Challenge Report
Team Air B

Background
Challenge Report
Presentation
Team Members
The **20th ASEF Summer University (ASEFSU20)** was held from 15 August – 3 September 2016 across China, Mongolia and the Russian Federation on the theme “Gateways to Asia and Europe: Connectivity by Land, Sea and Air”. 47 participants representing 45 ASEM partner countries joined the 3 week educational journey and solved real-life challenge scenarios on the topics of connectivity and transportation linked with 4 major transportation modes: 1) road, 2) rail, 3) maritime, and 4) air.

The route included Beijing, Harbin, Vladivostok, Chita, Irkutsk and Ulaanbaatar, and each of the 6 cities visited focused on a different facet of connectivity. Participants attended lectures, trainings and workshops on the specific topic and also simultaneously explored it hands-on through site visits to historically important locations, transportation hubs and commercial centres.

The participants, carefully chosen from 8,222 applicants, developed business plans, mobile applications, social media strategies, policy briefs and promotional materials on the 9 following challenges:

- Safe transportation of cultural artifacts
- Accessibility to public transport for physically disabled people
- Green logistics
- Spread of infectious diseases through increased air traffic
- Security at railways
- Sustainable ecotourism
- Frameworks on the management of autonomous underwater vehicles
- Combat of human trafficking at major transportation hubs
- Enhancing the visibility of the ASEM Transportation Ministers’ Meeting (ASEM TMM).

Organised by the Asia-Europe Foundation (ASEF), the ASEFSU20 journey was made possible due to the joint efforts of many partners involved in this project: the Ministry of Foreign Affairs of the People's Republic of China, the Ministry of Foreign Affairs of Mongolia, the Ministry of Foreign Affairs of the Russian Federation, the Ministry of Education and Science of the Russian Federation, Beijing Jiaotong University, Harbin Institute of Technology, Vladivostok State University of Economics and Service, Transbaikal State University, Irkutsk State University, Mongolian Youth Federation and Ulaanbaatar Railway Joint Venture Company. The project was also supported by the Far Eastern Federal University, Russian Railway Tours, UNICEF, Heiko Seibel Fotographie, Fraport AG, Subnero, Safehouse Foundation, Chester Beatty Library, the European Network on Independent Living among many others.
What actions need to be taken to safely transport a valuable museum object by air in case of unforeseen circumstances?

#museum #air #connectivity
Museums across Asia and Europe are currently connected through a variety of international bodies (such as the International Council on Museums/ICOM) and inter-regional networks (such as the Asia-Europe Museum Network/ASEMUS). As a result, these cultural institutions are co-operating more than ever, for example through the loan of their valuable artefacts for display at other museums around the world.

The importance to create rare opportunities for audiences to enjoy treasures from faraway lands has also been emphasised by UNESCO, the UN’s agency for culture. (“Reshaping Cultural Policies: A Decade Promoting the Diversity of Cultural Expressions for Development,” UNESCO (November 2015).) However, several practical considerations affect the loan and movement of objects from one museum to another, and from one country to another. Critical among these is the secure and efficient transport and storage of the artefacts. Museum artefacts usually possess significant historical, cultural and monetary value. Therefore, the opportunities and challenges involved in transportation can become a determining factor in cultural co-operation among museums. Stringent demands are placed by museum professionals with regard to the transport of valuable museum objects be it by air, rail, road or sea.

Imagine this scenario...

A rare 15th century book is being loaned for display and is travelling from Ireland to Viet Nam to be presented as the centrepiece of an important public exhibition. Over 100,000 people are expected to view the book in 3 months. Air travel has been chosen as it is the most common and efficient method of moving a smaller object. It is also the safest in terms of accident frequency per kilometre travelled. Due diligence has been done in preparing the book for its journey to Asia:

– The conservation record of the book was checked for exceptional light-sensitivity (in which case, the book would not be loaned).

– The book was found to be well bound and the parchment pages securely attached, thus making it “loanable”.

– Specialist art transporters were hired.

– The book was wrapped in acid-free tissue paper boxed, wrapped in plastic and packed in a hand-carried case made to specifications to protect the book against air pressure changes in the cabin, humidity & shock, among others.

– The curator in charge will oversee the transport and delivery of this precious artefact and is also the ‘courier’ who will accompany the book in first-class on the flight.

– A flight itinerary with just one short stop (4 hour transit in Paris) between Ireland and Viet Nam was chosen.
The Challenge

– The necessary paperwork for customs in Ireland and Viet Nam was secured.
– The book is due to arrive in Viet Nam 48 hours before the exhibition opens.

The journey from Dublin to Hanoi via Paris begins for the curator & her book. However, midway into the 3.5 hour flight from Dublin to Paris, the flight encounters 20 minutes of severe turbulence owing to bad weather. The pilot decides to make land at the nearby London Gatwick airport.

Your Mission:

Your mission is to develop an action plan that takes into account the safety of the book. In case of further delays think of an out-of-the-box alternative solution to get the book to Viet Nam in time for the opening of the exhibition. Also think of an emergency plan in case the book is not able to be transported to Viet Nam on time.

Further Reading

Information on the Chester Beatty Library, Dublin

1. Chester Beatty Library.
   http://www.cbl.ie/

2) Information on the correlation of museum artefacts and transportation “Transporting Treasures: The art of transporting artefacts around the world.” Museums+Heritage Advisor (2 January 2013).

3) “Caring for fine art and museum artefacts – the role of transport and storage.” Museums+Heritage Advisor (20 May 2014).


REPORT

Transportation of a valuable historical artifact from Dublin, Ireland to Hanoi, Vietnam in case of unforeseen circumstances – A case study from Chester Beatty Library

Background
Air Transport is one of the safest and most efficient transportation methods to transfer valuable artifacts between museums and libraries worldwide. Nevertheless, unforeseen circumstances such as air turbulences can endanger the safety of both the artifact and the passengers on board hence bearing high risks for the institutions involved in organizing the transfer. This can be minimized through an informed precautionary plan.

For the transportation medium itself, real time information about weather and wind forecasts at different geographical areas can help, especially for pilots, in order to make safe decisions and conduct an emergency landing, if needed. However, access to real-time and location-specific information as well as the delivery network contact details should also be available for the artifact curators on board to reduce the uncertainty about the consecutive steps that need to be taken for further delivery of the artifact.

Based on the case study from Chester Beatty Library, an action plan has been proposed for the physical transportation of an artifact – in this case a rare 15th century book – tackling several weather scenarios with the aim to also promote enhanced knowledge exchange of the historical value that is attached to the artifact, in case the book cannot be transported safely from Dublin to Hanoi within 48h before the exhibition opening.

The scenario: The journey from Dublin to Hanoi via Paris begins for the curator & her book. However, midway into the 3.5 hour flight from Dublin to Paris, the flight encounters 20 minutes of severe turbulence owing to bad weather. The pilot decides to land at the nearby London Gatwick airport.

Four weather scenarios are presented in this report that have an impact on the actions that need to be taken in case of unforeseen landing at Gatwick airport in London. The following factors have been taken into consideration to guarantee the safety of the artifact and the well-being of the curator at the airport:

- Security checks: Extra agreements with the security personnel to be made to eliminate the chance of damage and theft in situations where the artifact may be required to be taken out of the suitcase.
- Contact details of airport management are within reach to help find safe and suitable storage for the artifact.
- Access to reliable contact details of professional companies that offer secured vans (special requirements) for the transport of valuable goods.
- The curator's safety, hygiene and sleeping needs, including medical assistance and hotel stay, is guaranteed by reliable airport staff.
- Communications with the library, museum, directors, airline company, access to internet, e-mail and necessary emergency numbers are provided.

Scenario 1: No storm affecting London
London is not affected by the storm anymore, allowing the curator to depart again from London airport(s). In this ideal scenario, the curator has two options to fulfill her mission:

a) Find a flight from London to Paris in time to catch the originally planned connection flight from Paris to Hanoi. If this option was plausible, the artifact would be delivered not only on time for the exhibition, but also with enough time for 24 hour acclimatization before it is exhibited.
b) Find a new direct flight from London to Hanoi. Since the only direct flight from London to Hanoi leaves from Heathrow airport, the curator will have to rent a secured van to travel from Gatwick to Heathrow airport. The van must meet special security standards, and the curator needs to be driven by a professional driver in order to guarantee the safety of the artifact. For instance, iChauffeur provides a high quality service with professional drivers. If the curator follows this option, she will arrive in Hanoi within the 48 hour window.

**Scenario 2: Storm is affecting only London**

In the second scenario, London is severely affected by the storm, making it impossible for the artifact to take off from any airport in London. To avoid further delay, a specialised van and a driver are requested from a local reliable car rental to reach Paris in time for the connecting flight. However, the ride from London to Paris normally takes approximately five hours, which most likely precludes the possibility of reaching Paris in time for the original connecting flight. Taking the train would be faster, but this is not an option in this scenario due to a lack of security measures in trains. Nevertheless, Charles de Gaulle is a well-connected airport which offers frequent flights to Hanoi that are operated by reliable airlines such as Vietnam Airlines.

The curator also has the option to drive to other well-connected airports in the vicinity such as Zaventem Airport in Brussels (4.5 hours), Schiphol Airport in Amsterdam (6 hours) or Frankfurt Airport (7.5 hours). The selection of the airport is determined by the availability of flights, which ideally includes direct flights but may require another layover.

**Scenario 3: Storm temporarily affects UK**

In the case that the storm is affects the entire UK, there will be no outgoing flights or vehicles leaving London. The curator will therefore need to stay overnight in London at a nearby airport hotel. The airline should provide safe and secure storage facilities for the artifact, and in addition take care of the curator's well-being. The storage has to meet the requirements according to safety for theft, fire or other issues. The curator should have time and place to rest, which involves searching for a safe accommodation with secure storage facilities. The artifact also needs to be stored for a necessary amount of time, until the next available direct flight from London to Hanoi is taken. In this scenario, the artifact still arrives to the exhibition on time, 12 hours before the opening, just in time to be prepared for the exhibition opening.

**Scenario 4: Storm affects Europe for unpredictable period of time**

If the storm is expected to last long and there are no flights or other transport options available from London for an extended period of time, the artifact cannot be delivered to Hanoi for the exhibition opening. The artifact should be returned to Dublin through a secured van in England, a ferry to Ireland, and another van in Ireland to be properly acclimatized and stored at the Chester Beatty library.

In the meantime, the emergency plan will be implemented to reduce the financial damage caused by delivery failure due to the unexpected turbulence.

**The emergency plan**

The emergency plan is focused on the presentation and knowledge exchange of the artifact without having it physically delivered to Hanoi. The opening of the exhibition cannot be postponed as the preparation phase lasted for years and everything is according to the plan except the arrival of the historical book. The artifact is the main attraction of the exhibition and the majority of the visitors are keen on seeing the artifact live. The emergency plan is to have alternative replacements of the artifact through visual solutions, like holograms, 3D printing and the use of virtual reality technology. Besides rebuilding the shape of the artifact in its authentic environment, it is also possible to use media to convey the artifact's meaning and value to the visitors in a more appealing way. Depending on the copyright of the book, an additional online application about the artifact and other related pieces of the exhibition can be accessed with a QR code showing more details and stories of the historical context of the artifact.
Out of the box solutions in the long term

The proposal is to create an international information exchange platform that is based on a database for artifact transportation. This database will be accessible via mobile application to quickly consult several action steps and to contact several stakeholders at different locations. The curators would keep travel logs and will be asked to share their experiences and best practices during the journey of delivery. The aim is to share and update recommendations of best practices, transportation routes and practical information regarding suitable storage facilities as well as contact details and reliability rating of staff members at different airport locations. The database can serve as a learning resource for international curators that end up in emergency situations at foreign airports. Moreover, the platform can serve as a tool to provide comprehensive emergency training for curators and better coordination of visual emergency solutions within the Asia Europe Museum Network (ASEMUS).

Conclusion

The use of existing network forums such as Asia-Europe Museum Network (ASEMUS) is important to integrate joint knowledge into one guideline that will help curators and institutions to quickly identify the best course of action for unanticipated situations. This includes the extension of a virtual reality programme for digitized artifacts that will improve visitor experience on one hand and increase the resilience of museum emergency plans on the other. In future, it is also recommended to use technology not only for the virtual exchange of cultural artifacts, but also for the reduction of uncertainty in artifact transportation. Therefore, we propose that travel data and experiences have to be compiled into an internationally accessible database to enhance knowledge exchange and cooperation in artifact-transport risk management.
Action Plan for Transportation of Historical Artifacts by Air

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Challenge provided by Chester Beatty Library
The Challenge

Goal
To promote enhanced knowledge exchange by developing a coherent template of action plan in case of artifact transportation emergencies

Action
Transportation a rare 15th century historical book from Ireland to Vietnam

Objective
To create an action plan in case of emergency landing in London Gatwick AND present an emergency plan in case the book cannot be transported safely within 48h

Agenda
1. Present transportation options based on several weather scenarios
2. Provide further long-term recommendations
Scenario 1: No storm affecting London

Departure from London

- Direct flight to Paris
- Van from Gatwick to Heathrow
- Paris-Hanoi using the original ticket (11.5h)
- Direct flight from Heathrow to Hanoi (11.5h)
Scenario 2: Storm is affecting only London

No flight departure from London

Van from London to Paris (5h drive)

Original flight from Paris to Hanoi (11,5h)

Van from London to Brussels (4,5h), Amsterdam (6h), Frankfurt (7,5h)

Flight to Hanoi (11-12h)
Scenario 3: Storm temporarily affects UK

- Overnight in London
- Store the artifact safely in London & find lodging for the curator
- Arrival in Hanoi before 12 hours of exhibition opening
Scenario 4: Storm affects Europe for unpredictable period of time

No flights or transfer available from London for long period of time (due to unforeseen circumstances)

Return artifact to Dublin by van or ferry

Emergency plan implemented in Hanoi
Overview

Scenario 1: No storm affecting London
- Direct flight to Paris
- Paris Hanoi using the original ticket (11.5h)

Scenario 2: Storm affecting London
- Van from London to Paris (5h drive)
- Original flight from Paris to Hanoi (11.5h)

Scenario 3: No flights nor transfer available (same day)
- Van from London to Brussels 4.5h, Amsterdam (6h), Frankfurt (7.5h)
- Flight to Hanoi (11-12h)
- Store artifact safely in London & find lodging for the curator
- Arrival in Hanoi before 12 hours of exhibition opening

Scenario 4: No further transfer possible
- No flights or transfer available from London for long period of time
- Artifact returns to Dublin by van, ferry, van
- Emergency plan implemented in Hanoi
Emergency plan

- The artifact does not arrive to Hanoi in time for the exhibition
  - Exhibition opening cannot be postponed
  - Alternative replacement until the artifact safely arrives in Hanoi

- Visual solutions taken into consideration:
  - Hologram
  - 3D printing
  - 360° video
Unforeseen circumstances to be taken into consideration

Concerning the safety of the artifact
- Unsafe handling during the security luggage check
- Airport safety, terrorism, theft
- Finding safe storage in new city or new airport
- Finding a secured van (special requirements)

Concerning the curator’s well-being
- Curator’s basic need (sleep, bathroom break, etc)
- Communications with the library, museum, directors, airline company, access to phone, e-mail, necessary phone numbers
- Limited access to internet or mobile connection
How to minimize potential risks in artifact transportation?
Long-term needs

1. Artifact transportation database
   - Best practices of transportation modes and routes
   - Practical information of storage facilities
   - Learning resource for curators
   - Accessible via mobile application

2. Virtual options
   - Virtual museum, exhibition or guided tour on website
   - Virtual reality programme to improve visitor experience
   - Online app of the exhibition which can be accessed through the scanning of a QR code
Final recommendations

1. Use existing network forums such as Asia-Europe Museum Network (ASEMUS) to develop a joint guideline that will help institutions quickly identify the best course of action.

2. Compile information and experience into an international database to enhance knowledge and cooperation on transportation risk management.
TEAM MEMBERS

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Varpu is an environmental and sustainability expert who lives in Helsinki, Finland. She holds a Master’s degree in Environmental Economics and has gained international exposure in Denmark, Spain and Kenya. She has worked with an ethical trade NGO in the energy sector and at a chemical regulation consultancy.

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Nora pursues a Master’s in Transportation Sciences at the Hasselt University in Belgium. She has attended several conferences on Intelligent Transportation Systems (ITS), electric mobility and fuel cell technology and gained professional experience at the National Organization Hydrogen and Fuel Cell Technology in Berlin. Nora currently interns at the Infrastructure Division of the Korean Research Institute for Human Settlement (KRIHS) and was awarded the ASEM-DUO Fellowship scholarship to attend Kyung Hee University in Seoul. In 2012, Nora received her Bachelor’s degree in Applied Communication Sciences from Wageningen University.

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Balázs currently pursues a Master’s in Sustainable Cities. He holds a Bachelor’s degree in Geography, where he completed a thesis on the European air transportation system and the issue of global air transportation connectivity. Balázs is involved in projects on sustainable transportation and mobility in Nordic cities.
Ms Yeji LEE
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Yeji is a Consultant at the International Trade Centre in Geneva, and helps increase the export competitiveness of selected sectors in developing countries. She works directly with SMEs and trade supporting institutions to identify and overcome bottlenecks in conducting international trade. She is particularly involved in IT-related projects in East Africa. Prior to joining the ITC, Yeji interned at the World Trade Organisation (WTO) where she assisted a panel on a trade dispute, drafted a background paper on trade policy and observed trade negotiations leading up to the Nairobi Ministerial Conference. She studied Economics at UC Berkeley and International Law and Economics at the World Trade Institute, University of Bern.

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Moritz, a Law degree holder from the University of Luxembourg, currently pursues his Ph.D. studies on Comparative Criminal Procedure at the same university. His experience spans from traineeships at the European Union Delegation in Jakarta, Indonesia, to legal internships at litigation and employment departments at various law firms.