

operating budget simultaneously with the seeking of a major foundation grant for Hampshire College, and that funds be sought to enable the participating institutions to enlarge their cooperation substantially during the next ten years.

The financial projections for Hampshire College, and for a rapid strengthening of the cooperative institutional environment in which the College will be set, are presented in the ninth chapter. From these it is apparent that given support to meet its capital requirements and initial operating deficits, Hampshire College could thereafter manage mainly on its own. In doing so, it would demonstrate the proposition put forward by the 1958 *New College Plan*: that a private institution of academic excellence can be organized to function principally on its tuition income. It is also apparent from the projections what would be required to demonstrate the advantages of active, serious collaboration among an important group of public and private institutions.

These projections together make clear the dimensions of "the strong and sudden effort" which I recommend as the proper course for Hampshire College and the institutions which have helped bring her into being. The delivery of the new College into the world is not an event discrete from the needs and purposes of the Valley community of institutions. As the first conception of the New College in 1958 was an expression of the linked interests of institutions, the birth of Hampshire College is a time to strengthen the family of which it is a part.

While the Working Paper represents valuable ideas and assistance from many quarters, shortcomings or errors in it are my responsibility alone.

An appendix lists individuals who, in various ways, have contributed to the evolution of ideas about Hampshire. I owe a special debt to Professor Daniel Bell of Columbia University, whose thinking about general education in the present period has substantially influenced my own. I am deeply grateful, too, to Mrs. Virginia H. Aldrich and Mrs. Ruth G. Hammen, whose devotion and care in the preparation of the manuscript made its early publication possible.

FRANKLIN PATTERSON  
*President*

December, 1966

# 1

## ISSUES AND PERSPECTIVES IN UNDERGRADUATE EDUCATION

*As new schools are founded, we shall, if we exert our options, be able to develop them with new educational philosophies, or with known ones, newly clarified. We have shown relatively little innovation in recent years either in the ends or in the means of higher education. A few small liberal arts colleges, such as St. John's or Antioch, continue to be our sports. New schools such as Hampshire College . . . may help revitalize the thinking about how new schools can create a special character.*

MARTIN MEYERSON  
*Daedalus*, Summer, 1966

HAMPSHIRE COLLEGE intends to pick up the glove that Martin Meyerson says the times have cast down for it. The elision in the prefatory quote from President Meyerson says correctly that the founding of Hampshire was prefaced "by asserting that it was concerned primarily with new means rather than ends in education. . . ." This separation in the College's conception of itself is no longer true. Hampshire is vitally interested in new means in higher education and proposes to demonstrate its interest by positive action. But it is equally interested in new and older ends for education in an epoch of radical growth and change. The discussion that follows is premised on the idea that ends and means are in reality inseparable.

Hampshire College begins its existence as an institution in the midst of enormous change and growth in American society. Undergraduate education as a whole is caught up in this total social flux, but for a new

private college the present situation is especially, and understandably, momentous. New private undergraduate colleges encounter conditions of unprecedented change alongside a range of opportunities for creative response which appears unlimited. They also confront remarkable hazards. The very existence and character of the private liberal arts college, new or old, are called into question by social and economic imperatives of the developing American scene.<sup>1</sup>

Hampshire College, even so, begins committed to the idea that there is a persisting need for excellent private liberal education in the mix of alternatives available to American youth. Further, Hampshire College stands for a belief that the private undergraduate institution must become again a force for needed redefinition and innovation in the whole field of higher education. The present current of immense change and growth does contain hazards, but many of these merit and demand more than avoidance. Properly considered, they may teach us new ways for the private college to contribute to the quality of education and life.

A reconnaissance shows at least four major sets of circumstances that provide private undergraduate education with the potential of disaster or of significant new points of departure. Without a creative and vigorous response, each of these sets of circumstances will operate on its own to constrict and distort the role of undergraduate education. Contrariwise, each presents extraordinary opportunities for a restatement of the function of undergraduate education in terms of positive relevance to our time. As such, the establishment of Hampshire College begins with attention to them.

### 1. ISSUES OF INSTITUTIONAL AND SOCIAL CHANGE

Social structure in the following discussion refers to the roles, relationships, and institutions of organized social life. Culture connotes the ways people feel, think, and act within a society. In America today, social structure is changing in some ways and in many others is under great stress. The culture, of which social structure should optimally be the consonant patterned expression, is changing with breathless speed and in directions which produce stress and conflict in the social structure. Higher education is enmeshed in this congeries of social and cultural change and is itself changing. All of these circumstances tend to affect the undergraduate college.

#### a. *The Consequences of Change in Higher Education*

Clearly observable change in higher education, as Daniel Bell has pointed out, includes a massive increase in research operations, a great expansion in the variety of roles of the professor, a heightened orientation to the disciplines, and the emergence of a very active national job market for the academic professional.<sup>2</sup>

Growing emphasis on research operations has substantially increased the power of graduate schools, magnifying both their funds and their prestige. In the academic status system, one who teaches only graduate students and participates in the graduate school's opportunities for research stands higher than one who is wholly occupied with teaching undergraduates. The increasing variety of professorial roles (in research, consultation, public policy, educational development) has required a lessening of the time professors spend in teaching. In an elite institution, a professor may teach only two courses, with one a research seminar, and expect frequent leaves for research and his other work. The heightened orientation of faculty to particular disciplines as the real community of their interest also has functioned to diminish the status and resources of undergraduate teaching. Able young faculty find research money available, so that teaching lower level courses is not always the economic necessity it once was. And they find that within their disciplines the road to recognition, advancement, and higher pay is through research and publication rather than through teaching. They aspire, therefore, to move out of the college and on into the more elevated world of the graduate school: the rewards and the research money are there. Their disciplines, through national professional associations, have become ideal national job markets through which to pursue this aspiration.

The consequences of all this for the undergraduate college, as the foregoing suggests, are profound. For many students, especially the more able ones in the better undergraduate institutions, college tends to become an anteroom to graduate school, to the real thing. A more serious impact on the small private liberal arts college is that an increasing number of the most able students choose not to go there at all, preferring instead to take their undergraduate instruction in university colleges, where contact with graduate school may be more easily and swiftly made. Many of the offerings of the undergraduate college, independent or university-related,

in any case are shaped by what the graduate school requires as preparation. And the small private college, as preceding discussion implied, finds it increasingly hard to acquire and hold first-rate younger faculty who will be content to stay in undergraduate teaching.

The net general result of such current changes in higher education is to erode the vitality and resources of undergraduate education, particularly in the independent liberal arts college.<sup>3</sup> The erosion of undergraduate education by developments in the total structure of higher education is complicated by phenomenal growth of the college population. College enrollment was one and one-half million in 1941. In 1966, a quarter century later, it stands at five and one-half million. All present projections are provisional; most past ones have proved much too conservative. One recent responsible estimate projects fifteen million college students in 1991, a quarter century ahead.<sup>4</sup> Whatever the case, growth of awesome proportions is a fact of American higher education and a demanding pressure on undergraduate institutions.

Given such pressure and given circumstances which erode undergraduate education, the private college has three choices: it can throw in the towel, it can pray for a miracle, or it can seek new forms for its own salvation and the good of the Republic. Hampshire College will opt, as later sections indicate, for demonstrating that the third choice is not only most honorable, but best.

#### b. *The Consequences of Social-Cultural Disjunction*

Here discussion must shift from changes within higher education to changes of critical importance in the general society of which higher education is a part. The nature and consequences of these larger societal changes will be ignored by higher education only at its own peril and that of the society it serves.

As suggested early in this section, in an optimum theoretical state of things social structure and culture would be generally congruent. This is simply to say that in such a state the formal and informal social structure has a significant degree of *match* with the culture: the ways people feel, think, and act in the totality of daily life are reasonably in line with the expected roles, relationships, and institutional patterns that we call social structure. In their explicit character, colleges and universities are part of

the general social structure and exhibit a social structure of their own. They are also part of the culture.

Whether a state of social and cultural congruence can exist outside of theory or outside of a society static to the point of tediousness is not the point. The hard fact is that social structure and culture in *our* society are increasingly out of phase with each other. There is a radical and growing disjunction of culture and social structure in contemporary society. Much of the way people feel, think, and act; their symbolic expression of ideas, art, and experience; their culture—is in conflict with a social structure which is changing less rapidly and often in directions which heighten conflict. This disjunction is seen nowhere more clearly than in the college and university. Nowhere else are its consequences more troubling or more demanding of intelligent attention.

Professor Bell remarks on four revolutionary "modes of experience" which mediate between social structure and culture, and which play a part in the contemporary disjunction between the two. One mode of experience is *number*: "the number of encounters each of us has, and the range of names, events, and knowledge we have to master—this is the most obvious fact about the world which today confronts us as a 'given'."<sup>5</sup> A second is complex *interaction*: what is distinctive about present society is not simply size and numbers but the vastly increased physical and psychic interaction which ties us directly and indirectly to so many other persons. A third mode of experience is *self-consciousness*:

To the classic question of identity, "who are you," a "traditional" person would say: "I am the son of my father." A person today says, "I am I, I come out of myself, and in choice and action I make myself. . . ." For us experience—rather than tradition, authority, revealed utterance or even reason—has become the source of understanding and of identity. . . . The sociological problem of reality in our time . . . arises because individuals have left old anchorages, no longer follow inherited ways, are constantly faced with problems of choice . . . and find no longer authoritative standards or critics to guide them.<sup>6</sup>

A fourth dominant mode of current experience is *time-orientation*: our society is incessantly future-directed, mobilizing for specific ends:

The greater pressures today devolve upon the young person. At an early age he is under pressure to make firm choices; to get good grades

in school, to enter a good college, to choose a vocation. At all stages he is rated, and the performance ratings now become a card of identity that he carries throughout his life.<sup>7</sup>

The consequences of these four modes of experience are essential for the college and university to consider. Number and interaction as constant modes of contemporary experience combine to shape human sensibility in the direction of expecting and expressing *immediacy, impact, novelty, sensation, and simultaneity*. They indeed produce a world *à go-go*. Self-consciousness (the modern "I") and the pressures of a mobilized society on the other hand, are modes of experience which tend to meet in direct conflict. The self-validating ego and a performance-driven social order represent the essential disjunction of culture and social structure. This disjunction of a demanding social order and a subjectivized culture leads to more and more open and conscious responses of rebellion, alienation, retreatism, apathy, or conformity among the young, "*particularly where . . . social mechanisms have been inadequate to handle the problems of innovation and adaptation.*"<sup>8</sup>

Colleges and universities are having experience with such responses. Kenneth Keniston deals with comparable phenomena from a somewhat different approach. He finds substantial alienation among young men and women who come from relatively advantaged homes, and who at one level of their existence meet well enough the performance demands of the society. Professor Keniston describes young people who are not open rebels, deviants, or delinquents, but are nonetheless deeply disaffected. They are caught up in modernism's definition of self as realized only through experience; they reject (at least privately, where life is "real") the highly organized society of adults as a costly and empty rat race; and their inner conflict comes through in a yearning for fusion with others, for absolute values, for the pure vision.<sup>9</sup> On the surface, they are growing up; i.e., giving society the competent performance expected of them. Underneath, they hate the whole thing, resist adulthood as they see it defined, and seek something better.

What is occurring with young people in colleges and universities is only part of a much larger disjunction in modern life.

The nature of an advanced technological society is among other things order, organization, time-orientation, problem-solving, discipline

in terms of mind and fact. It honors, among other things less lofty, knowledge, competence, professionalism, rationality. Through these and similar characteristics a technological society is able to master nature, achieve abundance, command unlimited energy, and comprehend more and more of the universe. It is also able to create gigantic problems, a goodly few of which remain drastically unsolved. But without the social characteristics it possesses, it is clear we would not have an advanced technology at all, and without the technology we would have more hunger, disease, drudgery, dullness, and death than we care to contemplate. The new society we have is in many ways vital and rich, and every part of the world is reaching for the kinds of benefits it can confer. The technological society is shaped increasingly by scientists, engineers, economists, and other professionals—a large range of related elites open to anyone able and educated enough to qualify. This, in broadest outline, is one of the two main massive thrusts in the modern period, legitimized and adapted to by the structure of society. It has its own flaws and limitations.\* But its vigor and virtues, real and potential, are not to be denied.

Opposed to and yet curiously fed by the great technological society is another force, running deep and wide in the culture as a whole. Alienation and anomic response in youth are only a partial expression of a much greater and more inclusive nihilism which:

has begun to attack the very core of culture and to proclaim a way of life that is really a withdrawal from society, a retreat into the "interior distance," a new gnostic mode which beats against all the historic, psychological taboos of civilization.<sup>10</sup>

The antecedents of "post-modern" nihilism are to be found in the effort of earlier modernism to free the individual from convention, to permit a radical detachment, to establish the autonomy of the ego, to let there be an "I"—in art, in social relations, in morality. The success of the revolution of modernism is with us. As Lionel Trilling puts it, the "I" has become an "us."<sup>11</sup> With a society of "I's" the only con-

\*An engineer who can share in the elegant exercise of close-up photography of the moon may turn out to be a dull and opinionated bore in the drawing room.

vention left is the lack of convention, and a radical subjectivity takes each in his own way.

The great freeing effect of such radical subjectivity is evident in much of the art, creative experience, and life of the present century; so, too, are its dangers. If technology untempered by a wisdom in its uses can damage or destroy us, so perhaps can radical subjectivity.

Post-modern nihilism in the arts is no longer the cult of the few, expressed by men like Genet and Burroughs moving beyond the anesthesia of feeling into hallucination and degradation. The abolition of constraint by substituting experience for art and sensation for judgment is being extended rapidly into mass culture itself, justified as freedom promoted by such diverse spirits as Susan Sontag<sup>12</sup> and Andy Warhol and hastened by the media supplied by the magic wand of technology.

Professor Bell remarks that three new dimensions of cultural transmission contribute to the present extension of post-modern nihilism, or what he calls the apocalyptic mode:

One is the heavy anti-institutional and even antinomian bias of the dominant literary culture. Few novels speak up for society or equate a social order with a moral order—even as a utopian possibility. Second, the receptive cultural media, eager for sensation, feed these ideas, albeit in vulgarized form, to a new and widening middle class market for "culture." Third, the radical ideas, though recurrent, trace a "widening gyre" so that at each successive turn more and more restraints crumble, all areas of the imagination are brought into exploratory, sensible reality, and, in the hunger for experience, *anything* is possible.<sup>13</sup>

Whatever analysis one applies to cause and ultimate direction, it is clear in the present that the thrust of a technological social order and the thrust of a radically subjective or nihilistic culture are incompatible. As things now stand, and are likely to, this incompatibility comes into sharp focus in the college and university. Higher education is increasingly an instrument of the specialized, professionalized, technological social order. Even its operations, to say nothing of its curriculum, increasingly require the apparatus (computer scheduling, scientific management, cost accounting, etc.) of organizations in a technological society. Higher education is an instrument of the humanities, too. But given the student's consciousness of self as experience-validated and

autonomous, and given the growing thrust of nihilism in both high and mass culture, the humanities do not provide the balance they once did. Many students, particularly those still mobile upward from modest circumstances and attending institutions of modest quality, will settle for the technocratic life without asking questions. Many others, like Professor Keniston's *Uncommitted*, will settle for competent professionalism in their public lives but be alienated and radically subjective in their private worlds. Others, and some of them the best, will disaffiliate altogether or as far as they can from any norms at all, having come to feel that not only is the given social order absurd, but that, indeed, all social orders are.

To the degree that the game falls out this way, all the players may be losers. The specific challenge to higher education in this context is to invent ways of playing the game that are not at the mercy of the social-cultural disjunction here reviewed. The social order can be technologically oriented *and* human, too. The culture can provide individual freedom *and* a sense of virtue in order, as well. Neither, while possible, is easy to demonstrate, now or any time. It is a crucial task of college and university to accomplish such demonstration, even against present odds. Hampshire College will undertake this task as a central matter of business.

## 2. ISSUES OF UNLIMITED DEMAND AND LIMITED RESOURCES

A second set of circumstances, interwoven in many ways with the first, raises questions about the proper nature, effectiveness, and continuation of the American four-year college pattern. These questions turn out to be especially thorny for the independent private liberal arts institution. They have principally to do with what can be expected of the liberal arts college in educational terms and whether the college is likely to have the academic and other resources to do its job.

There are important and responsible critics of "the idea of the college" in the liberal arts tradition who view it as moribund. It is argued on the one hand that the college is rapidly losing any really relevant function in liberal or general education because of widespread reform in the curriculum of secondary schools. This argument holds that a

continuance of general education in the college merely repeats, in a sense, what most able students will have studied in high school. It is argued on the other hand, as the preceding section suggested, that the liberal arts college, particularly if independent, no longer can expect to have the resources in faculty and facilities to present students with the quality and depth of preparation required by the graduate school. This argument holds that the requirements of early specialization are not only alien to the liberal arts idea but are such, especially in the sciences, that the liberal arts college is not likely to be able to meet them adequately even if it wants to.

On the first count, it is undeniable that present student preparation in the secondary school is altering the relationship of school and college. For a decade, curriculum reforms on a scale never before undertaken have been directed at the high school. These (e.g., in physics, chemistry, mathematics, biology, geography, anthropology, history, economics, social science) have involved leading scholars, many teachers and students, and expenditures of a magnitude unheard of in curriculum development prior to 1956.<sup>14</sup> In addition to national projects for curriculum reform, the past decade has witnessed a variety of other efforts to improve secondary school education. These have included the John Hay Fellows program for high school teachers, the improvement of laboratories and audio-visual facilities under the National Defense Education Act, the Advanced Placement program, the many provisions for aid and development in the Elementary and Secondary Education Act of 1965, and a host of other undertakings, many gotten under way by foundations and not a few generated at the local level by teachers themselves.<sup>15</sup> Collectively, these reforms and changes add up to substantial alteration in the high school offering, especially for those students going on to college.<sup>16</sup> This alteration is uneven; it is centered, as Professor Goodlad points out, on individual subjects revised "from the top down";<sup>17</sup> and it is not often the result of current, across-the-board educational planning. Nonetheless, it is consequential in the relationship of school to college.

This is particularly true in terms of the first two years of college, the so-called lower division. Many high school graduates enter colleges where little real change in lower division curriculum has occurred for a decade or more. As they do, they may well encounter a "Gov. I" (intro-

ductory political science) or other course or courses that are repetitious of material they studied in high school. Or, where reformed secondary courses introduced them actively to genuine hypothetico-deductive inquiry (as in the PSSC physics), they may find themselves up against a didactic kind of collegiate instruction which is intellectually disappointing by comparison. To the degree that college studies now repeat earlier material or do not advance the student's sophistication in methods of inquiry, it is essential that they be criticized.

At the same time, it is important to assess changes in the high school accurately in order to be intelligent about their implications for the college. In several ways, school reforms leave much to be desired. First, the emphasis on upgrading single subjects has tended to undercut any inclination the high school might have had toward providing an integrative or synthetic general education for its students. In this sense, most of the secondary school reforms have not contributed to liberal education understood as seeing the relatedness of things.<sup>18</sup> Second, most of the "national" curriculum projects have not yet been nearly as national in their effect as observers may assume, nor have they been much related to each other in reshaping a whole, coherent high school program. The result is that many high schools remain relatively untouched by curriculum reform of any kind, and in many others the degree of change varies greatly from subject to subject.<sup>19</sup> Third, in spite of the intention of the majority of curriculum reformers to encourage inquiry in the inductive and hypothetico-deductive mode, what actually is happening in high school preparation for college is intensely dominated by two quite different things: the drive to "cover" greater and greater quantities of information and the drive to upgrade college entrance examination scores. Two results of this are (a) that today's abler high school graduates have a remarkable command of information in certain specialized fields, and (b) that they are intellectually provincial, lacking insight into such things as the centrality of method in inquiry, the way values affect inquiry, the way ideas relate to social conditions, and the way history is constantly with us.

Even the best high schools tend to propose narrow intellectual tasks for their students. Their graduates in consequence come to college as young men and women who are still intellectually narrow. Liberal

education, it would seem, should yet have much to offer such students. This is not at all to say that the liberal arts college can do this effectively while staying just what it now is as far as program, stance, and style are concerned.

On the second count, the revolutionary development of research and knowledge in the best graduate schools, and the growing power and influence of those schools, indeed pose serious questions for undergraduate education. These problems arise in critical form in the natural sciences and mathematics and to some extent in the social sciences and humanities. In terms particularly of the natural sciences, these questions ask in one way or another whether it is any longer realistic for most undergraduate colleges, especially those which are independent and without great endowments, to continue to try to prepare students with "majors" in such fields as physics, chemistry, and biology.

Physics provides an example. A recent study prepared by the Committee on Physics Faculties in Colleges comments that a:

student at a college typically has very little contact with contemporary physics, and little awareness of the excitement and competition found in it. His college professors are out of the main-stream of physics. Having fewer contacts, they are, for instance, less able to aid him in obtaining meaningful scientific summer positions and in counseling him realistically on graduate schools. His lack of experience and lack of strong undergraduate preparation—the advanced undergraduate courses are often weaker at the colleges than at the universities—make it more difficult for him to enter a graduate school which matches his potential ability. If he is admitted, he often finds remedial work necessary and he finds it harder to complete graduate school successfully.<sup>20</sup>

As the Committee sees it, the possible inadequacies of the small college center around such deficits as low faculty strength and quality, low endowment per student, lack of competitive faculty salaries, lack of secretarial services and research facilities for faculty, unduly heavy teaching loads, and a college emphasis on faculty as pedagogues, not teacher-researchers. The Committee concludes that there "are a few undergraduate colleges which are outstanding in their ability to prepare their students for careers in physics. There is no reason why the number of such schools cannot increase appreciably,"<sup>21</sup> if colleges can remedy the defects noted above. The Committee presents profiles of good physics

programs at five private colleges to suggest what such quality would require. Among other things, the profiles show colleges which:

- are close (10-90 miles) to major physics centers
- have faculties preponderantly at the Ph.D. level
- have low student-faculty ratios
- have book value endowments of \$5,000 to \$40,000 per student
- have high average faculty salaries
- have appreciably smaller teaching loads than in most other colleges
- have an average of five physics professors at each institution
- have research grants (NSF, etc.) for faculty running as high as \$30,000/year/faculty member
- have active participation by physics faculty in publishing and other activities of their discipline
- have bright physics students, three out of four of whom go on to study in leading graduate schools in physics or related fields
- have available computers, secretarial assistance, regular sabbatical leave, adequate room for instruction and research and a separate physics or science library

The demands which must be satisfied in order to achieve adequate or good quality in undergraduate physics instruction in the private college are obviously stiff. When one looks at instruction and research at a major technical university, however, even these demands seem small. A single case may illustrate the point. One young physicist at M. I. T. teaches undergraduates the equivalent of one and a half hours per week. In addition he and his associates together instruct and supervise approximately twelve graduate students. This young man's research requires the use of very powerful nuclear accelerators. Although the Harvard-M. I. T. accelerator is new and powerful (six billion electron volts) he needs something better, and as a consequence commutes frequently to Stanford to use the twenty billion electron volt linear accelerator at Palo Alto. M. I. T. formally recognizes the value of continuing high energy physics research, the need of faculty for access to very powerful accelerators, and the necessity for the teacher-researcher to spend time

at the accelerator facility. This young man does not see how even a major teaching and research institution can expect to have first-rate scientists without providing for very light teaching loads and time to travel to and use expensive research facilities elsewhere.<sup>22</sup> He sees the major problem of the small private college involved in undergraduate physics instruction as one of having enough faculty who are able to keep up with and incorporate into their courses the changes in scientific knowledge which result from the galloping pace of current research.

One bit of cold comfort in the case of this young scientist is that, confronted by the unlimited demands of modern research, even the research facility resources of the Harvard-M. I. T. complex turn out to be limited! The only way the researcher-teacher in this instance can proceed undeterred in his pursuit of knowledge is by being able to take his need for a more powerful accelerator to another institution. In effect, this young scholar's experience reflects a collaboration of available resources which is becoming increasingly characteristic of work at the frontiers of scientific knowledge. If collaboration and the development and mutual use of complementary resources is the economic answer in such cases, independent undergraduate institutions should be able to find some moral in the fact.

Dean Jerome Wiesner, Provost of M. I. T., in discussion with Hampshire leadership concerning the future of the independent college, expresses a formulation of the situation as follows. First, neither in its general education nor in its provision for students who wish to go on in a science specialization after graduation, can the college "really be a college without doing an adequate job in the science fields." Second, it is reasonable to expect that a good private college should be able to find the resources and faculty to handle the sciences competently on its own in the first two years of its undergraduate program. Third, only if it can develop resources and faculty at least comparable to those revealed in the five-college physics study, can the college do an adequate job on its own for science majors, and this does not appear to be a likely prospect for most independent colleges. Fourth, it is sensible, therefore, to expect that independent colleges should work out *collaborative arrangements with each other and particularly with universities and technical institutes for helping meet the needs that science majors have for advanced instruction.*<sup>23</sup>

This discussion, with its principal emphasis on the natural sciences, may obscure the basic point that in all fields the expansion of inquiry and study is of such magnitude that pressing logistical problems are raised across-the-board for the independent liberal arts college. This point is complicated by the increasing pressure of all graduate and professional education to demand what in effect is specialized career or vocational preparation of undergraduates. The college must assess the meaning of both developments in terms of what it wants to do, what it ought to do, and what it can do best.

That it is not an entirely free agent in making such an assessment is clear. The private college, even more than institutions in the rapidly growing public sector, faces severe, chronic problems of finance which constrain it to choices it might not otherwise make.<sup>24</sup> Algo D. Henderson comments that:

it may be that the private colleges and universities will have to turn more and more to emphasizing distinctive purposes, exceptional quality, and experimentation. While doing a lesser share of the total job (due to growth in the number, size, and variety of public institutions), they can nevertheless continue to be highly influential in the evolving pattern of higher education.<sup>25</sup>

Professor Henderson might have added, and perhaps intended so to imply in his reference to "distinctive purposes," that in the face of unlimited educational demands and all-too-limited resources, the private institution may have to choose not to do a sizable number of things.

It might advisedly choose not to abandon a commitment to general education. Neither changes in secondary education nor the specialization pressures of the graduate schools are persuasive that the potential function of liberal education is obsolete. Present content and procedures of general education may be obsolete or uneconomic or both. But the function remains needed, and it is engaging to consider how it may be fulfilled in new, hopefully more relevant and productive ways.

The independent undergraduate institution may wisely not choose to try to go it alone in presenting advanced work in all the basic fields. Certainly *some* it should choose to do, where it is clear that resources are adequate for high quality. Others, as in the case of science, it should



consider providing through the cooperation and assistance of other institutions.

The latter choice should be seen not simply as an expedient to save the liberal arts institution from deserved or undeserved extinction. Instead, it emphasizes as a concrete illustration *the urgent need to see all of education, certainly secondary and higher education in this instance, as a coherent, mutually interacting system.* A biological analogy that Julius Stratton used in another context is to the point here: ". . . we must advance from the anatomy of components to the physiology of the organic whole. . . ." <sup>20</sup> At present, higher education is largely an assortment of discrete and varying components. Each is isolated from the other for the most part. In isolation, each pursues its own program with whatever resources it has. In the process, wasteful duplication of effort is common; so too are shortages of resources in all the common fields.

What appears needed instead is not the absorption of all component institutions into a closed system or monolithic organic whole. *The greatest actual need, for the welfare of the whole educational enterprise, is to establish and radically strengthen the cooperative association of diverse institutions in regions or localities, or in special areas of interest.* This is beginning to happen in public higher education in new developments of the University of California, for example. It has notable precedent in the cluster of private colleges and university resources at Claremont. In England, to judge by the *Franks Report*, Oxford is moving in this direction: the "disjunction between the University and the colleges is dangerous to both. . . . The remedy, as Edmund Burke knew, is 'association'." <sup>27</sup>

For the years ahead in America, one perceptive observer has predicted that:

A growing number of colleges and universities, both public and private, both the strong and the less strong, will enter into cooperative programs with neighboring institutions. In this way it will be economically possible for them to offer their students a wider range of special studies and facilities than any one institution could provide alone. In an era in which there will be far more than enough students to go around, the traditional competition among institutions of higher learning will give way to cooperation. <sup>28</sup>

In the Connecticut River Valley, four institutions (Amherst, Mount

Holyoke, Smith and the University of Massachusetts) have a history of unique association and cooperation between private and public institutions. This association has led to the organization of Hampshire College and other ventures. It remains, however, a nascent and hesitant association, rather than a bold effort to demonstrate and exploit fully the advantages of collaboration. As Hampshire College begins—adding a fifth institution to this group—a significant possible takeoff point has been arrived at in the Connecticut Valley. As later sections indicate, Hampshire College's establishment can provide the moment for rapid evolution of a rich, collaborative higher education complex which would demonstrate the viability of the Burkeian concept of association, would benefit each institution and its students, and yet would enable each institution to maintain its individual nature and quality.

### 3. ISSUES OF KNOWLEDGE: IMPLICATIONS FOR LANGUAGE AND INFORMATION TRANSFER

A third group of circumstances affects the college, higher education as a whole, and the society generally. Involved are the growth, organization, and exchange of knowledge, and the languages or symbolic systems we use in the process. Nothing is less separable from education than these considerations. Significant changes in them in turn change the conditions of intellectual life, including such conditions in school and college.

#### a. *The Exponential Growth and Differentiation of Knowledge*

The prodigious, accelerating accumulation of knowledge in our time has become a stock cliché of present social commentary. That it has should not obscure the fact that the accumulation of information is actual, and that it presents us with practical problems of prime relevance to education.

The expansion of knowledge is seen vividly in the field of science; the scientific journal, for example, provides a ready indicator of this growth. <sup>29</sup> The scientific revolution of the seventeenth century led to the appearance of journals intended to circulate new findings and theories. Scientists took advantage of the printed magazine as a device for the reasonably speedy transfer of information from one interested person to

a number of others. By 1750 there were perhaps ten scientific journals in the world. By 1800 there were a hundred; by 1850 there were a thousand; by 1900 there were roughly ten thousand scientific journals being published in the world. The number has increased by a factor of ten every fifty years since 1750.

In 1830, a mutation occurred: the first *abstract* journal made its appearance. There were then some three hundred scientific journals being published, and it had become clear that the man of science could not possibly keep up with them without some new aid. The abstract journal gave the reader a summary of many articles in many journals; he could then select for a full reading those articles which seemed most pertinent to his own work. But from then on, the number of abstract journals also increased at an exponential rate. In 1950 there were approximately three hundred abstract journals being published in the scientific world. And each journal itself tended to grow in size. One journal of abstracts in chemistry now publishes some thirteen thousand pages annually, not counting indexes and cross-references. A decade ago it was half this length.

Other figures are equally high. In medicine, approximately two hundred thousand articles in journals and some ten thousand monographs appear yearly. In the natural sciences as a whole there are currently sixty thousand books, one hundred thousand research reports, and 1.2 million articles being published each year.

Beyond the business of a sheer prodigious accumulation of scientific data in modern times, the situation of knowledge is made more complex by the fact that constant change occurs because new discoveries breed new differentiations of knowledge in new subdivisions and new specialties. Gerald Holton convincingly demonstrates this process of differentiation or branching by tracing the many and diverse studies which followed the 1929 brilliant work of I. I. Rabi in sending molecular beams through a magnetic field. These studies, taking off from Professor Rabi's breakthrough in pure physics, went in such directions as optics, masers, nuclear magnetic resonance, and atomic structure.<sup>30</sup>

Again, science is simply a most dramatic example of what is happening in the intellectual world generally. Illustrations of the expansion and differentiation of knowledge in the humanities, in the social sciences, in

engineering, in social technology and government, and other fields could be added. But the point, while emphasized, would stay the same: modern civilization rides a rising torrent of knowledge and information. How it does so has a great deal to do with education.

Two of the main lines of reciprocal relationship between the revolution in knowledge and the process of education are those of developments in information transfer and developments in languages. The two are tightly related themselves, and in a sense are two sides of the same coin. For convenience, they are dealt with separately here, as though developments in language were principally conceptual and intellectual, and as though developments and prospects in information transfer were principally technical. In fact, conceptualization and technique are a part of both developments.

#### *Language and the New Intellectual Technology*

Ideas are the great and classical instrumentality for controlling and using information. Science treated as essentially an accumulation or even as a classified inventory of factual information would be as wrong as the notion that history is principally a chronology of dates. Ideas (or call them theories, generalizations, propositions, etc.) are ways of stating succinctly and usefully the *meaning* of data. They, rather than information, are the language of the intellect. They enable us to use information without being engulfed by it. P. B. Medawar, Nobel laureate in medicine, argues indeed that:

The ballast of factual information, so far from being just about to sink us, is growing daily less. The factual burden of a science varies inversely with its degree of maturity. As a science advances, particular facts are comprehended within, and therefore in a sense annihilated by, general statements of steadily increasing explanatory power and compass—whereupon the facts may be forgotten, for they have no further right to independent existence. Biology before Darwin was almost all facts. . . . Certainly there is an epoch in the growth of a science during which facts accumulate faster than theories can accommodate them, but biology is over the hump, though biological learned journals still outnumber learned journals of . . . other kinds by about three to one. . . .<sup>31</sup>

The point is well taken and underlines the necessity for education to be profoundly concerned with the use of ideas in structuring knowledge.

Even so, things are not quite so simple as that. The present tempo of information accumulation is too great to be handled just by the epochal evolution from facts to big ideas that Dr. Medawar relies upon.

Simultaneous with the radical expansion of information there have been, therefore, revolutionary developments in what might be called the linguistics of information. That is to say, there have been efforts to develop new intellectual tools with which to grapple with information and wrestle with it toward meaning and conceptualization. These developments, as yet, are more commonly encountered in the social sciences and in operations than in the natural sciences. In recent years these developments have included game theory, decision theory, simulation, linear programming, cybernetics, and operations research. They have, in a sense, grown up with the computer. They rely heavily on mathematics in developing new intellectual techniques that will, hopefully, lead to the emergence of comprehensive new theories of rational choice. This carries with it a clear "corollary that all future work in the social sciences will require a high degree of mathematical training and sophistication."<sup>32</sup>

For now:

Paradoxically, though this new intellectual revolution seeks "perfect" information, it starts out in vast linguistic disorder. Any eruptive change makes for great confusion, the more so in the new intellectual technology, since its innovators and practitioners are a motley pack of mathematicians, physicists, engineers (of all varieties), statisticians, biologists, neurophysiologists, economists, management consultants, sociologists, and each man brings to the new field his own perspectives, terminology, and concepts. . . . Whatever the final clarification of terminology will be, it is clear that the computer and these techniques open up vast new possibilities. . . .<sup>33</sup>

The view of language expressed in this discussion is not confined to the problem of bringing linguistic order out of the newer intellectual technologies. In itself, this problem is one of the most exciting, exasperating, and potentially productive ventures of our time. But one must add to it other developments in language to get the full measure of possibilities.

Language as the comprehension and exchange of meaning in information is being approached in many other ways. Among these, one of the most promising is the new field of psycholinguistics. The name

of the field, only ten or so years old, suggests the focus. Psycholinguistics examines the human use of linguistic symbols, the intersection of psychosocial factors with the machinery of grammar and lexicon.

Its purview of course includes the study of language in the common-sense meaning of the term. That is, it is occupied with investigating psychological and social aspects of language as a vital part of day-to-day life in whatever vernacular. One of its leading students says, with deceptive simplicity, "the central task of this new science is to describe the psychological processes that go on when people use sentences."<sup>34</sup>

But its possibilities of application go far beyond this pure search. They relate to the whole range of information-handling and meaning-production problems touched upon earlier:

One thinks . . . of pedagogical applications, of potential improvements in our methods for teaching reading and writing, or for teaching second languages. If psycholinguistic principles were made sufficiently explicit, they could be imparted to those technological miracles of the twentieth century, the computing machines, which would bring into view a whole spectrum of cybernetics possibilities. We could exploit our electrical channels for voice communications more efficiently. We might improve and automate our dictionaries, using them for mechanical translation from one language to another. Perhaps computers could print what we say, or even say what we print. . . . We might, in short, learn to adapt computers to dozens of our human purposes if only we could interpret our languages. . . .<sup>35</sup>

George A. Miller, whose thoughts these are, is too good a scholar to let such possibilities carry him away from the first task, which is to get on with psycholinguistics itself. But Professor Miller's projections suggest, in the case of psycholinguistics, once again what a rich and moving field language now is and how central it is to the problem of knowledge. If we add to it developments in symbolic logic, in semantic analysis, in cultural linguistics and literatures, the emerging field of language may seem an amorphous and unmanageable behemoth. On the other hand, it may well be a most crucial and productive dimension of the new higher learning.

Hampshire College represents the latter view, as discussion in later sections will explain. A major consideration in setting forth a new definition of the content and function of liberal education at Hampshire College

will be the need to bring language consciously into a principal position in curriculum.

c. *The Technical Possibilities for Information Transfer*

The radical increase in available information and the experimental development of language and new intellectual technologies are paralleled on the "hardware" side by the rapid evolution of new machinery for information transfer. The connection between developments in language and new intellectual technologies on one hand and communications hardware on the other is intimate and reciprocal. Both are—and are likely to remain—in a state of continuous evolution. Both give promise—already remarkably demonstrated—that man will be able to keep up with the explosive expansion of knowledge.

The technologists of communication are rightly not modest about technical capabilities of their field. In the current year, the Carnegie Commission on Educational Television has been told the same thing repeatedly by America's leading telecommunications scientists and engineers. The net message, in reply to queries about what education can expect to have from communications technology in the next decade or so, is: "Anything you want." What such technologists say is that in terms of technical facilities for information transfer, the present state of the art is such that the only real limits are those that may result from timidity, lack of imagination, or lack of funds on the part of education. Even if a specific technical device does not now exist, if needed and demanded it is likely to be devised and produced.

This aside, there now already exists a far greater technology for information transfer than schools, colleges, and universities have begun to think how to use. Among these are or soon will be:

the capability for open and closed circuit radio and television, received in classrooms or elsewhere.

the capability for educational broadcasting from synchronous satellites to ground stations for rebroadcast. (The recent proposal of the Ford Foundation to the Federal Communications Commission in this regard illustrates the kind of relevant, audacious ingenuity that technology now permits.)

the capability for inexpensive electronic storage of audio-visual information for inexpensive playback. (CBS Laboratories have developed a 30-minute video disc which should sell for less than five dollars and be playable on a standard but inexpensive modified home TV set.)

the capability for multiple-access computer service by telephone connection.

the capability for facsimile reproduction of material via TWX or other wire service with delivery in one's study, office, or elsewhere.

the capability for inexpensive facsimile reproduction of books stored on microfilm and transferred to "book" pages by xerography. (Any of the 500,000 volumes, many rare, stored in the vaults of University Microfilms, Inc., of Ann Arbor can now be printed out by xerographic process, bound, and sold today at a standard price of 4½ cents per page softbound or 5 cents per page hardbound.)

the capability for programmed instruction via a wide range of devices from the simplest programmed textbook to the McGraw-Edison responsive environment device designed by Professor O. K. Moore as an outgrowth of his research at Yale.

These and other examples vary in their present value and potential usefulness. All, if used, ultimately depend for their value upon the quality of "software" (educational material, information, and ideas) with which they deal, and upon their being used not as disparate pieces of gadgetry but as integrated, functional parts of a coherent system.

If this is assumed, and if it is assumed that software commensurate in quality with the hardware *could* be produced, one is back to the question of demand. Should colleges and universities *want* the kinds of information transfer facilities and systems that modern technology can make available? And if they should, can obstacles of finance and lingering Luddite sentiment among faculty be overcome?

The answers to both questions, with some qualification, are likely in the long run to be affirmative. The reasons seem evident.

Higher education in every way deals with information and ideas. The astronomical growth and diversification of knowledge are making older ways of pooling and sharing information as unfeasible as they are economically indefensible. This is a hard fact of contemporary life and is

basically not unique at all to higher education.\* The expansion of knowledge, the new approaches to language and the new intellectual technologies, the increasing number of students and teacher-researchers, and the absolute importance of accessibility combine to make new techniques of information transfer essential in higher education.

A move toward adopting such techniques is on in many institutions. Harvard has established coaxial interconnection for video purposes on a campus-wide basis. The Irvine campus of the University of California is concentrating on computer-aided instruction in its initial planning. M. I. T. is engaged in a large-scale series of information transfer experiments in order to project a basic system for the institution in 1975. The M. I. T. information transfer system by that date will effectively replace one-half of what would ordinarily have to be library operations by information storage and retrieval via computer, serving the "on-line intellectual community" (students and professors) of the Institute. It is estimated that this system, "vastly different from the library of today in the scope of the services it seeks to provide," will account for \$15 million in M. I. T.'s annual operating budget for 1975.<sup>30</sup>

All of this is not to say that such developments will subvert the book. Nor that they should. A uniform feature of the evolution of communications technology indeed seems to be that each innovation tends to reinforce the use of earlier techniques, even while supplementing them radically. Thus there is now far wider use of the phonograph than in pre-radio times, and far more use of books than in the pre-television era. Libraries, as they are now known and loved, will still be needed and actively used in the age of electronic information transfer.<sup>37</sup>

But there will be immense change. The two-year study for the Council on Library Resources reported by J. C. R. Licklider in his *Libraries of the Future*, provides a sophisticated view of possibilities in the electronic age. Dr. Licklider's discussion emphasizes the point that language inno-

\*An automated direct-dialing telephone system, for example, presents the user with new and sometimes exasperating experiences. But it allows him to call a person three thousand miles away as swiftly as someone in the next block. And besides, without an automated switching system, the present volume of telephoning in the United States would require the services of the entire female work force of the nation as operators.

vation and computer evolution must go hand in hand. His conception of what will be involved in developments in the next twenty-five years argues for a major redefinition of the scope and capability that libraries heretofore have had:

The systems in which we are interested are broader than present-day libraries; the systems will extend farther into the process of generating, organizing, and using knowledge. . . . Since the systems are intended to promote the advancement and application of knowledge, they are "for knowledge," and thus *procognitive systems*.<sup>38</sup>

Dr. Licklider indicates, in addition to the question of economic feasibility, twenty-five rigorous criteria (including eight "appreciated more by . . . librarians than by users of libraries"! ) that computer-served procognitive systems of the future will have to satisfy. All, within the technical plan the projects, can realistically be met in the next quarter century. Meeting these criteria effectively would increase man's ability to interact with recorded knowledge by orders of magnitude far beyond the possibilities of present library techniques.

In addition to higher education's scholarly stake in the evolution of a procognitive systems approach to rapidly expanding knowledge, college and university have other reasons to be interested in the development of improved information transfer. Not the least of these is pedagogical.

Improved systems of information transfer by electronic means (including access to digital, pictorial, typed, aural, print facsimile, and other media) may reasonably be expected to serve two related pedagogical purposes. One would be to give the student increased direct experience *on call* with a far greater range of knowledge and service than he now can command. This is already the case in certain institutions. A student at Radcliffe, for example, can now be "on line" by telephone to a computer in Philadelphia, securing high-speed assistance in dealing with complex mathematical problems.

A second purpose, discussed by Jerome B. Wiesner in consultation about Hampshire College, would be to provide an electronic alternative to the tutorial system. Steps in this direction have been taken, for example, by Oklahoma Christian College in the design of its new library-learning center. The trouble at present, as Dean Wiesner sees it, is that adequately rich and flexible technology has not yet been produced to give us a

suitably good substitute for the tutorial situation. But such production can occur if there is an educational demand for it; the McGraw-Edison individualized responsive environment suggests what could be done. It is not unreasonable to proceed on the assumption that many of the virtues of the tutorial's give-and-take ultimately could be displayed by a sophisticated electronic system. Nor is it unreasonable to believe that such a system could be created and operated much less expensively than tutorials on the Oxford basis.\*

Such possibilities clearly exist for higher education today. Just as language, boldly conceived, offers a new frontier to the collegiate curriculum, improved information transfer offers a new frontier to the exploration of knowledge and the uses of pedagogy. A fresh and strongly innovative approach to language and information transfer would put new vitality into undergraduate education. It would confirm an essential commitment to teach the learner how to teach himself. And it could do so with significant, needed economics over time. These challenges are evident to Hampshire College.

#### 4. *Issues of the College in the Community*

The variety and uses of off-campus work-study and other experience in the community, variously defined, are described ably by Royce Pitkin and George Beecher in a recent study.<sup>30</sup> A remarkable number of colleges and universities provide a remarkable range of patterns for enabling students to enter and learn from "the community" as part of their higher education. The communities mentioned by Dr. Pitkin and Professor Beecher are as various as the Argonne National Laboratories, entered by science majors of the Associated Colleges of the Midwest in the capacity of research assistants for periods of ten to sixteen weeks, and metropolitan Chicago, entered by Antioch students in an optional field seminar on "The City."

Any reconsideration of undergraduate education today is likely to examine the possibilities and values of connecting academic life with educative experience beyond the college gates. In this examination, one is not apt to find a universal orthodoxy of pattern among institutions.

\*These, as the Report of Lord Franks' Commission of Inquiry found, are even higher than had been supposed by Oxford itself.

Nor is there much in the way of research to validate the educational utility of community study, service, and experience. On the other hand, there is an undeniable morale about such programs clearly evident among students and faculty associated with them, and a good deal of common-sense evidence that they are useful. A new college is urged on many sides to make it possible for students to spend time in non-academic experience before entering college;<sup>40</sup> or to take leaves at specific intervals; or to take leaves for work, travel, or study whenever the time seems right.<sup>41</sup>

Hampshire College, as later sections explain, is committed to its own program of enabling students to have an active and educative experience in the non-campus world. But the College has a larger concern about community out of which its views with regard to the pedagogical uses of extra-campus programs arise. The present discussion deals with the background of that concern.

Historically and not always for academic or intellectual reasons, many American institutions of higher learning have tended toward separation in relation to their communities. Some goodly number have been happy in the Sainte-Beuve *tour d'ivoire* role, as scholarly enclaves surrounded by barbarian territory. Others have eschewed contact with non-academic society in order to preserve the youth in their charge from the sullying influence of worldly association. Frederick Rudolph reminds us that:

The antipathy to towns as college sites was so strong in North Carolina that the charter for the University of North Carolina in 1789 provided that it could not be located within five miles of any seat of government or any place where law or equity courts met.<sup>42</sup>

Such extremes in the cause of purity are no longer common, but they are a part of the record of American higher education's stance toward community.

All institutions have professed a desire that their toil in the educational vineyard should contribute to the public good. Community colleges, state colleges and universities, extension programs, and private institutions have worked hard to serve the public interest. The motto of one great urban institution, confirmed by much of what it accomplishes, is: "A private university in the public service." Indeed, public service as a field for which it prepares students is one of the most often emphasized purposes of higher education.

But this is something different from the active civic involvement of an institution with the affairs of the community in which it lives. "Town and gown" relationships characteristically have been expected by institutions to be more a source of headaches than anything else. In moments of crisis in the institution or community such relationships may become close, even painfully so. The best one could ask for, perhaps, was that such relationships be smooth and at least superficially cordial.

In the present, however, there are growing signs that institutions may become more fully engaged members of the communities around them. The opportunity increasingly exists, in part because their generally enlarged role tends to free them from earlier isolation, for colleges and universities to act in concert with other institutions of community life. A tradition in this regard has long been set by such colleges as Berea, Antioch, Earlham, West Georgia, and Goddard.<sup>43</sup> Other institutions, in diverse projects, have moved toward more active roles in community life. Most of these, however, still confine themselves to ways of "serving the community educationally," "integrating educational values with community life," and providing field experience for students.

The really new dimension of opportunity is for institutions now to play a vital part in helping shape public policy in important community affairs. This opportunity exists least, perhaps, for the urban university engulfed in the complexities of the metropolitan community. It exists to a greater degree in areas which are not completely rural, but are beginning to become more densely populated. It appears to exist most in areas where there are still open-ended problems (e.g., those of land development and use), where urbanization is only setting in, and where there are institutions of higher education that stand in a cooperative relationship to each other.

In the latter instance, there is a major challenge for institutions in such areas to revise the traditional stance of higher education *vis-à-vis* community. The institution's controlling board, its administrative leadership, and to some extent its entire constituency would need to view the institution as an *active, corporate citizen* in community development. Most institutions might argue that this state of affairs is already true. In some interesting cases it actually is, but, in the terms meant here, the present civic involvement of institutions in their surrounding communities is more nominal than anything else. It is suggested here that,

in areas of incipient urbanization, colleges and universities can become a genuinely moving force in the development of the community.

Some of the practical reasons why this is possible in such areas are these:

*Areas of incipient urbanization present a relatively open and fluid field of action.* Things are happening, often at a rapid rate and in a metastatic way (witness, e.g., the San Gabriel Valley in Los Angeles County, 1950-1960), but there are usually neither strong centralized controlling agencies nor overpowering cast-iron circumstances to contend with, as there tend to be in already urban places.

*Established, growing, and new institutions in areas of incipient urbanization possess potential power.* This is crucial, since the likelihood of having a real voice in important community decisions depends on it. The potential power of such institutions arises out of their character as significant employers and purchasers, as organized entities in the midst of disorganized community growth, and as owners and controllers of land which is a pivotal factor in urbanization.

*Such institutions in such areas have resources of technical, scientific and aesthetic capability which are potentially of great use to the developing community.* Most often the community does not think of these resources as applicable directly to it, nor do institutions go out of their way to create such awareness. The resources are there, nonetheless, and institutions can bring them into play if they so decide. Institutions in such areas may well have the most important concentrations of expertise about planning, public health, cultural services, engineering, and the like that are reasonably available.

Some of the practical reasons why it is desirable for institutions to adopt a vigorous role in the community development areas in the process of incipient urbanization include the following:

*Such a role can have an important constructive influence on decisions about the utilization of land.* Optimum land use is of extraordinary importance both to institutions and their communities. The chief characteristics of land-use development in areas of incipient urbanization are its planlessness, its motivation by short-term gain considerations, its abuse of the natural aesthetic qualities of the countryside, its lack of taste, and its installation of persistent problems (e.g., air and water pollution, water table damage, inadequate sewerage, inefficient traffic capability, etc.). Institutions playing a vigorous community role can

enter into the matter of land-use development in many ways. Extensive land holdings themselves, if they can be afforded, put the institution in a unique position to affect urbanization, as Stanford University is demonstrating. Active participation in the formal and informal apparatus of local government likewise may give the institution a voice in land-use decisions.

Least tried, but perhaps most promising in terms of new ways for institutions to exercise constructive influence on land-use development in such areas would be their participation in new land corporations or cooperatives. Institutions could, without facing insurmountable legal problems, assist in the formation of new land development organizations (including private and other land-holders) which would make it possible by non-governmental initiative to coordinate and control the urbanization process in substantial sections of the area's available land.

*Such a role, exercised as noted above, can materially benefit the institutions involved.* A most direct corollary of successful participation in community land-use development is that colleges and universities stand to net long-term material gains themselves. These revolve principally around affecting the general community ecology in ways that produce a better life for the institution. In specifics, this could mean: having a more attractive and rich environment shifting toward urbanization in something better than a state of chaotic growth; having a sensibly planned pattern of traffic and transportation flow; having something like the "polycentered net" of surroundings described by Kevin Lynch,<sup>44</sup> with varying densities of population, centers of business and activity, and open spaces; having available land resources for future educational expansion to serve a growing population.

*Such a role, as its ideal aim, can contribute strongly toward shaping urbanization in the direction of "the educative city."* The term is John Dyckman's, who has used it principally in speculating about the future of major urban centers like New York. But his point is as well taken in the case of an area only now entering the stage of urbanization. The city always has been an "educative" place. In the future, "whatever is done, the city will be an instructional milieu";<sup>45</sup> that is, it will continue to be an incessant teacher. Willy-nilly and in a million directions, good and bad, this will be true. The question of "the educative city" is *what kind*, not whether. It is reasonable to suppose that the vigorous entry of institutions into the urban development of their communities could materially affect the educative quality of life in the area. Certainly, such entry could carry students more deeply into the nature of community life as an object of experience

and study. More important, sustained entry of this kind would influence the emerging cultural character of the general community.

These possibilities and ends support the proposition that consideration of community should be taken into account in imaginative new ways in redefining the nature of undergraduate education. It seems clear that the function of the college in the context of community can be enlarged to the advantage of students and citizens alike.

#### *Summary*

Hampshire College enters the American system of higher education in a change-laden time. The form that Hampshire College takes, while grounded on the best experience of the past, will be resonant with major contemporary changes that call for a redefinition of undergraduate education in general and of the private liberal arts college in particular.

This discussion to this point has examined four sets of changing circumstance which affect higher education. Each of these, if responded to ineffectively or not at all, bids to cause serious trouble for American colleges and universities, especially for the *private* liberal arts college. Conversely, each can be approached as a challenge. The four challenges interlock with each other in numerous ways. They are these, stated in terms of the independent college:

*Challenge One: To reconstruct the human purposes of education, so that young men and women can find acceptable meaning in a technological social order and acceptable order in subjective cultural freedom.* Professor Bell concludes his study of Columbia, Harvard, and Chicago by reference to this "great and troubling double task . . . to humanize technocracy and to 'tame' the apocalypse."

Among other things, this double task will require a new look at the uses of philosophy in the curriculum, at how faculty and students can meet on constructive ground, at arrangements for living and studying, and at off-campus experience.

*Challenge Two: To put the private college in a strong cooperative relationship with other institutions, so that instruction available to undergraduates will be adequate in quality and variety.* In all fields, but especially in the sciences, most independent colleges will find it less and



less possible alone to provide instruction adequate by the standards of preparation for graduate study. Through pooling resources and avoiding duplication, groups of institutions should be able to do so.

*Challenge Three: To recompose the intellectual content and procedures of liberal education, so that it will include substantial attention to the linguistics of intellect and the use of new technologies for information transfer.* This challenge cuts across all fields. Meeting it in the fashion suggested would introduce *language* as a major new cross-disciplinary field at the undergraduate level. The intensive introduction of newer means of information transfer would be closely related to this substantive innovation. Of great importance, meeting this challenge would make more possible the establishment of a new coherence in liberal education around a central concern for achieving understanding through the competent grasp of the processes and structures of inquiry and conceptual innovation.

*Challenge Four: To reorient the college in relation to community, so that it and associated institutions will play a vigorous, constructive part in shaping community development.* This does not mean an intensified "public relations" or "community relations" effort in customary image-building terms. It means the active civic involvement of the institution as a corporate citizen sharing in policy decisions and actual commitments to affect the nature of the community environment. It appears especially feasible—and needed—in an area marked by incipient urbanization and inter-college cooperation.

These challenges form a major agenda for Hampshire College in present planning. The College intends to meet each as directly, boldly, and sensibly as possible. The next section briefly sketches the broad outlines of the position Hampshire College takes with great regard to these four matters. Subsequent sections detail more specifically the nature of the Hampshire program within these outlines.

## 2

### HAMPSHIRE COLLEGE AS AN INSTRUMENT OF CHANGE

*Because we are, inevitably, creatures of the past, our tendency is to use each additional year of schooling as a mere quantitative extension of previous years, and to fit our schools into existing and familiar patterns. That habit was not unjustified in the nineteenth century, but the justification for it has disappeared. We are confronted, in planning for the next generation, with a demand for more radical reforms. We are required to reconsider the functioning of our whole educational enterprise, . . . to look at it not so much in historical context as in the context of present and future requirements.*

HENRY STEELE COMMAGER  
*Universal Higher Education*

ALBERT SLOMAN has commented that "a university in the making lacks the dispensation of the armchair critic. . . . [It] has to transform its ideas into reality."<sup>40</sup> In *A University in the Making*, Vice-Chancellor Sloman gives eloquent testimony to the amount of planning and building required to transform the idea of the new University of Essex into a reality, almost overnight. What is true of a new English university turns out to be true as well for a new American college in the making. Planning and building are detailed and difficult acts. But even more difficult, and not really to be left to armchair critics either, is the prior articulation of ideas worth transforming into reality. In America today, if this need is taken seriously, it means articulating ideas