DIGITAL INTEGRATION

JUNE 2023

Museums of the University of St Andrews

Contents

Figure 1. Workshops and focus groups that were part of the Digital Integration project engaged various community members.

Background

The Digital Integration project, completed in June 2023, was generously funded by Museums Galleries Scotland alongside the exhibition 'Re-Collecting Empire' – which explored the colonial links in the collections of Libraries and Museums, University of St Andrews. It began a process of tackling institutional legacies, uncovering narratives previously untold, and working with communities to reinterpret collections.

The Digital Integration project has asked the questions - How do the custodians of collections ensure these stories aren't silenced in contexts where the colonial narrative isn't the only story an object has to tell? When an exhibition focused on empire ends, where are these stories represented? And importantly – how do communities want to engage with these narratives and be represented in heritage spaces?

With a focus on the utilisation of digital technologies – specifically virtual reality, augmented reality, the Smartify app for audio tours, and the digital storytelling tool developed by Libraries and Museums, Exhibit, we have examined the efficacy of these approaches in exploring hidden colonial narratives in collections.

This project focused on practicalities for both audiences and the museum sector in utilising digital technologies. Rather than focusing on an idealistic technological solution unachievable to museums and their visitors, we have instead asked questions which drill down into what might be possible for most museums to learn from, and for visitors to interact with in a meaningful and impactful way.

Do audiences have adequate digital capacity when they visit museums, or is support needed? Can audiences access technologies unsupervised, or do museum staff need to supervise and facilitate their use? Are these technologies a novelty, or can they be long lasting? And, importantly, do they add meaning and impact to the visitor experience, and to the stories that museums are trying to tell?

For this interpretation mechanism to be possible for museums, they must be practical. If they are effective, can they be long lasting in practical terms and in the audience imagination? Do staff have adequate technological experience in-house to make opportunities possible, or must it be outsourced? And fundamentally, which technologies might be used by museums with small operating budgets who lack digital resilience?

Why Explore Colonial Narratives?

The Museums of the University of St Andrews have committed to tackling institutional legacies, working towards a more equitable future.

Our findings from the Re-Collecting Empire exhibition suggest that exploring the previously concealed narratives related to empire in our collections is one way that we can begin to address institutional legacies.

Re-Collecting Empire – Exit Surveys

From analysing our exit survey results from Re-Collecting Empire, we know that visitors believe that it is right for institutions, including museums and the University of St Andrews, to tackle these topics and acknowledge links to empire.

We can also glean that visitors appreciated the variety of perspectives from different communities and individuals that were present in Re-Collecting Empire, the way that it was thought-provoking and the acknowledgement of complicity in empire.

Visitors commented: "makes us confront things and question instead of telling us a narrative to believe"; "Relooking at what we learnt in the past and grew up with, a fresh perspective of everything [sic]"; "Need for more discussion and how we present empire in general. Only one side shown so far [in society in general]."

Reflection cards – Write your own object description / What does Empire mean to you?

Visitors to the exhibition were asked to interact with the content of the exhibition in two ways – to question what empire means to them, and to write their own object description.

The comments can be grouped into the following categories: Can't change the past; need to learn; control/power; capitalism/resources/wealth; royals; repatriation; perspectives; race; personal story; museums; current political situation. Most comments were related to control/power, capitalism/resources/wealth, and repatriation.

Many comments referred to the subjugation, violence and oppression of colonised countries and their culture by colonisers. Comments included: "Taking something that does not belong to you and labelling it with what you're guessing and not what you actually know. If you don't know, don't guess."; "Colonizers, erasing culture, forced uniformity"; "Taking. Dismissal of others' meanings. Ignorance. Pretence that the drive to get more power and status is something other than it is."

Comments also asked for more specificity in interpretation, building a clearer picture of those who were colonised, and their cultures. They included: "Even in an attempt to reclaim their narratives and truer history, these people remain stripped of identity. They are given no names, no relationships, no wants, or desires. We are told that they are nothing more than "indigenous"; "Bell, made in China". What? It was made in a specific province! China is so broad"; "We need a more diverse panel of "experts" to give their voice when identifying any object."

Feedback such as this has steered us towards understanding how we best make available concealed narratives, perspectives, and research available to visitors in the museums once a specific exhibition on empire has ended.
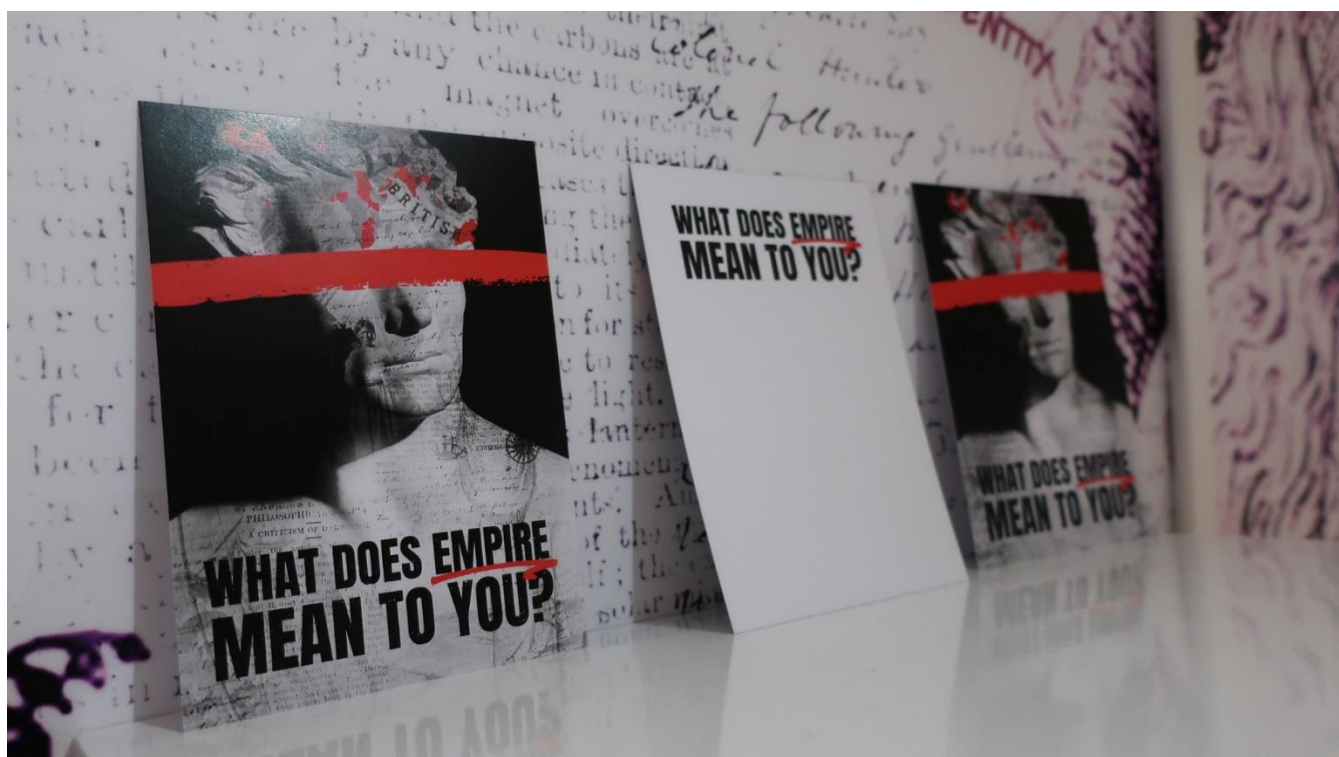

Figure 2. Part of the feedback for the Recollecting Empire exhibition was collected through reflection cards which asked visitors, "What does empire mean to you?"

Community Involvement

Groups of interest were identified as key stakeholders in the project. These ranged from museum sector specialists with a vested interest in the practicalities of undertaking such work, to groups who had among them people who had never visited a museum before.

The data we have collected is representative across the following groups.

Museum Visitors

Visitors to Re-Collecting Empire

We surveyed visitors to the Re-Collecting Empire exhibition on the question '**What Does Empire Mean to You?'** as a preliminary exercise in grasping the understanding of visitors on the topic. We also provided '**Write your own object label'** cards to dig deeper into the stories that visitors thought should be told about the objects on display in the museum.

We conducted 165 exit surveys from among the 7153 individuals who visited the exhibition.

Drop-in Sessions

We also ran drop-in sessions for general museum visitors, allowing them to test out the digital engagement methods with no prior knowledge.

Dundee International Women's Centre

We engaged closely with Dundee International Women's Centre (DIWC) to gain perspective from audiences for whom English is not their first language, and in several cases, had never visited a museum before. Oftentimes, the participants from DIWC had come to the Scotland through displacement, and some were from countries that were previously colonised.

Our engagement with DIWC took the form of an outreach session, some remote engagement, and a session at the Wardlaw Museum.

Fife Afro-Caribbean Network

We engaged with Fife Afro-Caribbean Network (FACN) to gain perspective from a community in Fife who also have clear links to formerly colonised countries. The group is currently being re-established under new leadership.

Our engagement with FACN took the form of an outreach session and a session at the Wardlaw Museum.

Fife Gaelic Network

Fife Gaelic Network (FGN) work to boost the profile of Gaelic language and culture in Fife and have an interest in telling the 'hidden' Gaelic stories in heritage collections.

Our engagement with FGN took the form of one session at the Wardlaw Museum.

Students at the University of St Andrews

Students at the University of St Andrews were surveyed as part of a focus group, to understand the perspectives of one of our key demographic audiences.

Fife Museums Forum

Another focus group was run with Fife Museums Forum, who bring together museums in Fife of different sizes, governance, and operating budgets. They brought an important sector perspective to the project.

Figure 3. Young visitors trying out new technology during our workshops with the community.

Overview of Digital Tools Developed

As part of this project, the Museums of the University of St Andrews developed a series of digital tools focused on the Recollecting Empire exhibition. A list of these tools is available here:

Tool	Description	Resources Required	Hardware
Virtual Reality App	Experienced through a head-mounted display, visitors explored a virtual museum gallery. Three objects were presented as 3D models hovered in space. The wall alongside each model contained information about the object in videos, images, and audio clips. The virtual space could be connected to by 8 remote people concurrently, who could talk to each other.	Outsourced company to create app using Frame.vr. 3D models. Media reused from the exhibition. Employee guiding the visitor and providing instructions.	VR Headset with Wi-Fi & controllers. External Screen (optional).
Augmented Reality App	An application accessible via weblink which ran on the user's smartphone or provided tablet. Upon scanning a pre-printed A4 size information board for each object, the user could explore the 3D model as well as play videos and audio based on the printed content.	Outsourced company to create app using 8thWall. 3D models. Media reused from the exhibition. Printed panels.	Tablet (optional).
Smartify	An audio guide was created to provide additional information of the objects. This could be accessed via QR code on a visitor's phone or a provided table. Additionally, scanning an object with a phone/tablet linked to the object page on Smartify.	Employee creating tour on Smartify. Audio media reused from the exhibition. Additional media recorded.	Smartify subscription. Tablet (optional).
Exhibit	An online exhibition was created using a digital storytelling tool with a series of slides that incorporated textual, audio information, and 3D models. Users could access this via QR code.	Employee creating tour on Exhibit (in-house software). 3D models. Information reused from exhibition.	Tablet or touchscreen (optional).

We wanted to evaluate different technologies, keeping in mind both systems we had used before and that were already in place, as well as newer technology which is becoming more commonplace in museum sites. We acknowledged that all the different tools could have something novel to provide and could help us achieve our goal of interpreting multiple voices. However, we were aware that some technologies might have issues or be harder to utilise in the long run. We discuss each implemented digital tool below.

VR App

The VR app provides the most immersive experience of the tools. Visitors can really get close to the objects observing them in various environments. It is also innovative, with some users having never worn a headset before. This can both benefit and hinder the experience; while a visitor might be more engaged and excited by this technology, they might face issues with how to use it. It is also more difficult to guide the visitor unless the experience is streamed on an external screen. Thus, the user might feel frustrated if issues arise. Because of its exploratory nature, some users might not utilise the whole experience, missing some of the included features.

AR App

The AR application could be seen as a bridge between the fully immersive VR and the more traditional digital tools. Typically, it has a quicker uptake time since visitors are already familiar with tablets/phone that are used to access the application. Moreover, it still provides a way to access 3D objects and a variety of media. However, the AR app designed for this project requires printed material which would take space in an exhibition, or which would need to be sent to the visitors if they are to use the app remotely.

Smartify

Most visitors are accustomed to using audio guides at museums, so this tool is very accessible. Once the visitor has connected to the internet and the application, they can have a seamless experience. In addition, the functionality of scanning the object to access more information means that users do not have to listen to the whole audio guide or follow the pre-planned route, they can simply choose which of the marked objects they want to interact further with. There can be various audio tours which highlight distinct objects based on various themes, without adding a lot of extra signage to the museum galleries.

Exhibit

The exhibit app is the one that can stand most on its own without needing to have the objects present. It is easy to provide a link which can be accessed from home. However, the tour is linear, and visitors might not reach the end of the tour before switching off from the experience. There is no use of emergent media beyond 3D models, but these can be observed in detail within its pages. It can incorporate different media, videos, audio, text, but is not as immersive as other innovative digital tools.
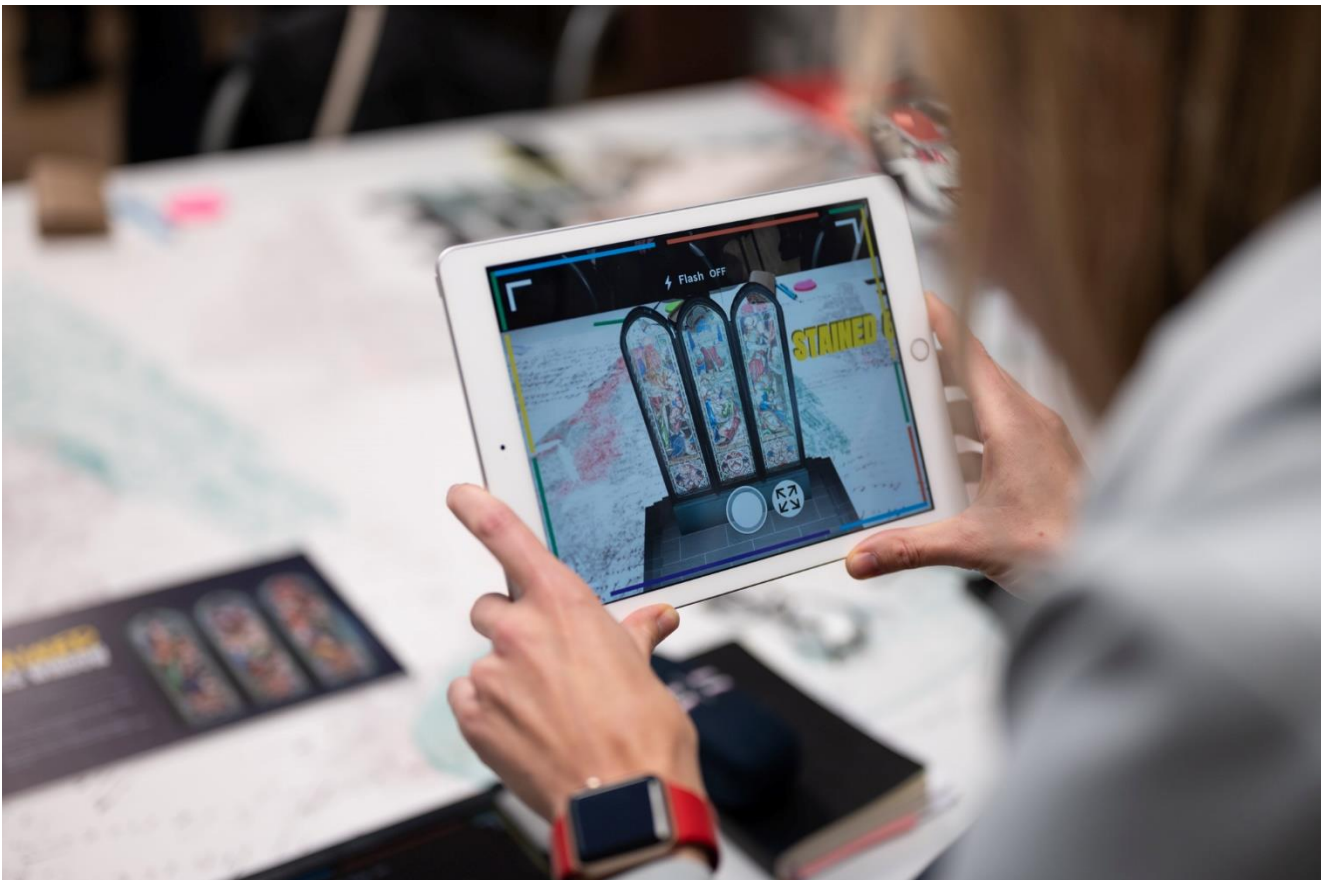

Figure 4. Testing a prototype of our Augmented Reality application.

Evaluation

To assess the suitability of these digital tools, feedback was gathered from the community through the events that formed this project. The programme was successful in working with our target groups through outreach and museum events. All participants engaged with the content and technologies to different extents. Incorporating outreach activities was a good strategy for breaking down barriers between the museum and participants and for soliciting greater interaction. While the response to the tech itself was mixed, being given the opportunity to try and test it was appreciated, signalling that their views were of value. This is reflected in the appetite among the groups themselves to continue the relationship. Looking ahead it will be important to maintain these hard-earned relationships while still aspiring, resources allowing, to reach other potential audiences in due course.

Because of the variety of the activities and the members that participated, different data could be collected, from user to staff experience. The range of focus groups, workshops and drop-in sessions meant we had a lot of qualitative data which helped us answer several questions that could help us shape the use of digital tools in the future, as well as decide which tools were appropriate to include the multiplicity of voices. Our core themes and questions evaluated are outlined below.

Digital Interaction with the Museum

Onsite. We asked visitors which devices they have access to, and which of these they bring to a museum. Whilst all visitors in the workshops had access to a smartphone, fewer people had tablets. This was more pronounced in the data collected during the drop-in sessions where 216 visitors brought a smartphone with them, as opposed to a tablet (17). 19 people brought no devices with them. The majority of visitors (168) opt to use their own mobile data to access the internet, but 82 visitors would need Wi-Fi to be able to access online content within the museum. It is important to point out that even if visitors prefer to use their mobile data, network signal might not be stable throughout the museum, so a reliable Wi-Fi connection throughout should always be provided.

Social Media. The most common social media used by our visitors were Facebook and Instagram, however, more people use WhatsApp to communicate. This means that WhatsApp Communities could be a new medium through which Museums of the University of St Andrews connects with its communities. It could stay in contact with up to 5000 members. "Community admins can reach members with important updates by sending announcements, and community members can stay

connected by exploring and chatting in groups that matter to them."[1] Community Announcements can be sent across all groups, and members cannot see the contact information of other non-admin members. This provides an accessible and safe way for the museum to stay in touch with its communities. If this were to be considered as a viable option for the Museums, guidance would have to be sought from the Data Protection Team and Chief Legal Officer at the University.

Accessing digital content. Most of the digital tools developed could be accessed online through QR codes. Members within the community groups and drop-in visitors were asked whether they were comfortable using QR codes. Most of the people were comfortable doing so and could do so through their own devices. In addition, when accessing online digital content in the museum, they preferred to scan a QR code instead of downloading additional apps or typing the URL in their browser.

Implementing the Technology

One of the things we focused on was how practically could digital tools be implemented in the museum. In an ideal scenario, whichever tool we use should be quick to set up, stable, and allow the participant to interact with it with minimal intervention from museum staff who are not directly on hand to assist with issues.

Overall, we found the **VR app** to be the least practical of the tools. There were issues connecting and maintaining the Wi-Fi connection since the museum uses a university connection. The model we used for most of the sessions (Pico 4) did not have the ability to change the timeout setting – so it had to be reset and prepared often if there was a gap in time between uses. A different model (Meta Quest 2) we used for one of the larger groups had better features. Once the visitor is using the headset, it was also more difficult to know if it is working or to guide the visitor since the staff could not see what the user was seeing. This can be resolved by streaming the visitor's view to another screen, something which the Meta Quest 2 could also do. This helps to include other visitors in the group to see what the wearer is seeing or doing.

It was also necessary to have a staff member explain what was possible in the experience and how to achieve this. Controls and interfaces in VR apps are not yet intuitive, since VR headsets and applications are still not widely used. The **AR app** had less problems setting up, but staff members also said that sometimes they needed to tell visitors what further interactions they could have with the app. This means that visitors must be prompted by staff or through printed instructions.

---

[1] *About Communities*, WhatsApp (2023) [Online: https://faq.whatsapp.com/495856382464992]

Exhibit and **Smartify** garnered a positive response from the team in part because once they were in use, they required little support in comparison to the VR. The AR app was likewise seen to have potential as it could be accessed easily on the visitor's device through a QR code, even if perhaps the visitors do not fully make use of the interactions included.

Visitor Usability

Apart from looking at issues that arose while setting up the technology, we looked at how easily the digital tools could be used by our visitors and which problems arose when the participants used the technology themselves. The below table shows the participants' response to how easily they could use the technologies. Each technology was rated out of 5.

How easily could you use the interactive?			
VR App	**AR App**	**Smartify**	**Exhibit**
3.4	3.8	4.5	5

Table 1. Participants' Rating on Ease of Use of the various interactive technologies. Data collected through surveys across participating groups.

In terms of ease of use, the **VR app** proved more difficult to use than the rest, at least until the visitor got the hang of it. There were issues with navigating within the space, as well as using the controllers to click on the media buttons within the VR environment. Testing the VR with groups was logistically challenging (in fact, we needed to borrow additional headsets for our large groups).

Virtual reality also had more problems in terms of accessibility, with some visitors opting out of trying the application due to wearing bi-focal glasses or being prone to headaches or dizziness. Some visitors wearing head coverings were not comfortable using the device.

The **AR, Exhibit,** and **Smartify** apps did not have major issues with usability. Some visitors commented on the 3D models loading slowly on Exhibit; this could be remedied by using compressed files. On Smartify, users did not have any issues, however, during the scope of our workshops, none of the visitors listened to the entire audio clips. This was due to the visitors having multiple things to try. Smartify only offered an audio experience, which was not the preferred mode of interpretation for the visitors. A common conclusion between visitors was that for the audio clips to be heard in the museum, headphones would need to be provided with the devices for AR and Smartify, unless visitors bring their own.

Visitor Engagement

It was imperative that when using the digital tools, the visitors engage with the content and learn and interact with the different voices being presented. The innovative technology was exciting for our visitors. However, issues with running and using the technology result in less overall enjoyment and can also detract from the learning experience. The below table shows the participants' response to how much they enjoyed using the technologies. Each technology was rated out of 5.

How much did you enjoy using the interactive?			
VR App	**AR App**	**Smartify**	**Exhibit**
3.6	3.9	2.5	4.5

Table 2. Participants' Rating on Enjoyment of the various interactive technologies. Data collected through surveys across participating groups.

When using the **VR headset**, a lot of the visitors found it to be "cool" and a "novelty" in the museum. They were excited to try it out, but often did not focus on the content itself. This meant that their eagerness to try the new technology hindered its effectiveness in presenting the information. The visitors did not listen to the entire audio/videos in the environment, opting instead to move to other areas within the environment. The visitors who stayed in the environment for a longer period (5 minutes+) were mostly interested in viewing the 3D objects, which were presented as larger-than-life objects which could be observed from all angles. One staff member commented that since the size of the objects was not realistic, it would still be a good idea to have the object in the case anyway. This was reflected in the DIWC workshop where we had an object handling activity which generated as much excitement as the headset experience.

The **AR app** had a similar response. Visitors were excited to use it but were more interested in learning what the technology could do than reading or listening to the content. The biggest highlight for these technologies as described by the visitors were the 3D objects. This shows that AR and VR apps are not suitable for interpretations that are mostly text-/audio-based. In our case, Overall, the VR and AR apps did not contain content perceived to add value to the museum, so visitors often saw little point to it other than the fun or novelty factor. However, with more tailored content, VR/AR technologies have the potential to increase engagement.

Despite the traditional method of delivery, **Exhibit** was the most enjoyable interactive. It combines new 3D visual presentation of objects with a familiar interface that visitors feel comfortable using. On the other hand, **Smartify** was the least enjoyable, owing to the singular means of delivery (audio), which might not appeal to all visitors.

Visitor responses to the tech were mixed, with families and children being most engaged, while some adults questioned its value. Younger participants found the more innovative technologies to be a fun way to engage with the discussions. In contrast, most adults are driven by the museum's objects and the tech can be seen as superfluous or a confusing hinderance to enjoyment. Consequently, digital technologies like VR offer future possibilities to work with schools or youth groups, whilst technologies that requires minimal staff involvement will prove an easier solution for adult visitors.

Interpretation of Different Voices

With a desire to include the multiplicity of voices, tech is necessary in order to reduce the textual load in the exhibitions. In our case, **VR** and **Smartify** appear to be the least applicable when compared to **AR** and **Exhibit**. The idea of context was explored in our focus groups and workshops, with some participants finding that the objects were still decontextualised in the VR application. One participant commented: "if we can go anywhere, why show [the objects] in a museum gallery?" The VR application was not used for the benefit of the alternative voices being delivered. Some participants commented on how they could go underneath the bell, or inside the fish's mouth for instance. Therefore, our VR app did not meet its objective, though it did create new opportunities for closer exploration of the objects. This is in part due to the scope of time and resource available whilst developing the VR app. For the VR app to have recontextualised the objects, much more resource would have been required for development.

We also noticed that visitors who had English as first-language found it easier to get involved in the nuance of interpreting alternate voices, something which must be kept in mind when designing interactive exhibits. Members of the Fife Afro-Caribbean Network were also very dialled in to the idea of telling alternative stories that address issues around empire and slavery.

The comparison between Fife Museum Forum (workers in the sector) and the other groups (museum visitors) showed that overall, museum professionals rated the more innovative technologies lower than the visitors. Their comments focus on the technologies "not adding anything that cannot already be found in a museum A/V" or "difficulties using the tech". On the other hand, sector workers were keener than visitors to access this technology/information from home. This indicates that some of the visitors would only use these applications at the museum, a place where they go to learn and interpret objects. Additionally, accessing from home might have been rated higher by the sector due to some museum professionals saying that it takes time to get used to the tech.
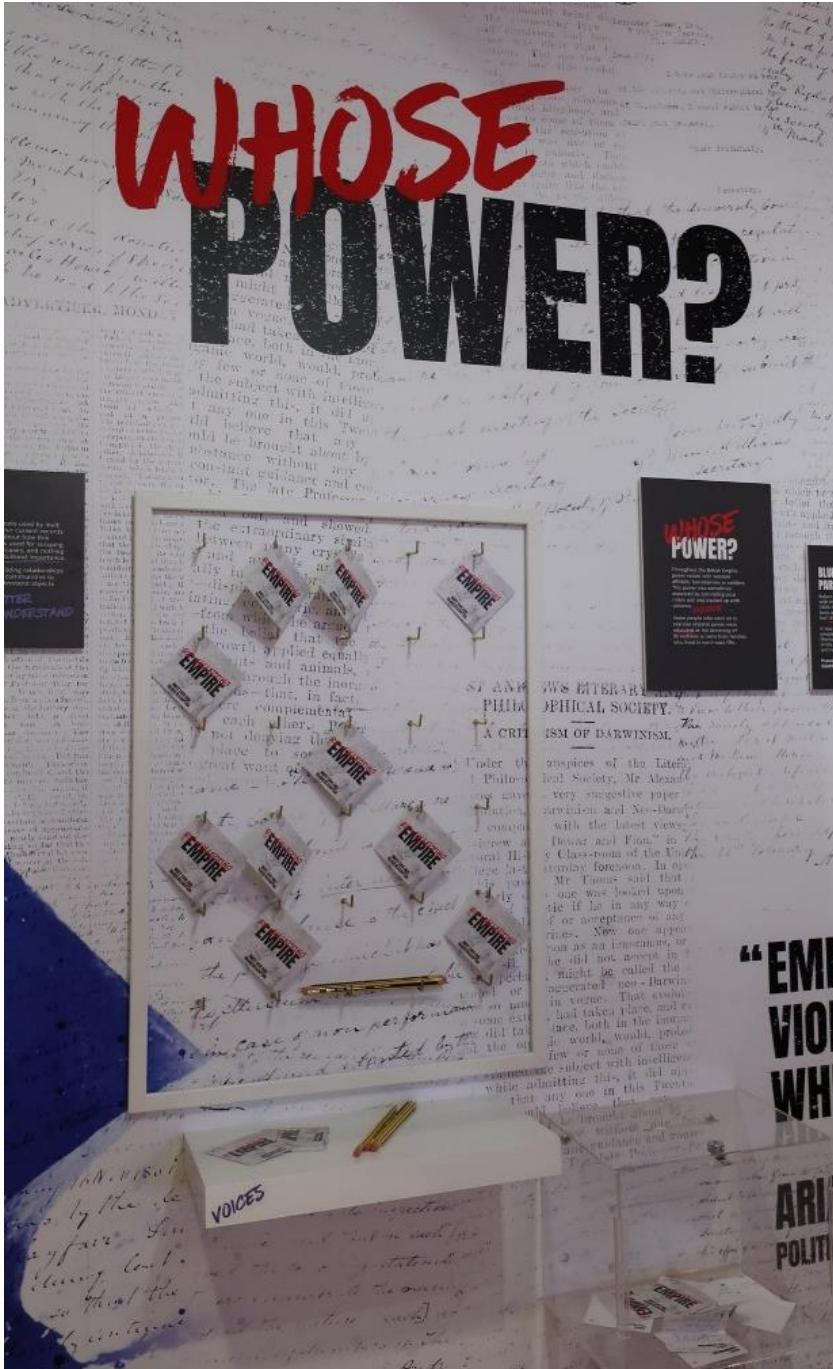
Figure 5. Visitors at the Recollecting Empire exhibition were encouraged to contribute through cards asking to "Write your own object description".

Insights and Recommendations

ONE. Visitors engage well with digital 3D objects.

Most of the enjoyment when using the digital apps came from observing and interacting with 3D objects, whether they were on a tablet, in augmented reality, or in a virtual environment.

We recommend that:

- ❖ **Digital 3D objects remain accessible in the museum through tablets or touchscreens, even if the real object is on display.**

- ❖ **Online digital archives or interactive websites contain digital 3D objects.**

- ❖ **Augmented reality can be used to allow manipulation of 3D objects in the real environment, whether at home or at the museum. This could provide interpretation of the objects through an exciting innovative medium.**

TWO. Mixed Reality is only beneficial if it adds something to the museum experience.

Based on the feedback gathered, whilst virtual reality can be engaging, it should only be used if the experience contains something that cannot be captured via traditional methods.

We recommend that:

- ❖ **Primarily text and audio interpretations are not used in VR/AR.**

- ❖ **If virtual reality is used, it should be used to present the full context and environment of objects or for unique gamified and story-based experiences. This obviously comes with the caveat of having adequate resources, time, and expertise to be able to implement this.**

- ❖ **Augmented reality can be used to present other interpretations of objects on display. It is also more possible to implement augmented reality for online interpretations outside the museum, or to tailor it for non-English speakers who are unfamiliar to the nuances of colonial narratives.**

THREE. There is still a need for onboarding Mixed Reality Experiences.

Interfaces and controls of virtual and augmented reality are not fully intuitive because of their novelty and wide range of possibilities. There are still many visitors who have not experienced these technologies, so adequate guiding should be provided.

We recommend that:

❖ **An explanation of how the interactive will unfold be presented before the visitor starts the experience.**

❖ **Mixed reality applications are designed with in-built instructions and guidance.**

❖ **Virtual reality is not used unless there is a staff member on hand to help.**

FOUR. Tablets and smartphones are still the most available and approachable technologies.

One of the reasons why virtual reality is more problematic is that there are many occasions where problems can arise. This reduces the overall impact of the interpretation. Tablets and smartphones are the most available technologies with most visitors bringing a device to museum or having access to one at home.

We recommend that:

❖ **The multiplicity of voices is made available firstly through smartphones and tablets, before being made available in more advanced technologies like virtual reality. This ensures that it is more accessible.**

❖ **Digital poverty is addressed by ensuring that the provision of portable devices matches the demand for those who visit the museum without one.**

❖ **A stable internet connection must be made available for visitors to access if providing an experience that requires one.**

Summary

The Digital Integration project has established the importance of voicing alternate histories and unmasking hidden colonial narratives of museum collections, both in our university museums and museums nationwide. Digital interaction is a viable method of achieving this without burying existing interpretation through overwhelming displays and confusing long texts. We have seen that innovative digital tools promote engagement and stimulate thought and discussion around alternate stories. However, innovative digital tools come with a few issues that might mean they are not the best tool to use in some cases.

Virtual reality, though fully immersive and with great potential, is not the most intuitive way of showing different voices. Whilst there is a place for VR in museums, this is only possible if it is properly explained and with necessary guidance for the visitor. It is more appropriate as a tool for more complex recreations or active interactions. In our context, we see this being used in workshops or smaller group activities, but not permanently in our galleries, to fully benefit from its advantages.

Augmented reality was more beneficial in our use as it allowed multiple types of interactions to happen and different layers of information to be presented. There is much more that can be done with augmented reality than what we tested in our applications, but coupled with how much easier it was to implement and use the technology, we believe this has more potential to engage our visitors whilst delivering our objectives.

Our **Smartify** tests revealed that this system was useful to convey alternate stories but was not liked or preferred by our visitors overall. Visitors preferred to interact more with the objects, whether they were the actual objects or digital 3D representations. Audio alone was not enough to engage visitors or adequately participate in the related conversations. **Exhibit**, on the other hand, proved to be an established, conventional method of alternate interpretation that balanced delivering information with exciting interactions and new detail.

Our next steps are therefore to see how much further we can take these digital tools, especially AR and Exhibit which rated highly amongst our groups. We will investigate how these digital tools can translate practically into our galleries to allow permanent alternate interpretations of our collections on display. We will do this by creating further standalone AR and Exhibit interventions, trialling them and testing them in our galleries. We are also investigating further whether AR is possible only through an external company, or if it is possible to achieve through software that can be used by our staff, like Exhibit.

We have developed partnerships with community groups that will continue to grow, and we are excited to continue to work to tackle institutional legacies and reinterpret our collections with modern approaches.

Appendix: Evaluation Toolkit

This appendix contains a toolkit of evaluation tools and surveys conducted as part of our project. The toolkit has three sections depending on the intended participants:

A. Museum Visitors

This section includes surveys and focus group guidance for evaluating different technologies with community groups. The surveys can be conducted before the museum visit, during testing of the technology, and after the visit. Variants for English as Second Language (ESL) visitors are included.

B. Outreach and Online Participants

This section includes a survey which can be distributed online to obtain feedback on content that is made available online.

C. Group Leaders

This section includes surveys and informal interview guidance for use when gathering feedback from community leaders, group leaders, teachers, etc.

A1a. Museum Visitors: Pre-visit Survey (Standard Version)

Purpose of tool: To understand context for new museum visitors and their tech experience.

How to use: Via Survey Monkey or other online survey application such as MS or Google Forms OR Pen and Paper

Questions:

1. **Have you ever visited a museum before?** IF NO ASK Q2, IF YES, SKIP TO Q3

2. **Are there any particular reasons why you've not visited a museum before?** TEXT. THEN SKIP TO Q6

3. **What do you like about museums?** TEXT

4. **Is there anything you don't like about museums?** IF YES ASK Q5

5. **Please tell us what you don't like.** TEXT

6. **Do you have a smartphone?** IF YES ASK Q7 & Q8 OTHERWISE SKIP TO Q9

7. **When away from your home do you use...** YES/NO/DON'T KNOW

   - Mobile data
   - Wi-Fi
   - Either

8. **Do you use any of the following?** YES/NO/DON'T KNOW

   - Social media such as Instagram, Tik Tok, Facebook, Twitter
   - Apps for shopping or visiting places.
   - QR code scanning

9. **Do you normally carry headphones/ear buds with you?** YES/NO

10. **Have you ever used your phone in a museum?** YES/NO/ DON'T VISIT MUSEUMS IF YES:

11. **What have you used it for?**

    - Taking photos
    - Posting online via social media etc
    - Scanning QR codes to see more about objects.
    - Using museum apps
    - Listening to audio about objects

12. **Is there anything that stops you using your phone in museums or galleries?** TEXT

A1b: Museum Visitors: Pre-visit Survey (ESL Version)

Purpose of tool: To understand context for new visitor museum and tech experience from those whom English is not their first language or those with low literacy or mild SEND.

How to use: Via Survey Monkey or other online survey application such as MS or Google Forms OR Pen and Paper

Questions:

1. **Have you ever visited a museum before?** IF NO SKIP TO Q5

2. **What do you like about museums?** TEXT

3. **Is there anything you don't like about museums?** IF YES ASK Q4

4. **Please tell us what you don't like.** TEXT

5. **Do you have a smartphone?** IF YES ASK Q6 & Q7 OTHERWISE SKIP TO Q9

6. **When away from your home do you use…** YES/NO/DON'T KNOW

    - Mobile data

    - Wi-Fi

    - Either

7. **Do you use any of the following?** YES/NO/DON'T KNOW

    - Social media such as Instagram, Tik Tok, Facebook, Twitter

    - Apps for shopping or visiting places.

    - QR code scanning

8. **Do you normally carry headphones/ ear buds with you?** YES/NO

9. **Have you ever used your phone in a museum?** YES/NO/ DON'T VISIT MUSEUMS IF YES ASK Q10, IF NO SKIP TO Q11:

10. **What have you used it for?** TICK ALL THAT APPLY

    - Taking photos

    - Posting online via social media etc

    - Scanning QR codes to see more about objects.

    - Using museum apps

    - Listening to audio about objects

11. **Is there anything that stops you using your phone in museums or galleries**? TEXT

A2a: Museum Visitors: Tech-testing Survey (Standard Version)

Purpose of tool: To obtain feedback on the tech experience.

How to use: Via Survey Monkey or other online survey application such as MS or Google Forms OR Pen and Paper

Questions to ask for each tech tested:

1. **How much did you enjoy using [NAME OF TECH]?** 5 POINT SCALE Very much → Not at all. IF POSITIVE RESPONSE ASK Q2

2. **What did you like about this interactive?** TEXT

3. **How easy was it to use?** 5 POINT SCALE Very easy → Not at all easy. IF NOT EASY TO ANY EXTENT ASK Q4, OTHERWISE SKIP TO Q5

4. **You said it wasn't easy, what problems did you encounter?** TEXT

5. **Did it help you learn something new?** YES/NO. IF YES ASK Q6, IF NO SKIP TO Q7

6. **What did you learn from using the [NAME OF TECH]?** TEXT

7. **Would you choose to use something like this if available at a museum?** YES/NO. IF NO ASK Q8, OTHERWISE SKIP TO Q9

8. **Why would you not choose to use this in a museum?** ANSWER THEN SKIP TO Q10

9. **Who might use [NAME OF TECH] if you visited the museum again?**
   - Just me
   - My child/ren
   - Both me and my child/ren
   - Someone else

10. **Do you think it would make a museum visit better?** YES/NO. IF YES ASK Q11, IF NO, SKIP TO Q12

11. **How might it make a museum visit better?** TEXT

12. **Do you have any suggestions on improving it?** TEXT

13. **How likely would you access similar information like this from home?** 5 POINT SCALE Very likely → Not at all likely

A2b: Museum Visitors: Tech-testing Survey (ESL version)

Purpose of tool: To obtain feedback on the tech experience from those whom English is not their first language or those with low literacy or mild SEND.

How to use: Via Survey Monkey or other online survey application such as MS or Google Forms OR Pen and Paper

Questions to ask for each tech tested:

1. **How much did you enjoy using [NAME OF TECH]?** 5 POINT SCALE Very much → Not at all.

2. **How easy was it to use?** 5 POINT SCALE Very easy → Not at all easy.

3. **Did it help you learn something new?** YES/NO.

4. **Would you choose to use something like this if available at a museum?** YES/NO.

5. **Who might use [NAME OF TECH] if you visited the museum again?**
   - Just me
   - My child/ren
   - Both me and my child/ren
   - Someone else

6. **Do you think it would make a museum visit better?** YES/NO. IF YES ASK Q7, IF NO, SKIP TO Q8

7. **How might it make a museum visit better?** TEXT

8. **Do you have any suggestions on improving it?** TEXT

9. **How likely would you access similar information like this from home?** 5 POINT SCALE Very likely → Not at all likely

A3: Museum Visitors: Post-visit Survey

Purpose of tool: To obtain longer term impact of visitors' visit.

How to use: Via Survey Monkey or other online survey application such as MS or Google Forms OR Pen and Paper

1. **Do you remember visiting the Wardlaw Museum [DATE IF APPLICABLE]?** YES/NO

2. **Who did you visit with?** TICK ALL THAT APPLY

    - With my children under 16 years old
    - With other children under 16 years old
    - With other adults
    - Alone

3. **What three words would you use to describe your visit?** TEXT

4. **On your visit what had the biggest impact on you and why?** TEXT

5. **Please tell us how much you agree or disagree with each of the following statements about your visit.** RANDOMISE. 5 POINT SCALE Strongly agree → Strongly disagree.

    - I felt welcomed.
    - I enjoyed it.
    - It made me think more deeply about something.
    - I learnt something new.
    - I learnt a new skill.
    - It changed my view about something.
    - The museum was for people like me.
    - Some contents of this museum made me feel unhappy or uneasy. *
    - The visit was a good use of my time.

    *ASK Q6 IF AGREE TO STATEMENT

6. **What made you unhappy or uneasy?** TEXT

7. **Did you use any of the following during your visit?** YES/NO

    - Virtual reality (VR) headset
    - Augmented reality (AR) screens
    - Scanned a QR code to see more information about the museum objects.

8. **How much do you agree or disagree with the following statements about the use of technology in the museum?** 5 POINT SCALE Strongly agree → Strongly disagree.

- The technology helped me understand more about the objects in the museum.

- The technology made my visit more enjoyable.

9. **Tell us about what you liked about the use of digital technology in the museum?** TEXT

10. **Tell us about what you disliked about the use of digital technology in the museum?** TEXT

11. **If you had the choice, would you rather access digital content at the museum on your phone or use museum equipment?** SINGLE RESPONSE

- Prefer to use my own phone.

- Prefer to use museum equipment.

- Happy with either.

- Don't know, not sure.

12. **When using your phone in the museum which of the following is best for you?** SINGLE RESPONSE

- Use the museum's Wi-Fi.

- Use my mobile data.

- Use either museum Wi-Fi or mobile data.

- Don't know/ Not sure.

13. **The museum aims to tell different stories about the objects it has on display, for example about who made them, where they came from and what they mean to the people who used them. How much do you agree or disagree with the following statements about this approach?** 5 POINT SCALE Strongly agree → Strongly disagree.

- Telling different stories about objects is something museums must do.

- Using technology to tell different stories is a good way to do this.

- I would enjoy hearing different stories about the objects in the museum.

14. **Are you aware of having read or heard different stories about museum objects during your visit?**

- YES – ASK Q15-16

- NO – SKIP TO Q17

- Don't know/ Not sure - SKIP TO Q17

15. **Did you feel any of the stories told were of interest to you?** YES/NO. IF YES, ASK Q16

16. **Please tell us why these stories were interesting for you.** TEXT

17. **Have you done any of the following since your visit?** TICK ALL THAT YOU HAVE DONE

- Looked at the museum website – IF YES, ASK Q18

- Talked to friends or family about the visit.

- Shared something about your visit via social media.

- Returned to the museum for another visit.

- Find out more about things I saw or learnt.

- Something else (Please tell us what)

18. **You said you visited the museum website, what did you look at or do when visiting it?** TEXT

19. **Is there anything you would change or improve at the museum?** TEXT

20. **Have you been back to the museum since that visit?** YES/NO

21. **How interested are you in the following?** RANDOMISE. 5 POINT SCALE Very interested → Not at all interested.

- History

- Art

- Science

- Digital Technology

A4a: Museum Visitors: Exploratory Focus Group (Long)

Purpose of tool: To understand use, barriers, and attitudes towards museums in general and the Wardlaw in particular, with optional section on testing tech – better suited to those with a personal or professional interest in museums.

How to use: In-person group discussion (necessary if tech testing using VR headsets) or via Zooms/Teams otherwise.

Introduction

- Introduce moderator.
- Aim of the session – to test out new ways of inspiring people with the museum's objects and stories.
- Housekeeping: duration, refreshments, toilets, fire alarm, fire exit etc.
- Please be as honest as you can as this will provide the most useful information.
- You don't all need to agree with each other.
- Everything will be confidential & anonymous – we will not use any names in our report.
- We want to hear from everyone so please don't take it personally if I move the conversation on at certain points.
- As much as possible please don't talk over each other – it just means we might miss something important!
- Confirm permission to record – we don't want to miss anything you say! This will be deleted once the notes have been written up.
- All mobile phones away/on-silent please
- Introductions: name, residency, family status (i.e., children & their ages)

Warm Up

- Who had visited a museum or art gallery before? ASK OF THOSE:
- Can you briefly summarise your last visit to a museum or art gallery; who did you go with, what was most memorable?
- THOSE WHO HAVE NOT: Are there any reasons why you've never visited a museum or gallery before? Feel free to say if you don't like them!

Awareness

- What, if anything, did you know about [St Andrews University Museum] before today?
- What kind of things do you think it contains?
- Is it somewhere you might visit? IF SO: What would be of interest to you?
- Who would you come with if anyone?

Appeal of Museums

- What do you like about museums if anything?

- What do you find enjoyable? PROBE FOR:

    - Beautiful objects
    - Interesting stories
    - Café

    - Activities for adults, families, children
    - Written, audio or video content.

    - Interactive content
    - Somewhere warm to spend some time.

- Can you give any examples of museums where the things you like have been particularly good?

Barriers

- What are the kinds of things that put you off museums? PROBE FOR:

    - Cost
    - Lack of transport
    - Time
    - Rooms full of objects

    - Not about things I am interested in.
    - Better alternatives (what?)

    - Not a place I feel welcome, at ease etc.
    - Language
    - Other people

Impact

- What do you hope to leave a museum with? PROBE FOR:

    - A nice time out
    - Learn something new.

    - A different experience
    - Happy children

Museum stories

- What kinds of stories do you enjoy when in a museum? For example, stories about the time/history when the object was made, or about the people who made and/or used it or do you just like to see beautiful objects?

- Are you interested in having more than one story told about an object? For example, what the object was used for and how the object ended up in this museum, if this was purchased, a gift, or stolen or paid for with money from something bad like slavery?

- IF YES: How would you like to see these multiple stories told or presented to you? PROBE FOR: Text, audio, video, photos, guided tour

- Do you think museums should say more about their possible connections to slavery, war, empires, colonialisation etc? Why, why not?

Digital Technology in Museums

- Have you ever tried or used digital interactives in museums? For example, touch screens that can show you more information about an object, or headsets that take you into a virtual space. IF YES:

- What was your experience like? What was good about these things?

- What didn't you like about them?

- Have you ever used your phone to access information while in a museum? IF YES: Please explain what you did? What was the experience like?

Interactive Testing

We are now going to take a little time to test out some ways of making the museum more interesting. SPLIT GROUP INTO DIFFERENT TECH ACTIVITIES AND ROTATE.

USE EXISTING TESTING QUESTIONS ALONG WITH PROBING FOR COMMENTS ON THE ABOVE – things they like, what stimulates their interest, what they spend more or less time on and why, where they need help in making it work or accessing content.

AFTER TESTS HAVE BEEN COMPLETED:

- What did you enjoy about these experiences?

- Did they help you better learn or understand about the objects?

- Were there any practical barriers to using them? What?

- What are the pros and cons of each?

- Would they be things you'd want to use if available? Why, why not?

- What do they add to the visit? What do they make worse if anything?

- How do these experiences differ from looking at objects in the gallery?

- Do you have any suggestions as to how these tools could be made better? IF NOT MENTIONED PROMPT FOR:

  o Be used to present multiple stories based on participant interest or perspective? E.g., cultural, artistic, historic, anthropology or sociology

  o Be used to personalise the experience?

Access at Home

Visiting a museum isn't always easy, it takes time, costs money and might be difficult to reach.

- Have you ever accessed museum content at home?

- IF YES: Can you remember what you looked at?

- What made you do this?

- How did you find out about it?

- How do you do this?

- What is the experience like?

- How does it compare to visiting a museum? Pros and cons

- Having tested the digital interactives, would you look at these or something similar at home? Why, why not?

- Would you do this on your own or with children or both?

- How do you think you could benefit from access such content at home?

- What are the reasons you wouldn't do this?

- Would accessing such content this way lead to visiting museums less?

Summary

- How would you summarise the digital experience?

- More generally, what would you change at this museum to encourage you and/or your family to return?

- This is a very small museum, compared with those in Edinburgh or Dundee – what can it do to make a visit here worthwhile for you?

Thank and close.

A4b: Museum Visitors: Exploratory Focus Group (Short)

Purpose of tool: To understand use, barriers, and attitudes towards museums in general and the Wardlaw in particular, with optional section on testing tech – better suited to those with limited interest in museums.

How to use: In-person group discussion (necessary if tech testing using VR headsets) or via Zooms/Teams otherwise.

Introduction

- Introduce myself
- Aim of the session – to test out new ways of inspiring people with the museum's objects and stories.
- Housekeeping: duration, refreshments, toilets, fire alarm, fire exit etc
- Please be as honest as you can as this will provide the most useful information.
- You don't all need to agree with each other.
- Everything will be confidential & anonymous.
- We want to hear from everyone, & we have a lot of questions to get through during the session so please don't take it personally if I move the conversation on at certain points.
- As much as possible please don't talk over each other – it just means we might miss something important!
- Confirm permission to record – we don't want to miss anything you say! This will be deleted once the notes have been written up.
- All mobile phones away/on-silent please
- Introductions: name, residency, family status (i.e., children & their ages)

Awareness (SKIP IF REPEAT VISITOR GROUP)

- What, if anything, did you know about [St Andrews University Museum] before today?
- What kind of things do you think it contains?
- Is it somewhere you might visit? IF SO: What would be of interest to you?
- Who would you come with if anyone?

Appeal of Museums

- What do you like about museums if anything?
- What do you find enjoyable? PROBE FOR IF NECESSARY:

  - Beautiful objects
  - Interesting stories
  - Activities for adults, families, children

- o Written, audio or video content.
- o Interactive content
- o Café
- o Somewhere warm to spend some time.

- Can you give any examples of museums where the things you like have been particularly good?

Barriers

- What are the kinds of things that put you off museums? PROBE FOR IF NECESSARY:
  - o Cost
  - o Lack of transport
  - o Time
  - o Rooms full of objects
  - o Not about things I am interested in.
  - o Better alternatives (what?)
  - o Not a place I feel welcome, at ease etc.
  - o Language
  - o Other people

Museum stories

- What kinds of stories do you enjoy when in a museum? For example, stories about the time/history when the object was made, or about the people who made and/or used it or do you just like to see beautiful objects?

- Are you interested in having more than one story told about an object? For example, what the object was used for and also how the object ended up in this museum, if this was purchased, a gift, or stolen or paid for with money from something bad like slavery?

- IF YES: How would you like to see these multiple stories told or presented to you? PROBE FOR: Text, audio, video, photos, guided tour

- Do you think museums should say more about their possible connections to slavery, war, empires, colonialisation etc? Why, why not?

Digital Technology in Museums

- Have you ever tried or used digital interactives in museums? For example, touch screens that can show you more information about an object, or headsets that take you into a virtual space. IF YES:

- What was your experience like? What was good about these things?

- What didn't you like about them?

- Have you ever used your phone to access information while in a museum? IF YES: Please explain what you did? What was the experience like?

Interactive Testing

We are now going to take a little time to test out some ways of making the museum more interesting. SPLIT GROUP INTO DIFFERENT TECH ACTIVITIES AND ROTATE.

AFTER TESTS HAVE BEEN COMPLETED:

- What did you enjoy about these experiences?

- Did they help you better learn or understand about the objects?

- Were there any practical barriers to using them? What?

- What are the pros and cons of each?

- Would they be things you'd want to use if available? Why, why not?

- What do they add to the visit? What do they make worse, if anything?

- How do these experiences differ from looking at objects in the gallery?

- Do you have any suggestions as to how these tools could be made better? IF NOT MENTIONED PROMPT FOR:

- Be used to present multiple stories based on participant interest or perspective? E.g., cultural, artistic, historic, anthropology or sociology

- Be used to personalise the experience?

Access at Home

- Having tested the digital interactives, would you look at these or something similar at home? Why, why not?

- Would you do this on your own or with children or both?

- How do you think you could benefit from access such content at home?

- What are the reasons you wouldn't do this?

Summary (IF TIME OR NECESSARY)

- How would you summarise the digital experience?

- More generally, what would you change at this museum to encourage you and/or your family to return?

- This is a very small museum, compared with those in Edinburgh or Dundee – what can it do to make a visit here worthwhile for you?

B: Online Content Feedback

Purpose of tool: To obtain participant feedback on their experience with online content such as AR or other web-hosted content.

How to use: Create popup or link to a Survey Monkey or other online survey application questionnaire that is activated after the user has accessed certain content.

Questions:

1. **How did you find out about this [NAME OF] content?** TICK ALL THAT APPY

   - Someone gave me the link to the website.
   - I Googled to find information about the museum.
   - It was suggested to me by a teacher, parent, group leader.
   - I read or saw something about it at the museum.
   - I read or saw something about it on social media.
   - Other (Please say)

2. **What made you decide to look at it?** TICK ALL THAT APPY

   - It looked fun.
   - It looked like I might learn something.
   - I am interested in the objects displayed.
   - I was helping someone else.
   - It's easier than visiting the museum.
   - Other (Please say)

3. **How much would you agree or disagree with the following statements?** 5 POINT SCALE Strongly agree → Strongly disagree.

   - Looking at this content was a worthwhile way to spend my time.
   - Looking at this content changed how I feel about the museum and its objects.

4. **What did you enjoy about the content?** TEXT

5. **What, if anything, did you learn as a result of using or looking at this content?** TEXT

6. **What could be better or done differently?** TEXT

7. **Do you think you will do anything as a result of looking at this content?** YES/NO. IF YES, ASK Q8

8. **What?** TEXT

C1: Teachers and Group Leaders: Survey

Purpose of tool: To obtain feedback from interactions with schools and other groups, either at the museum or via community outreach.

How to use: Online follow up survey with teachers and other group leaders through a Survey Monkey or other online survey application link in an email.

Questions:

1. **Why did you decide to book/ bring group to attend this [interaction]?** TICK ALL THAT APPLY

   - For group members to learn something new
   - To bring history to life
   - To provide an enjoyable activity for the group
   - To give participants a new or different experience
   - To support teaching part of the curriculum
   - To inspire students/child/group members
   - Other – please tell us more below.

2. **Have you worked with or brought others to the museum before?** SINGLE RESPONSE

   - Yes, in the last 12 months.
   - Yes, between one and five years ago.
   - Yes, but more than five years ago.
   - No, this is the first time.

3. **How did you find out about the visit or activity opportunity?** TICK ALL THAT APPLY

   - I know someone at the museum.
   - I Googled to find information about the museum.
   - It was suggested to me by a colleague or friend.
   - I read or saw something about it at the museum.
   - I read or saw something about it on social media.
   - Other (Please say)

4. **How would you rate your students/group members experience of the [interaction]?** 5 POINT SCALE Not a good experience → Very good experience.

5. **Any comments?** TEXT

6. **Was the session appropriate for your students/group members' needs?** 5 POINT SCALE Not appropriate → Very appropriate.

7. **Any comments?** TEXT

8. **What role or value did the tech bring to the [interaction] for your group?** TEXT

9. **Thinking about the [interaction], to what extent do you agree or disagree with the following statements?** RANDOMISE. 5 POINT SCALE Strongly agree → Strongly disagree.

   - The [interaction] was well thought through and put together.

   - All participants were encouraged to get involved.

   - The visit provided a different experience for the students/group members.

   - This [interaction] is something that the museum should do more of.

   - The museum is an important part of Fife's culture.

   - The [interaction] made it easy for students/group members to engage with history.

   - The use of technology enhanced the experience.

10. **How much would you recommend the [Interaction] to a friend or colleague?** Scale 0-10 10=Highly recommend

11. **What 3 words would you use to describe your students/group members experience?**

12. **Thinking about the impact of the [interaction], to what extent do you agree or disagree with the following statements?** RANDOMISE. 5 POINT SCALE Strongly agree → Strongly disagree.

    - The [interaction] was thought provoking for the students/group members.

    - The students/group members learned something new.

    - We plan to do something more because of this [interaction].

    - The experience changed participant perceptions of what a museum can offer.

    - I would encourage my students/group members to do something with the museum again.

    - The student/group members enjoyed the [interaction].

    - Our visit was a worthwhile way to spend our time.

13. **What could be have been better or done differently?** TEXT

C2: Teachers and Group Leaders: Informal Discussion

Purpose of tool: To obtain feedback from interactions with schools and other groups, either at the museum or via community outreach.

How to use: Conduct interview with the lead teacher who attended the visit. It should take around 30-40 minutes. Audio record or take notes.

Objectives

- Were you responsible for booking the St Andrews Museum visit? IF NO: What role did you play, if any, in making arrangements for the visit?

- IF YES: What made you decide to book the visit?

- How did you think your students/group members would benefit?

Pre-session preparation

- Did you run any pre-visit preparation? IF SO: What did you do?

- Did you access any museum online content in preparation? IF YES: Did you use them? How useful were they? IF NOT: Why didn't you use or do them?

- IF NO: Would it have been helpful for the museum to have sent you links to resources when you made the booking?

Overall experience

- What did you think of the visit?

- Did the students/ group members enjoy it? Why, why not?

- What do you think the highlights were?

- And the low points if any?

- What could have been done differently in retrospect to make the visit better?

- How was it overall in terms of what you expected and what your experience was?

- How well did it cater to differing student/ group member's needs? Which students/ group members, if any, were less well catered for? Why?

- What benefits do you feel the school/ your organisation has gained from the visits?

Learning outcomes

- How do you think, if at all, the session helped students/ group members develop in any of the following areas:

  - Their awareness of and attitudes towards [TOPIC OF VISIT, ST ANDREWS, MUSEUMS]

  - Their knowledge and understanding of [TOPIC OF VISIT, ST ANDREWS, MUSEUMS]

  - Improving skills in [FOCUS OF VISIT]

- o Inspiring [HOPED FOR OUTCOMES – COULD INCLUDE: creativity, collaboration, independence, engagement, and enjoyment]
- IF NOT DONE ALREADY: Can you give any examples of these outcomes?
- Which of these were the strongest – i.e., the session most helped in achieving?
- How well did these outcomes align with your original objectives?

Workshop (if applicable)

Content

- What did you think about the workshop content? For example, was it...
  - o Relevant to students/group members
  - o Of interest to the students/ group members
  - o Too complicated/ too simple
  - o FOR TEACHERS: Related to your curriculum and/or current teaching topic.

Format

- What did you think of the workshop format? Probe for:
  - o Too long/ too short
  - o Too much talking or too many practical activities.
  - o Too theoretical

Presentation

- How effective was the facilitator in making the workshop fun, engaging, educational, skills based?
- How did your group respond to the workshop? E.g., with interest, engagement, boredom.
- Do you think s/he could have delivered the session in a different/better way? IF YES: How?

Visit Logistics

- Was the visit booked sufficiently early for you to make the necessary arrangements?
- Were you communicated with in a timely/appropriate manner? IF NOT: Explain
- Is there anything you would have liked to have known beforehand that wasn't shared with you?

Difference Compared with Other Similar Activities

- Have you taken part in other similar visits? IF NO SKIP TO NEXT SECTION
- IF YES: How did this visit compare to others?
- Is there anything the museum could learn from them?

- Compared to other similar activities, what do you feel the value added (if any) of this one has been for the students/ group members?

Follow-up

- Do you plan to do any follow up with students/ group members based on the visit?
- IF YES: What do you plan to do?
- Would follow up resources from the museum be useful to do this? IF SO: What kinds of resources would be useful?

Future Thoughts

- Is the visit something you'd consider doing again next year? Why, why not?
- If you do go again, what one thing would you suggest is changed to make the next one better?