

Oration on the building of the University / by Ernest H. Starling.

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WITH THE AUTHOR'S
COMPLIMENTS

J. Tweedy
21.

FOUNDATION DAY,
UNIVERSITY COLLEGE, LONDON,
JUNE 5TH, 1902.

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ORATION

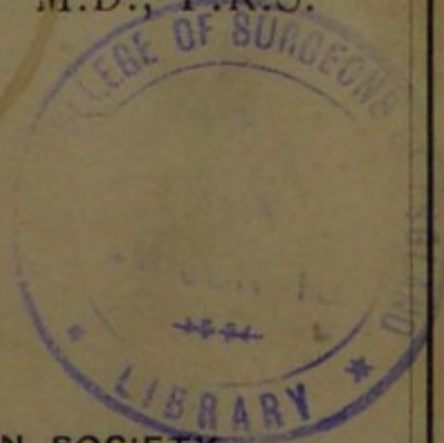
ON THE

BUILDING OF THE UNIVERSITY

DELIVERED BY

ERNEST H. STARLING, M.D., F.R.S.

—
PUBLISHED BY THE UNION SOCIETY.





THE
BUILDING OF THE UNIVERSITY.

R. MADLEY,
PRINTER,
WHITEFIELD STREET,
W.



THE BUILDING OF THE UNIVERSITY.

THE natural man desires immortality or continuance, continuance for his name, his personality, his works and his race. This desire in former days led, and even now leads, to all manner of good works, done in the hopes of attaining personal immortality, or of avoiding pains and penalties in the next world. The founders and benefactors of this College could have no such hope of personal advantage, and it is in recognition of the altruism and the larger scope of their ambitions, that we meet here to-day to remind ourselves and others of their good works. I might follow the example of some of my predecessors in this honourable office, and attempt to bring before you the nature and personalities of the men to whom we owe our existence as a College; but I imagine that they would recognise, as we do, the futility of personalities without love, and would desire rather to secure immortality for the child of their brains, University College, founded by them to be the University of London. Their object was to make in London a real teaching University. It is our part to see to the continuance of their work, and to the securing of its immortality by its completion.

I propose therefore to deal to-day with the best manner in which we may complete the work begun 75 years ago by our founders, viz.: the establishment in London of a University which shall be adapted to the needs of this monster Metropolis and shall offer to all classes and creeds of the Empire, without restriction, an education which shall fit them to take their part in the struggle, not only for mere existence, but for the persistence of the English race and English ideals.

The problem before us is unique, and it is absolutely necessary that we should at the outset realise the magnitude of the task which is before us, unless indeed we are to adopt the un-English method of progression by a series of revolutions. Even if we have to confine ourselves at first to building only one wing of our house, we must take care that it is susceptible of indefinite future extension, as necessity occurs. It is not sufficient to go to Edinburgh or Oxford or Berlin, and say, "Here is a successful university, let us make one on the same model." In none of these places are the conditions analogous to those in London. We may indeed get from study of these institutions certain general principles which must be embodied in our London University, but the exact planning out of our University must be directed by the special needs of London, and not by the plans of some other institution.

The principles from which we must proceed were fully expounded by Professor Ramsay in his foundation address of a year ago, and have been the theme of many writers, themselves members of universities, from the time of Bacon to the present day. A University in its essence is and has always been a community of masters and scholars, where, as in King Solomon's house, "The end of its foundation is the knowledge of causes and secret motions of things, and the enlarging of the bounds of human empire to the effecting of all things possible." In other words the *making* of knowledge and the training of men to make knowledge is the soul of a University. Without this a University can be little more than a higher grade secondary school and does not discharge to the community its most essential functions. For its must be remembered that the success of a community is dependent on the power of its constituent members to adapt themselves rapidly to changed conditions, to foresee the direction of coming changes, and to prepare themselves to meet them. Success in a civilised community and therefore the success of the community as a whole, is a question of conscious adaptation, and its powers of such adaptation will depend on the trained intelligence of its members. These powers, though they may be developed slowly and painfully by the

ordinary experiences of life, can be systematically imparted only by the training of the wits which is afforded by research in its widest sense and by living contact with the growing fringe of knowledge. In our University community, therefore, the common interest of teachers and taught will be the advancement of knowledge. It is true that many of the latter class will acquire but the manner of thought of those who make knowledge, but this is exactly what is wanted to fit them for utilising to the utmost the special professional training which they may have to undergo hereafter, either in institutions in close connection with the University or in the workshop and factory.

But if the University is to be in this way the root and source of all the practical and intellectual advances of the country, it must be prepared to supply the wants of all types of intellect. It must partake of that property which has been attached as a sort of secondary meaning to the word University—namely a *universality* of intellectual interests; and this for two reasons:—If the possession of trained intelligence is of ~~all~~ advantage to the country, the University must afford opportunities for the highest development of the mind in all directions. The fundamental motive within its walls must be the love of learning, and there must be no forced exclusion of studies which, in the opinion of the majority, are of little practical value and of little importance for the common weal. The cogent argument against such an exclusion would be the fact that in such cases the opinion of the majority has generally been wrong and would, in the last century, have led to the exclusion of many of the studies, which have since proved their practical value to the community.

In the second place it is of advantage to all members of the University community, both teachers and scholars, to learn by admixture the various types of thought, proper to different types of men. Thus in a microcosm, in the most plastic years of their life and while they are still free from bias of position or profession, the scholars may learn to take a part in the united action for the

common good, which will be their work outside the University as units in the social organism.

This freedom from bias, this opportunity for unchecked intellectual development, can only be secured if the University is a privileged body, free from the trammels of outside authority and from meddlesome interference by ruling powers whether autocratic or democratic. In the older Universities, we find this privileged liberty was conferred by successive charters and safe-guarded by the appointment of some powerful individual as Chancellor, who was flattered to give his protection to a body including so many eminent and learned men, without requiring in exchange a part in the management of its internal affairs. In the present day, when the new universities must look for part of their support to publicly elected bodies, the preservation of this liberty of action in things academic become a matter of great importance, and every care must be taken that the fundamental principles of a University, on which depends its whole value to the community, are not bartered away in exchange for money grants from public funds.

The foregoing arguments would lead us therefore to the conclusions that the essential function of a University is the making of knowledge and the training of men in scientific method. The successful discharge of this function can only be secured by a complete freedom of the University in the management of its own affairs. The University can only attain its highest development and usefulness to the community, if all kinds of learning are regarded as within its scope, *i.e.*, it must contain many faculties, united in one Corporation, which shall afford to its scholars for a time a place of preparation and intellectual development, free from the struggle and parochial dissensions in the world outside.

But this aloofness, though of the utmost value, must not be too complete. The University, being the minister of things intellectual to the community, must be cognisant of the needs of the community, and can only be benefited by being in touch with the

practical needs of the time, provided that the main principles above laid down are not violated. Such a connection may be easily secured by appointing on the body which conducts the business affairs of the University public spirited men who are acquainted with practical business, or are active members of our publicly elected bodies. In Germany, for instance, the supreme control and entire maintenance of the Universities are in the hands of the State, but it is not found that this authority is used in any way to interfere with the academic freedom of the University.

One other requirement of our University of London must be mentioned. For many years Oxford and Cambridge supplied the whole need of this country for Universities. The education they afforded was limited to one particular class, and was chiefly devoted to the preparation of men for administration, or for the professions of the Church, Law or Medicine. Our present need for more Universities, and especially for a University in London is due to the growth of Science during the last 50 years, and its invasion of almost all walks of life; so that the demand of the country for men of the highest intellectual training can no longer be met from one class alone. All classes contain men who are fit to be leaders in Science, Commerce and Industry, and it is those that we must seek out and train in our University. We require, therefore, a University where the expenses of study shall be reduced to a minimum, and which shall be accessible to members of all classes and to dwellers in every part of London.

The problem before us therefore is to build, on the principles already laid down, a University with a Corporate existence, which shall be accessible to all and adequate to the higher intellectual needs of the seven million inhabitants of greater London.

In the solution of this problem, two main difficulties present themselves. The first difficulty is the enormous size of London, and the relative inaccessibility of its various parts. The problem is not to be solved by building a University with institutes four

times the size of those at Berlin. In the first place in such institutes the higher and more important work of the University would be swamped by the mere masses of students. The elementary students would be altogether out of touch with the higher work of the University, and for the conduct of the huge classes the Professors and teachers would need to be endowed with the qualities of a drill sergeant, rather than those of a maker of knowledge. We have a striking example of the dangers of such concentration of students in the case of Edinburgh, where the growth of the classes has tended steadily to the exaltation of the lecture and the degradation and destruction of original work. There is in fact in every subject an economic unit, representing the maximum number of students which can be profitably taught together at the same time, while preserving the high character of the teaching and its intimate association with research; and this unit would be far exceeded if it were attempted to unite in one University institute not merely all the present students of London but all those who would, and ought to, come to a properly organised University.

Moreover a difficulty at once arises as to the location of this University Institute, or group of Institutes. A situation which would suit an inhabitant of Kensington, would be extremely inconvenient for a dweller in Blackheath or Bethnal Green. On the other hand, a distribution of giant institutes for different subjects in various parts of London would only make things worse. A Chemical Institute in Gower Street would be very convenient for many parts of London, but not for all, and such a distribution would destroy the corporate character of the University, and tend to the production of one-eyed men, people who could see, understand, and communicate with other chemists, but would be blind and deaf to all other members of the community.

Another difficulty is the existence of a number of institutions which have done good work, but are inadequate to the intellectual needs of London, and are jealous or frightened of any change, so that those, who should be working together for the advancement and

building up of the University, waste their time and opportunities in thwarting any scheme which appears to give a temporary advantage to one or other body.

If only these institutions could agree on a common policy, the making of a University in London would be a comparatively simple problem. For any new University must utilise and build up into itself all the facilities for higher teaching already existent in London, and any plan to be successful must involve the development and not the disintegration of these institutions.

Even if the field were perfectly open and a University had to be made *de novo* in London, a single Institute or group of Institutes would not be an adequate solution of the problem. The University must be equally accessible to dwellers in the North, South, East or West of London—a condition which could only be fulfilled in the case of a single Institute by placing the University in the heart of the City. A better and more feasible way is to adopt a process of division, so that a complete University Centre should be provided in the close neighbourhood of the railroads which serve these four quarters of the London area. Such a division of the University could be accomplished without in any way destroying the unity of the whole. In our ideal University there would be a centre in each of the four quarters of London. Each of these centres would be in so far a complete University, in that it would be a place for study and research in all branches of knowledge, and would be a community of teachers and scholars. The local business affairs of each centre would be under the control of a Committee or Council, appointed by the Senate of the University, but containing representatives of the local body of Professors. In each of these centres we might expect an active local spirit to arise out of the common interest of its members, and a healthy spirit of rivalry with the other centres, not for students or fees, but in the matter of efficiency and productive work. On the other hand, all these centres would be but parts of one University, with common aims, with similar curricula and the same standard of examination.

The Senate of the University, which would contain representatives from all centres, would be responsible for the appointment of the local governing bodies, and would keep in their own hands the power of appointing and dismissing Professors. Moreover, the Boards of Studies, to whom are entrusted the drawing up of curricula in various subjects, the regulations of examinations, and the nomination of examiners, are themselves appointed by the Senate, by whom their conclusions have to be approved.

It would be possible in this way to provide for the training of 10,000 students within the University of London, and to ensure the freedom of teaching and research, the inculcation in all the students of the spirit of research or scientific method, and the living contact of each student with men of different ideals and modes of thought, which are the most valuable factors in a University training.

Such a University cannot of course be founded without the possession of adequate means. Each Centre would necessitate the erection of buildings at a cost of about £500,000, on ground covering from five to ten acres. For a moderate endowment of its professorships and the maintenance of its laboratories, a yearly income of £50,000 should be provided in addition to the income from students' fees, which might amount to another £30,000.

These may seem large sums to those who are ignorant of the money spent abroad by the State on Universities, or of the income which is actually available from ancient endowments at Oxford and Cambridge. The united income of the Colleges at Oxford is £330,000 a year, and at Cambridge nearly £300,000 a year. The yearly government grant to the University of Strasburg, with only 1,000 students, is £50,000. I am convinced that there will be no difficulty in raising these amounts in London, which is the richest city in the world, either by the generosity of its rich men, or by grants from public funds, if only those interested in the making of a University will combine their efforts towards a common end.

The task is rendered easier by the fact that, in the building of the University, we can utilise for university purposes in London many of the buildings and endowments already existing, and it is in the hope of inaugurating a common movement in this direction that University College has declared itself ready to be incorporated in the University, and has appealed for the money necessary for this purpose, and for making it fit to be the first, in point of time, of the University centres of the University of London. We are convinced that only along these lines will it be possible ever to make a University in London, fitted to its peculiar needs.

This first step in the making of a great London University is indeed half way towards accomplishment. Towards the sum of £170,000 necessary for the incorporation of University College, more than half has been already subscribed. The Committee of the University Senate, appointed to consider and report on the matter, have unanimously agreed that such a step is for the best interests of University education in London, and have also settled with the Council of the College the general lines on which such incorporation should take place, special stress being laid on the preservation of the broad academic character of the work already carried on at University College in many subjects and in several faculties. On the basis of this agreement the whole Senate approved of the publication of the Appeal made by University College, and the Principal of the University in his Annual Report gives this question a foremost place in the policy of the University. The success of the Appeal therefore is essential as a first step in the establishment of a real University.

But it is only a first step. The incorporation and completion of University College would place the University of London in possession of facilities for teaching and research equal, or a little superior, to those of various provincial Universities. Where are we to find the other centres which are needed to make the University adequate to the needs of a population of 7,000,000?

The solution of this question is already under active consideration by various bodies in the University. The Faculty of Medicine of the University is engaged in drawing up plans for the establishment of a great Institute for Preliminary and Early Medical Studies in the immediate neighbourhood of the University Buildings in South Kensington, at a cost of £150,000 for laboratories, and at least an equal sum for endowment of Professorships. The University already contributes a considerable sum annually out of their Grant from the Technical Education Board, to the expenses of the Engineering School of the central Institute of the City and Guilds, and it is to be hoped that this is but the prelude to an incorporation of this School in the University similar to that contemplated in the case of University College. A similar incorporation of the Royal College of Science will present many difficulties, seeing that this great School of Science is a government department. Part, at any rate, of its work would gain by being directly under the control of the University, and we may confidently look forward to the time when the vacant ground round the Imperial Institute, including this building itself, shall be occupied by a group of Institutes, which together shall form a complete University Centre for West London, where many, if not all, Faculties will be represented.

For the University Centre of South London, we have already a nucleus in King's College. The mere incorporation of this institution in the University would probably cost less than that of University College, as the Boys' School has already been removed from the College. But its buildings, which form the end wing of Somerset House, permit of little or no expansion, and it would be far better to give them back to the Government if the University could receive in exchange five to ten acres of land in a corresponding position South of the river and erect thereon new buildings fitted to modern requirements, and with accommodation for the large number of students which would be provided by South London and the Southern railroads.

In Germany, the erection of these buildings would be the work of

the Government. The attitude of our Government to a University is that of a gentleman who is asked for a copper by a tramp on the high road. They do indeed throw us a trifling dole, but take care to couple with the gift the statement that we have no right whatever to the money.

The East London centre is urgently required for the scientific training of men who are to be leaders and captains of industry in this great manufacturing district. The facilities for University education in this part of London are at present most rudimentary, but it seems possible that the University might use the excellent institute maintained by the Drapers' Company, at any rate as a nucleus on which to build its fourth centre. In this centre, the Faculties of Science, Applied Science, and Engineering would take a foremost place. The Arts Faculty, however, would not be absent and would be represented at least by those subjects, such as modern languages, history, economics, which are the foundation of any commercial Faculty of a University.

I would here summarise the main features of the University which we have just sketched out. The skeleton of the University is already present:—the supreme ruling body, the Senate, containing representatives of Convocation, of the Faculties of Teachers and of various public bodies, and guided in academic affairs by the advice of Boards of Studies, appointed chiefly from among the teachers in the University. Under the control of the Senate, but administered by local Councils appointed by the Senate, would be these four or more Centres such as I have described, by which the main teaching and research of the University in all Faculties would be carried out. In addition to these Centres there would be a number of *Schools of the University* which would preserve their autonomy, but would direct their teaching according to the requirements of the University. Such Schools would be essentially post-graduate in character, in that it would be their office to graft on the general training in method, acquired within the walls of the University itself, the special professional training necessary to fit

the man for the pursuit of medicine, law, commerce, administration, etc. Among such institutions would be the twelve Medical Schools attached to the great Hospitals of London, the School of Economics and Commerce, the various Training Schools, and, it is to be hoped, the great legal Corporations, which have so far failed to grasp the extent of their responsibilities in the formation of a legal Faculty of the University.

The relation of the Polytechnics to the University will require careful consideration. In any policy decided upon, it must be remembered that the whole object of our endeavours is the improvement of the mental training of our fellow citizens and not the distribution of degrees. We desire that the possession of a London Degree by any man shall be a sign that he has received a thorough training and is an expert in the subject of his Degree, and is not a mere bundle of second-hand facts. It makes no difference to the country whether one or ten per cent. of its inhabitants are labelled B.A. or B.Sc. It is vital to the welfare of the country that as many as possible of its inhabitants should have received a thorough University training, and be competent to use their brains in solution of the new problems which must continually meet them, whatever their trade or profession. The whole progress of the nation depends on the mental equipment of its members. At no time more than the present have the words of Bacon on this subject been so full of counsel:—"If any man thinks philosophy and universality to be idle studies, he doth not consider that all professions are from thence served and supplied For if you will have a tree bear more fruit than it used to do, it is not anything you can do to the boughs, but it is the stirring of the earth and putting new mould about the roots that must work it." The University is the root of the State; we, as trustees for the men whom we commemorate to-day, are but continuing their work in stirring the earth round it, and in attempting to get from all sources the mould for its nourishment and growth.

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