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The Evolving American University

A NEW ERA

Michigan president James B. Angell, speaking on the occasion of his 1871 inaugural address, was moved to observe, "The public mind is now in a plastic, impressionable state, and every vigorous college, nay, every capable worker, may help to shape its decisions upon education." Surveying the collegiate scene of his time, Angell concluded, "In this day of unparalleled activity in college life, the institution which is not steadily advancing is certainly falling behind."¹ A more quintessential encapsulation of the situation in American higher education in the post-Civil War period is difficult to imagine. The "unparalleled activity" he spoke of was both real and palpable. It was an era in which, as never before, institutions of higher learning were scrutinizing themselves and reexamining their basic purposes and goals. Although prognostications of the future of higher education differed greatly, the prospect of major change ahead was widely commented upon. Ralph Waldo Emerson, among others, was keenly aware that institutions of higher learning in the latter half of the nineteenth century would likely bear little resemblance to their antebellum predecessors. "The treatises that are written on University reform may be acute or not," he recorded in his journal in 1867, "but their chief value to the observer is the showing that a cleavage is occurring in the hitherto granite of the past, and a new era is nearly arrived."²

Noah Porter, in his 1871 inaugural address as president of Yale, undoubtedly had something similar in mind when he commented, "Never, perhaps, did this subject [of higher education reform] occupy the thoughts of so many persons and occupy them so earnestly. It certainly never excited more active controversy, or provoked more various . . . criticism, or was subjected to a greater variety of experiments than with us in these passing years." He spoke eloquently about how "sharp" was "the criticism of real or imagined defects in the old methods and studies" and the determined demand for "sweeping and fundamental changes."³ Ironically, Porter had yet to discover for himself just how potent and irresistible were those reform demands. The "new era" sensed by Emerson was indeed at hand.

Ultimately, the outcome of decades of ferment and turmoil, extending from the century's midpoint to the turn of the next, would be the supplanting of the quaint "old-time" college as a dominant institutional model by that of the modern university. New centers of scholarship and learning would be built from the ground up. Existing colleges—some of them at least—would be transformed in succeeding years into entirely different kinds of academic institutions. To them were to be added courses of preparatory instruction for a range of technical occupations and professions undreamt of by traditional schoolmen a scant generation or two previously. In the process of development, the meaning of post-secondary education itself would undergo profound alteration. The rise of the American university, marked though it was by false starts and much trial and error, was to prove itself a momentous phenomenon of almost revolutionary proportions. American higher learning would never be the same again.⁴

POSTWAR REBUILDING

Despite high levels of public indebtedness and inflation, the economy of the North had emerged from the Civil War relatively unscathed, bolstered as it was by the cementing of the industrial East with the rich agricultural Middle West. Colleges throughout the northeast and mid-Atlantic regions still appeared in reasonably robust health; and enrollments after the mid-1870s increased five-fold in the decades following, a proportional increase far in excess of the overall growth in the nation's population for the same period. Nationally, there were an estimated 62,000 students enrolled in some type of collegiate institution in 1870; only twenty years later their numbers had swollen to 157,000; and by 1910 the total would surpass 355,000.⁵

Yet in the aftermath of the nation's greatest internal conflagration, if the North had emerged intact, most of the South still lay in ruins. The entire region's economic infrastructure had been virtually destroyed, the dreams of

its plantation aristocracy ground into dust. Not surprisingly, southern states were to share little in the tremendous expansion of higher education that took place elsewhere throughout the Union.⁶ Unlike their northern counterparts, many southern colleges were left utterly destitute by the war. Lacking students, resources, and buildings, most had all they could do simply to survive. The University of Alabama's campus had been burned to the ground.⁷ In Oxford, Mississippi, where the state's university was reopened under Reconstructionist control, officials wrestled with debilitating financial problems. The situation at Chapel Hill in North Carolina, where Union troops had occupied the campus, was much the same.⁸ South Carolina's state college had lost its entire endowment, and had only debts and worthless securities to show for it.⁹ The identical problem faced Wake Forest.¹⁰ Everywhere, colleges bereft of assets confronted the herculean task of rebuilding for the future.

The crisis into which the University of Missouri, located in a border state, was thrown at war's end was especially acute.¹¹ There the school had virtually ceased operations between early 1861 and late 1862 as bloody struggles between the Union and the Confederacy raged on all sides. It was a hiatus marked by federal troops garrisoned on campus; a time when allegations of a "wanton and brutal" soldiery circulated widely; and local authorities were busily engaged rounding up suspected secessionists and administering loyalty oaths. Recalling the grim years of the immediate postwar period, Daniel Read, the institution's beleaguered president who assumed office in 1868, reported he had found the place in grave disarray. The school, he wrote, was "largely involved in debt, its officers paid in University warrants, unconvertible, at a large discount for cash, the payment of the income of the endowment suspended . . . the University building greatly defaced and injured in consequence of its occupation by the United States troops, and some of the rooms unfit for use; the roof leaky and the plastering fallen from the ceiling of many of the rooms."

According to Read's vivid account, "The fences around the campus were in a dilapidated condition. The chimneys of the President's house and portions of the walls stood mournful mementos of the conflagration which had destroyed the house." An attempt to reopen classes was made toward the end of the year 1862. However, as the president's report explained, "Upon the first week of the opening of the session, not a single student appeared to matriculate, there being a county fair in the neighborhood; and on the second, less than forty came forward for that purpose." The institution's future seemed in doubt. State legislators voiced misgivings over the advisability of attempting to rebuild the school at all. Some urged that it be relocated elsewhere. Others urged that what remained be left to its own devices to survive however it could, albeit stripped of its designation as a state university.¹²

Much the same story was repeated over and over again in other states to the south. In the end, some institutions managed to arise from the ashes and rebuild. A few closed their doors. Others were able to continue, although only at the price of becoming little more than insular little enclaves, consigned to isolated backwaters far removed from the mainstream of American cultural and intellectual life. Reconstruction in the South, it was plain, would hardly touch academic institutions at all, at least not until toward the end of the century.¹³

IMPERATIVES FOR CHANGE

The restructuring of American higher education elsewhere in the post-Civil War period was driven by a potent combination of social, political, cultural, and economic factors. Accelerating industrialization and urbanization, combined with the impetus to complete the settlement of a fast-disappearing western frontier, were contributing forces. The development of new scientific and technological knowledge upon which business and industry increasingly relied counted heavily in the equation. The allure of German universities, with their interest in scholarly research and inquiry, was another important consideration.¹⁴ The gradual emergence of a more secular society and a consequent erosion of religious influence served in the view of some critics to make institutions that were chiefly preoccupied with the training of clergymen seem atavistic and outmoded. Most important of all perhaps was the growth in surplus capital potentially available for institution-building from the accumulated fortunes of industrial entrepreneurs, railroad tycoons and business magnates. Popular identification of education with material success and progress (a perception assiduously cultivated by reform-minded academic leaders) represented yet another part of the dynamic working to encourage change. Finally, indicative of the great divide between old and new, representing the fundamental cleavage that existed between the seemingly archaic antebellum collegiate era and that of the postwar university, was the passing of an entire generation of prominent college presidents.¹⁵

Aging leaders such as Mark Hopkins at Williams or Theodore Dwight Woolsey at Yale either had opposed change outright or at best were tepid in their endorsement of proposed reforms. Faced with declining enrollments and indications of unrest, their basic reaction had been to hold the line, to offer only minimal adjustments and accommodations, to rationalize away the need for fundamental alterations, to hope somehow that academe could weather the storm substantially unchanged.¹⁶ Now in the postwar years a new generation of academic reformers was coming to power: men such as Andrew D. White of Cornell, John Howard Raymond of Vassar, William Watts Folwell and Cyrus Northrup at Minnesota, William B. Rogers of the Massachusetts Institute of

Technology, Walter B. Hill at Georgia, James H. Kirkland at Vanderbilt, William Pepper at Pennsylvania, Daniel Coit Gilman of Hopkins, and Charles W. Eliot at Harvard.¹⁷ Impatient, aggressive, sensing opportunities to be seized, they represented a new breed of innovators not easily deterred from their chosen course. Their shared goal, sometimes inchoate in its formulation and with details as-yet poorly defined, was nothing less than the refashioning of American higher education in a new mold: that of the university.¹⁸

Even proponents of the old order conceded that academe was changing. As Charles Kendall Adams of Michigan admitted, "In all parts of the country, the sad fact stares us in the face that the training which has long been considered essential to finished scholarship has been losing ground from year to year in the favor of the people."¹⁹ Part of the reason in an increasingly urban society was that those who in an earlier day might have contented themselves with positions as village pastors or schoolmasters were now seeking new career opportunities in the cities. T. H. Safford, a professor at Williams, acknowledged as much in 1888 when he observed, "The varied attractions of city life restrain intellectual tendencies in the minds of many boys, and the variety of careers which they see opening before their older schoolmates leads to a strong tendency to follow business rather than classical courses."²⁰ The trustees of the University of Vermont in 1871 enunciated much the same view, noting that declining enrollments in rural academic enclaves could be accounted for by "our close connection by railroad and telegraph with our great cities."²¹ And if students willing to subject themselves to the traditional regimen of memorized recitations and strict supervision offered by the typical small-town college were increasingly hard to come by, so too were academically respectable teachers. As Harvard's Eliot accurately remarked at his inaugural address of 1869, "It is very hard to find competent professors. . . . Very few Americans of eminent ability are attracted to this profession. The pay has been too low, and there has been no gradual rise out of drudgery, such as may reasonably be expected in other learned callings."²²

Unless the old rural colleges revived themselves, it was argued, they stood in danger of slipping into oblivion. By 1894 matters had reached a point where John W. Burgess, a professor at Columbia, was prepared to sound the final death knell of the traditional college. "I confess that I am unable to divine what is to be ultimately the position of Colleges which cannot become Universities and which will not be Gymnasias," he declared. "I cannot see what reason they will have to exist. It will be largely a waste of capital to maintain them, and largely a waste of time to attend them. It is so now."²³

Yet another problem in carrying forward major academic reforms throughout the sixties and seventies was vagueness surrounding the much-used term

"university." Whereas many small colleges had long claimed university status for themselves, the label itself still lacked clear definition.²⁴ According to one commentator in 1860, the appellation meant nothing more specific than an institution of great size offering advanced instruction in a broad range of disciplines. Or it might simply connote a college boasting large library holdings. President John Hiram Lathrop of Missouri in 1864 captured part of the emerging pattern in claiming that a "true" university was distinguished by a department of arts and sciences as its nucleus or core, surrounded by other units offering more specialized instruction in practical arts and various applied sciences.²⁵ At Johns Hopkins in Baltimore, the position was being developed that a university, as distinct from a college, was primarily a post-collegiate institution whose main purpose was the advancement of learning, to which the diffusion of knowledge through undergraduate instruction was strictly subsidiary.²⁶ Comparable in tone was the 1872 pronouncement of Daniel Gilman at the University of California, who averred, "The university is the most comprehensive term that can be applied to indicate a foundation for the promotion and diffusion of knowledge—a group of agencies organized to advance the arts and sciences of every sort, and to train young men as scholars for all the intellectual callings of life."²⁷ Philosopher-logician Charles S. Peirce went so far in 1891 as to claim that a university had nothing whatsoever to do with instruction.²⁸

Early on, a major theme surrounding discussions of the university was that of the practicality or utility of knowledge and the importance of linking academic learning with professional practice. "The college years are no longer conceived of as a period set apart from life," observed F. H. Stoddard, a professor at New York University. "The college," as he phrased it, "has ceased to be a cloister and has become a workshop."²⁹ F. W. Kelsey, a Latinist at the University of Michigan in 1883, concurred: "The throbbing life of to-day," he wrote, "demands from our colleges something besides learning and culture. It cares not for pedants steeped in useless lore. It calls for true men, who are earnest, and practical, who know something of the problems of real life and are fitted to grapple with them." Formal learning, Kelsey stressed, must help in "the fitting for real life in something besides discipline and culture of the mind."³⁰

Industrial and business leaders, many of them prone to issuing scathing diatribes against academe, could not have agreed more heartily. As Andrew Carnegie himself put it in 1889 in an acidic attack upon classical learning, "While the college student has been learning a little about the barbarous and petty squabbles of a far-distant past, or trying to master languages which are dead, such knowledge as seems adapted for life upon another planet than this

as far as business affairs are concerned, the future captain of industry is hotly engaged in the school of experience, obtaining the very knowledge required for his future triumphs." Carnegie's summary judgment: "College education as it exists is fatal to success in that domain."³¹

Both Eliot of Harvard and Andrew White of Cornell were vigorous in their support for more practical professional training. "There is no danger in any part of the university that too much attention will be paid to the sciences ordinarily supposed to have useful application," President Eliot declared. "The problem is to get enough attention made to them."³² Andrew White, Cornell's first president, outlined his position with equal clarity in his inaugural address of 1868. "I would found an institution," he announced, "where any person can find instruction in any study." White poked fun at what he termed the "pedants" and "gerund grinders" who, he claimed, would substitute "dates for history, gerund-grinding for literature, and formulas for science." Then in an obvious gibe at the sort of arguments advanced by Carnegie and others of like persuasion, he made it clear he was equally unhappy with "Philistines," who saw no use for any education "beyond that which enables a man to live by his wits and to prey upon his neighbor." A broader vision was needed, White asserted, an ideal of the university as a place offering instruction in both humane and scientific disciplines in preparation for a wide variety of specialized occupations.³³

The concept of "democracy" was often invoked in support of demands for academic reform.³⁴ To some critics, the democratic imperative was to acknowledge the fundamental equality of all branches of knowledge, no matter how nontraditional. For others, democracy in academe meant easing admissions standards and otherwise enhancing access to higher learning, so that all interested students, of whatever background or economic circumstances, might have the opportunity to pursue higher learning. Again, democracy was appealed to by proponents of the idea that collegiate institutions should expand their "service" role to the public at large. Finally, democratic ideals were invoked to support the theme that colleges should submit to the will of the common masses—not to a closed guild of academics—in deciding what should be taught, and to whom. E. E. Brown, a professor of pedagogy at Michigan, writing in 1892, gave support to the latter view with his assertion, "There is a wisdom residing in the people—the 'common sense of most.'"³⁵ Accordingly, he avowed, universities ought to take their direction from popular or "commonsensical" notions of what was wanted and needed.

Opposed from certain quarters, welcomed in others, the clear tendency in American higher education throughout the last quarter of the nineteenth century, more than anything else, was one of concessions to the demand for more

utilitarian learning.³⁶ Some reformers, as noted, felt it would be sufficient if institutions of higher education simply broadened the scope of their curricula to incorporate more science, technology, nonclassical languages and other modern subjects. Some urged wholesale modernization, to the virtual exclusion of traditional subjects. Others urged that the concept of a "learned profession," once confined to medicine, law, and the ministry, be enlarged to encompass commerce, manufacturing, and any number of other practical occupations.³⁷ In an 1855 report as president of the University of Alabama, Frederick A. P. Barnard had confidently predicted, "While time lasts, the farmer will be made in the field, the manufacturer in the shop, the merchant in the counting room, the civil engineer in the midst of the actual operation of his science."³⁸ A decade or two later, people were not so sure. Perhaps the number of careers for which formal preparatory instruction was both possible and useful should be expanded. Possibly, also, the age-old distinction made between an unlearned occupation or vocation for which an apprenticeship was sufficient and a learned profession demanding collegiate training was indefensible and could no longer be sustained. Whatever the truth of the matter, it was plain that more and more critics, particularly those outside academe, were now demanding that colleges and universities offer direct training in support of any trade whatsoever, including carpentry, blacksmithing, or machining.

STATE UNIVERSITIES AND LAND-GRANT COLLEGES

Nowhere was the trend toward occupational utility more apparent or more widely illustrated than in the development of land-grant colleges.³⁹ Efforts to found nonsectarian state agencies of higher learning had begun well before the Civil War. Among the earliest were public institutions in Georgia, Ohio, Tennessee, North Carolina, Maryland, South Carolina, and Kentucky. Very few, if any, offered courses of study of sufficient stature to qualify them as universities in the modern sense of the term. Virginia, which opened in 1825, probably must be counted as the first true state university, if its original incorporation as a public enterprise, its secular and nondenominational orientation, and the provision made under Thomas Jefferson's plan to allow students to elect from among alternative courses of study are all taken into consideration. Leaving aside the disputed question of its primacy, Virginia's example was soon followed by Transylvania University in Lexington, Kentucky; by the University of Nashville in Tennessee; and by the founders of state institutions in both North and South Carolina. As the century wore on, several institutions in the South began claiming the status for themselves, Alabama in particular. But, again, virtually all lacked the characteristics later associated with full-fledged universities. Outside the South, most state academic institutions

operating prior to the Civil War were located in the Middle West. Among them, Minnesota's state school, established under the patronage of John S. Pillsbury, and the first public college chartered in Indiana, were perhaps the most important.⁴⁰

Federal land grants, the precedent for which went back as early as the Northwest Ordinance of 1787, proved to be the major stimulus for the founding of state colleges.⁴¹ After 1804, every new state west of the Appalachians joining the union was granted two entire townships for a "seminary of learning"; and by the mid-1850s or thereabouts, the central government already had donated nearly four million acres of public lands, in 15 different states, to provide the necessary endowments.⁴² Miami University in Oxford, Ohio, and Ohio University in Athens were prototypical state-supported, land-grant institutions of this sort. Altogether, on the eve of the Civil War there were over a dozen such schools admitting students.

Unfortunately, as events were to make clear, land grants alone did not generate permanent revenues to keep public colleges or universities solvent and in business.⁴³ At the century's midpoint it would have been difficult to distinguish most of them from purely private ventures; and, in fact, many had since fallen under sectarian control for lack of support from the public sector. Long viewed with suspicion by denominational educators who resented their competition, denounced by religious evangelicals as "godless," and neglected by state legislatures unpersuaded of their need or relevance to the public's immediate concerns, most of the early western universities remained little more than small colleges. Characteristically, their enrollments were limited, their academic reputations mediocre. However much they sought to imitate the forms and customs of the better-established, more prestigious colleges of the East, or to reproduce the revivalistic architecture of their campuses, they continued to languish. Lyman Bagg of Yale, writing in *Four Years at Yale* (1871), contended that if would have been a blessing if all but a half dozen or so of the universities founded after 1800 had been "blotted from existence, or turned into preparatory schools for the other ones." Charles Eliot Norton, speaking to the same issue a quarter century later (1895), clearly had state colleges and universities in mind when he cited "the lamentable waste involved in the needless duplication of . . . instruments of study, of buildings, libraries, and laboratories."⁴⁴

What saved the cause of public, state institutions of higher learning, even as it greatly complicated the question of their identity and purpose, was the enactment of the Morrill Acts of 1862 and 1890.⁴⁵ As early as 1848 Congressman Justin Smith Morrill of Vermont had suggested that American colleges should "lop off a portion of the studies established centuries ago as the mark of European scholarship and replace the vacancy . . . by those of a

less antique and more practical value." He noted with approval the work of various agricultural societies in chartering such institutions as the Farmer's High School of Pennsylvania, founded in 1854, and New York State's Agricultural College. Comparable efforts were underway in Georgia, Kentucky, and Virginia. What Morrill wanted (possibly after the model of the Michigan State College of Agriculture in East Lansing, which first opened in 1857) was "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."⁴⁶ That same year he introduced a bill calling for the donation of public lands equal to 30,000 acres for each state senator and representative. Proceeds from the sale of a specified portion of such lands would go to support in each state at least one college "where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts." Morrill's legislative submission was not unopposed.⁴⁷ Typical was the fulmination of a senator from Minnesota: "We want no fancy farmers; we want no fancy mechanics."⁴⁸ President Buchanan showed little enthusiasm for the initiative; and support from congressional leaders was no better than lukewarm.

Despite initial apathy, the Land Grant College Act finally passed with substantial margins in both houses. Five years after it was first introduced, the bill was signed into law by President Lincoln in July of 1862.⁴⁹ Few took note of its passage at the time or ascribed to it much importance. The bill's long-term consequences, however, were far-reaching, although individual state actions varied.⁵⁰ Michigan, Pennsylvania, Maryland, and Iowa all converted existing agricultural schools into land-grant "A & M" universities. Connecticut, Rhode Island, Kentucky, Delaware, Indiana, and New York assumed control over private colleges and turned them into state institutions. Federal largesse sometimes was turned over to an existing state university, as occurred in Minnesota, Georgia, Missouri, Wisconsin, and North Carolina. In such cases, the result more often than not was to revitalize those previously established state universities; and for some the appropriations spelled the real difference between survival and extinction. Arkansas and West Virginia founded new state universities and added "agricultural and mechanical" elements. In other states, as in Kansas, Iowa, Oregon, Texas, South Dakota, and Washington, land-grant revenues were used to create a separate institution which more or less duplicated the work of an existing state university. The effect—repeated in no less than twenty different states—was to create fierce and unending competition between rival institutions, each lobbying for its share of state appropriations.

Traditional accounts of the development of land-grant colleges paint a roseate picture of populist institutions immediately responding to the swelling

demand for utilitarian learning, of business and industry prospering from the ensuing diffusion of academic expertise, of rustics crowding into classrooms to learn how to boost agricultural productivity and increase their acreage yields. The actual historical record is at once more complex and more ambiguous. Until the second Morrill Act of 1890 provided for regular annual appropriations, for example, state support for land-grant colleges was rarely better than marginal. Colleges, after all, represented a loss of potential tax revenue; worse yet, they made burdensome claims on the public treasury. Hence, it was almost inevitable that for years financially pressed state legislatures temporized, reneged on promises and otherwise tried to evade the requirement to support a school authorized under the Morrill Act. Much effort went into the search for ways to make the colleges self-supporting: tuition surcharges, sales of produce for a college's farms, even work-study programs once again. Nothing worked. The University of Arkansas was one of several institutions forced to undergo a veritable paroxysm of salary cuts and faculty contract terminations as officials scrambled to make ends meet. Professors by the scores were forced to resign, then immediately rehired—but only at a fraction of their former salaries.⁵¹

Contrary to expectations, land-grant colleges in their formative period had a difficult time attracting students.⁵² In New Hampshire, when the state's first land-grant institution opened its doors, not a single individual applied for admission. Pennsylvania was able to garner less than two dozen matriculants; neighboring Connecticut had half as many. Illinois anticipated an entering class numbering in the hundreds—only fifty showed up. North Carolina offered anyone a month's free board if he brought in another paying student. Missouri dispatched its faculty to tour the countryside and tout the advantages of its program among local farmers. Student demand in Kansas and Michigan where overcrowding had been expected was equally anemic; elsewhere university officials resorted to offering special awards and scholarships to attract prospective students. Sometimes there were more prizes than applicants. In 1892 at the University of Arkansas, after having been legislatively mandated seven years previously to lower admission requirements, officials abandoned them altogether. A prize of twenty-five dollars was offered to the agriculture student who made the best five pounds of butter.⁵³

The basic disparity that existed between the presumption underlying reformers' rhetoric and the actual aims of their intended beneficiaries explained part of the problem. Jonathan Baldwin Turner, an early advocate for an agricultural and mechanical college in Illinois, had confidently declared in 1853: "The industrial classes . . . want, and they ought to have, the same facilities for understanding the true philosophy, the science, and the art of *their*

several pursuits . . . and of efficiently applying existing knowledge thereto and widening its domain, which the professional classes have long enjoyed in *their* pursuits."⁵⁴ In theory, rural youth would welcome the opportunity to become scientifically trained agriculturalists. Armed with knowledge gained from the state's land-grant institution, they would then return to their farms where, presumably, they would be engaged in applying the expertise they had acquired in the laboratory and classroom and so contribute to the ultimate transformation and improvement of American agriculture.

In fact, what reformers underestimated was the extent to which those entering college were seeking to *leave* the farm. For many farmers' sons and daughters, attending college was a means of escaping the poverty, boredom, and drudgery of wresting a living from the soil. Even when college-attending was not regarded as a means of escape, farmers were not easily persuaded that classroom studies could be helpful. In an era when land was still abundant and crops could be raised without intensive cultivation, academic theory of any sort was highly suspect. A South Carolina legislator was heard to say in 1879, "[I have never] seen a man who could write a nice essay or make a good agricultural speech who could make corn enough to feed himself and a bob-tailed mule."⁵⁵

Suspicious were sometimes more than amply justified. George C. Swallow, the first professor of agriculture appointed at the University of Missouri, was a botanist whose specialties were landscape gardening and viticulture. His self-appointed mission, as he saw it, was the beautification of the state's farms. It was Swallow who was responsible for inserting his favorite epigram into the university's official catalogue: "He can work better and sleep better, who has well kept lawns and beautiful perspectives."⁵⁶ If that was what passed for agricultural education, skeptical farmers must have concluded, little purpose would be served by sending their sons off to college.

Overlooked in traditional assessments of the land-grant college movement is the degree to which nonacademic considerations helped shape results. Conventional wisdom has it that the colleges exerted a major influence on American agriculture, serving to increase worker efficiency and boost crop yields. (Only toward the end of the century is there at least some partial evidence for the claim.) Actually, careful economic analysis suggests that the greatest increase in agricultural productivity per worker occurred well *before* land-grant colleges were firmly established; and, further, that federal and state land-use policies, natural conditions, market developments, canals and railroads, and a host of other factors were mainly responsible for whatever gains occurred. Whereas land-grant colleges certainly may have been important for other reasons prior to the 1890s, their contributions to the nation's economic

development during the third quarter of the nineteenth century were apt to be more indirect or fortuitous than has been commonly supposed.⁵⁷

Lack of agreement throughout the 1870s and 1880s on what an institution catering to the supposed needs of farmers and mechanics ought to be continued to thwart reformers' best efforts. One fundamental question at issue, as noted previously, had to do with the character or level of instruction appropriate to a land-grant college. Strong disagreements surfaced between those who envisioned the production of trained scientists, on the one hand, and those who wanted relatively low-level technical training suitable for farm laborers and mechanics, on the other.⁵⁸ If the former approach was to be pursued, "mechanic arts" posed no major problem—systematic bodies of knowledge in physics, chemistry, and metallurgy were already sufficiently well developed to serve as objects of formal collegiate study. But the same could not necessarily be said of "agriculture." If the latter approach was to be followed, then the issue was whether there was any real difference between an ordinary secondary technical institute and a true university of higher learning.⁵⁹ Confusing the situation still further was the chronic disagreement that existed over the proper balance to be struck within a land-grant institution between traditional classical studies and technical specialties. Land-grant schools typically tended to emphasize the practical over the ornamental. But it was an issue of bitter contention that often divided faculties and trustees.⁶⁰ In the end, with the federal government offering little or no guidance about how to proceed, each institution found itself free to experiment and to seek its own solutions.⁶¹

Isaac Newton, the U.S. Commissioner of Agriculture, suggested in 1863 that land-grant colleges might end up differing but little from more traditional institutions. "These colleges are not to be agricultural only," he emphasized. "The sons of our farmers are not less ambitious of distinction than others, and an education that regards them as farmers only cannot meet their approbation." Because the purpose of education was to teach critical thought and reflection, Newton felt, all pursuits might have "a common course of instruction."⁶² A comparable outlook was expressed in 1871 by a trustee of the University of Missouri who predicted that "too much in practical education should not be expected, as the main purpose is to develop the social and mental nature of the students." (Reportedly a member of the state's board of agriculture retorted, "That is good, but what are they going to do about hog cholera?")⁶³

Edward Orton, first president at Ohio State University, pledged in his 1874 inaugural address that the university would attend to "the education of a man as man, rather than that which equips him for a particular post of duty."⁶⁴ Reflecting the contrary point of view was a Philadelphia newspaper editorial of 1864: "Instead of introducing the student of agriculture to a laboratory and

chemical and philosophical apparatus," the paper urged, "we would introduce him to a pair of heavy . . . leather boots and corduroy pants, and learn him how to load manure."⁶⁵ Possibly the same spirit lay behind graduation addresses delivered at the Connecticut Agricultural College in 1884 which bore such titles as "Irrigation and Drainage" and "The Feet of the Horse and Ox, and their Diseases."⁶⁶ The contrast with the spirit and character of the antebellum college of a half century earlier could hardly have been more pronounced.

In an age when the high school as an institution was either nonexistent or as yet still undeveloped, state colleges and universities played a vital role in helping to articulate secondary and higher education.⁶⁷ Faced with the prospect of admitting students woefully unequipped for academic success, the traditional approach taken by many colleges and universities had long been to append a preparatory department to their respective collegiate programs. Basically, these units served to bridge the yawning chasm that usually existed between elementary/secondary common schools and universities. In 1870 the University of Michigan began identifying those select few schools capable of graduating students whose academic achievements entitled them to university admission without further training. Gradually a system of certification or licensure evolved for those lower schools willing and able to supply adequate college preparatory programs of their own. Similar systems soon developed elsewhere: in the states of Minnesota, Iowa, and Wisconsin in 1872; followed by Indiana and Illinois the next year; then by Ohio in 1874.⁶⁸

Over the next two decades, still other states adopted certification requirements of their own, including California, Texas, and Missouri. By the turn of the century, no fewer than forty-two state universities and land-grant colleges and an additional number of private colleges had established licensure linkages with secondary schools. By 1900 collegiate preparatory departments were fast becoming a thing of the past.⁶⁹ As Nebraska's chancellor had once advised those in attendance at a state teachers' convention, "I see the common school stuck in the mud and the university suspended in the air. If we are to have a [true] system of education, the word is 'Close up.'" Colleges and universities took him at his word.

Agricultural and mechanical land-grant colleges and state universities, it might be said, over time came to represent the fullest expression possible of Jacksonian egalitarian and democratic ideals applied to higher education. As historian Frederick Rudolph notes, there was a comfortable, homely ring to the phrase "state college," one invoking images of wholesome young yeomen of ingrained common sense gone off to school to prepare themselves for a life of honest toil. Its associations were those typical of rural America: the state fair, the Fourth of July picnic, church socials, and the Saturday-night barn

dance.⁷⁰ Conventional wisdom of the time thus extolled the public college as a symbol of liberation from the elitist, hidebound collegiate traditions of the past. In the eyes of plain, hard-working farmers, the chief value of the state college was that it did not traffic overmuch in "fancy book larnin'." And when it did—or was perceived to do so—popular support for the institution was relatively unenthusiastic. But either way, the public college was a source of civic pride, a symbol of progress, of refinement and accomplishment that could not be discounted altogether by even the harshest critics.

Reflecting back from the perspective of 1890, a House Committee on Education judged that land-grant schools had "turned out a body of men who, as teachers, investigators, and leaders of industry, rank well up with the same class of men everywhere in the world." Their further contribution, the Committee's report held, was that they had served to bring older institutions "more closely into harmony with the spirit and purpose of the age."⁷¹ Less effusive and more critical in tone was the judgment passed in 1903 by a foreign observer, who felt that burgeoning state colleges and universities had enthroned the practical almost wholly at the expense of other, equally important studies. They were, a certain Lord Bryce observed, "true universities rather in aspiration than in fact." Still, as he grudgingly conceded, they were probably "better than nothing."⁷²

MUNICIPAL COLLEGES AND UNIVERSITIES

What land-grant and other state collegiate institutions were to small-town America, municipal colleges and universities were to the cities. Even as rural public colleges gained their foothold, momentum was building for the establishment of free, public post-secondary education in urban centers.⁷³ Well before the Civil War, New York's state legislature had chartered (in 1847) the Free Academy of New York City, the embryonic beginning of what would later evolve into that city's vast, far-flung college system. In 1837, Charleston, South Carolina, had likewise assumed support of a formerly private college established several years before. That same year the city of Louisville in Kentucky took steps to found its own municipal university.

The pace of institution-building accelerated in the postwar period when Cincinnati (1873), followed by Toledo, created new city universities. The founding of Hunter College in New York and Wayne University in Detroit were initiatives undertaken by the two cities' respective boards of education. Akron, Wichita, and Omaha all moved to convert existing private schools into municipal colleges or universities. Privately endowed universities began to appear within or near the precincts of major urban municipalities during the same period: Boston University, the University of Buffalo, Temple University

in Philadelphia, the University of Rochester, the University of Pittsburgh, Western Reserve in Cleveland, George Washington University and American University in the nation's capital, and Fairleigh Dickinson University in Rutherford, New Jersey, foremost among them.⁷⁴

Municipal schools differed greatly in size, scope of operations, and breadth and level of curricula. What they shared in common was a dedication to meeting the needs of urban students.⁷⁵ Some were pioneers in offering advanced industrial technical training. Others specialized in offering preparatory instruction for business careers in addition to more traditional liberal-arts courses. Many (albeit at a somewhat later date) pioneered the scheduling of evening classes and other measures designed to enhance accessibility to part-time students. Yet long before the term "nontraditional" came to be applied to certain collegians, city colleges were organizing themselves to meet their special needs and demands, including, for example, those who had resumed their studies after dropping out, mature students with spouses and families, and those seeking retraining for second careers. Many who lacked the financial means to attend a residential college full-time found enrollment at a municipal college catering expressly to commuting students a more viable alternative. Overall, in terms of accessibility and low cost, city colleges quickly established an important niche for themselves in American higher education. Their importance was to increase significantly after the turn of the century.

WOMEN'S COLLEGES AND COEDUCATION

Women's struggles to gain access to higher learning in nineteenth-century America were waged on two fronts. The first was represented by the founding or expansion of what had been called "academies" in the late 1700s, then "seminaries" in the early 1800s, and finally, true post-secondary colleges in the latter half of the nineteenth century.⁷⁶ The second was defined by experiments with coeducation.⁷⁷ Antebellum institutions for women had been far and few between: the Troy Female Seminary, founded in 1821; the Hartford Female Seminary (founded in 1823); the Ipswich Female Seminary in Massachusetts; Mt. Holyoke Female Seminary in New York; and the Georgia Female College of Macon, Georgia, first chartered in 1836 and opened in 1839.⁷⁸ Each had begun as little more than "finishing schools" designed to produce young women who would be suitable companions for their husbands.⁷⁹ This they remained for many years thereafter, scrupulously avoiding any appearance of striving to educate their students "beyond their natural sphere."⁸⁰ Referring to these institutions as they existed in 1851, Catherine Beecher's comment was still substantially accurate: "Those female institutions in our land which are assuming the ambitious name of colleges, have, not

one of them, as yet, secured the real features which constitute the chief advantage of such institutions. They are merely high schools."⁸¹

The founding of Elmira Female College, which began issuing its own academic degrees in 1859, pointed the way (if only indirectly) for the eventual maturation of Mt. Holyoke and Bryn Mawr as full-fledged collegiate institutions.⁸² Elmira's opening also anticipated the founding in the 1870s of such new womens' colleges as Wellesley, Smith, and Vassar. Each in its own fashion offered young women significant educational opportunities denied them in exclusively male colleges and universities.⁸³ Similarly, the establishment of so-called "coordinate" colleges, separate but affiliated with established colleges, marked an important step in enhancing women's access to higher education: Radcliffe at Harvard, Barnard at Columbia, Newcomb at Tulane, Pembroke at Brown, Jackson at Tufts, and Flora Stone Mather at Western Reserve.⁸⁴

Equally important, if not more so, was the movement to allow women admission to colleges and universities that heretofore had been exclusively male in their student composition.⁸⁵ Received opinion had long held that women neither required nor were fit for serious academic pursuits. Given the vast intellectual and emotional differences separating the sexes, many Victorians held, comingling of the two in a collegiate environment amounted to creating a "powder keg" liable to explode at any time. Typical of prevailing opinion were the misgivings expressed by a certain Reverend John Todd in the early 1870s, who objected, "Must we crowd education on our daughters, and for the sake of having them 'intellectual,' make them puny, nervous, and their whole earthly existence a struggle between life and death?"⁸⁶ Forced to compete in a man's world, traditionalists were convinced, women would suffer nervous breakdowns and their pure and benevolent natures would be corrupted. Worse yet, or so it was believed, a woman's reproductive system might suffer irreparable harm under the rigors and stress of academic pursuits. Too much learning would render her unfit for her preordained destiny as wife and mother. Coeducation meant a violation of the natural division of complementary spheres of competence and influence between the sexes: it could serve only to "coarsen" or "masculinize" young women, even as it made men more effeminate and less aggressive. A fear repeatedly expressed was that the constant association of men and women in colleges would inevitably lessen the social distance between the two and render them less attractive to one another.⁸⁷

Educated women threatened familial harmony and stability, ran another common argument. As a student at Vanderbilt was quoted as declaring, "No man wants to come home at night and find his wife testing some new process for manufacturing oleomargarine, or in the observatory sweeping the heavens

for a comet." A foreign visitor to Wellesley shortly after its opening was impressed by the studious demeanor of the school's students. "This is all very fine," he commented, "but . . . how does it affect their chances [of marriage]?"⁸⁸ Nonetheless, the movement toward coeducation was irresistible. A declaration issued by Wisconsin's governing board in 1872 aptly illustrated how attitudes were changing: "It is too late, amid the noontime splendours of the nineteenth century, to ignore the claims of women to higher education," the board avowed. ". . . Whatever shall make her wiser and better, that she may learn; whatever knowledge she may be able to use, either in adding to her own happiness, or in promoting the happiness of others—that knowledge she may rightfully acquire."⁸⁹

The earliest advances in coeducation were registered in land-grant colleges and state universities of the Middle West, beginning with Iowa in 1855 and Wisconsin in 1863, followed by Indiana, Missouri, Michigan, and California throughout the next decade. By the mid-1870s, most collegiate institutions in the West had accepted the practice.⁹⁰ There were an estimated seventeen southern colleges that admitted women and eight in the Middle Atlantic states. In the East—where the notion that women required little more than a secondary education hung on longer—no more than half a dozen or so collegiate institutions allowed admission to women. Wesleyan introduced coeducation in 1872; and Middlebury followed in 1883. Oberlin, of course, had long endorsed comingling of the sexes; and fledgling Cornell was equally willing to admit women. By 1880 upwards of a third of America's colleges and universities had adopted some limited form of coeducation. By the end of the century the percentage had risen to almost three-quarters of all collegiate institutions of higher learning throughout the country. Yet if the absolute numbers of women enrolled in colleges were increasing, as percentages of the total female population between the ages of eighteen and twenty-one, figures stayed low. In 1870, for example, it has been estimated that less than 1 percent of the nation's young women were attending college; twenty years later the total was still no more than 2.5 percent.⁹¹

Partially obscured by the growth in female enrollments registered between 1860 and 1900 is the extreme caution and hesitancy with which college experiments with coeducation were conducted. Progress tended to be a fitful and halting affair.⁹² At the University of Wisconsin, custom obliged women to stand in the classroom until all male members were seated. Elsewhere, females were kept strictly segregated from males. It followed that women customarily were not allowed to participate in extracurricular activities. Rarely if ever, for example, were women allowed to join musical groups, debating societies, amateur photography clubs, or academic and social honoraries.

Indicative of the seclusion imposed upon women students was the situation reported at the University of Missouri at the opening of the 1868–1869 academic session, when twenty-two women were first admitted as students in the Normal College. President Daniel Read later recounted that at the time, the move was regarded as “a very bold and hazardous measure.” At first, “the ladies” were not permitted to attend chapel services. Male students were barred from the special classes to which the new arrivals were assigned. Women students were prohibited from using the library except during special hours when men were not present. “Finding, however, that the young women . . . did no matter of harm,” the president’s report recalled, “we very cautiously admitted them to some of the recitations and lectures in the University building itself . . . providing always, they were to be marched in good order, with at least two teachers, one in the front and the other in the rear of the column as guards.”

Other innovations followed. “The young women were permitted and invited to come into the chapel,” President Read’s account continued, “and, after the novelty of their presence was worn off, even to join their voices in prayer and praise in the morning worship.” One of the first group of women admitted later wrote of the experience of attending chapel for the first time. “We were formed into a line at the Normal Building, with Prof. Ripley at the head and Mrs. Ripley forming the rear guard,” she recalled. “We passed under the great columns and into the august building, not to be seated, however, on the same floor as the men, but given a place in the gallery above. There, with becoming modesty we sat with downcast eyes—upon the student body below—while the prayers and scripture lessons went on to the edification of our souls.” Before long, University officials had become positively adventuresome: “By degrees, and carefully feeling our way, as though explosive material was all around us,” President Read concluded, “we have come to admit them to all the classes . . . just as young men are admitted.”⁹³

William C. Russell, an academic vice-president at Cornell, was not quite so sanguine. On one occasion he learned “of a lady student calling one young man into the room, shutting the door, kissing him,” he confessed in 1879. The experience, Russell testified, “produced stress which has embittered months of existence.”⁹⁴ But by 1897 the president of Ohio State University, for one, was prepared to acknowledge that all of the dire predictions of calamity when young men and women were instructed together had proven unfounded. Moreover, he detected certain benefits having come from coeducation. “This inter-training and equal training,” he observed, “takes the simper out of the young women and the roughness out of the young men.”⁹⁵

Changes in popular attitudes toward the place of women in academe lagged well behind growing confidence in the practicality of coeducation as an institutional arrangement. An ode to "Tender Delores" in the 1892 student yearbook at the University of California, for example, affords a fitting illustration. No matter how attractive a newly arrived female student might be, the ode warned, if she applied herself too strenuously to her studies, she would make "her pretty little nose very red," her "rosy cheeks would become jaundiced, and her hair thinned." Upon graduation, the only suitable career open to her would be that of the schoolmarm.⁹⁶ The same *Blue and Gold* yearbook contained a farewell address from the seniors to the coeds of 1892: "In your future careers as schoolmistresses, when, after a wearisome day, you push your spectacles upon your brow and dream of the past, think on us, your admirers and brothers."⁹⁷ President Benjamin Wheeler in a 1904 speech warned women students, "You are not like men and you must recognize the fact. . . . You may have the same studies as the men, but you must put them to different use." He emphasized, "You are . . . here for the preparation of marriage and motherhood." If women were diligent in applying themselves, Wheeler promised, the education they gained would make them "more serviceable as wives and mothers."⁹⁸

Marion Talbot, dean of women at Chicago and author of *The Education of Women* (1910) disagreed. She firmly believed that the record of women's academic achievements over the preceding half century had amply demonstrated the folly of restricting higher learning to males alone. Women, she wrote, "have proved their ability to enter every realm of knowledge. They must have the right to do it. No province of the mind should be peculiarly man's. Unhampered by traditions of sex," Talbot predicted, "women will naturally and without comment seek the intellectual goal which they think good and fit. The logical outcome of the present status of women's education will be intellectual freedom on an individual basis."⁹⁹

BLACK COLLEGES

Women's struggle for access to higher education roughly coincided in time with the first stirrings of a movement to expand educational opportunity among blacks. It is recorded that a certain Edward Jones and John Russwurm were the first two African Americans to earn bachelor's degrees from white institutions, each having graduated within weeks of one another from Amherst and Bowdoin, respectively, in 1826.¹⁰⁰ People of color attending college were nevertheless a rarity in the antebellum period, as indicated by the fact that no more than twenty-seven others were listed in the roster of all black graduates prior to the Emancipation Proclamation.¹⁰¹ The first black colleges to come into existence were founded in the North. An Institute for Colored Youth was

were raised and southern white rule was restored, the idea that blacks might be educated, even at nominal public expense, began to receive grudging acquiescence. Southerners on the whole were willing to accede to demands that educational opportunity be extended to blacks, but only so long as it was not viewed as posing a frontal challenge to white supremacy or otherwise encouraging the black to abandon his preordained "place" in the social order.¹⁰⁵ Throughout the debate, it might be observed, white champions of the rights of African Americans, northern and southern alike, often betrayed a certain paternal condescension in their pronouncements about what blacks wanted or needed, but no one could deny them their sincerity or high-mindedness of purpose.

Under Reconstruction and for several decades thereafter, black higher education in the South developed chiefly as the product of work undertaken by northern white benevolent societies, denominational missionary bodies, and private black charitable organizations.¹⁰⁶ Later, corporate philanthropic foundations and wealthy individuals lent support to the establishment and spread of black private colleges. The federal government gave scant aid until late in the century; and support from southern state governments for black normal schools and colleges was similarly limited.¹⁰⁷ The Freedman's Bureau (1862-1872), acting on behalf of the War Department, was the first to take up the work of founding black schools. To its efforts were added those of civic and religious groups who cooperated with the Bureau and then developed special ventures of their own. Among the earliest was the Boston Educational Commission, later known as the New England Freedmen's Aid Society. In the same year of its founding, 1862, the National Freedmen's Relief Commission of Philadelphia and New York was organized. The two groups subsequently formed the United States Commission for Relief of National Freedmen, with headquarters in Washington, D.C. Three years later that consolidated body was replaced by the American Freedmen's Aid Union, which, after two more name changes, ceased operations in 1869. Other agencies engaged in setting up schools included the African Civilization Society and the Baltimore Association for the Moral and Educational Improvement of Negroes (a similar organization was established in Delaware).¹⁰⁸

Church bodies especially active in creating and supporting educational institutions for blacks included the American Missionary Association, the American Baptist Home Mission Society, the Friends Association for Aid to Freedmen, the Board of Freedmen's Missions of the United Presbyterian Church, and the Freedman's Aid Society of the Methodist Episcopal Church. Many former abolitionists assumed leadership roles in the various civic and religious organizations at work establishing schools and colleges, including Henry Ward Beecher, Salmon P. Chase, and Richard S. Rust. Some were

first created by Quakers in Philadelphia in 1842, ancestor to the institution later called Cheyney State College. Avery College in Allegheny City, Pennsylvania, chartered in 1849, was also among the first; followed by the Miner Academy, begun in Washington, D.C., in 1851; and then by Lincoln University (originally the Ashmun Institute), founded by Presbyterians in Pennsylvania in 1854. Wilberforce was established a year or so later by Ohio Methodists who in 1862 transferred the institution's control over to the African Methodist Episcopal Church. Later on, joining the ranks of northern black colleges was Central State University in Ohio, chartered in 1887 as the "Combined Normal and Industrial Department" of Wilberforce. It subsequently seceded in effect from its parent institution and became a four-year school in its own right. Of all the northern black colleges established in the nineteenth century, only four—Lincoln, Wilberforce, Cheyney, and Central State—survived into the twentieth century.¹⁰²

In the South, in the years following General Lee's surrender at Appomattox, popular opposition to the notion that blacks should be educated at all, much less be afforded an opportunity to attend college, died hard. Prevailing opinion held that blacks were inherently inferior to whites, that the obvious differences favoring whites over blacks were innate and unalterable, and hence no good purpose was served by attempting to pretend otherwise. Perhaps not untypical in its expression of such widely held views was a diatribe launched by a Virginian by the name of Bebbet Puryear who, writing in *The Southern Planter and Farmer* under the pseudonym "Civis" in 1877, denounced proposals for any public support of black education whatsoever. Assailing what he characterized as the "hideous doctrine of negro equality," the author explained, "I oppose [education for blacks] because its policy is cruelty in the extreme to the negro himself. It instills in his mind that he is competent to share in the higher walks of life, prompts him to despise those menial pursuits to which his race has been doomed, and invites him to enter into competition with the white man for those tempting prizes that can be won only by a quicker and profounder sagacity, by a greater energy and self-denial, and a higher order of administrative talent than the negro has ever developed."¹⁰³ So far as many unreconstructed southerners were concerned, the prospect that childlike, indolent former slaves reared to be dependent and subservient could be educated as the social equals of whites was not simply wrongheaded and foredoomed to failure—it was ludicrous.

Intransigent opposition gradually abated in the postbellum period, thanks in part to pressure from civil-rights reformers, though strong reservations (in the North no less than in the South) still remained as to the character and extent of the education most appropriate for blacks.¹⁰⁴ In time, even as barriers of caste

prominent business or civic leaders, such as Mathias W. Baldwin, locomotive industrialist; Edward Atkinson, textile manufacturer; and William Claflin, former Governor of Massachusetts. Philanthropic agencies financing black schools through special trusts included the Peabody and Slater Funds, the Jeanes Fund, the Carnegie Fund, and the Rosenwald Fund.¹⁰⁹

Supporters of black schools and colleges shared in common an ardent faith in the power of newly emancipated blacks to move into the mainstream of American society if they were afforded opportunities to do so. Black Americans, they argued, should be free to do and become what they chose, limited only by the strength of their own endeavors. They were perfectly capable of transcending the evil legacy of the past, symbolized by the "peculiar" institution of slavery, and in time, with proper tutelage, it was believed as a matter of deep conviction that they would overcome all remaining barriers to full equality posed by postbellum discrimination and bias. Needed now were colleges where a new generation might be nurtured and inspired to uplift the black masses to their rightful place in the world.¹¹⁰ As the Freedmen's Aid Society was to express it somewhat later, looking back on its efforts, "This society . . . has demonstrated to the South that the freedmen possess good intellectual abilities and are capable of becoming good scholars. Recognizing the brotherhood of mankind and knowing that intellect does not depend upon the color of the skin nor the curl of the hair, we [have] never doubted the Negro's ability to acquire knowledge and distinguish himself by scholarly attainments."¹¹¹

In Alabama, the American Missionary Society sponsored and supported the establishment of what became Talladega College in 1867; Fisk (1866) in Nashville; Tougaloo (1869) in Mississippi; and Straight (later Dillard University). In 1872 a school in Pine Bluff, Arkansas, originally known as the "Branch Normal," became by a legislative act of 1872 the Arkansas Agricultural, Mechanical and Normal College. In Augusta, Georgia, the Augusta Institute was organized in 1867; it later became Morehouse College in Atlanta. The American Baptist Home Mission Society aided in the founding in 1865 of Virginia Union University, Saw University in North Carolina (1865), Benedict College (1871), and likewise helped found Bishop and Morehouse. In Mississippi the state legislature created Alcorn College in 1871. The Freedman's Aid Society of the Methodist Episcopal Church was instrumental in the founding of Shaw University in 1867; Bennett College, Clark University, Claflin College, Meharry Medical College, Morgan College, Philander Smith, Rust, and Wiley; while the Presbyterian Board of Missions for Freedmen set up Barber-Scotia College in North Carolina, and at Charlotte in 1867, Biddle University (later Johnson C. Smith).¹¹²

In Maryland, the Baltimore Conference of the Methodist Episcopal Church established the school later named Morgan State College. Meanwhile, the Congregationalist American Missionary Association, in cooperation with the Freedman's Bureau, played an important role in 1868 in the creation of Howard University and the Hampton Institute. Independent boards of northern missionaries cooperated in the continued support of these two institutions, as well as lending aid to Leland University and Atlanta University. The African Methodist Episcopal Church maintained Allen University, Morris Brown College, and Wilberforce. Other African Methodist Episcopal institutions included Paul Quinn College, Edward Waters, Kittrell, and Shorter College. Still other black schools receiving northern missionary aid came to include Livingstone College, Lane, Paine, Miles Memorial, Arkansas Baptist, Selma University, and the Virginia College and Seminary.¹¹³

All told, possibly as many as two-hundred private and denominational colleges for African Americans were begun throughout the seventies and eighties. Unhappily, the overwhelming majority were actually little more than secondary schools, offering virtually nothing in the way of defensible college-level instruction. Most died out almost immediately for lack of endowments and support. Several, however, gradually developed normal departments for teachers, and some added full-fledged collegiate programs later on. It has been estimated that less than half of the forty or so private black colleges and seventeen public institutions founded in the immediate postwar era were still in existence by the year 1900.

The original intent of most of the founders of black colleges was to provide for their clientele an education indistinguishable from that commonly pursued by whites.¹¹⁴ In the 1860s and 1870s, that presumption meant liberal learning: Latin, Greek, and mathematics, supplemented by science, philosophy, history, astronomy, English composition and literature, and other curricular staples of the New England liberal-arts college. Black leaders concurred that tomorrow's African American clergymen, lawyers, physicians, statesmen and businessmen, no less than their white peers, needed to acquire learning in the academic traditions of the past; and they stoutly resisted suggestions that rudimentary industrial and agricultural training was a more realistic alternative. If black leaders were to be sent forth to regenerate their own people, it was avowed, they required the best and "highest" education possible. White supremacists poked fun at black pretensions and lost no opportunity to invoke images of black sharecroppers dragging pianos into their shacks, of field hands discoursing in Latin, and house servants competing for jobs with unemployed black college graduates. But as President James G. Merrill of Fisk retorted in 1901, when the day arrived that white students who aspired to become teachers,

professors, ministers, and doctors “should learn to hoe and plow and lay bricks rather than go to literary and classical schools,” then, he observed, “it will be the right policy to shut off all our literary and classical schools for negroes in the South.”¹¹⁵

Underlying reformers’ bold rhetoric lay a harsher reality. However vociferously white missionaries and even black leaders themselves defended the wisdom of providing classical learning for a talented black elite, circumstances forced them to admit their efforts were falling woefully short. Lacking a supportive infrastructure of public elementary and secondary schools for blacks throughout the South, African American collegiate enrollments remained minuscule. In the last quarter of the nineteenth century, candor would have compelled even the most vigorous supporters of black higher education to acknowledge how few black institutions, chronically underfunded and impoverished, were true “colleges” in anything but name and aspiration. Most—the overwhelming majority in fact—offered little above secondary-level training, and some were at best engaged in teaching the rudiments of literacy at the elementary level. Only Howard University and Fisk, it was later noted, offered anything remotely approaching the collegiate-level liberal-arts training most black institutions promised but could not deliver. Tuskegee trustee William H. Baldwin, Jr., in 1899 gave voice to the disappointment surrounding missionary colleges. “We began at the wrong end,” he alleged. “Instead of educating the negro in the lines which were open to him, he was educated out of his natural environment and the opportunities which lay immediately about him.”¹¹⁶

Meanwhile, throughout the 1880s, the tendency among industrial philanthropists was to emphasize practical job training over classical learning for blacks. Attracted to an industrial and agricultural orientation or focus, trustees for the Peabody and Slater Funds, for example, were more inclined to lend support to the likes of Hampton Institute and Tuskegee, where utilitarian training was favored, than to liberal-arts colleges. Former Civil War general Samuel C. Armstrong, who headed the Hampton Institute, was persuaded that black youths should “go out and teach and lead their people, first by example, by getting land and homes; to give them not a dollar they could earn for themselves; to teach respect for labor; to replace stupid drudgery with skilled hands; and to these ends to build up an industrial system, for the sake not only of self support and intelligent labor, but also for the sake of character.”¹¹⁷ Black educator Booker T. Washington, who founded Tuskegee in 1881, essentially agreed with Armstrong. Keenly aware of white efforts to keep blacks politically inarticulate and as disenfranchised as they had been in the antebellum period but equally cognizant of black aspirations to achieve full and complete social equality, Washington offered trade training as a compromise.¹¹⁸

In a memorable speech delivered at the Atlanta Cotton States and International Exposition in 1895, Washington professed to sanction racial subordination, terming questions of social equality "extremist folly." If blacks were ever to overcome problems of poverty and ignorance, he concluded, they must begin by supporting utilitarian education for business trades. His advice to black youths everywhere was to educate themselves through "the shop, the field, the skilled hand, habits of thrift, and economy, [and] by way of the industrial school and college."¹¹⁹ Washington's "Atlanta Compromise" mollified critics' fears over black higher education of a more traditional type. But it positively enraged others who opposed Washington's stand as a craven retreat from the principle of education for blacks as equals and as free men in a democracy. Insisting that blacks were entitled to the same rights and privileges as white Americans, New England black educator W. E. B. DuBois of Atlanta University, for one, denounced Washington's stand as an appeasement to racial prejudice and established doctrines of social inequality.¹²⁰

Between 1870 and 1890 nine federal land-grant colleges were established in the South; that total was to increase to sixteen by 1915. Mississippi was the first southern state to allocate federal land-grant monies to a black institution. Virginia became the second the year following. Passage of the second Morrill Act in 1890 gave renewed impetus to the founding of black land-grant colleges.¹²¹ In its original form the legislation had been designed to prevent the expenditure of land-grant funds in any state where "a distinction of race or color" was made. In its final form, the second Morrill Act served as a compromise to a bill that would have required that blacks be admitted to colleges supported under the original 1862 appropriation. The second Act, in its practical effect, offered an alternative to the much-dreaded prospect of racial integration in higher education. It now stipulated only that in those states where separate colleges were maintained, programs were to be of "like character" and funds distributed on a "just and equitable" basis. Thus, monies were now made available on condition that separate land-grant colleges for blacks be established and that funds be divided proportionately among these new institutions and those already established, which, with the exception of Alcorn Agricultural and Mechanical in Mississippi, were restricted to whites.

Several states moved quickly to designate existing black schools as recipients of land-grant funds. They included Alabama, Arkansas, Florida, Kentucky, Louisiana, Maryland, Missouri, Tennessee, and Texas.¹²² New black schools were also created: Georgia Industrial College, the Agricultural and Technical College of North Carolina, and West Virginia State College among them. By 1900 state-supported black colleges had been founded in all of the southern and border states. Unfortunately, a federal governmental

survey at the turn of the century revealed that most black colleges funded with land-grant monies were devoted primarily to general academic purposes and to teacher preparation. Most did not take agricultural and mechanic arts as the "leading object" required under the Morrill Act of 1862. It was further reported that black colleges not infrequently were offering instruction on a "grade as low as the 4th or 5th of the public schools."

In 1896 the U.S. Supreme Court handed down its historic decision in *Plessy v. Ferguson* affirming the constitutionality of the principle of "separate but equal."¹²³ For blacks, separation, not equality, was the reality so far as institutions of higher learning were concerned. With race relations having hardened significantly throughout the disenfranchisement campaigns of the 1890s in the South, no prospects for black entry into southern white colleges existed. By the same token, black institutions could expect to receive no more than the legally minimal level of support required under law for black colleges. Reflecting on the situation as he saw it shortly after the turn of the century, W. E. B. DuBois termed it "a day of cowardice and vacillation; of double-faced dallying with Truth and Right." The need to train leaders for a struggling people, he felt, was as great as ever, but that need was still unmet. His summation, writing in *The Negro Problem* (1903), assumed the shape of a challenge: "Men of America, the problem is plain before you. Here is a race transplanted through the criminal foolishness of your fathers. Whether you like it or not the millions are here, and here they will remain. If you do not lift them up, they will pull you down."¹²⁴ In the opening decade of the twentieth century, however, and for many decades thereafter, there were few signs that America's leadership was prepared to heed the message or to respond to DuBois's challenge.

ELECTIVE CURRICULA

Charles Eliot's famous inaugural address as president of Harvard in October of 1869 brought to the forefront a long-standing controversy within academic circles. In a sense, his remarks served as the opening salvo of a renewed struggle over the collegiate curriculum.¹²⁵ "This university recognizes no real antagonism between literature and science, and consents to no such narrow alternatives as mathematics or classics, science or metaphysics," he declared. "We would have them all, and at their best." Even as the trustee who had introduced Eliot to the podium sat glowering in the audience, the new president pressed his argument. "In education," Eliot asserted, "the individual traits of different minds have not been sufficiently attended to . . . [and] the young man of nineteen or twenty ought to know what he likes best and is most fit for. . . . When the revelation of his own peculiar taste and capacity comes to a young man, let him reverently give it welcome, thank God, and take courage.

Thereafter, he knows his way to happy, enthusiastic work, and, God willing, to usefulness and success."¹²⁶

With these words Eliot threw down a gauntlet before defenders of the old order.¹²⁷ Against traditionalists committed to the notion of a fixed, uniform course of studies required of everyone, Eliot announced that from now on under his regime, students would have more freedom to select from among different classes and courses of study. "The elective system," he alleged, "fosters scholarship, because it gives free play to natural preferences and inborn aptitudes, takes possible enthusiasm for a chosen work, [and] relieves the professor . . . of the presence of a body of students who are compelled to an unwelcome task." As if to dispel any remaining doubts about his intentions, President Eliot concluded, "The college therefore proposes to persevere in its efforts to establish, improve, and extend the elective system."¹²⁸

Conservatives were appalled, branding the principle of curricular choice a "fraud" and a "monstrosity."¹²⁹ James McCosh of Princeton declared in 1885, "I cannot allow that it is an advance in scholarship. It is a bid for popularity." If broadly implemented, he feared, any such plan that encouraged or even permitted students a significant element of choice would lead them, say, to prefer duck-hunting to attending class, to idling about instead of concentrating on serious scholarly endeavors.¹³⁰ President Carey Thomas at Bryn Mawr sarcastically wondered aloud about the extremes to which student choice might lead. "In many colleges everything that is desirable for a human being to learn," she complained, "counts toward the bachelor's degree . . . [including] ladder work in the gymnasium (why not going upstairs?) . . . [or] swimming in the tank (why not one's morning bath?)."¹³¹ In New Haven, Yale's president, Noah Porter, took a position diametrically opposed to Eliot's. Speaking to the question of whether students should be allowed curricular choices, he observed, "Their tastes are either unformed or capricious and prejudiced; if they are decided and strong, they often require correction. The study which is the farthest removed from that which strikes his fancy may be the study which is most needed for the student."¹³²

Andrew F. West of Princeton took issue with the claim that acknowledging individual differences among students necessarily mandated multiple instructional patterns and courses. As he explained in 1886, "Minds resemble and differ from each other just as faces and complexions do. They are all different, but all human. It is nothing but fallacious, then, to argue that . . . colleges may not prescribe that students shall be trained in the great studies which demonstrably cultivate their essential characteristics before the colleges consent to call such minds liberally educated."¹³³

And so the battle between proponents and opponents of the elective system in higher education was joined. Throughout the remainder of the century, the

controversy would rage on, arousing strong passions on both sides.¹³⁴ Fundamentally, what was at stake was not simply a matter of curricular electives. More broadly, the clash was between two irreducibly different conceptions of what a college or university should aspire to become. "Modernists" like Eliot at Harvard and Andrew White at Cornell felt it was both necessary and desirable to encompass a full range of scientific and technical disciplines within a university's offerings, though not necessarily at the expense of the older, more established classical disciplines and humanistic belles-lettres. But to achieve this goal, they realized, it would no longer be possible to require everyone to complete exactly the same curricular regimen. Human knowledge had expanded to the point where no one was capable of comprehending the whole. Disciplinary specialization, to some extent, was therefore both inevitable and better adapted to the modern world. On the other side, "reactionaries"—which is to say, only, those who adhered to the traditional view enunciated in the famous Yale Report of 1828 and who accordingly opposed many late-nineteenth-century innovations—clung firmly to the notion of a single prescribed course of studies for all.

Chief spokesman for the traditional approach was Noah Porter. In his presidential inaugural address of 1871, delivered only two years after Eliot's, he opened with his own broadside. "Especially in matters of education should [higher learning] neither pander to popular prejudices nor take advantage of popular humors," he declared forthrightly. "If there is any sanctuary where well-grounded convictions should find refuge, and where these should be honored, it is in a place devoted to the higher education." Among his "well-grounded convictions," Porter counted the idea that the purpose of formal education was to discipline the mind's mental and moral faculties. Such a purpose could only be achieved, he felt, by prescribing a fixed, four-year course of collegiate study. As he phrased it in *The American Colleges and the American Public* (1878), "The college course is preeminently designed to give power to acquire and to think, rather than to impart special knowledge." Anything else, he believed, was tantamount to intellectual anarchy.¹³⁵

Undergirding Porter's claim, of course, was the venerable theory of faculty psychology and "mental discipline"—that is, the belief that inhering within the vital force called the soul or the mind are specific potentialities or "faculties," such as will, emotion, and intellect. Certain disciplines or subjects, by their very nature, it was held, were uniquely adapted to the exercise and strengthening of mental faculties. Thus, the study of logic and mathematics enhance one's capacity for rigorous analysis; philosophy is intrinsically suited to the development of the mind's powers of rational reflection and critical judgment; rhetoric and dialectic as subjects of study most effectively encourage

eloquence and powers of self-expression or persuasion; and so on. Centuries of experience, adherents of the argument claimed, had demonstrated that certain studies *are* superior to others in fostering mental discipline and development. Just as a muscle is strengthened through proper usage, and the body is nourished through proper diet, so likewise an elastic mind demands appropriate exercise.¹³⁶ As C. B. Hulbert, president of Middlebury College in Vermont, argued in *The Distinctive Idea in Education* (1890), "If you wish to develop physical power, put your physical organs to drill; if you seek to bring your mental powers up to a high degree of efficiency, put them to work, and upon studies that will tax them to the uttermost."¹³⁷

Modern subjects, classicists were convinced, afforded no adequate substitute for the systematic study of Latin and Greek, ancient history and literature, metaphysics, philology, rhetoric, and other elements of the traditional collegiate curriculum. Utterly persuaded that classical studies were still essential in furnishing both the mind's "discipline" and "furniture," officials at Trinity College issued a reminder to students at the opening of the 1885-86 academic session that anyone deficient in the classics should not expect to receive the bachelor of arts degree. William T. Gannaway, a professor of Latin and French at Trinity, further averred that inasmuch as "it is believed that mental training and discipline can best be secured by a patient and thorough study of the Ancient Classics, the use of translations is strictly forbidden." To critics who objected that classical languages and literature bore little connection with the exigencies of modern life, Noah Porter inverted the argument for relevance. "The more urgent is this noisy tumult of life without," he declared, "and the stronger its pressure against the doors of the college, the greater need is there that certain studies which have little relation to life should be attended to." Hulbert's response to the claim that formal learning should be more practical, and less "academic" came with the wry comment, "Even now, in this day of practicality, a little wider sprinkling of theorists, book worms, pedants, even, would do our land no harm."¹³⁸

Academic reactionaries stood for piety and morality as the chief ends to which colleges should devote themselves. An Iowa educator by the name of G. F. Magoun in 1891 spoke for many when he avowed that religiosity should pervade "the tenor, implications, and connections of . . . teaching" in every college classroom, and dominate the "very atmosphere" of the institution as a whole.¹³⁹ W. W. Strong, the president of Carleton College in 1887 weighed in with a comparable sentiment: "The grand aim of every great teacher, from Socrates to Hopkins, has been the building of character."¹⁴⁰ Coupled with the desire to build character and instill morality was the fervent resolve of traditionalists to preserve the paternalistic spirit so long infused in American higher education.

Unnerved by the "benign neglect" of students in their extracurricular activities outside the classroom, and the seemingly desultory fashion in which university officials superintended student life, conservatives argued vigorously on behalf of the pattern of minute student surveillance and regulation of conduct typical of the past. As the faculty at Princeton explained in a resolution adopted in 1885, "To hold the student to minute fidelity in little things is an enforcement of one of the most significant maxims of the Gospel." (Possibly the ultimate in attempted student supervision was contained in a proviso of the same Princeton faculty resolution: "That should any students continue to have their washing done in town as heretofore, it must be done under the supervision of the College Office.")¹⁴¹

On the matter of curricular choice, no matter how earnest and sincere were the arguments put forth by academic conservatives, they were finding it increasingly difficult to persuade others to their cause. C. B. Dabney, president of the University of Tennessee, writing in *The Old College and the New* (1896), ventured what was fast becoming the majority opinion: "The harmonious and equitable evolution of man does not mean that every man must be educated just like his fellow," he claimed. "The harmony is within each individual. That community is most highly educated in which each individual has attained the maximum of his possibilities in the direction of his peculiar talents and opportunities. This produces not a Procrustean sameness, but an infinite diversity in purpose and potentiality."¹⁴² Thomas Walsh, president of Notre Dame, offered a more pragmatic perspective in conceding that students and their parents, after all, possessed a certain right to determine what course of studies would be followed.¹⁴³ In 1893 the president of Illinois College remarked that so far as he was concerned, "the object of elective studies is not so much to permit a student to choose those branches which bear upon his future work as to enable him to select such as will interest him and thus lead his mind to act with greatest vigor."¹⁴⁴ Many were impressed by the argument that electives were necessary in an era when more and more students were appearing on campuses neither highly motivated to study nor certain of their eventual career plans.

Nicely summing up the crux of the debate was an observation offered by the president of DePauw in 1890. "The Old Education," he explained, "ascribed the virtue to the subject, the New Education ascribes it to the process. If the virtue be chiefly in the process rather than in the subject, then, within proper limits, and under proper advice, the choice of that subject should depend largely on the tastes and probable future vocation of the student."¹⁴⁵ Moreover, as though to seal the argument, there were already indications the fledgling discipline of experimental psychology would yield scant support for a belief in

discrete mental faculties or, for that matter, the entire doctrine of mental discipline and transfer of training.

Rebuffed in their attempts to retain a fixed curriculum, their insistence upon strict discipline challenged on all sides, conservative proponents of mental discipline were thrown into retreat. In the South, despite some enrollment losses, the enforced study of classics, together with traditions stressing the importance of piety, character, and morality, hung on the longest. Elsewhere traditional orthodoxy continued to prevail only in a diminishing number of private sectarian schools and liberal-arts colleges. The larger state universities of the Midwest and West were the most enthusiastic in embracing the principle of electives, followed by large universities with private endowments. Least receptive were the colleges of New England. In those collegiate centers where the elective principle won acceptance, expanded choice led step by step over time to the practice of instituting academic "majors" and "minor" study concentrations, the development of academic departments devoted exclusively to one or another specific discipline, and a marked specialization of scholarship within academe.¹⁴⁶ By the 1890s Wisconsin and Michigan ranked among the few major institutions that still maintained required freshman and sophomore courses. By 1896 Cornell was allowing an almost totally unrestricted system of electives. The next year even Yale, then Wisconsin, permitted unlimited electives after a student's first year.

Meanwhile, as required courses were dropped and elective courses of study became even more directly tied to occupational interests, the idea of acquaintance with a fixed body of knowledge, classical or otherwise, as the mark of an educated person began to disappear. Still left unanswered was the old question as to whether all subjects of study should be weighted equal in value—bookkeeping no less than physics; civil engineering together with Greek poetry; theology and accountancy; domestic economics and metaphysics. Increasingly, the tacit presumption was that no one discipline or field of study could be said to be more or less important than any other within academe. Each was entitled to its place. And if all careers were equal, it was incumbent upon the university to offer preparatory training for future teachers, journalists, musicians, pharmacists, and machinists, admitting each on an equal basis with students of law, medicine, or theology. David Starr Jordan, writing in *The Voice of the Scholar* (1889) made the argument explicit. "It is not for the university to decide on the relative merits of knowledge," he asserted. "Each man makes his own market, controlled by his own standards. It is for the university to see [only] that all standards are honest, that all work is genuine."¹⁴⁷ The age of radical curricular egalitarianism was at hand.

GRADUATE PROFESSIONAL STUDIES: THE ALLURE OF THE GERMANIC IDEAL

Throughout the last third of the nineteenth century, considerable confusion still surrounded the question of what distinguished an authentic "university" from a "college." Notwithstanding, a broad consensus of opinion was beginning to form. A university attracted larger student enrollments. It offered a broader array of subjects and more specialized courses of study than the typical collegiate institution. Its orientation was more professional, more utilitarian, more closely tied to matters of occupational preparation than that of a liberal-arts college.¹⁴⁸ Further, a true university offered post-baccalaureate or graduate instruction. And most importantly, whereas teaching had always been the primary, if not exclusive role of a college, in a university—or so many argued—the focus now was to be upon disinterested scholarship and research.¹⁴⁹

Heretofore systematic post-baccalaureate study had rarely been offered—a state of affairs prompting more than a few foreign observers throughout the 1800s to conclude that American colleges more nearly resembled preparatory *gymnasias* than true centers of higher learning in their own right. At Harvard, for instance, the *master artium* had long been conferred "in course" to a student in residence three years after receiving the bachelor's degree. Because no formal program of study was required, it was said of the master's degree that anyone could qualify for it upon payment of a five-dollar graduation fee, provided only that the student could prove he had managed to stay out of jail in the interim. As for the doctorate, it was not until 1860 that Yale became the first to offer an earned Ph.D. degree upon a student's successful completion of a prescribed course of study in its Department of Philosophy and the Arts. Previously, and for some time thereafter, the doctoral degree tended to be a purely honorary designation, awarded in those special cases where it seemed expedient or advantageous for an institution to do so. By 1876, however, some two dozen or so other institutions had begun conferring doctorates, forty-four in all; and by 1918 there were over five hundred being awarded annually.¹⁵⁰ Increasingly, in stark contrast with the past, possession of a bona fide earned doctorate was a prerequisite for university employment as a faculty member.

What had changed was the rise to administrative power of men such as G. Stanley Hall, William Watts Folwell, James B. Angell, Andrew White, Daniel Gilman, and Charles W. Eliot, among many others, all of whom had first-hand experience with German universities. Most who returned after studying or visiting Heidelberg, Berlin, Tübingen, or Leipzig had come back with glowing reports of great academic institutions in Germany where specialized graduate

seminars and lectures were offered in abundance to advanced students, and in an astonishing variety of specialized disciplines. American observers were quick to extoll the virtues of universities where such great academic celebrities as Leopold von Ranke, Hermann von Helmholtz, and Wilhelm Wundt were engaged in "pure" research wholly unconstrained by narrow utilitarian considerations.¹⁵¹ With considerable understatement, G. Stanley Hall, writing in 1879, observed, "The influence of German modes of thought in America is very great and is probably increasing."¹⁵²

Especially impressive to American observers was the Germanic emphasis upon the disinterested pursuit of truth through original scholarly investigation. German academic traditions, it was noted, were based on two fundamental ideas. The first, *Lernfreiheit*, or "freedom to learn," meant university students were allowed to choose whatever courses they preferred, with no formal attendance requirements or tests whatsoever, preliminary to their applying for a final degree examination. The second, *Lehrfreiheit*, or "freedom to teach," signified the scholar's right to pursue his investigations wherever they might lead, to draw from his research whatever conclusions were warranted, and to disseminate the results through teaching or publication without hindrance or interference from external authorities.¹⁵³

Writing in the 1870s, President Frederick A. P. Barnard of Columbia University challenged American institutions of higher learning to provide "the attractions which are so abundantly offered in foreign lands." What was needed, he declared, was the development of true universities in America, places with adequate facilities for professional training and advanced graduate training in all of the arts and sciences.¹⁵⁴ Barnard's challenge was met in several ways. In some instances, the response was to establish separate, independent graduate institutions, as was the case with Johns Hopkins University, Clark University, and the University of Chicago. Elsewhere, a German-style university structure—designed to emphasize scholarly research and advanced preparation for the learned professions—was superimposed upon an existing English-type undergraduate college—which stressed more disinterested liberal learning—as occurred at Harvard, Princeton and Yale.

The first approach was best illustrated by the founding of Johns Hopkins University in Baltimore, Maryland, under the leadership of Daniel Gilman. In his inaugural address of 1876, Gilman announced that scholarly research would be the "guide and inspirer of fellows and pupils" in the university, just as it was reportedly in German schools of higher learning. Johns Hopkins henceforth would make "the acquisition, conservation, refinement and distribution of knowledge" its main goal. The president's hope, as he expressed it, was that the university as an institution dedicated to both pure and applied

research would fulfill an important obligation to society, and that the results would make “for less misery among the poor, less ignorance in schools, less bigotry in the temple, less suffering in the hospital, less fraud in business, less folly in politics.”¹⁵⁵ Writing in *The Benefits Which Society Derives from Universities* (1885), Gilman renewed his commitment to safeguard traditions of academic freedom. “It is the universities which edit, interpret, translate and reiterate the acquisitions of former generations, both of literature and science,” he claimed. “Their revelation of error is sometimes welcomed but it is generally opposed; nevertheless the process goes on, indifferent to plaudits or reproaches.” He then went on to point out that such “wonderful inventions” as the telegraph, the telephone, photography, the steam locomotive, and electric lighting had been “the direct fruits of universities studies,” that they were “the creation not of industrial fabrics, not of mercantile corporations, not even of private enterprise, but of universities and . . . the motive which inspired their founders and directors was not the acquisition of wealth, but the ascertainment of fundamental law.”¹⁵⁶

Gilman’s aim from the outset was to attract the best faculty and students possible. Student fellowships were offered to “men of mark, who show that they are likely to advance the sciences they profess.” Chairs in mathematics, modern languages, ethics, mathematics, history, and the sciences were incorporated into a single undergraduate department, to which were subsequently added specialized graduate and professional courses. By the time Gilman resigned from the presidency in 1901, Johns Hopkins had achieved enormous influence and prestige.¹⁵⁷ Included among the ranks of its faculty were some of the country’s most distinguished scholars; there were thirteen different academic departments organized for advanced work; and the school’s medical school was fast attaining world-class status. Interestingly, perhaps imitating European precedent, Gilman made little effort to encourage any major investment in capital expenditures such as buildings. So unassuming was the university’s outward appearance in its early days that passersby were apt not to notice it at all. Locals, it was said, sometimes mistook Johns Hopkins for a nearby piano factory.¹⁵⁸

Many institutions aspiring to become major research centers looked to Johns Hopkins as a model, including Harvard, Columbia, Chicago, Clark, Catholic University, Michigan, Nebraska, Kansas, and Vanderbilt. Harvard’s Charles Eliot frankly acknowledged the indebtedness in one of his later public addresses. “I want to testify,” he said, “that the Graduate School of Harvard University, started feebly in 1870 and 1871, did not thrive, until the example of Johns Hopkins forced our faculty to put their strength into the development of our instruction for graduates.” And what was true of Harvard, he added,

“was true of every other university in the land which aspired to create an advanced school of arts and sciences.”¹⁵⁹

When William Rainey Harper opened the University of Chicago in 1892, he made it abundantly clear that the new institution's focus would be upon scholarship and research. “It is proposed in this institution,” he announced, “to make the work of investigation primary, the work of giving instruction secondary.”¹⁶⁰ G. Stanley Hall, as the first president of Clark University in Worcester, Massachusetts, which opened in 1889, made the case even stronger with his assertion that the university “should be financially and morally able to disregard practical application as well as numbers of students . . . and the increase of knowledge and its diffusion among the few should be its ideal.”¹⁶¹ Faculty, Hall claimed, should be “absorbed in and living only for pure science and high scholarship.” Bishop John J. Keane of Catholic University had studied Gilman's example at close hand; he too was determined that advanced graduate instruction and scholarship would be paramount.¹⁶² At Vanderbilt in 1875, Andrew Lipscomb announced his allegiance to the university ideal, particularly its commitment to freedom of scholarly inquiry and curricular comprehensiveness. “The University,” he stressed, “is bound to recognize every department of true thought, every branch of human knowledge, every mode of thorough culture. . . . What is best in the University is the catholicity of its views. . . . It must have an open-minded hospitality to all truth and must draw men together in the unity of a scholarly temper.”¹⁶³

Writing in 1904, a geologist at the University of Michigan by the name of Israel C. Russell reiterated much the same theme, but with the emphasis upon active inquiry. Research, he argued, was “the highest function of the university, not only because it encourages her best students to strive to attain the higher walks of intellectual life, but because in the process of discovering the man or woman of exceptional ability, all her sons and daughters are encouraged to advance to the highest plane their mental endowments permit them to reach.”¹⁶⁴

The reorganization of an older liberal-arts college into a university proceeded more unevenly. In 1877 President James McCosh of Princeton took the first steps to create a graduate department at his institution.¹⁶⁵ By 1900, thanks to powerful faculty pressure, a full-fledged graduate school had been created. At Yale, until the retirement of Noah Porter in 1886, little headway was registered in establishing specialized graduate courses of study. Shortly thereafter, however, graduate and professional instruction began to flourish and expand. In other parts of the country, the attempt to import Germanic ideals of research, scholarship, and specialized graduate study fared less well. At the University of Arkansas in 1884, for example, the institution's president

complained that two faculty members newly arrived from the University of Virginia had brought with them two extremely harmful tendencies: lack of concern for supervising students outside the classroom and excessive devotion to high standards of scholarship.¹⁶⁶

THE WISCONSIN IDEA

The metamorphosis of the American college into the university as a predominant model in American higher education was marked by several highly visible changes: the introduction of electives and a greater element of undergraduate curricular choice; marked reluctance on the part of a growing number of schools to serve *in loco parentis*, that is, as parental surrogates for students; the addition of undergraduate and graduate preparatory training for careers formerly excluded from academe; the emergence of large graduate institutions whose professed loyalties were to pure research and *Wissenschaft*, or investigation and writing in the broadest sense (as distinct from the diffusion of knowledge through teaching); allegiance to academic freedom; and increasingly specialized scholarship, together with the institutional reorganization of faculties within separate, discipline-based academic departments. On the eve of the progressive era there appeared another theme: that of social service. It was an idea to which academic leaders were to return time and time again. One of its earliest manifestations had been the rural land-grant commitment to extension work, to the offering of short courses for agriculturalists and the development of experimental farms. By the late 1880s, universities were being urged—and were encouraging themselves—to address themselves to a much broader array of societal issues and problems.¹⁶⁷

The university service ideal coincided nicely with the first stirrings of progressivist reform. In the waning years of the nineteenth century, many Americans had grown alarmed over the vast concentrations of power, wealth, and privilege that unregulated laissez-faire capitalism had seemingly encouraged. Special interests, reformers believed, now posed a major threat to democratic ideals, especially to the principle of equality of opportunity. Monopolies and trusts were chiefly responsible for rampant political corruption, for the political machine, for the spread of urban slums and the shameless exploitation of immigrant labor. The cure for the nation's ills, progressives announced, was still more democracy: the preferential party primary, universal suffrage, the secret ballot, the initiative, and the referendum. Tighter legislative control over working conditions and better regulation of industries were called for. Improved schools, honesty in government, more social responsibility in the commercial sphere, a reversal of declining standards of public and private morality were all important elements comprising the

progressive agenda. In the battle for renewal and reform, academic institutions were called upon to play their part.

Nowhere else perhaps did the spirit of social service find more complete expression toward the close of the 1800s than at the University of Wisconsin. The so-called "Wisconsin Idea," which was widely imitated by other universities, was to engage the institution's resources and energies directly in the search for solutions to public problems.¹⁶⁸ Wisconsin's fifth president, John Bascom, in his baccalaureate address of 1877 lamented what he characterized as the "rambling, halting voluntarism" upon which society appeared to depend for social and moral reform. Improvements would come, he predicted, only when all of society's institutions worked in concert, mounting together a systematic attack upon the nation's ills. The University of Wisconsin, he pledged, would contribute to the work of societal advancement by encouraging a more organic connection between its activities and community needs. Invigorated extension programs, the start-up of popular agricultural short courses, the development of expanded research projects devoted to solving specific problems plaguing the state's dairy industry, and a broadening of training programs in the physical and social sciences were only some of the initiatives launched. With the appointment of Richard T. Ely in 1892 as director of the newly established School of Economics, Political Science, and History, Wisconsin took the lead in preparing its students for posts in the state's civil administrative apparatus and in providing faculty advisory service to governmental leaders.¹⁶⁹

Other states took up the call.¹⁷⁰ At Michigan, President Angell remarked how the old-time college had been little more than a "home of useless and harmless recluses" far removed and well isolated from the community at large.¹⁷¹ Now, he said, the challenge of the modern age was to bring higher learning into the mainstream of social life, to extend the benefits of applied scholarship and research to the real needs of the people, to enshrine the ideal of public service as the organizing center of academic life. President Edmund J. James of Illinois in 1905 envisioned the state's university as "a great civil service academy, preparing the young men and women of the state for the civil service of the state, the county, the municipality, and the township."¹⁷² Inspired by the progressive vision of social renewal, students at Harvard, Northwestern, Michigan, Chicago, and Butler in Indianapolis fanned out into the cities, descending upon urban tenement slums to assist with programs of hygiene, dietetics, and improved child care. Similar reformist measures in other cities across the country were signs that the notion of universities fulfilling their destiny as instruments of social service was gaining widespread acceptance and approval.

GRIDIRON LOYALTIES

Late-nineteenth-century reminiscences of collegiate life unquestionably idealized the college of an earlier day. Featured prominently in popular remembrances of college life was the image of yesteryear's professor. He might be recalled as a colorful eccentric, or perhaps as a stern and remote classroom tyrant. For some, he was a kindly, benevolent father-figure. However one's years spent at college were remembered, they tended to invoke nostalgic memories of friendships past, of dealings with one's former professors, and faded recollections of the academic trials and tribulations the alumnus had once experienced. The incorporation of football as yet another defining feature of the university transformed the nature of the loyalty and sense of institutional affiliation retained by alumni long after graduation. In effect, the growth of intercollegiate athletics generally (and of football in particular) at once increased public interest in, and support for, institutions of higher learning. But the basis of that sense of kinship and allegiance had less and less to do with academics, and more to do with an institution's ability to field a winning team.¹⁷³

Historically, athletic activities had neither received much attention from college officials nor had any great significance been assigned to them. Ball games of one sort or another had always exerted an appeal among college students, going back at least as far as the 900s in medieval England, when it was customary for young men seeking sport to kick a skull or cow's bladder around an open pasture.¹⁷⁴ But apart from injunctions to their charges not to overexert themselves or criticism that sports were unbecoming for gentlemen, academic authorities tended to ignore students' improvised athletic contests. So far as can be determined, intercollegiate competitions were not held in the United States until the 1850s, when boat racing briefly gained a measure of popularity.¹⁷⁵ During the Civil War, baseball was in vogue, followed by an upsurge of interest in track and field events.¹⁷⁶ In 1869 the first organized football game was held between students from Rutgers and Princeton. It was reportedly an extremely informal and impromptu affair played by rules loosely adapted from soccer. Nevertheless, it presaged a demand for many more games like it in the years ahead. Few innovations so captured colleges and universities. Within an astonishingly short period, college students had popularized a running version of football which in its essentials closely resembled that of English rugby.¹⁷⁷ Students at first paid their own way to visit a rival college for a match. The equipment required was exceedingly simple. All games were organized by the undergraduates themselves. When President Andrew White of Cornell was approached by collegians in 1873 with a request that the school help defray their travel expenses for a game, he firmly declined, explaining he was unprepared to underwrite the cost of having students "agitate a bag of wind."¹⁷⁸

Eight years later, in 1881, a team from Michigan ventured east to play Harvard, Princeton, and Yale within the span of a single week.¹⁷⁹ Football matches soon became a regular weekend diversion at scores of colleges and universities throughout the country. The game continued to prosper as the public began to take note and crowds of alumni from competing schools took to returning to their respective alma maters to cheer the home team. New York City in 1883 was caught up in the throes of excitement surrounding what by now had evolved into an annual Thanksgiving game between Yale and Princeton. Hotels were thronged with visitors. On Fifth Avenue, the stately mansions of the Whitneys and Vanderbilts were gaily decorated with gigantic blue and white banners. The Sloans, the Alexanders, and the Scribners, on their side, proudly put up Princeton's colors. Local pastors cut short their sermons in order to get to the game on time, much to the relief of their sports-minded congregations. Newspaper reporters descended in droves to report the outcome for an avid public. Unquestionably, the age of big-time football had arrived.¹⁸⁰

The lesson was not lost upon university administrators. Aware that football offered valuable publicity and that alumni and the public alike often seemed to care more about athletic victories than academics, officials responded with alacrity in lending their support.¹⁸¹ President Eliot of Harvard in 1892 already was bemoaning as "repulsive" what he termed "foolish and pernicious expenditures on sports"—but to no avail.¹⁸² President Harry Garfield of Williams warned in 1908, "Here, as generally in American colleges, there is grave danger of departure from the essential idea of a college as distinguished from an institute of physical culture."¹⁸³ Few were listening. If parsimonious state legislatures were willing to open the public treasury to support athletic contests, academic leaders concluded, why dissuade them? Besides, as many argued (with great fervor and scant evidence), playing football built character; it prepared young men for success in the rough-and-tumble world of business; it instilled determination, cunning, and team spirit. Tomorrow's leaders in government, business and the professions were being honed on today's gridirons.¹⁸⁴ Football was good for democracy; as President Hadley of Yale reported, the game had seized "hold of the emotions of the student body in such a way as to make class distinctions relatively unimportant" and had made "the students get together in the old-fashioned democratic way."¹⁸⁵

Here was something connected with higher education that people cared about passionately: not academics, but athletics. Football games inspired the most enthusiasm from potential donors; they kept alumni in touch with their schools; they brought public support and visibility. All the while, refinements were being introduced, the most important of which was the provision made

for the forward pass. Individually numbered shirts personalized the game and further added to its excitement by allowing spectators to better keep track of individual players. A special mystique began to surround the campus football hero. In over four hundred paperback novels and no less than 986 consecutive installments in the *Tip-Top Weekly* between 1896 and 1915, for example, football enthusiasts thrilled to the exploits (on and off the field) of the fictional "Frank Merriwell of Yale." From its lowly beginnings as simple diversion, the football contest thus came to be elevated to the lofty status of a symbol for success, achievement, and gentlemanly masculinity. Ironically, institutions of higher learning had become genuinely "popular," but not because of the academic endeavors that purportedly represented their very *raison d'être*. On the contrary, and to an extent some were unwilling to acknowledge, popular support for higher education drew its strength from the entertainment value of activities formerly consigned to academe's outermost periphery.

MISGIVINGS AND DEMURRALS

Developing universities of the late 1800s revealed a passion for growth, an appetite for almost unlimited expansion. It was a phenomenon that did not go unnoticed by those already deeply troubled over the course and direction of American higher education. The professorate itself was changing. Growing specialization of scholarship meant the virtual disappearance of the master-of-all-disciplines, the traditional polymath who could be relied upon to teach many different subjects and teach them well. In his place surfaced the expert schooled in a single discipline, or more characteristically, a minuscule subspecialty thereof. His command of a subject was apt to be more thorough and more systematic perhaps, but depth of scholarship, so far as critics were concerned, had been purchased at the price of a certain parochialism, a decided narrowing of intellectual outlook or perspective.¹⁸⁶ For the catholicity of interest that supposedly had been characteristic of the old-time college, the sense of acquaintance with a common body of knowledge and ideals shared by all, had been substituted a discordant array of specialists, each bent on refining and extending his own disciplinary interests.¹⁸⁷ Dean Andrew West of Princeton said it best in 1906 when he warned, "Many of our scholars seem to be subjects of some petty principality rather than free men in the commonwealth of knowledge."¹⁸⁸

During the same period, many universities began experimenting with elaborate hierarchical systems of academic rank, starting at the bottom with instructors, and ascending to assistant professors, then associate professors, and, finally, full professors.¹⁸⁹ At the University of Chicago under President Harper distinctions among faculty members were drawn out even further.

Readers, lecturers, docents, assistants, associates, instructors, and assistant professors all were classifications denoting those with temporary or short-term appointments.¹⁹⁰ Above them were associate professors, followed by professors, then head professors, who were to enjoy indefinite tenure in permanent appointments. To this "vertical" arrangement of rankings was added the "horizontal" dimension of departmentalization. As an administrative expedient for organizing an otherwise unwieldy number of academic specialists within a single governance framework, the institution of an academic department was both necessary and probably inevitable. But as experience made abundantly obvious, the proliferation of quasi-independent bureaucratic structures tended to divide an already-fragmented academic community. Their chief effect, it seemed to many observers, was to release petty jealousies, to foster competition for favor and resources, to increase the importance of attention to public relations, and to set in motion an unseemly scrambling for students among rival satrapies. "Turf" battles and "empire-building" became the norm, not the exception.

Specialized scholarship had still other consequences, among them a proliferation of learned societies, each with its own professional and academic journal. Additionally, to those drawn into academe for the opportunities it afforded to conduct research, teaching was now coming to be regarded more and more as something of an irritating distraction. The new specialists in their own way tended to be as reclusive and inaccessible as the pedants of an earlier day. More than a few, at any rate, locked off in their laboratories and libraries, made no secret of the fact that if they had to teach at all, they preferred tutoring advanced graduate students in their respective specialties. Any obligation to teach young, immature undergraduates was to be fervently avoided if at all possible.

Cornell President Jacob Schurman was among the first to comment on what was happening. As he remarked with some understatement in 1906, "It must, I think, be admitted that most university teachers . . . have chosen their profession not so much from the love of teaching as from the desire to continue the study of their specialty. While the number of those who have a positive distaste for teaching is small, there are many whose interest in teaching is secondary to their interest in investigation."¹⁹¹ In institutions where greatest importance was assigned to research, the situation could only worsen in years to come. Neglect of teaching and the "publish or perish" syndrome that would plague higher education throughout the next century were already manifest in many universities. A bitter complaint from one college graduate in the 1890s was typical in describing the new breed of professors as "self-deceiving dreamers who solace themselves with the idea that they are doing for the world a service by their books, while their class work goes unheeded."

For better or worse, older traditions were dying out in larger universities (if not always in smaller colleges). Preoccupied with their research and writing, professors balked at taking class attendance, at sharing responsibility for monitoring student conduct outside the classroom, or otherwise helping to sustain the old paternalistic system of student supervision. In a very real sense, the attitude of turn-of-the-century professors toward students was more consistent with that of their German colleagues and, more generally, with long-standing European traditions of indifference to students' discipline or welfare outside the prescribed limits of the academic sphere. By the same token, the primary loyalty of a professor was more likely to be to a discipline and to a set of professional standards than to an institution.¹⁹² Academic itinerants took full advantage of the situation, selling their services to the highest bidder, by and large indifferent to the particular institution in which they were, presumably, only temporarily employed.

At a more basic or fundamental level, according to certain critics, the real crisis in higher education that had been prompted by the growth of the university ideal was one of blurred or ambiguous purpose. From a practical viewpoint, grafting the Germanic university research pattern onto the English collegiate structure made sense because it allowed undergraduate programs to serve as "feeders" to more advanced, specialized professional programs offered at the graduate level. Even so research-oriented an institution as Johns Hopkins, after all, had found it impossible to dispense with undergraduate education entirely. But which was more important, some asked, teaching or research, undergraduate education or professional graduate training? Was it truly the case, as piously alleged from some quarters, that scholarly research enlivened and enriched teaching? Or did the two activities bear little connection with one another? To what extent did undergraduates in beginning courses benefit from the specialized research in which their professors were engaged, research whose results and significance oftentimes were comprehensible only to other advanced specialists within a given discipline? And where was the emphasis in higher learning to be placed, upon professional training, or upon the cultivation and development of the individual learner in his or her complexity as a full human being?

Charles Eliot Norton of Harvard in 1895 offered one view. "The highest end of the highest education," he declared, "is not anything which can be directly taught, but is the consummation of all studies. It is the final result of intellectual culture in the development of the breadth, serenity, and solidity of mind, and in the attainment of that complete self-possession which finds expression in character." Charles F. Thwing of Western Reserve weighed in with a supporting comment: "If I were a student," he offered, "I would seek less for

knowledge and more for the significance of knowledge. I would care less to be a scholar and more to be a thinker." Yet another characteristic expression of the same perspective was forthcoming from Robert MacDougall, a professor of psychology at New York University in 1904, who asserted that "breadth of knowledge and catholicity of sympathy" were outcomes of a liberal education whose importance should not be underestimated or ignored. Students should be encouraged to acquire "discernment and rationality of judgment," he believed; they should become "sensitive to intellectual sincerity and consistency"; and come to possess "an appreciative acquaintance with . . . permanent expressions of human thought" at its best, in all of its varied manifestations. Knowledge of the achievements of generations past, a certain developing breadth of character, and a "lively sympathy with the true, the good and the beautiful," as W. A. Merrill of Miami University described them, were all educational aims still worth pursuing.¹⁹³

More limited in scope than universities, less able to compete for the resources required to mount the elaborate professional preparatory programs of larger institutions, private colleges groped for an independent mission of their own. If the preoccupations of public and private universities were with research and professional training, many college leaders decided, for their part they would take on an altogether different task. Smaller enrollments could be converted into a strategic advantage, allowing colleges to offer the individualized attention to students now increasingly denied them in an impersonal university environment. Situated, as many of them were, away from the distractions of the city, colleges would dedicate themselves anew to providing an intimate, supportive academic climate where morality and good character might be nurtured to best advantage. Above all, colleges would become places where "liberal culture" would be enshrined as the basis of collegiate study. William DeWitt Hyde of Bowdoin College in 1904 most clearly expressed the new ideal: "The function of the college is liberal education," he announced. "[It is directed to] the opening of the mind to the great departments of human interest; the opening of the heart to the great spiritual motives of unselfishness and social service; the opening of the will to opportunity for wise and righteous self-control."¹⁹⁴

Equally eloquent in its reaffirmation of the humanistic perspective in higher education was a ringing declaration offered by Alexander Meiklejohn of Brown in 1908. "The American college," he affirmed, "is not primarily to teach the forms of living, not primarily to give practice in the art of living, but rather to broaden and deepen . . . insight into life itself, to open up the riches of human experience, of literature, of nature, of art, of religion, of philosophy, of human relations, social, economic, political, to arouse an understanding and

appreciation of these, so that life may be fuller and richer in content; in a word, the primary function of the American college is the arousing of interests."¹⁹⁵ But whether some such noble goal would suffice, whether "the arousing of interests" could be sustained as a viable and self-sufficient aim in academe, whether liberal-arts colleges could compete and survive in the shadow of university behemoths—in the opening years of the twentieth century the answers to such questions still remained unclear.