

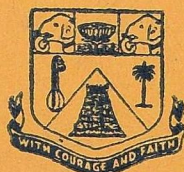
INDIAN UNIVERSITIES

RETROSPECT AND PROSPECTS

Comprising Nineteen Convocation Addresses
1924 - 1964

By
DR. C. P. RAMASWAMI AIYAR, LL.D., D.Litt.

With a Foreword by
HIS HIGHNESS MAHARAJAH
SHRI JAYA CHAMARAJA WADIYAR
GOVERNOR OF MADRAS



ANNAMALAI UNIVERSITY

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HIS HIGHNESS MAHARAJAH
SHRI JAYA CHAMARAJA WADIYAR
Governor of Madras

FOREWORD

I am very happy to accede to the wish of Dr. C. P. Ramaswami Aiyar that I should contribute a Foreword to this volume. I have had the privilege of his friendship for many years and it is a pleasure to me to pay a tribute to him and his work.

Dr. Ramaswami Aiyar's Convocation Addresses, of which the present number is nineteen, have been spread over the span of the last forty years. They embrace a significant and fruitful period in the history of modern education in India and deal with factors and features of national and inter-national development with which it has been connected. They are valuable as the fruits of a singularly well-stocked and fertile mind and a career of spacious and distinguished public service.

University education has had a long history in our country. Our ancient seers inaugurated among other things the highest ideals and methods of education ; and Convocation Addresses have been delivered from the days of the *Taittirīya Upaniṣad* onwards. The basic principles of higher learning have been practically the same throughout the ages, viz., the acquisition, propagation and application of knowledge, the perpetuation of learning by the evolution of learners into teachers, the synthesis of knowledge and wisdom and the devotion of both not only to the purposes of material advancement but also to the promotion of social happiness and moral and spiritual excellence. Our early Universities captured and preserved in a notable degree the essence of this ancient tradition ; and it is the hope of all thinking men that the Universities of today will also keep the same spirit alive and strong, amidst all the preoccupations of a materialistic civilization and the noises and vibrations of this age of speed and high tension.

In these Addresses, Dr. Ramaswami Aiyar has dealt with all aspects of University Education in India. He has drawn from the rich storehouse of his learning, from his wide and acute observation in many parts of the world and from his practical experience in the foundation and administration of different Universities in the country and he has produced a work of high value to those engaged in the organization and management of schemes and institutions of higher learning. I am confident that this collection will be of the greatest benefit to our Universities and to all those who have their interest at heart. I have very real pleasure in commending this volume to the widest possible circle of readers.

The Palace,
16-11-64

JAYA CHAMARAJA WADIYAR.



DR. RAJAH SIR MUTHIAH CHETTIAR
OF CHETTINAD, *Kt.*, B.A., D.LITT., M.L.C.

released this Volume on 16-12-1964

ACKNOWLEDGMENTS

In the course of the last four decades, Dr. C. P. Ramaswami Aiyar has delivered nearly a score of Convocation Addresses wherein he has set forth with his characteristic verve, vivacity, and lucidity, his well-considered views on the true aims of higher education and the achievements and shortcomings of our Universities, and his exhortations to the young men and women leaving the portals of the Universities, on the duties and responsibilities that they will have to discharge conscientiously and efficiently so as to bring credit to themselves, their country and their *Alma Mater*. It was thought that the publication of these addresses collected together in a single volume might be timely and opportune at this juncture when a thorough enquiry into the prevailing system of education at all stages has been undertaken with a view to making it more purposeful, significant and fruitful. A careful perusal of the Addresses will be of inestimable value and benefit to teachers, students and others interested in and concerned with educational reform, particularly at the higher level, and will throw open to them a conspectus of higher education as it is and as it might be. We offer our sincere thanks to our revered Vice-Chancellor for the kind permission he has given us for publishing his Addresses.

We are deeply indebted to His Highness Shri Jaya Chamaraja Wadiyar, Maharajah of Mysore, Governor of Madras and Chancellor of our University for his gracious Foreword to this Volume.

We tender our grateful thanks to our beloved Pro-Chancellor Dr. Rajah Sir Muthiah Chettiar of Chettinad for so kindly agreeing to release this inspiring book on University Education, on the memorable occasion of the Founder's Day Celebrations this year.

We are thankful to Professor R. Krishnamurthi, Professor of English, Indian Institute of Technology, Madras, for his valuable help in going through the proofs.

R. RAMANUJACHARI

Convener

Research and Publications Committee

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न विद्यते विना ज्ञानं विचारेण अन्यसाधनैः ।

या वै विद्याः साधयन्ति इह कर्म

तासां फलं विन्दते न इतरासाम् ।



DR. C. P. RAMASWAMI AIYAR

86th Birthday

UNIVERSITY OF MADRAS

21st August, 1924

Twenty-five years have elapsed since I ascended the steps of this dais, to obtain my Degree in Arts and I then listened, as you do now, to words of congratulation, admonition and exhortation that are the appropriate features of this ceremony. The temptation is irresistible to make a rapid survey of what has been achieved by this University in the intervening period and what has been omitted to be done. It were a facile task, to recount, since the work of criticism is an easy one, the many obligations that have been lost sight of or neglected. It is not a spirit of cavilling which makes me say that the attention which elsewhere and at other times has been paid to the cultivation of the Arts, which constitute no small part of the grace and of the glory of life, has not been the marked feature of our University or of the life of our alumni. Not by formal instruction, but by the creation of an environment of culture, is engendered the love of artistic and literary, nay, even scientific pursuits, and by the success in these alone is a nation finally judged. We sadly need the warning uttered by Sir Michael Sadler that the body should be adequately trained and the hand should be exercised not least because of its effects on the intellect, that both eye and ear should also be trained to discriminating use, the ear by music and beautiful inflexions of voice, the eye by skill with pencil and brush, because one of the great things in life is to have a trained appreciation of beauty. As one of you, I shall not be mistaken if I emphasise that it is possible to overdo the formal and the intellectual branches of study, that the aridity of mind ranging through tracts where memory

and intellect reign supreme, is apt to produce a pre-occupation in the things that are less excellent, and that such a pre-occupation has not been cured by the system of education that has here prevailed. It is as a corollary that I advert to the want of systematic, discerning and liberal encouragement of the creative spirit that ought to be the aim and is the main stimulus of high mental effort. On the other hand, neither a practical and scientific outlook on institutions, history and legend, nor a steady pursuit of the exact sciences has been associated with University life in this Presidency. The result is attributable largely to the circumstances of the students, and it is the case that the benefactions that have enriched other seats of learning have been lacking. We have thus not been able to create a School of History or of Law or of Science as our sister University of Calcutta has done by the aid of philanthropists like Tagore and Palit and Ghose, of a dynamic organising genius like Asutosh Mukerji and of men of intellect and vision like Bose and Ray and Raman, Rash Behari Ghose and Sircar. It is easy to detract from the achievements of that University. It is not difficult to assert that it has cheapened its Degrees ; but it is impossible to over-estimate the stimulation of intellect and spirit which has, though indirectly, led to the inauguration of the Bengal School of Painting and has laid the foundations of a national School of Architecture based on a study of ancient models like Ajanta, which has of set purpose revived a scientific interest in ancient Indian History and has largely reconstructed the Moghal and Mahratta periods for us, which has been explored with success by partially alien cultures like the Chinese and the Tibetan. I do not mean to say that money and organisation will alone, without a general intellectual upheaval, produce any memorable results. But I would be untrue to myself and to you if I did not advert to our deficiencies and our handicaps. This is a formidable tale, but let us not forget the other side.

The University of Madras has, I venture to think, produced a feeling of solidarity and fellowship amongst its under-graduates and graduates. It has brought about, what I may call, the guild-spirit — a spirit which evokes in those emerging from its portals the very real, though perhaps half-conscious, feeling that they are a society of student-adventurers jointly putting out on the ocean of life. We have, though only to a limited extent, seen the rise of that true inner democracy which is one of the fruits of higher education. For the equality which results from intellectual cultivation is a real equality and in our endeavours to assert our dignity, our sense of independence and of congruity with other cultured races, this, indeed, is a great asset. No man, as Sir Henry Maine once said, ever genuinely despised, however much he may hate, his intellectual equal. We found during the great war and afterwards what this intellectual fellowship may mean. As in Europe, so in India, the only community which is undivided by barriers of race, of prejudice, of birth or of wealth is the community of men of learning, of letters and science. Belgian scholars and Polish and Russian scientists can bear witness to the fact that the citizens of the intellectual republic may retain their fellow-feeling while the deadliest war separates their fellow-countrymen. Somewhat, it is true, by way of reaction against the foreign element in our mental equipment, but more by comparison with the history and progress of other lands, there has also been developed a keen sense of the unity of Indian aspirations—a realisation that Bharata Varsha may be and ought to be one, a feeling that no erasure of age-long inequalities is too great an endeavour for the achievement of an ideal which has been adumbrated in our *Itihasas* and has also knit in religious fellowship the inhabitants of Srinagar and Kanyakumari, of Kamarupa and Sindh.

We have been also realising that the higher education of women is as important and significant for future progress as that of men. This feeling is really not

foreign to a race that produced a Maitreyi and a Gargi, not to speak of notable Queens, one whose women have given their names to important parts of the Rig Veda and the Upanishads, nay, even to law books and mathematical treatises. Thus, no struggles disfigure this University such as have marked occidental foundations, against the assertion of the equality of opportunity to which the other sex is entitled. We have also, though late in the day, begun to perceive the inestimable value of a teaching and residential University. In this matter, again, we have not made a violent departure from our past traditions, our ancient custom and practice. As early as the seventh century before Christ in Takshasila (the modern Taxila), princes and pupils of all classes from one end of this Continent to the other, sat at the feet of their preceptors to learn all that was to be imparted in those days in science and the arts. It was possible for an orphan from Magadha to repair to this University and become proficient in medicine; and, as His Highness the Gaekwar in an address to the Banaras University has pointed out, after completing his studies this young man became the Royal Physician of Bimbisara. You must also be aware that in the time of Asoka the Great, there was a University of the same type in his Capital. Much later still, the great Chinese traveller has described the system of instruction and course of study pursued at Nalanda. In the medieval period, there existed the University of Navadwipa in Bengal and the celebrated schools at Madura, Banaras, Ujjain and Kanchipuram. Always, in this country, the homes of the great scholars were residential institutions where high thinking and plain living, strenuous poverty and the acquisition of almost encyclopaedic learning went hand in hand.

Let us proceed to examine some of the criticisms that have been levelled against this and other Indian institutions. Is the instruction imparted here worthless, shallow, superficial? Does it amount to no more than cramming? Now, it is easy to give anything a bad

name and this criticism is, in my view, only a fragment of the truth. If by cramming is meant only the rapid dissemination of knowledge that is the sign of modern life, it is one thing ; but if it is a simulacrum of knowledge that is imparted, we are undoubtedly perpetrating a fraud upon ourselves and the country. In words which cannot be forgotten, Cardinal Newman has criticised those who reiterate that the aim of education is merely that of stimulation and not of set instruction. The stimulating system, he says, may be easily overdone—a blaze among the stubble, and then all is dark. On the other hand, in the same discourse he has revealed the vital deficiencies of certain aspects of University teaching which are particularly apposite to us. Eloquence, he says, or the interesting matter contained in lectures, though admirable in themselves and advantageous to the student at a later stage of his course, never can serve as a substitute for methodical and laborious teaching. A young man of sharp and active intellect who has had no other training has little to show for it besides some ideas put into his head somehow. He is up with a number of doctrines and a number of facts but they are all loose and straggling, for he has no principles set up in his mind round which to aggregate and locate them. He can say a word or two on half a dozen sciences, but not a dozen words on any one. He sees objections more clearly than truth, and can ask a thousand questions which the wisest of men cannot answer. This, he concludes, is that barren mockery of knowledge which comes of attending lectures or of mere acquaintance with magazines, reviews, newspapers and other literature of the day, which, however valuable, are not in themselves the instrument of intellectual education. This amounts, in fine, according to him, to a mere hazy view of many things which may but mislead, just as a short-sighted man sees only so far as to be led by his uncertain sight over a precipice.

In the memorable Chapter on Pedagogy in that most suggestive of books, *Sartor Resartus*, Carlyle chastises

the hide-bound pedants who without knowledge of man's nature or of boy's, "cram into them innumerable dead-vocables ; no dead language for they themselves know no language, and they call it fostering the growth of mind". How can an inanimate mechanical grinder foster the growth of anything, much more the mind that grows by mysterious contact with spirit, thought kindling itself at the fire of living thought ?

I have always felt that it is such a mechanical and soulless system that leads to mental exhaustion and a repugnance to subjects which once attracted the student ; and often, moreover, it leads in India to a permanent form of scepticism, if not of cynicism. It is on this ground that wise men everywhere and at all times have adverted to the supreme value of personal instruction, what, in the language of our metaphysicians, was described as the *Guru Sishya Parampariya* in contradistinction to the rapid assimilation of ill-assorted matter at lectures and demonstrations. It is, therefore, that we welcome the attempts that have been made in India to revive the spirit of the old learning, albeit, adapted to newer needs. What is wanted is the implanting of a passion and a thirst for study and not merely the acquisition of a modicum of knowledge. One is reminded in this connection of the famous letter written by Lord Morley to the authorities of the University of Cambridge, when presenting to it the Library of Lord Acton, in which he deliberately stated that the gifts of historical thinking and the acquisition of a perspective were better than mere historical learning. The very sight, Lord Morley added, of a vast and ordered array in all departments, tongues and times of the history of civilised Governments, the growth of faiths and institutions, the fluctuating movements of human thought, the struggles of churches and creeds and the diverse ideals of state—even a sight of these will be to the scholar a stimulus to thought and research. It is this plea for the creation of an attitude of mind that I desire to reinforce. Now, assuredly, all this may well be

stigmatised as mere commonplace. But we must never forget the while the danger of dwelling on commonplaces is that it tempts men to question and deny them, yet, as a great historian suggested, nothing becomes commonplace which does not contain a large proportion of truth. It is a matter for satisfaction that this ideal has been apprehended by those charged with the administration of this department in Madras, and, despite all criticisms that have been levelled against the new University Act, it must be granted that it is a bold and honest attempt to set the University on the right path. But the passing of the Act is nothing unless it is recognised that it is but the first step in a long journey. We should remember that the vitality of a University is not proved by grants from Government, though these are essential and a first charge on the State, but by the enthusiasm and cooperation of the people at large, proved by benefactions and endowments which ought to be regarded as the natural repayments of society for the benefits conferred upon it and received from education. It was a successful physician that founded the Caius College. He was childless but saw that the founder of such an endowment obtains a new and long-lived family. It was not for nothing that our lawgiver in the Mitākshara, proceeding on this idea, included in the list of heirs the disciple and the Guru. It is the response of the public to the call of learning that has to be initiated and encouraged. Thus alone can be created a community of men of learning that will vivify and regenerate national life. It is earnestly to be hoped that our philanthropists and our graduates will follow the examples of Sir Rash Behari Ghose and Premchand Roychand and Tagore and Sir Syed Ahmed and the founders of the Banaras University. The English Universities, it is needless to say, are monuments of private liberality and many American Universities are the fruits of the munificence of single individuals, the advantage in the latter case being that each is able to develop so as to evolve a special and individual type of

culture. Such an appeal ought to be needless in a country and in a Presidency where men often so wholeheartedly sacrifice their worldly goods in the cause of Dharma, where men act with such profound realisation of what their ancestors have done and what their descendants will do. Witness our choultries and our temples and a thousand instances of anonymous and vitalising philanthropy.

In sounding this note, let me not be understood to minimise the State's duty in regard to the active aid and financing of higher education, though at the same time we are bound to concede that the claims on the exchequer of primary mass education are more pressing than those of the University in the conditions of this country and in the absence of a national system of voluntary elementary education as conducted by Buddhist monks in Burma. Elsewhere the duty of the State has been adequately apprehended. The great Act of 1918 which England owes to Mr. Fisher is an instance in point, and the policy of retrenchment which followed after the passing of that Act has been rightly and severely attacked by competent critics. The great feature of that Act is a recognition of the responsibility of the State not only for educating children, but also for keeping control over them, after cesser of full time education, in what are termed Continuation Schools; and, adverting to the curtailment of expenditure in the domain of education, the present Chancellor of the Exchequer has made these remarks which are not without relevancy. "Deliberately to select expenditure upon education as the first effort at financial retrenchment is foolish on the ground of national economy. An uneducated working class cannot be a physically or industrially efficient people". Men are, though slowly, commencing to perceive that the social and industrial problem in every country in its final analysis is a question of education; and the solution depends, to illustrate only one aspect of it, upon the dispelling of the universal ignorance of the primary laws of health

and well-being. For, Matthew Arnold's definition of education as the wisdom to do the right thing in the right way and at the right time holds universally good. When the workman, whether labouring with his hands or with his mind, is trained to understand the science and significance of his trade or calling and the reasons for the operations he performs, we shall be able to give him an intellectual interest in his work. And to those who depreciate education as leading people away from habits of manual work or industry, we may say that when educated men of tomorrow perform what is today regarded as the work of drudgery, the work will be raised to the dignity of the educated man. Therefore it is, that it will be an unmixed advantage both to the individual and the community in India to ensure that every youth gets the foundations of a good general education. The aim, as visualised by Lord Haldane speaking at one of the newer English Universities, should be to bring the possibilities of University education down to everybody. We are too apt to concentrate our attention on the achievements of a few giants in science or literature and to ignore the truth that the object of higher education is two-fold : extensive and intensive. And, from the former point of view, the object is not to make more giants but to elevate the race itself. It is on this ground that I am disinclined to share the pessimism of those who bewail the progressive multiplication of graduates and the mere diffusion of an ordinary grade of education. In envisaging our future, it is imperative to bear in mind the wise words of Ruskin who exclaimed, "How much misery and crime would be effaced from the world by persistence, even for a few years, in a system of education directed to raise the fittest into positions of influence, to give to every scale of intellect its natural sphere and to every line of action its unquestionable principle"! It was with a lively consciousness of these aspects of educational activity that His Excellency the Earl of Reading, in his speech at the Universities Conferences in May last, laid

down as one of the great functions of Indian Universities to erect the Empire of Reason. This was the idea that underlay his statement that the Empire of Reason should be co-terminous with the Empire of India. Why did he say so? Examining this matter a little more closely, do we not all feel that we are, all the world over, and not least rapidly in India, approaching a period when not solely the forms of Government but even the foundations of the social organisation are being scrutinised by the popular mind? It is at such a juncture that our capacities are necessarily subjected to the most exacting of tests.

Lord Morley once expressed the aspiration that amongst the Universities of Great Britain there would be developed, as an essential equipment for national life, the habit of mind trying to know the difference between a good argument and a bad one, between what was evidence and what was not, between a simple question and a compound one, to distinguish between the probable, the possible and the certain. This latter-day sermon has a peculiar applicability to us. No one would underrate the importance of forms of Government and of political constitutions, but it is not only those, as I have submitted, that are subjected today to scrutiny and examination and re-examination, but everything that appertains to our society, its past and its future. In combating the problems that face us, we must learn, in the language of the same statesman, how to combine sane and equitably historic verdicts on events with a just evaluation of the actors. The growth of this frame of mind is not the least important of the services which higher education and the Universities can render. It cannot be gainsaid that the structure of society is undergoing half-hidden but very important alterations. All over the world, there is a change of attitude towards law and society. Institutions are no longer revered for their own sakes. While intent, and with good reason, on the topics of the times, on the work of Committees and Commissions and Tariff boards,

on strikes and aeroplanes, the railways and the price of securities, is it not possible to repeat the query of one of the keenest thinkers of the day that we are only half-awake to strong currents racing over our heads and under the ground at our feet and sweeping through the world of men? The only machinery that would enable us to achieve proper perspectives in such a state of things would be the equipment of every adult citizen in those aptitudes to which I have adverted and which are and ought to be the products of higher culture.

To use a different formula, liberal education on the higher plane is itself the best type of freedom—the enlightenment, as it has been justly said, of the conscience of the mind. The object and aim of such education should be to secure the formation and continuance of corporate life, to endow persons with the power and experience to work with their fellowmen for noble and public ends as leaders and as followers. It should be able, of its own force and vigour, to prepare those subject to it in the invaluable faculties of organisation and comradeship. Thus alone can it be made possible both in the intellectual and social spheres for those so trained to work with their compatriots to the best advantage. A healthy regimentation of effort and an appreciation of incorporate activity were never as needed as now. Thus, for instance, will our graduate, if and when properly trained, realise the inevitability, if true progress is to be achieved, of social and other upheavals and the necessity for the reorganisation of society and the lopping of excrescences in the body politic. He will, at the same time, by virtue of that training, realise and vindicate his intellectual dignity and preserve his moral stature *vis-a-vis* the rest of the world. So to do requires the constant and sedulous realisation of the two maxims: “Know thyself,” and “Be thyself”. Thus it happens that stress has been uniformly laid by every rational thinker on the importance of the Indian outlook and the nationalisation of studies. Literature and, indeed, even science, have to

be racy of the soil to signify anything. Just as the prose poems of Tagore, Professor Raman's theories of sound and the crescograph of Bose are universal in appeal and yet, in a sense, appurtenant to India, so must every endeavour, intellectual, social and political having its origin in the country essentially belong to it and not be a mere adaptation or an imitative effort. It is because this realisation is not quite vivid in this Presidency that our University means and stands for so little in the eyes of the outside world. A few men delving in past records for epigraphical results, some scholars and scientists who have perforce to seek refuge in the hospitality of neighbouring provinces or far-off lands, beyond the efforts of such persons what have we that will be characteristic of us or will last ?

Let us, for a moment, review the achievements of South India in the past, its traditions and its pitfalls and handicaps. Beginning with Sankara and Ramanuja and Madhva and coming down to more recent manifestations of the life and thought of Dravida, what do we find ? Who are the most characteristic products of our recent history ? In the field of science, Raman and Ramanujam and a long list of well-equipped and acute mathematicians starting with Professor Ranganatham ; in law, a Muthuswami Iyer and a Bashyam Iyengar ; in the arts of statesmanship, a Madhava Rao, a Ranga-charlu and a Seshadri Iyer. What do these typify ? They, in their various fields and avenues of activity, stand for hard-headed practicality and acute reasoning. There is not the lyrical impulse, not the poetic gift ; the efflorescence of their emotions is subordinate to the play of their intellect. If it were possible to take a conspectus of the activities of Southern India in the region of the Spirit and the mind, contrasting it with the other parts of India, contrasting those whose names have been recounted with Buddha and the Jain Saints and Kabir and Tukaram and Chaitanya and Tagore and Sarojini and Vivekananda, what, barring the magnificently fervid output of the Tamil Saints, is the essential difference ?

Would it not be just to describe the achievement of the South as analysis, its danger being dialectic, a meticulous following of the logical and the practical for their own sake ; in short, a matter-of-factness approaching to cynicism that tends in the mass to indiscipline and the play of centrifugal forces. Nevertheless, our plant must grow on the soil that has been made ready for it, though it is possible to modify the reactions of the soil by careful manuring and nurture. The educational reformer who is anxious to bring about a harmonious development of the human faculties in the South, must take note of its characteristics, its strength as well as its weakness, must nourish the former and correct the latter.

Will you, while I am on this topic, permit me to utter a word not so much of warning as of introspection ? My argument, if I have been correct in its steps, amounts to a plea for the creation of disciplined intellects and emotions, not only from the point of view of individual achievement and progress, but inasmuch as the tendency of the day is towards, what I may term, a pursuit of theory for theory's sake. We must, in fine, guard ourselves against doctrines that take no account of facts, against catchwords and shibboleths. Speaking of a parallel phenomenon in Italy, the biographer of Mussolini and one of the historians of the Fascist movement employs the following language which is obviously and wholly relevant. There are some occasions, says Doctor Pietro Gorgolini, in which sincerity of thought and action is tested and we learn whether men hold to a theory for the sake of that theory or for the sake of truth ; whether they seek in the first place to prove themselves in the right and only in the second place to be in the right, or whether they seek above all to do right, whether their creed is directed to the general welfare or to their own mental satisfaction, whether they would rather change the destiny of thousands than change their own minds, whether they would rather risk a tragedy than admit a fallacy. It is because, as

an Indian proud of my country but conscious of my own shortcomings, I realise the dangers of vague idealism and the vanishing of the sense of limits, that I have ventured to concentrate attention on the disciplinary nature of culture. In Scandinavian mythology, there is a reference to a tree (Ygdrassil) whose roots are imbedded in the earth and whose branches are in the empyrean. It is that figure that I would apply to the University and its functions.

It next falls to me to speak to the candidates individually; and in offering you my congratulations, and wishing you godspeed, let me first refer to those who will shortly join my own profession. It is a trite remark that in India the Bar is overcrowded. But do those who make themselves responsible for that assertion advert to the multitudes who crowded the Bar even in the early days of the Roman Empire, and have they studied the figures in Europe and America? Do they realise that the first result of intellectual cultivation in every country has been the diversion of a large proportion of the youth of that country to the Bar? Do they not see that the pursuit of law is one of the few avocations which satisfy practical as well as speculative tests, as a profession combining the attractions of the study and the world of men? I cannot, therefore, concur with those who deplore the overcrowding at the Bar though I cannot but grieve over the fact that in the conditions of today it happens to be almost the only pursuit that is available to the classes described in political parlance as the intelligentsia.

But even in this sphere of activity to which we are, by nature, predisposed and in which the advantage of achievement is so high, we have failed to sense the value of a scientific as apart from a professional study of the Law—a study which will embrace the analysis and the natural history of society and of institutions, which will produce savants like Maitland, Anson, Ilbert and Maine, Dicey, Thibaut, Savigny and Vinogradoff. None of our successful lawyers and legislators has yet emulated the

example of that wise benefactor, Tagore. But it cannot be long before they see that it is not so much to the successful professional man that the growth of legislation and the evolution of Law which results from a scholarly analysis of institutions are attributable but to the professor and the student in his closet who must be rendered independent of material worries in order to pursue their researches. It is not everyone, who like Sir Asutosh Mukerji, can combine the burning enthusiasm and the catholic ardour of the student with the work-a-day requirements of the practical lawyer.

To you, Graduates in Medicine, I can but say that you have notable examples to follow, of devotion to science and the sacrifice of health and even life for its sake. But in this country, you also fulfil the part of missionaries and your work will be largely propagandist. The diffusion of medical and sanitary ideals is one of our foremost needs, and preventive work is not less important than the actual practice of healing. On you will also devolve the duty of putting into scientific and modern shape the older and partly empirical arts that have been practised, and not without success, by the exponents of the indigenous science.

It is a matter for congratulation that the faculties of commerce and agriculture are enlisting a growing interest though these branches of study do not yet rank as high in prestige as they ought to, especially in a tract where the population almost wholly lives on the land. This learning in its higher aspects is closely allied to politics and social life. Science and practice go hand in hand in their cultivation, and it is daily more manifest that our University must follow the younger foundations of the British Empire and America in laying adequate stress upon them. We may well take an example from some American Colleges and Universities where they confer Diplomas and Degrees in such ostensibly utilitarian subjects as domestic hygiene. As I have already stated, it is not the subject but the manner in

which it is approached that matters in the acquisition of culture.

Graduates in Engineering, to you I have a word of special appeal. Great developments await our Presidency. I am a firm believer in the possibility, nay, the inevitability, of the utilisation of the vast sources of power open to us, the harnessing of the energy which at least as much as in Canada, lavish Nature has placed at our command. I believe that by the growth of our irrigational facilities and the development of energy by means of hydro-electric appliances, we shall be able to revolutionise cottage industries and profoundly to modify factory practice, so as to produce things of utility and of beauty with the expenditure of the minimum of human energy, and obliterating the sordid aspects of industrial life. This ought to be your special field of work and to you also will it be given to Indianise our architectural practice, to house our men and our great institutions in appropriate structures without disfiguring the face of the country by garish and purposeless foreign ornamentation or offending the eye by unrelieved and uniform ugliness as of barrack rooms.

It is superfluous for me to refer in addressing the Graduates in Teaching to the profound revolution that has been effected in the fundamental ideals of your profession—a revolution which is based on the growing belief tested by experiment and practice, that your function is, in essence, to remove obstacles in the path of the acquisition of knowledge, to allow the intellect and the soul spontaneously to unfold and evolve instead of to cram the mind with indigestible matter. The doctrine associated with the name of Montessori is one of infinitely wide application, and to you is given the function of being one of the most powerful factors in the evolution of the race.

I have done. In what I have been saying (I have rather been thinking aloud), I may have been a visionary and may perhaps be arraigned as impractical. But does not the failure to climb Mt. Everest, the great

Gaurisankar, appeal to us as a more worthy attainment than the easier feat of surmounting lesser heights. The poet's exclamation is profoundly true that each age is a dream that is dying or one that is coming to birth. It is also mysteriously true that the fashioning of this dream and its realisation are in our hands. But in this translation of our dreams into practice, we can summon to our aid our sages and scholars and say with the poet :

Call me rather, silent voices,
Forward to the starry tract
Glimmering up the height beyond me
On, and always on.

Let me, in taking leave of you, ask you to remember the ancient exhortation

“उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत.”

“Uttiṣṭhata Jāgrata Prāpya varān nibodhata”.

UNIVERSITY OF DELHI

19th March, 1932

MR. PRO-CHANCELLOR, MR. VICE-CHANCELLOR,
MEMBERS OF THE COURT, LADIES AND GENTLEMEN,

The discharge of the duty that has been entrusted to me of addressing the graduates of the year would have been a task as easy as it is highly appreciated and most responsible if I could have followed in the wake of my predecessors after congratulating those who have, to-day, stepped beyond the threshold of their studies into the wider world of active endeavour and professional careers, equipped for their onward march with the sustenance provided by this great institution and certified to be duly qualified for the journey. It fell to them to emphasise that the establishment of the Delhi University formed an integral part of the scheme for the transfer of the headquarters of the Government of India and to declare with the Marquess of Reading that this University was a visible and practical expression in the capital of India of the highest influences for intellectual and moral culture. My predecessors also hoped that great libraries and research laboratories would spring up in connection with this University. They dwelt with loving pride upon the influence of the Delhi environment and those historical memories—Hindu and Muslim and those traditions of scholarship and wise patronage of the arts, which would form the background or the atmosphere of the University. They

meditated on the collections of Humayun and Dara Shikoh and cherished the aspiration that the spirit of enquiry and research embodied in Jai Singh's Observatory would be a characteristic of this institution ; they looked forward to the stimulating effect of those contacts with men from all parts of India and, indeed, with the world at large that the capital of India may be expected to provide.

It is true that during the nine years that have elapsed since the foundation of the University, its development has been rapid and noteworthy. There were only three colleges in 1922 when the University was started, whilst there are seven to-day including a College for women and a Commercial College. Readerships have been established in Economics and in Philosophy and the number of students on the rolls of the University is nearly 2000, although it must be confessed that the Degree and post-graduate classes have remained more or less stationary for some years past. The University Training Corps has been an unqualified success and the present battalion, though hampered by lack of training grounds, has evoked much enthusiasm in the matter of recruitment. The corporate activities of the various institutions allied to the University have been most praiseworthy. Nevertheless it cannot be ignored that this Convocation meets at a somewhat critical stage in the history of the University. I cannot let this occasion pass without referring to the very great loss sustained by the University and the country by the passing away of Sir Mohamad Shafi, a true patriot and statesman, who was responsible for many fine achievements including the inauguration of this University. Although I have been a Member of the Court of this University, I cannot pretend to have kept in touch with all the recent developments in connection with it ; but a perusal of the annual report of 1930-31 reveals serious matter for thought. Page after page of that Report furnishes evidence of the hampering effects of a lack of funds. Proposals for strengthening the teaching staff of the

University have been held up for want of finance. The Law Hall has suffered on account of want of playgrounds and although, owing to enlightened private philanthropy, a Readership in Economics has been started, the flow of endowments has not been very marked. What is more, very drastic retrenchment schemes are in the air and far from pursuing a policy of expansion, we have to curtail our programmes and deny ourselves many essentials of University life.

At such a juncture as this, it would be short-sighted not to recast one's ideas on the basis of realism and an adaptation of means to ends. This University is partially unitary, supervising and regulating the work done in a number of colleges with independent Governing Bodies ; and as a University it was, perhaps, constituted from resources inadequate to its fullest growth. It is impossible not to agree with the Hartog Committee in their suggestion that in the circumstances that prevail, it is preferable to preserve the life and the individual tradition of each of the colleges and that the University has to confine itself mainly to the duty of organising the work of higher learning and research by a combination of teachers from the various colleges with teachers who may be appointed by the University itself. This University, having regard to the state of its finances and endowments, may best fulfil its functions by supplementing and putting the finishing touches on the work of the colleges and for that purpose providing for central libraries and adequate laboratories so as to keep the teachers up to date. But even for the achievement of this object, large funds are required and our main comfort must lie in the fact that the Legislature has throughout been most friendly to our aspirations, that our Pro-Chancellor is a man who has a remarkable faculty for getting things done, and that our Chancellor is a statesman of the widest and most liberal sympathies whose trained and energetic mind has often come to the rescue of institutions similarly placed and whose love for India and faith in her future are so conspicuous.

What a contrast this story of meagre resources presents to the chronicles of achievements in other countries, notably in the United States! Glancing over some recent reports on the development of University Education in one State, namely, New York, one lights on passages like these: "At Fordham University, ground was broken for a new library with a capacity of 500,000 volumes and the seismographic laboratory was completed." The University of Rochester is constructing a large building for a school of medicine and dentistry and plans have been completed for a new women's dormitory for the students of the Eastman School of Music which will accommodate 130. The Columbia University has completed an addition to the building of the College of Pharmacy at a cost of 300,000 dollars. Similar progress is noted among the institutions in China run by American agencies, the degrees of which are conferred by the Board of Regents of the University of New York. The Women's College of South China reports a new dormitory and the Canton Christian College reports that a new dormitory was presented to the College by the students themselves. Robert College at Constantinople, Turkey, an American institution, introduced in their Engineering School a special course for the training of foremen of shops and skilled mechanics—an innovation which created great interest among the Turkish and other Near East peoples and which was heartily approved by the Turkish Government. Vassar College instituted a study of euthenics, a group of closely related courses from different departments which have to do with the relation of the individual to his environment. Syracuse University founded a school of citizenship and public affairs, and the University of Rochester has completed a building and is erecting a ten-storeyed structure and also additions to the Memorial Art Gallery costing over 300,000 dollars. Hamilton College is conducting an experiment in the development of musical appreciation among the under-graduates in the College of Liberal Arts. We contemplate these state-

ments and figures with envious admiration and note that in the State of New York alone in one year (1927) private endowments mounted up to the astounding figure of two millions and nine hundred thousand dollars.

It is not solely for the purpose of arousing the generous emulation of our local philanthropists and the active help of our alumni that I am recounting these acts of generosity but in order to indicate some noteworthy developments in the domain of higher education in modern countries. First comes the great importance that is attached to corporate life and to the residential system as the best means of building up character and comradeship and the qualities that make for true citizenship. The scholarly habit is a function of wise teaching in beautiful and reposeful surroundings and he is a narrow critic who disparages the value of the clusters of beautiful grounds and buildings that have contributed to the distinctive character of academic life in many countries. The second feature is the realisation that higher education is not solely concerned with the assimilation of facts and figures but is based upon an all-round development of human personality and that a University, according to its very derivation, is all-embracing and its underlying purpose is to develop every side of life, artistic as well as literary and scientific; or in other words, that a University fails in its objective if it does not give a wide choice of intellectual interests outside the immediate course of studies, if it ignores the craving of the human mind for the beauty of colour and form and the rhythms of poetry and music. Fulness of life is a condition of culture and drabness in scholarship is not a merit but an avoidable evil. The truly educated man has no intellectual antipathies though he may have affinities. Lastly, there is the recognition that is afforded by modern Universities of the truth that duplication of effort should be avoided amongst the various institutions for higher education. In India this lesson is especially valuable. We rejoice

that new Universities are springing up in many provinces; but one would prefer that each of these Universities were individual not only in tradition and background but individual in its studies and research. If each University devoted itself to some special subject or group of subjects suited to its locality, or the history, circumstances and aptitudes of the people whose interests it serves, we shall be able to do more in the aggregate than is possible at present, with much less expenditure of money and energy. A large number of struggling institutions each trying to teach the same subjects as its neighbours merely means the dissipation of effort which, conserved and concentrated, may result in valuable additions to knowledge and improvement in the calibre of the student. Thus, for instance, there are many reasons why our University situated in this capital city should concentrate on languages and the scientific study of politics and economics. If such an object be kept in view, the student would go to specially equipped centres for his special studies rather than to an ill-equipped college or University where everything is sought to be taught and taught inadequately.

This is not a mere exercise in speculation but I contend that these reflections have a practical and immediate bearing on the problem of the future of our country. The amount of money available to the Universities is not only limited for the moment but is likely to be so for the next few years. The question of higher education viewed in conjunction with the unemployment of the educated classes is serious and acute, and it is necessary to deal with our human material in such a manner as to produce with the utmost economy of means the best possible results for the future of our land, to evolve men who should be catholic in mind and soul, would resist the influence of disintegrating forces and would not be stereotyped and uniform in outlook and work but would be creative in every sphere of activity.

A great deal of thought has recently been bestowed at the Universities of Great Britain and Ireland on the essentials of University education and, as very often happens, the pendulum of thought has swung from one side to the other. But the idea is being increasingly entertained that University courses should serve two purposes which have been erroneously regarded as incompatible, the first being to enable those who enter with a certain preparation and are interested in the general activities of the human mind to take a general course, the second being to assist those coming with a specialised aptitude clearly developed to take a special course, remembering at the same time that neither group should be put at a disadvantage compared with the other. This reconciliation of the two aspects of education typified in the universality of the humanities and in the devotion to organised and minutely specialised research is one that must engage our earnest attention. It is clear that many undesirable results have been fostered by narrowness of study and the specialisation which have been recently much deplored. But it is possible to over-do this criticism because undue diffuseness is as regrettable as the attitude exemplified by the grammarian in Browning's poem. This idea of mutual adjustment is, in fact, replacing the older one in which one curriculum and one group of persons were designated by the term 'pass' and the other by the term 'honours', such a demarcation being felt by competent critics to be very injurious to the quality of work in the Universities. But beyond and above this feature of University evolution is another which deserves to be stressed, namely, that one of the chief purposes of University education should be the discouragement of the tendency to look upon the content of a given topic as finite. Speaking at one of the Annual Conferences of English Universities, Dr. Myers of Manchester thus describes a very common type of University students: "They speak and what is more serious they think of having 'done' a play of Shakespeare or the theory of Valency or some

other subject. This attitude is rather of the kind that one might have towards some physical achievement such as running a race or climbing a mountain." Expressed otherwise, the object and the intention of a University should be the creation of a faculty or attitude which has been styled "awareness",—the appreciation of the forces that play upon us, physical and psychic, and the responsiveness and adaptation to environment in terms of art and science and music and culture and harmonised life. The possession of a degree, therefore, does not and cannot primarily mean that certain conditions have been fulfilled but rather that a habit has been inculcated. It is the failure to grasp this thought that leads to the phenomenon of students seeking information as to what is the right or correct view of a question so that they might be enabled to give a ready made or official answer and relying on summarised text-books and peptonised synopsis. Such a training may produce students possessing a great deal of what has been described as factual knowledge ; but in such persons the possibility of future growth and development is lacking and finish and maturity of judgment are to seek. The aim of the University should thus be not to bring into existence a student who has passed the climax of his intellectual powers at the age of 20 or 25, but one whose aptitude has not been forced like a hot-house-plant and has been allowed to develop from within so as not to eliminate the vitality needed for future growth. I often wonder if the system of *viva voce* disputation that prevailed in ancient India and has been a feature of many European Universities is not one of the most effectual remedies for this disease.

The ultimate fact, however, remains that the right outlook is not acquired either by a syllabus or by examination or by competition but only from a teacher who is able to convey to his pupil what has been called by a great English philosopher, "the invisible molecular forces that work from individual to individual". Adequate tutorial instruction supplementing mass lectures

is, in consequence, necessary in order to evolve the proper type of educational product. Weakness in general knowledge and the over-crowding of the Universities with students who are not fitted for University careers result from the absence of that intimate contact between the teacher and the taught which has been our ancient heritage and which has been the characteristic of the best Universities throughout the world. Such intimacy of life and thought between the preceptor and the student would bring about the elimination of the unsuitable categories of student, and the diversion of young men at an early age to careers better suited to their capacity than those afforded by their present attempts. Resources would thereby be available for better educational uses, and the best men from the point of view of the Universities could be selected more thoroughly and trained better so as to subserve the widest national interests. It must not be forgotten that although the old Indian University of Nalanda is reported to have had thousands of students drawn from all parts of the country and even from China, yet the teaching was on the basis of the *Guru Sishya Param-parya*—a theory of instruction which is as fully recognised in Oxford and Paris and Gottingen as in the ancient and modern *Guru-kulas* of India.

We have a continuous tradition of learning and respect for knowledge and, indeed, we are disposed to attach too great an importance to erudition as such. It was said of Salmasius that he had read ten times as many books as any man of his age and accounted himself ten times as great. Not many people cared to enquire whether he had profited by his reading. We are only slowly beginning to see that what is significant is originality rather than capacity to retain and to reproduce. It is a matter for congratulation that many Indian Universities have recently been realising this and are doing their utmost to recognise and reward thought in contra-distinction to memory and imitative effort.

The tragedy of our Indian education is that we produce graduates for whom there is nothing to do. The State can only employ a limited number. The industrial and commercial activities which absorb most of the educated young men elsewhere are still in the making. There is as yet very little liquid capital to start industries on a nation-wide scale, and in this posture of affairs less and less attention has perforce been devoted to education in its purely academic or speculative aspect. Notwithstanding the incalculable cultural value of such learning, greater concentration is undoubtedly necessary on the positive and practical sides of education. The time has come when the Universities will have to harness themselves to the service of the State so as to train men who will be producers instead of critics or lookers-on. The example of recent foundations in Europe and America must be followed ; and perhaps we shall do well to walk in the footsteps of countries like Denmark and Switzerland where higher education is adapted to such forms of industrial and agricultural progress as are most suitable to their conditions and natural resources and possibilities. In any case, it must be perceived that it is not beneath the dignity nor beyond the purview of a man of learning to apply himself to agriculture or cottage industries. But even more of a desideratum is the definite endeavour to make of our Universities the training grounds for a new community full of *esprit de corps* and with ideals of toleration and of active service, dedicated to the pursuit of truth and with minds cleared, by wise and well-directed training, of cant and prejudice, with no invincible illusions and few pet theories, and resolved not to be crushed under the dead weight of obsolete formulæ but to be alert and responsive to all unifying and stimulating influences. From the Universities must issue forth the trumpet-call which will break down the walls of many fortresses of out-worn belief and vestigial practice, of discord and of inherited and acquired prepossession and bias ; and in this mission the educated women of India

have, perhaps, an even greater responsibility than the men.

Some of my predecessors have spoken of the deleterious effects resulting from the active participation of students in schools and colleges in the politics of the country. My plea for the abstention of the student from such activities as distinguished from fervently patriotic aspirations and a careful and even passionate study of the problems of life and society is based on the following consideration. All politics and all the business of life tend, to a greater or less extent, to divide men into groups and parties. I would rather that in the plastic and formative years of youth, men and women should know of no differences save differences of intellectual perception and intellectual appraisal, and, that they should be a homogeneous community intent solely on acquiring that suppleness and strength of intellectual and moral muscle without which the great enterprise of life can never be successfully attempted. Abhorrent to all true lovers of the country must be the spectacle of boys and girls driven to thoughts and deeds of violence by misdirected and un-Indian teaching and frenzied political doctrines ; but apart from these manifestations, is it not demonstrably true that to handicap oneself with political antagonisms or communal bias at an early age is to put a fetter and a shackle on minds and souls that should be free as the air and unconfined, as well as to stimulate the growth of those tendencies which in the India of to-day need to be eliminated or minimised. Let our educational centres be true *Ashramas* from which are banished all contentions save those of the enquiring intellect and all hatreds save of shams and falsehoods.

Very recently I read an account of a lectureship founded by Sir Alfred Fripp which has been instituted for the purpose of interpreting to the rising generation the spirit of happiness and success—success in the use of life, not the gathering of wealth nor the attainment of social importance. It is that spirit of success in the

use of life that the Universities should engender so that it may be said of us :

“Gathering as we stray, a sense
Of life so lovely and intense
It lingers when we wander hence
That those who follow feel behind
Their backs, when all before is blind
Our joy, a rampart to the mind.”

UNIVERSITY OF TRAVANCORE

18th October, 1941

YOUR HIGHNESS THE CHANCELLOR, PRO-CHANCELLOR,
COLLEAGUES AND FRIENDS,

In addressing the members and the alumni of our University, inclusive of the graduates of this year, I cannot do better than to present a free rendering of what may be regarded as an adequate summary of the whole duty of a cultured man, enshrined in that ancient scripture, the *Taittiriya Upanishad* in its ninth *Anuvaka* :

ऋतं च स्वाध्यायप्रवचने च ।

सत्यं च स्वाध्यायप्रवचने च ।

दमश्च स्वाध्यायप्रवचने च ।

शमश्च स्वाध्यायप्रवचने च ।

अग्नयश्च स्वाध्यायप्रवचने च ।

अतिथयश्च स्वाध्यायप्रवचने च ।

मानुषं च स्वाध्यायप्रवचने च ।

“Righteousness should be practised and also study and teaching ; truth should be followed but also study and teaching ; austerity—the subdual of the senses—also study and teaching ; the rites of domestic worship and of hospitality, and the daily duties of man should be carried out, also study and teaching.”

How clearly was it perceived that, along with all other private and public virtues, should be ranked con-

tinuous study and how equally important with such study, was the communication of its results ? In relation to persons employed in the quest of learning and of the self, it is prayed :—

ॐ सहनाववतु सहनौभुनक्तु सहवीर्यं करवावहै ।

तेजस्विनावधीतमस्तु माविद्विषावहै ॥

“ May the Supreme protect us ; may He afford us daily sustenance, may we be given strength and valour for joint enterprises, may our studies be illustrious and crowned with success, and, above all, may there be no hatred and jealousy amongst persons following the same path.”

Such are the true aims of a gathering of scholars and teachers. Such should be a University's objectives. We are literally at one of the turning points of history and the occasion is ripe for a fresh analysis, a new evaluation of what education should stand for and what should be eschewed. Shall we continue to suffer from

“ the strange disease of modern life,
With its sick hurry, its divided aims,
Its heads o'er-taxed, its palsied hearts ? ”

To put the problem in other words, the functions of our Universities, especially at junctures like the present, are more widespread and more responsible than in normal epochs. No longer can they merely supervise teaching and the conduct of examinations and charge themselves with the welfare of their wards only from the external point of view. No longer can they even merely collate and register the results of study, of speculation and of research. No longer can they forego the obligation to be extensive in the sense of spreading, by means of appropriate agencies, the light of knowledge in the right direction and widest diffusion. No longer can they forget the part to be played by them in the

agricultural and industrial rehabilitation of the country by the methods of science. No longer can they ignore the cultivation of those arts and studies that mellow character and refine outer and inner life. No longer, moreover, can they abdicate the duty of so ordering education as to avoid the tendencies in teaching and in learning and in the pursuit of economic and positive sciences that have inevitably led to the present crisis.

The progress of invention and the march of science have led to certain apparently triumphant results, which would not have been possible, without the specialisation which is a mark of the scientific technique of to-day. It has now become the main duty of the Universities, in a certain sense, to retrace the path of which they blazed the trail and to preach the lessons that came from the old *Asramas*. Must Universities and scientists always search for better weapons of offence, more and better tanks and machine guns and parachutes and bombers and poison gas and, then, in order to counteract these, search for better means of defence against their ravages? Cannot their message be one of economic sufficiency, the elimination of distress and poverty and an elimination also of the mischievous by-products of the unregulated intellect? Can the Universities be trusted to bring about such a psychological reformation?

In this connection, some extracts from a recent book, "*The Betrayal of Christ by the Churches*" written by Middleton Murry, one of the foremost of recent literary critics and thinkers, are timely and thought-provoking.

"The greater and more important part of a man's education is not acquired through any conscious educational process. He absorbs it from the society in which he lives. The ways of getting a livelihood to which men are compelled, the moral values which are taken for granted around them, the kind of relations with their fellowmen which they cannot avoid, these are educational influences, more continuous, more pervasive, more permanent than any to which men are deliberately submitted at school or college. Indeed, they determine

the actual quality of scholastic education which has always been subdued to the society it works in. And until we recognise that an acquisitive society in decline can educate its members hardly better than totalitarian societies, our efforts towards improvement will only confound confusion. Believing in God becomes an empty ecstasy unless the belief is given substance by a way of life. It is a natural simplicity, a natural frugality that we need to learn."

It has been observed by the author that historical Christianity was the religion of a pre-industrial society, and he indicts the modern machine civilisation as a denial of the reality of Christian society, national and international, and partly the cause and partly the product of the disintegration of that society.

We have heard a great deal in recent times of laboratories and of research and all they connote and imply. This University has deliberately accepted the motto :

कर्मणि व्यज्यते प्रज्ञा

"Wisdom is manifested in action."

The preamble of the Act establishing the University refers to the decision gradually to develop technical and technological education, and to make greater provision for furtherance of original research. The main characteristics of our age are related to scientific research, but can we not ask whether undeclared wars and naked aggressions are the inevitable blossoms of this scientific age? Whose is the responsibility for the present posture of affairs? There have not been lacking persons who have attributed the most modern developments to the radio, the aeroplane and the machine-gun. With the radio, a person addresses the whole world. Similar ideas can be simultaneously put into everyone's head. From its carefully devised use, may be produced uniformity of thought; and to propaganda has been attributed the rise of totalitarian rule. The influence of the radio in American politics, in England during the great strikes,

and in Germany, is fully recognised. Generally speaking, technical development as it has recently evolved has resulted in uniformity of organisation. It is no longer possible to say that those scientists who have contented themselves with science have no social relations or aspects. Nothing has been more clearly demonstrated by the history of technology than that while it may result in new inventions, it does not always result in wisdom. The question at once arises whether the modern scientific method is itself right ; whether a new evolution of social values should not proceed side by side with technical advances. One of the constant battle-cries of Hitler has been that his task is the building up of a new order—a new order where apparently the enthronement of scientific research will be complete in the economic as well as in other spheres. This is not a new phase or phenomenon.

The first organised research in Europe was in Germany and its main drawback has been its intense and self-centred concentration on results rather than on means and method. The Research Society founded by Kaiser Wilhelm II under the inspiration of German scholars in 1911 had its own factories, its own laboratories, and was started by industrialists, bankers and businessmen. The original objects of that Institute were described to be the promotion of new fields of enquiry which could not be conveniently started in Universities, the provision of temporary or permanent opportunities of research for academic scientists, overburdened with teaching and the training of graduates in research, before they entered on an academic career. The first President of the Society declared that we should not build institutes first and then seek for the right men, but find an eminent scholar and build an institute for him. It was the work of this Institute that led to the study of light alloys, silicates and textile fibres. It initiated cold storage. It started the application of physics, chemistry and physiology to clinical research. It gave an impetus to industrial physiology

and studies, and its activities ranged from the establishment of meteorological stations and bird observatories to the encouragement of the study of cosmic rays. The synthesis of ammonia was one of its main contributions to chemical industry. Side by side with all this industrial and technological activity, there was deliberately encouraged a combination of feudalistic modes of thought and of coercion with modern scientific ideas. The success as well as the failure of German research may be attributed to its narrowness, its lop-sidedness and its concentration on the intellect rather than on the spirit.

A different but not less organised attempt was made in another country in which scientific research was consciously planned on a national scale, namely, Soviet Russia. Albeit that the organisation of society, according to the principles of Karl Marx, which formed the basis of such planning, might be essentially wrong, there is no question that in Russia, there was perceived from the beginning of the new era, the fundamental importance of science and technology to the development of society. Indeed, such a development became a necessary part of life and of Government.

Without entering into controversies as to the place of humanities in a liberal education, it would be correct to assert that science played very little part in the education given to future administrators in the British Universities. The students there studied old and modern literature. They discovered the methods and modes of speech of statesmen and public men in the past. They acquired the art of disputation and of dialectics. It was therefore a new thing for any Government to assert, as Lenin's Government asserted in 1920, that it is the main duty of the Government so to direct education and public activities that the country should be electrified, and that industry, agriculture and transport built on the foundations of up-to-date large-scale production. The technique adopted was equally original. The planning started firstly with a census of requirements for

creating a satisfactory standard of life for every one. Therefrom calculations were made as to the size of the industries needed for supplying them. It was then considered how the output of agriculture might be increased ; and research institutes were created to assist in introducing better methods. Surveys of the natural resources of the country were made and electrical industries were planned. Planning was thus regarded as an operation which will provide able and instructed men with the fullest possible opportunities.

The impact of the war, and the emergence of new problems occasioned by it, have not only brought about an alliance between Britain and Russia, but have opened up possibilities for mutual co-operation in the matter of planning for the world of the future. As Mons. Maisky said a few days ago, the twenty years' planning that the Soviet Union has undertaken, and has carried through more or less successfully, was only part of the economic planning of the world which is bound to be the task of the future. Mr. Bevin, speaking at the International Youths' Rally recently, insisted on the need to remove national and international barriers and fashion a new economic unit. It is now conceded that the present catastrophe is due to the perverted use of knowledge, and that the future depends on the raising of the standard of life and the bringing about of economic security throughout the world. The divorce between science and ethics has to be undone, and a mere materialistic approach to social and economic problems, and even to scientific questions, is no longer safe or even permissible.

In America, private enterprise always took the initiative, both in education and in the economic sphere, and it needed the depression of 1929 to disclose the maladjustments of society. In the course of the re-ordering and planning that took place in America, it was found that, whereas distinguished scientific and technical men could do fine work in their own field, they were liable to ignore that some problems in their

own field may be solved by innovations in other fields. Specialisation in the old sense had to give place to collaboration. Mr. Crowther's recent treatise on the *Social Relations of Science* is a most illuminating commentary on present conditions. By a series of striking generalisations he shows how the telephone, the motor car, the aeroplane, the motion picture and the radio are the bases of the major industries which came into being after 1900. He argues, that as early as 1900, it should have been possible to make a forecast and provision for likely advances. Wider main roads could have been planned earlier. The effects of artificial silk in undermining class distinction, by removing the difference in the style of dress worn by different classes, should have been foreseen. The expansion of European life through the extension of motor cars should have been forecast, and laws for regulating it might have been introduced, before the rise in estate values made urban and even suburban improvements prohibitively expensive. He adds that the greatest changes in the future are to be expected from the synthesis of organic substances, such as the hormones which offer prospects of basic changes even in the constitution and nature of man. He concludes: "Forecasts of the effects of the development of plastics, synthetic rubber, pre-fabricated houses, facsimile transmissions, motor cars and trailers, steep flight air-planes and the intensive cultivation of plants in trays under special chemical and physical conditions, would almost certainly provide information of value for far-sighted social legislation."

The renowned scientist Niels Bohr wrote a few months ago:—

"The new knowledge has been based on a reciprocally fruitful linkage of research with technology. Also it has been brought home to us that such a far-reaching development in each part of the scientific field has been made possible only by the most intimate cooperation between scientists from all parts of the scientific world." Modern atomic physics is one of the most rarefied of

pure natural sciences, but its progress has inevitably led to a long series of practical applications, the use in medical science of the Rontgen rays and the radio-active substances, the use of the electrons in radio, television and sound films, and the use of the artificial radio-active substances in biology and medical science.

It was with a full appreciation of such planning, that quite recently, Mr. John Sargent, Educational Commissioner with the Government of India, spoke on post-war educational reconstruction. He referred to the accidental impulses to the development of industries which have been given to India by participation in the Empire war effort. He said that, in order to make a better world for all men wherever they may happen to dwell, we must place main reliance on the establishment of a more soundly conceived and more widely diffused system of public education. Both he and Sir Bertram Stevens, the Australian representative on the Eastern Group Council, have argued with justice that the time is past when Universities could be regarded as a retreat for or from everyday life. "Today," Sir Bertram stated, "Universities are closely and actively bound up with every phase of modern life and with even that most terrible and tragic phase, war. Great institutions of technical skill and scientific feeling have become flaming torches to light mankind on its dark road and though in many ways we seem to be educating ourselves for destructive purposes, we are also educating ourselves for a new attack on man's age-old problems which have once again culminated in the tragedy of war."

The old Indian system was in essence one of universal compulsory education for the Indo-Aryans. King Asvapathi Kaikeya explains in the *Chhandogya*: "In my kingdom there is no ignorant person". (v. 11, 5.) Education was not denied to women and the *Brhadaranyaka* description of Gargi needs no reiteration. The catechetical mode of teaching under a guru was followed and supplemented by academic meetings and

congresses and parishads. There were national gatherings summoned by kings, as is seen from a perusal of the *Brhadaranyaka Upanishad*, *Satapatha Brahmana* and *Vayu Purana*. Already during the *Mahabharata* period, Takshasila, the modern Taxila, had become a renowned centre of learning under a great Professor Dhanumya who had far-famed disciples like Upamanyu and Aruni. Kacha and Devayani are other examples of student life. Another celebrated centre was Naimisha Aranya under Saunaka who was a Kulapati (preceptor of 10,000). The *Mahabharata* itself is reputed to have been compiled or edited in that forest University. Kanva's Asram on the banks of Nalina, a tributary of the Sarayu, was also a great assemblage of hermitages, and so was the Forest of Kamyaka. Kurukshetra produced two women teachers. The teachers lived with their families and pupils in utmost simplicity and taught both spiritual and scientific lore. Drona, the great guru in archery and warfare, was given as his utmost remuneration "a neat and tidy house well-filled with paddy and every kind of goods".

Under the old educational system, as outlined in the *Upanishads* and the *Brahmanas*, the period of studentship was fixed at 12 years as a minimum, and the ideal was of a residential University where the students lived in the house of the teacher and performed the several duties as a means of moral and spiritual discipline. It would be correct to say that these ancient Hindu schools of learning, which ultimately developed into what might be described as Forest Universities, pursued a mode of teaching which was neither mechanical nor soulless, but which generated in the learners a spirit of anxious enquiry and a quest for truth. Among the products of this system as developed in Buddhist times, were Universities like those at Kanchipuram and Nalanda, whose main features were strict discipline and manual and even menial work, and also certain practices designed to produce moral growth; and finally, a system of public disputations and examinations.

Already by the 8th century A.D., the Indian University had emerged from the idea of simple life in the forests, and the Chinese account of the University begins thus : "Nalanda, with scholars famed for their learning in the sacred texts and arts and with the clusters of rays issuing from her Caityas shining brightly like the white clouds, seems to laugh at all the cities of monarchs who had gained fame by ripping the bodies of elephants on hotly contested battle-fields". In this centre of higher study, the number of learners and teachers was placed by Hiuen Tsang at 10,000, and it was admitted that the material life of the monastery stood at a high level, and that hospitality was extended to all *bona fide* visitors, pilgrims or students. The history of this University covers nearly a thousand years, and seems to have been a period of sustained endeavour and achievement, devoted to the pursuit not only of Indian religious and philosophic systems, but even of sciences like Medicine and Astronomy.

The history of Universities in the West was different. They started as Guilds or Corporations of students who formed a combination for mutual protection ; and licences to teach were granted by the Chancellors of the early Universities who were generally connected with the Church. Such licenses were restricted in scope, but the fame of particular teachers and of particular centres enabled, for instance, the Doctors of Paris and Bologna to claim the right to teach anywhere. Devoted at first to sacred purposes, later on the Universities devoted themselves to secular pursuits. Medical and legal studies followed theology ; but it may be said that, as in the case of Paris under Abelard, special importance was from the first attached to divinity, dialectics and logic. This combination of scholars gave place only very recently to colleges, but the history of University activity was a history of conservatism, so much so, that in Italy the new era of learning is usually reckoned from the period when certain Universities got rid of logic, and introduced rhetoric, so as to minimise useless controver-

sies. It was not until the Reformation and the Counter-Reformation that the secular aspect of Universities began to develop.

Great libraries, and schools of history and sciences on modern lines, began with Gottingen and Halle and Berlin, which last University was practically the first to express repudiation, through the Academy of Sciences, of adherence to any particular creed or school of thought. The responsibility of the Universities for scientific work and for adult education was realised much later. But right through European history, the Universities, although the objects of munificent bounty, private and kingly, never had such scope for work as the Americans provided for their Universities from the start. It was a paramount act of wisdom which enabled the major units of the United States to place at the disposal of each member of the Congress, 30,000 acres for the purpose of helping in the establishment of colleges in each State. Aided by such grants and by enormous private endowments, agriculture and technology, pure and applied science, were given a great impetus and the results have been abundant. The scale of private endowments in America has been gigantic. Rockefeller alone has endowed the Chicago University with 34 million dollars, and the Universities of Cornell, John Hopkins, Stanford and Duke are only less munificently endowed. A specially interesting development in America has been institutions like those of John Hopkins—Baltimore—for the purpose of organizing carefully advanced study and research, requiring collegiate education for the entrants. The later tendency in the United States is to combine collegiate and university instruction under one corporation and one executive administration. New Universities have sprung up all over the world. There has been a vast increase of students in each University, especially so in the Americas. Columbia is reported, for instance, to have 32,244 students on its rolls. The so-called Seminar system, developed in the form of University Institutes, has been widespread; and technical sciences, agricul-

ture, mining, forestry, commerce, fine arts and political science, have had special attention paid to them in these institutes. New faculties have come on the scene by reason of the increasing specialisation. New Chairs have been started for Radiology and Sociology and even for such applied sciences having direct relation to practical life, like Journalism and Nursing. A system has been inaugurated of bringing to the University adult students after a course of extra mural instruction, for residence at least for a year, so that these persons may return home with powers of greater service to the community. An intensive study of foreign languages and civilisation, which at one time was confined to Germany under the title "Auslandskunde" has been generally adopted. The purely nationalistic outlook of the 19th century has given place to the realisation of co-operation amongst the Universities of the world engaged in similar tasks.

The Universities of America have started Lyceum courses comprising short lectures, and Summer schools with literary and scientific circles, using the public libraries at Chicago, St. Louis, etc., as nuclei; and they have even undertaken correspondence courses; and a few Universities are even giving credit to students for extension courses. Thus, in several ways, Universities are reaching out their hands for helping the workers as well as the scholars of the country.

In order to bring higher education within the reach of the people, Universities like Manchester, Leeds, Liverpool, Birmingham and Sheffield were started, and one of the most formative influences has been the teaching undertaken by Universities for the benefit of the general public, by extra-mural work. The movement began in Cambridge under James Stuart and was designed for working-men at Crewe; but it has spread practically all over the world and includes among the subjects taught, History, Geography, Literature, Art, Music, Science and Economics.

Just over 17 years ago, I took part in another Convocation and addressed the graduates and members of

the Madras University which, like other Universities in India, took the examining body of London as its model, until, in 1904, under a New Act, the Residential System, Readerships, Fellowships and Research were organised. It then fell to me to deal with some of the criticisms that have been levelled against Indian University methods. Taking my stand on the experience of Cardinal Newman, a humanistic scholar if ever there was one, I pointed out that eloquent lectures could never serve as a substitute for methodical and laborious teaching. In the words of the Cardinal, a young man of sharp and active intellect, who has had no other training, has little to show for it besides some ideas put into his head somehow. He is up with a number of doctrines and a number of facts, but they are all loose and straggling. There are no principles set up in his mind round which to locate them. He can say a word or two on half a dozen sciences but not a dozen words on any one. He sees objections more clearly than truth, and can ask a thousand questions which the wisest of men cannot answer. This, he concludes, is a barren mockery of knowledge which comes of attending lectures or of mere acquaintance with magazines, reviews, newspapers and other ephemeral literature which, however valuable, are not in themselves the instruments of intellectual education. Higher education should not thus be solely concerned with the assimilation of facts and figures. A University, as I emphasised at the Delhi Convocation in 1932, fails in its objectives if it does not give a wide choice of intellectual interests outside the immediate course of studies, if it ignores the craving of the human mind for beauty of colour and form and the rhythms of poetry and music. Fulness of academic life is a condition of culture, and drabness in scholarship is not a merit but an avoidable evil. At that time, few could foresee that even more fundamental things are involved in the scheme of a University than the cultivation of the intellect and of a satisfying environment of comprehensive study and organised research.

A spirit of revolt from the ordinary pattern of Indian Universities began to be in evidence almost simultaneously in various quarters about 15 to 20 years ago. Rabindranath Tagore, whose loss India has been deploring, in starting the Viswabharathi, heralded such a revolt which was also manifested in the Gurukulas started in the north of India, and in the Asramas inaugurated by Mahatma Gandhi and others both in the West and in the South. They embodied not only a reaction against mechanical methods of teaching and lecturing for examinations as ends in themselves, but sought to introduce into academic life a new element of beauty, or a special discipline, mental and spiritual.

Travancore, though separated by the Ghats from the rest of continental India, has had millennia of cultural and commercial contact with the countries beyond the seas as well as with Indian centres of life and activity. It has received much from, and given not a little to, the outside world, not the least of its gifts being the great Sankaracharya and a long line of poets and artists. It inherited a special mode of life and it had as one of its most characteristic features, the unique position enjoyed by its women in all spheres, a position illustrated and vindicated by the Proclamation of Rani Parvathi Bayi in favour of universal education.

Our history and our culture needed conservation and encouragement. Our special agricultural and industrial problems demanded an urgent solution, and we had at the same time to organise research and to stimulate the pursuit of applied science. Some of us therefore dreamt of a University, wherein our practical as well as our cultural requirements could be met. Owing to the far-sighted solicitude of His Highness for the welfare of his subjects, that University came into being in 1937 with the active financial and practical support of His Highness' Government. The two chief aims of the University were, from the beginning, the pursuit of applied science and the development of technical and technological education; and secondly, the conservation and

promotion of art and culture generally, with special reference to Kerala. Signs are not wanting that the sister State of Cochin is taking a live interest in the activities of this institution, and there are distinct possibilities of mutual co-operation in higher education, between the two neighbouring States.

One of the main objects placed by the University before itself is the sustained attention to be paid to manual training and physical education. The University Labour Corps lays emphasis on training in useful manual labour and gives military training in addition. It has already produced conspicuous results in getting rid of the superiority complex which is apt to divide the educated classes from the masses of India. His Highness is the Colonel-in-Chief of the Labour Corps and His Highness the Elaya Raja, the Colonel. Started under such auspices and helped by the leadership and the ungrudging services of Principals, Professors and Lecturers of the various Colleges, a great future can be predicted for the Corps which, amongst other things, has already had a marked influence on the life and cutlook of the student population.

The University has just constructed a Stadium, one of the best of its kind in India, in order to give the fullest possible impetus to team or group games as a means of stimulating the faculty of leadership and discipline and conjoint effort. While increasing attention is paid by means of the provision of coaches and tournaments to efficiency in such games as tennis, hockey, football and cricket, we have been imbued with the idea that costly playing fields are not possible in normal Indian conditions, and that in many of these games, one can participate only during a limited period of one's life.

From the earliest periods of the cultural history of India, there was a wise insistence upon the cultivation of a strong body as much as on firmness of purpose and the discipline of the will, the latter qualities depending, to no small extent, on healthy physique. The student was enjoined to make himself not only a diligent stu-

dent, but an *Asishta* and *Balishta*, disciplined and strong.

Individual physical culture, as developed by our ancients, and calculated to produce suppleness of body and poise and concentration of mind, has also received the University's attention and the latest instance is the appointment of a Director for Physical Culture on the lines of the Yogasanas and breathing exercises. The rehabilitation of the ancient and very carefully devised systems of physical culture is among the foremost objectives of the University. Along with this development will also be introduced the systems peculiar to Kerala which include the art of self-defence.

We have not been able yet to make this an entirely Residential University. Even the hostels that have been provided are sometimes regarded as too costly, and in order to meet this criticism, the University Students' Hall started under the Department of Physical Education proposes to bring into existence a system as economical as any of the so-called "lodges," but with a wholesome atmosphere and wholesome food and recreations.

May I add that it is ill service that we should render to posterity by formulating in our buildings, or in equipment, or games or the daily life of the students any but the most simple and economical standards? Not merely the requirements of the *Brahmacharya* ideal but the inescapable facts of Indian life demand such a policy of plain living.

This University has striven to preserve, as much as possible, autonomy in University administration without losing thereby the possibility of sustained interest and encouragement on the part of the State on which it depends largely for its income. Excepting in a few recent instances, endowments, such as those instituted by Carnegie, Rhodes and Nuffield in England, not to mention the colossal American foundations, are scarce. Perhaps, Calcutta and Nagpur are the most notable exceptions. The University has therefore to bestow its most anxious attention on creating a University Fund by securing

more endowments for general purposes and special funds for research from those who benefit by its services. The *Gurudakshina* of old must be given today by students and their parents and those others who realise the immeasurable value of higher and intensive education, in the form of endowments in aid of poor scholars, in furtherance of Fellowships and Lectureships, the laboratories and libraries and extra-mural and social service activities. It has been and will be the aim of this University not to waste any money on spectacular buildings. The edifices of rich Europe and richer America need not be our models. Our moneys must and will be conserved for Fellowships, Lectureships and apparatus. In this, as well as in the standards of hostel and corporate life, simplicity is not a thing merely to be preached but to be rigorously and continuously pursued.

Our University is a combination of a Teaching and Residential University ; but on account of the impact of new influences, the term "college" is losing its significance even in this University. The Science College provides instruction not only to its own students but to students of the Institute of Textile Technology and of the Engineering College which is, in many ways, one of the most important constituent units of the University. The Forestry course is conducted in the Science College, but the students receive instruction also in the Engineering College or the Public Health Laboratory, and military and quasi-military training is provided with the help of the State Forces for the Labour Corps. It is because of these considerations that it has been decided to avoid duplication of teaching in languages as far as possible, and to bring students pursuing different courses of study together. The amalgamation of the Arts and Science Colleges which is being contemplated is a step in pursuance of this project.

The University Union which has already a strength of 900 has started under favourable auspices, and it has been the definite ideal of the University to give complete freedom of thought and discussion within the four walls

of the University. Whilst no limits have been or will be imposed regarding the subjects for discussion or the manner of discussion, or the doctrines to be propounded or controverted, this freedom has yet certain inevitable limitations, namely, that it does not involve the freedom to take part in outside political agitation which may result in a conflict with civil authority. We had our own troubles akin to the difficulties in British India during the Civil Disobedience Movements in 1920 and 1930, but we flatter ourselves that our University Union and our various social and group organisations have enabled us to solve many of the problems which at one time threatened to become acute.

Realising that Engineering is the root of all technical and technological instruction, and also realising the importance of not confining technological education to a select few, a Diploma course and a Certificate course for skilled craftsmen and technicians have been started in addition to the Degree course. The instructional Workshop of the Engineering College is part of the Government Workshops, and manufacture takes place there side by side with tuition. The Engineering College and Workshops are helping in the training of war technicians, and the University is contributing in many ways to the success of the experiment. Side by side with the Engineering College is the Institute of Textile Technology which provides Diploma courses and also Certificates in Craftsman courses. Having regard to the special conditions of Travancore and the large extent of forest area and the possibilities of forest work and research, a provisional Forestry course of two years has been started.

In order to co-ordinate and stimulate interest in applied science, which is one of the fundamental objects of the University, a Research Council was brought into being in August 1939, and we may claim to have thus anticipated a similar effort on the part of the Government of India which inaugurated the Board of Scientific and Industrial Research in 1940. Although this

University does not minimise the importance of studies and research in pure science, yet it has been felt by us that the distinction between pure and applied research is not so marked now as it once was, and that industry grows on pure research ; we have therefore sought to concentrate on those problems which lie nearest to our hands. Thus, for instance, research work has been conducted in regard to salt and the improvement of its manufacture and also the refining of fuel oils. Experiments have been conducted with shark liver oil which have yielded useful results. Further experiments are also taking place in regard to the supply of coagulants for rubber latex. Investigation of plant pests in respect of cardamom and paddy is taking place, and what may be called protective research is also being attended to. We are now, amongst other things, manufacturing the anti-rabic and other vaccines required for various purposes and conducting and giving effect to nutrition schemes. Two of our research students are working on the active principles of indigenous drugs. Work has been successfully carried out in regard to cocoanut shell and charcoal, and also the very valuable mineral sands with which nature has endowed this country.

As will be observed, these activities deal only with urgent and immediate problems and in many of these directions much more remains to be done and more co-operation secured between our University and those organisations inside and outside the State, working in similar fields. A beginning, however, has been made and this, on the whole, may be termed satisfactory.

In this connection, it may be well to bear in mind that even when planning educational reconstruction on the basis of the Wardha Scheme, the promoters emphasise that the object of the scheme is not primarily the production of craftsmen able to practise some craft mechanically, but rather the exploitation for educative purposes of the resources implicit in craft work.

Almost equally important with the imparting of knowledge and the fostering of culture and research is

the widening of the scope of education in the directions of adult education in the State and in the matter of popular publications. A beginning has been made by the compilation of a glossary of scientific terms, and the preparation of a grammar and lexicon of the Malayalam language is under way. The Mathematics, Physics and Chemistry portions of the glossary have been completed and the Zoology portions are being prepared. Without the dissemination of great literature both in the sciences and in the arts, a system of popular education and especially of adult education is not possible, and translations from the great classics are being attempted and some publications have seen the light of day. The social service activities of the University and the possibilities of broadcasting will also be used for this purpose.

The Government and the University of Travancore have, for a long time, been engaged in the task of collecting not only the valuable Malayalam, Tamil and Sanskrit manuscripts that are available in this part of the world, but also from elsewhere. Our manuscripts already comprise 10,000 items, and an intensive drive in the matter of publication is taking place so as to maintain the high standards of scholarship laid down by men like Dr. Ganapathi Sastri, the originator of the Trivandrum Sanskrit Series. The publication of translations into Malayalam of European and Indian classics and the production of books on popular lines dealing with problems of sociology and political economy and pure and applied science are also engaging our attention.

What should not be regarded as extraneous to a University are the efforts now proceeding in the State for the formation of Art Galleries, Libraries, Museums, the Academy of Music, the School of Dancing and so forth. All these are symbols and signs of a realisation that culture and education can be both conscious and unconscious, and may be derived from the study of great artistic models and the inculcation of a taste in the fine arts.

Our University has many great tasks before it. It has first of all to help in building up strong bodies for its alumni, boys and girls. It has to pursue the ideal embodied in the Labour Corps, in the Physical Culture Department, and make physical fitness, manual work and team work objects of earnest pursuit. The University has to apply itself to the scientific and social sides of post-war reconstruction and to learn lessons from the last war, which lessons were, in the main, wasted on the people of the world. At the same time, in view to our conditions, our University should not merely be an apt vehicle of human culture and the instrument of fruitful research, but it should inculcate and practise that simplicity, that directness of approach and that freedom of speculation which were the special characteristics of our way of life.

For us, as for all fellowships of cultured peoples, there can be no better aim than this, namely :

संगच्छध्वं संवदध्वं
संवेमनांसि जानतां

“Let us wend our way together ; let us speak with one voice ; let our minds be in unison.”

The laws of this University, like those of similar learned bodies, require that the candidates for Degrees and Diplomas should, on these occasions, solemnly undertake to order their personal and social life so as to promote the ideals befitting members of the University. Those who are presenting themselves for Degrees to-day have been selected after rigorous tests that have demanded self-denial, strenuous application and exercise of concentration, and I am not one of those who decry the prizes that fall to the lot of the successful student, as they are symbols of intensity of purpose and intellectual alertness. What has, however, to be recollected is that the knowledge that has been gained so far is not an end in itself, but the beginning of a new education

for wider objects in respect of which the training that has been hitherto received will be only one of several elements. There is no question of resting on one's oars. Intellectual rust is even more destructive in its effects than the rust that consumes iron and steel. It is relevant to emphasise this aspect because, it is too often found that the habit of study is given up when the need for it ceases. The life led by you in schools and colleges, in debating societies and clubs and play fields, has fitted you to take the rough with the smooth, to comprehend and make allowances for your neighbour's attitude and point of view, and to preserve good temper and a sense of humour in your activities. Nevertheless, it is a fact that you have emerged from a period of life during which you have lived in a kind of cloistered seclusion, away from the acerbities and the rough jostles of competing groups and the bitterness of unemployment and the non-recognition of talent and good work. But this is also a period when you have possessed both the time and the inclination to dream your dreams and to fashion your inner world, which may not correspond with the outer, but which ought to be a true refuge. The qualities and equipment necessary for the world's battles are different in nature and in direction from those required till now, but you have, or at least may acquire, the essentials of true culture. It has been said that a real man is one who can dream and not make dreams his master, who can think and not make thoughts his aim, who can meet with triumph and disaster and treat those two impostors as just the same.

Above all, the scholars and the graduates of this University can never forget that they are the trustees of the future, that they are the guardians of the reputation and the prestige as well as the prosperity of the State, and that it is their elementary obligation not only in their own interests but in the interests of the land that they love, to turn their learning to account by actively promoting the agricultural, industrial and economic progress of the State. At least some of you can,

by virtue of your tastes and training, keep alight the torch of literature and the arts and cherish and augment our common heritage. Thus may each of you justify in your life and your conduct the proud boast of being

“One who never turned his back but marched
breast forward,
Never doubted clouds would break,
Never dreamed, though right were worsted,
wrong would triumph,
Held we fall to rise, are baffled to fight better,
Sleep to wake.”

THE OSMANIA UNIVERSITY

26th February, 1942

MR. CHANCELLOR, VICE-CHANCELLOR, MEMBERS OF
THE SENATE AND GRADUATES OF THE OSMANIA UNIVERSITY
AND FRIENDS,

Let me commence this address by expressing my profound appreciation of the compliment paid by the authorities of the Osmania University to me personally and also through me, to the Travancore University of which I am the Vice-Chancellor, by being asked to participate in your Convocation. Let me also give expression to the pleasure that I have derived from assisting at a function presided over by such an old and valued friend as His Excellency the Nawab Sahib of Chatari. My next thought cannot but be directed to the first visit that I paid to this great foundation in the company of my valued friend, Sir Akbar Hydari, who was good enough not only to take me round the institutions connected with your University but to explain the ideals and motives that prompted its inauguration. Sir Akbar was an uncommon combination of administrator and patriot uniting, as he did, a sublimated commonsense with a rare feeling for right values and perspectives. Pious Muslim as he was, he was broad-minded enough both in theory and in practice to strive for union and harmony amongst the various creeds and peoples of India. He recalled to me, what I still remember vividly, the reply of His Exalted Highness to the address of the Council of the University on the occasion of the Jubilee of his reign wherein he laid down as the guiding principles of this learned body, broadmindedness, mutual

toleration and unity to be brought about by a blending of cultures and a collective life led by its alumni. Designedly was emphasis also laid by His Exalted Highness on those personal contacts and friendly relations, not only between the teacher and the taught but among the students themselves, without which the purpose of a University can hardly be fulfilled. Working under the stimulus of such a message and under such auspices, the University has, I am glad to perceive, proceeded from strength to strength and to-day occupies a notable place among its sister institutions. Shall I be wrong in regarding as an integral part of the loving tasks fulfilled by Sir Akbar the steps taken by him with infinite labour and constant and fostering care, to renovate and to perpetuate those specimens of ancient architecture and painting which to-day in Ellora and Ajanta bear witness to the toleration and catholicity of the premier Muslim Ruling Family in India ? Hyderabad has been the scene of great conquests and also of many imperishable products of Dakhani civilisation and of the Vijayanagar and other dynasties, which have been the nurseries of poets and artists and saints like Ramdas. To this body, I bring the greetings and good wishes of the youngest of Indian Universities, namely, Travancore, which was also inaugurated by a wise Ruler whose desire and pre-occupation have been to preserve and augment the treasures of the olden days whilst, at the same time, fitting the students for those practical duties and those strenuous tasks to which every one in this country is called especially at this time of unprecedented crises. Looking round me, I am, like many others, filled with wonder at the sight of this magnificent pile of buildings and those elaborate arrangements for comfort and convenience which are a symbol of lavish generosity and of a desire to give of the best to the makers of the India to be. I have witnessed with admiration the magnificent planning of the grounds, the remarkably successful blending of Indian architectural styles and the devoted labours of the scientists who are in various domains of know-

ledge specially in Physics, Chemistry, Zoology and Hydraulics bringing renown to this centre of learning.

It has been stated so often as almost to become a wearisome reiteration that we are at one of the cross roads of history. Such statements were, until recently, made with rhetorical emphasis, but, perhaps, with imperfect appreciation of the significance of the phrase; but with the enemy almost knocking at our doors and with ruthless aggression manifested all about us, he is blind who does not realise that new and unprecedentedly grave problems now confront our youth. The need has arisen and is peremptory for the evolution of a truly national spirit; the necessity is also inescapable, in addition to the regular armed forces of the Crown and of the Rulers, of a citizen-army, constituting not an uneducated and undisciplined rabble but close-knit groups of patriotic young men who, by physical fitness, by scientific training and by a sense of solidarity, will play their part in repelling aggression, physical and psychological, and will help to bring about (God grant that it will be soon) a new era of peace and comradeship. To such a duty the students of China, situated very much as we have been, with almost all the handicaps under which we labour, racial and communal, have addressed themselves in a manner that the world cannot easily forget. It was only the other day that I listened with envious admiration to H.E. Sir Archibald Clark-Kerr who was till recently ambassador in China and who is shortly proceeding to Russia, when he informed me that teachers and students alike from many centres of culture in China, when their buildings, libraries and laboratories were bombed and overthrown, carried on their heads and shoulders books and furniture and apparatus and all that they could save from the cataclysm in bundles and packages, and how professors and scholars moved from place to place keeping alive the torch of learning, and also succouring the afflicted and rendering social service in the midst of their educational work. It is a story of epic heroism for which we

of the older generation have perchance unfitted ourselves by our training and outlook, but without the manifestation of which amongst the youth of this land, the vindication of Indian nationhood will be delayed if not frustrated.

May I also not underline, speaking to this notable assemblage of Hindus and Muslims, that our *sine qua non* is the eschewal of the things that disunite and the prizing of the things that bring us together. Would it be impertinent to refer to the memorable lessons taught by the Quran when promulgating the doctrines that

“Every nation had an Apostle

There is not a nation but a warner has gone among them

And all nations have had their guides” ?

Shall we not remember also that in another passage it is laid down

“Do not abuse those whom they call upon besides Allah lest, exceeding limits, they should abuse Allah out of ignorance” ?

A University would best serve its object when it disciplines the intellect and emotions of those who are gathered amidst its surroundings so as to lead infallibly to the policy of live and let live and of mutual toleration, a heritage that we have derived from Asoka and Akbar and many of their illustrious successors.

I have been at some pains not only to peruse the literature relating to the foundation and the growth of this University but the illuminating Addresses of my predecessors during previous Convocations who have wisely stressed the importance of its basic ideals, who have pleaded for freedom from shibboleths, for an inculcation of a sense of proportion and for the growth of an integrity of mind following upon the integration of knowledge ; and it will be my endeavour not to repeat the obvious nor to speak on topics with which my auditors are better acquainted than myself. Suffice it, however, to say that I range myself with those who,

like Sir Akbar Hydari, have striven to get rid of the mental overstraining, the stifling of originality and the gulf between the products of higher education and the masses which have until recently been the disquieting features of University life in India. In establishing this University in 1918, one of the ideals set before themselves by the founders was the insistence on Urdu as the medium of instruction and English as a compulsory second language, the aim being to combat those evils to which I have just adverted. As a concomitant of such an endeavour, the Translation Bureau was brought into existence to acclimatize and to create technical and scientific terms and to translate the great classics of other lands to serve as models and an inspiration. The Travancore University has followed your example and is trying to do similar work for Malayalam and Tamil which are the two main languages spoken in the State and both of which have well-developed literatures. The choice of an Indian language as the medium of instruction, the adoption of a unitary type of University which would be both an examining and a teaching body and the Translation Bureau as well as the wise provision of residential quarters for as large a number of students as possible, appear to be the base upon which a fine superstructure is being raised. Differences of opinion there have been on some of these points ; but who can gainsay that the experiment was not only worth making but has been an invaluable object lesson. From the papers that have been placed before me I see that valuable results have already accrued. Over 400 publications ranging from treatises on Zoology and the Dynamics of a Particle to translations of literary and historical classics have been ushered into existence. Your research institutions have turned out notable results in Mathematics, the Physical Sciences and Zoology and it is proudly claimed that these achievements have not been hindered but helped by the adoption of Urdu as a medium. Your University has a wide range of activity and I gather that nearly 2,000 students are

studying the Arts and Sciences, Theology, Law, Engineering and Medicine, and that 500 students are in residence. It may interest some of you to know the lines on which we are proceeding in Travancore and I make bold to indicate them inasmuch as, in the pursuit of learning and culture every institution, making an honest effort towards the attainment of a clearly perceived ideal, may have something to teach to and to learn from its compeers. We started with the inestimable advantage of a widely diffused system of education dating at least from 1800 and initiated by a great Maharani who made it her policy, much in advance of many European countries, to render easily available to each village the benefits of a school and a hospital or dispensary. We have 7 Government and 4 private Colleges, most of which were affiliated to the Madras University. Travancore is fortunate in possessing the highest standard of literacy in India both in regard to men and women ; and with some justifiable pride I may point out that to-day more than 750,000 pupils are attending primary, secondary and collegiate institutions in the State, over 40 per cent of the men and 30 per cent of the women in Travancore being literate. We found, however, that the education that was imparted was not real in that it did not link itself with the life of the people at large. The lack of contact between the so-called elite and the masses was painfully obvious. The realisation of the dignity of labour and the desire and aptitude to do things, to make things, to create things, did not keep pace with literary acquirements or the facility of writing and talking. Notwithstanding the high standard of education, impracticability threatened to be the net result of one hundred years of vast expenditure in money and energy. The fruitful pursuit of theoretical and applied science and the efflorescence of the arts did not go hand in hand with the spread of literacy ; and above all, it was found that the strain of the studies and of examinations was weakening the physical stamina of the students. We had to remind

ourselves to start with, that physical efficiency is the corner-stone of a complete life. Not for nothing did the *Taittiriya Upanishad* declare :

युवा स्यात् साधु युवाध्यायकः ।

आशिष्ठो दृढिष्ठो बलिष्ठः ।

तस्येयं पृथिवी सर्वा वित्तस्य पूर्णा स्यात्

“Let the young man, during his tutelage be a good student, diligent in his studies, disciplined in mind, firm of purpose and strong in body. To such a student comes the wealth of the world in abundance.”

Indeed the ancient Hindu seers went so far as to declare that even the knowledge of the Absolute was not attainable excepting by the strong—strong in body as well as in spirit :

नाऽयमात्मा बलहीनेन लभ्यः ।

It is a thousand pities that we have not maintained the intensely practical outlook of our forefathers who laid down the following as elementary maxims of daily life :

Not only that we should not swerve from the Dharma but that we must not give up efficiency and the acquisition of a competence.

धर्मान्न प्रमदितव्यम् ।

कुशलान्न प्रमदितव्यम् ।

भृत्यै न प्रमदितव्यम् ।

Keeping such objects in mind, the Travancore University and the Colleges and schools working under its stimulus have set before themselves the ideal of organised physical exercise, the formation of a University Labour Corps as a part of training in manual labour, and the yoking together of the advantages of the

Western and Eastern schemes of physical culture. Team work and the cultivation of the faculties of leadership are the contributions made by Western games like cricket, hockey and football, but it is sought to add to them the special aptitudes and advantages that accrue from the indigenous games and exercises like wrestling, fencing and single-stick and, above all, those breathing exercises and what are called Yogasanas whose manifold advantages are now becoming apparent to Western educationists and which, even more definitely than Western games, create suppleness and endurance in the human frame. I feel I cannot sufficiently stress the importance of physical fitness for the next generation. Quite apart from the demands that may be made upon us legitimately in the matter of defending our country, the need for a well-developed physique is making itself apparent as the days pass by and as we witness those debilitated specimens which our Universities turn out at the end of a prolonged course of intellectual exertion. In this connection, I may be pardoned for quoting what Lord Ellenborough once said, speaking to students of Law. He averred that the lawyer should cultivate, first and foremost, physical health and then common-sense, and then an ability to wait and finally a love of the profession for its own sake. This exhortation has a special significance for us and is indeed particularly apt in relation to the present conditions of India.

In every educational discussion it is well to keep in view that a University by its very connotation, should be universal, not only in the sense of embracing the whole of knowledge within its ken but also in dealing with all the comprehensive and many-sided needs of humanity, physical, psychological and emotional as well as intellectual. In short, a University should concern itself with every aspect of life and should afford an adequate preparation for life. A Chinese philosopher who is also an artist in the English language Lin Yu Tang very recently described science as being a sense of curiosity about life, literature, as an expression of

the wonder at life, art as a taste for life, philosophy as an attitude towards life and religion as a reverence for life. But science, literature, philosophy, art and even religion itself, would be truncated and fail in their purpose if the objective were forgotten, namely, that they are a part of life. One of the drawbacks of our system of education has been its lop-sidedness or rather its lack of symmetry. It starved the emotions and it adhered to rigid and purely intellectual and memorising tests. This is why those who were charged with the foundation of the Travancore University thought it necessary at the same time to start an academy for the resuscitation of the old Indian dances, art galleries, institutions for teaching arts and crafts and schools for the teaching of music all these being essential complements of culture. In a recent radio discourse, a great Greek scholar, Professor Gilbert Murray, pointed out with much force that the Greek word "Schole" the origin of our school originally meant leisure and that the Roman word for school was "Ludas" meaning play. The Greeks knew that the necessary should be wedded to the beautiful in education, and our ancients also knew and practised this doctrine. It is surely on account of our forgetting these lessons that there has been amongst our educated men a certain lowering of aims and a one-sided outlook. To attain the desired ends, the main requisite is the competent and discerning teacher even more than laboratories, research scholarships, libraries, hostels and playgrounds, because none of these will serve as an equivalent for that intimate contact of spirit with spirit which it was the purpose of the *Ashrams* and Forest Universities of ancient India and the medieval Universities of Europe to supply. In other words, it is the teachers that make a University and it is their impact upon the intellect and the emotions of the students that constitutes the special contribution that a University can make to national life. Need I remind my listeners that Muslim civilisation and Muslim ideals were wholly sympathetic to this point of

view. May I recall to your minds the story of the Naishapur University wherein there dwelt as fellow-scholars at the same time many students who travelled from far off countries to sit at the feet of Imam Mowaffaq. To him was sent Nizam-ul-Mulk from Tus with Abdus Samad, Doctor of Laws. Later on, Nizam-ul-Mulk became the Vizier of Alp Arslan (or the Lion) and his son Malik Shah, son and grandson respectively of Toghrul Beg, the founder of the Seljukian dynasty of which we hear so much in the story of the Crusades. We read in his Wasiyat or Testament, a counterpart of Chanakya's *Kautilya Nitisara*, that among his contemporaries were Hasan-al-Sabbah the famous or notorious brigand-chief, who gave the word "assassin" to the English language, and the famous poet-astronomer and philosopher Omar Khayyam. It is stated that, after finishing their tutelage and when they were about to take leave of their teacher, these three made a mutual promise that they would share each other's fortunes, whatever they might be. Hasan joined Government service but intrigued against his lord and master and was exiled and finally became the head of the Ismailians. He and his followers seized a stronghold near the Caspian Sea, and he became known as the Old Man of the Mountains. Nizam-ul-Mulk, by his learning and his administrative integrity and capacity came to the front and became a minister under successive rulers and to him repaired Omar Khayyam who wanted no office but desired to lead a life of study and literary composition. Nizam-ul-Mulk, mindful of his old promise, obtained a pension for him, and Omar Khayyam became a devoted student of astronomy and re-fashioned the calendar and initiated the Jalali Era under Sultan Malik Shah. Gibbon in his well-known history praises this system and gives it a place higher than that assigned to the Julian Calendar. Omar produced astronomical tables and under the pen-name "Khayyam" or Tent-maker, was the author of the "Quatrains" which have acquired world-wide celebrity and are known to us as the Rubi-

yat of Omar Khayyam in the version of Fitzgerald. The intimate relations between the teacher and the taught and between fellow-disciples exemplified by such stories are illustrated by similar anecdotes in the history of the Pandavas and were observable as a feature of Universities like those of Taxila, Kanchipuram and Nalanda. My point is that the greatest results were achieved in the past and can be expected in the future from that close co-operation of mind with mind, which only a sympathetic and competent teacher with a marked personality can produce among his students. Before I pass away from Omar Khayyam, let me quote three verses from the Rubaiyat to demonstrate how closely in the past Hindu and Muslim thought approximated, at least in philosophy and how little reason there is to emphasise differences and cleavages in thought and speculation between the inheritors of the Hindu and Semitic cultures :—

Whose secret Presence, through creation's veins
Running, Quicksilver-like eludes your pains :
Taking all shapes from Mah to Mahi ; and
They change and perish all—but He remains.
A moment guess'd—then back behind the Fold
Immerst of Darkness round the Drama roll'd
Which, for the Pastime of Eternity,
He does Himself contrive, enact, behold.
I sent my Soul through the Invisible,
•Some letter of that After-life to spell ;
And after many days my Soul return'd
And said, "Behold, Myself and Heav'n and
Hell."

I am tempted to be carried away from the main path, but I cannot refrain from giving another example of the mutual sympathy or rather identity of outlook amongst thoughtful men belonging to every civilisation. Let me refer to the masterpiece of another great product of two Muslim Universities, Herat and Samarkhand, the latter of which was founded by the great Timur *alias*

Tamerlane. I quote from Salamān and Absāl and this is the English translation of the Persian poem by Jami, the pen-name assumed by Nuruddin Abdur Rahman, a student of the great Sufi master Saaduddin Kashgari :

Thou movest under all the Forms of Truth,
Under the forms of all Created Things ;
Look whence I will, still nothing I discern
But Thee in all the Universe in which
Thyself Thou dost invest and through the Eyes
Of Man, the subtle Censor Scrutinise,
No Entrance finds—no word of THIS and
THAT ;

Do Thou my separate and Derived Self
Make One with Thy Essential ! Leave me room
On that Divan which leaves no Room for two.

How true it is that ripeness of culture and the consequent insight lead to similar results in widely differing climes. These verses may be a paraphrase of one of our *Dasopanishads*.

Whereas the ancient Hindu *Ashramas* and the *Gurukulas* that have been responsible for the Upanishads and the various sciences and arts, ceased to be active factors some centuries ago, it is to the glory of the Muslim world that its scholars re-lit the torch of learning, set about gathering wisdom from all sources including India and Greece and Egypt, improved on their masters and kept up the pursuit of knowledge through many centuries until they yielded place to European Universities, which were frankly and avowedly their pupils and followers. As early as the ninth century there were four Schools of Law under celebrated Ulemas situated in various parts of the Arabic world. Damascus and Baghdad, Naishapur and Bokhara, Cairo, Seville and Cordova were great seats of learning. The University system of Europe and the culture of the Renaissance were derived ultimately from them. Starting, no doubt, with Theology as their main pre-occupation, their activities were then extended to Canon

Law, to the study of Grammar, Lexicography, Logic, Metaphysics, Arithmetic, Mensuration and Algebra, in each of which branches of knowledge notable contributions were made. Although Islam is considered to be a rigid faith, these centres of thought made many contributions to rational philosophy and science and even today the names of Ghazali, Abul Hasan Al Ashari, Ibn Sina who was called Avicenna in European literature and Averroes of Spain are well-known to scholars. Being a Hindu, I am naturally attracted to the Sufi philosophers and poets ; but not only in mystic speculation but in many other branches of enquiry the world is eternally indebted to Arab and Saracenic influence. As in the case of India, so in early Muslim civilisation, there was no sense of false pride or of exclusiveness in matters intellectual. Indian drama is indebted to the Greeks as also Indian medicine. The Muslims did not disdain to adopt the philosophy of Plato whom they took to their bosom under the Arabic name Aflatun or to learn from Aristotle's manysided genius. Mathematics owed a great deal to Brahmagupta and to Bhaskara, but revolutionary progress was made by their Arab successors. Arab alchemy and chemistry progressed vastly under the guidance of Rhazes and of Jabir known in Spain as Gebir and Ibn Sina already referred to, as well as Mansur who may well be termed one of the fathers of Chemistry. But none of these disdained to acknowledge their indebtedness to other races and climes. The history of astronomy which started under Egyptian and Hindu influences is typical. Caliph Mamun's academy of Baghdad and the Hall of Wisdom of the Fatimites were the originators of many of the modern scientific developments. The celebrated Haroun Al Rashid got Ptolemy's Treatise on Astronomy translated from the Greek, and observatories were established at Baghdad where planetary observations were conducted and eclipses were studied in Cairo. Observatories were also started in Persia, and Ulugh Bey the grandson of Tamerlane was himself a competent astronomer. The Arabs,

in fact introduced Egyptian and Indian science and literature ; including folklore and fables like the *Panchatantra* into their own countries but soon became creators and masters and not merely learners ; and the Revival of Learning in Europe originated from their labours. Modern Geography and the art of History owe not a little to Arab and Saracenic impetus. This exchange of culture and the friendliness of mutual obligation have been persisting throughout the range of literature and science although they seem to have lost their power and influence in recent times. And it is a matter for profound satisfaction that the Urdu literature of to-day can number among its ornaments not only Hali and Akbar and Iqbal but also Puran Singh and Premchand.

That your Translation Bureau proceeds on right lines would be evident from a contemplation of the fact that after the dark ages in Europe, the new scholarship began when Archbishop Raymond started schools for translations from the Arabic as well as from Greek and Latin into the vernaculars of Europe. This process was paralleled during the Moghul times when Persian translations were made of the Vedas, the Upanishads, Sanskrit *Itihasas*, dramas, poems and animal stories like the *Hitopadesa* and *Panchatantra*. The Moghul period is perhaps the finest exemplification of the conscious assimilation of Hindu and Saracenic thought and art-forms. The Hindustani and Urdu languages are as conspicuous instances of such a fusion as the Taj and Fatehpur Sikri and the miniatures of the Mughal and Rajput schools.

If I have been at some pains to deal with these unifying tendencies and developments, it is for the purpose of enforcing with all the power at my command that in the realms of science, art and literature, there have been and should be no mutually exclusive compartments and that the processes of osmosis, of adaptation and of assimilation have been going on for mutual advantage and with mutual benefit throughout the ages. Why then should this development now stop short and not be extended to all the activities of life, inner and

outer, banishing every form of intolerance, narrowness and short-sightedness and stressing fundamental unities rather than differences. This, to my mind, is the first and foremost service that Universities can render to national life. The next duty with which they should charge themselves is the re-orientation of education so as to banish the problems of educated unemployment and to make the educated man an integral component of Indian agricultural and industrial life and not an excrescence nor an accident. The research and extension departments of the Universities should be so arranged as to achieve this end. In order to serve such a purpose we in Travancore have brought into existence a Research Department connected with the University which has concentrated its efforts, for the time being, on local requirements and local problems, the study, for instance, of paddy diseases and of cocoanut pests, improved methods in respect of tea and rubber cultivation and the utilisation of rubber latex, scientific study and improvements in connection with our extensive salt factories, the production of iodine and other products from seaweed, the foundation of an aquarium as a research centre and the refining of shark-liver oil as a substitute for cod-liver oil, the problems connected with power, alcohol and the study and analysis of our mineral sands and other deposits which are now utilised for many industrial purposes. The close contact established between our Engineering College and the P.W.D. Workshops and the war technicians' scheme is also calculated to serve a similar object.

Let me not omit while dealing with these practical aspects to emphasise that the background of University life should be freedom as well as discipline. The utmost freedom of thought, of discourse and of disputation should be allowed within the four walls of the lecture room and the debating hall. Neither in respect of the teacher nor the taught should there be any inhibitions; but the right exercise of that very freedom demands overt discipline and the restraint that

is involved in keeping away from the outer politics of the hustings and the market place and the forum and from the inevitable controversy and turmoil which in the case of young men and women should be reserved for a period when character is formed, when co-ordinated thoughts can be formulated, and when the mind and the spirit are welded into shape in the crucible of the University so as to enable its alumni to face the problems of the world with balance, with perspective, with determination and with vision.

Speaking to the graduates of the year, I have no special message to deliver save this : that the times are perilous and that our problems are complex and that they make many and varied demands on you. Some of you have succeeded greatly, some not so well. To many comes the thought that the door to success is too often labelled "Push" and to those who are self-effacing this idea is often bitter : but whatever may be the academic success which you have achieved and whatever you may make of that success, remember that all of you must determine as a result of this period of preparation that our lives should not fluctuate idly without term or scope. Let each of us strive and know for what he strives, so that we may

Still to the unknown turn a cheery face
Then at the end of life
Thank life for life.

Aptly and adequately to fulfil our large ambitions we should above all remember the old exhortation :

सङ्गच्छध्वं संवदध्वं
सं वो मनांसि जानताम् ।

"Let us wend our way together, let us speak with one voice, and let our minds be united in harmony."

UNIVERSITY OF POONA

24th September, 1953

MR. CHANCELLOR, VICE-CHANCELLOR, MEMBERS OF THE
SENATE AND OTHER ACADEMIC BODIES OF THE UNIVER-
SITY, GRADUATES OF THE YEAR AND LADIES AND
GENTLEMEN,

Assuming that it is incumbent on my valued friend, Governor Bajpai, under your Constitution, annually to invite some person to exhort the candidates for Degrees and Diplomas to conduct themselves suitably unto the position to which, by their studies or research, they have attained and conformably with the pledges that they have taken at this solemn Convocation, it must however be obvious that such Addresses can hardly fail to be trite and platitudinous. The only escape from such a predicament would be if the person confines himself to points of specially topical interest or to some aspects of old truths that need re-statement.

I proceed to do so after tendering my sincere congratulations and good wishes to the recipients of the several degrees and awards and my message of cheer and hope to those who are entering or hoping to enter into various professions and avocations. To those whose efforts have not been so far attended with success I affirm with Browning

“Then welcome each rebuff
That turns earth's smoothness rough,
Each sting that bids
Not sit nor stand but go !”

Speaking at one of the main centres in India of Sanskrit and allied studies and facing the political

and intellectual inheritors of the traditions of Sivaji and the Peshwas, who were such potent instruments of destiny for the revival of Hindu culture as well as of efficient administration, I remember also that you claim geographical and spiritual kinship with Tukaram, Gnaneswar, Ramdass, Dadaji and Sai Baba. Poona is one of the foci of renascent Indian Literature as well as of resurgent political consciousness. Kelkar, Agarkar, Apte, Vaman Pandit and Moro Pant have not only been Maharashtra litterateurs but all-India figures; and the Republic of India cannot forget that Ranade, Telang, Tilak and Gokhale were authentic pioneers in the Indian struggle for emancipation. Before such an audience with such a background, I may venture to glance at the past as a guide to the future and my first observation will be that the University tradition amongst us is age-long and vital. In the *Taittiriya Upanishad*, the ninth *Anuvaka* of the *Siksha Valli* begins with this passage :

ऋतं च स्वाध्यायप्रवचने च । सत्यं च स्वाध्यायप्रवचने च । तपश्च
स्वाध्यायप्रवचने च । दमश्च स्वाध्यायप्रवचने च । शमश्च स्वाध्यायप्रवचने
च । अग्नयश्च स्वाध्यायप्रवचने च ॥

The pivotal positions occupied by the twin *dharmas* of studying and teaching cannot be more strikingly illustrated; and the passage emphasises that whatever else may be performed and whatever other requisites for a good life may be present, life would not be complete without the pursuit both of studies and of exposition. Justice, truth, self-restraint and sacrifice, the attention to guests, the performance of domestic duties and the obligations to society are adverted to; but it is made clear that to these must be added, as necessary supplements, the functions of student and of teacher. The same Upanishad contains a short but complete Convocation Address. The eleventh *Anuvaka* says :

वेदमनूच्याचार्योऽन्तेवासिन मनुशास्ति । सत्यं वद । धर्मं चर ।
 स्वाध्यायान्मा प्रमदः । आचार्याय प्रियं धनं आहृत्य प्रजातन्तु मा
 व्यावच्छेत्सीः । सत्यान्न प्रमदितव्यम् । धर्मान्न प्रमदितव्यम् । कुशलान्न
 प्रमदितव्यम् । भूतै न प्रमदितव्यम् । स्वाध्यायप्रवचनाभ्यां न प्रमदितव्यम् ।
 देवपितृकार्याभ्यां न प्रमदितव्यम् ॥

The teacher instructs the disciple after his studies have been concluded in words that are as striking as they are comprehensive and demands of the departing student adherence to truth, the performance of Dharma, the continued practice of study in after-life, the adherence to prudence and the pursuit of prosperity and acquisition of wealth. Again the twin precepts are reiterated. "Let there be no neglect of reading and of teaching as well as the obligations to the Divine and to our ancestors."

Carlyle once asked if the true University of these days is a collection of books. Cardinal Newman's answer to this query is, I contend, irrefutable and it is as follows: "Why, will you ask, need we go up to knowledge when knowledge comes down to us? The rival method—the ancient method—is the right one, namely, of oral instruction of teachers, of the personal influence of a master and the initiation of a disciple. A University, in Newman's arresting phraseology, is "a place in which the intellect may safely range and speculate; sure to find its equal in some antagonist activity and its judge in the tribunal of truth. It is a place where enquiry is pushed forward and discoveries verified and perfected and rashness rendered innocuous and error exposed by the collision of mind with mind and knowledge with knowledge".

But a University, so conceived, has to be selective both with reference to the teachers and the taught. Neither can be a misfit and the acquisition and spread of truth as so described cannot take place amidst the

clamours of note-taking crowds selected at haphazard and mechanically intent on examinations.

In conceiving and implementing the idea of his Santiniketan, Rabindranath Tagore had prominently in his mind the same thoughts which are also the basic ideals of our Gurukulas and the Ashramas. They were neither schools in the ordinary sense nor monasteries, but homes where the teacher and the taught lived in forest lodges or simple buildings surrounded by woods or forests, close to nature where the surroundings furnished both a theatre and a temple. The same was also the idea underlying the so-called museum at Alexandria fostered by the Ptolemies which was described as a household, offering an abode to its members and involving the same discipline which is proper to a family and home. Tagore embodied a reaction against mechanical teaching and mechanical discipline and sought to develop the personality of each student. He sought to counteract the pre-occupation with mere book-learning, lectures and note-taking and was constantly at pains to assert that his students should learn their lessons by living in harmony with nature. He pleaded with missionary zeal for inculcating the joy of life as a prerequisite of culture and as an antidote to exclusiveness, narrowness and monotony. His idea of discipline was that it should be internal, not external, and he preached that the teacher should not be a repeater of text-books. Our Universities will never justify themselves until these principles are recognised as the lodestar of University education. They have been evolved in the West through many centuries of trial and error and experimentation. But even now, they are not always taken for granted in practice or even in theory. The atomic age of concentrated technological studies and practical achievement is apt to brush aside many of these ideas as impractical and unsuited to our competitive era. Happily, the signs are discernible of a definite reaction against too early and too narrow specialisation.

The founding by Lord Lindsay of the North Staffordshire University is a case in point. It owed its origin to the consciousness that over-specialisation is apt to produce a truncated personality and that a basic grounding of culture is essential for the fulfilment of personality. It is noteworthy that the Baroda University has been stressing the need to institute a General Education programme for students besides the regular courses. A similar movement is in progress in many centres of learning in America and on the Continent of Europe, where it has been felt that a boy or girl will be better qualified to grasp the truths of Science and to widen its horizon if he is cognizant not only of the physical structure and basis of the Universe, inanimate and animate, but is also alive to the impacts of literature and the fine arts. The object of higher education, as Goethe said long ago, ought to be rather to form tastes than simply to communicate knowledge. As Haldane insisted in his Address to a British University, "Specialisation in each University there will be and ought to be. But the one thing requisite is that the broad foundations of the highest general knowledge should be there in each University and that all specialisations should rest on these foundations. You cannot separate Science from Literature and Philosophy. Each grows best in the presence of the other."

Such a basic grounding in culture is difficult to achieve save through personal contacts with those in whom it resides already. This truth was perceived and acted upon in the Forest Universities of ancient and medieval India. Let us glance at the Harsha Charita of Bana (8th *Ucchvasa*). It narrates that the King proceeding reverently on foot to the middle of a forest discovered persons belonging to various countries perched on pillows, seated on rocks, dwelling in bowers of creepers, beside thickets or in the shadow of branches or bushes or squatting on the roots of trees, passionless devotees, Jains in white robes, mendicants, followers of Krishna, religious students, followers of Kapila, Loka-

yaticas (materialists), followers of the atomic school of Kanada, the adherents of the Vedas and the Upanishads, students of legal institutions and of the Puranas, adepts in sacrifices, adepts in grammar, followers of Pancharatra and others besides—all diligently following their own tenets, pondering, urging objections, raising doubts, resolving them, expounding etymologies and disputing, discussing, explaining in peace and harmony.

अथ तरूणां मध्ये नानादेशीयैः स्थानस्थानेषु स्थाणूनाश्रितैः
शिलातलेषूपविष्टैर्लताभवनानि अध्यावसद्भिः अरण्यानीनिकुञ्जेषु निलीनैः
विटपच्छायासु निषण्णैः तरूमूलानि निषेवमाणैः वीतरागैः आर्हतैः मस्करिभिः
श्वेतपटैः पाण्डुरिमिक्षुभिः भागवतैः वार्णिभिः केशलुञ्चनैः कापिलैः जैनैः
लोकायतिकैः काणादैः औपनिषदैः ऐश्वरकारणिकैः कारन्वमिभिः धर्मशास्त्रिभिः
पौराणिकैः साप्ततन्त्रैः शाब्दैः पाञ्चरात्रिकैः अन्यैश्च स्वान्स्वान्सिद्धान्तान्
श्रण्वाद्भिः अभियुक्तैः चिन्तयद्भिश्च प्रत्युच्चरद्भिश्च संशयानैश्च निश्चिन्वद्भिश्च
व्युत्पादयद्भिश्च विवदमानैश्च अभ्यस्यद्भिश्च व्याचक्षाणैश्च शिष्यतां प्रतिपन्नैः
दूरादेव आवेद्यमानम् ।

It is impossible to better this description of a true University, if by University is meant not only a *Universitas literarum* or centre of wide-ranging studies but the collaboration and synthesis of multifarious approaches to the problems of the Universe—physical, intellectual and spiritual.

If we have proceeded thus far, it follows that we must set our faces against indiscriminate admissions to Universities for financial or other reasons unconnected with their basic purpose.

The resources at the disposal of our Universities are woefully inadequate, and they cannot afford to waste them.

Students and their parents do not always realise the fatal error of crowding into Universities, either because they cannot think of anything else to do or because they

hopefully gamble on an uncertain career. Let us trust that a reorientation of Secondary Education following on the recent Report will enable students to choose alternative careers and eliminate the present bottleneck at the University stage. The Report of the Secondary Education Committee which has recently been published re-emphasises what has been long felt, namely, that on the assumption of the inevitability of a University course, the whole of Secondary Education has been stream-lined in order to suit University requirements.

The Commission records that the method of recruitment to Public Service is obsolete and tends to unhealthy over-crowding in educational institutions including Universities. Recruitment is to be, according to them, to different categories of posts at different age-levels, and a University Degree should be prescribed only to such posts, largely professional, where a higher degree of attainment is necessary.

Also, at this point let us heed the warning uttered by Mr. T. R. Henn of Cambridge which I quote from *The Hindu* newspaper. "Much frustration, unhappiness and waste are caused by forcing students into University courses when they had not the training or the mental fibre to meet the standards of such an education. Too few students are aware of their own limitations, and University teachers instead of persuading them not to take upon themselves more than they could cope with, seem to think that unlimited work could achieve anything."

What is noted and criticised as indiscipline in students too often arises from frustration arising from insufficiency.

Much advice has recently been tendered regarding the frequent strikes among students and teachers and the general indiscipline culminating even in the temporary closure of Universities. This phenomenon is undoubtedly due to a sense of fretful despair, the by-product of that unemployment and fear of unemployment among the educated or nearly educated which is a

conspicuous feature of present-day life. The system works in a vicious circle. The young man, and in recent years the young woman, in our land, are traditionally predisposed towards higher education. This desire is praise-worthy; but so far, very few attempts have been made to regulate education so as to suit individual temperaments and potentialities or national or local needs. There has been no correlation, as there is in other countries, between the world of business and commerce and industry and the school and the University. I have personally noticed the keen interest taken in promising students and in their progress by great industrial and commercial organisations in the U.S.A., which are always on the look out for capable young men. Nothing like this is seen in our country. Admissions to the University are made not because the applicant is qualified to pursue higher studies but either because he or she has nothing else to do to occupy his time, or because the University's financial structure would be unbalanced without considerable fee income. We see all around us the mass production of ill-equipped graduates, over-crowded class-rooms, the absence of individual attention or of an efficient tutorial system, the negligible facilities for recreation, and the imperfect hostel and living conditions. All these factors lead to a sense of vexation and fierce discontent not only with the educational system but the world at large. Wrong ideas as to demeanour and even as to neatness and cleanliness of dress are both the cause and the result of an indifference to that poise and dignity which are the concomitants of true self-respect and culture. The student enters the University determined, and only determined, to gain a degree. He depends less and less on wide reading and concentrated thinking, and his economic background and his family circumstances force him to look upon the Degree not as a symbol of intellectual maturity but as a passport or key to particular jobs. In the result, not only is the range of general reading very restricted but the student hardly cares to gain a working knowledge even of the ele-

mentary facts regarding his own country or locality and its problems. So much is this the case that it was recently pointed out in the A.I.C.C. Journal by Mr. S. N. Misra, M.P., as a result of a careful survey, that there existed an appalling ignorance even as to the significance of the Five Year Plan amongst educated people. The Universities have, in too many cases, found themselves unable to stem the tide of mediocrity and narrowness but have, on the other hand, sought to compete with each other in formulating an impractically wide range of studies and curricula and have thus brought about an embarrassing over-lapping of courses and studies, none of which is adequately financed and most of which are deficient as to personnel, library and apparatus.

I was able during 1951 and 1952 to visit and lecture in a number of American Universities and to meet several professors and numerous students. Some of the special features of American education that impressed me were the following :—

(1) The American Universities can no longer be described, as they used to be, as manufactories of cheap Degrees in a variety of un-related subjects.

(2) The standards of equipment especially on the scientific and technological sides are very high indeed.

(3) The teachers and students behave towards each other very informally and in an extremely friendly manner, and students have no hesitation in taking not only their scholastic but their personal problems to their teacher.

(4) Boys and girls in the Universities are, in the main, frank and uninhibited in their collegiate life and I have been assured that this comparative liberty of action has not produced any special deterioration.

(5) Many, if not most of the students, occupy themselves during their spare hours in some profitable avocation, serving as waiters, selling newspapers, doing odd jobs as lift-attendants and so on, in order to supplement their family and personal resources.

(6) All encouragement is given to promote self-help and self-reliance among the students. In many institutions students do a lot of manual or menial work and have no hesitation in engaging in such tasks as cooking and cleaning of dishes, cleaning rooms and doing outdoor work in field and garden and earning extra money by such pursuits for buying books or for vacation tours or other recreations. On the contrary, they take pleasure and pride in learning and practising such avocations.

Although this is a regional University in one sense and was founded with the primary object of fostering Maharashtra culture and in response to the recommendations of the Maharashtra University Committee, it is noteworthy that the Committee did not approach its objectives in a narrowly linguistic or parochial spirit. It did not jettison the English language but fully supported it as a universal language, and the language of international science, commerce and public relations. Throughout the history of this University, it has appreciated that knowledge is and should be the synthesis of several outlooks and points of view.

The Secondary Education Commission whose Report was published a few weeks ago has advocated the imparting of instruction in the secondary stage in the regional language but has pleaded for the simultaneous study of the national language namely, Hindi, and a foreign language. No one can be unalive to the necessity of a common language of communication throughout the length and breadth of India. No one can deny that Hindi in the Nagari script is perhaps the most widely understood language in India and no one can fail to advocate the rightful recognition of the claims of such a language and script. Let it however not be forgotten that the two greatest and most formative components of culture in India are Sanskrit and Dravidian. Both by the range and variety of its secular, philosophic and religious literature and its adaptability to all intellectual needs and its immensely rich vocabulary, Sanskrit stands

in the same position to India as Greek and Latin did to Europe and America for many centuries. It was once a spoken language. Its later literature is, alas, too deliberately recondite and artificial; but with effort and enthusiasm, its grammatical forms and inflections and syntax may be simplified and it can be transformed into a less rigid and more colloquial tongue. The literature of Tamil (and to a lesser degree of the other Dravidian tongues, Telugu, Malayalam and Kanarese) is almost as ancient and as extensive as that of Sanskrit, but here again the literary language has to be simplified. Much good work has been done in this direction by Tamil scholars and writers recently. I have no hesitation in expressing a preference for a renewal and reorganisation of Sanskrit and its adoption as a national language after the importation and frank assimilation of Dravidian elements in the same way as Anglo-Saxon and Norman, French, Latin and Greek were welded into the rich and flexible and yet comparatively simple language that is now known as English. Such a process has not been unknown in this country. The Hindi language itself as well as Urdu are compounded of Sanskrit, some varieties of old Prakrit and Persian and Arabic; and the result is a simple but expressive *lingua franca*. The Telugu, Kanarese and Malayalam languages owe at least as much to Sanskrit as to the Dravidian elements in every aspect. The great Vaishnavite reformers have translated and adopted in Tamil the Vedas and other scriptures and even created a mixed language wherein Sanskrit and Tamil have been combined to create not only marvellous religious poetry but a flexible composite tongue that is spoken by young and old. In many parts of the country, spoken Tamil has become a mixture of Tamil, Sanskrit and even English components; and although many purists have pleaded for a reversion to a completely non-Sanskritised Tamil, yet the process of national, racial and linguistic exchange is inevitable and should be welcomed as contributing to the multiform richness of the tongue. Even the confirmed advocates of Hindi

will realise that such a transformed Sanskrit will not differ vitally in vocabulary or even in syntax from the Hindi of today. Having admitted the importance of developing our own national language for many administrative purposes and to eliminate the segregation of the so-called *elite* from the masses of our countrymen, we must note that the world has now contracted and that the new and rapid means of communication and the present international status of India have necessitated continuous and lively contacts with the rest of the world not only in trade and commerce but in all aspects of knowledge and activity. In order that the men and women of India may play their part worthily in the several directions in which they may have to proceed, it is well not to ignore or oppose the inevitable claims of a tongue which, owing to many historical and other accidents, is rapidly becoming the universal language of today and has displaced most of its other rivals like Spanish, French and German—I shall say nothing of Russian. It is often argued that all that we need today is to translate important foreign books into our national language; but to say this is to ignore many practical difficulties. There was an experiment in this direction made by the Osmania University in relation to Urdu, and it was found that by the time that an important text-book was translated into Urdu, another edition had come out. Further, at the present day, the progress of knowledge is chronicled and stimulated by periodicals, magazines and critical literary or scientific reviews published weekly, monthly or quarterly. Most of the results are available in the English language. To translate all these magazines and reviews, as and when they appear would be financially and practically a monumental task. To translate even a fraction of the millions of books extant in English in all categories of literary, artistic and scientific creativity is a Herculean labour. To ignore or to shut ourselves out from these contributions to knowledge would be to handicap ourselves. There are few literatures in the world which can rival the English

language in the variety, comprehensiveness and many-sidedness of its output. Poetry, drama, music, the fine arts, science, technology, sport, and other domains of thought and action have yielded literally millions of contributions; and even the immense literature of Sanskrit and Tamil, though unique and magnificent in certain departments, cannot rival the universality of English. It is therefore a matter for regret that some irrelevant considerations are now operating to the detriment of the study of the English language and literature. Now that India has attained its political independence and its psychological Swarajya, there is no reason to entertain any inferiority complex nor to equate the faulty pronunciation of English words and the inability to construct an English sentence with patriotism. So much prejudice has however been imported into the discussion of this question that it is almost a matter of pride for many students and even some of the teachers to say that they do not care to bother themselves about English which was forced on us by foreigners. In the result, the knowledge even of fairly simple English, spoken or written, is progressively deteriorating as any one can testify who has had experience of speaking individually to students or addressing gatherings of youth in recent years. At the same time, one does not perceive more than a few significant additions made by our graduates to their own linguistic heritage. It is a matter for satisfaction that there is now a strong current of opinion setting in the opposite direction and leading to retention, at least for the time being, of English as the main instrument of communication in subjects appertaining to higher learning and international intercourse.

It was because I recognised that Poona was not only the inheritor of great literary and philosophic traditions but was embarking upon noteworthy tasks like a comprehensive history of India, elucidated by references to the archives, upon the editing and publication of notable Sanskrit texts including the great Epics, upon bibliographical work of a most important character and that

it is fruitfully collaborating with institutions of research like the Bhandarkar Oriental Research Institute, the Deccan College Post-graduate Institute and the Gokhale School of Politics and Economics, that I felt emboldened to make the suggestion of starting a centre for International Indological Research. May I, here, pay a tribute to that great scholar and versatile humanist and statesman, Dr. Jayakar, and to those associated with him like Dr. Dandekar and Mr. Gadgil for the encouragement that they have given to this idea ! I may summarise the objects of that Centre—

- (a) to promote the study of Indology with the co-operation of scholars interested therein in all parts of the world ;
- (b) to publish Monographs and a Review or Reviews bearing on the several aspects of such study ;
- (c) to prepare materials and secure contributions for and to compile an Encyclopedia of Technical Terms and Notions in Ancient Indian Thought comprising their developments within and beyond India ;
- (d) to engage in the translation into one or more European languages (from Vedic and Classical Sanskrit, Tamil and other Dravidian languages, Pali, Sinhalese, Tibetan and Chinese) of the Classics of ancient India, including the Vedas, Brahmanas, Upanishads and Epics, the ancient Tamil classics of the Sangam period and the Buddhist scriptures of the Hinayana, Mahayana and Vejayana Schools, utilising the critically-edited texts that have been or may be published ;
- (e) to promote critical editing and publishing of important manuscripts bearing on the subject-matter of ancient Indian Thought.

It is hoped that some at least of the objects of this Centre will attract the attention of scholars in this

country and elsewhere and of Institutions like the UNESCO.

Poona is a teaching as well as an affiliating University. It has also taken upon itself extra-mural work of great value as also the responsibility of organizing lectures and Summer Schools for Primary and Secondary teachers. Contact with rural areas and social services were emphasised in Poona even before the enunciation by the Government of India of the recent policy favouring the association of students with manual and rural activities. It has also placed before itself the ideal of fostering the Fine Arts and Music as essential to all-round culture and has thus underlined the importance of emotional and æsthetic perception as part of the intellectual apparatus of a student.

One of the features which I witnessed with envious admiration in my recent visit to England in connection with the Conference of Commonwealth Universities was the conscious revitalisation of higher education in the United Kingdom. Even in the midst of great economic stresses the U.K. is so thoroughly convinced of the importance of higher education for national progress and uplift that about 70% of all the persons studying in the British Universities are maintained by scholarships or subventions granted by the State or local authorities or made possible by public or private benefactions. There is no such distinction as existed even in the recent past between class and class, and the only test for entrance to a University is the potentiality of individual development. As your illustrious Vice-Chancellor has pointed out, China has, under its Constitution, provided that 15% of the Central Budget and 30% of the Provincial Budgets should be allotted for education. We need, in this country, the full implementation of three ideas: (a) that the University is not the inevitable refuge of the second best on the quest for some kind of ultimate employment, and that those who can make a real contribution to national advancement in the domain of higher learning or of scientific study and research should pri-

marily be admitted to a University course ; (b) that the University course should aim both at a full life for the individual and the serving of truly national needs ; (c) that a University should aim at the inculcation of a new conception not only of patriotic service but of the ideal of world citizenship. All University teaching, even in its specialised and technical and research aspects, should recognise that all its achievements are only means to an end, and that the end is the enlarging of the human mind so as to free the student from parochialism of all types and to charge him with a mission to work for harmony and co-operation in every stratum of life, from the village up to the international organisations of today and tomorrow.

Dr. Krishnan in his recent address to the Madras University has appropriately referred to one of the difficulties that beset our Universities arising from what he regards as a confusion of the functions to be performed by the Universities and by the great national institutes and laboratories that have recently come into being, largely by reason of, among other things, the indefatigable energy and enthusiasm of Dr. Bhatnagar. Under present conditions it is perhaps too much to expect that the Universities should alone be the centres of fundamental research and that these newly organised institutes and laboratories should devote their attention entirely or primarily to applied science and technological work. On the other hand, there should and can well exist a close co-ordination of effort and pooling of resources not only between the Universities *inter se* but between Universities and these centres and laboratories. At bottom, this problem, like most of our problems, is financial as well as administrative in character. May I suggest some steps to solve these problems ?

(a) Each University should, in the language of Mr. K. G. Saiyidain, formulate a general education programme at University level and attempt to give specialised education only in those subjects and to such an extent as may be most appropriate, having regard to the

local and cultural possibilities of each unit and its financial position.

(b) There should be, to the utmost degree, collaboration, as opposed to competition, between the several Universities; and unnecessary overlapping of courses of study and curricula should be avoided. Each subject of study should be introduced and extended from the sole point of view of serving indispensable local needs as well as contributing to a definite national end.

(c) Special facilities should exist for the exchange of students between Universities so as to secure the best possible instruction and training under the most qualified teachers. I plead for a reversion to the well-tested system whereby the sishya sought his guru on such occasions and for such purposes as were necessary for his development—a system which was and has been widely prevalent in Europe and in America. Germany and Italy, in particular, actively encouraged students to proceed from College to College and University to University to supplement and perfect their knowledge. Recently in Cambridge, I advocated a two-way traffic in respect of teachers as well as of students between country and country. Perhaps even more important is an active two-way traffic between University and University aided, as it should be, by scholarships, studentships and travel and other allowances and facilities provided by the State and local Governments as well as by the Universities themselves. Thus alone will it be possible to prevent excessive re-duplication of courses and of appointments especially in higher fundamental research and specialised studies. A broadening of the mental horizon that comes from contact with many minds at different stages of study is one of our past heritages, which we should cherish.

(d) University education, properly reorganised, is a fundamental requisite for educational progress even in the secondary and primary stages, and of course is the foundation for all future literary, cultural and scientific

enterprise. The methods which have proved so successful in the United Kingdom can be adopted for financing University education so that, while insisting on higher minima of efficiency for entrance, all economic, communal or other group differences will be eliminated, and a truly national programme will be evolved in which each unit plays its separate but correlated part. An organisation like the University Grants Committee must be speedily introduced in order to pay adequate attention to the legitimate financial needs of each Institution, to discourage needless or wasteful effort, and to fit each unit into an integrated all-India programme.

(e) Fully appreciating that complete intra-mural freedom of thought and discussion is essential for a University, and that such academic freedom is of the essence of intellectual progress, the State should encourage this freedom and implement it. This result can be best secured if its financial contributions to the Universities are granted on the advice of an independent non-political body like the University Grants Committee of the United Kingdom, whose sole point of view and desire would be to level up the educational, social and scientific facilities in each University in proportion to its innate possibilities as well as to the local and national needs that can be served by that University.

Youth, as Governor Bajpai averred in his Convocation Address, is the season of revolt. Such revolt should be welcomed, if it be the outcome of a healthy ferment of ideas and of an attitude of rational questioning as opposed to quiescence or inertia or mere conventional conformity. But it cannot be confused with vague restlessness and unconsidered action, proceeding without determinate aim to an unascertained goal. Neither can it be based on unconstructive ideals nor on a mere impulse to obstruct or destroy. The only correct attitude is proclaimed in the Upanishads.—May (the Supreme)

protect us (teacher and pupil) and may we be supported ; may both of us utilise our full vigour. May our studies be illustrious and may there be no mutual jealousy or hatred.

सहनाववतु

सहनौ भुनक्तु

सह वीर्यं करवावहै

तेजस्विनावधीतमस्तु

मा विद्विषावहै ।

ANNAMALAI UNIVERSITY

22nd October, 1953

MR. CHANCELLOR, MR. PRO-CHANCELLOR, RECIPIENTS
OF DEGREES, TITLES AND DIPLOMAS, LADIES AND
GENTLEMEN,

Speaking on the Founder's Day, I gave expression to some ideas which may usefully be re-emphasised on the occasion of this Convocation. The fundamental characteristic of this Institution is its residential basis, and unless it approximates to a household where, to the utmost possible extent, the teachers and the students live in close mutual contact, it will fail in its purpose. The so-called Museum at Alexandria was perhaps the earliest illustration of this principle in the Western World. In Asia such institutions claim great antiquity. The theory was once propounded by Carlyle that in modern days a great collection of books is the real University. On the other side, were ranged those who insisted that the ancient ideal of the University is the only correct one and that it should be a centre which placed teachers before teaching and stressed the personal influence of a master and the initiation of a disciple. Manageable classes and a well-endowed system of Scholarships and Fellowships go hand in hand with this ideal. Thus alone can we get rid of the mechanical methods of note-taking stream-lined for the sake of examinations. The commercialisation of Universities arising from competitive financial approaches leads also to a needlessly diversified curriculum and an indiscriminate choice of subjects. In this University, the aim has been and will be to deal with a compact series of scientific, literary and

humanistic studies, with a special emphasis on the great Tamil language and literature and South Indian history, music and art. We nevertheless stress the importance of Sanskrit as one of the taproots of our religion and culture and of English as the indispensable link between us and the world outside in the realms of science and modern literature and art as well as in commerce and industry, international politics and economic policies. We should be short-sighted if, out of a misconceived feeling of self-sufficiency, we were to ostracise English as a foreign importation. Political considerations or a superiority or inferiority complex are, in truth, irrelevant in this context. It is also the objective of this University to revive the architectual, pictorial and sculptural traditions, indigenous to this part of India and to harmonise them with the aspirations of today and our present and future functional needs. The life of the village and the countryside cannot be divorced from the activities of the University which should not be an ivory tower. The understanding of rural economy and the participation of our students not only in schemes of rural and civic rehabilitation and welfare but in actual manual labour are parts of the evolving programme of this Institution.

Newman who, after a temporary eclipse, is now acknowledged to be the finest expounder as well as exemplar of University development, averred that if he had to choose between a so-called University which dispensed with residence and tutorial superintendence and gave its degrees to persons who passed examinations in a wide range of subjects, and a University which had no Professors or Examinations but merely brought a number of youngmen together for three or four years and then sent them away, and if he were asked which of these two methods was the better for the discipline of the intellect, and which would be more successful in training, modelling and enlarging the mind, he would have no hesitation in giving the preference to that University which did nothing, over that which exacted of its members an acquaintance with every science under the sun.

If nothing else were achieved and if the main object attained is to smooth over religious, communal and other differences, the existence of such a type of University would be justified. Hostels, playgrounds, libraries and reading rooms and debating societies are, from this point of view, not merely accessories but real foci of academic life. A college must comprise all these features and add to them as the regulative factor an effective tutorial system. It has been remarked that a College exists for the formation of character, intellectual and moral, for the cultivation of the mind, for the improvement of the individual, for the study of literature and the classics and those rudimental sciences which strengthen and sharpen the intellect. A University's function is the stimulation of higher learning and research. The *raison d'être* of a University is to be in addition a training ground of its alumni for a full and useful life as citizens of the world. It would seem that a University situated and living in Colleges would be a perfect institution, possessing excellences of opposite kinds. Such a combination has been at the back of the minds of those who conceived of this University.

The work done by a University has been compared justly with similar works performed in other departments of life by other institutions. Legislative bodies and Parliaments put a person who enters them in touch with politics and public affairs in a way which he did not himself foresee. Such a person, in the language of Cardinal Newman, begins to see things with new eyes, words have new meanings and ideas new reality. The bearings of measures and events, and the action of parties are brought to such a man with a distinctness which a mere perusal of newspapers will fail to achieve. Similar is the value, in the world of science, of conferences like those organised by the Royal Society and the British Association. Newman adds, "The personal presence of a teacher and his living voice operate by propounding and repeating, by questioning and re-questioning, by correcting and explaining, by progressing and then recurring to

first principles. A University is thus, in essence, a place for the communication and circulation of thought by means of personal intercourse." The personality of the teacher is, however, of fundamental importance, so much so that a well-known Sanskrit stanza referring to *Dakshinamurti* describes him as the great Guru, who resolves the doubts arising in the minds of his disciples even by his silence. Such results can only be contemplated, if there be the combination of thorough and spontaneous mental discipline with equally thorough sincerity in the formation, expression and exposition of opinion. अह्य वै ब्रह्मा say the Upanishads. Courage is veritably Supreme.

These thoughts were by none better elucidated than by Thomas Huxley in his Rectorial Address in Aberdeen. A University, according to him, should be a place in which thought is free from all fetters and in which all sources of knowledge and all aids to learning should be accessible to all who come, without distinction of creed, or country, riches or poverty.

In an ideal University, as envisaged by him, a man should be able to obtain instruction in all forms of knowledge and discipline and in the use of all the methods by which knowledge is obtained. In such a University, the force of living example should fire the student with a noble ambition to emulate the learning of learned men, and to follow in the footsteps of the explorers of new fields of knowledge. And the very air he breathes should be charged with that enthusiasm for truth, that fanaticism of veracity, which is a greater possession than much learning, a nobler gift than the power of increasing knowledge ; by so much greater and nobler than these as the moral nature of man is greater than the intellectual ; for veracity is the heart of morality.

Let me advert to one more passage. ' The man who is all morality and intellect, although he may be good and even great, is, after all, only half a man. There is beauty in the moral world and in the intellectual

world ; but there is also a beauty which is neither moral nor intellectual—the beauty of the World of Art. There are men who are devoid of the power of seeing it, as there are men who are born deaf and blind, and the loss of those, as of these, is simply infinite. There are others in whom it is an over-powering passion, happy men, born with the productive, or at the lowest, the appreciative, genius of the Artist. But, in the mass of mankind, the æsthetic faculty, like the reasoning power and the moral sense, needs to be roused, directed, and cultivated ; and I know not why the development of that side of his nature through which man has access to a perennial spring of ennobling pleasure, should be omitted from any comprehensive scheme of University education.

All Universities recognise Literature in the sense of the old Rhetoric, which is art incarnate in words. Some, to their credit, recognise Art in its narrower sense, to a certain extent, and confer degrees for proficiency in some of its branches. If there are doctors of Music, why should there be no Masters of Painting, of Sculpture, of Architecture ? I should like to see Professors of Fine Arts in every University, and instruction in some branch of their work made a part of the Arts curriculum."

I have ventured to extract this long passage from Huxley's address as justifying, if justification were needed, our recently developed policy.

Huxley's was by no means a new idea for, as early as the 17th Century, Sir Thomas Browne asserted that education should join sense unto reason and experiment unto speculation. Man has to make a living but has to live as a useful and happy member of society ; and for this, he must achieve a full development of his personality. I may also refer to Lord Lindsay who, after a long period of distinguished activity in Balliol College, Oxford, conceived the idea of a comprehensive educational training as a pre-requisite to all specialisation. He has sought to implement this idea in the University College of North Staffordshire situate in Stoke-on-Trent.

“All citizens ought to have some sort of skill and be in some sense specialists ; but equally, all ought to have an understanding of the purposes and common life of the community ; and thus education in science and in the humanities should go together. Our teachers should be more than technicians. They must also try to discover the human meaning of their own thinking.”

The Universities of Europe owed their origin to the impulse from the East given to Europe during the Crusades. “The establishment of the great schools which bore the name of Universities was everywhere throughout Europe, the special mark of a new impulse that Christendom had gained from the Crusades.” Travellers from China and Tibet speak of the Hindu, Jain and Buddhist Universities, but even these Universities were the descendants or heirs of those described in the Upanishads. The term Upanishad itself means etymologically “sitting near a person” and is equivalent to the French ‘seance’ or session. And these Upanishads represent to us the outcome of sittings or gatherings which took place under the shelter of trees in the forests, where the old sages and their disciples met together and gave expression to what they had gathered during days and nights spent in solitude and meditation. They did not profess to be educationists. But they made it their business to investigate and foster that mysterious thing which is felt as Personality. As the problem of education is how to strengthen and develop Personality, the labours and discoveries of these wise men of three or four thousand years ago have a perennial interest for us.

There is much talk regarding the pristine Indian Universities and the Ashrama schools that owed their inspiration to the Rishis ; but it must not be forgotten that although the sishyas of those days were called अन्ते वासी (ante-vasi) and lived with their preceptors as members of their family, yet these ashramas could not be run and were not run without the active

support of patrons of learning. A series of verses in the Rig Veda called "*Danastutis*" are the predecessors of many later compositions of Sanskrit and Tamil scholars and poets.

One of the hymns of the Rig Veda is devoted to eulogising a patron or king called *Bhavya* who dwelt on the banks of the Indus and who helped the sage Kakshivan. There was a woman patron, Sashiasi, who is the subject of another series of verses, and when we come to the *Upanishadic* period we have various stories about gifts by Rulers, like Janaka, to sages who conducted Ashramas. It may be noted that many of these Ashramas although situated in forests or woods, were not necessarily far removed from the capital cities or from the life of the people in towns and villages. Vasishta's Ashrama is described as only a few hours' journey from the capital of the country and the capital of Dushyanta is described, in *Sakuntala*, as only a couple of days' journey from the Kanvashrama.

The tradition that has culminated in the great European and American foundations in aid of Universities and learned bodies was not unknown thousands of years ago in India, and I refer to these instances, so that we, at this stage of our national development, may remember that progress on the lines indicated above can only come from the wise canalisation of the vast resources that are requisite to reorganise and intensify University activities.

As I have repeatedly emphasised, it behoves us to learn a lesson from England which, even during this period of austerity and economic strain, sees to it that 70% of her University students are supported by the State, local bodies and corporations and public and private trusts.

In the Tamil country, the ancient Sangams fulfilled many of the purposes of Universities and Academies. Apart from the continuous race memories regarding the early sangams and the traditions about Agastya, we

notice that Saint Thirunavukkarasu in his *Thiruppattur Pathikam* statès :

“ நன்பாட்டுப் புலவனாய்ச் சங்கமேறி
நற்கனகக் கிழிதருமிக் கருளிஞான்காண் ”.

This passage demonstrates that about 1500 years ago, Sangams or assemblages of learned men which brought together poets and scholars and judged and criticised or approved of their works in all branches of literature and drama existed in full vigour and the expression Sangam Tamil used by Kodaiar, daughter of Perialwar, bears testimony to the antiquity and the authenticity of the Sangam Epoch and its living tradition. Such Sangams served the same needs as the Academies of Paris and Berlin and helped to enforce high standards in literature and art and in the use of correct and refined language. They were real Universities and held prolonged sessions for discourses and discussions as the story of Auvaiyar demonstrates.

From ancient times, the Tamil and Sanskrit tongues have lived in friendly commensality. The *Tolkappiyam* is the earliest extant work in Tamil literature and is usually assigned to the third century before the Christian Era. Its preface asserts that the author utilised the Grammar of Indra (*Aindram*) and was a disciple of Agastya who himself is reputed to have composed several works on இயல், இசை, நாடகம் (literature, music and drama). Tolkappiar is in fact described as ஐந்திரம் நிறைந்த meaning thereby that he was proficient in Sanskrit. From that day down to Thayumanavar and even Ramalingaswamigal, the two streams of national culture have flowed side by side.

“ நதியுண்ட கடலெனச்
சமயத்தை யுண்ட
பரஞான வானந்தவொளியே,”

sings Thayumanavar about the மலைவளர்காதலி, and his style and message are deft combinations of the two cultural influences.

The Saiva Siddhanta system of Philosophy is one of the typical manifestations of the Tamil genius and it may be noted that the early Saiva Siddhanta works called "*The Agamas*" were written in Sanskrit and very great antiquity is claimed for some of them. The early Saiva Siddhantins who were Tamilians by birth decided to use Sanskrit, not on account of any lack of love for Tamil but because they loved truth and worked for its propagation among the different nationalities. In any case, we find the philosophical terms used in the Saiva Siddhanta are Sanskrit words, although the specific doctrines and their exposition are largely a product of the Tamilian intellect. The Tamil language will benefit and not suffer, if it incorporates and assimilates not only Sanskrit but other foreign words, images and thoughts; and the same remark applies to Sanskrit. In fact it has been stated that the word '*Agama*' itself may be construed as implying that the system "came from" or was derived from another culture.

Albert Schweitzer in his "*Indian Thought and Its Development*" is at pains to differentiate between the Aryan world-negation and the Tamilian life-affirmation and acceptance. There is considerable force in this argument, if one were to confine himself to selected specimens like the later *Upanishads* and *Sankara Bhashya* and contrast them with the *Kural*. But, by and large, there is more similarity than divergence between the two literatures.

At the risk of repeating myself, may I append an extract from the recent Convocation Address that I delivered to the Poona University? Sanskrit was once a spoken language. Its later literature is, alas, too deliberately recondite and artificial; but with effort and enthusiasm, its grammatical forms and inflections and syntax may be simplified and it can be transformed into a less rigid and a colloquial tongue. The literature of Tamil (and to a lesser degree of the other Dravidian tongues, Telugu, Malayalam and Kanarese) is as valuable and almost as ancient and as extensive as that of

Sanskrit but here again the literary language has to be simplified. Much good work has been done in this direction by Tamil scholars and writers recently. I have no hesitation in expressing a preference for a renewal and reorganisation of Sanskrit and its adoption as a national language after the importation and frank assimilation of Dravidian elements in the same way as Anglo-Saxon and Norman-French, and Latin and Greek were welded into the rich and flexible and yet comparatively simple language that is now known as English. Such a process has not been unknown in this country. The Hindi language itself, and even more so, Urdu, are compounded of Sanskrit, some varieties of old Prakrit and Persian and Arabic and the result is a simple but expressive *lingua franca*. The Telugu, Kanarese and Malayalam languages owe at least as much to Sanskrit as to the Dravidian elements in every aspect. The great Vaishnavite reformers have translated and adapted the Vedas and other scriptures into popular Tamil and even created a mixed language wherein Sanskrit and Tamil have been combined to create not only fine religious poetry but a picturesque and composite tongue that is spoken by young and old. In many parts of the country, spoken Tamil has become a mixture of Tamil, Sanskrit and even English components; and although many purists have pleaded for a reversion to a completely non-Sanskritised Tamil, yet the process of national, racial and linguistic exchange is inevitable and should be welcomed as contributing to the multiform development of our national heritage.

Primary Education is not a panacea for our educational maladies especially if it is discontinued early and if adequate adult education is not envisaged. Its presence is not necessarily accompanied by that sound judgment and logical faculty and the appreciation of what is truly beautiful which are the aims of all education; and, as has been proved again and again in India and especially during the last elections, its absence is not a proof of ignorance or incapacity to decide political issues correctly.

Nevertheless, without a comprehensive programme of Primary, Secondary and Adult Education, the problems confronting us in several departments of life cannot be solved. They can be solved only if the teaching profession, especially with reference to the instruction of the very young, can attract and retain the allegiance and services of our most capable and sympathetic men and women.

Properly viewed also, the University is not a costly luxury as is often asserted, and its alumni are a *sine qua non* to the development of all grades and varieties of education. The Harvard Report on "*Education in a Free Society*" laid down that a grounding in general education, familiarity with social environments and human institutions and an aspiration to ideals are the objective of such education. In the language of Alexander Micklejohn and President Charles Elliot of Harvard, our students should understand and not merely learn. This means that there should be no fragmentation of knowledge and no over-specialisation. Laski asserted that lectures must drive students into personal investigations so as to obtain new knowledge or deal with new problems based on old materials. The subjects taught must have (1) a disciplinary value, e.g., Mathematics, Logic, or Sociology; (2) emotional value, e.g., Languages, Music, Drawing, Painting etc.; and (3) social value, e.g., Economics, Geology, Geography and Commercial subjects. A professional education can only be super-imposed on these, and a background of general education is necessary even in departments like Agriculture, Engineering and Technology.

A recent development in our Universities is the disquieting unpopularity of the study of literature and especially of Philosophy. In the minds of the undergraduates and also of their parents, the Scientific and the Engineering Faculties are alone supposed to produce easily cashable drafts on the future; whereas the humanities are uncashable cheques. If, as we hope it will

be increasingly taken for granted, the conception of University education is not merely to be a passport for the procurement of jobs, and if, as advocated by the Secondary Education Committee, the whole business of recruitment for the Public Services is to be re-oriented, then there may arise a new outlook on the value of the several items in a University's curriculum. So considered, there is a great deal to be said in favour of the re-casting of the present scheme of University studies on the lines adumbrated by Lord Lindsay and carried into effect in his new University in North Staffordshire.

One may even go further and declare that such a scheme of studies will turn out to be more valuable even in the matter of securing jobs and opening up careers than the present system. Let us take a fresh perspective of present day developments discernible in the advanced thought of today.

The scientist, working away in his own special compartment, devotes his attention to a small section of the Universe. On this basis, he arrives at conclusions without stopping to consider what relation they bear to the conclusions reached by other scientists working in their own fields. Very often these conclusions collide. Hence arises the need for a clearing house in which the results arrived at by the various scientists can be pooled and collated. Take, for instance, the question of what used to be called materialism which proceeded on the notion that to be real, a thing must be seen and felt. John Tyndall in his Belfast Address of 1874 rhetorically asked "Divorced from matter, where is life?" Whatever our faith may say, our knowledge shows them to be indissolubly joined. The human understanding, he added, is the result of the play between organism and environment through cosmic ranges of time. He concluded triumphantly "The impregnable position of science may be thus described. We claim and we shall wrest from theology the entire domain of cosmological theory." This type of thinking has now become obsolete. Matter, in

recent scientific parlance, is a hump in space-time, a mush of electricity, a wave of probability undulating into nothingness. Frequently it turns out not to be matter at all but a projection of the consciousness of its perceiver. In other words, we have come very near to the Vedantic conception of Maya ; but what matters for the present discussion is that even physicists are feeling the need to travel outside physics for the purpose of solving their problems. People used to be very complacent about the doctrine of evolution and at one time it was proclaimed that life is a bye-product of non-living processes and that the mind is an off-shoot of the brain. At present, there have arisen theories of evolution which interpret it as the expression of a creative or purposive force or principle. Evolution has been described, quite recently, as a creative process. Prof. J. S. Haldane, in the "*Philosophical Basis of Biology*", in fact, affirms : "Though the physico-chemical or the mechanistic conception of life is still very much alive in the minds of popular writers, I think it is now far from being so among serious students of biology. There has been a growing realisation that something more than a materialistic hypothesis is required to account for the development and evolution of life. The new biological theories tend to take on a philosophical sweep so that from being theories of evolution, they develop into theories of the Universe." The conception of the modern Universe is more mysterious than of old, and men are now more willing to explore different avenues of possible understanding of the Universe, of art as well as the sciences, of religious ecstasy as well as commonsense. In the result, a new humility has come into existence. The more we enlarge the sphere of the known, the more we enlarge the area of contact with the unknown. To put it in another way, the so-called positive sciences, in their newest developments, touch at innumerable points the domain of philosophy, and the religious, the artistic and the aspiratory impulses. Today we may be hearing of hydrogen and cobalt bombs but the germinative

thoughts underlying these destructive agencies may, and it is hoped soon will, result in peaceful developments that may usher in a truly sympathetic philosophy of harmonious life. It is not possible really to understand the elements of present day science without glancing at those activities of man that stem from his instincts of love of the beautiful and the awe induced by the mystery of the Universe. Indeed, it would not be an exaggeration to say that a lop-sided or one-sided training of our faculties is likely to be of more positive danger today than at any previous period of human history. So much so indeed that it is permissible to argue that those typical products of these days, communism and the disbelief in democracy, the rise of a new fatalism and short-sighted Epicureanism, originate in the present type of partial or unbalanced education and the frustration that follows therefrom.

Mr. Aldous Huxley, who started in his earlier novels as a believer in the theory that the human body and even man's mind and soul are a function of the environment and who was obsessed by the idea that mind and spirit are dominated by the body, has now changed over to a thorough-going mysticism. His "*Perennial Philosophy*" synthesises Christian Mysticism, Sufism and Vedantism and even in his recent novels, he has effected a complete departure from his old self. Huxley now preaches that Western Civilisation pursues false Gods and acknowledges wrong motives in aiming to increase power through applied science. In his own words, "What do such applications result in:—the multiplication of possessable objects, the invention of new instruments of stimulation, and the dissemination of new wants all of which are a source of bondage?" He pleads for serenity and disinterestedness, "Free of desire, controlled in mind and spirit, abandoning possessiveness." This plea for the absence of excitement and of craving and of detachment are a restatement of the Gita message :

निराशीर्यतचित्तात्मा त्यक्तसर्वपरिग्रहः

शारीरं केवलं कर्मकुर्वन्नाप्नोति किल्बिषम्

The relevance of the above discussion consists in the appreciation of the increasing linking up of science with psychology and philosophy. A limited training will take one to the cross roads of existence and leave him there without guidance. Such a guidance can be derived, even by the scientific student, only from Philosophy, Art and History.

No adequate presentation of the evolution of our multiform national life has been, until quite recently, attempted on the lines of what has been done in Cambridge; and it is important to speed up the compilation of a well-documented and well-balanced history of India based on a re-study of inscriptions, archives and other materials. The work should be parcelled out among the several Universities of India. They may each concentrate on a regional survey and narrative dealing not only with political events or crises, but also with social, economic and artistic developments, with due advertence, of course, to a synthetic and all-India co-ordination.

The features which most impressed me during my visit to several Universities and Technological Institutions in the United States were the following :

(a) In the operations of the Laboratory and Workshop, the whole responsibility is taken by the Professors and students and very little outside assistance is invoked from servants or attendants or manufacturers either for cleaning or keeping in good condition or repairing and renewing appliances and apparatus. Students are trained in workshops to manufacture everything needed for their practical work. I was glad to see that in the Electro-Chemical Laboratory at Karaikudi, the same ideal is kept in view; and it has been proved by Mr. G. D. Naidu of Coimbatore that even beginners in scientific studies can be taught, without any extraneous help and with comparatively cheap machinery, to manu-

facture such items as razor blades. If a satisfactory co-ordination is established between our Engineering Faculty and our Scientific departments, our institutions may and should increasingly cease to depend on outside help for many of their requirements.

(b) A great deal of the gardening and levelling operations and carpentry and smithy work is done for the Institutions by students and teachers; and such a beginning should certainly be made in this direction by our University, in the Departments of Agriculture and Engineering. If and when Architecture is made the subject of a Degree Course as an adjunct to the Engineering Department, there would be great scope for the extension of this principle. In any case, the insistence on manual work and the participation of students in all forms of labour is even more important in India than in America.

(c) Fullest encouragement is given in the United States to students, in the matter of studying from time to time under different Professors and experimenting on different courses of subjects so as to determine their particular proclivities and efficiencies. A first step in this direction has been taken by this University by entering into arrangements with other cognate institutions for supplementing and completing the courses offered here.

(d) The Library and the Reading Room attached to each section occupy a fundamental role, as they should, in bringing the teachers and the students together and in eliminating some of the evil effects of dictation of notes.

In order to attain certain political objectives deemed to be essential for the achievement of national independence, our students, like those in China and Egypt, were encouraged to take part in political demonstrations. The mentality induced by the appeals made to the students at that time has persisted and the present imbalance in University curricula; and the sense of frustration produced in the minds of students owing to actual or apprehended unemployment have led to unforeseen develop-

ments. The closure of the Lucknow University and the repercussions in Allahabad and sympathetically in Banaras have been followed by the destruction of answer-papers and picketing and assaults by way of protest against the holding of examinations during the hot weather in Bihar. The dispute regarding the autonomous character of a University Union has been extended from the University campus into public streets. Whatever the merits of these controversies may be, there can be no two opinions as to the pre-requisite that the activities of a University, apart from its intellectual achievements, should be unheard and unseen outside the walls of the University. Even legitimate discontent, if manifested beyond and outside University limits, will invite mob-rule which is the very negation of University life and discipline. Academic freedom implies and involves the following conditions :

(a) That a University should be free from outside control in its intellectual work and internal administration as well as in intra-mural discussions and exposition of opinions and doctrines.

(b) That in order to secure this objective all the financial and other support that may be needed for the maintenance and expansion of the University should be made available to it without any suspicion of political or local bias or prejudice. An independent non-partisan body like the University Grants Committee of the U.K. should be vested by Central Legislation with the responsibility of examining the needs and potentialities of each University and assessing its legitimate requirements and meeting them as far as practicable, the Government realising its fundamental obligation in respect of higher education as already indicated.

(c) That as an inevitable corollary, the University and its alumni should be wholly self-regulatory and should unflinchingly exercise self-discipline, resolving all internal differences without going outside for appeal or assistance and without, at the same time, travelling

outside its bounds to participate in extra-mural agitation or activities or controversies.

The study and discussion of political, social, economic and other controversial problems are a necessary part of University life but the immense value as well as the special prerogative of a University is its detached though active interest in such problems.

To the Graduates and Diploma holders of this year my congratulations and best wishes are tendered. Perhaps the finest message that I can place before them, in the present circumstances of our country, is that of the *Gita*

व्यवसायात्मिका बुद्धिरेकेह कुरुनन्दन

बहुशाखाद्यनन्ताश्च बुद्धिोऽव्यवसायिनाम्

"Let one-pointed determination be your object, Arjuna. The purposes and acts of the undecided are numerous and multiform."

In spite of all transitional difficulties and problems like educated unemployment, our country has infinite potentialities and will, surely, with the necessary all-round good-will and enthusiastic co-operation, justify what Napoleon claimed as the result of his policy "*La carrière ouverte aux talents*" careers are always open to talent.

AGRA UNIVERSITY

15th December, 1953

MR. CHANCELLOR, MR. VICE-CHANCELLOR, SENATORS,
GRADUATES OF THE YEAR, LADIES AND GENTLEMEN,

I specially value the invitation to address this Convocation which has been extended to me by a statesman who is not only the constitutional head of your great State but a distinguished litterateur and a well-known patron of education and of the arts. I am also sensible of the honour and responsibility involved in addressing a University which has been claimed to be, in the size and numbers of its alumni, one of the largest in the country, and in the extent of jurisdiction, the biggest. Affiliated to this University are institutions ranging from Nainital and Almora to Gwalior, Bhopal and Rewa ; and Dr. C. V. Raman, in an Address characterised alike by a deep realisation of human values and a keen sense of humour, referred playfully to the 6,800 diplomas which had to be awarded to students from more than 60 affiliated colleges which sent nearly 35,000 students to the examination halls.

These are remarkable figures especially considering that the total University population in Great Britain is less than 80,000. Let us remember however that the total income of the Universities in the United Kingdom more than doubled itself during the period 1935 to 1947. It may also be observed that at a time of grave economic stress, the Universities in the U.K. received capital grants from the State amounting to over fifty million pounds during the period 1947 to 1952. It is hoped that in the light of the need to create a vanguard of fully

equipped men and women to lead our many-sided planning campaigns and with the inauguration of the University Grants Commission, we shall witness a similar widespread and discerning generosity on the part of our Government which has before it the comprehensive and far-sighted Report of an authoritative Commission presided over by the Vice-President of India.

Started in the renowned capital of the Moghuls with a background of confluent Hindu and Muslim cultures, the progress of this University, in the course of 25 years, has indeed been striking. It is not perhaps well-known that Hindu Pandits and scholars of the 17th century, in a poem entitled *Kavindra Chandrodaya*, expressed their gratitude to Kavindracharya who lived in the time of Shah Jahan and who interceded with the Emperor and saved the Hindus from the pilgrim tax levied in Allahabad and presumably also in Agra. Such instances of tolerance and communal harmony deserve to be remembered and chronicled.

Your Vice-Chancellor, in a report remarkable alike for its sense of reality and its analytic acumen, has referred to the various problems confronting this University. He has pointed out that some colleges are financially weak and some are badly housed. He has also adverted to the inadequate accommodation of the students and to various other circumstances that have militated against the maintenance of high academic standards. The present posture of affairs has necessitated a re-drafting of the University Act so as to cope with new problems and new conditions. Some noteworthy developments have been recorded including a proposal to establish an Institute for the development of Hindi as a national language in close association with other Indian languages. An ambitiously designed building has come into being which, it is hoped, will, in course of time, house a library worthy of it.

To recount the achievements of this University is, no doubt, a matter of pride and rejoicing; but I con-

ceive that, after felicitating the recipients of Degrees and Diplomas and bidding them God-speed in their forthcoming journey from the sanctuaries of higher learning and culture to the forums and market places—I had almost said the battlefields of life my duty to-day is to bring my auditors face to face with some inescapable realities of experience. As I was preparing this Address, the echoes of the incidents in the Lucknow University following upon the happenings in Allahabad and elsewhere were reverberating in this atmosphere and one of their repercussions was a statement by the Prime Minister of India on the present state and the future of our Universities which must inevitably lead to a deep searching of hearts. Much emphasis is being laid on the value and importance of discipline in Colleges and Universities ; but as truly stated by Dr. A. L. Mudaliar in 1951, discipline in the student community is essentially related to the prevalence of self-control and discipline among the people at large and the growth of country-wide and serious purposiveness. In a world divided into hostile camps, harassed by competitive ideologies, furiously intent on struggling with each other for mastery by means of propaganda and cold and hot wars and regarding conflict and destruction as a law of life, it is specially essential that we, in this country with its tradition of tolerance and its realisation of the maxim 'live and let live', should guard ourselves against the prevalence of centrifugal tendencies, linguistic, sectional, communal or religious.

Reviewing all that has happened and having no desire to prejudge any issue, one cannot escape a feeling of deep disappointment that in an autonomous and self-regulating body like a University, the sentiment of *esprit de corps* has not prevailed. The basic idea of a University is that the professors, teachers and students should fully co-operate with one another and should adjust their viewpoints and settle their differences, if any, among themselves without appealing to outside authority or behaving in such a manner as to invite or

compel police or other extraneous intervention. In this connection, one may usefully remember what, as recorded in the Vana parva of the *Mahabharatha*, Yudhishtira said to his impetuous brother Bhima when Chitrasena, a Gandharva, at the head of his army, overcame and captured Dhuryodhana, during his sojourn in the same forest as the Pandavas. Bhima welcomed this event; but Yudhishtira insisted that his brothers should compel Chitrasena to release Dhuryodhana. He emphasised :

भवन्ति भेदा ज्ञातीनां
 ज्ञातिधर्मो न नश्यति
 परैः परिभवे प्राप्ते
 वयं पञ्चोत्तरं शतं
 परस्पर विरोधि तु
 वयं पञ्चैव ते सतं

‘There may be disputes among kinsmen, but the law of relationship must prevail. In the face of the outside world, we should be one although there may be division among ourselves.’

One may usefully advert to the history of European Universities in this connection. One of the oldest of these, the Paris University, was consolidated in the 12th century and gained its reputation owing to the devoted labours of such scholars as Peter Lombard, Abelard and Sorbon (after whom the Sorbonne is named.) All the rights of management in this University were vested in the hands of teachers and doctors. The Sorbonne insisted that only Bachelors of Arts could enter its portals and was governed by 36 of its alumni. The University of Bologna, the great home of legal studies which was as ancient as Paris, vested the entire government of the University in the senior students who elected their own Governors. Likewise, in Oxford presided over by noted philosophers from the outset, a somewhat confused and promiscuous gathering of students and teach-

ers yielded place to a constitution which greatly resembled that of the early Ashramas and medieval Universities of India and relied for its strength on the co-operative efforts of Professors, Tutors and students. As is well-known, the rapid growth of Oxford as an independent and autonomous unit roused the opposition of the townsmen ; and there were frequent conflicts between town and gown, which were paralled by similar events in Paris ; but at no time did one hear of dissensions among the students and teachers *inter se* or internecine disputes within the University.

At no time has it been so much of a calamity to lose a sense of proportion and to adopt narrowing creeds. We talk facilely of a secular State ; and are too apt to equate a fatal contempt for religious reverence and disrespect for tradition with mental enfranchisement. It is time that we remind ourselves that there are other and subtler forms of idolatry than those manifested in the worship of images in shrines or pictures, relics or tombs in church or mosque.

Many centuries ago, Bacon in a fearless enquiry into human mentality referred to the "idols of the tribe" having their origin in human nature and manifested in a tendency to stick to preconceived notions ; "idols of the cave", dependent on personal constitution and the circumstances of the individual ; "idola fori" or idols of the market place arising from mass associations and "idols of the theatre" arising from slogans, customs and dogmas. These several idols are, in every sense, more insidiously perilous and more to be guarded against than those *Vigrahas* which are worshipped in pure sincerity of heart and from spontaneous and instinctive impulses. Superficial studies devoted to summaries and aids to cramming, the lack of contact with nature and one's own environment, the unhealthy influences generated in over-crowded colleges, minimising healthy social contacts and interesting community life, the absence of personal touch between the preceptor and the pupil and the feverish craze for degree and diploma

as a passport (and only as a passport) to an immediately fructifying career are, in truth, responsible for the malaise and the frustration of which strikes and disorders are but the outer symptoms ; but such symptoms would not have manifested themselves if parents and leaders had, by their own lives and precepts furnished an example of one-pointed patriotism and disciplined enthusiasm bent to the urgent and perplexingly difficult tasks of reconstruction that confront a liberated India. A great middle-class movement, which was both cultural and political, became a mass movement under the stimulus and inspiration of Mahatma Gandhi. Certain forms of agitation and certain patterns of thought were decided to be appropriate in a period of revolutionary crisis and pending the attainment of freedom ; but many of them are tragically inappropriate to-day and it is up to the seniors to furnish object lessons in behaviour by their approach, positive and negative, and by their rejections as much as by their acceptances, which would serve to remodel the minds of the young, reorganisation and not revolution being their watch-word and their objective. Indeed, the times are fast approaching when even the patriotic nationalism of the immediate past will have to give place to a wise, nay, an unflinching, recognition of internationalism or universalism.

Direct action, fasts, strikes and a *fortiori*, violent demonstrations are, in truth, not the manifestation but the caricatures of high spirits. Buoyancy and ebullience of mind and freedom of thought are essential to a learner ; but these must co-exist with consideration for others and a sense of proportion.

Although it took a long time for the older British Universities to admit women into their portals, nevertheless, it is now conceded all over the world that they can play a conspicuous part in the field of education. Our women, fortified by their traditions of culture, have eagerly taken to higher studies and have demonstrated their great capabilities, but a wide and untrodden field lies before them for demonstrating their innate practi-

cality and their aptitude for social service and instruction. In many countries, women are increasingly in charge of primary and secondary school-teaching and the two world cataclysms have effectively demonstrated that there is no field of activity in peace or war where they cannot co-operate with their brethren. Our Five Year Plan legitimately stresses that the problem of women's education in India is that of grown-up women who have to suspend their studies in their early teens. Not only in the field of medicine and nursing but in that of the training of young children, the sphere of woman's work is progressively widening and the Universities have a duty cast on them to pay special attention to the problem of women's education. The time is past when it was deemed sufficient to teach women to be ornamental accessories in the social set-up. In the near future men and women will be co-equal though, in some respects, mutually supplemental partners in several departments of activity and men will perforce have to learn house-keeping, cooking, sewing and nursing as women have learnt the calculus and have driven railway trains and armoured vehicles. The economic independence of women has to be achieved; and the Universities will be important agencies for effecting the transformation.

Your Chancellor has rightly insisted on the collective organisation of life as a necessary concomitant of academic training. It is now being gradually recognised that the true object of all education, and especially of University education, is the appreciation of the enduring values of life by means of a multiform discipline through the acquisition of abstract or theoretical knowledge through scientific, professional and technical training and through the stimulation of aesthetic and moral aspiration. Such values are the sole corrective against the distempers of our society whether they be economic or political. In this view, the domains of Government administration, economy and culture are parts of the same thing. All these are anchored in history; and those

are short-sighted who do not realise that all alike must reflect the ideas and interests dominant or cherished in the society existent for the time being. No danger is so great as the danger of getting stereotyped. Institutions and economic ideals constantly tend to outlast even fundamental external changes in the societies in which they originate. Thus, for instance, no one can envisage a future for India, unless he is in contact with the new ideas that are flooding us like a tidal wave. Force can no longer assure political, economic or cultural order. Social purposiveness has replaced the prescriptive and till now generally acknowledged rights of classes and hierarchies based on birth or large possessions.

At this juncture, some reflections will force themselves on every impartial observer. It is no longer possible to take democracy or freedom too much for granted, for it has been proved that tyrannies and dictatorships easily thrive on popular passion and dis-equilibrium and easily supplant democratic modes of thought and action. During the controversy in the United States on this very question of education, Noah Webster affirmed that "custom is the plague of wise men and the idol of fools." Rightly, therefore, is it asserted that in a Government or in a University, the right to propose and to discuss and the obligation to accept decisions when arrived at after discussion, coupled with the residual right to criticise and amend them by due process, are of the essence of a healthy and self-governing community. But the mere enunciation of these maxims will not be enough to effectuate our purpose. Not only logic but a moral sense must sustain all democratic and other processes if they have to be truly constructive and not merely destructive. Many of the dangers with which we are faced even in the sphere of Education have been encountered by other countries. The American Revolution started with a statement by George Washington in favour of a widely-spread national system of education culminating in a national University. That creative thinker and statesman Jefferson asserted that every householder

should have a school within three miles of his residence and that primary and secondary education should be imparted at public expense and that all the really competent products of the schools should be maintained at Universities free of cost. But from the start, there was noticed a fierce reaction based on policies which tended to regard the United States not as a nation but as an aggregate of self-sufficient sovereign States pursuing the policy of *laissez faire*. Not only the impact of a rapidly growing machine industry, and the growth of urban centres but many other historical incidents and accidents neutralised and ultimately eliminated the doctrine that the State's function was only to maintain justice and order. It was the emergence of new and dominant forces that led to a recognition of public education as the greatest hope for wise and just decisions on the part of the people at large and as the most valuable insurance against mobocracy and the spoils system and for the equality of preparation for widespread economic opportunity. When industry and agriculture could not be localised or self-sufficing, the consequent loosening of family bonds and the rapid migration to urban and manufacturing centres became as inevitable in Europe and America, as it is now in India, and this development, in turn, led to the larger implications of Government functions and the obliteration of distinctions between public and private economy. The average graduate of to-day looks primarily to Government for immediate employment. Society as a whole feels no special responsibility to the graduate nor has it so far been willing to organise and distribute gainful careers but again looks vaguely to Government for all types of direct and indirect guidance and assistance including the solution of the problem of unemployment. As your Governor remarked in his Convocation Address, "We have everything but very little will to work."

Side by side with this pervasive inertia is a wholly indefensible pessimism. In the old days, the social structure and tradition emphasised the collective rhythm of

a co-ordinated life in village and town, but that rhythm having disappeared, students as well as grown-ups are now distrusting their own capacities and are querulously relying on every agency outside themselves. The answer to such an attitude was furnished by John Morley when he declared that the belittling of our own capacities in the presence of duty is as indefensible as an unwarranted egotism. What then is the result of this line of reasoning? The University and its products should not be the unquestioning and helplessly dependent servants or auxiliaries of any power, military, political or economic. They should reserve to themselves the fullest liberty of researchful appraisal and criticism, remembering that enquiry and experience are the life of culture as well as of the law. They should know that education is not merely co-terminous with practical or scientific or even literary skill. Uncontrolled by aesthetics, ethics and religion, the practical arts may destroy civilisation as indeed they are in danger of doing. Throughout the ages, there has been this conflict between the practical, the social and what are called the fine arts. The needless but oft-recurring conflicts between discipline and freedom, authority and responsibility, helpfulness and challenge, have been persistent through the millennia; but whenever the conflict has resolved itself, it has done so only where there is freedom to enquire and to expound, (*Swadhyaya* and *Pra-vachana*, in the language of our Upanishads.) But the fissiparous tendencies of isolated outer or inner activities can be eliminated only by a training of the youth in associational life and activity, such activities being sharply differentiated from propaganda. Fairness, detachment and impartiality are the conditions precedent to intellectual as well as political salvation. From this categorical imperative arises the need of a University standing apart from the executive and legislative branches of Government and from partisan politics. Undoubtedly, all questions including controversial ones, political, social and economic must be taught and dis-

discussed ; but a University exists for dealing with them in the way of a balanced instruction. We should be foolish if we relied purely on legal safeguards for ensuring and maintaining these requisites of academic as well as of political life. Our true safeguards must be those of the spirit and those safeguards consist in self-regulation and alert vigilance. Such was the advice imparted by the Lord Buddha to his favourite disciple Ananda and no better advice can be tendered to-day.

There has been a growing demand that Universities in India should divest themselves of their purely theoretical and academic bias and characteristics and should engage in the teaching of what are termed useful and practical subjects. There is something to be said in favour of this contention and in point of fact, the growth and increasing popularity of engineering, technological, medical and agricultural studies furnish proof of a response to such a demand ; but it should never be forgotten that a University stands for the thorough but definitely preparatory training of the intellect and the emotions and should concentrate on fitting the students for their life-work. The tempering of steel so as to take the right edge is different from the fashioning of chisels and saws. Universities should not turn themselves into commercial or manufacturing guilds with the students acting as apprentices. Such a development has been intensified in a few American Universities where not only advertising and feature-writing but poultry-raising and wrestling, judo and self-defence are included among Degree subjects and even regarded as apt for post-graduate study.

Increasingly, however and even in the U.S.A. a distinction is being drawn between the academical and professional aspects of educational training. Also many Universities are beginning to grasp the importance of a comprehensive grounding in the humanities and the arts and sciences as the foundation of both the varieties of instruction. But more essential than instruction is the team-spirit to be developed in class and debating

society, play-field and hostel ; and even more requisite is the urge to be on the move, to *do* or create something rather than to *be* something and, in practical as well as theoretical spheres, always to be aspiring :

“ The gains of Science, the gifts of Art
A large and liberal discontent,
These are the boons in God's good hands,
The things that are more excellent.”

GUJARAT UNIVERSITY

3rd September, 1954

MR. CHANCELLOR, MR. VICE-CHANCELLOR, SENATORS,
GRADUATES OF THE YEAR, LADIES AND GENTLEMEN,

The foundation stone of the Gujarat University was laid by Sardar Vallabhai Patel, who symbolised the business acumen and enterprise of his native land and who, in addition, was one of the most incisive men of action born in India. It has been started under very favourable auspices and in an extensive campus. Very appropriately, Engineering, Textile and Industrial Research, Medicine and Pharmacy, are some of the main courses pursued by a University situated as it is in one of the chief centres of industry in our country. It is at present mainly an affiliating institution, but hopes to develop into an active residential unit. Already, Post-Graduate instruction in all the Colleges is conducted by and on behalf of the University; and among the objectives of this Institution is a Post-Graduate Department in Social Sciences including Economics, Sociology and Politics, and a University School of Gujarati Language and Literature. Journalism and Fine Arts are also included in your curriculum and I have noticed with interest that the imparting of General Knowledge is one of your aims, although it is now ancillary to a training class to prepare students for competitive examinations. Increasingly, the need has been felt to ensure to every University student, an all-round acquaintance with the fundamentals of culture inclusive of the Humanities and Fine Arts, as well as the basic facts of Natural and Physical Sciences. Without such an introductory training, education tends to be lop-sided, and students are

greatly handicapped by an exclusive devotion to a specialised course, be it literary or scientific. The University Commission has emphasised the necessity for initiating such a training and has pointed out that many causes have contributed to a lowering of the level of General Knowledge. Public Service Commissions and other qualified authorities have complained of the comprehensive ignorance displayed even by Honours Graduates as to simple facts of daily experience, and it is to be hoped that your University will tackle this problem. It is noted also, that you have a programme of extra-mural lectures which may partially serve this purpose.

One of the first acts of the Senate of the newly constituted University was the passing of a resolution to introduce Gujarati and/or Hindi as the medium of instruction in the first year in the Arts Faculty and to extend such instruction, progressively, to the higher classes and in other Faculties. This move is in response to a wide-spread demand, that the mother-tongue should acquire its legitimate importance; and I notice with special interest that your Bulletin for May 1952 records that the University is taking steps to get suitable textbooks prepared, so that when the change-over begins, some books may be available to start with. I have found from my experience that a tendency to neglect and even actively to discourage proficiency in the English language is apt to be emphasised even before there is enough material and mental apparatus and personnel for replacing English. As I have repeatedly stated, the objections that were raised against the cultivation of the English Language and Literature were, to no small extent, political in character. It is undoubtedly true that the normal individual can think best and most consecutively in his own mother-tongue and that the strain of learning a foreign language often leads to melancholy results, especially in the earlier stages. No one can gainsay that Elementary and Secondary Education can best be imparted in one's own language. But to keep

abreast of world events and to attain progress in scientific and technological departments of study and even as an inspiration for the growth of our own literatures and arts, a working knowledge of what has become a nearly universal language should form part of the mental equipment in a University. Noteworthy literary, scientific and sociological achievements are being incessantly recorded, not only in text-books, but in magazines and technical and special journals appearing monthly or weekly ; and higher education, especially in the Post-Graduate stages, cannot be complete or even adequate without the perusal and assimilation of the contents of such books or periodicals, which it is impracticable instantly to translate. Inevitably and sooner rather than later, Indian languages can and must replace foreign tongues as the media of instruction in the Universities ; nevertheless, as has happened in other countries until the Literature of Knowledge and Research and the Literature of Emotions are extensively as well as intensively developed, it would be a grave error to neglect or ignore a language like English which is the current medium for the worldwide communication of ideas. Hindi for official and all-India purposes and English as a vehicle for the transmission of thought from India to the outside world and *vice versa* must be regarded as indispensable for the present and for some time to come. More and more decisively, the importance of international collaboration and integration is becoming as obvious as the necessity for the unity of national objectives. There is a well-known hymn in the Tamil Language in which Saint Thayumanavar compares all the creeds and faiths of the world to separate streams, forming tributaries of a mighty river that empties itself into the sea of Ultimate Unity. The same figure of speech is apposite in relation to languages, as being contributory to the formation and expression of human thoughts and aspirations.

A dual danger confronts Indian Universities. Students make it almost a matter of pride or honour not to

speak in the English language or even to own a partiality for it. At the same time, there is very little pervasive or concentrated study of any Indian language, whether Hindi or the mother-tongue ; and apart from sporadic and ephemeral *journalese*, one does not find as much literary activity as may be expected from the professed love of indigenous languages and literatures.

You, in Gujarat, are, however, the inheritors of great traditions. The Universities that flourished in India in ancient and medieval times had a remarkably extensive programme of teaching, of research and of discussion brought about through intimate personal contact between the teacher and his *sishtyas*. There were no formal examinations and Degrees or Convocations for the simple reason that the activities of every day embodied intimate contacts between mind and mind. Thus the fit were recognised and the unfit eliminated automatically. It is noteworthy that Indian students and savants were in request in foreign countries, and that foreign students and scholars were honoured and given hospitality in such Universities. The story of Nagarjuna, Asanga and Padmasambhava and the visits of other Indian philosophers to Tibet and China and Eastern Asia illustrate this aspect of intellectual osmosis. It is stated that the endowments to the Nalanda University came not only from all over India but from Sumatra and Java, and at one time there were 10,000 residents in Nalanda of whom 1,500 were teachers. This large increase in numbers led to a change in the system of education ; and as in the India of to-day, entrance examinations were instituted at a later stage, and Hiuen Tsang asserts that only 20% of those who sought admission came out successful in the examinations and the remaining had to go back disappointed. The Chinese scholar, Itsing, is reputed to have studied for years in Nalanda and to have copied and taken back to China 400 manuscripts in Sanskrit, amounting to 5,00,000 verses.

Saurashtra has special academic traditions extending over many centuries, and Valabhi for a long period

enjoyed a reputation second only to Nalanda. The history of Valabhi discloses that the culture which it sponsored was neither parochial nor intolerant. Although it was primarily a Buddhist foundation, students from all parts of India, especially from the Gangetic Valley, found intellectual nourishment. Instruction was imparted in Political Science, Business Administration (*vartha*), Law, Economics and Accountancy. As appears from a recent study of ancient Universities made by Sri D. G. Apte, students after studying at this University were employed by several rulers in India for assisting the Government of their kingdoms. Hiuen Tsang narrates that about the 7th century there were about 6,000 students in Valabhi with 100 residential monasteries. Then, as now, the funds necessary for running the University were largely subscribed by private benefactions as well as by the Maitraka kings of the country. The liberality of the business magnates of Ahmedabad, like Sri Kasturbai Lalbhai and the Sarabhais, is in consonance with the tradition of Gujarat and will no doubt be manifested increasingly in the future. Not only do Gujarat and Saurashtra possess a background and atmosphere favourable to the pursuit of Literature and the Fine Arts including a characteristic style of architecture and painting and wood-carving, but this State has been strongly influenced by the cultural resurgence in the literatures of the country which, beginning in Bengal, spread to all parts of India and resulted in the simplification of the literary language and the creation of new forms of poetry and drama, romance and realistic novel. Social awakening and political ideals, and formative tendencies in religion and philosophy inspired the work of great poets in Gujarat like Danpatram Narmad and Nanalal, some of whose works have been translated into English. The New Theatre Movement and the work of significant innovators like the Munshis have attracted attention all over India. It is noteworthy that your poets have made their verses a medium for the expression of the new mental liberation in every sphere.

Competent critics have spoken in enthusiastic terms of the lyrical gifts of Nanalal and his achievements in poetic drama and his lofty idealism. Nanalal's work has found a climax in his masterpiece "*Kurukshetra*", envisaging the transition from one world-epoch to another. This University must perforce reflect and enrich these characteristics and must help to produce a generation that will augment the Literature of Knowledge and the Literature of Power.

The report of the Gujarat Research Workers' Conference held under the auspices of the University reveals its anxiety to include in the scope and ambit of its work research in Sociological Studies as well as in Engineering and the Natural Sciences. But as rightly pointed out by Sri G. S. Bajpai, it is not only expedient, but necessary, that each University should devote particular attention to a special group of subjects, for which, its history and its environment present definite facilities. Naturally Ahmedabad will do well to specialise, like some of the newer Universities of Great Britain, in those Arts and Sciences which have special relevance to a centre of textile and chemical enterprise and also in those social and psychological studies, that appertain to labour welfare and the inter-relations between capitalists and employees.

I have been recently visiting several Universities in our country and taking part in Convocations in many of them; and I must admit to a growing feeling of surprise not only over the steadily increasing number of Doctorates in Philosophy, Literature and Science that have been conferred in these Universities, but also over the phenomena of the lowering of the standard of examinations and the noticeable increase in the number of first classes. I hope that the apprehension expressed in the recent Bombay Convocation address of Dr. Paranjpye is not justified, when he complains that because a first class candidate has some advantages in securing admission to All-India Institutions and in competitive examinations, some Colleges are yielding to the

temptation of producing first classes *en masse*. Such occurrences and the recurring strikes and the so-called examination scandals can only be averted by getting rid of the temptations to attract more students in order to improve the finances of educational institutions. In this respect, the example of England is worth keeping in mind. There, these evils have been minimised, if not eliminated, by the operations of the University Grants Commission and the numerous scholarships and subventions given to deserving students by the Central Government, local authorities and philanthropic bodies, amounting in the aggregate to over 73% of all the students attending the Universities. It is an example worth emulating by us. Such an experiment will be fruitless, unless there is a rigorous elimination of the unfit and a realisation that there are other gainful vocations in life, outside the scope of the University.

The report of the University Commission has been subjected to intense scrutiny and comment, and one of its recommendations relating to the inauguration of the University Grants Commission is likely to be embodied in the Statute Book. It is fervently hoped that this Commission will prevent needless overlapping in courses of study, will enhance the status and emoluments of University Sciences and advanced study in the Humanities and Fine Arts. Without going over the ground that has been amply covered already, I wish to take advantage of this opportunity to refer to the position of the teacher in modern Indian society. There has been a shift of interest in educational planning to an emphasis on the social function of education, a shift that has been recently stressed by Dr. Zakir Hussain, who has insisted on education being regarded as essentially a social force. In his own words, "Productive mental work in art or science or technique should be placed in the service of society, if the artist, scientist or technician is to grow into a full and not a partial individual." The close individualistic point of view is giving place to a relationship between education and society, because

it is not possible to evolve a philosophy of education isolated from the problems of existence at the present day. School and College practice must have increasing relevance to contemporary environment. In the language of Dr. Rich, in his "*Teacher in a Planned Society*"—"Professors and teachers should become agents of society in a new and a formerly unrealised sense." The position of Universities has, in this particular, come under active review. Is a University to be a completely autonomous society? Does the vastly increased and indispensable state assistance involve or demand greater state control? Is a University teacher responsible to his academic colleagues or is he a public servant directed in research and teaching by or through the State? These problems have arisen in an acute form in totalitarian regimes; but they are also of general prevalence.

We cannot but note the gradual change-over from the classical to a scientific training, and the transformation of schools and Universities into democratic communities, as apart from cloistral and aristocratic nuclei. As early as 1908, Sydney Webb asserted in an article on Secondary Education that the duty of the 19th century was merely to supply individual schools for all the children and to get the children into them. The 20th century recognises that its present task is one of providing every part of the country with the highly differentiated educational organisations necessary to ensure to every child the particular kind of teaching that it needs. In order to solve this new problem, Professors and Teachers have to evolve new qualities and new aptitudes; and as argued by Prof. Tibble in his "*Role of the Teacher in Modern Society*," we must train citizens who will say "We" and not "They" in speaking of Government. We must also entertain horizons beyond national boundaries and needs, and we must strain for the higher forms of co-operation between men. Again, in words that are specially applicable to India, Prof. Tibble insists on closing the gap between the achieve-

ments of modern science and the comparatively slow progress in social affairs, on wide social awareness and not narrow provincial efficiency, on courage and leadership and not scholastic seclusions and social timidity, on co-operation and not compartmentation.

To draw the line between the exercise of our newly won freedom and the indispensable limitations on that freedom is a delicate task ; but it is a task that has to be attempted not only by the statesman and the philosopher, but primarily in the schools and Universities. There should be coherence and collaboration between the claims of academic freedom and the right of a democracy in respect of education. These conflicting claims can only be met by emphasising inter-dependence and not independence. It is only a superficial view to consider that there is a genuine conflict between liberty and security, or between academic and social freedom.

Prof. Henry Steel Commager has observed in his recent book on "*Liberty and the Communities*" that only those societies, that encourage scientific and secular research and courageously deal with the question of scientific and social orthodoxies and the discovery of new truths, can hope to resolve the conflicts that assail them and preserve their freedom and security alike. Increasingly, moreover, it is felt that laws only impede operations that menace the cohesion of society. It is religion that makes the cohesion more intimate, and there is no doubt that even in a Secular State, it is important to pursue a system of instruction and community life that will produce not only intellectual understanding, but an attitude of humility and reverence, in the face of the awe-inspiring mystery that is the substratum of life and the Universe. Such an attitude is the very negation of all dogmatisms, despairs or complacencies. Knowledge, like all other freedoms, rests on many different pillars. A profession or a creed or a nation often commands one's loyalty, because it contributes significant values ; but the acquisition and use of

that knowledge should conduce to the welfare of mankind as a whole. To ignore this aspect is to intensify the baffling dilemmas that now confront the atomic age. The spiritual, moral and educational reconciliation of all peoples and the establishment of a world University, as an essential condition precedent to a world State, are amongst the ideas that are becoming growingly insistent.

Hinduism is, in a fundamental sense, international. It has survived innumerable political and social changes; and its comprehensive tolerance and charity, when rightly perceived and implemented, and its avoidance of intellectual regimentation and eschewal of power and worldly prosperity as the ultimate test and touch-stone, can enable the people of this country, and especially its Universities, to reorient and refashion old and still valuable ideas; but to do so requires much thought, great adaptability, the daring elimination of accretions and surplusage, the reconciliation of true religion with science and the bestowal of due importance to the recognition of personality, in the context of wide-ranging evolution. Such a task should essentially find its centre not only in the class-rooms, but in the play-fields and hostels of our Universities and should find expression in the combination of keen analysis and well-conceived synthesis and in variegated and tolerant discussion and fearless investigation. Research, meaning by that expression not only one-pointed scientific endeavour, but the examination of the various values of life, should be the privilege and the function of Universities. Sri Sankaracharya's maxim is profoundly true.

न विद्यते विना ज्ञानं

विचारेणा न्य साधनैः

"True wisdom is not obtained by any means other than active investigation."

Srimathi Nathibai Damodar Thackersey Women's University

11th September, 1954

Starting on its career nearly forty years ago, the Thackersey Women's College enlisted the enthusiasm and dedicated enterprise of Dr. Karve. It is fortunate that the zeal and unflinching support of Sri Vitaldas Damodar Thackersey and the devoted labours of Lady Thackersey have transformed it into this Women's University and its allied Institutions. Our country has had, in spite of certain reverses and reactionary periods, a long tradition not only of paying honour to women but of realising the intellectual and spiritual equality between the sexes. Can we forget that the authorship of many of the hymns of the *Rig Veda* is attributed to women sages? The *Rigveda*, in fact, refers to *Samanas* or social gatherings where women were present and where poetic and musical competitions were conducted. Vishwavara and Abala of the Atri family are specially mentioned as well as Lopamudra, Ghosha, Indrani, Sarparagni and Yami as authors of Vedic hymns. The discussion initiated by Gargi with Yagnyavalkya and the dialogue between Maitreyi and the same Sage are proofs of the speculative genius of our women of old. In Buddhist times, many women composed what are called *Therigathas*, and the names have come down to us of Sumedha, Ishidasi and Ambapala (the hostess of the Lord Buddha) as accomplished and learned philosophers. Is not the episode of Uma Haimavati in the *Kena Upanishad* a tribute to the capacity of womanhood to master the secret of the Infinite Brahman? Turning to later times, we witness the spectacle of two separate and

even divergent currents of thought and practice. There are texts in our Sastras which forbid Vedic study to women ; but on the other hand the examples of Maitreyi and Gargi furnish testimony to the acquisition of recondite learning by them. Vatsyayana speaks of women whose minds have been sharpened by the knowledge of the Sastras, and he includes recitations from the Sastras and the Epics, the knowledge of metres and etymology and an acquaintance with the lexicon amongst the 64 branches of learning commended to women who were also expected to frame the home budget and regulate domestic expenditure. Many women were, of course, also trained in the arts of singing and dancing and painting. Sanskrit and Pali literatures of the classic period are full of references to women authors.

शीला विज्ञा मारिला मोरिकाद्याः

काव्यं कर्तुं सन्तु विज्ञाः सितयोऽपि

From the earliest times the Tamil country has produced illustrious women poets whose works rank as classics.

It is recorded that Rajasekhara, the author of *Karpuramanjari*, was actively helped in his compositions by his wife, and there are references in classical Sanskrit literature to Vijja or Vijaya, to Prabhudevi of the Lata country and to Sita Pandita who figures in many stories connected with King Bhoja. It may also be seen that the well-known Lexicon, the *Amarakosa*, refers to women teachers (Upadyayi) as well as to women instructors (Acharyās) in scriptures. Kalidasa, in his *Shakuntala*, adverts to Anusuya's knowledge of the Ithihasas. A female ascetic acted as a judge in the Dance and Song Exhibition at the Royal Court. It is specially worthy of mention that there seem to have existed regular Institutions, where girls received training in the company of men students. The *Malathi Madhava* refers to Kaman-diki's male classmates as well as to her women class-

mates from different countries. The *Uttara Rama Charita* speaks of Atreyi as a fellow-student with Kusa and Lava at Valmiki's hermitage, who, later on, went to the Dandaka forest to learn Vedanta from Agasthya and other teachers. The idea, therefore, of higher learning for women is not foreign to us and, of course, in those regions of India where the Matriarchal system has flourished, there has always been a continuous history of literary and artistic activity on the part of the women of the West Coast, who have long enjoyed a great measure of economic and social freedom and ample opportunities for cultural advancement. A melancholy period of retrogression and reaction, however, followed and even at the time when Dr. Karve inaugurated this Institution, the idea of men and women studying together was repugnant to most sections of our community. In this connection, it is curious to remark that, notwithstanding the comparative freedom enjoyed by Western women in several directions, their intellectual accomplishments were, in most cases, superficial and confined to the ornamental branches of self-improvement. The intellectual discipline of University life was considered inappropriate for them, and a smattering of the Fine Arts and acquaintance with rigorously-expurgated literature was regarded as more than sufficient even amongst the cultivated classes. There were rare exceptions, of course, like Queen Elizabeth and Queen Margaret who were all-round scholars; but even in Byron's days, a woman devoted to intellectual pursuits was characterised as a 'blue-stocking'; and the initial difficulties experienced by reformers before the Girton and Newnham Colleges came into being are well-known. As late as 1947, the University of Chicago conducted an enquiry into the lack of equality of educational opportunities between men and women. Higher education for women, on an organised basis, was of comparatively recent origin in Europe and America, and it was only in the last quarter of the 19th century that Colleges and Universities began to admit women. Indeed, in 1872 the Supreme Court of

the United States refused to grant a woman license to practice law, and its judgment contained the following curious passage :

“The natural and proper timidity and delicacy which belong to the female sex unfit it for many of the occupations of civil life. The constitution of the family organisation which is founded in the Divine ordinance as well as in the nature of things indicates the domestic sphere as that which appropriately belongs to the domain and functions of womanhood. Harmony, not to say the identity of interest and views, which should belong to the family institution is repugnant to the idea of a woman adopting an independent career from that of the husband.”

Discrimination on the basis of sex was specially noticeable in the graduate and professional schools. A recent census in the United States lists 4,000 women lawyers as compared with 174,000 men, and 730 women Engineers as against a total of nearly 300,000 men Engineers. The two World Wars effected a profound transformation in the Western world, and women became effective competitors with men in many professions and avocations which were formerly regarded as the exclusive prerogative of the other sex. In India, it may be asserted to the credit of our men that there has been no need for women to adopt suffragist tactics ; and political equality was conceded to women almost from the beginning of the struggle for freedom. After an initial period of slight opposition, co-education has become prevalent all over the country and our women, at the present time, occupy a high status not only in the academic but in other spheres of activity including governmental and ambassadorial offices and positions in various public services.

This University places two main objectives before itself, namely, to make provision for the higher education of women through the main Indian languages as the media of instruction and to furnish trained teachers to Primary and Secondary schools. Very wisely it has rea-

lised that the education of the young especially in the earlier stages is best conducted by women and it has profited by the lesson furnished by other countries where Primary and Secondary teaching is, to no small extent, concentrated in women teachers. The natural temperament and psychological outlook of women fit them specially for the great professions of teaching and nursing, both of which have infinite scope for expansion in present-day India. On women devolve the great duties of alleviating human suffering and liquidating mass illiteracy ; and in the Institutions forming part of this University, these ideas have been sought to be implemented. It is a matter for great satisfaction to note that a B.Sc. course in Nursing will soon commence to turn out trained nurse graduates, and that the course for a Master's Degree in Education has also been introduced. It is further particularly satisfactory that qualified surgeons have helped to conduct classes in ante-natal clinic and gynaecological study.

The authorities of this University, while recognising the importance, nay the indispensability, of an acquaintance with and teaching through the medium of the mother-tongue, have realised that the efficiency of such teaching is dependent on the provision of standard text-books, and they have already published books on Domestic Science, Civics, Sociology and Samsara Sastra in Marathi and Gujarati. It must, nevertheless, be borne in mind that until the creation of a wide-ranging and variegated literature in the mother-tongue, the importance of English as a well-nigh universal language cannot be ignored.

While women should be trained to follow all careers for which they are fitted by their aptitude and temperament, and while in many cases research and advanced studies must be conducted in co-educational centres, yet in a University of this type, it is not only natural but essential to devote special attention to the arts, crafts and sciences which are needful to create a healthy, artistic and functionally-satisfying home environment. A

Degree course in Hygiene, Home Science, Child Psychology and Sociology is thus a *sine qua non*. It should include all the Arts and Crafts that help to create the Home Beautiful as well as the comfortable dwelling. The cultivation of a catholic yet discerning taste in books and music, painting, furniture and clothes, should be part of the training of men and women alike ; but the latter are endowed with a special aptitude in these directions, which the right type of education should utilise and perfect. The cult of the cheap and nasty is as deleterious as vulgar ostentation. Simplicity and utility can co-exist with elegance and fastidious neatness. Japan and ancient India have taught us lessons in this matter, which we have not adequately learnt or have forgotten.

Starting from very modest beginnings, you have now nearly 500 students in your two colleges and many hundreds in your high schools. You have tried to meet the special requirements of women by formulating syllabuses in dietetics, the problems of nutrition, and the principles of domestic art. House-hold furnishing and decoration, music and painting have enlisted your special interest.

Your University may be regarded as a specialised institution where both instruction and research in the things that appertain specifically to the women's sphere of life are attended to. Social Service has now become a highly evolved branch of education and administration, and women are peculiarly fitted to play an important part in the organisation and working of institutions like those devoted to the rehabilitation and relief of the poor and the destitute, Beggars' Homes and Reformatories and Institutions for taking care of the victims of social mal-adjustments like refugees, orphans and women who are in need of rescue and re-generation. A University like yours may contemplate part-time service in schools and such institutions as have been described above, and may also organise extension services and private tuition for grown-up women.

The work of this University would have been impossible without the disinterested and consecrated labours of its Founder and First Patrons ; and until the women of India, and specially those who have been trained in Institutions like this, can emulate their example, the problems of mass illiteracy and of widespread education in Hygiene and Public Health cannot be adequately dealt with.

Rajkumari Amrit Kaur rightly stressed in 1949 that the women of India are the natural custodians of the standards of morality and integrity and that by their temperament, educated women are the best agencies for vindicating and advancing the highest traditions of our national character. Experience has shown us that women while normally un-aggressive, can be and have been un-compromising in their ideals and capable of the utmost self-abnegation. These attributes are specially valuable at this moment in our national destiny, when India has to re-organise her economy and social structure. Political freedom is a fundamental requisite for all progress ; but the example of other countries has demonstrated that such political freedom does not always lead to economic resurgence or to the removal of social anomalies and injustices. From the life of my valued friend, Dr. Annie Besant, I have learnt what women can do in the enfranchisement of men's minds and the vindication of human rights. May the example of the women of our land, from the time of Maitreyi down to Ahalya Bai and the consort of Sri Ramakrishna Paramahansa, inspire the daughters of India who are being educated in this Institution and its allied organisations ; and may the education that is imparted within these walls never fail to maintain that closeness to nature and that realisation of the sacred fundamentals which have always made women the preservers and the cherishers of the basic values of life ? Ours is a secular State meaning thereby, that it does not take sides in religious controversies and does not advocate or support any special creed or dogma ; but on the other hand, it is

undeniable that our civilisation and culture are founded on our spiritual resources. The wise conservation of such resources and their utilisation in the daily life of the coming generations, especially in the formative years of childhood and early youth, are vested in the women of India. It is the special function of a Women's University to be alive to these responsibilities and to discharge them as a holy trust.

LUCKNOW UNIVERSITY

23rd January, 1956

MR. CHANCELLOR, MR. VICE-CHANCELLOR, GRADUATES OF
THE YEAR AND FRIENDS,

On being invited by your Chancellor and Vice-Chancellor to add one more to the several Convocation Addresses recently delivered, I naturally sought a justification. My respect for the high intellectual attainments and the valuable contributions of Sri K. M. Munshi to many fields of literature and life, and my regard for the versatile scholarship of your Vice-Chancellor made it difficult for me to deny myself the opportunity of visiting the scene of their labours and of satisfying my desire to meet and to offer my greetings and good wishes to the young men and women who have successfully equipped themselves for the great adventure that lies before them. In addition, it occurred to me that at a time when fundamental problems relating to national, and especially to educational, planning are confronting us and when the Universities are put on their mettle and asked to vindicate their existence, it may not be out of place to discuss some basic principles regarding the essentials and requisites of University activities.

I have perused with great interest the Address delivered before the Annual meeting of the Court by your Vice-Chancellor, and I observe that your University has, apart from many purely Scientific Research schemes, initiated Social and Economics studies, including a survey of the cities of Lucknow and Gorakhpur and an enquiry into the social mobility and capital-labour relations at Kanpur which are directly sponsored by the Vice-Chancellor. Communication and Family Planning

Researches have, in addition, been undertaken at the J. K. Institute. Other enquiries into small-scale industries and social conditions are also being attempted. These developments are a welcome recognition of the need on the part of Universities to participate in national welfare schemes and thus to neutralise the ivory-tower aloofness which, too often, divides the so-called *literati* from the villager and the citizen. In the language of your Vice-Chancellor, "from the University must emanate movements that may renovate Indian Society and re-integrate Indian experience". Specially noteworthy is the extension of tutorial instruction and guidance and the giving of credits in University examinations to tutorial records.

With our historical background, there is no need to emphasise the importance of scholastic training. Indeed, we are accused of over-rating its value. It may be appropriate to point out that Colleges and Universities should serve purposes different from, and higher than, the mere circulation and study of books, periodicals and pamphlets. A library has been defined to be the best type of a University. But, rightly considered, books and such things as Correspondence Classes or even *ex cathedra* lectures cannot be a substitute for the right type of oral instruction. Teachers are important as apart from teaching. Books and dictated lectures may constitute a record or an authority or even an instrument of instruction; but their significance is best understood only through personal contact with those in whom the essential principles actually live. Thus, a University is not only, or even mainly, a place where many Professors foregather, but as Cardinal Newman has emphasised, "it is a place of concourse where students from every quarter assemble for every kind of knowledge. It is a place to which many schools make contributions, a place in which the intellect may safely range and speculate, sure to find its equal in some antagonistic activity and is judged in the Tribunal of Truth. It is a place where enquiry is pushed forward and discoveries verified and perfected and rash-

ness rendered innocuous and error exposed by the collision of mind with mind and knowledge with knowledge". Such was the ideal of Takshasila and Nalanda where, it may be remembered, the completion of studies was not even marked by formal examinations but where the process of teaching was so critical and thorough that unless each aspect was completely mastered by the student, he was not allowed to proceed further.

In the University of Nalanda, sanctified by the residence of the Lord Buddha and Maha Vira, where Nagarjuna taught, admission was restricted only to those who had the necessary background to follow post-graduate studies. It was celebrated as a place where learned men from all parts of the country as well as from neighbouring nations came for getting their doubts solved and gaining proficiency in logical disputation. Hiuen-Tsang has stated that only twenty per cent of those who came seeking admission were successful. It was one of such Universities which Bana described in the Eighth *Uchchvasa* of *Harshacharita*. I shall make a rough paraphrase of a passage. "The King, proceeding on foot and with all reverence to the site of the Forest School, found persons belonging to various countries sitting on rocks, perched on pillows, resting in bowers or under the branches of trees, devotees of various types, Jains, followers of Krishna, followers of Kapila, Lokayatikas, followers of the Atomic School of Kanada, adherents of the Vedas and the Upanishads, students of legal Institutions and of the Puranas, experts in Grammar, adepts in sacrifices, followers of Pancharatra, all diligently following their tenets, pondering, urging objections, raising doubts, resolving them, disputing, discussing and explaining in peace and harmony".

Never so much as at present is it necessary to refer to the above ideal of University life and tradition. The Indian Constitution has constituted India into a Sovereign Democratic Republic based on the ideals of Justice, Liberty, Fraternity and Equality. All our citizens living under a Parliamentary system of Government

have been granted freedom of speech and of expression so as to implement these ideals. A comprehensive and creative scheme of education is the pre-requisite to such implementation. Further, if the Parliamentary Government established under the Constitution is to be a Government by tolerant discussion, our endeavour can never be brought to fruition unless the Universities, as the spear-points of the country's educational efforts, inculcate the art of living together to realise the ideal of unity and to bring about the solidarity of the entire Bharata Varsha, freeing men and women from the domination of irrational or short-sighted slogans and denunciations and from gusts of uninhibited passion. Universities should, moreover, be centres wherein initiative is fostered, and the habit of quick and correct judgments formed not only in class-rooms but on the play-fields, in debating societies and through multifarious social and intellectual contacts amongst young persons resulting in the exchange of thought and the discipline of cultivated and corrective discussion.

The results that are envisaged above will not be forthcoming unless Universities create a fundamental background of self-reliance and self-respect and a moral responsibility towards our neighbours and our society that arises from enlightened tolerance. No quibbling with the implications of a Secular State should blind us to the necessity for the continuance of a basic religious, or rather, spiritual awareness divorced from dogma and ritual and involving a reverence for all religions including one's own as well as a determination to understand before condemning. Such an attitude is part of our heritage, and the Universities must be its custodians and distributors.

Our paramount obligation is, furthermore, to keep alive an atmosphere congenial to the highest creative activity. A hundred or even fifty years from now, when the debates in the Legislatures and on public platforms are all forgotten and after the passing controversies and all but a few of the personalities of today are mercifully

consigned to oblivion, India will mainly be remembered through her Poets, Dramatists and Essayists, by her Architects, Sculptors and Painters, by those who reconstruct History, by great Legislators and Judges, by Archeologists and Geologists, by those who contribute to the fundamental Sciences, by inventors and path-finding Engineers and Technologists and by Chemists and Doctors.

At this point, it is relevant to emphasise that the much-criticised lawyer is an irreplaceable element in the country and not only the practising Advocate but the Conveyancer, the skilled draftsman, the Constitutional Lawyer and the Jurist are indispensable for the proper functioning of the three sets of organs of our body politic, the Legislature at the Centre and in the States, the various Municipal, Administrative and other law-making and rule-making bodies, and the Courts of the country from the Supreme Court to the Panchayat Organisations. It rests on them to interpret and apply the Constitution to the varying and expanding necessities of society, and to evolve a carefully designed body of apt legislation easy of comprehension and free from confusion and not requiring constant amending and tinkering—verbal or substantial.

The active prosecution of Research and of Scientific team-work necessitated by the expansions and specialisation of present-day Science involves not merely the provision of libraries, laboratories, machines and appliances, but the creation of the right *milieu*, and an atmosphere of intellectual concentration.

Considering these essentials of University training, it is very important to ensure that only those enter the University whose aptitudes enable them to benefit by it. A Committee is now sitting for the purpose of investigating whether it is necessary that University Degrees should be prescribed for all services and posts for which they are prescribed at present. It is seen that a Univer-

sity degree is insisted on for a large variety of posts, and even where it is not, graduates are, in fact, preferred. There is also a too frequent demand for Honours or First class graduates for even ordinary avocations and the supply unfortunately tends to follow the demand. There is, thus, an undue rush for University education even among people who have neither the aptitude nor the means for pursuing it. Parents and guardians are forced to gamble on a University course for their wards in default of any other method for securing a gainful occupation. This leads to over-crowding in Universities and incidentally, to the lowering of standards. There is an appalling waste of man-power and of resources and, in many cases, a feeling of frustration is inevitable. During an interview which the recent Indian Universities Delegation to China had with the Ministers of Education and Planning in that country, the latter were asked some questions as to the prevalence of educated unemployment; and the answer was that in China blueprints are periodically prepared regarding the numbers of Doctors, Engineers and various types of Technologists, Teachers and others that will be required for the service of the country. Adding fifteen or twenty per cent to these numbers to provide for wastage, admission to Universities is restricted on a State-wide basis only to this number. Such a step would be neither possible nor expedient under Indian conditions; but what is done in China may well be a pointer to the importance of educational planning with a view to national necessities over a length of years.

On this topic, let me not be misunderstood. It is obvious that, with the planned improvement in scientific agriculture and industries and the expected rise in the standards of living as well as with the provision that has to be made for a large number of merit scholarships as will be indicated later on, the demand for higher education would greatly increase from year to year. Not only specialisation in various branches but the

improvement and extension of higher general education would become inevitable. In fact, the number of students in all our Universities taken together is infinitesimal compared with our requirements, and we must be prepared for a large and progressive increase in that number. But what I plead for, however, is the right type of training and the right type of entrants to our Universities.

The above statements do not also imply that a University career is intrinsically more praise-worthy than other careers or vocations. The present lopsidedness is only due to lack of opportunities for technical or vocational employment. The object underlying the recommendations of the University Education Commission and the Secondary Education Commission was to emphasise that Technical, Technological, Industrial, Commercial and other avenues of useful employment should be expeditiously and adequately provided and varying courses of studies inaugurated, which would be of use to students with diverse aims and skills. At the end of the High School course, an extra year has been allotted, under these proposals, during which period a generalised instruction in Languages, the Humanities and the Sciences is sought to be given. It is stipulated that admission to Professional or Technical Colleges would be open only to those who have completed such a course. These steps are contemplated not specially, or even mainly, for the purpose of restricting admission to Universities, but for providing the scope for different aptitudes and temperaments. A University career should be one of such opportunities, and not the sole means of advancement in life. It should be devised so as to discover and encourage both academic fitness and the capacity to engage in Humanitarian, Scientific and Technical studies of national significance. An entrant to a University, under these schemes, is expected to be intellectually so mature as to make him realise, in the language of the University Commission Report, that it

is his duty to study and not the teacher's duty to make him study.

At this stage, I may cite another experience of mine in the Peoples' Republic of China. There, the equipment, libraries and laboratories, in most of the Colleges, are not superior to ours. There is a great paucity of text-books, even taking into account the continuous output of translations from the Russian language; and the Peoples' Republic issues model lectures on a variety of subjects for use in Colleges. It may perhaps be argued that conditions are thus no better there than in India, where the student has few library facilities and is dependent on notes dictated mechanically to large groups of bored listeners and where, very often, he does not or cannot buy text-books and therefore insists that the teacher should deal with every chapter and paragraph of the prescribed text-books. Instead of being a supervisor and guide who supplements and corrects the personal work of the students, the teacher is often regarded as a mere agency to help in cramming. In China, on the other hand, there is a very widespread utilisation of Discussion or Seminar classes where, after a lecture, students gather together and discuss the lecture, some criticising and some defending, the thesis. The Professor or Teacher is present to supervise and direct the course of discussion but does not dominate it. Such a procedure tends to create the University type, as distinguished from the school-boy type, of student. It is, however, impossible to originate it unless during the Secondary stage, education has been integrated and unless, at the end of it, the boy or girl has some conception of the world at large and of the fundamental facts of basic Science and one or more aspects of Literature and the Fine Arts, and, above all, has learnt to think independently and can look up and away from a particular text-book or compendium. The provision of a large number of copies of standard text-books in the library of each College to enable the poorer students to consult

them rather than the notes, and the holding of Library classes in addition to Seminars, are amongst measures which are urgently necessary in our Universities.

No Convocation Address seems to be complete without some reference to the so-called 'indiscipline amongst students'. I am afraid that I take a different view of indiscipline from that generally held. In the first place, it must be realised that such indiscipline as exists among the youth is inseparable from the general atmosphere of society. Teachers who should be examples of devoted scholarship, of Research and high-minded life, are offered inadequate salaries and therefore are perforce selected from those who choose the teaching profession as a last resort. Their opportunities for living in fairly comfortable quarters and in close proximity with the students are minimal. If, as a result, they are themselves disappointed and disgruntled persons, why and how should the student be blamed if he follows their example, and sometimes, their precept? A true University atmosphere can only be generated where the teachers are contented and regard their profession as their true and sole vocation and mission and are willing and anxious, not only as teachers but as wardens and guides, to direct the life of the student not solely in the University or College campus but with reference to his personal difficulties and problems. It is a great consolation that the Planning Commission and the Central Government have perceived the paramount importance of improving the salaries of teachers. I may here quote from the speech of Dr. J. C. Ghosh at the first meeting of the Educational Panel of the Planning Commission:—"A discontented body of teachers continuously suffering from the lack of necessities of life would, unconsciously, communicate their sense of frustration and their hostility to the existing political structure, to the impressionable minds of their pupils. . . . A profession which is too ill-paid to attract proper men cannot be an efficient instrument for creating A-1 citizens".

Why should students be blamed for overlooking the laws of health, for neglecting organised sports and the opportunities afforded by the N.C.C. and similar organisations or for opposition to constituted authority or for indifference to law and order, for discourtesy or for flouting the rules of behaviour in trams, omnibuses, railways or public meetings, when their elders and leaders furnish melancholy examples of slovenly or unsocial habits and lack of self-restraint and teamwork; and when such alarming manifestations are prevalent, as have been recently witnessed of unrestrained parochialism, narrowness of outlook and obliviousness to the need for unity and one-pointed patriotism? I, for one, am not prepared to cast any special blame on the students unless and until Governments and Universities provide them with adequate and wholesome hostel or other living accommodation in good surroundings, common rooms for conversation and discussion during leisure hours, cafeterias and restaurants where they can get wholesome meals and refreshments at reasonable cost, and play-grounds, swimming-pools and other facilities for in-door and out-door sports and recreation.

There can be no doubt that hunger strikes to protest against non-admission to a College, or non-promotion, or mass demonstrations against the refusal of the authorities to the grant of a holiday or to implement attempts to obtain concessions for cinema performances or free rides in tram cars, omnibuses, or railway carriages are instances of psychological imbalance unbefitting our cultural heritage.

It has often been remarked that a breakdown in discipline is less common in Engineering and Technological Colleges than in other institutions. It may be considered if this circumstance is not due to the fact that students in the former institutions feel that their careers are more or less assured and thus acquire a greater sense of responsibility and more purposiveness in their outlook.

It is impossible to over-stress that no student who is duly qualified for University education should be prevented from embarking on it by poverty. Even during a period of great economic strain and stress, the United Kingdom has seen to it that an average of 70 per cent of the boys and girls in all the Universities receive help from the Central or Local Governments or Public Trusts and benefactions sufficient for their tuition and boarding expenses. In China, a country, in truth, as backward economically as India, there are no fees levied in most of the Universities or hostels. It may also be noticed that leaders of great business organisations, prominent newspaper proprietors and editors as well as leaders of industries in the United States and other countries keep in touch with the Universities and Colleges and pick out those who may be absorbed in various professions and also finance specially selected students during their University course.

The procedure regarding the grant of scholarships at the present time is extremely unsatisfactory. If scholarships are granted at all, they should be sufficient to make provision not only for tuition and other incidental fees but also for boarding and maintenance charges. There is no point in forcing the student, during his collegiate career, to wander around seeking financial help from all and sundry, thus impairing his self-respect and wasting his time and energies. It is gratifying to note that the Central Government have realised this aspect of the matter and are providing for a limited number of substantial scholarships on this basis.

It may also be observed that in many countries, students who do not receive such assistance, maintain themselves in College by engaging in part-time work by enlisting as waiters or cooks in restaurants or salesmen in stores or in the offices of newspapers and journals or even as lift attendants and labourers or artisans.

Some Universities and Colleges have taken up in earnest the question of *Sramdan* or voluntary work by

students. Such work is sometimes resorted to for spectacular effect or publicity purposes and is neither steady nor fruitful. Surely, it ought to be possible in these days when so many protestations are made about the dignity of manual labour, for students to make themselves responsible at least for the repair and maintenance of their own hostels and their furniture and the gardens and the premises of the University campus or College. Universities which emphasise the dignity of labour should feel no hesitation in so arranging their course of studies and curricula as to make it possible to facilitate the activities outlined above.

Many of these remarks are particularly applicable to Residential Universities but may be easily applied, with a few variations, to Colleges and their surroundings.

If we ponder over all that has been stated above, we can visualise how inadequate has been the financial provision for education generally, and for University education in particular, in the First Five-year Plan. Under the Second Plan, the total provision for higher education at the University level is estimated to be about 110 crores out of a total provision of 320 crores leaving out of account, of course, training and research in Technical and Professional subjects. This figure of 320 crores works out at just under 7% of the total estimated outlay of 4,800 crores on development expenditure. It is reported that the Ministry of Education had originally budgetted for nearly thrice this figure and that these estimates have been drastically cut down. May we not venture to assert that in no department of national endeavour and planning is unwise economy likely to be so disastrous as in the field of education? Beginning from the great national enterprises and centres of activity and coming down to the Village Community Projects, no progress is possible unless there are enough persons available who are adequately and specifically educated to implement national purposes.

To recapitulate, Secondary Education has to be re-organised so as to provide a modicum of general knowledge plus such Agricultural or Industrial or Technological or Commercial training as would impart self-reliance and discover and develop special bents or aptitudes. The foremost place should be given in these Institutions to the right type of education in the direction of Agriculture and of small-scale Industries. Consequent upon such an orientation of Secondary Education, there should be an adequate final test which would also and necessarily be selective from the University point of view, for admission to the Faculties of Humanities and the Sciences. Such a test may well serve two purposes : (a) to introduce some kind of uniformity in the standards of admission to the B.A., B.Sc. and similar courses in the Universities, and (b) to find out if the aspirant for admission will be able to comprehend the lectures and discussions at the University level. For this purpose, the candidate should be proficient in at least one European and two Indian languages (Hindi and one other) and should have an acquaintance with the basic principles of Mathematics, General Science and some branches of the Humanities. Such a test should, if possible, be conducted by all-India Organisations like the Inter-University Board or the University Grants Commission. Steps should also be taken to prevent the over-lapping of courses in the various Universities. A general all-round course in several subjects and high specialisation in some selected subjects should be the aim of each University in order that the available funds may be used to the best advantage.

From the above would follow the need to provide for the free exchange of Professors and students so as to approximate to the old European and the present American practice of the student being free to go from one University to another, getting credit for work done and Research conducted under eminent teachers of his choice. A further important advantage would also accrue from the prevalence and growth of such a prac-

tice, namely, the prevention of all parochial, regional or linguistic accentuation. A University would not have served its purpose unless, in addition to scholarship in the Humanities, Research in the Sciences and Efficiency in Professional and Technological studies, it produces citizens who perceive and seek prayerfully to realise the vision of a united, harmonious and self-reliant India, anxious and able to make its special contribution not only to the Arts and Sciences but to the enlightenment and peace of the world.

VICTORIA JUBILEE TECHNICAL INSTITUTE, BOMBAY

11th September, 1956

Our country possesses an immemorial tradition of architectural and engineering enterprise as well as of artistic and efficient craftsmanship in a variety of materials. Our existing temples and palaces as well as the remains brought to light by archaeological research demonstrate accurate scientific knowledge as well as loving artistic elaboration. From the earliest days, moreover, the building of tanks and reservoirs, the training of rivers and the construction of dams and channels for the purpose of irrigation have been characteristic features of Indian life ; and the centuries-old water-courses and irrigation channels in the North and South of India culminated in the achievements of the Chola Emperors, who utilised the flood waters of the Cauvery for well-designed irrigation works many centuries ago, thus fulfilling the duties laid down for Monarchs from the days of the *Dharma Sastras*. It may interest this audience to learn that when I was examining the old files relating to the utilisation of the Cauvery waters, I discovered that the present site of the Mettur Reservoir which my technical advisers had recommended, had really been the subject of investigation in the Chola days.

It is worthy of remark that from the days of Visvakarma down to the most recent times, Indian sculpture, the construction of public works, of Universities and hostels, palaces and Dharmasalas, and the creation of frescoes and statues were all viewed in the perspective of religion. I need hardly remind my friends that the *Silpi* who was designing a bronze image of Nataraja or

of Venugopal or of the Devi was expected to do his work in the light of a *Dhyana Sloka* which was both his guide and his inspiration. This co-existence of a spiritual quest with the task of a craftsman, architect or engineer was and, I trust, will continue to be an Indian characteristic, as it was a feature of European Medieval Art.

Owing to political and social vicissitudes, we lost the inner urge towards organised and corporate labour and individual technical efficiency, which was embodied in the Gita saying "*Yogah Karmasu Kausalam*", namely, "efficiency in work is true Yoga".

The lopsided development of sedentary pursuits and the emergence into importance of clerical, rhetorical and speculative pursuits, pushed practical work into the background so much so that a country which was not only a great manufacturing centre but also exported the ideals, practices and results of its craftsmanship and skill to all countries, was gradually associated with passivity and an incapacity to do things, a scorn of manual labour and an inclination towards debate rather than action. This unfortunate and surprising metamorphosis of the Indian character led to its Arts and Crafts becoming stereotyped rather than original and creative. In addition, the policy of foreign Governments tended to discourage local initiative and eliminated indigenous inspiration. It was for this reason that, as part of the Indian Renaissance about the middle of the last century, leaders of thought and statesmen insisted on the recapture of the old technical skill and the regeneration of economic and technical capacity and self-sufficiency.

In the Souvenir issued on the occasion of the Golden Jubilee of this Foundation, it has been proudly claimed that the same impulses that were instrumental in the inauguration of the Indian National Congress and the same persons that led the political, economic and social movements nearly seventy years ago, were also responsible for the origin of the Victoria Jubilee Technical Institute. Some of the greatest personages in the political and intellectual history of India have been associated

with this Institution. The names occur to us in this connection of Dadabhai Naoroji, Sir Phirozshah Mehta, Sir Dinshaw Wacha, Justices Ranade, Bhadrudin Tyabji and Telang and of far-seeing and philanthropic capitalists like the members of the Jeejeebhai, Wadia and Petit families. The funds that formed the nucleus of the Organisation were derived from monies collected for the Ripon Memorial and the Royal Jubilee, although the largest single contribution came from Sir Dinshaw Petit in 1885, the year of the inception of the Indian National Congress. Like similar Institutions, this also witnessed early vicissitudes and tentative experiments ; but, from the beginning, it enjoyed the unswerving support and assistance of the textile and other industries as well as of important manufacturers abroad. It can truly be stated that the Central and Bombay Governments, the public of the State, the Bombay Corporation and the mill-owners have co-operated in making this, the oldest Institution of its kind in India, also the foremost Central Technical Institute in this State.

The Institute started with a Diploma Course in Mechanical Engineering with special application to textile manufacture ; but Electrical Engineering, Applied Chemistry and Sanitary Engineering were soon added to the curriculum ; and from 1913, this has been recognised as one of the main Technical Institutes in the country ; and it has had the good fortune to acquire an extensive site for its lecture halls, workshops and laboratories, such facilities having been gradually but continuously expanded, thanks to the generous capital and recurring grants from the Central and Local Governments. Not only has the Diploma Course been made extremely comprehensive but about ten years ago, Degree Courses were established in Textile Technology and Mechanical and Electrical Engineering ; and, as a result of the recommendation of the Sarkar Committee, the All-India Council for Technical Education gave full recognition to this Institute which added a Degree Course in Civil Engineering in 1949 and initiated, with the co-operation

of the University of Bombay, a well-designed Degree Course in Chemical Technology and Chemical Engineering. One of the useful developments that may be recorded is the institution of a Post-Diploma Course in Automobile Engineering five years ago, with the help of the State Transport Corporation.

The Institution has been fortunate, as already stated, in getting large grants from several sources and its present annual budget approximates to ten lakhs of rupees. It is also now engaged in advanced work in the domain of Research and Post-Graduate Courses and occupies itself with many specialised investigations in relation to the industries of this progressive State. There are over 2,300 students attending the Degree and Diploma Courses and, in addition, over a thousand persons are attending evening and morning classes devoted to the part-time training of apprentices and employees in industry.

I observe that the hostel accommodation provides only for about 350 students. Residential facilities are thus provided for less than 25 per cent of the permanent strength of the College. In view to the extreme importance and indispensability, especially in the fields of Technical, Research and Higher study, of constant and intimate contact between the teachers and the taught, this proportion is unsatisfactory, and I trust that this important Polytechnic will take early steps to improve and enlarge its hostel accommodation.

I notice with gratification that strict tests of physical fitness are imposed for admission to the Institute and that, in addition to a knowledge of Chemistry, Physics, Mathematics and Drawing, a workmanlike acquaintance with the English language is made compulsory. While on this subject, it is to me a matter of deep satisfaction that both the Prime Minister of India and the Minister for Education have, in their speeches during the recent Conference of Education Ministers, emphasised the importance of a competent knowledge in English as an essential part of technical training in

India. As pointed out by both of them, while Hindi may be a unifying link between various parts of India for several purposes, it cannot possibly supplant the regional languages of India; and the regional languages cannot also ignore or eliminate an international, or rather a universal, language like English.

The importance of acquaintance with the English language, not only from the point of view of conversational facility but of a working knowledge of its idiom and accent cannot be over-estimated. The unparalleled variety of its literature has to be borne in mind including not only the literature of emotion and philosophy but also the literature of Art, Science and Technology. The progress of technical and scientific knowledge and of research is measured and chronicled not only in formal books and treatises but in periodicals and journals which, from time to time, review and sum up the advances made in these spheres. Without a competent knowledge of the language, it is impossible for a Technician or Scientist to keep himself abreast of the rapid and never-ceasing developments in these directions. Until and unless Hindi and other Indian languages evolve the same variety and quantity of literature, Indian youths should, in fact, as Russian, German and French youths do, study another modern language in addition to English, *e.g.*, French, German or Russian. It may be noted that after many shifts of administrative and educational opinion, the recent Conference of Indian Education Ministers has insisted on the compulsory study of English at the University stage and given English and Hindi an equal place in the secondary stage.

To adopt any other course and to impart instruction in the Universities in the regional languages, as is now being advocated in some places, would be, in reality, to handicap the alumni of Universities and Polytechnics in their after-career and also in their present studies. The Five-Year Plans to which we are committed must be regarded as having an All-India scope as well as an All-India importance, and the availability everywhere of the

best talents must not be jeopardised by self-created barriers of language.

Statesmen responsible for the initiation of national plans and programmes have realised that the world is fast becoming an Engineers' world and that in order to carry out our indispensable national programmes, trained man-power devoted to Industrial, Scientific and Agricultural work and Research is an absolute *sine qua non*.

While on this subject, it is not out of place to envisage the magnitude of the work that lies ahead of us. While I was recently travelling in China, I learnt that the Peoples' Republic is straining every nerve to produce about 10,000 Engineers of various types per year, and the programme of Soviet Russia contemplates thrice that number as the annual output. Although there may be some who may hark back to a past of simple and uncomplicated living, and who would deprecate high-speed industrialisation and the rapid and inevitable replacement of manual labour by automatic machinery, yet in this competitive world of ours, where space and time have manifestly shrunk and where it is impossible for any country to live in an ideological island, India cannot but take an honourable part in the quest for higher standards of life and for the rapid expansion of all types of heavy and light industries.

In order to obtain an adequate perspective of the world situation, let us contemplate certain revealing figures. In 1953, 61 million people or about 55 per cent of all persons in the United States over the age of 14 were making a living through participation in the economic process. Over 15 million of these were proprietors, farmers, managers, professional people and technicians (mainly engineers), and 21 million were craftsmen, operatives and kindred workers. Clerical and service workers amounted only to 16 millions. Self-employed businessmen and independent farmers and professional people totalled two-thirds, and the salary group was only one-third. The income of unskilled workers was in the neighbourhood of \$ 2,500 per year,

and of skilled and semi-skilled workers and professional and other people including technicians ranged from \$4,000 to \$6,000 per year, the weekly earnings in the manufacturing industries being nearly \$80 in 1955. A recent study has disclosed that the expansion of American economy, which has now reached a peak level, has resulted in an increase within the last five years of 8.50 dollars in the weekly earnings of factory workers. Even a superficial scrutiny of such figures will indicate the extent of the leeway that has to be made by us. What was termed the *laissez-faire* policy in the sphere of European capitalism was really economic anarchy and it led to economic dictatorship which existed uneasily by the side of the so-called political democracy. This policy produced a movement towards socialistic ideals and led to drastic social reform. Americans claim that their system of capitalism or free enterprise has succeeded in achieving by different means the same results as are envisaged under a Socialistic Economy. It must, however, be remembered that only about 7 to 8 per cent of the fifty million family-units in the U.S.A. did not own property in the form of real estate, or industrial or liquid assets. Further, although the management of such means of production as steel, motor, electric, chemical and rubber industries is concentrated, yet it has been computed that there are over seven million people who share in the ownership of more than half a million Corporations. In essence, two progressive countries, Switzerland and the United States, can be justly described as nations of worker-proprietors. There is so far, little conflict, in America, between the consumer and the producer, as the main consumer is himself a worker employed or self-employed. Such is the background of the most industrial nation in the world where, owing to its special pioneering tradition and the abundance of natural resources co-existing with a comparatively limited population, an over-all State planning is regarded as destructive of economic initiative. The planning that has, however, been adopted in the United States is

in the direction of skilful and comprehensive training in the spheres of liberal and vocational education. It is there realised that not only are technically qualified people essential such as trained economists, statisticians and technical experts but that a liberal humanistic education is most valuable. A technical expert has to know how to organise, to produce, to buy and to sell, and has also to understand the relationship of his own activity to the social structure as a whole; and he should be able to appreciate the inter-dependence of the various aspects of social life. The businessman and the industrialist, in other words, have to look beyond their immediate sphere of activity and must advert to the various elements of the economic and social structure and their inter-relation. American labour itself is, in reality, capitalistic in composition and even the American Labour Organisations have, in consequence, rejected nationalisation and over-all federal planning, the role of the State being confined to the prevention of financial monopolies and anti-social trusts and to the regulation of public utilities and banks.

Many of the aspects indicated above have very little applicability to conditions in India and can only be understood when we keep in mind that the American national income represents nearly half the total income of mankind, and that the Americans, on account of their natural resources and industrial initiative, produce over two-fifths of all the goods and services in the world and about three-fifths of all the manufactured goods. More than half of all the American families own their houses, and American families own more than fifty million cars and 125 million radio sets. The industrial leadership of America may be better comprehended when we see that the income from land and capital, namely, rent, interest and distributed profits is only one-tenth of the total national income. Primary and Secondary public schools are entirely free, the cost of education which is about \$ 300 per pupil per annum being borne by the tax-payer. The outlay on technical and scientific research and

developments alone is 2½ billion dollars and President Eisenhower has recently stated that "while Federal expenditure is being cut in many directions, outlays on research and development have grown and such research in Universities, technical and other Institutes and laboratories has given us many new industries and products including Atomic Energy, Radio-active Electronics, Helicopter, Jet Engines, Titanium and heat resisting materials, plastics, synthetic fibres, soil conditioners and many others." In addition, private industries spent nearly two billion dollars in Scientific Research, there being more than 300 private institutions of higher scientific and technical learning. The results achieved in the United States by such education and training taken in conjunction with their taxation schemes have practically eliminated not only a parasitic upper class but also an unemployed or unemployable lower class; and Abraham Lincoln's ideal of placing labour on at least an equal footing with capital has been largely attained.

To enumerate all these aspects of American economy is not to assert that we should mechanically or slavishly copy all its features. Under existing Indian conditions and with our special background and tradition, it has been felt that a different approach towards the problems of capital and labour is not only justified but inevitable. It is in this context that the Constitution of India has gravitated towards what is described as the socialistic pattern. The problem before us in India is therefore the reconciliation of the pursuit of such an ideal with the maintenance of wisely-organised and well-directed private enterprise, whose importance cannot and should not be minimised. We must achieve a further reconciliation between our social ideals and the industrial and manufacturing developments, without which India cannot adequately function in the world as at present constituted.

It may be noted that the Union Ministry of Labour has recently produced a Report whose thesis is that productivity in the Indian Engineering Industry can be

largely increased without much additional capital investment by the co-operation of worker-representatives and engineers and the managements in work-studies to ensure all-round improvement. This project has had the support and co-operation of a number of companies in Bombay, owning foundries, machining-works, fabrication, machine-tool and other engineering plants as well as of employers and workers organisations.

In effecting such reconciliations and helping to produce an atmosphere of industrial and agricultural efficiency, Polytechnics like yours have a significant part to play. They will not only have to produce entrants to Governmental and corporate concerns and enterprises but actively to foster the growth of an independent Engineering profession, which should act as a pioneer and path-finder in business and research. It must be admitted that Technical Institutions are, of necessity and on account of the paucity of private endowments and benefactions, dependent upon Government finances; but it is, nevertheless, fundamentally true that unless Institutions like the V. J. T. Institute are not only nominally autonomous, but have actually a great deal of effective independence and spontaneous initiative, the best results cannot be achieved. Not merely Universities and centres of Humanistic studies but Technical Institutions have to generate and resolutely cherish their autonomy and self-reliance; and technical as well as other types of education must be regarded as instruments for generating the spirit of freedom and for evolving human personality in whose efflorescence alone lies the possibility of the best types of knowledge, research and inspiration.

The needs and demands of a Welfare State and of the Plans which will ensure its creation and survival are comprehensive and ubiquitous. Not only in the departments which you already cater for but in the fields of Marine Engineering and Aeronautics is there immense and immediate scope for development; and the im-

portance of Hydraulic Engineering and of the study of the problems of flood-control cannot be over-emphasised.

In this connection, it may be permissible for me to refer, in passing, to an idea which I adumbrated many years ago, when I was in charge of the Public Works and Irrigation Departments of the Madras Government and when I was engaged in piloting irrigation and hydro-electric schemes in the south of India. At that time, I contemplated and pleaded for the investigation and implementation of a plan to connect the various river systems of India by bringing into existence an inter-linked and trans-continental water-way which will not only serve to control floods and serve the purposes of irrigation and hydro-electric development but also make it possible for inland water traffic throughout the length and breadth of the country on the lines already demonstrated in Soviet Russia and in many parts of Central Europe. At the time when I was discussing such possibilities, there were difficulties arising not only from the apathy and financial inertia of the Central Government but from the assertions of conflicting rights and privileges by several Provinces and Indian States. Now that a strong Central Government has come into existence, such a project is worthy of revival and I am glad that prominent individuals are thinking on these lines. Such enterprises are dependent on the accelerated production of Technicians, Engineers, Scientific Agriculturists and Chemical Engineers by Institutions like yours.

Having said so much on the importance of Polytechnics for the future development of our country, I shall draw your attention to the need, even for Technical specialists, to have a background of general education and a working knowledge of the various forces and influences, political, economic and social, that operate in the world at large. Increasingly do people appreciate the need for avoiding one-sided development which exalts Science and Technology at the expense of moral and spiritual as well as emotional perspectives. The complexities of the present world situation, to no small ex-

tent, arise from the enthronement on a lone pedestal, of Theoretical and Applied Science without reference to the claims of moral, spiritual and religious values. India may be a Secular State but, we are all agreed, I hope, on insisting that she can and should never be an irreligious or an intolerant or de-spiritualised State. Hence arises the importance of a wise co-ordination of educational and spiritual, though non-dogmatic, ideals. To promote such ideals a plentiful supply of adequately and comprehensively trained teachers is indispensable. In order to fulfil the objects of the Five-Year Plans, what is required in addition is a realisation of the importance of sustained and scientifically-organised work. Such work will never prosper unless it is animated by a spirit of dedication and a self-effacing and altruistic endeavour which is truly spiritual in character. The performance of such a task is also dependent not so much on finance as upon the emergence of the right type of human material. To create leaders of industry and of business organisation imbued with the above ideals is the first task before our statesmen. For the purpose of achieving this end, it is, in my opinion, an inescapable requisite that we should, in the immediate future, concentrate on University and Technical education more strenuously and with more earnestness than even on such fundamentally valuable departments like Primary and Secondary education. In this matter, I am entirely at one with the outlook and attitude of the learned Vice-Chancellor of the Bombay University. A programme to produce teachers, leaders, industrial pioneers and creative technicians must be the first care and preoccupation of a people engaged in implementing the aspiration towards a Welfare State.

BANARAS HINDU UNIVERSITY

21st December, 1956

In response to the kind invitation of the Vice-Chancellor, I am appearing before you in two capacities, namely, that of an apologist and that of a champion. My apology is due to the authorities and students of this celebrated all-India Institution of which I gladly accepted the Vice-Chancellorship, interrupting the work of a sister Residential University wherein I was instrumental in commencing some new and creative activities. I came here full of hope and, at the same time, fully conscious of the staggeringly onerous responsibilities that I assumed. I shall indicate, in the course of this Address, the lines of consolidation and of progress which I had placed before myself as my ideals and which, thanks to the unflinching co-operation of the Central Government and of my academic and administrative colleagues, attained a degree of success which surpassed my legitimate expectations. I soon discovered, however, that the comprehensive and exacting duties towards the Institution as a whole and personally towards the teachers and students of the University demanded such concentration and duration of effort that it was not possible for me, consistently with such obligations, to complete certain literary tasks for which I had been collecting materials during many decades and in respect of which I have definite commitments. I realised that, in order adequately to discharge the tasks that devolve on your Vice-Chancellor, he should perforce regard the office as a truly full-time job ; and, perceiving, in the words of the old poet, "time's winged chariot hurrying near", I concluded that it was due to the University that I should yield place to one who could give the indispensable and

continuous attention which the affairs of the University need and deserve. My apology, therefore, is founded on the truth embodied in the Latin maxim, "*Ars longa vita brevis*", Art is long and time is short. Genuine as my regret is on ceasing my active connection with this University, I may, yet assert that my interest will be unabated in its future welfare and achievements. My regret, moreover, is tempered by the consciousness that a tried and popular administrator has succeeded me in my office.

I have been, and will continue to be, a champion of this University for the reason that it represents a unique tradition and is pervaded by a characteristic atmosphere. It is not for me, before this audience, to emphasise that the glory of this University lies not in its area of over a thousand acres nor in its architectural environment nor, again, in its situation by the side of the storied river whose course has witnessed the intellectual and spiritual struggles and achievements of innumerable generations. It is not even the recollection that Vyasa and Buddha and Sankara and Dhanvantri consummated their missions in this hallowed spot. Its special glory is that, at a psychological moment in the chronicles of this country, Mahamana Pandit Madan Mohan Malaviya, the contemporary of Gokhale, Aurobindo Ghosh, Surendranath Banerjee, Mahatma Gandhi and Bal Gangadhar Tilak, stimulated like them by the burgeoning renaissance of the country, became the protagonist of a constructive and universal though vitally Hindu movement. Fortified by the magnanimous self-sacrifice of another great leader, Dr. Annie Besant and colleagues of hers like Dr. Bhagavan Das and supported by farsighted philanthropists like the Maharajas of Darbhanga, Banaras, Bikanir and Mysore and the Rulers of many other States in North and South India and Rajputana, he inaugurated, in 1921, an Institution designed to fulfil epochmaking expectations of being an all-India Residential Centre of multiform education and inspiration. The spirit and the culture of India had pervaded many

parts of the globe in ancient days, and it is not a small thing to have revived those traditions and those potentialities.

The Banaras Hindu University was the first specifically residential and teaching University in India and its avowed object was to resurrect the pristine Indian culture and to revive the racial traditions of keen investigation and all-embracing harmony that characterised the Gurukulas and famous centres of learning like Taxila, Nalanda, Kashi and Kanchi. Side by side with such objectives, the founders of this University were vividly conscious of the inevitable impact of modern science and technology on the mind of the East and resolved to make scientific, technological and engineering training an essential part of the work of this University.

One of the chief purposes of this University is also the preservation, exposition and popularisation of the best thoughts of India. This is an enormous task and demands systematic and continuous work on the part of the College of Indology and of the Sanskrit Maha Vidyalaya. That work cannot be achieved by occasional and sporadic publications and discourses. Further, this University was intended to be, and should be, a nucleus of activity in research and invention and in the publication of the results of such research so as to advance and diffuse humanistic, scientific, technical and professional knowledge. But, above all, one of the proclaimed ideals of the University was the building up of the character of our youth by making religion and ethics an integral part of education. Some of these aspects have received less than the requisite attention after the demise of the Founder and need careful and unremitting devotion on the part of this University. The desired results can be attained only when the Institution really fulfils its character of a teaching and Residential University.

The vitality of a teaching University must inevitably be in proportion to the intimate communion it generates between the teacher and the taught. The

- increase of the teaching staff and the maintenance of the right proportion between the numbers of the teachers and the students (which, in many great foreign centres, is one to five or six) can alone bring about lively contact and repercussion of mind and soul and the possibility of discussions and demonstrations in preference to set lectures. Equally important is the provision of a sufficient number of hostels, playgrounds, swimming pools and other facilities for a healthful and stimulating corporate life as well as accommodation for teachers near the residences of the students which will enable them to discharge their fundamental task. The ancient and proven method of teachers rather than teaching, or in other words, of the personal influence of a master and the initiation of a disciple, cannot be conceived without these pre-requisites. If, in the language of Cardinal Newman, a University is to be a place where enquiry is pushed forward and discoveries verified and perfected, rashness rendered innocuous and errors exposed by the collision of mind with mind and knowledge with knowledge, such requirements cannot be satisfied unless ample opportunities exist and are fully availed of to enable young men and women, students from every part of the country holding every shade of opinion, eager, curious and inquisitive, to meet one another and their instructors for investigation and disputation, tending towards eventual harmony and reconciliation. Indeed, such contacts among the students are more important even than lectures and demonstrations. The value of team-games and of Institutions like Rovering and the N.C.C., of debating Societies and Unions, of library classes and excursions arises from a well-conceived conspectus of educational progress. Much has been done in this University along these lines ; but, as I discovered when I took charge of my duties as Vice-Chancellor, very much more remains to be achieved.

The finances of this University which were very soon after its creation found to be incompatible with its ambitions, owed their genesis and accretion mainly to

the labours and to the wide-spread influence of Pandit Madan Mohan Malaviya. This University, almost until the advent of Independence, was regarded as a centre of disaffection and sedition; and even an objective and non-political Vice-Chancellor like Dr. Radhakrishnan was faced with the problems arising from the distrust of the authorities which had the effect *inter alia* of affecting the financial position of the Institution. It is a matter of great satisfaction that the Central Government have now assumed the responsibility for recouping the deficits in the budgets of Central Universities like ours. It is equally a matter for congratulation that the University Grants Commission has been established with a view not only to stimulate, canalise and finance learning and research but, by preventing over-lapping and by a wise concentration of resources, to ensure harmonious development throughout India of University facilities suited to the potentialities and the resources of each centre of learning. It is also satisfactory that the Commission has decided to give interest-free loans to Universities for the construction of hostels under the Second Five-Year Plan and that a scheme for a similar grant by the Central Government to affiliated Colleges is under consideration.

The Radhakrishnan Report, in its useful remarks on the Banaras Hindu University, stressed two points which need to be constantly borne in mind, the first being the preservation of the all-India character of the University, and the second, the development of the residential arrangements. In the words of that Report, the pressure on available space in the hostels is very heavy and even with great congestion, the University is able to accommodate much less than fifty percent of its enrolment in the Residential units. The original idea of a Residential University has thus been only partially fulfilled, and the University should expand and vastly improve its residential amenities. Fortunately, the liberality of donors and the encouragement of the Central Government have made some improvements possible in

this respect, but the deficiencies are obvious. When I assumed charge as Vice-Chancellor, my first pre-occupation was to improve the roads and the water-supply and drainage systems which had been long neglected owing to lack of funds, and to alleviate the extreme congestion and confusion prevailing in the hostels and to plan for new hostels. Even during the short time of my tenure as Vice-Chancellor, important developments were carried out owing to the generous assistance received from the Central Government and the co-operation of my colleagues, and especially by reason of the unwearied labour and enthusiasm of your Pro-Vice-Chancellor, Sri Bijawat. We are far, far away, however, from the ideals of a truly Residential University.

My thesis has always been that some Institutions or at least one Central Institution, like the University of Banaras, should be built up as a model to the country at large, that such a University should be provided with teachers sufficient in number to reproduce, at least to a partial extent, the Gurukula system; that the students should live not in luxurious but in wholesome and well-ventilated buildings and surroundings and be supplied with nourishing food provided by restaurants and agencies in whose maintenance and supervision the students and teachers are co-operatively interested; that facilities for every kind of team sports and Yoga training should be provided as of equal importance with accommodation and that, moreover, University Unions, Debating Societies and Associations should serve their true purpose of embodying and demonstrating the corporate and social possibilities of students, whose diverse faculties and outlooks are thereby integrated into a composite harmony. Then alone will the University begin to possess an inner vitality based on the right type of atmosphere and tradition.

The recommendations of the Radhakrishnan Commission and other factors have resulted in the shedding of the University's denominational character, and efforts have been made to preserve and maintain its all-India

character. Nevertheless, in the nature of things, a very large proportion of its students is derived from the U.P. and Bihar and other contiguous States, especially in the non-technical departments. It may be remarked, in this connection, that on account of financial difficulties and other reasons, this University has not been obtaining that help from the Governments of States like the Uttar Pradesh and Bihar that one may expect. This is a matter to be carefully considered not only by the Governments concerned but by the public of the localities in question and by the University Grants Commission.

It is now my duty to refer to certain topical matters that are arousing keen interest in educational circles. Education involves awakening and certainly neither a closed mind, nor smugness and complacency.

नविद्यतेविनाज्ञानं विचारेणान्य साधनैः

“Discriminating wisdom is not attained save through dialectic investigation”. If this proposition is accepted and fully and wisely implemented as well as Asoka’s exhortation समवाय एव साधु. “Reconciliation and harmony are the best methods”, we shall be able better to face the question of the so-called indiscipline among students. I have already alluded to the circumstance that necessarily and inevitably this University, during several years, reflected the political temper and activities that preceded the attainment of Independence by India. Certain methods were adopted and certain attitudes of mind were encouraged which have, unfortunately, but not un-naturally, persisted after the attainment of freedom. But any indiscipline among students, now as then, must only be regarded as a natural replica of indiscipline among their elders ; and if there is any lack of charity, lack of self-control, the emitting of out-worn slogans or the continued recourse to inappropriate nostrums like hunger-strikes or stoppages of trams and railways, the evils cannot be solely attributed to Universities. At the

same time, it is arguable that Universities should be the nurseries of poise and a sense of proportion and should furnish an example to the world at large. In my opinion, such an example can be set by the Universities and the much-desired atmosphere of outer peace and inner dynamism produced if, and only if, the following conditions are fulfilled :

(a) The teachers should, as envisaged in the University Commission's Report, the Secondary Education Commission's Report and the ideals set before the University Grants Commission, be adequately remunerated and their prospects and future suitably provided for. By these means alone will the teachers become centres of unruffled enlightenment and also the inculcators of a disciplined and purposeful student life. The number of teachers has also to be increased as already emphasised, in such a manner as to bring about personal contact between the teacher and the taught. Set lectures and elaborate and one-pointed notes should not so much be the object as personal discussion, library classes and seminars. The teachers should consider it their duty to deal not only with the educational but also the personal problems of their students and should have the necessary moral background and authority for fulfilling this important function. A discontented set of teachers, faced with meagre prospects and with little social prestige, always agitating for improvements in their status and remuneration and constantly elbowing each other or on the look-out for alternative careers cannot but be object lessons in frustration and discontent to the student population.

(b) The physical, mental, recreational and moral needs of the students should be anxiously attended to by the improvements already indicated in hostel accommodation, in the provision of smaller classes, in the avoidance of the ideal of formal lectures to large classes and the substitution therefor of a system by which the students instinctively look to their instructors not only for the solution of their intellectual difficulties but of

the numerous problems that are inseparable from the impressionable periods of their adolescent existence.

There is a real distinction between indiscipline and restlessness. Restlessness, if by that term is meant the quest of psychological and physical adventure, is, and should be, the characteristic of youth. Indiscipline results mainly from frustration and lack of proper direction. The cure for indiscipline, therefore, is the removal of the element of frustration in our scheme of studies and in the relation between the teacher and the taught. Above all, frustration originates from the ever-present anxiety of the student with reference to his future. I shall firstly deal with the position of the student during his University course. England furnishes a remarkable example in respect of the financing of the national system of education. Full-time schooling has been made free for all children in popularly maintained Primary and Secondary schools. In April 1945, fees in all types of Secondary schools, including voluntary schools, were abolished and the school-leaving age was raised to 15 in April 1947 and is proposed shortly to be raised to 16. In respect of higher education, whereas in India only 35 crores of rupees have been provided for the University Grants Commission out of the total of 4,800 crores envisaged for the Second Five-Year Plan, the total number of awards of scholarships current in 1955 in the English Universities was about 7,000 and scholarship awards by Local Education Authorities amounted to a total of 35,000. Without a doubt, it may be averred that in the United Kingdom about 80 per cent of the students studying in the Universities receive adequate financial help from the State, from Local Authorities and from organised philanthropic agencies. Not very dissimilar is the case in Canada, Australia and New Zealand. It is claimed that higher education is almost fully subsidised in the Soviet Republic and, to my knowledge, the Chinese system of higher education imposes very little financial burden on the student who is, however, carefully selected with reference to his

suitability for University education. There is, in these countries, an outstanding sense of obligation to give facilities enabling everyone to rise to the highest altitude in education that is possible of attainment by a person according to his or her capacity and potentiality. As late as the 22nd November 1956, an announcement was made in England of a special grant of 36 million pounds for the erection and extension of University buildings. An almost equal amount has been given for the extension of technical colleges and the Royal Institute of Technology. It is worthy of note that these awards have been made at a time of grave financial and political uncertainty in the United Kingdom.

I have been pleading both in the University Grants Commission and on the Inter-University Board (along with leaders like Dr. Lakshmanaswami Mudaliar) for a complete revision of our ideas regarding studentships at the Universities. The poverty of the average Indian student is notorious and, as I know personally, he has to resort to desperate expedients to meet the expenses of his maintenance and education. It is incumbent on the State to see that no person who is fitted, not solely by his inclinations but by his aptitude, to benefit by a course of higher study is precluded from pursuing it. The scholarships that are granted should not be of a token nature such as Rs. 5 or Rs. 10 per month (as is too often the case) but enough adequately to provide for the student's college, library and sports fees and the expenses incurred in hostels and societies. It is a matter for satisfaction that the award of some scholarships of Rs. 100 per month has been announced by the Central Government. This should be the first step in a well-designed and country-wide programme. The leaders of the future and the architects of the Five-Year Plans can be generated only by Universities.

These considerations bring me to the connected question of admission to Universities. It is a truism that University authorities now find it difficult to refuse admission to candidates for the reason that there is no

avenue for a profitable or useful employment save through the University corridors. A Government Committee has recently submitted its report on the subject of the relation of University Degrees to public and other services; and the State will, no doubt, if the Report is implemented, create sufficient opportunities for employment without a compulsory recourse to a University. A University should be the resort only of those who are fitted by aptitude and ardent desire for higher studies and research. Young men should not enter its portals merely because they can do nothing else to fit themselves for a gainful and useful existence. Without a limitation on admissions to *bona fide* and intrinsically fit aspirants for humanitarian, scientific, technological or professional study and research, most of the reforms previously adumbrated cannot be brought into operation; and this is a topic which calls for calm and dispassionate thinking. The automatic and unpurposeful increase in admissions to Universities is destructive of efficiency and discipline as well as of real study. The problem brooks no delay in its solution.

The continuing increase in our population, the upsurge of many communities and classes that are newly and rightly clamouring for higher education and the progressive increase in the standards of living cannot be ignored. The remedy is the creation of more centres of diversified study in different parts of the country, urban and rural, and not the over-crowding of already congested Universities. In order to fulfil the demands of a Welfare State and to give equality of opportunity to all citizens, the State should make effective provision for ensuring different types of appropriate education, elementary and higher. The ancient Universities of the West made a differentiation between their Pass Courses and higher studies. Anyone could get a modicum of liberal education and obtain the benefits of corporate University life as a part of humanistic training. Though such a provision existed, the Universities regarded it as their main function and obligation to subserve the needs

of concentrated higher studies. It may be considered whether we should not, in India, have Institutions other than Universities which may, subject to the limitations of finance and personnel, give such broad general education to the citizens, so as to be a grounding for the numerous avocations and professions for which they may qualify themselves later. Such an idea underlies the scheme of general education which has been advocated by the Secondary Education Commission. It is admitted that the study of literary classics opens the gates to new worlds of thought and leads to the appreciation of essential ideas on philosophy, religion and the problems of society. It is recognised, as has been stated by Sir John Lenard Jones, the Principal of the University College of North Staffordshire, that this study imparts not only cultural quality but has incalculable moral value. The study of science preserves and takes advantage of the gift of curiosity and the instinct for investigation. University studies today are very often designed by specialists for specialists ; and in order to offset the tendencies towards excessive specialisation, the University of Staffordshire was founded by the efforts of Lord Lindsay, and it provides, for the first time, a general type of training. It does not, at the outset, cater for the specialist. Its course is intended to furnish students with some appreciation of the inter-connection of the main branches of knowledge rather than an intense comprehension of any one. It is not intended to prevent students from becoming specialists later on, the idea being that the students will be all the better if, with the background of the main branches of study, they turn their attention to a particular field in their later and post-graduate work. When the recommendations of the Secondary Education Commission are implemented by means of the pre-University courses and the multi-purpose schools contemplated in the scheme, not only will more chances of immediate and gainful employment be available to the students so trained, but also the role of the Universities as agencies for the imparting

of intense methods of training to those who are truly fit for it and who do not regard Universities as a *pis aller* will be more clearly recognised.

The Engineering and Technological Faculties of this University are deservedly famous all over the country and have attracted an ever-increasing number of diligent and efficient students. By their constitution and their possession of many of the desiderata outlined above, they turn out, in the main, a purposive and disciplined group. I have no doubt that the Departments of Engineering proper and Chemical Engineering will be greatly extended so that the contemplated developments in such fresh directions as the handling and knowledge of jet aircraft and jet engines may also come within their purview, and facilities like an aerodrome and a centre of aeronautical research may be provided. The announced programmes of the Central and State Governments comprise a large expansion in the number of such Engineering, Technological and Industrial Research Institutions and in respect of the facilities and amenities therefor.

I also regard it as essential that a vigorous School of Architecture should come into existence in Banaras so as to furnish the needful inspiration to an art and technique which today are too often derivative rather than original and which are not based on our specific needs and traditions. I, for one, have lamented that in the creation of new capitals in India, our own traditions have sometimes been subordinated to the theories of foreign experts with different backgrounds.

This University has the proud privilege of possessing a large store of original paintings, sculpture and other works of art. North India has evolved a School of Painting as *sui generis* as South Indian Sculpture and Architecture; and a properly organised Degree Course in the Fine Arts should be one of the departments which we should work for. Equally urgent with such a development is the fulfilment of the ambition which underlay my appointment of a Committee for the

extension of the scope and objectives of the College of Music. The all-India character of this University should perforce lead to such an extension as will embrace all Indian schools of music and will be an example and stimulus to musical theoreticians and exponents of instrumental and vocal music, illustrative of the varied genius and techniques developed in different parts of the country.

There is an ancient tradition of planetary and Stellar Observation in Banaras which may well be revived. There is urgent need today for astronomical and meteorological work even apart from official Observatories; and Banaras would seem to be an appropriate centre.

The Radhakrishnan Commission Report has definitely stressed the importance of establishing a Medical College. We have already made provision here for an Ayurvedic Medical College and a Hospital, both of which however require much improvement and expansion. I look forward specially, in the near future, to the provision of sufficient facilities for research in the Ayurvedic system of treatment and pharmacopoeia utilising fully the methods and materials derived from modern science as well as from ancient lore. Our ancients did not disdain to learn from the Yavanas, and we should have no hesitation in welcoming new ideas and new methods from every possible source, our object being the widening of the scope and possibilities of the healing art and public health activities.

Another idea has been constantly recurring to my mind both during and after my residence in Banaras. Lord Buddha preached in Sarnath, and Sankara commenced his apostolic adventure in Banaras mainly because, at that time, Varanasi was the clearing house of ideas and the place of origin for new inspiration and intellectual endeavour. To fulfil completely the ideas of its Founder and to maintain its character as a radiating nucleus of Hindu culture and thought to be envisaged in harmony with the most recent developments of

science and speculation, it seems very appropriate that this University, in supplementation of the normal work of the Philosophy and Psychology Departments, should devote special attention to the fast-evolving science of experimental psychology and para-psychology. These activities have awakened world-wide interest by reason largely of the instruction and the laboratory experiments originated by the Duke University from 1930 and carried out with elaborate scientific precautions and devoted enthusiasm by men like Prof. J. B. Rhine, S. G. Soal and F. Bateman. No doubt in some scientific quarters there is a controversy as to whether para-psychology is a real science. Extra-sensory perception and manifestations like psychokinesia, telepathy and clairvoyance can no longer be dismissed as superstitions, after reviewing the work of men like J. B. Rhine, F. Bateman, C. E. Stuart, D. J. West and J. A. Greenwood. We are beginning to realise that there are directions in research which, being neither strictly physical nor in any sense super-natural, are within the proper domain of the science of mind. There is no reason why we should assume that there is no kind of energy beyond what is already known. This fascinating department of research is one which appears to me to be cognate to the original ideals that underlay Pandit Malaviya's pioneering efforts. I note that experimental psychology is not unknown to this University or city ; but I would advocate a survey of the whole topic and the inauguration of the necessary laboratory and apparatus. It is noteworthy that a brilliant article by Professor Rhine has been included in the very recent publication entitled "*The New Outline of Modern Knowledge*". This volume was recently produced by a well organised team of European and American specialists, and is edited by Mr. Alan Pryce Jones of the *London Times Literary Supplement*.

Deliberately, I am not entering upon a discussion of the much-debated question of rival linguistic claims for the reason that, in a University constituted and built up as ours has been, there should be no room for such con-

troversies. This University is not only of an all-India character but, having regard to the manifest destiny of our country, it should be an effective cultural link with all parts of the world. There should be no linguistic exclusions and no narrowing linguistic preferences. Hindi is the language spoken by the largest number of persons in India and its importance, as defined in the Constitution, cannot be minimised. The role of the regional language or mother tongue is of peculiar significance and no important mother tongue should be withheld recognition in this University. English is increasingly becoming, if it is not already, a universal language and is the repository and treasure-house of the results of world-wide learning and research in literature, Arts, Science and Technology. Any detracting from its importance and manifest utility would be incompatible with our aim of being a centre of free trade in universal knowledge and also a place of concourse, in the glowing words of Cardinal Newman, whither students eagerly come from every quarter for every kind of knowledge. The ancient designation of a University was a *studium generale* or a school of universal study. Such a description implies the assemblage of strangers from all parts in one spot, which is conceived as a seat of wisdom, a minister of the faith, and an Alma Mater of the rising generation.

My primary obligation and function today is, of course, to felicitate all those who, by their efforts and concentrated struggles amidst various handicaps and difficulties, have graduated from this University and on whom the seal of approval has been duly set by the award of Degrees and Diplomas and prizes.

The question naturally arises as to what is to become of those who are emerging from our portals into a wide and too often un-comprehending world. It is clear that those who have undergone engineering and technological training are fairly assured of a useful part in the building-up of new India. Indeed, Governments all over the world and especially in India which are intent on the

implementation of their several plans, are anxious for a large increase of qualified personnel and are multiplying the number of Engineering and Technological Institutions. I have found from personal experience, during my administrative career, of our Engineers that, with adequate training and experience, they yield to no others in the matter of initiative, ingenuity and constructive ability ; and I am confident that the number of specialists from outside whose help is invoked in the various branches of commerce, engineering and technology will be progressively diminished.

In view of the inevitable developments in Elementary and Secondary education and the increasing demand for more trained teachers in the Universities, the position of the teachers is bound to be enhanced both in respect of emoluments and prospects especially when it is fully realised that many of the difficulties of today arise from psychological as well as financial frustrations of the teacher class.

The lawyer is somewhat at a discount during recent discussions ; but, here again, I am sure that there will be a growing recognition of the importance of the invaluable training in law as a necessary concomitant to the maintenance of a society developing under a written Constitution. The family lawyer whose chief role is the composing of disputes rather than the conduct of litigation, the consultant who will be a safe guide to the lay citizen through the mazes of ever-growing and ramified legislation, the constitutional lawyer who will increasingly function in the legislatures and local bodies and will be concerned with the interpretation, exposition and revision of statutory provisions as well as the vindication of individual rights and enforcement of constitutional obligations, these will, if not here and now at least very soon, be trusted and honoured members of society. The elimination of the lawyer which is sometimes advocated by protagonists of primitive judicatures is likely to remain a dream.

The products of the Medical and Ayurvedic colleges, always assuming that they do not sacrifice quality for quantity, will, for many long years, not even be adequate to provide for the personal and public health needs of our vast population.

The real problem of over-production will arise mainly in the case of those who undergo Pass or even Honours Courses in some of the humanitarian branches of study. I have, elsewhere, dealt with the subjects of general education and the true functions of a University and the allied Institutions of the future. But there is one fundamental fact whose import should not be ignored. The so-called over-production of graduates is really an illusion ; and, in comparison with the population of our country, the out-turn of the Universities is nothing to be alarmed at or sorrowful about. The raising of the level of general culture is, and should be, regarded as a fundamental duty of a Welfare State which ours aspires to be. And as I have already stressed, such culture should be within the reach of every one in the country fitted for it. And there is an aspect which no one dealing with the problem of education, especially of higher education, can forget. Many of the products of this University, as of sister Institutions, will naturally enter the field of politics ; and politics, in the nature of things, is a vital function of a democratic and parliamentary State. Politics and administration, at many levels, will be the occupation of many of our alumni : and nothing should be done which will discourage the attainment of high educational standards on the part of entrants into these spheres of life. Business administration, managerial technique and political, commercial and economic knowledge should be provided by Institutions specially designed for the purpose, parallel to and in co-ordination with our Universities.

At the 1953 Congress of the Universities of the Commonwealth, I advanced a special plea for academic mobility and I wish to repeat my contention. In order effectually to serve the interests of an Institution which

is not only all-India in character but international in scope, I definitely hold the view that what is styled academic mobility should be our aim. In other words, professors and students from each University should frequently visit and take part in the activities of other Universities, and this process should not be confined to our country but extended to centres of learning and scientific research in other lands. Such a scheme must receive the active encouragement of the State and of a discerning public. The student travelling from professor to professor and University to University to perfect his equipment was a well-known and recognised phenomenon ; and English, French, German and Italian Universities definitely encouraged this system in the heyday of their evolution. Such a practice will tend to the maintenance of uniformly high standards, bring about a free and welcome exchange of thoughts and ideals, and eradicate all traces of provincialism, racialism and aggressive nationalism.

Let us realise that nations and cultures are remembered and respected not merely because of the heroes of the hour. These are relatively great. They are such in whom, as Emerson says, at the moment of success a quality is ripe which is then in request. Other days will demand other qualities. Again, as Emerson declares, great men of this type exist in order that they may be greater men. It is an undeniable fact that great men of action are not, save in very few cases, long remembered or generously judged by posterity. Carlyle describes the hero as a divinity, as a prophet, as a poet, as a man of letters and lastly as a king. Among the representative men delineated by Emerson are Plato the philosopher, Swedenborg the mystic, Montaigne the sceptic, Shakespeare the poet, Goethe the writer, and lastly Napoleon, not as a conqueror or Emperor but as a man of the world. He is described as owing his predominance to the vitality with which he expressed, in the tone of his thought and belief, the aims of the masses of active and cultivated men. Looking back on our past, do we not

see that Sri Harsha, Vikramaditya and Bhoja have lived in the minds of men in after years through and by the influence of the contemporary poets, dramatists and men of letters whom they patronised and by whom they were immortalised? Are not Valmiki and Vyasa and Kalidasa and Visakadatta, in a sense, the creators as well as the chroniclers of their heroes?

The history of the world has been stated to be the biography of its great men. Who are the really great? England is remembered rather by its Shakespeares and Miltons and Wordsworths than by its Elizabeths and Cromwells and Georges, its Marlboroughs and Wellingtons. Montaigne and Voltaire, Dumas, Balzac and Victor Hugo will live after the Rulers of France, including Napoleon, are forgotten. Wiemar's name is known to us because of Goethe and, in India, the Vedas and the Upanishads, the Epics and Puranas, our lofty philosophies and our dramas and songs as well as the specimens of our architecture and sculpture are the most enduring monuments of its age-long and fruitful existence. History proves that the poets' assumption is not a spurious claim :

With wonderful deathless ditties
We build up the world's great cities,
And out of a fabulous story
We fashion our empire's glory :
One man with a dream, at pleasure,
Shall go forth and conquer a crown ;
And three with a new song's measure
Can trample an empire down.

A University can justify itself and will have fulfilled its functions worthily only to the extent to which it helps the country to produce germinative minds and souls, who will be the creators of our future poetry, drama, history and philosophy, science and technology. A University has to be universal in the sense that it is a harbour of refuge and succour to all who come to it from

every part of the country in search of intellectual nourishment. It should be both broad-based and pyramidal in conception and consummation, aiming at the apex of concentrated achievement and rising to that apex by well-designed stages from a deep and well-spaced foundation of cosmopolitan enlightenment.

The object of education has been stated to be the creation not only of a body of knowledge but of a quality of mind. It is our hope and aspiration, that this University does not stand merely for mass dissemination of superficial and easily-forgotten educational fragments. There is also the ever-present danger today of high specialisation exclusively devoted to scientific bye-products. The world has observed with poignant regret that those, who are one-pointedly bent upon scientific research and pursuits, are apt to exaggerate the importance of their favourite studies and disparage other disciplines. The mistake is not solely with reference to scientific discoveries, even those culminating in the terrible engines of war produced by atomic fusion or fission. The danger lies really in selfishness and the unsocial concentration on values that are unworthy. The ultimate purpose of a University should be the formation of character and a sympathetic and intuitional philosophy of life, devoted to the pursuit and possession of the things that count.

The gains of science, gifts of art ;
The sense of oneness with our kind ;
The thirst to know and understand—
A large and liberal discontent :
These are the goods in life's rich hand,
The things that are more excellent.

It is true that India needs more engineers, agriculturists and technicians. The basic problem of the Universities is, nevertheless, to preserve our fundamental heritage of culture without losing sight of the momentums afforded by science. They are wrong who have accused

our tradition of being inert or static. In two of Lord Sri Krishna's sayings may be found the answer to this charge :

योगः कर्मसु कौशलं

“True Yoga is efficiency in action”.

न कर्मणामनारम्भान्नौष्कर्म्यं पुरुषोऽश्नुते

“Not by fleeing from action is obtained the ultimate detachment from action”.

To reconcile the values indicated above, the atmosphere of a University should be stimulating but not destructive, so that a peaceful environment should co-exist with dynamic thought and speculation, the apparent poise of a fast-moving and humming top being an apt illustration.

Truly may it be asserted of a University regarded as a centre of high intellectual, artistic and scientific attainment

Humanity with all its fears
With all the hopes of future years
Is hanging breathless on thy Fate.

VIKRAM UNIVERSITY

23rd December, 1961

MR. CHANCELLOR, MR. VICE-CHANCELLOR, GRADUATES OF
THE YEAR, LADIES AND GENTLEMEN,

Speaking in Ujjain at the Convocation of the Vikram University, I feel encompassed and almost overwhelmed by the historical and cultural associations of the past. It was at Ujjain that Sandipani had his *ashrama* at which Shri Krishna and Balarama studied along with their class-mate Sudhama. The affecting story of the re-union of Krishna and Sudhama and the reminiscences exchanged between them relating to their student life under the fostering care of Sandipani forms one of the memorable chapters of the tenth skanda of the *Bhagavata Purana*.

Avanti (the old name of Ujjain) is one of the seven sacred cities of India, and the city and the river Sipra on which it is situate and the great temple of Mahakala have formed the subjects of innumerable references in Sanskrit poems and dramas. In this connection, it may be observed that temples, shrines and mutts in medieval India were not only centres of worship and offerings and adoration but seats of widespread culture, designed not only for the elite but also for the delectation and instruction of the general public. Ancient Malwa, according to Bāna, had another capital Vidhisha, and the kingdom of Avanti extended up to the banks of the Narmada.

Ujjain was not only the capital of Virkamaditya, but it was the place from which Hindu geographers calculated their longitude making it their first meridian, and Greek writers have also described this city in their

works under the name "Ogin" as early as Paninī (between 400 and 300 B.C.). Avanti was known as an independent Janapada, its capital being Ujjayini, the women of this country being called Avantis.

There is also reason to believe that Gunadhya's lost work *Brihatkatha* was composed in or near Ujjain about 400 A.D.

It was a provincial capital under Chandragupta, and when Emperor Ashoka succeeded to the throne in 273 B.C., he was the Viceroy of Ujjain. Later on, a powerful Saka dynasty sprang up in this city. Its rulers assumed Hindu names, and even inter-married with the Andhra rulers of the Deccan. It was part of Kanishka's great empire and was thus a famous political capital. But the celebrity of Ujjain really dates from the days of the imperial Guptas after the break-up of the Kushan empire. Chandragupta and Samudragupta set forth on a "*digvijaya*," and made themselves masters of a great part of India extending down to Gujerat. •

Samudragupta performed the Ashvamedha and though he was a devout Hindu, employed as his main counsellor the Buddhist author, Vasubandhu. He was himself a musician and a poet and deserved the title of Kaviraja bestowed on him in his inscriptions. It was in the reign of his son Chandragupta II who took the title of Vikramaditya and who succeeded to the throne in A.D. 380 that Ujjain attained its greatest renown. Chandragupta II made his residence at Ujjain for a part of his reign, and hence arose the literary traditions clustering round his band of authors (Navaratnas or the nine gems of literature). Being an ancient city and the Indian Greenwich as well as the meeting place of the trade routes from the Gangetic plain and the western ports, it contributed to the glory and prosperity of Vikramaditya's reign. Fa-hsien, the great Chinese pilgrim who reached India after he traversed the mountain range of the Hindukush, speaks enthusiastically of Ujjain and Pataliputra. Avanti or Ujjain, until the date of the Huna invasion, was the cultural capital of India.

One of the earliest of our classical dramas, ‘*Mrichakattika*’ opens with a busy scene in the streets of Ujjain and contains an account of decorated streets and ornamented houses and also alludes to the numerous gaming houses in the city. Kalidasa, the most famous of the nine gems, extols Ujjain in deathless verse. In the *Purvamegha* of his *Megasandesa*, Kalidasa adverts to the country of the Avantis reminiscent with the exploits of Udayana, and Ujjain itself is described as great in wealth and befitting its other name, Vishala, or spacious, and as rivalling the heavenly regions. He praises the fragrant breezes from the river Sipra and adverts to the exploits of *Vatsaraja*. The temple of Mahakala, one of the twelve Jothirlingas and the celebration of the evening worship therein are immortalised in some beautiful verses in the *Meghadhuta*, assuredly one of the greatest lyrical poems in all literature. It was moreover in Ujjain that Bhavabhuti’s dramas were staged at the time of the festival of “Kalapriyanatha” (Shiva described as the husband or “natha” of Ambika or Kalapriya). The Sutradhara introduces the dramatist Bhavabhuti, the son of Jathikarni, as a well-known writer of distinction who had earned the title of Shreekantha.

It was in Ujjain that Sanskrit became not only a court language but the common language of all scholars and refined persons. The court in Ujjain became the centre not only of an active and sophisticated life but it was also the birthplace of the immortal works of Kalidasa and Bhavabhuti. That great political drama, “*Mudrarakshasa*” and the ancient *Vayu Purana* are also interlinked with the story of Ujjain. Ujjain, later on, became the scene of conflicts between the Andhras of South India and the Northern dynasties. One of the legends connected with Vikramaditya is that the Sakas of Gujerat asked his help against the Andhras and a fierce battle ensued. The date of his conquest of the Sakas marks the commencement of the Vikrama era.

The prominence of Ujjain continued practically until the final defeat of the kings of Avanti, Punjab, Gwalior and Kalinga by Mohammed of Ghazni. There is a Latin expression "*genius loci*" meaning the atmosphere or spirit of a particular locality or place, and the Roman writers speak of the pervasive influence of such an atmosphere. The "*genius loci*" of Ujjain is a product of political and commercial grandeur and an unbroken continuity of cultural traditions.

On the 8th of August this year, your Chief Minister Dr. Kailasnath Katju spoke of the project of a Sanskrit college to be founded in Ujjain to house about 3,000 students. No more suitable place could be found for such a centre of Sanskrit studies, and at no time was the study of Sanskrit so important as now. It warmed my heart to read the inspiring speech of Prime Minister Jawaharlal Nehru to the young men of India. He declared on the 2nd of December that young men and women should learn Sanskrit in large numbers, as that language was the root of Indian culture. He pleaded that they should learn that language not only to pass examinations but to go to India's deep root and spirit. This study in his opinion was as important as keeping pace with a fast-changing world. The appeal of the Prime Minister was based on the fact that the successful implementation of democratic ideals depends upon men and women, who could maintain a balance between science and spirituality. Religion which is the fine flower of spiritual evolution, when truly conceived, promotes and certainly does not militate against national integration. One of the main factors of Indian culture is the great Sanskrit language. Science and technology are only one facet or aspect of knowledge and by themselves do not make for completeness. Even in the Atomic or Nuclear age, man cannot and does not live by bread alone. The so-called advanced nations of the world are seeking answers to obstinate and basic questions, and their present quest is for mental peace and equilibrium. Such peace is not achieved by psycho-

analysis or psycho-therapy. It is derived from an equilibrium or serenity (*samata*) that cannot but be based on Religion and a way of life originating in traditional culture. This is the context in which a knowledge of Sanskrit would play an important role.

May I, on this occasion, add my voice to those who plead for making Sanskrit a part and parcel of the curriculum in some at least of our steadily multiplying schools and colleges. Sanskrit should be regarded as a fundamentally important means to secure national integration. It will act as a powerful agency for promoting unity through the things of the spirit. Not long ago, I was asked by an American publicist to answer the question, "Is Sanskrit dead?" It is not now a widely spoken language as it was at the time of the Guptas; but it still contains active elements of vitality, and it is capable of resuscitation. From the days when Sir William Jones by means of a study of Sanskrit, Greek and Latin, established the science of comparative philology, the pursuit of Sanskrit received a new impetus. Max Muller asserted, "Such is the marvellous continuity between the past and the present that in spite of repeated social convulsions, foreign invasions and religious reforms, Sanskrit is still the chief language of scholars, spoken throughout the vast country."

A great German scholar, Winternitz, argues "Sanskrit is not a dead language even today. There are still at the present day a number of Sanskrit periodicals in India. Many topics of the day are discussed in Sanskrit pamphlets. The *Ramayana*, *Mahabharata* and the *Puranas* are extensively expounded and are listened to with rapt attention by multitudes and a large number of works are still written in Sanskrit. Sanskrit in fact today plays the same part in India as Latin in the Middle ages in Europe, or Hebrew among the Jews."

The antiquity and extent of its literary documents, the transparency of its grammatical structure and the research bestowed on its linguistics from the days of Panini secures for it the foremost place in the compara-

tive study of languages. Changes, to the disadvantage of Sanskrit as a spoken language, came about only when Urdu emerged into official use in the courts of Muslim rulers. Vincent Smith, who is by no means a partial critic, points out that "Indigenous and foreign evidence alike emphasize the importance of Sanskrit language and the culture embodied in it as productive of that unity which in India transcends the diversities of blood, colour, language, dress, manner and sex." It may here be noted that as late as the 11th century Alberuni, who came to India in the train of Mohammed of Ghazni, and who mastered the Sanskrit language makes it clear in his treatise "*Thakt-ki-Hind*" that in his days Sanskrit was largely a spoken language. In truth, the language of Kalidasa, of Sudraka, Bhavabhuti and Bharavi and of scientists like Varahamishra and Brahmagupta cannot be said to be dead. When Indian influence extended to South-East Asia and as late as the 5th century A.D., idiomatic Sanskrit was used in inscriptions to be found as far afield as Java, Borneo, Malaya and Cambodia.

Sanskrit and Prakrit cultures profoundly influenced the civilizations of China and Japan. Two scholars, one from Orissa and another from Kanchipuram, were among the pioneers of Buddhism in China; and Mr. Chamanlal has described how Bodhi-dharma Bharadwaja was invited to Nara, the capital of Japan in the 8th century for starting Buddhist studies. There is a temple in his honour in Japan, and his image wears a dhoti and an Angavastram. Similarly, in Korea the ancient literature and iconography of India have left their trace and in fact Bodhi-dharma is generally credited to be the founder of the Zen or Dhyana sect of Buddhism. Bodhi-dharma came from Kanchipuram, and Zen Buddhism flourished as a subject of study in the international Zen University of Kyoto. Vajrabodhi introduced the Mantra and Tantra doctrines into China, and Sanskrit treatises were translated into Chinese by exponents of the Mahayana Buddhism. Nagarjuna was the precursor of the eight patriarchs, who are the introducers of Sanskrit and

Pali learning in the regions to the north of India commencing with Tibet.

The Kashmir valley was for several centuries and upto the date of Rajatarangini an abode of Sanskrit learning and through Kashmir, Sanskrit language and Indian civilization reached Chinese Turkestan and the Mediterranean countries.

Hindi, Bengali, Marathi and Gujerati arose as vernaculars, but they are all strongly Sanskritic in vocabulary, syntax and spirit. Bhojaraja of Malwa who ruled in the 11th century and Prithviraja of the 12th century not only encouraged Sanskrit, but Prithviraja's brother was a dramatist of distinction. Many Muslim kings in Bengal patronised Sanskrit, as also did Sultan Zymuladdin of Kashmir.

Sayana, the Vedic commentator, and his learned brother Madhava who flourished during the period of the Vijayanagar dynasty, were able to revive Sanskrit literature, philosophy and language. Even today, one of the most potent instruments of popular culture is the Harikatha or Bhajana or Kalakshepam and the language of the expositors though mainly in the vernacular largely relies on Sanskrit vocabulary. Sanskrit is used in our daily prayer, household ceremonies and temple worship. The Indian renaissance initiated by Tagore, Ramakrishna Paramahansa, Swami Vivekananda, Dr. Besant, Mahatma Gandhi and Aurobindo Ghosh has produced a new atmosphere favourable to Sanskrit culture, and today numerous European and American scholars are concentrating on Sanskritic and Prakrit learning.

In order, however, truly to popularise and spread the language, Sanskrit has to shed many of its elaborate inflections and grammatical and etymological complexities, as English did during its progress through the centuries. If this be done, Sanskrit may again play the role which it is fitted to discharge by reason of the comprehensiveness of its vocabulary, the marvellous richness of its synonyms, the admitted perfection of its

grammar and its adaptability to the utmost refinement of philosophical and scientific speculations and analysis, and above all its capacity to express every variety of human thought and speculation.

In thus pleading for the revival and popularisation of Sanskrit, I am not oblivious of the Constitution of India and its emphasis on Hindi as the official language of the future. Nor am I urging the elimination of a study of the Hindi language. On the other hand, it is obvious that some of the prejudice and much of the propaganda against Hindi in the non-Hindi localities of India will disappear, or at all events be minimised by the cultivation of Sanskrit ; because it is an undoubted fact that all over India and even in places where non-Sanskritic languages like Tamil are spoken, much of the vocabulary and a great deal of the ideology and basic philosophical and religious concepts are bound up with Sanskrit. This will be evident from a perusal of the Tamil and Telugu classics through the centuries.

Hindi and other languages like Marathi, Bengali and Gujerati are intimately related to Sanskrit. They are descended from Prakrits, closely akin both to the Vedic and the later forms of Sanskrit. The foundations of these languages were laid during the five centuries preceding the Muslim conquest. After the commencement of Muslim suzerainty, necessity forced Muslims and Hindus to meet each other and evolve a common language. In the intervening period before Urdu arose, some Muslims learnt and wrote in Hindi like Malik Mohammed, in the time of Humayun. Hindus also began to learn Persian and Urdu (meaning a camp language) which was really a Persianized form of Western Hindi. Urdu itself has been shading off into Hindi, and the teachings of Ramana and Kabir were manifestations of a philosophy and a language, which combined Hindi, Arabic and Persian elements.

In the light of this narrative, I verily believe that the continued cultivation of Sanskrit will serve as a powerful incentive towards national unification. Indian

universities and more especially universities with traditions like those of Ujjain can and should play a powerful part in promoting the ideas outlined above. At this point, and irrespective of the claims of Sanskrit, Hindi and especially the regional languages which are undeniable, let me emphasise the arguments for the continuance of the English language as a medium of instruction in the universities. As your Governor, Shri H. V. Pataskar, stated a few weeks ago, we should not be carried away by any prejudice against the English language as the language of the former ruling groups. English as a recognised and well-nigh universal medium of expression is admitted as such even in countries like Russia and China, which are opposed to Britain and America in many particulars. English is widely taught and spoken in Scandinavian, Asiatic and African and even Latin American countries, wherever there is need for scholars and teachers to take advantage of the vast treasure-house available in that language in the domain of the arts, literature, science and technology. It must be further remembered that knowledge is now-a-days accumulated and transmitted not only through treatises and proceedings of learned societies but through periodicals and journals which continually chronicle the progress of literature, drama, the various arts and especially the unending developments in the scientific sphere. It would be no exaggeration to say that no person can keep abreast of modern developments unless he can speak and write fluently in that language in which at least two-thirds of the world's periodical literature is produced. As Mr. Pataskar says, Hindi is no doubt the language of the largest proportion of India's inhabitants, but until either Hindi or some other language can take the place of English, there is no alternative to the utilisation of what is really the *lingua franca* of the world. Let me quote another sentence from the recorded speech of Mr. Pataskar. "The spread of Hindi for the above purposes is bound to take considerable time and it will retard progress if undue haste is manifested in changing

the medium. If the various States start imparting university education through regional languages, it cannot be denied that the common bonds which have been created by a uniform medium will be weakened, if not snapped." Moreover, at the stage of university education, it is not merely particular text-books that matter. The quality of education depends upon the number and variety of books of all types as well as on the mastery of journals and periodicals devoted to the dissemination and stimulation of all branches of intellectual endeavour.

In my opinion, moreover, the constant and free interchange of professors and students *inter se* amongst universities situated in various parts of this country and outside is an essential factor of integration which cannot be ignored.

For what, after all, are the true ideals of a university? They are, I submit not necessarily the accompaniments of palatial buildings or even of immense libraries and lavishly furnished laboratories. They are the results of that true discipline resulting from the allegiance of scholars freely given to master-minds like the Rishis and Gurus of old. One of the wisest of all writers on universities, Newman, whole-heartedly advocates the ancient method of oral instruction, and personal communication between man and man. In his own inimitable words, "Universities are constituted not so much by teaching as by teachers, by the personal influence of a master and the initiation of a disciple. As important as religious teachings are oral traditions in the fashioning of character and intellect." Ancient learning, both in Europe and India, was imparted through the ear and not the eye, by transmission from mind and soul to kindred mind and soul. Next in importance to the teacher are the constant and live contacts between students arriving from many regions and countries, so that, as has been observed, the intellect may range and speculate, sure to find its equal in some antagonistic activity and its judge in the tribunal of

truth. The university is for the professor and the college for the tutor and the latter exists for the formation of character, intellectual and moral. It has therefore been insisted that a university seated and living in a college would be the perfect institution. Eminent experts have even affirmed that the contact of eager youths and their conversations, joint pastimes, studies and discussions are inseparable elements of a true university education. To attain the ideal, a complete re-orientation of our present educational practice is called for.

The status of professors and teachers must be such that they are respected individuals, who are dedicated to a noble pursuit and are not frustrated and discontented souls who infect their students with their mental attitude. The teacher-student ratio must be such that they can speak and discuss with each other, and not merely participate in lectures delivered to a numerous horde and listened to with distracted attention; and not implemented by concentrated pondering over the results of teaching and intelligent discussion. Whatever view one may take of New China's politics, its philosophy of life and its reliance on force, it should be conceded that in Chinese colleges and universities much attention is paid to discussions and seminars amongst students, guided but not stereotyped, and not too closely regulated by the teacher. It was on the example of the University of London that Indian universities were founded in 1857. They were mainly affiliating and supervisory bodies; and only recently they became partially teaching institutions.

Educational experts in England and America are now convinced that a residential university based on a tutorial system is the ideal to be attained. To achieve this end, immense expenditure has to be contemplated; and it is worthy of remark that, as a result of the hard experiences of the two world wars, the U.K. and America have realised that next only to public health is the importance to be attached to a widespread educational

programme whereby no one in the land need despair of utilising to the full his or her innate gifts and potentialities in such directions as are best suited to him or her. The educational curriculum of England and America is tending to become not only universal but patterned to suit or to perfect individual capacity and canalise it in such directions, literary, scientific, technological or philosophic as are congruent to the aptitudes and possibilities of each individual. A crowd education cannot but result in a crowd mentality.

These truths were perceived by our ancients and were implemented in their educational system. Hiuen Tsang, speaking of the Nalanda University, remarks that a student must have studied deeply both old and new books before getting admission at Nalanda. Nalanda was essentially a teaching university and scholars who came from other centres of learning had to undergo a strict test before they could prosecute their studies at Nalanda. As H. D. Sankalia states in his treatise on the University of Nalanda—"Learned men came to Nalanda in multitudes to settle their doubts." It-Tsang, a later Chinese traveller writes as follows—"Thus instructed by their teachers and instructing others, students pass two or three years in Nalanda or in Valabhi or other centres of learning. Students could take up any subject; but Theology and Religion were compulsory subjects of study. Many vidyas were taught and they included archery, medicine and surgery as well as Sankya, Vedanta and the Mahayana system."

From the statement of Hiuen-Tsang it is clear that the method adopted in the majority of cases was tutorial. He says teachers and students mutually help one another. The teacher taught and discussed, and students helped the teacher in domestic duties. Discussion was an essential part of the tutorial method, attention being especially paid to the needs of individual students.

Sankalia asserts that it was not the case in Nalanda that a professor came to a class and lectured on a parti-

cular part of a particular subject as at present in India. Entrance to the University of Nalanda was difficult and the matriculation examination was conducted by the university itself. From the number of unsuccessful students which was 7 or 8 out of every 10, it is evident that the examination was very strict. Nalanda was also a school for secondary education, but only a selected few could enter the university course.

Universities in Europe had a different history. In the medieval times, masters sought students. A European student was not subject to much discipline in the 12th and 13th centuries, as the history of the University of Paris and its compulsory location on the left bank of the Seine demonstrate. Later on, as in ancient India, European universities enforced a strict discipline, extending not only to conduct and morality but to dress and deportment. We now come to the question of the meaning and content of this idea of discipline. In dealings with morals and conduct, we should not forget that morals are the most humane of all subjects.

The great American philosopher, John Dewey, declares, "Since morals directly concern human nature, every thing that can be known as to the human mind and body i.e. physiology, medicine, anthropology and psychology is pertinent to moral inquiry. Hence, Physics, Chemistry, History, Statistics and Engineering Science are a part of disciplined moral knowledge, so far as they enable us to understand the conditions and agencies through which man lives ; and on account of which he forms and executes his plans." But morality resides not merely as perceptions of facts, but is manifested in the use we make of such perceptions. If the standards of morals are low, it is because the education given by the interaction of the individual with his social environment is defective. In Dewey's own words, "of what avail is it to preach simplicity and contentment of life, when communal admiration goes to the man who succeeds and who makes himself conspicuous, because of command of

money or other forms of power ?” Thus, the development of a more adequate science of human nature is a matter of first-rate importance. Religion as a sense of the whole is the most individualised of all things and also the most spontaneous, undefinable and varied, inasmuch as individuality signifies unique connections in and to the whole.

Writing in the ‘*Encounter*’ magazine not many weeks ago, John Strachey observes, “India with her per capita income estimated at about 77 dollars per annum and with less than 30% literacy might be declared to be an impossible country to develop herself, while maintaining democratic institutions. And yet, so far at any rate, she is doing the job. He adds :

“I think, the explanation is the deep tradition of civilization in India, during 5,000 years. It is that which enables her to do it, and it is an amazing performance.” While whole-heartedly assenting to this dictum, I may affirm that the discipline which produced this civilization can be definitely pronounced to be basically spiritual. The temples and mutts of the past were centres not only of credal instruction and worship but also centres of the popularisation through the *Ithihasas* and *Puranas* of those values of life which in India expressed themselves in a variety of forms, and in several ways. These are all based on the recognition of the immanence of the supreme spirit in all things and on the continuously felt need to approximate to a cosmical approach, the vision of an invariable and universal law (*Rita* or *Dharma*), and the importance of adhering to fundamental norms underlying all the varieties of Hindu religious thought. The inculcation of those truths and the practice of those virtues were formulated and regulated by gurus in their ashramas and monasteries, by teachers and missionaries in schools, universities and other centres of learning, and were acted upon by kings and their chosen Sachivas or Ministers. To the extent to which we recapture some of those ideas and ideals and re-invigorate our lives

with the tonic of those ancient messages, shall we fulfil our tasks, fortified as we should be by the lessons of modern science and the new demands of a Welfare State as envisaged in our Constitution.

Only as a resultant of the values of life indicated above were there created in India a broadness of outlook and a toleration of differences and a calm resignation which were well-nigh unique in human history, and which were not only preached but practised and successfully implemented. Hence arises the significance of religious and moral education, now being belatedly appreciated and advocated by the Shri Prakasa Committee and by many recognised leaders of thought and even by politically influential personages. The affirmation of the importance of human personality and dignity must be associated with the "inculcation of a training, universal in outlook and devoted to the harmonious development of body, mind and soul, not the least insistence being on the last of these factors."

On the alumni of this University passing out of its portals today full of ideals, hopes and ambitions lies the responsibility of creating a new society of courageous and disciplined planners who will remould the world to our hearts' desire.

The Upanishads adjure us as follows :

सत्यान्नप्रमदितव्यम्

धर्मान्नप्रमदितव्यम् ॥

कुशलान्नप्रमदितव्यम्

भूत्यैनप्रमदितव्यम्

स्वाध्याय प्रवचनाभ्यां न प्रमदितव्यम् ॥

Let there be no neglect of truth, of duty or dharma, of prudent management or of prosperity (by acquisition of wealth). Let there be no neglect of study and teaching. Be it remembered also that Sri Krishna in the Gita

asserts not only that efficiency in action is true yoga but that yoga is synonymous with equilibrium.

योगः कर्मसुकौशलम्
समता योग उच्यते ॥

The present day world is longing for that equilibrium which was advocated and maintained by our seers.

UNIVERSITY OF DELHI

1st December, 1962

MR. CHANCELLOR, MR. VICE-CHANCELLOR, GRADUATES OF
THE YEAR, LADIES AND GENTLEMEN,

We are meeting on the occasion of this Convocation during a critical and historically significant moment in our country's history, nay, in the history of the world. The conflict has been forced upon us, not so much by ideological differences or ambitions but by the cynical and grasping efforts on the part of China to extend and expand its territory and to engulf neighbouring countries. Rudely aroused from a complacent hallucination which was sedulously encouraged by loud protestations by the Chinese of *Panch Sheela* and of peaceful co-existence and slogans like *Hindi Chini Bhai Bhai*, we have today not only to build up our military manpower and our armaments but also to conserve and utilise all our energies—moral, intellectual and economical—and wisely re-organize our way of life while preserving its essentials, and vindicate our claims as a self-respecting country not only proud of its traditions but resolute in their enforcement. They prominently include an integrated philosophy of life and a universal sense of tolerance.

Exactly thirty years ago, I addressed this University of whose Court I was a member for some years. It is interesting to look back on what I said in relation to the paucity of funds available for the diverse activities of the University. I agreed then with the Hartog Committee Report that this University would do best to concentrate on superintending and organizing the work of

higher learning and research by a combination of teachers from the various colleges along with the teachers to be appointed by the University itself. On that occasion I drew a contrast between our meagre resources and the achievements of other countries, notably America, and specially dwelt upon the large subventions made to institutions in China and elsewhere, which were run by American Agencies. It is a matter of special satisfaction to me to come back to this University and to witness the striking progress of its corporate life and of the residential system as well as the comprehensive efforts that are being made for an all-round development of human personality. Along with the University's spectacular growth in equipment and its efforts in the scientific and technical fields and in variegated research, I have noted the rightful emphasis that is laid on the Humanities and the Fine Arts, not only as an ornamental supplement but as an integral part of education. One remark which I made then is even now relevant, namely, that the problem of higher education, viewed in conjunction with the unemployment of the educated classes, is specially serious though it may be justly claimed that it hardly affects students in technological and engineering institutions.

In 1932, I asserted, what I can repeat with confidence today, that we should deal with our human material in such a manner as to facilitate, with the utmost economy of means, the best possible results for the future of our land, namely, the evolution of men and women who would be catholic in mind and soul, would resist the influence of disintegrating forces and would not be stereotyped in outlook and practices but would be creative in every sphere of activity. As a marvellous aftermath of the Chinese aggression many of the disintegrating influences which were manifesting themselves in the direction of regional, linguistic and cultural narrownesses have disappeared practically overnight. May I reproduce what has been emphasised by the Integration Committee on Regionalism on this point ?

"The fact is that today the country has been overtaken by a state of emergency which has enabled people to purge themselves overnight of all narrow loyalties. Rekindling of the flame that inspired us in the freedom struggle has taken place; the people have been stirred to their depths, and this is a deeper solvent of the problems on which the Committee was engaged. When once the mood was of frustration and of local and limited loyalties, today it has miraculously changed to one of enthusiastic, even dedicated, participation in the mighty endeavour the nation as a whole has been called upon to make in the face of a brutal aggression menacing our freedom. Everywhere people are thinking in terms of what they can give to, and not of what they can get from, the nation. They have not only come together with common objective and shared purpose, but what is more significant and heart-warming, they feel integrated with the Government—indeed, in a sense, are ahead of it."

An opportunity has now arisen to manifest the loyalty, character and capacity of our young men and women. I have no doubt that they will emerge triumphantly from the test. But even more is required now from our youth. We are all aware how, after a long period of prosperity and peace, the younger generation in England grew to be not only complacent but dangerously slack and flabby, physically and psychologically. The result was that when the world wars came on, it was found that an alarming proportion of the youth of the country were really below par, from the point of view of the army and its various organisations. England then conceived the fine idea of re-organising its education and implementing new ideas of national discipline and national endeavour. We, in India, have now, in accordance with the Prime Minister's warning, to shed our illusions and emerge into a world of realities which has not yet got rid of fierce competition and of self-

centred and egoistic activities. Among the youths, now being trained in the Universities of India, should be created a new spirit of urgency and responsibility. Not only in the N.C.C. and A.C.C. but among all the student population, there must arise the willingness to fit themselves for the task of national defence in its various aspects. I welcome, as I am sure you do, the proposal to extend to the entire college population, compulsory military training. But more than the physical manifestation of willingness to serve the country, the necessity arises for psychological preparedness and one-pointed discipline. Physical fitness, endurance and resilience have to be achieved as an obligation to the country. At the same time, efficiency from the scientific and mechanical points of view is equally important.

When I was teaching in California ten years ago, I visited the aeroplane factories and industrial establishments situated in that State, and I still remember what some of the Professors of Industrial and Aeronautical Engineering told me. They said that some years ago when Indian students proceeded to the U.S.A. for study of the various branches of mechanical and electrical engineering, not only by reason of their unfamiliarity with huge and whirling machines but by their psychological un-preparedness, they displayed considerable nervousness when handling modern engines and machinery. They pointed out that American boys and girls from their early youth busied themselves with dismantling, repairing and re-erecting watches, vacuum cleaners, lawn-movers, bicycles and scooters. But the Indians had not evinced any curiosity or activity in similar directions and were therefore characterised as impractical, though they excelled in mathematics and in theoretical mechanics. It is worthy of remark that within a few years, our Indians have shed such defects and demonstrated their aptitude and efficiency in all directions and have now triumphantly vindicated themselves. I mention this episode both by way of warning and of encouragement. At the present juncture, I would

appeal earnestly to every one and particularly to the alumni of the Universities, young and old, to rise to the occasion. India has been, and will surely be, not only a race of thinkers and philosophers but also of warriors, technical experts and inventors, when the occasion arises.

In venturing on this assertion, I am not unaware of the universal validity of our pristine ideals of non-violence, Ahimsa, and tolerance, but the ambit and limit of those ideals have been, once and for all, delimited by Lord Sri Krishna who, in the third chapter of the Gita, imparted to Arjuna the memorable precept

लोकसंग्रहमेवापि संपश्यन्कर्तुं मर्हसि ।

The verse may thus be translated. "With a view to the protection of the masses, you should perform the needful action". No more critical occasion for the protection of the masses of India can offer itself to us than the conflict that has been thrust upon us unawares.

One problem has recently attracted attention, namely, how to produce the essential synthesis between two purposes which have been too often regarded as incompatible, namely, specialisation, (scientific or technological) and the claims and demands of a generalised cultural training. We can, in truth, no longer justify the attitude typified by Browning's Grammarian.

I posed another problem on the previous occasion, namely, the importance of an adequate tutorial system and the development of seminars and *viva voce* discussions that would promote intellectual vitality. This was a special feature of ancient and medieval European and Indian Universities.

Contemplating the medieval Universities of Europe and our ancient institutions like those that flourished in Nalanda, Vallabhi, Vikramasheela, Taxila and Kanchipuram, we note that they were characterised by the spirit of synthesis and justified their title to be called Universities by endeavouring to impart a Universal and

historic background of knowledge, the curriculum being entitled *studium generale*. In other words, a University involved the conception of a totality. The Universities of Paris and Bologna were neither Parisian nor Italian. These Universities permitted, and, indeed, encouraged the free exchange of ideas as well as of masters and scholars from the whole of Europe. Even Bohemia, Poland and Russia did not keep apart, as they now do, but collaborated in the great spiritual symposium. It was by such means that Western learning renewed itself and gave rise to the Renaissance. The Universities moreover united Christian concepts with Greek and Roman ideas and especially ideas derived from Cicero and the Stoics. Paris, Bologna, Oxford and Salamanca, though different in internal organisation, spoke to the world without any local bias. This aspect was exemplified by their being authorised to issue what used to be called a *licentia ubique docendi*, in other words, a licence to impart teaching, which was universally recognised. The Universities were, thus, universal in spatial jurisdiction, and they drew their sources from Greece and Rome, Classicism and Christianity. Jurisprudence, the humanities and the sciences were all viewed as constituting a single programme of learning. It is curious and worthy of note that the Europe of today has not given rise to any parochial systems. Nevertheless, the newly developing sense of One World and the potentialities of the new scientific and technological apparatus have brought into special prominence Cardinal Newman's wise words. He said that Universities should be places of concourse where students come from every quarter for every kind of knowledge. They should eschew all compartmentalism and stand for freedom of travel and intercourse between Professors and students from all over the world. The examples of Abelard of Paris, of Irnerius of Bologna, of William Occam and Roger Bacon are apposite. Today even the U.N.O. and the UNESCO, designed as they have been to be types of a Universal Forum, have resulted in the formulation of set opinions

and of greatly publicised and pre-meditated propaganda. In a University, on the other hand, differences of opinion should be fully ventilated and discussions may and should take place in a spirit of give and take, of toleration and the recognition of other points of view. In the words of Asoka, समवाय एव साधु—reconciliation is best.

Such ideas, as those above indicated, are not only not new to India but were fundamental elements in the ancient Indian systems of instruction. In the first place, under that system, the student was termed (अन्तेवासि) *Anthevasi*, i.e., a person who stayed with the Guru. We are fortunate in possessing some materials which may enable us to reconstruct the life of the ancient Indian University, especially during Buddhist times. I have very frequently reproduced the passage in Bana's *Harsha Charitha* which contains an account of pupils and teachers coming from various parts of the world, living practically an open air life in forest hermitages, cherishing and maintaining different opinions, disputing and controverting with each other but ultimately agreeing or agreeing to differ and evolving a policy of live and let live, and give and take. The passage freely translated runs as follows :—

“The King got down from his chariot and approached the site of this abode of learning. He found students and Professors belonging to different religions, such as followers of Vishnu and Siva and of Buddha and the Jainas as well as atheists and materialists, from many parts of the country. Some were seated under trees, some perched on rocks and some dwelt in thatched cottages. They were vigorously debating, arguing and controverting and ultimately agreeing to differ or harmonising their ideas”.

The Gurus of the past days, as is evident from our scriptures were intent on developing three qualities in their students and aspired that they should be *Balishta*, *Dhridishta* and *Asishta*, namely, strong in body, resolute of

will and well-disciplined. The students of those days completed their studies under several celebrated teachers, and the migration of students was a regular feature. To my mind, such migration is a sure corrective of a closed mind and of a narrow outlook. The Radhakrishnan report has also emphasised the All-India character of Universities; but we have, unfortunately, not fully benefited by the example either of the medieval European or the ancient Indian idea.

At the 1953 Congress of the Universities of the Commonwealth, I advanced a special plea for academic mobility and I wish to repeat my contention. In order effectually to serve their own best interests, our Universities should be not only all-India in character, but international in scope. I definitely hold the view that what is styled academic mobility should be our aim. In other words, Professors and students from each University should frequently visit and take part in the activities of other Universities, and this process should not be confined to our country but extend to centres of learning and scientific research in other lands. Such a scheme must receive the active encouragement of the State and of a discerning public. The student travelling from Professor to Professor, and University to University, to perfect his equipment, was a well-known and recognised phenomenon. English, French, German and Italian Universities definitely encouraged this system in the heyday of their evolution. Such a practice will tend to the maintenance of uniformly high standards, bring about a free and welcome exchange of thoughts and ideals, and eradicate all traces of provincialism, racialism and aggressive nationalism.

The remarks that I have made regarding the necessity for academic mobility would, I trust, enable my hearers to realise the importance of a right understanding of the vexed question of the medium of instruction, about which there has been so much recent controversy. Higher learning was fostered and made possible in ancient India through the use of Sanskrit which was the

lingua franca amongst all who aspired to culture. The same part was played by Latin, until recently, in Europe. In the discussions that have now been proceeding with regard either to Hindi or to English, certain facts which are essential to remember have been forgotten. The language of higher studies should not be regarded as only one more subject included in the curriculum, but as a medium of expression and instruction (side by side with the mother tongue) in a variety of subjects. As has been rightly pointed out, an interchange of teachers as well as of students will give rise to the necessity of a common academic language rather than a purely regional language. The problem may be viewed in this way. English cannot and should not replace the mother tongue; but, at the same time, no regional language can bind together the academic world of India. The problem before the educational administrator is to maintain the academic unity of India and, at the same time, to enrich the mother tongue and Hindi. The rapid evolution of German and Russian in recent years into the position of world languages and the replacement by English of Latin initially and thereafter of French as a vehicle of universal culture, were rendered possible not only by well-directed and sedulous translations from world classics, literary and scientific, but by the creation of significant masterpieces of literature and science, whose perusal in the original became an inevitable "must" not only in academic circles but among all people. To vary a common quotation, "world languages are made, not born."

There were manifest in recent months certain linguistic and regional chauvinisms which threatened to effect many cleavages among our people. In dealing with a University which is rightly intent, on making new experiments to spread the benefits of higher education, let us remember the educational steps undertaken in other progressive countries. I am not referring here merely to matters like adult education and the inauguration of correspondence courses, but to many

innovations which have been characterising, for example, the American system. It has been observed that the first World War made Professors realise that the new generation should be provided with a firm grounding in their country's intellectual and spiritual heritage which had become even more necessary than ever in a world of rapidly shifting values. The ripe experience and the intellectual agility of President Robert Hutchins of Chicago were demonstrated in his integrated programme of cultural and scientific education; and the famous Report by the Harvard University on *General Education in a Free Society* introduced a new and historic pattern. Other innovations and new comprehensive curricula were introduced by other institutions like the Stephens College. This College built its programme round the actual problems which its women students were likely to meet in adult life, namely, maintaining physical and mental health, enjoying social and civil relations, consuming wisely and economically, and sustaining a philosophic viewpoint. The University of Cincinnati insisted on altering periods of economic study and practical work-experience. Such programmes express the American belief in joining the practical and the theoretical. Even in the United States, a problem which now confronts us in India is observable. The challenge is that of a rapidly increasing demand for higher education and, as stated by Professor Eurich, President of the State University of New York, the problem today is not so much the curriculum but the teachers—in particular, the first-rate teacher who is in short supply. Other notable experiments have been the use of the television apparatus and of tape-recorders as instruments for linguistic training. I am mentioning these as sign-posts and as examples.

In this connection, I would underline the very wise remarks made at the thirty-ninth Convocation of this University by Dr. Nathan M. Pusey :

“There seems to be a lively concern in Universities everywhere lest the world's current pre-

occupation with science, the need for science, and the power of science, effect a monstrous distortion within the fabric of learning. There is world-wide worry among University people that a conjunction of material need and scientific triumph has let loose in contemporary society a force which now poses a serious threat to humane values. Surely there is reason for such concern."

"Again I was reassured to discover that this worry, very pressing in the minds of many of us in the West, is, by no means, exclusively ours. Many persons in other countries, appear to be as troubled about this development as we are, and apparently for very similar reasons, we have not yet fully assessed the difficulty. Certainly we have not yet found answers to it. Nor, I gather from the discussions I heard in Mexico city, have others. The impact of science and technology has far from run its course. But surely it is seen that we are all coming to a clearer realisation of the fact that advance of applied science is not necessarily a complete blessing. The trouble of course is not with science, but only with the use we make of science. But I am confident it is your deep hope, as it is ours, that the scientist as a human being will presently far outstrip the scientist who is simply the builder of a more efficient tool."

We are today rightly bent upon creating a Welfare State by adopting several measures for raising the living standards; but a true Welfare State must equally attempt to raise the level of culture. The objectives and ideals of a purposeful life have thus been summarised and the words are quite appropriate to describe the true aims of education:—

The gains of science, gifts of Art
The sense of one-ness with our kind
The thirst to know and understand
A large and liberal discontent.

Equal stress must be laid upon scientific and technological knowledge and upon the psychological and emotional fulfilment which music, literature and the fine arts can alone give. But the garnering of these gains and gifts would be of little avail, if they merely filled the learner with a congeries of theories and formulæ. Education, to be truly effective, must co-exist with the creation of a permanent and lively curiosity and a quest for truth and beauty as well as a continuous desire not only to know but to comprehend with a sense of proportion the significance of what has been learnt and assimilated. The poet obviously means by the expression "a large and liberal discontent" not only a perennial search for enlarged objectives and goals in life but a search that is not divorced from practical issues and is liberally tolerant of other points of view and modes of approach.

In achieving such purposes, India can learn noteworthy lessons from Japan, and one of the points that we have specially to ponder over is the concentration of that country on education. The greatest natural resource of Japan, as indeed of India, is its people. These two countries, unlike the United States, Canada or many of the South American and South Eastern States, are not natural treasure-troves of mineral resources available for industry. Ever since the Meiji restoration in 1868, Japan has laid particular stress on education and on what is called "investment on man". Within thirty years, Japan abolished illiteracy and this fact is specially marvellous, considering that compulsory education was introduced only in 1872 in the elementary and secondary schools. It may be useful to bear in mind that education there is compulsory and free for all children from the ages of 5 to 16. Music is a compulsory subject, and special emphasis is laid on technical education from the elementary stage onwards. Dr. Egerton has recently observed that he has found the standard of technical education in the Japanese schools higher than in his country. Their well-rounded educational programme

has paid good dividends. It has given Japan a large and efficient labour force and a corps of trained craftsmen and technicians. Japan is no longer merely imitative, but in many fields of science and medicine, it is a pioneer. It may not be out of place to remark that the most westernised Japanese scientist or industrialist preserves in his home-life all the age-old customs in dress and food. The love of gardening and the passion for beauty in scenery, in flowers, in calligraphy and in painting and porcelain are vital factors of Japanese life.

England furnishes a remarkable example in respect of the financing of the national system of education. Full-time schooling has been made free for all children in popularly maintained primary and secondary schools. In April 1945, fees in all types of secondary schools, including voluntary schools, were abolished and the school-leaving age was raised to 15 in April 1947 and it is proposed shortly to raise it to 16. In respect of higher education, whereas in India only 35 crores of rupees have been provided for the University Grants Commission out of the total 4,800 crores envisaged for the Second Five-Year Plan, the total number of awards of scholarships current in 1955 in the English Universities was about 7,000, and scholarship awards by Local Education Authorities amounted to a total of 35,000. Without a doubt, it may be averred that in the United Kingdom about 80% of the students studying in the Universities receive adequate financial help from the State, from Local Authorities and from organised philanthropic agencies. Not very dissimilar is the case in Canada, Australia and New Zealand. It is claimed that higher education is almost fully subsidised in the Soviet Republic, and the Chinese system of higher education imposes very little financial burden on the student who is, however, carefully selected with reference to his suitability for University education. I may here recount my personal impressions gathered during my visit to China in 1955. In spite of the rigidly one-pointed Marxist outlook on life and of avowedly propagandist methods,

the Chinese have, in their secondary schools and Universities, fruitfully developed the tutorial system and the seminar method of education by discussion. There is, in these countries, an outstanding sense of obligation to enable every one to rise to the highest altitude in education that is possible for attainment by them according to his or her capacity and potentiality. As late as the 22nd November 1956, an announcement was made in England of a special grant of 36 million pounds for the erection and expansion of University buildings. An almost equal amount has been given for the extension of technical colleges and the Royal Institute of Technology. It is worthy of note that these awards have been made at a time of grave financial and political uncertainty in the United Kingdom.

Between the years 1948 and 1957, the figures of total expenditure in India on education in relation to the total budget show that there has been a steady increase in the percentage spent by the Centre and the State. Nevertheless, certain facts stand out prominently in relation to the development of higher education. If we compare the percentage of the total population enrolled for higher education, we find the following :—

U.S.A.	..	1.78
Japan and New Zealand	..	0.50
U.S.S.R.	..	0.70
India	..	0.11

The wise policy adopted by the University Grants Commission of matching grants, namely, the grant of 2/3 for Libraries, Laboratories and Equipments, 50% for Men's Hostels and 75% for Women's Hostels, has made a profound difference in the possibilities of University development, and we must note with pleasure that the Commission has also paid large amounts to Universities as development grants under Humanities, Science and Technology. But the requirements of these times demand much more extensive aid to secondary, vocational and University education. Thus alone can

we meet the challenge posed by the emergence of new groups anxious to proceed to the Universities. The newly poor as well as the newly rich brought into existence by our Socialist programme alike demand in ever-increasing numbers educational as well as economic fulfilments.

I find from the report of the Expert Committee on Correspondence Courses that, while realising that the course is a step designed to expand and equalise educational opportunity, strenuous attempts have been made to ensure that the scheme is operated by exacting and skilled teachers and educational administrators who would see that standards do not suffer. The Committee has insisted that this course should be administered only by Universities, and they realise that this method is calculated to succeed better in fields in which study is concrete rather than abstract. We shall all watch with great interest the experiments initiated in this University, and the apparatus and the methods which may be availed of to make these courses approximate to the right type of higher education to a numerous clientele.

Quite recently, there has been considerable discussion both with reference to residential Universities and to the topic of religious and/or moral instruction. The report of Shri Sri Prakasa on the latter subject has given a lead to the discussion and I propose, very shortly, to analyse the various factors relevant to the problem of religious or moral instruction.

In the first place, it must be borne in mind that a University is a place where young people develop their purposes in life, in addition to its being a community of scholars. There are, undoubtedly, some constitutional limitations facing the Universities in India, but I am afraid that a too technical and narrow interpretation has been put on the Constitution. Personally, I take the view that if a University deliberately excludes from its scope and its curriculum all courses with a religious content, it ignores, at the same time, the unalterable fact that religion has exercised a dominating influence

over the life and history of man and the shaping of his ideas. The impact of religion and culture and their functioning as an integrating force and as providing a high sense of purpose are also forgotten. There has recently taken place a comprehensive study of the place of religion in higher education in the University community, and particularly in the State-supported Universities of the United States. Not unnaturally, education in State-supported Universities tends to be predominantly secular and there is, as remarked in a book entitled *Religion and the State University*, published by the University of Michigan, not only separation between Church and State, but between Church and University.

The arguments for the study of religion may thus be stated. Such a study is necessary for the proper understanding of many phenomena connected with several aspects of culture — literature, dance, music and the visual arts. In the words of Helen White, "there is no escaping the necessity of an appreciation and an understanding of the fact of religion for the understanding of man and his history, the thoughts of his mind and the works of his hands". It goes without saying that such a study and such understanding are important in the fostering of devotion to the things of the mind and the spirit, respect for other people and love of Justice and Charity. If it is the underlying purpose of education that it should contribute to the enrichment of the life of the individual, then the ignoring of religion must be a handicap to the student. A well-known teacher, Theodore M. Greene, has, in fact, asserted that if our total task in life is to know ourselves and our environment in order to discipline and develop ourselves in answer to the response and challenges which the world offers to us, then a University or College has a responsibility for some type of religious or moral education. The study of religion, rightly conceived, is an essential contribution to all liberal disciplines. It would be wrong to put forward a plea for religious orthodoxy or for any explicitly religious subject matter. The history

of Indian culture teaches us that truly significant art in any medium is dependent upon a religious orientation. In fact, it may be said that art and literature are, in the language of Mr. Greene, the most precise and eloquent vehicles for the expression and communication of man's religious insight and the necessary vehicles for his religious worship.

In answering the criticisms against the teaching of any particular dogmatic or orthodox system of belief, we should realise that the study of religion will be partial and narrowly dogmatic, unless it is combined with an examination of the records of evolving cultures. A dogmatic secularism, and an exclusive concentration on religious rituals and practices are equally one-sided and provincial. Religion is, in a sense, the essence of culture; and culture, properly understood, is a form of religion.

That eminent educationist and philosopher, Mr. Northrop, made a valuable contribution to the subject of inter-religious, inter-cultural and inter-national understanding. He asserts that man now has within him power to destroy mankind. He says, we either learn to understand one another and restrain our culturally and religiously inspired nationalism and imperialism or we perish. Quoting Gandhiji's statement, "such power as I possess for working in the political field is derived from my experiments in the spiritual field", Prof. Northrop adds that the era of religious statesmanship, as conceived in terms of converting the world to one's own religion, is over. The religious statesmanship of today should cultivate a respect for one another's differing cultural and religious tradition. The deepening of each student's insight into the richness of his own religion and the expansion of his imagination, intellect and heart to enter sympathetically and with understanding into the spirit and merits of other religions is the wiser course. It is a wrong approach that draws too sharp a division between the religious and the secular. Inter-religious understanding and collaboration on a

University campus is as important domestically as it is internationally.

The following extract from Mr. Northrop's essay illustrates and crystallises what, I submit, is the right attitude towards the study of religion and ethics in a University. The authentic presentation of the major religions and their practices on or near the University campus is not enough :—

“The mentality or philosophy behind each must accompany the presentation. To appreciate and understand Roman Catholic worship, one must interpret what one sees in terms of Roman Catholic doctrine and philosophy. To evaluate and gain respect for Islam, one must, in addition to observing Moslems at worship, read the Koran and some of the Shariat (laws), while also having some appreciation of the Greek, Arab, and Persian philosophy of a very high order which has gone into their interpretation. Likewise, to understand the Buddhist's Nirvana, the verbal and non-verbal practices of its Zen sect, the Hindu Brahman, or the psychological and gymnastic techniques of a Hindu Yogi, something of Buddhist and Hindu philosophy and especially its epistemology must be comprehended. To present the authentic practices without the indigenous theory necessary to understand them is to fail practically.

The resources in the departments of anthropology, philosophy, area studies, comparative law, and religion must be drawn upon. Perhaps all of these departments will have to be expanded, becoming less culturally provincial in the philosophy, law, and religion which they teach. Also, foreign and American students who are authentic representatives of their respective faiths should be encouraged to expound to one another the inner meaning of each religious tradition”.

Many speeches are now delivered and much attention is being paid to what is described as indiscipline among students. There is a real distinction between indiscipline and restlessness. Restlessness, if by that term is meant the quest of psychological and physical adventure, is and should be the characteristic of youth. Indiscipline results mainly from frustration and lack of proper direction. The cure for indiscipline, therefore, is the removal of the element of frustration in our scheme of studies and in the relation between the teacher and the taught. After all, frustration originates from the ever-present anxiety of the student with reference to his future and it can only be countered by the creation of a wide range of vocational, technical and professional opportunities. Emotional disintegration results largely from the absence of home influence and of religious and ethical foundations that can be laid only when the student is helped actively by a parent or teacher, who is in close contact with the pupil and who is conversant with the *Ethos* and values of our nation and its scriptures.

Eminent men have spoken of the deleterious effects resulting from mis-directed participation of students in schools and colleges in the politics of the country and in their resorting to direct action by way of strikes and demonstrations. My plea for the abstention of the student from such activities as distinguished from fervently patriotic aspiration and a careful and even passionate study of the problems of life and society is based on the following considerations. All politic and all the business of life tend, to a greater or less extent, to divide men into groups and parties. I would rather that in the plastic and formative years of youth, men and women should know of no differences save differences of intellectual perception and intellectual appraisalment, and that they should be a homogeneous community intent solely on acquiring that suppleness and strength of intellectual and moral muscle without which the great enterprise of life can never be successfully attempted.

Abhorrent to all true lovers of the country must be the spectacle of boys and girls driven to thoughts and deeds of violence by mischievous and un-Indian teaching and frenzied political doctrines. Is it not demonstrably true that to handicap one-self with political antagonisms or communal bias at an early age is to put a fetter and a shackle on minds and souls that should be free as the air and unconfined? Such tendencies and resultant conduct produce lop-sided and disintegrating consequences that in the India of today need to be eliminated or minimised. Let our educational centres be true ashramas from which are banished all contentions, save those of the enquiring intellect and all hatreds, save of shams and falsehoods.

Let me conclude by congratulating those who have, by their concentrated diligence and by efficiency in their studies and research, qualified themselves not only for the tasks and privileges of citizenship of our great country but also for citizenship of the world. Let us remember always the ancient adjuration :—

तेजस्विनावधीतमस्तु । मा विद्विषावहे

“Let our studies be radiantly effective and may no dissensions and quarrels weaken us.” This precept was imparted to the student on the completion of his studies, after which he had to engage in the game of life. In that game the rules are meticulous and exacting, and the glittering prizes are few. Nevertheless the game can be rewarding and worthwhile if played in the true spirit of sportsmanship.

VISVA-BHARATI UNIVERSITY

24th December, 1962

MR. CHANCELLOR, MR. VICE-CHANCELLOR, GRADUATES OF
THE YEAR, LADIES AND GENTLEMEN,

In the chequered and eventful march of human history, we are today assuredly at one of the cross roads. The traditions of this country are those of tolerance and, in the main, of a search for reconciliation and peace. Our Epics tell us of righteous and chivalrous wars that often ended in reconciliation. Lulled into complacency by loud protestations of brotherhood and *Panch Sheela*, we have perhaps not adequately sensed the realities of the world situation and the psychological attitudes and ambitions of neighbouring countries. The present conflict, in one sense, has caught us unawares; but, on the other hand, it has triumphantly demonstrated the basic unity and the pervasive patriotism displayed in all regions, communities and classes in India, who have, with marvellous unanimity, responded in every way to the call of the country. From now on, it will be necessary for us to prepare ourselves to be ready for all contingencies, while continuing to be wedded to the basic policy of peace and *Samavāya*. Education in Schools and Universities alike must, of necessity, be re-oriented to meet all the possible demands of a nation's resolve to protect and maintain its freedom and self-reliance. This means that University courses may have to be modified to include scientific studies embracing military science and the numerous aspects of modern defence requirements. It goes without saying that organisations like the N.C.C. and the A.C.C. should be extended both in numbers and in the content of their instruction. It is also possible that an occasion may arise for recruit-

ment to the fighting services in all their branches from the ranks of University students ; and if it does, there is little doubt that the response will be immediate and nation-wide. For, is it not true as the poet declared ?

“ One instant's toil to thee denied
Stands all eternity's offence.”

In a memorable passage in his *Sādhanā*, Dr. Rabin-drath Tagore surveyed the recurrent crisis in national and international affairs and drew a contrast between what he called “ the intoxication of power ” in certain parts of the world and what he wisely termed “ the intoxication of the spirit ” in our country. He was referring to the tendency to impracticability and the shrinking from dynamic and practical activity often masquerading in the guise of philosophic detachment which is, of course, very different from real spirituality. The ethics of a righteous war and of active resistance to evil are nowhere better outlined than in the immortal precepts of Lord Sri Krishna on the battlefield of Kurukshetra.

In all critical periods of a nation's history, the youth of the country have, with their generous impulses, always rallied to the call of patriotism. During the First World War, many persons were pessimistic about the courage and determination of a people long inured to peace and to luxury ; but the summons of danger aroused young people in their hundreds of thousands. As Rupert Brooke wrote,

They,

poured out the red
Sweet wine of youth ; gave up the years to be
Of work and joy, and that unhopèd serene
That men call age.

It is, in reality, the instinct, that the future is for them that makes students and all young persons exuberant to defend it. Moreover, in them, the image of service is not dimmed by personal considerations. We must always

remember what Churchill said on a memorable occasion :

“ No one must, however, under-rate the power and efficiency of a totalitarian state. Where the whole population of a great country, amiable, good-hearted, peace-loving people, are gripped by the neck and by the hair by a Communist or a Nazi tyranny — for they are the same things spelt in different ways — the rulers for the time being can exercise a power for the purpose of war and external domination before which the ordinary free parliamentary societies are at a grievous practical disadvantage. We have to recognise this.”

“ We must recognise that the parliamentary democracies and liberal, peaceful forces have everywhere sustained initial defeat, which leaves them weaker morally and physically to cope with dangers which have vastly grown. But the cause of freedom has in it a recuperative power and virtue, which can draw from misfortune new hope and new strength.”

And finally, let us also, for ever, keep in mind what the Lord Sri Krishna emphasised on the field of Kurukshetra :

यतो धर्मस्ततो जयः

Beginning with the development of the Forest University of India and of the Academy and the Stoa in Greece down to the days of Dr. Arnold, Cardinal Newman and Dr. Hutchins of Chicago, instructed opinion, not merely confined to academic circles, has been unanimous as to the importance, nay, the imperative necessity of continuous and live contact between the teacher and the taught, for the purpose of imparting and benefiting by the right type and quality of education. It is not for nothing that the word अन्तेवासि ‘Antevasi’ (a person who dwells with or near another) is used by our ancients in relation to a pupil.

In Dr. Rabindranath Tagore's own words —

“In ancient India, it was considered necessary for pupils to live with the teacher and practise mental and moral discipline during the entire period they were students. This did not imply that the students were subjected to unnecessary hardships and lived a maimed life or in monastic seclusion. Those who live in the midst of the rancours of the world can seldom lead a natural course of life and are more often than not disturbed by waves of distraction.”

Tagore's idea was that of developing the human personality in an atmosphere of freedom and fellowship, through the impulses of a life lived in Nature and in close touch with the varied creative activities of the human mind. He pleaded for a comprehensive and rounded development of the faculties of men and women as a part of education and as an integral factor of character-building.

Visva-Bharati grew out of the Santiniketan Ashrama, a retreat founded in 1863 by Maharshi Devendranath Tagore. In 1901, an experimental school was started at Santiniketan by Dr. Rabindranath Tagore, and since 1921, Santiniketan has been the seat of Visva-Bharati, which was incorporated as a University by Act XXIX (1951) of the Indian Parliament. Visva-Bharati is an all-India institution with students and teachers drawn from all over India, with a proportion of teachers, students and visitors from abroad. Such provisions were designed to eliminate parochial tendencies and to make the University truly universal, not only in curricula but in its composition.

The aims of the University are to study the mind of man in its realization of different aspects of truth from diverse points of view, to bring into more intimate relation with one another, through patient study and research, the different cultures of the East on the basis of their undying unity, and to approach the West

from the standpoint of such a unity of the life and thought of Asia ; and with such ideals in view, to provide at Santiniketan a centre of culture where research into and study of the religion, literature, history, science and art of Hindu, Buddhist, Jain, Islamic, Sikh, Christian and other civilizations may be pursued along with the culture of the West, with that simplicity in externals which is necessary for true spiritual realization, in amity, good fellowship and co-operation between the thinkers and scholars of both eastern and western countries, free from all antagonisms of race, nationality, creed or caste.

The main objective of Visva-Bharati is thus the study and harmonisation of different cultures, East and West. It endeavours to strengthen the fundamental aspects of world-peace through the establishment of free communication of ideas and to eliminate all antagonisms.

The Radhakrishnan Report refers to the harmonising process taking place in teacher-training, in the graphic arts, in literature, music and dance. Visva-Bharati contains a very large number of manuscripts in Bengali, Persian, Oriya and Sanskrit as also several important Chinese scriptures and manuscripts and a complete set of the Tibetan Tripitaka.

Furthermore, the Institute of Rural Reconstruction founded at Sriniketan seeks to bring back life in its completeness to the village, making the rural folk self-reliant and acquainted with the cultural traditions of their own country, while they are made competent to make an efficient use of modern resources.

It has a department of village welfare and has organised co-operative health societies. It makes economic studies and works on soil conservation and afforestation.

A scheme of agro-economic research is being conducted at the University under the auspices of the Ministry of Food and Agriculture, Government of India.

The Social Education Organisers' Training Centre sponsored under the Community Project scheme, provides for training of 160 organisers from the States of

the Indian Union every year and has a two-fold curriculum, theoretical and practical. It is apparent from the ideals and programme of Visva-Bharati that it should be more than a centre of intellectual enlightenment and that it should touch life at many points, so that the aesthetic and emotional aspects of education are attended to as well as training in practical arts and crafts.

My contacts as a student in Madras were with a purely affiliating and examining University. It has now made great strides and has developed into a body with a large number of teachers and professors engaged in research as well as in actual teaching. The old affiliating function, however, still continues. The Madras experiment was re-duplicated in the Travancore University, which was founded when I was Chief Minister. This too has recently specialised in various forms of research and technological studies. The Annamalai and Banaras Universities (of which I was successively the Vice-Chancellor) have been termed residential Universities ; but it must be observed that even in the former University which approximates closest to a residential type, $\frac{2}{3}$ of the students are in residence and $\frac{1}{3}$ are day-scholars. Banaras has over 10,000 students, but there is hostel accommodation only for 3,500. The rest live in a congested and over-crowded city in lodgings which are theoretically supposed to be supervised by the University, such supervision, however, being necessarily occasional and incomplete. Even in the so-called residential Universities, there is little real and live contact between the teacher and the student ; and, in the nature of things, the students who are not in residence are left pretty much to their own devices.

If the object of a residential University is to bring about a close intellectual and psychological contact between the teacher and the taught, it would be essential firstly to make arrangements for accommodating the maximum number of students in hostels, which are actively supervised not only in the matter of food, hygiene and accommodation, but with reference to the

daily communion between the teacher and the student and the establishment of a real Gurukula atmosphere. It cannot be disputed that if a considerable proportion of students in a residential University live outside and are subject to no tutorial influence, the result is bound to be deleterious, not only to day-scholars but to the boarders as well. The day-scholar starts with an inferiority complex which is not conducive to the harmony of the institution. On the other hand, even the student in residence does not, under present conditions, get the specific advantages of residential Universities which consist in the solution of the students' problems, personal and intellectual, by intimate discussions with the teacher.

After some years, I am re-visiting the Visva-Bharati, which was definitely meant to be exclusively or mainly residential; and, personally speaking, I would welcome the continuation and intensification of the residential experiment rather than its diminution.

Why is there so much talk to-day and so many criticisms with reference to indiscipline among the students, especially in the Universities of India? Why is it necessary to have policemen in plain clothes seated amongst the professors and students during Convocation in some localities? Is it true that the younger generation has no seriousness of purpose? Is it a fact that they reside in the University only for vocational reasons and not for the love of learning? Is it true that there is very little serious study among the students of to-day, and that lecture halls are regarded as a compulsory and tiresome necessity?

To answer these questions, we have to discuss certain fundamentals and cannot be merely satisfied with a superficial analysis. The remarks that I am making emanate not from a mere study of newspapers or from perusal of official reports and records but from personal experience gained from my contacts with several Universities. One of the chief reasons for the prevailing state of things is the impact of the phenomena of pre-

sent-day conditions on University students, such phenomena including election contests, party organizations and their propaganda, and the prevalence of party or group loyalties. The consciousness has not yet dawned on the student population or even on their elders that the situation in the country has basically changed after the attainment of Independence, and that to-day the main requisite for the progress of the country is the unceasing and uninterrupted devotion of the students to such studies and such research as may be of importance and value in the matter of national reconstruction. Slogans, attitudes and actions which may conceivably have been efficacious, or even justifiable, in the days of the freedom struggle are now utterly irrelevant. Furiously contested elections to offices in University Unions, strikes among the students, demonstrations and processions with banners, conflicts with the police, damage done to tram cars and buses, smashing of furniture and windows in examination and lecture halls, the barricading of University officials, all these are positive obstacles in the way of obtaining that academic atmosphere without which no real study or research becomes possible. A later and even more dangerous phenomenon is that of organised violence against cinema proprietors or bus conductors for not giving concessions to students. But the ultimate and extreme peril of such mental attitude is demonstrated, when an unqualified person is sought to be admitted by clamours to a University or to an examination.

I have mentioned these factors, not in a spirit of reproach or criticism, but to delve deeply into the root cause of these occurrences. They stem, in my opinion, from several causes for which the students are hardly, if at all, responsible. Steps have to be taken by the public, by the Government and the University authorities to deal effectively with prevalent evils before casting reproaches on anybody.

The greatest difficulty arises from the organisation of the University system itself, which in the main was modelled on the pattern of the London University, under

which most of the Universities to-day are only examining and degree-granting units. Not only private institutions, but many Government Colleges are over-crowded and imperfectly equipped, and recruitments to teaching positions are too often made for political or personal reasons unconnected with academic efficiency. Several teachers, moreover, are saddled with innumerable administrative duties ; and above all, the teachers are not, in spite of many public utterances to the contrary, conceded that dignified position in society and that respect which was the privilege of the old Acharyas or Kulapatis and is commanded by teachers in other progressive countries, notably the United States of America, West Germany, Japan, England and Russia. Indian Colleges and Universities are too often the arena of intrigues in respect of appointments and promotions in connection with the teaching staff and of nominations or elections to academic bodies. Political and personal partisanship and mutual animosities are characteristic of many institutions ; and, moreover, notwithstanding the strenuous efforts made by the University Grants Commission within its sphere and subject to its financial limitations, many teachers have to court the favour and patronage of influential persons to supplement their meagre incomes by examinerships, private tuition and supplementary offices. Non-educational and lay bodies vested with authority in Colleges and Universities add to the chaos by giving an extraneous bias to academic problems. In the result, a large percentage of teachers, not only among those connected with primary and secondary education, but even among those connected with Universities, are ill-conditioned, frustrated and often vocally discontented. It is inevitable that this atmosphere should react on the students' mental consciousness and, as I have often stated on public platforms, student-indiscipline is a function, in mathematical language, of teacher-frustration. It must further be realised that the reward of a good teacher should be on the academic plane, and not on the administrative side. It is a serious mistake

to create out of a first-rate Professor, a second-rate Principal or Director of Public Instruction who, after the so-called promotion, is unable to devote any time to study and research in his own chosen field. It is positively criminal to tell an outstanding expert in Science or Arts that he cannot better his worldly prospects save by forgetting his *metier* and concentrating on so-called office work, i.e. on file-pushing.

Another great evil productive of low academic standards is the casting of a too heavy teaching burden on the professor or the lecturer who thereby becomes a kind of tape-recorder, giving vent to lectures at dictation speed. The classes, even in specialised institutions, are too large and even when the tutorial system is available, the number of students assigned to a teacher is excessive. Very often, I have found that the teachers have not even been assigned special rooms in which the students can meet the professor freely, for the resolving of their doubts and for discussion.

Another serious difficulty arises from the new type of student who now resorts to the Universities. The old middle class family, of 50 or 60 years ago, had a tradition, however enfeebled by social and other upheavals, of learning and of economic and social security. The present generation includes categories of young people who are admittedly backward for no fault of their own; and the teachers of to-day have to adjust themselves to newer conditions. The new generation of students should be provided in the University with accommodation and facilities for reading and for recreation and games, which their homes and their previous environment did not and could not provide. Yet another dangerous phenomenon is that of students who will not leave the College and merely hang about the institution and function as student-leaders who are mainly responsible for the political complications and un-academic activities which have intruded into Universities.

Many evils also result from the stark poverty of the majority of the students. In one University, I found

that students were, in many instances, too poor to have more than one meal a day. The result of this state of things is the scramble for fellowships and free scholarships, for the admission of candidates into the M.A. and post-graduate classes for which they are unfit, the insistence on making the examinations more and more easy, and the agitation to increase the percentage of passes. Many offices and institutions insist on the candidates possessing an M.A. or an Honours degree or a first class. There has, therefore, arisen a race amongst Universities to manufacture M.A.s and Ph.D.s and indiscriminately bestow first class marks. Educated unemployment is the unenviable prospect of a large proportion of University students. In short, we now witness the creation of an educational out-put which is not commensurate with the capacity of the State or private employers to absorb. The problem, therefore, has to be approached with an eye to the speedy creation and distribution of vocations under the country's programmes and various Five-Year Plans. It may be noticed, in this connection, that technological and professional Colleges where the students are more or less assured of employment after graduation are not subject to the storms and turmoils emanating from students to whom the future affords a bleak prospect under present conditions.

Ultimately we have to formulate satisfying answers to many questions. Is a University to be a manufactory of an ill-supervised and partially instructed educational proletariat ? or is it to be the home of a contented and one-pointed professional staff dedicated to the development of formative and creative qualities in young men and women who should be regarded as the architects of the future, whose personal problems, whose educational progress and whose psychological aptitudes are personally and lovingly surveyed and prescribed for ? Not until the student and the professor can be made to eschew superficial study, cramming for examination, exclusive reliance on lecture notes and the exaltation of

the quiz method, can the University subserve its true purpose of being that nursery of true learning and research which the emergent problems of to-day and to-morrow will clamantly demand.

On the other hand, new claims are advanced by the advocates of a welfare state ; and it is insisted that no one who is capable of benefiting by it should be refused the opportunity to obtain the highest possible mental training.

One of the most remarkable developments of higher education especially in the United States is the broadening of their outlook and the realisation that new responsibilities have devolved on them by reason of the tremendous increase of the urge for education on the part of the people at large. This has resulted in the enrolment of over a million persons in the United States in what are called "Night Colleges," where students attend evening classes either for graduation or to acquire the content of a single course. Employers, not only in the ranks of Government but also those engaged in business, trade or commerce or industries, now find that a University training is of positive value in business and in the professions. This process has been thus described: "The half century between 1875 and 1925 saw the rise of over 900 four-year Colleges and Universities. It represented a shift from the aristocratic concept to one best described as democratic education. It grew out of the belief that education was for every one and was the best means of achieving success in a democratic society". Since costly buildings and equipments have been stretched to the breaking point with still more students to come, the only logical solution to further enrolment was to make more use of existing equipment and to make it do double duty, day and night. "Students range from Government Secretaries to grand-mothers, from Army privates to Navy admirals. There are students from some of America's small rural areas and there are men and women from such distant places as India, Egypt, Turkey, Lebanon, Nepal and Ceylon."

It will be one of the urgent tasks of the future to reconcile and, if possible, to harmonise two seemingly disparate ideals of education. Such reconciliation is impossible to contemplate without a massive increase in the number of qualified teachers and a formidable extension of the tutorial system.

It has been well said that one of the main purposes of a University should be to instil into its alumni the awareness of moral as well as of intellectual values. It will also be seen that in after-life, whatever may be the profession that is chosen by graduates from a University, they would need the basic moral qualities of service and self-control. This University has decided not to confine itself to the teaching of the humanities and sciences but provides for all the arts and crafts that promote aesthetic values. The Prime Minister who is, by academic training, a scientist, has given expression to this in 1958, when speaking to this University. He said :

“Unless science is controlled by ethics and human ends, it may lead to disaster. Science has no soul, so to speak. So, while we must develop science, we have also to develop something else so as to control these great powers which an individual or group may have ; and it is that something else which comes up repeatedly in Gurudev’s messages and in the ideals that you have set for Visva-Bharati. It is important, therefore, that you keep that in view. I think Visva-Bharati should and can give you some help in finding yourself and providing a true perspective for the larger issues of life ”.

Huxley, who was a renowned scientist as well as a master of English prose, has likened life to a game of chess. He says :

“It is a game which has been played for untold ages, every man and woman of us being one of the two players in a game of his or her own. The chess-board is the world, the pieces are the phenomena

of the universe, the rules of the game are what we call the laws of nature. The player on the other side is hidden from us. We know that his play is always fair, just and patient. But also we know, to our cost, that he never overlooks a mistake or makes the smallest allowance for ignorance. To the man who plays well, the highest stakes are paid, with that sort of over-flowing generosity with which the strong shows delight in strength. And one who plays ill is checkmated—without haste, but without hesitation”.

This is an era of specialisation and many of you, in the course of your academic career, have concentrated on specific topics or branches of learning. Speaking two years ago, Dr. Zakir Husain laid a much-needed emphasis on what he called “the vital ideas of the time” and he warned his hearers at the Convocation of 1960 that before one proceeds to specialise, it would be wise to introduce him to the vital ideas of the time so that he may avoid becoming mechanical or lop-sided. The exhortation that he then delivered is at no time more necessary than in this nuclear age. In his own words,

‘ Science devoid of ethical judgment becomes an ally of every one—of the good as well as the bad—and may change the world into a paradise or reduce it to hell”.

It is by bearing in mind these precepts that you, graduates of the year, will go forth into the arena of the outer world, having a definite sense of direction, and some purpose in living and some hope for the future.

JABALPUR UNIVERSITY

16th February, 1963

MR. CHANCELLOR, VICE-CHANCELLOR, GRADUATES OF THE
YEAR AND FRIENDS,

Jabalpur has been an important civil and military station and is one of the most salubrious spots in India. As has been remarked by Dr. Radhakrishnan in his Convocation address to you, this locality has had a long tradition of higher education, although the University itself is one of the youngest in India. The Robertson College, now re-named Mahakosal Mahavidyalaya, is more than a century old and has been functioning in various spots and under various names. The jurisdiction over the higher educational institutions in this place has now been transferred to this University under the Act of 1956.

Your three-year degree courses in Arts, Science, Commerce, and Home Science commenced in 1960 and tutorial instruction has been rightly made a compulsory part of this scheme. I have noted that you have made ample provision for post-graduate studies and for research in the humanities and have instituted an M.A. course in ancient Indian History and Culture and have also initiated post-graduate study in medicine. You have several well-equipped professional colleges imparting instruction in Engineering, Agriculture, Medical and Home Science studies as well as a Polytechnic Institute. I have been glancing over the scheme of sociological studies which Mr. Kewal Motwani has been presiding over, and wherein I note an attempt has been made to orient the contents of the courses both to ancient experience and the present day needs of our country.

There is no need to emphasise today the importance of an adequate and well-designed study of Indian social thought and environment including, in its scope, geographical, biological and ethnological data and the place occupied by religion and social institutions in the growth and maintenance of the values of social life.

We are at present living in an exciting as well as a testing period in our national history. It calls for the appraisal and maintenance of the fundamentals of our national existence in the background of the crises that are taking place all over the world. It is our duty to realise that our Universities have to play a special part in the discussion and implementation of our basic requisites for the present and the future. The great plans of economic reconstruction and industrial development that are now being envisaged in order to deal with the evils of poverty, disease and illiteracy, require the speedy and continuous creation of human material that has to be equipped for handling all the connected problems. Our education, in its various grades, should not only serve as a means of earning our livelihood but should evolve a new *corps d'élite* of trained personnel who will reorganise our agricultural and industrial economy and will, at the same time, preserve and foster those ideals of discriminating enquiry and mental emancipation, tolerance and freedom and those basic spiritual values which alone can enable us adequately to face the complex developments that have been brought to the fore-front by the emergence of terrifying scientific achievements and technological advances. As the President of India has observed, the qualities which present-day science demands of its votaries are also the qualities which are associated with spiritual life, namely dedication, detachment and disinterestedness. It is with reference to these aspects that, all over the world, new educational objectives have come into existence intended to impart to University students a broad education based on an understanding of the heritage of our civilization, as well as the evolutionary aspects of contem-

porary society and the nature, methods and influences of the experimental sciences.

When the University College of North Staffordshire was founded in 1949 under the sponsorship of three Universities, (of Oxford, Manchester and Birmingham) the objects of the institution were outlined as the advancement of comprehensive learning and human knowledge in an organization started on a residential basis. The courses of study were designed to ensure an appreciation of the nature and inter-connection of human knowledge. It was emphasised that some idea of the structure of the Universe and the evolution of life is essential to appraise the achievement of human civilisation and to enable students to play their part in an industrial age. In other words, the future social, economic and industrial structure cannot be adequately built up without the historical, sociological and cultural foundations of national life. Music, literature and the arts are as significant for the student of current problems as are the various sciences immediately relevant to a machine-age.

It is increasingly felt that some appreciation of the nature and inter-connection of the main branches of University study is a necessary pre-requisite to academic progress. The background and heritage of modern society will have to be understood side by side with a knowledge of the educational apparatus necessary for industrialisation and technical advances. The findings and significance of modern science should not overlook the contributions made by music, literature and the arts to the development of human personality.

The question of the reconciliation and synthesis of education in the humanities and in the sciences and technology has occupied the anxious attention of heads of University institutions and other experts all over the world. Presenting the President's Report to the University of British Columbia, Dr. Norman Mackenzie, as recently as October 1962, stated as follows :—

“The world we live in is one in which Science and Technology have advanced by leaps and bounds. This has resulted not only in a general acceptance of their importance but in a realisation that Science and Technology are making profound changes in our environment, in our world and even in our Universe. Increasing emphasis has been and will be placed upon the Sciences and upon Technology within our University ; and this, within limits, must not only be accepted but is right and proper. But while those of us who belong to the disciplines appertaining to the humanities and social sciences must become more familiar with Science and the scientific spirit, the fact remains that human nature has not changed to any marked degree during the long march of history. Moreover, there seems to be no indication or evidence that we are likely to change in the future saving always the possibilities of annihilation or something approximating to it as a result of the misuse of the achievements of the Scientists. And so, it is even more important than ever it was, that greater importance be attached to the humanities and the social sciences”.

One of the other aspects pointedly emphasised by Dr. Mackenzie is that in addition to the training and education of students and the cultivation of research, there is another role to be fulfilled by the Universities and that is the continuing education of all citizens who may be interested in and who are capable of further education.

It is gratifying that our Universities have become alive to the importance of an integrated system of combined humanistic and scientific disciplines. Not only in the Staffordshire University College but in many other centres in the world, there is now encountered a new series of educational experiments, arising from new perspectives of educational needs.

The ancient system of Indian education, like the University-training in the middle and later ages in Europe and until two generations ago, proceeded on the tacit assumption that a student could cover the whole range of human knowledge. The expression *Sarvakalā-vallabha* (i.e. master of all branches of knowledge) meant in India the person who was called a polymath in Europe, exemplified by persons like Leonardo da Vinci, Roger Bacon, The Admirable Crichton, Lord Bacon, Goethe and several others who resembled our own Kalidasa, Bavabhuti, Bana, Chanakya (or Kautilya) or Appayya Dikshitar in recent years. The spectacular growth of scientific knowledge in recent times annulled the possibility of such encyclopaedic learning ; and in the consequent evolution, the European and American Universities went to the other extreme. It was regarded that each student can aspire to be a competent specialist only in some particular and necessarily very narrow branch of knowledge. The magnificent contributions to the evolution theory by Darwin and Herbert Spencer in the last generation, the revelations made by Geology and Astronomy and the many-sided discoveries of natural and physical sciences from the days of Galileo, Newton, Laplace, Cuvier and Darwin lessened the importance of classical studies and the humanities ; and in conjunction with the doctrines of the Economic Man propounded by Adam Smith and his successors in the early age of industrial growth in Europe, and the later Socialist and Marxian trends of thought, they generated an essentially materialistic and utilitarian outlook. It was only during and after the First World War that Professors began to feel that individual efficiency depended as much on a firm grounding in the students' intellectual and spiritual heritage as upon science and technology. This grounding was felt to be more necessary than ever in a world of rapidly shifting values ; and the cataclysmic changes produced by atomic and nuclear discoveries have enhanced this consciousness. The 20th century, therefore, has been marked by a series of new

Educational experiments ; and one of the foremost exponents of the recent outlook upon higher education was President Robert Hutchins of the Chicago University who pleaded for what he styled as integrated programme encompassing the world's cultural heritage as embodied in its great ideas and books. It was in 1945 that the Harvard University published a famous report entitled "*General Education in a Free Society*". Under this scheme, specialisation is provided in many elective courses ; but every student is required to undertake a basic course of liberal humanistic or classical studies.

Several Americal Colleges and Universities inaugurated different types of programmes. Stephen's College built its curriculum around the actual problems which its women students were likely to meet in adult life—such as maintaining physical and mental health, enjoying social and civic relations, consuming wisely and economically and sustaining a philosophic or religious view point. St. John's College offered a modern equivalent of the classical *trivium* and *quadrivium* as embodied in the literary, philosophic, and scientific master-works of Western tradition. Reed College tried to focus students' energies on academic matters by de-emphasizing the non-academic activities which characterise many campuses. The University of Cincinnati, Antioch College and Berea College demonstrated the effectiveness of alternating periods of academic study and practical work-experience. Such programmes expressed the traditional American belief in joining the practical and the theoretical.

It is evident that the challenge of modern Universities is how to improve continually the quality of instruction in the face of a rapidly increasing demand for higher education. It will be seen that, as much in America and Europe as in India, the crucial problem is not the curriculum so much as the teacher who is in short supply. Side by side with the above realisation, modern life, especially after the first World War, has accelerated corporate research facilities in Universities whereas

formerly, research had been a product of the ability and resourcefulness of individual scholars. Team work has now become essential for substantial research. Many subjects such as Business Administration and Management have become parts of higher education; and in Europe and America, music has taken its place as a valuable component of higher education. Some modern Universities have given hospitality to poets and philosophers as centres of radiating influence, and some have welcomed artists in residence. In addition, research and teaching in Universities and Colleges have concentrated more and more on the understanding of Governmental problems of various types. Institutions of higher education today supply experts to Governments and civic authorities, and thus Universities and Colleges have become identified with the life of their communities.

Eric Ashby's "*Chancellor's Lecture*" in Johannesburg which has been republished under the title "*Universities under Siege*" has propounded in a striking manner the fundamental requisites of University life. He observes "Experience shows that a society, however successful it may have been in the past, will not long survive if it cannot cope with the tasks of a new era. For this reason, every civilised society tends to develop institutions which will enable it to acquire, assimilate, and advance knowledge relevant to the tasks which, it is thought, will confront it in the future. Of these institutions, the university is the most important."

He adds: "To forbid the student to learn where and what he will, or the teacher to teach whom and how he will is to put a curb on the hazardous adventure of thinking; and a nation, where thinking is rationed, simply cannot survive in today's world. Of course, thinking is dangerous. Little ideas don't upset anybody very much, but great ideas generate resentment and threaten vested interests and demand uncomfortable adaptations in society. They begin by being disruptive, whether they are scientific ideas, such as the theory of evolution, or sociological ideas, such as the belief that the black man has

as honourable a place as the white man to play in Western civilisation. For this very reason nothing is more dangerous to a country than uncriticised ideas: the dogma which must not be disputed, the party line which must be followed. Innovation must always be accompanied by dissent; but there is a diplomacy of dissent, and it is in the university that our young people may learn it."

"There is no substitute" he insists, "for the clash of mind between colleague and colleague, between teacher and student, between student and student. . . . It is here that the half-formed idea may take shape, the groundless belief may be shattered, the developing theory may be tested. . . . It is here that controversy develops, and out of controversy, deeper understanding."

In the India of today, there are some apparently divergent demands. They arise from the following causes. Many communities and classes which formerly did not or could not aspire to higher education are insisting on facilities for such education to be extended to them. The rush for admission to Universities and to higher centres of all types of education is incessant and ever-increasing. It would be neither possible nor prudent to shut the door on any person who is adequately equipped to enter upon a University course. Realising this aspect, the Universities, notably those of England and Scotland, have opened the doors, even of the so-called aristocratic universities like Oxford and Cambridge, to classes and groups who did not, heretofore, obtain entry therein. A much larger proportion of national expenditure is now devoted to granting scholarships, studentships and other forms of aid to the poorer students. The result has been that there is no boy or girl in England or Scotland who is fit to undertake University education and who is debarred, on economic grounds, from embarking on higher studies. In addition to largely extended contributions from the

national budget, private philanthropy and handsome contributions from industrial and manufacturing groups have added their quota. The same thing is more or less true of modern States all over the world, which have found that it is neither practicable nor wise to restrict admission to Universities.

In dealing with the manner in which several countries have responded to rapidly evolving educational challenges and multiplying demands in respect of higher education, I desire to reiterate what I stressed in my recent Delhi Convocation address. "England furnishes a remarkable example in respect of the financing of the national system of education. Full-time schooling has been made free for all children in popularly maintained primary and secondary schools. In April 1945, fees in all types of secondary schools, including voluntary schools, were abolished, and the school-leaving age was raised to 15 in April 1947; and it is proposed shortly to be raised to 16. In respect of higher education, whereas in India only 35 crores of rupees have been provided for the University Grants Commission out of the total of 4,800 crores envisaged for the Second Five Year Plan, the total number of awards of scholarships current in 1955 in the English Universities was about 7,000 and scholarship awards by Local Education Authorities amounted to a total of 35,000. Without a doubt, it may be averred that in the United Kingdom about 80% of the students studying in the Universities receive adequate financial help from the State, from Local Authorities and from organised philanthropic agencies. Not very dissimilar is the case in Canada, Australia and New Zealand. It is claimed that higher education is almost fully subsidised in the Soviet Republic; and even the Chinese system of higher education imposes very little financial burden on the student who is, however, carefully selected with advertence to his suitability for University education, and, of course, to his receptiveness to Marxian ideology."

In India, the problem is assuming great importance. On the one hand, it is now generally realised that admission to Universities can only be made on the basis of suitability for higher studies. It would be essential to maintain high standards to cope with the educational needs of the future. Such higher standards are impossible of achievement if an adequate and rigorous screening of candidates for admission is not resorted to. But notwithstanding all such screening, the number of entrants is bound to increase in as much as many persons and communities which formerly did not aspire to higher education are now legitimately demanding it as of right. The problem of extension of education and of the inevitably large increase in the number of Universities and Colleges cannot be ignored. Side by side with this phenomenon is the rising consciousness of the need for intensiveness of education. The maintenance of exacting standards especially in research has become an imperative necessity. Such standards are impossible of attainment unless the number of competent teachers is vastly increased so as to bring about a proper teacher-student ratio and achieve that intimate personal contact between the teacher and the student which is a prerequisite of satisfactory training. Without continuous and personal discussion and the resolution of doubts and difficulties, improvement is impossible.

Closely connected with the above subjects is that of the medium of instruction in Universities and centres of higher learning. It is lamentably true that recent experimentations and shifts of policy have brought about a serious disequilibrium. Thus, for instance, a student who studies the prescribed subjects upto the Secondary stage, taught solely in the regional language, finds, on entry into a University, that he is unable to follow the lectures and instruction in another language, whether it be Hindi or English ; and a great deal of what is uttered by the teacher is either not understood at all or is only imperfectly assimilated. It has, therefore, become necessary, in many Universities, to contemplate the introduc-

tion of a class in spoken English in order that pupils may understand what a lecturer, either in Science or in the Humanities, is saying. Furthermore the clamant demands for education exclusively in a regional language have reduced the chances of the very valuable mobility of teachers and students from institution to institution and *a fortiori* from State to State. The result will be definitely unsatisfactory from the point of view of the indispensable integration of the country. In ancient India, as in Nalanda, Taxila, Vikramsila, Ujjain or Kancheepuram and in medieval and eighteenth century Europe, students travelled from place to place in search of renowned and competent teachers. This process created mental hospitality and adaptability and produced mature and really cultured persons.

In this connection, it may be useful to ponder over some recent educational approaches. There was recently an International Conference of Educationists in Hamburg; and the experts attending this conference which was sponsored by the UNESCO came from Belgium, Germany, France, India, Israel, the United Kingdom, the United States and the USSR. The Conference pointed out that children can begin to learn a second language even before they can read and write their own. This was the opinion of twenty experts from eleven countries who examined the role that foreign languages should play in primary and secondary education. The Conference recommended that a second language should be taught even in kindergarten. They emphasised that the very young have a better ear for foreign sounds than older children. The Conference also made the following observation: "The common fear that a second language taught to the very young may be detrimental to the development of the first language, to intellectual growth and to general attainment, is unfounded." They suggested the free use of gramophone records and audio-visual appliances.

I am making these remarks in order to indicate the need for a study of the problem of how a boy or girl

can be taught to understand fully not only the regional language but also English and Hindi in the earlier stages, so that at the University level the student may not be as helpless in the lecture-room as he is tending to be, today.

Addressing a Convocation of the Vikram University of Ujjain in 1961, I pleaded for the revival and popularisation of Sanskrit, and I wish to repeat what I then said.

"In pleading for the revival and popularisation of Sanskrit, I am not oblivious of the Constitution of India and its emphasis on Hindi as the official language of the future. Nor am I urging the elimination of a study of the Hindi language. On the other hand, it is obvious that some of the prejudice and much of the propaganda against Hindi in the non-Hindi localities of India will disappear, or at all events be minimised, by the cultivation of Sanskrit; because it is an undoubted fact that all over India and even in places where non-Sanskritic languages like Tamil are spoken, not a little of the vocabulary and much of the ideology and basic philosophical and religious concepts is bound up with Sanskrit. This will be evident from a perusal of the Tamil and Telugu classics through the centuries."

Hindi and other languages like Marathi, Bengali and Gujarati are intimately related to Sanskrit. They are descended from Prakrits closely akin both to the Vedic and the later forms of Sanskrit. The foundations of these languages were laid during the five centuries preceding the Muslim conquest. After the commencement of Muslim suzerainty, necessity forced Muslims and Hindus to meet each other and evolve a common language. In the intervening period before Urdu arose, some Muslims learnt and wrote in Hindi like Malik Mohammed, in the time of Humayun. Hindus also began to learn Persian and Urdu (meaning a camp language) which was really a Persianized form of Western Hindi. Urdu itself has been shading off into Hindi, and the teachings of Ramanand and Kabir were manifestations

of a philosophy and a language, which combined Hindi, Arabic and Persian elements.

In the light of this narrative, I verily believe that the continued cultivation of Sanskrit will serve as a powerful incentive towards national unification.

No one who is addressing an assemblage like this can, at this juncture, omit to assign the primary importance to the all-pervasive problem that has emerged on account of the national emergency. What is now described as the Chinese aggression is neither a temporary nor an isolated phenomenon. Even before the transformation of China into a totalitarian and Marxian State, it is incontrovertible that the history of that country has been a history of open or insidious expansion through the centuries, coupled with an invincible belief in the inherent superiority of Chinese culture and China's racial mission. Such tendencies have only been intensified, as a result of the special Marxian and Leninist doctrines of which China now claims to be the sole exemplar and exponent. What is now taking place may conceivably have been anticipated by us; but various circumstances have interfered with our perception of the realities of the world situation. These included the inherent national philosophy of India manifested in an underlying tolerance and a belief in Ahimsa which in its turn was not always rightly understood with reference to its full implications. We should not forget the camouflages accompanying slogans like *Hindi Chini Bhai Bhai*. Our misunderstanding may well have been dispelled by a right appreciation of our own history and of the teachings of the *Ramayana*, the *Mahabharata* and the *Gita*. But, in any event, the present crisis has awakened us and we should now heed the old call

उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत

‘Arise, awake, seek enlightenment and pursue your goal.’ The goal is the maintenance of our freedom and the security of our country and our unhindered

development to the highest possibilities of our destiny. In the search for this goal, no institution can and should play a more vital part than the Universities. This emergency calls for the development of new faculties and for the concentration of our students on scientific, technological and humanistic studies which will fit them for the tasks of the future. We cannot be content with second-rate objectives nor can we allow indifference, or inappropriate and side-tracking activities to obtain mastery over ourselves. New opportunities will undoubtedly arise for the large-scale employment of the alumni of our Universities in the varied occupations and pursuits, which the reordering of our social and economic structure will render necessary and inevitable. The task of the teacher will and must assume overwhelming importance, and literally thousands of men and women will have to be requisitioned to impart the right type of education from the bottom to the top of the social and intellectual scale. The status and emoluments of the teachers will have to be remodelled so as to attract the best talent in the country. The teacher will be as fundamental and valuable a component of reorganised India as the engineer, the industrialist, the business organiser, the doctor or the modernised farmer, or the jurist interpreting and vindicating the Constitution. To serve the country not only in self-defence but in preparing it to meet the variegated scientific and technological necessities of the situation is the function and the mission of the Universities. Above all, the Universities should inculcate and develop in their alumni, not only by means of the N.C.C. and other allied organisations but also in every other conceivable way, those qualities of self-confidence, self-discipline and high morale which the country will demand not only now but in the coming years. India has now emerged into a world of unforeseen realities and must be equal to the demands and potentialities of the changing situation.

KERALA UNIVERSITY

30th September, 1963

MR. PRESIDENT, MR. CHANCELLOR, MR. PRO-CHANCELLOR,
MR. VICE-CHANCELLOR AND OTHER AUTHORITIES AND
MEMBERS OF THE UNIVERSITY AND FRIENDS,

On the occasion of the Silver Jubilee of this University, it would be legitimate and profitable to reflect on its beginnings. After considerable prior discussion and with the unstinted support of His Highness the Maharajah, a representative Conference considered the proposal for the establishment of a University for Travancore. The arguments that weighed with them and with me, as the Head of the Government, were the following, namely that the intelligence and adaptability of the Kerala population were the main assets of the State which had for long enjoyed the benefits of widespread educational opportunities ; that the dense population and restricted area of the State necessitated the utilisation of up-to-date scientific knowledge for the progress of agriculture, industries and commerce ; and that the scientific utilisation of the soil and of the extensive forest and mineral resources and of fisheries, was an inescapable necessity. It was considered that, to achieve the best results, a new outlook on the dignity and importance of labour and of industries, both large and small, must be brought into existence along with the spirit of research.

When I addressed the Third Annual Convocation of the University, I referred to its motto कर्मणि व्यज्यते प्रज्ञा (wisdom is manifested in action). The Preamble of the Act establishing the University laid great stress not only on the importance of humanitarian studies but

on what Niels Bohr described as the "fruitful linkage of research with technology". I pointed out then, and I desire to emphasise now, that a University will fail in its objective if it does not give a wide choice of intellectual interests outside the immediate courses of studies, or if it ignores the craving of the human spirit for the solace afforded by poetry, drama and music and the beauty of colour and form. Fulness of academic life is an indispensable condition of culture. Very aptly has a poet outlined the things that are more excellent :

The gains of Science, the fruits of Art,
The thirst to know and understand,
A large and liberal discontent,
These are the gifts in God's good hand
The things that are more excellent.

Kerala, though separated by the ghats from the rest of continental India, has had millennia of cultural and commercial contacts with many countries beyond the seas. It has received much from and given not a little to the outside world, not the least significant of its gifts being the great Sankaracharya and a long line of poets and artists. Kerala has also inherited a special mode of life and given a unique position to its women, a position illustrated and vindicated by the well-known Proclamation of Rani Parvathi Bayi in favour of universal education.

His Highness the Maharajah of Travancore and his advisers, in view of these considerations, envisaged the creation of a University wherein both our practical and our cultural requirements could be met. From the beginning, therefore, the Engineering College with its workshops, the Institute of Textile Technology, the Forestry Course and a Research Council were characteristic features which were all initiated soon after the University came into being. The Research Council proved to be of great use to the country in dealing with such matters as tapioca research, the combating of plant pests and in advising the State with regard to developments

like the canning industry, the fishing industry and the initiation of ceramic, plastic, paper and rayon concerns.

In facing such needs as have been indicated above, let us keep in mind the examples of other countries. The German Universities which had been for long under the shadow of scholastics and comprised only the conventional faculties of Philosophy, Theology, Law and Medicine, had, within 50 years, adapted themselves to modern needs. They led the world in research and they were a magnet for scholars from everywhere. These Universities were independent of one another and cherished that independence; but they were united by a common ideal of research; and it may be specially noted that they acquired their homogeneity through the continual migration of students and teachers from one centre to another.

It must be emphasised that a University teacher cannot and should not be a teacher only; he must himself be a daily student. In other words, a University must sedulously eliminate the weakness which has been observed in several countries, viz. that the teachers have no higher level of knowledge than what would suffice for teaching. Let it also be remembered that the scientific revolution in Europe and America has emphasised the intellectual unity not only of those regions, but of the entire civilised world. Science knows no frontiers. The discovery made by any scientist anywhere, provided it is repeated and verified and is published in the accepted way, is valid for all scientists everywhere. Many European Universities, that had lost the cosmopolitanism of the Middle Ages which was due to religious inspiration, have regained that cosmopolitanism under the impact of research and science. One of the most eminent of modern educationists, Sir Eric Ashby, has recently summed up the present position: "If the University repudiates the call to train technologists, it will not survive; if it repudiates the cultivation of non-practical values, it will cease to merit the title of University. Under the pressure of technology, the British

Universities are entering a new phase of adaptation. The adaptations take a variety of forms. There are voluntary lectures which aim to show the student new horizons which he would not be likely to discover in his formal studies; lectures on the ballot, on politics and diplomacy, on architecture, art, philosophy and religion. There is a compulsory first-year course in the University College of North Staffordshire which is balanced equally between the humanities, the social sciences, and the natural sciences. There are in the United States, the courses in general education which have their origin in the Chicago experiment of Robert Maynard Hutchins and the Harvard Committee's Report on General Education. From the Electrical Engineering department of the University of Melbourne comes another promising experiment. In this experiment one book is selected for special study each year; lectures are given on the author and on aspects of the book; at the end of the course, each student writes a 2,000-word essay on some topic from the book. The book selected is not some monumental classic, but is about contemporary problems which students can more easily criticise and discuss."

Our ancients, in their hermitages and forest universities and other centres of learning, enunciated their ideals of education thus :

युवा स्यात् साधुयुवाध्यायकः

आशिष्ठो द्रिष्टो बलिष्ठः ।

'Let the young man emerging from his pupillary condition be an *Adhyayaka*, a diligent student; let him not only capture but maintain the faculty of constant study and reflection on what he has studied; *Asishtah*, let him be disciplined, let him realise the value of discipline not only as a factor of individual evolution but as a cementing factor of society, as a creative factor; *Dridishtah*, let him be firm of will, resolved of purpose, so that amidst the troubles and the difficulties of

the world he bears an inflexible will, resilient, resistant to all thoughts of weakness and fortified against the folly of yielding to that weakness ; *Balishtah*, let him also be strong in body.'

It should be our constant endeavour to stress the importance of the culture of the body and the promotion of good health as the fundamental basis of all subsequent training, intellectual or spiritual. One of the maxims of the forest university may thus be stated : 'Your body will be strong and suited to all work ; your tongue will be sweet, so that you may persuade and conciliate your fellowmen and forge your way in the world ; you will hear good things and always be eager to hear good things.'

शरीरं मे विचर्षणं
जिह्वा मे मधुमत्तमा
कर्णाभ्यां भूरिश्रुवम् ।

The modern University may well set before itself the task, not of creating walking compendia of human learning, but of fashioning the minds of its scholars so that they may become supple and adaptable. As recent theories of psycho-analysis strongly emphasize, what is forgotten is perhaps as valuable as what is learnt ; and wide vistas have now been opened that point to the immense importance of the psycho-analytic point of view for an understanding of the structure and function of human culture. Without analysing the conflicting theories of Freud, Adler and Jung, one may observe that they all base themselves on a dynamic conception of the mind.

The evolution of the individual as well as of the race-mind has now come to be regarded as a function not only of conscious but of unconscious knowledge ; and what is learnt and forgotten during these years of preparation is deemed to be as valuable as what is learnt and retained. Sciences like Mathematics and various

classical and artistic pursuits have sometimes been assailed on the ground that they are of very little importance in 'real-life'; but it is not the retention in the mind of the formulæ and the processes that should be regarded as significant, but rather the formative influences and the disciplinary value of such studies in relation to the unconscious as well as of the conscious being.

Carrying the discussion a step further, we may say that the study of Political Economy, which was once called the 'Dismal Science', reveals a record of exploded theories, including the doctrine of *laissez-faire*, so dear to the Victorians. But a knowledge of these developments is useful even in these days of planned economy and comprehensive State control, at least in order to deal with new theories which are a camouflaged rehash of old doctrines. Increasingly does it become manifest that, as in the case of a lawyer preparing his brief, so in the case of students of the humanities and of the sciences, what matters is not to equip oneself with a knowledge of all possible details. One need only know the path on which to travel and where to look for the requisite material. The function of a University would thus seem to consist in endowing the minds of its alumni with such a basic capacity and such adaptiveness as well as such a general grounding as will enable them to discern where to search profitably, for knowledge and for wisdom. Such an agility of mind and such a trained outlook and attitude are not generally attained through the labours of the lecture room or by the strenuous cramming of degree-getting notes, but arise from the commerce of mind with mind in the debating hall, in the laboratory and in the play-field. This exchange of opinion and co-ordinated effort may therefore be regarded as one of the fundamentals of educational endeavour; and to obtain the optimum advantage therefrom, the pre-requisites are freedom from exclusions and from conservatisms or fanaticisms which are the antitheses of culture. The true environ-

ment of a student cannot be better delineated than in the invocation which constantly recurs in the Upanishads :

ॐ सह नावतु । सह नौ भुनक्तु । सहवीर्यं करवावहे ।
तेजस्विनावधीतमस्तु । मा विद्विषावहे ।

‘May we be protected ; may we be supported and maintained ; may our energies be rightly applied ; may our studies be illustrious ; and may there be no hatred amongst us !’

During my recent visit to West Germany, one feature of the educational system made a deep impression on me, namely, “The Peoples’ University”. There are over 1,100 of these institutions ; the number of persons availing themselves of the facilities offered is about 6.8 millions. They have remained centres of unfettered self-education open to every one without consideration of age, sex, race, religion, political views or social position. Irrespective of the subjects chosen for study, they provide the opportunity for a close human relationship not only between teachers and students but also between all classes, groups and creeds.

About 30 Heimvolkshoch-schulen-other establishments of a more domestic character serve as centres of education for adults. They have the character of homes, with community life.

If the programmes and ideals indicated above have to be carried out, the Universities, the Government and the public must necessarily put a stop to all attempts that tend towards regionalism or parochialism either in the matter of the medium of instruction or any other similar and decisive factor. Furthermore, Universities should not be too sedulous to repeat each other’s curricula and programmes, but should rather endeavour to supplement each other, each concentrating on a particular group of studies but allowing the greatest possible mobility of teachers and students *inter se*. Only thus can we rise beyond the tug and strain of political exigencies and maintain high standards. Above all, if I

may say so without trespassing on forbidden ground, Universities should be placed above all financial or political temptations either to lower standards or to scatter degrees without insistence upon adequate prior training and day-to-day evaluation of academic development. Popular demands, insisting on more passes or lamentations over the so-called wastage of the student population and the consequent creation of easy courses of professional study and similar short-cuts, may result in a precarious popularity; but the University ideal is bound to suffer to the lasting disadvantage of the country. To say this, of course, is not to minimise the importance of widening the field for every type of education, elementary, secondary and collegiate, of inaugurating vocational, literary and technological studies over a wide field leading to variegated avenues of employment. A University is not to be regarded as the sole or inescapable outlet for all human energies. It is only a special type of institution satisfying particular needs and demanding a special discipline. In the language of Sir Eric Ashby, nothing is more dangerous to a country than uncriticised ideas: the dogma which must not be disputed, the party line which must be followed. Innovation must always be accompanied by dissent, but there is a diplomacy of dissent, and it is in the University that our young people may learn it.

“There is no substitute” (let me quote from *The Open Universities*) “for the clash of mind between colleague and colleague, between teacher and student, between student and student. . . . It is here that the half-formed idea may take shape, the groundless belief be shattered, the developing theory be tested. . . . It is here that controversy develops, and out of controversy, deeper understanding.”

A University is the principal instrument of society for achieving these ends.

UNIVERSITY OF CALCUTTA

13th February, 1964

MADAME CHANCELLOR, MR. VICE-CHANCELLOR AND OTHER
AUTHORITIES OF THE UNIVERSITY, GRADUATES, DIPLOMA
AND CERTIFICATE-HOLDERS OF THE YEAR, LADIES AND
GENTLEMEN,

It is remarkable, but none the less profoundly true, that no one charged with the responsibility of exhorting the alumni of any University about to embark on new careers after taking their Degrees and obtaining their Diplomas, can do better than to follow the practice of our old Kulapathis. What finer epitome can be furnished of the ideal life of a student and teacher than the invocation :

सह नाववतु
सह नौ भुनक्तु
सह वीर्यं करवावहै
तेजस्विनावधीतमस्तु
मा विद्विषावहै ।

“Let us both (teacher and disciple) live and be protected in peace, let us be able to maintain ourselves, let us apply our energies to the acquisition of knowledge and let us be free from hatred and jealousy” ?

And, what more appropriate counsel can be given to new graduates than that contained in the 9th Anuvaka of the *Taittiriya Upanishad* wherein the preceptor, at the close of the period of instruction, enjoins on his

pupil emerging into the world of life and activity, the following objectives :

सत्यं वद । धर्मं चर ।
 स्वाध्यायान्मा प्रमदः ।
 कुशलान्न प्रमदितव्यम् ।
 भृत्यै न प्रमदितव्यम् ।
 स्वाध्यायप्रवचनाभ्यां न प्रमदितव्यम् ।

“Speak the truth, follow the path of righteousness, do not abandon your studies, adhere to the path of prudence and prosperity and always continue to learn and to teach” ?

What finer practical philosophy can one inculcate than that contained in the maxims of the *Gita* :

योगः कर्मसु कौशलम् ।
 समता योग उच्यते ।

“Efficiency in action is true Yoga”; “Equanimity is declared to be Yoga” ?

And finally, what is more appropriate for all time and especially in this troubled period of history when we are surrounded by the forces of narrow-minded strife and communal and religious factions and animosities, than the sage command of Emperor Ashoka :

समवाय एव साधुः

“The best path is that of reconciliation” ?

And, now let me perform my primary duty of congratulating all those who, by their application to study and research, have been crowned with academic success. May this success be a prelude to adequate and worthwhile opportunities, professional and vocational.

To a person of my ante-diluvian generation, the names of the Calcutta University and of Sir Asutosh Mookerjee, its renowned Vice-Chancellor, seemed to be inextricably united. He not only waged a valiant war to assert and maintain the autonomy of the University but strove against all political or reactionary interferences with its management and affairs. He also stood for the ideal of universality, which is inseparable from a University's proper outlook. He introduced in the University the study of many European and several Asiatic languages and culture, including Tibetan and Chinese. While he was keenly interested in the Humanities, the Fine Arts and Music, he did not neglect the practical, scientific and technological departments of knowledge and was responsible for attracting princely benefactions for their cultivation. He consistently sought to implement the idea of the free migration of pupils and students without which genuine integration of thought and satisfactory implementation of research are not possible. He stood equally against chauvinism and all parochial or regional points of view and, at the same time, he was strongly opposed to a slavish imitation of foreign ideas or dogmas. His aim was to reproduce those ideals and traditions which characterised the ancient Universities of India and of Europe. His personal munificence enabled him to establish the Kamala Lectures in memory of his daughter, and his example led to the inauguration of a large number of fellowships, studentships and lectureships in the University which, since his demise, have expanded far beyond his expectations. At the present time, in addition to the normal branches of study in the Arts, Sciences, Engineering, Law, Technology and Medicine, there are diploma and degree courses dealing with a variety of subjects, *i.e.*, inland fisheries, the techniques of jute manufacture, commercial and social studies, business management and even soap-making and military science. There is a Spoken English department which includes proper articulation, recitation, conversation and elocution

within the ambit of its studies. Side by side with these, the University has embarked on a wide series of extension activities. In other words, this University has sought to be truly comprehensive and has extended its hospitality to a very large number of foreign savants and scholars, and reciprocally, has sent out a large number of its scholars for studies and research outside India.

In a lucid and closely reasoned address, Dr. Subodh Mitra, speaking as Vice-Chancellor in 1961, dealt with certain charges levelled against Indian Universities, and especially against the administration and teaching in the Calcutta University. He argued that during the first 50 years of its existence, this University was merely an affiliating body which concentrated on examinations to test the progress of students in affiliated institutions, without instituting Professorships or Lectureships or conducting any research or original investigation, the teaching work being entirely undertaken by the affiliated colleges most of which possessed inadequate facilities therefor. It was in 1904, during what is called the Asutosh period, that the University was stimulated by Sir Asutosh Mookerjee to provide not only for the distribution and testing of knowledge but its acquisition and conservation. From 1907, new Chairs were successively established, and princely gifts were received from benefactors like Sir T. N. Palit. The College of Science and Technology was established, and in 1917, post-graduate teaching and research were centralised in Calcutta. Sir Asutosh soon gathered around the University a band of eminent teachers to carry on post-graduate research. Your post-graduate departments are justly claimed today to stand on a secure foundation, one of the most recent developments being the starting of a department of Nuclear Physics. Departments of Jute Technology, of Journalism, of Social Welfare and Business Management, are some of the more recent developments; and researches in Medicine, Surgery and Hygiene have received a new stimulus. Dr. Mitra's

address also added: "There has been an abnormal increase in the number of students appearing for examinations, so much so that out of the 263 working days in the year, examinations were conducted on 245 days, and the introduction of rules relating to external students has brought new pressure to bear on the University." In the language of the Vice-Chancellor, the University has neither the requisite staff nor proper accommodation nor adequate equipment for teachers and research workers. Deficit budgets have always been restraining the development and growth of this as well as most other Universities. Presenting 16,000 graduates for the award of degrees, he added that there are 1,25,000 students in the 123 colleges of West Bengal under the Calcutta University, compared with 1,10,000 students in the British Isles taken care of by 21 Universities which receive 34 million pounds (or a little over 44 crores of rupees) by recurring grants, and 10 million pounds (or over 15 crores) by non-recurring grants. If the ideal of the University Grants Commission is to be achieved, and the student strength of each college is fixed at a maximum of 1,500 or 2,000, obviously there must be a tremendous increase in the number of colleges and teachers. But the main problem is not so much the question of numbers as the quality of the teaching. A high student-teacher ratio is inconsistent with good or lasting results, and unless tutorials and the seminar system of instruction by discussion replace the didactic lecture system, students can never truly comprehend any subject and, at best, can only indulge in feats of memory and obtain ill-assimilated and fragmented information.

More than any other sister institution in India, the Calcutta University will have to confront the problem of the examination system on the basis of the essay type, as applied to a huge number of candidates from widely differing institutions. As the Radhakrishnan Commission has emphasised, this system of examinations is inadequate; its sampling is very arbitrary and limited,

and its scoring is subjective and unreliable. It is only by progressive and objective tests including the evaluation of class-room progress from time to time that efficiency in teaching and learning can be secured.

The usual examination system is inseparable from the present state of affairs, wherein unmanageable numbers of students have to be lectured to or at by teachers too few in number to do more than dictate notes and conduct periodical mass tests. It has been noted that in the country, as a whole, the teacher-pupil ratio did not improve at all between 1948 and 1957. On the other hand, from 1 to 20 in 1948, it went down to 1 to 21 or 22 in 1957. In Calcutta, it was shown in a report of the University Grants Commission in 1959, that the majority of undergraduates have proportionately fewer teachers to look after them than those in other parts of India, the ratio being as bad as 1 to 50 in some colleges.

The present Vice-Chancellor has re-emphasised that the number of teachers in the University is quite inadequate, as also the student-teacher ratio. It must be remembered that, on the other side of the balance sheet, the Calcutta University has been singularly fortunate in the large number of highly qualified men dedicated to their work; and it has been proudly claimed, and with justice, that the vast majority of boys and girls in this University can stand comparison with those anywhere else in the world.

Many avoidable difficulties in the way of efficient teaching have been experienced by reason of the ill-conceived but partially successful propaganda against the English language and the consequent inability of the teachers and the students to be *en rapport* with each other, especially in cases where the secondary schools have neglected the study of the English language. Cramming and memorising and a system of mechanical appraisalment of progress have become inevitable.

One cannot nowadays avoid referring to the question of the medium of instruction ; and, without adding to the volume of exacerbated controversy, I shall content myself with quoting Sri Surajitchandra Lahiri's dictum that "It is a false sense of patriotism which induces us to believe that we should forget English in order to be Indians." He has also truly affirmed that it is not necessary to withdraw English to promote the growth of Hindi or Bengali. I may add that to ignore or minimise the value of the most widely used language in the domains of Science, Arts, Literature, Technology, Commerce, Journalism and Politics is to handicap ourselves in a competitive world and, needlessly, to lose the advantages we have derived and benefited by during more than a century.

Successive Vice-Chancellors have pointedly adverted to the vexed problem of the health of the students with which, of course, their residential environment is closely interconnected. It has been estimated that not more than a sixth of the total number of students in the University Colleges of Arts, Commerce, Science and Technology are accommodated by the University ; and although new hostels are contemplated, they are incommensurate with your needs. There is much discussion throughout the country about the human wastage involved in the large number of failures in the University examinations. Such failures are closely related to inevitably imperfect teaching and guidance and the lack of opportunity to live or work under proper conditions. Reference was made in an Address of Sri Surajitchandra Lahiri to a survey recently undertaken in this University which ascribes the wastage to the following causes, *viz.* :

1. Lack of amenities for study due to poverty.
2. Weak foundation due to lack of good teaching in the schools.
3. Lack of proper planning by guardians regarding the course of study and future profession of their wards.

In dealing with the last topic, it is not always realised that University education is not, and should not be, intended as an exclusive corridor leading to all careers. A University career is and should be only one of several possible entrances to life. The problem of educated unemployment resulting from the overcrowding in the Universities should, if properly envisaged and handled, lead to the immediate and large-scale creation of a large number of alternative courses, vocational and technological, in different institutions designed to give opportunities to those who may not be suited for a purely academic course. It is only if rigid selection of the would-be entrants into the University course is made possible and if, at the same time, other avenues of useful and worthwhile training are thrown open, the problem can be tackled. What happens now is that most parents mortgage or sell their properties or borrow heavily for the purpose of starting their sons and daughters on a University career, mainly because they are not able to contemplate any other course of action. In the case of promotions from one class to another or in the process of selection for appearing for examinations, or in the matter of marking papers and conducting other tests, public opinion tends to sympathise with the parents, countenances mass production and discounts the claims of efficiency. The theme of so-called liberalisation in the matter of admissions and passes is very popular and politically attractive. In the result, there are included, in many collegiate classes, students below par from the intellectual point of view and unsuited for an academic course of studies, although they may be efficient in many other respects. Thus we encounter unmanageably large classes and the lowering of standards, due to the dilution of quality in the students. Furthermore, any system of tutorial supervision or of discussions in seminars is made practically impossible by the size of the classes and on account of the gross disparity between the intellectual potentials of the students in a class.

According to the latest available figures, University enrolment throughout India during 1962-63 was 12,72,666 which included just over 2,00,000 women students. It is noteworthy that out of them only 1,96,458, namely, just over 18%, were residents in hostels. Out of the total number of persons residing in hostels, 28,622 were women. These numbers showed a 10% increase over the previous year's figures, and it is anticipated that the enrolment figure will reach 1.7 million by the end of the Third Plan Period. Calcutta has 1,17,248 University students and has the largest number among the States of India (4,141 per million). It may be noted, in this connection, that in the matter of post-graduate and research enrolment the total was 76,594.

Reference may in this connection be made to a Committee on which I served, and which was appointed by the Government of India to deal with the question of Government service and University degrees. Our Committee emphasised that while University degrees were useful and even necessary in certain grades and categories of public, commercial and governmental service, they were needless in the vast majority of cases relating to the ministerial or clerical cadres and that a graduate pitch-forked into them is, in reality, a discontented and often inefficient unit. It would, therefore, be, in the interests of parents and students alike, to restrict entrance to such cadres to non-graduates subjecting them to such appropriate tests as composition, handwriting, typing and shorthand and so forth. Dr. Siddhanta has rightly urged that the State has failed to give a clear lead in the matter. It still insists on a University degree for most of its posts, and the commercial and industrial houses follow suit. The result is the desire for University education on the part of many who have no aptitude for it and who should be diverted to other avenues.

Many publicists and educationists are apt to complain against what is termed "student-indiscipline", often manifesting itself in strikes and demonstrations, and

sometimes resulting in violence and damage to property. As I have constantly insisted, student-indiscipline is largely a function, in mathematical terms, of teacher frustration. Unless a teacher functions as a real Guru respected by the public and assured of a proper competence and a worthy status in the public eye and unless, in addition, the teacher can effectively contact the students and try to solve their personal problems and perplexities, and unless the student has facilities for recreation as well as amenities in the shape of hostels, common rooms and messes, the problem of indiscipline cannot be adequately dealt with. When, as in the case of the Calcutta University, there are more than 50,000 non-collegiate and external students, it can easily be conceived what a difficult task the University faces in dealing with those who have in effect to teach themselves without adequate help and guidance. Very often the student has nowhere to turn to obtain much-needed advice either in the scholastic or in the personal sphere.

When we contemplate the manifestations of so-called student-indiscipline, we cannot forget that students are moved by many obscure and complicated forces, such as frustration and disillusionment, arising from their surroundings, involving a lonely life or distracting temptations in a crowded city, their brooding indignation over social and economic inequalities and sometimes by the appeal of dangerously attractive, if often chimerical, political and social dogmas and programmes.

The policy of religious neutrality which, after some vicissitudes, became incumbent upon our foreign rulers, naturally applied only to Government Colleges and Institutions and did not relate, in full force, to Missionary Centres of Education, Hindu, Muslim or Christian. But various causes contributed to the growth of materialistic or agnostic trends of thought during the middle of the 19th century, and especially after the rise of rationalism in Western countries. The Arya Samaj,

the Brahmo Samaj, the Prarthana Samaj, the Theosophical Society and the great contributions of Sri Ramakrishna Paramahansa and Swami Vivekananda helped to reawaken the inherent spiritual urges of our people. But when the Constitution of India was framed, it was argued, in certain quarters, that in a Secular State religious instruction in schools and colleges should be ruled out. The Constitution is mainly concerned with ensuring strict impartiality among the various religions prevalent in the country. For some reason or other, ethical and religious instruction has been practically excluded from the curricula of most educational institutions; and there is no doubt that the increasing exodus of students from the villages, away from their home influences, to urban centres, along with several other causes, has resulted in the relaxation of religious as well as social discipline. The effects of this development have been investigated in the Reports of the Shri Sri Prakasa Committee and the Hindu Religious Endowments Commission. In this connection, I may quote from a recent appeal made by me to the Indian public :

“Universities and Colleges which are expected to train the ideas of to-morrow have a special responsibility in this matter and it is their inescapable duty to cultivate a strong belief in, and respect for, religious and ethical principles through a proper study and understanding of the fundamental tenets of each person's religion, philosophy and sacred literature viewed in the perspective of a comparative study of other religions and a survey of other religious disciplines. It is true that this problem has been engaging the attention of the Government, University authorities and public men; but no decisive step has yet been taken.

“I should like to suggest a way out of this *impasse* without infringing, in the slightest degree, upon the provisions of the Constitution or the scruples of the votaries of different faiths. A system

of scholarships, attractive from the financial point of view, if instituted in Colleges and Universities and awarded to students who distinguish themselves in one or more fields of religious culture including Hindu, Buddhist, Parsi, Muslim and Christian philosophy and religion studied comparatively and tolerantly and without dogmatism, will enable the members of each faith to concentrate on their ancestral religion and culture and should also make for comprehension and appreciation of other viewpoints."

During a recent meeting at Delhi of the Vice-Chancellors and Education Ministers of the various States, I made the remark that there are very few persons in India who do not consider themselves qualified to speak with dogmatic insistence on education ; and it is no exaggeration to assert that the educational policies of the country are getting more and more confused and that, whether intentionally or otherwise, such policies are deeply affected by fluctuations of political or propagandist activities and by the intrusions of regional, communal, linguistic or other narrow and irrelevant considerations into the educational sphere. A sincere attempt has been made by the University Grants Commission to improve the financial position of the teaching staff ; but, with rare exceptions, the standard of academic studies and academic efficiency has not kept pace with the needs of the time, and Universities are not only losing the influence which they should exercise and which, in other countries, is exercised in close co-operation with Governmental and private research and other cultural agencies, but there is also a tendency to by-pass the Universities and start new institutions which either trespass on the legitimate domain of the Universities or bring about parallel and redundant institutions. In the meantime, the country reverberates with querulous controversies relating to the media of instruction or involving internecine disputes as between Science, Technology and

the Humanities, or as between regional claims to new Universities.

No statement is more often made in educational discussions than the averment "man does not live by bread alone". In ancient and medieval India, the student or the Brahmachari, resorting to a Guru for instruction, was expected to maintain himself by free gifts from persons in the neighbourhood; and even as late as my younger days, I saw students of Pathasalas going round a village with the well-known appeal to the mistress of the house: "*Bhavati Bhiksham Dehi*". In medieval Europe, it was also not uncommon for the students either to depend on eleemosynary financial assistance or to earn while learning. The development of the industrial system, the growing urbanisation of the country and the competitive nature of modern economy have put an end to any such possibility. The Indian student has also not been accustomed to maintain himself by manual or any other type of work while studying. Indeed, it was for a long time regarded as *infra dig* for the so-called literary or higher classes to engage themselves in manual work in factories or commercial establishments. The case is far otherwise in economically advanced countries like the U.S.A., Germany and even England (which, until recently, was somewhat conservative in this respect). From my experience, I can say that quite a large proportion of students in the American and German Universities are given adequate facilities, and even encouraged, to earn while learning; and, in California where I taught Indian Philosophy and Economics for nearly a year, I found that even in high class Universities like Berkeley, students were not only allowed to take part in such duties as cooking for the common mess or waiting at table or cleaning the rooms, but there was energetic competition for earning by such work extra pocket money or the wherewithal to pay the tuition fees.

The above remarks, however, touch only the fringe of the problem. The real dilemma facing the Univer-

sities in India arises from unemployment among the educated. The rush to Indian Universities arose when University education was regarded as the only possible avenue for obtaining a gainful occupation. Such occupation connoted, in the old days, mainly Government service or some private employment in a clerical or ministerial job. By the widening of the scope of the Universities and the inclusion, in their curriculum, of technical and engineering studies, the problem was sought to be solved but it has been done only to a very small extent. While those who were technologically qualified were able to secure employment comparatively easily, the average University graduate found himself at sea after taking his degree. On the one hand, there are not enough teachers or doctors to cope with the expanding requirements of the country and, on the other hand, a large majority of the graduates, who cannot get admission to technological institutions, join the ranks of the unemployed.

The figures relating to educated applicants on the register of Employment Exchanges for the past 15 years disclose a lamentable state of affairs. There is unmistakable evidence of a progressive and sharp increase of unemployment. From 87,000 in 1947 the number has risen to 170,000 in 1952, nearly doubling itself in this quinquennium. At the end of the next quinquennium (*i.e.*) 1957 the number jumped to 308,000, again an increase of 80%. By the first half of 1963, this figure grew to 780,000 or by $2\frac{1}{2}$ times. During the last five years the annual rate of increase is 30%. Even among the engineering graduates, the number registered has increased from 500 to 2,300 recording a four-fold rise. Among medical graduates, the increase is more than 75%. According to a survey conducted by the Man Power Division of the Directorate of Employment Exchanges in May, 1957, the pattern of unemployment among graduates shows that graduate unemployment was most widespread in West Bengal, Uttar Pradesh and Bombay, and that the highest inci-

dence of unemployment among women graduates was in Kerala.

Of the educated unemployed, whereas one-in-every-twelve in India taken as a whole is a graduate, the proportion is one-in-nine in West Bengal. Of the total educated unemployed in India, 15% are found in West Bengal as against 6.6% in Madras State. Of the total unemployed graduates, West Bengal accounts for 17% and Madras 5%. Even in Assam, of the total educated unemployed, 4.5% are graduates.

If the above figures are properly analysed, the only logical inference is that unless admission to the normal type of University institutions is severely curtailed (attention being paid to quality rather than to quantity) unless immediate and nation-wide steps are taken to diversify employment opportunities by starting a very large number of vocational, technical and technological centres, and unless enough institutions are available for training teaching personnel for these centres, the position will soon get out of control.

The main task before India, as before other nations with sub-standard economics, is the development of its national capacity through education. Such an education should result in the production of trained teachers, doctors, scientists, engineers and economists who will enable a backward nation to face competition.

As was recently remarked by Dr. Leonard of the Columbia University, a University should regard itself as responsible for disseminating learning amongst the entire people and, for this purpose, it must keep a living contact with and reflect the spirit of the changing times and the fresh problems that arise from time to time. "A nation must extend its intellectual hospitality to the world through its Universities. Even more necessary than intellectual resources is an educated citizenry. Thus alone can a University become a centre of enquiry in all fields so that the spirit of investigation and experimentation sets the character of instruction. There is no need for a Professor to do what a book or a library can do.

These, the students should learn to use for themselves ; but what the Professor can do, and should do, is to teach the youth to think, analyse and experiment and focus their powers on the problems of life."

We are indebted to Sir Eric Ashby for this summation of University ideals: "If the University repudiates the call to train technologists, it will not survive ; if it repudiates the cultivation of non-practical values, it will cease to merit the title of University." Under the pressure of technology, the British Universities are entering a new phase of adaptation. The adaptations take a variety of forms. There are voluntary lectures which aim to show the student new horizons which he would not be likely to discover in his formal studies, such as lectures on the ballet, on politics and diplomacy, on architecture, art, philosophy, and religion. There is a compulsory first-year course in the University College of North Staffordshire, which is balanced equally between the humanities, the social sciences, and the natural sciences. There are, in the United States, courses in general education which have their origin in the Chicago experiment of Robert Maynard Hutchins and the Harvard Committee's Report on General Education. From the Electrical Engineering department of the University of Melbourne comes another promising experiment. In this experiment one book is selected for special study each year ; lectures are given on the author and on aspects of the book ; at the end of the course, each student writes a 2,000-word essay on some topic from the book. The book selected is not some monumental classic, but is about contemporary problems which students can more easily criticise and discuss. All such programmes necessarily involve all-round planning and greatly enhanced expenditure.

Turning now to the outlay on education, we may bear in mind that the total investment on the Third Plan is estimated at Rs. 10,400 crores which may be compared with Rs. 6,750 crores in the Second Plan and Rs. 3,360 crores in the First Plan, the national income of India

being computed at Rs. 14,500 crores in 1961. The number of Universities in India was 29 in 1951 and it is expected to be 58 or more during 1965-66. It is significant that between 1954 and 1963, the number of Universities has increased from 30 to 55. The number of Arts, Science and Commerce Colleges has increased from 542 in 1950-51 to 1,283 in 1962-63. It is expected that there would be needed 27,000 additional teachers in the Colleges, 17,000 of them being Science teachers.

In relation to the outlay of Rs. 10,400 crores during the Third Plan, the total outlay on education including Engineering and Technology is Rs. 560 crores as contrasted with Rs. 256 crores in the Second Plan. Out of these Rs. 560 crores, Rs. 142 crores are devoted to Engineering and Technology. Rs. 6 crores are available for scholarships at the University stage, and Rs. 8 crores for Engineering and Technology. The total amount of estimated expenditure on Research under the Third Plan is about Rs. 130 crores, including Rs. 35 crores for the Department of Atomic Energy.

By way of comparison, some figures relating to other countries of the world may be of interest. In the U.S.A., during the last decade, the estimated expenditure on the 1,930 Universities and Colleges was over 3,604 million dollars of which about two-thirds were spent by institutions under public control, the total budget expenditure of the United States being just over 80,000 million dollars. In England, there are 16 degree-giving Universities, in Scotland 4, and in Wales 1. The Universities, and University Colleges in Great Britain are independent self-governing institutions, but they receive substantial aid from the States through the University Grants Committee. Universities charge fees but financial help is available for students from several sources. Universities provide scholarships, and the Ministry of Education and all local educational authorities have a system of awards to help students in the several Universities. It may be noted that over three-fourths of all the students in the Universities of England

and Wales are in receipt of some form or other of financial assistance. In addition, the Ministry provides annually a number of scholarships for mature students, viz., persons who did not attend any University but who, later in life, seek the opportunity to benefit from University courses. Awards are made on a competitive basis by the Ministry for post-graduate studies both in the Arts and in the Sciences. The Carnegie Trust alone with a capital of 2 million dollars devotes half its income to assist students. In France, by a law passed in 1875, higher education is free of charge.

It is noteworthy that Japan, which has, thanks to the all-round support of America, come to the forefront of economic and educational achievement, has realised the importance of the adequate financing of education at all levels. Recent figures have shown that in rural Japan, there has been as much activity in extending education as in the cities. In fact, the village appropriation for education ranges from 35 to 40% of the total budget. Likewise, in the U.S.A., after the passing of the Homestead Act, the creation of the Department of Agriculture and the enactment of the Morrell Land Grant Act, schools have been brought into existence throughout rural America to provide low-cost education to young men and women in the villages who are taught not only to be successful farmers but are trained for work in teaching, engineering and business administration.

It is essential that we should betimes realise that expenditure on higher education is quite as important as that on any other item save only public health and sanitation, because only thereby can we bring into existence the creative and formative elements of the new patterns of life that we are contemplating and hoping for.

In the world of today, any education would be lopsided and incomplete if it does not create conditions conducive to physical health and vigour in the students ; if it ignores the disciplines of science ; if it by-passes the teachings of history and social studies, or if it ignores the

emotional and psychological fulfilments brought to us by literature and the fine arts, by philosophy and religion. All education must, moreover, prepare the individual both for a vocation and for citizenship.

Wisely has Huxley observed in his "*Lectures and Lay Sermons*"

"That man, I think, has had a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of ; whose intellect is a clear, cold, logical engine, with all its parts of equal strength, and in smooth working order ; ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind ; whose mind is stored with a knowledge of the great and fundamental truths of nature and of the laws of her operations ; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience ; who has learned to love all beauty, whether of nature or of art, to hate all villainess, and to respect others as himself."

GAUHATI UNIVERSITY

26th February, 1964

MR. CHANCELLOR, MR. VICE-CHANCELLOR AND GRADUATES
OF THE YEAR,

This is my second visit to Assam, my previous sojourn having been as Chairman of the Hindu Religious Endowments Commission; and, as a student of Indian History and Literature, I have been fascinated not only by the grandeur and beauty of your natural setting but by Assam's variegated culture and the pervasive spirit of patriotism which has ever characterised the land of the Brahmaputra and of Kamakhya or Kamakshi, your tutelary Deity. The poet sings :

जननी जन्मभूमिश्च स्वर्गादपि गरीयसी ।

"The Mother and the Motherland
These are superior even to Paradise".

Assam has been the scene of the recent Indian struggle for self-preservation against malignant forces let loose openly and clandestinely by an erstwhile allied country, and by those who are inimical to and jealous of Indian nationhood and progress. Assam has proved herself immune to such subversive attempts and has vindicated her position as an enthusiastic partner with the rest of India.

Assam is one of the border States of India and its physical features are full of variety comprising alluvial plains, swift and spreading rivers and lofty mountain ranges. It has been observed that the Mongolian influence is present everywhere, and that there is more diversity of languages in Assam than exists in any other

part of India. It was known to ancient India as Prag Jyothisha and as the capital of the great Naraka, whose exploits are narrated in the Mahabharata and Vishnu Purana. The Kamarupa portion of Assam bordering on Bengal is the site of the celebrated temple of Durga, Kamakshi or Kamakhya. It is, by the way, a remarkable circumstance that Kerala on the West Coast of India and Assam are the two chief centres of Tantric Sakti worship. Assam was claimed to be part of Samudra Gupta's Empire, and Emperor Harsha also sought to exercise sway over Kamroop. Being protected by natural fortifications, Assam, though it sometimes paid a tribute, was able to preserve its essential independence during many centuries. Hiuen Tsang visited the country and described the people as "expert magicians" and added that "every army that entered the limits of this country made its exit from the realm of life". It was only in the 13th century that Assam was successfully invaded by a Burmese tribe, the Ahoms, who have now become merged in the Hindu population and speak Assamese. They created an extensive historical literature and were celebrated as artistic wood carvers. Dr. Sunit Kumar Chatterji, in his clear and sympathetic account of Assamese literature contained in his treatise "*Languages and Literatures of Modern India*", has spoken of it as extensive and as evidencing a high state of culture.

During my previous visit to Assam, I learnt a great deal about the great Sankaradeva, the leader of a notable Reformist Bhakti movement. He appears to have changed the social and religious outlook of the Assamese people and announced and propagated a doctrine known as the *Eka Sarana Dharma* or the religion of refuge in one deity. His hymns and songs are part of the cherished heritage of Assam. As already stated, the Ahoms who conquered Assam produced a series of prose chronicles or histories (termed Buranjis). The Assamese cherish an intense love for their language and culture, and recently the State has produced some notable literary figures

including Dr. S. K. Bhuyan and Dr. Baruwa. Assam is perhaps the most multi-lingual State in India, and the problems arising from this circumstance have undoubtedly to be faced by the University.

The University of Gauhati, founded under the Act of 1947, has seen some vicissitudes, both academic and statutory. The original Act has been amended by the Assam Act II of 1961. The University is now specially fortunate in possessing a Vice-Chancellor, who commands a profound knowledge of the problems of higher education and particularly of University education. He also brings to bear on his task a freshness and unconventionality of outlook which one cannot fail to admire. His utterances and specially his recent article published by the Inter-University Board have broken new ground. He has protested against the hampering influences of official formalities and technique. He insists that we must cease to think of a University as an administrative machine within which a few educational activities are permitted; and he has trenchantly expressed his conviction that the procedure of a political government is inappropriate in a University. He is also responsible for the valuable suggestion that the freedom which the Universities claim for themselves must be given by them, in turn, to the constituent and affiliated colleges. In all these matters and notably in his protest against standardisation, I whole-heartedly agree with him and rejoice that this University has the good fortune to be under the care of an educational expert, who is endowed with a knowledge of human nature and a sense of humour.

From 1857 to 1948, the University of Calcutta exercised jurisdiction over Assam, and this University is therefore of quite recent origin. In the statement of Objects and Reasons outlining the Gauhati University Bill 1947, it is rightly claimed that Assam offers great opportunities for special study in many fields—linguistic, historical, ethnological, archaeological, geological, scientific and agricultural.

Speaking at the Convocation in 1959, the then Chancellor, Mr. Fazl Ali, was at pains to point out that education, under existing conditions, must be so designed as not merely to encourage the acquisition of academic degrees but also to enable students to participate in all plans for national reconstruction. He emphasised that they should acquire those skills and capacities that would enable them not only to make a living but also assist in the development of the country. The following words are specially noteworthy :

“It is clear that these objectives cannot be achieved, if education continues to be imparted along the traditional lines of the past when the employment demand of comparatively limited numbers of educated young people used to be very largely met by vacancies in Government posts”.

He added :

“It is now necessary to concentrate increasingly on the devising of some system of selection in accordance with such special aptitudes as may be discovered which may be usefully utilised.”

He concluded thus :

“In order to fulfil these requirements, our students must be able to satisfy certain accepted and recognised criteria of good education. They must cultivate and acquire correctness and precision in the use of language, possess refined and gentle manners and a temperament capable of assessing beauty and worth in conformity with sound aesthetic standards. I would like our students to bear in mind that their education cannot be considered to be complete, unless they are able to satisfy these tests.”

I would only venture to add that a capacity to appreciate different points of view and the consequent development of the spirit of tolerance and reconciliation are equally important in the intellectual make-up of a truly educated individual. It must be remembered, as Einstein

once commented, "Education is that which remains when one has forgotten all that he has learnt in School or University."

His Highness the Maharaja of Mysore, in a recent Convocation Address, also rightly stressed the importance of relating knowledge to life so that one may steer clear, on the one hand, of what he called visionary ineffectiveness and, on the other hand, of a narrowly materialistic outlook on life.

A University that merely functions as a factory turning out a large number of uniformly-patterned intellects, fails of its purpose ; it is, unfortunately, true, as Emerson declared, that "most people are other people. Their thoughts are someone else's opinion. Their lives and even their feelings are, in a sense, quotations." A common life and commensality and the team-spirit produced by games, debates, seminars and other joint activities are not inconsistent with the evolution of individual personality and the habit of individual investigation. The danger of narrowly specialised scientific instruction and outlook was energetically denounced by the poet Siegfried Sassoon in these lines :

"Chained to the wheel of progress uncontrolled,
World masters with a foolish frightened face,
Loud speakers, leaderless and sceptic-souled
Aeroplane angels, crashed from glory and grace,
Deliver us from ourselves".

No education is worthy of its name unless it produces a truly civilised being, civilisation being thus defined by the critic, George Slocombe. "Civilisation is chiefly a high sense of the essential unity of Mankind, a respect for the dignity of man which expects an equal respect in return and an unlimited curiosity of the mind".

I have often, on occasions like the present, paraphrased an extract from the 8th Uchchvasa of the *Harshacharita* of Bana. Referring to one of the ancient Buddhist centres where simple living and high thinking

were inculcated, Bana describes a Forest University wherein students came from several countries and were enabled to study their own religions and cultures. They discussed freely with their teachers and among themselves, expatiating, arguing and controverting but ultimately arriving at some kind of reconciliation or *modus vivendi*. The students are described as sitting on rocks, in the open, in bowers, in forest retreats, in cottages and in caves or in simply constructed dormitories, and they are said to include free thinkers and atheists and materialists as well as devotees of several aspects of Godhead, exponents of the Dharma Shastras and of the Puranas, Grammarians, Rhetoricians and legal experts. This description is an epitome of what a University should aim at, namely, simple living, strenuous studiousness, adequate facility and scope for learning by discussion and intimate oral communication, and finally the acquisition of mutual tolerance, and of the inestimable spirit of give and take, and of live and let live. This is the only way in which personality can be developed and self-knowledge attained along with a capacity for objective judgment. The urgent task of the present is to explore, in the language of Dr. Jung, the tension between human impulse and the institutions within which it has to be expressed, and seek to achieve a harmony between them. During several centuries, the objective of higher education was to make of the students store-houses of knowledge, if not of encyclopaedic learning. Famous European Universities in the Middle Ages like our own ancient seats of learning such as Nalanda, Vallabi, Taxila, Vikramashila and Kancheepuram stood for this type of comprehensive scholarship.

The products of such training were the repositories of all the available treasures of Religion, Philosophy, Science and the Arts and were exemplified, in Europe, by men like Francis Bacon and Lord Acton who followed in the wake of the Admirable Crichton, Roger Bacon, Abelard and many others of the same type. Ancient Universities, in essence, looked backwards. The modern

Universities, to quote an eminent teacher, look forward and not backward, and they aim to be factories of new knowledge. Professors now attempt to be in the vanguard of progress. Research and frank criticism, laboratory work, the seminar system and the utilisation of the library are their main accessories ; but whether we look to the past or survey the present, the lecturer still has the utmost importance "in stimulating the students and giving facts and principles their proper relative prominence". The age-old method of oral instruction and intimate discussion emphasised the role of the teacher rather than of teaching, and this method can never be superseded. Thus, in the communication of knowledge, the relation and bond existing between the teacher and the taught who live a common life and share a common atmosphere is of the essence of University nurture. When this feature is wanting, a University ceases to be such, notwithstanding all possible advantages of affluence or past history. As has been said of Oxford and Cambridge by J. B. Priestley, their unique value lies in the successful creation of an atmosphere of disinterested scholarship and of mutual concourse and discussion.

To achieve these ends, our ancients, in their Universities, brought about a concourse of scholars from all parts of the then known world, and the Kulapathi, corresponding to the Vice-Chancellor of today, presided over a group of learners arriving from many countries, heirs to differing civilisations who personally adhered to several forms of religious belief and social practices, insistence, however, being laid upon mutual toleration and of a policy of reconciliation (Samavaya, in the language of Asoka).

Following Indian Independence, College enrolments have risen from 200,000 to almost one million. The University Grants Commission tried to adopt a maximum of enrolment in each college, but this involved the establishment of new Colleges. In many cases, the finances necessary for adequate space, buildings and equipment

were wanting and so, very little practical effect was given to the above proposal. Standards are therefore now becoming lower in the congested Colleges, and there is a great lack of suitable teachers. The inevitable consequence of the present state of affairs is the wastage and the drop-out that take place at every stage.

The recently published Hand-Book of Indian Universities makes this comment based on the above phenomenon. To what extent this wastage is due to the admission of persons who are not "college material", to what extent it is because of poor high school preparation, and to what extent it is because their English is inadequate either for reading the books or for answering examination papers, one cannot tell. Ultimately, the trouble stems from the overcrowding of the College classes arising from indiscriminate admissions, and the result is lack of real contact between the student and the teacher whose teaching necessarily tends to become mechanical and perfunctory. Inevitably, therefore, a large amount of human material is wasted. A 50% failure is not uncommon in the Pre-University course. Not far short of this percentage is the wastage in the College courses.

In essence, the student-Faculty ratio is so large and the teaching load of the members of the staff is so heavy that even if the teacher desires it, he cannot establish personal contacts with students. Formal guidance programmes such as are common in Europe and America are practically non-existent and impractical, although the Baroda University has tried the experiment.

Equally calamitous is the prevalence of the theory that the teacher has to teach for an examination in order somehow to produce good results and also somehow to finish a set curriculum designed to meet the needs of a public examination. These examinations are not regarded as a culminating feature supplementing day-to-day testing of efficiency in the class-room but as ends in themselves and as the sole criteria of merit.

A public examination conducted by an affiliating University was originally expected to exercise a levelling influence over the colleges, which varied in their equipment and teaching capacity. While it is true that all the students who appear for the same examination and are tested by the same examiners are judged by an impartial standard, it should not be ignored that, in practice, an examination does not necessarily test the intrinsic excellence or capacity for independent thinking but rather the faculty to memorise. This aspect has been noticeable even in research degrees. Some Universities and some departments maintain high standards and grant Research Degrees which take account of the continuous progress of the student and his independent thinking. Many Institutions however are far too facile in the grant of such degrees. In fact, even the Ph.D. Degree is not now regarded as always importing a high calibre. In many cases, Professors take on more research candidates than they can guide efficiently, and there is even an unseemly competition among Universities to mass-produce Ph.Ds.

Furthermore, the insistence of some Governmental and other employing agencies on the possession by the candidate of an M.A. or M.Sc. or at least a first class B.A. or B.Sc. degree, has led to an amazing increase in the number of high grade passes in some institutions. Many Universities, however, have resisted such temptations, and in the result, even their second class passes are highly valued. Some type of accrediting agency must be brought into being for testing and appraising the relative values of degrees and grades granted by Examiners and Universities.

It has been our experience that the University Grants Commission has made many of its grants on a "matching basis," making them partly a financial responsibility of the States. This responsibility the States are frequently not able or willing to shoulder. In a recent Conference of the Vice-Chancellors and Education Ministers of States held in Delhi, I adverted to this

circumstance and pleaded that the Commission should make more of its grants for entire projects either by itself or after prior consultation with the Central and State Governments.

In final analysis, the lack of adequate funds almost entirely accounts for all the difficulties and troubles of Indian Universities, whether they take the form of overcrowding and the resultant lack of contact between teachers and students, or the absence of hostel accommodation and amenities for students and teachers, or the phenomenon of student indiscipline. Such indiscipline arises from many student frustrations including the imperfect methods of instruction, the all-too-prevalent absence of the tutorial or seminar system, the undue importance attached to final public examinations, and the wastage involved by the unavoidable mass failures, and above all, the spectre of the educated unemployed.

Recent figures demonstrate that only ten per cent of our students receive financial assistance as compared with 75 per cent in the United States ; and the problem is accentuated by the inflow into colleges of people from very low economic levels. It is to the credit of the Government of India that they have recently announced a new scholarship scheme ; but it has greatly to be expanded to cope with the present situation.

May I, in this connection, reproduce two paragraphs from the address that I delivered at the Calcutta University Convocation a fortnight ago :—

“In the world of today, any education would be lop-sided and incomplete if it does not create conditions conducive to physical health and vigour in the students ; if it ignored the disciplines of science ; if it by-passes the teachings of history and social studies, or if it ignored the emotional and psychological fulfilments brought to us by literature and the fine arts, by philosophy and religion. All education must, moreover, prepare the individual both for a vocation and for citizenship.”

“It is essential that we should betimes realise that expenditure on higher education is quite as important

as that on any other item save perhaps public health and sanitation, because only thereby can we bring into existence the creative and formative elements of the new patterns of life that we are contemplating and hoping for."

Let me now, by way of comparison and contrast, recount the progress achieved in University education in a country that I recently visited, namely, West Germany. It is well-known that most industrial enterprises in Germany were bombed out of existence as also most of the Universities, with a few exceptions like Heidelberg. Between 1945, the close of the Second World War, and the present day, the German University system has been re-built, and is now on the way to recover the pristine reputation of the older German centres of learning. In short, Germany is repeating, even more successfully, the successes achieved by it at the beginning of the 19th century. Sir Eric Ashby states that "while the countries of continental Europe, during the Napoleonic Era and many years thereafter, were immersed in wars and revolutions, England was able to exploit her resources and to build up a supremacy in manufacture and trade. The countries in Europe, especially Germany, had therefore to make much leeway in industrial, scientific and technological education and progress. Notwithstanding British competition, it was the wise application of science and modern technique that transformed Germany and France". Dealing with the earlier period of German education, it was Helmholtz that declared "that every student in Germany should add at least one brick to the ever-growing temple of knowledge." In those days, mobility among the students of Universities was encouraged and there was free movement of teachers and students from centre to centre and consequently a healthy rivalry. Continuous private study and research were insisted upon in the case of University teachers. Germany produced, as a part of a new intellectual revolution, massive histories of other countries and extensive and monumental translations of literary,

philosophic and scientific publications from other languages. Great pioneers like Kant in Konigsberg, Wolff in Halle, and eminent professors in Gottingen and Heidelberg participated in this revolution ; and the result was that, by 1880, many teachers from the United Kingdom and the United States went to Germany to learn ; and the London University consciously imitated Germany in its curriculum and its outlook. The British Association for the Advancement of Science followed the example of a German institution and became the rallying point of scientific movements welding the practical with the real. The British Association, in 1868, inaugurated a system of scientific education in schools and insisted, as in Germany, that the teacher must be not only a teacher but a learner all the time. The concentration on Science and Research did not, at least in Germany, lead to the neglect of the Humanities, of Arts or of Music. A similar and even more accelerated programme of higher education was re-designed and implemented after 1945 with the massive contributions of money and technical know-how and educational man-power made by the Government of the United States of America and great corporations like the Ford Foundation and the Rockefeller Trust. Universities became truly universal, firstly by the widening of their curriculum ; secondly, by the encouragement of the free movement of professors from one University to another ; and thirdly, by the active encouragement of students who desired to learn under a teacher of their choice in a centre of their choice. Such ideas are now pervading the entire academic life of Europe. The methods of scientific teaching and research have become cosmopolitan. The canons of criticism, scientific, literary or historic, have become the same in England, U.S.A., Canada, Australia and the Continent of Europe. British Universities, in fact, have regained the cosmopolitanism which they possessed in the Middle Ages and then lost ; and it has been said that "A discovery made by any scientist anywhere, provided it is fortified and pub-

lished in a conventional way, is valid universally". In addition to these developments, facilities have been extended, notably in Germany, for bestowing education on those who have left school, for increasing their knowledge of particular subjects. Thus has been started the "Peoples' University Movement". There are 1,100 of these institutions in West Germany, and the number of persons availing themselves of the facility is about 7 millions. They are centres of self-education open to every one without consideration of age, sex, race, religion, political views or social position. They provide the opportunity for a close human relationship not only between teachers and students but also between all classes, groups and creeds. When we remember that in West Germany alone there are 10,500 public libraries with over 15 million books, it will be realised how much is being done in progressive countries to serve the cause of popular self-education and for raising the level of general culture.

The above are certain features of educational practice that are of special value to us, in India. Significantly, modern Universities do not set out to prepare students for particular examinations. Students are entitled to attend any lectures, whether related to their specific studies or not. The professor is not confined to a syllabus. It is the function of the College tutor to get into contact with the daily life of the student and to guide him in his studies. Freedom of study and the absence of compulsion to attend lectures, co-existing however with fundamental discipline are, in short, the characteristics of the best education of today. A large number of students maintain themselves in U.S.A., U.K., Germany and elsewhere by taking on part-time jobs and are encouraged to do so. No one is prevented, by financial considerations, from reaching the highest academic goal. Taking one University as an example, in Bonn, 17% of the students get State-aided scholarships under the Honnef system and 15% get aid from other sources. In addition, there are what are

called People's Scholarships. These miracles of educational reconstruction are only matched by the striking achievements which result therefrom. The ruined industries of West Germany have been fully re-built so much so that during 1960, 31% of all employed persons were in large industry, a third being women. At the same time, agriculture attracts highly educated groups as do the arts and crafts.

Many European Universities were founded and sustained by independent States, but they constituted an intellectual fellowship as their teachers and students were constantly migrating from one University to another and inter-changing ideas. Emerging from a period during which they busied themselves with the conventional faculties of Philosophy, Theology, Law and Medicine, they have extended their activities and embraced the whole ambit of human knowledge, Scientific and Humanistic. But what is most important to notice is that scholars no longer work as individuals but as groups of advanced students gathering round a savant and learning by apprenticeship even more than by formal study.

Let us also remember that Indian Universities can fulfil themselves only by realising that they cannot stand alone or pursue purely regional or parochial policies. They should continue to build on a common tradition and heritage and draw freely on each other's resources in order to establish a true Federation of Intellectual and Spiritual Path-Finders.

Founder's Commemoration Day Address

ANNAMALAI UNIVERSITY

December 16, 1964

MR. PRO-CHANCELLOR, MY COLLEAGUES IN THE UNIVERSITY
AND MY GOOD FRIENDS,

The sentence "Let us now praise famous men" marks the commencement of an English School Song which is the first item in the Founder's Commemoration ceremony. These words have been thus expanded by a modern poet :

Let us now praise famous men
For their work continueth
Greater than their knowing

and are specially appropriate with reference to Rajah Sir Annamalai Chettiar. Charged with the pleasant task of speaking on the Founder's Day of the Annamalai University, I have reminded myself of these lines as well as of the profound saying contained in the book of Ecclesiastes of the Bible

"Sing ye praises with understanding".

Having had the advantage of a life-long acquaintance with Rajah Sir Annamalai Chettiar and the members of his family, having, moreover, enjoyed his friendship and confidence and having, on occasions, also acted as his legal and family adviser, I am perhaps in a privileged position to appraise correctly his life-work and his far-sighted and philanthropic contribution to

public welfare. The Sri Meenakshi College established by him started work in 1920 and later on, a Tamil and a Sanskrit College, an Oriental Training College as well as a Music College were established. During this period, there were discussions all over India relating to the achievements and failures of higher education in this land which ultimately culminated in the appointment of the University Commission of 1948-49. Wisely anticipating the trend of opinion which found expression in the Report of the Sadler Commission and mindful of the ancient Indian tradition of Gurukulas and Forest Universities and with special advertence to the past history of temples like those of Chidambaram and Kancheepuram which have been centres not only of religion but also of varied culture and education, Sir Annamalai Chettiar took the step of handing over all his educational institutions along with a sum of Rs. 20 lakhs as a nucleus for the founding of a unitary, residential and teaching University. In this manner, the first University of that type in South India was, with the avowed support of the Madras Government, established by law and it began to function in July 1929. It may be that, compared with the colossal sums devoted in countries like England, West Germany, the United States and Russia, after the two world wars, to institutions of higher culture and also seen in the perspective of the tentative provision for our IV Five-Year Plan of over 20,000 crores, the sum of 20 lakhs donated by the Founder may appear to be small but it must be remembered that 20 lakhs in 1929 should be regarded as the equivalent of more than a crore of rupees in the inflationary days of today ; and it may be borne in mind that in the year 1925 the modest estimate of $3\frac{1}{2}$ crores of rupees for the Mettur Irrigation Project seemed to be ruinously extravagant to the Central Government in India and to the British Cabinet.

It is worthy of note that when the Yale University was started in 1718 by some ecclesiastics, Elihu Yale, a Boston citizen, who became Governor of Madras, made

an initial endowment of not more than £ 562 and the University of Yale named after him is now one of the largest and most honoured Universities of the world wherein, incidentally it was my privilege to deliver in 1952 a series of lectures on Hindu Law. The equally famous Harvard University was started with the bequest of John Harvard of his library of 400 volumes and a sum of £ 780.

It will be realised that in comparison with such pioneering efforts, Sir Annamalai Chettiar's contribution may be regarded as truly noteworthy under the then prevailing conditions ; but, as has been the experience of every University in the world, new times have demanded new scales of financing and encouragement, and the responsibility of the State in this regard in all parts of the world has been growingly recognised and discharged.

India spends less of its gross revenue on education and public health than most other progressive countries. The help that is afforded in the aggregate to the Universities by the University Grants Commission is of an exiguous character, although the Commission itself is anxious and most willing adequately to encourage all worthwhile development in the sphere of higher education in the fields of the sciences, technology and the humanities and to provide indispensable facilities for the housing, tutorial and social needs of the alumni.

The Madras Government has taken the lead in India in many educational enterprises including the mid-day meals scheme for students but it has not been able, perhaps owing to its own financial stringencies, to realise and provide for the urgent needs of a rapidly expanding University centre like this which cannot possibly provide for the multiform requirements of today with no resources of its own except an inelastic and scanty permanent fund and its own tuition, examination and other fees which just suffice for its bare maintenance from day to day. In countries like Russia there are practically no tuition fees in the Universities

and England's scheme of scholarships is comprehensive and complete.

The building of temples, the patronage of learned men and of artistic, educational and cultural activities of many kinds were regarded as their opportunity and duty by the ancient Indian monarchs exemplified in the well-known munificence of King Bhoja. The schools and libraries of Tanjore, the grants to schools and the financing of the arts by the Rulers of Cochin and of Travancore, one of the most justly famous of whom was Maharajah Swathi Tirunal, and the special pride taken by the Cholas, Pandyas and Cheras in their encouragement of poets and all categories of learned men were followed early in the 18th and 19th centuries by the great Pachaiyappa Mudaliar and the no less far-seeing P. T. Lee Chengalvaraya Naicker. The taxation scheme of today and the planning needs of to-morrow make it difficult for the University to expect large scale help from munificent and far-sighted donors like Rajah Annamalai Chettiar and Hari Singh Gour but some sizable help should be possible and even desirable in their ultimate interests. I regard it, therefore, as my clear duty, as it is my opportunity, to utilise this occasion to plead with the Central and the State Governments to adequately support the maintenance and expansion of a University like this, which, being residential and teaching in character, has necessarily more responsibilities than many other Institutions in respect of housing and other amenities to be afforded to the students and teachers as well as the provision of enhanced library, laboratory and other facilities and the indispensable growth of the social and sports branches of its activities. It is not sufficiently recognised that this University has no expanding resources at all and may have to restrict its legitimate expansion unless the Government comes to its rescue. Predecessors of mine who have delivered the Founder's Day addresses have spoken brilliantly at length on various cultural aspects but I have deliberately decided to come down to the

earth. Need I point out that even space satellites and rockets require well-constructed bases? I therefore make an appeal, here and now, not only to the Government but to the philanthropists and leaders of Industry and Commerce to come to our assistance.

Andrew Carnegie, after selling his accumulated steel interests for 250 million dollars, wrote his well-known book "*Gospel of Wealth*" and also his "*Empire of Business*" and emphasised that the owners of wealth were the trustees of the public; and, practising what he preached, he started the Carnegie Institute at Pittsburgh and established Libraries all over the world. Henry Ford who inaugurated mass production and the Conveyor Belt System and manufactured 15 million model T Ford before 1909, started the Ford Foundation which today is encouraging educational and public health efforts throughout the world. Rockefeller, the oil magnate, before he retired in 1911, had made more than one billion dollars. He established the University of Chicago in 1892 and inaugurated the Rockefeller Foundation and the General Education Fund to help public health service and many educational and research activities throughout the world. Alfred Nobel, the great Swedish Scientist, founded prizes for the encouragement of Chemistry, Physics, Medicine, Literature and the cause of peace, each prize being of the value of 40,000 dollars. The Guggenheim Travelling Fellowships which encourage creative work in Literature, Arts and Sciences confer 50 awards of 2,500 dollars each. The Watumull Foundation, the Kalinga Prize scheme and Endowments of Palit and Tagore are small things in comparison with these efforts. Many other examples can be given of modern patronage of the Arts and of higher learning, by men of affairs and leaders of commerce and industry.

I hope and pray that this appeal of mine will reach a wide audience. It is my hope, moreover, that my views will be heard by some of those Foundations outside India whose Organisers and Directors, like most of

us, believe in the efficacy and the indispensability of the Gurukula ideal of common residence and common educational and social endeavour on the part of the teacher and the taught.

The great Universities of the world, like Oxford and Cambridge, were, to no small extent, supported and expanded by far-sighted donors like Balliol, Cardinal Wolsey, (the founder of Christ Church,) William Waynflete (of Magdalen College,) Walter de Merton (of Merton College) and William Wykeham (of New College) and the Founders of the Women's Colleges in Oxford and Cambridge. The Downing College in Cambridge was established from the funds of the Estate of Sir George Downing, a General who served under Cornwallis. The world-famous Cavendish Laboratory of Cambridge will for ever be associated with the name of its founder, the Duke of Devonshire; and like the Bodleian Library of Oxford, it is a monument of wisely conceived and creative beneficence. The recent donations by Courtauld to the Fitz William Museum of Cambridge and the Foundation in 1960 of the ambitious Churchill College founded as a memorial to Sir Winston Churchill and the Selwyn College founded as a memorial to Bishop Selwyn of New Zealand are instances of the wise apportionment of funds by people who labour for posterity and may be regarded as true nation-builders. I may also advert to the successful effort made in 1949 by the late Lord Lindsay who, through his public appeal, succeeded in starting the present University of Keele. It aims to provide a curriculum of integrated courses of study in the humanities, social sciences and natural sciences. This University contained only 800 students when I visited it in 1950. It is self-contained and self-supported and is almost entirely residential. The University of Keele and the Stanford University of California are perhaps the most noteworthy developments in the direction of higher education, humanistic and scientific, which owe their origin to private generosity and private initiative. The Macgill University of

Canada started by a successful Fur merchant stands on a par with the others.

There is no doubt that there is an increasing tendency throughout India to conform to the residential type of University; and during the last few years beginning with Banaras, Aligarh, Allahabad, Annamalai, Baroda and Visva-Bharati, many other Universities have been started on a residential basis. This University is perhaps the most completely residential in character, as more than $2/3$ of its students and Professors are in actual residence and work in collaboration in a campus situate in ideally peaceful and rural surroundings. Recent statistics show that in India only 10 to 20% of the students live in Halls of Residence or Hostels maintained by Universities. Even in the United Kingdom, leaving out of account the exceptional examples of Oxford and Cambridge, only about 27.4% of the students live in residential lodgings. The recent masterly report on Higher Education which we owe to Lord Robbins and his colleagues, specially and emphatically stresses the value of full participation by students in all aspects, educational and social, of College life and the careful and continuous supervision by teachers of the work and the day-to-day mental and moral progress of the students. Let me quote Lord Robbins' own words :

"It is the essence of higher education that it introduces students to a world of intellectual responsibility and intellectual discovery in which they are to play their part. They have to be taught techniques and methods and acquire a corpus of relevant knowledge ; but, more important, they have to be inspired to learn and to work. Here, an ounce of example is worth a pound of exhortation. The element of partnership between teacher and taught in a common pursuit of knowledge and understanding, present to some extent in all education, should become the dominant element as the pupil

matures and as the intellectual level of work done rises.

Institutions of higher education are not merely places of instruction. They are communities. We are thus led naturally to the consideration of the best means of promoting the social life of Universities and Colleges. The so-called wastage rate is unusually low in Oxford and Cambridge, although the student-staff ratio there is comparatively unfavourable and a higher proportion of the staff is concerned purely with research. A number of factors contribute to this result : among them is undoubtedly the comparative ease with which contact between senior and junior members of the University can take place outside teaching hours. This is one of the great merits of the college system ; it unites senior and junior members in a common way of life, and makes the teacher's study a natural place for casual and informal meeting as well as for teaching. The fact that the colleges own many houses in the near neighbourhood makes it possible for a non-resident tutor to dine in college and be available outside ' office hours ' without feeling he is neglecting his wife and family, and he can entertain his students without imposing undue burdens on his wife."

If we are genuinely grateful to the Founder not only for inaugurating this University but for helping to revive the study of Tamil and Sanskrit Literature and of Music and the Arts and if, moreover, we are convinced that the quality of the future leadership of the country will directly depend not only upon the literary, scientific and technical training imparted in a University but also on the process of character building generated in it, it behoves us all not merely to keep this institution going but to enlarge its specific potentialities.

To the Pro-Chancellor of this University, Rajah Sir Muthiah Chettiar, must be given ungrudging credit for

the guidance and encouragement to the fullest extent possible, that he has been able to give to this University including a recent gift of thirty-seven acres of valuable land, but I am sure that he and I are at one in thinking that a centre of learning and culture, like this, cannot stand still. If it is to avoid deterioration and stagnation, it must steadily progress and expand. There is no half-way-house in the steep path leading to the summit of the Temple of Learning.

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