NOTES AND DISCUSSION

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MUSEUMS AND THE MODERN WORLD

Man has always been a collector and presumably always will be one. In the dim ages of his beginnings, he collected food, shellfish, berries and nuts and in his tropical and sub-tropical haunts lived fairly securely through the little changing seasons. When he invaded the temperate regions, with their seasonal variations, he learned to his cost the rise and fall of the tides of food supply and, dreading winters' want, practised a variety of methods to hoard his food gatherings until the season of food a-plenty came round again. It was the same with the hunters, who, whatever their feasting at the close of a successful hunt, could not consume everything and, experiencing shortages and failures, began to put aside food to be kept. Extra supplies probably in time gave rise to barter of one thing for another more desired—the furrier skin, the sharper antler pick, the more beautifully finished hand-axe or adze. He who had reserves could face a famine, a lost pelt and a broken tool, and doubtless gained in stature and status among his fellows. What he had, he had to hold by strength or guile or both in combination in himself, his family or his tribe. Hunting no doubt led to the elimination of competitors, who would lower the food supplies, and to the proclamation of hunting rights, just

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as, later on, occupation of land good for grazing or cultivation, would give rise to tribal or chieftain ownership—and to the unending battle for ownership, over other claimants. This is again collecting, though in another form.

So, through the ages, man has collected whatever seemed to him to be of value—land to live on and upon in safety and comfort; supporters, followers and slaves to give him strength against his enemies and to do his drudgery for him; weapons to enforce his will against contestants, temples and priests to enlist yet other aid for the prosecution of his schemes. Trade, which began with food, tools and beads, spread to rare spices, fine textiles and outstanding examples of craftsmanship in metals, precious stones, wood and ivory. To facilitate the exchange of these desirable objects between peoples, at a very early stage there developed the system of barter on an international scale by means of money, sometimes copper, sometimes iron, and for long now pieces of silver and of gold, marked to show their genuineness and value.

As man made collections, to keep or improve his place in society, he had to contrive safe places in which to store his possessions, at first in the depths of his caves, in the earth below his dwelling and in the heart of his forests, but as he built stronger and more durable dwellings, particularly when the use of brick or stone became widespread, he found safety for his food supplies, his stores and his treasures in a well-built and relatively fireproof structure. Not only could he keep them reasonably safe but he could enjoy their possession and display them to his advantage in the eyes of his kinsmen and followers and to impress his rivals. So through the ages the chiefs and kings and nobles gathered their treasured possessions in castle and palace, while the priests of all religions took tribute to the glorification of the temples of their gods, and not infrequently to their own advantage. A combination of kingly and priestly collecting was on occasion to be associated with the death of one of the former and his desire that the latter should arrange for a suitable entourage of slaves, arms and treasures, in keeping with his standing in this life to be buried with him to ensure adequate style in the next.

Later arose the merchant venturers and princes who scoured the world in search of treasures and rareties to bring home and exchange for gold, the measure of power and importance. They, in their turn, collected mansion-houses, store-houses for wealth and treasures, retinues, costumes and, to amuse themselves and impress others, curios from far overseas. Another hall-mark of king and princes, merchants and adventurers was the commission of artists to paint their portraits, with which to adorn their houses. Other oddities, reflecting the superstitions of the time or the lack of soundly based knowledge, were examples of the skeletons of giants, the roc's egg and the philosopher's stone, all objects to excite wonder in the eye of the beholder.

Yet others collected in search of the raw material for studies—sometimes for cures for ills, sometimes for the elixir of life, and little came amiss. Later they were followed by systematic students, anxious to evoke law and order out of the natural world. Books had been collected at least as early as the great library at Alexandria; specimens when schools and colleges were founded. So, through the ages, man collected for his needs, then for his adornment, later for power and impressment, and lastly for mental development. To judge from sayings and parables, he must have learned fairly early that although he could rely on his own or others' strong arms and later on castles to hold his possessions, many of his treasures would fade away and decay unless he took steps to clean, preserve and ventilate them, and so must have grown the realisation that possessions carry with them their own burdens of responsibility.

Values changed, too, as time passed. Perhaps to the veneration of princely or saintly relics may be traceable the sentimental collecting of objects connected with more ordinary members of the castle or clan or family, then of individuals who had distinguished themselves in almost any field. Maybe this is merely a modern and inverted equivalent of the princes' attempting to win immortality by accumulating treasures; we try to keep our heroes alive in memory by collections of personalia—the battle standards and medals and loot of a soldier, the charts and compasses and curios of an explorer, the instruments, chemicals and records of a scientist and so forth. They may not be very rare or intrinsically valuable, but they all possess the power to evoke a story.

Manual dexterity has been cherished by man probably next only after valour, and skill of the hands in fashioning things and agility of the brain in devising them have long been sought and displayed in the battle for self-distinction. After essentials came decoration and craftsmanship which must have secured recognition at a very early stage. The production of fine things of use yet goodly to look upon, particularly the skill of the hands in making things in miniature has been evidenced all down the ages. Even in the later days of our own times, when the Industrial Revolution brought applied knowledge and manual dexterity of a repetitive kind to many, there were always those who were anxious to show skill in fashioning fine scientific instruments and machinery in miniature to display at competitive exhibitions. All these were treasured firstly by other makers and their families, and later by collectors who enjoyed eying and handling and demonstrating their acquisitions. The same was true of those enthusiasts who constructed ship models, true to scale and amazingly accurate as to detail.

These treasures, of whatever kind, individually or ultimately in collections, for it is difficult if not impossible to be content with one of anything and "l'appétit vient en mangeant," were sometimes destroyed by accident but rarely of intent, and so have tended to persist down the ages. Fashions, however, change and business or family links with distant lands, once proclaimed by the cabinet or the gallery of curiosities, pass into hands that no longer treasure them, to chatelaines who want their rooms à la mode or who find it no longer possible to tend and keep clean masses of objets d'art. Similarly, on a larger scale, armouries and collections of paintings have to make way for new fashions, sometimes of clinical austerity, or have to be sold to meet death or estate duties. While individuals once prided themselves on personal possessions, now nations, cities, municipalities and universities preen themselves on their displays of artistic, historic and scientific treasures, and international rivalry in their possession waxes as strong as the competition in armies, fleets and colonies. For a while royal and princely palaces accommodated the major collections, for their contents represented a movable family investment, better than estates which often had to be fled or might be confiscated; they could be hurried elsewhere to safety to be realised when necessary. The development of banking and investment provided other means of saving, less readily exposed to risk of fire and violence. So,

princely collections tended to pass from private ownership, being sold or given to national galleries or museums, while private collections of all kinds were handed over to national or civic institutions, sometimes as a demonstration of public spirit, sometimes as an ostentatious display of wealth and power. Museums are thus essentially a product of the modern world, offering shelter to three-dimensional material from the world around, from the dawn of history to the present day. The bigger ones tend to get bigger as they have more money, more staff and more space, while the smaller ones tend to fall by the wayside. The available funds are used in a never-ending battle to secure treasures still left in private hands, or to commission new ones. We are thus watching the drift of collections to a limited number of institutions of national and international standing, from which but few good specimens are ever released, so we may be watching the approaching end of man's battle for the possession of things of lasting value. It would seem that the age of consumer goods for the individual man is coming in—almost a return to the state in which primitive man began.

The essence of a museum is that it is a storehouse, serving as a home for collections of material representing the earth and its life, and of man and his works. Its main task is to accumulate things which are worth while in themselves or which are essential units in the understanding by man of his world and of his kind. The idea of a museum probably originated in the conception of a university, a place of universal studies, where, although much could be taught from personal experience and much from books, illuminating the thoughts of others, yet much could not be learned without the actual material of the studies, culled from as worldwide sources as need be. Such university museums housed the teaching material, essential to illustrate lectures, especially in the sciences, and gradually followed the private collections of kings and merchant princes by accommodating gifts from well-wishers, from travelled graduates, from relatives of alumni who wished to perpetuate illustrious memories and from research workers who had accumulated collections necessary to their respective fields of study. It follows that such collections, originally conceived within the bounds of individual departments, swelled to accommodate almost anything of value, repute or story and overlapped the

boundaries of both library and picture gallery. These university museums, some of them founded several centuries ago, have played a notable part in collecting and saving material of untold value today. Their main drawback is their paucity of information regarding provenance and history, for the realisation that much of the value of any specimen lies in the high degree of its documentation came relatively late in museums' history.

National museums and art galleries largely came into being in the nineteenth century, some of them developing round the palace collections of kingly families, some to house the loot of wars, and yet others to shelter and display munificent gifts from merchant princes and the rising industrialists who were to a great extent their successors. From whatever source the collections came, their housing and maintenance became the responsibility of the national treasuries, although they tended to be administered by boards of trustees or by some appropriate ministry, and were staffed by university graduates in the role of Civil Servants.

Urban centres, which had grown up round church and townhouse, market-hall and tollbooth, grew rapidly in Western Europe under the impetus of the industrial revolution, which brought factories and networks of streets of houses—and fortunes to the favoured few. Local pride flourished on the one hand and an often belated sense of social responsibility on the other, both taking practical expression in the donation of public buildings or public parks. Among the forms the public buildings most frequently took were town halls, libraries, museums and art galleries. The collections to grace the latter generally came in the first instance from wealthy donors, not a few of whom had built their fortunes in the district and earned social distinction by public service there too. Such institutions were staffed by Local Government Officers, members of the same corps as those who staffed the municipal offices, the treasurer's office, the education, the health and the engineering offices, all of them being financed by the local rates and taxes. The standing of the museums and galleries was maintained by the sense of public pride in public institutions. A large and important city saw to it that its cultural units, the library, the museum and the art gallery measured up to its other activities and could stand comparison with those of similar centres of population, standing or wealth. Internally,—from the point of view

of committee or of permanent staff—standards were kept up by a handful of enlightened enthusiasts who understood something of the arts and sciences and used their influence to ensure that public money was well spent. The second half of the nineteenth century was characterised by trade fairs and exhibitions, usually staged in major centres and often partaking of the nature of a modern industrial museum. Such whetted the public appetite for displays of material from world-wide sources, with all the showman's arts to attract attention and the social cachet of attendance. The Great Exhibition of London in 1851, under the aegis of Queen Victoria and the Prince Consort, gave rise to other temporary exhibitions of art, trade and industry and to permanent ones in the form of at least two national museums and to a number of municipal museums throughout the British Isles.

Yet another group of museums stemmed from quite a different source—from national and local learned societies. Such bodies represented the nineteenth century public's thirst for and appreciation of knowledge, and reflected the times when it was possible for enthusiastic amateurs to do an immense amount of invaluable and original work, largely in the systematics of the natural sciences of zoology, botany and geology. They rented or built rooms, held usually monthly meetings, organised collecting excursions and sooner or later embarked upon the publication of their research papers in Proceedings or Transactions. Such work inevitably entailed the making of collections, the housing of which in course of time demanded a society museum—a room with glass-fronted or topped cases, with adequate cupboard storage place below for the less spectacular material or that still awaiting identification and study. Such societies often embarked in addition upon the collection of arrow-heads and bronze axes, so that it was but a step to the study of early man—and the science of archaeology was born. The smaller societies and society museums had to be content with honorary curators, but often attracted an active corps of experts, who built up fine collections. The larger ones, with their bigger field of support, were able to pay for trained curatorial assistance, and not infrequently fell heir to considerable capital sums as gifts or bequests, from which an income, adequate for the modest running expenses of those days, could be derived. Those were the days, too, when museum and scientific work attracted individuals with a certain amount of private income, more interested in the opportunities for constructive work than in the payment attached to the job.

Throughout history, the soldier has brought back loot from the wars to evidence his valour, the sailor has adduced curios from the ends of the earth to lend credence to his stories and, in later days, the maker of the Grand Tour has produced souvenirs particularly from Italy and Greece—to substantiate his claims to culture. Expeditions to the tropics and the poles yielded alike proof of strenuous endeavour and a worthy desire to fill in the gaps, geographic and scientific, in man's knowledge of his world. Many of these things came to rest in homes, for there was a widespread hobby of making collections, and in the nineteenth century these homes were spacious and well served with domestic labour. Such a state of affairs did not outlast World War I, and a new era set in when homes were smaller and more simply run with little or no additional hands than the family provided. It was no wonder, then, that fashion in houses ran to the simple and often the severely functional, and in artistic circles gained wide approval and applause. The collecting hobbies and the collections were shown to the door, and the best of the material joined what had already found a resting place in museums—national, municipal and local society. To this day the drift of material from private possession to public ownership still goes on, as can be experienced in any museum around spring-cleaning time or at any interesting salesroom on auction day.

The acceptance of collections, however, means the acceptance of responsibilities. People who present things expect them to be well looked after. Objects upon which public money has been expended call for careful attention. Man through all the ages has been anxious for the safety of his possessions, and on the museum curator's shoulders falls a very heavy and continuing burden. In his collections are objects of stone, metal, bone, ivory, wood, skin, fur, feathers, fabrics, glass and pottery. With the exception of the two last-named all these objects are subject to decay. From the moment many of them enter a museum, they are fading under exposure to light, decomposing under the influence of atmospheric gases and moisture, swelling, shrinking and cracking as the temperature and humidity change, and open to the attacks of insect

pests such as moths and boring beetles. The home collection was able to combat very little of these ills, but the museum specimens, according to the size of the staff and adequacy of the equipment, are expected to be able to stand up fairly successfully to all of them. Were remedial treatment not applied, most of the world's collections would be on the way to the universal finale of the dust heap—the exceptions being the noble metals, precious stones and probably pottery. Museums are thus housing material for use and study not merely for today and tomorrow-but for an indeterminate future. Nor can the museum man light-heartedly open his doors and his arms with enthusiasm to every new arrival. If he has taken and continues to take steps to rid his collections of insect pests, he has to place every new arrival, potentially infected, in quarantine and give such treatment until is appears safe to incorporate the recent accessions in the rest of the collections. Nearly all specimens, because of their age and previous lack of treatment, are serious sources of infection, not only for other specimens but for the woodwork of cases and the museum building itself. When it is remembered that the ideal conditions for them to spread and flourish include darkness and warmth, museum store-rooms must be places of eternal vigilance.

In the early days of museums, the aids to the protection of museum material were very limited, rather like the hygiene practised on a patient suffering from a serious ailment, for whom no potent curative drugs were available, but now modern chemistry, physics, X-rays and electricity are all enlisted in the fight to save material and to keep it in a condition as near to the original as possible. X-rays can reveal cracks and weaknesses, fluorescent lamps show differences in composition, microchemical tests explain chemical reactions giving rise to decomposition, new solutions remove impurities and plastics provide invisible mending material and protective coating. The fine threads of nylon stockings can give undetectable strength to backings for all kinds of fabrics.

Museum material is thus forever on the move—bodily from world-wide sources to more or less permanent resting places in those buildings, and structurally from its pristine condition to an end point of dust, delayed as long as possible by all the skill at our command. A museum exhibit may be likened to a cinematograph film arrested momentarily to give a clear "still." The

museums of the world now hold the majority of the world's treasures; if we let them run through, like a film, we shall be left in cultural darkness.

In the early days of museum collections, it was enough to record identity and donor on the adjacent label; but rarely was provenance noted, and so much of the value of the older material was lost. As time went on, more and more interest was taken in the specimens and every scrap of relevant information was carefully secured, so that the newer collections are much better documented than the old. Crowded cases and shelves used to be taken as evidence of wealth of collections and little heed paid to the use made of them. The public came to wonder at curiosities and to pick up odd scraps of knowledge, rather magpie-like. After the First World War, a great change came over the face of museums, largely initiated by a revolutionary group of leaders in the more go-ahead local government museums. Perhaps, being nearer to this public and answerable at monthly intervals to committees of elected representatives, they felt more was demanded of them and their institutions than mere display. Perhaps they were influenced by new educational ideas developed in a few of the newer museums, which were aiming at attracting school-children. Be that as it may, the isolated specimen to be wondered at gave place to the group of specimens to tell a story and encourage further thought. This had a number of important repercussions. From merely supplying accurate identification the curator had to accept responsibility for determining the story to be told, the material to illustrate it and the way to tell it. He became much more than a custodian of collections, a curator of their well-being and became a director of museums and museum activities. The existing collections in his care determined the fields within which he could develop interesting and educational exhibitions, but he had to accumulate wide knowledge concerning current trends of thought, up-to-date research and the results of recent expeditions the world over. From that knowledge—his own or contributed by trusted advisers he had to select themes of standard interest and importance or of particular application at the time and in his area, in the illustration of which adequate three-dimensional material was available. It must never be forgotten that it is the presence of real things which gives a museum its particular place in the community.

The art exhibition and the objet d'art still, and properly, rely on inspiration and emotional effect. Provided it is shown to advantage and in an appropriate atmosphere, it can make its aesthetic impact on the onlooker. Approach, surroundings and lighting all play their part. It is sometimes overlooked that the same is true of museum exhibits and in more everyday subjects. Curiosity, understanding and application are admittedly the order of the day, but all are liable to be encouraged by the right approach, atmosphere and adjuncts. Places of learning attract the seeker after knowledge by what he knows they have to offer, but museums can only work their wonderment upon a public encouraged to enter their doors. There must thus, for the general public, be a considerable element of recreation and enjoyment in museum offerings. An attractive building in an attractive setting is an initial and inestimable advantage, but one likely to be possessed by only the latter-day institutions, for early museums of the Industrial Age are notable neither for their architecture nor their neighbourhood, and have, more often than not, accumulated a liberal coating of soot and grime since their erection. There is thus all the more reason to pay due heed to colour-schemes, flower beds, fountains and restaurants indoors and to the building up of a reputation for lively, though not light, entertainment further afield. A local public is, on the whole, very loyal and although the cynic may often say "Give a dog a bad name...", it is nevertheless true that in countless places the citizens and their families give regular and unfailing support to their own museum's activities.

It is, however, neither the turnstile numbers nor the admission fees—where such are charged—that really count; it is what is offered within the halls and the use of the time spent in them. The museum preserves three-dimensional objects for tomorrow, but presents them for today. Today is characterised, compared with yesterday, with widespread if hardly universal education, with literacy that opens the door of every library, with conditions and payment of labour that permit vast numbers of people extensive leisure and opportunities to "go places." It is, in western countries, a public prone to rely for much of its ideas and for much of its leisure pleasures on the popular press, the cinema, radio and television, in all of which it tends to play a purely passive part. Surely a more active appreciation of their individual

parts in playing out their own destinies should be encouraged, a more vital understanding of their own world inculcated. This last is most certainly the function of museums.

Let us persuade man to go on collecting—knowledge, impressions, appreciation and understanding which will enable him to enjoy his world and his life to a far greater extent than at present. Given the right kind of encouragement and the appropriate subject, most people like learning about things, how they are done, how they come about—and that is exactly what a good museum can do. It is not enough merely to put a name—to put the correct name on a thing; from that one must pass to learning its functions, its fashioning, its history and its beauty—for even a piece of coal reveals under the microscope the delicate structure of age-old plants and a skeleton the wonders of engineering balance and function. The gadgets and gimmicks of today have tended to stifle simple wonderment; but a thoughtful inspection of the world of life will renew it.

The museum must thus mesure up to its responsibilities, and the museum curator or director must take full advantage of his opportunities-for they are in fact limitless. The complaint has been heard that the intelligent public of the last century has gone—the working members of local learned societies; true, but a much more widely-read, or potentially widely-informed public now constitutes our clients, and we have to afford them those chances to hand that will develop their powers and their personalities. Instead of shelves of specimens there must be stages in awareness, in understanding. A book can preach the writer's philosophy, and be "packed" with carefully selected evidence to support the author's point of view; a museum case must always present in intelligible and observable form all the available evidence as contained in a reasonably wideranged and representative series of specimens. As a further guarantee of reliability, the visitor should be encouraged to go forth and seek his own specimens and to test thereon his new-found information and ideas. Hence the imperative necessity for integrity in all museum exhibits. The public, so often baffled and misled by press and cinema, do put their trust in what a museum shows—a trust it is every museum director's responsibility to maintain.

Museum cases must display and illustrate currently accepted

ideas in the sciences, in archaeology and ethnography and in the arts and crafts; they can also show the history of their development and tell something of the lives of the leaders in the various fields. The basic aim should be the wonder of the world we live in and the history and advancement of mankind and individual man. An exhibit should centre round a particular theme or idea and have, if possible, a central arrest feature to hold the wandering visitor's attention in the first place. To follow a theme is like reading a book—one must read it in the right order passing from step to step. In some museums this is achieved by numbering consecutively the exhibits, in others by a series of arrows, and yet others direct their visitors round by one-way traffic signs. It is, however, very difficult to make people follow a desired direction and the earnest observer may well wish to turn in his tracks to be sure he has observed correctly. It is thus best to try and inculcate the desired idea or theme in one case or a close group of cases, and to be prepared to offer subsequent ones in other groups further down the room. Specimens will rarely be selfsufficient; the visitor will want a minimum of information in the form of interestingly phrased, attractively produced labels, supported by diagrams, photographs and maybe models, but real things should predominate. A museum exhibit is not merely an illustrated text-book, and cannot be consulted in the endless comfort of an armchair, though such can with advantage be provided at reasonable intervals. The complaint is often made that so many leisure-time pastimes nowadays call for little or no effort in the participants and leave but little effect behind them; the physical effort of walking round museum galleries and cases, and the mental effort of reading labels, inspecting specimens and following an argument from one to the next are all beneficial and undoubtedly help to retain impressions received. Likewise, focussing a microscope to observe some detail or pressing a button to set some model engine in motion all help to fix ideas and maintain interest. If, in addition, there is a guide-book or a hand-list to take home after such a tour, it provides the opportunity to check up on ideas and to revise opinions, encouraging a continuation of audience participation and, above all, the desire to return for more.

Much of this desire to return to the museum, or the resolve

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not to do so, will depend on the general atmosphere of the inside of the building. Museums used to be dull, drab and dusty. Provided they offered the maximum accommodation for well-filled cases and cabinets, they were considered adequate, and a general addiction to black-ebonised furniture characterised most, presumably on the erroneous grounds that such would not show the dust. Fortunately, in the world of today, such ideas are as dead as the dodo. Light colour-schemes revive dowdy old buildings, black cases have given place to stained natural wood, sometimes relieved with polished metal frames, inconspicuous electric light fittings diffuse good space or case lighting and attractive and colourful settings show off a limited selection of exhibits to the best advantage. Many museums add to their artistic claims by the introduction of fountains, green climbing plants or vases or boxes of flowers, and by well-designed chairs and tables carrying appropriate literature. Such is the up-to-date setting for the treasures which have been made, collected and preserved down the world's history, and to join them come others as scientific research and exploration, archaelogical excavation and the break-up of private collections proceed with the passage of time. For their enjoyment and appreciation, the public must be introduced to them in an appropriate atmosphere, and even the most casual visitor reacts to beauty and serenity.

The older museum tended to be rather an impersonal institution offering its immense collections on a "take it or leave it" basis, and the expert staff remained largely incommunicado closeted with their favourite collections or colloguing with their fellows behind the scenes. Occasionally they gave lantern lectures to a public restricted to the body of the hall, but contacts with them were few and far between. Learned monographs from their pens circulated among those who shared the same expertise but did little to bring them out among ordinary citizens. Today a certain amount of science is news, the museum public has access to vast resources of popular books and a certain number of museum officers are television notables. The public wants to know more and to meet those who know more. Static collections may recall talks heard on the wireless or subjects seen on television, but the museum that houses them must be prepared to do more to welcome its visiting public and to go further in explaining

why it makes collections and what it is aiming to do with them. Mere identification is not enough, although the reality they represent is all-important. Ideas—new ideas—must be offered and in such a way that the onlooker is led forward and enjoys the experience. On viewing a hitherto unknown animal, mounted in a museum case, the old reaction was to wonder that such a creature existed; now the wonder is where it lives and what it does, information which can be given in epitome on a label and augmented in a diorama or a habitat group, but which can now be supplemented in an entertaining and educative way by films in colour carrying an appropriate sound track. Nor is natural history the only field in which life and movement may be given to the objects displayed in museum cases. Archaeology and ethnography can be enlivened by films showing how specimens were made and utilised, emphasising their peculiar appropriateness under the circumstances pertaining to a particular time and place. Geological processes such as vulcanicity, glaciation, river and marine erosion can all provide fascinating film studies, while physics and chemistry, applied science and engineering yield processes from raw ingredients to end products, many particularly suitable for display on films, carrying the story far beyond the contents of a museum case. Ship models are a fascinating exhibit in any museum, but how much more can they be appreciated if films can be shown illustrating a modern motor ship being constructed in a yard or a full-rigged ship setting sail at sea! The imagination can be quickened by such adjuncts and the urge to know more about the subject stimulated, leading, it is hoped, to a greater use of the resources of the, often adjacent, public library.

Film shows lead inevitably to thoughts of lectures and demonstrations. Many museums have a long and distinguished record of organising lecture courses, usually dealing with subjects illustrated in the collections, and even the finest colour film gains from an introduction by some distinguished scientist or explorer. It is doubtful if, at this time of day, there is much market left for the unillustrated lecture, unless the speaker is a very prominent public figure, but for the personality with a film or with material or demonstrations easily seen by a large audience, there is a wide welcome and he plays a notable part in enlivening the offerings of a museum. Demonstrations may be

in scientific subjects or in the arts and crafts, where the visibility of the process going on determines the size and set-out of the audience. Such lead, very properly, to a desire on the part of the onlookers to try their own skill, and it is a happy trend of events in some countries that museums and galleries have as near neighbours art schools or have instituted studies of their own, in which youth or adult groups are given training in painting and carving, silversmithing, pottery making and embroidery. In some institutions, such courses are organised to last one, two or even three terms and do much to build up groups of people who not only use the museum more but bring fresh life into its activities.

Another method of making the public aware of the liveliness of a modern museum is to pander to what our American cousins call "the sidewalk superintendent" idea. People like watching things being done, and it is the common experience of most museum officers that, while a room full of treasures may go unnoticed, a case open for periodic dusting quickly attracts an attentive crowd. This interest could be encouraged and extended by making a practice of dressing cases in public, so long as there is no danger to the exhibits. Limited tours of workshops and studios invariably stimulate interest, but take some organising so as to pass the visitors reasonably quickly through often restricted passages and small rooms encumbered by essential equipment. At least one museum in America, at Jamestown, has arranged its store-rooms and work-rooms on the ground floor, to the rear, so that the public can watch through glass windows the processes of cleaning, repairing and numbering. Again the aim is the dissemination of the idea that the museum is a public property to be utilised and supported—a unique institution which has something good to offer to almost everyone, where services of almost indescribable variety are being rendered every day.

A museum shows, for convenience, under one roof, the world we live in and the works of man, its highest developed inhabitant, among whose equals we number ourselves, but no building—not even the most immense national museum—can hope to embrace adequately all branches of knowledge. It must select those it considers most important for the district or its clients, or those in which by opportunity or intention it possesses the most extensive collections. This has led to a considerable degree of specialisation

among museums, one on an early Roman site displaying such remains of that civilisation excavated nearby, another situated in a coal mining area concentrating on the history of that industry, while a third in a coastal town emphasises the story of shipping. This is a tendency to be greatly encouraged in modern museums which, with their long accepted aim of quality in exhibits, should be equally selective in their aims and do what they can do supremely well. Nearly every community has a museum that accepts as its responsibility the illustration of its natural history, its general local history and provides a speciality in some aspect of its history or its industry. A group of such museums provides a picture, an epitome of a whole region, so that a careful tour of them can be immensely educative and provide the three-dimensional background against which to test the statements of guide-books and county histories. But such a policy must of necessity leave great gaps in the field of education and culture, and not everyone can pay frequent visits to savour the offerings of national museums and art galleries.

For those who must stay near at home, the modern museum must provide a series of varied temporary exhibitions, preferably dealing with subjects other than those illustrated by the permanent collections. They thus bring variety and broaden the basis of education and culture, and at the same time spotlight subjects and objects of particular topical interest. They are far from easy to organise and often involve considerable expense. The material must be gathered from wide sources, must be annotated and labelled, given suitable settings and often described in a printed guide-book, which serves as a useful souvenir after the exhibition has gone. Such exhibitions are frequently prepared by governments, nationalised industries and large industrial federations and associations for educational or propaganda purposes and sent on tour. Other smaller ones may be put together by local learned societies or amateur artistic or photographic societies, and may serve to direct the attention of the visitors to new interests, new activities and new groupings with his fellows, most surely a very desirable objective.

While museums attract a small but specialist clientèle of experts, anxious to compare specimens with their own material and ideas with brother experts on the staff, the vast majority of

museum users are members of the general public anxious to while away time pleasantly, acquiring interesting information and novel ideas in the process. It is to be hoped that they will thereby be encouraged to come again, to cogitate more deeply and to seek further light and leading from the books in the public library. If, beyond that, some are impelled to join a local society so as to prosecute further studies in congenial company, then much has been gained. Modern museums in many cases go out of their way to serve their younger customers, the potential adult users of tomorrow. School class visits are organised and encouraged, demonstrations and film shows staged and special staff employed to open wide the gates of knowledge about the world around them to young, inquiring minds. It is right that this should be so for, after the earliest years, learning in school tends to become more and more learning from books, from the pictured or printed page. Yet the children are being prepared for community life in a three-dimensional world awaiting the opening of the school door, so that visits to museums not only stock their growing world with real things but provide preliminary educational and recreational tours into their future environment. Nor is this confined to school-time hours or the limitations of classroom discipline. Many institutions have special facilities on Saturday mornings and during holidays to teach children to enjoy using the museum in the happy companionship of their fellows, and to learn at an early age to become acceptable club members, surely the first stage to becoming community conscious.

There is a field in which more museums are urgently needed in the world of today—museums associated with particular industries and showing the history of their materials and techniques from the individual craftsman's contribution to the conveyor-belt methods of mass production. Change and rapid change characterise so many industries that old methods and materials, together with the particular skills required for their use, tend to be forgotten, and the part they played in the processes of today entirely overlooked. Businesses, like families, are proud of a meritorious past, of a goodly tradition, and often, only when it is too late, seek to save those things vital to the illustration of their history and development. This is all the more to be regretted when it is coupled with the realisation that so many employees are apt to

lose their consciousness of their own contribution in the daily manipulation of complicated machinery. The day of the apprentice is not yet over and the building up of a happy and conscientious staff can be greatly encouraged by a presentation of the work and achievements of those who have gone before. In particular they have a specially important service to render in emphasising the sovereignty of man, the designer and the operator, in a world too often and too readily accepted as machine controlled. The Corning Glass Centre at Corning, New York, combines a famous glass works, a training centre for its staff, a library, a museum and a demonstration theatre where interested visitors can see something of the wonders of glass production. Something on similar lines is projected by Pilkingtons, at St. Helens, England. The boot and shoe trades in England and Eastman Kodak in the United States have museums to encourage their own staffs to study the early stages in the industry to which they have been recruited, and clearly much can be made of such projects, of which so many excellent examples are to be found in America, where neither funds nor enterprise is lacking. Of more general application is the Home Office Museum, London, which shows by actual apparatus the vast strides made in making industry safe for the worker.

The stone axe, the Egyptian scarab and the Roman lamp, now venerated antiquities enshrined in museum cases, were all commonplace articles in their heyday; the schooner steering-wheel and the early weaving-loom now given pride of place were not so long ago regarded as junk. When, and by what process does an object become a museum piece? ... Museums are collecting *today for tomorrow and the days to come, and museum directors have to discern as best they can the trends of development in many—if not all— spheres, trying to recognise important stages and items as they occur and to secure the specimens that future directors and a future public will demand. The modern world offers year by year a more extensive and ever more glittering array of materials, derived from natural and industrial products, and of mechanisms capable of performing amazing tasks, many of them reducing man to a mere button presser. How many things we use or amuse ourselves with today will be gazed at in some museum many years hence? Like the purse of Fortunatus, our galleries and our store-rooms will never be empty, but unlike the

purse they will have to be bounded by ever-extending walls. Again, a German museum encases the famous Pergamon temple, an American one is planning to house an entire submarine, while a group of museums, as yet unselected, will have to accommodate temples and other massive monuments, moved before the advancing waters of the projected Aswan High Dam. Museums, like everything else, must grow with the times and like supermarkets become super-museums, requiring immense car parks for the patrons. Museum buildings, fittings and equipment, tend to become more and more expensive as time passes, making more and more demands on funds as do also museum specimens, the superb examples of which become rarer year by year, and are competed for in world markets by an ever-growing number of nations, acutely conscious of the prestige value of collections. Man is still collecting and seems likely to continue to do so in an everevolving modern world.