

On museum education : presidential address / by Jonathan Hutchinson.

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On Museum Education.

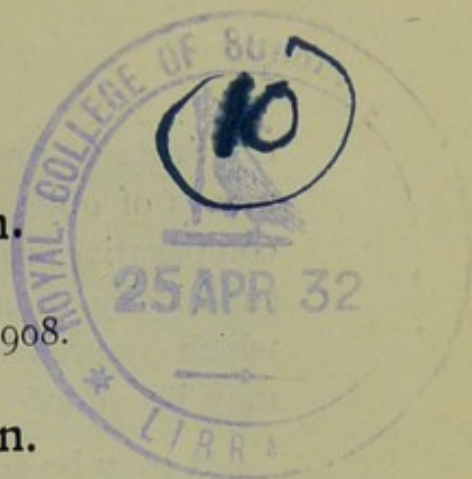
PRESIDENTIAL ADDRESS.

BY JONATHAN HUTCHINSON, D.Sc., LL.D., M.D., F.R.S.

MY FIRST and most pleasing duty is to thank the Council and members of our Society for the honour conferred in electing me its president. It is well known to many that I can make no pretention to eminence in any one of those departments of natural knowledge which find their home in our great museums. The most I can claim is that I take an interest in them all, and that I am a firm believer in their value as means to individual and national education. It is as an advocate of Educational Museums, and of their claims to state recognition, rather than as representing any branch of science that I to-day occupy this chair.

The subject chosen as the topic of my discourse is, the place of museums in relation to national education, and it divides itself by natural cleavage into several sections. The first concerns the scope and value of such collections as means of diffusing knowledge and developing faculty, and the next the methods by which the public and more especially its younger portion may be induced and enabled to avail itself of the means so provided. I have to shew that the water is good, that the horse may be brought to the water, and that when there he may be persuaded to drink.

Amongst the topics with which I propose to deal are first, the incalculable superiority of objective teaching over that by means only of words ; and next the duty of



the State to provide liberally and over the whole land the means of objective study. Next I shall have to urge the comparative uselessness of curricula of study, and the superiority of a well arranged examination-system under which by preliminary publication of all questions, guidance may be afforded to the student and his interest excited.

It may be acknowledged at once that in no one of these subjects have I anything that is really novel to put before you. They have all been urged repeatedly in addresses and papers which I have delivered or published during the last half century. In offering an apology for what may appear to some present to be the repetition of arguments which have already been sufficiently urged, I may perhaps express a timid hope that on the present occasion they may be put forward in better order, and with more obvious connexion with each other.

In the year when our Society met in London, under the presidency of the late Sir William Flower, I read a short paper on Elementary Museums, and the Society subsequently paid a visit to a village museum which I had organised at Haslemere. The primitive simplicity of that Museum occasioned, I do not doubt some amusement. It professed to occupy amongst museums the place which, what were then known as "ragged schools" did amongst other educational establishments. It was intended for the uninitiated, and purposely restricted to elementary demonstration. If it possessed any originality it was in the attempt to apply the "*Space for-time method*" of exposition and arrangement, to the facts of geology and of human history.

By the expression "Space-for-time method" is meant simply the plan adopted in almost all Diaries and Almanacks of allowing all periods of time to occupy duly proportioned spaces on the page. Thus the eye takes in at a glance the lapse of time which has occurred and there is no need for mental arithmetic. A space-for-time schedule ought, I hold, to precede all biographies and all historical works.

Not long after our Society's visit to Haslemere, the Museum found a better home in a more central position, and in a much larger building, designed expressly for its reception. Some years later I had the great good fortune to secure, in the position of curator, the zealous services of my friend Mr. E. W. Swanton, under whose guidance it has thriven much beyond its original promise. A few words may perhaps be permitted me in description of its present scope and conditions. It is professedly an educational institution, and not one for the development of natural science. Our desire is to teach rather than to discover, though we thankfully receive and record any little novelties in the observation of fact which fall in our way. Our museum makes not the slightest pretension to the position of a model, it is open to improvement in every possible direction. I may, however, without presumption, claim for it that it is an example of what may be attempted. It is almost universal in its scope. Nothing comes amiss that it is desirable to know and which is susceptible of illustration objectively, and it is our constant endeavour to afford objective illustration to topics which do not at first sight lend themselves to it. Great importance is attached to our space-for-time schedules, as aids in this direction, and in addition to the ordinary class of museum specimens, maps, globes, models, portraits, pictures, wood cuts, &c., &c., are freely utilised.

The buildings for the Haslemere Educational Museum, as they at present stand, cover a considerable extent of ground. Parts of them are not enclosed, and a part consists only of long wooden sheds, possessing only a ground floor, and lighted only from the roof. The Museum has been built and supplied with the strictest regard to economy.

One large shed is devoted to Forestry, a Vivarium, and to elementary Physics and Chemistry. The last named department is as yet in its infancy, but the other two are well maintained. In the Vivarium all the common plants, including ferns, mosses, fungi, and galls are in their seasons

exhibited. For their supply we depend in the main upon our friends, and they rarely fail us. Of insects, reptiles, fishes, &c., we have rarely more than a few representative specimens, but the various phases of insect life, and such subjects as the evolution of the batrachians from egg to adult are every spring well illustrated.

Close to this shed is a long building, open on one side, devoted to Geology, and arranged on the space-for-time method. To those who may, not without reason, object that our knowledge does not admit of this method being applied to the facts of geology without much risk of error, we may reply that, leaving aside the estimates of time, it at any rate furnishes an orderly arrangement of strata in their relative thickness. The whole scheme, as here displayed, furnishes, I feel sure, a kind of enlightening conviction as to the reality of the almost incalculable periods of geological time, and the long progress of biological evolution, which no book can alone supply.

In this shed time is spaced out in periods of one million of years, the millions being separated by bars of wood. On shelves at the foot of each measured space are placed appropriate fossils; with drawings and other illustrations of the period.

There are many facts which we know to be true but which we never really believe. They are almost inconceivable. It should be an aim of objective teaching to bring these within the grasp not alone of intellectual effort but of easy and almost unconscious perception. It is this object that the space-for-time geological scheme just described is designed to serve.

Having in the Geological shed illustrated the formation and progressive equipment of the planet, we pass into the main building, the chief part of which is devoted to Life as at present extant on its surface. In it are departments for all the more important classes of plants and animals, to the labelling of which much attention has been given.

A separate room is devoted to Local history, and exhibits not only the Haslemere fauna and flora, but a large collection of flint implements, Celtic pottery, &c., obtained within a few miles of Haslemere. Portraits of recent inhabitants, drawings and photographs of buildings and objects of domestic use, have not been wholly neglected.

At the back of the main building, and extending its whole length, is the gallery devoted to Human history and prehistoric times. On one side of this, forty centuries of time are spaced out in columns, and illustrated by portraits, drawings and busts. The opposite side of the room is devoted to the living races of mankind, and on its floor are cases for the display of what we possess bearing upon the history of mankind, implements, stone and other weapons and tools, models of Stonehenge, relics of the Roman occupation of Britain, &c., &c.

Built in line with the geological shed, but on a somewhat lower level, is the longest room in the museum, one half of which is devoted to miscellaneous specimens, cases of birds, &c., and the other to a small gallery of oil pictures, and a large collection of engraved portraits. The latter contains all the world's celebrities, but in very various styles of art. It has been arranged chiefly as supplementary to the history department, and with reference to our periodic examinations. Finally there is at the further end of the building, a small lecture theatre. This part of the museum contains a very considerable collection of books, chiefly, but far from exclusively, works of reference, and tables and chairs are provided in order to encourage reading. Throughout the whole building wherever suitable, maps are liberally introduced. There are some large globes and some good raised maps, not only of the south of England, but of Europe, India, Palestine, and other regions.

I have ventured into these details, I fear somewhat tediously, not I trust in any boastful spirit as to what we have accomplished, but in the simple wish to bring pro-

minently into notice the almost universality of the scope of the Educational Museums which it is a main part of my present object to recommend.

I must now leave the topic of the Educational Museum and proceed to the larger one of *Museum-Education*.

That the problems of popular education have been vastly modified during the past half century is obvious to all. In the first place the number of those concerned in them has been multiplied. This, however is the least of the changes. Of far greater importance is our developed perception of their paramount importance. We no longer imagine that education concerns only the young, and them only for a short time and in a restricted number of topics. The schooling which sufficed for our ancestors now ranks as a mere preliminary to real education, an essential one it is true, but of use mainly in reference to higher things. Every one must of course learn how to read and write, and must gain a smattering of arithmetic, geography, and history. These may suffice for the earning of a livelihood and the patient discharge of most social duties. As disciples of progress however, and believers in evolution, we feel compelled to aim at a far higher standard. We look to the development of the individual man and the improvement of the race. We note with pleasure the advance which humanity has recently made in reference to sympathy, to capacity for enjoyments which involve no suffering to others, to temperance and to self restraint. The exaggerated individualism of the past is becoming merged in an intelligent perception of social interests and social duties. The race has to some extent lost its taste for the grosser pleasures, and has rejected many of the grosser superstitions. Whilst human life has become more valuable, and its possession more to be prized, we have at the same time by a rational perception of the real nature of Death deprived it of its terrors. These gains have been achieved for us by education, and they are but a prelude to what we hope to realise by patient perseverance in the same path.

It is the highest aim of education to afford a solid basis for the efforts of the imagination, a faculty which may easily become the most sublime of human attributes. He is the happiest man, and at the same time probably one of the best, whose habitual imaginings are most nearly in consonance with what is real.

It can scarcely be necessary in the present day and in dealing with the education of the masses to say anything in justification of wide and almost universal teaching. Ruskin has poured out his fierce scorn on those developments of mechanical pursuits which would assign one man to the making the point of a pin and another to that of its head. Do we not in some of our modern methods of education run quite as great a risk of cramping the intellects of our pupils, as such division of labour did of his physical aptitudes. Thus, for instance, we but too often enforce the detailed study of the history of one nation or perhaps of one reign, and leave aside any general insight into the relation of these events with those of the rest of the world. We should aim more than we do to provide comprehensive views.

It might, perhaps, be possible to indicate a sort of plateau of attainment in general knowledge to which all English youth of sound intellect should endeavour to attain. The climb, should for the most part, be accomplished in youth, for it is from the survey of the world to be therefrom secured that the subsequent development of aptitudes will be impelled and guided. It is no Pisgah height reserved for the few, but an almost level table-land the pure air of which is essential to mental health. With but rare exceptions it ought to precede all specialisation. Let us have no specialising in early education.

If it be asked how the attainment of such universal insight may become possible to the general community, the answer must be that under our ordinary school methods it cannot be so. The attempt to achieve it would only result in the production of a generation of brain-weary prigs. The

memory would be most injuriously over-burdened ; for its tasks would be unaided by those clear conceptions and deep impressions which familiarity with the things themselves can alone supply. Under a well arranged system of Museum-teaching all this would be changed. The knowledge so gained would be retained with pleasure, and for the most part without effort. Much of it would become ingrained and unforgetable. Each item would serve as a support to the rest, and as a nucleus of accretion. The concrete mass thus builded up might in some cases not rise very high, but in all cases it would be on a firm foundation.

Amongst the vast gains which the inventor of printing conferred upon mankind, there is certainly a deduction to be made in respect to the facilities which it has afforded for self-deception, and for the substitution of words for real knowledge. Thus we are often led to be content with the ghosts of facts instead of their substance.

We may perhaps consider that Professor Flinders Petrie has pressed this idea almost to the extent of paradox, but his expressions are worthy of our best attention. It is not needful that we should in any degree forgo the uses of words or of the printed book and the lecture platform, but it is essential that we should remember that they offer very inadequate substitutes for familiarity with the things themselves.

Other considerations, perhaps more immediately pressing, but not more really important, may be urged. As the direct result of the diffusion of that knowledge which has been truly said to be power, the direction of the world's affairs is rapidly passing into the hands of the many. It is essential, then, that the many shall become qualified to use that power well. Hence the importance of a sound knowledge of history and literature.

The progress of Colonisation and of commerce makes it every year increasingly evident that European races, and especially those of our own islands, are destined to assume a position in part one of authority, in part one of light and leading, in all regions of the world. If not the actual rulers

our races will be instructors of those who rule. European peoples (with whom of course we associate that of North America as an offshoot) must assume the position of the world's teachers, and it is not possible to exaggerate the importance of their being themselves well taught. Their vocation is to reclaim the earth for the use of man, and in so doing to advance the reign of peace and goodwill. It can be discharged only by the aid of advanced knowledge. We must understand the problems or we cannot hope to solve them. What a vista does this thought open before the eye of the educational reformer. Surely it is well calculated to impress him with zealous courage. The education of the past left the pupil content to know the names of countries and their rivers and mountains, whilst regarding them all the while as of little or no personal interest. Henceforth it will not be so. An Englishman's relations may be scattered over the world, and destiny may lead himself or his children to the most distant regions.

It must not be forgotten as a fact in modern education that it is now most wisely conceded to girls that they shall have the same opportunities for the acquisition of knowledge as are accorded to their brothers, and, with little or no exception, a like range of subjects. The effect of this is, in many subjects, to largely increase, perhaps almost double the work of the teacher. Bearing perhaps somewhat in the other direction, we have a far wider recognition of the fact that education ought to be considered as a life-long affair, and that anything approaching to its completion in youth is not to be thought of. It is not so much the object of the schoolmaster to store his pupil's mind with facts as to give him a glimpse of the promised land, and to train his mind for the energetic and successful prosecution of his life's journey.

At the present time we are reaping a rich harvest, from seed sown by our forefathers, in the circumstance that the parents of our pupils are themselves comparatively well educated. The scheme which I would suggest as a substitute for the class-room, the time table, and the lesson

book, is one which would enable scholars to teach themselves and would enlist parents as helpers to the school-master. Let the State provide educational museums, and let its education authority devise examinations which shall necessitate the use of them and guide home-study. I will speak in more detail of each of these suggestions presently.

After all, the best instructors of young children are their parents. It is they who, so to speak, set the pace and guide the child's ambitions in study. Every advance in the attainments of adults becomes therefore a great gain as regards the education of the young. Our arrangements ought consequently at every step to keep in view the importance of encouraging the progressive education of adolescents and adults. It is in its special adaptation for this object that museum teaching finds one of its strongest recommendations. It is attractive to all from childhood to old age.

I am sometimes asked, even by intelligent persons, what is the use of attempting to teach such universal knowledge as is implied in the arrangements which I have briefly described. Let me defend the attempt.

Ancilla fidei doctrina.—It is very true that faith is helped by doctrine, but we must not forget that it is the faith, and not the doctrine, which saves. If the faith can be gained by a sight of the truth, without much intervention of doctrinal instruction, our end is achieved. The question as to what ought to be taught may suitably be met by an enquiry how do we wish the next generation to feel? To train the feelings, to develope and duly restrain the emotions is a final aim of all sound teaching. It is upon our feelings and impulses, upon that which in our hearts we love and cherish, that our conduct will in the end be based. It is highly important to inculcate duties, but if we can make duties attractive we shall attain our object the sooner, and shall have but little need to inculcate laws of duty.

What, then, let us ask, are the bases of belief upon which it is desirable that the conduct of future generations of

mankind should be grounded? First, I think we must wish to develop such a perceptive sense of the unity between past, present, and future as may conduce to patient perseverance in well-doing. With this is, of course, closely associated a conviction of the inseparable connection between causes and effects, and a correlative incredulity as to the results of chance and of supernatural interference.

Though the mills of God grind slowly,
They grind exceeding small ;
Though with patience He stands waiting,
With exactness grinds He all.

It is only another phrase for the same thought to say that with the Giver of Life there is no changeableness, nor any shadow of turning. Both alike inculcate hopeful confidence in effort, and whilst steering clear of the rock of fatalism incite us to let patience have her perfect work. It cannot be needful to point out that it is by the study of the laws of the evolution of life on the earth's surface, and above all the history of the human race, that these convictions may be reached.

Nothing perhaps tends more forcibly to dignify human life and give zest and reality to existence than a full and unquestioning perception of the vast periods of time which have been already accomplished. With this must, of course, go an equally well-founded perceptive realisation of the immensity of the periods which are to follow.

The old-day conception of humanity which taught that, except for a highly favoured few, it was enough that a man should be of sober and quiet habits, a faithful husband, a kind father, and a docile parishioner, and that at the age of 65, earlier or later, he should thankfully migrate to a place of reward and rest, is rapidly being pushed aside by a wider appreciation of individual duty and responsibility. We now view the passing generations as links in an almost interminable chain of life, and every individual as a constituent element in such chain. We know with absolute certainty that the progressive development of humanity, and with it the happiness of the coming ages, will be influenced

for good or evil by our conduct. Whilst we desire to enable all whom we can interest to attain a state of happy contentment with things as they are, we also most earnestly wish that this may not be incompatible with an incessant desire to make them yet better.

I regard the preliminary publication of questions as being perhaps the most important part of the scheme of developed education which I now advocate. By its means the education authority, with the least possible expenditure of time, money and energy, would be enabled to guide and stimulate the studies of the whole community. A certain amount of suggestion as to reading and guidance in study, is of great value to young students. It is not every one who knows what topics to take up or what books to read. To many, a scheme of questions would put an end to much bewilderment. Not unfrequently an explicit interrogatory may enable those addressed to recognise ignorance which had not been suspected, and it is a great help to advancement in knowledge to be made conscious of that which we do not know.

It is also helpful to obtain some insight as to what others know and think desirable to be known. Solitary study has a tendency to become vague, and in some minds to produce self-satisfaction, and finally indolence. To know what is thought attainable, and to realise that we ourselves have not attained halfway is antidotal to priggishness.

I have ventured in order to illustrate the plan proposed to prepare a set of questions supposed suitable for an advanced class. Much better ones might easily be prepared under the guidance of a painstaking educational committee. Those now offered must be regarded simply as crude specimens. I offer also another and earlier list which was written yet more hurriedly, but which has stood the test of practical use at several examinations at Haslemere and at Selby. It will be seen that the questions have been designed to admit of brief and explicit answers. This is necessary in order to enable the examiner to judge of the quality of the

answers without much labour and without much risk of error. These points are of great importance if examinations are to be conducted on a large scale.

It is to be kept in mind that these questions are not intended to be sprung upon an unprepared candidate. They are to be taken home and studied by the aid of friends or by, perhaps the yet more efficient, help of books. They are designed as much to incite to study as to test attainment, and to be helpful, not exclusively to the individual student, but to the whole of his family circle. These points were explained to a lady who had thought it worth her while to call at the Haslemere museum to expostulate against the absurdity, as she termed it, of setting her children such questions alleging "Why, there are many which I could not answer myself." She took the advice given, and her children in due course passed very creditable examinations.

Geography is, of course, an enormous subject, and branches out into unlimited detail in every direction. A clear knowledge of its main facts is, however, a most desirable part of education, and it is not, we assert, at all difficult to be retained, if the student will allow himself the liberal use of maps, and not flinch from frequent recapitulation. Whether reading his newspaper, book of travels, or more serious history, he should have his atlas at hand, and should never allow himself to proceed without a clear idea of the whereabouts of the places mentioned. In idle moments he should amuse himself by making sketch maps from memory, and he may often profitably employ five minutes of compulsory leisure at a railway station in conning one of the maps there so liberally and plentifully provided for public use, and making mental additions to it. He will find that in this, as in other matters, when once the preliminaries are well mastered, recapitulation is a source of pleasure, and that, so far from fatiguing his mind, his knowledge of geography will add both to the pleasure, success, and satisfaction with which he pursues other branches of study.

A few words must be said in reply to the obvious criticism that the publication of questions would lead to the preparation of answers which would be committed to memory. At the worst this would only mean catechism-study, a form by no means wholly reprehensible. Those who had well learnt all the answers would at any rate have acquired a good amount of fragmentary knowledge. Undoubtedly the most desirable result of preliminary publication would be that a candidate should read for himself original works of literature, history, or science, and a second best that he should have recourse to an *Encyclopædia*. Resort to a coaching-catechism in which the answers were specially prepared for his aid could only come in as a bad third. This last would, however, be much better than nothing. Its drawbacks would be minimised by the fact that many of the questions, such for instance as those which concern insertions upon maps or upon history-schedules, could not be answered in any other than a legitimate way. For those which concern the identification of objects the candidate must of necessity rely upon the information which he has made his own. Even as regards those questions which admit of mere rote-memory answers it would be easy, by frequent new editions of the text, to introduce alterations which, whilst minor in themselves, would be sufficient to baffle somewhat the efforts of enterprising publishers of categorical answers.

A topic of great interest for the Association which we represent is the relations which should be formed between the educational museums of the future and our existing institutions. It would probably be a great mistake to attempt to metamorphose the one into the other, and it is easy to show that they may exist side by side with mutual advantage. The teaching given at the new elementary museums would qualify for the profitable enjoyment of those of more advanced pretensions. "Tis the taught already that profits by teaching," and it may reasonably be expected that the school-class which had been trained in the corridors and galleries of an elementary institution,

would supply not a few appreciative visitors to those more richly supplied. We should hear less of the neglect of museums by the public. Our present museums are not well adapted for strictly educational purposes. Their rooms are too small, their shelves are too crowded, and the multiplicity of the objects displayed is overwhelming to the uninformed. That more attention to the provision of labels and guide books would be advantageous to those who now frequent them, may be easily admitted, but that any attempt should be made to adapt them to the needs of schools may be doubted. It would be a betrayal of the best interests of scientific progress to attempt to popularise the British museum, and the same remark with but little less force applies to many of our large Provincial institutions. Most of them are placed in central positions in cities where land is exceedingly valuable, and extension of premises impossible. Educational museums should have plenty of room, and should be built where land is comparatively cheap. The troops of visitors, children and otherwise, which it is desired to attract to them, and to detain for *viva voce* instruction would be an intolerable nuisance in county museums as at present organised. At the same time there are few museums of the latter class which could not, without loss, give or lend from their stores sufficient specimens to well supply educational institutions five times as extensive as themselves as regards space. The need of an Educational Museum is space rather than specimens. The specimens will come of themselves.

In some places, where the county museum is placed in a park or large garden, accommodation for the educational department might conveniently be found in close proximity to it. Under all circumstances where neither space nor funds are available, it may be remembered as a compromise that, although a large building is very desirable, it is not absolutely essential. Amongst the expedients which may be resorted to, is the temporary display of objects in assorted sections, putting one aside when another is brought out.

We have been dealing thus far with the first necessity for a museum, the provision of rooms for the display of its contents, and it is desirable next to speak briefly as to the supply of objects and of teachers. Our association could not, I think, engage in a more useful work than the organisation of a depot from which should be furnished either for sale or hire, objects suitable for educational purposes, with their appropriate labels. It ought also to prepare a Guide which could be adapted to all such institutions and a small phalanx of skilled teachers. The latter should be peripatetic and might be more or less specialised. I cannot do more than hint at these arrangements and express my conviction that they might be so adapted as to greatly diminish the cost of museums, and immensely increase their usefulness.

At the risk of some repetition I will here interpolate a fragment of an Address which I wrote many years ago but never published.

“ It is to be feared that the kind of interest displayed in museums by the public is a very superficial one. They are regarded as show places to be walked through and gazed at and little more. Something of this sentiment is perhaps unavoidable in reference to our large national or metropolitan museums. They are visited chiefly by strangers, whose time is limited, who for the most part make but a single visit, and are, to some extent necessarily, content to see that the rooms are lofty and full of objects of interest or of beauty. There is no thought of going into detail in any direction. Now the museums of small towns and villages should be designed for a wholly different class of visitors. They should be places to which the residents would resort repeatedly and to which they would go in order to observe with care the specimens displayed, and to read the explanations appended to them. They should be places where visitors would loiter, talk (in whispers of course), discuss and it may be criticise. They should send home the observer intent on looking up in the encyclopædia the life of this or that man or the facts as to this or that fossil. At one time it will be a question in chronology which has

to be solved and at another one in geography. On one occasion the young student may have been perplexed as to whether Captain Cook was killed at Hawaii or at Owhyhee and at another as to the essential differences between spiders and insects. Whatever might be the precise form of question at any rate the faculty of observation would have been aroused and the spirit of enquiry stimulated. In any case something would have been done towards keeping the mind alive.

Amongst the objections which are sometimes put forward against the formation of museums in small towns are the allegations "We are not up to it." "It would be beyond us." "There is nobody here would go to the museum more than just once to see what it was like." For the most part such confessions are based upon misconception as to what the scope of the proposed museum would be, and for the rest upon injuriously weak estimates of the intelligence of our fellowmen. It is quite true that our shop-girls do not as yet care much about the Cretaceous strata, but they might be induced to look with admiring interest upon the spines of echini embedded in white chalk, and note their sameness with those of the sea-urchins of our shores, which would be placed by their side. They may perhaps have forgotten most of what they were made to learn at school as to the Tudor period, but they will look with pleasure upon portraits of Queen Elizabeth, her unfortunate mother and her equally unfortunate cousin. The youngest apprentice will look with wonder on the leaf-butterflies and will call his father and mother to gaze with incredulous eyes on objects which to him have revealed a vista of the marvellous in nature.

Amongst the reasons why many towns have hitherto felt reluctant to attempt the formation of museums, we may probably mention the following: A fear of the expense in providing the room. It has been supposed that a building suitable for a museum must be large, of ornamental appearance and necessarily expensive at the outset. This, however, is not the case. In many instances an existing

house or other building might be suitably utilised, at any rate for the experiment. If it were necessary to build, and if the ground-space were of little object, a large shed-like erection, having only a ground floor and top-light, would be the most convenient, and might be cheaply built. In the case of villages and where it might not be thought desirable to undertake a permanent collection, very valuable work might be done by fitting up as a temporary museum the Board School premises, during the summer vacation.

It is also a general superstition that to supply the contents of a museum is the work of a life-time, requiring the energetic zeal of professed collectors, and not unlikely to result in a very heterogeneous assemblage of chance gifts and purchases. Under the scheme now proposed, of a central depot and well-trained curators, all this would be changed and a new museum would be equipped almost as promptly and easily and as completely as a new house is furnished.

The fear that the collection might remain unarranged and unsupplied with labels is also completely met by the plan proposed. The labels and a catalogue would be provided beforehand.

Expense of maintenance is another matter which is effective as a deterrent. This should be, in the first instance, economised by dispensing with the services of a resident curator. A travelling curator who should supervise a considerable number of museums and act in concert with local committees, the members of which might undertake work as expositors, each of his own department, would serve all purposes. The cost of a caretaker and attendant might be defrayed by subscriptions and payments at the door.

One of the most efficient means of maintaining interest in a museum and keeping up the attendance of residents is the frequent change of objects. By this means the inconvenience of small rooms might be much mitigated. More especially would this concern the artistic and pictorial

departments. A central depot might easily be made to supply frequent changes of this kind. One month might have a collection of Reynolds' engravings, another those of Landseer, another an English portrait gallery and another selections from Leech, and another one of Maps.

The change of specimens such as eggs, bones, fossils and the like would be easy, and store cabinets might be kept in the building for common objects."

The scheme which I have been advocating would invite our authorities to substitute for curricula and improvised examinations the publication of carefully prepared questions which should be published beforehand and upon which almost exclusively examinations should be based. It would leave the details of instruction to the teachers, the parents, and the pupils themselves. At the same time it would require the State or the local authorities to provide liberally in the form of Educational Museums the means for the acquisition of real knowledge. The great work of Education should no longer be left as a duty attaching solely to professed teachers, but should be shared by the whole community. So far from this change tending to lower or weaken the position of the schoolmaster it would greatly exalt it by enabling him to aim at far higher objects.

Amongst the advantages claimed for the plan of objective instruction which has been advocated are the following :

It would be natural and real and would to a large extent avoid the fatigue of memory and the bewilderment of mind which are, but too often, inseparable from mere book-teaching. In these respects it would be a great relief both to teacher and scholar.

It would much facilitate the work of school inspectors.

It would enlist the interest of parents and friends and thus tend to further educate many who had long ceased to attend schools and to advance their influence for good upon the minds of their children.

The knowledge gained would be of a more practical and useful character than that now offered, and above all every item of it would tend to widen the grasp of the mind and increase self-reliance and add to the enjoyment of existence.

This is not the occasion for me to enter upon any attempt to compare the expense of Museum Education with that of the text-book and class-room. It must suffice for the present to remind ourselves that the best is usually in the end the cheapest, and that the endeavour to be saving in an affair of such paramount importance as the training of a nation may easily prove to be very false economy. Undoubtedly the provision on a liberal scale of museums of the kind required would cost money, but if the efficiency of education were by their means doubled, it would be money well laid out.

The conditions under which we, the present hereditary freeholders of a beautiful planet, hold our possession is, I cannot but believe, one of especial responsibility. The stored wealth of countless ages, gathered, but too often, amid suffering as well as toil, has been bequeathed to us. We are tenants for life of a most magnificent ancestral domain, let us see to it that under our management it not only sustains no loss, but that our successors shall in turn have cause to be thankful for what we have done and what we have tried to do.