# Museum

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# The museum as educator

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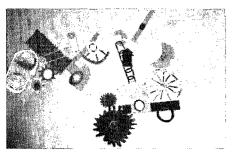
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## The museum as educator





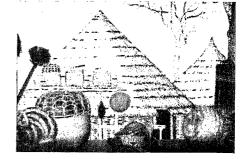
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## In this issue...

'Education on the whole is such a raked-over subject in respect of museums that it is difficult to add to what is a major industry. What more can one say?' asked Sir Roy Strong in a 1983 issue of Museum.<sup>1</sup> Indeed, the educational functions of the museum have developed so considerably over the last few decades that no single issue could possibly hope to present a fair international cross-section of them. Moreover, their problems are so well known and debated, their forms so diverse, that there would have been little point in a 'state-of-the-art' issue. But Sir Roy did go on to point out that the success of museum education depends on integration and balance. Integration, balance and, we would add, breadth of concern: these are the aspects of museum education this issue seeks to highlight.

Looking for better ways of integrating the educative potential of museum objects with the formal education process and balancing the two are understandable pursuits for an organization such as ours, whose mandate to 'maintain, increase and diffuse knowledge' covers education, science, communication and culture. This diversity of responsibilities also explains the need to view the museum as an educator in as broad a range of disciplines as possible - and across disciplinary barriers - one which makes visitors more aware of all aspects of the world they have inherited or are in the process of creating. Thus current work within Unesco seeks to strengthen the bridges of co-operation between the professional conservators (in the broadest sense of the word) and the formal educators, to help the latter make much better use of the museum's unique resources.

One project, devoted to interdisciplinary approaches and complementarity in museum education and school curricula, has been entrusted to Tage Høyer Hansen, an active member of ICOM's International Committee on Education and Cultural Action (CECA). It is appropriate, therefore, that he should provide the opening overview in this issue, examine some contemporary challenges to museum education and define new roles for the future. This article is followed by a report on a highly successful Canadian programme designed to overcome the first obstacle encountered by museum educators - lack of motivation on the part of teachers - a problem addressed by other authors too, but in different ways.

Since our title is inspired by that seminal reference book The Art Museum as Educator, it seemed appropriate to begin with three case-studies from art museums in France, Israel and the Soviet Union, where educational approaches are all effective 'paths to the museum experience, not the experience itself'.<sup>2</sup> Awareness of the built environment is the next area highlighted, with a discussion of the rationale for exhibitions which can explain to the people of Senegal their own traditional architecture and of an original programme in Sweden which sensitizes immigrant children to their new urban environment. Interpretation of the natural environment is reported on from a museum in Arizona devoted to the understanding of desert ecology, while a second American example looks in a totally unexpected context at the use of micro-computers as a means of achieving a new museum and education mix in community development. Inculcating a sense of national identity - the rediscovery of a cultural self-image - is an important educative responsibility for museums in developing countries: two case-studies from Africa and Latin America explore ways of fulfilling it. Our ICCROM colleague Gaël de Guichen reiterates a

<sup>1.</sup> Sir Roy Strong, 'The museum as communicator', *Museum*, No. 138, 1983, p. 80. 2. From the Foreword; Barbara Y. Newsom and Adele Z. Silver (eds.), The Art Museum as Educator, Berkeley and Los Angeles, University of California Press, 1978.

1 A young painter at the National Centre for Children's and Young People's Art, Yerevan, Armenian SSR.



special concern, the need to educate the public about conservation and, finally, a Belgian curator states strongly held views on appropriate attitudes towards serving that public in a truly educational spirit.

and the next

Last year's final issue (No. 140) contained an announcement of forthcoming themes. Turning that precedent into a new tradition we give you below a list of future issues, as re-ordered by the July 1984 meeting of our Advisory Board:

1985 No. 145	Vol. XXXVII	No. 1	Mixed issue
No. 146	Vol. XXXVII	No. 2	Show-cases
No. 147	Vol. XXXVII	No. 3	Mixed issue
No. 148	Vol. XXXVII	No. 4	'Ecomuseums'
1986 No. 149	Vol. XXXVIII	No. 1	Science and technology
No. 150	Vol. XXXVIII	No. 2	Permanent exhibitions -
			professional issues
No. 151	Vol. XXXVIII	No. 3	Temporary exhibitions –
			professional issues
No. 152	Vol. XXXVIII	No. 4	Mixed issue
1987 No. 153	Vol. XXXIX	No. 1	'Twenty years after '



Children working and learning at the Historical-Archaeological Research Centre at Lejre, Denmark.

## The museum as educator

#### Tag Høyer Hansen

Studies in education and psychology. Teachertraining course in 1969. Teacher at primary-school, secondary-school and teacher-training-college levels. Education officer in the National Museum, Brede, 1973-76. Since 1976 Head of Education at the Biological Collection and Education Centre in Copenhagen (covering the education departments in the National Museum, the Zoological Gardens, Louisiana Art Museum, the Zoological Museum, the Historical-Archaeological Research Centre at Lejre, the Viking Ship Museum, etc.). Has designed educational activities and materials (books, radio programmes, slide series, etc.) covering history, social studies, biology, art, etc. Chairman of the Danish section of ICOM's Committee on educational and cultural action (CECA), 1978-83 and member of the CECA Board since 1983. Editor of Museum Education, published by the Danish section of CECA.

This article will look at the connections between education and museums and seek to show why and how museums should give priority to educational activities. Many of the examples cited have been gathered through the author's work as co-ordinator/editor of an international comparative study on 'Interdisciplinarity and Complementarity in Museum Education Work and School Curricula', entrusted to ICOM by Unesco in 1983. Material on museum education has been received from all parts of the world and is expected to be published in 1985.<sup>1</sup>

In many big cities today, long queues of people wait for hours to get into major exhibitions – Monet, Dali, Picasso, Tutankhamen, the Treasures of China, etc. Among the huge crowds are many population groups who perhaps have become active museum visitors for the first time. Extensive publicity in the media, particularly on radio and television, which often gives background information on the artist or the historical setting, prepares these visitors, who are keenly eager to see the 'unique' object, the 'real thing'.

In Ecuador, the Chordeleg Community Museum project is trying to preserve a region's handicrafts, gravely threatened by the manufactured goods of modern industrial societies. A case in point is the *paño de Guallaceo*, a shawl woven by Indian women and used by them to carry children on their backs. But the younger women are no longer interested in learning the special technique required because there is no financial reward involved. The museum opened a workshop, where both young and old women could develop their weaving skills and were made aware of their potential, their capacities and the opportunities open to them.

In this case, therefore, preservation was not a closed process leading to a storeroom or an exhibition but had the additional advantage of improving the lot of that particular population group (see also the article by Lucía Astudillo de Loor, below).

In Botswana, a large country with a relatively small population, museums cannot wait passively for visitors because large sectors of the population never get the chance to go to a museum, owing to the long distances and lack of funds. The Mobile Museum Education Service was established 'to take the museum to the people'. Its approach is dialectical,

1. The author wishes to express special thanks to all his professional colleagues who sent contributions to the study that provided the background for this article and to Karl-Erik Andersen, Sten Krog Clausen, Jørn Kronborg Nielsen and Poul Vestergaard for their comments and good advice.

#### The museum as educator

relating how people and animals have adapted themselves to the natural environment (dry desert, bush, savannah and swampland) and created living conditions that have in turn shaped the natural environment, etc.

In the German Democratic Republic, museum education has a long tradition. As early as 1965 it was stipulated that 'museums and monuments, exhibitions, zoological and botanical gardens, planetariums, observatories... have to support the educational process at all levels and provide opportunities for all citizens to expand and deepen their education'. 'Cultivating Activities in the Park of Sanssouci' was the subject discussed by the members of the Children's Club of the State Palaces and Gardens of Potsdam-Sanssouci when it met one Monday in May. The children first studied the workers' activities and then joined the grown-ups in their everyday work. They thus learned, in an alternative way to reading, about cultivated nature, architecture, the sculpture in the gardens and the paintings, furniture, etc. in the palace. By joining in the adults' work they acquired an insight into both art history and political history. The museum educator followed this up later by preparing a long list, together with the children, of the various subjects which could be discussed in the club and illustrated in greater depth by a visit to a museum.<sup>2</sup>

At the Historical-Archaeological Research Centre in Lejre, Denmark, the Education Centre organizes educational activities through which children are given the opportunity to use their bodies and all their faculties in cooking, making earthenware vessels, chopping wood, working iron, etc. In a reconstructed Iron Age village, children and grown-ups can acquire practical experience of how their ancestors may have lived some 1,500 years ago. The wind whistles through the draughty houses and the smoke hangs thickly in the rooms. The schoolchildren, who are perhaps attending a one-week camp, experience how people managed without modern labour-saving devices. Their own existence as members of a highly industrialized society is put into perspective when they have direct experience of the interaction between man and nature.

These five examples of the museum's role as educator show, of course, how varied such educational activities are, but above all they show how varied museums themselves can be. Large museums in capital cities play a different role in education from small community museums. In the former case, we can speak of a kind of mass education, with the general public being treated to the sight

2. The examples from Botswana, Ecuador and the German Democratic Republic are described in: Tarisayi Madondo, 'In Botswana: Bridging the ''ignorance gap'' ', *Museum*, Vol. XXXIV, No. 3, 1982; Gordon Metz, 'How can Museum Education Programmes develop Cultural Identity? - The Case of Museums in Africa', Gaborone, Botswana, 1983 (unpublished paper); Ione M. C. de Medeiros, 'The Community Didactic Museum', Rio de Janeiro, 1983 (unpublished paper); Kurt Patzwall, 'Some Aspects of Children's and Youth Club Activities', Berlin (German Democratic Republic), 1983 (unpublished paper).





#### A creativity workshop at the Chordeleg Community Museum, Ecuador.

of major works of art or unique natural or cultural objects. It is first and foremost a matter of viewing and passive consumption. In the latter case, the museum plays a more active role in educating the people, who join in the process and bring all their faculties into play. A comparison of these two extremes gives a good idea of the diversity of museums, and of course there are many variants in between. The role played by education depends to a large extent on what conception of the museum prevails in the individual country or establishment.

#### Museums: changing concepts

Museums must change from passive collectors and narrowly specialized scholars to active participants in meeting today's challenges. They must not only employ new methods but also be a new intermediary that will be unafraid to face complex problems raised by racism, material affluence, poverty, poor housing, unemployment, drugs, deteriorating cities, urban planning, education - all aspects of human existence - and to find the answers. Exhibits should be designed to present these controversial problems side by side with their counterparts in history, correlating current issues with historical facts. Our museum should be at the forefront of change rather than following the dictates of past generations.3

The functions described above are a far cry from the traditional conception of the museum. As the level of general education increases throughout the world – *inter alia* with the help of the press, radio and television – more and more questions are being asked by users: Why should this object be preserved? Why should to many objects be collected? How do the museum staff spend their time? What are you using our money for?

In the face of such questioning many museums have progressed from a concentration on collection and preservation to a parallel emphasis on research and communication. New needs are developing or already exist, but the capacity of museums to meet those needs is very varied. New museums appear to find it considerably easier to pursue an effective outward-oriented policy than large, longer established institutions.

Considering the crises existing today and foreseeable in the future concerning the economic, social and ecological situation in the world, it would be irresponsible for museums grouping ethnology, natural sciences and material culture to restrict themselves to the display of exhibits that are 'beautiful' and 'interesting', well classified according to their respective disciplines and provided with more or less complete written information. Multidisciplinary museums should be involved in every possible way in demonstrating natural and cultural developments and interrelationships, through a combination of exhibitions, in order to enable a large part of the population to recognize its problems and to think and act with responsibility... Museums of this kind should assist in the educational process that involves: the ability to recognize problems; shaping critical judgement concerning development and its tendencies; and transferring a feeling of responsibility to each individual towards the development of relationships between man and nature, and among mankind.4

Here the museum is seen as a resource, as a place that casts light on relevant issues and promotes active participation in social debate. The close links that many museums have with universities and higher education should indeed make it possible to record and communicate to the public a cross-section of the views that emerge with a new generation of students. Economic dependence both on the state and on private funds must not be allowed to interfere with the messages museums wish to transmit. How can one get a population group to 'recognize its problems and to think and act with responsibility' if one does not, in an exhibition, draw attention to possible clashes of interest between, for instance, the state and the economy, on the one hand, and the ordinary citizen, on the other?

Objects are, of course, the basis of the language of museums, and the reality surrounding them is altered by the fact that they have been removed from their social context and placed in a museum. What is the power of this reduction of culture? Is it just a reduction of scale and a reduction of quality? No, this reduction gives us possibilities. When we want to know such a large thing as 'the' culture, we start with small parts: the size of the whole frightens us. But in the reduced perspective of the museum or a book we are more courageous. The reduction of reality down to an apprehensible quantity of objects or printed words gives us a feeling of power, of being able to control reality.<sup>5</sup>

An individual object can have general significance, shedding light on the whole and giving us an idea of relationships that would otherwise be difficult to perceive. This is perhaps due to the fact that every individual has an inbuilt capacity to perceive an object's position in a larger context, since all human beings: collect (for example stamps, chewing-gum wrappers, small sticks, etc.); preserve (look after the property they have collected – stamp albums, etc.); conduct research (classify and compare, e.g. badges); present and inform (enjoy showing their collection to others).

Everybody had his or her own little museum (in a pocket, a box, a book, a room, etc.), which often has a special influence on a person's idea of a museum. Individuals collect objects that have some significance for their identity and/or will acquire value later on for sale or reuse. Museums collect and display our common property, which reflects our common identity.

#### Education: changing concepts

Just as the conception of the museum has evolved in the last fifteen years, so also the conception of education has undergone major changes.

Education is no longer a privilege of an élite but is now accessible to everlarger sectors of the population. In both the developing and so-called developed countries a steadily increasing number of people have enjoyed expanding educational opportunities over the past few decades. Changes in social needs have also brought about major transformations. At the end of the 1960s, when student revolts occurred in many higher-educational institutions, the 'establishment' found itself confronted with a whole range of issues. One of these was whether the knowledge acquired through a programme

<sup>3.</sup> John Kinard, 'Intermediaries between the Museum and the Community', *The Museum in the Service of Man Today and Tomorrow*, p. 153. Paris, 1972 (Papers from the Ninth General Conference of ICOM).

<sup>4.</sup> Herbert Ganslmayr, keynote address at the symposium, 'Le rôle des musées dans les régions Sahéliennes,' Gao (Mali), 1981 (unpublished paper),

<sup>5.</sup> Henk Overduin, 'Education as a Symbol. The Cultural Identity of the Museum in Western Society', The Hague, 1984 (unpublished paper).

of studies laid down by others would prove relevant and useful in the student's later life.

Moreover, many movements aimed at changing education in such a way that it no longer happened to people but with people. Knowledge was no longer to be handed down from an intellectual élite to the ordinary citizen but should be acquired under conditions that are free of all conceived ideas. Paulo Freire says: 'Nobody teaches anybody; nobody learns alone; people educate each other.' It is not possible to teach people a specific body of knowledge organized along rigid lines if the individual (or group) concerned is not interested in learning the subject-matter and has no incentive to do so.

Lack of interest may be due to many factors, but in most cases it stems from socio-economic circumstances – the poorest members of society are also the worst off in terms of learning. One of the top educational priorities has therefore also been to increase efforts on behalf of groups that were generally neglected. How can education be made accessible to all? For what purpose is education/knowledge to be used? What kinds of knowledge, skills and attitudes are relevant? What is the best way of teaching? These questions have given rise to much discussion.

General informational activites, which

may be considered an essential part of education, have also undergone spectacular development. This is particularly true in the industrialized countries, where there is much leisure time and where the mass media have a decisive impact on people's life-style and attitudes. Individuals can now acquire knowledge concerning subjects of their choice in their spare time by taking advantage of various educational facilities or acquiring information on countless subjects through books, newspapers, radio, television, etc.

This information-technology society, in which ever-increasing numbers of people are involved in collecting, processing and communicating knowledge for others, is only in its infancy. In the coming years new techniques, faster and hence more effective, will have a major impact on attitudes to both museums and education.

#### Museums and education

Education consist in imparting information, knowledge, interpretations, etc., concerning existing phenomena and events that have occurred. This collected and processed knowledge is intended for future use. The main task of museums is to preserve past objects for purposes of education and communication in the future. Museums bear witness through their collections to the changes that have occurred as a result of interaction between man and nature, and one of the principal aims of education is to establish the connection in various ways.<sup>6</sup>

The content of education is complementary to that found in museums as a whole. It is not confined to the processing of knowledge but also involves the development of attitudes, skills, values, etc. The individual personality is moulded by the interaction between individuals and society and forms the basis for cultural identity. Out-of-school activities have been increased for example, so as to give pupils and students practical experience, based on the social environment, in addition to the 'book-learning' and theoretical knowledge they acquire in school.

This is of crucial importance for the future of museums as well, once they recognize their role in showing the development of cultural identity. Receptiveness to the community and society is often ideologically rooted in the view that research and knowledge do not belong in an isolated ivory tower. But there is certainly also a more pragmatic and economic explanation, since many museums are well aware that an outwardlooking attitude results in greater

6. Skoletjenestens Udbygningsplan [Educational Services Development Plan], Copenhagen, 1979 (in Danish).

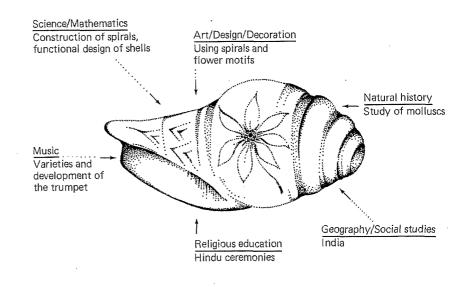


Using small jars in the Family Centre at the British Museum of Natural History.

6

The Hacksmith teaches his apprentices to fight with quarter staffs – the Brigod's Suffolk 1173 project, United Kingdom.





understanding of museums' overall role on the part of the general public and hence also on the part of decision-makers within public bodies and private foundations.

## Interdisciplinarity and multidisciplinarity

Against the background of the traditional image of the museum one may very well ask what a museum's displays are supposed to achieve, and what we expect the visitor to learn from them?

Let us consider an example taken by Alison Whyman and Stephen Pollock from the British Museum of Natural History in London.

The aim of an exhibition about butterflies could be one or more of following:

- to display the museum's collection of butterflies;
- to display the most beautiful, rarest, most valuable or most exotic specimens;
- to display the butterflies with the most curious life histories;
- to teach the public to recognize some of the most common British butterflies;
- to inform the public about the declining numbers of butterflies and promote conservation measures;
- to illustrate the life cycle of different butterflies;
- to illustrate the anatomy and physiology of the butterfly;
- to demonstrate the variety of butterflies found in one habitat, say heathland.

In more general terms these aims can be stated as:

- to display the collection;
- to impress and excite;
- to intrigue;
- to teach basic skills;
- to promote action;
- to illustrate a process;
- to impart information;
- to promote awareness.<sup>7</sup>

Clearly, in the case of butterflies in a particular habitat we can speak of *interdisciplinarity*: another discipline is used to account for the location and the presence of butterflies there and not elsewhere. It might be soil conditions (geology), the cultivation of nature (history) or competition with urbanization (economics). In many cases, it has been decided to exhibit objects to illustrate phenomena or events. This is particularly true of temporary exhibitions, for which the old approach to display design still tends to predominate.

A corresponding development has taken place in education, where interdisciplinarity began to be discussed as early as 1970, shortly after the student revolt that called in question existing disciplines and their structure.<sup>8</sup>

It is not the purpose of general education to specialize students in, for example, late medieval cup-handles in northern Scandinavia. Rather, the purpose is to impart knowledge on many different topics and, above all, to give people the ability – individually or collectively – to record and process knowledge with a view to using it in new contexts.

Specialization within a specific field is a matter for further and higher forms of education. Such multidisciplinarity is likely to become increasingly necessary in our museum. Goethe expressed long ago what has become the guiding principle of the Goethe Museum:

To present the individual in the context of his times, to show how far the whole works against him and how far it assists him, how he creates from the whole a picture of the world and of man, a picture that, if he is an artist, poet or writer, the projects outwards once again.<sup>9</sup>

In the Horniman Museum in London, for example, a class studied decorations on museum pieces. This involved:

Looking at spirals on Maori carvings, rams' horns, ammonites, Indian shell trumpets, symmetry on Sri Lankan masks, Chinese paper-cuts, North American Indian beaded moccasins,

7. Stephen Pollock and Alison Whyman, 'How Museums of Natural History can contribute to Educational Activities', London, 1983 (unpublished paper).

8. 'Interdisciplinarity becomes the prerequisite of progress in research, instead of being a luxury or bargain article. The comparatively recent popularity of attempts at interdisciplinarity therefore does not seem to be due to quirks of fashion (or not solely) or to social constraints imposing increasingly complex problems. It seems to result from an internal evolution of science under the dual influence of the need for explanation, and hence the attempt to supplement more laws by causal "models", and the increasingly "structural" nature (in the mathematical sense) of such models... We do not have to divide reality into watertight departments correlating with the visible borders of scientific disciplines but to regard interaction as a common mechanism. ' – Jean Piaget, Keynote address in a seminar on interdisciplinarity, Paris, OECD, 1972.

9. Quoted in Dieter Eckhardt, 'The Goethe Museum, Weimar, German Democratic Republic', *Museum*, Vol. XXXII, No. 1/2, 1980. Navajo sand-painting. In addition to the art and craft work, the children had opportunities to cross subject boundaries and see the interrelationship of many subjects. For example this class's attention was focused for a while on the Indian shell trumpet. The class divided into groups, exploring the object in many ways.<sup>10</sup>

Activities such as these, planned and organized on interdisciplinary themes, in fact offer users many more opportunities for acquiring experience and knowledge than activities based on a single specialized field. Ordinary people after all adults as well as children - do not as a rule experience life in terms of separate disciplines. In school or at museums their encounters with practical reality and knowledge are not divided along disciplinary lines. Cultural identity is developed and strengthened when individuals have the opportunity to discover and reflect on the complexity of life. It is therefore important that the museum, as educator, should take care to instruct with disciplines and within specializations. Thus, explanations and concepts from within various disciplines should be used as tools when an event or a phenomenon needs to be illustrated. Objects in museums that reflect a reduced reality can be given greater meaning by drawing on relevant disciplines to set a given object in context.

#### Complementarity in practice

How can museums act as educators in practice? Museum education must be organized and carried out with both the museum and the participant in mind. Frequently, for instance, one finds schoolchildren or groups of adults on guided tours being informed about the objects on display in a museum. Even when small children are unusally well disciplined, it often happens that a guided tour with this kind of objective and content is severely depleted in numbers by the time the tour is over.

The choice of objective and theme may depend on an appraisal of the amount of interest on the part of users (which should be the starting-point for all educational planning) and the possibilities for imparting knowledge in and/or around the museum. The interest that the museum or its specialists have in a particular subject will not necessarily coincide with that of users.

The Detroit Institute of Art, for exam-

ple, has been discussing the question of how to reach and respond to the expectations of a wide audience. One of the answers it came up with was ATS (Art to the Schools), a scheme in which volunteers with slides and threedimensional reproductions go around individual classes and provide schools with whatever information/instruction they request.<sup>11</sup>

Elsewhere, 'outreach programmes' and hence community education have sought to draw the public's attention to property worth preserving. In San José, Uruguay, the museum collected objects of historic interest from the local population, displaying them later in a temporary exhibition Men and Times - A Retrospective View of the Unique Features of Historical and Cultural Life in the City of San José de Mayo. The community thus played an active role in creating its own history and as a result became more aware of what kinds of things were worth preserving.12

The 'reduced reality' of three-dimensional objects is actually well suited for use as an exciting alternative to formal education, supplementing theoretical knowledge or book-learning.<sup>13</sup> But seeing objects in a show-case does not necessarily tell the viewer anything at all. Generally, an interpretation must be given, using various kinds of aids. To this end, a variety of methods must be tried and tested. Apparently, there is some reluctance to do so. As Professor C.G. Screven writes, 'the envisioned "audiences" of curators and exhibit planners are mostly hypothetical and seldom tested against reality. At present, many exhibitions are planned and built to interest those who plan and design them not those who will finally view them!'14

All interpretation must start and end with the user. A Danish businessman who had been asked to formulate requests to and demands on the National Museum in Copenhagen compared the museum's task as collector, preserver and narrator to the basic ingredients in any productive enterprise: raw materials, processing and sale. In economic life the existence of interconnections and interdependence is plain to see. There can be no collection of raw materials (or it is entirely unnecessary) if the materials cannot be processed with a view to transmission and sale to the public. Does the same relationship exist between the museum's three tasks, and is there the same element of necessity?

As soon as the museum is considered as an educator, it follows quite logically that the tasks must be interrelated and a rational order of priorities established. If the museum wishes to be a living cultural nucleus, open to new developments in society and actively participating in social debate, the interrelationship of the three tasks and the weights to be ascribed to them must be analysed and discussed carefully in the local environment in which the institutions are located.

Frequently it is considered that museums should increase the scope of their activities, so as to involve not only the materials housed on the museum premises but also buildings, protected areas, etc. Stockholm's Stads museum (Municipal Museum) has been an active and outward-looking museum in this sense, taking part in various ways in the debate on town planning, children's institutions, the labour movement, etc. In its programme for schools, which gives an account of the economic, political and social forces that played a role in the emergence of the city, the urban environment is, of course, incorporated in educational material as a rich source of information. A visit to the museum is combined with a tour of the city, during which the schoolchildren observe the houses, streets, paving, etc. and thus form an idea of living conditions in earlier times and make a comparison with their own situation<sup>15</sup> (see article by Elly Berg).

Elsewhere, experiments in complementary action involving museums and historic buildings are also being conducted. Attempts are being made to make use of the social environment to illustrate the themes dealt with in the

10. Mary Mellors, 'The Horniman Museum Education Centre Curriculum. Development Project – An Interdisciplinary Approach', London, 1983 (unpublished paper).

11. Patience Young, 'Outreach Programs from the Detroit Institute of Arts', Detroit, 1983 (unpublished paper).

(unpublished paper). 12. Arturo H. Toscano, 'San José in Search of its Identity', San José (Uruguay), 1983 (unpublished paper).

13. 'Education embraces more than the conventional academic skills and subject-matter. It includes the formation of attitudes and values and the assimilation of relevant knowledge by the individual... By informal education we mean the lifelong process whereby an individual acquires knowledge, values, skills, attitudes, etc. from daily experience. This process is relatively unorganized and unsystematic'. – R.S. Bhatal and T.N. In, *Non-formal Education in Singapore*, 9. 3, Singapore, Singapore Science Centre, 1980. 14. C.G. Screven, 'Evaluation – What Use is

it?' Milwaukee, Wis., 1983 (unpublished paper). 15. Helena Frimann and Lena Högberg, 'The City – A Living Museum', Stockholm, 1983 (unpublished paper). Young people putting together a display at the Exhibition Centre, Copenhagen.



museums. The people and way of life of past eras can be observed from portraits in the museum and from monuments and old buildings in the city.16

Another challenge facing museum education is the testing and evaluation of working methods as an alternative to traditional education. In the example mentioned earlier from the Historical-Archaelogical Research Centre at Lejre, Denmark, the introduction to life in the Iron Age is an important alternative to the more theoretical approach adopted in schools and universities. The objects in the museum are copied and the houses reconstructed, and the children learn about life in the past through direct experience and discussion with adult instructors.

In 'Brigod's Suffolk, 1173', an attempt is made to bring history to life by involving schoolchildren in drama and

16. Maria Fossi Todorow, 'The Medici Family in Florence', Florence, 1984 (unpublished paper). 17. Alison Heath, 'Brigod's Suffolk, 1173. An Object Lesson in Co-operation', London, 1983

- (unpublished paper). 18. Gaye Hamilton, 'Zoos as Learning Places:
- The Royal Melbourne Zoological Gardens', Melbourne, 1983 (unpublished paper). 19. Museums: An Investment for

Development, Paris, ICOM (International Council of Museums), 1982.

role-playing. Orford Castle, which is now in ruins, is supposed to be 'rebuilt' by visitors, who dress up in simple costumes and make-believe that the action is happening in 1173. Daily life is recreated as we think it may have been, and the children take part in working groups that cook, spin, weave, forge, etc., and experience through role-playing something of the conflicts of the time.17

These two approaches do not aim at a careful reconstruction of past reality but encourage children through play to discover their roots and cultural identity in a new and challenging way. The knowledge about the past that children acquire in this way is of a completely different quality, in depth and value, to that they would have acquired if they had been mere passive visitors, filing past a showcase containing an axe with the name, date and location of the find.

#### Young people and museums

The year 1985, International Youth Year, will be an appropriate moment to take another look at the relations between museums and young people. In addition, the young can shed light on some of the difficulties museums have in reaching members of the public who are among the 'non-visitors'.

In most parts of the world - in both the developing and so-called developed countries - young people have also undergone radical changes in the last ten years. Formerly, young people were scarcely to be seen, since many of them left their childhood behind them between the ages of 10 and 14 to earn their living in the adult world.

Nowadays, young people in the 12-18 age-group are highly visible. They often have their own culture, in opposition to their parents', and in some parts of the world they are an important consumer category. They are usually older now whenthey start work and are in many cases trained for an entirely different occupation from that of their parents, which was rarely the case in pre-industrial societies. This often means that young people have difficulty in finding anything to identify with in the adult world. They are described in Western Europe, as being 'marginalized', meaning that they have no immediate function in society.

Museums containing objects of significance for cultural identity should be places where activities are also organized for young people. Most surveys of this

age-group show that, generally speaking, young people come to museums only when visits are organized by their secondary school or high school etc. It could be an exciting and challenging task for museums to develop activities that exert a more posivite attraction on both the young and older people. They could do so through various forms of co-operation which youth clubs, as in the example in the German Democratic Republic described earlier, or through special arrangements of interest to the young.

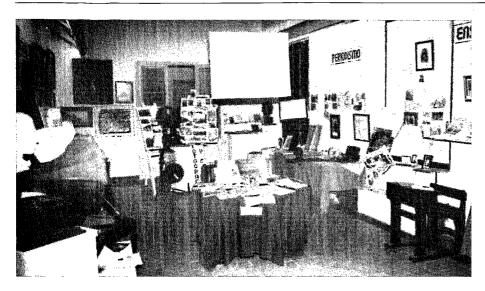
Many young people today are increasingly interested in and conscious of environmental problems, and one of the main tasks of museums in the future will be to train people in ecology. This has already been put into practice in a number of zoological gardens and natural history museums, whose educational aim is 'to encourage people to care about their environment - to create and awareness of what is around them with a view to developing a consciousness about conservation'.18

There is an obvious need to develop an ecological awareness, for instance of the dialectical relationship between natural conditions and man's impact on the environment. This inevitably brings us to consider matters such as analysis, planning and political decision-making, themes that are also to be found in many of the youth movements whose programmes include environmental problems.

It would appear that many natural history establishments have taken up this new challenge, but other kinds of museums have not yet figured out what their role should be in this connection.

'Museums which have assumed the task of actively contributing to the processes of development in one region or country must take these ecological problems fully into consideration.'19 The ecological approach will certainly appeal strongly to many youth groups if the themes and activites selected offer an alternative to more traditional education. Many young people have become alienated from nature and culture, having grown up in a rapidly expanding urban environment and lacking close contact with adults. Their cultural identity is very weak but it can be strengthened by offering them experiences and information that add an extra dimension to their lives.

A project can begin with a grill-bar, as was the case in Randers, Denmark. The museum made contact with a group of young people, who organized an exhi-



bition – When the Asphalt Starts Rolling – about the town, as seen and experienced by the young people in their leisure time.<sup>20</sup>

Elsewhere attempts are also being made to involve young people in the organization and staging of exhibitions, which gives them an opportunity to contribute to a worthwhile activity, knowing that their work will be appreciated. The Biological Collection and Education Centre in Copenhagen has employed young people as assistants in the educational departments of a number of museums. In addition, arrangements have been made for co-operating with a social institution, the Day and Night Centre, where young people take part in a workshop for the preparation of exhibitions and the production of kits. They are thus actively involved in projects that they feel to be serving a useful purpose and - depending on the choice of subject - provide them with knowledge for the longer term on, for example, biological and ecological problems.

As participants in an active working process, young people acquire a greater and more lasting familiarity with the subject than if they had received the information passively, leaning back in an armchair in front of a television set.

#### The challenge of the future

Information technology is developing at a spectacular pace. The development of computers is particularly impressive: in the last twenty years we have witnessed changes that very few would have dreamt possible in such a short time. Many museums – especially in the West – are already using these tools. Computer technology has been particularly useful in classification work. There have been many experiments (especially in science museums) using video and computers in exhibitions, and in some places computer clubs have actually been started.

Many museums are planning to catalogue their collections with the help of computerized data bases, which will make their holdings more accessible in most cases. It stands to reason that computerized records will make it easier to find relevant data. But relevant for whom? In the first place, such records will be of great help to future researchers but of little interest to the educational sector or to the majority of the population." At present, scarcely anybody expects children or adults in general to read scientific works. Besides, a general cataloguing system may be compared to a museum display in which all the museum's holdings are set out side by side in showcases, with labels giving dates and other information.

The use of information technology may also be viewed from the angle of education and information. What kind of information does the general public want? A scientifically constructed data base can be converted into a data base accessible to the general public. It can then also be used by schools to obtain relevant information - perhaps through the class's minicomputer - on a subject that the students have been working on beforehand. Data bases are really only the first generation in the development of information systems. From the standpoint of museum education, the greatest challenge will come when pictures, sound and data are combined in a picture bank. Schools or the general public will then be able to request the pictures/information they need by telephone or broadband network. Users will then be spared the need to pay a visit to the museum!

8 San José, Uruguay. The cultural life of the city encapsulated in the museum.

This challenge, which already exists in the form of television, video and radio, must be taken seriously, so that the various informational and educational facilities can complement each other. Television has a number of obvious advantages, but its audience remain passive viewers of a two-dimensional 'reality'. With the use of three-dimensional objects, museums can get the public to participate in a social gathering and an active process.

Information technologies should be used by museums to analyse complicated problems and explain them to the public in a simple and easily intelligible way. Three-dimensional objects representing a reduced reality can be used to re-create that reality as a whole with the help of modern aids, but the encounter between the individual and the original object cannot be simulated.

As large population groups become increasingly well educated and have more free time on their hands, the demand for museums and other establishments open to the public will tend to grow. The need for social intercourse and new teaching processes will also grow, and museums can play a major role in this connection. In future, education will not be isolated in schools or the like but will be a lifelong process in which individuals go exploring - on their own and/or with others - in archives, museums, institutes, etc., in order to understand their existence and create the conditions for change. It is a process in which we can all play a part.

[Translated from Danish]

20. Bjørn G. Sturup, *Realization of Concepts and Goals*, Copenhagen, Danish ICOM/CECA, 1982.

## APPLICATIONS:



Museum teacher Lise Fillmore invites her students to focus on a couple of the objects used in one of the Nova Scotia Museum's school classes

## Talking with teachers about museums in Nova Scotia

#### John Hennigar-Shuh

Curator in the Education section of the Nova Scotia Museum for the last six years. Before this was the founder-director of New Options, an alternative school for young working-class people in Halifax, Novia Scotia. Then taught in the education department of Dalhousie University, Halifax. Member of the executive of the Canadian Learning Materials Centre; member of the Professional Development and Standards Committee of the Canadian Museums Association. Numerous publications on education and museums.

# One of the annual rituals at the Nova

Scotia Museum is a late winter bash at writing programme plans for the coming year. Although it is always hard to grab time for this from the clutches of our more immediate commitments this is the only time that we are forced to sit together as colleagues to thrash through our goals and objectives and see how these can be concretely expressed. In the midst of our annoyance at the inconvenience of the process, there is grudging recognition of the fact that year after year the thoughtful struggle involved has been productive of fresh insights into what we do and why we do it.

A couple of years ago, as part of this process, my colleagues in the Education Section of the museum and I became involved in a heated discussion about the in-service training of teachers in the use of museum resources. Was it better to carry out intensive, long-term work with a few teachers or go in for less intensive training sessions with as many teachers as possible? We were arguing, as we sometimes do, more to work out the implications of the positions than because anyone believed wholly in either extreme.

I argued for casting our net as widely as we could. During the debate, one of my colleagues asked me: 'What would be the goal of such a programme? What could you hope to achieve?'. I quickly replied, 'I think that we should be aiming at doing a basic course in museum studies for every one of the 11,000 teachers in Nova Scotia.'

The reader might well scratch his head in amazement and ask: 'Is this an example of your fresh insight?' On one level my response was both glib and absurdly grandiose, but, on another, it managed to capture something essential about the history and future of our museum's commitment to education and our section's approach to teachers. In a surprising way, it has continued to have power for me as a metaphor for what I and my colleagues have been up to over the past few years.

#### A history of popular education

An enthusiastic approach to teachers is not at all out of tune with our institution's history. The Nova Scotia Museum has been connected with education from its very beginnings. Although the Provincial Museum, as such, was not established until 1868, our collection dates back to 1831 when it was begun as a teaching collection of artefacts and specimens by the Halifax Mechanics Institute, an early adult-education programme for working people. In 1952, our connection with the educational system in the province was formalized when we became part of the Department of Education. In 1965, J. Lynton Martin became the museum's director. It was his vision and ideas that set out the broad outlines of our work in education.

First, and most importantly, Lynton Martin saw popular education as the major role of museums. He maintained that 'the ultimate objective of the Nova Scotia Museum is to interpret nature as the environment of man and cultural history as the story of man's response to his environment... to help Nova Scotians better understand themselves, their community and their land'. To make this vision concrete, Martin wrote job descriptions for all professional staff at the museum who demanded that 50 per cent of their time should be devoted to the educational aims of the institution. Although this was sometimes more honoured in the breach, it established an important tone within the museum.

Martin also employed a strong staff of professional educators for the Education Section, gave them curatorial status, encouraged them to think about education in a museum context rather than simply carrying out programmes, and welcomed their full involvement in the museum's decision-making structures. It is significant that upon Lynton Martin's retirement in 1983, he was replaced as director by Candace Stevenson, the former Chief Curator of the Education Section.

The second important aspect of Lynton Martin's vision was his clear sense that in order to fulfil its provincial mandate the Nova Scotia Museum had to decentralize its resources and energies throughout the province, rather than concentrate them in a single museum in Halifax, the capital. This approach has meant that our museum is now a complex of twenty-one museums located across Nova Scotia, that we devote a significant portion of our financial and staff resources to the assistance of independent local and regional museums and that we try to serve teachers and their students in all parts of the province. So it is not entirely absurd for us to start wondering about how we could communicate with every teacher in Nova Scotia.

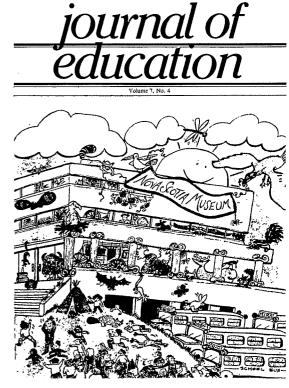
### Commitment to the widest availability

Our museum, like most, has always welcomed visits by teachers and their students, either individually or in groups. In the late 1960s, however, we began to develop a series of museum classes for school groups. These classes were designed by museum educators, taught by trained volunteers and offered teachers more effective access to the resources of the museum than the informal class visit. The classes soon became very popular, particularly with teachers from Halifax, who were within easy reach of the main branch of the museum.

At the same time that this programme was being developed, the museum was also working on ways to make its resources available to educators who couldn't actually bring their students to it. The director's idea was that, regardless of where they taught, teachers should be able to obtain museum materials for use in their classrooms.

The school loan materials that we have been creating since the late 1960s are kits most often built around objects, collections of related artefacts and specimens. The kits often include supplementary audio-visual and/or printed material as well. These are packed in cardboard boxes never larger than  $30 \times 30 \times 40$  cm. They are made to be portable. They fit easily into the luggage compartments of buses for shipment around the province. They slip neatly into the back seat or trunk of a teacher's car for transport to a school. And they are light enough so that a couple of primary-school pupils can carry them from the principal's office to their classroom.

This portability is a crystallization of our commitment to make our materials available to teachers as widely as possible throughout the province. We have also The cover of the museum education issue of the *Journal of Education* which was distributed to 11,000 teachers and school administrators in Nova Scotia.



created a distribution network in museums, libraries and teachers' resource centres, so that no teacher in Nova Scotia is further than 50 kilometres from a source of museum materials. Furthermore, the people in charge of these centres are encouraged to be resourceful and have often worked out ingenious ways of getting the materials distributed within their regions: sending them home with commuters, scrounging space on oildelivery trucks and even, for one centre located in a courthouse, enlisting the aid of people from outlying communities appearing in court for traffic violations.

So by the late 1970s the Nova Scotia Museum had a school loans programme with a distribution system that could serve teachers in all parts of the province. We offered free access to well over thirty different kits (built in multiples of nineteen) with titles such as The Pioneer Kit, Barrel Making, Quilt Design, Early Man in Nova Scotia, Edible Wild Plants, Rocks and Minerals, Animal Signatures, Bog Plants, The Rocky Shore and Crabs, Lobsters and Shrimps. We were also willing to lend teachers a wide assortment of individual artefacts, specimens and pieces of equipment.

## Overcoming barriers to the use of museum resources

We had a good product and an excellent distribution system. But the bald truth was that teachers were not using what we were so eager to offer them. This is not to say that nobody borrowed our kits – we did have our dedicated users and from them we got excellent feedback. But when I began to circulate among teachers and talk to them about what the museum had to offer them I received two sorts of discouraging responses.

The first of these was from teachers who had hardly heard of the Nova Scotia Museum, much less of its school loans programme. Such teachers might ask, 'Why didn't I know anything about these kits? Why don't you advertise? I just finished a unit on fossils with my Grade-5 class and it would have been wonderful if I could have used your *Fossil Kit*.' Well, we thought we *had* advertised. But we began to realize that our advertising had not been very effective and that we had not reached anywhere near the number of teachers that we wanted to.

As a result of this realization, we began to publish an annual catalogue with descriptions of all the learning resources that the museum makes available to teachers, which is distributed each September to every teacher and school administrator in the province through the Department of Education's information newsletter' Education Nova Scotia. Every year since we began producing this catalogue we have increased our distribution of school loans by 25 per cent across the province, with by far the largest increases occurring in the distribution centres outside Halifax. This has given us some indication that we are making some progress towards fulfilling our province-wide mandate.

But getting the information out is only just the beginning. The other category of discouraging reaction I have received from teachers indicates that, though they may well have heard of the resources we offer and may even have borrowed a kit or two, they had not worked out how to use our materials effectively. A teacher might, for example, thank me for the wonderful exhibition on the pioneers that he had borrowed from us. But, the Pioneer Kit was not designed to be set up as an exhibition at the back of the classroom: it was built to give students who are growing up in the present day direct access to some of the articles their great grandparents used to survive from day to day. Objects like a bag of dirty raw wool, wool cards and elementary devices for spinning and weaving are included so that students can actually use them, and by picking the wool, carding, spinning and weaving it and then thinking about this process and discussing it they can begin to get some insight into the fabric of their ancestors' daily lives. For this is the stuff of their history.

We used to get the *Pioneer Kit* back from teachers with positive comments but with untouched polythene bags of raw wool. It was hard for them to imagine why anyone would want to include a grubby polythene bag of raw wool in an exhibition on pioneer life – but that seemed to be what was happening.

This kind of experience made it obvious that there were some significant barriers standing between many teachers and their effective use of museums and museum resources. The first and most basic of these was that a lot of teachers didn't know very much about museums: what sorts of places they are, what kinds of jobs the people who work there do, and what they have to offer teachers. As one Grade-6 student wrote in an essay to answer the question 'What is a museum?': 'Some people think it is a dark eerie place with cobwebs in the corners and an old hunchbacked caretaker with a cane that hits children on their hands when they reach out to touch something.'<sup>1</sup> I suspect that some teachers were putting 'DON'T TOUCH' signs on that bag of raw wool they were exhibiting at the back of their classrooms.

The second major barrier was that most teachers had no experience in using objects as sources of information. Objects were the stuff of their experience but like all of us they had been educated to take them for granted. Consequently, they did not understand how to look critically at the artefacts and specimens we offered them in our kits, and they certainly did not feel comfortable integrating them into their teaching.

At the same time that I was arriving at this realization from my experience with the school-loans programme, my colleague Mary Herbert, who was responsible for our school-class programme, was reaching parallel conclusions. Ironically the school-class programme was being choked by its own success. It had become so popular that finally one September the entire year's schedule of classes was completely booked within the first half-day of booking. Mary had to find ways to distribute equitably a wildly popular but limited resource and, at the same time, work out new ways for teachers to use museums. In struggling with this problem, she began to feel strongly that its solution lay in our working with teachers to help them to become more selfsufficient users. We began to see that the barriers that stood between teachers and their self-sufficient use of museum exhibitions and personnel were the same as those that blocked their effective use of our kits: they didn't understand museums and were uncomfortable trusting objects as sources of information.

So overcoming these two blocks became the major objective of much of our work with teachers. In other words, the two main topics of our basic course in museum studies for teachers became 'What is a museum?' and 'How do you use objects in your teaching?'

What about the delivery of this 'course' to our target audience? (I must make it clear that we were not even tempted to look for a lecture hall large enough to hold 11,000 people!) What we have done over the past three or four years falls into the following categories.

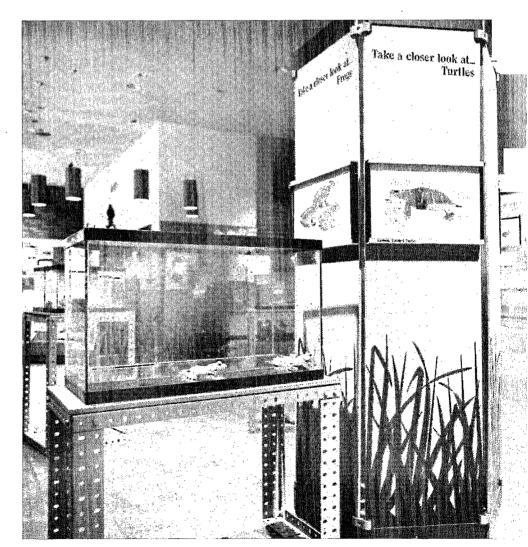
<sup>1.</sup> Jamie Rudderham, 'What is a Museum?', Journal of Education, Vol. 7, No. 4.

In-service work. We have radically increased our involvement in the in-service training of teachers. In the early days, we set up evening or week-end workshops at local museums and invited teachers to attend. This meant that we were competing with all the other things teachers might want to do in their spare time. It was neither very effective nor very encouraging to drive 300 kilometres to give a workshop for only three people. Because of this we successfully lobbied school administrators to include us in their official, in-service, professional development programmes. We became very much in demand. During one academic year the members of our section did over seventy workshops. I did thirty-eight and at times felt like a travelling salesman hawking museum wares around the province.

Writing about museum education for teachers. In 1982, the Education Section of the museum was given an opportunity to write, edit and design an entire issue of a Department of Education publication called the *Journal of Education*. This publication was distributed free of charge to every teacher and school administrator in the province and so gave us a chance to communicate directly with our target audience about museums and education. Some of the articles included in this publication were: 'What is a Museum?', 'Teaching Yourself to Teach with Objects', 'Behind the Scenes at the Nova Scotia Museum' and 'Museums and Schools: Redefining the Relationship in the 1980s'. As you can see, the table of contents for the *Journal* was simply an elaboration of the syllabus for our 'course'.

One of the most effective ways that my colleagues and I have developed to talk with teachers and students about what they can learn from objects involves encouraging them to take a close, questioning look at commonplace contemporary artefacts like ball-point pens, styrofoam cups and disposable diapers. It is easy in this way to help them to discover how much they can learn about themselves and their world even from things that are not customarily given a second thought.

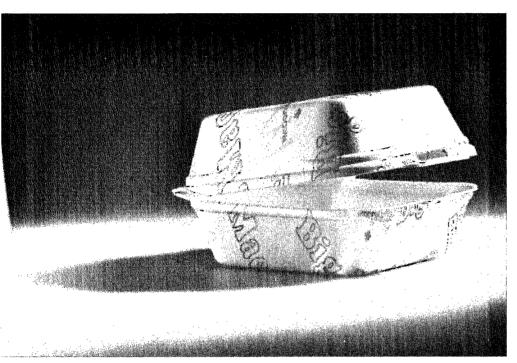
The Journal included a one-page filler



One of the modules of a recent Nova Scotia Museum exhibit entitled *The Amphibians* and Reptiles of Nova Scotia: The Private Lives of Salamanders, Frogs, Turtles and Snakes which invites visitors to take a closer look at frogs and turtles.

11

Fifty ways to look at a Big Mac box



12

#### 1 Smell it.

- 2 Taste it.
- 3 Feel it all over.
- 4 Does it make a noise?
- 5 What are its measurements? Height, weight, diameter?
- 6 Describe its shape, colour and any decoration.
  7 Can you write a description of it that would give a clear picture to someone who has never seen a Big Mac Box? (a sketch would help).
- 8 Why is it the size it is?
- 9 Are all MacDonald's boxes the same size?
- 10 Have the sizes of MacDonald's boxes changed over the years; will they change with metrication?
- 11 How much has the box's shape been determined by the material used, the method of construction and the box's function.
- 12 Why isn't the box plain white (or black, or purple)?
- 13 What is the function of the decoration?
- 14 What does the lettering tell you?
- 15 Why are symbols, logos and trademarks so important in our society?
- 16 How much is the name 'Big Mac' a reflection of the fashions of our time?
- 17 What does the circled R signify?
- 18 What material was used to make the box?
- 19 What raw material was used to produce this material?

- 20 Is this a renewable resource?
- 21 What does this say about attitudes towards conservation in our society?
- 22 Why was this particular material chosen?
- 23 What are its advantages; its disadvantages?
- 24 How might the box have been different if a different material had been used: for example, wood or ceramics, or metal or paper?
- 25 What can you learn from looking at the box and the lettering about how the box was made?
- 26 At what stage of manufacture do you think the lettering was applied?
- 27 Have you ever seen anything like this being made? What does that suggest to you about our society?
- 28 Is the box well designed?
- 29 Does it work well for the purposes for which it was designed?
- 30 How might the design be improved?
- 31 If someone twenty, fifty or one hundred years ago had set about to design a container for a hamburger, how might they have done it differently?
- 32 Did people eat hamburgers then?
- 33 What might the hamburger container of the future be like?
- 34 What does the number on the inside bottom of the box signify?
- 35 Is this a clue as to where the box was made?

- 36 Where was the box made?
- 37 What did these boxes replace?
- 38 Why not just serve a hamburger on a plate?
- 39 What does a Big Mac box tell us about the people who use it, the people who pass it out and our society in general?
- 40 Show the Big Mac box to as many people as you can within a ten-minute period. How many people failed to recognize the box? What does this tell you?
- 41 Would you get this response in Moose Jaw, Saskatchewan, Burbank, California or Perth, Australia? What does this tell you?
- 42 Where is the headquarters of MacDonald's? What does this tell you?
- 44 How many of these boxes are used across North America every day?
- 45 For how long is each box actually used?
- 46 What is done with them after they have been used?
- 47 Why do you find Big Mac boxes on sidewalks, lawns and beaches?
- 48 Is there anything that could be done to recycle these boxes?
- 49 Is there anything that could replace them?
- 50 What do you think is the single most
  - significant thing about a Big Mac box? Why?

And now, imagine that you are a Big Mac box and write the story of your life.

called '50 Ways to Look at a Big Mac Box' which was originally an afterthought, but which has turned out to be the most effective single device for communicating with people about a museum way of looking at objects. (Fig. 12.)

Redesigning school classes. Over the past two years Mary Herbert has almost completely redesigned our school class offerings so that they are far more rich in objects than they were in the past. Each class includes some aspect geared to help the participants understand museums more clearly. In addition, she has been encouraging teachers to try do-it-yourself classes and is currently working on the development of new support materials for self-tours. Each of these approaches is designed not only to provide students with a good museum experience but also to help their teachers become more museum self-sufficient.

Continued promotion of the school loans programme. One of our great sources of credibility with teachers across the province is that we are not simply interested in preaching to them about museums and using objects in their teaching but are also able to deliver the goods. Our school loan kits provide the lab. experience for our 'course'.

Wider distribution of museum publications to teachers. The museum publishes a series of useful four-page information pamphlets, which we call 'Infos', on a wide variety of social history and natural science topics. We have arranged to have these distributed as inserts in the Department of Education's newsletter Education Nova Scotia, sent out to everyone working in the public schools of the province. This is another way of routinely exposing teachers to museum issues and concerns.

The planning of museum exhibitions. One important aspect of our work as educators at the Nova Scotia Museum is our involvement in exhibition planning. Well designed, they can say a great deal to both teachers and the general public about how objects function as sources of information and they can also help to demystify museums for people. It takes some effort to plan them as more than 'books-on-stilts' and to write labels that direct people towards rather than away from objects. But the extra effort can have big payoffs for the people who come to look at what we have produced. A museum-school liaison project. In the discussion to which I referred at the beginning of this article I was arguing for doing 'once-over-lightly-in-service workshops' designed to introduce as many teachers as possible to museums and their resources, albeit in a superficial way. I still think that such presentations have their place as general introduction to museums but in many ways they are frustratingly inadequate. In an afternoon or even a whole day it is impossible to do more than merely skim over the wealth of resources available to teachers from museums in Nova Scotia.

So, together with Gary Selig, the Curator of the DesBrisay Museum in Bridgewater, a community about 100 kilometres from Halifax, I developed a museum-school liaison group made up of both teachers and museum workers. We chose to focus our efforts in Lunenburg County where the DesBrisay Museum is located. There are also five other interesting museums in the county, and establishing a liaison wih the twentyeight Lunenburg County Schools seemed to us to be a realizable goal. From the beginning, however, we saw the Lunenburg County project as a possible model for museums and schools elsewhere.

The concept was very warmly received by both Lunenburg County museums and school officials, but as might have been expected, the group did not swing into smooth operation overnight. In the first place, it took months to work through the educational superstructure from superintendent, to curriculum supervisor, to principals, to teachers and back again to identify a viable core of interested participants. And then after some initial success, the whole project was almost lost over a disagreement between the teachers and their Board about whether the group could meet within school hours or not. Fortunately this problem did not surface until there was enough evidence of the project's value both for the museums, the school system and the participants to encourage the negotiation of a significant compromise.

The liaison group is now thriving. It meets four or five times a year and has enthusiastic representation from all of the schools and museums in the county as well as from the regional library. The group's first priority has been to try to get some clear sense of just what the county's museums can offer schools. To this end we have been going in turn to each museum for a first-hand look, and our emphasis has not been simply on meetings and talk but on 'hands-on' involvement with the object based activities that each museum makes available.

As a result of this direct on-going involvement the members of the liaison group are discovering that there is far more for schools in the museums of the county than they had ever imagined. On this basis, they are now beginning to act as effective liaisons between these museums and their fellow teachers.

As the group has developed, two teachers have moved into significant leadership roles. Wendy Richardson, a school librarian, and John Croft, an elementary-school teacher, have become part of a group of four who have an ongoing responsibility for programme planning. In addition, teacher-members of the liaison group have been providing valuable feedback to museums about the quality, scope and applicability of their existing programmes. They have also encouraged museums to develop new programmes and have assisted in this by designing by conduction and evaluating pilot projects. Thus, we have blurred the distinction between those who are giving and those who are taking this most sophisticated example of our 'basic course in museum studies'. In discovering a model that has begun to fulfil our we have transcended hopes, our metaphor.

The existence of this liaison group has stimulated a far more active and extensive use of museum resources within Lunenburg County than has ever before been the case. But more important than that, it has fostered a new style of collaboration between museums and schools which should continue to bear fruit for many years to come. It has given us a new metaphor and a new means of fulfilling our mandate.

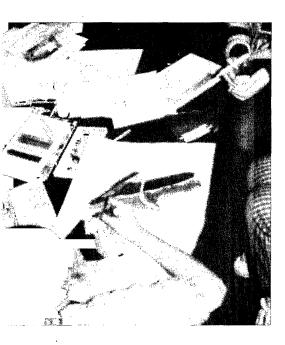
# Curators, teachers and pupils: partners in creating an awareness of modern art

#### **Colette Banaigs**

Ecole du Louvre, licentiate in philosophy and aesthetics, certified teacher in letters and history. Teacher, responsible for the plastic arts section of the Yerres Culture and Education Centre, 1970-71; project director in plastic arts, OFRATEME, 1971-73. Educational service of the Museum of French History, National Archives, 1953-59; Curator of the Museum of Saint-Denis, 1962-68. Now in charge of the education department at the Museum of Modern Art of the City of Paris. Has prepared several exhibition catalogues and written numerous articles. Her paintings have been shown in individual and group exhibitions.

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At the Artelier a child produces his own work based on the drawing of a shadow of a real work of art.



The Artelier is the Educational Activities Department at the Museum of Modern Art of the City of Paris. It caters for teachers in the Paris area and is thus, above all, a place for experimentation and research towards creating a living relationship between the museum and the teaching profession. The activities carried out are therefore largely practical and co-operative. They are always closely linked to works of art in permanent collections or exhibitions, with the twofold aim of fostering a greater awareness of modern art and stimulating individual artistic expression. They began in February 1981 under two categories: 'active visits' and 'teachers meeting workshops'.1

#### Guiding principles

Teachers feel a great need to have the world of modern art opened up to them. In general, they wish to gain a better understanding of it so as to be able to help their pupils discover it in a motivated way. The Artelier responds to this need, aiming first at the cultural education of teachers and their training in techniques of fostering a greater awareness of modern art among their pupils. Because the teacher is the vital link between the child and the museum, he alone is able to adapt a museum visit to his pupils and to combine their work at the museum in a worthwhile and lasting way with their normal school activities.

The Artelier's aim is not to take the teacher's place but rather to enable him or her to become full master of the pupils' use of the museum and of their approach to modern art. Teachers are helped in several ways, for example documents and consultations with a staff member of the Artelier in preparation for 'active visits' and 'workshop encounters' where teachers can try out the approaches they will suggest to their pupils.

The second guiding principle reflects another priority, the emphasis on sensitive response to a work rather than perception based on reason. The Artelier does not disseminate knowledge, it stimulates an affective reaction. This approach corresponds in fact to the very nature of art, especially modern art, which is a means of cognition through feeling. True respect for art means that one should feel it before understanding it.

This is a truth that applies to adults and children alike, but even more to the child, for sensitivity is the keynote to his apprehension of the world, particularly if he or she is very young. It is only later on, depending on the child's age, that he acquires intellectual ideas, knowledge and powers of analysis. When a child begins with the affective discovery of works of art, his subsequent understanding of them is necessarily more easily and more profoundly gained.

The third guiding principle, derived from the second, is that an active attitude is required to react affectively. While also true for adults, this principle is absolutely vital for children. Children take an interest in those aspects of reality on which they can exert some influence. Passivity is not the child's natural state, but one imposed by the educational system. A passive child learns nothing, for anything he retains is under compulsion. If, on the other hand, he is active, he will feel motivated, his affectivity will come into play and he will 'remember things'.

All suggestions for 'active visits' therefore invite children to *do* something when they are faced with works of art, such as answering a question, giving their opinion, looking for a particular feature, writing, drawing, playing and guessing.

It is not enough, however, for the child to be active: he must also be creative. This constitutes the last, but by no means least, important guiding principle of the Artelier. If the child is to feel truly motivated, he must not only be asked to observe and reflect, he must also himself be given an opportunity to create and

<sup>1.</sup> The Artelier grew out of research in teaching about modern att which I was able to carry out in October 1980 at the Museum of Modern Art of the City of Paris thanks to its curator, Bernadette Contensou. It is the end result of a many-sided personal and professional experience as curator, teacher of letters and art history and painter. My participation as teacher-cum-*animateur* in a further education course for art teachers provided by the French National Centre for Correspondence Courses also played an important role in my professional experience.

participate. A child is creative rather than active, and for him creativity is a genuine need.

All suggestions for 'active visits' accordingly lead to opportunities for personal expression. These may involve either reacting to works of art by expressing preferences or individual interpretations, or inviting the child subsequently to translate his reactions into a plastic or verbal production which brings his creativity into play. Such creative activity is invariably a great source of pleasure for the child, and will set a lasting mark on the way in which he regards works of art.

#### How 'active visits' are conducted

Such visits are usually for the intermediate primary-school grades and the first two grades of secondary school. They can however also be used for the elementary grades of primary school or the third grade of secondary school, provided teachers adapt the questionnaire and choose easy or difficult questions as appropriate.

A questionnaire designed specially for intermediate primary grades was tried out during the first term of the 1982/83 academic year. The questions were couched in simple language and the suggestions very concise. Groups of schoolchildren have the opportunity to visit the museum's collections (historical collections 1900-40, contemporary collections 1940-80) as well as exhibitions devoted to Derain, Modigliani, Cornell and Fernand Léger. Visits usually take place in the morning; also all day on Monday, the museum's closing day, when the children have the museum to

themselves – a facility that is much appreciated by teachers. Each 'active visit' comprises several stages, based on the questionnaire.

#### First stage

Immediately he or she has made an appointment for a class to go on an 'active visit' to the museum, the teacher receives a set of documents consisting of a copy of the questionnaire, a brief guide to the galleries to be visited, with a plan indicating the location of the works mentioned in the questionnaire, and introductory notes explaining how the visit will be conducted and what part he is expected to play.

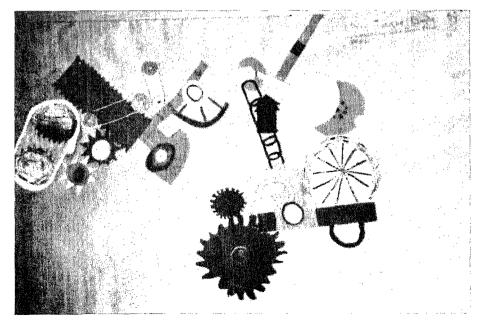
#### Second stage

As soon as they arrive at the museum, the children are taken to the workshop, where they are each given a questionnaire, a few explanations and a kit containing pencils, paper and a writing pad. One of the Artelier organizers discusses with the teacher the suggestions he has chosen and advises him on how the visit should be conducted, depending on the teacher's preferences, his pupils' aptitudes and the time available. The extent of the organizer's intervention varies considerably. It may be very limited if the teacher has already been to the museum to prepare the visit, or if he knows exactly what he intends to do, or it may be substantial if the teacher has no particular plan in mind.

The next four stages involve using the questionnaire.

#### Third stage

In the galleries themselves the children



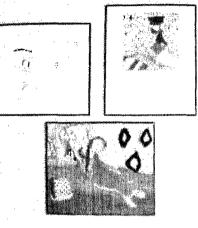
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An imaginary machine (collage) on the lines of the exhibition *Léger et l'esprit moderne* done by ten-year-olds.



Schoolchildren showing the boxes they made after a visit to the Cornell exhibition.

16 From the 'favourite paintings' section at the exhibition, Matisse's *L'odalisque au fauteuil* redrawn from memory by three pupils.





17 From the exhibition Vive l'art moderne! (Long Live Modern Art!) a painting (Les clowns by Gleizes) surrounded by children's paintings inspired by it.



fill in the questionnaire, which suggests a number of simple games they can play, such as looking for a specific feature in a painting, looking for an exhibit, an animal or a colour, expressing their preferences and their feelings. These questions also involve making small drawings, finding key-words, etc.

The teacher supervises their work at this stage, being simply accompanied by the specialist attendant who acts as host, gives out the questionnaires and writing kits, conducts the tour of the rooms and sees that the children do not touch the various exhibits.

#### Fourth stage

In the workshop, after the visit, the children develop their answers to the questionnaire in the form of individual or joint productive work. They can give free rein to their creative spirit. Here also, the teacher is usually left alone to guide his pupils in their work, with only the help of the attendant host, who provides them with whatever materials they need: glue, paper, scissors, felt-tip pens, pastels, etc. The Artelier organizer intervenes only at the request of the teacher.

Various projects can be carried out in the workshop, for example:

- Producing a creation of one's own, based on the shadow cast by a sculpture and drawn by the children in the exhibition rooms (see Fig. 13);
- Producing a joint collage on the theme of an 'imaginary machine', using simple mechanical components chosen by the children from paintings in the exhibition entitled *Fernand Léger et l'esprit* moderne and drawn on large sheets of

paper. A name is then given to the machine, or perhaps even indications of how it is to be used. This has produced for example 'the machine for making wine with water', the machine for making the sun rise', etc. (Fig. 15);

Getting the children to draw their favourite painting from memory. This suggestion has always been a great success with teachers and pupils alike, and has yielded a rich harvest of interesting results (Fig. 16). The same work is interpreted in a totally different way by different pupils, each child remembering only those features which impressed him affectively.

This work is a form of artistic appreciation that is remarkably rich in results, as it occurs at the place where the imagination of the artist meets that of the spectator - on whose personality it throws a powerful light. It has also been tried out with equal interest in teachers' workshops, and similar conclusions drawn.

#### Fifth stage

In the classroom, children carry out another set of activities which are too lengthy to be conducted in the workshop after the visit. These activities are based on the answers to the questionnaire, comprising both texts and drawings. For example: for the Cornell exhibition, the children were asked to produce a collage in the workshop which would bring out their awareness of Cornell's approach to art: the creation of a strange, poetical atmosphere through a combination of unusual cuttings from magazines, evoking a memory or fantasy. Subsequently, they were asked to produce, along similar lines, a real box with real objects, either as classwork or in their spare time at home (Fig. 14). Other examples of classroom projects were: (a) painting a dream world in which part of the picture is upside down, as Chagall has done in *Le rêve*, and then describing it in writing; and (b) drawing a comic strip with animals and objects taken from paintings and drawn at the museum on the questionnaire.

The drawings done at the museum, and the comments on exhibits, can also lead to extended activities in the classroom: poems, stories and joint paintings. Here teachers are entirely free to devise an imaginative educational approach, and after the visit teachers often make a point of keeping the questionnaires filled in by the children.

#### Sixth stage

A second session in the workshop is made available to teachers on request, made possible by the appointment of another organizer. This provides teachers with an opportunity to develop still further a project of their own choosing or work undertaken in the classroom in connection with the questionnaire involving a further visit by the children in order to see the exhibits on the spot. The children also have the opportunity, and the necessary time, to do some painting and modelling, which is not the case during the first visit. The part played by the Artelier organizer is usually more substantial in this instance, as the complexity of the work proposed to the children and the use of the materials paint and modelling materials - mean that the teacher requires assistance. Thus children have been able to embark on works such as joint paintings, to develop an awareness of the Fauvist and Cubist approaches to art as well as modelling from still-life paintings, etc.

#### Problems and their evaluation

A number of problems are involved in drafting the questionnaire, which has to be sufficiently clear and precise; ask questions which are in themselves pointers to appreciating the exhibit, while being sufficiently 'arresting'; lead to both an understanding of the artist's approach and creative work by the child; and allow a tour of the exhibits which will be as simple and comprehensive as possible.

The problems connected with teacher participation are also very complex. The explanations he receives must be sufficiently clear for him to be able to guide his pupils' on his own, sufficiently rich for them to be properly motivated yet flexible enough for free adaptation.

Every year a survey is carried out with teachers asking for pupils' impressions, criticisms and suggestions, together with an account of their reactions and the effect the experiment has had on them. The replies are encouraging: they attest to the educational benefit derived by teachers from this approach to modern art; the children enjoy it very much, and subsequently express themselves in a more independent and less inhibited. way. The criticisms and suggestions are however also of great value to us, as they enable us continually to improve the questionnaire by making it more functional so that the visits are better organized.

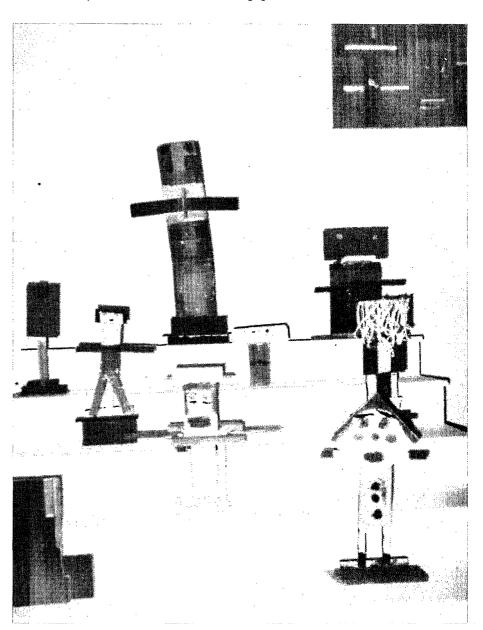
Our own observations have also enabled us to make alterations. We have noticed that some questions are misunderstood, certain games do not interest the children, some suggestions yield more practical results than others with regard to individual activities, etc.

Nevertheless, we are not always in possession of all the material necessary for our research. More often than not, teachers take away the questionnaires which their pupils have filled in, together with the drawings they have done in the workshop, in order to continue activities in the classroom. This means we lack valuable data for evaluation. We do admittedly ask teachers to return the questionnaires to us when their work has been completed, together with their pupils' individual work, but not all of them do so, and many prefer to keep everything.

Over the years the basic principles of the 'active visits' have been maintained; they respond to a felt need, as our survey among teachers has shown. Some methods have changed, however. For example, the questionnaires are now presented in card form and teachers have corresponding teaching cards which allow them full autonomy. Series of three to four visits are also made available for those who wish to go further in their work with the Artelier. At all events, because of our limited financial and human resources, our work is of necessity unsophisticated. Yet this in itself enables us to maintain personalized relationships with teachers, which are extremely enriching for all concerned.

Sometimes it happens that teachers, and their pupils, invite us to visit their school so that they can show us their work. For instance, we visited a secondary school at Saint-Denis in order to see boxes produced by the children after an 'active visit' to the Cornell exhibition (Fig. 14). We came away with all the boxes, which

18 Alicia Penalba's sculpture *Alada*, surrounded by the work of teachers and pupils.



the children enthusiastically presented to us. None the less, we are often, much to our regret, left unaware of any follow-up work in the classroom.

What we should like to do is to encourage teachers to participate more and more actively in preparing the questionnaire at a series of meetings. This will be possible once the museum has its rooms for permanent collections available. Work is currently in progress and will allow continuous round-the-year activities.

Such activities will therefore be more closely linked with the other activities of the Artelier, which involve teachers directly in practical experiments and reflection thereon, which will be used subsequently for their teaching work.

#### The value of our experience

All the 'active visits' organized over the last few years have met with considerable success but unfortunately it is impossible to meet all the requests we receive. Our experience has shown that our approach to modern art, leading to individual expression, is extremely effective: (a) for encouraging children and adults alike to view works of art attentively; (b) for freeing teachers from certain inhibitions and helping them to make such an approach to modern art an integral part of their educational methods; and (c) for releasing and enriching the child's selfexpression by enabling him to get away from drawing the usual things - houses, trees, etc. - and discover other forms of self-expression, new signs and unfamiliar language.

The activities of the Artelier, by laying emphasis on sensitivity and emotion, are thus complementary to other educational activities focused on the transmission of knowledge and a more respectful approach to works of art.

While it is true that a real grasp of modern art can be achieved only through the intermediary of a particular culture, regrettably a selective one, it is also true that children who have come to the Artelier without ever having set foot before inside a museum - any more than their parents - go away again cherishing the memory of the pleasurable experience they have had and eager to come again. It is also indisputable that teachers who wish, somewhat hesitantly, to introduce their pupils to modern art, find in the Artelier the means of doing so, and feel at ease in the museum.

It is in museums' interest that they provide teachers and schoolchildren with easy and friendly access to their facilities and the opportunity to take part in pleasurable activities. Schoolchildren are the public of tomorrow, and the quality of their initial museum contact will have a decisive effect on their attitudes as adults with regard to museums, hence in respect of the works of art exhibited.

#### Long live modern art!

The exhibition Vive l'art moderne! (Long Live Modern Art!) held from April to June 1983 presented some of the Artelier's most successful results. The work shown was therefore very diverse: replies to questionnaires, large panels, sculptures, comic strips, etc., as well as many photographs showing teachers and their pupils in different stages of work in the museum workshop or galleries or in the classroom. Many of these were loaned by the schools where they had been done.

The purpose of the exhibition was to reveal the method by which an original work of art was dealt with by the children (the catalogue describes all these methods in order to be a teaching aid) rather than show off pupils' 'good work'. The original works were themselves on display.

The first part of the exhibition was devoted to the 'active visits', showing the complete itinerary – questions and answers – connected with the questionnaire on the museum's historic collection. In several cases the original work was present, e.g. *Les clowns* by Gleizes surrounded by interpretations of some of its detail (Fig. 17). In the 'favourite paintings' section, children's drawings and paintings surrounded favourite works and the comparisons were often rich and piquant, e.g. Matisse's *L'odalisque au fauteuil* (Fig. 16). Temporary exhibitions were also represented. Cornell boxes from a Saint-Denis school (Fig. 14) were all there, together with their accompanying texts, as well as collages and jewellery made in connection with *Léger et l'esprit moderne* and the stories inspired by Modigliani's *La petite folle en bleu*.

The second part of the exhibition was devoted to the 'teachers' meeting-workshops' organized around a work or exhibition. Thus we showed Alicia Penalba's sculpture *Alada*, surrounded by works by both teachers and pupils (Fig. 18). Other initiatives shown concerned individual works of art as seen by children of different ages and from a wide variety of establishments.

The final section was the COBRA exhibition and its accompanying material, which illustrated successive stages of the 'meeting-workshops': preparatory work by teachers, work done by the children at different moments. One child had this to say after visiting COBRA:

To do a painting you must be free and paint as you like so that it can be fantastic and impressive.

You have to ornament your painting so that it's full of imagination You have to put in lots of colour it has to be bizarre, funny...

Ending the exhibition on this note was more than simply symbolic, for the ideas of freedom and spontaneity in personal expression, richness and joy in collective work, which inspired the artists of the COBRA group, were the very ideas on which the Artelier bases its own efforts to make children aware of modern art.

[Translated from French]



A pear and an apple – explaining still life

#### Rachel Melzer

Born in Israel in 1949. B.A. in musicology and special education, Hebrew University. Master's degree in modern art at the Institut d'Art et Archéologie, Paris. For the last five years in charge of student art instruction and workshop activities for the didactic exhibitions in the Helena Rubinstein Pavilion at the Tel Aviv Museum. Curator of *A Pear* and an Apple. The still-life exhibition A Pear and an Apple occupied the entire space of the Helena Rubinstein Pavilion in the Tel Aviv Museum from February to July 1984. Both didactic and thematic, the exhibition illustrated the close affinity between these two approaches. The subject of the still life was chosen not only because it is deeply rooted in the history and teaching of art, and is being constantly re-interpreted by contemporary artists, but also because we believe it can serve as a means for understanding the entire artistic, creative process. The exhibition provided us with tools which enabled us to grasp its central theme, as well as the very concept of art in broader terms. This was, perhaps, the main objective of this didactic exhibition.

An artist who decides to execute a still

life must go through the process of selecting objects, transferring them from their natural context to a new artificial one and combining them in a different arrangement. He is put in the position of one who chooses, changes and decides, and has complete control over the work of art (without giving preference to rational and intellectual considerations over spontaneous or emotional motives).

The exhibition was divided into four areas. Visitors entered the Pavilion from the busy street through a huge frame enclosing a three-dimensional still life (Fig. 19). This provided an experience intended to distinguish between the everyday street experience and the one offered by the exhibition, taking the subject out of its familiar perspectives. In one of the corners in the entrance hall, the three stages in the creation of a still life were demonstrated: a model placed on a table, a painter drawing the model and, finally, the finished painting with a group of spectactors. All of this was presented in natural dimensions, with wire puppets and without explanatory notes (Fig. 20). In the next hall, these stages were elaborated upon with detailed notes.

In this didactic hall, the visitor was able to follow closely the three stages in the creation of a still life: the preparation of the model, the execution of the work, and the spectators' encounter with the finished work.

#### Preparing the model

This stage was demonstrated by a series of large black-and-white photographs which showed the painter in the process of preparing objects for a still life while explaining to two children the reasons behind his choices and arrangement. The straightforward, large text was written inside comic-strip 'bubbles'.

The artist experimented with the model in various compositions: he moved it to the window (so that the outside view could be added to the picture), or sat a woman by a table. A large photograph completing the series showed the entire studio which, in addition to the prepared model, also contained other objects belonging to the artist which had been randomly strewn about. The visitor was then asked to select from among various wooden frames the one he considered most suitable, and to decide which of the objects in the room would be included in the picture and which would be omitted (Fig. 21).

A life-size seventeenth-century Dutch painter's studio constructed after a painting by Vermeer, added another dimension to this section on the model's preparation. The visitor was able to sit in the artist's chair and visualize himself painting the model. Instead of a canvas, he faced a board with electric switches which he operated and focused the lighting of his choice upon the model: candlelight, light from a ceiling lamp, light from an east window, etc. This exercise emphasized the importance of light and the integral part it plays in the model's preparation.

#### Executing the model

Following the photographs demonstrating the model's preparation, the visitor was presented with the orginal model which was placed on a table in the middle of the room. Next to the model were various interpretations by painters, photographers, a sculptress and several children. In this way, he was shown how, while taking off from a common starting point, one could arrive at such diverse results differing totally in medium and style (Fig. 23).

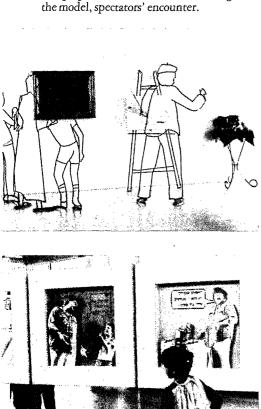
#### The viewer's encounter with the finished work

In this space, we dealt with two major problems that confront the viewer when facing the finished work.

First, the manner in which a spectator understands a work of art depends, to a large extent, on his cultural background and other factors such as time, place and knowledge. The closer his background and experience are to those of the artist, the better his comprehension of the work will be. This aspect was exemplified by a Vanitas-type still life from the seventeenth century. Every facet of the picture was analysed, stressing the fact that a seventeenth-century viewer would have immediately been able to grasp the full meaning of the work. In contrast, a still life by an Israeli artist was also presented. The fruits painted here are connected with the Jewish Festival of Tabernacles, and a viewer familiar with this tradition would be able to relate directly to this work (Fig. 22).

A second question arose as a result of the viewer's encounter with the picture. How involved and active is he in the process of understanding? The viewer was expected to relate his world of concepts and experiences to the work he observed. There was often a discrepancy between the painted object and those objects with which he was familiar, thus creating a gap which the viewer had to bridge. These associations were demonstrated by a series of paintings, sculptures and photographs depicting fruit. The exhibited works represented the different approaches of various artists and required the viewer to relate to different aspects through active observation.

The next room contained a display of still life by twentieth-century artists. The space in which they were arranged varied in size, according to the problems with which they dealt: works that used the still life as a starting point for treating various painterly problems; still lifes with a human figure, a window and a view; works that isolated the single object, enlarged and altered it; works that dealt



Three stages in the preparation of a still

life: preparation of the model, executing

21 Preparation of the model in 'comic-book' style.

20

22 Spectators' encounter with the work. Two examples of works from different cultures.



final model.

Various possibilities in the execution of the

directly with the object rather than its transfer to another medium – for example, breaking an object, re-assembling it, compressing it, creating an assemblage of several items – and, of couse, the readymade: those objects not requiring any treatment at all. Finally, there were those works by contemporary artists which were treated in a completely novel manner. These artists widened the scope of their subjects and extended them in new, unexplored directions.

Also presented were works that referred to still lifes by famous artists – constituting 'art about art'. Altogether, the two halls contained approximately seventy works in painting, printmaking, sculpture and photography.

The last hall was devoted to creative workshops for school groups (aged 6 to 17) who came on guided tours to the exhibition. The workshops focused on particular problems posed by the still life. Sometimes they centred around a model prepared for the pupils who examined various aspects such as composition, light and shadow, colour, etc. Other activities involved creative imagination, such as the addition of an item missing from the original model or the modification of an object. Another starting point was the reference to a reproduction of a painting by a well-known artist: the group transformed it into a three-dimensional sculpture by adding a figure compatible with the model. Yet another workshop dealt with the relationship between artistic still life and that used in commercial photography. The meanings and contexts were analysed and the children were asked to create new composites; they

worked with a wide range of materials and were allowed to take their finished products to school.

#### A play to introduce the exhibition

In our search for new, unconventional teaching methods, we decided to try to combine theatre with art instruction. To this end, our team of guides held a twenty-minute mime show. Using fruits and other enlarged objects, a humoristic and colourful demonstration of the main problems inherent in the still life was presented: the functions of the objects, problems of light and shadow, colour, composition, the shift from two to three dimensions, inanimate objects *vis-à-vis* moving figures (a bird in a still life), etc.

A special area, seating an audience of eighty, was reserved for this purpose and the play was performed twice daily to the delight of both young and old. The play, which served as an introduction to the exhibition, included slides of works shown in the exhibition itself. In this, their first encounter with the subject of the still life, the audience was shown apples, a banana, grapes, a large bottle and a variety of frames, as they were being prepared for a painting. A bird fluttering onto the stage disrupted the peace of the still objects; the bottle was too tall for the composition and required a different frame. Various backgrounds were dropped one after the other (e.g. a forest, a town) and their suitability to the picture was judged. All this activity was accompanied by music without any verbal explanation.

Later, as they walked through the exhibition with their guide, many of the

children recalled scenes from the play and related them to the works displayed. Besides being entertaining and highlighting important aspects of the exhibition, the play taught the children the significance of being attentive and observant.

## Conclusion: explanation and its limits

Every didactic exhibition has its own specific goals and ensuing problems; in preparing this exhibition, we made every effort to deal with most of them. We tried to prevent the underlying didactic thesis from becoming the dominant factor and the works of art mere illustrations of this thesis. For this very reason, we did not include any reproductions in the exhibition, nor did we claim that the creative process could be entirely explained, as in 'Everything you wanted to know about...'. Our aspirations were far more modest: to explain only that which can be explained and observed.

Most of the preparatory work involved finding the suitable didactic means for the exhibition, and the proper use of the space available and the possibilities of subdividing it. We attempted to foresee the visitors' progress along the outlined route which included displays presented in a consecutive, linear manner accompanied by explanations. Juxtaposing this were sections in which things were presented in a simultaneous, synchronous fashion. We solved the frequent dilemma of accompanying texts by omitting them wherever possible. Where a text was necessary, it was straightforward and written in large characters so as not to impede the viewer. Additional information that had to be conveyed was included in the exhibition catalogue.

In the didactic section, we were able to present more aspects of the still life by analysing an easily transformed model without hypothesizing over the artist's intentions. Work corners were designed to enhance the children's sense of involvement. The young visitor was able to take part in various exercises and thusgain more insight into the problems that every artist must tackle (Fig. 24).

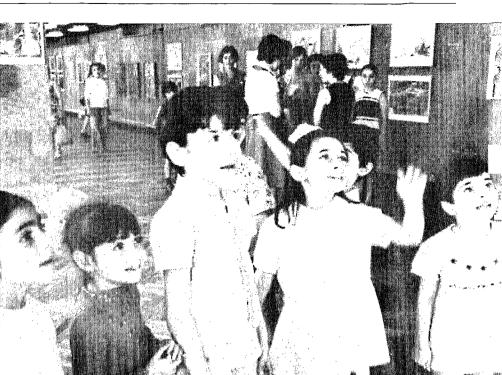
While regarding the instruction of art as our main role, we nevertheless tried to give the viewer the opportunity of a direct and spontaneous encounter with the work without undue interference. We were successful in attaining this goal by separating the general exhibition hall from the didactic area. In selecting works of art, we considered both their artistic and didactic merits. Our premise was that a good work always has a didactic value, even when it cannot be explained on an immediate level.

The didactic concept of the exhibition was aimed at children and young people for whom the work corners and the didactic play were specially designed. However, the exhibition attracted a large audience of adults as well (and not necessarily adults accompanying children). Many of them stopped at the work corners and read the texts along the way. Many visitors revealed that they had had certain reservations regarding a theme that smacks of academicism and conservatism, but were pleasantly surprised to find a lively, dynamic display which called for a return visit.

The secret of a didactic exhibition may lie in the correct balance between the presentation of art and the presentation of explanations about art. When the right mixture is achieved, the viewer's reaction is immediate and spontaneous.

24 Work corners (first floor) in the didactic exhibition: composition, colour, etc.





25 NATIONAL CENTRE FOR CHILDREN'S AND YOUNG PEOPLE'S ART, Yerevan. Never a dull moment in the picture gallery. Hundreds visit it every day.

## The Children's Art Centre in Yerevan

#### Konstantin Sergeevich Mezhlumyan

Soviet journalist and critic, born in 1946. At present working in the Information Centre of the All-Union Copyright Agency (Moscow). Author of articles on Soviet literature and art and on international cultural co-operation. When it comes to great art, we do not expect less of younger artists, so should we display such a condescending attitude towards children? Genrikh Igityan, Director General of the National Centre for Children's and Young People's Art Education in Yerevan, evaluates children's drawings as he would great art. In his opinion, children's art has a striking and profound individuality, like the clear voice that is characteristic of the young.

Many artists come to the Centre to listen to that voice, which was once theirs, too. They are surprised to discover there not only unusual colour combinations, subjects and forms but also unusual materials.

Have you ever seen a mosaic made of matches or a decorative mask made of rope? Things that adults are accustomed to consider as mere playthings are for children, in fact, serious business.

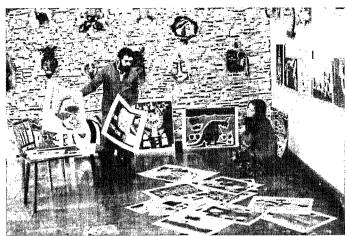
A five-year-old was once asked: 'Why does the woman in your picture have such long arms and legs?' The little philosopher answered: 'Suppose she didn't have arms and legs, how would she work, how would she walk, how would she eat? Arms and legs, that's what really counts! How can you live without them?' The world long ago discovered the beauty of children's paintings. In the nineteenth century, Corrado Ricci in Italy and Georg Kirschensteiner in Germany began collecting and studying children's paintings and assembled the first collections. Around the same period, children's art captured the imagination of the great Russian writer, Leo Tolstoy, who organized art lessons for the peasant children on his estate at Yasnaya Polyana. Since then an interest in children's paintings has developed in many countries and collections of children's art have been built up.

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## Comprehensive art education through a gallery of children's art

No one, however, has organized a programme of comprehensive art education for children like the one conceived fifteen years ago by a young teacher from Yerevan, Zhanna Agamiryan, and her husband Genrikh Igityan, an art critic. They could not reconcile themselves to what happened to children's paintings, whose life was as ephemeral as that of a butterfly. Even the best of them that turned up momentarily at the occasional exhibition ended up in dusty folders or





26

Miriam Gevorkyan, a young painter, explaining her pictures to gallery visitors.

#### 27

The gallery is involved in exhibition exchanges with many foreign countries. Children's drawings are sent to Yerevan from all over the world and several collections have been donated to the gallery. The photograph shows Genrikh Igityan, the director of the Centre, and A. Arutyan, a scientific associate, sorting children's drawings from Austria. among the junk. To preserve for ever the wonderful world born of the child's imagination – this was the goal that Zhanna Agamiryan and Genrikh Igityan set themselves. It was quite possible they thought, that some of the talented youngsters would become famous artists. If the childhood paintings of Leonardo da Vinci or Rubens had survived, one can imagine how people would flock to see them today!

The idea of a permanent children's picture gallery won the support of the municipal authorities, who made premises available in the heart of Yerevan. The children set about painting and modelling and brought their work to the gallery, to the immense satisfaction of its organizers. The greater the possibilities of selecting the best, the greater the artistic value of the collections.

The gallery is packed on weekdays and holidays alike. 'But I can do that too!', the little boys and girls would exclaim who had never held a brush in their hands, on seeing paintings by other youngsters of their age. And already, as they made their way home, the sky, trees, people – everything – assumed form and colour in their minds. I think it is not exaggerating to say that nowadays every child in Yerevan is painting.

The way adults understand it is that children have to be taught about art so that their eyes are opened to the world about them. Children are unaware of this and that is why their art is spontaneous. Adults realize that it is important not to stifle the germ of creativity in a child. Children do not think about that and give free rein to their individuality.

A child paints a leaf and colours it red. 'You can't do that! A leaf is green', he is told. He can do without that kind of advice, not only because in autumn leaves *are* red, but, more important still, because a child chooses a colour as he sees it, in accordance with his taste and wishes.

The right to draw one's own leaf! Zhanna Agamiryan could not countenance violation of this child's right. She defended it on her trips round the towns and villages of Armenia where children's art was flourishing, and temporary and permanent exhibitions as well as group and one-man shows were organized.

Today, children throughout Armenia have the chance to compare their paintings. The number of art studios in the republic has doubled. Practically every school now has an art club. One of these has combined vocational training with artistic creation, and the children have enthusiastically mastered the skills of pottery-making, modelling, firing, glazing. In fathoming the mysteries of making ceramics, these great little inventors have discovered their own distinctive lines, forms and colours. Ceramics and various items made of wood and other materials have found their way into the gallery, although as originally conceived its aim was just to rescue from oblivion the beauty created by children and to preserve their paintings for future generations.

#### The gallery and its functions

The paintings on show in the gallery are divided into three sections – national, all-Union and international. The gallery has a 'golden collection' which consists of masterpieces of children's art that have stood the test of time. This makes it possible to see how a child develops artistically. For example, Armen Khachaturyan, a five-year-old, began by making chalk drawings on the pavement of the central town square during the traditional annual arts competition. A year later, he exhibited his first gouaches which were put in the gallery's 'golden collection'. In the following year, he produced a work of embroidery that was of such quality, according to specialists, that it deserved to be put on display in Yerevan's Museum of Modern Art.

The gallery has assembled over 100,000 works of art from all corners of the Soviet Union and from ninety countries in Europe, Asia and America.

Children's drawings and proposals for exhibition exchanges arrive in Yerevan from all parts of the world. Since the gallery is regularly involved in developing international contacts, its staff can keep abreast of what is happening in children's art in many countries of the world. For example, for many years now the gallery has co-operated with the Brooklyn Centre of Children's Art in the United States in organizing a number of exhibitions in Yerevan and New York. The work of young Armenian artists has been exhibited in Denmark, India, Portugal, the Federal Republic of Germany, Japan and other countries, while foreign collections have been exhibited in Yerevan. Some of them have been donated to the gallery. As a rule, exhibitions are held once a month and over a hundred have been organized. Among them: Drawings by Children from Armenia, Georgia and Azerbaijan; Drawings by the Children of Leningrad; Drawings by the Children of England; Drawings by the Children of Viet Nam; In Praise of Our Country; Paintings by the Very Young; Ar Aitayan, Aged 11: a One-Man Show.

The question is often asked whether children's one-man shows are healthy

from an educational standpoint in view of the fact that a young person is still in his formative years. The first thing to be considered, of course, is the educational factor. Anyone between the ages of 3 and 16 is eligible for a one-man show. As Genrikh Igityan sees it, it is important to develop in the young artist a feeling of responsibility towards the public and also to give him the feeling that he is a visitor to his own exhibition. That certainly makes sense since it is difficult to discuss art even with the most gifted children. Even with all the treasures they contain, museums are sometimes of no help in that regard. But a part of art education is appreciation of beauty, and this is something that should be discussed with children. In Yerevan, discussion centres around works of art that the children themselves have produced and this is something they really understand.

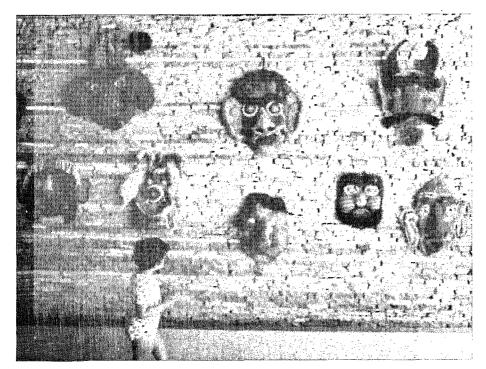
This does not mean that children are cut off from the works of older artists or from the old masters, for an effort is made to acquaint them with the works of the past and present. The opinion in Yerevan is that the transition from a perception of children's creativity to an understanding of professional art should be gentle and gradual so that a firm link is established in a child's mind between 'major' and 'minor' art, basically governed by the selfsame principles. The view is often held that children's art is just a form of play whereas professional art is true art. The art gallery at the Centre in Yerevan gives the young the chance to see that adults take children's art very seriously.

They teach children about masterpieces of ancient Armenian miniature painting and organize visits for them to the State Art Gallery, the Armenian Museum of Modern Art and artists' studios. The centre puts on exhibitions of reproductions of the works of major painters and arranges get-togethers between children and contemporary artists.

Art opens up for teachers and educators a path into the mind of the child and offers an ideal way of shaping his outlook on life. It is indeed in art galleries and in meeting artists that children learn to understand and appreciate works of art. Here, art specialists help the children to combine the pleasure of looking with the appreciation of a work's artistic qualities and merits. The emotions a child feels as he views a painting or sculpture are translated by the art specialist into knowledge, giving the child a feeling for composition, proportion and harmony. When children visit galleries and listen to the explanations given by the specialists, they show evidence of keen perception, mature judgement and an understanding of the problems involved in a work of art.

#### The Centre for Children's and Young People's Art

In time, the centre's gallery became the Museum of Children's Art. This development had been foreseen by the founders of the centre and they were prepared for it. For its part, the Armenian Government made available to the centre some



28 Masks made by very young schoolchildren.

spacious buildings alongside the original premises. The result was a unique complex making it possible to display all forms of children's art. This is what cofounder Zhanna Agamiryan wrote shortly before she lost her life in a plane crash:

If I live to old age, I'll probably find myself helping a young director to make a selection of the best [works] typical of the years 1970-80. The surplus will be stored in a roomy reserve or even put on microfilm. But who knows! The 'gallery' may very well develop into a 'museum' and, more than that, the museum may grow into a whole district - a vast children's art centre with a huge depository and real museum facilities. The children will have their own art gallery, a children's art gallery. They will have their own wonderful, joyful environment made just for children, and it is within our power to create it.1

She was not far from the truth. The Centre for Children's and Young People's Art Education has been in existence for five years now. 'Schools do not always have sufficiently experienced teachers, and even fewer talented art teachers,' Genrikh Igityan explained. 'In addition, in the Young Pioneers' centres there are no art studios for very young schoolchildren - they are not old enough. Our centre is meant to fill that gap.' At the centre, the children do all kinds of representational art because, after all, their talents lie in all directions. The centre has a number of theatre workshops where children can pursue their interest in drama, the creative arts, shadow theatre, musicals and one-man shows. The centre also has several music and dance groups, painting studios and studios for decorative and applied arts.

Most young teachers – producers, painters, musicians – are drawn into the centre's activities because they enjoy working with children and find there the opportunity to put their ideas into practice. Here they can give free rein to their creative *elan*. If someone has an interesting idea, all he has to do is put it into action, together with the children.

One day, as it happened, someone drew a chalk line on the floor of one of the workshops and two slender boyish figures walked along it, their arms extended to give them balance. In a flash, the room literally turned into a circus ring and the line on the floor into a tightrope. The tightrope walkers were then followed by clowns and animal trainers. As the performance continued, the producers of the circus show – also children – directed the action. There were no costumes, almost no properties – yet here was the illusion of a real circus! After the performance came to an end, an adult producer picked out what the children had done succesfully, what had not gone so well, and why.

The children's television studio has no cameras or apparatus room but is, all the same, a studio. It is interesting to work in it, too. Once, for example, the children were asked to write a scenario for a television feature about an interesting person. They had to make their own arrangements for meeting him, interviewing him and to think up ways of presenting the material. Two girls from Class 6 decided to do a feature on a well-known writer. They arranged a meeting with him and asked him to talk about his life. The writer suggested they should read his memoirs. 'No,' said the 'television reporters', 'that won't do.' They insisted on a real interview and got what they wanted. The writer spoke to them for two hours. Each of the girls wrote a scenario in just the way they felt it should be done, and a film is now being made, based on the better of the two.

In 1983, in the forge, the first exhibition of metalwork art by children was held. At the same time, there was a ceremony to bestow the title of master craftsman. It was a real performance with music and costumes. The drums rolled as a 'blacksmith' struck the anvil with a hammer, and a 'herald', holding a scroll in his hand, proclaimed: 'Armen, son of Levon, is hereby declared a craftsman... Tigran, son of Movses, is hereby declared a craftsman...' At the present time, seventy schoolchildren are working in the metal workshop.

Both the children and the teachers have projects galore and their share of difficulties too. The centre is getting ready to stage the opera *Romeo and Juliet*, by the British composer Benjamin Britten, it is organizing a jazz band and looking for teachers for its new photography studio. They are very particular, too, about the teachers they pick since they not only have to be experienced but good-hearted as well.

The Yerevan Centre for Arts Education and its branches in Leninakan, Goris and Akhuryan have a staff of 400 teachers.

Zhanna Agamiryan, *Detskaya kartinnaya galereya* [The Children's Picture Gallery], p. 41, 1979.

29 Young visitors in the picture gallery.



They are working for the benefit of children who are learning to become actors, producers, performers, directors, painters and so on.

The staff of the centre are especially concerned with the search for young talent. It never ceases and an excellent opportunity is provided by the children's Festival of Pavement Drawing, held every year on 20 May in Yerevan's Theatre Square. Incidentally, at one of these festivals, Genrikh Igityan's attention was attracted by a group of children from the town of Madina whose drawings were very much to his liking. He struck up a friendship with them and started making frequent trips to Madina. In the end, he sent a professional artist there, a staff member of the centre, to lend the children a hand. Madina is just an ordinary town on the shores of Lake Sevan, but nowadays all the children there paint and their works are on exhibition at one of the central stands in the Children's Picture Gallery in Yerevan. They have already been exhibited in many cities of the Soviet Union as well as in Belgium, Canada, Norway, the United States and other countries.

At the same time, Genrikh Igityan is engaged in solving another important problem. Children grow up and when they reach the age of 13 or 14, most of them stop painting, singing, sculpting or making dolls. What happens to them then? Not every child will devote himself to a life of art, but his talents are worth developing. The centre links it with a craft so as to give a child skills that will be useful for life. Children learn embroidery, tapestry-making, carpetmaking, pottery, woodcarving, the making of mosaics from stone, and so on.

A number of these crafts are seldom practised today. It is important to prevent them from disappearing altogether and to put them within the reach of gifted children. That will help to give these almost vanished forms of applied art, which date back to ancient times, a new lease of life. Thus the aims are worthwhile and the field of activity is vast. A decision has been taken to decorate nurseries, kindergartens, schools, hospitals and institutions with originals and reproductions by young artists, potters and weavers.

Zhanna Agamiryan was, I think, correct when she said:

Some day future generations will be grateful to the twentieth century not only because it was a time when children's paintings were studied as psychological documents concerning the development of the personality and creativity but also because they aroused the admiration of contemporaries, who showed a deep appreciation of the unexpected beauty of children's art.<sup>2</sup>

[Translated from Russian]

2. Agamiryan, op. cit., p. 37.

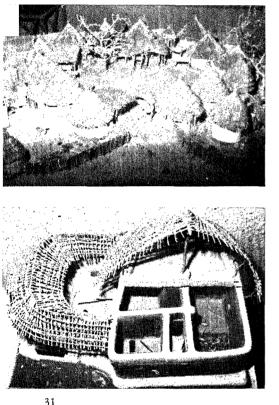
## Using exhibitions to explain traditional African architecture

#### Patrick Dujarric

Born in 1946. Architect and town-planner; Master's degrees in philosophy and ethnology; research diploma in anthropology. Has taught at the Dakar School of Architecture and Town-Planning since 1974; in charge of the research workshop. Several publications on Senegalese traditional architecture. Changes in living conditions, life-styles or beliefs are extremely rapid today, and are reflected in architecture, which is one of the most visible physical aspects of any culture. In certain regions, the wholesale introduction of new materials may change the appearance of a particular type of house out of all recognition in the space of less than one generation. Many types of traditional African architecture are in danger of vanishing completely. Not only do the shapes disappear, but so do the techniques and the cultural and spiritual values that go with them.

To make the general public more aware of these problems, the Dakar School of Architecture and Town Planning has in recent years organized a series of exhibitions. In 1980, there was an exhibition on traditional architecture during the 'architecture days' held in Dakar. In 1981, an exhibition was held at the Hotel Meridien in Ngor on Diola architecture. In 1982, an exhibition on traditional architecture in Eastern Senegal was arranged at the gallery of the French Cultural Centre, and an exhibition on Diola and Soninké houses was organized at the Dakar Fair during the seminars on science and technology. An exhibition on Diola houses and culture in Lower Casamance was held in 1983 at the gallery of the French Cultural Centre, and an exhibition of traditional architecture in Eastern Senegal was held at the Musée de l'Homme in Paris. An exhibition on Soninké architecture is being shown in Dakar in 1984 and another one on Lower Casamance will be displayed in Rouen and Le Havre and subsequently, in 1985, at La Défense in Paris.

On display at these exhibitions are maps, photographs, models and the ordinary objects of everyday life, reconstructing whenever possible a house of normal size with all its internal and external accoutrements. Their aim is to recreate a natural setting by establishing an appropriate atmosphere that makes it easy for the non-specialist to appreciate and understand the scale of the models and places cultural objects in their proper Model of a Peul Kamananké concession from the Paris exhibition.



Detailed model of a Dila Djiwat hut.

context. These exhibitions have thus provided an understanding of the aspects of traditional architecture outlined below.

## Architecture adapted to its environment

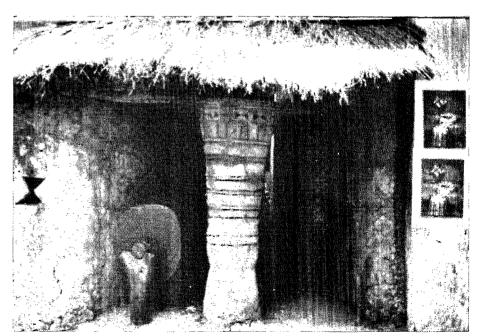
As is the case everywhere, traditional African architecture is a tangible expression of a complex interaction between a society's culture, the climate and locally available building materials. The prime function of a dwelling is to offer man some protection from his environment. At the most basic level, among nomads who use tents or matting-covered huts, this habitat merely provides physical shelter from the natural environment's most harmful aspects. Among settled farmers, in addition to the idea of shelter, there is frequently the notion of a background to living, re-creating, according to the level of technology, a mini-environment that reflects society in a physical way and is associated with sociocultural norms. On the one hand, the physical environment offers possibilities from which a choice is made depending on the level of technological development, customs and traditions; on the other, the climate imposes limitations to which one has to adapt.

However, the shape and organization of the traditional house are also influenced by the cultural background. They reflect choices dictated by the fact that the dwelling is part of a whole system of relationships in which social, economic, cultural and spiritual values also have a place. This being so people choose the materials for their homes and decide how they are going to be used and organized, following a pattern that makes it possible to distinguish between houses of different groups living together in a single environment. This is why certain types of traditional buildings are found only in a particular area and are not transferable from one region to another or from one population to another.

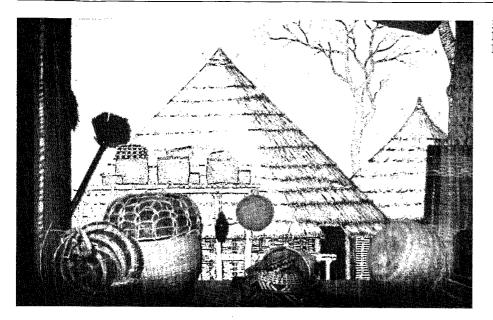
#### Architecture with a meaning

The African dwelling is the product of a functional architecture painstakingly adapted to a specific environment and specific needs, particularly those of the family who live in it. It ensures the cohesion and continuity of a social system and represents social relations, economic relationships and fundamental beliefs in physical terms. In rural societies that have no written language, the dwelling frequently uses a coded, physical language to reflect genealogies and relations of dependence. By its role as an intermediary between man and the world, the house is an aesthetic form indicative of the culture of the group that devised it.

Starting with a few essential parts such as men's bedrooms, women's bedrooms, halls, kitchens, granaries, etc., and by varying their location *vis-à-vis* each other, each population has arrived at a wellplanned layout which reflects the social relationships that can be interpreted by all members of the group. Thus, the way in which the houses of members of a single lineage are arranged reflects the genealogies existing in a village. Within the home, the architecture expresses rela-



32 The Diola House and Culture in Lower Casamance, exhibition put on at the French Cultural Centre, Dakar, 1983. Main doorway of the exhibition, made of earth.



#### 33 Bassari furniture and household goods from Paris exhibition.

tions between men and women, the seniority of the wives of polygamists, the division of the household into independent economic units and the broader interactions between the home, the village and the world.

The layout of the dwelling is thus an organized system of communication. Its inhabitants determine the semiological rules of the system on the basis of a few arbitrary elements such as the shape of the house, the direction it faces, arrangement of the parts to suit individual needs, size of the rooms, and building techniques. These elements are linked to an overall interpretation of the layout, and each one only acquires significance within the system by its position in relation to the others. This model obeys rigid sociocultural imperatives that vary from group to group, and determines the development of the home and symbolizes its different phases.

## An architecture geared to changing conditions

Built for human needs, the traditional house is essentially geared to changing conditions. The fact that the African family is continually changing in accordance with normal patterns of growth and contraction creates perpetually changing needs for space in the household. Traditional African architecture is better able to cope with these changes than the more permanent forms of construction in which imported materials are used. The arrival of a new wife or the death of a member of the family is reason enough for the layout to be transformed and readapted to the new requirements. Starting form an initial

nucleus comprising the bedroom, kitchen and store-room for the man and his wife at the time of marriage, the house gradually grows, following the rules of the system, by the addition of buildings for new wives and for the children, and by the addition of associated constructions like granaries, entrances, sheep-pens, cowsheds, store-rooms and so on. Once it has reached a stage of development appropriate to the maximum number of wives, the size is reduced with the death of wives or the departure of married sons who build their own houses near by. The way in which the family evolves transforms the house, which expands and contracts like the family. These constant changes to the layout of the house are facilitated by the use of traditional materials, which are often not very durable, are acquired locally and need constant maintenance or periodical replacements. This means that one is obliged to keep the fabric of the house going just like the family itself.

#### Architecture using local materials

The building materials used in traditional architecture offer a number of advantages. For example, they are cheap and easily available locally, they are within everyone's reach and can be used by all and they make it easy to enlarge the house gradually as the occupant's income or family increases.

Despite this, professional builders and building departments in Africa show little or no interest in technologies with which, however, more than 80 per cent of local people are concerned. These architectural shapes are sometimes reproduced in books because of their visual quality, but they arouse surprisingly little interest in the study and improvement of traditional techniques. Because of their low cost and their great adaptability to the environment however, these techniques deserve to be rediscovered and used to a greater extent.

The fact that in traditional construction everyone employs the same local materials to build their houses means that a great deal is known about them and their use. They are worked into an astonishing variety of shapes and used for a great variety of functions. Each population group uses a particular series of architectural patterns and techniques and a set of shapes with which everyone is familiar. Whereas in the past everyone built his own house and knew how to build properly, this shared knowledge is tending to be forgotten today as a result of the widespread introduction of new materials.

#### Architecture using earth

Traditional architecture uses local materials and techniques and takes into account the degree to which they can be adapted to the prevailing climate. Hence, a mud wall that insulates in a hot dry climate is preferred in tropical zones, whereas walls of vegetable materials that provide ventilation in a hot humid climate are preferred in equatorial zones.

By its very characteristics, earth plays an important role in determining the shapes and usages of traditional architecture. Walls that are protected on the outside by a mud-based coating should be repaired every year after the rainy season and therefore require the partial reshaping of their outer surface by hand. This makes a wide range of sculptural expression possible in a building technique that bears some relation to pottery work.

While the shapes possible with modern building techniques are almost infinite, there are no gratuitous shapes in traditional architecture, and to see their intrinsic value, one has to understand the concept of which they are the expression. Traditional architectural shapes are created on a human scale by an art that is within man's reach. Unlike the forms of modern architecture, those created by the traditional builder serve neither to impress nor oppress; with traditional architecture, each occupant is the architect, builder and user of his own construction.

#### The use of appropriate materials

With the spread of towns and cities, the increase in concentrations of people in areas that are already poor in resources helps to accelerate the depletion of some of these resources, such as wood or straw. This shortage of traditional local materials leaves the door open for the invasion of corrugated iron, breeze blocks and reinforced concrete, costly symbols of social success, but offering poor protection against the rigours of the climate, and of scant architectural value because of the lack of skill with they are used.

Research on building materials must take account of the socio-economic and socio-cultural context of the society in which it is being carried out. Most of the current solutions to the problem of largescale housing that call for the widespread and more often than not unjustified use of imported materials and techniques, lead to the rapid destruction of a cultural heritage because of ignorance of traditions and the African context. In many cases, the people's purchasing power does not keep pace with the rising cost of modern building materials resulting from higher energy prices. Housing programmes using building materials that require a large amount of energy should therefore be reconsidered.

#### The weight of psychological resistance

Despite the fact that earth has great climatic and economic qualities, it is largely ignored for sociological reasons. First of all it is ignored by the planners, as well as schools of architecture, since no one wishes to teach or study traditional building techniques that are prohibited by most of the regulations applied in the profession. At this level, teachers, architects and engineers appear to be in agreement that the use of earth should be forgotten, if not prohibited. The users, for their part, see it as a totally discredited material. It is an archaic left-over hindering their ambitions as consumers and preventing their outward display of the symbols of modern progress. Although the patterns imported from the West are climatically and culturally inappropriate, they are preferred by users, who desire distorted examples of modern architecture and seek them for reasons of prestige, seeing them as signs of social advancement.

Since there is no local tradition in this construction using imported field. materials finds its only source of inspiration in Western models which, while they invariably make the building more durable, rarely provide greater comfort or improved living conditions. Consequently, because the use of local materials has far-reaching sociological implications that militate against it, ways must be found of bringing examples to people's notice, particularly in the construction of community facilities, so as to bring about a revolution in current attitudes and make these materials acceptable once more for building.





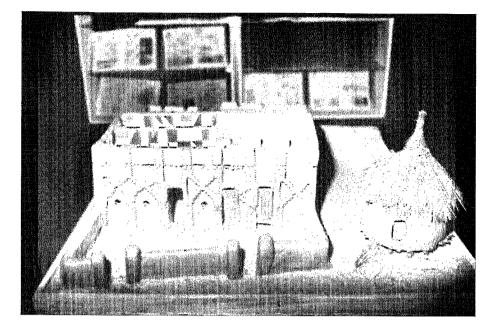
#### 34

1983.

Models and drawings of Diola huts from the 1983 exhibition in Dakar.

Traditional architecture in Eastern Senegal,

exhibition at the Musée de l'Homme, Paris,



*Traditional Soninké Architecture*, exhibition at the International Fair, Dakar, 1982. Models of traditional house and hut.

### Towards an alternative technology

After a series of studies in the 1950s on architecture using earth, there is now a revival of interest, due partly to the concern caused by the total destruction of traditional architectural heritage on all continents and to the increase in the cost of modern building materials. This points to the need for alternative technologies.

The studies of traditional architecture undertaken by the school of Architecture and Town Planning in Dakar, and the attempt to make it known and reinstate it by means of exhibitions and publications should make it possible to identify and spread the use of alternative technologies which are financially accessible, culturally appropriate, technically reliable and reusable by the people in question.<sup>1</sup> The technology proposed must be financially accessible to the people concerned and fit into the socio-economic context, while remaining within the limits of available resources, but it must also conform and respond to the actual social and cultural situation. The interdependence and reciprocal influences that exist between architecture and social factors highlight the danger inherent in architectural changes which are not in keeping with the way in which society evolves.

Furthermore, this technology must be flexible and adaptable if it is to continue to be valid even when used by unskilled people and, if it is to be made widely available, it must be adaptable to situations that are different from those initially foreseen.

This can only be achieved with a thorough knowledge of the environment

in which the technology in question is to be used. With the expansion of the media and transport, the transmission of information at present tends to be onesided, with country-dwellers learning about the towns and the outside world but with the experts knowing very little about the rural world. In these circumstances, the best way of reviving and re-interpreting knowledge of traditional architecture is to live and work in the country.

There are close links between the home, the social environment and the mode of production, and the role of the architect who seeks to express this link in physical terms is thus made particularly difficult in a changing society, since, almost by definition, he is building for the future in a context that is in perpetual motion.

Conversely, when the mode of production or the socio-economic context changes, to insist on rural people continuing to live in the same kind of houses in order to safeguard traditional architecture would be to misunderstand completely the significance and deep-rooted values represented by this type of architecture, which is not something fixed in time. The rural architect must therefore be capable of creating continuity between tradition and current local needs. He must point the way by teaching the local people how to continue the work after he has gone so that they can again be in control of the way in which their own architectural tradition evolves.

[Translated from French]

1. The School of Architecture and Town-Planning in Dakat has, since 1973, been carrying out a series of studies and surveys of traditional architecture in Senegal and West Africa. This material, kept at the School for the Ministry of Culture, seeks to provide better knowledge of the cultural and artistic heritage represented by traditional architecture, notable examples of which are sometimes still unknown. The purpose of this inventory is not only safeguarding and preservation, but also to facilitate more effective action by departments affected by development operations.

### A bilingual view of the city

### Elly Berg

Born in Auburn, New York, in 1922. After art studies at the Boston Museum School in Boston, Massachusetts, she did textile design and silkscreen printing. Also taught drawing and crafts to children in several settlement houses in Boston. Designed and co-owned a clothing and crafts shop at Cape Cod. In 1955 she moved to Sweden, where she studied art history and philosophy at the University of Stockholm, completing the '*filosofi kandidat*' degree. Taught Swedish art history to foreign students at the University of Stockholm, 1970-80. Affiliated with the Old Town Urban Studies Centre in Stockholm since 1980. Taking the museum's methods right into the heart of the city is one of the Swedish Travelling Exhibitions' innovative approaches. They carry out urban environmental education in a number of different ways and channels. Having learned much from similar experiences in other countries, the individuals active in these programmes edit a newsletter (in Swedish and English) called Swedish Streetwork. The programmes described below were first brought to our attention through this newsletter. We are strangers at a crossroads. We are foreigners in the cities of the world. We have wandered into these cities from other streets, other squares. We bear these with us. We live with a constant interplay between past and present, between image and word, between words and other words. It is this which makes our lives at the same time complicated and rich – the lives we are living in our new home cities. The desire to explore this complication and this richness inspired me to work with immigrant



37 A Baroque doorway tells its story of power and glory in seventeenth-century Stockholm (1982). children in Stockholm, to develop 'urban environmental education', which involves awakening an awareness of a new country, its history and tradition. Myself an immigrant, I feel strongly about the importance of this work and that the discovery of the child's own view and vision must be its starting point.

How can we discover this vision? I attempt to develop communication of perception through drawing. This has shown itself to be fruitful method with immigrant children, who may have developed a special sensitivity to visual images to compensate for their lack of fluency in an new language.

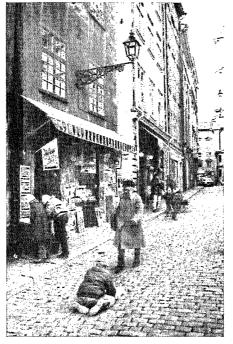
### Old Town Urban Studies Centre

In Stockholm, the Old Town is being renewed and 'gentrified'.<sup>1</sup> The new immigrants are not among those who can afford the high rents and prices demanded. Instead, as in many cities of Europe they live in prefabricated, high-rise suburbs, away from history (at best a token small farm remains to be used as a community centre in the midst of the asphalt). That the immigrants often succeed nevertheless in injecting life and vitality into these suburbs is shown in the drawings children have made in the new suburb of Rinkeby (see below).

Through the Old Town Urban Studies Centre we bring immigrant children into the Old Town. Work here is based on the urban studies centre ideas developed in the United Kingdom during the 1970s, with lectures and adult education courses about the history of the area and study visits from schools and day-care centres.

But because of our special concern for immigrant children, we have concentrated our resources on work with them.

The Old Town Urban Studies Centre faces onto the square in the very heart of the medieval city – the Stortorget (the Great Square) reserved for 700 years as a place for meeting, by chance or agreement, for trading, or for just sitting and pondering. It is Stockholm's front porch and parlour combined. The whole Old Town is now listed as a national landmark. But what does this milieu *really* say



to us? How can we newcomers get past the 'picture postcard' view of it?

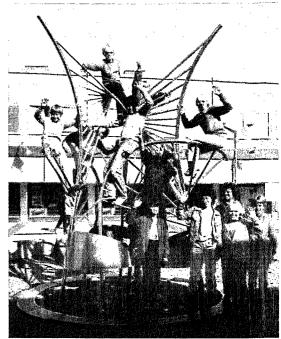
### Saturday workshops, 1981/82

I experienced a growing sense of the importance of using one's own native language in the presence of this environment. It seemed increasingly possible to me that we foreigners might conquer the foreignness of our surroundings by consciously using our own familiar words, simple words like 'bricks' and 'shutters', each in our own language. In this way we could evoke visions of other bricks and shutters we have seen and known. That if both the place and the words were strange, the scene would continue to be seen 'as through a glass, darkly'.

I did convince two groups in the autumn of 1981 to join in on the experiment of combining their native languages with workshops where we would draw the city around us. The aim was, to take children's own views as the point of departure. The questions were to be: What is *my* Old Town? And yours? What does this place arouse in me? What do I want of this historic, lively, dense urban environment?

We had workshops with two groups. First- and second-generation Polish immigrant children and young people came with their Polish teacher. They drew, photographed, made a slide show about *'their'* Old Town, and prepared a Town

1. A term used to indicate the replacement of poorer residents who lived in rundown houses before renovation by more affluent people who can afford increased rents or who purchase the houses.



- 38

The narrow streets around the Old Town Urban Studies Centre are often filled with children drawing the old buildings and life in the streets, lying, sitting or standing in all positions (1982).

#### 39

Here the children greet us from the fountain in the modern square in Rinkeby outside Stockholm (1983).

### 41

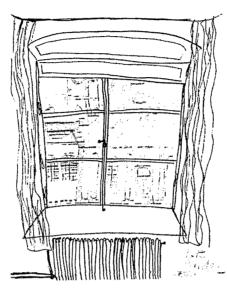
A view from the window of the Old Town Urban Studies Centre in Stockholm shows the eighteenth-century Stock Exchange and the tower of Stockholm Cathedral.

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In spite of the fine architecture around the Great Square in Stockholm's Old Town, it was the men standing in the square who impressed Allan, 10 years old. He describes his painting as follows: 'A man like this just comes from prison and he did think the real world was a jungle but in real town it's dirty.' Watercolour, 1982.



Trail in Polish. First- and second-generation English-speaking immigrant children with many different national backgrounds drew, painted, made silkscreen and 'potato' prints.

And how they all drew! Many drew realistic responses to the architecture around them with a directness that reveals the strength of their experience. These drawings formed the basis for our continued work with the children, following the lead of the questions they asked as they worked: Who made these funny doorways with all the people on them? How did they get the water from the pump in the square? Qustions continued to arise as they looked, saw, recorded and wondered.

How did we actually work during the Saturday workshops? The fact that the workshops were held on Saturdays when many adults do no work at their ordinary jobs and the children do not go to school, allowed time and opportunity for a gathering of people of mixed ages. Parents brought their children at 12 noon, stayed awhile perhaps to peruse a book about the city in our 'book corner', went out to do some shopping, came back in time to wipe up the paint spilled on the floor, to drink coffee or fruit juice together with the children and the rest of the group at the end of the session. There were several adult volunteers, among them one very good artist who took care of the graphics (silk screen, etc.). All this gave the workshops a pleasant air of quiet

bustle and companionship. There was a supportive presence of adults, though we insisted that the children should be left completely alone when they worked unless they asked for help.

If one hopes, as I do, that others may be inspired to attempt similar experiments, then the discussion of funding is important. Our Urban Studies Centre has not received funds for salaries. The workshops were financed by a community education grant from our adult education association and organized by an immigrant organization of Englishspeaking people.

The story of the development of these ideas has been the story of increasing and changing funding, opening new fields for activity. The next step was therefore very welcome, since it made possible more structured work within the school system.

### Home Language and the City, 1982/83

Parallel with the drawing and the graphics, there were constant discussions about the use of language, 'home language' - a minority language spoken at home by at least one parent during the child's early years. As a part of the attempt to meet the needs of the new immigrant population, the Swedish school system has developed an extensive programme for the teaching of many home languages. Several teachers of English as a home language came to the workshops, either as parents, volunteers or as interested visitors. Thus interest was aroused in the possibility of incorporating these ideas into the home-language teaching in the schools. Through an initiative taken by some of the teachers a grant was received from the School Board for such an experiment. Sixteen teachers in schools in different parts of the city joined in this attempt to include the study of their neighbourhood around the school in the study of home language. There were teachers of nursery groups, primary- and secondary-school classes. There were also the so-called itinerant home-language teachers, who tour different schools, giving each of the homelanguage pupils two hours of instruction a week.

This project, which we called 'Home Language and the City', offered an opportunity to work with a variety of neighbourhoods, although we still kept the Old Town Urban Studies Centre as a base and a resource offering all the groups

n person

access to this part of the city so rich in Swedish cultural heritage.

The older pupils in the project (13 - 16)years) attended a class where all the instruction was in English, since they were new immigrants from various countries. The neighbourhood around their school showed traces of the nineteenth-century city plan for Stockholm. They concentrated their studies on some of the large redundant old buildings in the neighbourhood. These buildings had formerly housed industry or charitable institutions. One such building (formerly an old ladies' home) afforded insight into a current city planning conflict, since neighbourhood groups advocated conservation while the city-planning office wanted to build new housing on the site. Another interesting study was provided by the conversion of a neighbourhood brewery into a community centre with new housing in the factory grounds. In these studies, pre-school children were able to work side by side with older children, drawing or making models of the buildings, interviewing old people who had once worked in the brewery (the younger children often knew Swedish better than the older ones). The children from the inner-city schools visited the home-language pupils in the new suburbs, seeing another life-style.

A methodological problem arises in attempting to work spontaneously through children's own curiosity. This involves striking a balance between providing factual material and avoiding the sterile production of teaching materials. In this first experiment we relied on the children themselves to use the archives and prepare their own historical material. Some of the children are in fact bilingual and are capable of reading city plans and historical documents and rewriting them, in the case of this project, in English. The project established the feasibility of co-operation between different age groups around a theme (knowledge is not by nature divided into 'stairway' stages). The study of the city and the neighbourhood was shown to be valid in homelanguage studies, given the devotion of some teachers involved, as was the case in this project. The challenge remains. The work has hardly begun of combining words and images in the study of our life in our cities. Teamwork is necessary, with comparative studies into vocabulary and ways of expression in the many home languages.

### Multicultural awareness in a suburb

Thus a 'bilingual view of the city' moved from the medieval centre to the nineteenth-century planned city. The next step brought me to work in one of Stockholm's newest suburbs - the heart of multicultural Sweden! This suburb -Rinkeby - was a product of the building boom of the early 1970s and quickly became populated with new immigrants from many countries. Its small library contains books in forty-three languages! It was this library that sponsored the project which brought me here in the spring of 1983, and which was supported by Riksutställningar, Swedish Travelling Exhibitions, a state foundation offering guidance and service to groups on various levels of society using exhibitions as a part of their cultural activity.<sup>2</sup>

The Rinkeby project celebrated the 500th anniversary of the printing of the first book in Sweden and became known as *Rinkeby Writes*, *Prints and Draws*. The aim was the portrayal of everyday life in

2. See Stella Westerlund, 'Handicaps Prohibited – Travelling Exhibitions in Sweden', *Museum*, Vol. XXXIII, No. 3, 1981, p. 176, note 1.



42

This drawing of the present-day Great Square in Stockholm shows a lively market scene reminiscent of many other old cities. Pen drawing, 1983.

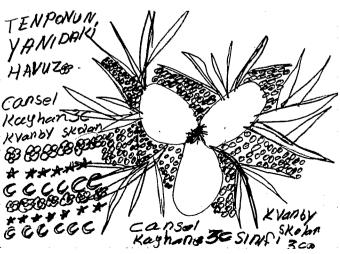
43

The drawing places us in the midst of the market-place in Rinkeby, a new suburb of Stockholm. Here in contrast to the Great Square in the Old Town there are no old buildings, but the fruit stands and their vendors make this a lively scene with local culture. Pen drawing, 1983.

44

A Turkish child has seen the new fountain in Rinkeby, Stockholm, as a giant flower. Pen drawing.





Rinkeby, written by those who live there in the languages they speak (Finnish, Spanish, Swedish and Turkish), with drawings as well as photographs. Swedish Travelling Exhibitions lent a small printing unit imported from France of the type used by teachers who follow the Freinet method.

The working plan was that half the class set the type and printed the small texts they had with them, while the other half went with me outdoors to draw - in spite of the blustery autumn weather! This was again a period of intense activity, with daily surprises when we saw the children's drawings. It was like experiencing a revelation, while we stood near the silent, concentrated child and saw a world coming forth through the little hand onto the paper.

It is clear that the act of drawing is for the child an act of discovery, that the drawing itself *formulates* the vision. It does not *illustrate* it! It is the moment which shows the way to discovery - to cultural awareness. Cultural awareness, a sensitivity to the symbols and signs in our man-made world.

What then does cultural awareness mean in a suburb like Rinkeby? Here we have no reminders of the artists of the past, of the bricks or gables of past centuries. In this multicultural centre there is the culture of the whole world for us to become aware of. But if we limit our discussion of cultural awareness to the realm of the city where we live, what then?

We concentrated on drawing the square, as we see in the children's work. The drawings show us the fountain in the centre of the square - to us a public art monument. To the children this appears as a butterfly, a flower of even a linear pattern as the best designer in the world could want it to be seen! They show us an awareness of the culture of the market-place, where the fruits of the world are sold, where a gypsy girl trips past in her long flowered dress, where the pigeons live happily and trees thrive.

We plan a continuation of the project. A Turkish author has already formed a group of children writing in Turkish. A group of gypsy children will soon start meeting regularly with another author. Other creative writing groups in various languages are to follow. We hope to have a community printing shop with silkscreen facilities and a larger printing press.

The Rinkeby children visited the Old Town and the Old Town Urban Studies Centre during the entire spring of 1984. Their interest in the old buildings and their creative perception enabled them to grasp the design element in a manner which may be close to the intentions of the creators several centuries ago.

### Simultaneity

The drawings of the Rinkeby children who have recently come from other countries have a characteristic which one could term 'simultaneity'. By this I mean that their drawings show the square outside the urban studies centre as coloured by memories of other squares elsewhere, with other houses, other people. The others lie like a filter between the eye and the view. This is a juxtaposition 'at the crossroads of our mind', as the popular song says. For example, a girl from Syria shows the square with a feeling of an exotic (to us) marketplace. An African girl portrays the well as a flowing source of life, close to the ground. These associations, these metaphors, show us that the drawing can put worlds into focus.

### Summing up

There are many ways of working with education to promote awareness of our urban culture and its heritage. Through contacts with those working in other countries we can share our experiences and learn from each other. My own greatest inspiration, for example, has come from the United Kingdom, from the Art and Built Environment Project and especially from Eileen Adams.

From the children I have worked with I have learned to see the drainpipes, manhole covers and derrick cranes in the very best of neighbourhoods. These children constantly de-dramatize the cultural heritage! Because they lack a sense of hierarchy and do not reject parts of what they see they come close to the true picture. I am convinced of the importance of visual perception in learning. The educator R.A. Hodgkin has written about the importance of asking questions in the learning situation. He wants us to create 'question situations' for learning, where the child discerns questions which lead to learning. He states that a question is 'the break in the pattern of one structured system where another structured system - yours or mine for example can link up'.3 I have experienced the drawing situation as the best form of 'question situation'. Drawing a picture may well be our earliest language - the true 'home language' we all share.

3. R.A. Hodgkin, *Born Curious. New Perspectives in Education Theory*. London, John Wiley & Sons, 1976.

### Interpreting natural bistory at the Arizona-Sonora Desert Museum

### Dan Davis

B.A. in geology/geography, University of Iowa, 1947. Graduate studies in archaeology and public administration. During a thirty-year career ending in 1977, worked in a variety of positions at the National Park Service, from which he retired as Associated Regional Director for Operations in a ten-state region. Weekend supervisor to the Earth Sciences Centre, ASDM, 1977/78. Appointed acting director in 1978 and director in 1979. Consultant for the setting up of national parks and wildlife reserves in the Libyan Arab Jamahiriya (1980, 1984), Egypt (1983) and the Netherlands Antilles (1983). Member of the American Museum Association, the American Association of Zoological Parks and Aquariums and the Sierra Club. Two Meritorious Service Awards, four Superior Service Awards.

The Arizona-Sonora Desert Museum is a private, non-profit, living natural history museum 23 kilometres west of the city of Tucson, Arizona which opened in September 1952. Some 14,000 members support the institution with their money and their volunteer time. With an operating budget of approximately \$2.5 million in 1983, the museum, which is open seven days a week from early morning to sunset, has provided an opportunity for nearly half a million people to expose themselves to one of the most meaningful experiences of their lives – an encounter with the plants, animals and geology of the Sonoran Desert area in a natural setting with the help of people trained to reveal the mysterious and exciting interrelationships of living things and their unique natural environment.

### Interpretation

I always believed during my thirty years with the National Park Service in the United States that the interpretive programmes were and still are a major reason for the popularity of the national parks.

centuries.

ARIZONA-SONORA DESERT MUSEUM, Tucson, Arizona, 1980. A museum member participates in the Saguaro Harvest Workshop on the museum grounds. The museum works with the Papago Indian tribe each year to show how they have harvested and used the fruit of the saguaro cactus for centuries.



46 A docent giving an interpretive talk on the tarantula in the museum grounds.

Whether they be campfire talks, guided hikes, living history demonstrations or lectures, these programmes have given many generations a better insight into nature and history and have made their park visits a much more significant experience, an experience that most will remember for the rest of their lives. My first exposure to a park naturalist programme was a campfire talk at Grand Canyon fifty years ago and I remember it as vividly as if it were yesterday, even the songs. It was that experience, when I was 8 years old, which heavily influenced me to make a career of the National Park Service.

Interpretation in the National Parks in the United States, however, in spite of the heavy participation by the park visitor, is still incidental to the visit. At the Arizona-Sonora Desert Museum, interpreting the Sonoran Desert region is our one main objective and all the plants, animals and exhibitions are incidental to it. Possibly a subtle difference, but this is nevertheless a major factor in our operation.

What do we mean by interpretation? William H. Carr, co-founder of the museum, alluded to it when he said,

The *idea* we are thinking of here is outdoor conservation education employed as a means of helping man to recognize and assume his responsibilities toward Nature in order to gain some hope of assuring his future. The time for widespread implementation of this kind of endeavour is NOW; before man succeeds in totally defiling his habitat and making it unlivable.

But you need interpreters to accomplish Carr's goal. Yorke Edwards of Parks Canada wrote,

Interpretation aims at giving people new understanding, new insights, new enthusiasms, new interests. A good interpreter is a sort of Pied Piper, leading people easily into new and fascinating worlds that their senses never really penetrated before.

That is a good definition and good interpretation, for it mentions a character to whom most of us can relate, the Pied Piper.

The late Freeman Tilden, one of the fathers of American natural history interpretation, established six principles which the Arizona-Sonora Desert Museum teaches in its training programme and which are used by all good interpreters. These principles are the following:

Interpretation must present the complete story and should relate to the whole person. Interpretation for children should be specially prepared and not be a dilution of the adult version. Interpretation is not the presentation of information, it is revelation based on information. Interpretation must relate what is being displayed or described to something within the personality or experience of the individual. Interpretation's primary purpose is to provoke not instruct. Interpretation is an art, combining many arts – an art that can be taught and successfully learned.

Teaching that art is one of the missions of the Interpretation/Education Department at the Arizona-Sonora Desert Museum. Once learned by the volunteer and staff member, these techniques are used on the museum grounds and in the field to enhance the experience of the participants whether they be members on field trips, visitors on the grounds or schoolchildren in the classroom. I am proud to say that the museum has earned in its brief existence a well-deserved international reputation for innovation. Its naturalistic animal habitats have been studied and copied by zoos all over the world. The volunteer training programme and the educational programmes are now considered to be models for museums everywhere. It will be useful to review the history of the volunteer, or docent, programme and the educational efforts as a whole to understand why the museum has been so effective.

### Ideas put into practice: the volunteer tradition

Co-founders Arthur Pack and William Carr had a great idea; but ideas don't necessarily keep institutions financially sound. Since the Desert Museum has always depended upon donations from members, the business community, and foundations (it has never received operating income from any government source) the first task was to attract visitors and members. During the first few years of its existence, the museum did this with the help of the news media and the creation of The Desert Ark, a travelling liveanimal programme which takes the museum story to schools and community organizations. The Desert Ark was given its name by drama critic, theatre historian and natural-history writer, Joseph Wood Krutch, one of the museum's first trustees. It was the beginning of the interpretation/education programme and it is still an integral part of the museum's outreach effort. But a formal education programme was still to come.

Much of the museum's success is the result of the typical American tradition

of voluntarism. Without that innate characteristic, the Desert Museum and countless other American institutions would be unable to boast of their accomplishments. Until 1971, schoolchildren in Arizona were brought to the museum on field trips by their teachers by simply allowing teachers to make reservations. Needless to say, the kind of experience the children received was based solely upon the teacher's knowledge of Sonoran Desert ecology and ability to interpret, and opportunities were being missed. The answer to the problem was having trained people to assist school groups on the grounds. But employing dozens of people was out of the question, therefore the museum decided to call upon volunteers. They answered the call and the ADSM Docent Programme was born.

Traditionally in other countries, a docent is a private tutor. In the United States, however, a docent is a trained An Arizona-Sonora Desert Museum interpreter in the grounds in 1978 doing an interpretive talk about the gila monster, one of the creatures indigenous to the Sonoran Desert and one of only two poisonous lizards in the world.

47





### 48

An Indian Foods Workshop on the museum grounds is part of the special events programme for the museum's 14,000 members. This photograph taken in 1980 shows the beans produced by the mesquite tree being ground into flour. This process has been traditional with the Indians of the Sonoran Desert for centuries.





#### 49

Hal Gras and *The Desert Ark* visiting a local school in 1965. *The Desert Ark* was the beginning of the museum's Interpretation / Education Department some twenty-eight years ago and is still appearing throughout the community. The animal shown is a bobcat.

#### 50

A visiting docent from the Arizona-Sonora Desert Museum helps teachers in a Tucson elementary school with a unit of desert ecology prior to a field trip to the museum (1980). volunteer in a zoo, museum or similar institution. The primary goal of the Arizona-Sonora Desert Museum docent is to help people learn to appreciate the environment, that of the Sonoran Desert region. Our docents are of various ages (minimum 21 years), from all walks of life and all educational backgrounds. All share a common interest – a love of the desert and a desire to share their enthusiasm and knowledge with others. They come to us with the enthusiasm; the museum gives them the knowledge they need to be good interpreters.

The first requirement to be an ASDM docent is to be a member of the museum. Strange as it may seem to many readers, our docents must pay for the privilege of volunteering their time. They pay a membership subscription to the museum each year and a fee to take the training course. In order to maintain their docent status, they must volunteer fifteen hours a month to the museum. Classes begin in early September. Trainees meet for a three-hour class two days a week for seventeen weeks. The course is taught by museum curators and staff. Causes of desertification, the geology of the area, ecological concepts, flora and fauna (with the emphasis on desert adaptation and interrelationships), teaching methods, and museum philosophy are the major topics. A final examination is given and thoroughly discussed upon return of corrected papers. Trainees are expected to attend all classes. Missed sessions can be made up by viewing video recordings of lectures or obtaining notes from other trainees. No more than three sessions can be missed even if made up. Additional requirements include two sessions observing a docent leading an interpretive presentation, followed by two sessions led by the trainee. Upon successful completion of these requirements the trainee receives a diploma at a graduation ceremony.

### Docent functions

Conducting guided tours – for both adult and school groups – presenting programmes on the grounds and in the community, and helping the daily operation of the departments are some of the functions of the docents. Interpretive jobs include participation in the Environmental Education Van Program, the Visiting Docent Program, special theme talks, live animal presentations and nature walks. It is the latter in conjunction with staff interpretive efforts and special events for members which bring interpretation to life at the Desert Museum.

The environmental education vans are equipped with 'centres' which staff members and docents set up in classrooms. The class teacher actively participates in a full morning or afternoon of learning. The centres include a videotape programme about snakes, a skull centre, where several skulls are examined by children using small live animals such as snakes or tarantulas, a microscope centre, which allows children to take a close look at Sonoran Desert plants, animals and minerals, and a bird centre where beaks, feet and feathers are examined for function. In its nine years of operation, the Environmental Education Van Program has visited 107 schools to reach nearly 50,000 children. Over 9,600 docent hours have been donated to accomplish the work.

The Visiting Docent Program was also begun in 1974. It too is used in the classroom and at nursing homes, before community groups, club meetings, and elsewhere. Again, the interpretive skills learned during training are used by the docent before these groups to stress the interrelationships of the plants, animals and geology of the region. Live animals are usually used in the presentations. A key function of the programme is to visit a classroom of children who will be touring the museum.

Why is it that the ASDM Docent Program has been so successful and is considered to be a model for other institutions? We believe there are a number of factors. The quality of the training is firstrate. The education and training continues and is never ending, for advanced docent classes are conducted monthly. The museum staff accept the docents as part of the 'museum family' and therefore respect and appreciate them. The variety of volunteer opportunities is endless; these are offered by each museum department. The rewards are many: a feeling of satisfaction for rendering a valuable service, publicity through the media and the admiration of the community for the job they do. The Desert Museum now has some 140 active volunteers with very little attrition and there is a long waiting list.

### Services offered

The museum's mission is focused primarily on two staff functions: conducting special events for members, and through the office of an interpretive naturalist. The goal of the special events programme is to provide a wide variety of learning opportunities. These range from half-day workshops on the museum grounds on subjects such as 'Indian Uses of Native Foods' to extended trips to areas of the Sonoran Desert region such as the Pinacate volcanic fields in Sonora, Mexico. All the trips and workshops require fees and pre-reservations. Staff interpreters accompany members on all trips and conduct on-the-grounds workshops.

One of the most fascinating and

popular workshops is planned each summer when the saguaro cacti produce their fruit. ASDM staff members and Papago Indians from the area take members on a saguaro harvest on the grounds using tools the Papagos have used for centuries for the ritual, and then the Papagos actually process the fruit for food and drink while members watch and participate. Here is the ultimate learning experience. Man interacting with his environment in a centuries-old tradition while interpreters explain why man's encroachment upon this particular environment may mean the end of the saguaro harvest.

The most recent programme, started in February 1980, brings a new dimension to the services offered to visitors. Under the direction of a full-time naturalist. staff members and docents now conduct regularly scheduled interpretive activities on the grounds on all of the subjects covered by the museum. Prior to this service, the general visitor was not afforded the opportunity that was given to schoolchildren or groups which pre-arranged tours. The visitor paid admission, enjoyed the grounds and left. Now visitors are able not only to encounter interpreters at various locations on the grounds, but can also plan a visit depending upon what subject is being covered on a given day.

The Interpretive Naturalist co-ordinates the planning and presentation of naturalist talks, demonstrations and guided tours. These activities now average seven per day (210 a month). They run from thirty to ninety depending upon the make-up of the audience, the time they have available, etc. The interpreter may have thirty people for a presentation or only one. Visitors are not obliged to stay for the entire presentation or any part of it if that is the decision. Part of the excitement of this sort of approach is the unexpected encounter with an interpreter. The presentations are structured, but so as to allow for a few minutes' participation or for an entire talk. Questions are encouraged; if a visitor has only one question and the interpreter answers it there is no embarrassment in continuing on a tour of the museum. In 1983, at the time of writing, 159 staff members and volunteers have presented 5,448 regularly scheduled interpretive talks and tours before some 225,000 visitors. The morning newspaper in Tucson publishes the subjects of the talks every morning, a service for which the museum is grateful.

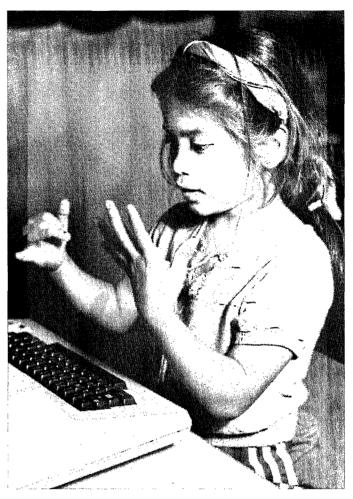
There are two other educational efforts that need to be mentioned. Each summer, the museum conducts week-long classes in Sonoran Desert ecology for preschool children to sixth grade. The classes are taught by teachers certified by the State of Arizona to teach in public or private Arizona schools who are chosen by the staff for their knowledge and expertise.

In the summer of 1980, for the first time, the museum conducted a Lower Grand Canyon/Colorado River Study Trip for children at least 12 years old. There were three days of preparation in the classroom on the museum grounds, followed by nine days spent on the Colorado River in the Grand Canyon, rafting down the river with interpreters and studying the ecology. It was an unforgettable experience for the youngsters, the staff and myself. More youth trips are planned.

The programmes of the Interpretation/Education Department at the Arizona Sonora Desert Museum are by far the most important activities of the institution. They involve every employee and every volunteer in one way or another. Most important, these are the activities which relate directly to members, visitors and the children we teach. Without a strong emphasis on interpretation, the Desert Museum would be just another attraction for visitors. By making interpretation and education the museum's primary functions, the institution has become a very special place.

'Not having an interpreter in a park or museum,' said William Carr, our cofounder, 'is like inviting a guest to your house, opening the door and then disappearing.'





#### 51-54

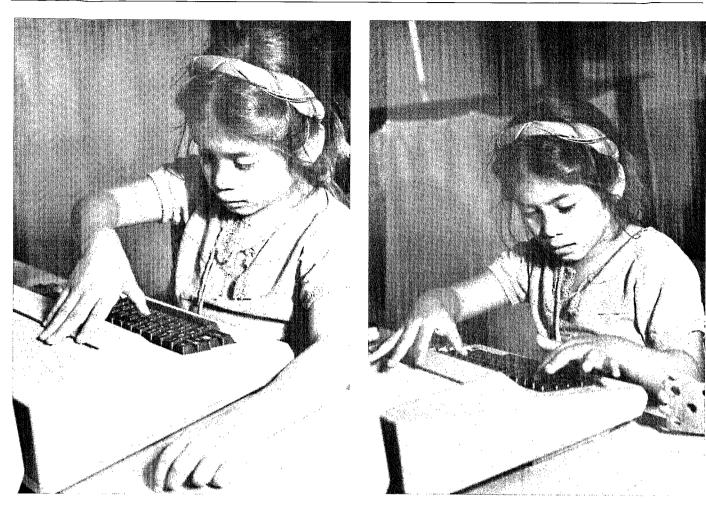
The computer is an effective aid to education, given its interactive nature. This 6-year-old Mexican-American girl is thoroughly involved in a mathematics programme.

### Museums and computer education

In the industrially advanced countries, low-cost microcomputers have emerged not only as the servants of small business, but especially as a tool for educational development. Now, there are few schools in the United States that lack a microcomputer, and the wealthiest ones usually have several located in computer labs, libraries and individual classrooms. Why is this the case?

First of all, early experimental projects of the 1960s demonstrated that the computer could become an effective aid in instructional and educational work. However, the cost of computers, their size and manifest limitations, especially regarding sound, graphics and programming, seriously curtailed their utilization on a massive scale until the 1980s. Generally, leading educators realized the potential in computer education, but they had to wait for the improvement of hardware, the development of appropriate software and the fall of prices.

The main quality of the computer that differentiates it from other forms of educational technology is its immediate interactive nature. Children and adults can view the results of their decisions, solve problems, conduct simulations of real-world situations, design graphics, create music, write computer programs, carry out word processing and practise basic skills. As long as a person is in control of his or her learning process, the fascination of augmenting human mental capacities is such that the motivation to learn rises notably. Many studies have shown that, like a teaching machine, the computer can be used to teach subject matter speedily in an individualized manner. Such programmes resemble programmed instruction workbooks. However, the presence of a teacher who



can flexibly guide the student to problem-solving programmes, share the joy of learning and help to create rich peer-teaching sequences, helpsimmeasurably to utilize effectively the interactive nature of the computer and maximize motivation and achievement.

### The hidden educational revolution

Little research has been conducted on the long-term implications of computer education for the very young. In a few technologically advanced countries, children whose parents or nursery schools have computers, are given access to them from the age of two years onward. Such children have many opportunities to use computers, develop their capacity to reason and learn a wide range of cognitive domains before their peers do. Since studies about early learning using the computer are, of necessity, very complex and require the creation of longitudinal control groups, we lack adequate research on the differential impacts of computer education on the young. None the less, some case-studies and internal programme evaluations report considerable rapid and advanced learning on the part of children participating in computer education, in comparison to peers receiving only traditional formal education. The computer has been shown repeatedly to enhance the motivation to learn, especially among children noted to have mild to severe learning difficulties. Some observers reason that even should computers prove not to be substantially more effective in improving educational processes for the very young over time, that none the less it is important for all children to gain familiarity with computers from an early age, given the ex-

### **Emily Vargas Adams**

Ph.D. in anthropology, Stanford University (1968), field research with Zapotec Indians in Oaxaca, Mexico. Programme specialist in the education sector of Unesco, founding the Programme for Anthropology and Language Science in Educational Development and designing UNDP education projects in various countries, 1968-72. Programme Adviser in education for the Ford Foundation in Colombia and Venezuela, 1972-78. Founded and developed the Centro para el Desarrollo de la Educación No Formal (CEDEN) in Austin, Texas (1979 to present) with programmes in early childhood and parent education, as well as computer education. Consultant to several national and international organizations in educational policy-planning, programme development and research.

pected future role of computers in their lives. They cite the many examples of young teenagers conducting advanced computer programming subsequent to early exposure to computers. In general, though we lack adequate longitudinal studies, many parents and pre-school teachers have intuitively accepted the premise that computer education 'makes a difference', and have placed microcomputers in their nursery schools, children's museums, libraries, communities and, especially, their homes.

Essentially, computer education has become a new form of 'non-formal education', a hidden revolution occurring in both school and non-school settings, which is considered by many parents, community leaders and teachers to be necessary for the well-rounded development of the young in our challenging and rapidly changing world. In the industrially advanced countries, this has been a naturally occurring process – one which potentially has important implications for educational equity in those and other countries.

### Educational equity

In all countries, educational equity generally has not been attained for the children of the poor, especially those belonging to subordinate minority groups. In spite of major international and national efforts to eradicate educational inequities, they persist in both formal and nonformal education. Certain inegalitarian aspects are evident even before children enter school, as exemplified by the wide differences in capacity and achievement measured at the time of school entry. In order to overcome such problems, infant, early childhood and parent education are greatly needed, but are generally lacking in quantity and quality in most countries.

Now, with the advent of computer education, existing educational inequities may be further reinforced both in in-

1. The Computer Use Study Group, 'Computers in Schools: Stratifier or Equalizer', *The Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, 1983, Vol. 5, No. 3, pp. 51-5; Emily Vargas Adams 'The CEDEN Community Computer Education Program: An Experiment in Educational Equity', *The Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, 1983, Vol. 5, No. 3, pp. 55-9; 'CEDEN Computer Education Program: A Philosophical Program Statement', Austin, Texas, 1983 (unpublished manuscript); 'A Community-Based Computer Education Program for Mexican-American Families: Educational Equity and Initial Program Results', paper presented at the American Anthropoligical Association Meetings, 1983, Chicago, Illinois. dustrially advanced and less technologically developed countries. As a result, children from many countries, as well as those from impoverished minoritygroups in industrialized countries, may fall even further behind, given the early learning opportunities and school-based computer education programmes available to children from middle- and upperincome homes in a small number of countries.

A few studies have begun to reveal the differential use of computers in formal education in the United States.<sup>1</sup> From these, a 'taxonomy of inequity' in computer education is beginning to emerge. Problems found include the following:

Computers are generally purchased in greater numbers by wealthier schools and school districts, and are used in classes for the most advanced students or reserved for the most capable pupils in library or other non-class areas. This is particularly lamentable since 'slow learners' especially profit from a wide range of computer education programmes. Such children, when served, tend to be given rote drill and practice programmes which may lower, rather than improve, their motivation to learn.

- Such schools tend to purchase betterquality microcomputers, more complete systems and a greater amount of good-quality software.
- The wealthier schools often are able to train their teachers to utilize computers more competently, and thus, they tend to make more and better use of them during the school day.
- Teachers with more training tend to have more flexible educational philosophies and methods, permitting children to explore their own interests, learn programming languages, and interact around the computer. Less welltrained teachers tend to be more rigid and restrictive, limiting software use and even students' access to the computers.
- Schools in middle- to upper-income communities also tend to involve parents more in their computer-education activities, as well as foster after-school classes.

Furthermore, many non-school settings also reinforce these inequities. Public libraries with computers are rarely utilized by poor families and computer usergroups seldom include the poor. Computers are still rarely found in the homes of the poor, and where they are, the necessary peripherals and software are generally absent or inadequately used. Two types of institutions where computers may be found to be accessible to, and flexibly used by, children and adults from poor families in the United States, are museums and community-based centres. This experience may well hold an important key for the rapid development of computer education in developing nations.

### Museums as computer education centres

As with all educational processes, it is crucial that computer education be appropriate culturally and conducted in the people's language. Both museums and community-based centres usually strive to make their services accessible and culturally relevant. They tend to be familiv-oriented and include people from all socio-economic strata. Museums and community centres have learned the importance of including members of the community in providing services as docents, facilitators and teachers, of meeting the special learning needs of certain groups, and utilizing multimedia approaches. Above all, often they are experimental and creative institutions, less tied to the traditional formulae of formal education.

In the United States, four museums are outstanding examples of successful computer education endeavours: the Capital Children's Museum in Washington, D.C., the Pacific Science Center in Seattle, Washington, the Lawrence Hall of Science at Berkeley, California, and the Exploratorium in San Francisco, California. In each of these museums, space is allocated to computer education rooms, and computers are also used for specific learning activities in certain thematic areas, such as science, mathematics, art, music, survival skills, and so forth. Museum guides assist both parents and children to explore the activities available to them, and in each centre, original software programs have been developed by both paid and volunteer staff.

These museums have become focal points of cultural development and creativity. Given their accessibility, they have attracted thousands of people who otherwise would not have had the opportunity to explore the new world of computers. And rather than detracting from more traditional museum exhibits and activities, computers have been used to advantage to enhance those aspects of the museums. They are integrated into such areas and are used to expand the visitors'

#### Museums and computer education

understanding of relevant fields, intriguing them into exploring the riches of each museum experientially and in greater depth than previously was the case. Finally, computer education is becoming a fundamental goal of such museums, thereby expanding their basic raison  $d'\hat{e}tre$ .

Similarly, community-based centres are beginning to emerge in various areas of the United States. Such centres are helping to decentralize educational activities.<sup>2</sup> They are being used to improve adult literacy and numeracy, to provide early childhood education, to tutor school-age children and to motivate the underachieving child.<sup>3</sup> They generally help in creating a 'cultural bridge' between poor or minority-group homes and the schools of the society at large. In sum, they complement and supplement formal education in many flexible and culturally appropriate ways.

A recent attempt to reverse the trends

2. James A. Levin *Computers in Non-School* Settings: Implications for Education. San Diego, Cal., Laboratory of Human Cognition, University of California, 1981 (Technical Paper).

3. Dean Brown et al., 'A Pilot Experiment', *Educational Technology Using in the Affective Domain.* Menlo Park, Cal., Stanford Research Institute, 1969 (Technical Paper). toward inequity in computer education in the United States was initiated by the Center for the Development of Non-Formal Education (CEDEN), located in a Mexican-American *barrio* at Austin, Texas.

### CEDEN's Computer Education Program

The participants in CEDEN's Computer Education Program are mainly poor families with children ranging from 2 to 13 years of age. In the spring of 1983, seventeen families participated, of whom five were headed by single mothers. Some 53 per cent of the mothers had dropped out of school before completing their secondary education, and 66 per cent expressed dissatisfaction with their children's schools. Some 75 per cent of the low-income parents had no previous involvement with the schools and they also had low to moderate aspirations for their children. Particularly dramatic was our finding that 78 per cent Mexican-American parents expected their children to have problems in school, and indeed when we checked with the teachers, 63 per cent were already categorized as 'poor students' and 81 per cent were reported

56 The computer education teacher, Ruth Mireya Henao de Wells, assists parents to teach their own children at the computer.





The computer is very exciting for children of 2 years old and over. This 2-year-old enjoys exploring a pre-school programme with his 6-year-old sister.

to have had problems in school. Indeed, 50 per cent of the children intimated that they were already significantly disaffected from school.

The main goals of the CEDEN programme were to:

- Design, implement and evaluate a replicable community-level, bilingual computer programme for Mexican-American families, using parents and community members as teachers.
- Motivate the children to want to learn, to learn new skills and to gain a positive attitude towards computer education.
- Motivate the parents to teach their children via computers and auxiliary materials, to learn about computers and become more involved in the schools.
- Assist the schools by improving the children's motivation to learn, their ability to make decisions and to reinforce their knowledge of basic skills.

The programme was conducted in a small barrio house decorated with items often found in the children's home environments. The Atari Institute for Educational Action Research provided the computer hardware and much of the software. The computer area was complemented by an arts-and-crafts centre, reading space and a variety of complementary learning games and materials. Pre- and post-computer activities were utilized and the children and parents were encouraged to explore many alternative learning resources, depending upon their interests and entry capabilities. Positive parent-child and peerteaching sequences were fostered and most sessions ended with the preparation of take-home activities. Special emphasis was given to the affective domain: selfimage, world-view, motivation to learn and positive achievement. Secondarily, children were guided towards problemsolving through a variety of programmes and related activities. Children with special needs received reinforcement in basic skills, but a games approach was used whenever possible. Often the parents would continue to play with programmes originally aimed at their children, oblivious to others, while they practised skills, sometimes for the first time in years.

The parents and children were eager to participate and had a good attendance rate, in spite of transportation difficulties. At the end of the programme, 100 per cent of the children and parents enthusiastically gave the programme their highest rating. They particularly enjoyed the computer activities, and 40 per cent also mentioned the auxiliary learning resources. When asked about their learning interests, those children previously categorized as poor students, all expressed interest in mathematics and/or language arts, areas that they had previously avoided. Indeed, children initially labelled as poor students had slightly more areas of new interest than the better students.

These results were also noted by the parents, 89 per cent of whom stated that they believed the programme had improved their children's interest in learning. The computer education teacher observed that 96 per cent of the children had improved their motivation to learn.

With regard to skills on a pre-school inventory, children 3 to 6 years of age gained, during the eighteen-week period, an average of eight items out of a total of thirty-eight items. The school-age children were not tested, but 81 per cent were promoted to the next grade level, including several who had been 'borderline' students. The computer teacher found that most of the children previously categorized as 'poor students' had a good potential for learning, once motivated.

The parents also became more involved with their children's education. Some 78 per cent of the parents reported that they taught their children more at home as a result of the programme. This occurred in spite of severe family stresses in several of the homes. When asked what they enjoyed about their experience, 46 per cent emphasized the opportunity to work with their children, 36 per cent stressed the computers and computer programs and 18 per cent mentioned the auxiliary activities. All of the parents were enthusiastic about computer learning and 89 per cent said they had several special topics about which they wanted to learn using the computers. Thus, the programme played a catalytic role in opening up the parents to change, helping them to guide their children and motivating them to learn.

The schools collaborated by providing basic information, and several teachers expressed pleasure that the programme was assisting the children and their families. This initial programme was too small to make any significant impact upon the schools in terms of numbers of students; however, it would appear that were a large programme to be mounted and quality maintained, significant results might well be discerned. Indeed, both parents and children urged that more computers, space and teachers be made available, and currently CEDEN is expanding its programme.

In summary, the programme met all of its initial objectives – and more. Most importantly, it served as a cultural bridge between the Mexican-American homes and the schools, complementing and supplementing formal education. The computer, combined with auxiliary activities and used flexibly in community settings, could well become a powerful force for helping to create educational equity.

Potentially, museums and community based centres in all countries could assist in developing and providing culturally appropriate computer education. Such programmes would expand their services, attract more people, enhance the vitality and creativity of programme staff, promote networking with other institutions and assist in meeting national goals for educational development. Most especially, the museums and community centres would help to bridge the growing gap between technologically advanced and less industrially developed countries, as well as enhance international collaboration and understanding.

57 Craftsman teaching children to weave, during the basketry workshop at the Museum of Popular Arts of America, CIDAP.



# *Reaching out to urban and rural communities in Ecuador*

### Lucía Astudillo de Loor

Graduate in Art from the Universidad Estatal de Cuenca, 1977. Degree in Educational Sciences from the Pontificia Universidad Católica of Ecuador, 1984. Courses in Museology at the Smithsonian Institution in Washington, D.C., 1980. Curator of the Ecuadorian Exhibition in Idaho, Partners of the Americas Programme, CIDAP, 1981. Writes short stories and tales and contributes cultural articles to national newspapers and journals. Director of the Museum of Popular Arts of America. Since the Spanish Conquest Ecuador has been subjected to cultural, economic, social and political pressures that have resulted in the loss of many of its specific cultural traits. For this reason our country, with a population of more than 8 million, is now anxiously seeking its national roots and ways of rehabilitating its own culture. Government policy today is largely directed towards the preservation of cultural values and the conservation of traditional artefacts. There is evidence of a permanent concern and a constant desire to uphold and understand traditions while continuing to keep pace with twentieth-century science and technology.

Museums can exercise a dynamic influence on the society which they serve. The concept of the museum as a centre for disseminating culture and as an institution that can have an impact on the social, economic and political problems of the so-called developing countries is an idea that has only recently emerged in Ecuador.

### Travelling educational exhibitions

The Museum of Popular Arts of America – affiliated to the Inter-American Centre of Popular Arts and Crafts (CIDAP), one of the centres of the OAS Regional Cultural Development Programme – felt the need to draw up a coherent programme of travelling educational exhibitions covering each of Ecuador's twenty provinces and serving to acquaint schoolchildren with the country's culture. The Ministry of Education and Culture provided the economic assistance necessary for developing the project, one of whose main aims was to help to incorporate popular culture into formal and nonformal education.

It is worth mentioning that as early as 1979 and 1980, at technical meetings and workshops on education and popular culture organized in Cuenca by the OAS and CIDAP, it was clearly recognized that there was a need to join forces in order to incorporate popular culture into the education system, taking account of its role as a vehicle of the permanent values of the nation. In this endeavour museums were regarded as an invaluable aid to the study, teaching and development of traditional popular culture.

We know from experience that in most cases education – which should be a twoway process, of learning for the pupil and feedback for the teacher – is generally reduced to a monologue by the teacher with no interchange whatsoever between the teacher and the learner. Because of this, the travelling educational exhibition programme has been designed to provide and disseminate an overall view of the many cultures of Ecuador and its various regions - the coast, the mountains and the Amazonian forest - and all the varieties of life-style and forms of expression to be found in these areas which are geographically so different from one another. The exhibitions highlight this cultural pluralism while, at the same time, recreating a sense of the unity of the different regions in an attempt to arouse true national feeling in the student population. They not only exhibit the crafts and traditions of different ethnic groups - which enhances their value in the eyes of the actual community concerned and acquaints others with them - but also reveal the different needs of the various provinces and their own particular outlook on the world, creating genuine awareness of Ecuadorian national identity.

Four exhibitions have been held so far, despite the many difficulties that had to be overcome, as is always the case at the beginning of a pilot project: in particular, the apprehension and natural caution attendant upon a new venture and the fear of not being on the right road or of being unable to reach a successful conclusion. Furthermore, a promotional effort was necessary, first within CIDAP itself, to convince us, the participants and organizers, that the project would be successful, and then later the public, teachers and children. We also needed to think of the staff of the Office of the Under-Secretary for Culture, who were responsible for the ancillary tasks of transporting and promoting the exhibitions in the various provinces. Would they bring the necessary enthusiasm to

and its their work on this part of the project or mounand all constant disputes and even open opposition? An account is given below of the exhibitions that have taken place, together with some personal remarks which are meant

some personal remarks which are meant to be as frank as possible and not to play down the faith, enthusiasm and dedication without which the entire project could hardly have succeeded.

### Traditional woven goods from the Canar region

This was the first exhibition and was centred on the Cañar valley, which is one of the highest in Ecuador. Of its 180,000 inhabitants, approximately 30,000 belong to the Quechua-Speaking Cañari group. A large number of the community live more than 3,000 metres above sea-level and are engaged in agriculture. They wear traditional dress: the men wear a poncho, woollen trousers and hat, embroidered shirt and sash and have their hair pulled back in a long plait on the nape of the neck, while the women wear several embroidered skirts, a blouse with a shawl held in place by a brooch, and a woollen hat like the men's.

The most remarkable craftwork is that done on a *telar de cintura* (loom attached to the waist by a strap). Ponchos are made from sheep's wool and Singer thread is used to make belts and the famous *fajas* (reversible sashes) woven by the most elaborate process used in Ecuador.

The exhibition began with a slide show entitled *Cañar Life and Tradition* which presented a general picture of the life of a *Cañari* community, with particular reference to the lack of appropriate infrastructure – and included a map showing the location of the valley and a diorama showing a vast landscape dotted with a few sheep in the foreground. A *Cañari* house, large enough for the children to enter and look around inside, also formed part of the exhibition.

Weaving is a traditional activity still practised every day by the Cañaris and closely linked to their physical, cultural and economic circumstances. The entire production process was shown and finished products exhibited, and in the town of Cuenca a Cañari craftsmen gave a demonstration and assisted those visitors who were brave enough to try their hand at weaving.

As a follow-up activity to the exhibition, designed for schools, an information booklet was prepared for teachers

58 Cañari craftsman weaving a *faja* (sash) during a practical demonstration at the exhibition of traditional Cañari woven goods in the City of Cuenca.



and certain tasks suggested to them - for example, an essay on the visit - and they were also asked to contribute ideas for the exhibitions. Unfortunately very few replied and those few merely supported the idea that these educational programmes should continue.

The teaching material was geared to 10- to 12-year-olds and consisted of question sheets which they were asked to fill in after they had visited the exhibition; the tour was conducted by a teacher who had been previously trained as a guide; a leaflet to link up the various aspects of the exhibition was also provided.

As it was a travelling exhibition, a leaflet was prepared with a list of the items, drawings of the panels and objects and instructions to be followed, so as to make them easier to assemble. The question sheet contained factual questions that required precise answers as well as more sophisticated problems, such as a crossword. The children were also asked whether they would like to learn to weave; the purpose of this personal question was to find out whether it would be worthwhile setting up a workshop.

Like any new project, it required teachers, schools and the public at large to show interest in it and to co-operate fully. The local media did so and gave us a great deal of support. In order to coordinate the attendance of the children and set up timetables for visits by the various schools, we contacted the Office of the Director of Education of Azuay, which forms part of the Ministry. While we received visits from these schools, we almost invariably had to call the headmaster to remind him of his group's visit.

There were also other problems: the classes consisted of approximately fifty pupils and since it was difficult to divide them up we could not respect the limit of thirty children which we had decided was the maximum that our facilities could handle. Sometimes we had as many as seventy-two children on one visit, and this required the help of another person to accompany the group. The children reacted enthusiastically; none of them had ever been into a museum before, so it was a new experience for them. They were slightly nervous, went into the house, chatted to the craftsman, asked him his name, asked questions about his family and, particularly, why men did weaving. A few of them were brave enough to try it themselves.

In Cuenca more than 3,000 students visited the exhibition in five weeks. Two months later, in order to see if the children remembered anything about the visit, they were set a series of questions of the 'true or false' variety prepared by an educational psychologist. The results were 90 per cent satisfactory.

The first transport problems appeared when the exhibition moved to Guayaquil: it was very difficult to pack the Cañari house and the panels were too heavy. We shall bear both these facts in mind in future. The best way for museum staff to learn is through experience. We realize particularly that we cannot spend our time planning without actually carrying out a project. We would thereby forfeit too many opportunities to learn as we go along, which is the only constructive way in countries like Ecuador that are so short of economic resources. I have heard too many people complain of having spent their entire budget on feasibility studies.

The technical director of the Office of the Director of Education of Guayas had decided that the guides in Guayaquil would be sixth-year students from schools belonging to Unesco Clubs whose teachers had given them permission to participate in the programme. The experience was highly gratifying: with the collaboration of a woman anthropologist from the Under-Secretary for Culture's Office, an introductory course was organized for the studies; and suggestions made for reading on the subject. The students - both boys and girls adopted the project as something of their own and threw themselves into it with great enthusiasm, with the result that the

Schoolgirls from the City of Quito are given a practical demonstration in the use of the *huango* (hook) and spindle at the exhibition on traditional Cañari textiles.



visits they conducted were very successful. The exhibition was visited by an estimated 5,000 people, and the figure would have been higher had it not been for a teachers' strike that led to its closure.

The exhibition then moved to Ouito where the guides were teachers from schools in which the exhibition was to take place. An introductory course was also organized for them; and their attitudes varied widely, depending on their interest or lack of interest in a province remote from the capital, with all that that entails. One group was extremely apathetic and, despite the efforts made to arouse their interest in the exhibition, the results left a great deal to be desired: there were always difficulties in leaving their normal classes, problems arose in connection with the projection of the slides or learning anything about Cañar. which they considered to be very remote from their urban world. They gave the impression that the only part of the country in which they had any interest was the capital. Unlike them, the second group was very enthusiastic about the project and used their own money to have distinctive aprons made for the teacherguides and decided to work extra hours if the number of visitors made it necessary.

There were problems of a different kind with the staff responsible for promoting and transferring the exhibition. Some of the staff were rather nervous and although they knew nothing about museum science they criticized everything, from the pamphlet to the number of items and the presentation. Being office workers, they seemed to be afraid of the responsibilities delegated to them: the design of the project is such that it requires energy and adaptability. Consequently, we consider it essential that personnel of this type should be adequately prepared, and that what is most required of them is faith in the project and a capacity for enthusiasm.

However, despite the drawbacks, the exhibition kept moving. It was scheduled to visit twelve provinces: to date it has appeared in Imbabura, Tungurahua and Loja, and the number of visitors is increasing every day. The exhibition naturally requires constant upkeep but this seems to displease some public officials who would prefer the objects to last for ever.

### Metalwork from the Azuay region

This was the subject of the second exhibition, which contained ironware, tinware and jewellery made in the south of Ecuador, displayed on grey and dark-red panels and bases.

Azuay is renowned throughout the country for the craftwork of its inhabitants. In the city of Cuenca, with its population of 150,000, there are still entire districts where only craftsmen live. For example, in the Calle de las Herrerías, the sound of hammer against anvil rings out from every house. Around the Plaza 9 de Octubre there are a number of small workshops in which all sort of things are made, from drainpipes to lanterns, caketins, buckets and other tin utensils. There exists also a long tradition of Cuencan jewellery, with 643 gold- and silversmiths; in addition, fine filigree work is produced in Chordeleg, 46 kilometres from Cuenca.

The exhibition used photographs and texts to create an overall picture of the people engaged in this craft and displayed commonplace objects removed from their normal environment. In the city children are used to seeing tin utensils at home in the kitchen and do not pay them any attention. The exhibition tried to make them understand how much time has gone into making them. A comparison is immediately made with electrical household appliances used in their homes or known from hearsay, but on seeing objects which are still part of their everyday environment on display in the prestigious context of an exhibition, children learn to appreciate them for what they represent: the culture of the people and the handiwork of the Azuayan craftsmen.

The exhibition was arranged in a way similar to the previous one. It started with a slide show, *Gold, Iron and Tin* which presented the craftsmen in the various districts of the city and then showed the whereabouts of the province, in the south of the country.

On the subject of ironwork it should be mentioned that in the city of Cuenca and its outskirts the roofs of the houses are surmounted by iron crosses, a symbol of popular religious feeling, regarded also as a magical means of protecting the home. These crosses have always been visible from a distance, but the exhibition now gives visitors an opportunity to see them close up, of touching them and feeling the coldness of the iron and the grain of the metal and appreciating the many varied designs, featuring flowers, hearts and birds, to name but a few motifs, according to the fancy and imagination of the craftsman or customer.

There are also anvils and nails, locks, keys and bolts and farm implements: sickles and pickaxes straight from the workshops, for use by people with little money who cannot afford imported products.

While the exhibition was on in the city of Cuenca, a goldsmith set up his workbench and tools and gave demonstrations. He made copper rings which he later distributed to the children who surrounded him filled with curiosity, listening attentively to his explanations. Beside him were displayed items of gold and silver filigree: the long earrings worn by the ordinary Cuencan woman who sets great store by their intricate design of birds, flowers and pearls.

The booklet for teachers contained information on the way in which crafts have developed in the region and the present situation of craftsmen. The question sheet for the children was similar to the one described earlier: it was called *Getting to Know the Azuayan Craftsman* and contained factual questions on metalwork, diagrams to be drawn (including sketches made by joining dots) and a crossword.

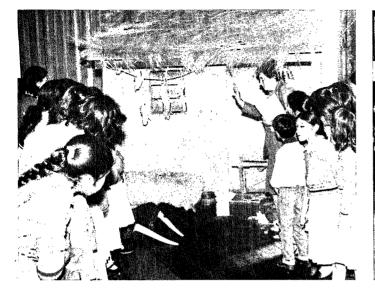
The Director of Education's Office of the Azuay region was also responsible for co-ordinating these visits, but fewer children attended the exhibition because many of the schools were at that time holding their end-of-term examinations and teachers were unable to postpone them for the sake of the exhibition. It was therefore necessary to make special efforts to promote it and the result was that the exhibition was visited by 2,400 children in four weeks.

Like the previous one, this exhibition went on tour to other provinces in Ecuador. It was recently sent to Cochabamba in Bolivia, as part of an exhibition on Ecuador. We hope that when it returns it will continue to pursue its objective of making popular culture better known.

### Craftwork from the province of Esmeraldas

The third exhibition was centred on a coastal province with a large black population and a small indigenous group, the Chachi, who live in isolation along the rivers and still speak their own language, Chapalaachi.

Structured along the same lines as the earlier ones, this exhibition introduced some innovations: it eventually became possible to obtain lighter panels and the 60 Schoolgirls from the City of Quito visiting the Cañari hut at the exhibition of traditional woven goods from the Cañar region.



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Schoolgirls looking at the anvil, hammer and iron cross at the exhibition of metalwork from the Azuay region.



bases can now be dismounted. A brighter colour – green – was used in order to create a mood in keeping with the fertile promise of the land.

The slide show with which the exhibition opened was called Craftsmen and Nature and since the photographs that had been taken at the investigations stage were of high quality, it was decided to use more of them. They showed the location, history, transport facilities and hydrography of the region as well as the Chachi or Cayapa themselves, their environment and their craftwork, which is mainly basketry. The other part of the exhibition was devoted to Afro-Ecuadorian culture, music and crafts. A special section was added on the clearing of the province in which trees are being felled indiscriminately and where conflict about ownership is beginning between the Chachi and Afro-Ecuadorians over land which before had no commercial value.

The Director of Education's Office was very eager to collaborate. An introductory talk for teachers was organized in the museum, and although only six of the thirty-two people invited attended, those present showed great enthusiasm and reserved special visiting times for their pupils. We gained the impression that on the whole teachers are very conservative, nearly always wedded to the idea of the school building as a sacred temple and the only place for dispensing education; they are reluctant to leave this temple for any other institution that provides them with an opportunity for a new experience. It is obvious that they cannot be motivated in a single session. There must be continuous promotion, which is particularly difficult with teachers. If we succeed in enticing them into the museum once to see what it has to offer, it is possible that they will return of their own volition. As regards the questionnaire, the children had no problem in answering questions concerning the location of the region and the materials used in basketwork, listing the objects or joining the dots and sketching. The crossword was a surprise, because it was necessary to explain to them what it was about. The children moved around the room looking for the answers, and what was most surprising was the attitude of some teachers who 'prompted' them as if it were they who were being assessed and not the pupils. It was annoying to have to ask them several times to refrain from doing so since it was the children's own work that interested us.

Certain differences were noted between the groups from public and private schools, especially in the use of coloured pencils; virtually none of the former group used them, no doubt because of the lack of art classes in such schools, but also probably because of modest family resources which meant that the children did not have coloured pencils at home.

Of the answers given in reply to the question 'What should man do to help maintain the balance of nature?' we will mention two: 'Trees should be planted where others have been cut down; excessive felling at any one time is bad for nature, so felling should be done gradually' and 'Man must help to look after plants and trees and keep the city tidy'.

The exhibition was visited by a total of 1,139 children during ten working days. It was also visited by a group of sixty-eight students from the teacher-training college, who showed great interest in the material and technical resources offered them by the exhibition and asked to be informed when a similar exhibition would be organized. A group of adults involved in a literacy programme made a surprise visit and suggested that we set up a basketry workshop as part of the exhibition; this suggestion was subsequently adopted.

Despite requests, the exhibition could not be extended, since it was due to appear in Quito. It is now touring schools around the capital, but attendance figures are not yet available.

### Craftwork from Pastaza

This was the fourth and most recent exhibition so far. It was centred on a province of the Amazonian region in which the Quechua-speaking Canelo Indians live in the jungle, adapting themselves progressively to Western civilization but preserving many of their traditions and crafts which, however, are evolving in a way geared to the consumer market.

The exhibition started with a slide show - *Crafts of Pastaza* - as had the previous ones. Next the location of the region was shown, with a summary of its history and archaeology, a description of the environment and presentation of the crafts practised: ceramics, wood-carving and fibre weaving. The exhibition ended with a message concerning the need to preserve nature.

The intention had been to include a new teaching aid: a box of medicinal herbs with explanations as to their traditional function and use; this was abandoned, however, because of some opposition. It was feared that it might encourage home experiments and lead to children becoming ill.

In addition to the information booklet, teachers were given a list of suggestions for work based on the exhibition which they could carry out with their pupils and calling for a multidisciplinary approach.

The themes were the following: Similarities and differences between an-

cient and contemporary pottery.

Relationships between the use of an artefact such as the blowgun and the beginnings of agriculture in the Amazonian region.

- Characteristics of the Canelo-Quechuan group and comparison with other groups.
- Folk medicine as part of the cultural heritage of the communities. Relationship with scientific medicine. What healing methods are used in the home? Ideas regarding the oral tradition.
- The navigation of rivers and the way man adapts to the environment.
- Geography: location of the region in relation to the other provinces.
- Modern technology and town-planning. The way in which buildings of the past have evolved.
- Relationships between craftsmen and factory workers.

In the city of Cuenca the exhibition was visited by 1,537 pupils in three weeks, and the figure would have been higher had it not coincided with the end of the school year. The exhibition is at present in the Province of Pichincha and is being visited daily by hundreds of pupils.

We hope that this programme of exhibitions will be marked by a degree of consistency; I say 'hope' because, owing to political instability, changes are sometimes made that affect not only the projects but also those responsible for their execution; this leads to the modification of the objectives pursued.

We think that the four travelling exhibitions described have been a means of experimentation and discovery as regards the relationship between education and museums. In the light of this experience we will seek to progress by improving scientific standards but particularly by bringing to bear the enthusiasm which we believe to be essential in any effort to convey a message and influence others. Our aim is to continue to encourage Ecuadorian children to appreciate our culture so that our national identity can be more clearly reaffirmed every day.

### Extending museum education in Kenya

### Lucy W. Ndegwa

Born in 1938 at Kikuyu, Kenya. B.A. (Biology). Diploma in education. Secondary school biology teacher, 1964-66. Curriculum developer at the Kenya Institute of Education, 1967-73. From 1969 served as the head of the Natural Sciences section in the Institute. Head of the Education Department of the National Museums of Kenya since 1973. Author of primary-school texts on health science. Pick it up. Feel it. Touch it. Take it to pieces. Can you find it? This is the message that the children in Kenya are given these days when they visit one of the National Museums.<sup>1</sup>

This statement in a local newspaper sums up the main objective of the Nairobi Museum's education services – that the programmes offered in the museum should encourage both children and teachers to believe that learning can be enjoyable, and that it can be an active process. The education staff hope that museum visits will stimulate children's curiosity about their environment. Although we believe that museums are not educational institutions in the full sense of the word, they should be seen as a source of information and inspiration.

In reality, the need for museum education services was not realized until the late 1960s. School parties regularly visited the museum but there were no educational services rendered. After independence, the number of school groups increased greatly, and the museum opened a School Liaison Centre in 1968. The main aim of the centre then was to assist schoolchildren and teachers to understand and appreciate their natural heritage. Since then the education services have expanded to all museums. Each regional museum has its own education officer responsible for the school-age children visiting the museum from nearby schools. Regional museums are situated in urban areas and each museum has a number of schools that visit regularly. For example Meru Museum has 67 groups made up of 3,800 school children who visited between

1. Mike Savage, 'Learning at the Museum, Nairobi', *Daily Nation* (Nairobi), 31 August 1975.

#### Extending museum education in Kenya

January and March 1983. Meru district has a total of 672 schools. Nairobi Museum, which serves a population of 150 schools in the city alone, received a total of 5,575 schoolchildren made up of 119 groups during the same period.<sup>2</sup>

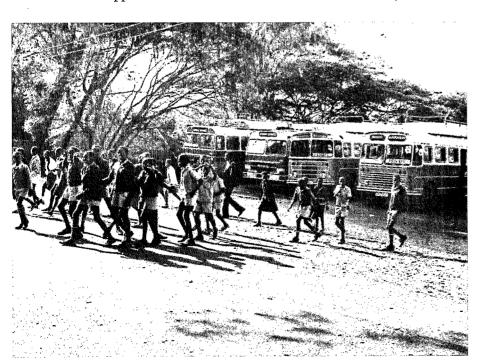
During the initial stages, the programmes were directed towards secondaryschool students (aged 14 to 18 years). Pamphlets were produced for science teachers and aimed particularly at encouraging them to make the most of their environment, especially when teaching biology. The curriculum had recently changed and the teaching of science subjects was new in many schools. Today some of the pamphlets and biological information techniques produced then are still being used. Here the museum played a major role in popularizing conservation education in schools and in promoting the Wildlife Clubs of Kenya movement. The aim was to encourage students to form clubs in their schools that would look into various aspects of conservation in their own area. These clubs were to be organized by the students themselves and carry out activities on conservation. Today the movement has grown from the initial twelve clubs in 1968 to over 1,089 clubs all over the country involving about 55,000 young Kenyans. The motto of the clubs has always been 'Conserve for a Better Tomorrow'. At that time the number of schools was small and it was possible for the education officer to visit many schools in a mobile museum van.

By the end of 1972, the sheer increase in the number of schools made the task enormous. A new approach was therefore needed to cater for the large numbers of student visitors. It became clear that education services needed to be offered within the museum and based on actual museum exhibits. This way the children who visited the museum would get the full benefit of the services offered.

### Our young visitors and their reactions

There are two categories of school groups that come to the museum. The first is made up of those groups that visit the museum once a year as part of a school planned tour to the capital city towards the end of the school year (October and November). Such groups, consisting generally of more than ninety children and, in some cases as many as 200, usually spend one hour in the museum. It is not easy to conduct any class for such groups apart from issuing a free admission card. In 1983 a total of 997 groups, made up of 64,895 students and their teachers made such visits to the Nairobi Museum. The

2. The history of museums in Kenya goes back to 1910 when the first one was started by a private Natural History Society. In 1929, the first government supported museum, known as the Coryndon Memorial Museum, was opened in Nairobi: it is now the National Museum. Its collections and services have expanded considerably since then and it forms the nucleus of a network of smaller regional museums developed in other areas of the country. Among the latter are the Fort Jesus Museum in Mombasa opened in 1969, Lamu Museum in 1970, Kitale Museum in 1975. Meru Museum in 1976 and Kisumu Museum opened in 1979. These regional museums are more like community museums and are administered with the help of a committee formed by the local people in that area, serving the interest of the whole community.



62 A school group arriving at the National Museum in Nairobi.



An education officer with a class in the museum gallery.

#### 64

Class participation: a boy is demonstrating to his classmates how a young Turkana girl would have worn her traditional cloak. groups come from all over the country and the greatest concern of the education staff has been to provide help to them. Schools are assisted through written information about the museums; directions are given to teachers on how they can prepare a museum visit. In the last two years, however, there has been a noticeable change in the way such tours are organized. Teachers are planning to spend more time in the museum, and in some cases children are given an assignment to carry out during that time.

The second category of pupils are children who come from schools that organize visits to the museum for specific projects; here the museum can be useful for further research. In such cases teachers are encouraged to visit the museum beforehand to consult with the education staff. Others come to follow one of the many programmes that have been developed by the department. To encourage more and more schools within easy reach of the museum to attend, the department has developed programmes which can be offered at a short notice and regularly informs nearby schools about them. Since these are the most popular types of visits, especially in Nairobi, it is not surprising that in the last year some schools have been booking their classes two months in advance.

Most of the programmes are based on museum exhibits, but a few on other topics of interest. Children all over the world love to participate, to create and perform, and Kenyan children are no exception. Hence our programmes are designed to allow them to participate, to touch, to feel and to examine the specimens or artefacts. It is only by doing this that the children will receive full benefit from such programmes. Older children are allowed to use questionnaires (study sheets) to assist them in their discoveries.

One handicap that the staff of the department is faced with is the use of the English language. All the exhibits are labelled in English and, since many children are unable to understand the language fully, both their personal expression and understanding are hindered. At present there is no way the education staff can overcome this problem. English is taught as a second language in schools, but at the same time it is used as a medium of instruction. In many cases the museum staff have to revert to the use of Swahili when certain explanations are needed.

Apart from all this education work, the museum has become a centre of visualaid materials. Schools near museums can borrow teaching aids, for example actual specimens of insects, or stone tools from the education department for use in the classroom. Very few rural schools if any, have audio-visual equipment and a school will travel many miles to visit the museum where they know they can see a particular film. Many rural areas have no such facilities and it has become important to schools to know that museums have the facilities. At present many of the films used by the museums are on topics based on wildlife. This has come about accidentally and not by design as only such films are available to the museum. Kenva is renowned for its rich variety of flora and fauna, and many films have been made for the foreign market. In a way this has also been beneficial to the schoolchildren who rarely have the opportunity of seeing any wildlife in its natural habitat. Although some of the films may not be educational in the proper sense of the word, they are nevertheless very useful. It is the education

department's hope that in future short teaching films can be made locally in all subjects to help the rural schools.

How do children view the exhibits in the museum? Although educational programmes can be described as successful, recently the department had to readjust itself to young children's views. Early in 1984 a group of children (6-7 years old) were visiting the bird gallery in the museum. On seeing a bird specimen that had accidentally fallen down, one of the children sadly noted, 'Teacher, there is a dead bird in that case.' Another group visiting the new diorama on a group of prehistoric men, one child exclaimed: 'This is the best thing I have seen. I wish I could shake that boy's hand.'

To the astonishment of the teacher, the whole group got into an argument about whether the prehistoric men on display were dead or alive. Clearly, young children visiting the museum regard the museum objects as 'real' or living. Mounted birds come to life in the children's eyes, whereas large mammals are viewed with apprehension. It is therefore important that when planning museum education programmes, the staff must see the museum from the children's point of view.

This is what they have attempted to do from the very beginning. Most of the programmes described so far are carried out at the Nairobi Museum. In the regional museums education staff have to cope with difficult working conditions. Here the majority of schools are far from the museum, and owing to financial difficulties and lack of transport it is not possible for children to visit the museum regularly as desired. In this case the education officer has to adapt to the local community needs, and plan programmes that will involve travelling to the schools. A mobile museum in such cases would be ideal to take the museum to the schools. To encourage schools to use the museum as a learning centre in these areas, the regional museums' education staff have now embarked on a programme of intensive teachers' workshops. These workshops are organized in conjunction with the local education authority in the area. In a recent workshop at Kitale Museum about eighty teachers attended. The teachers were simply introduced to the whole idea of the museum as an education centre, and were able to take part in simple activities such as mounting insects, preserving plants for later identification, etc. Each teacher was able to take back with him a sample of his work. It is hoped that during these workshops teachers will be encouraged to plan for museum visits for their schools which will be meaningful to the children.

### Museum education staff

Like many museums in other countries Kenya faces major problems in recruiting and maintaining education staff. The policy at present is to recruit trained teachers with some teaching experience in schools. Most of the staff in the education department are trained primaryschool teachers who have attended a twoor three-year course at a primary teachers' college after completing their secondary education. The situation is far from satisfactory, as such teachers may not always be able to cope with all subjects. At present a member of the education staff at the Nairobi Museum is expected to cope with fields as diverse as prehistory, cultural history, geology and all aspects of natural history. The education system through which such a person had passed may not have offered all these sub-



Handling of museum specimens for small groups. Here students handle a cast of early man during a City Education Science exhibition in Nairobi. The museum education department participated.

#### 66

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Students from Kambui Deaf School near Nairobi putting final touches to their model of a traditional homestead. This model won first place in a competition organized by the education department. All entries were exhibited at the museum.

#### 67

Children from Mbagathi Primary School, Nairobi, performing a traditional dance at the museum.





jects. The staff are then forced to learn more by way of the trial-and-error method. The future plans of the education department include employing teachers of specific subjects. This way the teacher will be able to develop education programmes in his own area. At present, the Nairobi Museum, with its large share of school-age visitors, has a team of four education officers, whereas the regional museums have only one education officer each. If the trend of visiting groups continues to increase, as has been the case in the last few years, then each regional museum will soon require two education officers.

The education department of the museum has always had a close working relationship with officials of the Ministry of Education, Science and Technology. Museum staff have participated in many in-service courses for teachers and also produced pamphlets which are used in schools. Recently the department has been working closely with the curriculum developers in the ministry and it is gratifying to see for example that museum research findings on early man have been included in the 1983/84 school syllabus. The museum education department can look forward to a better relationship with schools in the future.

### Conclusion

The work of the education department in the museum has been easy in that it has the full support of the museum ad-

ministration. The Introduction to the Guidebook to the National Museums of Kenya explains that our museum:

aims primarily to extend museum facilities to as many people as possible and in particular to the young. As a consequence of this policy, the regional museums have been developed and the education section has become extremely active in providing films, lectures. vocational courses and teaching aids to schools throughout the country.

As more and more regional museums are developed, the future of museum education work in Kenya looks bright.

### Educating for conservation

#### Gaël de Guichen

We nuck your grandchildren-and their granuchildron too-will someday visit the Hirshham Museum and Sculpture Garden.

We hope the fine works of art you are seeing will oc-here for them to see in the future, in just as line condition as they are today.

Which is why we ask you not to touch.

Almost everyone knows that a painting is trayile and may be permanently damaged by even the pentiest touch. In fact, most damage is caused by more-mi-touches. One finger touching may not seem like much but a million fingers will touch a painting out of existence

Few people realize the same is true of sculpture. Even Fave people realize tine some is the or scalpture, even bronze je poli as sturdy as flokos. The liny trace of mole-ture from your finger can, in time, strip the patine from bronze and rust the strongestateel. Fingermalis and rings will, in time, gouge deep furrows in strone or wood. Handled carelessity, glass will creck and plaster break.

Children cannot be expected to understand unless you instruct them and control their actions in the Museum. A museum is a sericus pluce-vior study, contemplation and plasatrie. It is not a playsround.

Please help us preserve our collection

#### PLEASE DON'T TOUCH

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Those who consider a visit to a museum as a pleasure do not realize that the pleasure may well be short-lived. The condition of works of art on display is deteriorating irreversibly and, in some instances, very rapidly.<sup>1</sup> Until quite recently, it was the conservator who was chiefly responsible for 'looking after' collections, a task which was mainly conducted through restoration.

Today, however, the speed of deterioration is such that within the space of a generation, entire collections have been seriously damaged through excessive exposure to light, variations in temperature, or the harmful effects of pollution and dust. Others may quite simply have disappeared through theft or fire.

The individual conservator often has no resources whatsoever with which to cope with the ever-growing dangers and, however competent he may be, will never be able to eradicate the irreparable ravages of time.

The old adage 'prevention is better than cure' has become increasingly topical with respect to the cultural heritage. This means that while the conservator will obviously have to conduct restoration work, he cannot overlook the need for preventive conservation methods. Nevertheless, he should not work alone; the task should be shared by all museum employees and even by members of the public.

If the latter were made more aware of the extremely fragile nature of works of art and of the processes of deterioration to which they are subjected, people would not only avoid damaging the collections during visits to museums but would also contribute actively to their protection and to all action undertaken for safeguarding the heritage. How can such awareness be promoted?

### Practical conservation measures and public awareness

With visitor groups it is interesting to observe how the attention is stimulated as soon as the guide talks about restoration and

#### Educating for conservation

conservation. This reaction can be accounted for in various ways. Some think that the interest of visitors is aroused because they became involved in the very existence of the work of art on display. Whatever the reasons may be, the fact remains that whenever an exhibition on restoration is held, members of the general public are drawn to it in large numbers.

Recently, substantial efforts have been made in order to go a stage beyond the traditional exhibition which merely displays the work of art before and after restoration. In Mexico City, Paris, Geneva, Rome and elsewhere, the processes of deterioration of works of art have been explained and the methods for prolonging the life of collections were presented and analysed. However laudable, such endeavours have unfortunately been rare and very costly. What about more permanent efforts on a smaller scale?

It is widely recognized that visitors can do considerable damage to a work of art by touching it and there are many museums which have numerous 'DO NOT TOUCH' signs. In other museums, visitors are warned in a less off-putting way that 'the paintings are fragile. Please do not touch them.'

The Hirshhorn Museum in Washington, D.C., for example, has a notice laid out as follows: 'In this museum, you may look, admire, touch, walk about, rest, out, etc.' (see Figs. 68, 69).

Other museums appeal to the public by distributing a brochure to each visitor. The Museum of Colonial Art in Caracas provides a brochure with the following text:

#### Dear Visitor,

The preservation and upkeep of this museum depends largely on you. Our staff is here to help you make your visit enjoyable. You are requested not to touch any of the objects on display as, with the passage of time, they are much more fragile than they would appear to be. Thank you. It has been understood in some countries that, without public co-operation, attempts to conserve the heritage are largely futile. The English-speaking countries have shown the way in this field - it is edifying to see how the public there has responded generously to appeals launched both for museums and for monuments.

Endeavours to ensure the conservation of the heritage must also reach the people who buy exhibition catalogues. More often than not, these catalogues include, among the hundreds of pages devoted to the description of works of art, a brief chapter dealing with the techniques used for preserving the works of art during the temporary exhibition. Mention must be made, in this instance, of the sixty-page catalogue of the exhibition of Paul III frescos in the Castel' San Angelo in Rome which included a four-page section on microclimate and lighting. These technical details were referred to in almost all the articles in the press devoted to the exhibition. As some of these articles were written by famous art historians, the information had an even wider impact.

Other kinds of action also deserve to be mentioned such as information disseminated through children's workshops, the training of guides or through contact with the associations of friends of museums.

Members of the public are in no way compelled to visit a museum and, while they may have the right to see any public collections, they also have the duty to be adequately informed as to what they should do to contribute to their preservation. If curators do not make use of the support which the public can and should provide to conservation they are turning their backs on invaluable help for the profession. Every effort should therefore be made to foster public awareness of the fragile nature of art collections and museum educators should play the leading part in conducting such action.



### IN THE MUSEUM... PLEASE... TOCH END OF ER PLANE AND TOCH END OF ER

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## O P I N I O N

### My approach to welcoming visitors

The following statement of curatorial principles was made at a recent meeting in Brussels by Jean-Pierre Vanden Branden, past-president of the Belgian National Committee of ICOM, and curator of the Maison d'Erasme and the Béguinage at Anderlect-les-Bruxelles. He looked back over his long experience in a museum where he had been personally responsible for welcoming groups of visitors for over thirty years.

I have heard two expressions used in this respect: either 'reception service' or 'educational service'. Without any doubt a service is involved but our task is not only to serve a cause (and we are intimately convinced of that), but also to serve people, visitors who, spontaneously or not, cross the threshold of our institutions.

We are therefore in a position in which we must assist, lead and guide people and make ourselves useful generally for, to my mind, there can be no hierarchy in respect of the services provided. We can be as useful to visitors by indicating to them where the toilets are as through helping a reader decipher an illuminated manuscript from the Middle Ages or a tablet of baked clay bearing cuneiform writing. People who visit museums less often than they go to the cinema, and therefore do so with a degree of apprehension, should be made to feel at ease through a helpful manner and a warm smile. They must not be put off by disdainful looks and scornful airs on the part of those who believe that they cannot descend from the pedestal upon which they have installed and isolated themselves.

An 'educational service' is an expression that is just as rich in meaning and connotations. The aim, on which we are in complete agreement, is, first and foremost, to educate rather than to instruct. We live in a society which, over the last few decades, has deliberately separated education from instruction, in spite of the very satisfactory results which had been achieved in this respect by traditional schooling.

We have not to question the wisdom of the situation but to accept it as a fact, and thereby endeavour to re-associate the two elements of an authentically educational approach. The objects in our museums should give rise to explanations aimed not merely at informing the intellect but at fashioning the mind, at fostering thought, powers of deduction and comparison, at reaching conclusions, at ensuring a better understanding of others, at extending the emotional capacity of visitors and arousing their curiosity.

An educational service must be aimed more at providing a lesson in ethics than a scholarly discourse, at discovering a different cultural code rather than a historical or technical introduction to a remote or extinct civilization. Visitors must not only be taught to learn but rather to observe, analyse and, better still, admire. We must appeal to their aesthetic, rather than their intellectual appreciation. We should communicate with visitors as if we wanted to arouse in them the desire to become researchers or even museum curators.

Our task must be to show how it is possible through a single well-documented observation process, to arrive at an understanding, on the one hand, of similarities between artists, civilizations, cultural and ethnic areas, languages and linguistic groups, in order to discover the thread underlying human existence, the collective subconscious and its creative manifestations, in order to highlight certain intellectual reflexes that are common to all human beings, synchronically and diachronically, and the continuity of their traditions; but also, on the other hand, the differences which set them apart, distinguish them from each other and lend them their originality and their specific nature, of which a greater awareness cannot fail to be a source of enrichment for all.

Nevertheless, the common feature of all these approaches, however diverse in nature, is man himself. Therefore, an educational service constitutes a first strategic step for teaching acceptance of otherness without systematically imposing a scale of values. It is thus a school for tolerance and respect for others, in spite of or on account of the differences. In a word, it is a lesson in humanism.

I believe that the educational service, and still more so its representatives, its various mainsprings and vital elements, its commentators, guides and all those whose task it is to explain and to arouse, its obstetricians in the Socratic sense, its 'maieuticians', have another part to play, which is extremely active and sometimes even exhausting, taxing but stimulating, that is to set an example in respect of the interest, curiosity and joy of discovery that it implies and the very passion of the orator for the subject to which he lends life. Indeed, it is far from common in a society that has fallen victim to all-enveloping doubt as to its identity and reasons for its self-confidence to persuade through example and to demonstrate *in vitro* that cultural and artistic things can be at least as exciting as the Wimbledon results or the progress of the Tour de France. I was saying that our task is to arouse and I feel this in my bones rather than in my mind, as if it were some kind of tropism.

This need, which I have always felt and which has guided my behaviour over thirty years of virtually daily experience of education in my modest museums (the size of the institution, however, is hardly relevant here) has made me find the necessary physical and moral resources in order to resist both the lassitude caused by this kind of vocal activity and the despondency resulting from what may appear to be inertia or what may be a temporary lack of interest or hostility which young people sometimes display – their difficult process of adaptation to the adult world in general and to its cultural standards in particular.

### The challenge of the guided visit

For my part, I have handled many more than 10,000 guided visits. Every one of them has, on each occasion, required the last ounce of energy I could muster, simply because I have always sought to kindle in the hearts and minds of my listeners that which they had that was the best in them and which they may not have been aware of. Let us not forget that 'education' and 'pedagogy' are both words that contain, etymologically, the same idea: that of leading. It is our task, therefore, to lead those who listen to us. This perhaps constitutes the greatest stumbling block that we may have to contend with. There is nothing more dissimilar than two different groups of visitors, even if they are of a similar age or belong to a similar social background or education system.

The problem is to gear the commentary to the level of understanding of the visitors and to raise them, by a notch or two, above their initial ignorance.

Visitors are considerably more sensitive than is usually thought to the specific atmosphere of a museum, which can be unfamiliar, somewhat disturbing and which, in extreme cases, may trigger off an introspective

#### My approach to welcoming visitors

reflex or an inferiority complex with regard to art, science, history, culture and, incidentally, the person who comments on all these abstractions. The visitor must not be allowed to leave a museum with a consciousness of his lack of knowledge or even less a feeling of stupidity or inability to understand. He would never feel like returning to the museum (and he would be right) if only to preserve his own intellectual comfort.

A guide, therefore, must never take on the airs and tone of voice of an examiner, judge or inquisitor. I admits that this is not always easy and is becoming increasingly less so on account of new academic standards and restrictions on frequent visits to museums.

We must ensure that when students leave our museums, they carry away with them something extra, even unwittingly, and that they should have derived some enrichment both from performance that we have given them (for after all, we are all showmen) and from the subject that we have brought to life for their benefit.

Giving a clear lead also requires authority. We must exert a measure of influence on our visitors. A lax, undisciplined approach soon verges on impoliteness or even rudeness.

I have never tolerated anarchy or casualness and I have always been surprised, pleasantly surprised I may say, to observe that raising my voice at the right moment on one or two occasions, lent to the visit and the visitors, and indirectly to the institution itself, a dignity and a quality which could only improve the standing of all concerned.

Young people, especially young men, may perhaps have an even greater need for feeling 'supervised', even if they rebel against it. They have their foibles which they sometimes display so tactlessly that we are likely to have a poor opinion of them. Moreover, let us not overlook the fact that we have an indisputable advantage over students and teachers, or an advantage of a kind. While it may be more uncertain and more demanding for them to show enthusiasm throughout the whole school year, we public speakers are always in the position of fledglings and the feat of mental gymnastics expected of us never lasts for more than two hours at a time.

Each group constitutes a unique experience of its kind. It is a new challenge every time. Our task is unquestionably to dominate, win over, attract and convince but, more especially, to give of ourselves. Guiding a group of visitors is always a labour of love, a blend of giving and acquiring, of skill and inventiveness, of new discovery and happy repetition. Educating others always means giving of oneself, but very often involves receiving support, admiration, kindness, emotion and gratitude, if only from one member of the group. Over the years, experience has taught

A slide library on textile arts

me to be less demanding with regard to the results to be obtained.

If I have digressed somewhat from the subject of my approach to welcoming visitors to museums in order to indulge in a declaration of principles, it is because I know of no other profession that is more gratifying than ours, though I must admit that I have never thought of it with as much fervour as while writing these few lines, which in the last resort are more a testimony than a philosophical stance.

I would like to conclude by saying that I have never really applied a method or theory discovered in books or in a university lecture hall. I have merely followed my extrovert's instinct, my taste for the stage and my gift for speech which I share, in varying degrees, with all museum professionals. I have nothing, therefore, to pride myself on.

In my opinion, the standard of scholarship and personal research work and the sum of publications are only of secondary importance in the arsenal of weapons which a museum guide calls upon each time to lead him to victory. These elements are useful above all for helping us to lick our wounds, whenever appropriate, and to take refuge in the soothing company of those forgotten figures with whose cultural productions we have been entrusted and which our task requires us to prevent from becoming totally forgotten.

[Translated from French]

70 From the slide set on indigo dyeing techniques in West Africa: beating the dyed fabric to touch up the colours. A slide library on textile arts is being brought out by La Navette, a French journal devoted to weaving, tapestry-making, spinning and the use of vegetable dyes. Its editor, Gilbert Delahaye, has decided to publish sets of colour slides on all the arts involved in textile production. He is at present conducting research throughout the world primarily, and as a matter of urgency, in search of weaving and dyeing techniques that are in the process of dying out; he is also inventorying the world's major textile collections.

These include the finest museum pieces, including both the products of the traditional textile arts (weaving, tapestry-making, embroidery, lace-making, appliqué work, etc.) and contemporary textile creations. Delahaye hopes within the next ten years to compile a comprehensive slide collection on the finest examples of the textile arts throughout the world. The first two sets of slides deal with indigo dyeing techniques in West Africa and the Historical Textile Museum in Lyons, France.

Each set of twelve  $23 \times 36$  slides comes with accompanying text in French and English. The sales price is at present 65 francs a set, plus postage (70 francs postage-paid for France; 75 francs for other countries).

Sets may be obtained from: Éditions de La Navette, 81170 Cordes, France.

In addition to this collection, articles will be published on the textile arts of countries with a strong tradition of textile production.

### To subscribers

Unfortunately, Unesco's periodicals are not immune from the effects of inflation, particularly constantly rising printing costs. In 1985, therefore, we regret that we will be obliged to raise the price of *Museum*.

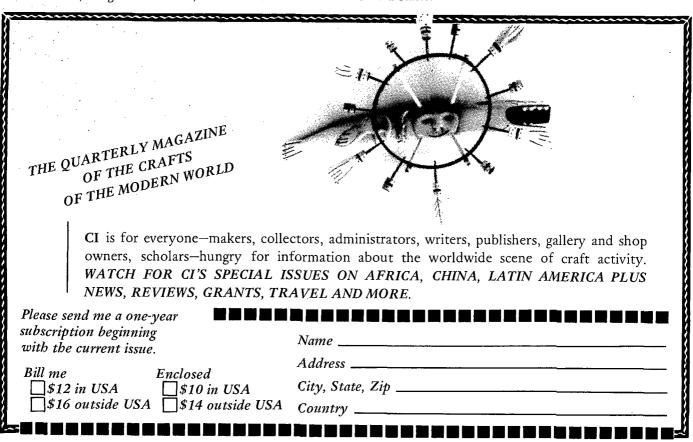
It will be only a small increase, however: a single issue will cost 40 instead of 34 French francs. A one-year subscription will increase from 110 to 128 francs.

### Craft International

*Craft International*, edited and published in New York City, is the official publication of the World Crafts Council, an international non-governmental organization which has a close information and consultative relationship with Unesco.

Under the leadership of Editor-in-Chief, Rose Slivka, *Craft International* is dedicated to the crafts of the modern world. In its newsprint tabloid format published four times a year, the magazine focuses on the preservation of aesthetic and ethical values through handcraft throughout the world. It explores the traditional, indigenous folk arts, old and new craft

technologies and modern international styles as well as the interaction between tradition and contemporary expressions. Recent thematic issues have examined such topics as 'The Sociology of Craft: Japan 1984' (January–March 1984), reporting on the role of the crafts in this rapidly changing and increasingly technological society, and 'The Languages of Celebration' (April–June 1984), delving into the attitude of celebration as seen through the work of artists and craftsmen. *Craft International*, 247 Center St, New York, NY 10013, United States.



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