10. Richard J. Storr, *The Beginnings of Graduate Education in America*, pp. 1-45.

I

The Shortcomings of the College

WHAT fired the imagination of the men who began to advocate graduate education in the late eighteenth and early nineteenth centuries? There had once been a time when the Bachelor's diploma truly represented a "first degree" of academic life rather than the completion of formal study; but that time was long past when the history of graduate education, as we know it, began. Many Americans did, of course, take the Master of Arts degree, qualifying for it by staying alive and out of trouble for three years after graduating from college and by giving very modest evidence of intellectual attainments. Residence as a student in a university was not ordinarily required.[1] Did a desire to rescue the M.A. from complete decay motivate reform? Where it existed at all, this concern was apparently incidental. The medieval tradition of exacting study in a university for the second degree and then for a doctorate had grown too feeble by 1800 to be the inspiration for change. Instead, academic men were aroused to action by what they found when they scrutinized the established system of higher education in the United States and measured it by standards appropriate to the times. The American college of the decades just before and immediately after 1800 may well have been more effective in an unassuming way than its critics admitted, but it did have limitations which became increasingly intolerable.[2]

College studies had become almost entirely undergraduate; and yet this curriculum offered the most advanced instruction in the arts and sciences available in the United States. Occasionally Bachelors of Arts did linger on about the campus; but these "resident graduates" are scarcely to be considered graduate students in the modern sense. Their title suggests the provision made for them as well as their academic status: they were permitted to reside in the college community, but they received little or no attention. At most they could expect that a class would be formed "if a sufficient number present themselves."[3]

The deterioration of the Master's degree removed old incentives for advanced study, and the Ph.D. had yet to be introduced into the country. Any American desiring this mark of learning or the systematic guidance with which it was associated was obliged to expatriate himself temporarily.

Financial incentives to remain at one's books were meager and did not continue beyond the taking of the M.A. when they extended even that far. In 1643 Lady Anne Mowlson founded a scholarship at Harvard for "some poor scholler" to enjoy until he became a Master of Arts; but the gift was absorbed into the capital funds of the college.[4] Bishop George Berkeley gave to Yale some property, the income from which was to be used to assist three "scholars of the house" during the interval between the first and second degrees.[5] By the mid-nineteenth century, however, the money available provided only about $46 for each recipient, a sum even then "too small . . . to have any special influence upon the student's mind or purpose."[6]

The undergraduate course was largely or entirely prescribed, the boy being expected to adjust to the curriculum, not the curriculum to the boy. For this reason the college was often called a Procrustean bed. Bachelors of Arts possessed sufficient knowledge of the classics to appreciate the allusion, and they would probably be acquainted with academic philosophy, orthodox religion, mathematics, and the rudiments of the social and physical sciences; but they did not necessarily love good literature, recognize their own special talents, or command any profound knowledge of things outside the limits of conventional learning. "I am astonished sometimes," wrote a college boy in 1847, "to discover what *little* knowledge & information I have, and have come to the conclusion that it will not be increased much by studying (shut out from the world 4 yrs) latin & greek [*sic*]. Yet these may exercise the mind & prepare for the reception of other things hereafter."[7]

This judgment simply reflects the fact that the colleges of the period emphasized mental exercise and relegated knowledge to a place of secondary importance. "The two great points to be gained in intellectual culture, are the *discipline* and the *furniture* of the mind; expanding its powers, and storing it with knowledge. The former of these is, perhaps, the more important of the two."[8] The Yale authorities, who made this statement, believed that the mind possessed certain faculties, all of which had to be brought into play in laying the foundation of a thorough education; and they implied that such an education required understanding of essential subjects so numerous as to permit no option to the student.

The primary considerations were general intellectual ability and familiarity with an established body of learning. When a Bowdoin College undergraduate asked his father if it was more to a student's advantage to puzzle over geometry and dig out Greek roots than to pay attention to current literature, to study history, and, in general, to acquaint himself with subjects of practical value, the father replied: "if the studies of College [the classics and mathematics, in particular], are not mastered at College, they will be never mastered;—and an ignorance of them will hang like a dead weight round the neck of any man, even if he should be equal to Daniel Webster. But thorough-paced scholars, when they leave College, can soon master all the light literature of the day, and they can be just what they please in any profession."[9] Such ideas were defensible; but they were not calculated to create an atmosphere or to shape a system of education wholly satisfactory to the inquisitive searcher after new truths, particularly if he were a natural scientist. The common belief that piety was even more important than intellect in college life did not improve the situation for the student in pursuit of secular knowledge.[10]

The unattractive features of the accepted undergraduate program must have been accentuated by the customary method of instruction by recitation. Occasionally college presidents or professors of great learning and personality made a deep and favorable impression;[11] and when the textbook material had been covered, there might be an opportunity for disputation. President Jeremiah Day, of Yale, called this "an important part of our course of exercises";[12] and Professor James L. Kingsley, also of Yale, was convinced that something very like direct and vigorous action of the professor's mind on that of the student did take place.[13] Yet drill was the rule: "the root of the matter is to be found in the humble and simple, old-school, tedious business of recitation."[14] This device was used "from necessity, consequently listened to with but little pleasure, and its termination diffuses joy over the faces of most of those who are present."[15] To the latter half of this statement one recorded reaction was a brief, "c'est vrai."[16]

A college with a prescribed course taught by recitation did not need a great variety of specialists, who, after receiving the Bachelor's degree, had studied systematically for academic careers. A few young teachers, Benjamin Silliman and Edward Everett, for example, were enabled to study abroad; but foreign preparation became common only as the nineteenth century advanced. The typical campus figure was the general scholar with a B.A. degree and, perhaps, some theological training. He

might possess wisdom as well as scholarship, ripened during many hours of midnight work; but the student could not assume that the professor was prepared to offer advanced courses. Even the alert teacher may have found that a constant routine of hearing undergraduate recitations often deadened the impulse or forestalled the opportunity to convert his personal learning into courses suitable for graduates.[17]

Religious sectarianism, local pride, and the size of the country also inhibited the growth of institutions of the highest learning by encouraging the founding of many weak colleges rather than the development of a few strong universities.[18] The United States did not lack able men; but they were scattered over a wide land. Its inhabitants in general came to know many of them as missionaries of education; but its gifted sons could not benefit from a union of intellectual forces which did not exist.

Moreover, even long-established colleges lacked the wealth required to support more than a handful of scholarly teachers or to purchase and maintain a modicum of equipment. Colleges might run bills with the butcher, the baker, or even the builder, or secure loans from their own professors by delaying salary payments; but fundamental innovations in American education called for larger funds than petty borrowing could supply. Although public support furnished by some state governments helped a few institutions, the amounts were too small to meet the full demands of educational leaders. The day of great private benefactions had to wait until enormous personal fortunes became relatively common. Between the Revolutionary and Civil Wars, Harvard received less than a quarter of a million dollars in large gifts, exclusive of funds raised by subscription,[19] although its alumni and friends must have included many of the richest college men in the country. As one professor said, "most men really cannot afford to build colleges among us."[20]

Critics of the American colleges were inclined to apply several tests, in all of which the colleges did badly. As the number of scholarly men familiar with European universities grew, it became increasingly common to quiz the college on its ability—or more often its inability—to do what was being done abroad. The most significant body of men to examine the college in the light of European accomplishments was made up of Americans who knew English and Continental universities at first hand and Europeans who were living in the United States. Americans who stayed at home could become acquainted with European academic institutions through a growing shelf of books on foreign education. Some of this material was gathered by special observers like Alexander D. Bache and some by students abroad, one of whom gave his fictionalized

reminiscences the significant subtitle, *Memoirs of a Provincial*.[21] Such writing did not supply a simple prescription for reform, since general agreement on the exact character or meaning of European education did not exist in this country. The perceptions of the observers differed, and the things perceived were neither uniform nor static. Nevertheless, acquaintance with European universities did draw attention to academic attainments compared with which those of the American college appeared to be painfully slight.

A very different standard of criticism was "the spirit of the age." This phrase and variations on it appeared repeatedly before 1861 in connection with an intense and widespread concern for education. One Yale professor remarked that the demands of this spirit were so numerous and discordant that it was not easy to ascertain them distinctly;[22] but even though exact definition was lacking, the connotations of the phrase usually were democratic and utilitarian. Invocation of "the spirit of the age" was in effect a call for something more immediately practical than the liberal arts.

"A few only [said Albert Gallatin in 1830] are destined for the learned professions, or calculated to follow the pursuits of science and literature. But all want such degree of practical and useful knowledge, which can be acquired during the earliest years, of life. It is that want which is generally felt; for which there is a loud and well founded clamor, and which ought to be satisfied."[23]

Opening the college to new courses and new classes of students could lead to provision for advanced study, or reaction to an apparent debasing of the arts curriculum might produce a university department designed to forestall change in the college proper. In either case, tradition was broken.

The college was also judged inadequate when its curriculum was compared with the entire body of knowledge. At a time when all fields of learning, from chemistry to philology, were expanding at an extraordinary rate, the college course changed slowly. To be well-informed in many subjects, a student would have had to go far beyond the limits of the Bachelor's attainments. Contrary to an impression general today, however, the curriculum was not invariable in content, although it was rigid in its prescriptions. The colleges did sometimes incorporate new material into the established course, but they did so at the risk of treating no subject thoroughly. With liberal arts education in danger of becoming either archaic or superficial, college authorities were forced to justify their old ways or to invent methods of adjusting the curriculum to the

growth of learning. One result was experimentation with courses for graduates.

Chronologically, the first test to be put to the colleges stemmed from patriotism. It is common knowledge that, once political independence was gained, there developed a desire for cultural independence which found expression in everything from textbook revision through Noah Webster's work on American language to Emerson's *The American Scholar*. This address did not, of course, deal with graduate studies as such, but it revealed the spirit of men who could not be reconciled to the modest, if solid, achievements of the ordinary college. In 1837, the year of Emerson's address, President Philip Lindsley, of the University of Nashville, pointed out the absence in the United States of any institution comparable to the universities of Europe. He went on to specify America's needs: professors of every language, dead and living, and of every science in all its branches and subdivisions, in all its bearings and applications. "There should be schools, in short, for all the sciences, arts, languages and professions. So that no youth need ever cross the ocean to study and learn what ought to be taught much more safely and advantageously at home."[24] Evidence of this dislike for dependence on European education had appeared before. Not long after the War of 1812, when protective tariffs were under debate, the *North American Review* suggested that foreign principles might creep in as easily as foreign goods and argued against those who thought it dangerous to freedom to be clothed in British garments while they were indifferent to having British philosophy, poetry, morality, and politics poured into the American mind from the moment it began to have an idea.[25] What the United States needed was the creation of a literary profession and authors and books of its own—"fine, chaste writers, historians, whom the world should read, sweet poets and sensible critics."[26] A university, offering more than undergraduate studies and professional preparation for medicine, divinity, and law, was the most efficacious means to the end.[27] It would elevate the national spirit. Nor was this academic nationalism new. It had emerged in the troubled times when the Constitution was being framed.

II

"The Revolution Is Not Over"

DR. BENJAMIN RUSH was a patriot in education as well as in politics. For him the American Revolution was something more than a war to secure independence from Great Britain; it meant also the establishment of republicanism. Until this was accomplished, the Revolution was not over.[1] To complete it, he believed, Congress must not only restore the public credit, provide for defense, and revive commerce; it should also appropriate money to found a national university. Perhaps this was even more urgent than the other activities, for they would have to wait upon the time when the citizenry became inspired with federal ideals, "which can only be effected by our young men meeting and spending two or three years together in a national university, and afterwards disseminating their knowledge and principles through every county, township, and village of the united states [*sic*]."[2]

This sentiment, which Rush voiced in the year of the framing of the Constitution, was echoed by the Federalist editor, John Fenno, in the year of its first operation. "As we have taken our station among the other nations of the world, it is highly proper we should form on national principles, which can be best done by promoting such institutions as have a tendency to remove local views and habits, and beget mutual confidence, esteem, and good fellowship between those who are embarked in the same bottom, and must rise or fall together. . . . [A federal university] will be happily calculated to answer those valuable purposes, and have the most beneficial effects, in a political view."[3]

Both Rush and Fenno made a distinction between a college and a university. So also did Samuel Knox, president of Frederick Academy in Maryland, and Samuel Harrison Smith, a Jeffersonian journalist, who divided a premium offered by the American Philosophical Society for essays on liberal education adapted to the American genius of government. For all these men the college was a steppingstone to the university. In 1786, while still thinking in terms of Pennsylvania alone, Rush produced

a plan calling for free township or district schools, county academies, four colleges, and a university which would admit holders of the Bachelor's degree for a season or two of lectures.[4] Some such outline was presumably in his mind the following year when he advocated the founding of a federal university for young men who had completed their studies in the colleges of the states.[5] Knox, too, envisaged a four-part system of parish schools, county schools or academies, state colleges, and a national university, where a student, usually at the end of his twenty-first year, would receive an M.A. degree after three years of work at the highest level.[6] Smith's program was made up of only three divisions—primary schools, colleges, and a university; and he set no limit to the final course.[7] Fenno did not propose a graded scheme of any sort, but he did suggest that the university should accept college graduates for two or three years of additional study.[8]

Knox recommended public support of a few university students, and Smith touched prophetically upon the practical question of supplying an incentive to young scholars to continue their education. He recommended that a student be permitted to remain in residence at the university "so long as he please on a salary, in consideration of his devoting his time to the cultivation of science or literature, in which last case, he shall become a fellow of the University."[9] Time was to show that, in the absence of a law, such as Rush suggested,[10] closing federal office to all but university graduates, financial encouragement might be necessary for the success of graduate education.

Had Congress undertaken to found a national system of education, a crisis might well have developed. If Rush's outline of 1788 had been followed, the university would have taught predominantly useful and vocational subjects. Mathematics would have been limited to phases relevant to the division of property, to finance, and to warfare; natural philosophy (physics) and chemistry would have been studied in connection with agriculture, manufacturing, commerce, and war. The classics and the cultivation of the intellect for its own sake had no place in his curriculum.[11]

By contrast, Knox gave first thought to "elevating, enlightening, and dignifying the human mind."[12] In his opinion, the university's primary aim must be "to accommodate such as wished to indulge their literary genius to the greatest possible extent, and who were in such circumstances as to account no part of their life spent more agreeably or to better advantage, than in receiving the highest possible improvement in Arts and Sciences."[13] In practice, this would have meant a strongly humanistic offering of courses, with little of Rush's utilitarianism.[14]

But a great national university, whether dedicated to utilitarianism or humanism, whether poor or endowed with rich fellowships, did not materialize. In spite of the support of men like Washington and Jefferson, the idea never became sufficiently popular to be embodied in legislation. Perhaps the project was "too federal"[15] for the times; perhaps the cost, although possibly as low as $125,000,[16] frightened a people who shied at taxation.

Although the schemes just discussed may in retrospect appear hopelessly utopian, they are signs of a significant attitude toward educational reform; and they illustrate a related mode of action. Both attitude and mode characterized the founding of the University of Virginia, which was originally conceived of as a graduate institution. The attitude is best exemplified by Thomas Jefferson's unwillingness to confine academic reform in Virginia to alteration of his Alma Mater, William and Mary College. At one time he did attempt such reform; but later and more persistently he worked for the creation of a wholly new institution. Impatience with gradualism was natural to a generation which had executed a successful revolution and had changed the central government by supplanting, rather than by amending, the Articles of Confederation. If governments could be founded on written constitutions, why should not educational systems be similarly based? If the first step toward a proper ordering of political society was the framing of an instrument indicating its parts and their articulation, why should men not begin reform in education by drawing up a constitution for it? The question was: What ought the whole educational mechanism to be? The answer: a system completed by something more advanced than the colleges.

The initiator of the legislative activity which produced the University of Virginia was Charles Fenton Mercer, a member of the House of Delegates, champion of internal improvements, and author of the bill which had created the Virginia Literary Fund for the encouragement of learning. On February 15, 1816, the Delegates' finance committee, of which Mercer was chairman, submitted a report, which Mercer had written, to the effect that means for a system of public education might be found in funds due from the federal government. This recommendation having been approved, a resolution, also drawn up by Mercer, was passed by the House and, within two hours, concurred in by the Senate. The resolution requested the president and the directors of the Literary Fund to digest and report a system of public education. It was, the resolution

suggested, to embrace a university, colleges, academies, and schools. No more details than these were indicated, but this much sufficed to distinguish between university and undergraduate work as parts of an over-all scheme. Both the distinction and its incorporation into a system of education were to appear again.[17]

What precisely Mercer was thinking in 1816 is not a matter of record; but an address on popular education which he wrote ten years later suggests what he may have had in mind. Certainly, the grades of education laid down in his resolution of 1816 correspond to the parts of the system which he described in some detail in 1826. In that year he advocated four levels of formal education. Elementary schools should supply those means of intellectual and moral culture which all members of society should command. Instruction in the academies should begin precisely where that of the primary schools stopped. Colleges succeeding the academies should accommodate their course of study to advances already made by pupils of the academies and should fit them for entering upon the study of the learned professions and of the arts and sciences in all their higher branches. "An university [Mercer continued] at the head of each system of education, should adapt its instruction to the natural and easy extension of the collegiate course, prepare its youth for the practice of the liberal professions which they have respectively chosen; and be capable of teaching, moreover, all that man can learn in the existing state of human knowledge, whatever be his intended occupation; and whether he designs to enter on the theatre of active life, or to devote the residue of his days to the culture and pursuit of science."[18]

These specifications may not, of course, be an accurate picture of Mercer's ideas in 1816. Yet, in order to see the inception of the University of Virginia in true perspective, one must note that Mercer may have entertained such thoughts at the time when he was a chief mover for educational reform in Virginia. Since he was not a member of the circle centering about Thomas Jefferson, which was ultimately to organize the University, his interest in a university distinct from the colleges is evidence that the idea of the university as a graduate institution was not the sole possession of the man who is commonly—and rightly—supposed to have given substance to proposals for a University of Virginia.

After seeking advice, the president and director of the Literary Fund reported in favor of primary schools, academies, and a university to rescue young Virginians from the necessity of leaving their home state or even the United States for general or professional education, at the risk of alienation from the customs and principles of their parents and

ancestors.[19] The report also specifically recommended fellowships for "such young men, who, though destitute of the means of obtaining an education, have been selected for their talents, and instructed and supported at the public expense."[20] These would form a seed-bed of future teachers and professors. "Besides, it is a consideration of great importance, that you create a corps of literary men, who, enabled by receiving a decent competence, to devote their whole time to the pursuits of science, will enlarge its boundaries, and diffuse through the community a taste and relish for the charms of literature."[21]

Once this report was made, a bill or bills were in order; but none passed the House of Delegates until Mercer prepared one calling for a university and a number of colleges, academies, and schools.[22] The House of Delegates passed this bill, but it miscarried in the Senate. There Mercer let the matter rest, as he was elected to the United States Congress.[23]

Jefferson, who believed that Mercer's proposal overburdened the Literary Fund,[24] had a measure of his own. Known as a "Bill for Establishing a System of Public Education," Jefferson's plan was based on an idea he had held for many years: the division of a public school system into three parts.[25] The bill provided for ward schools, colleges, and a university, in the last of which all branches of useful knowledge would be taught: "history and geography, ancient and modern; natural philosophy, agriculture, chemistry and the theories of medicine; anatomy, zoölogy, botany, mineralogy and geology; mathematics, pure and mixed; military and naval science; ideology, ethics, the law of nature and of nations; law, municipal and foreign; the science of civil government and political economy; languages, rhetoric, belles lettres, and the fine arts generally."[26] These subjects should be combined into not more than ten appropriate groups, with a professor in charge of each.

Although the bill did not make graduation from college a prerequisite to the university, Jefferson's provision that state-supported students move from college to the university certainly implied that the latter was to be more advanced than the former.[27] As he had written to Governor Nicholas a short time earlier, the colleges "are intended as the portico of entry to the university";[28] and later, in 1822, he spoke of existing colleges of the South as preparatory to the university.[29] Clearly, he meant to make a distinction between "college" and "university"; but in the Nicholas letter he displayed some uncertainty as to the role of the schools of intermediate or college level, suggesting that they might be considered grammar schools. This ambiguity introduces some vagueness

into his system. Yet in the absence of positive evidence to the contrary, one must assume that Jefferson ordinarily meant by a "college" what that institution was generally accepted as being.[30]

From the general trend of Jefferson's thought, it is apparent that, however low the portico of the university, its ceiling was to be the limits of knowledge itself. Such an institution, he was convinced, should keep abreast of intellectual progress.[31] While he had strong utilitarian principles, his view of the curriculum was far from narrowly vocational. He wished to encourage the study of Greek and Latin and explicitly opposed Rush's negative attitude toward the classics.[32]

The Bill for Establishing a System of Public Education precipitated a hot debate, in which Joseph C. Cabell served as Jefferson's principal spokesman. As in most legislative discussions on education, the financial question proved crucial. Since the Literary Fund was too small to maintain a complete system of schools, the bill's supporters proposed that the lowest schools be sustained by direct taxation. After much argument in the House of Delegates, Jefferson's plan was rejected in favor of an amendatory bill providing schools for the poor only. When this measure came to the Senate, it was referred to a committee of three, of whom Cabell was one. He proposed that the college and university sections be restored to the bill; but the other members of the committee prevailed upon him to withdraw the college recommendations for the time being because of the practical difficulties involved and because of the danger of losing all by attempting too much. The committee did agree to insist upon a university. On that ground the two houses reconciled their differences.[33] The sill and pediment of Jefferson's educational structure were approved; but the pillars between them were neglected.

Once the university project was enacted into law, a Board of Commissioners, of which Jefferson was a member, was appointed to decide on matters of organization. Meeting at the Rockfish Gap of the Blue Ridge in August, 1818, the Commissioners set high purposes for the university: individual happiness and comfort, good government, and the prosperity of society. Failure to establish a sizable institution "would leave us . . . without those callings which depend on education, or send us to other countries to seek the instruction they require."[34] The nature of knowledge demanded something more elaborate than existing colleges: "each generation succeeding to the knowledge acquired by all those who preceded it, adding to it their own acquisitions and discoveries, and handing the mass down for successive and constant accumulation, must advance the knowledge and well-being of mankind, not *infinitely*, as some have said,

but *indefinitely*, and to a term which no one can fix and foresee. Indeed, we need look back half a century, to times which many now living remember well, and see the wonderful advances in the sciences and arts which have been made within that period."[35]

The breadth of this concept was matched as nearly as was feasible by the course offering. In brief, this was to consist of ancient languages, the modern languages, pure mathematics with naval and military architecture; physico-mathematics (such as mechanics); physics (meaning, in the Jeffersonian sense, chemistry and mineralogy); botany and zoölogy; anatomy and medicine; government, political economy, law of nature and nations, and history; municipal law; and ideology, or "the doctrine of thought," general grammar, ethics, rhetoric, belles-lettres, and fine arts, with the subjects to be grouped according to the professorships of those who were to teach them.[36]

This was, however, only a paper project. Seven years of the most trying labor elapsed before the University of Virginia actually offered instruction to students. Still, Jefferson did not lose his ambition for the University. At the time of its opening a college instructor wrote to ask if education at Charlottesville was to be "*really* profound and extensive—up to the level of the learned institutions in France & Great Britain . . . especially as regards the important branch of philology, and those useful sciences which are increasing our small acquaintance with the earth & air."[37] Jefferson answered: "With respect to the degree in which the sciences will be taught here, I think I may say in as high an one as in the universities of Europe, should any of the students propose to pursue them so far."[38]

But would students so propose to study? The University would in practice rise to the level of Continental institutions only if students asked for the highest instruction and were prepared to receive it. John A. Smith, once a student at St. Thomas' Hospital, London, and after 1814 president of William and Mary, may have been moved by jealousy to some extent; but he was positive that there existed in America no demand for science which did not contribute to moneymaking. Those few who wished to study natural history and allied fields should go abroad, "where these subjects are better taught than it is *possible* (I speak literally) they can for ages be taught here."[39] Even Jefferson himself, in spite of his aspirations for the University, used the subjunctive when he spoke of elevating its curriculum. As early as 1821 he talked, not of rivaling Oxford and Göttingen, but of admitting to the University those who were then going to Harvard, Princeton, Columbia, and the University

of Pennsylvania.[40] As the southern counterpart of these colleges, the University would perform a notable service; but it would not be a graduate school.

The friends of the University did not immediately surrender their conviction that education in Virginia was incomplete without colleges. In 1818 the Commissioners at Rockfish Gap noted the need for schools or colleges to supply students to the University;[41] and, in the following year, Jefferson indicated his eagerness for the opening of a classical school to serve as a reliable nursery for the University.[42] When the removal of William and Mary to Richmond was discussed, he suggested that its funds be used to found preparatory colleges.[43] But hope had to be deferred.

In 1816 President Timothy Dwight, of Yale College, had written: "If my experience has not deceived me, such a scheme of a *College* in the *American* sense, and still more of a *University* in the *European* sense, as will fairly promise extensive utility to the public, must involve many important parts; all of them nearly or absolutely indispensible [*sic*]."[44] Virginia's experience simply proved the crucial role of the colleges. Before the United States could have great universities, it had to possess facilities for good undergraduate preparation.[45]

III

German Influences

I

JUST before the aging Jefferson undertook his last great work, he was visited by George Ticknor, a young New Englander about to set off for Europe and whatever education he could find there. The parting of these two men, so different in many ways and so like in others, has a meaning which must have been missed at the time. Both were deeply interested in learning; both were to make great, but somewhat abortive, contributions to higher education. Yet their approaches to their work and the material with which they dealt differed widely. Jefferson, standing in the tradition of grand projects, planned an entirely new institution; Ticknor, representing the influence of the German universities, did his work as an educational reformer within the limits set by an established college. At Harvard he kindled a light, which, Jefferson predicted, would draw an empire to it;[1] but he could only set in motion a process of growth which in the end could not be considered the product of a single plan.

Before leaving home, Ticknor had not been predisposed in favor of German methods. Writing in 1815 to another of Jefferson's young friends, who was thinking of travel, he had asked: "what will you do . . . ? Shall you sit yourself down amidst the literary society of Paris and pass there in solitary study or intellectual intercourse the greatest part of the time you can allow yourself to be absent? Or shall you trouble the pools of stagnant learning in Germany & England and visit with a classical eye and a classical imagination the curious remains of art and antiquity in Italy? Methinks I can almost see you in a delightful hesitation between the Coliseum and the Institute—between Port Royal on the one hand and Göttingen and Oxford on the other."[2]

By 1816, after he had seen German learning at first hand, Ticknor's attitude toward its alleged stagnation had changed. Impressed by the admirable facilities for study and inducements to it offered by a German university, he renounced an interest in the law and prolonged his stay in

Europe so that he might make himself a scholar. Inclined toward literature, he only wondered where he could best prepare himself for a career in it. The vigorous spirit of youth had fled from England, he felt, although he found there a green and honorable age. In France, literature, buried under the ruins of national independence, had become the sport of political revolutionists; in the south of Europe, it had lain in its grave for centuries. In Germany, however, where the spirit of letters had first begun to be felt about a half-century before, all was still new and young: "the workings of this untried spirit starting forth in fresh strength & with all the advantages which the labour & experience of other nations can give it are truly astonishing."[3] Much was to be hoped from the Germans, not because of what they had done or were doing but because of "the free, & philosophical spirit with which they do it[,] the contempt of all ancient forms considered as such, and the exemption from all prejudice—above all, the universal activity with which they push forward, & the high objects they propose to themselves."[4]

While still a student at Göttingen, Ticknor grew exceedingly anxious to have transplanted to the United States this spirit "of pursuing all literary studies philosophically—of making scholarship as little of drudgery & mechanism as possible."[5] The further progress of learning in America depended, he was persuaded, on a thoroughgoing revision of the educational system.[6] Writing to Stephen Higginson, Steward of Harvard College, Ticknor raised the question of improving college libraries in this country;[7] and he apparently enlarged on his view of academic reform in a letter to James Savage, who must have passed it on to President John T. Kirkland.[8] Kirkland replied to Ticknor: "I agree with you in the main parts of your discourse on education & on us. We are however poorer than you think. But we apply our time & direct & distribute our instruction to great disadvantage. I am sorely troubled at the loss of time, produced by our system or no system. The school discipline must be continued longer. Still the pupils must not be detained from active life, professions &c longer than now, nor may the expenses of our education be much increased. But if we throw back our elements, such as are taught the two first years & part of the second upon the Schools we shall lose our pupils or at least not have them but two years instead of four, unless we make a part of their College term of four years go towards their professional preparation. To have a gymnasium & a University together on the same ground is not good. We cannot well keep two classes close & the others at large."[9] Despite his doubts, however, Kirkland anticipated a time when "we bring here students of maturer minds, that is, divide our Seminary into gymnasium & university";[10] and in a draft of the same letter he went so far as to suggest that eventually Harvard might have "a school for the *three* faculties . . . & philosophy[,] that is to say[,] be a gymnasium & a university, [as] in Germany."[11] Reorganization along this line was presumably one of the recommendations which Ticknor had made to Savage: Harvard should become a university in the Teutonic sense.

Ticknor's interest in a college which was not his own is explained by his appointment, in 1819, to the Smith professorship of French and Spanish languages and literatures and the professorship of belles-lettres at Harvard. In accepting the post, he stipulated that he must have the means for preparing as good lectures as his talents and industry would permit, that students should have an opportunity to hear him, that he should not be obliged to drill them in the elements of language, and that he should be permitted to live in Boston. These conditions made his position unique; for they enabled him to examine the college from the inside and, at the same time, to speak with some detachment.

One of Ticknor's Harvard colleagues was Edward Everett, professor of Greek literature, who also had recently returned from study abroad and was accordingly inclined to judge academic institutions by Continental standards. Measured by these criteria, Everett found Harvard narrow[12] and American education incomplete, crudely organized, and poorly supported. Although European universities, Everett said, cultivated some branches of knowledge for their own sake, these institutions were, properly speaking, professional schools where young men who had perfected themselves in classical studies at the gymnasium or high school came to prepare for careers in the law, medicine, divinity, or teaching. In the United States, he went on, teaching was scarcely recognized as a profession, and the number of schools offering training in the other fields was inadequate. Still worse, these few often stood isolated from one another in spite of the fact that learning, a living body, could not retain all its properties if cut in pieces. Only a fraction of the corporate spirit of a university, in which all parts of a finished education were brought together "to emulate . . . , to illustrate, to adorn, to aid each other,"[13] survived when the parts were divided. Moreover, separate schools could provide neither a fine library nor the subsidiary branches of knowledge which belong to all professions but are not peculiar to any single one. That the state and national governments had done little or nothing to remedy the situation was "a sore point in our history":[14] "Our mouths are filled with the praises of our own illumination, we call ourselves happy, and we feel ourselves free, but content with a vulgar happiness, and an inglorious freedom, we

leave it to despots, to build universities as the toys and playthings of their slaves."[15]

Using the vocabulary Ticknor and Everett had learned, Tutor George Otis got down to cases. Was it the purpose of Harvard College, he asked, to form perfect scholars or to be a preparatory school for liberal professions, "as affording only the elements of knowledge;—as furnishing a Gymnasium for the prolusions, or first essays of mind?"[16] Otis' question was answered by Ticknor in 1821. In a year and a half of teaching, he said, he had found much idleness and dissipation among the students and had become disillusioned with the work in his own field. He talked to the President, who did nothing, and to Professors Andrews Norton, Levi Frisbie, and Henry Ware, who agreed with him that great changes were necessary. Two of the latter advised him to go to the Corporation, which, in effect, he did by approaching one of the Fellows, William Prescott. Deeply impressed by Ticknor's arguments, Prescott asked to have them in writing.[17]

The statement prepared in response to this request clearly demonstrated that the enthusiasm of the young, wandering student had given way to the chastened judgment of the teaching scholar. "I most sincerely wish that it [Harvard] were now in a condition to be raised above the highest wants felt among us, and to prevent so many of our young men from seeking in solitary, unaided exertion, & in foreign countries, the degree of Instruction, which we cannot offer them.—But this does not seem to be possible. If we can ever have an University at Cambridge, which shall lead the intellectual character of the country, it can be I apprehend only when the present college shall have been settled into a thorough & well disciplined high school, where the young men of the country shall be carefully prepared to begin their professional studies; and where in Medicine, Law, & Theology, sufficient inducements shall have been collected arround [*sic*] & within the college, aided by regular courses of instruction in the higher branches of general learning and science, to keep Graduates there two years at least, & probably three. As, however, we are not arrived at this desireable [*sic*] condition, & cannot very soon hope to arrive there, the first thing to be done, in order to satisfy the reasonable demands of the community, is, to take measures to make the college *a well disciplined high school*, in which the knowledge preparatory to a professional education, shall be taught *thoroughly*, & the habits & character of the young men fitted for the further intellectual exertions to which they are destined."[18]

As a result of this letter, the Corporation circularized the faculty in regard to the state of the College and established a committee to digest the findings. When a large majority of the professors were found to oppose any real innovations, the Corporation was unwilling to act. Nothing substantial was done until 1823, when a student rebellion, followed by mass dismissals, shocked the College into self-examination. The Corporation gave way to the Overseers, representing a more widely influential group of men, for whom the opening of the College and its transformation into a university became the objects of reform.[19]

The effort of the Overseers began with an excited discussion at a religious club to which Ticknor, Norton, and Ware belonged.[20] (Ware was one of the two College officers to whom the results of the 1821 faculty investigation had been given.)[21] After several evenings of talk, it was agreed to call a meeting of selected persons to consider the problem of the College. On July 23, 1823, Justice Joseph Story, General William Sullivan, George B. Emerson, the Hon. Richard Sullivan, Charles Lowell, John Gorham Palfrey, and Dr. James Jackson gathered at Ticknor's house in Boston. Four of these men were Overseers and a fifth had formerly been one. Jackson and Ticknor were professors, but neither was closely associated with the ordinary life of the College. Indeed, Ware and Norton, both of whom had originally requested a meeting following the disturbances at the College, had advised against resident instructors attending.[22] William Prescott and Harrison Gray Otis, members of the Corporation, would also have been present but for a meeting of the Fellows on that day.[23]

Ticknor struck the keynote of the discussion, which began at nine in the morning and continued without interruption through dinner until six at night.[24] In his general conclusion he echoed the Prescott letter. "*Changes,*" he exclaimed, "*must take place in the present constitution and organization of college.*"[25] Without reform, it would lose the support and confidence of the society upon which it depended and would find itself not the leader but the first victim when the period for universities arrived. In other words, he said, "we must accomodate [*sic*] ourselves more to the spirit & wants of the times and country in which we live."[26] Specifically, he recommended that the College be broken up into departments, that classes be divided on the basis of proficiency, that a limited choice of studies be allowed, and that unmatriculated students be admitted.[27]

Ticknor's purpose in 1823 was not just to make Harvard a good high school; it was also to find "a beneficial compromise" between the old system and "the most liberal conception that would be demanded by one of the really free and philosophical Universities of Europe."[28] The College should be considered "as a place where all the Branches of human Knowl-

edge will, at last, be taught; and where, of course, there shall no longer be an attempt to compel every Student to learn something under every Instructer [*sic*]."[29] Prescribed study in all subjects would be wrong, "now the branches are become so numerous."[30] Departmentalization could be indefinitely increased "without a change of system, & thus the whole institution be made to keep even pace with the increasing demands of the Community, without any further alteration in its essential plan."[31] The result obviously was to be the "open University"[32] of which Ticknor wrote to his friend Jefferson.

The almost biological development of Harvard College as department grew from, or appeared beside, department would produce facilities calculated to encourage graduate study. Ticknor's position makes little sense if one does not suppose that he meant that instruction at Harvard should ultimately be more advanced than that of the old college. As departments increased in number, courses in erudition, and electives in variety, any given young man might well spend additional time at his studies. What was left untouched in four years could be examined later. This was one germ of graduate education. From Ticknor's time, this idea was never to atrophy altogether at Harvard.

Responding favorably to Ticknor's remarks, his guests agreed that a committee of Overseers should be appointed to examine the College thoroughly. This group was elected on the following day, and within another twenty-four hours, the Corporation, acting on a request from the other board, constituted President Kirkland, Prescott, and Otis a committee to confer with the Overseers.[33] The enthusiasm for reform which had shown itself in Ticknor's Boston house was not so evident in the Yard. In fact, the President did not seem very zealous for change and took the reformers' difficulties as a good joke.[34] Moreover, the Overseers' committee chairman, Joseph Story, did not perhaps have quite the influence which a Boston man might have possessed.[35] Nevertheless, the investigation went forward; and in May, 1824, a report was ready: "In a society, like ours, which is continually expanding and embracing more elevated objects of research [said the Story committee], the nature and extent of an University education, and the methods of instruction, must be, in some degree, liable to change, so as to be adapted to the spirit of the age. A course of studies, fully adequate, at one period, to all the wants and wishes of the community, may be ill fitted for another of higher cultivation. A moderate knowledge of classical literature, of philosophy, and the sciences, may satisfy all that the ordinary business of life requires, at an early period of national existence; and yet it may fall far short of the

demands, even of humble education, in a more aspiring age. . . . The great question must always be, what modes of instruction are best adapted to the present exigencies of our society, so as to give the most finished education in the shortest period that our pursuits require."[36]

In discussing the best teaching methods, the committee recommended, among other things, that the College be divided into separate departments, each with its own head, and that a distinction be made between subjects indispensable for a degree and those in which the student might exercise a limited choice.[37] Such changes would not remake Harvard into either a simple gymnasium or a pure university. The committee had taken seriously Ticknor's suggestion of a compromise, retaining an undergraduate program but rearranging it in such a way that the curriculum as a whole could expand beyond the needs of any single student.

The new departure was soon challenged. A second committee headed by John Lowell inquired into the affairs of the College and presented a report. In the end, however, the Story findings were accepted by a large majority[38] and submitted to the Corporation as the basis for new College laws. These regulations, effective in 1825, divided the College into departments; authorized the faculty to make such changes and substitutions in the course of study as were required or justified by diversities of intellectual powers, habits, and progress in the various divisions; and ordered that in the foregoing arrangements the wishes of the students be consulted as far as was consistent with the nature and objects of liberal education. As in the past, resident graduates were mentioned in a provision setting dues for them.[39]

The revised laws did not transform Harvard into a university overnight. In particular, they failed to establish an earned M.A. degree. Still, the innovations of 1825 contained the seed of an elective system and set up the machinery for expansion.

As the work of the Overseers and the Corporation moved forward, the attitude of the faculty became crucial. Unfortunately for the new program, it was hostile. Professor Andrews Norton objected sharply to the committee's failure to consult the faculty directly, constantly, and freely. Although, in his eyes, this was a fundamental mistake,[40] he did not attempt to block all reform. For him, the ultimate purposes of religious and moral education remained constant; but he recognized that in the cultivation of the intellect change was inevitable. "The most important objects of study vary with the general progress of learning, which is every day extending its limits, with the circumstances of different countries, and with the destination of different individuals."[41] The faculty, he said, thought the College

was not the sort of institution the country demanded or would support, nor the sort it had ample means to become. They believed it capable of assuming "a much higher character, and of being much more extensively useful";[42] but they had seen "the work of improvement undertaken by gentlemen from without, and plans proposed, which, as it seemed to them, were wholly inadequate to effect the purposes intended."[43] The Story plan, "taken as a whole, does not seem to afford any settled and distinct conception of the character which it is proposed to give the College. Is it to be a University? One would think that this should be gradually aimed at."[44] From the evidence, however, Norton doubted that that could be the mark. How was degradation of the College to the rank of a high school to be reconciled with the stated purpose of reform?[45]

Here Norton was confronting a compromise without recognizing it, or perhaps without wishing to recognize it, as such. Ironically, the point of his criticism was that same Germanic distinction which underlay Ticknor's original thought. Although Norton had not himself observed the differences between high school and university abroad, he had friends who could instruct him. George Bancroft had corresponded with him from Germany, and Edward Everett was on his side at Harvard. That Everett was an ally, if not a leader, of the opposition symbolizes one of the primary difficulties in the early reformation of Harvard. Out of the faculty conviction that its experience had been slighted came a proposal for representation of the teaching staff in the Corporation. The term "Fellow" was to be restored to something of its early meaning. When the governing boards denied, in effect, that the English precedent still held in Massachusetts, Ticknor concurred, and thereby seems to have lost whatever support for his reforms he might have expected from professors such as Everett.[46]

Even if some concert had been possible between Ticknor, Everett, and Norton, they might yet have failed to carry the whole faculty with them. On the one hand, Everett's discontent with things as they were took the form not so much of reforming zeal as of a desire to remove himself to grander theaters of action; and Norton's attitude was cautious: "No error [he said] is more likely to be prejudicial than a rash adoption of modes of education which have been found to succeed elsewhere, without regard to the peculiar circumstances of the institution in which they are copied. No reasoning will probably be more deceptive and mischievous, than reasoning from imperfect analogies, in which essential circumstances affecting the character of different institutions, or in which the habits, manners, state of society, and literary wants of different countries are not sufficiently considered."[47]

On the other hand, other members of the faculty felt too little ardor for general reform to propose it to the Overseers when an inquiry was made into the condition of the College in 1824.[48] By the time the laws of 1825 had become effective, the instructors' dissatisfaction with the old order, to which Norton had testified, had been transformed into decided opposition to the new system. As a result, the faculty so successfully pared it down that a university could hardly have developed even if the need for financial retrenchment had not at that moment intervened.[49]

In 1824 the College expenses amounted to $33,404.79, or $758.41 less than income;[50] in 1825 they appear to have been $33,749. In 1826 they had risen to $34,564.48. In 1826, moreover, student fees brought in $2,450.25 less than they had in 1825. Consequently, the 1826 expenditure from permanent funds exceeded by $3,265.73 the 1825 outlay from this source. In view of this considerable item and of others, a committee appointed to look into the financial state of the College recommended a retrenchment of $4,000 or more. Lowering of the tuition charge from $55 to $30 per annum called for an additional cut of $5,000. This meant a total reduction of $9,000, or approximately one-quarter of the budget.[51] The implications of the situation were great; and the committee, Charles Jackson, Nathaniel Bowditch, and Francis C. Gray, did not flinch at pointing them out: "We are not insensible how great a benefit it would be to the public and how great an honor to the College, if we had Professors, who might confine their instruction in each department, to such as had mastered its rudiments, and who might immediately make known here, the discoveries of other learned men in all countries, and extend the boundaries of science by their own. But when it is found that the income of the College is so reduced that this object cannot be attained but by refusing elementary instruction, or by offering it at so high a price that few can receive it & that the number is constantly diminishing, so as to increase the burden on each individual, we have only to regret that the patronage bestowed on the College, and the state of Society among us, do not permit us to enjoy the privilege any longer."[52]

In this crisis Ticknor acknowledged that the plight of the College demanded sacrifice, but he insisted that something more must be done or "the College can never regain its former rank and consideration."[53] The speedy introduction of an effectual system of instruction, he hoped, would restore to it the respect it had formerly enjoyed. In other words, he apparently believed that debt might be avoided by raising the prestige and presumably the income of the College; but the Harvard authorities acted

upon the more cautious policy of limiting operations in order to keep expenses down.

Just a few years after this decision was reached, a British traveler remarked that there was an abundant desire to learn in America but that this was not accompanied by an adequate reward for learning.[54] If this was true, even those men who did not question the importance of advanced education to the individual or to civilization could quite reasonably insist that the meager demand for learning did not warrant the building of universities. The need for them had to be widely, as well as intensely, felt. In slighting this point, educational reformers were sometimes impractical; in refusing to be paralyzed forever by temporary stringency, they showed their courage.

II

During the 1820's knowledge of German higher education served primarily to emphasize the inadequacy of the college. No serious effort was made to create an American replica of Göttingen or Berlin. Direct borrowing did not begin until the 1830's, when Harvard attempted to establish a seminar after the German pattern. This pedagogical device was in use when Ticknor was abroad, but it apparently made no great impression upon him. It had, however, struck Philip Lindsley, lately come to Nashville from Princeton. In 1825 he called attention to Heyne's philological seminar at Göttingen and to its role as a supplier of classical professors and teachers to the Continent of Europe: "We have our Theological Seminaries [said Lindsley]—our Medical and our Law schools—which receive the graduates of our colleges, and fit them for their respective professions. And whenever the *profession* of teaching shall be duly honoured and appreciated, it is not doubted but that it will receive similar attention, and be favoured with equal advantages."[55] Three years later the *North American Review* praised the German philological seminars, or "seminaries," as they were then called,[56] in an article which described their operation, the demand for their members as teachers in gymnasia and universities, and the inestimable benefit to the public resulting from them: "They [the philological seminaries] impart to the student a scientific knowledge of the profession he is going to practise as teacher, form his character and habits as such, by causing him to study the art of communicating his ideas in the simplest and most engaging manner, to shape and to finish the thoughts of his pupil according to his own model, and to instil into his tender mind those delicate and elevated feelings of honor, which

are the best safeguard against illiberality of opinion, and against the abuse of confidence."[57]

Not long after this was written, a German classicist with a Tübingen doctorate began teaching Latin at Harvard. Charles Beck[58] had come to America in 1824 and had taught for some time in secondary schools. With this experience behind him when he came to the Yard in 1831, he began immediately to plan a philological seminary, designed in part to train teachers.

President Josiah Quincy was friendly toward the experiment, although he refused to surrender to the clamor against existing schools for not advancing as fast as the spirit of the age. Educational authorities, he maintained, should yield "nothing to any temporary excitement,—nothing to the desire of popularity,—nothing to the hope of increasing their numbers: nothing to those morbid cravings for farther supply, which the cheapness and abundance of exhilirating [*sic*] literary elements and their evaporating qualities have a tendency to create."[59] Yet he did not oppose all reform. He believed that at different stages of society the means adopted for arousing and directing the "intellectual principle" had varied according to prevailing opinions and influences.[60] He would bring Harvard into conformity with the influences he felt to be dominant. "The duty to consider science & learning, as an independent interest of the community [he said], begins to be very generally felt and acknowledged.—Both in Europe & America attempts are making to rescue the general mind from the vassalage in which it has been held, by sects in the church, and by parties in the state;—by giving to those interests as far as possible, a vitality of their own."[61] In an effort to promote this vitality, Quincy later experimented with a general system of voluntary study; but first he listened to a Beck variation on the theme.

The earliest formal recommendation of a seminary appears to have been laid before the Corporation on June 23, 1831.[62] Pointing out the need for special instruction for teachers, Beck said: "We should carefully distinguish between that degree of information which may be sufficient for an individual whose object is to develope [*sic*] & cultivate the powers of his mind, & that comprehensive knowledge necessary for instructing, embracing the whole branch in which instruction is to be given; these two kinds of knowledge differ materially in their object, extent & the manner of their acquisition."[63] The regular college, he went on, did not and should supply the learning necessary for the instructor, whose need for special knowledge had been accentuated by the development of classical learning in the preceding fifty years. America should not always be dependent upon Europe

for knowledge of this sort. Although progress would have to be slow, circumstances favored improvement. In particular, Beck stated: "A classical Seminary . . . should be formed by degrees but still the final object should be fixed & well understood. Such a Seminary should give 1) a complete instruction in classical philology, comprising a thorough acquaintance with the language, literature & history, in the widest sense of the word of the Greeks & Romans. 2) a complete course in history & 3) in mathematics. This wd [*sic*] constitute a philosophical school as I shall call it, corresponding to the philosophical faculty of European universities, & in common with the theological[,] law & medical schools complete the structure of our university."[64] The teacher in a classical school should command the knowledge communicated in the three departments of the philosophical school.

Beck next described in detail the operation of the first, or strictly philological, department. Instead of terminating study of the ancient languages at the end of the junior year, as was customary, the student would continue for two or, if possible, three years. Instruction should be by lectures characterized by independent thought and continual recourse to the sources. This practice would foster habits of independence and thoroughness in the students and insure them against the baneful effects of dogmatizing. To these lectures would be added some practical exercises, probably by the students. They would write dissertations and would submit to examination before receiving certificates. To enable men, especially the impecunious, to remain in Cambridge for a fifth or sixth year, funds must be made available. By these means, Beck concluded, a class of professional teachers would be created, of whom the most distinguished might be chosen to fill chairs of classical literature in the colleges. Unfitness for any other calling would no longer be, as it had frequently been in the past, the sole qualification for the profession of teaching.[65]

With this or presumably a similar plan before it, the Corporation voted, on August 25, 1831, to establish a department to teach the theory and practice of instruction, with Charles Beck as the principal instructor and Cornelius C. Felton as his assistant. The President and these teachers were constituted a committee to prepare rules and regulations governing the venture.[66] After a number of weeks the committee submitted an outline of laws, which was referred to the President and Francis C. Gray of the Fellows.[67]

The seminary was to be made up of prospective teachers and others desiring to pursue a course of classical study for general purposes. The instruction, to be advanced and critical, would embrace two years, beginning with the senior year. It would be of three types: lectures by the instructors, interpretation by them, and interpretation and other practical exercises by the students. Student participation would be frequent. Certification would be qualitative as well as quantitative. After two years, those wishing to become instructors must pass a rigid examination consisting of a dissertation displaying all the student's literary skill as applied to a previously prescribed subject, a general oral examination, and an interpretation of an author not included in the regular program.[68]

On December 13, 1831, the President and Gray approved the plan with the significant reservation that no preference should be shown to students who were preparing to teach.[69] Obviously, advanced study was not to be overtly professional, whatever the motives of the students and the aim of the professors might be.

Following this action, the department completed its arrangements; and Beck recommended that a notice of classical studies be inserted in a catalogue of lectures and voluntary exercises. Specifically he suggested this schedule of studies:

FIRST TERM

1. Lectures on Greek literature by Felton, once a week.
2. The *Philoctetes* of Sophocles, explained by Felton, once a week.
3. *Captives* by Plautus, explained by Beck, once a week.
4. Cicero's *De Officiis*, explained by students under Beck's direction, once a week.

SECOND TERM

1. Lectures on Roman literature by Beck, once a week.
2. Cicero's *De Officiis*, as in first term.
3. The *Philoctetes* of Sophocles, as in first term.
4. Demosthenes *De Corona*, explained by students under Felton's direction, once a week.

THIRD TERM

1. Demosthenes *De Corona*, explained by Felton and students alternately.
2. Cicero's *De Officiis*, explained by Beck and students alternately.[70]

These offerings were obviously limited to one field; but the course was to be elastic. From a philological beginning, the seminary was expected to grow into something broader.[71] Almost at the outset both Beck and Quincy contemplated the eventual addition of mathematics to the department.[72] That the President regarded the school as an experiment[73] may have indicated some uncertainty on his part. He was, however, willing to give Beck a chance; and we know that Beck had a faculty of philosophy as the ultimate goal.

Only in one quarter was the future dark. The proposal for funds to pro-

vide aid to students had not been accepted. Only operation of the school, which opened for the academic year 1831–32, could reveal the tragedy of this departure from the original recommendation. At the end of one term Beck believed that experience had proved the practicability of the undertaking.[74] Nevertheless, he was uneasy, fearing that novelty might have accounted for part of the success. Clearly, something was needed to take its place. It could scarcely be expected, Beck said, "that any graduate will be found to continue his residence in C. one more year and devote himself principally to these studies. And yet it is of great importance to the continuance of the establishment that there should be from next commencement some graduates however few who will pursue these studies as their principal occupation who might serve as a nucleus for the second branch of the Seminary which may be said to exist, as yet, merely nominally."[75] Financial assistance for needy and worthy students was imperative, because the seminary was not yet sufficiently famous to attract those who wished to become professional classicists and who might later look to the prestige of the seminary for help in placement. Because it was unable to offer stipends to students, Beck questioned the seminary's ultimate success.[76]

Some members of the Corporation apparently shared his misgivings; for in June, 1832, that body accepted a committee report suggesting that appointment of graduates to the office of proctor would offer desirable encouragement and that proficiency in the philological department might be considered as one recommendation for the post.[77] This was the seed of graduate student aid, but it did not blossom into a general program. Lacking it, the seminary withered and was forgotten.[78]

IV

"The Spirit of the Age"

HARVARD'S experience was but one symptom of a general uneasiness over higher education in the United States. The colleges were being accused of failing to keep pace with a pervasive desire for reform.[1] They were warned that they would soon be deserted if they did not better accommodate themselves to the business character of the nation, and it was strongly urged that they be remodeled to adapt them to the spirit and the wants of the age.[2] In practice this meant the addition of courses parallel to the old curriculum and, by implication, the abandonment of a unitary undergraduate program. More slow-moving educators naturally questioned the advisability of change with the result that a serious controversy was well on its way by 1830.

I

In taking its stand Yale College touched in a backhanded but significant way on a policy for the development of universities. In 1827 its President and Fellows appointed a committee to consider eliminating compulsory Latin and Greek. Before publishing an opinion, the committee sought the advice of the faculty, which responded with two statements. One, presumably written by President Jeremiah Day, was concerned with matters of general theory; the other, the work of Professor James L. Kingsley, dealt with the particular questions posed by the Corporation.[3] Both statements argued against change. After hearing them, the committee presented a concurring report of its own to the Corporation, which accepted the findings before it and ordered their publication, together with as much of the faculty statements as was expedient.[4] Once in print this conglomerate document became famous as the Yale report of 1828. In it are imbedded the arguments of the conservative academic policy of the period.[5] The report as a whole embodies the classic American defense of the single prescribed course as it had developed up to that time. In many respects, it epitomized the Yale described contemporaneously by Captain Basil Hall: "It was extremely agreeable to see so many good old usages and orthodox

notions kept up as vigorously, all things considered, as possible. How long the able and zealous professors of this celebrated establishment will be able to stem effectually that deluge of innovation and would-be improvements in doctrine, discipline, and pursuits, which is sweeping over the rest of the Country, and obliterating so many of the land-marks of experience, I cannot pretend to say. Meanwhile, every thing that came under my notice, seemed judiciously regulated."[6]

However deserving of this Tory applause, Yale was not entirely blind to the German example which inspired men like Ticknor. The official committee report and the second faculty statement do not dwell at all on foreign institutions; but the first faculty statement explicitly discussed the role of Yale compared to that of a German university. The argument began by considering the proper object of collegiate education and proceeded to a defense of the compulsory course and to the proposition that undergraduate work was not professional. Here Day's opinion might have ended, had he been ignorant of European education. He was not, however, and devoted three substantial paragraphs to it. Yale, he said, was not patterned exactly after European universities; nor should it make a ludicrous attempt to imitate them. The German institution most nearly equivalent to the College was the gymnasium. If to the theological, medical, and law schools attached to Yale there was added "a School of Philosophy for the higher researches of literature and science,"[7] the four departments together would constitute a university in the Continental sense of the term; but the collegiate department would still have its distinct and appropriate purpose. Under existing circumstances it would be idle to remake the College along university lines.

Thus baldly stated, Day's view appears to have been a veto; but it was qualified. When he said that Yale should not make a ludicrous attempt at imitation, he added the clause, "while it [the College] is unprovided with the resources necessary to execute the purpose."[8] Moreover, he contrasted German university students and Yale men on the basis of their attainments and went on to say that the first and great improvement needed in New Haven was higher admission requirements. Finally, though doubting that a college without formal discipline would be popular, he said: "When the student has passed beyond the rugged and cheerless region of elementary learning, into the open and enchanting field where the great masters of science are moving onward with enthusiastic emulation; when, instead of plodding over a page of Latin or Greek, with his grammars, and dictionaries, and commentaries, he reads those languages with facility and delight; when, after taking a general survey of

the extensive and diversified territories of literature, he has selected those spots for cultivation which are best adapted to his talents and taste; he may then be safely left to pursue his course, without the impulse of authoritative injunctions, or the regulation of statutes and penalties."[9]

Connecting these remarks with the report's central thesis, one finds the fragmentary but unmistakable outline of a concept which was later to have wide currency. A college should remain a college in the old-fashioned American sense until it had the material means to offer something more than ordinary undergraduate teaching. Even when this came about, it should maintain a unified, general course at the undergraduate level; but it might add facilities for specialized study to graduates. Then it would be in fact comparable to a German gymnasium and university combined. College admission requirements should be raised; but collegiate and university work should be kept separate. In this respect the principle followed at Yale differed from that at Harvard. In New Haven the undergraduate department was to remain distinct, whereas in Cambridge undergraduate and graduate classes might be identical. One system emphasized the unity of the arts course, the other the diversity of individual talents. From this difference two distinct types of graduate work could develop—one the product of supplementing the traditional college, the second of transforming it.

The Yale policy required no such break with the past as did Ticknor's. In fact, when Yale produced a comparable young reformer, Daniel C. Gilman, he accomplished his greatest work outside of New Haven. Nevertheless, the Yale of the twenties was not without its young blood, inflamed with the German doctrine. When the author of the first faculty statement wrote that the universities of Germany had lately gained the notice and respect of informed Americans, he might have specified Henry E. Dwight, who while not an officer of the College, was the son of its late president, Timothy Dwight.

It is unlikely that the younger Dwight's letters from Germany in 1825 and 1826 were unknown in New Haven. These revealed a great enthusiasm for the German universities and a sharply critical attitude toward American higher education. They also contained several comments about Göttingen which resemble the remarks on German education in the report of 1828. The German universities, said Dwight, had four faculties—theological, legal, medical, and philosophical; the universities corresponded only to the professional departments of American colleges; and the German students, before entering the universities, had had a classical education in the gymnasia superior to that available in the American colleges.[10] Parts

of the faculty statement sound almost like a commentary on these opinions. Old Yale is apparently saying to young Yale: yes, we may ultimately become a university but we must not compromise the College, either financially or academically.[11]

Was the implication that increased resources might sometime allow expansion the vague, if not positively insincere, concession of the conservative who intends to oppose change but does not wish to appear arbitrary? Or did the Yale authorities actually contemplate graduate study at some future time? No conclusive answer is possible. Yet the fact was that, while the report of 1828 was being written, funds for graduate fellowships were accumulating in the College treasury. During the academic year 1811–12, when Henry E. Dwight's father was still alive, a florid, well-dressed Connecticut farmer in his middle thirties passed the autumn, winter, and part of the spring term at New Haven as a special student in the classes of the President and in Professor Benjamin Silliman's lectures in the department of natural philosophy and chemistry. Sheldon Clark was possessed of intelligence and independence of mind, but he had been prevented from entering Yale at the customary age by his parsimonious grandfather upon whom he was then dependent. The grandfather's death brought both moderate wealth and liberty to Clark, who took advantage of them to fulfil in part his old ambition. Although he did not often reappear after leaving New Haven in the spring of 1812, presumably to plant his crops, he retained a devotion to learning. For years, he plowed his stony farm, fattened cattle, taught school in the winter, loaned money, and, in general, increased his productive capital. Moreover, he did not marry, so that he was presently a man of wealth with no family of his own. In1822 he came to Silliman asking for a private interview. Out of it came a deposit with the College of $5,000 for the endowment of a professorship. After this generosity, Clark was entertained by the President and professors in what was apparently a most gratifying manner; for his first gift was followed by a second.[12] Under its terms the College received $1,000, which was to be permitted to accumulate interest for twenty-four years. At the end of that period the Corporation was to appropriate $4,000 for the founding of a scholarship or scholarships. The annual income from the $4,000 should be divided into two parts, one to be granted for two years to a student from the class to be graduated in 1848 and thereafter to a scholar selected from each even-year class. The second portion was to be awarded for two years at a time to a member of the odd-year class, beginning in 1849. Students receiving the grants must stand highest in a special examination covering all branches of literature and science included

in the college course. Scholarship-holders must reside in New Haven for nine months of each of the two years immediately following graduation and must devote themselves to a course of study prescribed by the President and "academical" professors and adapted to their particular genius and prospects of usefulness but not including the studies of any of the three professions.[13]

Clark's philosophical bent combined with respect for formal education may have interested him in advanced, nonprofessional study. But would an American farmer of 1824, even with an unusual taste for academic life, have thought of endowing a fellowship without some prompting from educators? One can imagine an occasion on which the President of Yale or perhaps Professor Silliman, who was on very good terms with Clark, spoke to him of a need to keep studious young men at their books after graduation from college. Possibly the snares of infidelity associated with study abroad were mentioned. At any rate the gift was accepted by the Yale authorities, who could hardly have forgotten it when the possibility of advanced study was discussed.

When the stipulated twenty-four years had elapsed, the Clark Scholarships were announced. In 1849 the younger Timothy Dwight, grandson of the president under whom Clark had studied, received one of the grants as a member of a Department of Philosophy and the Arts,[14] which was in part created because the Clark fund made some support of graduate study a reality. This department was the link between the Yale of the 1828 report and the Yale of the modern Graduate School.

II

Early in 1830 the *New York American* printed a letter attacking the spirit of the age and citing the Yale report of 1828 as a warning against the actual injury which would result from the establishment of a university. The admonition was directed in particular at the friends of an institution which was then being projected.[15] Originally called the University of the City of New York, it ultimately became known as New York University. The first open meeting in its behalf had been held on January 6, 1830.[16]

Much thought and money were spent on elementary education, ran the chief argument presented at the meeting, but had not the higher branches been neglected? Something was needed for young persons who were staying at home while training for the learned professions; for youths in danger of dissipation; for all young men preparing for agricultural, commercial, or higher mechanical pursuits; for those already so engaged, who desired further information; for persons of advanced age and of leisure,

who might study for pleasure; and for persons from all parts of the country seeking the advantages of concentrated talent, information, and activity. A great metropolis was the proper location for a university; and the one projected was to be situated in the heart of the city. The institution would be supplied with a well-selected and extensive library covering all branches of knowledge, with specimens illustrating natural history, and with apparatus for experimentation. It would have professors to teach all these subjects, and it would be open to everyone of good moral character and of sufficient preparation to avail himself of its privileges. Students would be allowed to attend one or more courses, according to their capacity or intended occupation or profession. The cost of the university would be moderate, its physical plant simple.[17]

Neither this statement nor the minutes of the early organization meetings contain evidence that a graduate school, pure and simple, was anticipated. When on January 14, 1830, a standing committee adopted an outline plan for the project, it stated that the principal aim of the proposed institution should be "to extend the benefits of education in greater abundance and variety, and at a cheaper rate, than at present they are enjoyed."[18] A committee reporting in March, on a program of instruction, struck a similar note. "The object of the University is to extend the means and opportunities for acquiring knowledge, and by no means to degrade the standards of literature by an indiscriminating distribution of its honours."[19]

Nothing was said of raising the standards of literature. Yet the founders of the University thought of providing for advanced study,[20] possibly under the inspiration of a current newspaper controversy over higher education. On December 24, 1829, Joseph Leo Wolf, a German living in the United States, began the discussion by recommending adoption of a university plan similar to that in his homeland. He stated that a university should be a *Universitas Literarum* [*sic*], a place like the University of Berlin, where all knowledge was taught. Only those should be admitted who could give evidence by testimonial or examination that their education was sufficient to prepare them for professional studies. A knowledge of classical languages and a considerable familiarity with their authors should be one of the first requirements for matriculation, because of the beneficial effects of such study on the minds and the principles of youth. Ferdinand R. Hassler, a Göttingen man of thirty-five years' standing and superintendent of the United States Coastal Survey, took sharp exception to the establishment of admission requirements. They were wrong in principle as well as contrary to German usage. In reply to Hassler, Wolf in-

sisted that at Berlin, Halle, Bonn, Marburg, Leipzig, and Munich no one was permitted to matriculate as a student except by legal testimony of a classical education in a gymnasium, or by examination. He did not recommend equally strict requirements for Americans but argued that admission regulations should be made more rigid as soon as openings for liberal education were increased. "There is no science, no matter what, into which a man can enter, profoundly without a thorough school-education."[21]

Graduate study was discussed again in October, 1830, at a Convention of Literary and Scientific Gentlemen called together by friends of the University. This "Congress of Philosophers"[22] included Edward Livingston, Albert Gallatin, Churchill C. Cambreleng, Theodore Woolsey, Henry E. Dwight, Thomas H. Gallaudet, Francis Lieber, Jared Sparks, William C. Woodbridge, and John Trumbull, as well as Hassler and Wolf. Four college presidents and a number of professors attended;[23] and although two other academic men of considerable distinction, Moses Stuart of Andover Theological Seminary and Henry Vethake of Princeton, could not be present, they sent letters of advice.

If the organizers of the convention had hoped for agreement on academic policy, they must have been disappointed. An attempt was made to focus debate on specific points of discussion or inquiry; but the attention of the meeting wandered. Every discussion, said one reporter, was arrested without one's being able to discover at what conclusion the convention had arrived.[24] The gathering did, however, serve as a sounding board for a few individuals who insisted upon the distinction between the American college and the German gymnasium on the one hand and a university on the other. Woodbridge pointed out: "In Europe, the line is distinctly drawn between the students of different ages, and in different periods of advancement. In our institutions, those of all ages are mingled. There, there are schools adapted to every age. The Latin schools and the gymnasia take the place of our colleges, and young men do not appear in the university, until the age of eighteen."[25]

Francis Lieber referred to the correspondence of American colleges with German gymnasia,[26] and when William H. Keating, a chemistry professor with European training, stated that the American colleges were probably, on the average, equal to similar European institutions, he had German gymnasia, French lyceums, and the English schools of Eton, Harrow, or Westminster in mind. He added that the United States had nothing of a higher grade. "Yet the condition of our country is such, as amply to call for it. Our colleges afford no facilities to those young men who, either from

the affluence of their circumstances, or from their thirst after knowledge, are disposed to devote a few additional years to the acquisition of a thorough knowledge of any one department of science or literature. The number of these young men is already great; it is daily increasing, and it is certainly desirable that they should find, at home, those facilities which they are now obliged to seek abroad."[27]

Henry E. Dwight implied that the colleges of this country were inferior schools when he spoke of the very general feeling in America "that we need a University like those of Germany."[28] "Graduates after leaving the colleges of the United States [he said], usually abandon their classical studies, because there are no Universities to which they can resort, and attend lectures on the higher branches of classical literature. If this University should in this respect equal the ardent hopes, and may I not add the expectations of its friends, many of the graduates of our colleges will visit it for the purpose of pursuing criticism, and we shall ere long see some of that enthusiasm, for classical literature, which is now so visible in Germany."[29]

The difference between the college and the university was most elaborately discussed in a paper prepared by Joseph Leo Wolf: "The principal point to be kept in view, is, in my opinion, the distinct line, which should be drawn between a college and a University, as has justly been observed by several gentlemen of the Convention. Both may exist under the same head, but separately from each other. But the question is: what is called for? is it a university, or a college? and what are the objects of each?

"A college has to privide [*sic*] for the *eruditio* of young men, if I may style it so; to fit them for the common vocations of life. Of this kind, the same as are called *Gymnasia* in Germany, we have a sufficient number, and among them many, which may rival with the most famous of Europe.

"A University, however, is to satisfy the higher demands of science; *Universitas literarum* [*sic*] is its object. . . . The students who are to be received in the University, must be expected to have passed previously through a regular college education."[30]

General distinctions were not enough, however, to guide the new enterprise. There remained the need for a specific policy adjusting ideals to circumstances. What exactly could the University wisely attempt to do? Albert Gallatin dealt with this question in an address revealing his appreciation of learning on the one hand and his concern for practical affairs on the other.[31] Two objects were known to be contemplated, he began: "One is, to elevate the standard of learning, to complete the studies commenced in the colleges, to embrace in the plan of education

those branches which may not be included in that of the existing seminaries of learning; in a word, to assimilate the University to the most celebrated establishments abroad, which are designated by that name. The other is, to diffuse knowledge, and to render it more accessible to the community at large."[32]

No insurmountable obstacles stood in the way of attaining the first object in due time; for the University should supply unsatisfied wants. Consequently it did not need to teach divinity, medicine, or law, which were available elsewhere. "Our attention in this upper department, may at first be confined to general science and literature, to what are called abroad the philosophical faculty, or the faculties of science and letters,"[33] in which the students would be college graduates or men of similar age. The diffusion of knowledge would be more difficult to provide for. Moreover, it would not be easy, Gallatin wrote privately, to connect "the study of sciences and letters carried to a higher extent than is usual in the colleges of this part of the country, with popular and general education fitted for men not designed for the liberal professions."[34] Perhaps an "English college," by which Gallatin meant a nonclassical institution, was the solution. The dead languages might be included in the University's offering, but they should not be treated as "the primary, fundamental, and absolute requisite of a learned education."[35] So considered they blocked the greater part of mankind from every branch of knowledge; but an English college would open a new road to the highest learning. In other words Gallatin proposed to meet the clamor of the times for useful information; but, while introducing a specific alternative to the Greek-Latin bottleneck, he did not advocate a general scheme for educating practically everybody.

When this and many other speeches had been delivered, the Literary Convention adjourned; and the Council of the University, its governing body, went to work. A committee, of which Gallatin was a member, was appointed to prepare a plan of organization. It was also instructed to correspond with other colleges and universities and to take steps toward securing a charter. Before the end of the year the committee began reporting statutes for consideration by the Council, which in late January, 1831, adopted the Constitution and Statutes, as amended.[36]

Chapter iv, which determined the structure of the University, showed traces of Gallatin's thinking. The new institution would have two general departments. The first comprised professorships and faculties for instruction in the higher branches of literature and science.[37] The second included a complete course of English literature, mathematics, and science.

Moreover, just as Gallatin had spoken of "the prodigious progress of science,"[38] the statute provided for expansion of the first department with "the progress of discovery."[39] There was, however, to be a classical course, as well as the English component in the second department. That the Council went beyond Gallatin's suggestions here may mean that he did not influence the organization of the University of the City of New York as strongly as his old political leader, Jefferson, did the University of Virginia although he left his mark on the new experiment.[40]

Once the Council had given shape to the University, it petitioned the state legislature for a charter.[41] By asserting that one of the two aims of the institution was to present "some of the advantages for a finished education which are enjoyed in the great universities of Europe,"[42] the Council seems to have committed itself formally to some form of graduate instruction.[43] Its most important action, however, was to establish a planning committee for the two undergraduate courses only. Perhaps because this group was empowered to consider a blending of the two courses, which Gallatin did not approve, possibly because the upper department was not mentioned—one does not know—the resolutions on this matter were first tabled; but they were ultimately passed. Soon afterward the charter was granted, and the Council set up another committee to report on organization of the University. In October, 1831, still another committee was appointed to consider revision of the statutes. Finally on March 13, 1832, the Council set up a committee to investigate the possibility of opening the University in the fall.[44]

This group enumerated the indispensable needs of the University: seven professorships, devoted to intellectual philosophy, English literature and belles-lettres; Latin and Greek language and literature; mathematics and civil engineering; natural philosophy, astronomy, and mechanics; moral philosophy and evidences of revealed religion; chemistry; history, geography, and statistics. With these, it was said, the University facilities would equal those available elsewhere in the country. The committee also recommended fee-supported professorships in Oriental languages and literatures; German language and literature; French language and literature; Spanish language and literature; Italian language and literature; and the philosophy of education.[45] No mention was made of a faculty for instruction at a level higher than the customary one.

Yet the advanced department was not entirely forgotten. In September, 1832, a Council committee advertised the department of learned languages as combining ordinary classical studies "with that higher exegetical instruction in Classical Literature, which is given in many of the Universities of Europe."[46] Moreover, at the formal inauguration of professors in the autumn, James Milnor, the presiding officer of the Council, stated that the founders thought it practical to furnish "such whose inclinations, talents, and expectations might lead to desires more extensive [than the nonclassical ones], not only with the portion of learning usually dispensed in colleges; but, if desired, with that more exalted measure of attainment, especially in classical studies afforded by the most eminent Seats of Learning in the transatlantic world."[47] Whether or not the University fulfilled this expectation was the responsibility of James M. Mathews, its first Chancellor. With his friends, he controlled the Council and the University for more than six formative years.[48]

Mathews was a handsome and ambitious clergyman. Both his admirers and his enemies would have vouched for his enterprise;[49] but they disagreed violently over his character and his policy. The anti-Mathews forces believed that his real objective did not jibe with the University's ostensible purposes. In 1833, for example, three disaffected professors claimed that, despite the Literary Convention, the Chancellor did not dream of an institution more elevated than a college.[50] Mathews had been a member of the committee which designated the professorships without specific regard for a higher department. Yet on at least one occasion which cannot be explained away as a disingenuous bid for public favor, he asserted: "The Institution . . . was never designed for a mere College. It is a University; & while it includes the course of instruction usual in our Colleges, it has avowed its . . . design to be such an enlargement of the means of Education as may not only carry students so disposed, beyond the limits of the usual College course but also provide ev[er]y facility for instruction to those who may desire it in particular branches of Letters or Science. . . . [This instituiton is pledged that its work] be so fitted as to invite to it not only undergraduates but also gentlemen who may have already take[n] their degrees at other Institutions or our own; and who may feel inclined to carry their studies forward to higher proportions [?], & more maturity."[51]

Whatever his views, Mathews was not a wise leader. An effort to rule rather than to persuade cost him the co-operation of almost every professor[52] to pass through the University during his incumbency. To this fault he added financial irresponsibility and extravagance, and he spent heavily for physical plant rather than for men and books. Reversing the original plan to house the University plainly, Mathews sought grandeur, arguing from an allegedly general feeling that to attract gifts the University needed a building corresponding to "the prevailing taste

in architecture."[53] This called for a costly medieval monument even though Mathews had once spoken disparagingly of "the rude Goth" and his fatal influence on the arts.[54]

Faculty dissension and a dubious use of funds did not, however, immediately paralyze the University. In 1835 a department for instruction in the higher branches of literature and science and in professional studies was announced. Matriculated members would be admitted on Baccalaureate diploma or on examination. Holders of a Bachelor's degree could receive a Master's degree after a three-year course in any of the Faculties, followed by the proper examinations. The department of higher studies was to offer instruction in:

FACULTY OF LETTERS AND FINE ARTS

Sacred literature
1. Lectures on the style, imagery, civil polity, ethics, and antiquities of the Bible.
2. Lectures on the sources of biblical illustration.

Hebrew and oriental languages
Lectures on the languages and literature of the Hebrews and other oriental nations.

Greek
1. Lectures on the Greek language and literature.
2. Lectures on particular authors.

Latin
1. Lectures on Roman history, antiquities, and literature.
2. Lectures on particular authors.

Intellectual and moral philosophy
1. Lectures on the history of philosophy.
2. Lectures on intellectual and moral philosophy.
3. Lectures on the philosophy of education.

English literature and belles-lettres
1. Lectures on the history of English language and literature.
2. Lectures on English literature.

History
Lectures on the philosophy of history.

French
Lectures on French literature, accompanied with biographical sketches of French writers.

Spanish
Lectures on Spanish literature.

Italian
Lectures on Italian literature.

German
Lectures on German literature.

Literature of the arts of design
1. Lectures on the principles of the arts of design.
2. Painting as a profession.

FACULTY OF SCIENCE AND THE ARTS

Mathematics
1. Lectures on the higher mathematics requisite for a study of mécanique céleste.
2. Lectures on the application of mathematics to the arts.
3. Lectures on the history of mathematics, the present state of the mathematical sciences, and the modes of prosecuting discovery.

Natural philosophy
1. Lectures on the higher mechanics and on the application of the principles of mechanics to the arts.
2. Lectures on practical and physical astronomy.
3. Lectures on the history and present state of the physical sciences.

Chemistry and botany
1. Lectures on the application of chemistry to the arts and on the chemistry of nature.
2. Lectures on botany.

Geology and mineralogy
1. Lectures on the principles of mineralogy as applied to geology and the arts.
2. Lectures on Scripture geology or the consistency of the Mosaic history with the present appearances of the different formations and strata.

Architecture and civil engineering
Nature and use of materials; elements of construction; principles of design in architecture, and of the plan, location, and construction of public works.[55]

Here, obviously, was the higher department of the statute; but the University, keeping close to tradition in one respect, agreed to award the M.A. degree not only to matriculated graduate students but also to others who did not necessarily have any formal education beyond college.[56]

This practice and a regulation permitting "attending" students make it impossible to assume that all holders of an M.A. degree or all students registered in the higher department were graduate students in our present sense. In 1837 Mathews stated that many of the students in the higher department of science and letters were graduates of institutions in various parts of the country;[57] but he seems to have exaggerated. In the academic year 1836–37, fifty-three students paid full tuition.[58] The majority of these must have been undergraduates, however, as the usual graduating classes numbered twelve or more from 1836 through 1838.[59] The residue would have been small. If advanced students did enrol, they did not remain sufficiently long or work seriously enough to receive recognition on commencement day, for the Master's degrees awarded between 1836 and 1840 were apparently in course or honorary.[60]

After 1837 there was little probability that graduate students would be attracted to the University. In November of that year the Finance Committee of the Council reported that unparalleled pecuniary distress

was delaying payment of subscriptions[61] and joined another committee in recommending that the chairs of Latin and Greek, and those of mathematics, chemistry, and natural philosophy be combined "so far as may be done without lowering the standard of undergraduate education below what is usually found in the most respectable Colleges around us."[62] The maintaining of extraordinarily high standards was not mentioned. The depression of 1837 was obviously making itself felt in a university built in part on the pledges of prosperous times.

Even so, in March, 1838, a committee was appointed to devise and execute plans for enlarging and improving the departments;[63] and soon afterward the University received a subsidy from the state. In announcing this aid to the Council, the Chancellor took pains to point out that the institution's distinctive character as a university had been of crucial importance in winning public support: "Had we been merely a College, and our instruction been limited chiefly to undergraduate branches of Education, our prospect of patronage from the State, would have been comparatively small. . . . But when the enlarged plan of the University was unfolded, showing that it comprises instruction in the entire range of the arts and sciences, as well as Education for the Professions of Law and Medicine, its claims to a liberal share of the patronage of the state were at once recognized."[64] This, as Mathews recognized, referred to the potentiality of the University, not the actuality. Yet he also reported that assurances of a balanced budget had been given the legislature; and he therefore expressed the hope that the Council would "without delay, proceed to place all the departments of the Institution on a footing that will answer the reasonable desires of our friends in this matter."[65]

That this meant retrenchment rather than expansion is revealed by the action which followed the Chancellor's recommendation. Committees on the several faculties were requested to suggest departmental arrangements which would be most economical and best adapted to bringing the expenditures of the University within its income.[66] These groups postponed submitting a plan until the Finance Committee had issued its report,[67] which proved on June 5, 1838, to be full of cheerless findings. Deficits ranging from approximately $5,000 to $10,000 had existed each year since the opening of the University. Construction and furnishing had cost more than $200,000, whereas paid-in subscriptions totaled only $83,130, plus an endowment toward one professorship. The University debt stood at almost exactly twice this latter sum—$170,583.48.[68]

Conceivably the University might have met this crisis without sacrificing its original aims. Unfortunately, however, its affairs were not to

be straightened out in an atmosphere of calm. For months an academic storm had been brewing; now it broke about the head of the Chancellor. On August 30, the governing board, nearly all of the original members of which had resigned in the course of time, approved a joint recommendation of the committees on the faculties that the Faculty of Science and Letters for instruction of undergraduates consist of one professor of languages; one of natural philosophy and mathematics; one of intellectual and moral philosophy and logic, who should also teach history; one of evidences of revealed religion and belles-lettres; one of chemistry, geology, mineralogy, and botany; and one assistant professor of languages, who should aid in other studies of the freshman year as occasion demanded.[69] This reorganization left seven of the eight faculty members without duties or salaries.[70] The next step, on September 28, was to discharge these seven men,[71] one of whom, Henry P. Tappan, later tried to undo the tragedy of 1838 by founding another great university in New York. When, early in 1839, Mathews resigned, the process of disintegration finally came to an end.

After the troubles of 1838 the statutes continued to provide for a higher department, but they were not fully carried out. When the 1839–40 catalogue announced no higher department, it must have been clear that the University no longer represented an active experiment in graduate education. Instead this aspect of the enterprise proved to be the *"half made, half furnished, . . . ephemeral affair"* against which Moses Stuart had warned at the outset.

III

While the University of the City of New York was seeking a practicable way to increase and diffuse knowledge, a bequest to the United States from James Smithson, an amateur British scientist, made this aim a public concern. Smithson's will called for the establishment of a learned institution in the city of Washington, but was silent on practically all matters of detail. Consequently, beginning in 1835, the President and Congress—or, as it turned out, a series of Presidents and Congresses—faced the nagging problem of determining what the Smithsonian Institution should be. At first sentiment strongly favored the founding of a national university, one Senator remarking that it seemed to be taken for granted that the bequest was meant for creating a university, although the word was not used in the text of the will.[72]

Before Congress finally decided against this line of argument, the question of graduate studies was raised. In 1838 President Van Buren

instructed Secretary of State John Forsyth to seek advice from scientific and educational experts in connection with the Smithson gift. The aging and astringent Dr. Thomas Cooper, who earlier had given Jefferson valued educational counsel, recommended the founding of a university open only to college graduates. Examination should be strict. Among other subjects, the curriculum might include higher algebraical calculus, the application of mathematics to astronomy, elementary electricity, and galvanism, and the principles of botany. But said Cooper: "No Latin or Greek; no mere literature. Things, not words." He rejected all belles-lettres and philosophical literature "as calculated only to make men pleasant talkers." (He also objected to medicine and law.) Ethics and politics were unsettled; and the status of physiology and political economy required more consideration than Cooper could give at the moment. In general, those studies should be cultivated which saved labor and increased and multiplied comforts for the mass of mankind. "Public education should be useful, not ornamental." In conclusion, he said that the course must cover not less than three academic years of ten months each; instruction should be free, and examination for admission rigid.[73]

Another of Forsyth's correspondents, President Francis Wayland, who had yet to undertake the greatest of his reforms at Brown University, answered somewhat differently. The country, he argued, did not lack instruction at the college level; and professional schools of divinity, law, and medicine were properly the concern of the sects or of the states or districts. Therefore, the Smithsonian, which he assumed would be national and educational, should occupy the gap between college and professional school in order to carry classical and philosophical education beyond the one and to supply a foundation for the other. "The demand for such instruction now exists very extensively. A very considerable portion of our best schools [scholars?] now graduate as early as their nineteenth, twentieth, or twenty-first year. If they are sufficiently wealthy, they prefer to wait a year before studying their profession. Some travel, some read, some remain as resident graduates, and many more teach school for a year or two, for the purpose of reviewing their studies. These would gladly resort to an institution in which their time might be profitably employed. The rapidly increasing wealth of our country will very greatly increase the number of such students."[74] An institution of this sort would furnish teachers, professors, and officers of every rank to other schools and would send a new grade of scholars into the professions, thereby adding to the intellectual power of the country. "As the standard of education was thus raised in the colleges, students would enter the national university better prepared. This would require greater effort on the part of its professors, and thus both would reciprocally stimulate each other."[75]

The subjects offered in the Institution should, with law and medicine, be those of the college, "only far more generously taught—that is, taught to men, and not to boys—":[76] Latin, Greek, Hebrew, the oriental languages; modern languages and their literatures; mathematics; astronomy, engineering; the art of war, beginning where it was left at West Point; chemistry; geology; mining; rhetoric and poetry; political economy; intellectual philosophy; physiology; anatomy; history, law of nations, and the general principles of the law, the Constitution, and so forth.[77] Degrees should never be conferred in course or *causa honoris* unless by the recommendation of the faculty. Once a man had graduated, he should be allowed to teach classes in any subject of the regular course and to receive payment for tickets. This practice would stimulate the regular professors, who were also to be paid in part by the sale of tickets; and it would train men to be teachers. These plans, however, came to nothing when Congress decided against using the Smithson funds to found a national university. Higher educational policy was not to be formulated in Washington.