UNIMUSEUM

International University Museums Association Platform

ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

THE IMPORTANCE OF THE AMERICAN MUSEUM OF NATURAL HISTORY IN THE DEVELOPMENT PROCESS OF MOBILE MUSEUM PRACTICES

Cihan Şule KÜLÜK

Cite this article as:

Külük, Cihan Ş.. (2019). The Importance of the of American Museum of Natural History in the Development Process of Mobile Museum Practices. UNIMUSEUM, 2 (1), 1-11. DOI:

ABSTRACT

THE IMPORTANCE OF THE AMERICAN MUSEUM OF NATURAL HISTORY IN THE DEVELOPMENT PROCESS OF MOBILE MUSEUM PRACTICES

The aim of this study is to examine the evolution of American Museum of Natural History's Mobile Museum practices which is one of the most developed fields in museum education in recent years, in its historical context. The present study examines the "American Museum of Natural History's Mobile Museum practices" and uses historical description and theoretical comparison methods. The literature review on "American Museum of Natural History's Mobile Museum practices" used in the work reflects a wide range of resources beginning from the opening of the Museum in 1869 till present day. With the examination of the historical development of American Museum of Natural History's Mobile Museum practices, the intention is to present its relationship with environment, how it is changed in time, the theoretical approaches in the same period and the perception and practices in the museum education field.

Keywords: Visual Arts Education, Museum Education, Mobile Museum Practices, Museums' Loan Programs.

Abant İzzet Baysal University,
Department of Fine Arts Education, Bolu - Turkey

Unimuzed.org

Accepted: 28.06.2019
Submitted: 24.05.2019
Published online: 03.07.2019
Correspondence: Asst. Prof. Dr. Cihan Şule Külük
Unimuseum
E-ISSN: 2651-3714
DOI

Introduction

According to the International Council of Museums (ICOM n.d.): "A museum is a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment." This statement, on the current ICOM website (2005), illustrates the growing recognition of the significance of education. Museums' educational role to support school teaching and foster learning among children is widely acknowledged among museum and school professionals. Established for the same democratic purpose to educate communities, relationships between museums and schools remained fragmented for most of the 20th century. Field trips, traveling trunks, museum outreach teaching in schools, and teachers' professional development workshops are forms of museums and school partnerships (Talboys, 2000).

As Talboys (2005), points out, the visit itself is an important part of the experience of working with material culture. However, a number of factors militate against this. Some are legitimate, but others that are put forward are fallacious. In general, there seems to be a growing reluctance to take students out of their schools to experience the wider world and its educational potential. One of the main reasons put forward is finance. Emphasis on 'basic skills' means that less money is available for what some would consider the 'luxuries'. It is a false economy and rather ignores the fact that many of the basic skills can easily and, sometimes, more readily be taught in a non-school environment such as a museum. Another reason given is lack of time. Constant changes to the content of various curricula are a major cause. Teachers have to spend time assimilating these changes. This leaves them little enough time to consider how they might relate to or be enhanced by visits to museums and galleries, even less actually to plan and Implement such visits. Working practices are also changing in schools more rapidly than once they did. Moves toward personalized learning programs, for example, are often cited. Although, in themselves, such programs do not preclude museum visits (indeed, they offer greater opportunities for students to make use of a wider educational resource than can be provided by their school), they are time-consuming for teachers to supervise and make group work much more difficult to coordinate. These 'problems' are further compounded by social changes. A perception of increased dangers in the world (nationally and locally), a rise in litigation following a number of accidents involving students, the need to carry out risk assessments and comply with a growing burden of health and safety regulations, all contribute to the belief that visits are more trouble than they are worth. None of the aforementioned are legitimate reasons for not visiting museums. They are merely perceived as such and sometimes used as excuses. They are, however, a reality that erodes confidence in the worth of visits and informs an increasing reluctance to leave the classroom. As such, you need to be aware of these factors and of ways in which to counter them. Where that fails, you need to be able to work round them to provide a museum experience outside the museum.

A mobile museum is a museum educational outreach program that bring the museum to the people rather than vice versa. Generally, they can be in recreational vehicles or trucks/van that drive to schools, libraries and rural events to make the museum exhibit accessible to underserved populations.

Talboys (2005), adds that mobile museums are akin to travelling exhibitions. They are small, mobile, and can be altered regularly. Their advantage over conventional travelling exhibitions is that, once set up in whatever vehicle you use, they do not need to be unpacked and packed at every venue. This makes them ideal for short-term displays. They are, of course, something of a luxury, but may be worth considering, especially if you operate in a large but sparsely populated area. However, that is not the only criterion for their use. They can operate just as well in crowded urban areas. The remit of a mobile museum can be extremely broad. The content need not be dictated by narrower educational needs. It can be parked in popular tourist spots to give people a taste of what they will find in the museum itself. It can be taken to or hired out for community events, fetes, and fairs. It can also be taken to places where people, through what-ever circumstance, have little opportunity to visit museums - peripheral housing estates that are badly served by public transport, factories or industrial estates where they operate night shifts, remote villages, prisons, and so on. One of the main destinations, however, must be schools. The beauty of a mobile museum is that it can give an idea of the atmosphere of a museum, something a box of materials cannot do. Varying in size from a small caravan to an articulated lorry, mobile museums provide a blank space that can be filled with artefacts and wall displays specific to particular needs. Once on site, they can be kept for the sole use of students who can visit in small groups without the worry of travelling back and forth to the museum itself (which may be some distance away or difficult to get to) and without worrying about inconveniencing the general public.

Over many years, education resources have been developed widely in the museums and galleries. The majority of cultural organizations and museums in developed countries, maintain extensive loan resources and mobile museums/travelling exhibitions to be used by school children and the wider community. A good

example is the Mobile Museum program of the American Museum of Natural History in New York, which attracts the public to the museum by taking the museum to remote communities that otherwise wouldn't have had the opportunity of visiting the capital. American Museum of Natural History's Mobile Museum' practices play an important role in museum education. American Museum of Natural History has also contributed to arts education through Culture Moveable Museum.

A Brief History of American Museum of Natural History's Mobile Museum Services/ Practices

The American Museum of Natural History is one of the world's preeminent scientific and cultural institutions. Since its inception the Museum has advanced its global mission to discover, interpret, and disseminate information about human cultures, the natural world, and the universe through a wide-ranging program of scientific research, education, and exhibition. National Museum has housed art, culture, history, geology, and natural history collections.

Since the Museum's founding in 1869, education has been central to its mission. In recent years, the Department has been working to develop special resources and build a continuum of programs to enrich learning experiences for everyone from preschoolers to adults (Bernard and Futter, 2005).

Gordon (2000), states that there is a long tradition of outreach at the American Museum of Natural History. Soon after the opening of the Museum in 1869, Alfred Bickmore, one of the institution's founders, began offering lantern slide lectures for teachers on the natural sciences. These lectures were so successful that the New York State Legislature designated funds for Bickmore to take his show on the road around the state. In 1922, Alfred Sievers, a Museum messenger riding a specially equipped Indian V-twin motorcycle, delivered specimens, films, and hand-colored glass lantern slides from the Museum to schools throughout the city. The "School Delivery Service" was an important function of the Museum in those days before VCRs, computers, or even filmstrips were available to teachers. In 1922, the delivery service reached 1,648,608 students at 475 schools in all five boroughs - 500,000 more kids than live in New York City at present.

In a similar manner Sherwood (1927), remarks that from its very inception in 1869, education has been one of the fundamental purposes of the Museum, and through its Department of Public Education, it has developed a practical service to the schools of the city. During the year 1927, the field of this activity has been greatly increased. The number of contacts with educational organizations and with interested individuals has been constantly growing. New methods of teaching have been developed and an effort has been made to extend and to promote museum service throughout the elementary, grammar and high schools of Greater New York. The pupils, their parents and teachers are reached by lectures in the museum and by museum exhibits and publications. The lending of colored lantern slides is perhaps the most far-reaching phase of the work with schools. Circulating collections of nature study specimens, also loaned to schools, have proved of great aid to teachers in stimulating interest in nature. Collections are loaned to libraries to further the cause of visual instruction. Docent service in the museum halls has been a regular feature of the department and has met with the growing approval of the schools and of the general public as well. Special instruction by staff members, in museum classrooms, includes not only the blind and sight conservation classes, but general public-school classes as well, in a series of lectures known as "Exhibition Hall Talks." The following is a summarized report of the extent of this work as expressed by the number of pupils reached.

In 1903, in answer to requests from the schools, study collections of invertebrates and birds were set up and were lent for short periods to any school in the City which applied for them. Thus, was the School Loan or Circulating Exhibit Division established. The first collections were delivered by foot messenger. In some schools, particularly on the lower East Side, the exhibits were in great demand, as these schools had no material with which to illustrate their work in nature study. At the present time the stock of the exhibits numbers thousands of items, and a fleet of four trucks on regular routes delivers these materials free to the schools. In addition to specimens or collections of specimens, a wide range of many types of exhibits, including habitat groups, dioramas, photographs, charts, and models, is circulated (Saunders, 1956).

According to Sherwood (1927), the oldest feature of our school service is the circulating nature study collections which have been sent on loan to schools of the city for more than twenty-four years. The pupils of city schools have little opportunity to study, to touch and to see natural objects. Thus, these collections are of the utmost importance in the teaching of natural history. Any teacher who desires these collections may secure them by filling out a special request card and mailing it to the Museum. The specimens are then delivered to the school and are called for after the loan period by Museum automobiles, all without cost to the teacher or to the school. These collections include five different sets of mounted birds, cases of rocks and minerals, native woods, mammals, insects, food collections and other types of nature materials, all accompanied by written handbooks. "A Manual of Bird Study," an 80-page publication, was prepared by Mr. Carr, to be used in connection with the loan collections of birds and as a general guide to bird

study as well. The pamphlet, which is profusely illustrated, describes 25 local birds and gives study outlines. Special collections are loaned to art classes. Aids for high school biology teachers have been developed and include the loan of silk exhibits, fossil collections, microscopic slides and live fruit-flies. Individual specimens of mounted birds, mammals and insects, as well as special habitat groups, are also loaned.

In addition to this, the work with school children was extended in 1927 to include high school students. A loan collection of microscopic slides was prepared and made available to high school biology classes. Exhibits on fossils were added to the Circulating Exhibits Division for high school use, and live drosophila were provided for biology class experimental work. Finally, a series of questionnaires called "Indoor Nature Trails" was prepared for use by visiting high school students (Saunders, 1956).

According to Sherwood (1927), the lending of colored lantern slides is perhaps the most far-reaching phase of the work with schools. Circulating collections of nature study specimens, also loaned to schools, have proved of great aid to teachers in stimulating interest in nature. Collections are loaned to libraries to further the cause of visual instruction. Since its inception, seventeen years ago, the American Museum has been steadily enlarging and developing its circulating lantern slide library. American Museum of Natural History's colored slides are now delivered, free of charge, to hundreds of schools, where they supplement the explanations of teachers and vitalize the study, not only of natural-history topics, but of geographical, economical and historical subjects as well. Through the furthering of this type of school aid by the Museum, thousands of pupils are enabled to visit the haunts of birds, mammals and other creatures; to see how their neighbors live in other hemispheres as well as their own, and to grasp, in a more comprehensive way, the story of life, past and present, the world over.

Gordon (2000), notes that since its founding, the Museum has pursued a twin mission of scientific research and education. At the Museum and in New York City, a wide variety of activities and materials for children, families, and adults of all ages are offered: on-site tours, preschool programs, courses and lectures, after-school programs, performances, workshops, field excursions, teacher training, mentorships and internships. Today American Museum of Natural History provides also a service with a fleet of "Moveable Museums" - 37-foot converted Winnebagos complete with exhibitions, curricula, computers and videos, artifacts and specimens - that bring natural science and anthropology lessons to schools and communities throughout New York City.

One of the educational programs at the American Museum of Natural History in New York City is a mobile museum project called The Moveable Museum. This project is comprised of three trucks that each showcase different topics, which include anthropology, astronomy and paleontology. Each truck is designed specifically to its theme. The first Moveable Museum was created in 1993, but there were mobile musuems associated with the American Museum of Natural History since the 50's. At that time, they would drive trucks and cars to different parts of NY filled with artifacts. Now artifacts are built into the truck itself. It takes about 2 years to make one Moveable Museum and the educators are mostly responsible for the design of it, although the scientists play a big role as well. During school visits, every class spends half an hour in the truck and half hour in the classroom with slides and lectures. Students often want to spend more time in the truck, but can't because the next class has to come in. Teachers usually do follow up activities with the students in relation to what they do in the truck. The truck is open to the public on many occasions including summer camp, community events and street fairs. Fifteen or fewer people are allowed in the truck at one time. They show a lot of interest and usually interact with the stations that have buttons first, then move around to other parts. The truck is designed so people move counterclockwise, but it is not essential that people move through it that way. Students often do because they use worksheets that directs them through the exhibit linearly. The public moves around randomly and does not spend as much time reading every panel. Educators travel with the museum. They are mostly all scientists and do not have degrees in teaching. They do presentations in the classrooms and answer questions in the truck as well but leave the students to find things on their own unless they need help (Vallera, 2009).

The Moveable Museum is a specially designed, wheelchair accessible bus that is a self-contained mobile museum, outfitted with changing exhibitions and equipped with a state-of-the-art multimedia exhibit system. A collaborative program between the Museum and other New York City cultural institutions, the Moveable Museum is designed to bring educational resources to underserved New York City schools, hospitals, shelters, community centers, parks, and street fairs and to encourage students and families to visit and utilize the rich variety of resources available at each of the collaborative partner institutions. The first full academic season for the Moveable Museum school-and-community programs was announced to all New York City community school district superintendents, to subject coordinators for science, mathematics, social studies, and art, and to community leaders. Within two days, reservations for the year were accepted for approximately 100 school visits. As a result, a total of 8,417 school children and their teachers participated (AMNH, 1994).

Bernard and Futter (2005), also pointed out that Soon after September 11, for security reasons, the Board of Education instituted an advisory against classes taking field trips to

New York City cultural institutions, and all of us here sorely missed the clamor and energy of schoolchildren exploring the Museum's halls. In response, the Museum's Department of Education stepped up the Moveable Museum program, which sends a fleet of large-scale vehicles customized and outfitted as exhibition spaces out into the community, by planning a special expedition of the Moveables to Lower Manhattan schools. The Moveable Museums acted as ambassadors from the Museum and provided a much-welcome museum experience for schoolchildren throughout the City. When, on November 19, 2001, the New York City Schools Chancellor held a press conference to announce the reinstatement of field trips, he chose to do so at the Museum, acknowledging our position as the cultural venue in New York City most visited by the City's schoolchildren and our place in the hearts of schoolchildren for generations.

It is important to remember that the Moveable Museum program became more important than ever in the months following September 11, 2001, when many school groups were prevented from visiting the Museum. Created to bring a sampling of the Museum's vast resources to schools and community groups throughout New York City, the program utilizes customized 37-foot recreational vehicles that have been transformed into exhibition halls on wheels. The fleet grew to three in 2002 with the addition of Discovering the Universe, which is filled with interactive exhibits devoted to the exploration of light, gravity, telescopes, digital images, and three-dimensional cosmic modeling. Rounding out the fleet are The Paleontology of Dinosaurs, which invites visitors to follow in the footsteps of paleontologists, and Structures and Culture, which provides a taste of the work of a cultural anthropologist and takes visitors on a tour to explore three nomadic peoples: the Gabra of Africa, the Blackfeet of North America, and the Mongols of Mongolia (Bernard and Futter, 2005).

One way that the Museum extends its reach to schools and communities that might not have the opportunity to visit the Museum is through the Moveable Museum program, a fleet of recreational vehicles customized as mobile exhibition spaces. This year (2008) the Education department, working in collaboration with the Exhibition department, developed and launched a new Moveable Museum with the support of Bloomberg LLP. Capitalizing on the content resources of the very popular exhibition of the same name, the Moveable Dinosaurs: Ancient Fossils, New Discoveries, brings the most current science of paleontology to schools and communities throughout New York City. These are just a few examples of the many educational strategies and programs the American Museum of Natural History employed during the year to address the crisis in science education locally, nationally, and even internationally. The Museum, long a pioneer in science and education, recognizes the opportunity and the responsibility to take a lead role in improving the public understanding of science, creating a new benchmark of educational leadership for cultural institutions in the 21st century (AMNH, 2008).

According to the annual report of American Museum of Natural History (2009) since its inception in 1993, the Moveable Museum—a traveling educational outreach program that serves schools, libraries, and community organizations in New York City's five boroughs—has brought Museum resources to more than 700 New York City schools. During the 2009 fiscal year, the program visited 130 schools and participated in 86 community events, reaching more than 25,000 people. As an educational outreach component of the Museum's David S. and Ruth L. Gottesman Center for Science Teaching and Learning, the Moveable Museum is designed to deliver learning experiences outside the Museum's walls. The program includes a fleet of four converted recreational vehicles that convey three unique educational programs for students in kindergarten through twelfth grade: dinosaur paleontology, anthropology, and astronomy.

In this context, Aboard the Paleontology of Dinosaurs Moveable Museum, students in kindergarten through second grade can embark on a virtual trek across Mongolia's Gobi Desert to search for ancient fossils. Like Museum paleontologists, students use skeletal and environmental clues while learning about the advantages and limits of the fossil record. Dinosaurs: Ancient Fossils, New Discoveries Moveable Museum allows students in third through eighth grades to study the evolution of dinosaurs and possible causes of mass extinction, examine dinosaur nests and tracks, and investigate feathered dinosaur fossils and connections between dinosaurs and modern birds (AMNH, 2009).

In addition to this, the Structures and Culture Moveable Museum is geared toward students in third through eighth grades to explore the traditional homes of three nomadic peoples: the Gabra of Kenya, the Mongols of Mongolia, and the Blackfeet of North America. Like anthropologists, students discover how everyday objects and architectural elements can be used to study different cultures. Additionally, students in sixth through twelfth grades use an assortment of telescopes and interactive exhibits aboard the Discovering the Universe Moveable Museum to investigate the concepts of light, gravity, and orbits; explore a hands-on laboratory; and learn about digital imaging and three-dimensional cosmic modeling (AMNH, 2009).

As SEGD (The Society for Experiential Graphic Design) (2015) points out, the Moveable Museum of the American Museum of Natural History brings interactive education to remote locations throughout the New York City area. Inside, children travel through the Gobi Desert

and into a paleontologist's laboratory, all within the confines of a customized Winnebago. Every educational opportunity has been maximized through design. Exterior graphics include actual-size dinosaur renderings (allowing children to measure themselves against their favorite Jurassic creature). Simple interactives are combined with high-tech activities to engage varying ages and skill-levels. Fabrication materials and finishes are deployed to create varied microenvironments that trigger the child's imagination. The Moveable Museum is a visually rich and dynamic environment, designed to ignite a child's curiosity within the limited space of a traveling museum.

CONCLUSION

Over many years, education resources have been developed widely in the museums and galleries. The majority of cultural organizations and museums in developed countries, maintain extensive loan resources and mobile museums/ travelling exhibitions to be used by school children and the wider community. A good example is the Mobile Museum program of the American Museum of Natural History in New York, which attracts the public to the museum by taking the museum to remote communities that otherwise wouldn't have had the opportunity of visiting the capital. American Museum of Natural History's Mobile Museum practices play an important role in museum education. American Museum of Natural History has also contributed to arts education through Culture Moveable Museum.
One way that the Museum extends its reach to schools and communities that might not have the opportunity to visit the Museum is through the Moveable Museum program, a fleet of recreational vehicles customized as mobile exhibition spaces.

There is a long tradition of outreach at the American Museum of Natural History. Soon after the opening of the Museum in 1869, Alfred Bickmore, one of the institution's founders, began offering lantern slide lectures for teachers on the natural sciences. These lectures were so successful that the New York State Legislature designated funds for Bickmore to take his show on the road around the state. In 1922, Alfred Sievers, a Museum messenger riding a specially equipped Indian V-twin motorcycle, delivered specimens, films, and hand-colored glass lantern slides from the Museum to schools throughout the city.

The mobile museum traces back to 1903, with the AMNH's 'school service' which would deliver natural history objects (stuffed birds and other animals, insects, rocks, wood blocks, plus handbooks) to schools at no cost. For example, in 1927, the museum supplied specimens to 496 schools in greater New York, and 1.6 million students used museum materials in their school.

Since its inception in 1993, the Moveable Museum—a traveling educational outreach program that serves schools, libraries, and community organizations in New York City's five boroughs. As an educational outreach component of the Museum's David S. and Ruth L. Gottesman Center for Science Teaching and Learning, the Moveable Museum is designed to deliver learning experiences outside the Museum's walls. The program includes a fleet of four converted recreational vehicles that convey three unique educational programs for students in kindergarten through twelfth grade: dinosaur paleontology, anthropology, and astronomy.

It is important to remember that the Moveable Museum program became more important than ever in the months following September 11, 2001, when many school groups were prevented from visiting the Museum. Created to bring a sampling of the Museum's vast resources to schools and community groups throughout New York City, the program utilizes customized 37-foot recreational vehicles that have been transformed into exhibition halls on wheels.

Within this framework, it's been seen that American Museum of Natural History's Mobile Museum practices have continued to develop and to become more widespread in the global world.

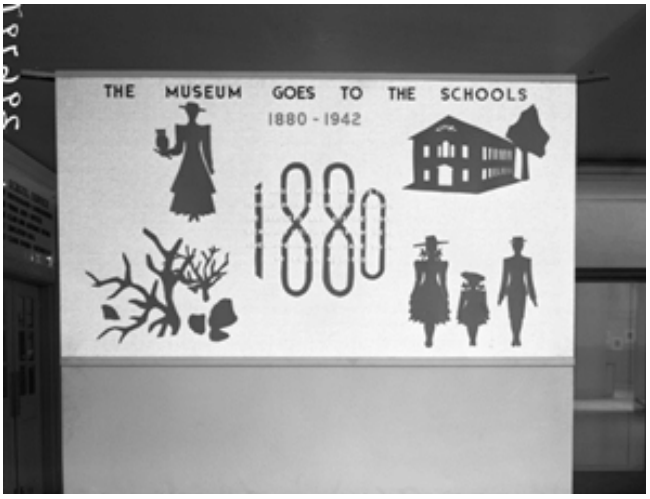

Figure 1. "The Museum Goes to the Schools, panel, 1880"

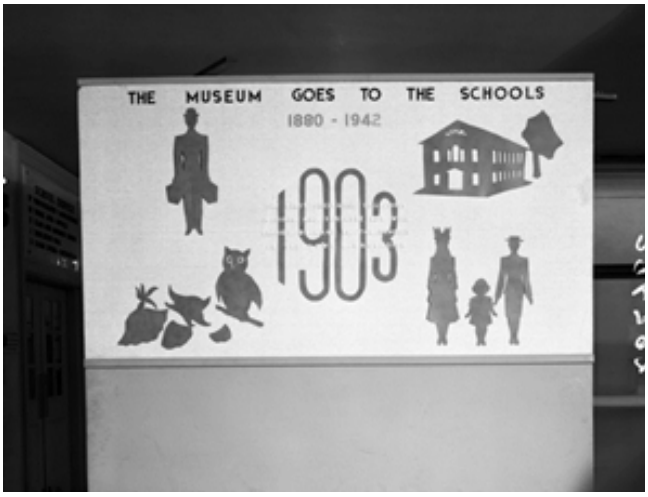

Figure 2. "The Museum Goes to the Schools, 1903, featuring birds and seashore life, panel ,"

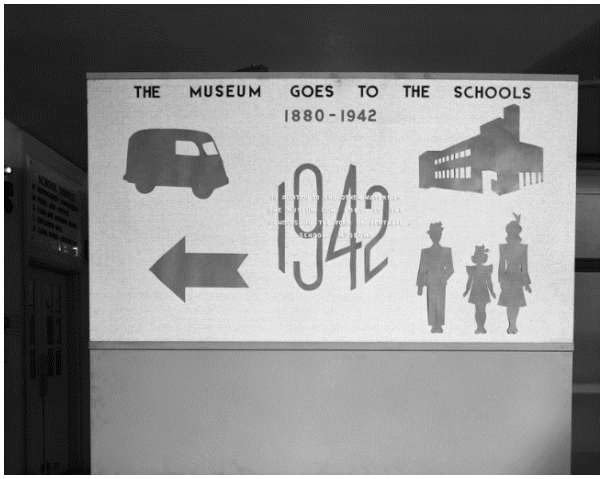

Figure 3. "The Museum Goes to the Schools, 1922, featuring small habitat groups and motion pictures, panel,"

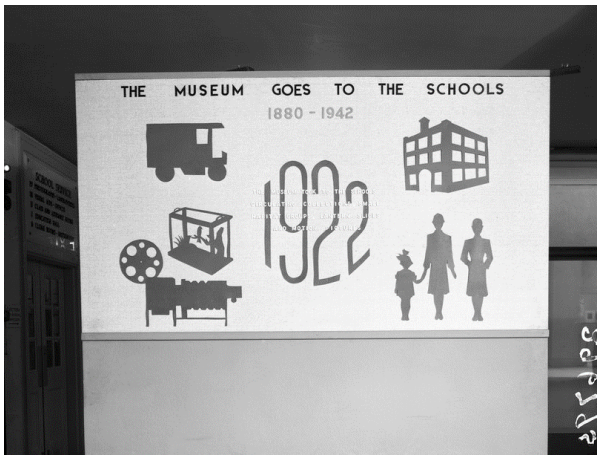

Figure 4. "The Museum Goes to the Schools, 1942, panel,"

Figure 5. "In 1922, Alfred Sievers/delivery to public schools,"

Figure 6."Museum automobile for delivery of School Collections, 1908,"

Figure 7. "Department of Education delivery trucks ready for transport of slides and nature collections, 1927,"

Figure 8. "Loading nature study collections onto Museum's Department of Education trucks, 1937,"

Figure 9. "New trucks for Department of Education, 1941,"

Figure 10 "Loading loan collection boxes onto museum trucks for delivery to schools, 1942,"

Figure 11. "George Hawkins, left, and Julius Kagan loading trucks to deliver school museum exhibits, 1942,"

Figure 12."Carlton Beil inspecting school service truck, 1950,"

Figure 13. "Sorting boxes of lantern slides for delivery to public schools, 1926,"

Figure 14. "Katherine Beneker and Miss Wiley preparing school exhibits, 1942,"

Figure 15. "Monarch Butterfly Group, Circulating Nature Study Collection, 1927 ,"

Figure 16. "Circulating Library Collection, Department of Public Education Exhibition, November 10, 1919,"

Figure17. "Model of Eastern Woodlands Indians, Anthropology diorama, Loan Division, 1957,"

Figure18. "Great horned owl in circulating exhibit carrying case, 1957,"

Figure 19. "Photographs, film reel, slides, and miniature busts, 1957,"

Figure 20. "Miss Johnson teaching children, 1941,"

Figure 21. "Discovering the Universe Moveable Museum,"

Figure 22. "Paleontology of Dinosaurs Moveable Museum"

Figure 23. "Structures & Culture Moveable Museum."

Figure 24. "Dinosaurs Ancient Fossils New Discoveries, Moveable Museum, 2006."

REFERENCES

American Museum of Natural History. (1994). *Education Report*. (American Museum of Natural History Annual Report 1993, p.66-71). New York: AMNH.

AMNH (American Museum of Natural History). (2008). *Education Report.* (American Museum of Natural History Annual Report 2006, p.14-18). New York: AMNH.

AMNH (American Museum of Natural History). (2009). *Education Report.* (American Museum of Natural History Annual Report 2009, p.23-29). New York: AMNH.

Bernard, L. W., and Futter, E. V. (2005). *Report of the President and Chairman* (American Museum of Natural History Report for Fiscal Years 2001 through 2003, p.5-11). New York: AMNH.

Gordon M. (2000). *Museum in the Classroom/Reaching Out to the World.* Retrieved. January 1, 2016, from: http://www.amnh.org/learn/musings/SP00/mc.htm

ICOM (International Commission of Museums) (n.d.) ICOM definition of a museum (http://icom.museum/definition.html; accessed September 22, 2005).

Saunders, J. R. (1956). *Development of Educational Services,* 1869-1956. (The American Museum of Natural History Eighty-Seventh Annual Report, p.11-44). New York: AMNH.

SEGD (The Society for Experiential Graphic Design). (2015). *The Moveable Museum.* Retrieved. January 5, 2016, from: https://segd.org/moveable-museum.

Sherwood, G.H. (1927). *The Museum and School Service* ((Fifty Ninth Annual Report of the Trustees for the Year 1927 - The American Museum of Natural History, p.91-105). New York: The American Museum Press.

Vallera, J. R. (2009). *Color Wheelz* (Master's thesis) Faculty of Parsons The New School for Design, NY.

Figure 1. "The Museum Goes to the Schools, panel, 1880," Bennett, Steve, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22208.

Figure 2. "The Museum Goes to the Schools, 1903, featuring birds and seashore life, panel ," Bennett, Steve, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22135.

Figure 3. "The Museum Goes to the Schools, 1922, featuring small habitat groups and motion pictures, panel," Bennett, Steve, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22134.

Figure 4. "The Museum Goes to the Schools, 1942, panel," Bennett, Steve, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22133.

Figure 5. "In 1922, Alfred Sievers/delivery to public schools," Gordon M. (2000). Museum in the Classroom/Reaching Out to the World. Retrieved. January 1, 2016, from: http://www.amnh.org/learn/musings/SP00/mc.htm

Figure 6. "Museum automobile for delivery of School Collections, 1908," Lunt, Thomas, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22280.

Figure7. "Department of Education delivery trucks ready for transport of slides and nature collections, 1927," Rice, H. S., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22648.

Figure 8. "Loading nature study collections onto Museum's Department of Education trucks, 1937," Coles, Charles H., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22109.

Figure 9. "New trucks for Department of Education, 1941," Coles, Charles H., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22125.

Figure 10. "Loading loan collection boxes onto museum trucks for delivery to schools, 1942," Coles, Charles H., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22132.

Figure 11. "George Hawkins, left, and Julius Kagan loading trucks to deliver school museum exhibits, 1942," Bierwert, Thane L., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22130.

Figure 12. "Carlton Beil inspecting school service truck, 1950," Rota, Alex J., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22555.

Figure 13. "Sorting boxes of lantern slides for delivery to public schools, 1926," Rice, H. S., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22647.

Figure 14. "Katherine Beneker and Miss Wiley preparing school exhibits, 1942," Coles, Charles H., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22129.

Figure 15. "Monarch Butterfly Group, Circulating Nature Study Collection, 1927 ," Rice, H. S. and Dutcher, Irving, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22454.

Figure 16. "Circulating Library Collection, Department of Public Education Exhibition, November 10, 1919," Kirschner, Julius, AMNH Digital Special Collections, accessed March 2, 2016, http://images.library.amnh.org/digital/items/show/22405.

Figure 17. "Model of Eastern Woodlands Indians, Anthropology diorama, Loan Division, 1957," Yourow, Morton, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22810.

Figure 18. "Great horned owl in circulating exhibit carrying case, 1957," Yourow, Morton, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22806.

Figure 19. "Photographs, film reel, slides, and miniature busts, 1957," Logan, Robert Elwood, AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22813.

Figure 20. "Miss Johnson teaching children, 1941," Coles, Charles H., AMNH Digital Special Collections, accessed February 27, 2016, http://images.library.amnh.org/digital/items/show/22529.

Figure 21. "Discovering the Universe Moveable Museum," Copyright; Academic, accessed February 27, 2016, http://en.academic.ru/pictures/enwiki/68/DtU.jpg

Figure 22. "Paleontology of Dinosaurs Moveable Museum." Copyright; Academic, accessed February 27, 2016, http://en.academic.ru/pictures/enwiki/80/Paleontology_of_Dinosaurs_Moveable_

Figure 23. "Structures & Culture Moveable Museum." Copyright; Academic, accessed February 27, 2016, http://en.academic.ru/pictures/enwiki/83/Structures_%26_Culture_Moveable_Museum.JPG

Figure 24. "Dinosaurs Ancient Fossils New Discoveries, Moveable Museum, 2006," Copyright; Argyle Design, accessed February 27, 2016, http://argyledesign.com/projects/p_amnh_dinobus.php