

PROJECT TITLE: SP0254 Online Redpath Museum

Please answer the following questions and return the completed form to the [SPF Staff](#) via e-mail.

Final Report prepared by Ingrid Birker and Ginette Dessureault

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Actual Project Start Date 2020-09-04

Actual Project End Date 2021-04-30

Questions

1. Please summarize the project and its key accomplishments to date. In your answer, consider the impact your project has had so far on McGill's campus(es). *Unlimited characters, suggested minimum ½ page or ~250 words.*

The impact of this project did not affect McGill's physical campus. The greatest impact was on our organisational structure and dynamics. This was the first SPF project for the Museum that involved so many key members of the museum, with ancillary consultation and review by personnel from McGill Science Outreach and Faculty of Education respectively. This project's key accomplishment was that it made us realize our capacity to manage a large, novel and ambitious initiative while working remotely and under a certain amount of environmental stress. Even though we started with a written outline and plan to create what we called "Museum in the Box", we were not able to follow through on the deliverables for a variety of unforeseen challenges. Our first plan was task driven instead of vision driven. One of the challenges to meeting all our task deadlines was that many of our materials and supplies were delayed due to covid. For example, production of our 3D replicas and transport units was delayed by 2 months because there was a huge demand for these items by other cultural and government agencies. The human resources for this project involved all the Museum staff: 3 Administrative/Coordinators + 2 Curators + 1 technician + 2 content developers and 1 Museum Director (a Dinosaur specialist) and 3 student volunteers. Every single person on this team felt the impact of this project. An estimated 5-10 hours per week per team member were dedicated to this project. Total human resources hours = 12 people x 5 hours/week x 16 weeks = 960 hours.

The #s of people are presented in Q.10 but I could not fill in the Actual column for the first two #s: The # people hired was one and the SP0254 funding went to the salary for this hire. The # volunteers indirectly or directly involved is 3 student volunteers who were directly involved with 3D scanning of the dinosaur replicas.

The final tangible accomplishment in terms of SP0254 Online Redpath Museum project is that we created 2 separate RMDBs (Redpath Museum Discovery Boxes) each with lesson plans, teaching materials such as student activity sheets, teacher's notes, 10 - 15 real touchable educational props for each box; test trials with Faculty of Education student teachers, real pilot testing with about 164 students in 5 different local schools. See Appendix A with the Summary of the results of the pilot testing and photos showing the contents of each RMDB.

2. Please describe the key successes and challenges of your project. Include a minimum of two examples for each. *Unlimited characters, suggested minimum ½ page or ~250 words.*

The key success was in terms of capacity building. We have now created 2 different RMDBs that were piloted (road tested) in early 2021 with an estimated 139 students and 25 student teachers in training. The student teachers are part of the McGill Faculty of Education course EDES 335: The other pilot testers (schools) are listed in Q.10. This is a key success because it shows that we have built a capacity for our Museum team to develop/assess (test) and create a suite of educational kits. This is key at this point in time because there is a very good chance that the Redpath Museum will be closed for renovations starting in 2022 and this new found capacity to create outreach tools will help the Museum to maintain a level of engagement with the larger learning community such as local schools and community groups.

The major challenge now is that teachers have one month left to use our new RMDBs. When we first submitted this proposal to SPF on June 1, 2020 we had estimated 3 summer months to complete the planning and development stage. The final completion of boxes was anticipated for Dec. 2020. Many aspects of this project were delayed so the original time line did not consolidate. We have now shifted our time line to offering market ready RMDBs for Fall 2021. Our major internal challenge was to keep our advisory oversight cohesive. For instance, it was difficult to

coordinate and consult with specialists at McGill, such as science instructors from Faculty of Education and paleontologists such as Hans Larsson (faculty), and with our friends at other Natural History Museums across the country who have prepared outreach boxes and programs such as this while at the same time revising and modifying the content. Please see the answer for Q 10. that lists the partnerships and collaborations that were created in terms of oversight and consultation as this project developed. You will see that the team expanded very quickly and was difficult to manage cohesively.

3. What key points of advice or lessons learned would you give to other SPF teams either regarding your experience managing your project or the project itself? *Unlimited characters, suggested minimum ½ page or ~250 words.*

Lessons learned can all be linked to project management. We tried to design our project on three main elements of project management: Scope, Schedule, Cost. The main project manager was Ginette Dessureault. The team kept in touch with updates during the Monday morning staff meetings and monthly during the public program meetings. The scope of the project was outlined in our Planning manual and it gave a calendar of deliverables and assigned tasks. It did not include a section on "intentions and expectations" or even "goals of this project". The lesson learned is that you should define and identify the aim or vision as a group before you start with the Planning manual. This was an ambitious project for which we do not have the resources (staffing and educational expertise) to repeat the project in the same format. If we were to replay this kind of project a key point of advice would focus on the fact that for large teams it is important to be very clear at the start and identify key staff, their roles, responsibilities and tasks. The oversight and review process needs to be clarified and built into the scope and schedule of the project.

4. How has your project helped to grow a culture of sustainability at McGill? You may consider social, economic, and/or environmental sustainability in your answer. *Unlimited characters, suggested minimum ½ page or ~250 words.*

In terms of social sustainability this project has shown us that our very small team of administrators, coordinators, curators and technicians at the Redpath Museum is adaptable, resilient and resourceful. We met weekly to assess and recalibrate. We spent a lot of time making sure all educational aspects such as lesson plans, learning outcomes and curriculum competencies were accurate. In terms of economic sustainability we made sure to use locally sourced sustainable materials and suppliers and production of our replicas was also local. In terms of environmental sustainability the highest carbon costs incurred were during the shipment of supplies from western Canada. Most of the time the team worked from home so the energy costs of commuting were reduced.

5. What recommendations do you have for the future of this project to be continued and are there any opportunities for complementary projects? Who will take responsibility for the project's future and how can interested persons be in touch? The SPF team will also be in touch with this contact for updates on the project's progress in coming years, if ongoing. *Unlimited characters, suggested minimum 1 paragraph.*

This project was piloted during the winter and spring of 2021 so that we have a proof of concept of this model of creating sustainable "Museum in a Box" educational kits. The results of the pilot testing have been assembled by Ginette Dessureault. The summary of the pilot testing is included as Appendix A to this report. The overall recommendation is that the existing content will be revisited so that it can be presented to schools and community groups in a meaningful way. A focus group of 5 teachers will meet with Ingrid to run a needs assessment review session in late May 2021. This needs assessment will help us to guide the pedagogical future of this project. The project in its current format will not be repeated. Depending on the needs assessment review there is a very good chance that the existing content will be revisited to probably be presented in 'a box' but with an educator. The boxes can be reworked as they are being used and gradually become stand-alone boxes, but this will take more adaptation and time. Ginette Dessureault continues to manage this project at the Museum.

6. Would you or your project team member(s) be willing to serve as a mentor to SPF project teams? Please choose one. If yes, SPF Staff will contact you with more information. Yes No

7. In your application, you listed the following sources of funding:

McGill24 Seeds of Change - \$2,069 (Confirmed); McGill Special Interest Group Annual Solicitation - \$4,000 (Planned to request)

Please confirm if you received this funding in the space below. In your response, please list the actual amount (in dollars) that you received.

Total donations to date confirmed by Katherine Hales at University Advancement: Redpath Museum has received \$4535.57 in donations since May 1, 2020 (the start of the fiscal year), with \$2421.99 raised since December 2, 2020 when the McGill Special Interest Group Annual Solicitation letter was sent by University Advancement. A copy of this letter is in Appendix B.

8. Did you purchase equipment or make an installation on campus? Yes No
If yes, please briefly describe how these items will be maintained and used in the future.

We purchased coreboard, foam padding, a polar bear skull and 2 Husky transport boxes. Lots of other materials like glue sticks, Avery glossy adhesive transfer paper for labels, paint for replica models, acrylic sample boxes for the minerals, etc. We are now well supplied to create/build at least 3 more RMDBs.

9. The following Key Success Indicators were indicated in your project application and selected for tracking. Please indicate the actual results that you have achieved in the "Actual" column.

Selected Key Success Indicators	Target	Actual
Boxes created	3	2
Students that have engaged per month with boxes	240	69
Groups per month that use boxes	10	2

If there is a significant difference in the target numbers and the actual numbers achieved, please explain. If you have any additional information to share about these success indicators, please also include it below.

The significant difference in target numbers is due to our inability to produce the boxes in time for pilot testing in Fall 2020. We underestimated the scope of this project and were not able to pilot test until spring 2021. The numbers in Q 9. Are from the pilot testing in March and April of 2021.

10. Please report on your progress with the Standard SPF Key Success Indicators in the "Actual" column.

Standard SPF Key Success Indicators	Actual
# of people hired using SPF funding for the project	
# of volunteers directly or indirectly engaged in the project	
# of people (student, staff, or other) trained in the context of the project	12
\$ raised for project activities subsequent to SPF funding	about \$3000
# of tons of GHG emissions reduced by your project	n/a
# of partnerships or collaborations developed between the project team and other McGill administrative units, student groups, community groups, other universities, and/or other groups/organizations.	11

Please list the groups and/or organizations that you counted in the last Key Success Indicator. *Point form acceptable.*

INTERNAL GROUP partnerships or collaborations

- McGill Faculty of Education: Rebeca Esquivel and Allison Gonsalves instructors for course EDES 335. Provided advice/consultation re development, lesson plan, teachers guides and pilot tested the dino RMDB with 25 student teachers.
- McGill Biology: Hans Larsson and his two graduate students, all specialists in paleontology
- McGill Dept. Earth and Planetary sciences: Kristyn Rodziniak, Outreach administrator, Erin Gibbon Ph.D. student for Rock On! box development and modification; Peter Tarassoff (Honourary Curator of Mineralogy at Redpath Museum) for review/editing of Rock On! Mineral samples
- Faculty of Science-collaboration and consultation with Jacky Farrell to strengthen cross-disciplinary and cross-unit partnerships.

EXTERNAL GROUP partnerships or collaborations:

- C.A.R.E. - an EMSB Day centre for young adults with mobility challenges, pilot testing with Director Amanda Dery
- 3 teachers at St. Patrick's Elementary School, Pincourt (piloted the dino RMDB with Gr. 1 students) and want to be part of a focus group for advising the Museum on the educational relevance and needs from the perspective of elementary school teachers.
- 3 teachers at Ecole Guy Drummond (Gr. 4,5,6) who piloted the Rock RMDB and want to be part of a focus group because they are an International Baccalaureate school with specialized pedagogical and curriculum needs
- 3 teachers at Ecole Saint Enfant- Jesus, Montreal- this school is an inner city school that describes itself as "Bien enracinée dans son milieu and they piloted the Rock RMDB with Gr. 2, 3 students in french.
- Sarah Chu, Manager of a suite of 41 Travelling Edukits at the Royal Ontario Museum, developed since 2002 and wants to continue to advise and help with the digital and face to face educational aspects of our project. She wants to help facilitate the focus group with Ingrid.
- Kim Gough, Manager of suite of 12 "Handling boxes" at the Royal British Columbia Museum developed since 2013, wants to continue to connect with us in terms of how we can fundraise and market our RMDBs.
- Beaty Museum at University of British Columbia who have created Beaty boxes since 2015 want to continue to liaise about the scope and use of museum outreach boxes for special needs education.
- Judy Martin, Executive Director, Hylcan Family Foundation with a proposal to fund future RMDBs. The fundraising proposal for Hylcan started with an online meeting with Judy, Cynthia Jollymore from Science Development and Ingrid where Ingrid demonstrated and displayed all the components of the dino box on camera. Judy then advised us on how to approach Hylcan and Ingrid, Ginette and Cynthia created the proposal letter. The Hylcan Foundation meets on May 15, 2021 to assess all proposals.

If you have any additional information to share about the Standard SPF Key Success Indicators, please include it below.

Please see 14. Below.

11. Please indicate the McGill stakeholder groups that were involved with your project as a team member or collaborator/partner. Choose all that apply.

- Undergraduate Postgraduate Administrative Staff Academic Staff Alumni

12. Please rate your project team's overall satisfaction with the support provided by the **SPF Staff**.

- Very Dissatisfied Dissatisfied Neither Satisfied Nor Dissatisfied Satisfied Very Satisfied

Please provide any feedback or recommendations regarding your team's experience with the SPF Staff.

I had a really good relationship with Stephanie Keller-Busque and enjoyed my long distance connection to her expertise and guidance.

13. Please rate your project team's overall satisfaction of your experience with the **SPF**.

Very Dissatisfied Dissatisfied Neither Satisfied Nor Dissatisfied Satisfied Very Satisfied

Please provide any feedback or recommendations regarding your team's experience with the SPF.

Ingrid and Ginette were the 2 contact personnel for SPF and it was good to limit this number because our project team became very large very fast.

14. If there is additional information you would like to share about your project, please use the field below.
Unlimited characters.

We have created a videotape of TWO new RMDBs : Polar bears and climate change and Animal tracks and adaptations. This raw videotape was used internally to help us assess/review a new approach to the design and development of RMDBs. We focussed our project management on the educational goals or vision of each box and built the contents of the box on the inquiry based lesson plan or script. We also limited the team size to 2 key content developers who worked closely together on site rather than remotely. I see this as a key success indicator for the future that erupted out of the SP0254 experience.

15. Has your involvement in this SPF project positively impacted your team in the area of **professional growth**?

Yes No Prefer Not to Share

If you would like to elaborate, please use the field below.

This entire project has become a capacity building project so that the Redpath Museum will have a sustainable and effective public educational presence in the community while the museum is closed and under renovation for the next few years. This is the first time the Museum has focussed and managed a project where a product was created from "scratch", under remote and distanced working conditions and that had to meet the needs of a learning community of teachers working under trauma. The astounding professional insight is that we are the only museum in Montreal creating these experiential teaching boxes. This is a positive impact. There is a group called Archeo Quebec who have created Archeo boxes or "kits" for loan. These kits are not related to MELS curriculum content or inquiry based learning and are not based at a Museum. You can read about them here:
<https://www.archeoquebec.com/en/educational-kits/discover-our-kits-0>

16. Has your involvement in this SPF project positively impacted your team in the area of **personal growth**?

Yes No Prefer Not to Share

If you would like to elaborate, please use the field below.

I have personally learned to be a better listener and team player.

17. Which of the following skills or attributes has your team improved through involvement in your SPF project?
Choose all that apply.

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Budgeting | <input checked="" type="checkbox"/> Networking | <input type="checkbox"/> Systems Thinking |
| <input checked="" type="checkbox"/> Communications | <input checked="" type="checkbox"/> Planning | <input checked="" type="checkbox"/> Teamwork |
| <input checked="" type="checkbox"/> Conflict Resolution | <input checked="" type="checkbox"/> Problem Solving | <input checked="" type="checkbox"/> Technology |
| <input checked="" type="checkbox"/> Leadership | <input checked="" type="checkbox"/> Project Management | <input checked="" type="checkbox"/> Time Management |
| <input checked="" type="checkbox"/> Listening | <input type="checkbox"/> Public Speaking | <input checked="" type="checkbox"/> Writing |
| <input checked="" type="checkbox"/> Mentoring | <input checked="" type="checkbox"/> Stakeholder Engagement | <input type="checkbox"/> Other (<i>Please specify in the field below</i>) |
| <input checked="" type="checkbox"/> Negotiating | <input checked="" type="checkbox"/> Stakeholder Identification | |

Other: Documentation and tracking. I have checkmarked these skills and attributes because I feel our team "improved" from a baseline measurement of 0. This project was a completely novel work experience for us all. We now know where we did not score very well (ie. leadership, budgeting, planning, project management) and why. That is how you improve by learning from your mistakes.

18. Since starting your SPF project, has your team improved its knowledge of sustainability?

Yes No Prefer Not to Share

If you would like to elaborate, please use the field below.

Please see the answer to Q4. where we point out how different features of this project have helped to achieve social, economic and environmental sustainability.

19. (Optional) If applicable, please list the total number of team members voluntarily self-identifying as members of marginalized communities. Total number: _____

(Optional) Please identify the represented communities below.

THANK YOU FOR COMPLETING YOUR FINAL REPORT!

Please e-mail your report to the [SPF Staff](#) attaching any additional information that you would like to share (e.g. other reports, research, documents, photos, etc.). Please note that this Final Report will be shared publicly on your SPF Project Webpage.

Rock On Box



Number of schools groups	4
Number of students	69
Average frequency of use of the box during evaluation period (per class)	4

Overall comments:

"Great learning opportunity, ability to work at our pace."

"Freedom discovery. Being in our own classroom."

Best thing:

"The variety and organization of sample boxes"

"They enjoyed setting to manipulate the specimens the most."

What we would add:

"Pre-recorded explanations from some Redpath experts on the materials.."

"Powerpoint could be more adapted for second cycle"

Rating scale: 5=Excellent, 4=Very Good, 3=Average/good, 2=Below Average, 1=Poor

Teachers use of the kit:	5	4	3	2	1
Overall level of information in lesson plan					
Group 1		X			
Groups 2, 3 and 4		X			
Overall level of info in booklet/flashcards					
Group 1	X				
Groups 2, 3 and 4		X			
Rate ease of integrating content and material					
Group 1	X				
Groups 2, 3 and 4		X			
Overall teacher experience					
Group 1		X			
Groups 2, 3 and 4		X			
Perception of students:	5	4	3	2	1
Satisfaction of engagement with content					
Group 1		X			
Groups 2, 3 and 4		X			
Interest and engagement with activities					
Group 1		X			
Groups 2, 3 and 4		X			
How did participant respond to material					
Group 1		X			
Groups 2, 3 and 4		X			
Did participants make connections and ask questions					
Group 1				X *	non-verbal
Groups 2, 3 and 4		X			

Redpath Museum Discovery Box - Dinosaurs



Number of groups (including pres-service)	4
Number of pre-service teachers	25
Number of students	70
Average frequency of use of the box during evaluation period (per class)	3

Overall comments:

"Entire project is very impressive. Kit is full of amazing wonders".

"Le contenu de manipulation est super".

Best thing:

"Unique and enjoyable experience for teachers and students alike".

"They enjoyed setting to manipulate the specimens the most."

What we would add:

"Add a slide or video of someone finding a fossil or dinosaur".

"Vulgariser et simplifier les informations".

"The only negative thing is that it is not designed for Cycle 1 student".

Ratings (see attached)



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Dear <<SALUTATION>>,

December 2, 2020

The Redpath Museum has been closed for some time due to the COVID-19 pandemic. This past summer, you and the Friends of the Redpath Museum generously contributed to our effort to bring our new Museum from Home project to life, enabling us to deliver our programming online to our community. We truly have a kind group of supporters who understand the importance of keeping the Museum connected to its public.

Even though we are closed, our Museum staff are busy working to adapt more of our content to digital formats. This fall, we have been focused on a new undertaking: **Redpath Museum Discovery Boxes**. Started with seed funding from McGill's Sustainability Project Fund (SPF), this initiative will create and send educational boxes to special needs communities and local schools, especially underrepresented ones that traditionally have not had the funds to bring their students to the Museum.

The boxes are tailored for grade 1 to 6 curricula and address teaching modules ranging from dinosaurs and geology, Egyptian artifacts and archaeology, and Quebec biodiversity and ecology. Each box contains information booklets for teachers, student activity sheets, and plenty of objects – fossils, bones, rocks and minerals, animal furs, tree and bark samples, claws and animal footprints, and even 3D-printed Ancient Egyptian cultural artifact replicas – for an immersive, hands-on experience. We are also developing a video conference program to accompany the boxes in order to provide our award-winning public programming directly to schools while the Museum remains closed.

Please make your gift today to the Redpath Museum in support of our Redpath Museum Discovery Box initiative so we can continue to engage growing minds. One Redpath Museum Discovery Box costs \$1,000 to create, and we need your support to reach objective of completing and delivering at least six boxes to schools in Winter 2021.

Thank you in advance for your support.

Hans Larsson
 Director, Redpath Museum

P.S. Making your gift online is a secure way to have your donation put to use immediately and to avoid potential postal delays due to COVID-19. Visit mcgill.ca/give and enter your unique gift code <<GIFT_CODE>> or return the donation card below.



University Advancement
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 Montreal, QC H3A 3T3 Canada

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Yes, I would like to give through The McGill Fund!

- Redpath Museum (00525)
- Other _____

I am pleased to make a **one-time** gift in the amount of:
 \$100 \$250 \$500 \$1,000 Other \$ _____

I am pleased to make a **monthly** gift in the amount of:
 \$10 \$25 \$50 \$100 Other \$ _____

Start: _____ (DD/MM/YY)

End: Until further notice or _____ (DD/MM/YY)

I have enclosed a cheque payable to McGill University.

You may charge my gift to my credit card:

CAD \$ USD \$ Visa Mastercard American Express

Card number _____ Exp. ____ / ____

Signature _____

Do you consent to have your name and current support publicly recognized on McGill's online donor recognition list?

Yes No

See reverse for details>>



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