

## A QUARTER CENTURY OF STANFORD UNIVERSITY<sup>1</sup>

THIS day rounds out the first quarter century of Stanford University, the best part of a lifetime for me and for those of my colleagues who gathered around me in the early days. This day I stand before you in some sense as their spokesman and advocate. What account can we render of our stewardship on the threshold of a new cycle?

Speaking for myself, who have been for forty-six years a teacher of college men and women, I shall not leave the fairest field of human effort without profound emotion. But this I do not ask you to share. None of us are here to stay, none of us would halt the procession. The old Roumanian proverb, "Our blood goes over into the veins of the young," we accept without flinching. Young men and young universities move faster than old ones, and in this fact Stanford finds part of the secret of her success.

Something of this success and the elements which made it I shall try to set before you to-day. I shall not speak again of the founders' wisdom. I have already, on another occasion, recounted, largely in Mr. Stanford's own words, his sane ideals of education and his generous plans for carrying them into effect. The story of the six dark years, illuminated and saved by the devoted loyalty of Mrs. Stanford, I have told at still another time as well as I could. My present task is to give you some account of the principles embodied in the academic

life of the institution itself without reference to particular individuals or special events.

First of all, Stanford University had for its basis a lofty moral and spiritual purpose born of the fair hope and the free hand which its founders held out to us. Moreover, its romantic origin at once lifted it out of the commonplace. Furthermore, as we dreamed, it was not to duplicate old successes or old failures, but was to mark a new era, so we hoped, in the training of men and women. In a word, it was to bring the education of to-morrow straight to the youth of to-day.

In those marvellous days of creative opportunity we were hampered by no pre-arranged rule of action. No tradition from the old world or the new laid on us its dead hand. As the young president standing in the west end of the quadrangle proclaimed on that eventful first day of October, 1891:

Our university has no history to fall back upon. No memories of great teachers haunt its corridors. In none of its rooms appear the traces which show where a great man has lived and worked. No tender associations cling, ivy-like, to its fresh new walls. It is hallowed by no traditions. It is hampered by none. Its finger posts still point forward. Traditions and associations it is ours to make. From our work the future of the university will grow, as the splendid lily from the modest bulb.

To be sure, we had then all the experience of the world to fall back upon—but we were to draw our own conclusions. Nothing forced us to use it in any specified way. Any method we wished was ours. The only

<sup>1</sup> Commencement address, Stanford University, May 22, 1916.

fixed quantity was found in the ever-varying traits of human nature. And on the recognition of this infinite variety our scheme was primarily based. Every form of talent, we held, was worthy of training. To develop strength we must bring out personality. To this end, we must first have teachers adequate for their responsibilities. A university performs its function not in what it compels, still less in what it forbids, but in its provision for intensifying the student's best abilities.

Organization is a secondary thing. It will come soon enough. Like old age, it creeps upon us unawares. So the fewer rules the better until rules make themselves. Under the worst possible organization, or none at all, great teachers may do noble work, as the history of learning clearly shows. Wherever placed, the great man leaves a great mark on all with whom he comes in contact.

Professor Osborn, of Columbia, once expressed his belief that the American college, with its happy-go-lucky lack of system could never produce a Darwin. In opposition to this view, I claimed that it could quite as readily as any other system, given, of course, the raw material to work upon.

To my mind, in the making of a great naturalist three things are necessary: the original material, the fine human stuff; next, contact with nature; and finally, the help and example of a great teacher. These three factors cooperated in the life of Darwin. It is clear that Cambridge and Edinburgh as schools of science did not make him. He himself bears witness to the "incredible dullness" of the lectures he heard. If that were all, Stanford University could have certainly done a better job.

But the first essential, the raw material, the choice mosaic of germ plasm—this was already there to work upon and this no school could create.

The second element, contact with nature

—a free gift to all who seek it—Darwin found on the moors of Cambridgeshire, by its brooks and its hedges. In fullest measure, California offers this contact to all.

As to the third essential, the spell of a great life, this Cambridge provided. Darwin himself gives the clue. He says that he "walked with Henslow" and Henslow was one of the great botanists of his time. To walk with Henslow was in itself a generous education. To make possible such relations is the university's choicest function. It should furnish the Henslows with whom its Darwins may walk.

For the permanent values of a university center in its faculty. All the virtues of mind and soul should be theirs collectively, and as far as may be, individually—friendliness, self-devotion, intellectual honesty, sincerity of purpose, love of work, strength to carry it on, accuracy, profundity, broad-mindedness, reverence, refinement, above all else, an unshaken and unshakable faith in human nature—each one of these is vitally essential. They may not all be detected in any one man or woman, but they must appear in the composite whole.

Nevertheless, whatever stress may justly be laid on the personality of teachers, one must not undervalue details of organization. Traditions there are that belittle, regulations that starve or cramp, details that irritate and limitations that waste. A university should be framed for advancement. The chambers of its soul should widen as the years go by. Whatever bounds it imposes on itself should be flexible and temporary. Then as its life grows more complex, it must frame certain rules of procedure. The value of these rules will rest on the principle that lies behind them. Stanford was free to choose its own educational principles. The four most fundamental with which we started were (a) the democracy of mental powers, (b) the elective system, (c) the major-department ar-

rangement, and (d) individual initiative as the prime element. With these, coeducation and the applications of science were taken as matters of course.

Negatively we did not believe in prescribed courses of study, in the disciplinary value of undigested learning, in promoting scholarship by prohibitions, by marks, honors or prizes, or by financial subsidies as baits in the educational trap. Furthermore, we resolved that a university need not be valued for its bigness, nor even for the variety of its functions, believing it better to do a few things well than to strive weakly to cover the whole ground of learning. For the ultimate function of the endowed university must be differentiated from that of the state institution. It is the duty of the latter to minister to all the higher educational needs of the state. It is the privilege of the former to set standards of aim and standards of achievement.

And further still, we conceived of university life as an opportunity to be looked on as such by all who came. Those who did not rise to its stimulus were better somewhere else. So because the chief source of human wastage in our republic is the open saloon, from the first we refused to enter into rivalry with this, or any other institution that fattens on men's weaknesses. The chains of a vile habit inhibit wholesome development.

Free should the scholar be, free and brave.

Now let us go back to our four main principles of organization to consider them in some detail. But here I must turn aside to ask the kind indulgence of all those whose fate it has been for a quarter of a century to hear me expound in theory and in practise the element of freedom in education. That has been our watchword. And because from the beginning we wished to emphasize the value of intellectual freedom, of discipline which is self imposed, not vouch-

safed from above, we chose as our academic motto the words of Ulrich von Hutten, spoken four centuries ago, "Die Luft der Freiheit weht," "The winds of freedom are blowing."

Democracy of the mind was the inspiration of the early days of Cornell University. Under its lead, we of the pioneer class of 1872 established our first college journal. We called it *The Cornell Era*. For it truly marked a new era in college history when college men studied engineering and agriculture along with Greek and Latin, when even in a literary course geology and botany might be counted towards a degree. That such subjects could be accepted was the primary reason why I myself went to Cornell and not to Yale.

Now democracy of the mind was not the discovery of Andrew D. White, its greatest apostle. No great idea originates perhaps with any one person. But at Cornell it was first developed in workable fashion. It holds that all mental powers should be recognized as free and equal, each alike entitled to make the most of itself. In this spirit, Ezra Cornell had said,

I would found an institution in which any person may find instruction in any study.

Indeed, it is not for the university to foster an aristocracy of studies. It shall not maintain that Latin or Greek or philosophy or physics, or anything else, is a primary essential in education, or that those whose minds do not turn in some favored direction shall be left uneducated. All the powers of the mind, the application of knowledge as well as its extension and preservation, are the subject-matter of the university.

Such a conception of higher education naturally finds its expression in the elective system. This compels the abandonment of the old idea involved in the word "curriculum" or little race-course, with its low

and high hurdles, its "little go" and its "great go," around which the student moved for three or four years, returning at commencement for his final reward. The more tedious the discipline, the greater was its supposed value, and the reward for penance done lay in the good-fellowship which common boredom entailed. Under the pressure of the widening of human knowledge, the application of science and the insistence of human needs, the American college has changed its theory in these regards. The curriculum is no longer a race-course. Its participants do not run in a circle, but set out in all directions along widely divergent paths. For the new appeal of widened helpfulness has brought into the college new and variant types of men, with variant needs. Teachers brought up under the old regime have often ill understood how to deal with these.

College students in general may be divided into two classes: those who care and those who don't. Only the first class need be considered. Whatever the needs of the others, their place is not in the college. Students who care may be again divided as to the impulse, whether volitional or vocational, which compels their interest. The best students in each field are those who work for the love of it. They may be classical scholars, "Greek-minded men or Roman-minded men," to use Emerson's phrase, or they may be botanists, anatomists, physiologists, chemists, teachers, philologists, historians, engineers, economists, physicians or jurists. They may spring up in any field, and they work to the limit for the mere joy of working. The investigators of the world, those who widen the scope of knowledge in an appreciable extent, belong to this class. Every door should be held wide open for them, and not one of them should be compelled to turn out of his way by the lure of a degree.

The vocational impulse has also its place

in the higher training. It may express itself in perseverance rather than enthusiasm. A man will stick to an uninteresting topic if he can relate it to the affairs of life. An intelligent student will always recognize vocational reasons for pushing onward to success. This is why the engineering students in our universities are, broadly speaking, better scholars than students of literature. They see that their future depends absolutely on their preparation. They are to deal with the forces of nature, and nature brooks no ignorance or deception. They say at Harvard: "One is a fool to study in the college; one is a fool not to study in the law school." It is a matter of common observation that in professional schools of high standards even the idler and the dilettante may suddenly rise to honest work.

It is, therefore, not a forward movement for colleges and universities to turn away from vocational studies in the interest of pure culture. The vocation, however, must not be narrowly construed, as a man of force in any field needs as wide a horizon as the university can give him. No effort is wasted if undertaken conscientiously and with the purpose of adding foundation on which one's specialty may rest. But without volitional or vocational relations, without joy in the work or hope in its final completion, a boy would better keep out of college and turn his attention to something which to him is real.

In the beginning Stanford University adopted the elective system with open eyes, certain that no other one made possible the best scholarship. The old classical course had broken down under the pressure of live subjects and live issues. It rested on the noble basis of Greek thought and Greek expression. Its ideal looked backward and upward to the loftiest achievements of the human race in the matter of beauty of form, of language and of thought. As Thoreau once observed, "Those only talk of

forgetting Greek who never knew it." To the "Greek-minded man" these four years in academic shades in company with gracious thoughts were most satisfying and enlarging.

But the course was narrow and special, and some thirty years ago it began to give place to that condition of affairs which I have elsewhere called the "patchwork" stage of the curriculum. The expansion of the natural and physical sciences, each one changing the whole current of thought in its field; the demands of French and German literature; a new attitude towards the movements of history; the growth of economics, jurisprudence, modern philosophy, not safe nor sane, perhaps, but drawn from the study of things as they are, all these, one by one or altogether, clamored for a place in college courses. Slowly, grudgingly, all were admitted, crowding out, in greater or less measure, Greek, calculus and Latin. Each new subject, like the camel with its head within the tent, moved forward to occupy. Each subject, old and new, was squeezed to the briefest possible compass, though the new ones were no more compressible than the old. It was clear before long that not all could be brought into one uniform course. Thereupon several arrangements were devised, in each of which some educational faction should have its way. But these ill-adjusted and shifting courses were necessarily less specialized and therefore less thorough than the old classical one, and as advanced work in one subject has a greater cultural value than elementary work in several, so in almost every regard the patchwork plan marked a step downward.

This period, however, was one of transition only, and led directly to the elective system, which made thoroughness possible in any one of many lines. In a prescribed course the student has little or no choice, and yet the element of choice is in itself a lead-

ing factor in individual training. A democratic institution should minister to all types of men in quest of higher education. It matters not through what agency the miracle is wrought. It may be achieved through the melting of vanadium steel or by a study of the satires of Horace. The structure of the cell-nucleus of a tadpole is as intricate and may be as fascinating as that of the British constitution, or a drama of Euripides.

Moreover, under the elective system it is possible for a teacher to do his finest work. No longer occupied with "the dregs of learning" as Agassiz once termed the college course at Harvard, he can lead the learner and thus lead himself to the firing lines of science. With students in earnest, advanced and thorough work becomes possible. Such students give the teacher new life.

With the enlarged usefulness which marked the advent of the elective system twenty to thirty years ago, began the new growth of the colleges. They drew men of new kinds and many more of them than ever before. This fresh impulse was dominant in the early days of Stanford, and a like stimulus soon gave fresh vigor to the whole university world. Ready-made courses, the acme of pedagogic laziness, were discarded. Like ready-made clothing, such courses really fit nobody, and an education like a suit of clothes, should be fitted to the man who is to wear it.

Some criticisms still apply to the elective system. It has not yet wholly eliminated "the reluctant student." But can any system do this? No plan ever made a lazy man brilliant. It is to the earnest and efficient that the opportunities of college life should be granted.

Again the critic objects that with freedom of choice, the student may select erratic courses in accordance with temporary whims, rather than with any theory of edu-

cational development. This is true; but it is likewise true that the course apparently the most erratic may bring the student in contact with the strongest teachers. "It matters not what your studies are," wrote Emerson to his daughter, "it all lies in who your teacher is."

Further, we are told that the elective system offers temptation to undue or premature specialization. This also is true and premature specialization, like other forms of precocious virtue, is to be deprecated. But experience does not show that the danger of "undue specialization" is a serious one. The current, in college and out, mostly sets the other way. The fact that a man ventures to specialize at all shows that he has a certain independence of character, for the odds are against it. Specialization implies thoroughness. It gives to each man a base-line by which he can measure the attainments of others. No knowledge comes amiss to an investigator; but no investigator can afford to sacrifice his specialty for the sake of breadth. Thoroughness should take precedence over versatility. I do not advocate narrowness of sympathy or narrowness of culture. The broadest education is none too broad for the growing scholar in any field. But the forces in the mind should not be scattered in guerrilla bands, but marshaled toward leadership.

Recognizing these conditions, Stanford from the very first attempted to strengthen and support the principle of election in studies by means of the major-department arrangement. This plan as we know it at Stanford and as now more or less developed in other universities was foreshadowed in these words of Agassiz to his students in 1873:

A specialty is the backbone of education. The mind is made strong by the thorough possession of something.

The final test of the elective system must be found in its results. What sort of man

does it produce? What is its relation to the discipline necessary to effectiveness in life? Discipline means self-control, the power to subordinate personal interest to the larger needs of societies or nations, the power to cooperate with other men in the accomplishment of worthy results. In this matter, our people tend to undervalue our own actual achievements, for too often uniformity is mistaken for discipline. Unquestioned obedience is not discipline. Real discipline involves response with head and heart to the dictates of individual conscience, the "categorical imperative" as set forth by Immanuel Kant. The uncritical submission now shown by the masses in central Europe stands in exact opposition to the dictum of the great philosopher.

The output of our colleges has not the uniformity for which Europe has striven. Much that Europe values, justly or not, we have neglected in the interest of newer and sometimes weightier demands. Substance is more important than polish, and initiative outweighs all other forms of efficiency. It is our highest aim in America to grant not merely a liberal education, but, to borrow a word from Dr. Peabody, a "liberating education," which shall fit a man to meet unforeseen demands.

Democratic discipline and paternal discipline lie at opposite poles in national development. Each has its defenders in our republic as elsewhere. But as a nation we stand pledged to the discipline that evolves from within and rests on personal initiative. Its results are unequal, but in the long run it is more efficient as an impulse in individual or social life. We work under orders, as before, but not sealed orders. The true American belongs to a political party or a religious organization, not to take direction from it, but to use it for purposes which he shares with the group. To him the party or organization is a means toward individual or social ends, not an end in

itself. In our higher education as in our political affairs we as a nation are pledged to this position. From the discipline self-imposed arises a form of social discipline, unselfish devotion to a common cause, characteristic of a land of individual freedom. The highest patriotism, the patriotism of humanity, can not develop in a people whose every man is a patient cog in the wheels of a social, industrial or military machine.

The American scholar has vindicated his training, not only in the great projects of his own country in which he has done his part, but also in his ability to respond efficiently to calls from older lands. The one supreme achievement which stands out in the present war above all operations of warriors, diplomats and statesmen, is the relief of Belgium. This work, as you know, was planned and directed by a Stanford alumnus, Herbert Clark Hoover. In it, some seventy-five students from America have taken part. These have labored under the most trying conditions, without pay and without guiding precedents of any kind. They have had to suppress all individual opinions, devoting themselves quietly and wholly to the work of feeding millions of unemployed and helpless people, and to relieving distress, each in the district assigned to him. They had no guarantees of individual comfort or even safety, no set of orders to follow, each had to depend on his own judgment in the face of any crisis. And with all these limitations, their work has won the unqualified admiration of competent judges from every side, the respect of the belligerents, the boundless devotion of the Belgian people.

In a discussion of the affairs of Belgium,<sup>2</sup> Professor Vernon L. Kellogg makes this reference to the work of these students:

There are many other bits that might be told. Only one shall I add. It is a word of appreciation

<sup>2</sup> *Atlantic Monthly*, May, 1916.

of the young Americans . . . who offered their services and performed their work in a way to bring warmth to the heart and mist to the eyes of a believer in our country and its way of producing men. Most of these helpers . . . are young college men, a considerable fraction of them being Rhodes scholars from the various Oxford colleges. Trained in college for anything but the specific work of the commission, they seem to have found a training that, added to a natural initiative, has made them capable actors in the world's work. Thrown into a situation requiring tact and utmost discretion, loaded with large responsibilities and asked to take care of themselves and important affairs of the commission under most unusual circumstances, they have done it, almost to a man, with success. They have won the admiration of Belgians and Germans alike. They make one proud of America, and they lend great encouragement to an observer of American educational methods. Viewed in their working, these methods have seemed to many of us very faulty; viewed in their results, so far as young America is a result of education at all, our too easy pessimism is given a proper unsettling. I return to my university chair with renewed confidence in American educational work.

The democratic type of educational discipline aims to train a man to do a man's work in life. It should help him to strike at the heart of world problems for himself, guided by no precedent. It enables him to act intelligently where others are contented with blind obedience. In the future of Europe, the transfer of its activities from the control of the few to the welfare of the many, the American scholar may prove a leading or even a determining factor.

But after all consideration of university organization and of Stanford's participation in it, we come back to our basal proposition, the imperativeness of personality. A university is a human group. In the long run, it is what its teachers make it. Through the resultant of all the influences that go out from them its personality is developed. The personality of Stanford for these twenty-five years has been a very friendly one. In the first year, teachers and students lived together in Encina Hall,

and when our world and everybody in it was young, sometimes one could hardly tell professors and students apart. The schools of old Japan, they say, prided themselves on the fact that the teachers were merely the elder scholars, "sen-sei," they called them, "those born before." It is moreover recorded of these teachers, "They knew each of us by name."

Such a condition existed in the early days of Stanford. We as teachers seemed, to ourselves at least, not much older than our students. In the pioneer classes we knew every one by name. Happily we know them still. And while increasing numbers and the unifying tendencies which beset every student body have made it no longer possible for each of us to know all of you by name, the old habit remains. We are still students too—only a bit farther along. So when we meet in the world outside, it is as friends and fellows devoted to each other, to our university, our nation and our ideals.

One large factor in the temper of constructive friendliness which we call the "Stanford Spirit" comes from the welcome presence among us of the Stanford women. I clearly remember the feverish haste in which Mrs. Stanford completed Roble Hall between the middle of June and the last day of September, twenty-five years ago. She said that the women must be in at the very beginning, otherwise they would always be considered as interlopers. They should be at home at Stanford and from the very first day.

Whatever the future of the university, we hope that the spirit of mutual trust and mutual friendliness, so potent in the early days, will always abide here. Changes in organization and development must come. We trust that changes in spirit will appear only as intensification.

To-day we are mounting the brow of the hill from which we look forward to the future as well as back over the past. In

material ways it has been often a rocky road we have traveled, with perils of litigation, financial crises, emergencies of earthquake and fire, misunderstandings sometimes within and without. But all these are left behind and the great future opens out. We stand, indeed, before the very Gate of Hercules. They say that the American university is now in a period of unrest. It always is. Out of unrest flows progress. All our institutions are in process of change. Nothing has yet permanent form. Straight ahead of us at Stanford may be seen the separation of the junior college. This means the direct expansion of the higher work, a training of men for usefulness in life more thorough than is involved in the conventional college education. The hour for the change need not be hastened. It will hasten itself. The limitation in numbers already forced upon us is a bid for the best, a guarantee of the highest possible service.

To-day I look back over a long life of teaching. I began it with the sole ambition to become a naturalist, an explorer, with an abounding passion for geography as related to the life of plants and animals and men. I had never the slightest longing for executive responsibility until circumstances thrust this upon me. But I can say that there is no experience in life, no position of trust or honor, no field of endeavor which I would have chosen instead of that which fortune has assigned to me. Twenty-five years ago my colleague, President Thwing, of Western Reserve, wrote me in congratulation:

I would rather be president of Stanford University than to be emperor.

So would I, and so would I again if I had my life to live over.

It is the college president's function not to govern, but to help; not to rule, but to coordinate. His success rests on the devo-

tion of the colleagues with whom he surrounds himself. With large risks and larger trials, he has also unsurpassed opportunities. He deals with a nation's "youth of promise" and he meets their parents on their best side.

I am not unmindful of the generous freedom accorded me by the board of trustees for the last three years with the title of chancellor. But among the experiences of my life, I count this with the best that nearly 5,000 Stanford men and women have received their diplomas from my hand. To begin with, these young people were choice spirits else they would never have gone to college, never have come to Stanford University. Here they have lived with nature at her loveliest and have "walked with Henslows" of all types and degrees. Finally, they have gone down "the four

wide ways" into the great world, each to do his part in a brave and reasonable fashion. I have met these men and women in every state in the union, in London, in Germany, in Australia, in Korea, in Japan. Some little part in the achievements of each of them I claim for myself, a much larger part I claim for my colleagues. And this is our exceeding great and unfailing reward, the only one we ask, a grateful remembrance of our work.

But not the least of our satisfaction in this hour lies in the certainty that Stanford leadership remains in Stanford hands. No stone of the edifice we have builded during the last twenty-five years need be rejected in the foundation of the greater Stanford which is to come.

DAVID STARR JORDAN