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Virtual Deinstallation During the COVID-19 Pandemic

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SPECIAL COLLECTION: COVID-19 AND THE MUSEUM

SHORT REPORT

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ABSTRACT

The COVID-19 pandemic has changed many aspects of life and how work is accomplished. Travel restrictions and health concerns have hindered courier trips, making virtual condition reports and deinstallations necessary to retrieve loans. However, transmission pathways of the virus and the related viral attenuation on different materials and surfaces influence employee safety concerns when multiple people interact with surfaces, requiring quarantine periods or disinfection guidelines to be written to address these concerns. This paper illustrates how the National Archives and Records Administration (NARA) and the Victoria and Albert Museum (V&A) worked together virtually to safely return an important 1933 map to the US from England using quarantine periods.

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INTRODUCTION

The map, *United States System of Highways, 1933* annotated by Franklin Delano Roosevelt in blue pencil [National Archives & Records Administration (NARA) Identifier 84786150 RG 30, Bureau of Public Roads, 1949–1967], was loaned to London's Victoria and Albert Museum (V&A) in November 2019 for the exhibition "Cars: Accelerating the Modern World" (***Figure 1***). The map has significant historic value, requiring specific preservation, security, and transport measures, as well as a courier for installation and deinstallation.

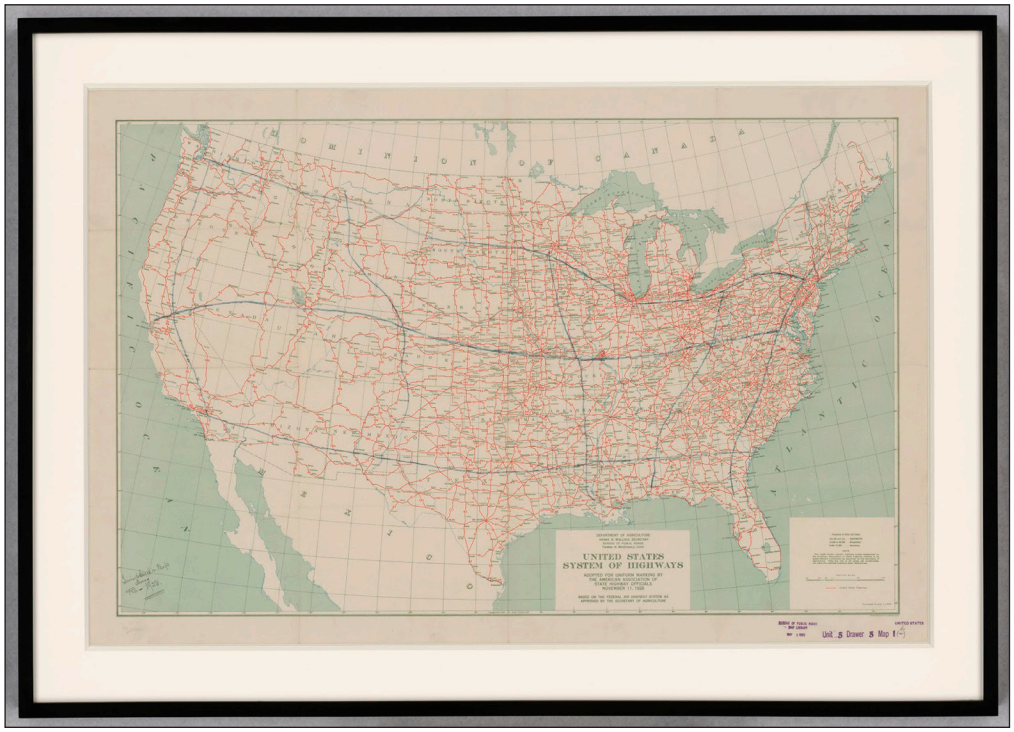

Figure 1 *United States System of Highways, 1933*, National Archives Identifier 84786150.

In typical outgoing loan procedure, the map was reviewed by NARA conservation and received minor treatment, including encapsulation in polyester. The map was then sealed and framed in a rigid, UV-filtering acrylic sandwich. A NARA conservator, who acted as courier, monitored the inspection by TSA and accompanied shipment to the V&A. After the map acclimatized in its crate at the V&A for 24 hours, the courier unpacked the document, wrote the detailed condition report and installed the map with assistance from V&A colleagues.

The exhibition was a great success, generating positive reviews and strong attendance, but the COVID-19 crisis caused the V&A to close in mid-March, with the map protected from light exposure and security and environmental systems fully operational. The pandemic situation continued to worsen, with more travel restrictions and health concerns, resulting in postponement of the deinstallation.

NARA policy stipulates that a NARA conservator must be present during installation and deinstallation of high-value NARA holdings on loan but because of the pandemic, a NARA conservator could only be virtually present. Due to differences in time zones and shortened V&A hours (a COVID-19 safety measure), scheduling was difficult. V&A staff worked diligently, providing NARA's conservator a live stream to virtually attend this pandemic-mandated compromise to normal courier policy.

VIRAL ATTENUATION RESEARCH AND STAFF SAFETY

Concern about pandemic viral transmission changed daily routines. When the decisions over handling the returned loan needed to be made, there was so little information about how the virus spread and how deadly it might be that potential surface contamination was considered high-risk to protect staff. Masks were required for reducing airborne transmission and research on viral attenuation for different common materials was used to guide best practices for keeping staff safe in shared spaces and to help inform loan practices. NARA partnered with other cultural heritage organizations, universities, the Institute for Museum and Library Services,

Online Computer Library Center (OCLC), and the research institute Battelle to develop and share science-based information and best practices to reduce transmission of the COVID-19 virus for the REopening Libraries, Archives, and Museums (REALM) Project (see references). REALM has already published surveys of scientific literature related to airborne and surface transmission of the virus and several rounds of research have been conducted on material surfaces important to daily functions at cultural heritage institutions and libraries.

All materials and surfaces that multiple staff might access were considered for potential transmission. The map was encapsulated with polyester while at NARA and then framed with wood and an acrylic sandwich and not opened until returned to NARA. For packing, the framed map was wrapped in Tyvek, a high-density nonwoven polyethylene fabric, and placed in a polyethylene foam enclosure within a composite wood-based crate lined with polyester urethane foam. Extrapolating information contained in the REALM literature review and testing studies, the shipping crate and everything inside was expected to be virus free by the time the crate was opened since the time from crating through delivery to unpacking was longer than most suggested quarantine periods. Disposing of all the packing material to reduce the potential of surface transmission was unacceptable from a sustainability standpoint, so quarantine seemed the best option to mitigate surface transmission risk.

VIRTUAL DEINSTALLATION

To avoid potential problems caused by technical issues at a crucial moment, the V&A led this virtual deinstallation while NARA monitored closely, rather than NARA leading from the screen. Fortunately, NARA's exhibits conservator and the V&A's paper conservator were together during installation, establishing an easy working relationship. When the decision had been reached to deinstall virtually, it seemed most simple to follow the procedure used during installation in reverse for the deinstallation.

The NARA and V&A team members exchanged several rounds of emails to develop the virtual deinstallation plans. Plans were made in case technology failed while the deinstallation was partway through a task, in which case the V&A would get the work to the next safe point prior to pausing and reconnecting the call.

During the actual deinstallation, the NARA team carefully watched all the V&A procedures to ensure all of NARA's requirements were met for safeguarding the map. The virtual deinstallation involved several steps occurring over a couple of weeks in the summer of 2020 and is summarized as follows:

- The crate arrived on site August 14 and was stored in the gallery at the agreed upon environmental conditions.
- The V&A conservator and two technicians were on site on August 17 at 9:30 am Washington, DC time with the NARA team watching live on the computer.
- Overseen by the NARA team, condition checking was carried out by the V&A paper conservator and deinstallation, packing, and crating by the two technicians in the gallery near where the map had been displayed. NARA could observe that there was no other activity in the area at the time.
- Materials supplied by NARA and used for protecting the map during transport were:
  - Polyester film, encapsulation
  - Archival matboard, framed with 1/8-inch thick Optium anti-reflective acrylic and a 1/4-inch thick acrylic back, sealed with Marvelseal tape
  - Tyvek, wrapping the wooden frame
  - Polyethylene foam core trays and lid for crate interior
  - 1/2-inch thick medium-density overlay plywood crate lined with polyester urethane foam
- The call ended once crating was completed and the NARA team witnessed the crate placed safely for collection by a fine art shipper on August 25.
- Delivery at NARA was expected August 26; the crate was allowed to acclimatize as normal for 24 hours with an extra week of quarantine to address any potential virus contamination.

LESSONS LEARNED

Given the obstacles of working across different countries, time zones, and daily schedules, the virtual deinstallation plan had to be discussed numerous times prior to confirmation. However, similar email discussions would have been necessary even with the traditional method of in-person travel. Less time and cost were involved the virtual deinstallation compared to travelling.

Effective visualization of the object during deinstallation was difficult due to the less-than-optimal computer camera system and the requirement that no awkward and/or heavy objects, such as laptop computers, were held above the document. However, whenever the NARA team asked a question to check something during the virtual deinstallation, V&A staff immediately complied, working together as if in-person.

A shared Google document was attempted as a digital condition report so that it might be edited and electronically signed by NARA and V&A staff upon completion. It was unsuccessful in this instance due to incompatibilities between institutional software systems but remains the goal and recommendation for future NARA exhibition work.

Working with the highly professional and trusted team at V&A allowed a smooth deinstallation with only slight technological issues, but no conservation concerns for NARA and no negative impact on working relationships.

FUTURE CONSIDERATIONS

The ongoing global crisis has created a need for new protocols, some of which may become permanently incorporated into policy. Previously considered changes in practice have become necessary, and again, may become part of new standards of practice including:

- Reconsideration of courier activities requiring physical proximity and the incorporation of 'virtual courier' duties to lessen travel requirements. Tracking devices and software could compensate if couriers are not required to travel.
- Development of new software programs and/or dedicated apps designed for remote monitoring of exhibition-related activities, possibly a dedicated, secure, virtual live monitoring while maintaining the security of locations being filmed.
- Condition reports conducted remotely, with supporting technical resources – upgraded networks, improved Wi-Fi and audiovisual equipment.
- Improved encryption for digital file sharing (loan, condition, courier, and facilities reports).
- More development in digitization technology with an increase in virtual exhibitions.

The world is shifting toward increased remote working practices with new paradigms that must be incorporated into institutional plans.

CONCLUSIONS

The pandemic has changed how many of us do our jobs. Scientific research of viral attenuation on surfaces can effectively help inform decisions and staff safety in cultural heritage institutions. Procedures have been influenced by the need for quarantine times to allow the virus to naturally attenuate prior to shared surfaces being handled by various staff or contractors. Travel restrictions and complications from the pandemic require more virtual work, and therefore have put an even greater emphasis on good communication, maintaining positive working relationships, trust, and collaboration practices, but together we can protect each other and our cultural heritage.

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COMPETING INTERESTS

The authors have no competing interests to declare.

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