

Life and Learning in the United States

It shall be the duty of the General Assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in a regular gradation from township schools to state university, wherein tuition shall be gratis, and equally open to all.

INDIANA STATE CONSTITUTION, 1816

I HAVE often wondered what the United States would be like if it had been first settled at another time and by other people—if it had been settled, say, in the thirteenth century, the eastern seaboard by the Norman French, the western by the Chinese, with the two frontiers subsequently meeting on a line running roughly from New Orleans to Minneapolis through Kansas City and Omaha. It's an intriguing thought. Unfortunately, we must be resigned to the prosaic fact that the settlements of greatest importance for the future history of the United States were made chiefly by Englishmen, and in the seventeenth century.

Whether the institutions of the United States were inherited from Europe or newly devised to meet the novel conditions of the American wilderness is much disputed. I cannot decide that dispute; but certainly the first settlers had acquired in England certain ideas about politics, morality, and religion that must have had a decisive influence in determining the original form of the institutions they established in Virginia and New England and elsewhere. Among the ideas thus brought to America were the ideas then prevailing in England about schools and universities. In this respect the seventeenth century might be thought a bad time for the United States to begin its institutional career. At

Cornell University: Founders and the Founding

almost no other time, certainly not in the thirteenth century, could the first settlers have brought to these shores a set of ideas more restricted or less promising for the promotion of learning in the new world.

In seventeenth-century England, as in Europe generally, the prevailing idea was that schools and universities should teach nothing that would discredit the established religion or the authority of kings and magistrates. There were, it is true, some voices raised in protest. Francis Bacon protested, and with good effect, against an arid scholasticism and a slavish worship of ancient writers. Milton complained that professors "take from young men the use of reason by charms compounded of metaphysics, miracles and absurd scriptures"; the result of which was that at Cambridge he had misspent his own youth trying to digest "an asinine feast of sow-thistles and brambles." John Hall, himself a teacher at Cambridge, maintained that the advancement of learning was thwarted by incompetent teachers teaching out-moded subjects. But such voices were for the most part unheeded, and what they said was scarcely understood. Even Leibnitz opposed academic freedom, and Hobbes thought the chief use of universities was to teach subjects their duty to the king. So much was this the prevailing idea that even Hartlib, friend of Milton and Comenius, and himself a reformer, held it without being aware that he did so. "The readiest way," he said, "to reform church and commonwealth is to reform the schools therein."¹ * No doubt; but he differed from Hobbes only in his conclusion. The premise of both was the same; namely, that teaching and learning, so far from being free, should be subordinated to political ends.

This totalitarian conception of schools and universities was brought to the new world by the first settlers. The unexamined assumption that made it acceptable to them was that learning is

* The author's notes, numbered consecutively throughout each of the six Lectures, are all assembled at the end of the book (References and Notes, p. 219).

Life and Learning in the United States

essentially dangerous; and they were aware that, so far as schools and universities were concerned, the danger could be met in one of two ways, either by not having any schools or by preventing them from teaching any but familiar and accepted ideas. William Berkeley, Governor of Virginia, preferred the first way. "Thank God there are no free schools nor printing, and I hope we shall not have these hundred years; for learning has brought disobedience and heresy . . . into the world, and printing has divulged them. . . . God keep us from both." ² But generally speaking, in Virginia as well as in the other colonies, the first settlers, being either less pessimistic or more courageous than Governor Berkeley, preferred the second way. They believed that the danger inherent in learning could best be met by schools teaching, under proper control, the right things—the mechanic arts, the learned tongues, and Christian philosophy.

Schools in this sense were perhaps more necessary in New England than elsewhere, because there the first settlers came with the deliberate intention of establishing, as Winthrop said, "a due form of government both civil and ecclesiastical." What this due form of government was, the leaders knew with great certainty, and they took care accordingly that their followers should be like-minded men—the "sifted wheat" for the new planting. Yet in spite of every precaution unlike-minded men were found among them. "Many untoward servants," says William Bradford, "were brought over"; parents in England were glad to be rid of children that "would necessarily follow their dissolute courses"; ship masters, making a business of transporting settlers, "to advance their profit, cared not who the persons were, so they had money to pay them"; and so, the kindly governor ends on a plaintive note, "the country became pestered with many unworthy persons, who, being come over, crept into one place or other." ³ Besides, even like-minded men were apt to turn perverse. There was Roger Williams, who believed in soul-liberty, and even went so far as to say that the land belonged to the Indians. There was that "anciently religious woman," Deborah

Cornell University: Founders and the Founding

Moodie, who cavilled at infant baptism; and Mistress Anne Hutchinson, who, "speaking from the mere motion of the spirit," criticised the ministers for preaching a covenant of works. Obviously, having no schools or printing would not meet the danger inherent in learning, since the Devil was always around to mislead the people anyway.

Of this profound truth the founders of Massachusetts Bay were well aware. Accordingly, the General Court enacted a law to the effect that, "it being one of the chief projects of that old deluder Satan to keep men from a knowledge of the Scriptures, as in former times by keeping them in an unknown tongue, so in these later times by persuading from the use of tongues," there should be established a free school in each town in the province.⁴ This was in 1642. In the same year Harvard College held its first Commencement, graduating nine men. If we may go by the printed rules of the College, these nine men had been instructed, intermittently and superficially, in Logic, Mathematics, Physics, Politics, Rhetoric, Moral Philosophy, Divinity, History, and the nature of plants; and, more constantly and thoroughly, in those tongues (Greek and Latin) in which the old deluder Satan wished to keep the Scriptures hidden. But the chief aim, apart from which all this learning was a vain thing, was that every student should be "plainly instructed and earnestly pressed to consider well the main end of his life and studies, . . . to know God and Jesus Christ, which is eternal life." To this end every student was required to "exercise himself in reading the Scriptures twice daily"; and "if in anything they doubt, they shall enquire as of their fellows, so (in case of non-satisfaction) modestly of their Tutors."⁵ What the tutors should do if in anything they doubted, the rules do not say; but it is recorded that in 1654 President Dunster, having doubted the doctrine of infant baptism, was admonished on Lecture Day, and forced to resign his office.

Harvard College was founded to promote learning, but not quite in the sense understood by Abelard, one of the founders of the Uni-

Life and Learning in the United States

versity of Paris in the twelfth century. "By doubting," said Abelard, "we are led to questioning, and by questioning we arrive at truth." At Harvard College, in the seventeenth century, doubt was evidently regarded as the chief obstacle to learning. There the rule was: by doubting we run into error, we arrive at truth by enquiring, modestly, of the tutors.

Until the eighteenth century Harvard College was rather a promise than a performance. For lack of funds there were few tutors for the fifteen or twenty students to enquire modestly of; and there was no professor at all until 1721. At that time two other colleges were in existence—William and Mary, founded in 1693, and the Collegiate College, a kind of wandering academy that finally, in 1716, consented to settle down at New Haven, and that was incorporated, in 1745, as Yale College. During the next twenty-five years six other colleges were founded—Princeton, the University of Pennsylvania, King's (Columbia) College, Brown, Rutgers, and Dartmouth. In the eighteenth century the due form of government had become rather more civil than ecclesiastical, and the colleges had in some measure responded to this change. But in the eighteenth no less than in the seventeenth century, the colleges were supported by the ruling classes (a flexible, mixed aristocracy, composed of the educated and wealthy families who thought of themselves as "the better sort") in order to provide the leaders of the community with a liberal education; and it was taken for granted that a liberal education would safeguard them against subversive political ideas, and fortify their faith, if not in the tenets of any particular sect, at least in what the Prospectus of King's College called "the Great Principles of Christianity and Morality in which all true Christians in each of the denominations are generally agreed." ⁶ Certainly nothing was further from the intention of the founders of these institutions than that their most distinguished alumni should become the leaders of a revolution dedicated to the principle that all men are endowed by their Creator with an inalienable right to abolish any form of government, civil or ecclesi-

Cornell University: Founders and the Founding

astical, which did not in their opinion derive its authority from the consent of the governed. Yet this is what came to pass; and if we ask where Jefferson, the brace of Adamses, and their confreres got these subversive ideas, the answer is that they got them in part in college, by reading works in those tongues in which, according to the founders of Massachusetts Bay, the old deluder Satan had hidden the Scriptures.

To establish centers of learning on the assumption that, properly supervised, no subversive ideas will be generated in them is to take a great risk. The founders of the first American colleges took that risk. They were intelligent and courageous men, but in subtilty and resourcefulness they were no match for the old deluder whom they were out to circumvent. Their fatal error, I suspect, was to suppose that the old deluder wished to keep men from a knowledge of the Scriptures, either by hiding them in an unknown tongue or by persuading from the use of tongues. Certainly he must have known that to read the Scriptures is to become acquainted with various and sundry ideas, forms of government, idolatries, moralities, and with every species of pessimism and the most devastating doubt. If he did indeed have anything to do with recording the Scriptures in an unknown tongue, it must have been for another purpose than to keep them hidden. His purpose must have been (this is only my private opinion) to have the boys of Harvard, Yale, and Princeton exposed to Tully, and such-like classical authors, so that they might become infected with the most ingenious ideas and plausible sophistries ever invented to bedevil the minds of men and beguile them into disobedience and heresy.

That the old deluder had really anything to do with all this I do not affirm as a fact: I only refer you, as a good historian should, to the authentic official documents. But it is a fact that Jefferson, the brace of Adamses, and many other leaders of the American Revolution attended one or other of the colleges and there learned to read and prize the classical authors. They read the Scriptures too, no doubt, but they seem to have liked the pagan better than the Chris-

Life and Learning in the United States

tian writers—preferring Demosthenes to Deuteronomy; Cicero to Solomon and St. Augustine; Plutarch and Livy to Eusebius or Orosius. Reading the pagan authors, they found the content more interesting than the grammar, no doubt because the content confirmed them in the notion, already current in the eighteenth century, that history and politics were both more interesting and more relevant than theology. The experience of young John Adams was more or less typical. While studying in Harvard College he failed to find in the Scriptures any precept “requiring . . . creeds, confessions, oaths, subscriptions, and whole cart-loads of trumpery that we find religion encumbered with these days.” Concluding, therefore, that “the design of Christianity was not to make . . . good mystery-mongers, but good men, good magistrates, and good subjects,” he was drawn to “that science by which mankind have raised themselves from the . . . state in which nature leaves them, to the full enjoyment of the social union.”⁷

In classical literature Adams and his fellows found an engaging if not entirely true account of what the social union was in ancient Greece and Rome, and took it as in some sense a model of what the social union should be in modern times. Reading the classical authors they learned to admire the fortitude and civic virtues of the republican heroes of that time—the Spartans who died with Leonidas at Thermopylae, the Athenians who stood at Marathon, Brutus who drove out the Tarquins, Regulus who returned to Carthage, and that other Brutus, noblest Roman of them all, who from pure love of freedom struck Caesar down in the Senate house. Admiring the ancient republican heroes, it seemed to them that the golden age of freedom and enlightenment had ended when Caesar crossed the Rubicon, to be followed by a thousand years of despotism and superstition. But from this long Dark Age the world was in their own time emerging, the eternal struggle against tyranny was again the central issue, and in resisting the unwarranted measures of the British government were they not themselves standing at Armageddon? What better then could honest men do than to

Cornell University: Founders and the Founding

cultivate the civic virtues of the ancient republican heroes, each in his own way becoming a latter-day Valerius or Poplicola? John Adams, elected a delegate to the First Continental Congress, had his eye on Demosthenes. "When Demosthenes (God forgive me for recollecting his example) went ambassador from Athens to the other states of Greece, to excite a confederacy against Phillip, he did not go to propose a Non-Importation or Non-Consumption agreement!!!"⁸ Doubting whether even non-intercourse measures, then regarded as radical, were radical enough for a true patriot, John Adams did not enquire modestly of the tutors. He enquired, none too modestly, of Demosthenes.

So long as Adams and his compatriots were concerned only to defend, against British legislation, the rights of British subjects, it was enough to rest their case on precedent, and to fortify their courage by recalling the virtues of the ancient republican heroes. But resistance to British measures presently involved them in war with the mother country, and war imposed upon them the hard necessity of declaring that the colonies "are and of right ought to be free and independent states." But by what right? The rights of British subjects were not sufficient to justify rebellion. To justify rebellion it was necessary to invoke a more inclusive principle than the rights of British subjects; and this more inclusive principle was found, not in precedent, nor yet in the traditional Christian philosophy of man's origin and destiny, but in the revolutionary doctrine of the natural and imprescriptible rights of man.

The American republic was thus founded on a revolutionary political philosophy—a fact of profound significance for the history of life and learning in the United States. Since the sixteenth century the advancement of learning in Europe had been a difficult business. It was carried on for the most part by scholars who were often excluded from the colleges and universities, and often proscribed by governments, because the doctrine of natural law and right reason which they accepted as the first premise in the search for truth was ostensibly at war with the Christian story of man's origin

Life and Learning in the United States

and destiny which the community accepted as the necessary foundation of morality and public authority. But in the eighteenth century, for the first time since the Middle Ages, the principles officially affirmed as the foundation of civil government were coming to be identified, and in the American and French Revolutions were identified, with the premises accepted by scholars as essential to the advancement of knowledge.

In the eighteenth century, therefore, as one may say, established political philosophy and current science made a marriage of convenience. Both accepted the doctrine of natural law as God's revelation to men; both were committed to the theory that the nature of man and the institutions best suited to his happiness and welfare, so far from being divinely revealed in sacred scripture, and to be authoritatively interpreted and enforced by church and state, could only be progressively discovered by man himself through the free application of reason to experience and available knowledge. In so far as political philosophy was translated into practice, the constituted authorities were, therefore, obligated to guarantee freedom of opinion, and to regard colleges and universities as centers for the increase of knowledge rather than merely for the preservation and transmission of familiar and accepted ideas. In such institutions the rule would then presumably be that if pupils or professors in anything doubted they would consult, modestly or not (that was their affair), not the tutors, not the clergy or the magistrates, or even the "Great Principles of Christianity and Morality in which all true Christians are generally agreed," but the best right reason available to intelligent men.

Marriages of convenience, as is well known, are rarely entirely happy. The doctrine of natural law and right reason, however useful for effecting a separation from Great Britain, did little to dislodge from the minds of average men faith in the traditional Christian story of man's origin and destiny. For this reason the liberal ideas of the Enlightenment were less generally accepted, and their implications for education less well understood, among the mass

Cornell University: Founders and the Founding

of the people than among the political leaders, among the administrators than among the distinguished alumni of the colleges; and I need scarcely say that ingrained habits and settled ideas of professors were not all at once transformed by the doctrines enshrined in the Declaration of Independence. Nevertheless, before and during the American Revolution we can note the beginnings of such a transformation—the beginnings of those social and intellectual influences that were, during the course of another century, to bring about a liberal and democratic transformation of higher education in the United States.

Long before the middle of the eighteenth century Professor Samuel Johnson found in the Yale College Library copies of Newton's *Principia* and Bacon's *Advancement of Learning*; and from these and other works of similar import he discovered that mathematics and physics were instruments of vast importance for interpreting the ways of God to man: reading Bacon's *Advancement of Learning*, he said, was an experience like that "of a person suddenly emerging from a glimmer of twilight into the full sunshine of day."⁹ In subsequent years Samuel Johnson became so well known for his interest in the natural sciences that he was called to be the first President of King's College in New York. According to the Prospectus of 1754, which he himself drafted, the college would provide instruction, not only in mathematics and the classical languages, but also in the arts of "surveying and navigation, of geography and history, of husbandry, commerce, and government, and in the knowledge of all nature in the heavens above us, and in the air, water, and earth around us . . . and of everything useful for the comfort, the convenience and elegance of life, in the chief manufactures relating to any of these things"—all to the end of leading students "from the study of nature to the knowledge of themselves, and of the God of nature, and their duty to Him, themselves, and one another."¹⁰ This ambitious project, expressing so well the sentiments of an eighteenth-century *philosophe*, was apparently not very cordially received by the faculty, and was at all events aban-

Life and Learning in the United States

done altogether when President Johnson retired in 1762; but in 1785 the curriculum of the college (Columbia as it was then called) was again revised to include the natural sciences, navigation, the rise and progress of language, "history and chronology as low as the fall of the Roman Empire," and the origin, extent, power, commerce, religion and customs of the principal kingdoms of the world.¹¹

The founding of the University of Pennsylvania may be regarded (for our purpose, although not perhaps for the purpose of a loyal alumnus of that institution) as the result of a movement started by the publication, in 1749, of Benjamin Franklin's pamphlet on the education of youth in Pennsylvania. Franklin maintained that the time spent on the study of Greek and Latin might be better spent on the study of more practical subjects, since for the majority of young men, "in such a country as ours," a practical education would be more useful.¹² Money was raised, within a few years an academy was founded, and in 1756 the first Provost of this institution, later known as the University of Pennsylvania, was appointed. The man selected was the Rev. William Smith, one of several citizens of New York who had been much interested in the founding of King's College two years before, and had approved of the liberal ideas of its first president.¹³ Under the direction of William Smith the University of Pennsylvania offered a course of study that conformed in many respects to the ideas of Samuel Johnson and Benjamin Franklin; and for many years that university was the most advanced of American colleges in the emphasis it placed on the natural sciences, politics and history, and the modern languages.¹⁴

No one in the eighteenth century advocated more novel measures for reforming higher education than Thomas Jefferson, and in 1779 his prestige in Virginia was sufficient to effect a complete reorganization of William and Mary College. Knowledge of the classical languages was no longer required for entrance. Students were free to elect any courses in any order, and to come up for their degrees when they thought themselves sufficiently prepared to pass

Cornell University: Founders and the Founding

the examinations. New professorships were established in law and politics, in anatomy and medicine, in natural philosophy and the modern languages; and the chair of divinity was abolished because, as James Madison informed President Stiles of Yale, "an establishment in favor of any particular sect was thought to be incompatible with the freedom of a republic." ¹⁶

Other colleges were less influenced by the liberal ideas of the time. If in some of them more attention was given to history and the natural sciences, it was less because of changes in the curriculum than because some or other professor happened to be interested in these subjects. Under President Leverett, according to Professor S. E. Morison, the liberal tradition was established at Harvard, which means that Harvard was "kept a house of learning under the spirit of religion, not, as the Mathers and their kind would have had it, the divinity school of a particular sect." The liberal tradition at least permitted the first Hollis Professor, Isaac Greenwood, to promote interest in the natural sciences, very much as Samuel Johnson did at Yale, by "giving lectures with demonstrations 'of the discoveries of the incomparable Sir Isaac Newton.'" ¹⁶ After 1735 French was intermittently taught at Harvard, but as late as 1814 George Ticknor could only with difficulty find a German dictionary or grammar in the Boston book shops or the college library. ¹⁷

These were tentative beginnings in the liberal spirit of the Enlightenment; but the liberal movement, even in the colleges of William and Mary, Columbia, and the University of Pennsylvania, had largely spent its force before the end of the century. This was partly because the revolutionary war had weakened and impoverished the colleges as well as the country; but chiefly because the revolutionary upheaval, especially in France, had discredited the liberal philosophy of the pre-revolutionary period. At the opening of the nineteenth century the educated and governing classes, both in Europe and America, were in a mood to regard the word "revolution" as synonymous with the word "Jacobinism," and "Jacobinism" was for them much the same thing as political and moral

Life and Learning in the United States

anarchy. Mr. Thomas Paine, once highly respected as the author of *Common Sense* and *The Crisis*, was suddenly transformed, by the publication of *The Age of Reason*, into "old Tom Paine the free thinker." Even the author of the Declaration of Independence was fallen from his former high estate. In the North he was vilified as little better than an agent of international Jacobinism; while in the South his religious ideas were deplored, and explained on the convenient hypothesis that in his youth, most unfortunately, he had been led astray by the atheistical French writers.

This reversion to timidity in the community was equally pronounced in the colleges—perhaps even more pronounced in the colleges, since they were the guardians of youth. The fact may be symbolized by the contrast, in temper and outlook, between two presidents of Yale College: Ezra Stiles (1777–1795) and his successor Timothy Dwight (1795–1817). The genial curiosity and catholic sympathies of Ezra Stiles, always disposing him to try anything once, enabled him to smuggle into fixed classical courses much enlightening discussion of history, law and politics; and into a course on ecclesiastical history at least one lecture on ventriloquism.¹⁸ Timothy Dwight, a man of vast learning, incredible energy, and skill as a teacher and administrator, is one of the heroic figures in the history of Yale College. That he did much for Yale College may be readily admitted. He obtained money for the college, enriched its library, enforced discipline, converted the students, made them study and like it, and even appointed Benjamin Silliman as Professor of Chemistry—something that we can hardly suppose he would have done could he have foreseen that the study of natural science would undermine religion as he understood it.¹⁹ He did much to toughen the body of Yale College, but singularly little to enrich its spirit; for when all is said it must be said that he devoted his great learning and dynamic energy to the Canute-like enterprise of commanding the swelling tide of liberal thought to recede. As president and teacher his principal concern seems to have been to keep the students undefiled by the dangerous political ideas of

Cornell University: Founders and the Founding

Thomas Jefferson, and the still more dangerous intellectual and religious ideas of the most distinguished writers of the eighteenth century. One of his notable efforts was the Baccalaureate address to the class of 1797: not one but two long sermons on *The Danger of Infidel Philosophy*. The infidels refuted were, among others, Shaftesbury, Hobbes, Bolingbroke, Hume, Voltaire, and Diderot. The argument refuting them was elaborate, uninspired, and notable for the careless distribution of undistributed middles throughout. The two sermons were sufficiently approved at the time to be printed and widely read but in retrospect one can only regard them as a pathetic, if valiant effort to make Yale College one of the homes of lost causes.

Not that Yale was any more the home of a lost cause than other colleges. In 1820 the curriculum of Columbia was no more liberal than it had been in 1786, while that of the University of Pennsylvania was less liberal than the one devised by its first Provost in 1756. By 1820, or thereabouts, and for half a century thereafter, all of the leading colleges, with the exception of the University of Virginia in so far as it conformed to Jefferson's plan, were so much alike, so standardized and set in respect to personnel, methods of instruction, and course of study, that no one but a loyal alumnus could easily distinguish one from another.

The course of study consisted of a thorough four-years' drill in the classical languages, supplemented by a little superficial instruction in natural science, history and politics, and modern literature. A few professors (such as Ticknor at Harvard, Silliman at Yale, and Lieber at South Carolina) gave stimulating lectures in the class room; but to hear a lecture by a distinguished scholar or man of letters the students had for the most part to go outside the college to the town Lyceum. Inside the college they prepared and recited the daily lesson. They were rarely invited to examine the content of any classical author, much less any, such as Plato or Lucretius, whose ideas might have led them in something to doubt by arousing them to unaccustomed thought. They received a good

Life and Learning in the United States

mark each day if they had learned the vocabulary and mastered the grammar of the assigned passage, or could turn into respectable Latin some respectable passage of English prose. They learned history and modern literature by memorizing each day, more or less verbatim, four or five pages of the prescribed textbook. In mental and moral philosophy the chief thing was to master the fine distinction between the ordinary, the primary, the predominant, and the primary-predominant choices of the will—choices which, if right, made the man right, here and hereafter. "Mr. Blank," said Professor Parks to a supposedly obtuse Dartmouth student, "if Peter had died when he was cursing and swearing, where would he have gone?" "Gone to Heaven, sir." "Doubtless, but how would he have gotten there?" "Got there on his primary-predominant." The student was not so obtuse after all, since his answer, being the right one, satisfied the professor.²⁰

College faculties were composed, with some notable exceptions, of men who were entirely competent to teach by this method, since they had suffered an extremely competent training in it. Some of them were learned men, attending diligently to *hottis* business; some, learned or not, were best known for personal eccentricity; and virtually all were cultivated and well informed men of unquestioned integrity and genuine devotion to their profession. If there were not among them as many uneducated specialists as may be found on faculties today, neither were there as many really original minds. Rarely troubled by doubt, and always disposed to rely on the recognized authorities, their chief distinction was to know and to enforce all of the right answers rather than to know or to ask any of the right questions. "I would rather have ten settled opinions, and nine of them wrong," Professor Taylor of Yale was accustomed to say, "than to be like my brother Gibbs with none of the ten settled." The attitude was typical at a time when, according to the younger Timothy Dwight, "the idea was so widespread and all-controlling that the teacher's work was . . . to bring Cicero into adjustment with Andrews and Stoddard's grammar, that no

Cornell University: Founders and the Founding

one, however free and gifted, could make it his great effort to put Andrews and Stoddard in accord with Cicero.”²¹ Boldness was not indeed the primary-predominant choice of professors in those days. But, lacking originality, they could be dogmatic; and there was no great danger of their being admonished on Lecture Day, since, for them, all of the really vital questions had been settled, and for every emergency (in the class room, in the market place or the political forum, in polite conversation or serious discourse) their minds were furnished with an ample supply of Latin tags to see them triumphantly through to the prejudged conclusion.

Anchored in the classics and stayed by authority, college faculties were for the most part impervious to the rising demand for more thorough study of natural science, history, and modern literature. Brander Matthews said that as late as his time in Columbia but one term was given to English literature, and that he was not introduced to any English author or told to read any. Henry Cabot Lodge said that at Harvard he “never had his mind roused to . . . anything resembling active thought”—except, he added, in Henry Adams’s course in Mediaeval history. For fifteen years Benjamin Silliman, the most distinguished and best loved member of the Yale faculty, worked in a damp, ill-lighted underground laboratory, which he could enter only by backing down a ladder through a trap door; and he used to say that when he went to Philadelphia to lecture he carried all of Yale’s geological specimens with him in a candle box. At Princeton instruction in natural science was more perfunctory and less competent than it had been in the eighteenth century under President Witherspoon. The scientific specimens were too bulky to be taken to Philadelphia (supposing that any one at Princeton had wanted to go to Philadelphia) in a candle box; but James McCosh, when inaugurated as president in 1868, pronounced them all fit only to be burnt.²² Natural science made its way in the medical schools, through the Smithsonian Institution, and in special schools such as the Rensselaer Institute and the Lawrence and Sheffield schools at Harvard and Yale. But such schools

Life and Learning in the United States

were regarded by the college proper as not quite out of the top drawer. In the eighteen-fifties Andrew D. White spent three years at Yale without being more than vaguely aware that "Sheff" was a part of it; and one day, watching through the dusty window of an unfamiliar building some fellow manipulating a test tube, he wondered how any one could interest himself in such matters.

The lost cause, so explicitly defined and ably defended by the famous and influential Yale Report of 1828, was not the small college, still less the study of the classical languages and literature. The cause that was lost was the traditional conception, deriving with slight modification from the seventeenth century, of the purpose of learning and the function of colleges in the community. According to that conception, the function of such institutions was to preserve and transmit rather than to increase knowledge; and more especially to prepare a select group of young men, taken for the most part from the educated and governing classes, for the learned professions by giving them a limited command of the classical tongues, and transmitting to them the factual knowledge and ideas about man and the world in which he lived that would lend support to the political institutions, the moral habits, and the religious convictions acceptable to the best progressive-conservative thought of the time. The end desired, as the Yale Report said, was the disciplined and informed mind; but a mind disciplined to conformity and informed with nothing that a patriotic, Christian, and clubable gentleman had better not know.²⁸

For half a century opposition to this conception of higher education became more widespread and insistent. The opposition was inspired by different motives, supported by different classes of people, and directed to different ends. An increasing number of scholars (foreign born and trained, or Americans returning from study abroad) were primarily interested in expanding the American college into centers of research and publication on the model of the best German and French universities. Others were primarily interested in liberalizing the course of study in the college itself, by giv-

Cornell University: Founders and the Founding

ing more time and attention, as the Amherst Report of 1827 suggested, to "the modern languages, history, civil and constitutional law," and those physical sciences that "have a practical application to the useful arts and trades." ²⁴

But far more important than these limited demands for reform was the growing conviction, among the people throughout the country, that the older colleges were "undemocratic," and in any case unsuited to the needs of an industrial and agricultural community. As early as 1830 the workers of Philadelphia declared "that there can be no freedom without a wide diffusion of intelligence; that the members of a Republic should all be instructed alike in the nature of their rights and duties as human beings, and as citizens; . . . that until means of equal instruction shall be equally secured to all, liberty is an unmeaning word, and equality an empty shadow." ²⁵ The idea is more explicitly expressed in the constitutions of many of the newer states, and nowhere better than in the constitution of Indiana, adopted in 1816: "It shall be the duty of the General Assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in a regular gradation from township schools to state university, wherein tuition shall be gratis, and equally open to all." These are but two examples, out of innumerable ones that might be given, of the widespread conviction that in a country, as Franklin said, "such as ours" (a great, sprawling, sparsely settled country, whose people were committed to the principle of equality and largely engaged in agricultural and industrial pursuits), what was needed was a system of education that would enable the ordinary citizen, at slight cost or at public expense, to prepare himself for the practical occupations and to assume the political obligations of free men in a democratic society.

The concrete result of this widespread dissatisfaction with the older colleges was the multiplication of colleges and the establishment of state universities, especially in the newly settled and more remote sections of the country. But for many years most of these

Life and Learning in the United States

institutions were poorly endowed and incompetently staffed; and if it were necessary to fix a date when the general demand for educational reform began to win notable victories all along the line, the year 1865, when Governor Fenton signed the charter for Cornell University, would serve as well as any other. During the last quarter of the century, at all events, there occurred a striking expansion and transformation of the colleges and universities throughout the country. The most obvious change was quantitative—more students and professors, more and larger buildings, more and more varied equipment, more books in libraries, and endowments rising to heights never before dreamed of. Equally obvious was the rapid liberalization of the curriculum, and the adoption of the elective system in place of the fixed, required course of study. Less obvious, but more significant, was the expansion of a few state universities and some of the old colleges into universities properly so called—institutions that included—besides the college of liberal arts—professional schools, and graduate schools for the promotion of scientific research and publication in all branches of knowledge. Most significant of all was the fact that the best colleges and universities, accepting frankly the principle of freedom of learning and teaching, were able to find a place for those exceptional individuals whose function it is to advance the frontiers of knowledge, and thus to become, what the best European universities already were, centers for the promotion as well as for the preservation and transmission of human learning.

In this educational renaissance Cornell University played its part, and that not an insignificant one. Better than any other institution it may be said to have represented, in its organization and in its aims, all of the dominant trends of the time. Located neither in the old East nor in the newer West, it was shaped by the interests and currents of opinion that prevailed in both regions. It was not altogether a state university, like those of Michigan and Illinois, or altogether a privately endowed university, like Harvard and Yale, but a curious combination of both. It managed, with great ingenu-

Cornell University: Founders and the Founding

ity, to obtain munificent gifts from private individuals while holding lands granted by the federal government for a rise in price, and then to induce the state legislature to make additional and substantial appropriations for its support. It was founded by a shrewd, hard-headed farmer and business man with a practical outlook and a Quaker conscience, and organized by a Michigan professor of history who had graduated from Yale and was familiar at first hand with European universities; and as a result of their united efforts it was deliberately designed to meet the three cardinal demands of the time—the demand for a liberalization of the college of arts, for the promotion of scientific research, and for advanced professional training in agriculture and the mechanic arts.

The event that led directly to the establishment of this representative institution is connected with the demand for schools of agriculture and the mechanic arts. In a country so predominantly agricultural, and possessing immense stretches of free land, it was inevitable that the people should request the federal government to set aside a part of the public domain for the endowment of agricultural education. The most important response to this demand was the Morrill Land Grant College Act of 1862; and so far as New York State is concerned Cornell University was the direct result of the Morrill Act. In the next lecture I shall deal with the origin and nature of the Morrill Act.