Safe Art,  
Safe Planet  

Lessons learned at Moderna Museet  
Kristina von Knorring  
Loan Coordinator
A sustainable approach to lending — no paper, no waste

At Moderna Museet we:
• Receive loan requests and facility reports digitally only
• Share a web platform
• Digitally send loan agreements, loan terms and related paperwork
• Digital only condition reports
Reducing courier trips and their carbon footprint — no courier or shared courier

- Sharing couriers with other institutions
- Liability issues
- Combining courier trips when possible
- Consider CO2 compensation
- Consolidated transports
Use, re-use and keep re-using — where we are heading

- Sustainable packing materials
- The future life of the crate
Context and Analysis

UK has become the first G7 country to accept the goal of net zero carbon emissions by 2050

• Government carbon emission targets
• Arts Council White paper on carbon emissions (Arts Council Report 12/06/19)
• Low emission zones
• Public and private responsibility
• Analysis of company policy and business plan
Recycling initiative

- Unwanted cases are offered to community projects (schools, theatre groups, architects...)
- Other materials are also recycled: plywood, timber, foam, polythene...
- Our recycling team will deliver cases and materials to the user’s doorstep
- The programme is accessible and open to anyone, clients make contact through our facebook group: Martinspeed_Recycling
Low energy buildings

- Solar panel energy
- Intelligent LED lighting
- Water harvesting

384 Solar panels on roof
Emissions reduction

- EURO6 emissions zone
- Upgrade of fleet
- Electric vehicles
New technology

• Paperless
  ▪ Internal processes
    Office and archive
  ▪ External processes
    Condition reports | Collection delivery notes
• New crating solutions
• Prototypes of packing materials
Future Monitoring

- Monitoring paper usage
- Monitoring energy and fuel use (2050 energy calculator)
- Offsetting Carbon footprint?
  - Courier travel | Airfreight | vehicles?
Links

https://ec.europa.eu/clima/policies/ets_en
https://www.gov.uk/guidance/2050-pathways-analysis (UK government to commit to net zero 2050)
http://2050-calculator-tool.decc.gov.uk/#/guide
https://www.bbc.co.uk/news/science-environment-48711649 (Clean energy 12/06/19)
https://www.bbc.co.uk/news/business-48630656# (Electric Flight 03/07/19)
https://ukenergylighting.co.uk/how-does-led-lighting-help-the-environment/
https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx

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Safe Art, Safe Planet

Philadelphia, PA
ARCS
Island of Misfit Crates

IMC is a not-for-profit endeavor, independent of Atelier 4, and open to participation from the community to get the ball rolling. This is a CALL TO ARMS.

Philadelphia, PA
ARCS
IMC receives crates from subscribers who get a discount on the processing fee, or full price from non-members. Staff process crates and enter into database. Subscribers get to purchase or rent from selected inventory in the database.
The only paid employees of IMC are two handers and a manager that maintains records for accounting and reports to the volunteer board of directors.
Atelier Crate System

Crate Record System:
- Create New Crate
- Query Available Crates
- View Inventory Report
- View Reserved Crates Report

IMC inventory system
## IMC Inventory System

**Atelier Crate System**

Currently Logged In: A

### Artwork Dimensional Space vs External/Shipping Dimensions

<table>
<thead>
<tr>
<th>Crate ID</th>
<th>Height</th>
<th>Length</th>
<th>Depth</th>
<th>Unit</th>
<th>Height</th>
<th>Length</th>
<th>Depth</th>
<th>Unit</th>
<th>Photos</th>
<th>Price</th>
<th>Notes</th>
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<tr>
<td>0010</td>
<td>34</td>
<td>39</td>
<td>24</td>
<td>in</td>
<td>43</td>
<td>49</td>
<td>31</td>
<td>in</td>
<td>Photo 1</td>
<td>$175.00</td>
<td>More Details</td>
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<tr>
<td>0011</td>
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<td>43</td>
<td>10</td>
<td>in</td>
<td>17</td>
<td>44</td>
<td>17</td>
<td>in</td>
<td>Photo 1</td>
<td>$200.00</td>
<td>2* Grey Foam</td>
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</table>
Atelier Crate System

Available Crate Query

Min. Artwork Height: 25
Min. Artwork Length: 35
Min. Artwork Depth: 6
Tolerance (+/-): 20
Unit: inches

IMC inventory system
IMC inventory system
Assumptions:
- 10,000 Square Feet of space
- Manager at $60,000 Salary
- Senior Handler at $52,000 salary
- Assistant at $38,000 salary
- $25,000 of Equipment (Camera, Lights, Computer, Printer, Racks, Office Supplies)
- Capacity for 800 Crates of Varying sized
- 50 Museums, 100 Galleries, 5 auction houses, 20 artists, and 50 shipping companies as subscribers
- 250 crates received per year from non-members
- 250 crates rented for average of 18 months
- 100 crates sold at $750

Sources of Revenue:
- Subscription: $250/year from non-profits and $500/year from for profits.
- $85 fee to receive crates from non-members
- Fee to Borrow $15/week
- Fee to Buy $750 for a crate that would cost $2,000 to build

Numbers:
- $100,000 Subscription Revenue
- $21,250 Receive Fees from non-members
- $292,500 in Crate Rentals
- $75,000 in Crate Sales

For Example: A Museum that needs 84 crates for a 6 month exhibition. A crating quote to build crates could be $100k. Island of misfit crates could charge $30 saving them 70%

Financial data

The financial goal is sustainability. Efficiencies and surplus could allow for expanded services, such as crate restoration to optimize inventory.
P&L Projection

<table>
<thead>
<tr>
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<th>Future years</th>
<th>Year 1</th>
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<tbody>
<tr>
<td>Subscription Revenue</td>
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<td>$100,000.00</td>
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<tr>
<td>Receive Fees from non members</td>
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<td>$21,250.00</td>
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<tr>
<td>crate rentals</td>
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<td>$270,000.00</td>
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<tr>
<td>crate sales</td>
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<tr>
<td>Total revenue</td>
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<tr>
<td>Rent</td>
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<tr>
<td>Employee Salaries</td>
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<tr>
<td>Other costs</td>
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<tr>
<td>One time costs</td>
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<td>$25,000.00</td>
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<tr>
<td>Total Expenses</td>
<td></td>
<td>$309,175.00</td>
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</tbody>
</table>

Assumptions

- Number of Non Profit Subscribers: 50
- Number of For Profit Subscribers: 175
- Annual subscription cost for Non Profits: $250.00
- Annual subscription cost to For Profits: $500.00
- Receive fee for non members: $85.00
- Number of crates received per year from non members: $250.00
- Crate rental fee per week (average): $15.00
- Average length of crate rental (in weeks): 72
- Quantity of crate rentals per year: 250
- Average sale price of crate: $750.00
- quantity of crates sold: 250
- Rent expense per month: $-
- average employee salary: $50,000.00
- number of employees: 3
- Employee additonal cost rate: 20%
- upfront - one time equipment costs: $-
- other operating costs % of sales: 18%

Financial data

Cost accounting is easy to maintain by the volunteer board of directors so that future forecasting can warn of operational issues, avoiding financial failure.
There is potential to replicate IMC in other locations, aiding in the reduction of waste and carbon output, our small contribution to the future of Safe Art, Safe Planet. Thank you.
Safe Art, Safe Planet.

Harvard Art Museums

Suzan Şengöz
Assistant Director for Registration

November 7, 2019

ARCS 2019 – Philadelphia, PA
"I am doing this because you adults are shitting on my future."
Emissions reduced by 35%

Waste Reduced by 40%

Water usage reduced by 24%
decrease from ~703 to ~533 million gallons per year
27 staff / 14 departments

- Curatorial
- Collections
- Conservation
- Digital Infrastructure and Emerging Technology
- Digital Imaging and Visual Resources
- Director’s Office
- Division of Academic and Public Programs
- Exhibitions (includes art handlers)
- Facilities
- Institutional Advancement
- Registration
- Security
- Visitor Services
GOALS

- Promote sustainability initiatives in all HAM spaces
- Inform employees of sustainability practices and activities on campus and at HAM
- Pursue Green Office Certification(s)
- Network with other Harvard Green Teams in order to share best practices
- Encourage employees to continue sustainable practices outside of work
8 staff / 6 departments

- Conservation
- Director’s Office
- Exhibitions (includes art handlers)
- Facilities
- Institutional Advancement
- Registration

Green Team: Exhibitions Subcommittee
GOALS

Green Team: Exhibitions Subcommittee

Phase 1: Review current practices for temporary exhibitions. Set baseline
Phase 2: Pilot and implement changes
Phase 3: Monitor changes
Phase 4: Report back
Phase 5: Implement changes throughout all gallery spaces
Phase 1 – gather metrics for baseline

Exhibitions Project Manager will assemble an excel checklist to input data, using the OMSI (Oregon Museum of Science and Industry) model.

Exhibitions will input the list of material types used during installation and deinstallation of exhibitions, including mount making and casework.

Facilities input the list of material types used for construction during gallery change outs, and disposal methods of discarded materials.

Registrar will create an additional section for incoming loans and couriers to measure:
- Number of couriers per exhibition
- Number of miles traveled per courier
- Mode of travel
- Number of loans per courier
Categories of metrics for baseline

- New material consumption
- Use of regional resources
- Waste approaches
  - Reuse/Recycle
  - Neither action possible
- Energy consumption reduction
- Toxic emission reduction
- Transportation of artworks, and casework
  - Methods
  - Distances
- Couriers

Green Team: Exhibitions Subcommittee
H/AM 3rd floor temporary special exhibition galleries
Thank you!