The 2nd Practical Tourism Study Tour Report: Toppan Printing VR Theater

In conjunction with the "Tourism Strategy Project", which learns the big view and expertise in tourism from prominent lecturers, the Tokyo Metropolitan Public University Corporation occasionally conducts "Practical Tourism Study Tours" aimed at visiting and touring actual sightseeing spots.

This year, which is the final year of the project, the influence of COVID-19 unprecedentedly blows the tourism industry which has been still in a tough situation. Under these circumstances, we will conduct three tours to explore the possibility of micro-tourism and technology, which are attracting attention as a new opportunity in the tourism industry.

On Friday, November 6, 2020, the second Practical Tourism Study Tour was held with the cooperation of Toppan Printing Co., Ltd. We visited the Printing Museum and VR Theater in Toppan Koishikawa Building and learned about initiatives of the company.

Printing Museum, Tokyo

Printing Museum, Tokyo established as part of Toppan Printing's centennial project. From the origins of printing to the latest printing techniques, there are a variety of printing collections on display. The museum has celebrated its 20th anniversary and reopened on October 6, 2020.

The exhibits been significantly renewed with a focus on the historical transition of printing culture in Japan that our predecessors cultivated while keeping an eye on the world widely. At the printing house, annex attached to the museum, you can experience letterpress printing.



VR Theatre

Toppan Printing started research and development of VR technology in 1997. They have created more than 50 works so far. The VR theater features a curved screen that is 12 meters wide and 4 meters high and has a horizontal viewing angle of 120 degrees, so you can experience an immersive feeling as if you were in the image.

Photo credit, Toppan Printing Co., Ltd.



Toppan Printing Initiatives

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Toppan VR

Based on the "color management technology", "high-definition photographic technology", and "high-capacity image processing technology" developed as a printing company for many years, Toppan VR is opened to the public and utilized through digitalarchive, visualization, and resource. In about 20 years, we have created more than 50 VR works by making valuable cultural assets such as world heritage sites and national treasures in Japan and overseas into VR.

Toppan Printing and the Palace Museum in China have launched joint project and established "The Palace Museum Digital Institute" in 2000. The purpose of this project is to preserve and publish ancient buildings and cultural assets of the Forbidden City by utilizing technologies such as VR developed by Toppan.

In 2018, as a part of Treaty of Peace and Friendship between Japan and China, Premier Li Keqiang and then Prime Minister Abe had an experience with Toppan VR. In such way, Toppan also plays a role as a bridge for cultural exchange between Japan and China.

Toppan VR technology is used in various situations such as events, seminars, tourism, and education. At seminars held for office workers at Academy Hills in Roppongi, the monks of Toshodaiji Templegave lecture operating VR images of the precincts. Also, the public talks using VR of three-dimensional mandalas located in the Toji Auditorium are held at the Tokyo National Museum.

In addition, we held a VR public talk and a parent-child origami class that gathered parents and children during the summer vacation as a collaboration project with Asahi Press Inc.'s "Oru Dogu-chan (Paper-Folding Clay Figurines Characters)", and for foreign people, we held an event to enjoy "rakugo (traditional Japanese story telling)" in the feeling of traveling back in time to the Edo period by making full use of VR. It was also used for screening at the Konica Minolta Planetarium in its all-sky video system and projecting it onto a skating rink at Huis Ten Bosch in Nagasaki.

Besides the use of content, thanks to our digitally archived data, we are contributing to restoration of the stone wall of Kumamoto Castle which collapsed due to the earthquake in 2016 by stone wall verification system co-developed with Kumamoto University.

Profound Tourism

Toppan Printing is also working with Toppan Travel Services to provide new cultural experiences through digital (VR) × real to deeply understand, learn, and feel Japanese culture.

It is essential for tourism to increase the number of repeat customers, and in order to make tourists feel like revisiting, it is important to get to know about the destinations more deeply, so we started tour program called Profound Tourism.

For companies, we offer a variety of content, including SDGs training, team building, training for foreign employees, and hospitality programs for VIPs. In addition, in order to provide new experience value in COVID-19 pandemic, we have just started working on an online tour where you can enjoy traditional Japanese culture without travelling to the actual site.

Toppan Printing aims to protect cultural properties by digital archives and to make a virtuous cycle of cultural property protection i.e., preserving cultural properties by the profits gained from VR contents (digital archives).

In addition, we would like to propose initiatives to attractively disseminate cultural assets, stories, and people using digital technology, to combine the offer of online cultural experiences overseas with product sales, to stimulate future visits to Japan. We would also like to propose an initiative to create locations in Tokyo where people can watch VR images, and to send inbound visitors to Tokyo who viewed VR images to local areas in Japan.