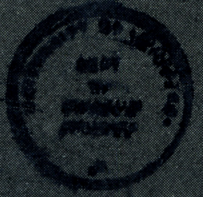


Children in a Museum



Donald Moore, Senior Officer, Schools Service, National Museum of Wales



APOLLO 11 MOON DUST

Small amount of lunar dust, impact of the lunar lava surface.
Only dust particles larger than 1 mm have been sieved.
The dust is very fine and light.

Local Museum Council, National Museum of Wales

The National Museum of Wales has a long history of providing a service to children. In 1947, the first Children's Museum was opened in Cardiff. This was a small, simple room where children could see and touch objects from the museum's collection. Over the years, the service has grown and developed. Today, the Children's Museum is a large, well-equipped space where children can learn about the museum's collection in a fun and interactive way. The museum has a variety of activities and exhibits designed to engage children of all ages. There are also many opportunities for children to participate in the museum's activities and projects. The museum has a strong commitment to providing a high quality service to children and their families. This is reflected in the way the museum is run and the way it interacts with the community. The museum is a place where children can learn, play and have fun. It is a place where they can discover the wonders of the world around them and learn about the people who have shaped our world. The museum is a place where children can learn about the past and the present, and where they can learn about the world they live in today. The museum is a place where children can learn about the world and themselves. It is a place where they can learn about the things that make us who we are, and where they can learn about the things that make the world a better place. The museum is a place where children can learn about the world and themselves, and where they can learn about the things that make us who we are, and where they can learn about the things that make the world a better place.

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What does a museum mean to children? What are its major attractions? It is clear even to the casual observer that children flock to visit all sorts of museums. The first point is surely that most museums are full of three-dimensional objects, and these are just what appeal to a child up to the age of about 13. During his early life he thinks of particular situations and things rather than of generalities and abstractions; at that time, too, he has not fully developed his facility to use two-dimensional representations as a short cut to life in the round. Another limitation is usually a lack of fluency in reading. The museum in short is a superior toy shop, though it is not possible to buy the exhibits – to the relief of the parents.

From personal observation it is tempting to suggest the sorts of thing which have the greatest appeal to children: things that move, things that are monstrous or macabre, things that are grand, things that are costly. When children first arrive at a museum entrance, a frequent question is 'Where are the mummies?' or 'Which is the way to the prehistoric monsters?' or 'Where are the press-button models?' 'What is it worth, mister?' is a frequent question, not only about exhibits brought for identification, but also about specimens used in demonstrations.

The recent exhibition in the British Museum, 'The Treasures of Tutankhamun', combined the macabre and the magnificent, and it proved as attractive to adults as to children. Ancient Egypt is regarded by the public as an indispensable subject for museum display, and there is always disappointment in Cardiff when children are told that because the Ancient Egyptians never invaded Wales, nothing of their handiwork can be seen in the galleries of the National Museum.

For children, even more than for adults, the question arises whether exhibits can be left to speak for themselves – whether a child when faced with a rich and rare specimen will respond instinctively. There is a school of thought which believes, in the words of John Hale, that a museum's main responsibility is 'to make our scalps prickle in front of masterpieces and to create an environment which interferes with this experience as little as possible'. Obviously this is the view of an art curator rather than of an archaeologist. The latter will

cherish the most miserable fragment of rude pottery made by some anonymous amateur of four thousand years ago. His scalp will prickle in a different way, when he sees the specimen on display and realises that it enables him to date a whole site which he has excavated. How can this implication be conveyed briefly to children?

The National Museum displays a host of French Impressionist paintings, not to mention exquisite treasures of silver, glass and porcelain, but when some primary school children were recently asked what had impressed them most on their previous visit, they could only think of the restaurant and the toilets. Others undoubtedly carry away vivid dreams of being trapped for eternity in the revolving doors at the entrance.

Exhibits may serve purposes for children quite other than those envisaged by the curator. How many Valley children in South Wales owe their first lesson in human anatomy to the sculptures deployed in the Main Hall of the National Museum by the Department of Art?

If the exterior of the Museum is taken into account, the possibilities are even richer. It makes a first-class adventure playground. The large industrial exhibits in the museum grounds include a beam engine and a pit-head gear, which make ideal climbing frames for children, who probably do not connect them with industry or with the Museum. There is an architectural cornice running around the outside of the building, which makes a ledge about six inches wide. This starts level with the top of the Museum steps at the front, but as the ground falls away it becomes from four to eight feet above ground level; used with the aid of windowsills and crevices in the stonework above, it can elicit dare-devil feats from children, reminiscent of what the archaeologists Layard and Rawlinson did on the rock of Behistun in Persia.

It is easy to recall anecdotes about children in museums, but less easy to discover how their childhood experiences in a museum have influenced them in later life. How many great men, for instance, can today look back on some museum experience which changed their life? We have very little information. In any case, perhaps it is better to regard museum experience as a

process of attrition rather than a sudden conversion.

It is not difficult to find statistics of formal activities for school children in museums, such as guided tours of galleries and demonstrations of specimens, but only occasionally is it possible to find out how the visit was followed up in the schools, and what benefit was deemed to accrue to the children involved. It is harder, if not impossible, to analyse and quantify the experiences of individual children visiting galleries of their own accord. Comments on these matters therefore tend to be subjective and impressionistic, and they have to be advanced as generalisations for testing by some more accurate means in the future.

Children as Individuals in the National Museum

As far as the Museum in Cathays Park is concerned, it is impossible to discover the total number of child visitors, since statistics are kept only of those children arriving in organised parties. In the school year 1971–72, published statistics record a total of over 358,000 visitors, and of those it is known that over 15,600 were children given guidance by the staff, while about 4,000 attended voluntarily for activities during their holidays. Ironically enough, when admission charges are introduced as the Government promise, it will be possible to obtain statistics of all child visitors.

The Welsh Folk Museum, which has applied admission charges since its inception, has recorded that in 1971–72 some 33,000 children attended as individuals and another 33,000 in school parties, giving a total of 66,000 children out of a total of nearly 190,000 visitors. The proportion of child visitors at St. Fagans was thus about one-third.

If young visitors can amount to such a large proportion of museum attendances, are they entitled to some special consideration? After all, museum galleries are usually designed for adults, or rather, they are designed by adults who tend unconsciously to cater for people like themselves when planning rooms or producing displays. One answer, offered by the Science Museum in London, is to set up a gallery specifically designed for children. This solution does not find general favour among curators, and museums usually concen-

trate on providing ancillary services which help children to use the public galleries as they are, while offering additional facilities for children behind the scenes.

A serviceable distinction can be made between visits by individual children and those by organised groups; the former usually involve some initiative on the part of the children. If they come on their own, it must be because they want to, even if their motive is not a pure search for knowledge. Where it may appear that children are brought by their parents, it is quite likely that the children are in fact bringing parents who would not otherwise be interested.

A painless way of helping many individual children by remote control is by writing suitable literature. As a matter of fact a child's guide to the National Museum of Wales does exist, but only as a chapter in *Visiting Museums* by Anne White. The book is written for literate and intelligent children between the ages of eight and twelve and it includes this Museum with seventeen other museums of various kinds. The proposed visit begins appropriately with the rocks beneath our feet, in the form of the relief model of Wales in the Geology Department. The exhibits mentioned include the model of Penrhyn Quarry, a fossil fern, and present-day Welsh plants, especially the native poppy.

Attention is drawn to the dioramas on forestry, and the visit continues through the main hall past the Celtic crosses, on to the gold ornaments of the Bronze Age and the model Roman fort and villa. From Archaeology the visitor descends to Industry to see the diorama on copper mining and the coal mining gallery. The tour concludes with Trevithick's locomotive. The visit is wisely planned to take in only part of the Museum, and suggestions are made for further visits. A timely warning is given in the introduction that exhibits in museums are always liable to be moved and that the young visitor should not be too surprised if some of the items mentioned are no longer on view.

Not all young children will take to the idea of using a bound volume to help them find their way around. The Museum is aware of the need for literature of different sorts, designed for the individual child visitor. Printed question sheets showing enlarged detail from



various paintings have been produced with minimal wording and are on sale at the counter. Booklets for children have been produced dealing with the coal mines and the iron industry, quoting remarks made by children who were actually working in these industries in the 1840's. Books like this can be read before or after the actual visit.

Exhibits in the model coal mine thus take on a new relevance in the light of an account by a boy of ten in 1840, who worked in a pit in the Rhondda Valley. He declared:

'I have been driving horses since I was seven and for one year before that I looked after an air door. I would like to go to school but I am too tired as I work for twelve hours. Every other week I work nights.'

During the past school year considerable attempts have been made to increase the facilities for unaccompanied children during vacations and holiday time. Emphasis was laid on individual choice of topic and variety of activity. A child could obtain a drawing board, paper, crayons and a portable stool at the Reception Desk and go off to the Zoology galleries to study birds of the sea-shore. Other children would come into the Reception Room and look through microscopes, perhaps at a piece of human skin, or would sort specimens of rocks and fossils in a kind of competitive game. Each activity was devised within a framework of knowledge. In this way the child was led on from one question or experience to another to cover a self-contained topic devised by the Schools Service staff. In many cases children were pursuing their private hobbies; in others they might have been following an interest aroused at school.

There were problems in directing unaccompanied children to various points of interest in such a large and complex museum. It had to be borne in mind that only a small proportion of children, even the older ones, could (or would) read fluently the written labels to be found in the galleries. To guide the visitors, trails of giant paw-marks made in gay coloured plastic were laid temporarily on the museum floor, and coloured fluorescent labels were temporarily



affixed to exhibition cases to mark points of interest. In the Mining gallery on some occasions tape-recordings of conversations with coal-miners were played to groups of children.

In voluntary activities like these the question of numbers is crucial. It is not easy to judge the amount of advertising necessary to bring in a viable number of visitors. On occasions, a hundred or more children would arrive at once, and queues had hastily to be formed, while delays ensued. As a result of this experience, an attempt was made to reduce the publicity and to phase the arrival of a smaller number of children over a longer period, so that each could have some individual attention from the Schools Service Officers and their assistants. To improve the opportunities for individual work, three cubicles were constructed in the Reception Room together with a store and a counter for issuing materials.

Of course, problems will always be caused by large numbers, whether of individuals or organised parties, and some methods must be found to deal with them. One is to show films connected with the Museum specialities. The Museum is fortunate in having on its premises the Reardon Smith Lecture Theatre which can seat up to 485 persons.

A different way of receiving individual children with a special interest has been developed by the Department of Geology, virtually as an extension to its galleries, and described by Emlyn Evans in these pages. Every Saturday morning a door is left open to students' rooms in the Geology basement, where chance visitors – hopefully children – may engage in simple experiments as the spirit moves them, to test various specimens for hardness, for magnetism or for fluorescence. Here a variety of open-ended experimental situations is laid out before the visitor. These arrangements can cope with a maximum of ten persons at one time, and the number attending during the course of a Saturday morning can vary from three to thirty.

There are two important principles evident in this approach to geology – the visitor is actively involved,



Holiday activities over-subscribed, with children awaiting their turn

and he witnesses an event. Events in themselves attract people, but by the very nature of museum material they are not easily induced in a museum. A successful attempt to achieve the latter effect is to be seen in the Botany Gallery in the form of a plant experiment table. Experimental situations with actual plants have been devised, so that, for example, the rate of growth may be measured, or the rate of transpiration seen in a visible form. These experiments however, are so delicate and slow-moving that it is impossible for the public actually to take part in setting them up. For many years this table has been a vital source of enlightenment for pupils preparing for examinations in botany.

The Museum has, in short, much to offer individual children, whether they come out of general interest or for specific help in their studies. There is little doubt that museums, like libraries, are at their best in dealing with individual visitors.

Children in Groups

Vast numbers of children, however, arrive at the

Museum in groups, and their presence spurs the staff to find ways of dealing with them in this form. Much work in this direction was done by the curatorial staff before the inception of the Schools Service in 1949. Since then, it is true to say that almost every request to give guidance to school parties at the Museum has been fulfilled, and this has applied to primary, secondary, independent and special schools. Apart from this, the Schools Service has taken the initiative in offering to schools within reach of Cardiff programmes of tours, demonstrations and events, which make the best use of Museum resources and still prove relevant to the work of the schools.

At this stage, it is worth exploring some basic notions about museums, held not by children, but by adults who organise children's visits. At its simplest the museum can be regarded as a giant play-pen, where school children can be left in safety while their teachers go shopping in Cardiff, or take advantage of the Museum restaurant. Museum educationists have little to say in favour of this attitude,



Groups should be small for gallery tours

though they have to take account of its existence. A development of this idea is to use the museum as a stopping place in a sight-seeing tour.

In the proposal of 1944 which led to the establishment of the Schools Service of the National Museum of Wales, its author, Sir Cyril Fox, alluded to 'visits which include the museum as one of several places to be seen in a trip to Cardiff', and declared that these could not for many reasons be recommended from the museum point of view. Often the children were too tired with sight-seeing to receive any benefit from the visit; or they were too large a body for group or class instruction to be possible; or the time allotable to the Museum was too short for anything but a hurried perambulation of the galleries.

The writer vividly remembers an occasion in the early years of the Schools Service when some 660 children from North Wales poured into the main hall from one special excursion train organised by British Railways. The Museum was but a short interlude in an itinerary which included the City Hall, Cardiff Castle and the fairground at Barry Island. The children were in a boisterous and festive mood, as their fancy-dress hats indicated. As a museum visit, the event was a disaster for the party, and even might have been for some of the exhibits of the Museum in the hurly-burly and jostling which went on in the galleries.

Representations were made to British Railways to prevent such a giant party ever arriving again. A few hundred young people can destroy the atmosphere of the museum for other visitors if their behaviour is inconsiderate. It is therefore now judged not merely hospitable but prudent to give a word of welcome and a 'sedative talk' to large groups on arrival. This means spending a certain amount of time in getting the party seated in the Lecture Theatre, and there is sometimes resistance from visitors who think they ought to spend every minute looking round the galleries, even though they do not know what is to be seen.

It is surprising how many adult visitors arrive with false expectations, either because they do not

know the scope of the collections, or because they have not made a visit for many years. Many have looked in vain for the Welsh Kitchen and the Turner's Workshop which formerly stood in the basement. In a different way, children, who have only their imagination to lead them, find expectation and realisation like two lenses which cannot be brought into focus.

The sight-seeing tour, however, often has a much deeper significance, especially for headmasters in the further parts of Wales; it is a pilgrimage. The National Museum is regarded as a national shrine which holds in safekeeping all the treasures which the nation holds dearest. A visit to such an institution somehow in itself confers a blessing, and all that is needed is to pass rapidly through the galleries. Curiously enough, it has been noted that many children on these long-distance excursions are furnished by their parents with new shoes for the momentous occasion.

The problem of good order in a museum visit can, of course, be solved by discipline. There is the popular stereotype of a museum visit, involving a 'crocodile' march in double file through the galleries, with 'no talking' as the order of the day. About a year ago the writer witnessed precisely such an occurrence in the National Museum of Cyprus in Nicosia; in spite of all the fabulous treasures of Greek art in the collections there, no child was allowed to step out of line to look more closely at something which caught his attention in a distant part of a gallery.

The foregoing comments should not be taken to imply that a 'general' visit to a museum has no validity. It is obviously important at some stage to convey to pupils what a museum is and what it is not. Nowhere is this more evident than in developing countries where the museum is a recent introduction. The writer discovered during a short period as Museum Education Officer in the Uganda Museum at Kampala that many African children from up-country schools had never before in their lives been inside a glass and concrete building; they were

Independent work in a gallery (by courtesy of the 'Western Mail')



much more interested in the building than in the specimens, and needed to have the basic conventions of a museum explained to them. They, too, were often on a long and fatiguing 'pilgrimage' and were puzzled to know how the museum differed in its function from the Uganda National Theatre or from Namirembe Cathedral.

The question of numbers is critical if pupils are to be brought close to the specimens. This was recognised as a truism before the founding of this Museum Schools Service in Wales and it was emphasised in the original proposals of 1944. Groups need to be as small as is necessary for every member to see and hear what is going on when visiting the galleries; this means not more than twelve to fifteen individuals. Attention needs to be confined to what can be assimilated within the time by the persons involved. A misguided insistence by some teachers on 'doing' the whole Museum in one visit obliged the Officers in the past to make some attempt in this direction; it was not so obviously impossible when the Museum was smaller. But after the addition of the West Wing such a manoeuvre became out of the question, unless one were to heed the reproach overheard some years ago in the Art gallery, when a hustling American lady chided her husband 'if you will keep looking at the exhibits, how can you expect to see the Museum?'

The smallest unit of children generally sent to a museum from a school is a class of between thirty and forty pupils. Although such a size of group may well be suited to viewing a large monument out of doors, it is much too large to tour a museum gallery successfully as a group. It may of course be questioned why the children should go around as a group at all. Could they not be allowed to proceed individually? Charity James, quoted in *Pterodactyls and Old Lace*, has this to say about the way museum education should be moving:

'Today, when education is freeing itself from traditional didactic techniques, when our concern is to help children to acquire habits of investigation, to perceive a relationship between

facts and objects, the museum has a unique contribution to make. It is the perfect open-ended learning situation, and schools and colleges should look at it as the ideal library, laboratory, or art centre. The object, with its many facets of interest, can be a focal point for comparison, personal investigation and creative activity.'

This approach depends very much on how the pupils have been conditioned in their schools. Certainly, experience in Cardiff suggests that there will have to be much more dialogue between the Museum and the teachers before self-directed activity can become the norm with visiting groups.

Given the fact that the school has asked for guidance, it is a matter of economy of effort and resources to deal with the pupils in groups. If a normal class is divided into two groups and the topic kept within bounds, then a friendly, conversational tour is possible. It is the long and comprehensive tour that leads to 'lecturing' in the bad sense.

Who should actually lead the children in the gallery, the class teacher or a museum officer? It is tempting to regard the latter nowadays as a facility, laid on like gas and water, to be called upon automatically, because he knows the specimens best. But the teacher on the other hand knows the pupils best, and this is half the battle in teaching; advance consultation with the education officer in the museum could prepare him for the task. Unfortunately, this rarely happens, even when teachers are within easy reach of the museum. There are difficulties of time, distance and inertia, and the valid point is often made that pupils will pay more attention to an outside 'expert'.

The museum education officer has his own problem in 'job satisfaction', not appreciated by his colleague in the school, as Alun Williams commented recently in these pages. He has probably never seen the group of children before and he will very likely never see them again. All his influence as a teacher has to be concentrated in the fifty minutes or so for which they are before him. Although he may acquire



considerable skill in making contact with strange groups, and become moderately satisfied with the immediate effect of his work, he is denied the satisfaction, given to most teachers, of seeing their pupils grow in knowledge and achievement as their teaching proceeds over a period of years. The officer may derive some stimulus as time goes on from the changing exhibits and arrangements in his museum. If, by chance, there are few changes, he will probably become as a worn gramophone record.

Touring the Galleries

Little has so far been said about the galleries themselves – what do they contain? For whom have they been designed? What are their characteristics? Museums vary greatly in content and presentation. The National Museum of Wales seeks to tell the story of Wales under the headings of Geology, Botany and Zoology, representing the natural sciences, and of Archaeology, Industry and Art, representing the works of man. The old Folk Life Department has now become a complete institution – the Welsh Folk Museum. But Art has also to cover a wider field, since the Department functions as the National Art Gallery of Wales.

The departmental subjects only partly correspond to the subjects of the school curriculum. This can be both a hindrance and a help towards their acceptance by the teacher. Relevance to school work is not so easily detected, but greater intensity of study or appreciation is possible, and many bridges can be built between conventional 'subjects'.

The story of the Davy Lamp in the mine can hardly be understood without reference to the composition of air and the process of combustion. A closer look at a Roman mosaic can lead to a practical discussion of building materials and the realisation of the chemical function of lime in mortar. Evolution can be studied in the new Glanely Gallery, where the contrasting physical environments of Wales are shown. Selection and variation have resulted in differences between the mosses on the top of Snowdon and the sphagnum in Tregaron Bog. The wood-

pecker's feet, adapted with hooked claws for climbing trees can be contrasted with the webbed feet of the great crested grebe, which enable it to move easily in mud or water.

Galleries sometimes have hidden drawbacks, apparent only after use. While the present tendency is to reorganise galleries according to a comprehensive plan, executed by a team of curatorial, design and technical workers, this was not always so. Many galleries are the product of two generations of effort by a variety of curatorial staff; their contents depend much on the chances of acquisition, and many Welsh specimens have found their way to other museums which were in the field earlier. A gallery may thus only tell part of a story which the visiting teacher hopes to see unfolded.

Neither the visiting teacher nor the museum education officer can do anything to change the displays quickly, though the latter might be expected in the long term to have the function of presenting the needs of gallery teaching to the display staff. The reasons for the present situation are both functional and historical. Collection and preservation have to precede display, and in any case education services are a relatively recent fashion. In Wales the Museum's foundation stone was laid in 1912; the first two Schools Service Officers took up their duties in 1949. The London Museum was opened in 1911, but its educational service was not introduced until 1957.

Handling Specimens

In 1966 when a working party of Her Majesty's Inspectorate carried out an enquiry into the use made of museums by educational institutions there was one point on which almost everybody agreed – the importance of *handling* objects during a visit. Since it is difficult for practical and security reasons for the child to touch the real thing in the gallery, a special room must be set aside for this kind of activity. Indeed, it is difficult to envisage a museum education service functioning successfully unless it has its own reception area where it can get away from the 'do



not touch' notices of the galleries. Such a room needs movable furniture which will allow all kinds of individual and group activities. This provision enables the museum to become a true resource centre for children, and vital complementary activities can be added to gallery tours.

It is always difficult to be dogmatic about how museum objects should be presented to children, because some have a strong factual content, others an aesthetic. Aesthetic appreciation is hard to 'programme', and it is not confined to great works of art. Wonder and fascination can be stirred by the marvellous colour and pattern of a crystal structure.

One of the duties of a museum is to show how scientific concepts have been formulated as a result of the painstaking study of thousands of specimens. The present archaeological concept of the Stone, Bronze and Iron Ages of prehistoric times was a direct result of work carried out in the Danish National Museum during the early nineteenth century. The process of observation, analysis and hypothesis can be experienced by the children themselves if they are brought into close touch with archaeological evidence. A normal class of thirty to forty pupils can be received in a large room where tables are arranged in a horseshoe shape with chairs on the outer side. The specimens are passed around the whole group in the same direction, so that everyone sees and touches the objects, and can make notes and drawings. The specimens are under responsible observation for the whole time and are easily checked afterwards. While the specimens are circulating, the pupils discuss their ideas among themselves without any prompting from the demonstrator. Later he asks for comments on the specimens and builds up conclusions. This kind of exercise has an emotional as well as an intellectual appeal. The pupils are conscious of touching *real* things made by man perhaps thousands of years ago.

There is a danger in assuming that the museum is bound to help the school curriculum. There are numerous museum topics which do not figure in school work, but which can be a broadening

influence in personal education. There are others which are not in the curriculum because no one has thought them suitable.

A primary school near Cardiff became interested in what might be thought an abstruse subject of no relevance to the curriculum – Nantgarw porcelain. It happened that the ruins of the old porcelain factory lay on the banks of the Taff, a few miles from the school. There were still families in the district who had personal links with and recollections of the old works. The Art Department of the National Museum in Cardiff had a superb collection of the porcelain, and successive keepers had made special studies of the factory and its products. Without any initial prompting from the Museum, the school devised a project of astonishing scope which involved pupils of all its classes investigating the site and making tape-recordings of recollections by local inhabitants. They made photographs, paintings, drawings and models, they visited the Museum to see the porcelain gallery and heard a talk from the Keeper. Finally an exhibition was held in the school to bring together the fruits of the investigation.

The Future

The last few years have been a period of stock-taking and re-assessment in museum education generally. Numerous working parties have studied the educational aspects of museum work. The deliberations of these bodies have resulted in reports, and three of particular interest are alluded to below:

Museums in Education, a report approved at the Annual Conference of the Museums Association in July, 1970.

Museums in Education: Education Survey 12 published by HMSO for the Department of Education and Science in 1971,

Pterodactyls and Old Lace: Museums in Education published for the Schools Council by Evans/Methuen in 1972.

The first was an attempt to find common ground

among the museum profession in the face of differences of opinion within the profession and pressures from educational interests outside. The second was an attempt to give museum education official status among the educational 'establishment' and to place on record representative current examples of museum education services. The third was an attempt to interest the rank and file of the teaching profession in using museums, and it offered specific examples of projects successfully carried out.

'A phase of museum education is passing', stated the concluding chapter of *Pterodactyls and Old Lace*, 'and in future we can hope to see less concentration on mere numbers of children visiting museums and more attention paid to working to greater purpose in a more sustained way'.

The phase which is passing has been one of head-long experiment involving loan services, conducted tours, demonstrations, gallery questionnaires, film shows and many other activities. It has clearly affected only a small proportion of the juvenile population, whether in a formal or informal way. This is not surprising in view of the tiny amount of resources devoted to museums, and especially to museum education, in comparison with what is spent on education as a whole. One museum after another has decided to complete its portfolio with an education service, until no less than 64 museums in England, Wales and Scotland have been so equipped, at least in name.

Certain significant changes are taking place in our educational system which museums must notice. There is an 'explosion of initiative' in the primary sector. With the progressive abolition of the eleven-plus examination following the adoption of comprehensive secondary schools, there has been a freeing of time and energies for new purposes. In many primary schools there are opportunities for individual investigation and experiment by the pupil far beyond what he may expect in the secondary school. The classroom has become a base for operations enabling the pupil to reach out into the world beyond. It is no coincidence that in recent years the Museum has

seen an upsurge of interest on the part of the primary schools and a greater precision in requests made for museum guidance.

In the secondary schools, on the other hand, the disappearance of the Secondary Modern experiment has been accompanied by a decline in museum visiting, perhaps because of problems of organisation in schools. There will surely be a revival of interest with the raising of the school-leaving age. The devising of facilities to suit the older, non-academic pupil, will tax the ingenuity of schools and museums alike.

The next phase of museum education will be no less experimental than the last, but it will be founded on the experience of how much can be done within the resources available and it will oblige the adoption of priorities. The problem of numbers will remain, and the dilemma between the quantity and quality of experience will be more acute as our insight into the potentialities of museums increases.

It is not easy to sum up the essentials of museum education. Its focal point is a vast collection of things, old and new, ordinary and precious. Curatorial staff have acquired understanding and expertise concerning these things and their setting. At a time when schools need more and more understanding of the material environment around them, the museum offers a ready-made resource centre. The museum can give precise answers to many questions and it can raise questions on many matters accepted elsewhere as settled. It can offer usefulness as well as beauty. Of course, new facilities have to be provided to make a museum a more effective instrument in the education of children, but in the long term the needs of children have to be seen side by side with the requirements of the museum's numerous other clients; all need to be weighed together at the inception of museum planning.

The author wishes to express his thanks to colleagues both in the Schools Service and the Museum Departments who have helped by their comments to produce this article.



Scenes of holiday activities arranged for children at the National Museum of Wales, Cardiff, in the summer of 1971



