THE MUSEUM AND CHILDHOOD EDUCATION

A thesis written in partial fulfilment of the requirements for the degree of Master of Arts.

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PREFACE

The object of this thesis is to give the reader an outline of the way the museum through its facilities increases the learning opportunities of children. It is with this aim in view that I am endeavouring to show why Visual Education through the medium of the museum can greatly enhance ordinary teaching methods especially in the field of natural science. Since I am more concerned with the school child than with education for the general public little time or space is devoted to Public Museums of Science except in cases where they deal with the school and school children. A small section is devoted to the Museums in Canada with a view of pointing out the unequal facilities that exist for aiding the American and Canadian school child. Although Art Museums are mentioned by far the greater part of the thesis is concerned with the School and Children's Museums, special attention being given to the Saint Louis Public School Museum and the Children's Museums of Boston, Brooklyn and Detroit.

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INTRODUCTION

The Museum is an institution which cares for and uses collections of natural or cultural objects for the benefit of the public. It is the custodian of the source materials of our constantly expanding knowledge of science, history and art. Just as books and documents form the core of a library, the heart of the museum is its collections. Collections alone, however, do not constitute a museum. The manner in which they are cared for and used by the museum determines its standing among other museums, and its prestige in the community. Public recognition of the museum as a cultural and educational community agency is won by the day-to-day activities of the institution.

The museum may be a unit of the city, county, provincial or federal government. It may be a part of a city or county school system, of a high school, library, college or university. It may be an educational agency maintained by an industrial concern, a philanthropic foundation or research corporation.

The museum collects objects for two main reasons. First, it is a repository for objects which must be preserved because of their aesthetic, historic or scientific importance. The history of these objects must be recorded in the greatest possible detail, otherwise their value for scholars and students is lost. Secondly, the museum is a storehouse for materials which have educational

usefulness and its purpose is to contribute, through the use of objects, to the cultural and intellectual life of the community.

Museums can be grouped into four general types;

Art museums which include art galleries and all museums emphasizing the aesthetic aspects of the arts and crafts.

Science museums whose collections deal with the natural and earth sciences and with archaeology and ethnology.

History museums include historic houses, forts and villages and many examples of arts and crafts of foreign lands. One purpose animates museums of History. This is to recreate the past in the minds of the living.

General museums possess substantial collections of two or three of the major fields of art, science and history.

In the United States the Museum beginnings were made early. In 1773 the Library Society of Charles-Town had set out to collect materials for a full and accurate natural history of the province of South Carolina, and had fitted up a public museum - the first in this hemisphere, now thriving as the Charleston Museum. The Museum movement in Canada originated in the Maritime Provinces through the efforts of the pioneer collector Abraham Gesner. He opened in 1842 the Gesner's Museum in Saint John, N. B. Since that time the movement has continued to grow until, "it is estimated that in 1957, there were approximately 210 - 220 Canadian organizations which possess museum collections of one kind or

another."[1] The Canadian museum movement is becoming strong and healthy and the rate of increase in the number of museums has jumped sharply in recent years. The expansion period of museums in the United States began when the great museums of New York and Boston were started in 1870. This period since the seventies has set the modern museum scene, bringing the number of museums to 2,480 and constituting perhaps a quarter of the world's museums.[2] During this era of expansion Children's Museums became well established in Detroit, Indianapolis, Brooklyn and Boston. School-system museums were set up by school boards for the use of schools in some of the larger cities. They were to be concerned with supplying museum materials for classroom use and attended chiefly to the teacher's routine needs. Today the cities of St. Louis and Cleveland have the strongest school-system museums. However, in Canada before World War 11 there were no School Museums, strictly speaking, although Sir Henry Miers and Mr. S. F. Markham list thirty-four museums in thirty-three schools, seminaries, academies, and colleges in A Directory of Museums and Art Galleries in 1932. These museums were strictly collections of a very general or special nature. The majority of these were supported by church organizations.

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1 Carl E. Guthe and Grace M. Guthe, The Canadian Museum Movement (Canadian Museums Association, 1958), p. 5.

2 Laurence Vail Coleman, The Museum in America, Vol. 1 (American Association of Museums, Washington, D. C. 1939), p. 18.

The majority of museums in the United States and Canada at one time considered the child a nuisance and children were refused admittance unless accompanied by an adult, the idea being that their mischievousness may annoy other visitors, and possibly damage some of the exhibits. This attitude has changed and museums on the whole have come to recognize that education is a necessary part of their work and the attitude of museums towards children has become one of great helpfulness. The museums that work with children may be conveniently divided into three groups. First are those that have been established, staffed, and maintained chiefly for children. In the United States these are called "Children's Museums." Children's Museums are public museums limited in function to serving young people of all ages through adolescence. They are similar to General Museums with perhaps a leaning towards science and natural history. A second type of museum consists of those where a separate department or museum area is maintained and staffed mainly for young people. In many cases this type of museum is called a "Junior" museum. The third grouping consists of those that are established and maintained for general museum purposes of collection, research and exhibition, but pay special attention to the needs of children and maintain a department of special services for them. Almost all of the general museums of Canada and United States are found in this category. With a few notable exceptions these museums have been established in centers of urban population,

and are essentially neighborhood institutions catering to children living near at hand. A survey of four hundred and thirteen museums completed in 1957 by the American Museums Association showed that two hundred and forty or 58.1% of these had educational programs, with the following educational statistics:[3]

Number of children participants	3,018,256
Number of museum classes	39,428
Number of museum teachers	792
Average teaching time per week	21.7
Number of museums allocating teachers school boards for coordinating program	47

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[3] Raymond O. Harrison, Museum Services, A Report submitted in 1958 on Vancouver Museum Services in "A plan of Policy and Organization."

CHAPTER 1

MUSEUMS FOR CHILDREN

The general overall picture of museums for children can best be described by giving an illustration of a few of the more conspicuous ones.

One of the most outstanding of the Children's Museums is that of Brooklyn, N. Y. It was established in 1899 and was the first museum organized solely for children in the United States. Since its beginning it has been a branch of the Brooklyn Institute of Arts and Science. In 1948, however, it achieved the dignity of independent identity, but it still uses in addition to its own, the resources of the Brooklyn Institute of Arts and Science. Its object is to interest children in the study of nature and to offer encouragement and practical assistance to young people engaged in nature study. In order to fulfil its aim it exhibits collections which children can enjoy and use. The Brooklyn Children's Museum is organized in five divisions, which cover its varied fields of activity: education, science, social studies, natural history and library. The Museum building has a number of exhibition rooms, a lecture room and a library. Each room has a special name such as the "Room of Animal Homes," "The Geography Room," In the geography room a child may in the space of an hour make a world

trip or tour. He may start with a hunting trip in a Brazilian jungle, continue with surf riding in the South Sea Islands and end with a walrus hunt among the Smith Sound Eskimo on the shores of Greenland by the light of the Aurora Borealis. The special feature of the Museum is the "Busy Bee Room." Here children can study natural history with the aid of the microscopes and magnifying glasses. They can mount and classify insects for their own collections and care for pets and animals in which they are interested. Although the Museum has no official relations with the public school, yet the collections are correlated as far as possible with the school work.

The second oldest, one of the best and most complete, is the Boston Children's Museum, organized in 1913 in response to the desire of a group of teachers for some adequate assistance in presenting the subject of nature study to their classes. The Museum is situated on the edge of a thickly populated section, within walking distance for many children and within easy transportation range of children from all parts of Boston and nearby communities. Convalescent children from the hospitals are often brought to the Boston Museum, and loan boxes take treasures from foreign lands to students of the Institute for the Blind. In serving these, the Museum does an educational service in acquainting them with the world and locality in which they live. The material at the service of the children consists of exhibits illustrating various departments of natural history, ethnology, industry, etc. In 1958 school

talks were given to six hundred and thirty-eight classes from two hundred and seventy-nine schools in Massachusetts, Rhode Island and New Hampshire.[1] Talks were also given to one hundred and forty-three children in three institutions for the crippled. The exhibits are often changed and seasonal displays at Thanksgiving, Christmas and other holidays are presented. Sometimes the Museum has a large special exhibition on Stamps, Transportation, Arts and Crafts, etc., which brings together groups of objects from many interesting sources and makes possible a very fine story. The lectures given at the Museum are based on the course of study and by use of the background of exhibits, the slides, and motion pictures, the lectures are made as graphic as possible. Teachers are instructed about talks to be given in the Museum by advertising material circulated for their benefit. In the varied activities of the Boston Children's Museum clubs have a prominent part. In these clubs craftwork is very important. No dues are required for any club but regular attendance is demanded. There is no age limit in the clubs but they are planned that any child from primary grades through high school can obtain membership in a club to suit his taste and years. Interesting games are pursued about the Museum throughout the year.

The Educational Museum of the Saint Louis Public School is a regular part of the school system. The Board of Education of Saint Louis maintains a school museum for the purpose of supplying the

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[1] Annual Report 1958, The Children's Museum, Boston, Mass.

schools with material for the illustration of the daily lessons in geography, history, nature study, science, art, literature, and all other subjects. Thus it is not a museum in the full sense of having the bulk of its collections on display to visitors. It is rather a distributing agency. The museum has received a large amount of material from foreign countries illustrating the customs and lives of their people. The museum has been adding new collections since its founding and today hundreds of thousands of dollars worth of visual instruction and supplementary books are available for use in the public schools. The nature of the museum's material is almost as varied as the subjects taught in the grades of an elementary school. Illustrative material for even mathematics has been placed in the museum's many collections. It is a travelling museum and has as its motto "Bring the World to the Child." Each school has a delivery day once a week. Principals and teachers order by mail the material a few days in advance. The delivery truck then delivers the material on the set day and takes back what has been used the previous week. Each teacher has a catalogue for her use. The materials consist of food products, materials for clothing, other natural and industrial products, sea life, birds, insects, mammals, plants and minerals, rocks and ores, articles and models illustrating the life and occupations of the different people of the world, apparatus for illustrating chemistry, physics and physical geography, charts, photographs, maps for illustrating history, geography, physiology, pictorial material of all kinds such as

film projectors and screens, lantern slides, stereoscopic views, etc. Thousands of moving picture films per year are delivered to increase the interest in practically all phases of class room work. The museum also maintains a travelling library which contains sets of supplementary books, selected to fit the reading abilities and interests of a designated grade. Music is another phase of the Travelling Library. Collections of folios of orchestra, chorus glee club music are issued along with vocal and classical records for classes in music appreciation. Teachers of physical education and special dance classes use hundreds of the museum's records in their rhythmic song-play and dancing classes each year. Many interesting classroom projects and other samples of students' work are displayed at the museum. The visiting teachers and pupils may get ideas for work in their own schools and in turn they share their ideas by contributing some of their classroom work to this exhibit. Teachers and pupils are welcome to the museum at any time.

The Children's Museum, Detroit Public Schools, is an arm of the school system, devoted to education and making use of the rich resources amassed over a period of forty years. It had its beginnings in two basement rooms of the old Detroit Art Museum in 1918, as a joint undertaking of the Detroit Institute of Arts and the Board of Education. In 1925 the Detroit Board of Education assumed full responsibility for the Children's Museum and opened up a period of expansion which has terminated recently in the

purchase of a new building. The Detroit Children's Museum is an integral part of the city's schools and is one of the most extensive in range of exhibits. Children come to the museum for part of their instruction, and the museum goes to the schools with a wide selection of exhibits, allowing for firsthand experiences relating to art, history, geography, language, music and science. Learning becomes an adventure through the imaginative exhibits which the museum presents for the children. Saturday and vacation day programs and activities to appeal to the various interests and grade levels of boys and girls, comprise the basic work within the museum itself. The Detroit Children's Museum has done a great deal of research in the field of docentry, or museum teaching. Much attention has been given by the museum staff to the technique of handling classes and of helping classroom teachers make use of the museum. The touchstones of the museum are:

See
Touch
Wonder
Do
Think
Learn
Understand

Many of the large museums have found it necessary to provide special rooms for carrying on their work with children. This has become designated as the Junior Museum. There is a great deal to be said in favour of a joint arrangement of a child's and adult's museum particularly from the point of view of economy, and also in the fact that materials discarded from the parent museum can

sometimes be turned into first class junior exhibits. Insofar as the characteristics of the Junior Museums are concerned they are in the main similar to the Children's Museums, and their major objectives recently compiled by Dr. Francis C. Gale from questionnaires, museum brochures, reports and pamphlets sent in by the directors of fifty-five junior museums are listed below.[2]

MAJOR OBJECTIVES OF 55 JUNIOR MUSEUMS

Major Objectives	Rank	Frequency
1. To stimulate the interest of children in and their understanding of their natural environment	1	45
2. To supplement the work of the schools	2	42
3. To provide for good use of leisure time and for recreation	3	34
4. To introduce children to the origins of their culture and to develop pride in their community and country	4	27
5. To help children to understand and appreciate other peoples, cultures and times	5.5	25
6. To develop in children an appreciation of arts, crafts, and sciences through visual aids	5.5	25
7. To help children to develop their individual talents, interests, and resources for future vocations and avocations	5.5	25

[2] Francis C. Gale, "The Junior Museum," New Horizons, Bulletin for Nature Centers for Young America, Inc., New York, N. Y. Vol. 8 (Winter 1959), 1, p. 18.

8.	To stimulate interest in science by observation and participation .	7	21
9.	To develop permanent construction hobbies	9	20
10.	To give children the opportunity to experiment and explore suited to their needs, understanding and development	9	20
11.	To help prevent juvenile delinquency	11.5	19
12.	To give children the opportunity to learn by doing among their peers	11.5	19
13.	To develop an understanding of the values of conservation and to stimulate interest, appreciation and a protective attitude toward our natural resources	13	17
14.	To develop leadership	14	13
15.	To develop a sense of cooperation and responsibility in children	15	12
16.	To help gifted children	16	10
17.	To expand with the cultural environment into a natural history center for peoples of all ages	17.5	9
18.	To correlate conservation with school subjects	17.5	9
19.	To develop creative thinking	19	7
20.	To give city children the opportunity to have out-of-door experiences	20.5	6
21.	To develop unity in the community	20.5	6
22.	To educate children in and develop an interest in industry	22.5	5
23.	To develop manipulative and problem solving skills	22.5	5
24.	To provide services and programming for youth agencies ...	24	4
25.	To encourage research in natural history	26	3
26.	To develop accuracy in observation	26	3
27.	To help handicapped children	26	3

28. To provide an educational and cultural center for both adults and children 28 2

Among the Children's Museums there is one that is unique, The Washington (D.C.) Children's Museum, which unhappily lost its home, turned misfortune into opportunity, and is now creating a new vogue in museums by converting temporarily to a trailer-coach museum. This museum stores its excess material and establishes it periodically in the trailer-coach which is moved from location to location as the need may arise.

So far I have dealt entirely with institutions whose purpose and interests are directed mainly towards aiding the school and its pupils. Many schools, besides borrowing and visiting these institutions, have tried to start collections of their own with varied success. Much will be gained by the pupils and the community where this takes place, if an interest can be created in such a project. The community and the school working hand in hand in building a local collection is one of the best ways of arousing local pride, loyalty and affection. At Lake Charles, Louisiana, the high school class in American History has shown originality in working with the town. The parents and acquaintances of the children have grown interested and there is scarcely a home that is not represented by some historical object. Today that room is one of the city's chief centers of interest. Lake Charles formerly

had no museum and this school museum has come to fill that place for the city.

CHAPTER II

THE CHARACTERISTICS OF MUSEUMS FOR CHILDREN

Character

Museums specially for children are comparatively new. They have appeared without much publicity, and many people are unaware that they exist. Museums for children may vary considerably in size, plan, scope and character but above all, children's museums belong especially to children. Eleanor Moore, in her book Youth in Museums, defines a children's museum as a "Physical set-up of objects; (1) selected for children; (2) exhibited for children; (3) interpreted for children; (4) in a place set aside for children."[1] The spirit that makes a children's museum is to be found in the selection of objects and other visual aids and also in the way the child is introduced to his material. The great value of a children's museum is its flexibility and almost everything makes a suitable subject for a child's education. A children's museum makes children the focal point of all that it does. This child-centered philosophy has been the basic principle of children's museums for half a century. Cases are made to their height, legends are written for their understanding, exhibits are planned and geared

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[1] Eleanor M. Moore, Youth in Museums. (Philadelphia; University of Pennsylvania Press, 1941) p. 5.

to the child's level. Since the exhibits are the tools with which the Children's Museum works, the background of all its endeavours, they must be based on what is interesting to the child. Anyone who knows anything about children also knows that there is no limit to their individual interests, but exhibits must be scaled to the child's level if he is to obtain maximum understanding. An atmosphere of enjoyment and curiosity must be created which will stimulate the child to seek further information on the subjects illustrated by the exhibits. Many exhibits have been built up by the children themselves who have collected, studied, classified and labeled collections of leaves, minerals, shells, insects, and the like. In fact children are encouraged to make their own collections not in a haphazard way but with a definite purpose in mind. This type of activity carries with it a good deal of sound instruction and is an excellent way of stimulating interest. All exhibits or collections in Children's Museums are arranged with the specific purpose in mind of presenting a series of mental images for a very receptive public. These ideas are related to the child's own experiences and are presented in a way which he likes and understands.

It is not an uncommon fact that each child is different when one considers the racial, cultural and economic conditions that make up a community. Thus children should have the opportunity to select their own activity, game or club without any regimentation or direction from adults. This is the general philosophy that is followed by most children's museums. No adult ideas are imposed upon

the children. No attempts at formality in their creative playrooms or workshops. Only when children are brought to the museum as a member of a school class for a specific purpose does formality and regimentation enter the picture.

It is believed at the Brooklyn's Children's Museum that possessiveness is a factor in shaping the thoughts and ideals of every youngster and that this can only be brought about by participating in the affairs of the museum. The child is given the impression that he is welcome and that the museum is a pleasant place to work and play. In some museums the opportunity is given to junior students to select and hang an exhibition. The purpose of this is to give the children an insight into the selection, to promote judgment and appreciation and to give them a sense of belonging to the museum. This opportunity of participation, this opportunity to "learn by doing" is an essential ingredient in any program of education. The children select their own committees to handle the details of selecting the exhibit (research committee), making an inventory (registrar), doing the typing (label committee), spread news of show (publicity committee). This involves unusual thought and much work must be put on it to make the best show with the material at hand. Children also share in the duties of the museum such as coat-room checking, ushering and clearing up the Auditorium as well as gathering news for publication. This effort to foster a feeling of possessiveness in the child is carried on even to the degree of allowing them to decide policies. This is true of the

Newark Junior Museum where they have a Junior Council and also in Indianapolis where there is a Junior Board of Directors. This Junior Board of Directors is appointed by the schools and the members serve for a term of one year. They hold meetings once a month and meet annually with the governing Board of Trustees and report on their activities. The children take pride in ownership and the feeling that they belong and it is not unusual for a newcomer to be coached on the value of the exhibits and the care of property by one who "knows." In a few museums children who have done all the available club work are given the privilege of becoming junior docents and are allowed to guide visitors through the galleries on Saturdays and Sundays. These junior docents are very serious about this work and take special pride in showing <u>their</u> museum to visitors.

Content

There is great variation among museums for children in type and content. In general the children's museums have some material from a number of different fields, with most of their content centering around natural history and ethnology. The collections and exhibits come from many sources. Some are obtained as gifts, others by purchase, others through donors who have collected such items as native crafts, native costumes, etc., in their travels, and in many instances collections are procured by the efforts of the children themselves. Industrial exhibits, such as lumber products, manufacture of chocolate, rope, are often supplied by manufacturers. Most of the children's museums maintain small collections of live animals. In many of these museums children are allowed to handle and play with the "safe" animals and to take them home or to school for a definite period of time. In the San Jose - Santa Clara County Junior Museum, San Jose, California, for example, one of their two museum rooms is devoted exclusively to live animals. The collection includes several "deordorized" skunks, a porcupine, several owls, and numerous white rats, guinea pigs, frogs, lizards, snakes. A few museums have small planetariums which give the children an idea of the position of the stars and movements of the planets. Many museums have displays with mechanical adjuncts. Motion is produced by automatic devices. Buttons are installed for the turning off and on of electrical exhibits or games. Besides exhibits and electrical games many museums have a reading room or sections which contain work

tables where children can follow some definite interest such as identifying and polishing minerals, mounting and arranging different forms of insect life, preparing small habitat groups, making masques, costumes, puppets, working with copper or other metals in craftwork, making plaster casts, or painting and sketching some of the objects exhibited. Almost all of the children's museums maintain material for circulation by loan to schools, clubs, societies and in some cases to individuals. These materials vary greatly in variety and quality. Coloured film slides, film strips, mounted pictures, charts, maps, motion picture films and projectors are among the most common of the circulating materials. Portable dioramas (small scenic representations employing diminutive three-dimensional figures), equipped with electrical illumination are frequently found in circulation. In many places the collections for circulation consist mainly of mounted birds, animals and specimens of insects. However, a few museums develop more elaborate exhibits in a series of cases with titles such as "Chinese Children," "Prehistoric Man The Inventor," and "Glass; A Product of the Earth." In several museums recordings and art collections are available for loan. Some museums are able to send out original paintings of prints from their collections. A few of the museums not only have numerous collections of pictured materials of various kinds but also supply visiting lecturers. Flat materials are often arranged with captions suitable for hanging on walls in a prearranged sequence. The Cleveland Museum

of Art has prepared a number of such "Wall Exhibits." Separate specimens and artifacts are loaned by almost all museums to schools. A number of these are available for distribution among the pupils in a class and can be handled and examined at close range. Many of these collections contain articles from foreign lands illustrating samples of weaving, clothing, toys, models, tools, utensils, weapons and the like. Many museums try to simulate reality by making models or small habitat groups. Often these models are simply miniatures of the real things such as threshing machines, looms, dinosaurs, costume dolls. The habitat group usually consists of a plant or small animal in a simulation of its natural setting. In addition to materials and specimens many museums maintain library collections which they circulate on demand.

Program

The program of museums for children has been developed and designed for dealing both with groups and with individuals. The program developed for groups deals largely with the schools during school hours and with special interest groups in the after-school hours, Saturdays and summer holidays. These special interest groups are organized into museum "clubs." These clubs meet at regular intervals and children interested in some particular phase of work can devote time to their hobby. When dealing with individuals the museum guides and encourages the child to "follow through with primary interests, to learn honest scientific methods of study and to investigate at first hand the characteristics and properties of real materials so as to draw personal conclusions."[2] Dr. Thomas Munro in an article on museum education said, "We are not so much concerned with persuading him to like everything equally well. By showing him how many great styles of art the human race has produced, each with its own distinctive values, we hope to enlarge his range of enjoyment."[3] This guidance will enable the individual eventually to follow a specific liking which may culminate in some direct aspect of education. There are many opportunities for both group and indi-

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[2] Charles Russell, Children in Museums of the Americas, Department of Education, American Museum of Natural History, New York City (By the author), p. 15.

[3] Thomas Munro, "Introduction Aims and Methods in Art Museum Education," Educational Work at the Cleveland Museum of Art, (2nd. ed. The Cleveland Museum of Art, Cleveland, Ohio, 1952). p. 19.

vidual work in the field of photography, stone cutting, weaving, leather-work, ceramics, painting, sketching and a multitude of other activities of special interest to boys and girls. In early spring, during summer vacations, and late fall, field trips and hikes are carried on by many museums. For the smaller children, the weekly story hour and the projection of motion pictures has much appeal. In a few of the museums children write and print their own news bulletins. Excellent examples of these are the "Museum Gazette" published at the Brooklyn Children's Museum and "Drums" which is handled by the Newark Junior Museum. If one were to give this topic of program in museums for children a very careful study, one would find that the programs cover such a wide range of individual items as almost to defy classification. Dr. Francis Gale, in his recent study of fifty-five junior museums, lists the following activities:[4]

TABLE 23

ACTIVITY INCLUDED IN THE PROGRAMS OF FIFTY-FIVE JUNIOR MUSEUMS

Activities Included	Rank	Frequency
Preparing exhibits	1	48
Conducting tours	2	44
Conducting field trips away from the museum ..	3	40

[4] Francis C. Gale, "The Junior Museum," New Horizons, Bulletin for Nature Centers for Young America, Inc., New York, N. Y., Vol. 8 (Spring-Summer), 1959, p. 16.

Guiding child participation in arts and crafts activities	4	36
Supervising the making of collections	5.5	35
Exhibiting motion pictures	5.5	35
Supervising classroom visitations	7	33
Providing for children's participation in club activities	8	27
Providing for children's participation in Boy and Girl Scout Merit programs	9.5	26
Conducting demonstrations	9.5	26
Leading children in playing museum games	11	24
Visiting institutions other than schools (handicapped, blind, etc.)	13	22
Conducting off-museum grounds programs (clubs, school assemblies)	13	22
Publishing museum brochures and assisting children in publishing museum news-sheets	13	22
Providing audio visual loan materials other than animals	15.5	21
Conducting Youth agency leadership training programs	15.5	21
Producing radio and TV programs	17	20
Telling stories	19	19
Providing library loan and reference materials	19	19
Providing consultation service for teachers	19	19
Arranging meeting places for community science groups (Audubon, astronomy, etc.)	21	17
Making animal loans to children	23	16
Participating in science fairs	23	16
Providing meeting places for other groups (art clubs, music clubs)	23	16
Providing activities for gifted children	25	15
Conducting conservation workshops	26	12
Sponsoring special programs in cooperation with the local college	27	10
Working with school committees	28	9
Conducting school work-shops	29	7
Providing services other than those listed in this table	30.5	6
Providing radio and TV programs	30.5	6

Under Providing services other than those listed in this table in Table 23, the following were given: "Lecture series by local persons"; "special festival"; "pet shows"; "loan service for teachers, students, and parents"; and "work with emotionally disturbed children."

CHAPTER III

MUSEUMS' FACILITIES FOR CHILDREN

Visual Education

Visual instruction has become an important educational factor in the schools. Visual aids offer a more direct means of instruction than the spoken word, a more direct means, perhaps, than any other except actual demonstration or handling - which is often impossible. In visual instruction you find one of the strongest methods of promoting natural learning and the proper motivation of the pupils' effort. In visual aids you find the most efficient instruments for bringing vividness and concreteness to the child in his attempts to learn. Every good teacher knows that she is far from being the source of all knowledge on any subject, and usually she is eager to stimulate interest. Thus sensory aids are a necessity if a teacher,particularly in the sciences, wants to make her lessons effective. Difficult concepts and facts in science should be made explicit to pupils through audio-visual aids. As a result the use of concrete materials, of objects and pictures, of the lantern slide, and moving pictures as a supplement to the textbook have found their way into many schools. Although visual experiences are recognized as an integral part of the school curriculum, the amount of visual material available in the

average school as a teaching aid is small and poor in quality. It usually represents a private collection gathered by individual teachers over a period of years and consisting of collections of clippings from magazines or newspapers, often supplemented by a few miscellaneous objects gathered as souvenirs from vacation trips. Since schools have not yet gone very far in developing their own visual agencies, it is in this direction that efficient help can come from the museum. "The museum function that attracts the greatest public attention, and that which is indeed advanced by a good many people as being the reason why museums and art galleries exist at all, is that field of activity known as Visual Education."[1] The first step in educational method in a museum is to illustrate an idea by objects. The idea is all important and no one has described this ideal better than Sir Harry Lindsay, who, in an address on Visual Education to the Museum Association in Great Britain in 1936, said:

> "The 'Art of Visual Instruction' may be described as the art of arranging and displaying an instructional exhibit in such a way that the attention of the visitor is not merely arrested but held, not merely held but intrigued, and so intrigued that, like Oliver Twist, he asks for more."

The museum is the pioneer in the field of visual instruction. For some time, however, these institutions were "passive" or static agents of instruction, disseminating knowledge chiefly to the more or less casual visitor, and were less concerned with imparting information than with the preservation of records, scientific or

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[1] S. F. Markham, The Museum and Art Galleries of the British Isles (Edinburgh: T. and A. Constable Ltd. 1938), p. 83.

historical. This viewpoint has passed away. Gone are the days of the dry as dust, old-fashioned, static museums. The modern museum now stands as an aggressive force in education and has become a dynamic educational factor for young and old alike. It is through this medium of visual education that the museum is playing an ever increasing role in the process of education. The museum is making every effort to provide in a very real sense a series of mental images for a very receptive public - children. Regardless of the subject, whether it be art, science, history, geography or nature study, much can be learned by school children through the aid of visual education acquired from Educational museums. Schools are increasingly striving to bring realities into the classroom through demonstrating real materials, such as cocoa beans, hemp, or, failing the realities, of showing movies or posters. The museum, regardless of its nature, has many materials that supplement the studies of pupils and give new meanings to their studies. The museum, through its visual education program, can teach more about certain things in a few minutes than the best illustrated books or the most skillful of teachers can do. Children tend to remember much more of what they see than of what they hear, and there is less room for error in seeing a thing than in hearing or reading about it. The classic principle of teaching is to proceed from the known to the unknown. Thus a museum exhibit which objectifies certain abstract ideas difficult for the young mind to grasp are eagerly being sought after by teachers in many parts of Canada and the United States.

Exhibits

A museum exhibit is something to be observed: an arrangement of materials which communicates certain ideas and information to the observer. Sometimes they consist only of working models arranged in a meaningful display. Sometimes they are a series of photographs, or of photographs mixed with models and charts. Sometimes they include a demonstration or a motion picture. Thus when a child observes an exhibit, his attention is focused on a group of materials that has been assembled according to a plan, which can have great educational value, depending on the organization of knowledge in relation to the purpose and background of the viewer. What is most important is that the materials should be arranged to subserve ideas. The materials are a means not an end in themselves. The museum believes in the importance of assisting students to think and perceive for themselves. Some teachers have been using exhibits for years to teach subject matter. Some of these exhibits the teacher and the class prepare in connection with the classroom work, others are procured from outside sources. It is here that the museum can play a vital role. There are practical advantages in providing for teachers, exhibits prepared by experts for specific classroom work. Many museums do all in their power to provide special exhibits that will be fascinating to children as well as of definite educational value. The Boston Children's Museum at one time had the entire Entrance Hall devoted to a rare loan collection from Yankee whaling days. The young

visitors could step into a re-creation of the world of "Moby Dick." Ship models, complete to the last detail of rigging, showed the vessels that once sailed out of New Bedford and Nantucket. There were harpoons, blubber forks, spades and waifs used in the whaling industry, a swinging lamp from a captain's cabin, a log book of the '60's, a sextant, old prints and photographs to illustrate the chase and capture of the great whales. Exotic curios from distant ports which seamen brought back for the family whatnots vied in interest with the delicate scrimshaw articles which they had etched in the long hours between cries of "Thar she blows!"[2]

Within the museum itself the exhibits are more or less permanent. The Newark Junior Museum has the following to offer as exhibits that have proved to appeal to children as well as have great educational value.

1. Model of stockade; an igloo
2. Exhibits of live animals such as harmless snakes, young alligators, turtles, fish, terrarium, revolving globe.

Although children can stand constant repetition more often than an adult and they often will return time and time again to see the same exhibit, the museum finds it necessary to change the exhibits so as to keep the museum alive. One of the most vivid and yet simplest stories is told with objects in the Royal Ontario Museum of Zoology. An exhibit called "Nature's House that Jack Built" comprises a series of six boxes, one upon the other and diminishing

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[2] Publication, For 25 Years Boston's Children's Museum, p.5.

in size, holding increasingly larger but fewer animals, each one necessary food to the next, until the pyramid is finally surmounted by a hawk. The legend on the boxes, starting at the top reads:

"This is the HAWK that eats the SNAKE that eats the FROG that eats the HOPPER that eats the GRASS that grows on the EARTH about us."

Simply and graphically it tells two of nature's elementary stories:

1. Eating and being eaten is a law of nature.
2. A large animal needs many smaller animals as food. In nature, the smaller the animal the greater the numbers.

Demonstrations are always popular particularly in the arts and crafts. These are used to give children an appreciation of the fine arts. An artist in the process of painting or a sculptor who creates the head of one of the children as he explains what he is doing and why, can hold the attention of children for hours. Perhaps a much better picture of the wide range of educational possibilities to be found in Museum exhibits can be had if one were to quote from the Children's Museum Bulletin of Indianapolis.[3]

WHAT THE VISITOR TO THE MUSEUM WILL SEE

The entrance hall displays the colorful Festival of Dolls and the Festival of Banners of Japan.

Knights and ladies, serfs and squires, a suit of armor, tournament flag, and 15th. century wooden chest lend atmosphere to the MIDDLE AGES gallery.

The newly installed DRAMA ROUND THE WORLD gallery contains figures of dancers and musicians, musical instruments, masks, puppets, and marionettes from the Orient, Europe, primitive Africa and America. The littlest visitors will adore the marionette theatre of Goldilocks and the Three Bears.

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[3] Children's Museum Bulletin, Children's Museum of Indianapolis, twenty-fifth Anniversary number, December 6, 1950

Objects from ancient Egyptian tombs, Grecian pottery and glass dating from the pre-Christian era, are among the material displayed in cases on MEDITERRANEAN ANTIQUITIES.

The automobile built in Indianapolis by Charles Black in 1891 is of primary interest in the TRANSPORTATION gallery. Eight dioramas depict the evolution of transportation.

The gallery THE STORY OF GLASSMAKING distinguishes blown, molded and pressed glass.

The PREHISTORIC gallery includes life sized skeletal casts of four prehistoric animals, cases explaining the how and where of fossils, and rock and mineral exhibits. By the use of colorful paintings and contrast with modern counterparts, archeological antiquities are made understandable to both young and old.

Mounted animals and habitat groups, as well as live specimens, such as snakes, alligators and birds, comprise the exhibits in the popular NATURAL HISTORY gallery.

A leopard skin, shell money, skin drums, and examples of weaving and handicrafts depict life in the AFRICAN JUNGLE.

The gallery ARCTIC REGIONS shows how dependent the Eskimo and Indian are on their environment. Clothing, homes and transportation of these people are illustrated. The material culture of the people of the Far North is attractively displayed in groupings such as "Eskimos Have Fun" and "Eskimos Work Hard."

Life during the EARLY DAYS IN AMERICA is more readily appreciated upon seeing exhibits in the gallery showing pioneer household furnishings, crafts and tools, school objects and toys.

One small room is decorated in the manner of a home of the ELEGANT EIGHTIES.

A new gallery called THE STORY OF WRITING tells the growth of the alphabet from the cave man's time to our own.

The INDIAN gallery shows food, homes, clothing, ceremonial life arts and crafts, and means of defense of the first Americans.

Representative types of loan cases available to teachers are displayed in the Lending Department office so that visitors may have an idea of the material loaned to schools and youth organizations.

Within the Buffalo Museum of Science there exists a "Hall of Man". This is a section of the Museum to which children are not normally admitted except when accompanied by an adult. However, special talks are often given to older children when they have reached the eighth grade. This hall is devoted to the explanation of man as a human machine and has a series of excellent models to illustrate the functions of the parts of the human body - invaluable to the students of physiology and hygiene. Ruth Weston in an article in the Museums Journal gives the following description of the exhibit.

> "A particularly educational exhibit is the transparent man; this is a life size model built of "cellon" and moulded to shape around a complete human skeleton. Other parts of the body are included in the model and are lit up by electricity in an orderly sequence. The lighting is automatic, and not operated by the visitor. Thus the student can see the light flash in the brain, then the larynx, lungs, heart, liver, stomach, intestine, kidneys, etc. and through the transparent "skin" see the shape, size and proportions of the various organs. Around the base of the model is a series of labels each of which light up simultaneously with the part of the body it explains. Other exhibits in this "Hall of Man" include diagrammatic working models to illustrate such functions as the circulation of the blood, action of the lungs, etc." 4

In many of the children's museums are exhibits in connection with which the child has to "do something". Many exhibits are arranged with electrical connections so the questions asked in the labels may be answered by pushing of a button. The correct answer is indicated by the flashing of a tiny electric light bulb or the

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4 Ruth Weston. "American Museums and the Child", The Museums Journal, (Vol. 39, No. 2, The Museums Association, 33 Fitzroy St., Fitzroy Sq., London, W. 1. May 1939), pp. 93-116.

ringing of a small bell. This type of exhibit, requiring simple mechanical participation, is very effective, especially with the boys. An example of this type of display with the effective wire and contact variety is the wild bird theme, "DO YOU KNOW THESE BIRDS", used by the Rock Creek Nature Center in Washington, D. C. The child places one wire end on an electrical contact under a bird picture and the other on a contact next to the name of the bird. If he makes the proper combination, the electrical circuit is complete and a buzzer sounds. Other types that never fail to appeal to the child are:

1. Hinged mask to lift.
2. Revolving drum carrying graphic material.
3. Picture and text changed by depressing a handle.

Many museums feature special exhibits to illustrate some special event or occasion such as Thanksgiving. One of the specials at the Detroit Children's Museum in November, 1959, was Home for Thanksgiving with Dolls. Here The Toy Shop was transformed into an early American dining room with doll guests seated for a sumptuous Thanksgiving feast. Tiny furniture, place-settings, decorations, and dolls recreate in miniature the atmosphere of this American festival. On many other occasions the special exhibits are made of the work of the children themselves. The type of exhibit most popular with children is one where they have the opportunity to handle objects. It is in the field of geology that handling displays are most easily accomplished. A simple but effective display offered by one of the

museums invites the use of all five senses in identifying geological specimens. Children see a sheet of mica; smell a piece of sulphur; taste rock salt (they are asked to keep their individual pieces. Large sacks of ice cream salt are purchased for this purpose); hear sounding sand (the loose sand shaken in a bottle produces a sound similar to the footsteps on the desert); and feel soapstone.

Loans to Schools

Since only a small fraction of the child population of a locale have the opportunity to visit the museum, there has arisen a movement to "bring the museum to the classroom". Now a special collection of portable exhibits and illustrative matter that can be of invaluable service to a teacher can be had for the asking. Thus one of the most widely appreciated educational services of the museum is that of the circulating exhibits - otherwise called the "lending collection". These circulating exhibits enliven the classroom and serve to enhance book content. They bring bits of other lands, other days or the mysteries of nature to the school at the time a particular subject is being studied. Many museums have a series of organized loan exhibits for schools, a few go further and lend not only to schools, but to Women's Institutes, Boy Scout Troops, tutorial groups, etc. The scheme varies from the loan of a single series of exhibits to well developed schemes. Almost all the museums of the United States maintain collections of various kinds of surplus materials that they lend for use outside the museum walls. Much of this lending material is in the form of pictures, charts, maps or representations not normally available to the teacher, as well as specimens and artifacts, dioramas and models, library materials, films, slides and recordings. Lending to teachers began with lantern slides. Now there are scores of museums throughout the United States with varied lending collections. This work is farthest advanced in the field of Science and Natural

History. Many of the collections include animal forms, plants, minerals and rocks, materials for clothing, shelter, charts, models, and small habitat groups. Some of these collections are packed for distribution among the pupils and are arranged to be examined by them at close range. Other exhibits are arranged in a series fixed permanently to some backing and encased under glass to protect them from prying hands.

The Brooklyn Children's Museum distributes many exhibit collections which greatly aid the teacher of Social Studies. These are collections of materials from Africa, China, Japan, Netherlands and many others. A feature of the loan collection at the museum is the setting aside a part of it (specimens of birds, insects, shells, minerals, etc.) for individual child borrowers. The conditions for borrowing are simple; the child has to be a member of the Children's Museum League and has to pass a test on the subject in which he is interested. He is then allowed to borrow material relating to that subject and to take it home for further examination and study. On returning it he has a short oral test to qualify him to borrow again.

The Children's Museum of Boston has been loaning exhibits since shortly after the founding of the Museum in 1915. Today the circulation of Loan Exhibits hovers around the four thousand mark each year.[5] Borrowers of this visual material may choose from one hundred and seven social and natural science topics and

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[5] Bulletin, The Children's Museum of Boston, May 1959

special subjects. New and duplicate exhibits are added constantly. Some of the exhibits among the loan units now in circulation are: "Time", "Winter Buds", "Beauty in Shells" and "Mammal of New England".

The Children's Museum of Detroit issues a Catalogue of The Lending Collections containing some one hundred and fifty pages. Designed for the convenience of those who borrow, it covers museum exhibits for loan to art, auditorium, home room, language arts, kindergarten, music, science, and social studies teachers. The indexing is very complete; the description of exhibits full; a section is devoted to exhibits for locked cases in schools; there is information on sizes, rules for lending, uses of exhibits, etc. This may be called a comprehensive catalogue of the largest collection of museum materials loaned to schools in the country.[6] The lending department averages twelve thousand exhibits annually to Detroit Public Schools; total pupil contacts on one showing alone of each of these exhibits, exceeds one million, six hundred thousand.[7]

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[6] Margaret Brayton, A Report to the Detroit Board of Education, June 24, 1958.

[7] Margaret Brayton, Brief notes prepared for delegation of Russian Educators. Nov. 24, 1959

Lectures

It is generally agreed that visual aids are not by themselves "a short cut to knowledge". They must not be merely shown but used, that is to say, used in conjunction with direct teaching. Many museums employ special lecturers to instruct children as they come to the museum and this has led to highly organized visits of parties of school children. This idea of school talks had its beginnings almost from the time the Milwaukee Public Museum was opened in May 1883. Teachers began to visit it with their classes and the director of the museum often talked to them about the exhibits. This led to the appointment by the school board in 1899 of a special lecturer for classes coming to the museum. Other museums were soon to adopt the policy and were always glad to instruct classes visiting the museum. This soon became the most popular among the museums' activities. Many groups now come to the museums for a "general tour", but this so-called "sight-seeing" tour of the museum is being discouraged as not much is gained, and the children can get a very confused idea which does not leave a good or lasting impression. Most attempts are made to concentrate the teaching on a small section of the museum so that the exhibit and the school curriculum are correlated. Objects selected for use are made to fit accurately into the school picture. Many museums send out to the teachers preparatory sheets known as the "Silent Reading Lesson". This consists of a small reading lesson which prepares the child for what to expect when he encounters

the exhibit. Many museums publish leaflets to advertise the school talks and from which the teacher can make her selection. Thus the trip to the museum can be planned to include exactly the material needed to supplement the textbook. The following example is from the leaflet issued by the Children's Museum of Boston of the talks for September - October 1958.

SCHOOL TALKS

> Weather becomes a really exciting study when visual materials animate information in textbooks. School classes visiting our Weather Room for a talk on Wind and Clouds enjoy the experience of reading weather instruments in operation and discovering how forecasters predict weather from these indications. The children are especially interested in the instruments they can make themselves of simple materials for use in classroom or home "weather bureaus". The information acquired thus through experience is supplemented by a very good film geared to a child's interests and called "Our Weather".

The School Talks for September and October are:

FALL BIRD MIGRATION	EARLY AMERICAN WAYS
WIND AND CLOUDS	ANCIENT EGYPT
THE PLANETS	NORTH AMERICAN INDIANS
ASTRONOMY (for lower grades)	MEXICO

A Talk on SEASHORE LIFE can be given by special arrangement.[8]

Many talks are given on geographical subjects. "The Home of Miss Kyoto" is the title of one given in the Boston Children's Museum on the people of Japan - their customs, industries, and festivals. This talk centres round a life-sized Japanese doll given to the boys and girls of Boston, Massachusetts, by the

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8 September - October Bulletin, 1958, The Children's Museum of Boston.

children of Japan, and is supplemented by other ethnographical material from Japan.[9]

In a few instances the museum instructor visits the classroom a day or two in advance and there gives an introductory lesson which stimulates the children for their visit. Sometimes the teacher visits the museum in advance and selects the special exhibits which would relate the most closely with the work of the pupils. On other occasions the classroom teacher talks over with the pupils the plans for the visit and has them write down the questions they hope to answer through looking at the museum objects. A list of questions is sent to the museum instructor in advance of the arrival of the class. A few museums like the Detroit Children's Museum send out informational leaflets for each child who is about to visit the museum for the first time. These leaflets describe briefly the important things to see while in the exhibit room. So that the child may derive the utmost value from the museum, experience has shown that some "groundwork" in connection with the particular visit should be done in class by both teacher and student. Most museums, however, do nothing to develop a pre-visitation adjustment and substitute instead a short fifteen minute talk before entering the gallery. The follow-up has proved to be equally valuable. Children are often given the

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[9] Ruth Weston. "American Museum and the Child", The Museums Journal, Vol. 39, No. 2, May 1939, (published by The Museums Association, 33 Fitzroy St., Fitzroy Sq. (London, W.1) pp. 93-116.

opportunity to handle objects and after examining them are given statements to be filled in upon the completion of the lecture. Sometimes outline drawings are presented to the children with some essential detail lacking. This requires careful observation on the part of the pupil before he can complete the outline. Other museums present the children with a list of questions when they visit the gallery, resulting in their interest being immediately challenged and directed without being hampered. After these statements are completed the children take them back to the classroom where they discuss what they saw and did at the museum. Often museums allow teachers to take back to the classroom slides and library plates of the Museum Talk as a follow-up assignment in their own classroom. The emphasis in museum instruction is at the most times upon the gallery material, rather than upon objects from the circulating exhibits, or slides, or library plates, since these can be borrowed by the schools for their own exhibit upon request. A few museums, like the Cleveland Museum of Art, allow students to take stools (rubber mats for small children are provided so they can sit on the floor), drawing boards, crayons, and paper into the gallery with them, to record significant designs or to sketch objects they wish to discuss later on in school. Such sketching serves to fix things in their memories.

> "The following experience was enjoyed by an elementary group in a New York City school. The day before the class made this trip, the children discussed its relationship to their unit; Introduction to Flight. Detailed arrangements had been made by the school with the museum, and a definite schedule was adhered to, from the time the sixth-grade class

arrived at the museum at 10.30 A.M. Depositing their coats, hats and lunches with the attendant, the children began their trip with the bird hall. The museum guide talked as the class studied the albatross and its wings, and other birds whose physical structures related to the subject of flight. They saw eagles, pigeons, humming birds, birds of paradise, as well as ostriches, and in respect to the last, they learned why this bird with stubby wings does little flying. Having listened to the guide as he related these birds to aspects of flight, the class entered the hall of the so-called flying animals. They were shown the flying mouse, bat, flying squirrel and similar creatures. They learned that the flying squirrel GLIDES through the air and the distinction between gliding and flying. A visit to an exhibition of planes followed. Here the children saw full-sized machines as well as separate parts of the plane. Before leaving this hall, they had a lively discussion of bird flying and plane flying and the relationship between the two.

Motion pictures came next. The first film was a striking display of birds in flight - many kinds of birds, viewed from many angles, and from near and far. The second film showed the methods used by colleges in teaching pilots to handle a plane.

After lunch, the children entered the museum auditorium where they were able to handle the items they had previously been shown under the leadership of the guide. Now they touched, felt and closely examined the birds, the small planes, and other materials on display. At the end of this activity, the group settled down for discussion. Questions from the teacher served to test comprehension, and when points had to be cleared up, the museum attendant offered to do so. The following morning, the children were asked to write simple compositions about what they had actually learned from the museum experience. Further applications were made of this trip in the form of arts and crafts activities centered on birds, planes and objects of flight". 10

The following was prepared by the Milwaukee Public Museum in cooperation with the Milwaukee Public Schools and Public Library, with the approval of the Division of Curriculum and Instruction. It is but one example of many similar museum-school programs in

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10 Edgar Dale, Audio-Visual Methods in Teaching, The Dryden Press, New York, 1952, p. 174.

the United States. This is a seven-page teacher's guide for a teaching Unit current in September 1957. The main headings only are given here:

LIVING IN COLONIAL AMERICA - Grade 5

Motivation;
- Relation to pupils' experience.
- Background information,
  - General information.
  - New words.
- Points to look for at the museum in the:
  - Film.
  - Museum tour.
  - Demonstration.

Follow-up activities:
- Language activities,
  - Discussions.
  - Dramatization.
  - Research reading.
  - Written activities.
- Creative activities,
  - Arts, crafts.
  - Exhibits.
- Demonstrations.
- Evaluation of pupil interest.
  - Test.
  - Teacher's observations.

Follow-up Test: (here twenty questions are listed)

Loan Materials:
- Films, filmstrips.
- Specimens.
- Records, books.
- Slides.

Visits are made to schools too far from the various museums for regular museum visits, bringing to them the same types of illustrated talks with objects, lantern slides and films. Directed lessons with demonstrations, in classrooms or studios; individual classroom lectures with slides, probably the commonest type of talk; continued lecture courses, and auditorium assemblies with

slides, circulating exhibit material and demonstrations, are all given at various times by the museums' staffs. These class visits go back to 1906 when the curator of the Davenport Public Museum reported:

> "Under the present system I visit each school once every three weeks during the fall and winter, giving from four to eight (usually five) lectures at each school during a single forenoon. My plan is to go from room to room, taking with me specimens from our museum for illustrating the lesson. In most of the schools I take the rooms two and two and am thus enabled to talk to from two hundred and fifty to four hundred pupils per day". 11

Today museum instructors reach thousands of children every year through direct visits to schools. The following excerpt taken from an article in a publication of the Cleveland Museum of Art illustrates some of the work done by that museum with regard to school talks.

> "These classroom talks are also given in elementary schools, especially by the Cleveland public school staff, on all the subjects which may be given in the museum to correlate with the school curriculum. Such visits often reach several hundred pupils in a single day. The Cleveland public school teacher takes exhibits from the circulating division's collection as well as several boxes of slides to cover three or four subjects. Frequently classes double up in a classroom or in the school auditorium in order to receive the lessons. By spending an entire day in one building or visiting the neighboring schools, the museum instructor reaches a maximum number of pupils in one trip, which may extend to schools fourteen miles from the museum. The lessons vary from thirty minutes to an hour, and the classes cheerfully miss recess or delay starting lunch in

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11 Grace F. Ramsey, Educational Work in Museums of the United States (The H. W. Wilson Company, New York, 1938), p. 188, quoting from Annual Report of Davenport Public Museum, Davenport, Iowa, 1906, p. 197.

order to get a closer view of the exhibit material".[12]

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[12] Jane Grimes, "An Outline of the Educational Program", Educational Work at the Cleveland Museum of Art, (2nd. ed. rev. The Cleveland Museum of Art, Cleveland, Ohio, 1952), p. 43.

Mechanical Adjuncts

Films

Museums make use of the many mechanical aids to education. Films, slides, radio and television are all in constant use. The museums were quick to see that slides and films were essential adjuncts to teaching, making it more effective and helping to speed up and vivify what students learn.

Lantern slides began to be included in loans to schools as early as 1905 when the Saint Louis Educational Museum started to build a collection and they soon came to be in great demand. A vast amount of work has been done by various museums in forming groups of slides so that they would correlate with the courses of study in geography, nature study, history, general science and biology. This close correlation brought more demands for the lantern slides than has ever been possible to fill. In one museum alone, the Boston Museum of Fine Arts, there is a free slide library collection of approximately thirty-five thousand black and white and colour slides covering the history of art, architecture, sculpture, painting, prints and minor arts, including manuscripts, glass, ceramics, metalwork, textiles, costumes, period rooms and furniture.[13]

By 1911, The American Museum of Natural History began to

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[13] Charles Russell, Museums and Our Children, (Central Book Co. Inc., New York, 1956), p. 199.

supplement its lantern slides with motion picture films. A film on "Cotton Growing and Manufacture" was one of the first used for school classes. As explorers advanced in the field the use of film became an important aspect of their collections, and as they travelled to remote corners of the globe these museum explorers secured thousands of feet of negative which was edited into reels adapted for correlation with the school curriculum. Many schools took advantage of this new form of visual aid to education. The Milwaukee Public Museum catalogue lists nearly twenty-five hundred different 16 mm. sound films free to local borrowers. The appeal that motion pictures have for children cannot be denied. Hundreds of children stand in line on Saturdays for a chance to see the movies at the Brooklyn Children's Museum. The editorials in the Boston papers lauded,

> "the fine purpose behind the Saturday morning showings of selected films for young folks under the joint auspices of the Cambridge Museum for Children, the School Department and the University Theatre". 14

Radio

> "The use of the radio as a means of education was a departure from the visual idea so prevalent in museum activity, yet a means that the museum could ill afford to pass up". 15

The merits of the radio were obvious. Its reach, its

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14 Eleanor Moore, Youth in Museums, (University of Pennsylvania Press, Philadelphia, 1941), p. 71.

15 Grace Ramsey, Educational Work in Museums of the United States, (The H. W. Wilson Company, New York, 1938).

power to dispose in a large measure of the disadvantages of isolation was of particular value to rural schools where subject specialists are relatively few. Museums with radio contacts began to give occasional talks in the early days of broadcasting.

> "Today Sunday morning radio programs broadcast from one of Cleveland's major networks are a regular feature of museum activity. The Cleveland public schools also conduct specially prepared radio broadcasts in art appreciation over the schools' own network. All classrooms for a given age of student can tune in at the same time, and simultaneously show a set of coloured slides which have been chosen by the museum instructors and made up in hundreds of identical sets for the schools. The talks are written, produced, and supervised by the museum teachers on the Cleveland public school staff, and are beamed to the elementary classes in the seventh and eighth grades. As many as eleven weekly lessons are given each semester in the elementary grades and eight in the junior high schools, reaching an average of nearly seventy thousand students in a year." 16

Television

Television is the newest of the broadly used media of communication and perhaps the most dynamic means of mass communication known to man. It can be extremely effective as an educational medium. Although opinions may vary, television has a definite value as a teaching aid in the school classroom.[17] Television offers better teaching for more students. The narrators can bring to television all the visual aids of the

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16 Jane Grimes, "An Outline of the Education", Educational Work at the Cleveland Museum of Art. (2nd. Ed. rev.; The Cleveland Museum of Art, Cleveland, Ohio, 1952), p. 42.

17 (This was the conclusion come to by the National Advisory Council on School Broadcasting as a result of experiments conducted in 1954 and 1956). Charles A. Siepmann, TV and Our School Crisis, (Dodd, Mead and Company, New York, 1958), p. 30.

classroom; maps, models, exhibits, magnetic bulletin boards, rare illustrations and costly apparatus. The Sacramento Junior Museum was one of the early pioneers in this field and their fourteen half-hour programs using the format of "Since Time Began" was very successful. It was a program of ideas and thinking in science, not just a number of unrelated facts and figures.[18] In 1953 the program "The Nature Museum" boasted a consistent rating of 9.4 which amounted to a juvenile audience of seventy-four thousand viewers.[19] Television is used by museums to promote work and participation by the children. Children have been shown how to paint scenery and design Christmas cards. Many "firsts" on television; for instance, the birth of a bat, the exciting emergence of young mantids from their egg case, the uniting of sperm and egg of the sea urchin, have appeared on the program "Discovery" which is aided in its program by the Children's Museum of Boston and the Massachusetts Audubon Society. "Exploring Nature" is another program supported by the Children's Museum of Boston and was organized to supplement and enrich the school curriculum for grades four, five and six, particularly but not exclusively in biological science. A booklet containing twenty pages has been published, illustrating topics to be covered during the year 1959. These include topics such as:

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[18] The Museologist, No. 71, June 1959.

[19] Videodix, July, 1953.

How Animals Move	What are Flowers for?
Plants in Winter	The Seashore
Blood - The Eternal Ocean	The 40 degree Miracle - Spring

Planetaria

"The elements of astronomy are most difficult to bring within the range of children's experiences. The sky and its contents of stars, the illusions of movements of various kinds, the baffling realities of orbits and distances, time and space, and the influences of them all on the earth and its people in terms of climate and weather, of seasons, of daylight and dark, and of travel by sea, air and land, are, however, not easy. Many facts can only be understood by actual star study, and this must be done at night when it is most difficult to gather children together." 20

With the invention of the Planetarium, it became possible to simulate the star-studded sky and to bring under control the study of many of the stars and their movements. The planetarium has become a theater of the skies and a wonderful way to study space, travel, navigation by sea and air, ways of reckoning time and distance. Many museums have incorporated this instrument within their locale and make every effort to aid the schools and the school children in matters of astronomy. The Newark Museum publishes the following statement of the work of the planetarium for the 1959-1960 season.

"In the planetarium, the phenomena of the sky can be seen and studied. On its dome are projected the stars and planets visible to the naked eye, the phases of the moon, the rising and setting of the sun and stars, and the planets as observed from the earth. New programs are presented every two months. Grades three to twelve may make appointments to see the regular Planetarium program during any

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20 Charles Russell, Museums and Our Children, (Central Book Company, Inc., New York, 1956), p. 230.

weekday or may choose from a list of special topics to emphasize certain phases of astronomy which they have been studying. The performances last approximately forty-five minutes and there is time for questions at the end of the lecture.

Part of each Planetarium program will be devoted to the skies as they are seen during the current season, showing visible constellations and planets as well as the daily motion of the stars as caused by the earth's rotation.

REGULAR TOPICS

Sept. - Oct. 1959	-	Mysteries of the Moon	- Grades 4-12
Nov. - Dec. 1959	-	Winter in the Sky	- " 4-12
Jan. - Feb. 1960	-	The Skies for 1960	- " 4-12
Mar. - Apr. 1960	-	Eclipses	- " 4-12
May - June 1960	-	The Moon Explored	- " 6-12
July - Aug. 1960	-	Giants in the Night	- " 9-12

SPECIAL TOPICS

Sept. - Oct. 1959	-	The Solar System	- Grades 4-12
Nov. - Dec. 1959	-	The Sun	- " 4-12
Jan. - Feb. 1960	-	The Moon	- " 4-12
Mar. - Apr. 1960	-	The Story of the Constellations	- Grades 4-12
May - June 1960	-	Time and Seasons by the Stars	- Grades 6-12
July - Aug. 1960	-	Star Clusters and Galaxies	- Grades 9-12
July - Aug. 1960	-	Navigation by the Stars	- " 9-12

Teachers or leaders may also request other programs to fit the special needs of classes or groups. 21

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21 Bulletin, Let's Visit, (The Newark Museum, Newark 1, New Jersey, 1959-60).

CHAPTER IV

MUSEUMS' LEARNING OPPORTUNITIES

Special Classes

Besides the organized school visits which are run wholly in cooperation with the school authorities and take place in ordinary school hours during the term-time, there are many other activities connected with the museums for children. These include organized classes, clubs and societies, field trips and excursions, the production of plays, pageants, exhibitions such as science fairs and the activity in which practically all museums engage, namely, the playing of museum games. It is in these branches of the work of the museum that a very great deal of really constructive educational work is being done.

Early in 1909 the American Museum of Natural History began experimental work with handicapped children, particularly the blind. A special room was arranged and opened for those who "see" with their fingers. Objects of natural history which could be examined or handled without damage were labelled in Braille. Since that time this work for the blind has received much careful thought. Many small plaster casts of large mammals such as the elephant, the buffalo, etc. were prepared and loaned along with mounted specimens of small birds and mammals to the Institute for

the Blind. Grace Ramsey in her book on Educational Work in the Museums of the United States states that "an aid which proved to be of unusual value to blind classes was the large relief globes, two feet in diameter, showing the physical features of all the continents. This enabled the blind children to get an adequate idea of the earth as a whole. They could feel the comparative height of the mountains and the flatness of the plains and run their fingers along the courses of the rivers."[1] An acquaintance with birds has thrilled many of the children whose fingers eagerly stroked the plumage of the birds. The American Museum of Natural History has also extended its services to include deaf and crippled children. They initiated craft work and finger painting where it seemed to help even the dullest child to express himself. Badly crippled children were provided with wheel chairs so that they would not become too fatigued while enjoying the exhibits.

However, it is with the normal and gifted child that most museums care to expend their efforts. The art museums have initiated classes in both Visual Arts and in music and many children come regularly each year for four or five years. In this way the Art Museums are contributing to a creative form of child education - one that leads to the cultivation of aesthetic appreciation. In the Cleveland Museum of Art Saturday Morning classes are held where studio work in painting, drawing and

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[1] Grace Ramsey, Educational Work in Museums of the United States, (The A. W. Wilson Company, New York, 1938).

modeling is done. An attempt is made to think out what an art museum can do which cannot be done as well in the school, the home, or elsewhere and to grade the work into progressive steps. The Cleveland Art Museum also conducts "Special" classes for talented children. At present there are two such classes for students thirteen to sixteen years of age; a beginning special class, and an advanced special class. Special classes have their own separate studios and they use all media including oils.[2] The Indianapolis Children's Museum presents general science programs beyond regular classroom study to selected pupils on consecutive Saturdays. It is felt that a child to be well-rounded must give out knowledge as well as absorb it. For this reason and also to extend the museum to greater numbers, these children are asked to give reports to their classes the following Mondays.

However, many of the Museums prefer to deal with children who have never been outstanding but who enjoy trying, and they make every effort to encourage the children to express themselves and their ideas in various media. The Brooklyn Children's Museum reported that their afternoon classes for children are so popular that they find it necessary to turn away yearly some five hundred applicants. Their records show that many careers in science have been started among the boys and girls who spent much

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2 Educational Work at the Cleveland Museum of Art (2nd. Ed. rev; The Cleveland Museum of Art, Cleveland, Ohio, 1952).

of their leisure time in the museum. The following two examples taken from the work of the Buffalo Museum of Science for 1959-60 will serve to show the type of special classes offered by many of the museums.[3]

Star Study; Mr. Ernst E. Both, Instructor, Saturday at 10.30, starting October 3, 1959, 8th. Grade and up.

The young stargazer will be assisted in obtaining a true idea of the place of the Earth among other planets, the Sun among other stars, and the Milky Way among other galaxies. Where, when, and how to find interesting celestial objects and constellations will be demonstrated occasionally in the Spitz Planetarium. All requirements for the Scout's Star Badge are covered during the course. In the second term, if pupils desire, inexpensive telescopes will be made.

Reptiles and Amphibians; Miss Marjorie A. Beck, Instructor, Friday at 4, starting October 9,1959, 7th. Grade and up.

On the trail of scales and turtle shells, we shall follow cold-blooded animals - so often misunderstood and needlessly feared. Using live specimens from the Museum's collections as well as models and slides, we shall study frogs, toads, salamanders, lizards, snakes and most of their relations. Bring your notebooks for interesting facts and fables about these smooth-skinned and scaly creatures.

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[3] Bulletin, "What to Do Out of School", (Division of Junior Education, Buffalo Museum of Science, Buffalo, 1959 - 1960).

Clubs

In many museums the term "club" is synonymous with the term "Class". Many museums find that some children "feel more personal pleasure in being a member of a club than in attending a class".[4] These juvenile clubs, which consist of like-minded children grouped together in a field of their choice for fun and learning, are run as "out of school" activities during after-school, Saturdays and holidays. These club meetings which embrace all kinds of subjects, hum with activity and promote good fellowship. They are planned for children of different age levels to appeal to their varied interests or to arouse one where it has not previously existed. Many children caught in the doldrums of summer in the city can escape the sad state of having nothing to do by joining the Museums' Clubs. In some museums children are encouraged during holiday time to spend whole days there. The whole atmosphere is one of friendliness towards the children and they are invited to bring their lunch and enjoy themselves.

Grace Ramsey in her book on Educational Museums states that "these clubs fall into three main divisions; the art clubs which provide for the creative urge in children, the naturalists' clubs and the collectors' clubs which satisfy the ever-present instinct of children to acquire possessions. Among the art clubs

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[4] Charles Russell, Museums and Our Children, Central Book Company, Inc., New York, 1956, p. 93.

are those of sketching, drawing, and painting, also simple craft work in clay, wood, metal and puppetry making. The puppetry and marionette clubs are the most popular at present. The naturalists' clubs include those in astronomy, mineralogy, nature photography, birds, mammals, flowers and insects. Stamps, minerals and insects are the most common collections".[5] The Children's Museum of Boston has encouraged the formation of children's clubs from the start and has developed a rather extensive club program with children of all ages. The attendance is entirely voluntary and children who belong to these clubs are limited in membership to only two clubs. The following program was offered during the 1948-49 season.[6]

THE CHILDREN'S MUSEUM OF BOSTON

After-School and Saturday Clubs 1948-49

Begin on Tuesday, October 5

BIRD CLUB TUESDAYS, 4 P.M. GRADE FIVE and ABOVE
New members will join forces with those of other years in trying to equal or better our record. One hundred and twenty-one different species of birds were identified on the field trips taken by the Club last year. Meetings indoors during the winter months provide opportunities for studying mounted birds from the Museum storage rooms.

INDIAN CLUB WEDNESDAYS, 4 P.M. GRADE FOUR (BOYS and GIRLS)
A wealth of material for handwork will be suggested through the study of the four great groups of North American Indians-their shelter, costumes, food and crafts. Learning some of the simpler Indian songs and dances will be a new experience.

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5 Grace Ramsey, Educational Work in Museums of the United States, The H. W. Wilson Company, New York, 1938.

6 September - October Bulletin, 1948, The Children's Museum of Boston.

SCIENCE CLUB THURSDAYS, 4 P.M. GRADE SEVEN and ABOVE
Members of last year's Biology Club made a special request for this general science club. Young people of Junior High and High School age are invited to join. Each member will conduct his or her own experiments, and there will be field trips for observation and collecting. The club is affiliated with the Science Clubs of America.

PUPPETEERS CLUB THURSDAYS, 4 P.M. GRADE FIVE
Puppets will be made and dressed, a stage constructed, and the best shows will be presented in the Auditorium on Saturday afternoons. Members will even have a chance to try their hand at playwriting.

BUSY FINGERS CLUB SATURDAYS, 9.30 A.M. GRADES TWO and THREE
This club is full of action, not theory, with plenty of paint, crayon, paste, and paper, the young members will picture their home and school life, their favorite games and pastimes. Music, to mark the celebration of special days through the year, will also have its place on the Busy Fingers program.

BELL RINGERS CLUB SATURDAYS, 10 A.M. GRADE FOUR and ABOVE
This might be termed our "most unusual club". A requirement for membership is the ability to read music. Handbell ringing is an old English art, and one which is becoming increasingly popular in this country. Last year the club was honored with many invitations to play before adult groups. They also took part in a radio broadcast.

STAMP CLUB SATURDAYS, 4 P.M. GRADE FIVE and ABOVE
The club member will learn the "hows and whys" of stamp collecting and learn about stamps of other countries by means of an imaginary world tour. At every fourth meeting an opportunity will be given for the exchange of ideas, stamps and covers.

To encourage and maintain interest in the clubs and the educational work that they do, many museums including the Children's Museum of Boston have developed a system of credits to give recognition to boys and girls who have shown continued interest in the museum activities. In the Children's Museum of Boston credits may be earned in the following ways:

Completing a year's work in any Museum club	4	credits
For library activities	2	"
Completing the summer field club work	2	"
Attending all the spring bird walks	1	"
For assisting a Staff member in some project ...	1	"
Completing a study of first floor exhibits by games	3	"
Completing a study of second floor exhibits by games	3	"
Doing outstanding work in clubs or games	1	"
Working on an original project	1	"

When a person has earned twenty credits, he receives the Diploma; thirty credits, the Pin; and forty credits, the Medal. The highest honor given by the Museum is the Grand Award. A boy or girl who earned sixty credits and has proven himself trustworthy receives the Grand Award. Those who have received their Diplomas and have proven themselves to be responsible automatically become Junior Guides. Their duties are to assist Staff Members. Each year a day is set aside as Recognition Day. This is usually the first Saturday in June. The clubs have exhibitions of the projects which they have carried on during the year. Parents, relatives, and friends are especially invited on this day when awards are made in the Auditorium.

One of the clubs that has become a popular pastime for the younger children is the Story Hour. It is not merely story telling as the name might suggest, but often involves the use of slides and motion pictures particularly as the groups become large. It is designed for little people usually in the first, second or third grade but some museums permit children to participate until they reach twelve years of age. These story hours are usually held on

Saturday mornings and Sunday afternoons. The story teller tries to establish a friendly atmosphere with her listeners and attempts to weave with simple straightforward vocabulary and with swift dramatic action an interesting story around favorite pictures or other exhibits in the museum collection. The Museum animals are often the basis of delightful tales spun by the story teller. Occasionally drawings and some handicraft are included.

Museum Games

Children's Museums have developed techniques to draw out their visitors in both organized classes and on casual tours of exhibits. With each exhibit a sort of so-called museum game is usually developed. The idea for the museum game originated from the limitations of the museum instructor to enable all children to see the exhibit under discussion at one time. Those who could not see or hear soon became restless and moved to the edge of the group to look at other exhibits. This proved a disturbing factor and to overcome this the plan of the game developed. The museum game, a true form of individual activity, is used to teach real facts, yet "we in museums know that children learn not only facts but they get ideas, make judgements, assess values, and develop attitudes because of their contact in their museums".[7]

The games are based mainly on exhibits and labels and may be played by the children visiting a museum at any time they wish as regular attendance is not necessary. Clever methods have been devised to encourage children to read the labels in the galleries and to seek answers. The games are profitable in that they test the mind at various age levels for its ability to observe, identify and reason. The games vary greatly and cover many subjects such as birds, stars, flowers, insects, mammals and peoples

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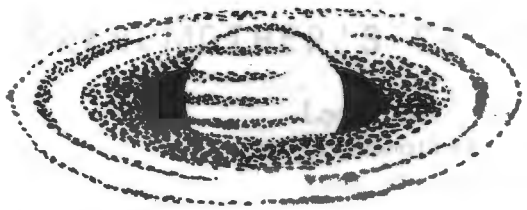
[7] Margaret Brayton, Children's Museums in Any Community, An Article prepared for International Council of Museums, Mexico City, Nov. 11, 1947.

of other lands. Children wishing to play the game are usually given cards or mimeographed sheets which for the most part consist of sentences with blanks left for the children to fill in the right word or words. Armed with these the children wander where they will throughout the exhibits in search of the correct answers. The games are graded according to the age and intelligence of the children. For the "small fry" there is the simple game of "Find and Colour". For the older children the games have a challenge and are intellectually stimulating. They are arranged as in crossword puzzles, true-false tests, completion and recognition tests, word hunts and even jigsaw puzzles. One type of game is played by having the children find and sketch an object in the museum from its description contained in a short account of the object in a pamphlet. One of the most popular at the Brooklyn Children's Museum is the clue game, in which clue slips are provided in small envelopes to tell one where to look for information necessary to fill in blank pages of a story. These museum games can while away many a happy and profitable hour and are pursued with enthusiasm through the year. The following few pages are examples of games used in 1959 by the Children's Museum of Detroit.



CLUE - A - ROOM

Match the clue to the room
which it describes the best.

_____ Bird Room

_____ Mr. Twisty's Room

_____ Pioneers

_____ Planetarium

_____ Back Hall
(Honeybees)

_____ Alaska

_____ Upstairs Hall

_____ Michigan

_____ Front Hall

_____ West Room
(Kite on wall)

1. Old and new toys
For girls and for boys.

2. Hardly anyone would frown
If we were still downtown.

3. Eskimos have a new fate
As natives of a new state.

4. Now take a trip
By rocket or ship.

5. Water, iron, salt, and sand
Make this place a Wonderland.

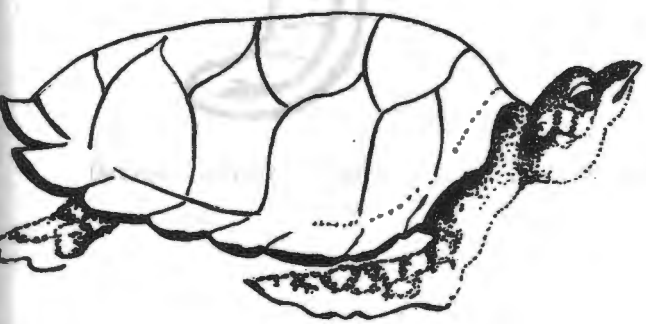
6. Please.....oh, please..
Don't lean on these.

7. Balloons, camels, tortoise, bike
All have saved me from a hike.

8. The sun is our star
Seen small from afar.

9. When Grandma cleaned her attic bare.
Just see the things she found up there.

10. China and Japan
Let's Visit Again!



CHILDREN'S MUSEUM
Detroit Public Schools
67 East Kirby Avenue

GRANDMOTHER'S CROSSWORD PUZZLE

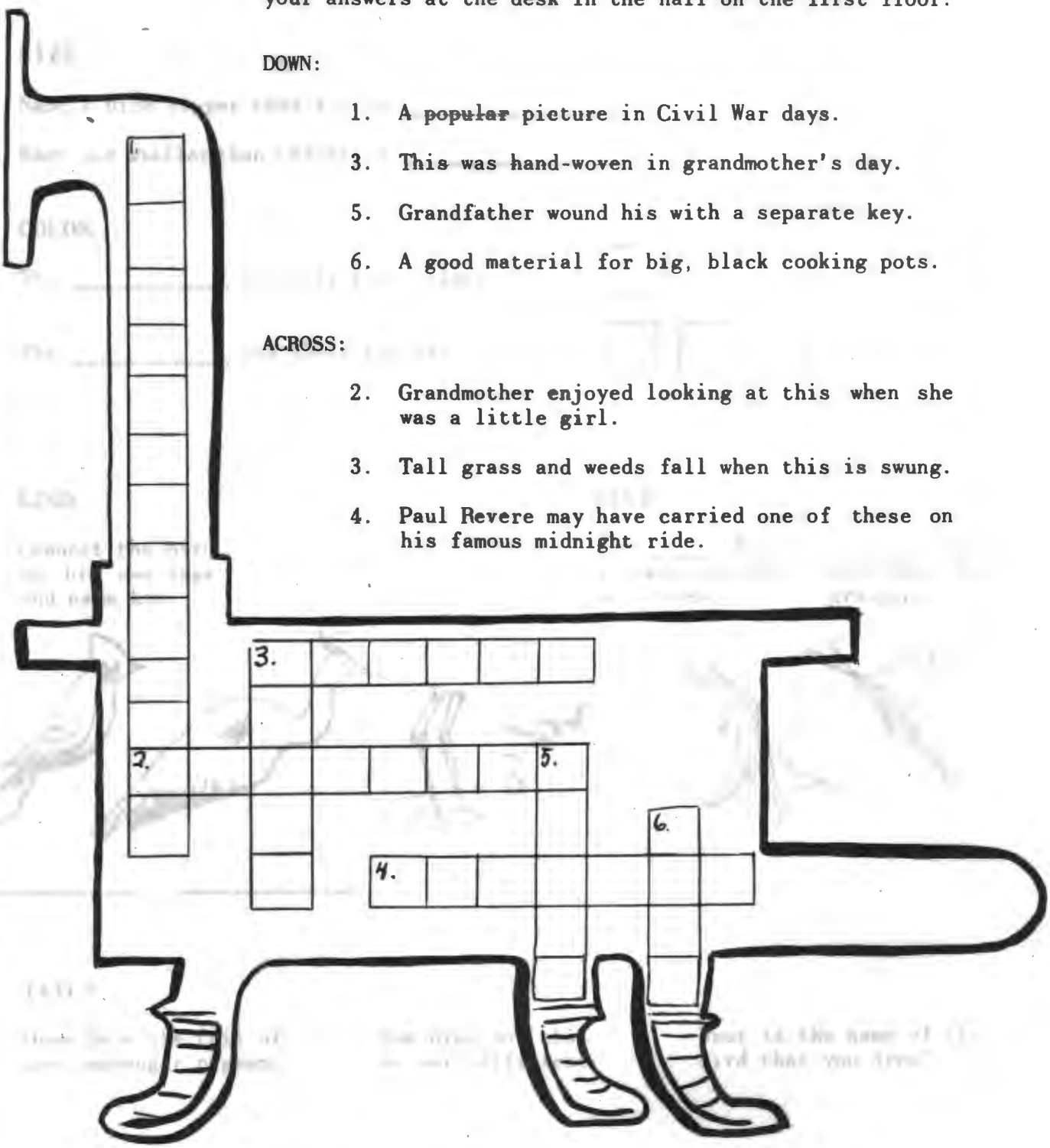
Look for the answers in the exhibit called "Tales from Grandmother's Attic" on the second floor. You can check your answers at the desk in the hall on the first floor.

DOWN:

1. A ~~popular~~ picture in Civil War days.
3. This was hand-woven in grandmother's day.
5. Grandfather wound his with a separate key.
6. A good material for big, black cooking pots.

ACROSS:

2. Grandmother enjoyed looking at this when she was a little girl.
3. Tall grass and weeds fall when this is swung.
4. Paul Revere may have carried one of these on his famous midnight ride.



ALL BIRD CLUES — Part I

CHILDREN'S MUSEUM
Detroit Public Schools
67 East Kirby Avenue

. . . . . for bird watchers

SIZE

Name a bird bigger than a crow _____

Name one smaller than a bluebird _____

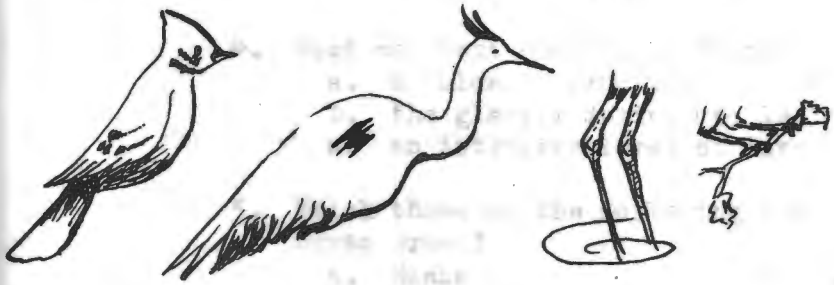
COLOR

The _____ has only this color:

The _____ has these colors:

LEGS

Connect the bird to his own legs and name him.

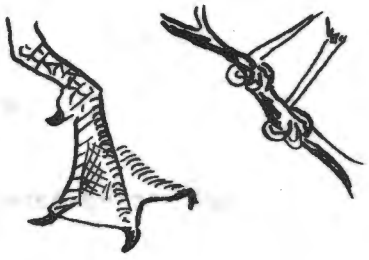


_____ _____

FEET

The _____ finds it easy to paddle with these.

_____ can use these for grasping.



TAILS

Draw here the tail of the passenger pigeon:

Now draw one that is very different:

What is the name of the bird that you drew?

_____ _____ _____

Grace Ramsey states that "In addition to using games based entirely upon museum exhibits, the School Service Department of the Peabody Museum of Natural History has prepared Vacation Questionnaires for children, similar to the following used in June 1937:

Vacation Questionnaire

Check the one true statement in each of the following questions:

1. The official state flower of Connecticut is
   a. Trailing Arbutus
   b. Mountain Laurel
   c. Solomon's Seal

2. Mature insects may be distinguished from spiders because the insects have
   a. two wings
   b. six legs
   c. two pairs of antennae

3. The meadowlark is a bird that
   a. sometimes stays here all winter
   b. builds its nest in a maple tree
   c. has a short, wide beak

4. East and West Rocks were formed by
   a. a volcanic eruption
   b. the glacier during the last Ice Age
   c. an intrusive layer of lava

5. Which three of the following trees are found on the New Haven Green?
   a. Ginko
   b. Hemlock
   c. Catalpa
   d. Horsechestnut
   e. Beech
   f. Sycamore

6. Sea anemones are
   a. flowers
   b. invertebrate animals
   c. fish

Come to the museum this summer and we shall help you find the answers to these or similar questions that arise during your vacation." 8

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8 Grace Ramsey, Educational Work in the Museums of the United States, (The H. W. Wilson Company, New York 1938), p. 135.

Field Trips

Almost all Children's Museums and Museums of Natural History conduct hikes and short field trips. The experiences that children obtain on these excursions are used in the building of concepts that make for better generalizations about the world and the life about them. When the field trip goes beyond the observation stage and is combined with participation, it becomes quite meaningful and the extent of the information that a child can learn on such a trip is endless.

A hike usually consists of a guided outdoor trip for a specific purpose, generally for the collecting of specimens such as plants, leaves, ferns, minerals and the like, or else for spotting of birds, trees, flowers and the like. It affords the children an opportunity to see life in its natural state. The children record observations of scientific interest in their notebooks and collect specimens which are afterwards studied, identified, preserved, arranged and labelled for future exhibitions. On these field trips young collectors develop discrimination and interest in the conservation of wild life.

The Children's Museum of Boston conducts a regular Saturday Morning Nature Walk. These walks are held only in fair weather and limited to children of nine years and older. During the great fall migration of land and water birds these two-hour rambles afford wonderful opportunities for children to observe some of the different species that pass through the area. Even though the

number of birds observed may fluctuate depending on weather, these walks still afford much in the way of interest in plant and insect life. During the summer months the field trips of the Children's Museum of Boston take the form of a special series and is called the "July Jaunters". The very title would stimulate most children to find out more about it. Here is a description of the summer program for 1959.[9]

JULY JAUNTERS (For Individuals)

On Tuesday, June 30, the July Jaunters, our summer nature club, begins a six-week program based on the theme, "Digging into the Past and the Present."

The club meets from ten to four o'clock, Tuesdays through Fridays, in the Museum Annex. Enrolment is limited each week to sixty children in the fifth grade and above. Children must register in person at the Museum on or after Recognition Day, June 13. Enrolment is in order of registration.

Each week's program includes related films, projects and crafts, songs and games, local field trips and one all-day bus trip. Most of these activities will be out-of-doors, weather permitting. There is no fee for joining the club, but children do pay their own bus fares.

The Jaunter schedule is:

June 30 - July 3	THE OLDEST RECORDS - Geology of the Boston Basin. Identification of local rocks and minerals and a survey of their use by man. All-day bus trip to the Charles W. Ward Reservation in Andover.
July 7 - 10	THE CHANGING SHORELINE - Beaches and Seaports. Study of fishes and shells. All-day bus trip to Nahant Beach to collect specimens and have a cook-out.
July 14 - 17	THE FORESTER'S CALENDAR - Trees and Tree Rings. Study of trees and forests today and in the past. Crafts using

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[9] Summer Bulletin, 1959. The Children's Museum of Boston

	seeds, leaves and wood. All-day bus trip to a State Forest.
July 21 - 24	A DROP OF WATER - Rain, Rivers and Lakes. Water as a source of power, transportation, and some foods. All-day bus trip to the Cochituate State Forest.
July 28 - 31	CLEARING AND CULTIVATING - Farms, Fields and Towns. Identification and study of domestic plants and animals. Leather and felt crafts. All-day bus trip to a duck farm.
August 4 - 7	AMERICANS, ALL - Prehistoric Man, North American Indians, Early Settlers. Tracing the origins of certain names will be part of this week's program. All-day bus trip to Bronson Museum in Attleboro.
August 7	OPEN HOUSE - two to four o'clock. Parents and friends of the Jaunters are invited to the closing exercises and exhibits of club work.

Through the establishment of nature trails, museums have encouraged a great interest in a study of life out-of-doors. These trails consist of short walks through open woodlands and objects of interest are labelled to call one's attention to nature's common place creations. The subject matter of the labels has been carefully selected to stress ecology, botany or geology. The labelling is done with the aim of acquainting the child with the plants that live along the trail and to encourage him to observe with understanding. Thus the walk along the trail becomes an adventure between himself and the life around him.

CHAPTER V

THE NEED FOR MUSEUMS

So far all the educational work described has had a school bias, but it must not be overlooked that much of the work that is ostensibly done for schools is of the greatest possible interest and use to the adult visitor. When collections are arranged primarily to suit visitors of school age, their appeal to the average public is no less enhanced. This is particularly true of Museums of Science for one is never too old to enjoy the wonders of nature. The public as a whole are not aware that museums can play an active role in the life of a community. Many citizens of a community have written off the museum as an obsolete unnecessary social activity, indulged in by a handful of antiquarian-minded individuals, still living in the Nineteenth Century. "This widespread failure to recognize the Museum as a community service agency is one of the striking phenomena in the Canadian Museum Movement", so states Carl and Grace Guthe in their report on the one hundred and fifty-two Canadian museums visited in 1957.[1] The meagre impact the museums have had upon Canadian Life was also expressed by the Miers-Markham report of a quarter

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[1] Carl E. Guthe and Grace M. Guthe, The Canadian Museum Movement, (Canadian Museums Association, 1958), p. 29.

of a century ago as "Paralytic modesty is a common museum disease from Calgary to Halifax".[2] The Massey Report of 1951 produced a similarly blunt statement. "In Canada with very few notable exceptions, local museums maintain a courageous but precarious existence,.....It is probably true that most Canadian citizens remain throughout their lives quite unaware of the pleasure and enlightenment which an adequately equipped museum could give them. The sorry plight of museums in Canada is appropriately matched by a widespread public indifference to their inadequacy". The American Museum Movement, on the other hand, has grown tremendously during the past sixty years and this fact is brought out by statistics that show the hundreds of thousands of children and adults that pass through their portals.

As a rule the museum acts as a second school and there is great cooperation between the museums and the educational institutions within the United States. In Canada, however, educational authorities, for their part, mostly regard museums with indifference and there is need to convince school boards, school administrators and teachers that the museum offers a unique learning experience which supplements the instruction given in the classroom. It is an argument often used against museums by teachers that the visit to a museum by a school is so distracting and confusing to children that the disadvantages outweigh the advantages. This may

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[2] Sir Henry Miers and S. F. Markham, The Museums of Canada (T. and A. Constable Ltd., Edinburgh, 1932), p. 39.

be true of the general tour, but there are many museums which have specially equipped lecture-rooms for children, and where these exist, there is no doubt but that museums can and do render an educational service of incomparable value. This educational function of the museum has grown to such an extent within the United States that it is now carried on by a specially trained staff of museum teachers. These teachers fully realize the great care that must be taken with the presentation if the museum material is to have educational value. The truly important educational aspect of the museum is the long term effect it may have on the pupils, on their thinking about the field of the subject and about its relation to whatever occurs later on in their classroom learning at school.

From the teacher's point of view, very great advances in many subjects can be made if oral instruction is supplemented by just the right kind of visual experience. The value of illustrative material in the classroom is well recognized and groups of slow children need such help even more than the brighter ones. Every good teacher knows that she is far from being the source of all knowledge on any subject, and is usually eager for any aid that will stimulate interest. The teacher knows that children seem to respond more easily to tangible objects than to words and books. We say that "seeing is believing" but tend to forget that touching and feeling may also be keys to a knowledge of things. Most children and even adults learn more quickly through the eyes

and hands than by any other means, and that the actual handling of archaeological, natural history, or industrial material can give a child a great sense of reality in those and other fields. The museum is capable of bringing to the child this concreteness that is hard to obtain by ordinary teaching methods. Many classroom teachers are unaware of the background possibilities and possible meanings that a trip to the museum may have; unaware of the valuable instructional aids which may be found in the museum; unaware of the many ways there are to use the museum or to bring it into the school. The museum is a valuable supplement to the teaching of better citizenship, understanding peoples around the world and factual material in natural history, science, history and geography. The museum lends itself to more variation of approach in method in this entire educational function than is usually imagined. It is evident that the educational work done by the American Children's Museums cannot be measured merely in terms of knowledge. To quote the words of Ruth Weston in American Museum and the Child:

> "It gives the children "open sesame" to wide realms of interest and in some degree the curiosity and ability to use them; and beyond this the child owes to the museum much of the moral, intellectual and aesthetic significance of his everyday life". 3

There is a definite need to create something that would make the dry bones of education come to life and museums can do just

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3 Ruth Weston, American Museums and the Child, The Museums Journal, Vol. 39, No. 2, May 1939, The Museums Association, 33 Fitzroy St., Fitzroy Sq., London, W. 1, pp. 93-116.

this. The child must be immediately impressed by what he sees, hears and feels and he must be filled with anticipation of things to come. Museums can make education wonderful and inspirational by combining sound scholarship and exciting presentation. Whether it be the presentation of the story of life as it existed in Halifax in 1749 or the story of the role played by sulphur in the industrial life of the modern era, the child will come away knowing that he has participated in an exciting and memorable experience. It is this quality of excitement that is instrumental in making these educational experiences adhere.

If these things are to come about and museums, particularly in Canada, are to play their part as a greater educational force, I need only quote the words of S. Markham when he says that -

> "three things seem desirable: firstly, a fuller realization by museum committees and curators that part of museum collections must be arranged to suit schools and not themselves; secondly, a greater interest on the part of the educational authorities in museums; thirdly, a joint inquiry by the museum and the educational authorities in any given area as to the way in which museums and art galleries could be made more effective as educational instruments". 4

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4 S. Markham, Museums and Art Galleries of the British Isles. (T. & A. Constable, Ltd., Edinburgh, 1938), p. 143.

BIBLIOGRAPHY

Books

Coleman, Laurence V. The Museum in America. The American Association of Museums, Washington, D. C., 1939.

Dale, Edgar. Audio-Visual Methods in Teaching. New York; The Dryden Press, Inc., 1956.

Guthe, Carl E. So You Want a Good Museum. Washington, D. C. The American Association of Museums, Publications, New Series, Number 17, 1957.

Guthe, Carl E., and Guthe, Grace M. The Canadian Museum Movement. Ottawa: The Canadian Museums Association, 1958.

Markham, S. F. The Museum and Art Galleries of the British Isles. Edinburgh: T. and A. Constable Ltd., 1938.

Miers, Sir Henry., and Markham, S. F. The Museums of Canada. Edinburgh: T. and A. Constable Ltd., 1932.

Moore, Eleanor M. Youth in Museums. Philadelphia: University of Pennsylvania Press, 1941.

Ramsey, Grace F. Educational Work in Museums of the United States. New York: The H. W. Wilson Company, 1938.

Russell, Charles. Museums and Our Children. New York: Central Book Co. Inc., 1956.

Siepman, Charles A. TV and Our School Crisis. New York: Dodd, Mead and Co., 1958.

Reports

Brayton, Margaret. A Report to the Detroit Board of Education. June 24, 1958.

Harrison, Raymond O. Museum Services. A Report submitted on Vancouver Museum Services in "A Plan of Policy and Organization", 1958.

The Children's Museum of Boston. Annual Report, 1958.

Articles

Brayton, Margaret. Children's Museum in Any Community. An article prepared for International Council of Museums, Mexico City, Nov. 11, 1947.

Bulletin, Let's Visit. The Newark Museum, Newark 1, New Jersey, 1959-60.

Bulletin. What to Do Out of School. Division of Junior Education, Buffalo Museum of Science, Buffalo, 1959-60.

Bulletin. The Children's Museum of Boston, Summer, 1959.

Bulletin. The Children's Museum of Boston, September-October, 1948.

Bulletin. The Children's Museum of Boston, May, 1959.

Bulletin. The Children's Museum of Boston, September-October, 1959.

Bulletin. The Children's Museum of Indianapolis, Twenty-fifth Anniversary Number, December 6, 1950.

Gale, Francis C. "The Junior Museum", New Horizons, Bulletin for Nature Centers for Young America, Inc., New York 16, N. Y. Vol. 8 (Winter, 1959).

Grimes, Jane. "An Outline of the Education", Educational Work at the Cleveland Museum of Art, 2nd. ed. rev.; The Cleveland Museum of Art, Cleveland, Ohio, 1952.

Munro, Thomas. "Introduction Aims and Methods in Art Museum Education", Educational Work at the Cleveland Museum of Art, 2nd. ed. rev.; The Cleveland Museum of Art, Cleveland, Ohio, 1952.

Russell, Charles. Children in Museums of the Americas. Department of Education, American Museum of Natural History, New York City.

Weston, Ruth. "American Museums and the Child", The Museums Journal, Vol. 39, No. 2, The Museums Association, 33 Fitzroy St., Fitzroy Sq., London, W. 1, May 1939.

Unpublished Material

Brayton, Margaret. Brief notes prepared for delegation of Russian Educators, Nov. 24, 1959.