

Will our new traveling exhibits become a nexus between nature and culture?

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Abstract. A set of traveling exhibition that consists of many original and replica specimens of geology and paleontology to show us the window of history of life, has been established and distributed in several local museums and other venues. The exhibition was especially intended to transport, set up and withdraw as easier as possible, which makes expanding its utilities. Several trials to collaborate existing permanent exhibition of the museum and installation of regional materials and/or information have been made. We have thus realized that this small to medium-sized exhibition have potential to collaborate with several exhibition venues and to facilitate museum activities.

Introduction

The number of purely Natural History Museums is limited in Japan; they are more commonly united with other field of science, such as archeology, folklore, history, and so on, as regional or municipal museums. They also face some challenges such as the shortage of curators and/or scientists in this field. As the only national museum that focuses on natural history and science in Japan, we, National Museum of Nature and Science, have produced and offered several portable exhibitions to support such museums. Since the natural disasters in north-east Honshu, a main island of Japan, in 2011, we have expanded this activity to support the museums that have been affected by such disasters. Previously, these traveling exhibitions generally consist solely of panels. However, for the sake of attracting more people, we produced a new traveling exhibition, entitled “History of Life: A story you meet in the tree of life,” which consists of many paleontological and few extant specimens, as well as panels.

As part of the *Legacy Project* that is supported by Ministry of Education, Culture, Sports, Science and Technology (MEXT), we started to hold this exhibition last winter with help

of two regional museums in Hokkaido, the northernmost island in Japan. One of these museums is more focused on the history of human beings, and the other on science, history, and art. After these initial trials in Hokkaido, we subsequently delivered it to two places in Iwate, northeast Honshu (Iwaizumi Disaster Control Center and Ofunato City Museum). In this presentation, we report on our new products and the current results of this exhibition project being done in various venues, especially focused on the activities in the regional museum in Kitami in Hokkaido.

Content of the exhibition

A total of 73 specimens of paleontological and geological specimens, including 2 extant materials, 4 models and 27 replicas, were prepared for this exhibition to show the history of Earth and life on it. They were assembled into 10 sections ranging from the Pre-Cambrian to the Quaternary period. Most invertebrates and plant fossils comprise real materials, while vertebrate specimens are mostly replicas of very important specimens like holotype and/or neotype of a new species that are stored or displayed in NMNS. They can be set up in a gallery of about 150–400m² in dimension. Two mounted dinosaur skeletons of *Nipponosaurus* and *Deinonychus* are prepared and designed for the touring exhibition to transport.

Along with these specimens, we also provided some activities to make fossil replicas, a puzzle of *Triceratops* in natural size, and so on.

Special features of the exhibition

In developing this touring exhibition, what we thought was the most important next to the theme was ease of transportation and set up. We also tried not to concentrate into any specific geographic region in Japan. After creating a rough scenario, we asked to the researchers in each field to provide specimens. Many geological materials, including paleontology, are not so fragile and easier for packing and transportation, although weight and size can be problematic in some cases. This time, we prepared original specimens of handy size to be transported relatively easily, and prepared replicas for larger specimens (mainly vertebrates).

For smaller specimens of approximately 300-400mm in length, urethane plastic was laid

on a plastic container, and a groove suitable for each specimen was provided so that the specimen could be fixed (Fig. 1). For other specimens, a dedicated cardboard box was prepared for transportation.

Regarding the exhibition, display showcases and dedicated display stands were provided for approximately half of the exhibitions so that they can be easily set up regardless of the facilities at the host venue (Figs. 2, 3). There are three types of display panels. The first one is a folding screen-type panel (Fig. 4, 5). Basically, two pairs of boards are connected for display. The design aims to be able to stand by itself regardless of location and to be easy to carry by folding. However, it was surprisingly effective that it could be divided into two according to the exhibition space. And they were possible to fit with exhibition lines (from left-right and right to left) without any sense of incongruity.

The second is an existing signage facility called 'X-pop' (Fig. 7). This is a frame mainly composed of a skeleton like a tent pole. It can be easily assembled by one person. By combining this with four panels (ca. 900x900mm each) and a newly created specimen case at the center of the frame, we were able to create an accented display (Fig. 7). The third also uses an existing folding display wall, and we can create an exhibition wall with a height of about 2m, just by expanding the case (Fig. 6). By attaching an exhibition panel with velcro to it, we are able to create an exhibition panels to separate each section.

Eight folded display boxes with acrylic cover have been newly created. Due to the size difference of acrylic covers, they can be stacked in layers, like the Russian doll Matryoshka.

Most of the specimens, display showcases, panels, tapestries to make exhibition walls (Fig. 3) etc. are put in Roll-Box-Pallets (Fig. 8) that can be used for courier service, and can fit in a 4t truck transportation. The exhibition is able to set up in 2 or 3 days and withdrawal in about 2 days when using 1-2 host museum staffs, 4 from locally-contracted packaging team, as well as 2-3 staffs from NMNS.

Planning the exhibition in each venue

We usually started talking with a regional museum that can act as a hub of local museums in each region. In fiscal year of 2018, the '*Legacy project*' financially supported by MEXT was started mainly at the Hokkaido Museum. Exhibition was subsequently prepared in

the Kitami Region Museum of History, Science and Art. In 2019, it was planned at the two venues in Iwate Prefecture with great help of the Iwate Prefectural Museum, and will be followed by four museums in Kumamoto Prefecture. The Kumamoto Museum Network Center played a major role to manage its travel in that region.

Layout of the exhibition plan for each museum were usually created by staff of host museum. This process appears necessary because it would be the opportunity to be aware of the relationship with the materials in each museum with this exhibition. As a result, an attempt to collaborate this exhibition with a “permanent exhibition” or to install original display of each venue were made in some cases.

Result of exhibition in Kitami

Kitami Region Museum of History, Science and Art is a museum located in the center of Kitami City (ca. 120,000 in population). As its name suggests, it is a museum facility that combines the functions of a science museum, an art museum, and a history museum including some geological and paleontological specimens. Although there is a curator of natural history in the museum, no specialist exists in the field of geology and paleontology. Therefore, curator of archeology became the host of this exhibition. This museum is a place where curating support project is ongoing (Ito *et al.*, 2019). Thus, it is expected to be a model for developing this exhibition project.

After initial discussion with a curator of the museum, exhibition set up was started in Jan. 23 and ended in 25 in 2019. They were set alongside with the related permanent exhibitions (Figs. 7, 9). The exhibition period was 38 days and they could get 2025 visitors during that time period.

The followings are impressions provided by a curator of the Kitami museum.

- It became a nice opportunity to have a set of exhibitions showing history of life on earth. Because there is little possibility to develop it by themselves for local museums without specialists.
- Since this exhibition consists of several units (sections) with relatively small size, it can be set beside of related specimens or display in their permanent exhibition. This provided chances to the visitors to rediscover their permanent exhibition and specimens.

Discussion & Conclusion

Since opening of this traveling exhibition in December 2018, we have traveled five venues to date. The exhibition venues differed in size, theme, as well as facilities for exhibition. In the case of Kitami, this exhibition was set in their permanent exhibition. There have been no such attempts in the other museums, but they often put their specimens or information to be related to this scenario (in Omoto and Ofunato), which enhanced visitor's understandings of regional history. Even at the Hokkaido Museum, which focused on human history, this exhibition appears to play as an introduction for permanent exhibition of the museum. In other words, theme of this exhibition, history of life, seems to be highly compatible with displays in several different museums. It became also clear that these small to medium-sized mobile exhibition are expected to be used in various ways because of their ease of transportation and setting. Some of our trials for making panels, showcases, and transportation system seemed to be effective for the other museum for their future activities.

Using a lot of specimens (both original and replica) in this kind of traveling exhibition may cause some damages to the exhibits and specimens. We are now doing monitor of those specimens in order to understand how much we should take care of them for future activities.

Acknowledgements

We are grateful to the following museums and venues for permitting us to hold this exhibition. They helped us very much through the whole sequence of this exhibition: Hokkaido Museum (Hokkaido), Kitami Region Museum of Science, History and Art (Hokkaido), Omoto Disaster Prevention Center (Iwate), Ofunato City Museum (Iwate), Kumamoto Museum Network Center (Kumamoto). Special thanks are due to Drs. Ken'ichi Kurihara, Mr. Takafumi Enya, Mr. Yuji Soeda, and Dr. Keita Omote (Hokkaido Museum), Mr. Yuki Nakamura (Kitami Region Museum of Science, History and Art), Dr. Takafumi Mochizuki and Mr. Sento Yamagishi (Iwate Prefectural Museum) for their continuous help and support.

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