill Papers, North Carolina Department of Archives and History; microfilm of ms Minutes of the Board of Trustees for the Mississippi Agricultural and Mechanical College, 15 March 1888, University Archives, Mississippi State University; John J. Wilmore, "Some Phases of Engineering Education in the South," Proceedings of the Society for the Promotion of Engineering Education 6 (1898): 62-64; Jennings L. Wagoner, "Higher Education and Transitions in Southern Culture: An Exploratory Apologia," Journal of Thought 18 (Fall 1983): 109-110; letter from Andrew A. Lipscomb to William LeRoy Broun, 8 January 1868, folder 17, box 2, Broun Collection; letter from Andrew A. Lipscomb to William LeRoy Broun, 2 April 1872, folder 34, box 3, Broun Collection; letter from F. H. Smith to M. F. Maury, 12 March 1869, vol. 30, Maury Papers; Tichenor, Sixth Annual Report, 25 June 1877, Tichenor Papers; Boyd, Address...1869, p. 4; Wagstaff, p. 31.

that the university largely went unnoticed by the public. The school's chronic economic difficulties, Nicholson believed, directly stemmed from the fact that "our people [are] not sufficiently alive to the importance of education." Battle blamed the unwillingness of the masses to support higher education to their failure to appreciate the growing importance of technical "specialists," and the costs involved in educating them, to Southern society. Progressivists also credited the persistence of the popular antebellum conviction that state universities provided education for elites at the expense of the masses for undermining efforts to raise money for public institutions. Furthermore, proponents of state schools rejected their opponents' claims that Southern states needed to focus public expenditures on scarce primary or secondary schools before spending money on higher education. Public universities, their advocates insisted, provided the teachers for the public schools. The difficulties progressivists faced in arousing popular support led some to attribute such intransigence to ignorance. "The uneducated," Curry commented, "do not appreciate the import and value of education."⁵⁷

⁵⁷Supervisors' Minutes, Louisiana State University, 2 April 1883; Battle, History, vol. 1, p. 781; Battle, Memories, p. 244; Norrell, p. 24; Thomas G. Dyer, Georgia, pp. 122, 129-30; newspaper clipping from the Alabama Christian Advocate, 1 April 1885, Eugene A. Smith Scrapbook, 1886-1887 [sic], vol. 5, Eugene Allen Smith Collection; letter from H. D. Clayton to William LeRoy Broun, 8 October

Progressivist educators and their adherents resumed the antebellum tactic of appealing to state pride in an effort to win public support for higher education. "We appeal to the patriotism of our fellow citizens," pleaded the trustees of Arkansas Industrial University in 1887, "to insist upon appropriations of money enough to make the University what it ought to be but cannot be without much more money." Progressivists argued that Southerners must educate their own agricultural chemists, architects, engineers, industrialists, and miners, or otherwise have educated Northerners and foreigners reap the profits derived from rebuilding the South. Proponents of public higher education also begged Southern parents not to resume the antebellum practice of educating their children outside the region. "Shall we admit that we must send our young men to the schools of science and technology, north and elsewhere to familiarize themselves with the demands of modern progress?" asked a contributor to the *Knoxville Daily Tribune*.⁵⁸

1888, folder 79, box 6, Broun Collection; J. L. M. Curry, "Annual Report of the Hon. J. L. M. Curry, General Agent of the Peabody Fund," Texas Journal of Education (October 1881), p. 241.

⁵⁸University of Arkansas. Board of Trustees. Minutes of Meetings, 2 June 1887, ms on microfilm, University Archives, University of Arkansas; Trustees of the State [Mississippi] University, Where Shall I Send My Son?, p. 4; Taylor, Young Men of the New South, pp. 10-13; D. F. Boyd, Louisiana State University Scheme to Raise an Endowment Fund (New Orleans: n. p., 1872), p. 4; Louisiana Democrat (Alexandria), 29 July 1868; Report of the Sub-Committee on Public and Charitable Institutions, Appointed January 20, 1876. (New Orleans: n. p., [1876?]), p. 16; Peeler,

Progressivist academics sought to forge connections between themselves and the public in an effort to attract patronage. To accomplish this task, academics canvassed their states urging people to support public higher education and explaining the benefits of scientific instruction. Professors also delivered public lectures on issues they believed of general interest. Lectures at the University of Texas for 1886-1887 included "Food and its Adulterations," "Private Corporations," "The Progress of Engineering," and "Frictional Electricity." Additionally, state schools opened various types of museums, in part to provide learning materials for their students, but also as a ploy to attract public patronage. David Boyd appealed to Louisiana's "planters, manufacturers, mechanics and merchants" to provide "material for a good Industrial Museum," particularly model bridges or steam engines. Arkansas Industrial University's museum boasted over five hundred mineralogical and zoological specimens and its science departments welcomed public donations in the form of fossils and Native American artifacts. Although the contributions university museums received were usually of little academic or monetary value--such as bird nests,

Address, p. 17; letter from J. T. Murfee to Matthew F. Maury, 1 May 1871, vol. 37, Maury Papers; Egan, p. 7; Lockett, untitled commencement address, [29 June 1874], folder 130, box 8, Lockett Papers; Knoxville Daily Tribune, 23 June 1886.

rabbit skins, or even the "hair ball from the stomach of a steer"--administrators believed they helped foster good will among donors.⁵⁹

Academics attempted to ally themselves with manufacturers by explaining to them the benefits they believed technically trained graduates offered to industry. To accomplish this task, progressivist educators joined Southern industrial associations and cultivated contacts with manufacturing interests. Tichenor represented the state's A & M college at the organizational meeting of the Alabama Industrial Association in September 1877. Boyd served on a committee of the Baton Rouge Industrial

⁵⁹Letter from C[harles]. P[hillips]. to [J. Kimberly], 15 July 1875, folder 55, box 4, Kimberly Papers; Edgar, "Arkansas Industrial University...June 7th, 1885"; J. W. Nicholson, Higher Education at Public Expense Justified. Address of Col. J. W. Nicholson--President of Louisiana State University and Agricultural and Mechanical College on the Occasion of the Seventh Annual Convention of the Louisiana Educational Association, Shreveport, LA., July 25, 1890 (Baton Rouge: Truth, Job, and Book Office, 1890), pamphlet located in folder 2, James W. Nicholson Papers, Louisiana and Lower Mississippi Valley Collection; Clarion-Ledger 11 July 1889; Battle, History, vol. 2, p. 217; letter from James H. Lane to D. F. Boyd, 5 November 1885, folder 4, box 1, Boyd Papers, Auburn University; letter from R. S. McCulloch to William Preston Johnston, 1 June 1883, folder 1, box 22, Johnston Collection; Catalogue of the University of Texas for 1886-7, pp. 73-74; Official Register of the Louisiana State University...1870, p. 24; Official Register of the Louisiana State University...1872, pp. 77-80; Official Register of the Louisiana State University 1873, pp. 75-90; Ninth Catalogue of the Arkansas Industrial University...1881, p. 66; Eleventh Catalogue of the Arkansas Industrial University...1883, p. 67; Joel Colley Watson, "Isaac Taylor Tichenor and the Administration of the Alabama Agricultural College 1872-1882" (M. A. thesis, Auburn University, 1968), p. 66.

Association. Eugene A. Smith, a Confederate lieutenant and professor of mineralogy and geology at the University of Alabama helped found the Alabama Industrial and Scientific Society in 1891. The organization proposed to facilitate contacts between "scientific and practical men, for mutual help and interchange of experience," which the founders noted, "has always proved of great material advantage." Lipscomb urged the University of Georgia's faculty to create ties with industry by connecting "your classes more closely with workshops, mines, and factories."⁶⁰

Nascent Southern industrialists, however, were not the group that academics focused on in their efforts to win political support. "It is of prime importance," wrote Francis Henney Smith to Matthew Maury, "that we ally ourselves closely with the *Agriculturists*." In a region dominated by agriculture, progressivist academics--especially those at A & M colleges--believed that the patronage of farmers was essential if scientific education at state schools was to succeed. Professors of science attempted to teach agrarians basic principles of scientific agriculture at Farmers' Institutes sponsored by schools at various locations throughout their respective states in an effort to gain the confidence and support of "intelligent

⁶⁰Watson, p. 62; Tri-Weekly Advocate (Baton Rouge), 30 August 1871; Biographic Sketch, Guide to the Eugene Allen Smith Collection; Proceedings of the Alabama Industrial and Scientific Society I (1891): 1-8; Lipscomb, "Report," 28 July 1874.

and progressive farmers." Administrators at A & M colleges invited members of the Grange and Farmers' Alliance to examine their scientific facilities and hold annual meetings on their campuses. Professors from both state universities and A & M colleges spoke at meetings of agricultural societies to stress the importance of their schools to farmers.⁶¹

Progressivists, however, faced a difficult task convincing farmers that public money spent on higher education benefitted agriculture. Many farmers associated collegiate education negatively with classical instruction and the training of preachers, lawyers, and physicians.

⁶¹Letter from F. H. Smith to M. F. Maury, 17 March 1869, vol. 30, Maury Papers. Emphasis is original; Report of the Agricultural and Mechanical College of Texas [1887-1888], pp. xviii-xix; State Grange [Mississippi] and A. & M. College. Compiled from the Official Proceedings by Secretary of State Grange (n. p., [1886]), pp. 6-7; Proceedings of the Fourteenth Annual Session of the Texas State Grange Held at Coltege Station, Brazos County, Texas...1888, (Dallas: Texas Farmer, 1888), pp. 4-5; Proceedings of the Farmers' State Alliance of Texas. Ninth Regular Session Held in Dallas, Texas...1888 (Dallas: Circular Letter Office, 1888), pp. 33-35; S. D. Lee, Agricultural and Mechanical College of Mississippi, p. 18; N. T. Lupton and Eugene A. Smith, Addresses Delivered Before the State Agricultural Society in Convention at Selma, Alabama, Feb. 2d, 1888 (Montgomery: n. p., 1888); letter from James H. Lane to D. F. Boyd, 5 November 1885, folder 4, box 1, Boyd Papers, Auburn University; National Agricultural Congress, Circular, 1874, in Letters to A. W. Bishop, box 3, Board of Trustees Records, University Archives, University of Arkansas; "Programme of the Alabama State Agricultural Society to be Held at Troy, Alabama, August 3d, 4th and 5th, 1887," (n. p., n. d.), in folder 75, box 6, Broun Collection; William LeRoy Broun, "Speech Before the Inter-State Farmers' Association," in Dr. William LeRoy Broun, pp. 170-188.

Farmers often feared that children educated at college lost interest in agriculture and abandoned the farm in favor of the professions. Proponents of utilitarian science endeavored to convince farmers that higher education stood to benefit them and not wean their sons away from the farm. "Farming is a science. It is the highest and noblest of sciences," Daniel Hill told the Orange (North Carolina) County Grange, and future farmers "must know chemistry, geology, botany mineralogy, zoology and etc."⁶²

Leaders of farm organizations, especially state Granges, acknowledged the importance of applied science to agricultural pursuits. "In this day of invention and progress," argued one Granger from Texas, "it is clear that a common school education does not meet the demands of the farmer." Leading agrarians feared that many farmers failed to understand the impact of industrialization on society. Recurring economic depressions and chronically depressed prices for crops in the last quarter of the nineteenth century confronted many farmers with bankruptcy or other financial hardship. Distressed agriculturists often blamed

⁶²Proceedings of the Sixth Annual Session of the Texas State Grange...1880, p. 36; Louisiana Capitolian (Baton Rouge), 29 July 1880; Tichenor, Fifth Annual Report, 8 January 1877, Tichenor Papers; letter from J. B. Angell to D. F. Boyd, 18 November 1874, in Annual Report of the Louisiana State University...1874, p. 50; Report of the Board of the Agricultural and Mechanical College of the State of Texas, pp. 37-38; Sutherlin, p. 26; D. H. Hill, "Brethren of the Orange County Grange," ms, box 93.5, Daniel Harvey Hill Papers, North Carolina Department of Archives and History.

their misfortune on the owners of banks, corporations, trusts, and railroads who agrarians believed benefitted from discriminatory laws and superior educations. Some farm leaders, encouraged by progressivist academics, believed technical education offered agrarians the scientific means to increase production, decrease labor costs, and compete effectively with their enemies. "In the march of progress the farmer has been forced out of the beaten tracks almost in spite of himself," remarked one Granger from Mississippi, "Knowledge adapted to farming fifty years ago will not suffice...hence, from the necessity of the case, agricultural colleges have been established."⁶³

The Morrill Act of 1862 offered progressivist academics and agrarian leaders some financial means to advance technical education and an opportunity to demonstrate to farmers how higher education might benefit them. The act granted to each state 30,000 acres of Federal land, or compensatory scrip, for every senator and representative a state had in Congress. The Federal government required

⁶³Proceedings of the Texas State Grange...1887, appendix, p. 6; Proceedings of the Texas State Grange...1885, pp. 7-8, 33-34; Proceedings of the Texas State Grange...1886, pp. 39-42; Lawrence Goodwyn: The Populist Moment: A Short History of the Agrarian Revolt in America (Oxford: Oxford University Press, 1978), pp. 20-25; Gavin Wright, pp. 164-176; State Grange and A. & M. College, p. 3. See also Proceedings of the Third Session of the State Grange of the Patrons of Husbandry of South Carolina (Columbia: Wm. Sloane, 1875), p. 5, located in folder 1, box 1, Patrons of Husbandry, South Carolina Papers, 1873-1876, Special Collections Library, Duke University Library, Durham, North Carolina.

legislatures that accepted the grant to use funds derived from the sale of land or scrip to endow "at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts...." The law specifically prohibited states, however, from using the grant to construct educational facilities, thus state legislatures that accepted the offer needed to provide the buildings. The act allowed for legislatures to designate either an established or new school to receive the grant. States in rebellion were initially ineligible, but subsequent legislation after the war allowed them to apply for the funds.⁶⁴

The law intentionally left undefined how the agricultural and mechanical arts were to be taught which quickly led to disagreements among academics and farmers. Some farmers opposed agricultural colleges because they thought the schools intended to teach routine agricultural procedures, such as harvesting or plowing, more readily and less expensively learned on the farm. While some proponents of A & M colleges advocated teaching manual labor skills,

⁶⁴Portion of Morrill text quoted in William S. Aldrich, "Engineering Education and the State University," Proceedings of the Society for the Promotion of Engineering Education 2 (1894): 272-273; Brubacher and Rudy, p. 234; Earle D. Ross, Democracy's College: The Land-Grant Movement in the Formative State (Ames, Iowa: Iowa State College Press, 1942), pp. 60-61.

most academics wanted the schools to teach complex mathematics and sciences and apply them to agriculture. Broun advised parents who wanted their son "to learn how to plow" to place him on a farm or plantation, but if they wanted him to "learn *why* to plow," to "send him to a good science college."⁶⁵

Academics themselves divided nationally, however, over whether the colleges should educate a new generation of farmers who would experiment with and use scientific knowledge on their own farms, or instead if they should train a class of specialists capable of working at A & M schools, state agricultural bureaus, and experiment stations, who would then instruct farmers on how to improve the production of crops scientifically. The latter option required that farmers themselves learn little science; they need only follow directions provided by agricultural experts. Others argued for both scientifically educated farmers and specialists. In either case, William LeRoy Broun doubted that scientific agriculture would enable many

⁶⁵"Report by the Committee of Agriculture and Horticulture for the State College," Trustees' Minutes, University of Georgia, 4 August 1875; Wm. H. Ruffner, J. R. Anderson, and W. T. Sutherlin, "Plan of Organization," in Virginia Agricultural and Mechanical College. Its History and Organization, pp. 18-22; Patron of Husbandry, 24 July 1880; News and Courier, 15 August 1887, clipping in folder 21, box 3, McBryde Family Papers; Hilgard, Progressive Agriculture, pp. 28-31; Broun, "Industrial Education," appendix, pp. 17-23. Emphasis is original. See also Alex'r Hogg, Industrial Education. (Origin and Progress). State Agricultural and Mechanical College of Texas (Galveston: Galveston News, 1879), p. 33.

young Southerners to return to the farm. Broun told the Association of American Agricultural Colleges and Experiment Stations in 1892 that college graduates "can not engage in farming without a farm, and this, as a rule, they do not possess; hence they must begin as wage earners, as teachers, engineers, chemists, or in whatever capacity their education and environment render possible." Nearly eight years earlier, he likewise told former Confederate general Henry D. Clayton, a supporter of utilitarian education who would later serve as president of the University of Alabama, that Southern youths needed "a scientific or technical education in mechanics" that would give them "wage-earning power." Broun rejected the republican notion of those, who "taking counsel of their fears," fretted that scientifically trained but dependent employees would succumb to materialism and vice. Successful farming, he believed, depended largely on good land and favorable market conditions. The latter of which he understood, was an unlikely circumstance during the agricultural depression that engulfed the late nineteenth century.⁶⁶

⁶⁶Alan I. Marcus, Agricultural Science and the Quest for Legitimacy: Farmers, Agricultural Colleges, and Experiment Stations, 1870-1890 (Ames: Iowa State University Press, 1985), pp. 3-86; Egan, p. 7; letter from R. S. McCulloch to [D. F. Boyd], 27 February 1884, folder 116, box 10, McCulloch [sic] Letters; D. F. Boyd, "Industrial Education in Louisiana 1875," folder 7, box 2, Louisiana State University Official Papers; Report of Jerome McNeill to the President and Board of Trustees of Arkansas Industrial University, 24 November 1891, in box 6, Biology and Geology Reports 1883-1897, Annual Reports, University Archives,

For their part, farmers looked to scientific education as a panacea that would quickly solve their financial troubles. When academics failed to deliver, agrarians often turned against higher education. The most notable case occurred at South Carolina College under president John McBryde. His administration fell under the attacks of agrarians led by "Pitchfork" Ben Tillman, who charged that the college taught only theoretical, or pure, science akin to classical institutions, and failed to teach practical, or applied, science that graduates could use on the farm. Tillman insisted that the legislature remove the school's Morrill grant and use the funds to establish a separate A & M college.⁶⁷

University of Arkansas; copy of letter from William LeRoy Broun to H. D. Clayton, 7 January 1885, folder 71, box 5, Broun Collection, original cited as located in the Clayton Papers, Gorgas Library; Clark, pp. 169, 173; letter from H. D. Clayton to W. G. Clark, 11 June 1887, folder 86, box 4, Record Group 1, Trustee Records, Hoole Special Collections Library; William LeRoy Broun, Presidential Address, Proceedings of the Sixth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations Held at New Orleans, Louisiana November 15-19, 1892 (Washington: Government Printing Office, 1893), p. 62; copy of letter from William LeRoy Broun to H. D. Clayton, 3 June 1885, folder 71, box 5, Broun Collection, original cited as located in Clayton Papers, Gorgas Library; Broun, Science Education, pp. 14-15.

⁶⁷State Grange and A & M College, pp. 1-7; "B. R. Tillman in Newberry: His Talk to the Farmers," Newberry Observer (South Carolina), 26 August 1886, newspaper clipping located in folder 21, box 3, McBryde Family Papers; letter from B. R. Tillman to the Editor, News and Courier 11 January 1886, folder 21, box 3, McBryde Family Papers; News and Courier, 15 August 1887.

Ironically, McBryde was a widely known and dedicated advocate of scientific agriculture. Educated at South Carolina College and the University of Virginia, he conducted "practical" scientific experiments on farms in Virginia in the years after the war and avidly promoted the application of theoretical science to agriculture. He wanted to first familiarize students, however, with the theoretical principles of biology, botany, and other sciences related to agriculture before teaching them to how to apply these through experiments. McBryde believed agricultural progress occurred slowly through painstaking experimentation performed by qualified personnel trained in scientific agriculture. He did not believe, like Tillman, that large numbers of college graduates, trained scientifically or not, would return to the farm.⁶⁸

During McBryde's administration, South Carolina College once again became a "University." McBryde helped organize a school of scientific agriculture and two schools of engineering, but his efforts at reform were short-lived. McBryde resigned from the college in 1891 and accepted the presidency of Virginia A & M shortly after the South

⁶⁸Letter from Wm. J. Robertson to Moses White, 13 May 1879, folder 1, box 1, McBryde Family Papers; letter from Jno. R. Page to Moses White, 13 May 1879, McBryde Family Papers; J. M. McBryde, Agricultural Education. An Address Delivered Before the State Legislature, December 12th, 1882 (Columbia, SC: Charles A. Calvo, Jr., 1883); letter from John M. McBryde to the Farmers of Tennessee, 22 July 1879, clipping from unidentified newspaper in folder 21, box 3, McBryde Family Papers.

Carolina legislature, with Tillman as governor, removed the school's Morrill money and granted it to the newly established Clemson Agricultural and Mechanical College. The University of South Carolina reverted to South Carolina College and became a classical institution. Ironically, Clemson appropriated most of McBryde's technical program. Farmers' organizations also successfully pressured the legislatures of Mississippi and North Carolina to establish separate agricultural and mechanical colleges after lawmakers originally awarded the Morrill grant to existing state universities.⁶⁹

Disgruntled agrarians in Arkansas who believed the technical education provided by the state university was too theoretical, passed legislation in 1887 that created a new board of trustees, required students to do actual farm work, and lowered the president's salary. These actions prompted President Edgar, who supported scientific agricultural studies, to resign. He blamed the high cost of equipment and low legislative appropriations for the university's

⁶⁹"The College of the State: First Annual Report of the New Board of Supervisors," Weekly News and Courier (Charleston, SC), 26 August 1885; Columbia Daily Register 16 May 1891, folder 3, box 1, McBryde Family Papers. For an in-depth discussion on the controversy between McBryde and Tillman, see Hollis, vol. 2, pp. 128-158; Buz M. Walker, "These Fifty Years 1880-1930," typescript, Buz M. Walker President's File (1925-1930), University Archives, Mississippi State University; Alice Elizabeth Reagan, North Carolina State University: A Narrative History (Ann Arbor, MI: Edwards Brothers, Inc., 1987), pp. 15-20.

failure to conduct extensive agricultural experiments and provide students with practical training. The new board replaced Edgar with another Confederate veteran, Edward H. Murfee, the professor of mathematics and brother of James T. Murfee. The new faculty president, armed with an increase in funds provided by the legislature, continued Edgar's efforts at progressivist education. The new administration only added a couple of two year "short" courses: one in agriculture and the other in mechanical arts. The faculty remained virtually unchanged.⁷⁰

Conflicts over the type of instruction offered at public universities and A & M colleges stemmed from farmers' overly high expectations created by progressivist academics who exaggerated the immediate benefits of scientific agriculture in an effort to win agrarian support. Imprudent progressivists' rhetoric led farmers to expect college graduates who would return to their farms, perform a few scientific miracles that improved the quality and yield of their crops, and lift their parents out of debt. When this failed to happen to any significant degree, farmers--

⁷⁰Board of Trustee Minutes of Arkansas Industrial University, 18 April 1887, 2 June 1887, and 7 June 1887; Edgar, Report [1886]; Hale, University of Arkansas, pp. 55, 63-64; E. H. Murfee, "Biennial Report of the President," Biennial Report of the Board of Trustees of the Arkansas Industrial University to His Excellency, Simon P. Hughes, Governor of Arkansas (Little Rock: Press Printing Co., 1889) pp. 11-16; Thirteenth Catalogue of the Arkansas Industrial University...1885, p. 16; Fifteenth Annual Catalogue of the Arkansas Industria University...1887, p. 17.

suspicious of publicly supported colleges to begin with-- turned against the administrators and faculties of these institutions. The failure of agricultural science to meet farmers' expectations did not lead them to blame progress or science, however, but instead to demand either the replacement of a school's administration, or the establishment of a separate school dedicated solely to agriculture.⁷¹

Progressivist academics turned to each other for devising strategies for overcoming the obstacles they faced--integrationist Republicans and segregationist conservatives, faithful sectarians, fearful classicists, parsimonious legislators, and impatient agrarians--in building the type of institutions they believed would create a new South. To accomplish this, progressivists relied upon old friendships (many established during the war) and cultivated new ones through frequent correspondence and occasional meetings in which they swapped catalogues, trustee reports, and discussed curricula.⁷² In the years

⁷¹Letter from John M. McBryde to the Farmers of Tennessee, 22 July 1879, clipping from unidentified newspaper in folder 21, box 3, McBryde Family Papers; McBryde, Agricultural Education, p. 6; letter from H. R. Thomas to the Editor, News and Courier, 22 July 1887, folder 21, box 3, McBryde Family Papers.

⁷²For the extensive correspondence between Southern academics, see the following collections: David F. Boyd Papers, University Archives, Auburn University; David F. Boyd Papers, Louisiana and Lower Mississippi Valley Collections; Broun Collection; Daniel H. Hill Papers, North Carolina Department of Archives and History; Johnston

following the war, progressivist academics gained control of numerous colleges and universities, particularly state institutions, from Virginia to Texas. Although, they would fail to create a New South in their lifetime, progressivist educators would pass their vision to a second generation of postbellum academics.

Collection; Stephen D. Lee, President's Letter Book, University Archives, Mississippi State University; Ashbel Smith Papers, Barker Texas History Center; Francis Henney Smith Papers, Archives of the Virginia Military Institute.

CHAPTER 5
LEGACY OF PROGRESS

"No sort of education but a 'practical education' will enable our young men and their children's children to retrieve the fortunes of the South," Matthew Maury wrote Francis Henney Smith in 1867. "The task must be handed down to them," Maury continued, "for we shall never finish it."¹ Progressivist academics believed they needed to impart their faith in progress and technology to the first postwar generation of students if white Southerners were ever to escape the devastating physical and psychological impact of the Civil War and work toward a prosperous future. This required Southern youth not to renew the battles over slavery and states' rights that their parents already had fought and lost. Yet, progressivists also believed that in order for the wartime generation to transmit a legacy of progress--not guilt--young Southerners needed to respect the sacrifices of their elders. In order to accomplish these goals, progressivist academics taught their students reverence for the past through the study of history and confidence in the future through the study of science.

¹Letter from M. F. Maury to F. H. Smith, 30 March 1867, folder G-M 1867, Francis H. Smith Papers, Archives, Virginia Military Institute. See also Robert E. Lee, [Jr.], Recollections and Letters of General Robert E. Lee by His Son Captain Robert E. Lee (New York: Doubleday, Page & Company), p. 210.

The "teachers and students" of Washington College, claimed a contributor to the *Virginia Gazette*, "have been the soldiers and orphans of the Confederacy." The same could be said for many postbellum Southern institutions of higher learning, where, in addition to being taught by some veterans, "orphans" often studied alongside others. The University of Mississippi estimated that in the years immediately following the war as many as half of its students consisted of Confederate veterans. Even before the Civil War ended, the University of Virginia offered maimed Confederate veterans free tuition and board. Georgia lawmakers passed legislation that paid for wounded veterans to attend either the University of Georgia, Mercer University, Oglethorpe University, Emory College, or Bowdon College. The program operated between 1866 and 1868 and provided badly needed revenues to those schools. The veterans who attended the University of Georgia reminded one observer of life in the Confederate military. A student remarked that the veterans provided the university with the atmosphere of a military camp.²

²"Southern Education," *Virginia Gazette*, 11 August 1869, reprinted in *Collegian*, 4 September, 1869, located in folder 16, box 14, Johnston Collection; *Historical Catalogue of the University of Mississippi 1849-1909*, p. 10; Barringer, et al., p. 175; Nathaniel E. Harris, *Autobiography: The Story of an Old Man's Life with Reminiscences of Seventy-Five Years* (Macon, Georgia: J. W. Burke, Co., 1925), p. 153; Derrell Roberts, "The University of Georgia and Georgia's G. I. Bill," *Georgia Historical Quarterly* XLIX (December 1965): 418-423.

The presence of disabled soldiers on campuses demonstrated to students the sacrifices--and defeat--that these former Confederates endured. Veterans who worked as administrators and professors were determined that those too young to fight in the war would have the intellectual skills necessary to escape the degradation suffered by the wartime generation.

Former Confederate soldiers who entered academia, especially those trained at military academies with a historical connection between martial and scientific training, endeavored to give that type of instruction to their students. The Morrill Act reinforced the association between applied science and military instruction by requiring schools that accepted the grant to teach "military tactics" as well as agricultural and mechanical arts. The Confederacy's devastating defeat had not soured Southern schools on military instruction. Communities and schools throughout the Southern states competed vigorously to obtain the Morrill funds, which one Tennessee observer noted, the South desperately needed for the promotion of its "industrial progress." Most colleges that succeeded in securing the grant did not hesitate to organize military departments. Furthermore, the South Carolina and Virginia legislatures continued to support VMI and the South Carolina Military Academy. Southern state universities in Alabama and Louisiana also quickly resumed their antebellum and

wartime efforts at supplying students with military instruction.³

Southern schools almost invariably adopted gray for the color of their cadets' uniforms, ostensibly patterned after those worn at West Point, but also suspiciously similar to the attire worn by Confederate soldiers. During the 1870s, administrators at the University of Alabama, Arkansas Industrial University, and the University of East Tennessee sought to arm their cadets and asked the War Department to provide them with weapons. The department instructed the presidents of those schools to have the governors of their respective states petition the secretary of war for weapons made available to state militias under a Congressional act. Upon receiving the Federal arms, state authorities could designate collegiate corps of cadets as state militia and

³Ruffner, et al., "Plan," Virginia Agricultural and Mechanical College, pp. 5-6, 33; letter from J. N. Craig to the Trustees of the Mississippi Agricultural and Mechanical College, 19 March 1880, folder 2, box 1, Edgar Papers; Stephen D. Lee, "Report of the President," Report of the Trustees, President and Other Officers of the Agricultural and Mechanical College of Mississippi, from the Organization of College to Dec. 1st, 1883 (Jackson, Miss.: Clarion Steam Printing Establishment, 1883), p. 4; William Warren Rogers, "The Founding of Alabama's Land Grant College at Auburn," Alabama Review 40 (January, 1987): 14-37; Gianniny, Jr., pp. 160-161; "Our University. Some Suggestions from a Friend of the Institution," Knoxville Daily Tribune, 23 June 1886; University of Alabama, Circular, [1871 or 1872], Eugene Allen Smith Collection; Report of the Board of Supervisors of the Louisiana State University...1870, p. 23; Report of the Joint Committee on Charitable and Public Institutions to the General Assembly of Louisiana, January 1869 (New Orleans: n. p., 1869), pp. 3-4; Report of the Board of Supervisors of the Louisiana State Seminary...1867, p. 12.

provide them with the weapons. Mississippi A & M, under the leadership of Stephen D. Lee, received 150 rifles and two rifled cannon from the Federal government in 1885.⁴

The United States Army and Navy provided many A & M colleges, including some Southern schools, with commissioned officers to serve as commandants and instructors in fields that included engineering and physics. The Federal government even provided LSU with a new campus in 1886 by giving the school the former site of the United States Army

⁴Catalogue of the Officers and Students of the University of Georgia...1874 (Macon, Georgia: J. W. Burke & Co., 1874), p. 47; Official Register of the Louisiana State University...1871, p. 27; Sellers, p. 486; John K. Bettersworth, People's College: A History of Mississippi State University (University, Alabama: University of Alabama Press, 1953), p. 66; Oran M. Roberts, Message, p. 41; letter from R. [sic] R. Tillman to the Editor, News and Courier (Charleston), 27 May 1886, clipping in folder 21, box 3, McBryde Family Papers; Biennial Report of the Superintendent of Public Instruction to the Governor of the State of Arkansas for the Two Years Ending September 30, 1872 (Little Rock: Price & McClure, 1872), p. 60; Reagan, p. 26; letter from William W. Belknap to N. T. Lupton, 24 November 1871, folder 1209, box 57, Trustee Records, Record Group 1, University Archives, Hoole Special Collections Library; letter from N. T. Lupton to Chief of Ordnance (Washington, D. C.), 27 May 1872, folder 1209, box 57, Trustee Records, Record Group 1, University Archives, Hoole Special Collections Library; letter from M. L. Poland to the President of the University of Alabama, 10 June 1872, box 57, Trustee Records, Record Group 1, University Archives, Hoole Special Collections Library; letter from Ordnance Office (Washington, D. C.) to Daniel Harvey Hill 18 September 1878, box 93.2, Daniel H. Hill Papers, North Carolina Department of Archives and History; Stephen D. Lee, "President's Report to the Honorable Trustees, Biennial Report of the Trustee, President and Other Officers of the Agricultural and Mechanical College of Mississippi for the Years 1884-'85" (Jackson: Clarion Steam Publishing Establishment, 1885), p. 9.

garrison at Baton Rouge. The grant included over two hundred acres of land and buildings valued at \$150,000.⁵

Students born too late to fight in the war were thus exposed to a complex array of influences on Southern campuses. They attended classes taught by former Confederate officers and with veterans as fellow students. Matriculates learned applied science to prepare them for the future and military skills that taught them to remember the past. At Federally provided A & M colleges, gray clad cadets drilled under United States military officers with weapons provided by the national government. The exposure of students to veterans, science, drill, and the obvious authority of the Federal government impressed upon students the need to honor the past, prepare for the future, and accept national reconciliation.

Not all Southerners wanted students given military instruction. Kemp Plummer Battle noted that the University of North Carolina, despite initially receiving the state's share of the Morrill grant, repeatedly postponed

⁵Letter from Ordnance Office to D. H. Hill, 18 September 1878; First Annual Catalogue of the Officers and Students of the Agricultural and Mechanical College of Mississippi 1880-'81 (Jackson: Clarion Steam Publishing House, 1881), pp. 25-27; Fifth Annual Report of the Agricultural and Mechanical College of Texas. Session 1880-81, p. 14; Tillman to Editor, News and Courier, 27 May 1886; Reagan, p. 24; D. F. Boyd, General History of the Seminary Fund and the Agricultural and Mechanical College Fund, and of the [O]rganization and [W]ork of the Institution founded thereon by the State of Louisiana (Baton Rouge: Bauer Printing Co., 1899), p. 12.

implementing Federally mandated military instruction because "our people were so sick of war and all likeness to it that there was no demand for military teaching." Opposition to military education in the South arose after the Civil War as it had in the antebellum period. Critics charged that administrators at A & M colleges overemphasized military studies at the expense of technical instruction in agriculture and mechanics. William LeRoy Broun's son, Roy, a professor of chemistry at LSU, noted in 1884 that the military department there was "the only thing that...is in any way developed." He also observed, however, that the high cost of instruction prevented the school from adequately developing its scientific curriculum. Broun noted that the school's mechanical engineering professor maintained a metal lathe, but "that the castings cost so much that he rarely works it." The inexpensiveness of drill and the study of military tactics, the cost of which was frequently provided for by the Federal government, served as an inexpensive means of at least fulfilling one of the requirements of the Morrill Act.⁶

⁶Battle, History, vol. 2, p. 86; May, pp. 114-125; letter from James H. Lane to D. F. Boyd, 2 March 1885, folder 4, box 1, David F. Boyd Papers, University Archives, Auburn University; J. G. James, "President's Report," Fourth Annual Report of the President of the Agricultural and Mechanical College of Texas with Accompanying Documents [Nov. 22, 1879-July 1, 1880] (College Station, Texas: n. p., 1880), p. 10; Report of the Joint Committee, "The Agricultural and Mechanical College," Senate [Texas] Journal 4 March 1893, pp. 311-314, located in folder 12, box 2, Miscellaneous Publications, Louis Lowry McInnis Papers,

Critics of military instruction in South Carolina especially attacked the Citadel, which they charged taught classics instead of science and spent too much time on ornamental drill and parade. "The war is over and we are whipped," read one letter to the *Charleston News and Courier*. "We need anything, everything, more than we do soldiers." Another opponent of the institution charged that South Carolina wasted twenty thousand dollars a year "to keep a few young men in brass button and gold lace" while the school's scientific studies "languished."⁷

Proponents of military instruction claimed that it improved the discipline of students as well as provided them with healthful exercise and manly dignity. Gradually, the association between applied science and military science weakened, and even some progressivist educators expressed concern that military drill interfered with their students' work in laboratories and at other scientific studies. Upon the urging of faculty and students in the South and the rest of the nation, optional physical education programs and intercollegiate sports increasingly replaced military drill. This satisfied the concerns of those Victorian educators who

University Archives, Texas A & M; Dialectic Reflector [monthly newspaper of Mississippi A & M], December 1884; two letters from Roy Broun to [William LeRoy Broun], both dated 26 October 1884, folder 70, box 5, Broun Collection.

⁷Tillman to Editor, News and Courier, 27 May 1886; Aiken Recorder, 8 September 1885, in folder 26, box 4, McBryde Family Papers.

insisted that students have an opportunity, which military drill had provided, to physically maintain and display their manliness.⁸

In addition to military instruction, academics endeavored to educate Southern youth about their past through historical study. After the Civil War, schools throughout the South implemented new courses and departments in history. Progressivist academics taught their students to understand the discipline as a record of an evolutionary and inevitable series of human events best understood scientifically through the objective interpretation of primary sources. Former Confederate colonel James Reid Cole, professor of English Language, Literature, and History at Texas A & M, told the school's board of directors that he intended to present history to his students "as a picture of the march of the human race--advancing from darkness to

⁸H. H. Dinwiddie, "Report of the Chairman of the Faculty," Report of the Agricultural and Mechanical College of Texas [1883-1885], p. 9; Peeler, Address...1877, p. 4; Oran M. Roberts, Message, pp. 40-42; Report of the Professor of Chemistry, Wm. B. Phillips to Richard C. Jones, 12 June 1891, folder 1519, box 7, Record Group 1, Trustee Records, Hoole Special Collections Library; letter from Roy Broun to [William LeRoy Broun], 26 October 1884, folder 70, box 5, Broun Collection; Faculty Minutes of the Arkansas Industrial University, 28 October 1886; J. H. McCleary, University [of Texas] Address June 17, 1890, (n. p., n. d.), p. 16, in bound volume entitled "University of Texas Commencement Addresses," Barker Texas History Center; Thomas G. Dyer, Georgia, pp. 164-165; Curti, p. 408; Ric A. Kabat, "Before the Seminoles: Football at Florida State College, 1902-1904," Florida Historical Quarterly 70 (July 1991): 21.

light, from the fogs of antiquity to the civilization of the present age."⁹

Former veterans in academia hoped to use history to convey to the subsequent generation of Southerners that they need not feel ashamed of their parents' supposedly treasonable behavior and failure. Robert Lee quickly undertook efforts to obtain an endowment for a chair of history at Washington College. He succeeded and the school appointed William Preston Johnston as its first professor of history. Johnston claimed that in order for historians to understand the plan that Providence possessed for "the progress of humanity" required them to follow "methods strictly scientific and historical." History, like science, he believed, must be useful and historians "must reject whatever cannot be used as an element in the development of society or of man." Johnston urged Southern teachers of history, "As you tell the contemporary story of our

⁹William Preston Johnston, "The Definition of History," Annual Report of the American Historical Association for the Year 1893 (Washington: Government Printing Office, 1894): 45-53; Johnston, "History. Its Place in a Liberal Education," pp. 1-15; Catalogue of the University of North Carolina...1890-1891, p. 51; Annual Announcement of the University of Georgia with a Catalogue of the Officers and Students...1881, p. 23; Catalogue of the University of Texas for 1889-90, pp. 50-51; Trustees' Minutes, Mississippi A & M, 14 June 1892; Barringer, et al., eds., vol. 1, p. 186; David Brooks Cofer, First Five Administrators of Texas A. & M. College 1876-1890 (College Station: Association of Former Students of Texas A. and M. College, 1952), pp. 25-29; Report of J. R. Cole to Jno. G. James, in Fifth Annual Report of the Agricultural and Mechanical College of Texas. Session 1880-81, p. 34.

unmerited though inevitable overthrow to the offspring of heroes," to "draw from your knowledge of the past a multitude of precedents teaching patience, fortitude, moderation and magnanimity."¹⁰

Lee himself maintained a special interest in the study of history. He believed that all should attempt "to collect and disseminate the truth, in the hope that it may find a place in history." The former general sought materials that would enable him to write a history of his campaigns in order that the "world shall know what my poor boys, with their small numbers and scant resources, succeeded in accomplishing." The idea that history might deem the participants of the South's war for independence as "'rebels" and "'traitors'" driven by "an insurrectionary spirit," and not as defenders of Constitutional principles, worried Lee.¹¹

¹⁰Letter from R. E. Lee to E. Kirby Smith, 8 October 1866, folder 53, box 4, Edmund Kirby Smith Papers; Johnston, "History. Its Place in a Liberal Education," pp. 1-15. Johnston's address also appears in a clipping from an unidentified newspaper in folder 24, box 15, Johnston Collection. The last quotation is from the text reported in the newspaper which differs slightly from the formally published version of the address.

¹¹Riley, "What General Lee Read," pp. 160-161; R. E. Lee to R. S. McCulloh, 28 September 1869, Robert E. Lee Letter; letter from R. E. Lee to C. F. Lee, Jr., 6 June 1870, folder 27, box 1, Robert Edward Lee Papers. See also Allen W. Moger, "General Lee's Unwritten 'History of the Army of Northern Virginia,'" Virginia Magazine of History and Biography LXXI (1963): 341-363.

Veterans in academia relied not on classroom instruction alone to teach history. Progressivist educators used the United Confederate Veterans (UCV), organized in 1889, to guarantee the proper telling of their story to subsequent generations of Southerners. Edmund Kirby Smith chaired the UCVs' first history commission, and other veterans and academics who served on the committee included James Nicholson and Stephen D. Lee. William Preston Johnston also assisted the commission in achieving its primary goal of approving historical texts for Southern schools that provided proper interpretations of the War between the States and condemned those that suggested secession equaled treason or that white Southerners fought for slavery instead of fighting to preserve constitutional principles and drive out Yankee invaders.¹²

Smith's death in 1893 resulted in Stephen Lee succeeding him as the commission's chairman. An ardent proponent of industrial education, Lee also took a serious interest in Southern history. He consistently encouraged white Southerners to embrace national reconciliation and praised the bravery of Union soldiers. He insisted, however, that written history recognize the "fighting qualities and exalted motive" of the Confederate veteran. Nevertheless, Lee argued against the committee employing

¹²Letter from S. D. Lee to E. Kirby Smith, 17 October 1892, folder 59, box 4, Edmund Kirby Smith Papers; Hattaway, p. 211; Lipscomb, pp. 26, 30-31.

persons biased in favor of the Confederacy as reviewers of school texts. "To select those, which are partisan to the South," he claimed, "would be as objectionable as those which are partisan to the North." Lee believed that any "fair history" based on the "facts" would exonerate white Southerners for attempting to leave the Union. He also hoped to instill in young Southerners both pride in their parents efforts at independence and patriotic devotion to the United States.¹³

Lee's love of the Lost Cause, desire for national reconciliation, and promotion of utilitarian education embodied the official faith of the UCV as revealed on the masthead of its official organ, the *Confederate Veteran*, which read: "Fidelity--Patriotism--Progress." Lee ultimately rose to the rank of commander-in-chief of the UCV in 1904.¹⁴

In addition to the historical activities of the UCV, academics participated in the founding and activities of regional and state historical societies. Lee served as president of the Mississippi Historical Society. Kemp Battle helped organize the North Carolina Historical Society which operated on the campus of the state university, where

¹³Hattaway, pp. 211-212; Lee to Smith, 17 October 1892; Lipscomb, pp. 13-33; Resolution by the Faculty of Mississippi Agricultural and Mechanical College, 1 May 1899, Stephen D. Lee Papers.

¹⁴Confederate Veteran V (January 1897); Confederate Veteran XII (February 1904): 53.

he also wanted to establish a museum of science and history. Eugene Smith labored on the executive committee of Alabama's historical society. Southern historical organizations urged members to search for primary materials, particularly diaries, military journals, and letters, in an effort to help historians chronicle Southerners' contributions to the nation's welfare and their exploits during the Civil War.¹⁵

Other outlets that veterans in higher education found in which to express their historical interests included writing articles for various periodicals, such as *Century Magazine*. Not all submissions, however, met the scientific standard suggested by Johnston. An assistant editor for *Century*, upon rejecting a submission received from Daniel Hill, claimed "it entirely proper to refuse to print a communication which would increase, rather than lighten, our responsibility for imperfect history already printed in our magazine."¹⁶

¹⁵Samuel H. Lockett, untitled address to the Southern Historical Society in New Orleans, n. d., folder 49, box 3, Lockett Papers; Lipscomb, p. 17; W. Conard Gass, "Kemp Plummer Battle and the Development of Historical Instruction at the University of North Carolina," North Carolina Historical Review XLV (January 1968): 7-18; "Officers for 1898-1899," Transactions of the Alabama Historical Society II (1897-1898): 7; Report of the Alabama History Commission to the Governor of Alabama. December 1, 1900 (Montgomery: Brown Printing Co., 1901), pp. 14-19; Wm. R. Garrett, "The Work of the South in the Building of the United States," Transactions of the Alabama Historical Society III (1898-1899): 27-45.

¹⁶Letter from Clarence C. Buell to D. H. Hill, 18 June 1885, Correspondence 1870-1879, box 93.2, Daniel Harvey Hill Papers, North Carolina Department of Archives and History;

Some veterans in academia sought to tell their stories through books. Curry chronicled the difficulties of the Davis administration with his *Civil History of the Government of the Confederate States*. Others, such as former Confederate general Lunsford Lindsay Lomax, found official capacities in which to make their contributions to historical understanding. Lomax, after his retirement from the presidency of Virginia A & M in 1899, joined the staff at the War Department in Washington which compiled the *Official Records of the War of the Rebellion*. Later, he served as a commissioner of Gettysburg National Park. President William McKinley appointed Stephen Lee as one of three commissioners to oversee the Vicksburg National Military Park. Lee also served as president of the Board of Trustees of the Mississippi Department of Archives and History. Four years after leaving the University of Mississippi, Alexander Stewart became a member of the Chickamauga and Chattanooga National Park commission from 1890 until his death in 1908.¹⁷

photocopy of letter from Clarence C. Buell to D. H. Hill, 29 June 1885, box 1, Daniel Harvey Hill Papers, Archives Division, Virginia State Library and Archives, Richmond.

¹⁷Jabez Lamar Monroe Curry, *Civil History of the Government of the Confederate States, with some Personal Reminiscences* (Richmond: B. F. Johnson, 1901); Lipscomb, p. 17; Hesseltine, p. 85; Boatner III, p. 489; *Historical Catalogue of the University of Mississippi 1849-1909*, pp. 74-75.

These veterans-turned-academics focused on Southern history, especially the Confederacy, partly to redeem themselves in the eyes of Northerners and their fellow Southerners. They also wanted, however, to instill pride in their students and convince all Americans that the children of Confederates deserved a place in the reconstructed Union.

In an effort to further enhance the self-esteem of young white Southerners, progressivist academics aimed to initiate them into the cult of the Anglo-Saxon. J. L. M. Curry told an Alabama A & M commencement near the turn of the century that its Anglo-Saxon graduates belonged to a virile race, "progressive, enduring, pure of blood, inviting future boundless possibilities." Southern youth were quite familiar with such rhetoric. Over the last quarter of the nineteenth century, they had been increasingly taught that English grammar, literature, and history were indispensable to the advance of civilization. Southern progressivists wanted teachers to be, in the words of William Preston Johnston, the "torch bearers of liberty" that handed down to their students a legacy of British freedom "hardened in fire and blood by our English ancestors." Thomas Jefferson had insisted upon the inclusion of a course in the Anglo-Saxon language at the University of Virginia. Similar programs, however, rarely appeared elsewhere in the South until after the Civil War, when classes in the history and language of

Anglo-Saxons, along with closely related Teutonic courses, proliferated rapidly.¹⁸

While the complexities of Saxon grammar may have escaped most Southern students, they nevertheless embraced the history and racism of Anglo-Saxon ideology. Student addresses with Anglo-Saxon themes appeared frequently at commencements and public exhibitions. Titles included: "A Plea for the Study of Anglo-Saxon," "The Manifest Destiny of the English Speaking Race," "Triumphs of the Aryan Race," and the frequent, but simple, "The Anglo-Saxon." The importance of an Anglo-Saxon heritage was not lost on William Myers, a student at the University of Georgia during Reconstruction. Myers, painfully aware of the anti-Semitism that permeated Georgia, feared that people in Athens would mistakenly conclude from his last name and physical appearance that he was Jewish. In order that he "might have

¹⁸Curry, Address...1899, p. 3; Johnston, "History: Its Place in a Liberal Education," p. 15; Thomas Jefferson, An Essay Towards Facilitating Instruction in the Anglo-Saxon and Modern Dialects of the English Language for the Use of the University of Virginia (New York: John F. Trow, 1851); Official Register of Louisiana State University...1871, pp. 24-25; Historical Catalogue of the University of Mississippi, pp. 44-48; Catalogue of the State Agricultural and Mechanical College of Texas Session of 1876-1877 (Bryan, Texas: Pilot Book & Job Office, 1877), p. 12; Sellers, p. 384; Catalogue of the University of Mississippi [1874], pp. 17, 27, 29; Catalogue of the Agricultural and Mechanical College of Mississippi 1880-81, pp. 22-23; Battle, History, vol. 2, pp. 338-339; Biennial Report of the Trustees, President, and Other Officers of the Agricultural College of Mississippi for the Years 1890 and 1891 (Jackson: R. H. Henry, 1891), pp. 30-31; Catalogue of the University of Texas, Austin, Texas for 1891-92, pp. 21-58; Barringer, et al., eds., vol. 1, p. 182.

a little more Anglo Saxon [sic] look," Myers, followed the suggestion of a fellow student and a future chancellor of the university, Walter Hill, and "shaved off his side whiskers."¹⁹

Progressivist academics looked to military, historical, and cultural education to teach students to have pride in their past in order that they might move confidently into the future. To complete this task, academic reformers believed Southern youth needed scientific training. Educators searched for pedagogical methods that would provide graduates with the skills they would need to industrialize and restore prosperity to the region.

"We must devise systematic plans for progress" observed William T. Sutherlin, a quartermaster in the Confederate army and an author of the applied science curriculum at the Virginia Agricultural and Mechanical College in Blacksburg.

¹⁹Mss of "Examination in Anglo-Saxon, December 1886," taken by students in folder 115, box 5, Department of the Anglo-Saxon, University of Alabama Examinations, Record Group I, Trustee Records, University Archives, Hoole Library; University of Alabama, Fifty-third Annual Commencement June 18, 1884 (n. p.: M. I. Burton, [1884]), in Eugene A. Smith Scrapbook, vol. 4; University of Alabama. Fifty-fourth Commencement. June 17, 1885, in Eugene A. Smith Scrapbook, vol. 4; University of Alabama Prize Exhibition Orations by Members of the Senior Class, Tuesday, July 3, 1877 (n. p., J. F. Warren, [1877]), in Eugene A. Smith Scrapbook, vol. 4; Program. Commencement Exercises. A. & M. College of Mississippi, 1891 (Starkville: O'Brien's Book & Job Office, [1891]), located in Commencement Programs, University Archives, Mississippi State University; Battle, History, vol. 2, pp. 154, 497; letters from Walter B. Hill to Mary Clay Hill, [17 September 1870] and 13 November 1870 in Hill, Student Correspondence, pp. 190-191, 201.

One of the most prominent plans endorsed by Sutherlin and other progressivists to rebuild the South through industrial education was the *Russian System of Instruction in Practical Mechanism*, named after the method of technical education developed by Moscow's Imperial Technical Institute in the late 1860s. The Russian System abandoned apprenticeship in favor of systematic instruction for transmitting industrial knowledge. Students methodically learned the forms and functions of various tools--such as files, squares, hammers, chisels, and planes--and practiced the uses of each instrument before attempting to construct a finished product. They also were taught basic mechanical skills and how to apply them to physical problems. Eventually students advanced to learning forging techniques, doing foundry work, using lathes, and designing and producing original models.²⁰

The Imperial Technical Institute provided a display at the Centennial Exhibition in Philadelphia that introduced the system to the United States. The method especially attracted Southern academics who believed that technical education could provide graduates capable of creating an

²⁰Sutherlin, *Address*, p. 22; Lyon Gardiner Tyler, ed., *Encyclopedia of Virginia Biography*, 5 vols. (New York: Lewis Historical Publishing Co., 1915), vol. 3, p. 277; Ruffner, et al., "Plan"; [William] Leroy Broun, "Technical Education," *Montgomery Weekly Advertiser*, 7 July 1885. See also Lewis Flint Anderson, *History of Manual and Industrial School Education* (New York and London: D. Appleton and Company, 1926), pp. 158-162, 178-180, and Charles Alpheus Bennett, *History of Manual and Industrial Education 1870-1917* (Peoria, Illinois, Manual Arts Press, 1937), pp. 13-52.

industrial South. The region lacked the concentration of mechanics' shops, large mechanized manufacturers, and the skilled and semiskilled workers that built Northern industry. Academic supporters of the Russian system hoped that they could substitute the school for the shop or factory in order to provide the South with technical knowledge.²¹

Southern academics may also have been attracted to the Russian system because of apparent similarities the South shared with Russia. The termination of serfdom may have appeared analogous to the South's experience with emancipation. Russia also trailed Western Europe's industrial development much in the same way that the South lagged behind the North. In any case, both Russia and the South looked to education as a potentially rapid means of industrialization.²²

William LeRoy Broun admired Russia's efforts to establish "superior technical schools" and considered them

²¹On the effort by nineteenth century American academics to create or accelerate industrialization through technical schools, see Monte A. Calvert, The Mechanical Engineer in America, 1830-1910 (Baltimore: Johns Hopkins Press, 1967).

²²For a comparison of the relationship of the Russian system to industrialization and education in Russia and the United States (but not specifically the South), see John R. Pannabecker, "Industrial Education and the Russian System: A Study in Economic, Social, and Technical Change," Journal of Industrial Teacher Education 24 (Fall 1986): 19-31. See also Peter Kolchin, Unfree Labor: American Slavery and Russian Serfdom (Cambridge, Mass.: Belknap Press of Harvard University Press, 1987).

"worthy of imitation." He introduced David Boyd to the Russian system and he promptly embraced the method. Boyd intended to inaugurate the system at LSU but the school lacked the financial means to implement it. Boyd's successor, William Preston Johnston, however, managed to introduce a mechanical course based on the systematic and progressive principles of the Russian System. The course instructed students how to properly use tools and from there advanced "step by step to the higher grades" of instruction that included the construction of bridges and buildings. An avid proponent of the Russian system, Johnston also implemented the plan at Tulane.²³

Robert Hardaway organized his mechanical engineering course at Alabama A & M around the Russian system in the late 1870s. He received the enthusiastic support of Isaac Tichenor who secured one thousand dollars in gold to provide for the purchase of models, foot motors, saws, and other equipment necessary to start the program. In 1882, Texas A & M also adopted the Russian system, three years after it

²³Broun, Science Education, p. 8; Boyd to Broun, 11 December 1877; Official Register of the Louisiana State University...1878, pp. 44-45; Report of the Board of Supervisors of the Louisiana State University and Agricultural and Mechanical College...1877-1878, appendix, pp. 69-83; Report of the Board of Supervisors of the Louisiana State University...1882, p. 24; Louisiana State University and Agricultural and Mechanical College, Baton Rouge, La. Year Ending July 4, 1881, pp. 14-17; William Preston Johnston, "Manual Training at the Tulane University of Louisiana," in A. D. Mayo, Industrial Education in the South (Washington: Government Printing Office, 1888), appendix, pp. 60-61.

was initially proposed by Alexander Hogg, the college's professor of mathematics. A classically educated Virginia native and a former Confederate cavalryman, Hogg believed the South required an industrial education that would enable Southerners to inaugurate a "new era" in which they would build mills and foundries. "We lack the education," Hogg told the Centennial Bureau of Education in Philadelphia, "which produces 'producers.'" The Russian system, he believed, promised to rectify that problem.²⁴

Progressivist academics recognized, however, that training graduates capable of rebuilding the South would require students to perform a certain degree of physical labor. These educators did not advocate mindless, repetitive work, but the physical application of knowledge to labor of the type necessary to survey roads, create fertilizers, and improve steam engines. F. Henry Smith noted that such intelligent labor served as "the universal adjunct of progress" necessary for the continued improvement of humankind. Nevertheless, progressivists believed that in order to attract matriculates into their schools, they

²⁴Hardaway, "Book," pp. 365-368; Hogg, Industrial Education, pp. 43-50; R. H. Whitlock, "Department of Mechanics," in H. H. Dinwiddie, [Texas] Agriculture and Mechanical College. Report of the Chairman of the Faculty (n. p., [1883-4]), no page numbers; Oliver Knight, Fort Worth: Outpost on the Trinity (Norman: University of Oklahoma Press, 1953), pp. 161-163; Alexander Hogg, An Address Prepared for [the] National Educational Association... Delivered Also Before the Centennial Bureau of Education, Philadelphia, September 1st, 1876 (Salem, Ohio: W. D. Henkle, 1876), pp. 20-24.

needed to overcome the squeamishness of both parents and students toward labor. Advocates of utilitarian science, like their antebellum counterparts, blamed slavery for the negative attitudes many white Southerners maintained toward physical labor. Progressivist educators hoped to use chemistry laboratories, engineering workshops, and experimental farms to inculcate in students the "dignity of labor."²⁵

Postbellum progressivists also hoped that the destruction of slavery, by foes presumably scientifically educated and hardworking, provided evidence enough to convince skeptics that the South needed to change its attitudes toward labor. Certainly Southern universities and colleges, Kemp Battle noted, would no longer bear a hostile attitude toward labor. "The war," he claimed, "has beaten such notions out of our heads." Nor, Isaac Tichenor warned, could white Southerners ignore their changed circumstances. "The time has come," he observed, "when we can no longer remit our agricultural interests to our overseers and our slaves." George Edgar concurred. He told the trustees of the Arkansas Industrial University that all of his students

²⁵Peeler, Address...1877, pp. 22-23; Hogg, Industrial Education, pp. 49-50; Trustees' Minutes, Mississippi A. & M. College, 5 and 6 October 1880; Oran M. Roberts, Message, p. 40; McBryde, Agricultural Education, pp 14-15, 20-21; S. D. Lee, "Report of the President," in Report of the Trustees... 1883, p. 10; [Francis Henry Smith] untitled ms, n. d., [an address on theology], box 1, Harrison, Smith, and Kent Family Papers; Johnston, "Manual Training," in Mayo, Industrial Education, appendix, pp. 61-63.

should be required to do some form of physical labor, so that they would "learn to do as well as direct how to do what will contribute to [the] material comfort and the growth of the industries of life." Academics no longer believed that they needed to separate science, as William Gilham advocated prior to the Civil War, from labor in order to convey to their audience the importance of scientific study.²⁶

Although progressivists desired that students be taught agricultural and mechanical science, conduct experiments, and undergo manual training in order to cultivate a positive attitude toward labor, collegiate administrators often found difficulty finding qualified teachers. Many collegiate presidents and trustees turned to Northerners who graduated from schools outside the South in order to alleviate the shortage. Between the end of Reconstruction and 1900, Alabama A & M, Arkansas, Georgia, North Carolina, Mississippi A & M, South Carolina, Texas A & M, Tulane, and Virginia all hired non-Southerners to establish or join various engineering and science departments. Texas A & M

²⁶Battle, "Head and the Hand"; Tichenor, "Report, 8 January 1877," Tichenor Papers; Edgar, Report, p. 37. Original emphasis. For Gilham, see above Chapter 1, pp. 38-39.

employed so many Northerners that critics charged that "imported Yankee Republicans" dominated the faculty.²⁷

The administrators who appointed Northerners to their faculties did so primarily because there were too few qualified Southerners to fill technical positions. However, the hiring of Yankees by Southern administrators also reflected their reconciliatory attitudes toward the North and indicated their willingness to allow the South's youth to learn from their conquerors.

Complicating the effort by Southern academics to find qualified personnel to teach applied science, progressivist educators had to compete with well funded Northern schools capable of offering prospective professors higher salaries and better equipped facilities for scientific talent. The South's academics blamed much of this difficulty on the

²⁷ Bettsworth, "Cow in the Front Yard," pp. 63-64; John Hugh Reynolds and David Yancey Thomas, History of the University of Arkansas (Fayetteville: University of Arkansas, 1910), pp. 462-479, 536-574; LeRoy S. Boyd, "Recollections"; Thomas Walter Reed, 'Uncle Tom' Reed's Memoir of the University of Georgia, ed. Ray Mathis (Athens: University of Georgia Libraries Miscellanea Publications, No. 11, 1974), pp. 99-100; Battle, History, vol. 2, p. 122; Allen Johnson, ed., Dictionary of American Biography, 10 vols. (New York: Charles Scribner's Sons, 1935), vol. 1, pp. 407-408; Barringer, et al., eds., vol. 2, pp. 12-13; S. W. Geiser, "George Washington Curtis and Frank Arthur Gulley: Two Early Agricultural Teachers in Texas," Field and Laboratory XIV (January 1946): 1-13; "Faculty Notes," The [Texas A & M] Longhorn (1903): 20; John Alfred Heitmann, The Modernization of the Louisiana Sugar Industry 1830-1910 (Baton Rouge: Louisiana State University Press, 1987), pp. 230-243; letter from W. A. Martin to L. L. McInnis, 6 April 1891, folder 16, box 1, Louis Lowry McInnis Papers.

parallelism that continued to affect Southern higher education after the war. Competition for Federal, state, and private funds among colleges, normal schools, and universities produced duplicate academic programs throughout the United States, but especially in the South. During the 1880s, Southern states maintained more colleges and universities than the New England and Mid-Atlantic states combined. Tennessee alone counted a total of thirty-seven male colleges and female seminaries. Furthermore, the overall economic condition of Southern schools fared unfavorably to that of their Northern counterparts. Sixteen New England schools in 1881 had a combined income of \$1,024,563 and a total of 720,187 volumes in their libraries. In contrast, 123 Southern colleges and universities counted a total income of \$1,089,187 and owned fewer than 669,000 library volumes. One Southern critic believed that the South had three times as many institutions as it could properly support.²⁸

The main objection to parallel academic institutions concerned the growing cost of collegiate education. Eugene Hilgard wrote Boyd in 1874 that besides "extensive and costly appliances [such as] laboratories, workshops, museums, collections of models, machinery, farm--with all of

²⁸Letter from Eug[ene] W. Hilgard to Col. D. F. Boyd, 11 February 1874, in Annual Report of the Louisiana State University, for the Year 1874, to the Governor of Louisiana, p. 53; Stetar, "In Search of a Direction," p. 358; Charles Forster Smith, pp. 544-545.

its numerous departments, and a comprehensive library," professors "qualified to give this class of instruction, are notoriously few and far between as yet, and will necessarily command high salaries." Hilgard advocated uniting A & M colleges with state universities in order to avoid the duplication of apparatus and instruction. E. Kirby Smith agreed and claimed that the establishment of separate A & M colleges violated the "spirit of modern education," which he claimed, "is concentration."²⁹

Nevertheless, Georgia, Mississippi, North Carolina, South Carolina, Texas, and Virginia, all established independent state technical schools and universities. Multiple state schools would not have caused academics concern if legislatures allocated adequate funds. Generally, however, this was not the case. State universities and A & M colleges duplicated engineering and science programs in Alabama, Georgia, North Carolina, Texas, and Virginia. By 1890, Georgia maintained six campuses throughout the state for its agriculture and mechanic arts college. A professor of law at the University of Texas and former governor of Texas, O. M. Roberts, told an Austin

²⁹Letter from Hilgard to Boyd, 11 February 1874, in Annual Report of the Louisiana State University for the Year 1874, pp. 51-55; letter from E. Kirby Smith to D. F. Boyd, 21 December 1874, in Annual Report of the Louisiana State University for the Year 1874, p. 65. See also the letter from W. LeRoy Broun to D. F. Boyd, 20 November 1874, and the letter from John R. Page, 21 December 1874, in Annual Report of the Louisiana State University for the Year 1874 pp. 49-50, 64-65.

audience that if lawmakers compared the curricula of the state agricultural and mechanical college, normal school, and university, they would find that the legislature "had allowed to be put up three universities, instead of one, for the general collegiate education of the youths of the state."³⁰

Segregation compounded the economic woes of Southern higher education. A second Morrill Act passed by Congress in 1890 reserved part of the revenues from federal land sales for A & M colleges. Under the act, the government added an additional one thousand dollars a year to a onetime appropriation of \$15,000, until the subsidy reached a total of \$25,000, at which time the amount of payment would remain permanently fixed. The law required states to use the funds only for appliances or instruction that promoted agricultural and mechanical education and the English language. Unlike the first Morrill Act, the new legislation required states to use the money to educate both black and white students. States that refused to distribute the funds equitably forfeited them. The law did not insist upon integration, but it required states receiving the grant to

³⁰Norrell, pp. 78-97; University of Georgia. General Catalogue. 1900-01, pp. 39-40, 126; Reagan, pp. 22-23; Battle, History, vol. 2, p. 452; Gianniny, Jr., pp. 159-161, 163-4; Annual Announcement of the University of Georgia, with a Catalogue of the Officers and Students, p. 9; O. M. Roberts, Faculty Address. June 17, 1890. The Relation of Public Education to the Government of Texas (n. p., n. d.), p. 9, located in bound volume entitled "University of Texas Commencement Addresses," Barker Texas History Center.

offer public educational facilities to both races. Nevertheless, despite the fact that dividing the money duplicated faculty and equipment, Southern states remained wedded to segregated A & M programs.³¹

Frustration with low budgets led some academics to actively embrace politics. In 1889, Stephen Lee launched a failed campaign for the governorship of Mississippi in which he promised, that if elected, to lead "our citizens in one industrial progressive movement." Lee's platform included the establishment of a board of agriculture, prison reform, spending public funds to encourage immigration to Mississippi, and increased public aid for primary, secondary, and higher education. Lee joined the Farmers' Alliance and served as chairman of an Alliance committee that petitioned the state's 1890 constitutional convention to create a popularly elected railroad commission, maintain a public school system, and reject property and educational qualifications for suffrage. Lee eventually chaired the Convention's education committee.³²

³¹Report of the Board of Supervisors of LSU for the Years 1890-1891 and 1891-1892, pp. 4-5, 39-40; Aldrich, pp. 277-278; Wilmore, p. 62; Brubacher and Rudy, p. 79.

³²Battle, Memories, pp. 250-254; Lee quoted in Hattaway, p. 173; F. R. Sims, "General Lee at Columbus," Clarion-Ledger (Jackson), 20 June 1889; Constitutional Convention. 1890. Report of the Committee Appointed by the State Farmers' Alliance in Session at Starkville, to Memorialize the Constitutional Convention Concerning Certain Matters (n. p., [1890]), located in folder 3, box 1, Charles K. Regan Papers, Mississippi Department of Archives and History; Minutes, Committee on Education [Constitutional Convention],

Other progressivist educators eschewed direct politics but attempted to gain the political support of the public by magnifying the benefits of higher education. William Preston Johnston asserted that there could "be no progress without great intelligence in the leaders of a people; its statesmen, warriors, thinkers, jurists, mechanics, and merchants." He argued that higher education provided the means by which society obtained this intelligence. New South academics and their allies argued that science improved the daily quality of people's lives by increasing the production and quality of food, improving sanitation, making transportation easier and faster, and producing laborsaving conveniences. Furthermore, progressivists charged that the state had a duty to cultivate scientific discovery through colleges and universities. At the 1884 commencement of the University of Texas, former Confederate colonel A. W. Terrell called for even further government subsidization of science by demanding that the state establish "a scientific department of government" that would financially support scientists.³³

15 August, 1890, Regan Papers.

³³Johnston, High Schools, p. 9; Mallet, Chemistry Applied to the Arts, pp. 5-6, 31-32; Peeler, Address, pp. 19-27; S. B. Maxey, University Address...Delivered on Commencement Day, June 19, 1889, Before the Regents, Faculty, and Students of the University of Texas (Austin: State Printing Office, 1889), pp. 14-16; [Francis Henry Smith], untitled ms, [draft of an address on technical education]; Broun, Presidential Address, Proceedings...Association of American Agricultural

Progressivist academics also claimed that physical progress led to moral or spiritual progress. Andrew Lipscomb complained that the public little recognized the positive relationship between the application of "the mind to physical circumstances and to the marvelous developments of civilization," which moved it simultaneously "towards the material universe and towards human brotherhood." Former Confederate General Samuel Bell Maxey told the students of the University of Texas that "material progress, the logical outcome of intellectual expansion moves the statesman, the philosopher, the philanthropist, the schools, and the man of business." F. Henry Smith exulted that "scientific intelligence" brought countries closer together by transcending national borders and "welded all lands into one republic of science" where the "discoveries of one country soon become the common possession of all." Smith proclaimed the nineteenth century "the greatest in the Christian era," and no nation more than the United States, boasted this Southerner, had contributed to its progress.³⁴

Colleges..., pp. 58-66; Curry, Address...1899, pp. 11, 17-24; Boatner, III, p. 830; A. W. Terrell, Address of Judge A. W. Terrell (n. p., [1884]), pp. 19-22, located in bound volume entitled "University of Texas Commencement Addresses," Barker Texas History Center.

³⁴Soule, pp. 3-4; Lipscomb, "Report," Trustees' Minutes, University of Georgia, 25 July 1871; Maxey, pp. 14-15; [Francis Henry Smith, draft of a speech on technical education]. See also James W. Nicholson, Oration Before the Louisiana State Medical Society (New Orleans: L. Graham & Son, Ltd., 1895), pp. 5-12, pamphlet located in folder 2, Nicholson Papers.

Yet the political power that accumulated from vast concentrations of wealth that characterized the Gilded Age, created in part by the technological improvements progressivists extolled, disturbed Southern academics and threatened to tarnish their scientific utopia. Technology's promises of a virtually endless supply of inexpensive, quality, and safe products, and relief from arduous labor, both of which provided for the improved physical and spiritual well-being of humanity, appeared endangered by greed. Johnston complained that Americans, in their "mad race for fortune" allowed "unlimited power to be placed in the hands of a few men, leaders in business enterprises, and thereby tempt them to usurpation and dishonesty." He further chastised the nation for admiring and applauding those "who, by systemized breach of trust, watering stock, freezing out minorities, stifling competitive industries and oppressing labor, are in a brief season, transformed from grubs to moths." Just as they looked to government to provide higher education, progressivist academics turned to the state to curb what they considered to be dangerous consolidations of power in society. "The least government possible," Johnston told a commencement audience, "now means all the government necessary for a denser population, an ignorant suffrage and more complex civilization."³⁵

³⁵Curry, Address...1899, p. 24; D. H. Hill, University Address, 12-14; Terrell, pp. 19-20; Johnston, Problems of Southern Civilization, p. 14.

Progressivist academics broke with their New South counterparts in business, government, and journalism who preferred a laissez-faire approach to Southern economic development. They anticipated the Southern Progressive movement by calling upon the state variously to protect people from adulterated food and water, prohibit child labor, prevent the leasing of convicts, regulate railroads, provide for public sanitation, require mandatory and universal public schooling, and limit work hours. Johnston embraced a broad program of reform that would require the state to escheat watered stocks to the public treasury, levy income and inheritance taxes, and regulate the salaries of officials employed by public corporations. If these were done, Johnston declared, "they would tend to prevent the aggregation of colossal fortunes" of financiers, who used their wealth to subvert the economic well-being of the mass of people. Johnston's respect for the South's states' rights position prevented him from looking to the federal government for reform, but he called upon the states to pass legislation that would hold the strong in check, protect the weak, and advance the individual in the "line of progress" that led to "a higher plane of morality and intelligence."³⁶

³⁶Soule, p. 11; Nicholson, Oration, pp. 5-8; Haygood, New South, ed. Ward, editor's note, pp. x-xi; Peter C. Thomas, "Matthew Fontaine Maury and the Problem of Virginia's Identity," Virginia Magazine of History and Biography 90 (April 1982): 236; Curry, Address...1899, p. 24; Johnston, Problems of Southern Civilization, pp. 13-15, 19. For a discussion of Southern Progressives in the

Academic progressivists also sympathized with the women's education and equal rights movements. Science, they believed, should be no less available or liberating to women than to men. "It is true that some walks of life are recognized as more suitable to woman than others," Samuel Lockett attested, "but if she chooses to fight the battles of life in the same ranks and on equal footing with her brothers, no one will say his nay." Lockett cited the work of the mathematician Mary Fairfax Sommerville, the novelist George Eliot, the historian Agnes Strickland, and the astronomer Maria Mitchell as evidence that women could succeed in academic fields as well as men. Curry agreed. In the past, he noted in 1899, women's ability to master collegiate studies, was disputed. "The *female* mind," Curry declared, "was condemned as unable to master pure mathematics and metaphysics, or to follow the inductions of scientific investigation. To-day, there is a truer conception of women's possibilities and rights, and eight-tenths of the colleges and universities are open to women students." Stephen Lee avidly promoted a propertied woman's right to vote, partially because, prior to the disfranchisement of African-Americans in Mississippi, he believed that "female suffrage will secure white supremacy and to a great extent solve the negro problem." Less

twentieth century, see Grantham.

sinisterly, he also supported the right of women to receive equal pay for equal work, as well as coeducation.³⁷

While suspect among conservatives for its supposed potential for debauching the sexes, coeducation received the avid support of progressivists. Despite the overwhelming support of his faculty, Tichenor appealed to no avail to the board of directors of Alabama A & M to allow female students. Hill wrote Johnston that, at the coeducational Arkansas Industrial University, "Some of our brightest students are girls." The University of Texas, like the Arkansas university, embraced coeducation from its inception. "Texas," Terrell claimed, "has recognized the fact that civilization cannot be advanced by man alone, and that the accomplished mother is a more potent instrument in stimulating the ambition and moulding the character of her boy, than the father can be." He believed that "Custom and the unwise selfishness of her master, alike condemned woman to wait for the dawn of a more liberal spirit in the nineteenth century."³⁸

³⁷Samuel H. Lockett, "Woman Enslaved and Woman Free," ms, n. d., folder 52, box 3, Lockett Papers; Curry, Address...1899, p. 15. Emphasis is original; clipping from an unidentified newspaper, Blewett Lee Scrapbook, vol. 2; Lipscomb, p. 28. See also Johnston, Address...Louisiana State Public School Teachers Association, p. 12; and Edmund Kirby Smith, undated and untitled ms draft of commencement address to an unnamed school for girls.

³⁸Tichenor, "Fourth Annual Report," 12 July 1875, Tichenor Papers; Tichenor, "Sixth Annual Report," 25 June 77, Tichenor Papers; letter from D. H. Hill to W. P. Johnston, 6 May 1882, folder 3, box 21, Johnston Collection;

Women's education thrived at state schools in Mississippi. The University of Mississippi, under the administration of Alexander Stewart, first accepted women in 1882 and graduated its first female students three years later. Mississippi A & M likewise allowed women to attend, and Lee wrote George Edgar in 1885 that the school's "experiment" in coeducation "has worked well as far as tested." Lee believed that the recent establishment of the publicly supported Industrial Institute and College for the Education of White Girls of Mississippi in Columbus, however, would draw female students away from the Starkville school.³⁹

Academic progressivists' concern for women's education stemmed not solely from an altruistic impulse, but from a realization that changes in society increasingly required families to have educated women. "In this world of change, when the rich of to-day may be the poor of to-morrow," noted Terrell, "it not infrequently happens that the educated daughter is able, by securing the position of a teacher, to

M. A. Cohn, "Report of the Secretary of the Board of Trustees Arkansas Industrial University, December 31, 1872," Biennial Report of the Superintendent of Public Instruction to the Governor of the State of Arkansas...1872 (Little Rock: Price & McClure, Public Printers, 1872), pp. 50-51; Terrell, Address, p. 8.

³⁹Historical Catalogue of the University of Mississippi 1849-1909, pp. 74-75; Clarion, 9 June 1886; letter from S. D. Lee to Geo. M. Edgar, 23 January [188]5, President's Letter Book, vol. 3; R. W. Jones, "Industrial Institute and College for the Education of White Girls of Mississippi," in Mayo, Industrial Education, appendix, pp. 55-56.

keep from want and suffering an aged and dependent father and mother." The *Clarion-Ledger* (Jackson, MS) called upon all the nation's A & M colleges to accept women in order to provide "good farmers' wives." A knowledge of botany, chemistry, geology, it argued, would allow women to "compound nutritious, appetizing, inexpensive viands" to enable her to more "fully fit the place of daughter, wife and mother." The boon of coeducation caused Curry to wonder "what centers of culture, of power, of high influences, the homes of our land will be when presided over by women of purity and cultivated intellects?" Edmund Kirby Smith claimed that the object of women's education "should be to make them useful laborers." Women ought not to remain idle, Smith asserted, while "everything round breathes progress, advance." A woman who received a higher education and was prepared to do "professional work," he continued, enabled her to lighten the burden of a husband of little means. The type of "professional" or "industrial" labor progressivist academics had in mind was reflected in the industrial course of Mississippi's institute for women which included bookkeeping, telegraphy, and typewriting. Skills that were integral to the anticipated bureaucratized, corporate, and industrial society of the New South. Lee understood the impact that economic change in the late nineteenth century had upon the role of women in society. "Present conditions," he observed, "have brought women to an extent

hitherto unknown into industrial and educational occupations." This fact, he concluded, was "not due simply to her own volition, but to the logic of events which she is powerless to control."⁴⁰

The recognition that progress meant change, not only in the traditional economic and social relationship between the sexes, but also between Americans and their government, failed to dampen the enthusiasm of Southern academics for the future. "Each cycling day," George Soule told his students, "brings with it something to be reformed, and for a brief time to be utilized for man's service, when it, too, will be replaced by new things, new thoughts, and new customs, each to serve a divine purpose in the never-ending changes of progress." John McBryde, unable to put into his own words the joy and excitement he felt for the young men graduating from Virginia Polytechnic at the turn of the century, quoted a "brilliant novelist" who had declared: "To be twenty years of age in 1901, with the prospect of seeing 1950, if one lives the allotted span of three-score years and ten, is to be heir to an inheritance better and

⁴⁰Peeler, Address, pp. 33-34; Clarion-Ledger, 30 August 1888; Curry, Address...1899, p. 16; Edmund Kirby Smith, undated and untitled ms draft of commencement address to an unnamed school for girls; Jones, "Industrial Institute," in Mayo, Industrial Education, appendix, p. 55; Stephen Lee quoted in a clipping from an unidentified newspaper, Blewett Lee Scrapbook, vol. 3.

greater than the richest millionaire can leave behind him."⁴¹

Nevertheless, the academic progressivists of the Civil War generation, largely failed to convince the South's public and legislators of the importance of universities in creating a scientific utopia in the South. They were more successful, however, in transferring their vision of progress to their students, and consequently, to the next generation of Southern academics. Progressivist educators developed a curriculum of history and military drill, English language and literature, applied science and physical labor, that incorporated the trinity of the Lost Cause, the cult of the Anglo-Saxon, and the New South into an integrated ideology of progress.

Progressivists used colleges and universities, such as the University of North Carolina where white Southern youth could partake in the activities of a state historical association, a Shakespearean club, and a scientific society, to inculcate in students respect for their history, confidence in their culture, and faith in their future.⁴² The aid Southern academia received for military, linguistic, and applied science instruction from the two Morrill acts

⁴¹Nicholson, "Oration", p. 12; Soule, pp. 3-4; J. M. McBryde, untitled commencement address, typescript, n. d., folder 23, box 3, McBryde Family Papers. The novelist is not identified.

⁴²Battle, History, vol. 2, p. 380.

convinced the South's progressivists that the means they used to promote reconciliation and progress received the support of the nation.

The youth of the Gilded Age embraced the vision of progress offered them by their professors. If some Southern students missed the message in class, progressivist academics sought New South spokesmen, such as Henry Grady, Walter Hines Page, and a host of lesser lights to deliver it at commencements and other ceremonial occasions. Student addresses echoed those of their elders and toasted the "Character of Lee," boasted of the "Priceless Heritage of Our English Blood," called for the "Cultivation of a National History," marvelled at the "Colossal Power of the United States," tied the "progress of man" to the "Triumphs of Engineering," and predicted that the "South Will Live Again by the Aid of Her Industrial Institutions." Other popular subjects included inventors, the New South, and agricultural, mechanical, and scientific progress.⁴³

⁴³Battle, History, vol. 2, pp. 235, 266, 331, 386, 395, 465, 501; letter from S. D. Lee to Henry W. Grady, 2 February [188]7, President's Letter Book, vol. 4; Picayune (New Orleans), 30 June 1873; Commencement Exercises. A. & M. College of Mississippi, 1891, 1892, and 1895; Agricultural and Mechanical College, Auburn, Alabama, Third Class Declamation. 1890. Thursday, May 1, 8 P. M. (n. p., n. d.), located in folder 88, box 6, Broun Collection; University of Alabama Prize Exhibition Orations by Members of the Senior Class, Tuesday, July 3, 1877, Eugene Smith Scrapbook; Program of Exercises for Commencement Day of the Arkansas Industrial University, Fayetteville, Ark. June 17, 1875 (n. p., n. d.), located in University Archives, University of Arkansas; University of Alabama. Fifty-fourth Commencement. June 17, 1885, Eugene Smith Scrapbook.

Southern college students especially embraced the idea of evolutionary progress. They frequently put "evolution" in the title of their addresses: "Evolution of Agriculture," "Evolution of Nations," and "Evolution of the Plow." One University of Georgia student, Glen Waters, who a classmate described as "scientifically inclined" and having "the brightest mind in the class," delivered an 1887 senior oration on the subject of physical evolution--but only after it had been censored somewhat by the faculty and trustees who approved of the scholarship but feared the wrath of the religious. Evolution also dotted articles in collegiate journals. One student at the Arkansas Industrial University hoped for "radical change" through "gradual peaceful reform" and "the natural process of social evolution" in order that the people might regulate "the trusts and combinations."⁴⁴

Like their professors, students applied the lessons of evolution to their own history because it provided an explanation for their parents' defeat and hope for a

⁴⁴Commencement Exercises. A. & M. College of Mississippi, 1895; Battle, History, vol. 2, p. 463; Commencement Exercises. A. & M. College of Mississippi, 1890; Thomas Walter Reed, "History of the University of Georgia," 19 vols. typescript, n. d., vol. 5, pp. 1257-1258, University Archives, University of Georgia; Trustees' Minutes, University of Georgia, 12 July 1887; "The Skeptics of Yesterday Are the Saints of Tomorrow," College Reflector 4 (October 1890): 10; Richard N. Graham, "The Economic Man," Ozark [Arkansas Industrial University] IV (May 1897): 351.

prosperous New South. "For six thousand years," observed a Mississippi A & M student,

humanity has been struggling to elevate itself ...recoiling before overwhelming forces of adversity, but only to be strengthened and begin with renewed vigor the march toward a higher prosperity and civilization....So it is with our people. Only a quarter of a century ago...they the patriots of the south clashed arms...with their brothers, the heroes of the north....We, as the next generation following that dismal period...are in the midst of...a new and different era. Our people have bowed with a noble submission to the decree of fate, but with an unflinching courage and an unrelaxing energy they have evolved from the ruin of antebellum prosperity new industries that promise greater power and wealth than their fathers ever dreamed of.

Postbellum students, who increasingly had had no contact with the Confederacy, easily accepted their teachers' promise of a prosperous New South that was to be part of a "great Republic" that would continue "to grow in influence and in power." They also readily accepted the idea that slavery had hindered Southern progress. J. T. Strayhorn, a senior at the University of North Carolina in 1881, confidently predicted that the abolition of slavery would ultimately allow the South to vastly increase its wealth.⁴⁵

More than just mimic the words of progress, academics of the Civil War generation wanted their students to create a New South. Many Southern students did enter scientific courses, and the region's colleges and universities between

⁴⁵Pat Walker, "The Responsibility That Will Devolve on Us," College Reflector [Mississippi A & M] 5 (March 1892): 16-17; J. D. G[uyton], "Was It Defeat?" College Reflector 14 (December 1900): 14-16; Battle, History, vol. 2, p. 254.

the end of the Civil War and 1900 produced agricultural chemists, civil, electrical and mechanical engineers, factory managers, geologists, and other technically skilled graduates. At A & M colleges, Southern students preferred, like their Northern and Western counterparts, mechanical, or in another word, engineering, courses to agricultural studies. A circumstance which concerned grangers, but not progressivist academics who believed the South needed engineering skill to hasten industrialization.⁴⁶

Southern schools produced far too few technically trained graduates of any kind, however, to accomplish the dream of progressivist academics that their students would herald the New South. Of the nine 1885 graduates who received bachelor's degrees from Mississippi A & M, eight were still living in 1900, and of these, only two, both of whom became horticulturists, had entered technical occupations. Texas A & M graduated only eleven students in 1886: eight from its mechanical course and three from its agricultural course. Seven years later, three worked at the college, three had become engineers, and the others included a draughtsman, an assistant postman, a surgeon in the United States Army, and an assistant at the state agricultural

⁴⁶Report of the Board of Supervisors of Louisiana State University...1882, pp. 21-23; letter from William LeRoy Broun to D. F. Boyd, 27 November 1873, folder 57, box 7, Broun Letters, Fleming Collection; Biennial Report...of the Mississippi Agricultural and Mechanical College...1892 and 1893, p. 7; Biennial Report of the Arkansas Industrial University...1895, p. 8.

experiment station. Robert Hardaway noted in 1888 that in the six years he had served at the University of Alabama as professor of engineering, twenty-seven of his thirty-nine engineering graduates (two were dead) found employment in technical pursuits. Between 1893 and 1899, North Carolina A & M graduated fifty-eight engineering students or an average of just over six a year, forty of whom three or four years after graduation worked in technical occupations.⁴⁷

Although these and other Southern schools produced graduates who entered technical fields, they nevertheless proved too few in number to build the economically independent and industrial New South hoped for by progressivist academics. The turn of the century still left Curry wondering who would build the South's cities, commerce, factories, mills, and railroads. "There must be trained heads to do this work," he reasoned, "Will they be imported from the North and Europe, or shall we develop them here from among our own people?" By 1900, the South remained economically dependent on the North, lacked a diversified economy, continued to rely on unskilled labor,

⁴⁷Second Decennial Catalogue of the Mississippi Agricultural and Mechanical College. 1890-1900 (Meridian, MS: Meridian News, n. d.), p. 12; Seventeenth Annual Catalogue of the Agricultural and Mechanical College of Texas. Session 1892-93, p. 65; letter from R. A. Hardaway to H. D. Clayton, 12 June 1888, folder 1520, Record Group 1, Trustee Records, University Archives, Hoole Library; James E. Brittain and Robert C. McMath, Jr., "Engineers and the New South Creed: The Formation and Early Development of Georgia Tech," Technology and Culture 18 (April 1977): 199.

and remained the poorest region in the Republic. The problem was not necessarily too few graduates. No guarantee existed that even if Southern schools doubled, tripled, or even quadrupled their annual output of scientifically trained graduates, they would have enabled the South to industrialize any faster than it did. Progressivist educators operated from what well may have been a flawed premise: that higher education by itself could generate the skill and capital necessary to foster industrialization. Northern industry, at least prior to the 1860s, developed rapidly without the aid of A & M colleges or state university graduates with bachelor of science degrees. Inventive Northern mechanics, largely trained through apprenticeship, created laborsaving devices that built industries and generated capital, much of which industrialists invested into developing new technologies. As part of their investment, Yankee manufacturers supported scientific education in the North, which produced chemists, mechanical engineers, and other skilled personnel for Northern factories. However, industry and capital initially stimulated applied science instruction in higher education, not vice versa.⁴⁸

⁴⁸Curry, Address...1899, pp. 17-8; Ayers; Rabinowitz; James C. Cobb, "Beyond Planters and Industrialists: A New Perspective on the New South," Journal of Southern History LIV (February 1988): 54-55; Calvert; David F. Noble, America by Design: Science, Technology, and the Rise of Corporate Capitalism (Alfred A. Knopf: New York, 1977); Norrell, pp. 54-5; Pannabecker, pp. 19-37.

Although the academics of the Civil War generation failed to create a prosperous New South through their graduates, they did produce alumni that filled the ranks of Southern academia. The South's schools generally appointed their own graduates or those from other Southern institutions to academic positions whenever possible. Often these young educators received postgraduate training at Northern schools, such as Cornell, Johns Hopkins, Rensselaer, and like other Americans, at German universities.⁴⁹ And although Southern students learned the more scientific aspects of their chosen fields, such as chemistry or history, at these schools, Northern and foreign professors did not need to introduce them to progressivistic thought. Those persons too young to fight in the Civil War and who entered academia prior to 1900, had already learned the lesson of Southern progress: the South's inevitable defeat, followed by national reconciliation, would lead ultimately to a prosperous future.

At a meeting of the New England Society held at New York City on December 22, 1906, University of Virginia

⁴⁹Letter from Thomas Boyd to Boykin Pegues, 29 November 1898, Boykin W. Pegues Papers, folder 1, box 1, Lower Louisiana and Mississippi Valley Collections; Barringer, et al., eds., vol. 2, pp. 11-12, 16-17; Longhorn (1903): 20-27; Thomas Reed, Memoir, ed. Mathis, pp. 63n-64n, 68-69; Robert C. McMath, Jr., et al., Engineering the New South: Georgia Tech, 1885-1985 (Athens: University of Georgia Press, 1985), p. 97; Brooks, pp. 101-103; Heitmann, p. 236; Foster, p. 180.

President Edwin A. Alderman spoke on the subject of Northern and Southern sectionalism and American nationality. "Fate driven, these sections came to war, the New Englander fighting for the liberty of the individual...and the idea of union; the Southerner for the liberty of local self-government and the right of Englishmen to determine their affairs," Alderman told the audience. The war, he continued, "was not of conquest or glory. To call it rebellion is to speak ignorantly. To call it treason is to add viciousness to stupidity." The conflict, the 1882 graduate of the University of North Carolina assured his applauding listeners, had removed "the curse of slavery" from the South and established "the indestructibility of the Union." For New England, he continued, much of the nineteenth century had been a "Golden Age" of economic development and political freedom. As for the South, "rid of its economic misconceptions, and proven fine steel by the ordeal of fire, [having] spent forty-five years in courageous industrial and political adjustment to the modern world," Alderman enthusiastically predicted, its "Golden Age is yet to be." His address contained all the major elements of Southern progressivist thought: Providence, the Lost Cause, Anglo-Saxonism, national reconciliation, and the inevitable progress of the New South.⁵⁰

⁵⁰Edwin A. Alderman, Sectionalism and Nationality...Before the New England Society in the City of New York December 22, 1906, (n. p., n. d.), pp. 8-13, in

Alderman, who had previously served as president of the University of North Carolina and Tulane, is often considered one of the Progressive educators who freed Southern higher education from academic conservatives who remained enamored with classics, resisted Yankee curricular innovations such as applied science courses, and waxed nostalgic for the Old South. He, along with other academics and their supporters born too late to fight in the Civil War, such as Thomas D. Boyd, Charles W. Dabney, Charles D. McIver, Edgar Gardner Murphy, Francis P. Venable, and George T. Winston, are frequently credited with helping to create a "great educational awakening" in the South after 1900. They are characterized as reconciled to defeat and committed to a New South. Particularly praised are the efforts of the Watauga Club which consisted of a group of young (all under thirty years of age) North Carolina Progressives that included Dabney, McIver, Page, Josephus Daniels, and others, who launched a campaign from Raleigh in 1884 to enlighten public opinion on the benefits of all levels of public education, farmers' institutes, scientific agriculture, and good roads. Their efforts are praised for starting a broad educational reform movement in the South which helped to spur the

[Edwin A.] Alderman, Addresses (n. p., n. d.), bound collection of addresses located in the Howard-Tilton Memorial Library. For similar sentiments, see Edwin A. Alderman, The Growing South. An Address Delivered before the Civic Forum in Carnegie Hall, New York City March 22, 1908 (New York: Civic Forum, 1908).

Progressive crusades against child labor and hookworm. These Progressives also advocated the education of white women, who increasingly entered state colleges and universities after the turn of the century.⁵¹

The generation that followed the academics of the Civil War generation were largely Southern Progressives and proponents of the New South. Their progressivist orientation however, was not spontaneous, but inherited from the first generation of postbellum academics. Like them, the subsequent generation took pride in the material progress of the United States, believed education would create a New South, embraced the cult of the Anglo-Saxon,

⁵¹Ayers, pp. 417-423; Curti, p. 281; Virginius Dabney Liberalism in the New South (Chapel Hill: University of North Carolina Press, 1932), pp. 177-189; Horace H. Cunningham, "The Southern Mind Since the Civil War," in Writing Southern History: Essays in Historiography in Honor of Fletcher M. Green, eds. Arthur S. Link and Rembert W. Patrick ([Baton Rouge]: Louisiana State University Press, 1965), p. 399; Charles William Dabney, Universal Education in the South, 2 vols. (Chapel Hill: University of North Carolina Press, 1936), vol. 1, pp. 182-189, 206-215; 378-380; Dabney, vol. 2; Charles W. Dabney, "The Progress of the Renationalization of the South," typescript, [1911], in folder 318, box 25, series 5, subseries 5.2, Charles W. Dabney Papers, SHC-UNC; Grantham, pp. 246-274; Neufeldt and Allison, pp. 252-255; Spencer J. Maxcy, "Progressivism and Rural Education in the Deep South, 1900-1950," in Education, eds. Goodenow and White, pp. 50-52; Woodward, pp. 396-397, 400-401, 436-438; Charles W. Dabney, "The Watauga Club," typescript, n. d., folder 274, box 21, Charles W. Dabney Papers; Hugh C. Bailey, p. 81; Lawrence A. Cremin, American Education: The Metropolitan Experience, 1876-1980 (New York: Harper & Row, 1988), pp. 216-219; Wagstaff, pp. 57-59; James Knox Powers, "Co-education in Alabama," [probably 1897], typescript, James Knox Powers Vertical File, Hoole Library; Charles W. Dabney, "Woman: Her Education and Service," folder 325, box 26, Subseries 5.2, Series 5, Charles W. Dabney Papers.

admired Herbert Spencer, espoused the study of scientific history, and credited superior schools for Prussia's victory over the French.⁵²

No one did more than Charles W. Dabney to enshrine the second generation of postwar educators as the saviors of Southern education. He was the son of Robert Lewis Dabney, a Presbyterian minister who served as Stonewall Jackson's chief of staff during the Civil War and later wrote a biography of the dead general. Like many, (though certainly not all) clergymen, the elder Dabney remained resistant to reconciliation, feared that the progressivist orientation of the New South would undermine republican virtue, and

⁵²J. C. Nagle, "The Influence of Applied Science," The Texas Academy of Science IV, part 2 (February 1902): 10; Francis P. Venable, "Address Before Washington and Lee University," typescript, n. d., folder 128, box 3, Francis Preston Venable Papers; Francis P. Venable, "Presidential Address Before the Southern Educational Association, Atlanta, Ga., Dec. 30, 1903," typescript, folder 131, box 3, Francis P. Venable Papers; W. P. Few, "Some Educational Needs of the South," South Atlantic Quarterly III (July 1904): 201-211; Alderman, Growing South, p. 5; John C. Futrall, "President's Address," Reprint from the Proceedings of Forty-Seventh Annual Convention of the Association of Land Grant Colleges and Universities, Chicago, Ill., November 13-15, 1933 (Burlington, Vermont, Free Press, 1934), pp. 28-34; W. P. Trent, The Study of Southern History (n. p., [1896?]), pp. 1-24, reprint from the Vanderbilt Observer (n. d., n. p.); Henneman, pp. 320-339; Frederick W. Moore, "The Status of History in Southern Colleges," South Atlantic Quarterly II (April 1903): 169-171; George T. Winston, The Influence of Universities and Public Schools on National Life and Character (n. p., [1896]), pp. 1-3, located in bound volume entitled "University of Texas Commencement Addresses," Barker Texas History Center; Charles W. Dabney, "The State University: The Institution of Democracy," typescript, [1902], folder 329, box 26, Subseries 5. 2, Series 5, Charles W. Dabney Papers.

defended academic conservatism. Charles Dabney, born on June 19, 1855, and therefore much too young to enlist in the ranks of the Confederacy, embraced reunion, the New South, and academic reform.⁵³

In 1873, Dabney received a B. A. from Hampden-Sydney College where he struggled with algebra, learned surveying, and studied the classics. He subsequently entered the University of Virginia where he studied under John Mallet, F. Henry Smith, and Charles Venable. Dabney took a deep interest in the natural sciences, particularly applied chemistry which he studied under Mallet. When Dabney left the university in 1877, Emory and Henry College appointed him as its first professor of chemistry, mineralogy, and geology following recommendations from Mallet and Smith. The college's dismal financial condition, Dabney believed, prevented him from acquiring the resources necessary to adequately perform his professorial tasks, and he resigned from the position a year later. Dabney left Virginia for the University of Gottingen in Germany where, like his mentor, John Mallet, he received a Ph. D.⁵⁴

⁵³Charles William Dabney, Universal Education, vol. 1, pp. 154-161; Robert Lewis Dabney, Life and Campaigns of Lieut. Gen. Thomas J. Jackson (New York: Blelock & Co., 1866); letter from R. L. Dabney to Dear Charley, 9 December 1881, folder 67, box 4, Subseries 1. 4, Series 1, Charles William Dabney Papers; Wilson, Baptized in Blood, p. 11; R. L. Dabney, New South, pp. 1-16.

⁵⁴Charles W. Dabney, "A Child During the Civil War," typescript, [1939-45?], folder 280, box 22, Series 4, Charles W. Dabney Papers; Charles W. Dabney, "Birth and

After his return to the United States, Dabney briefly taught chemistry at the University of North Carolina in 1881 and subsequently served as the director of North Carolina's agricultural experiment station. He spent seven years in that state and while there he joined the reformers of the Watauga Club. In 1887, Dabney entered the successful effort, led by Leonidas L. Polk of the state grange, to establish in Raleigh an agricultural and mechanical college committed specifically to applied science instruction and separate from the state university.⁵⁵

Dabney left North Carolina in 1887 after obtaining the presidency of the University of Tennessee, which he hoped would become "the great industrial school of the South." He worked there for the next seventeen years attempting to accomplish that goal. Additionally, Dabney adopted and perpetuated a vision of progress created by former Confederates who entered academia after the Civil War. "The North conquered us, not because she had braver men, for there never were braver men than our own," Dabney wrote,

Early Childhood," typescript, [1939-45?], folder 281, box 22, Series 4, Charles W. Dabney Papers; Charles W. Dabney, notes for his "Memoirs," typescript, [1939-45?], folder 272, box 21, Series 4, Dabney Papers; draft of a letter from Chas. W. Dabney to the Board of Trustees of Emory and Henry College, 13 June 1877, folder 65, box 4, Subseries. 1.4, Series 1, Charles W. Dabney Papers; letter from Charles W. Dabney to Jno. A. Campbell, 20 July 1878, folder 66, box 4, Charles W. Dabney Papers; "In Memory of Professor Mallet," p. 28.

⁵⁵Charles W. Dabney, Universal Education, vol. 1, pp. 187-188.

"but because she had superior scientific, mechanical, and commercial resources, and so, greater wealth." He concluded that "Our neglect of education and our ignorance of science, mechanical arts, industry and commerce, were what doomed us to defeat from the beginning....These are the plain lessons of history." Nevertheless, Dabney asserted, Union victory destroyed slavery, which had made all "manual labor dishonorable, or at least disrespectable," and as "is universally acknowledged, retarded the general, scientific and educational development of the Southern people." He believed that

social evolution like everything else in the universe is continuous....[Southerners] speak of the civil war as revolution, and it was a complete revolution of our whole life, political, social and economic; but to the scientific student of history this great cataclysm was only a phase of the regular evolutionary process.⁵⁶

An ardent nationalist, Dabney rejoiced in 1911 that "after fifty years of complete or partial separation from the rest of the nation, the South had become fully re-nationalized." Commercial and industrial growth, he claimed, restored the South to economic health and allowed it to share in the nation's prosperity. "More than any other influence," however, Dabney crowed, education "has

⁵⁶Draft of a letter from Charles W. Dabney to Jas. Comfort, 11 July 1887, folder 71, box 5, Subseries 1.4, Series 1, Charles W. Dabney Papers; Charles W. Dabney, "State University"; Charles W. Dabney, "Declaration of Educational Principles with Special Reference to the Needs of the South," typescript, [29 February 1904], folder 321, box 26, Subseries 5.2, Series 5, Charles W. Dabney Papers.

changed the South from a conservative bulwark into an engine of progress in the nation." Education, he believed, acted not only as an instrument of physical progress, but as an "agency of social progress" that elevated public morality.⁵⁷

Dabney and other Progressive educators largely appropriated the progressivist vision--inevitable defeat, national reconciliation, and progress through education--forged by the Civil War generation, as their own. "With all respect for the fathers, we believe that men have to be educated for their period," Dabney opined concerning the education proffered by Confederate veterans. The "error of the fathers," he believed, "was that they persisted in trying to make the old education answer for the new times." But, Dabney claimed, "a new generation has entered [public] life, educated to think new thoughts and to do new deeds." Dabney perpetuated this interpretation of a progressive new generation overcoming the reactionary educational beliefs of the "fathers" in his two volume Universal Education of the South published in 1936, and it has rarely been challenged.⁵⁸

⁵⁷Charles W. Dabney, "Progress of the Renationalization of the South." See also Charles W. Dabney, "The Task of the Renationalization of the South," typescript of address delivered at the University of South Carolina, 11 January 1917, folder 319, box 25, Subseries 5.2, Series 5, Charles W. Dabney Papers.

⁵⁸Charles Dabney, "Progress of the Renationalization of the South;" Charles W. Dabney, Universal Education.

Southern Progressives mistakenly interpreted the musings of their academic elders about the Lost Cause as a yearning for Southern independence and the Old South. The new generation of Southern educators failed to realize that their predecessors, like themselves, viewed the Civil War as another (albeit major) point on the road of Southern progress. Furthermore, the "educational revival" in the South, which consisted of larger budgets for white public schools of all levels and increased the size of enrollments, faculty, and curricula, occurred after most of the older generation of academics had either died or retired. Dabney and other Progressive era educators, who themselves had been crusading for these improvements since the 1870s and 1880s, lived to witness this fruition and received the praise for the improvements in Southern education. Other than the occasional paean given to Robert E. Lee for his work at Washington College, Progressive educators and their supporters slighted the progressivist beliefs and efforts of their predecessors and gave themselves credit for the "educational awakening" that occurred on their watch.⁵⁹

⁵⁹Hugh C. Bailey, p. 131; Cobb, "Beyond Planters," p. 57; Grantham, p. 246; Alderman, Growing South, p. 6; Charles Dabney, "The State University"; Charles Dabney, "President Battle and the University," 1928, typescript, folder 274, box 21, Series 4, Charles W. Dabney Papers; Edwin A. Alderman, In Memoriam Charles Duncan McIver (n. p., 1907); Charles W. Dabney, Universal Education; Francis P. Venable, "Walter H. Page: Democrat. Statesman. And Man," typescript, n. d., folder 134, box 3, Francis P. Venable Papers.

Despite the enthusiasm of Progressives for the future of Southern academia, troubling problems remained. Parallelism continued to plague Southern higher education because legislatures continued to establish new and underfunded state universities, colleges, industrial schools, and teachers colleges well into the twentieth century. Progressive academics also believed it necessary to continue to mollify the hostility of religious denominations by praising religious education and courting the support of sectarian colleges. More troubling to those higher educators who prided themselves on their support of objective and scientific inquiry, the public and trustees generally insisted upon persecuting the few professors who questioned white supremacy by seeking their dismissal.⁶⁰

Also, akin the first generation of postbellum academics, Southern Progressives could not agree as to the

⁶⁰Charles W. Dabney, "The Consolidation of the Three Colleges of North Carolina," typescript, [1931-1932], folder 283, box 22, Series 4, Charles W. Dabney Papers; Edwin L. Stephens, "The Story of Acadian Education in Louisiana," Louisiana Historical Quarterly 18 (April 1935): 401; Charles W. Dabney, "Bible Instruction in the College," n. d., typescript, folder 281, box 22, Charles W. Dabney Papers; Chas. Lee Smith, "Mr. Hill's Relation to the Denominational Colleges," Bulletin of the University of Georgia Memorial Number (May 1906): 42-45; James E. Dickey, "Mr. Hill's Relation to the Denominational Colleges," Bulletin of the University of Georgia Memorial Number (May 1906): 46-51; H. C. White, "'In What Ways Can the Average American College Best Constitute to the Promotion of the International Peace Movement,'" typescript, n. d., folder 8, box 1, Henry Clay White Collection, Hargrett Rare Books and Manuscript Library, University of Georgia, Athens; Hugh C. Bailey, p. 118; Grantham, pp. 28-32; Foster, pp. 180-186.

type of academic training African-Americans should receive. Charles Dabney believed Southern blacks needed to learn only the skills necessary to know "how to work and labor" on a farm. Whites, however, he wanted to be taught the scientific "arts of agriculture and industry." Henry Clay White hoped to avoid the problem of African-American higher education altogether. Born in Baltimore in 1850, White studied at the University of Virginia under Mallet in the 1870s and was elected professor of chemistry at the University of Georgia during Lipscomb's tenure as chancellor. White also served as president of Georgia's agricultural and mechanical college from 1890-1907. An admirer of Spencer and Darwin, White believed in "social evolution" and demonstrated his Progressivism through his support of the Lake Mohonk Conference on International Arbitration. His attitude toward African-American education, however, was somewhat less progressive. He begrudged blacks their share of the 1890 Morrill grant and fretted to his friend William LeRoy Broun that his college would have "trouble" with "the Negro question...in educational matters."⁶¹

⁶¹Charles Dabney, "Progress of the Renationalization of the South"; "Henry Clay White," typescript, n. d., folder 1, box 1, White Collection; from a clipping in an unidentified newspaper, folder 2, box 1, White Collection; White, "Peace Movement"; letter from H. C. White to William LeRoy Broun, 23 September 1890, folder 89, box 6, Broun Collection.

Another Progressive academic, Walter B. Hill, demonstrated more concern for the higher education of African-Americans. Hill, born a decade before the start of the Civil War, attended the University of Georgia from 1868-1871. While there, he enjoyed Broun's experiments and lectures, private conversations with Andrew Lipscomb, and a friendship with fellow student Henry Grady. Hill also joined the university's branch of the Young Men's Christian Association organized by Broun, and the students' Temperance Society. After graduation, Hill became an attorney and taught law at Mercer University. He also developed an interest in populist politics and avidly supported prohibition and universal education. The University of Georgia's trustees appointed him chancellor in 1899. Unlike Dabney and White, Hill believed African-Americans ought to have access to higher education. He worked for this goal while serving as a trustee for Paine College in Augusta.⁶²

⁶²Letter from Walter B. Hill to Herbert Clay Hill, 13 June 1869, in Hill, Student Correspondence, p. 91; letter from Walter B. Hill to Mary Clay Hill, 6 September 1868, in Hill, Student Correspondence, pp. 65-66; letter from Walter B. Hill to Barnard Hill, 28 June 1868, in Hill, Student Correspondence, pp. 53-55; letter from Walter B. Hill to Barnard Hill, 20 September 1868, in Hill, Student Correspondence, p. 71; letter from Walter B. Hill to Henry Clay Hill, 3 October 1869, in Hill, Student Correspondence, p. 124; letter from Walter B. Hill to Mary Clay Hill, 9 April 1871, in Hill, Student Correspondence, p. 229; letter from Walter B. Hill to Herbert Clay Hill, 20 June 1868, in Hill, Student Correspondence, pp. 50-51; Editor's Preface, Hill, Student Correspondence, p. xi; Thomas G. Dyer, Georgia p. 154.

Like their progressivist predecessors, Southern academics of the Progressive era and their supporters embraced, or at least accepted, segregated higher education. Ultimately, white legislators and education boards determined that African-Americans received largely manual training at publicly supported schools. Furthermore, legislative spending on black colleges after 1900 declined in relation to funds spent on higher education for whites. A circumstance that Progressives largely left unchallenged.⁶³

More troubling to Progressive academics than parallel institutions, religious opposition, and black education, was the fear that, despite all of their efforts, the South continued to demonstrate too little progress. Francis Venable, like Dabney and White, studied chemistry under Mallet at the University of Virginia in the 1870s. After graduation, he found employment as professor of general and industrial chemistry at the University of North Carolina. "We are falling behind in the world's progress," Venable warned in 1883, "and whatever of civilization and of knowledge we possess we tamely accept from others. This must not be." Twenty years later Venable complained that educationally the South continued to trail the rest of the

⁶³Edgar Gardner Murphy, The Task of the South: An Address Before the Faculty and Students of Washington and Lee University, Lexington, Virginia, December 10th, A. D., 1902 (Montgomery, Alabama: n. p., [1903?]), pp. 1-11; Wilmore, pp. 62; Aldrich, pp. 277-278.

nation. Alderman also grew impatient. "The South must pass from an agricultural order, depressed by poverty and misrule," Alderman insisted in 1908, "to an industrial democracy." Their concern at the South's relatively slow rate of progress stemmed in part from fears that the Southern public still failed to appreciate the benefits of education. Despite generally increased legislative appropriations after 1900--due perhaps more to the South's general economic recovery than any increased desire on the part of the public to support higher education--Progressive academics lamented "the scant equipment" and "precarious incomes" that continued to plague public colleges and universities.⁶⁴

Although academics recognized the South had undergone considerable industrial growth in the decades after the Civil War, they also realized that the region still had not closed the wealth disparity that existed between it and the rest of nation. This led them to a dual conception of Southern progress. They appreciated the development that

⁶⁴Letter from F. P. V[enable]. to [Mrs. Venable], 16 April 1886, folder 31, box 1, Francis P. Venable Papers; Venable quoted in Nancy Smith Midgette, To Foster the Spirit of Professionalism: Southern Scientists and the State Academies of Science (Tuscaloosa and London: University of Alabama Press, 1991), p. 27; Francis P. Venable, "Presidential Address"; Alderman, Growing South, p. 7; Charles Dabney, "State University"; Daniel J. Whitener questions whether an "educational renaissance" actually took place after 1900, see his "Republican Party and Public Education in North Carolina, 1867-1900," North Carolina Historical Review XXXVII (July 1960): 393.

occurred since the war which allowed them to proclaim in effect, as Henry Grady did, that the New South had arrived.⁶⁵ Alderman and other Progressive era educators continued to be optimistic about the South's future. Yet, Southerners remained largely rural and plagued by poverty, isolated from national politics, and excluded from the nation's general prosperity. The New South, therefore, also appeared to Progressive academics, just as it had for their predecessors, as a millennial expectation of a "Golden Age" yet to be fulfilled. The Progressives' New South, and any subsequent New South, was thus similar to the Christian conception of the Kingdom of God⁶⁶: already present and yet still in the future.

"To us the Confederate Veterans is due the resurrection called the New South," observed Stephen Lee, "which we bequeath as an inheritance to our sons."⁶⁷ There is considerable truth in Lee's assertion. Lee and other Confederate veterans who entered academia provided the subsequent generation of higher educators with the doctrinal tenets--the Lost Cause, national reconciliation, and the New South--of Southern progress. In turn, Progressive academics proselytized their faith to students in their classes and to

⁶⁵Braden and Nixon, pp. 43.

⁶⁶Thomas Sheehan, The First Coming: How the Kingdom of God Became Christianity (New York: Random House, 1986), pp. 57-69.

⁶⁷Lee quoted in Hattaway, p. 196.

the public in their addresses. It has been this perpetual hope of progress which has led Southerners--and historians--to believe in the promises of the first New South and to always look forward to another.⁶⁸

⁶⁸Ayers; Rabinowitz; Numan V. Bartley, "Another New South?" Georgia Historical Quarterly LXV (Summer 1981): 119-137.

BIBLIOGRAPHY

Manuscript Collections

Auburn University, Auburn, Alabama
Special Collections, Draghon Library

Isaac Taylor Tichenor Papers

Auburn University, Auburn, Alabama
University Archives

David F. Boyd Papers

Leroy Stafford Boyd Collection

William LeRoy Broun Collection

James H. Lane Papers

College of William and Mary, Williamsburg, Virginia
University Archives

Benjamin Stoddert Ewell Papers

Duke University, Durham, North Carolina
Special Collections Library

Burwell Boykin Lewis Papers

Library of Congress, Washington, D. C.

Matthew Fontaine Maury Papers

Louisiana State University, Baton Rouge
Louisiana and Lower Mississippi Valley Collections,
Louisiana State University Libraries

Walter L. Fleming Collection

Braxton Bragg Letters

W. LeRoy Broun Letters

P. O. Hebert Letters

Louisiana State University Official Papers

Richard S. McCulloch [sic] Letters

Samuel H. Lockett Letters

Francis H. Smith Letters

Richard M. Venable Letters

Anthony Vallas Letters

Minutes of the Board of Supervisors for the Louisiana
State University and Mechanical College, 1881-
1886

James W. Nicholson Papers

Boykin W. Pegues Papers

Mississippi Department of Archives and History, Jackson

Eugene W. Hilgard Papers

Robert E. Lee Letter

Charles K. Regan Papers

Mississippi State University, Starkville
University Archives

Commencement Programs

John Francis Hamtramck Claiborne Papers (on microfilm,
original manuscript collection in John Francis
Hamtramck Papers, Southern Historical Collection,
University of North Carolina, Chapel Hill)

Stephen Dill Lee Papers (on microfilm, original
manuscript collection in Stephen Dill Lee Papers,
Southern Historical Collection, University of
North Carolina, Chapel Hill)

Minutes of the Board of Trustees for the Mississippi
Agricultural and Mechanical College, 1880-1892

President's Letter Books, vols. 1-4

Buz M. Walker President's File

North Carolina Department of Archives and History, Raleigh

Daniel Harvey Hill [Sr.] Papers

Daniel Harvey Hill, Jr. Papers

Stephen D. Lee Museum, Columbus, Mississippi.

Blewett Lee Scrapbooks, vols. 1-3

Texas Agricultural and Mechanical University, College
Station

University Archives

W. L. Bringhurst Vertical File

Hardaway Hunt Dinwiddie Vertical File

Louis Lowry McInnis Papers

Tulane University, New Orleans, Louisiana
Manuscripts and Rare Books, Howard-Tilton Memorial
Library

William Preston Johnston Collection

University of Alabama, Tuscaloosa, University Archives

Trustee Records

Minutes of the Board of Trustees of the University of
Alabama, 1878

University of Alabama, Tuscaloosa
William Stanley Hoole Special Collections Library

Henry DeLamar Clayton Collection

Burwell Boykin Lewis Vertical File

Landon C. Garland Letters

Gorgas Family Papers

James Knox Powers Vertical File

Eugene Allen Smith Collection

University of Arkansas, Fayetteville
University Archives

Board of Trustee Records 1868-1934

Faculty Minutes 1881-1886

Letters

Annual Reports

Biology and Geology Reports 1883-1897

University of Georgia, Athens
Hargrett Rare Books and Manuscript Library

Henry Clay White Collection

Reed, Thomas Walter, "History of the University
of Georgia," 19 vols. Typescript, n. d.

University of Georgia, Athens
University Archives

Minutes of the Board of Trustees of the
University of Georgia, 1855-1877

University of Mississippi, Oxford
Archives and Special Collections, Williams Library

Minutes of the Board of Trustees of the University of
Mississippi, 1860-1870

University of North Carolina, Chapel Hill
Southern Historical Collection, Wilson Library

John Lancaster Bailey Papers

Charles W. Dabney Papers

George M. Edgar Papers

Robert A. Hardaway "Book" (on microfilm)

Benjamin Sherwood Hedrick Papers

Daniel Harvey Hill Papers

John Kimberly Papers

Samuel Henry Lockett Papers

McBryde Family Papers

Edmund Kirby Smith Papers

William C. Stubbs Papers

Francis Preston Venable Papers

University of North Carolina, Chapel Hill
University Archives

Minutes of the Board of Trustees for the
University of North Carolina 1859

University of Texas, Austin
Barker Texas History Center

Oran Milo Roberts Papers

University of Virginia, Charlottesville
Manuscripts Department, Alderman Library

Harrison, Smith, and Kent Family Papers

Minutes of the Board of Visitors of the
University of Virginia, 27 May 1861 to 16
July 1861

Virginia State Library and Archives, Richmond
Archives Division

Daniel Harvey Hill Papers

Virginia Military Institute, Lexington. Archives.

Francis Henney Smith Papers

Washington and Lee University, Lexington, Virginia
University Archives

Robert Edward Lee Papers

Minutes of the Board of Trustees of Washington College
1865

Trustee Papers

Published Primary Sources

Addresses, Books, and Pamphlets

An Address on Southern Education Delivered July 18, 1859, Before the Faculty, Trustees, Students, and Patrons of "Madison College," Sharon, Mississippi. Washington: n. p., 1859.

Alderman, Edwin A. The Growing South. An Address Delivered before the Civic Forum in Carnegie Hall, New York City March 22, 1908. New York: Civic Forum, 1908.

———. In Memoriam Charles Duncan McIver. N. p., 1907.

———. Sectionalism and Nationality...Before the New England Society in the City of New York December 22, 1906. N. p., n. d.

Avery, A. C. Memorial Address on [the] Life and Character of Lieutenant General D. H. Hill, May 10th, 1893. Raleigh, N. C.: Edwards & Broughton, 1893.

Avery, W. W. Address Delivered before the Two Literary Societies of the University of North Carolina, June 4, 1851. Raleigh: William W. Holden, 1851.

Baptist, Edward. Address Delivered Before the Trustees, Faculty, and Students of Howard College...November 16, 1846. Tuscaloosa: M. D. J. Slade, 1846.

Barksdale, Wm. R. The True Office of the College. An Address, Delivered Before the Alumni Association of the University of Mississippi, July 15, 1857. Memphis: Bulletin Company, 1857.

Barnard, F. A. P. Improvements Practicable in American Colleges. Hartford: F. C. Brownell, 1856.

———. An Oration Delivered Before the Citizens of Tuscaloosa, Ala., July 4th, 1851. Tuscaloosa: J. W. & J. F. Warren, 1851.

———. Memoirs of Frederick A. P. Barnard. Edited by John Fulton. New York and London: Macmillan and Co., 1896.

Battle, Kemp P. History of the University of North Carolina. 2 vols. Raleigh: Edwards & Broughton, 1907.

- . Memories of an Old Time Tar Heel. Edited by William James Battle. Chapel Hill: University of North Carolina Press, 1945.
- . Sketches of the History of the University of North Carolina, Together with a Catalogue of Officers and Students, 1789-1889. N. p.: University of North Carolina, 1889.
- Battle, William H. Address Delivered Before the Two Literary Societies of the University of North Carolina, June 1st, 1865. Raleigh: Wm. B. Smith & Co., 1866.
- Bledsoe, Albert T. Address Delivered at the First Annual Commencement of the University of Mississippi, July Twelfth, 1849. Oxford: Organizer Office, 1849.
- Board of Trustees of the State [Mississippi] University. Where Shall I Send My Son? An Address to the People of Mississippi. N. p., [1876].
- Boyd, D. F. Address of [the] Superintendent Louisiana State Seminary, to the Graduating Class, Delivered June 30, 1869. New Orleans: Jas. A. Gresham, 1869.
- . Address...on the Anniversary of the Delta Rifles 4th Louisiana Regiment Confederate States Army at Port Allen, West Baton Rouge, La., May 20th, 1887. Baton Rouge: Capitolian-Advocate Book and Job Print, 1887.
- . Address to the Graduating Class, Delivered June 30th, 1869. New Orleans: Jas. A. Gresham, n. d.
- . General History of the Seminary Fund and the Agricultural and Mechanical College Fund, and of the [O]rganization and [W]ork of the Institution founded thereon by the State of Louisiana. Baton Rouge: Bauer Printing Co., 1899), p. 12.
- . Louisiana State University Scheme to Raise an Endowment Fund. New Orleans: n. p., 1872.
- Broun, W[illia]m. LeRoy. Science-Education: An Address... Delivered at the Annual Commencement of the A. and M. College of Alabama. Auburn, Alabama: n. p., 1880.
- . Improvements Required in Southern Colleges. Read before the Teachers' Association of Georgia, in Macon, Decb'r 19th, 1867. Macon, Georgia: J. W. Burke & Co., 1868.

- Brown, A. G. Governor's Message Delivered at the Biennial Session [of the Mississippi State Legislature] January, 1848 and Accompanying Documents. N. p., [1848?].
- Brown, Aaron V. Address Delivered Before the Literary Societies of the University of North Carolina...May 31, 1854. Nashville: J. F. Morgan, 1854.
- Burwell, W. M. Address Delivered Before the Faculty and Students of the Louisiana State University, On Wednesday, 25th June, 1871. N. p., Price Current, [1871?].
- Campbell, John A. Address Delivered Before the Alumni Society of the University of Georgia. Athens: J. S. Peterson, 1853.
- Cappon, Lester J., ed. The Adams-Jefferson Letters: The Complete Correspondence Between Thomas Jefferson and Abigail and John Adams. 2 vols. Chapel Hill: Institute of Early American History and Culture, 1959.
- Clapp, J. W. Address Delivered at the University of Mississippi on Behalf of the Board of Trustees on Commencement Day, June 29, 1866. Memphis: Public Ledger Office, n. d.
- Clark, Willis G. "The Promise of Education." In Memorial Record of Alabama. 2 vols. Madison, Wis.: Brant & Fuller, 1893.
- Clayton, Alexander M. Address Delivered at the First Annual Commencement of the University of Mississippi...July 12, 1849. Oxford: Organizer Office, 1849.
- . Commencement Address...Read Before the Law Students of the University of Mississippi on the 26th Day of June, 1860. Oxford, Mississippi: n. p., 1860.
- Clemens, Samuel L. [Mark Twain]. "The Private History of a Campaign that Failed." In Samuel Clemens [Mark Twain], The American Claimant and Other Stories and Sketches. New York: P. F. Collier & Son Company, 1899), pp. 255-282.
- Comte, Auguste. The Essential Comte: Selected from Cours de Philosophie Positive. Originally published in Paris 1830-42. Edited by Stanislav Andreski. New York: Barnes & Noble, 1974.

Colton, Simeon. An Address Delivered at His Inauguration to the Presidency of Mississippi College, July 30, A. D. 1846. Jackson: Southron Office, 1846.

Cooper, Thomas. Address to the Graduates of the South Carolina College, at the Public Commencement, 1830. Columbia: S. J. M. Morris, 1831.

———. Address to the Graduates of the South Carolina College, December, 1821. Columbia: D. Faust, 1821.

Croom, Isaac. Address Delivered Before the Greensboro Agricultural Society on the 2d of May, 1850. [Greensboro, Alabama]: n. p., [1850?].

Curry, J. L. M. Address Before the Alabama Polytechnic Institute, Auburn, Alabama, June 14th, 1899. Montgomery: Brown Printing Co., 1899.

———. Civil History of the Government of the Confederate States, with some Personal Reminiscences. Richmond: B. F. Johnson, 1901.

Dabney, Charles William. Universal Education in the South. 2 vols. Chapel Hill: University of North Carolina Press, 1936.

Dabney, Robert Lewis. Life and Campaigns of Lieut. Gen. Thomas J. Jackson. New York: Blelock & Co., 1866.

———. The New South. A Discourse Delivered at the Annual Commencement of Hampden Sidney College, June 15, 1882, before the Philanthropic and Union Literary Societies. Raleigh, N. C.: Edwards, Broughton & Co., 1883.

Davis, Jefferson. Address Before the Phi Sigma & Hermean Societies, of the University of Mississippi, Oxford, July 15, 1852. Memphis: Appeal Book and Job Office, 1852.

Dew, Thomas R. An Essay on Slavery. Richmond: J. W. Randolph, 1849.

Dinwiddie, H. H. Industrial Education in Our Common Schools...Paper Read Before the Texas State Teachers Convention...at Waco, Texas, July 1, 1885. Fort Worth, Texas: Loving Printing Co., 1886.

Egan, Bartholomew. Address Delivered at the Commencement Exercises of the Louisiana State Seminary and Military Academy. Alexandria: n. p., 1866.

- Elliot, E. N., ed. Cotton is King and Pro-Slavery Arguments. Augusta, GA: Pritchard, Abbott, & Loomis, 1860.
- Faust, Drew Gilpin, ed. The Ideology of Slavery: Proslavery Thought in the Antebellum South, 1830-1860. Baton Rouge and London: Louisiana State University Press, 1981.
- Fleming, Walter L., ed. General W. T. Sherman as College President. Cleveland, Ohio: Arthur H. Clark, 1912.
- Garland, L. C., and Ormond, J. J. [Military Department--University of Alabama]. N. p., [1861].
- Goodwin, S. A. Commencement Sermon Delivered Before the Students of the University of Columbus, Sunday, June 26th, 1876...Subject: Excellency of the Knowledge of Christ. Columbus, Miss.: Excelsior Book and Job, 1876.
- Green, William Mercer. Address Delivered before the Board of Trustees of the University of the South, Sewanee, Tenn., Monday of Commencement Week, July 28, 1878. Sewanee, Tennessee: Mountain News, [1878?].
- Grigsby, Hugh Blair. Oration, Delivered Before the Students of William and Mary College, July 4, 1859. N. p., n. d.
- Hamilton, R. D. An Address, Delivered Before the Students of Jefferson College, Washington, Mississippi, at the Commencement, July 25, 1855. Natchez: Daily Courier Book and Job Office, 1855.
- Hamilton, W[illia]m. T. Address on the Importance of Knowledge Delivered...December 11th, 1841. Tuscaloosa: Office of the Independent Monitor, 1841.
- Hammond, James H. An Oration, Delivered Before the Two Societies of the South Carolina College, on the Fourth of December, 1849. Charleston: Walker and James, 1850.
- Harris, Nathaniel E. Autobiography: The Story of an Old Man's Life with Reminiscences of Seventy-Five Years. Macon, Georgia: J. W. Burke, Co., 1925.
- Haygood, Atticus G. The New South: Gratitude, Amendment, Hope. A Thanksgiving Sermon, for November 25, 1880. Oxford, GA.: n. p., 1880.

Helper, Hinton Rowan. Compendium of the Impending Crisis of the South. New York: A. B. Burdick, 1860.

———. The Impending Crisis of the South: How to Meet It. New York: Burdick Brothers, 1857.

Herbert, Hilary. An Address Delivered Before the Society of Alumni of the University of Virginia, On Commencement Day, June 29, 1887. Lynchburg, Va.: J. P. Bell & Co., 1887.

Hilgard, Eug[ene]. W. Address on Progressive Agriculture and Industrial Education, Delivered Before the Mississippi Agricultural and Mechanical Fair Association, at Jackson, November 14th, 1872. Jackson, Miss.: Clarion Book and Job Office, 1873.

Hill, D. H. The Confederate Soldier in the Ranks. An Address...Before the Virginia Division of the Association of the Army of Northern Virginia,...October 22, 1885. Richmond: Wm. Ellis Jones, Book and Job Printer, 1885.

———. A Consideration of the Sermon on the Mount. Philadelphia: William S. & Alfred Martien, 1858.

———. Elements of Algebra. Philadelphia: J. B. Lippincott & Co., 1857.

———. The Old South: An Address...June 6, 1887, Before the Society of the Army and Navy of the Confederate States in the State of Maryland. Baltimore: Andrew J. Conlon, 1887.

———. University Address by Gen. D. H. Hill of Georgia. Delivered on Commencement Day, June 20, 1888, before the Regents, Faculty, and Students of the University of Texas. Austin: State Printing Office, 1888.

Hill, Walter B. College Life in the Reconstruction South: Walter B. Hill's Student Correspondence, University of Georgia, 1869-1871, edited by G. Ray Mathis. Athens: University of Georgia Libraries, Miscellanea Publications, No. 10, 1974.

Hogg, Alexander. An Address Prepared for [the] National Educational Association...Delivered Also Before the Centennial Bureau of Education, Philadelphia, September 1st, 1876. Salem, Ohio: W. D. Henkle, 1876.

- . Industrial Education. (Origin and Progress).
State Agricultural and Mechanical College of Texas.
Galveston: Galveston News, 1879.
- Holcombe, J. P. An Address Delivered Before the Seventh Annual Meeting of the Virginia State Agricultural Society, November 4th, 1858. Richmond: MacFarlane & Fergusson, 1858.
- . An Address Delivered Before the Society of Alumni of the University of Virginia, At its Annual Meeting, Held in the Public Hall, June 29th, 1853. Richmond: MacFarlane & Fergusson, 1853.
- Holmes, George Fred[eric]k. Inaugural Address, Delivered on Occasion of the Opening of the University of the State of Mississippi, November 6, 1848. Memphis: Franklin Book and Job Office, 1849.
- Huse, Caleb. The Supplies for the Confederate Army. How They Were Obtained in Europe and How Paid For. Boston: T. R. Marvin & Son, 1904.
- Jefferson, Thomas. An Essay Towards Facilitating Instruction in the Anglo-Saxon and Modern Dialects of the English Language for the Use of the University of Virginia. New York: John F. Trow, 1851.
- . The Writings of Thomas Jefferson. 20 vols.
Edited by Albert Ellery Bergh. Washington, D. C.: Thomas Jefferson Memorial Association, 1907.
- . The Writings of Thomas Jefferson. 9 vols.
Edited by H. A. Washington. Washington, D. C.: Taylor and Maury, 1854.
- . The Works of Thomas Jefferson. 12 vols. Edited by Paul Leicester Ford. New York & London: G. P. Putnam's Sons, 1905.
- Johnston, W[illiam]m. Preston. An Address Before the Louisiana State Public School Teachers Association ...December 28th, 1893. New Orleans: L. Graham & Son, Ltd., 1894.
- . Decoration Day [Address] at the Graves of Lee and Jackson. June 2nd, 1875 (Lexington, Virginia: n. p., 1875.
- . High Schools in Louisiana and Tulane University. New Orleans: n. p., 1893.

- . Problems of Southern Civilization: An Address Delivered Before the Polytechnic Institute of Alabama... June 10, 1891. N. p., [1891].
- . The University. Its Dangers and the Remedies. An Address...at the Commencement of the University of Texas, June 14, 1884. Austin: Warner & Co., 1884.
- Joynes, Edward S. Education After the War. A Letter Addressed to a Member of the Southern Educational Convention, Columbia, S. C., 28th April, 1863. Richmond: MacFarlane & Fergusson, 1863.
- . The Education of Teachers in the South: Embracing a Letter from Prof. Edw'd S. Joynes to Geo. P. Tayloe, Esquire. Lynchburg: Virginia Power-Press Book and Job Office, 1864.
- Junkin, George. Christianity: The Patron of Literature and Science. An Address Delivered February 22, 1849. On the Occasion of the Author's Inauguration as President of Washington College, Virginia. Philadelphia: n. p., 1849.
- Keyes, F. W. An Address Delivered Before the Alumni Association of the University of Mississippi on the 5th Day of July, 1859. Oxford: n. p., 1859.
- Knight, Edgar W., ed. A Documentary History of Education in the South Before 1860. 5 vols. Chapel Hill: University of North Carolina Press, 1953.
- LaBorde, M. History of the South Carolina College. Charleston: Walker, Evans & Cogswell, 1874.
- LeConte, Joseph. The Autobiography of Joseph LeConte. Edited by William Dallam Armes. New York: D. Appleton and Co., 1903.
- Lee, S. D. The Agricultural and Mechanical College of Mississippi: Its Origin, Object, Management and Results, Discussed in a Series of Papers. Jackson, Mississippi: Clarion-Ledger, 1889.
- Lewis, B. B. Baccalaureate Address: A Plea for Popular Institutions. N. p., n. d.
- . Baccalaureate Address Delivered at the Fiftieth Annual Commencement of the University of Alabama, July 7, 1881. N. p., n. d.

- . Memorial Address...At the Laying of the Memorial Stone of the New University Hall, May 5, 1884 and Baccalaureate Address, Delivered on Commencement Day, June 18, 1884. N. p., n. d.
- Lindsley, Philip. The Works of Philip Lindsley. Nashville: W. T. Berry & Co., 1859.
- Longstreet, Augustus B. Address Delivered before the Faculty and Students of Emory College, Oxford, Georgia. Augusta: W. T. Thompson, 1840.
- Lupton, N. T., and Smith, Eugene A. Addresses Delivered Before the State Agricultural Society in Convention at Selma, Alabama, Feb. 2d, 1888. Montgomery: n. p., 1888.
- Mallet, J. W. Chemistry Applied to the Arts: A Lecture Delivered Before the University of Virginia, May 30, 1868. Lynchburg: Schaffter & Bryant, 1868.
- Martin, G. H. Address Delivered before the Philomathean and Hermenian Societies, at Clinton, Miss., July 25, 1859. Vicksburg: Daily and Weekly Whig Steam Book and Job Office, 1859.
- Massie, James W. An Address Delivered Before the Society of Alumni of the Virginia Military Institute, July 3rd, 1857. Richmond: MacFarlane and Fergusson, 1857.
- Maury, M[atthew]. F[ontaine]. Address Delivered Before the Literary Societies of the University of Virginia...28th June 1855. Richmond: H. K. Ellyson, 1855.
- . Physical Survey of Virginia, Her Resources, Climate and Productions. Preliminary Report. No. II...July 1, 1877. Richmond: N. V. Randolph, 1878.
- Maxey, S. B. University Address...Delivered on Commencement Day, June 19, 1889, Before the Regents, Faculty, and Students of the University of Texas. Austin: State Printing Office, 1889.
- Mayo, A. D. Industrial Education in the South. Washington: Government Printing Office, 1888.
- . The Third Estate in the South: Address Delivered before the American Social Science Association, at Saratoga, N. Y., Sept. 2d, 1890. Boston: George H. Ellis, 1890.

- _____. The Training of Teachers in the South: A Paper Read Before the Normal Department, National Educational Association, Nashville, Tenn., July, 1889. N. p.: [1889].
- McBryde, J. M. Agricultural Education. An Address Delivered Before the State Legislature, December 12th, 1882. Columbia, SC: Charles A. Calvo, Jr., 1883.
- McCleary, J. H. University [of Texas] Address June 17, 1890. N. p., n. d.
- McQueen, Hugh. An Address Delivered Before the Alumni and Graduating Class of the University of North Carolina...June 26, 1839. Raleigh: Raleigh Register, 1839.
- Monteiro, Walter. Address Delivered Before the Neotrophian Society of the Hampton Academy, on the 28th of July, 1857. Richmond: H. K. Ellyson, 1857.
- Morgan, John T. Address...Before the Erosophic and Philomathic Societies, of the University of Alabama, July 6th, 1875. [Tuscaloosa?]: n. p., 1875.
- Murdoch, John. Home Education and the Claims of Oakland College Delivered Before the Belles Lettres Society and Adelpic Institute of Oakland College on Commencement Day, June 29th, 1854. New Orleans: Office of the Picayune, 1854.
- Murfee, James T. A New Scheme of Organization, Instruction, and Government for the University of Alabama with Report on Construction of Building. Tuscaloosa: John F. Warren, 1867.
- Murphy, Edgar Gardner. The Task of the South: An Address Before the Faculty and Students of Washington and Lee University, Lexington, Virginia, December 10th, A. D., 1902. Montgomery, Alabama: n. p., [1903?].
- Nicholson, J. W. Higher Education at Public Expense Justified. Address of Col. J. W. Nicholson--President of Louisiana State University and Agricultural and Mechanical College on the Occasion of the Seventh Annual Convention of the Louisiana Educational Association, Shreveport, LA., July 25, 1890. Baton Rouge: Truth, Job, and Book Office, 1890.
- _____. Oration Before the Louisiana State Medical Society. New Orleans: L. Graham & Son, Ltd., 1895.

- Norton, A. B. Remarks of A. B. Norton in the Texas House of Representatives Upon the University Question. Austin: John Marshall & Co., 1858.
- Peeler, A. J. Address Before the State Agricultural and Mechanical College of Texas, Thursday, June 26, 1877. Austin: Statesman Steam Book and Job Office, 1877.
- Polk, Leonidas. A Letter to the Right Reverend Bishops. New Orleans: B. M. Norman, 1856.
- Polk, Leonidas, and Elliot, Stephen. Address of the Commissioners for Raising the Endowment of the University of the South. New Orleans: B. M. Norman Publisher, 1859.
- Pratt, John Wood. An Address Delivered Before the Society of the Alumni of the University of Alabama, July 8th, 1850. Tuscaloosa: M. D. J. Slade, 1850.
- Preston, Walter Creigh. Lee: West Point and Lexington. Yellow Springs, Ohio: Antioch Press, 1934.
- Rains, Geo. W. History of the Confederate Powder Works: An Address by Invitation Before the Confederate Survivors Association...April 26th, 1882. Augusta, Georgia: Chronicle and Constitutionalist, 1882.
- Record of the Testimony and Proceedings, in the Matter of the Investigation, by the Trustees of the University of Mississippi, on the 1st and 2nd of March, 1860, of the Charges Made by H. R. Branham Against the Chancellor of the University. Jackson, Miss.: Mississippian Office, 1860.
- Reed, Thomas Walter. 'Uncle Tom' Reed's Memoir of the University of Georgia. Edited by Ray Mathis. Athens: University of Georgia Libraries Miscellanea Publications, No. 11, 1974.
- Review of the Actions of the Trustees in the Trial of Chancellor F. A. P. Barnard, and Defence of the Prosecutor. N. p., [1860].
- Roberts, O. M. Faculty Address. June 17, 1890. The Relation of Public Education to the Government of Texas. N. p., n. d.
- Richardson, Charles. A New Dictionary of the English Language. 2 vols. Philadelphia: E. H. Butler & Co., 1847.

Scott, W. A. The Education We Want. A Discourse, Pronounced on the Twenty-Third of November, 1844. New Orleans: Besancon, Ferguson & Co., 1845.

Sherman, William T. Memoirs of General William T. Sherman. 2 vols. New York: D. Appleton and Company, 1875.

Smith, Ashbel. Address Delivered before the Texas State Agricultural Society, at Austin, February 5 1853. Austin: J. W. Hampton, 1853.

———. Address Delivered in the Chapel at West Point Before the Officers and Cadets of the United States Military Academy...June 16, 1848. New York: W. L. Burroughs, 1848.

———. Letter from Doctor Ashbel Smith to the Trustees of the Memphis University. [Memphis]: Enquirer, n. d.

Smith, Francis H[enney]. Discourse on the Life and Character of Lt. Gen. Thos. J. Jackson, (C. S. A.) Late Professor of Natural and Experimental Philosophy in the VMI. Richmond: Ritchie & Dunnivant, 1863.

———. Gymnastic and Technical Education in the Virginia Military Institute...Introductory Lecture on the Resumption of Academic Exercises in the Institution, September 5th, 1871. New York: D. Van Nostrand, 1871.

———. Introductory Address to the Corps of Cadets of the Virginia Military Institute, on the Resumption of Academic Duties, September 2nd, 1856. Richmond: MacFarlane & Fergusson, 1856.

———. Introductory Address to the Corps of Cadets of the Virginia Military Institute, on the Resumption of the Academic Exercises, September 10, 1866. N. p., Published by Order of the Board, [1866].

———. Introductory Lecture Read before the Corps of Cadets, on the Resumption of the Academic Duties of the Virginia Military Institute, at the Alms House, Richmond, Va., December 28, 1864. Richmond: MacFarlane & Fergusson, 1865.

Smith, Francis H[enry]. Thoughts on the Discord and Harmony Between Science and the Bible: Delivered Before the American Institute of Christian Philosophy, 27th July 1888 (New York: Wilbur B. Ketchum, [1888]).

Soule, George. Address by Col. Geo. Soule, President of Soule Commercial College and Literary Institute, New Orleans, La., at the 32nd Anniversary and Commencement, June 30th, 1888. N. p., [1888].

State Grange [Mississippi] and A. & M. College. Compiled from the Official Proceedings by Secretary of State Grange. N. p., [1886].

Stiles, William H. Southern Education for Southern Youth: An Address Before the Alpha Pi Delta Society of the Cherokee Baptist College, Delivered at the Commencement on the 14th July, 1858. Savannah: Power Press of George N. Nichols, 1858.

Sutherlin, William T. Address Delivered Before the Mechanics' Association of Danville, Va. March 11, 1867. Richmond: Enquirer Steam Presses, 1867.

Tappan, Henry P. University Education. New York: George P. Putnam, 1851.

Taylor, Joseph W. Address Before the Literary Societies of Washington and Lee University, on Commencement Day, June 22, 1871. Baltimore: J. Murphy, 1871.

———. The Young Men of the New South: Their Education, Duties and Rewards. An Address Delivered before the Phi Sigma and Hermean Societies, at Commencement of the University of Mississippi, on June 23, 1869. Memphis: Hite & Corwine, 1869.

Terrell, A. W. Address of Judge A. W. Terrell. N. p., [1884].

Thompson, Jacob. Address Delivered on Occasion of the Opening of the University of the State of Mississippi...November 6, 1848. Memphis: Franklin Book and Job Office, 1849.

Thornwell, J. H. Letter to His Excellency Governor Manning on Public Instruction in South Carolina. Columbia: R. W. Gibbes & Co., 1853.

Tucker, J. Randolph. Life and Character of Col. William Allan Late Principal of McDonogh School. An Address Delivered November 21, 1889. McDonogh, Maryland: Published by Boys of the School, 1889.

University of Alabama Prize Exhibition Orations by Members of the Senior Class, Tuesday, July 3, 1877. N. p.: J. F. Warren, [1877].

University of the South Papers. Sewanee, Tennessee:
University of the South Press, 1888.

Venable, C. S. An Address Delivered Before the Society of Alumni of the University of Virginia. Richmond:
MacFarlane & Fergusson, 1859.

Waddel, John N. Historical Discourse Delivered on the Quarter-Centennial Anniversary of the University of Mississippi on Wednesday, June 25th, 1873. Oxford, Mississippi: Board of Trustees, 1873.

Wailes, B. L. C. Address Delivered in the College Chapel Before the Agricultural, Horticultural, and Botanical Society, of Jefferson College. Natchez: Daily Courier Office, 1841.

Walthall, W. T. First Annual Address: Delivered Before the Mobile Teachers' Institute, December 15th, 1856. Mobile: Daily Register, 1857.

Wayland, Francis. The Educational Demand of the People of the United States. Boston: Phillips, Sampson & Co., 1855.

———. Elements of Moral Science. New York: Cooke & Co., 1835.

———. Report to the Corporation of Brown University and Changes in the System of Collegiate Education. Providence: George H. Whitney, 1850.

———. Thoughts on the Present Collegiate System in the United States. Boston: Gould, Kendall & Lincoln, 1842.

Webster, Noah. An American Dictionary of the English Language. 2 vols. New York: S. Converse, 1828.

Wightman, W. M. Inaugural Address Delivered at the Opening of the Southern University, Greensboro, Alabama. Marion, Alabama: George C. Rogers, 1859.

Wiley, C. H.; Hubbard, F. M.; Wingate, W. M.; Craven, B.; Barringer, V. C.; Bittle, D. H.; DeSchweintz, R.; Siler, L. F.; Jones, T. M.; McDowell, A.; Wilson, A.; and Johnson, Daniel. Address to the People of North Carolina. N. p., [c. 1861-1865].

Winston, George T. The Influence of Universities and Public Schools on National Life and Character. N. p., [1896].

- Wood, Thomas Newton. An Address Delivered before the Two Literary Societies of the University of Alabama, in the Rotunda, July 4th, 1840. Tuscaloosa: M. D. J. Slade, 1840.
- Woods, Alva. Valedictory Address, Delivered December 6, 1837, at the Close of the Seventh Collegiate Year of the University of the State of Alabama. Tuscaloosa: Marmaduke J. Slade, 1837.
- Worcester, J. E. Comprehensive Pronouncing and Explanatory Dictionary of the English Language. Burlington, VT: Chauncey Goodrich, 1831.

Addresses and Articles in Books and Periodicals

- "Agricultural Requirements of the South." De Bow's Review. VII (January and February 1862): 87-103.
- "Agricultural Schools." Farmer's Register 1 (January 1843): 16-17.
- Bishop, A. W. "Farewell Address." In Third Report of the Arkansas Industrial University. Fayetteville: Democrat Book & Job, 1875.
- Bittle, T. C. "Address." Battalion [Texas A & M]. (January 1898): 13.
- Bledsoe, Albert T. "Liberty and Slavery: or, Slavery in the Light of Moral Political Philosophy." In Cotton is King and Pro-Slavery Arguments..., edited by E. N. Elliot. Augusta, Georgia: Pritchard, Abbott, & Loomis, 1860.
- Boyd, David F. "Appeal to the People of Louisiana." Official Register of the Louisiana State University...1871-1872. New Orleans: A. W. Hyatt, 1872): 74-75.
- . "William Tecumseh Sherman: First Superintendent of the Louisiana State Seminary, Now the Louisiana State University." Alumnus [Louisiana State University] 5 (October 1909): 3-11.
- Brewer, Fisk Parsons. "'South Carolina University--1876.'" Edited by William P. Vaughn. South Carolina Historical Magazine 76 (October 1875): 225-231.

- Bringinghurst, W. L. "Recollections of the Old Seminary." Alumnus [Louisiana State University] V (October 1909): 15-18.
- Broun, William LeRoy. "Address Delivered on Memorial Day Before the Students of the Alabama Polytechnic Institute in May, 1891." In William LeRoy Broun, Dr. William LeRoy Broun, compiled by Thomas L. Broun. New York: Neale Publishing Co., 1912.
- . "Confederate Ordnance During the War." Journal of the United States Artillery IX (January-February): 1-13.
- Burwell, William M. "General Lee As Teacher." De Bow's Review VI (July 1869): 540-547.
- Cartwright, Samuel A. "The Education, Labor, and Wealth of the South." In Cotton is King and Pro-Slavery Arguments..., edited by E. N. Elliot. Augusta, Georgia: Pritchard, Abbott, & Loomis, 1860.
- Clarkson, A. "The Basis of Northern Hostility to the South." De Bow's Review III (January 1860): 7-13.
- Clopton, A. G. "From the Eulogy on the Life and Character of Ashbel Smith." In Catalogue of the University of Texas for 1886-7. Austin: State Printing Office, 1887.
- Curry, J. L. M. "Annual Report of the Hon. J. L. M. Curry, General Agent of the Peabody Fund." Texas Journal of Education (October 1881): 240-242.
- . "Education at the South." Texas Journal of Education. II (March 1882): 80-83.
- "The Dead Languages." De Bow's Review V (March 1861): 316-320.
- Debow, J. D. B. "Commerce and Agriculture Subjects of University Instruction." De Bow's Review III (June 1847): 502-516.
- [Dew, Thomas Roderick]. "Abolition of Negro Slavery." American Quarterly Review XII (September 1832): 189-265.
- Dickey, James E. "Mr. Hill's Relation to the Denominational Colleges." Bulletin of the University of Georgia Memorial Number (May 1906): 46-51.

- "Education of Southern Women." De Bow's Review VI (October-November 1861): 381-390.
- "Faculty Notes." Longhorn [Texas A & M] (1903): 20.
- Few, W. P. "Some Educational Needs of the South." South Atlantic Quarterly III (July 1904): 201-211.
- Fitzhugh, George. "Southern Thought." De Bow's Review XXIII (October 1857): 338-350.
- Ford, Spencer. "Address." Battalion [Texas A & M] (January 1898): 19-22.
- "Future Revolution in Southern School Books." De Bow's Review V (May-June 1861): 606-614.
- Gorgas, Josiah. "Notes on the Ordnance Department of the Confederate Government." Southern Historical Society Papers XII (January-February 1884): 67-94.
- Graham, George Mason. "The Autobiography of George Mason Graham: Contributed by His Grandson, Dr. G. M. Stafford." Louisiana Historical Quarterly 20 (January 1937): 43-57.
- Graham, Richard N. "The Economic Man." Ozark [Arkansas Industrial University] IV (May 1897): 346-351.
- "The Great Southern Convention in Charleston." De Bow's Review XVI (June 1854): 632-641.
- Harper, William. "Memoir on Slavery." In The Pro-Slavery Argument as Maintained by the Most Distinguished Writers of the Southern States. Philadelphia: Lippincott, Gramb & Co., 1853.
- Henneman, J. B. "Historical Studies in the South Since the War." Sewanee Review I (May 1893): 320-339.
- Hilgard, Eugene. "A Confederate Scientist at War." Edited by Walter E. Pittman. Civil War Times Illustrated XXV (March 1986): 20-37.
- Hill, Benjamin H. "Address Delivered Before the Southern Historical Society, at Atlanta, Ga., February 18, 1874." In Benjamin H. Hill, Senator Benjamin H. Hill of Georgia: His, Life, Speeches and Writings, compiled by Benjamin H. Hill, Jr. Atlanta: T. H. P. Bloodworth, 1893.

- . "Speech Delivered Before the Alumni Society of the University of Georgia...July 31, 1871." In Benjamin H. Hill, Senator Benjamin H. Hill of Georgia: His, Life, Speeches and Writings, compiled by Benjamin H. Hill, Jr. Atlanta: T. H. P. Bloodworth, 1893.
- H[ill]., D[aniel]. H[arvey]. "Education [Part I]." Land We Love I (May 1866): 1-11.
- . "Education [part 2]." Land We Love I (June 1866): 83-91.
- . "Education [Part III]." Land We Love I (August 1866): 235-239.
- H[olmes]., G[eorge]. F. "Sir William Hamilton's Discussions." Southern Quarterly Review 8 (October 1853): 299-336.
- Johnston, William Preston. "Higher Education in the South." Regents' Bulletin 9 (August 1892): 12-25.
- . "History: Its Place in a Liberal Education. Address of Wm. Preston Johnston, of Washington and Lee University, before the Educational Association of Virginia, at Staunton, Va., July 10, 1872." In William Preston Johnston, Addresses and Essays, First President of Tulane. N. p., n. d.
- Joynes, Edward S. "Lee, the College President," in Robert E. Lee Centennial Celebration of His Birth Held Under the Auspices of the University of South Carolina on the Nineteenth Day of January 1907. Columbia: State Company, 1907.
- Lee, S. D. "The South Since the War." In Confederate Military History, vol. 12, edited by Clement Anselm Evans. Atlanta: Confederate Publishing Co., 1899.
- Lipscomb, Dabney. "General Stephen D. Lee: His Life, Character, and Services." Publications of the Mississippi Historical Society X (1909): 13-33.
- Mallet, J. W. "Work of the Ordnance Bureau." Southern Historical Society Papers XXXVII (January-December 1909): 1-20.
- Mell, P. H. "Dr. William LeRoy Broun." Confederate Veteran X (May 1902): 225.

- "In Memory of Professor Mallet." Alumni Bulletin
[University of Virginia] VI (January 1913): 5-47.
- Moore, Frederick W. "The Status of History in Southern
Colleges." South Atlantic Quarterly II (April 1903):
169-171.
- Nagle, J. C. "The Influence of Applied Science." The
Texas Academy of Science IV, part 2, (February 1902):
3-16.
- Nott, Josiah C. "Two Lectures on the Natural History of
the Caucasian and Negro Races." In The Ideology of
Slavery: Proslavery Thought in the Antebellum South,
1830-1860, edited by Drew Gilpin Faust. Baton Rouge
and London: Louisiana State University Press, 1981.
- "On Public Education in Virginia." Southern Literary
Messenger 13 (November 1847): 685-687.
- "Original Papers in Relation to a Course of Liberal
Education [Yale Report]." American Journal of Science
and Arts 15 (1829): 297-351.
- "Our School Books." De Bow's Review III (April 1860):
434-440.
- "Polytechnic Education." De Bow's Review II (October
1859): 486.
- "Richard Morton Venable." Louisiana State University
Quarterly 6 (April 1911): 86-88.
- Shepard, Henry E. "Gen. D. H. Hill--A Character Sketch."
Confederate Veteran XXV (September 1917): 411-413.
- Smith, Ashbel. "Address on the Laying of the Corner Stone
of the University of Texas." In Catalogue of the
University of Texas for 1883-4.
- Smith, Charles Forster. "Southern Colleges and Schools."
Atlantic Monthly LIV (October 1884): 542-557.
- Smith, Cha[rle]s. Lee. "Mr. Hill's Relation to the
Denominational Colleges." Bulletin of the University
of Georgia Memorial Number (May 1906): 42-45.
- Smith, Mrs. Francis W. "Lieut-Colonel Francis W. Smith, C.
S. A.: Professor of Chemistry and Geology and
Commandant of Cadets at the Louisiana State Seminary,"
Alumnus [Louisiana State University] V (October 1909):
12-14.

- "South Carolina Military Academies." Southern Quarterly Review X (July 1854): 191-204.
- "Southern School-Books." De Bow's Review. I (September 1852): 258-266.
- "The Times and the War." De Bow's Review VI (July 1861): 1-13.
- Trent, W. P. The Study of Southern History. N. p., [1896?].
- "University Lectures." De Bow's Review II (March 1852): 336.
- "University of Louisiana." De Bow's Review I (May 1846): 430-433.
- Williams, Ch. H. "Agricultural Education." Southern Planter 13 (July 1853): 217-219.

Government Documents

Acts Passed at the Twelfth Session of the General Assembly of the State of Arkansas.

Journal of the House of Representatives...of the State of Arkansas (1842).

Roberts, Oran M. General Message on the Judiciary, Education, the Department of Insurance, Statistics and History, Railroads, Etc., to the Seventeenth Legislature of the State of Texas...January 11, 1881.
Galveston: News Book and Job, 1881.

Newspapers

Clarion (Jackson, Mississippi)

Clarion-Ledger (Jackson, Mississippi)

College Reflector (Starkville, Mississippi)

Dialectic Reflector (Starkville, Mississippi)

Independent Monitor (Tuscaloosa, Alabama)

Floridian (Tallahassee)

Floridian and Journal (Tallahassee)

Knoxville Daily Tribune

Louisiana Capitolian (Baton Rouge)

Louisiana Democrat (Alexandria)

Montgomery Advertiser

Montgomery Daily Advertiser

News and Courier (Charleston, South Carolina)

North Carolina Standard (Raleigh)

Patron of Husbandry (Columbus, Mississippi)

Picayune (New Orleans)

Raleigh Register and North Carolina Gazette

Southern Collegian (Lexington, Virginia)

Times-Democrat (New Orleans)

Tri-Weekly Advocate (Baton Rouge)

Weekly News and Courier (Charleston, South Carolina)

Catalogues, Programs, Registers, Regulations, and Reports

Annual Catalogue of the Officers and Students of the Agricultural and Mechanical College of Mississippi 1880-'81. Jackson: Clarion Steam Publishing House, 1881. Various publishers and years.

Babbitt, B. B. Report of the Chairman of the Faculty of the University of South Carolina in Response to a Resolution of the House of Representatives and of the Senate Passed February 18, 1875. Columbia, SC: Republican Printing Co., 1875.

Barnard, F. A. P. Report on the Organization of Military Schools, and to the Trustees of the University of Mississippi, November, 1861. Jackson: Cooper & Kimball, 1861.

Biennial Report of the Superintendent of Public Instruction to the Governor of the State of Arkansas for the Two Years Ending September 30, 1872. Little Rock: Price & McClure, 1872.

Biennial Report of the Trustees, President, and Other Officers of the Agricultural College of Mississippi for the Years 1890 and 1891. Jackson: R. H. Henry, 1891.

"Branch Normal College of the Arkansas Industrial University, Pine Bluff, Arkansas." In Eighth Catalogue of the Arkansas Industrial University...for the Year Ending June 10th, 1880. Little Rock: Ark. Democrat, 1880.

By-Laws of the University of South Carolina as Revised and Adopted by the Board of Trustees, at the Annual Meeting in 1866. Columbia, SC: W. W. Deane, 1867.

Board of Trustees for the University of Georgia. Present Organization, and Proposed Plan of Expansion of the University of Georgia. Athens, Georgia: Southern Banner, 1872.

Broun, William LeRoy. "Industrial Education." Report of the Board of Supervisors of the Louisiana State University...1878. New Orleans: Office of the Democrat, 1878.

Catalogue of the Arkansas Industrial University. Little Rock: A. H. Sevier, 1878. Various publishers, titles, and years.

Catalogue of the Officers and Students of Furman University for 1860-'61. Charleston: Evans & Cosswell, 1861.

Catalogue of the Officers and Students of Mercer University 1860-61. Penfield, Georgia: n. p., 1861.

Catalogue of the Officers and Students of the University of Alabama for 1860-1861. Nashville: Southern Methodist Publishing House.

Catalogue of the Officers and Students of the University of Georgia, Athens, Georgia, Seventy-Third Year. 1874. Macon, Georgia: J. W. Burke & Co., 1874. Various publishers, titles, and years.

Catalogue of the Officers and Trustees of the University of Mississippi at Oxford, Mississippi. Twenty-second Session. Oxford: n. p., 1874.

Catalogue of the Officers of North Carolina College at Mount Pleasant...Second Collegiate Year Ending July, 1861...Chartered January 1859. Salisbury, N. C.: North Carolina Watchman Office, 1861.

Catalogue of the State Agricultural and Mechanical College of Texas Session of 1876-1877. Bryan, Texas: Pilot Book & Job Office, 1877.

Catalogue of the Trustees, Faculty and Students of the University of North Carolina, 1860-'61. Chapel Hill: John B. Neathery Book, Job & Card, 1861. Various publishers, titles, and years.

Catalogue of the Trustees, Faculty & Students, Wofford College, Spartanburg, S. C. MDCCCLXI. Spartanburg: Express Office, 1861.

Catalogue of the Trustees, Officers, and Alumni of the University of Georgia, From 1785 to 1894. Atlanta: Foote & Davies, Co., 1894.

Catalogue of the University of South Carolina 1872-'73. N. p., n. d. Various publishers, titles, and years.

Catalogue of the University of Virginia. Session of 1860-'61. Richmond: Chas. H. Wynne, 1861. Various publishers and years.

Catalogue of the University of Texas for 1883-84. Austin: E. W. Swindells, 1884. Various publishers and years.

Catalogue of Washington College, Lexington, Virginia...1860. Richmond: MacFarlane & Fergusson, 1860. Various publishers and years.

Cohn, M. A. "Report of the Secretary of the Board of Trustees Arkansas Industrial University, December 31, 1872." Biennial Report of the Superintendent of Public Instruction to the Governor of the State of Arkansas...1872. Little Rock: Price & McClure, Public Printers, 1872.

Constitution and Statutes of the University of the South. Nashville: Bang, Walker & Company, 1860.

Copes, J. S. Report of a Committee of the Board of Administrators, of the University of Louisiana, Upon the Organization of the Collegiate Department. Read, December 23d, 1856. New Orleans: E. C. Wharton, 1857.

Draft of the Constitution and Statutes of the University of the South. New Orleans: Bulletin Book and Job Office, 1860.

Edgar, George M. Biennial Report of the Board of Trustees of Arkansas Industrial University to His Excellency, Simon P. Hughes, Governor of Arkansas. Little Rock, Arkansas: A. M. Wooduff, 1886.

"Georgia State Industrial College for Colored Youths." In University of Georgia. General Catalogue. 1900-1901. Atlanta: Foote & Davies Company, 1901.

Hilgard, Eug. Report on Organization of the Department of Agriculture and the Mechanic Arts, August 29, 1871. N. p., n. d.

Historical Catalogue of the Officers and Alumni of the University of Alabama, 1821 to 1870. Selma: Armstrong & Martin, 1870.

Historical Catalogue of the University of Mississippi 1849-1909. Nashville: Marshall & Bruce Company, 1910.

James, J. G. "President's Report." Fourth Annual Report of the President of the Agricultural and Mechanical College of Texas with Accompanying Documents [Nov. 22, 1879-July 1, 1880]. College Station, Texas: n. p., 1880.

Johnston, William Preston. "The Definition of History." Annual Report of the American Historical Association for the Year 1893. Washington: Government Printing Office, 1894.

———. Report...to the Board of Administrators on the Plan of Organization of Tulane University, June 4th, 1883. New Orleans: A. W. Hyatt, 1883.

Lee, Stephen D. "President's Report to the Honorable Trustees, Biennial Report of the Trustee, President and Other Officers of the Agricultural and Mechanical College of Mississippi for the Years 1884-'85. Jackson: Clarion Steam Publishing Establishment, 1885.

———. "Report of the President." Report of the Trustees, President and Other Officers of the Agricultural and Mechanical College of Mississippi, from the Organization of College to Dec. 1st, 1883. Jackson, Mississippi: Clarion Steam Printing Establishment, 1883.

- Lockett, Samuel H. "Report of Visit to Various Schools, Colleges, Universities and Public Works in the Northern States and Canada." Annual Report to the Board of Supervisors [of Louisiana State University] for 1871-1872. New Orleans: n. p., 1872.
- Manly, Basil. Report on Collegiate Education, Made to the Trustees of the University of Alabama, July 1852. Tuscaloosa: M. D. J. Slade, 1852.
- Murfee, E. H. "Biennial Report of the President." Biennial Report of the Board of Trustees of the Arkansas Industrial University to His Excellency, Simon P. Hughes, Governor of Arkansas. Little Rock: Press Printing Co., 1889.
- Official Register of the Faculty, or Academic Staff, and Military Staff with the Rules and Regulations of the Alabama Military and Scientific Institute, Near Tuskegee, Alabama. Tuskegee, Alabama: Macon Republican, 1845.
- Official Register of the Louisiana State University and Agricultural and Mechanical College, 1877-1878. New Orleans: A. W. Hyatt, 1878. Various publishers, titles, and years.
- Official Register of the Officers and Cadets of the State Seminary of Learning and Military Academy of Louisiana, Near Alexandria, Parish of Rapides, for 1860-[186]1 and [186]2. Alexandria: Louisiana Democrat Office, 1862. Various publishers and titles.
- Program. Commencement Exercises. A. & M. College of Mississippi, 1891. Starkville: O'Brien's Book & Job Office, [1891].
- Prospectus of the University of South Carolina MDCCCLXVI. Columbia, SC: Southern Presbyterian Review, 1866.
- Regulations for the University of Alabama at Tuscaloosa. Nashville: Southern Methodist Publishing House, 1861.
- Reorganization of the University of South Carolina in 1873, and Catalogue for 1872-'73. N. p., n. d.
- Report of the Agricultural and Mechanical College of Texas. Session 1880-1881. Brenham, Texas: Sentinel Print, 1881. Various publishers and years.

Report of the Alabama History Commission to the Governor of Alabama. December 1, 1900. Montgomery: Brown Printing Co., 1901.

Report of the Arkansas Industrial University. Fayetteville: Democrat Book & Job, 1875. Various publishers and years.

Report of the Board of Supervisors for the Louisiana State Seminary...1870. New Orleans: n. p., 1870.

Report of the Board of Supervisors of the Louisiana State University and Agricultural and Mechanical College...1878. New Orleans: Office of the Democrat, 1878. Various publishers and years.

"Report of the Board of Visitors to the Secretary of War, United States Military Academy, 20 June 1839." Army and Navy Chronicle IX (4 July 1839): 1-5.

Report of the Board of Visitors of the Virginia Military Institute. 1850-1857.

Report of the Joint Committee on Charitable and Public Institutions to the General Assembly of Louisiana, January 1869. New Orleans: n. p., 1869.

Report of the Louisiana State University, for the Year 1874, to the Governor of Louisiana. New Orleans: Republican Office, 1875.

Report of the Prairie View Normal School Located in Waller County [Texas]. Austin: Smith, Hicks & Jones, 1889.

Report of the Sub-Committee on Public and Charitable Institutions, Appointed January 20, 1876. New Orleans: n. p., [1876?].

Report of the Trustees of the University of Mississippi [1861]. N. p., n. d.

Reports. Southern University 1899-1900. New Orleans: n. p., [1900?]. Various publishers and years.

Second Decennial Catalogue of the Mississippi Agricultural and Mechanical College. 1890-1900. Meridian, MS: Meridian News, n. d.

Smith, Ashbel. First Semi-Annual Report of the Public Schools of Galveston; Together with...an Address on Education by Ashbel Smith. Galveston: News Office, 1847.

Smith, Francis H[enney]. Special Report of the Superintendent of the Virginia Military Institute, on Scientific Education in Europe. Richmond: Ritchie, Dunnivant & Co., 1859.

Proceedings, Published Minutes, and Transactions

Aldrich, William S. "Engineering Education and the State University." Proceedings of the Society for the Promotion of Engineering Education. 2 (1894): 268-292.

"Constitution of the Texas Agricultural Society." Transactions of the Texas State Agricultural Society I (1853): 6.

Futrall, John C. "President's Address." Reprint from the Proceedings of Forty-Seventh Annual Convention of the Association of Land Grant Colleges and Universities, Chicago, Ill., November 13-15, 1933. Burlington, Vermont: Free Press, 1934.

Hogg, Alexander. "Lacks and Needs of the South Educationally: The Development of Her Natural Resources, the Remedy." Addresses and Journal of Proceedings of the National Educational Association ...1876. Salem, Ohio: Office of the National Teacher, 1876.

Garrett, Wm. R. "The Work of the South in the Building of the United States." Transactions of the Alabama Historical Society III (1898-1899): 27-45.

Minutes of the Convention, Which Formed the Alabama Educational Association...July 24-25, 1856. Selma: Selma Reporter and Job Printing Office, 1857.

Proceedings of the Alabama Industrial and Scientific Society I (1891).

Proceedings of the Agricultural Convention and of the State Agricultural Society of South Carolina from 1839 to 1845. Columbia: Sumner and Carroll, 1846.

Proceedings of the Annual Convention of the Association of American Agricultural Colleges and Experiment Stations...1889. Washington: Government Printing Office, 1890.

Proceedings of the Convention of Teachers of the Confederate States Assembled at Columbia, South Carolina, April 28th, 1863. Marion, Ga.: Burke, Boykin & Co., 1863.

Proceedings of the Farmers' State Alliance of Texas. Ninth Regular Session Held in Dallas, Texas...1888. Dallas: Circular Letter Office, 1888.

Proceedings of the Sixth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations Held at New Orleans, Louisiana November 15-19, 1892. Washington: Government Printing Office, 1893.

Proceedings of the Texas State Grange...1888. Dallas: Texas Farmer, 1888. Various publishers and years.

Proceedings of the Third Session of the State Grange of the Patrons of Husbandry of South Carolina. Columbia: Wm. Sloane, 1875.

Transactions of the Alabama Historical Society. II (1897-1898).

University of Alabama, Fifty-third Annual Commencement June 18, 1884. N. p.: M. I. Burton, [1884].

Wilmore, John J. "Some Phases of Engineering Education in the South." Proceedings of the Society for the Promotion of Engineering Education 6 (1898): 56-68.

Secondary Sources

Books

Ayers, Edward L. The Promise of the New South: Life After Reconstruction. New York & Oxford: Oxford University Press, 1992.

Bailey, Hugh C. Liberalism in the New South: Southern Social Reformers and the Progressive Movement. Cora Gables, Florida: University of Miami Press, 1969.

Bailyn, Bernard. The Ideological Origins of the American Revolution. Cambridge, Massachusetts and London, England: Belknap Press, 1967.

Banning, Lance. The Jeffersonian Persuasion: Evolution of a Party Ideology. Ithaca & London: Cornell University Press, 1978.

- Barringer, Paul Brandon; Garnett, James Mercer; and Page, Rosewell, eds. University of Virginia: Its History, Influence, Equipment and Characteristics. 2 vols. New York: Lewis Publishing Co., 1904.
- Bennett, Charles Alpheus. History of Manual and Industrial Education 1870-1917. Peoria, Illinois, Manual Arts Press, 1937.
- Berkeley, Edmund and Berkeley, Dorothy Smith. A Yankee Botanist in the Carolinas: The Reverend Moses Ashley Curtis, D. D. (1808-1872). Berlin and Stuttgart: J. Cramer, 1986.
- Bernstein, John Andrew. Progress and the Quest for Meaning: A Philosophical and Historical Inquiry. Rutherford, NJ: Farleigh Dickinson University Press, 1993.
- Bettsworth, John K. People's College: A History of Mississippi State University. University, Alabama: University of Alabama Press, 1953.
- Bledstein, Burton J. The Culture of Professionalism: The Middle Class and the Development of Higher Education in America. New York: W. W. Norton & Co., 1976.
- Boatner III, Mark Mayo. The Civil War Dictionary. New York: David McKay Company, Inc., 1959.
- Boller, Jr., Paul F. American Thought in Transition: The Impact of Evolutionary Naturalism, 1865-1900. Lanham, New York: University Press of America, 1981.
- Bond, Horace Mann. Negro Education in Alabama: A Study in Cotton and Steel. Washington, DC: Associated Publishers, 1939.
- Boorstin, Daniel J. The Lost World of Thomas Jefferson. Chicago and London: University of Chicago Press, 1948, 1981.
- Booth, Andrew B., ed. Records of Louisiana Confederate Soldiers and Louisiana Commands. 3 vols. Spartanburg, South Carolina: Reprint Co., 1984.
- Bridges, Hal. Lee's Maverick General: Daniel Harvey Hill. New York: McGraw-Hill Co., Inc., 1961.
- Brooks, Robert Preston. The University of Georgia Under Sixteen Administrations 1785-1955. Athens: University of Georgia Press, 1956.

- Brubacher, John S, and Rudy, Willis Rudy. Higher Education in Transition: A History of American Colleges and Universities, 1636-1968. New York, Evanston, and London: Harper & Row, 1968.
- Bruce, Philip Alexander. History of the University of Virginia 1819-1919. 5 vols. New York: Macmillan Co., 1920.
- Buck, Paul H. The Road to Reunion 1865-1900. Boston: Little, Brown and Co., 1947.
- Bury, J. B. The Idea of Progress. London: MacMillan & Co., 1928.
- Cabaniss, James Allen. A History of the University of Mississippi. University, Mississippi: University of Mississippi, 1949.
- . The University of Mississippi: Its First Hundred Years. Hattiesburg: University and College Press of Mississippi, 1971.
- Calhoun, Daniel Hovey. The American Civil Engineer: Origins and Conflict. Cambridge, Massachusetts: Technology Press, Massachusetts Institute of Technology, 1960.
- Calvert, Monte A. The Mechanical Engineer in America, 1830-1910. Baltimore: Johns Hopkins Press, 1967.
- Cash, W. J. The Mind of the South. New York: Vintage Books, 1941.
- Chitty, Jr., Arthur Benjamin. Reconstruction at Sewanee: The Founding of the University of the South and its First Administration 1857-1872. Sewanee: University Press, 1954.
- Chute, William J. Damn Yankee!: The First Career of Frederick A. P. Barnard Educator Scientist Idealist. Port Washington, NY & London: National University Publications, Kennikat Press, 1978.
- Cofer, David Brooks. First Five Administrators of Texas A. & M. College 1876-1890. College Station: Association of Former Students of Texas A. and M. College, 1952.
- Conrad, Glenn R., ed. A Dictionary of Louisiana Biography. 2 vols. New Orleans: Louisiana Historical Association, 1988.

- Connelly, Thomas L. The Marble Man: Robert E. Lee and His Image in American Society. Baton Rouge: Louisiana State University Press, 1977.
- Coulter, E. Merton. College Life in the Old South. Athens: University of Georgia Press, 1951.
- Cubberly, Ellwood P. The History of Education. Boston: Houghton Mifflin, 1920.
- Cremin, Lawrence A. American Education: The Metropolitan Experience, 1876-1980. New York: Harper & Row, 1988.
- . American Education: The National Experience 1783-1876. New York: Harper & Row, 1980.
- Curti, Merle. The Social Ideas of American Educators. New York: Charles Scribner's Sons, 1935.
- Dabney, Virginius. Liberalism in the New South. Chapel Hill: University of North Carolina Press, 1932.
- Dodd, William G. History of West Florida Seminary. N. p., [1952].
- Dyer, John P. Tulane: The Biography of the University 1834-1965. New York and London: Harper and Row Publishers, 1966.
- Dyer, Thomas G. The University of Georgia: A Bicentennial History, 1785-1985. Athens: University of Georgia Press, 1985.
- Ekirch, Jr., Arthur Alphonse. The Idea of Progress in America, 1815-1860. New York: Columbia University Press, 1944.
- Fairbanks, George R. History of the University of the South, at Sewanee, Tennessee from its Founding by the Southern Bishops, Clergy, and Laity of the Episcopal Church in 1857 to the Year 1905. Jacksonville, Florida: H. & W. B. Drew, Co.
- Faulkner, William. Absalom, Absalom!. New York: Vintage Books, 1987. [Originally published by Random House in 1936].
- Faust, Drew Gilpin. The Creation of Confederate Nationalism: Ideology and Identity in the Civil War South. Baton Rouge & London: Louisiana State University Press, 1988.

- . A Sacred Circle: The Dilemma of the Intellectual in the Old South, 1840-1860. Baltimore and London: Johns Hopkins University Press, 1977.
- Finch, James Kip. A History of the School of Engineering: Columbia University. New York: Columbia University Press, 1954.
- Fleming, Walter L. Louisiana State University 1860-1896. Baton Rouge: Louisiana State University Press, 1936.
- Forman, Sidney. West Point: A History of the United States Military Academy. New York: Columbia University Press, 1950.
- Foster, Gaines M. Ghosts of the Confederacy: Defeat, the Lost Cause, and the Emergence of the New South. New York and Oxford: Oxford University Press, 1987.
- Franklin, John Hope. The Militant South 1800-1861. Cambridge, Massachusetts: Belknap Press, 1956.
- Gaston, Paul M. The New South Creed: A Study in Southern Mythmaking. New York: Alfred A. Knopf, 1970.
- Genovese, Eugene D. Roll, Jordan, Roll: The World the Slaves Made. New York: Vintage, 1974.
- Gillespie, Neal C. The Collapse of Orthodoxy: The Intellectual Ordeal of George Frederick Holmes. Charlottesville: University of Virginia Press, 1972.
- Godbold, Albea. The Church College of the Old South. Durham, NC: Duke University Press, 1944.
- Goodwyn, Lawrence. The Populist Moment: A Short History of the Agrarian Revolt in America. Oxford: Oxford University Press, 1978.
- Grantham, Dewey. Southern Progressivism: The Reconciliation of Progress and Tradition. University of Tennessee Press, 1983.
- Hale, Harrison. University of Arkansas 1871-1948. Fayetteville: University of Arkansas Alumni Association, 1948.
- Hattaway, Herman. General Stephen D. Lee. Jackson: University Press of Mississippi, 1976.
- Heatwole, Cornelius J. A History of Education in Virginia. New York: MacMillan Co., 1916.

- Heitmann, John Alfred. The Modernization of the Louisiana Sugar Industry 1830-1910. Baton Rouge and London: Louisiana State University Press, 1987.
- Hellenbrand, Harold. The Unfinished Revolution: Education and Politics in the Thought of Thomas Jefferson. Newark: University of Delaware Press, 1990.
- Henderson, Archibald. The Campus of the First State University. Chapel Hill: University of North Carolina Press, 1949.
- Hesseltine, William B. Confederate Leaders in the New South. Baton Rouge: Louisiana State University Press, 1950.
- Hill, Joseph M. Biography of Daniel Harvey Hill: Lieutenant General, Confederate States of America: Educator, Author, Editor. [Little Rock, Arkansas?]: Official Publications of the Arkansas History Commission, n. d.
- Hofstadter, Richard. Social Darwinism in American Thought 1860-1915. Philadelphia: University of Pennsylvania Press, 1945.
- Hofstadter, Richard and Hardy, C. DeWitt. The Development and Scope of Higher Education in the United States. New York: Columbia University Press, 1952.
- Hofstadter, Richard, and Metzger, Walter P. The Development of Academic Freedom in the United States. New York: Columbia University Press, 1955.
- Hollis, Daniel Walker. University of South Carolina. 2 vols. Columbia: University of South Carolina Press, 1951.
- Honeywell, Roy J. The Educational Work of Thomas Jefferson. New York: Russell and Russell, 1964.
- Johnson, Allen, ed., Dictionary of American Biography. 10 vols. New York: Charles Scribner's Sons, 1935.
- Johnson, Charles D. Higher Education of Southern Baptists. Waco: Baylor University Press, 1955.
- Johnson, Michael P. Toward a Patriarchal Republic: The Secession of Georgia. Baton Rouge & London: Louisiana State University Press, 1977.

- Johnson, Sid S. Texans Who Wore the Gray. [Tyler, Texas: n. p., 1907].
- Kasson, John F. Civilizing the Machine: Technology and Republican Values in America 1776-1900. New York: Grossman Publishers, 1976.
- Knight, Oliver. Fort Worth: Outpost on the Trinity. Norman: University of Oklahoma Press, 1953.
- Kolchin, Peter. Unfree Labor: American Slavery and Russian Serfdom. Cambridge, Mass.: Belknap Press of Harvard University Press, 1987.
- Lasch, Christopher. The True and Only Heaven: Progress and Its Critics. New York and London: W. W. Norton & Co., 1991.
- Leach, Josiah Granville. History of the Bringham Family with Notes on the Clarkson, De Peyster and Boude Families. Bossier City, Louisiana: Everett Companies, 1989.
- Lee, [Jr.] Robert E. Recollections and Letters of General Robert E. Lee by His Son Captain Robert E. Lee. New York: Doubleday, Page & Company.
- Linderman, Gerald. Embattled Courage: The Experience of Combat in the American Civil War. New York: Free Press, 1987.
- Lloyd, Allen Alexander, and Lloyd, Pauline O. Lloyd. History of the Town of Hillsborough 1754-1982. N. p., n. d.
- Loveland, Anne C. Southern Evangelicals and the Social Order 1800-1860. Baton Rouge: Louisiana State University Press, 1980.
- Malone, Dumas. The Public Life of Thomas Cooper 1783-1839. Columbia: University of South Carolina Press, 1961.
- Marcus, Alan I. Agricultural Science and the Quest for Legitimacy: Farmers, Agricultural Colleges, and Experiment Stations, 1870-1890. Ames: Iowa State University Press, 1985.
- McCoy, Drew. The Elusive Republic: Political Economy in Jeffersonian America. New York & London: W. W. Norton & Co., 1980.

- McGivirn, James Gregory. First Hundred Years of Engineering Education in the United States (1807-1907). Spokane: Gonzaga University Press, 1960.
- McMath, Jr., Robert C.; Bayor, Ronald H.; Brittain, James E.; Foster, Lawrence; Giebelhaus, Augustus W.; and Reed, Germaine M. Engineering the New South: Georgia Tech, 1885-1985. Athens: University of Georgia Press, 1985.
- Meigs, Wm. M. Life of Josiah Meigs. Philadelphia: n. p., 1887.
- Merritt, Raymond H. Engineering in American Society 1850-1875. Lexington, Kentucky: University Press of Kentucky, 1969.
- Midgette, Nancy Smith. To Foster the Spirit of Professionalism: Southern Scientists and the State Academies of Science. Tuscaloosa and London: University of Alabama Press, 1991.
- Montgomery, James Riley; Folmsbee, Stanley J.; and Green, Lee Seifert. To Foster Knowledge: A History of the University of Tennessee 1794-1970. Knoxville: University of Tennessee Press, 1984.
- Moore, James R. The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America 1870-1900. London: Cambridge University Press, 1979.
- Morrison, Jr., James L. "The Best School in the World": West Point, the Pre-Civil War Years, 1833-1866. Kent: Kent State University, 1986.
- Nisbet, Roger. History of the Idea of Progress. New York: Basic Books, Inc., 1980.
- Noble, David F. America by Design: Science, Technology, and the Rise of Corporate Capitalism. Alfred A. Knopf: New York, 1977.
- Norrell, Robert J. A Promising Field: Engineering at Alabama, 1837-1987. Tuscaloosa and London: University of Alabama Press, 1990.
- Novick, Peter. That Noble Dream: The "Objectivity Question" and the American Historical Profession. New York: Cambridge University Press, 1988.

- Parks, Joseph Howard. General Edmund Kirby Smith, C. S. A. Baton Rouge: Louisiana State University Press, 1954.
- Parrish, T. Michael. Richard Taylor: Soldier Prince of Dixie. Chapel Hill & London: University of North Carolina Press, 1992.
- Pirie, Madsen. Trial & Error & the Idea of Progress. LaSalle & London: Open Court, 1978.
- Pocock, J. G. A. The Machiavellian Moment: Florentine Political Thought and the Atlantic Republican Tradition. Princeton: Princeton University Press, 1975.
- Posey, Josephine M. Against Great Odds: The History of Alcorn State University. Jackson: University Press of Mississippi, 1994.
- Rabinowitz, Howard N. The First New South 1865-1920. Arlington Heights, IL: Harlan Davidson, Inc., 1992.
- Reagan, Alice Elizabeth. North Carolina State University: A Narrative History. Ann Arbor, Michigan: Edwards Brothers, Inc., 1987.
- Reed, Germaine M. David French Boyd: Founder of Louisiana State University. Baton Rouge: Louisiana State University Press, 1977.
- Reynolds, John Hugh, and Thomas, David Yancey. History of the University of Arkansas. Fayetteville: University of Arkansas, 1910.
- Rosenberg, Charles E. No Other Gods: On Science and American Social Thought. Baltimore & London: Johns Hopkins University Press, 1961, 1962, 1976.
- Ross, Earle D. Democracy's College: The Land-Grant Movement in the Formative State. Ames, Iowa: Iowa State College Press, 1942.
- Royster, Charles. The Destructive War: William Tecumseh Sherman, Stonewall Jackson, and the Americans. New York: Alfred A. Knopf, 1991.
- . A Revolutionary People at War: The Continental Army and American Character, 1775-1783. Chapel Hill: Published for the Institute of Early American History and Culture, Williamsburg, Virginia, by the University of North Carolina Press, 1979.

- Rudolph, Frederick. The American College and University: A History. New York: Alfred A. Knopf, 1962.
- Sellers, James B. History of the University of Alabama. 2 vols. University, Alabama: University of Alabama Press, 1953.
- Sheehan, Thomas. The First Coming: How the Kingdom of God Became Christianity. New York: Random House, 1986.
- Shugg, Roger W. Origins of Class Struggle in Slavery and After, 1840-1875. Baton Rouge: Louisiana State University Press, 1936, 1968.
- Silverthorne, Elizabeth. Ashbel Smith of Texas: Pioneer, Patriot, Statesman 1805-1886. College Station: Texas A & M University Press, 1982.
- Snay, Mitchell. Gospel of Disunion: Religion and Separatism in the Antebellum South. New York: Cambridge University Press, 1993.
- Spadafora, David. The Idea of Progress in Eighteenth Century Britain. New Haven and London: Yale University Press, 1990).
- Staples, Thomas S. Reconstruction in Arkansas 1862-1874. New York: Longmans, Green & Co., 1923.
- Stevens, Hazard. The Life of Isaac Ingalls Stevens. 2 vols. Boston & New York: Houghton Mifflin & Co., 1900.
- Tewksbury, Donald G. Tewksbury. The Founding of American Colleges and Universities Before the Civil War: With Particular Reference to the Religious Influences Bearing Upon the College Movement. New York: Columbia University Press, 1932.
- Thomas, Emory M. The Confederacy as a Revolutionary Experience. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971.
- Tuveson, Ernest Lee. Redeemer Nation: The Idea of America's Millennial Role. Chicago & London: University of Chicago Press, 1968.
- Tyler, Lyon Gardiner., ed. Encyclopedia of Virginia Biography. 5 vols. New York: Lewis Historical Publishing Co., 1915.

- Vandiver, Frank E. Ploughshares into Swords: Josiah Gorgas and Confederate Ordnance. Austin: University of Texas Press, 1952.
- Veysey, Laurence R. The Emergence of the American University. Chicago and London: University of Chicago Press, 1965.
- Virginia Agricultural and Mechanical College. Its History and Organization. N. p., n. d.
- Wade, John Donald. Augustus Baldwin Longstreet: A Study of the Development of Culture in the South. Athens: University of Georgia Press, 1969.
- Wagar, W. Warren. Good Tidings: The Belief in Progress from Darwin to Marcuse. Bloomington and London: Indiana University Press, 1972.
- Wagstaff, Henry McGilbert. Impressions of Men and Movements at the University of North Carolina. Chapel Hill: University of North Carolina Press, 1950.
- Wiebe, Robert H. The Opening of American Society: From the Adoption of the Constitution to the Eve of Disunion. New York: Alfred A. Knopf, 1984.
- Wiener, Jonathan M. Social Origins of the New South: Alabama, 1860-1885. Baton Rouge and London: Louisiana State University Press, 1978.
- Wilson, Charles Reagan. Baptized in Blood: The Religion of the Lost Cause 1865-1920. Athens: University of Georgia Press, 1980.
- Woodward, C. Vann. Origins of the New South 1877-1913. Baton Rouge: Louisiana State University Press and the Littlefield Fund for Southern History, University of Texas, 1951, 1971.
- Wright, Gavin. The Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century. New York & London: W. W. Norton & Co., 1978.
- Wyatt-Brown, Bertram. Honor and Violence in the Old South. New York and Oxford: Oxford University Press, 1986.

Articles in Books and Periodicals

- Altsetter, Mabel, and Watson, Gladys. "Western Military Institute, 1847-1861." Filson Club History Quarterly X (April 1936): 100-115.
- Anderson, L. F. "The Manual Labor School Movement." Educational Review. XLVI (June-December): 369-386.
- Axtell, James. "The Death of the Liberal Arts College." History of Education Quarterly 11 (Winter 1971): 339-352.
- Bailey, Fred A. "Oliver Perry Temple and the Struggle for Tennessee's Agricultural College." Tennessee Historical Quarterly XXXVI (Spring 1977): 44-61.
- Bartley, Numan V. "Another New South?" Georgia Historical Quarterly LXV (Summer 1981): 119-137.
- Bauman, Mark K. "Confronting the New South Creed: The Genteel Conservative as Higher Educator." In Education and the Rise of the New South, edited by Ronald K. Goodenow and Arthur O. White. Boston: G. K. Hall and Co., 1981.
- Bettsworth, John K. "'The Cow in the Front Yard': How a Land-Grant College Grew in Mississippi." Agricultural History 53 (January 1979): 62-70.
- Blackburn, Robert T., and Conrad, Clifton F. "The New Revisionists and the History of Higher Education." Higher Education 15 (1986): 211-230.
- Brabham, Robin. "Defining the American University: The University of North Carolina, 1865-1875." North Carolina Historical Review 57 (October 1980): 427-455.
- Braden, Waldo W. "'Repining Over an Irrevocable Past': The Ceremonial Orator in a Defeated Society, 1865-1900." In Rhetoric of the People: "Is there Any Better or Equal Hope in the World?", edited by Harold Barret. Amsterdam: Rodopi NV, 1974.
- Braden, Waldo W., and Nixon, Harold. "Epideictic Speaking in the Post-Civil War South and the Southern Experience." Southern Communication Journal 54 (Fall 1988): 40-57.

- Bridges, Hal. "D. H. Hill's Anti-Yankee Algebra." Journal of Southern History XXII (May 1956): 220-222.
- Brittain, James E., and McMath, Jr., Robert C. "Engineers and the New South Creed: The Formation and Early Development of Georgia Tech." Technology and Culture 18 (April 1977): 175-201.
- Cartter, Allan M. "The Role of Higher Education in the Changing South." In The South in Continuity and Change, edited by John C. McKinney and Edgar T. Thompson. Durham, North Carolina: Duke University Press, 1965.
- Chambers, Clarke A. "The Belief in Progress in Twentieth Century America." Journal of the History of Ideas XIX (April 1958): 197-224.
- Cobb, James C. "Beyond Planters and Industrialists: A New Perspective on the New South." Journal of Southern History LIV (February 1988): 45-68.
- . "Does Mind No Longer Matter? The South, the Nation, and The Mind of the South, 1941-1991." Journal of Southern History LVII (November 1991): 681-718.
- Coulter, E. Merton. "A Famous University of Georgia Commencement, 1871." Georgia Historical Quarterly 57 (Fall 1973): 347-361.
- . "The New South: Benjamin H. Hill's Speech Before the Alumni Society of the University of Georgia, 1871." Georgia Historical Quarterly 57 (Summer 1973): 179-199.
- Cunningham, Horace H. "The Southern Mind Since the Civil War." In Writing Southern History: Essays in Historiography in Honor of Fletcher M. Green. Edited by Arthur S. Link and Rembert W. Patrick. Baton Rouge: Louisiana State University Press, 1965.
- Donald, David. "The Proslavery Argument Reconsidered." Journal of Southern History XXXVII (February 1971): 3-18.
- Dyer, Thomas G. "Higher Education in the South Since the Civil War: Historiographical Issues and Trends." In The Web of Southern Social Relations: Women, Family, and Education, edited by Walter J. Fraser, Jr. and Jon L. Wakelyn. Athens: University of Georgia Press, 1985.

- Ezell, John S. "A Southern Education for Southrons." Journal of Southern History XVII (August 1951): 303-325.
- Fleming, Walter L. "Industrial Development in Alabama During the Civil War." South Atlantic Quarterly III (July 1904): 260-272.
- Flynt, Wayne. "Southern Higher Education and the Civil War." Civil War History XIV (September 1968): 211-225.
- Forman, Sidney. "The First School of Engineering." Military Engineer XLIV (March-April 1952): 109-112.
- "Forty Years Ago." Alumni Bulletin of the University of Virginia 4 (October 1904): 286-292.
- Gass, W. Conard. "Kemp Plummer Battle and the Development of Historical Instruction at the University of North Carolina." North Carolina Historical Review XLV (January 1968): 1-22.
- Geiser, S. W. "George Washington Curtis and Frank Arthur Gulley: Two Early Agricultural Teachers in Texas." Field and Laboratory XIV (January 1946): 1-13.
- Gianniny, Jr., O. Allan. "The Overlooked Approach to Engineering Education: One and a Half Centuries at the University of Virginia, 1836-1986." In Proceedings of the 150th Anniversary Symposium on Technology and Society, edited by Howard L. Hartman.
- Gilstrap, Marguerite. "Daniel Harvey Hill, Southern Propagandist." Arkansas Historical Quarterly II (March-December 1943): 43-50.
- Good, H. G. "New Data on Early Engineering Education." Journal of Educational Research 29 (September, 1935--May, 1936): 37-46.
- Graves, C. A. "General Lee at Lexington." In General Robert E. Lee After Appomattox, edited by Frank L. Riley. New York: MacMillan Co., 1922.
- Hale, Harrison. "Glimpses of University of Arkansas History." Arkansas Historical Quarterly VI (Winter 1947): 430-439.

- Herbst, Jurgen. "The Eighteenth Century Origins of the Split between Private and Public Education in the United States." History of Education Quarterly 15 (Fall 1975): 273-282.
- Kabat, Ric A. "Before the Seminoles: Football at Florida State College, 1902-1904." Florida Historical Quarterly 70 (July 1991): 20-37.
- Kelley, Maurice. "Additional Chapters on Thomas Cooper." University of Maine Studies XXXIII (August 1930): 5-100.
- Kincheloe, Joe L. "Building God's Kingdom: The Holy Mission of Antebellum Evangelical Colleges." Southern Studies II (Summer 1991): 103-112.
- Lane, Jack C. "The Yale Report of 1828 and Liberal Education: A Neorepublican Manifesto." History of Education Quarterly 27 (Fall 1987): 325-338
- London, H. A. "The University During the War." University of North Carolina Record (June 1911): 75-89.
- Luraghi, Raimondo. "The Civil War and the Modernization of American Society: Social Structure and Industrial Revolution in the Old South before and during the War." Civil War History 18 (September 1972): 230-250.
- Maddex, Jr., Jack P. "Proslavery Millennialism: Social Eschatology in Antebellum Southern Calvinism." American Quarterly XXXI (Spring 1979): 46-62.
- Mahan, Harold Eugene. "The Final Battle: The Southern Historical Society and Confederate Hopes for History." Southern Historian 5 (Spring 1984): 27-37.
- Mathews, Joseph J. "The Study of History in the South." Journal of Southern History XXXI (February 1965): 3-20.
- Maxcy, Spencer J. "Progressivism and Rural Education in the Deep South, 1900-1950." In Education and the Rise of the New South, edited by Ronald K. Goodenow and Arthur O. White. Boston: G. K. Hall and Co., 1981.
- Moger, Allen W. "General Lee's Unwritten 'History of the Army of Northern Virginia.'" Virginia Magazine of History and Biography LXXI (1963): 341-363.

- Neufeldt, Harvey, and Allison, Clinton. "Education and the Rise of the New South: An Historiographical Essay." In Education and the Rise of the New South, edited by Ronald K. Goodenow and Arthur O. White. Boston: G. K. Hall and Co., 1981.
- Nichols, Guerdon D. "Breaking the Color Barrier at the University of Arkansas." Arkansas Historical Quarterly XXVII (Spring 1968): 3-21.
- Numbers, Ronald L., and Numbers, Janet S. "Science in the Old South: A Reappraisal." Journal of Southern History XLVIII (May 1982): 163-184.
- Pannabecker, John R. "Industrial Education and the Russian System: A Study in Economic, Social, and Technical Change." Journal of Industrial Teacher Education 24 (Fall 1986): 19-31.
- Persons, Stow. "The Cyclical Theory of History in Eighteenth Century America." American Quarterly VI (Summer 1954): 147-163.
- Potts, David B. "American Colleges in the Nineteenth Century: From Localism to Denominationalism." History of Education Quarterly 11 (Winter 1971): 363-380.
- Reed, Germaine A. "David Boyd, LSU, and Louisiana Reconstruction." Louisiana Studies 14 (Fall 1975): 259-276.
- Reesman, John A. Reesman. "A School for Honor: South Carolina College and the Guard House Riot of 1856." South Carolina Historical Magazine 84 (October 1983): 195-213.
- Riley, Frank L. "What General Lee Read After the War." In General Robert E. Lee After Appomattox, edited by Frank L. Riley. New York: MacMillan Company, 1922.
- Roberts, Derrell. "The University of Georgia and Georgia's G. I. Bill." Georgia Historical Quarterly XLIX (December 1965): 418-423.
- Rogers, William Warren. "The Founding of Alabama's Land Grant College at Auburn." Alabama Review 40 (January 1987): 14-37.
- Sloan, Douglas. "Harmony, Chaos, and Consensus: The American College Curriculum." Teachers College Record 73 (December 1971): 221-251.

- Stephens, Edwin L. "The Story of Acadian Education in Louisiana." Louisiana Historical Quarterly 18 (April 1935): 397-406.
- Stephenson, Wendell H. "Herbert B. Adams and Southern Historical Scholarship at the Johns Hopkins University." Maryland Historical Magazine XLII (March 1947): 2-19.
- Stetar, Joseph M. "In Search of a Direction: Southern Higher Education after the Civil War." History of Education Quarterly 25 (Fall 1985): 341-367.
- Thomas, Milton Halsey. "Professor McCulloh of Princeton, Columbia, and Points South." The Princeton Library Chronicle 9 (November, 1947): 17-29.
- Thomas, Peter C. "Matthew Fontaine Maury and the Problem of Virginia's Identity." Virginia Magazine of History and Biography 90 (April 1982): 213-237.
- Thomson, Robert Polk. "Colleges in the Revolutionary South: The Shaping of a Tradition." History of Education Quarterly (Winter 1970): 399-412.
- Towns, W. Stuart. "Atticus G. Haygood: Neglected Advocate of Reconciliation and a New South." Southern Studies 26 (Spring 1987): 30-40.
- Urofsky, Melvin I. "Reforms and Response: The Yale Report of 1828." History of Education Quarterly 5 (March 1965): 53-67.
- Wagoner, Jennings L. "Higher Education and Transitions in Southern Culture: An Exploratory Apologia." Journal of Thought 18 (Fall 1983): 104-118.
- Whitener, Daniel J. "Republican Party and Public Education in North Carolina, 1867-1900." North Carolina Historical Review XXXVII (July 1960): 382-396.
- Wilson, Carl B. "The Baptist Manual Labor School Movement in the United States: Its Origin, Development and Significance." Baylor Bulletin XL (December 1937): 9-159.
- Wilson, Charles Reagan. "The Religion of the Lost Cause: Ritual and Organization of the Southern Civil Religion." Journal of Southern History XLVI (May 1980): 219-238.

Dissertations and Theses

- Foerster, Alma Pauline. "The State University in the Old South: A Study of Social and Intellectual Influences in State University Education. Ph. D. dissertation, Duke University, 1939.
- Goode, James Moore. "The Confederate University: The Forgotten Institution of the American Civil War." Master's thesis, University of Virginia, 1966.
- May, John B. "The Life of John Lee Buchanan." Ph. D. dissertation, University of Virginia, 1937.
- Richard, Dinah Daniel. "The Southern Oratory of William Preston Johnston." Ph. D. dissertation, Louisiana State University, 1982.
- Scafidel, J. R., ed. "The Letters of Augustus Baldwin Longstreet." Ph. D. dissertation, University of South Carolina, 1976.
- Stetar, Joseph M. "Development of Southern Higher Education, 1865-1910: Selected Case Studies of Six Colleges." Ph. D. dissertation, State University of New York at Buffalo, 1975.
- Stillman, Rachel Bryan. "Education in the Confederate States of America, 1861-1865." Ph. D. dissertation, University of Illinois, 1972.
- Toles, Caesar F. "Regionalism in Southern Higher Education." Ph. D. dissertation, University of Michigan, 1953.
- Watson, Joel Colley. "Isaac Taylor Tichenor and the Administration of the Alabama Agricultural College 1872-1882." M. A. thesis, Auburn University, 1968.
- Webb, Lester Austin. "The Origin of Military Schools in the United States Founded in the Nineteenth Century." Ph. D. dissertation, University of North Carolina, 1958.
- Wiley, Wayne Hamilton. "Academic Freedom at the University of Virginia: The First Hundred Years--From Jefferson Through Alderman." Ph. D. dissertation, University of Virginia, 1973.

Unpublished Paper

Paskoff, Paul F. "Invention and Culture in the Old South, 1790-1860." Unpublished paper delivered at Works-in-Progress Seminar, Louisiana State University, 1993.

VITA

Dan R. Frost was born on July 19, 1961, in Wamego, Kansas. He graduated from California State University, Fullerton, with a Bachelor of Arts degree in History in May of 1984. In 1987, he won the First Place Award at the Phi Alpha Theta, Southern California/Nevada Regional Conference for a paper entitled "Blacks and Emancipation: The Decisive Factors for Union Victory in the Civil War." He also delivered this paper at the Annual Meeting of the Pacific Coast Branch of the American Historical Association on August 19, 1987, at Occidental College in Los Angeles, California. That same year, he received the James Jordan Award from the Department of History at California State University Fullerton for a paper entitled "Union Policy and the Black Family in the Civil War." Dan was awarded a Master of Arts degree in History from California State University, Fullerton, in January of 1988. While there, he served as a teaching assistant in the Department of History from 1985 to 1987 for courses in Ancient Western Civilization and United States History. Dan entered Louisiana State University as a doctoral candidate in History in August of 1988. He completed minor fields in Early Modern British History and Early Modern Europe in 1990. Dan passed comprehensive exams in his major field,

United States History, the following year. While at Louisiana State University, he served as a teaching assistant for courses entitled "American Civil War," "United States Military History," "United States History to 1865," and "Western Civilization 1500 to the Present." Dan also served as a research assistant for Professor Charles Royster from 1992 to 1994. Additionally, Dan taught two courses at Louisiana State University entitled "History of the United States to 1865" in 1994. He has also written book reviews for *The Maryland Historian* and *Southern Historian*. He is also coauthor with Kou Nelson of a book entitled The History of the Louisiana State University College of Engineering, Volume I: Origins and Establishment of the College of Engineering, 1860-1908 (Baton Rouge: College of Engineering, Louisiana State University, distributed by Louisiana State University Press) which is scheduled to be published in January of 1995.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: DAN R. FROST

Major Field: HISTORY

Title of Dissertation: A CONFEDERATE EDUCATION IN THE NEW SOUTH: SOUTHERN ACADEMIA AND THE IDEA OF PROGRESS IN THE NINETEENTH CENTURY

Approved:

Charles Royden
Major Professor and Chairman

Shull M. Larkin
Dean of the Graduate School

EXAMINING COMMITTEE:

Haines M. Foster

Wayne Ford

Paul F. Parkoff

Edward Minor

Nicki Stone

Date of Examination:

OCTOBER 14, 1994