

# Promoting Exhibit Access and Safety (PEAS): Listening and Learning Sessions

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**PEAS Resources Team: Sarah Elston<sup>1</sup> ,  
Ronald Eng<sup>2</sup> , Kelsey Falquero<sup>1</sup> ,  
Jennifer Herrmann<sup>3</sup> , Dong Eun Kim<sup>3</sup> ,  
Melissa Miller<sup>1</sup> , Samantha Snell<sup>1</sup> ,  
Julianne Snider<sup>4</sup> , Allaire Stritzinger<sup>1</sup>,  
and Gina Whiteman<sup>1</sup>**

## Abstract

In 2021, the Promoting Exhibit Access and Safety (PEAS) Working Group surveyed attendees at four cultural heritage conferences to get a broader perspective on institutional processes and procedures at the intersection of access and safety. Nearly three-quarters of survey respondents said their institution had experienced challenges with detrimental visitor interactions (DVI). Respondents also shared an assortment of strategies used to prevent such interactions, such as signage, display cases, physical barriers, and gallery attendants. In 2023, PEAS conducted a series of discussion sessions with museum professionals from across North America to better understand these strategies and their effectiveness. The sessions followed a structured list of questions that were designed to build upon the results of the survey and elicit open and transparent conversations. The following article is a summary and analysis of those discussions.

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PEAS website: <https://ncp.si.edu/PRICE-PEAS>

<sup>1</sup>Smithsonian Institution, Washington, DC, USA

<sup>2</sup>University of Washington, Seattle, WA, USA

<sup>3</sup>US National Archives and Records Administration, Washington, DC, USA

<sup>4</sup>Penn State, University Park, PA, USA

## Corresponding Author:

Samantha Snell, Smithsonian Institution, 600 Maryland Ave SW, Suite 7001, Washington, DC 20024, USA.

Email: [snells@si.edu](mailto:snells@si.edu)

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**Correction (April 2024):** Article updated to correct the affiliations for the authors.

**Keywords**

archives, subject focus, library, museum, risk analysis, case study, access, research and topics, research about collections, collections care, activities, collections, exhibition

**Introduction**

In 2021, the Promoting Exhibit Access and Safety (PEAS) Working Group surveyed attendees at four cultural heritage conferences<sup>1</sup> to get a broader perspective on the kinds of activities, policies, and programs other institutions employ that impact access and safety for collections and people. Most respondents shared challenges and examples of “detrimental visitor interactions,” any incident where an individual engages with an exhibit and harms themselves, others, or objects. The PEAS Working Group wanted to learn more about how museums mitigate or overcome these challenges.

To answer that question, the PEAS Working Group created two Action Teams in 2022. The Data Gathering Team focused on analyzing the survey results, while the Resources Team focused on assembling more information. After the preliminary results of the survey analysis, it was clear to the Action Teams that there were some common approaches to safety and access used by the survey respondents. A couple common examples include: putting up barriers to protect collection items on exhibit and offering educational materials on collections care activities to increase access and understanding of collections preservation among the public.

However, the effectiveness of these strategies was not clear. To develop a deeper understanding of the survey results, the Resources Team created “Listening and Learning Sessions,” an in-depth series of discussions, based on a format created for a staff program at the Smithsonian’s National Museum of Natural History.

The Listening and Learning (LL) Sessions, which took place in January and February 2023, brought together professionals from collections, conservation, education, exhibits, facilities, security, and visitor services backgrounds. There were three main goals of the LL Sessions: 1. to develop a better understanding of the kinds of activities happening across the access and safety landscape and what made them effective, 2. to provide a platform for challenging conversations and collaborative solutions, and 3. to create a networking and professional development opportunity for the participants. The first addresses the PEAS Working Group’s research interest in

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1. American Institute for Conservation (AIC) annual meeting, <https://www.culturalheritage.org>; National Conference on Cultural Property Protection (NCCPP), <https://nat-conf.si.edu/>; Safety and Cultural Heritage Summit, <https://washingtonconservationguild.org/2021/09/24/2021-safety-cultural-heritage-summit-preserving-heritage-protecting-health/>; and Mid-Atlantic Association of Museums (MAAM) annual meeting, <https://www.midatlanticmuseums.org/>.

exploring innovative access and safety strategies. The second fulfills a major component of the PEAS Working Group's mission, and the third provides a reciprocal benefit to those who graciously volunteered their time to support this initiative.

## Methodology

The Resources Team hosted four 90-minute LL Sessions, each with six to ten participants from various museum backgrounds. This small participant number per session enabled deeper discussions and provided each individual an opportunity to speak to their experiences. Of the four sessions, two focused on Back of House (BOH) operations, and two focused on Front of House (FOH) operations. Our criteria for inclusion in one or the other session was based on whether the participants' main job responsibilities involved engaging with the public or not. The BOH and FOH groups were further divided into large (L) and small/medium (S/M) sized institutions based on the number of visitors per year, number of staff, and number of volunteers.

The Resources Team drafted two sets of questions, one for the BOH (Appendix 1) and one for the FOH sessions (Appendix 2). The Data Gathering Team reviewed the questions to ensure that they built upon the research conducted with the surveys. The questions were then sent to a Smithsonian Human Subjects Research expert to ensure they were meeting best practices.

LL Session participants were recruited by the PEAS Working Group members, from their various and wide reaching professional networks, and participated on a voluntary basis. After receiving an invitation and confirming their intent to participate, individuals were then given a short survey (see Appendix 3), the results of which determined which session (i.e., FOH-L, FOH-S/M, BOH-L, or BOH-S/M) the individual and their organization most aligned with.

The discussion questions were shared with the participants approximately one month prior to each session, for their review and to formulate their responses. Participants were also encouraged to discuss the questions with colleagues at their organization in preparation. One to two facilitators ran the discussion during the sessions, and a notetaker summarized the responses. The sessions followed a specific script so all participants were presented with the same questions and each participant was given an opportunity to respond. Additionally, the sessions were recorded to support writing this article and the recordings were then deleted. Participants were informed of this in advance of the session, and that their responses would be anonymized.

Finally, for the analysis of these discussions, the facilitators and note takers reviewed the notes and transcripts for the sessions they moderated, and then coded the responses using qualitative analysis techniques, combining deductive and

inductive approaches.<sup>2</sup> Deductive analysis entails using preset categories and themes. In this case, the preset categories and themes were based on our research question, “What are the current practices being implemented and how effective are they?” This directed what we looked for in the data. Inductive analysis, on the other hand, means starting with the data and allowing the transcript to drive the development of categories or themes. In other words, additional themes naturally arose from the participants’ responses. By using both deductive and inductive analysis techniques in an iterative manner, we aimed to answer our questions while also allowing the respondent’s answers to guide parts of the analysis. The following is the Resource Team’s summary and analysis of the LL discussions.

## Summary

Four themes arose from the sessions. These were generally seen as opportunities or threats to exhibit access and safety, or strengths and weaknesses for our respondents’ organizations:

1. Collective Responsibility
2. Exhibit Design
3. Organizational Structures, Authority, and Staff Capacities
4. Communication and Collaboration

Some groups had more input on these themes than others, but in general, these were ideas and concepts that continuously arose across all sessions. Below is a summary discussion of the coding notes, and the full coding charts can be found in Appendix 4.

***Note 1:** The order of the four major themes does not imply weighting or significance. Additionally, it is worth mentioning that all forms of physical protection (i.e., barriers, stanchions, cases, etc.) were coded under the theme of exhibit design.*

***Note 2:** In this article, the term “objects” is intended to encompass all collection items, objects, artifacts, and types, including but not limited to works of art, scientific specimens, and history, archive, and library collections. Similarly, “museums” is used to refer to all cultural heritage organizations, including but not limited to galleries, libraries, archives, historic houses, and societies.*

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2. Ellen Taylor-Powell and Marcus Renner, “Analyzing Qualitative Data,” University of Wisconsin - Extension Program Development and Evaluation, 2003, available at: <http://learningstore.uwex.edu/assets/pdfs/g3658-12.pdf>.

## Collective Responsibility

The FOH groups had a recurring theme of collective responsibility—in other words, the role of staff in sharing information with visitors, ensuring accessibility, and positively impacting the visitor experience. Many participants highlighted that visitors are given information about do's and don'ts, available resources, and how to navigate the space. Several participants also described their customer service training for staff who work in gallery spaces.

One participant discussed how their institution aimed to educate guests on the public's role in protecting and preserving collections. Another participant described their museum's "empathetic service philosophy," in which they strive to start from a place of empathy, assuming that people have good intentions. Staff are trained to approach situations with visitors in the mindset of "can you help me protect our [collections]?"

During the FOH-S/M discussion, five of the six session participants stated that their institutions engage in some form of publicly visible collections work. Three allow collections care staff to perform work during operating hours and in view of the public, so long as the work is not disruptive (e.g., noisy). Two institutions use public programming to explicitly teach collections care work, including demonstrations for elementary school audiences with educational objects. Some also mentioned using social media to highlight collections activities.

One participant described the following when witnessing visitor behavior change after seeing on-site collections work at their historic house museum, "when they see us working very carefully [. . .] handling everything so carefully, I think something clicks in their mind." This anecdotal evidence characterizes the majority of participants' comments on a strategy's effectiveness. Though this one example is positive, none of the participants indicated that their institution had evaluated the effect of teaching collections care on visitor behavior. This topic of teaching the public about collections care provoked additional questions for further consideration by the Resources Group (see Appendix 5).

Interestingly, while many participants in the FOH-L and FOH-S/M groups discussed the importance of positive interactions and shared understanding between staff and visitors, others cited a slightly different approach. One participant noted that their institution's overall goal was to reduce interactions between visitors and security staff as much as possible based on the assumption that interactions with security staff generally left a negative impression on visitors.

## Exhibit Design

All LL groups noted that the use of barriers and stanchions, placing objects behind glass or plexiglass vitrines, and employing sensors and audible alarms were useful for

mitigating “detrimental visitor interactions.” However, the FOH-L and BOH-S/M participants generally felt that these were secondary methods, and reliance on these measures alone were insufficient. Participants largely agreed that pairing staff presence with physical boundaries was ideal and provided more complete coverage. This, however, is not always possible.

At one small/medium organization, all barriers between visitors and objects were removed, which increased the need for more intervention and monitoring strategies by the museum staff. Some examples of these strategies included: docents or security guards in the gallery spaces, adding occupancy limits, and requiring visitors to be at least 12 years of age.

Innovations and technology used in displays to keep objects safe was another major topic of conversation among the BOH-L group. While physical safety was often addressed by tailoring mounts and cases to the specific needs of objects, which increases safety and security by reducing physical strain and providing better access control for staff, lighting was brought up as a way to balance preservation and access. It was noted that LEDs and filtration systems in case designs can protect objects while still giving visitors satisfactory visual access. Lighting maps and photographic reviews were highlighted as new ways to track an object’s history of light exposure and any changes that occur during exhibit/access. The individual that suggested these new practices explained that a lighting map is where an exhibit floor plan is documented with actual light readings at the height of each object and at each rotation, and recorded as part of the exhibit plan. Similarly, a photographic review is where photographs are taken of each object, especially those on permanent or long-term display, at quarterly checks, and included as part of the object’s record. Both lighting maps and photographic reviews provide data for making evidence-based decisions for future exhibition of collection material.

Both of the BOH groups noted that their organizations have interactive elements, and they use positive signage and language to redirect visitors to aspects of exhibits that are designed for interaction. The BOH-L group also added that creating spaces that keep visitors comfortable helps minimize “detrimental visitor interactions.” For example, giving visitors places to rest makes it less likely that they sit on objects or displays. Keeping educational activities separate from the gallery space can also help prevent “detrimental visitor interactions.” One BOH-S/M participant described how having a separate space for visitors to engage with props/replicas worked well in preparing them to go into the exhibit. It effectively communicated the importance of objects on display and appropriate behavior.

## **Organizational Structures, Authority, and Staff Capacities**

Many participants in the FOH-S/M group indicated that their organizations are owned, operated, or governed by a larger, non-museum entity such as a university, city, state, or federal agency. The level of influence those entities have on the museum operations ranged. One participant discussed how they have limited authority “because we are a unit within the [university].” Another mentioned that some of their needs are often overlooked “due to budgeting” by the city. On the other hand, participants recognized the unique value of certain resources made available by operating under a parent organization, such as access to specialized knowledge or personnel to support areas of need, including accessibility, security, and emergency response.

Despite access to such resources, staffing constraints were mentioned as a significant issue for small/medium organizations seeking to address exhibit access and safety. Individuals often assumed this responsibility in addition to their assigned duties, and it often fell on one staff member. Among the BOH-S/M group, comments included, “I am the only collections person [and] the one largely in charge of promoting exhibit access and safety.” Another participant noted that limited staffing impacted the quality of activities, such as object condition reports, that support access and safety. At their institution, condition reports could only be completed when objects went on display or to conservation rather than at regular intervals to track object stability.

Staffing and budget constraints were also a consideration among BOH-L participants. It was widely recognized that regular rotation of objects on display is an important activity that promotes both preservation of objects and access for visitors. Despite this, cuts or limitations in staff capacity and budgets often negatively affected rotation schedules.

These organizational structures and staffing limitations also impact incident/emergency response, with one FOH-S/M participant describing how their process varies depending on the time of day (i.e., who is present/available to respond), the type of incident (i.e., who/what is impacted), and security parameters (i.e., who has access to the space). Each factor would necessitate input from a different individual or team, and depending on what happened, may require involvement from the parent entity.

Most FOH-L participants cited security staff as their first responders to collections incidents, with one outlier whose museum does not have on-site security. That museum has a tiered response for incidents, but their philosophy was to rely on other solutions to prevent “detrimental visitor interactions” rather than have security in their gallery spaces. Two participants in this group also highlighted post-incident debriefs, which could lead to policy or procedural changes if deemed appropriate.

## **Communication and Collaboration**

Communication and collaboration among museum staff and allied professionals was woven into all four discussion sessions. Especially when there was a limited number of staff, participants discussed how essential it was to prioritize communication between departments and cross-training. One BOH-S/M participant noted that cross-training was a means of facilitating collaboration, but often happened on an ad hoc basis, rather than as regular practice. Another FOH-S/M participant highlighted that cross-training with different departments enabled them to support a broader variety of events than if the responsibility fell solely on one department.

Both the FOH-S/M and BOH-L groups noted partnerships with allied organizations as important resources for decision-making. National groups such as Canadian Conservation Institute (CCI), American Institute of Conservation (AIC), Smithsonian Institution (SI), and National Parks Service (NPS), regional museum groups or museum neighbors, topical alliances like the network of health museums or military museums, and community-based organizations such as the Native Communities Museum Group were highlighted. One participant in the FOH-S/M group also shared that developing relationships with outside vendors increased their capacity to protect collections during special events because they agreed on protocols and policies.

Among the BOH-L group, speaking with colleagues who could share their institutional memory was considered one of the most important ways of learning and sharing information. Conversely, one FOH-S/M group participant mentioned bringing the public into the planning, coordination, and communication efforts for exhibit development. Community-curated exhibits are part of their strategy for maintaining a balance between protecting exhibits and making the museum an engaging space. This institution's mission and collection dealt with painful histories, and their work was as much about "protecting emotions" as protecting the objects.

## **Reflections**

Despite a wide range of approaches to exhibit access and safety for people and objects, it was clear that for many institutions, their strategies stemmed from a central philosophy regarding visitor experience and a certain level of risk acceptance customary to their institution. Sometimes activities become muddled due to the influence of outside authorities, communication issues, or budget/staffing constraints. However, establishing defined institutional priorities on visitor engagement and collections safety generally enabled staff to make gallery-level decisions confidently and effectively. For example, in the FOH-L group, one institution prioritized collections preservation over



engagement, and so updates to staff training included guidance on responding appropriately to common visitor complaints or infractions. Conversely, another participant discussed how their institution prioritizes visitor experience over collection security, and generally accepted that certain risks to the collection were unavoidable. As a result, on-site staff focused primarily on visitor engagement, and the institution does not install stanchions or barriers in galleries, nor does it accept loans of items that require barriers.

There was broad agreement on the importance of communication and collaboration, but much variation among institutions as to the best methods of implementing partnerships. Among the FOH-S/M group, some of the respondents mentioned informal networks and partnerships developed through interpersonal relationships, and others discussed relationships that were more formalized and defined by policies, codes of conduct, and employment terms. Formal policies establish clarity, consistency, and legitimacy to procedures and the ability to enforce institutional standards. However, implementation of policies may prove difficult if not properly communicated. In such cases, institutions may consider including critical policy guidance in staff training for more practical applications for any and all relationships.

Additionally, participants discussed the benefits of having a written policy on exhibit protocols that is both general enough for broad application but detailed enough to provide guidance in real-world situations. A participant noted “Collections policies are always something to look back upon and have as a backbone.” A further discussion on this topic alone would be beneficial for teasing apart the pros and cons of formal versus informal policies and partnerships. A better understanding of how these networks function and when it is beneficial to have defined/documented processes versus when it is preferable to rely on interpersonal networks may significantly impact operational practice.

Finally, it should be noted that the diversity of expertise and viewpoints among participants led to a far ranging discussion. Although expected and intended, if future research is conducted, it would be beneficial and interesting for discussion groups to spend a few minutes collectively defining what “promoting exhibit access and safety” means to them. “Access” and “Safety” have many different interpretations among professional disciplines. How those ideas come together and are applied in the context of museums can vary significantly. For the Resource Team’s purposes, this made the goal of identifying effective, tested strategies much more complex.

## **Conclusion**

Of the three goals established for the LL Sessions, one was not fully realized—“to develop a better understanding of the kinds of activities happening across the access

and safety landscape and what made them effective.” Although there was deep discussion on the kinds of activities employed in the access and safety landscape, the effectiveness of such strategies was not generally discussed. Some mentioned anecdotal evidence, while others highlighted more iterative approaches involving review and revision of pertinent activities and policies. Moving forward, the PEAS Working Group recommends further research into the effectiveness of these strategies to better evaluate and assess policies and practices, and ensure the proper allocation of resources toward methods with proven success.

Of the questions that arose from these conversations, the PEAS Working Group identified several suitable for continued discussion and/or use as potential research prompts (see Appendix 5). We hope these inquiries not only inspire our colleagues to explore the topics of access and safety within their institutions but serve as a guide towards more collaborative communication across disciplines.

While the discussion sessions helped to benchmark what is broadly happening at museums, perhaps the true success of this exercise was the opportunity it afforded different professionals to meet, discuss, and have a voice in the development of this topic. Bringing together professionals from multiple disciplines, various sized organizations, and diverse backgrounds provided not only fertile ground for sharing ideas and building upon lessons learned, but gave the PEAS Working Group ideas and a direction for future research. Although this exercise is complete, the cross-pollination of ideas can and should continue. To that end the PEAS working group has created a Zotero library to host resources on this topic (Appendix 6) with the goal of providing a foundation for those future discussions.

A big thank you to those who volunteered their time to participate in the LL Sessions and support this initiative. The PEAS Working Group looks forward to partnering with allied colleagues in the future. If you or your organization are interested in collaborating with PEAS, you can connect with us at [SI-PEAS@si.edu](mailto:SI-PEAS@si.edu).

## **Appendix I**

### *Discussion Questions for Back of the House Operations Group*

Ice Breaker (in the chat)

1. What roles at your organization contribute to promoting exhibit access and safety?
  - a. Optional ice breaker #2: When you discuss promoting exhibit access and safety at your organization, what one or two words or short phrases is used most often?

Discussion Questions

2. How does your role intersect with this topic of safety, access, and preservation? Is cross-training available?
3. How does your organization prevent and mitigate detrimental visitor interactions (DVI) with objects on exhibit? For our purposes, a DVI is defined as any incident where an individual engages with an exhibit and harms themselves, others, or objects.
  - a. How are decisions made regarding displays (i.e. what is put in cases/behind stanchions, etc.?)
  - b. What actions are being taken outside of visitor hours that are impacting object/people safety? (Sensors, alarms on objects/cases, routine cleaning, condition assessment, etc.)
4. Who decides, if at all, if objects are rotated from exhibition to storage?
  - a. If objects are on permanent exhibition, what steps are taken to impact its safety?
  - b. If/when are condition assessments conducted for items on exhibition?
5. What new and innovative approaches has your organization experimented with to address access, safety, and preservation issues in exhibit spaces? (Policies, Technology, Design, Operations/Maintenance/Facilities/Housekeeping?)
  - a. Have you evaluated its effectiveness? How have you evaluated it?
6. In the case of interactive exhibit components, how do you guide/ensure people use these properly?
  - a. Have you found any strategies to be particularly impactful or detrimental?
7. Are changes made in response to a detrimental visitor interaction(s)?
  - a. If so, what kinds of changes?
  - b. How long do those changes take to implement?
  - c. How is the incident reported and who/which roles are part of the contact list?
  - d. What types of technology do you utilize for communication?
8. Do you have full time or contract security on site? How do they communicate across full-time versus contract staff?
9. What resources have you found to be helpful addressing these issues? What organizations do you look to as examples?

## **Appendix 2**

### *Discussion Questions for Front of the House Operations group*

Ice Breaker in the Chat:

1. When you discuss promoting exhibit access and safety at your organization, what one or two words or short phrase is used most often?
  - a. Optional ice breaker #2: What roles at your organization contribute to promoting exhibit access and safety?

Discussion Questions:

2. How do your museums/galleries communicate with visitors the types of behaviors that are appropriate in an exhibit?
  - a. Have you found any strategies to be particularly impactful or detrimental?
  - b. Do you use videos for visitors to watch before being on site? Social media? Brochures? Non-verbal cues? Plant positive interaction cues?
3. Does your museum/galleries teach care of collections to visitors?
  - a. If so, has that been effective in reducing harm to collections and people?
  - b. Do you have objects/faux-objects out for visitors to engage with as touchables?
  - c. Do you have areas where visitors can view staff working with/on objects?
4. How do you navigate accessibility (physically, visually, linguistically, etc.) in your exhibit spaces?
5. How do you strike the balance of keeping the organization a welcoming and engaging place, and protecting exhibits?
6. How are incidents responded to?
  - a. Who is responsible for responding to an incident? Does it change depending upon the type of incident?
  - b. Are changes made in response to an incident(s)? If so, what kinds of changes?
7. For special events/afterhours events, how do you adjust staffing for these events?
  - a. How do you manage internal expectations?
  - b. How do you manage food or drinks in the gallery?
8. What resources have you found to be helpful addressing these issues? What organizations do you look to as examples?

## Appendix 3

### Participant Survey Questions and Anonymized Results

#### PEAS Listening and Learning Workshop

**This survey is for planning purposes ONLY, to help with communication and coordination of the sessions.**

\* 1. Please fill out your name and details below.

**Name**

**Organization**

**State/Province**

**Country**

**Preferred Email Address**

\* 2. Please, briefly describe your role at your organization.

\* 3. About how many paid (Full and Part Time) staff members are at your organization?

- 0-6
- 7-50
- 51-100
- 101+

\* 4. About how many un-paid (Full and Part Time) staff members/volunteers are at your organization?

- 0-6
- 7-50
- 51-100
- 101+

\* 5. About how many visitors does your institution receive each year?

- less than 20,000 visitors/year
- 20,001 - 50,000 visitors/year

6. What is your availability?

	Time Preference 1 (most)	Time Preference 2	Time Preference 3	Time Preference 4 (least)
Tuesday, January 24th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Wednesday, January 25th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Thursday, January 26th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Friday, January 27th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Monday, February 6th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tuesday, February 7th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Wednesday, February 8th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Thursday, February 9th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If none of these times work for you, please suggest a few days/times and we will follow up with you.

Participant code	State/ province	Open-ended response	Response (# of full time staff)	Response (# of volunteers)	Response (# of visitors/year)
BOH.2.6	DC	Exhibits Project Manager - Manage all permanent galleries and manage the design, fabrication, and installation of new exhibits small and large.	101+	7-50	More than 100,001 visitors/year
BOH.2.5	DC	Develops policy, guidance and training, including on museum security, for the units with museum collections.	101+	101+	More than 100,001 visitors/year
BOH.2.4	NY	I am an associate conservator in the Objects Conservation lab, working primarily with the pieces from the Ancient Americas and the Pacific, as well as our Native American works.	101+	51-100	More than 100,001 visitors/year

(continued)

**Appendix Table (continued)**

Participant code	State/ province	Open-ended response	Response (# of full time staff)	Response (# of volunteers)	Response (# of visitors/ year)
BOH.2.1	IL	Collection Manager, Textiles: manage information and physical care of collection.	101+	101+	More than 100,001 visitors/year
BOH.2.7	DC	I am the Team Lead collections manager for Mineral Sciences.	101+	101+	More than 100,001 visitors/year
BOH.2.3	NY	Collections Manager for Ancient Near Eastern Art, overseeing an archaeological collection.	101+	101+	More than 100,001 visitors/year
BOH.2.2	IN	I am the Senior Conservator of Textiles. I am responsible for all artworks with a textile component, I co-write conservation grants, and I supervise graduate and pre-graduate interns.	101+	51–100	More than 100,001 visitors/year
BOHI.1	IN	I am the Collections Manager and Registrar. I oversee the care of the non-automotive collection.	51–100	0–6	More than 100,001 visitors/year
BOHI.3	IN	Collections Manager/Curator	0–6	0–6	50,001–100,000 visitors/year
BOHI.2	MD	Assistant Conservator: in charge of preventive conservation; recommends safety and environmental guidelines for new exhibitions; manages routine dusting and incident response for the artworks.	101+	0–6	50,001–100,000 visitors/year

(continued)

**Appendix Table (continued)**

Participant code	State/ province	Open-ended response	Response (# of full time staff)	Response (# of volunteers)	Response (# of visitors/ year)
BOHI.6	NY	As a facilities officer, I am charged with finding and implementing appropriate safety measures for program staff, including bullet proof glass, access control, cameras, sensors, and security staff. Some of our programs are art exhibits, which pose unique access and aesthetic concerns.	101+	0–6	20,001–50,000 visitors/year
BOHI.5	WA	I'm the Director of Interpretation that oversees Exhibit and Public Program departments. I work collaboratively across the museum on many projects, and serve as a member of senior leadership.	51–100	101+	50,001–100,000 visitors/year
BOHI.4					
FOH.I.2	DC	Chief of Security and Supervisory Security Specialist	101+	101+	More than 100,001 visitors/year
FOH.I.3	DC	Visitor Experience Manager responsible for collaborating with frontline staff and managing volunteers to create positive visitor experiences.	101+	101+	More than 100,001 visitors/year
FOH.I.5	DC	I manage the information desk, docents and other on-the-floor volunteer programs. I also work to create content driven experiences for visitors.	7–50	101+	More than 100,001 visitors/year
FOH.I.4	DC	Community Engagement and Volunteer Coordinator	7–50	7–50	More than 100,001 visitors/year

*(continued)*



**Appendix Table (continued)**

Participant code	State/ province	Open-ended response	Response (# of full time staff)	Response (# of volunteers)	Response (# of visitors/ year)
FOH.1.1	MD	Security Manager	101+	0–6	More than 100,001 visitors/year
FOH.2.1	WA	I'm a Visitor Services Supervisor and responsible for programming support and accessibility coordination.	51–100	51–100	50,001–100,000 visitors/year
FOH.2.5	MD	Contractor staff providing project management for the contractor company, visitor services and volunteer management, tours, educational programming and exhibit content support.	7–50	7–50	20,001–50,000 visitors/year
FOH.2.6	TX	Education Programs Manager—Handles all educational content at museum, department of I.	7–50	0–6	50,001–100,000 visitors/year
FOH.2.3	VA	As the Education and Public Programs Coordinator, I am responsible for informal learning on and off-site. I develop interpretive tours, field trips, community programs, exhibit interactives, gallery activities, and evaluation studies.	0–6	7–50	20,001–50,000 visitors/year
FOH.2.2	NC	I'm the Museum Curator			
FOH.2.4	MN	Program and Outreach Manager - work to ensure that Indigenous content is accurate and appropriate throughout the institution in exhibits, programming and resources.	101+	51–100	More than 100,001 visitors/year

## **Appendix 4**

### *Coding Charts*

[https://drive.google.com/drive/folders/110Epx5VwFgd\\_WERG9WJaUaHyUaf-yg4V?usp=sharing](https://drive.google.com/drive/folders/110Epx5VwFgd_WERG9WJaUaHyUaf-yg4V?usp=sharing)

## **Appendix 5**

### *Further Discussion and Research Questions*

- Exhibit Design
  - What innovations or technological improvements have you implemented? Have they been successful/how have they impacted your operations and goals?
  - How does universal design/accessibility driven design impact access and safety for visitors and objects?
- Shared Stewardship
  - Why do you have or not have publicly visible on-site collections work?
    - If you do, are there other non-public spaces where such work could be conducted?
  - Why did you decide to do social media posts on collections care?
    - Have you done social media engagement metrics? If so, what kinds of posts get the most engagement? Where do your collections care posts rank in that listing?
  - Why do you include collections care in public programming?
  - How do you think showing collections care (on-site, in social media, through public programming) is received by the public? Has anyone expressed how this has changed their view of collections objects?
- Organizational Structure, Authority, and Staff Capabilities
  - For organizations with an overarching entity, are their protocols compatible with museum operations?
    - Are solutions implemented to promote exhibit and collections access significantly different between independent museums and museums operating as part of a large organization?
    - How might solutions be different for small/medium museums who do not have overarching umbrella organizations?
- Communication and Collaborations
  - Who receives museum-specific training and how is it determined? What about external partners that are non-museum professionals?

- When is it beneficial to have defined/documented processes and when is it preferable to rely on interpersonal networks?
- How would engaging visitors in the planning, coordination, and communication efforts to protect collections affect their behavior in exhibit spaces?
- Is this dynamic approach to work unique to small to medium sized institutions or is this generally the experience of all professionals in the field?

## Appendix 6

### *Resources Recommended by Participants*

[https://www.zotero.org/groups/4754124/promoting\\_exhibit\\_access\\_and\\_safety\\_peas/library](https://www.zotero.org/groups/4754124/promoting_exhibit_access_and_safety_peas/library)

### Authors' Note

Kelsey Falquero and Gina Whiteman is now affiliated to Smithsonian Institution, Washington, DC, USA. Dong Eun Kim is now affiliated to US National Archives and Records Administration, College Park, MD, USA.


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### ORCID iDs


Sarah Elston  <https://orcid.org/0009-0007-4490-3120>

Ronald Eng  <https://orcid.org/0000-0002-2939-0087>

Kelsey Falquero  <https://orcid.org/0000-0002-6575-8723>

Jennifer Herrmann  <https://orcid.org/0009-0009-0278-9264>

Dong Eun Kim  <https://orcid.org/0009-0004-5719-849X>

Melissa Miller  <https://orcid.org/0009-0001-7514-0353>

Samantha Snell  <https://orcid.org/0009-0007-4849-3077>

Julianne Snider  <https://orcid.org/0009-0003-3836-7748>

### Author Biographies

**Sarah Elston** is a Museum Specialist Registrar for the Smithsonian's National Museum of the American Latino. Prior to joining the museum, she earned a B.A. in Archaeology and an M.A.

in Museum Anthropology, both from Columbia University. Her Master's thesis focused on ethical museum practices pertaining to pesticide contamination and repatriation. Before becoming a full-time employee, Sarah was a contract Museum Specialist for NMAL and the National Museum of the American Indian.

**Ronald Eng** is the Invertebrate Paleontology & Mineralogy Collections Manager at the Burke Museum of Natural History and Culture, University of Washington. Ron has worked at university museums for more than forty-four years. Prior to being at the Burke, he was the Curatorial Associate in the Department of Invertebrate Paleontology of the Museum of Comparative Zoology, Harvard University. Ron's first museum position was in the Division of Invertebrate Zoology, Peabody Museum of Natural History, Yale University. Ron earned a BA in Biology from Boston University and an MS in Invertebrate Zoology from Northeastern University.

**Kelsey Falquero** is a Museum Technician for the Smithsonian Institution's National Museum of Natural History (NMNH), Department of Mineral Sciences (DMS). In this position, she provides collections care to the specimens and documentation held within the Division of Meteorites. Kelsey permanently joined the museum in 2012, working with the collections management team in the NMNH Office of Education and Outreach (E&O, now EOVE) to rehouse and digitize 6,000 specimens from the education collection for use in Q?rius, the NMNH's interactive science education space. Kelsey's time in the E&O collections provided her with a strong foundation working with specimens and objects spanning a multitude of materials and preparations. She earned a BA in Anthropology and History from Marshall University, Huntington, WV and an MA in Anthropology from The George Washington University, Washington, DC.

**Jennifer Herrmann** is a senior heritage scientist at the National Archives and Records Administration (NARA) specializing in answering technical questions about NARA holdings and exhibit materials. Prior to her career at NARA, Jennifer worked with paper and ink at the Bureau of Engraving and Printing as well as with the vast collections of the National Park Service. She received her Ph.D. in Analytical Chemistry from the University at Buffalo, the State University of New York.

**Dong Eun Kim** has been Exhibits Conservator with the National Archives and Records Administration (NARA) since 2019, originally joining NARA in 2017 as a Senior Paper Conservator. Over twenty years in the conservation field, Dong Eun has served as Head Conservator for the Center for Jewish History, Digitization Paper Conservator at the Cooper Hewitt Smithsonian Design Museum, and Project Photograph Conservator for the Whitney Museum of American Art, all in New York, as well as Associate Conservator at the Yale Center for British Art and Yale University Art Gallery, in New Haven, CT. She has taught and presented various lectures for the Center for Jewish History, Yale University Art Gallery, Yale Center for British Art, and the George Eastman House, International Museum of Photography and Film, Rochester, NY. Dong Eun earned an MA in Fine Art Conservation (Works of Art on Paper) from the University of Northumbria, Newcastle upon Tyne, UK.

**Melissa Miller** is the Collections Emergency Program Specialist at the Smithsonian National Collections Program. She provides programmatic support to the Preparedness and Response in

Collections Emergencies (PRICE) Team, the first pan-institutional collections emergency management team at Smithsonian. Her work focuses on the development of training opportunities, resources, and logistical mechanisms that support emergency management programs at the Smithsonian Museums, Galleries, Libraries, Archives, Gardens and National Zoo. Melissa has a Bachelor's degree in Art Conservation and Anthropology from the University of Delaware, and a M.A. in Museum Studies from Indiana University—Purdue University Indianapolis.

**Samantha Snell** is the Collections Management Specialist for the Smithsonian National Collections Program (NCP). In this position, she works to improve Smithsonian-wide collections emergency management and collections management professional development training in addition to supporting other priority pan-Institutional collections initiatives. Prior to joining NCP in 2016, Sam had a 15 year career at the Smithsonian's National Air And Space Museum's collections department. She earned her BA from Moravian College, Bethlehem PA, and is C2CCare Outreach Working Group, the Heritage Emergency National Task Force, a former AIC Emergency Committee co-chair, ARCS Emergency Programming Subcommittee chair, and PEAS co-chair.

**Julianne Snider** has more than twenty-five years experience working with collections as director of the Earth and Mineral Sciences Museum & Art Gallery (Penn State), as collections manager at the Illinois State Museum, as site conservator for the National Academy of Sciences of Ukraine, and as curator of the Guild of Natural Science Illustrators traveling collection. She has been associate editor of *Collection Forum*, the Journal of the Society for the Preservation of Natural History Collections and has presented collections-related papers and workshops internationally. Julianne holds a B.A. in fine arts (Indiana University—Bloomington), a Graduate Certificate in Museum Collections Management (George Washington University), and a Ph.D. in Science Education (Penn State).

**Allaire Stritzinger** is a collections policy support contractor for the Smithsonian's National Collections Program (NCP). Allaire specializes in developing and managing policies and procedures that ensure the responsible care and management of collections and associated information. Since joining NCP in 2018, she has made significant contributions to enhancing collections stewardship at the Smithsonian through enactment of pan-Institutional policies and supporting initiatives. Allaire holds an M.A. in museum management from the George Washington University and a B.A. in history from the University of Delaware.

**Gina Whiteman** has been a Collections Manager for Exhibitions at the Smithsonian's National Museum of African American History and Culture (NMAAHC) since 2010. In this position, she works with various teams through the life cycle of an exhibit with specific attention towards care and advocacy for museum collections on display. She has led and been part of NMAAHC's Inaugural Exhibitions planning, install and continuing maintenance, worked on the museum's robust changing exhibits and bi-annual object rotation program. Gina was previously a Collections Manager at the National Museum of American History for five years, focusing on department collections care and storage. She earned her BA in History from UMUC-Europe.