This second handbook accompanies the ‘refresh Bizot Green Protocol’. It is intended to provide museum colleagues with case studies and tools to help the adoption of more sustainable practices relating to the movement of objects in particular in the search for alternative to air freight wherever possible and the adoption of virtual courier as the default option.
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1. Introduction

Mobility of people and objects has been at the heart of museum international engagement for many decades. These international exchanges have fuelled the development of many museums across the world. This important museum activity needs, however, to be adapted to the reality of the climate and nature crises.

To this end, this handbook is intended to provide museum colleagues with tools to adopt the principle of ‘greener option first’ in other words the low-carbon emission options (such as transport by sea, road or train and virtual couriers) when planning the movement of people and objects. This principle of ‘greener option first’ translates into a series of elements which require to be carefully considered before discarding the more environmentally friendly option. This principle requires reciprocity (so the whole ecosystem can move towards ‘greener’ practices), collaboration and professional trust.

Finally, this handbook is based on the work conducted in recent years by a number of professional associations and organisations\(^1\) which have been focusing on introducing virtual couriers and/or exploring alternative to the sea freight. Indeed, as stated by GCC\(^2\) “for every tonne of artwork, air freight produces around 10 times more CO2e than freighting the same distance by road, and around 60 times more CO2e than the same distance by sea”\(^3\). Many museums have also experienced during the pandemic virtual couriering with great successes. Virtual couriering is the other aspect of mobility for which we would like to invite museums to operate a shift and have virtual couriers as the default option. This effort around mobility will have a direct impact on the museum’s carbon emissions. Museums such as the Art Institute of Chicago has calculated the savings that virtual couriering represented.

2. Modes of transport and virtual couriers

3.1 Overview of the different mode of transports

<table>
<thead>
<tr>
<th>Transport</th>
<th>Pros/Cons</th>
<th>Your experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air (currently the most used option)</td>
<td><strong>Pros</strong> Safe, reliable, and prompt</td>
<td></td>
</tr>
</tbody>
</table>

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\(^1\) Notably AIC; ARCS; GCC; UKRG

\(^2\) GCC – Gallery Climate Coalition - https://galleryclimatecoalition.org/


\(^4\) These figures are calculated from the UK government’s official carbon footprint conversion factors, which can be downloaded here. The precise figures in question are: Long-distance air freight (including extra RF from burning jet fuel at high altitude): 1.0189 kgCO2e per tonne-km | Road freight (average HGV, average load): 0.10614 kgCO2e per tonne-km | Sea freight (average container ship): 0.016142 kgCO2e per tonne-km. So based on these numbers, air freight produces 9.6 times as much CO2e per t-km as road freight, and 63 times as much CO2e per t-km as sea freight.
<table>
<thead>
<tr>
<th><strong>Cons</strong></th>
<th><strong>Pros</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>highest carbon emission, most expensive mode of transport, dependant on cargo flight schedule</td>
<td>one of the less polluting modes of transport, cheaper</td>
</tr>
<tr>
<td>Sea (currently mostly for large heavy objects)</td>
<td>very long journey, security, access to port, knowledge/experience of the supplier in handling works of art</td>
</tr>
<tr>
<td>Pros</td>
<td>Quicker and more accessible than sea</td>
</tr>
<tr>
<td>Road (currently fairly common in Europe but less so in other continents)</td>
<td>Polluting vehicles, requires consolidation of loans to maximise the green dimension</td>
</tr>
<tr>
<td>Train</td>
<td>This requires further inquiry as none of the members of the ‘Bizot Green Protocol refresh’ had experienced it.(^5)</td>
</tr>
</tbody>
</table>

**Further recommended readings**

- STICH | Life Cycle Assessment of Museum Loans and Exhibitions [here]
- GCC | Sustainable Shipping Campaign Overview [here]
- Environmental Considerations of Sea and Road vs. Air Freight | Gallery Climate Coalition [here]
- GCC | Fine Art Insurance for Sea Freight [here]
- GCC | Diesel vs. Electric vans [here]
- GCC | Sea & Road Freight Routes With Emissions Estimates [here]
- Christie’s and Crozier sea freight pilot scheme [here]

**Working together towards affirming shipping by sea, road or train as the future ‘preferred option’ for long distance object movement**

While shipping by sea, road, or train is not always possible, museums should adopt the following steps to move the ecosystem towards these ‘greener transport practices’ or lower carbon emission options.

- To systematically ask transport agents to provide a quote for transport by sea, road or train where such transport is available
- To systematically ask transport agents for an invoice with clear carbon emission\(^6\)

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\(^5\) The working group plans to conduct benchmark research to better understand the potential of this transport.

\(^6\) See example of wording for procurement documentation to ask the right data from your shipping agent in Handbook 2 (p.9).
To record incidents and data emissions by mode of transport and analyse this on an annual basis

To advise the art shipper to actively seek to consolidate shipments

To advocate for reciprocity in not requesting exclusive shipments or “last on, first off” and advocate for flexible timescales for releasing object for loans

3.2 Couriers

Virtual Couriers – FAQs

1. One of the biggest barriers to virtual couriering are difficulties with technology. How do I overcome them?

Test the WiFi connection is working well and resolve connectivity issues in advance. There are different devices and systems that might be used to achieve the virtual courier appointment. Ask your team to spend more time on the set up in advance. Use portable devices, such as mobile phones or portable electronic tablets, to get closer to the action and to show close details to the courier. Set up at least two fixed cameras, one to show the workspace overall and one to focus on the object. Have an alternative plan in case connectivity fails.

Shipping companies have been traditionally providers of travel arrangements (flight/ train, hotel and per diems), ask your shipper and their agents network to provide the necessary technology for a successful virtual supervision.

2. What types of software systems should I use?

Use communication products, like Skype, Microsoft Teams, Zoom, etc., approved by your institution and discuss compatibility with the borrower/lender in advance. Make sure the system used is accessible to the virtual courier, and that they understand how to use it. A demo test may be required prior to the appointment.

3. What shall I do if the image quality is poor?

If the courier is unable to pick up subtle changes in condition (e.g. lifting paint, cracks, or fine changes in surface condition which might be a cause for concern), consider a hybrid solution with real-time supervision and then high-resolution images to be sent over by e-mail for review and feedback.

Emailing the condition report in advance and setting a preparatory meeting with the conservator or registrar examining the object can be very effective.

4. How do I achieve good communication

- Confirm the platform is functional for both host and virtual courier.
- Reduce ambient noise in the gallery.
- Make introductions and communicate expectations and sequence of activities prior to beginning work. Communicate clearly to ensure expectations of the appointment are aligned, and explain what you, the courier, need to see and who will facilitate this. Pause so that the virtual courier can seek clarification as required.
- Factor in more time to establish rapport and know who manages the communication on the side of the team working on the floor.

7 In some countries, advocacy work is undergoing to advocate to change indemnity schemes which are not yet recognising virtual couriers.
• Pre-installation/ deinstallation planning meetings between lender and borrower are crucial for the success of a seamless virtual supervision as they serve to clarify expectations and strengthen professional relationships.

5. I cannot see the surrounding activities. What do I do?

Ask them to adapt the camera angles. It helps if you take time to survey the immediate gallery space prior to starting the courier session.

Some devices have the option to show a panoramic or 360 degree view and a close up detail via a phone (Owl Pro, www.owllabs.com has a good rate of success).

6. How do I mitigate the increased risk of overlooking complexities?

Trust your partner museum, esp. if you have worked with them before. Trust your shipper and the other stakeholders, esp. if you have used their services before. Explain your concerns before the shipping date and the courier appointment, and seek assurances for their capabilities, resources, work methods, etc.

During the journey, use tools and equipment that will provide you peace of mind, such location, vibration and climate trackers.

During the appointment, ask the other team to stop and communicate clearly the complex situation you are perceiving.

In short, outline clear expectations with all stakeholders involved ahead of time and incorporate new tips as you learn more about the process.

7. How do I convince a lender to accept a virtual rather than physical courier?

Establish rapport and trust during the loan negotiation period. Find out their concerns and work to address them with all stakeholders. Offer reciprocity and appeal to everyone’s responsibility towards sustainable practices. Please refer in page 8 to examples of email templates to this effect.

8. How do I facilitate a living artist virtually installing his/her works?

Agree expectations and make them aware of any limitations in advance. Offer assurance of your ability to mitigate risks effectively. Check whether they need to supervise the whole process ‘live’, or whether it would be satisfactory to the artist of you record the process and send a video or images later for confirmation.

Depending on the size, nature of the installation, install several cameras to cover the whole gallery floor. Agree on one communication lead who will interpret the artist’s wishes to the team for the avoidance of confusion.

9. What is required of a virtual courier?

Overall, being a virtual courier requires the same attitude than an in-person courier while accepting that the process is going to be different:

**Be prepared.** Know your object and what potential issues need to be highlighted in the appointment. Know how to use the technology

**Be on time.** Be mindful of time zones.
Be flexible in your time commitments as the unexpected may occur, just like an in-person courier.

Affirming together virtual couriering as safe and practical and the ‘preferred option’ when moving objects
While virtual couriering may not always be possible, museums should work to reduce the need for couriers through a process of risk identification and mitigation, with use of couriers as last resort if no other method of mitigating risks can be identified. Museums should follow these steps in their decision making:

1. Presumption against courier
2. Virtual courier
3. Local (bookend) courier
4. Shared on-site courier
5. On-site courier

3. Sharing experiences

2.1. Sea freight case studies

- Case study 1 | Floating heavy weight at the Rijksmuseum (The Netherlands) [here]
- Case study 2 | Sea freight at the Louisiana Museum of Modern Art (Denmark) [here]
- Case study 3 | Shipping an acquisition object by sea at the Art Institute of Chicago (USA) [here]

2.2. Virtual Couriers case studies

- Case study 4 | Living artists as virtual couriers M+ [here]
- Case study 5 | Data of reduction of couriers at MoMA since 2021 [here]

2.3. Virtual Couriers policies and statements

- Art Institute of Chicago – Statement on Virtual Couriers [here]
- Art Institute of Chicago – Virtual courier policy [here]
- National Galleries of Scotland – Courier statement update [here]
- National Galleries of Scotland – Couriers guidelines [here]
- National Galleries of Scotland – Courier policy [here]
- Tate - Courier Principles [here]

4. Practical Tools

3.1. Template for courier information to lenders
Dear XXX,

With this e-mail we would like to inform you about the possibilities the Rijksmuseum offers with regard to couriering. Besides, we have some practical questions for you:

1. **Dusting:** Our specialized team of art handlers make a daily cleaning round throughout the museum and the exhibition gallery for light dusting of artworks, if necessary. They use an ostrich feather duster to dust painting frames (if not too fragile) or statues. Could you please let me know if this kind of dusting is allowed for your artwork, so I can instruct our art handlers?

2. Does your painting require a distance barrier/fence?

3. Normally, we place a security tag on the backside of our paintings and loans. This is a motion detector: as soon as a motion is detected the nearest guard and the central control room will be alarmed. Could you please let me know if you wish we place a tag on the backside of your painting (frame)?

4. Framed dimensions of the painting

**With regards to couriering, I would like to inform you about the several options we can offer, for your consideration:**

1. **Courier**
   If you want to send a courier for installation and/or transport, we can facilitate this and will arrange hotel + per diem.

2. **Virtual courier**
   If you choose to oversee the installation virtually, we can invite your courier to a Microsoft Teams meeting at the scheduled time of the installation of your loan. One of our registrars will go through all the steps with the courier and mediate between the art handlers and the courier. One of our conservators will do the condition check and discuss details and/or questions with the courier. The condition report is unilaterally signed. You will receive a scan of it after the installation.
   The arrival of the transport and the unloading will be overseen by one of our registrars. The crate will be placed in a well-secured storage area or taken directly to the exhibition area.

3. **No courier**
   If you choose not to send a courier, one of our registrars will carefully oversee the arrival of your transport and the installation of your loan. One of our conservators will do the condition check and unilaterally sign the condition report. After the installation we will send you a scan and, if desired, installation photos.

If you have any further questions, please do not hesitate to contact me.

Kind regards,

Registrar

Registrars Office
T:
M:
3.2. ARK Courier Decision Tool

The ARK Courier Decision Tool (August 2021) is a very practical tool to help decision making around the type of couriering most appropriate. You can access it [here](#).

3.3. ARK Virtual Courier Training Framework

UK Registrars Group, Nederlandse Registrars Groep and Nordic Registrars group have jointly developed a carefully prepared courier training framework which also includes a section on virtual courier training. The framework itself can be found [here](#) along with other relevant training tools and information.

3.4. Tate example for wording for transport procurement

**Environmental Requirements**

Sustainability is a high priority for Tate, and now as we move into a new phase of maturity around tracking and reducing our carbon footprint, require our suppliers and service providers to provide more information to allow us to make carbon accounting decisions in a similar way to that we would make financial accounting decisions.

As part of the delivery of transport services included in this tender, all Agents will be expected to supply the following fleet information each financial year:

- Vehicle type
- Vehicle age (if road transport)
- Fuel type
- Mileage

Agents should also provide key data to Tate on a quarterly basis which will assist Tate in calculating the carbon footprint of individual exhibitions. Agents should provide;

- Weight (kg) of cased/packaged work
- Pick-up location
- Drop-off location
- Distance (km)
- Transport type as defined within the government conversion factors

This should be emailed to the Head of Procurement on a quarterly basis in an excel compatible format, similar to the below template which is completed as an example.

The contractor should consider and reduce the environmental impact of the contract through complying with all relevant legislation and statutory requirements, including but not limited to:

organisms harmful to plants or plant products and against their spread within the Community

- The Timber and Timber Products (Placing on the Market) Regulations 2013 (SI 2013/233)
- Ensuring legal and sustainable sourcing of timber and timber-based products in line with Government procurement policy. See https://www.forestry.gov.uk/forestry/infd-9asj8n
- Suggesting improvements to reflect the latest environmental specifications or standards. For example, using low/zero VOC (Volatile Organic Compound) paint, packing materials with recycled content and that can be recycled, and highly fuel efficient and low emission vehicles
- Minimising waste, through preventing waste at source.