SPNHC 2022 - SYMPOSIUM LIST WITH DESCRIPTIONS

Symposium Title	First Name	Last Name	Open/Close	Symposium Description
Authentic natural history museum experiences to prepare students for global challenges	Adania	Flemming	Open	Authentic museum experiences, including Museum-based Introduction to Natural History (INH) courses and collections-focused student-led organizations, can provide experiential opportunities to enrich the academic experience of undergraduates, producing informed students, prepared for diverse careers including those in museums. These experiences are designed to engage students from science and non-science backgrounds in inquiry-based museum projects that help them understand how scientific knowledge is generated. These experiences have the power to transform students' perceptions of how the world works, while accentuating the important role that museums play in our understanding of the world around us. Through these interactions students take knowledge with them that will forever enrich their lives, our connection and in turn, influence their everyday and once-in-a-lifetime decisions. We are establishing a network of professionals consisting of individuals currently teaching or interested in teaching such courses and advising student clubs. A platform has been developed (https://qubeshub.org/community/groups/collections) for this network on the QUBES Hub portal, which links projects with similar goals such as The Biodiversity Literacy in Undergraduate Education network (www.biodiversityliteracy.com), and the BCEENET RCN (https://bceenetwork.org/). The network will provide a forum to share resources to help start, improve, or modify existing INH courses and student-led organizations. We are proposing an open, half- day symposium where we will discuss the premise of the INH courses and other informal learning experiences, plans of this network (including how to join), and showcase some of the outcomes of these activities courses. The symposium will consist of 10 talks and end with a 30-minute panel session. During this session we will discuss how we can truly harness the power of collections' resources to prepare students to take on many of the global challenges in our world. We will invite selected speakers to s
Back to Basics: Museum Techniques Skillshare	Emily	Braker	Open	While collections management literature and online resources are widely available, the specifics of day-to-day curatorial work are often learned on the job. This symposium aims to capture some of the peer-to-peer knowledge transfer that accompanies museum tasks and share it within a conference setting. We invite collection stewards from all disciplines and career-stages to present 'how-to' tutorial talks on everyday curation techniques, such as packing loans, monitoring for pests, preparing specimens, imaging collections, and myriad others. In particular, we want to know how something is done at your institution, including workflows and tips from lessons learned along the way. Whether you are new to the field, a mid-career professional seeking to add a new skill, or a veteran interested in hearing from those outside your organization, we envision this symposium as a valuable forum to communicate knowledge, with time for questions and discussion to follow each talk.

While highlighting best practice guidelines is encouraged, we acknowledge that many institutions operate within resource-limited contexts, and that multiple approaches to collection curation exist. We welcome your curation technique contributions if you have implemented a practical solution, worked wonders on a shoestring budget, or applied modern methodologies to century-old practices. In collaboration with the Best Practices Committee, presenters are expected to share their slides in pdf format with the organizers, as well as provide "key points" formatted for sharing on the SPNHC wiki. Presenters may also include instructional videos, which will be added to the SPNHC YouTube channel after the symposium.

Building the Digital Natural Science UK network	Ella	Howes	Closed	This symposium would cover the outcomes of the recently completed Arts and Humanities Research Council (AHRC) funded scoping work, Setting Natural Science Data Free; Scoping a collections approach. It will look at the outcomes of the work and update on progress since the end of the programme. Partner organisations that participated in the AHRC digitisation training pilot will be invited to present their experiences of the training and the impact that it has had on their efforts towards collections digitisation. At this point there will be an opportunity for discussion and feedback on the format and range of topics covered by the AHRC pilot training materials as well as a chance for the community to highlight any areas that they would like to see covered by future training exercises. The next steps for developing the partnership of UK natural science collection (NCS) holders will be outlined as well as the longer-term road map for how we will create our UK research infrastructure of natural science collections. The floor will be opened for discussion and questions.
Civically engaged natural history museums: transforming public programmes to address societal challenges	Jack	Ashby	Closed	People are increasingly looking to public institutions such as museums to help make sense of the civic and environmental challenges that we are facing. The ongoing impacts of Covid-19 – in particular on wellbeing and social inequality – have made it all the more urgent that museums engage with discourse around these issues, and that they actively contribute to solutions. Some museums are rising to this new challenge for the sector, innovating in their public programmes to use their collections to effectively engage public groups on issues that are important to them individually and to society as a whole. While there are excellent examples of this work within natural science institutions, art and social history sectors appear to have been ahead of the game with this emerging civically engaged practice. In the age of Extinction Rebellion and Black Lives Matter we need to ask ourselves how we can use our collections to have positive social impact and to respond to wider civic needs and priorities, demonstrating their relevance to the challenges faced by society and the natural world. This symposium, organised by the Natural Sciences Collections Association, will look at how public programming across natural history institutions and the wider museum sector is responding to and engaging public audiences with three key civic agendas: 1. health and wellbeing; 2. representation, decolonisation and social injustice; and 3. the climate and ecological crisis. We will discuss how participants can identify ways in which their existing work can fit into this practice – and how we can identify and nurture good practice – with the aim of placing natural science collections at the heart of civically engaged practice. There will be practical examples as well as wider scene-setting, with plenty of opportunity for discussion.
nnecting Communities to Natural History Collectio	Jeanette	Pirlo	Open	Natural history collections (NHC) chronicle Earth's biodiversity through the physical/digital archiving and curation of specimens. There is a long history of scientists working with local knowledge keepers, benefitting the science; not one that has acknowledged that contribution or shared knowledge. NHCs have not built the collection-based experience in a manner honoring different ways of knowing and the impact of science on all communities. We have seen an expansion of NHCs via participation from community scientists, beginning to bridge the gap in including and respecting perspectives from historically excluded communities. More can be done by inviting and honoring knowledge from different viewpoints, gaining a contextual understanding of biodiversity. We acknowledge and recognize there are disparities between communities when engaging with NHCs and the need to decenter our Western ideal on collection management. We have the opportunity to engage more meaningfully with local and regional communities, creating open, accessible and inclusive experiences that engage the diversity and voices informing NHCs. Increased efforts to make NHCs more inclusive include focusing on areas that have traditionally been marginalized and providing training through workshops on proper collection and curation with avocational scientists. Some strides have been made through innovative programming, exploring virtual initiatives and popup museums. Another approach focuses on how we invite people to the conversation through compassionate outreach. We look towards taking the closed science legacy of NHCs, and making it open and accessible to all communities, interweaving indigenous and local knowledge in our practice of science education and biodiversity science while supporting emergent scientists. This session will highlight successes and challenges posed as we incorporate communities into natural history collections and collaboratively discuss paths forward. We welcome submissions spanning community science projects, to how commun

Collection space in the 21st century and beyond	Luc	Willemse	Open	of the most common concerns of collection managers in a survey of CETAF member institutions. Each institute will consider different factors for their collection space planning. This symposium is organized by the CETAF Collections Group in an effort to start collating information about (extensions of) collection space for natural history collections. As such it is linked to a workshop on collection space also to be held during SPNHC 2022. We like to elicit contributions linked to collection space tackling any of these themes: 1. Rationale: here we expect some rather general reflections on the reasons behind extensions of collections space, their necessity, the risks involved, the opportunities they offer. 2. Roadmap: here we welcome contributions zooming in on one or several aspects of a collection space from planning and budget to completion and evaluation. 3. Case studies: here we expect contributions from organisations that recently completed an extension or reorganisation of collection space, are in the process of (re-)building collection space or are still in the planning phase. Sharing experiences and lessons learned is a key aspect of this symposium. 4. Innovative approaches: as a rule when planning extensions of collection space there is hardly any or no time to think about innovative solutions. Still a key aspect of collection management is innovation and here we are looking for contributions that think out of the box and surprise us with innovative ideas or approaches linked to collection space.
ollection Theft and Security Monitoring of Collectio	Paul	Mayer	Open	Something has been stolen – what now? This was raised as a question in response to the plenary talk and discussions by Kirk Wallace Johnson author of The Feather Thief: Beauty, Obsession, and the Natural History Heist of the Century at the 2019 SPNHC Meeting in Chicago. This symposium will investigate and try to develop best practice policies for preventing thefts and how we can better share information on thefts? • Preventative Actions o Education: Engaging the communities who may be higher risk and to educate them as to the importance and scientific value of the collections o Heightened Security: Balancing between acceptable levels of security and either alienating the community or discouraging use of the collections. o Risk assessment: Identifying higher risk objects and higher risk visitors. • Communication Channels and Monitoring o Using listservs and social media to alert the community of thefts. o The use of automated alerts o Monitoring Social media o Train people in the amateur community to identify stolen items. o Digitization and cataloging to help identify what has gone missing from collections. o Regular collection audits

Exhibiting Extinction and Endangerment	Dolly	Jørgensen	Closed	While the extinction of the dodo and the end of dinosaurs are the first things many people think of when they hear 'extinction', we are, in all likelihood, right now living through the Earth's sixth great animal extinction period. Because we have become aware of the permanent loss of animals and plants, modern societies are starting to investigate how and why that has happened, and what we might do to stop or reverse these trends. Museums, especially natural history museums, are one of the places that have taken the lead in telling stories of extinction because they often contain the only remains of lost species. This symposium will explore how modern extinction and endangerment verging on extinction are communicated through natural history museum exhibitions. Rather than focusing on fossils and extinctions from prehistory, the presenters in this symposium all focus on the exhibition of extinctions and endangerment in the modern era. The symposium asks (1) How have natural history museum displays told stories of recent extinctions? (2) How have natural history museums highlighted the potential extinction species which are endangered? (3) Do such exhibits have the potential to shape narratives and potentially affect how we act, thus changing the course of future extinctions? This symposium is being organised by the research project "Beyond Dodos and Dinosaurs: Displaying Extinction and Recovery in Museums", which is funded by the Research Council of Norway.
DemoCamp - A live demonstration of software and applications relevant to the management, analysis, dissemination, and use of natural history collections	Jason	Best	Open	Computer software is an increasingly critical component of natural history collections. Ongoing efforts to digitize natural history collections will eventually culminate in a comprehensive digital record of biodiversity preserved and represented in natural history collections worldwide. This significant expansion of digital collections will further cement the important role of software in the management, analysis, and dissemination of natural history collections. Since its debut at SPNHC 2009, DemoCamp has provided a venue for software developers, biodiversity informaticians, digitization managers, and collection managers to convene and share innovative approaches for the use of technology to enhance the management and use of natural history collections. The format of DemoCamp dictates that software be demonstrated "live, without a net" and forbids the use of slideshows. Each presenter is allotted 15 minutes to demonstrate the software and 5 minutes for a question and answer period. This format ensures that only functional software is presented and that the audience sees all the details of the features and functionality of the software.
Identifiers and labels in natural history collections: new technologies, challenges and opportunities for linking objects and data	Christian	Bölling	Open	Natural history collections provide access to billions of specimens and their data for scientific investigation, environmental stewardship, and education. They have a vital role in assessing changes of ecological systems and in particular biodiversity loss through anthropogenic causes. Collection digitization is a key step for better access to specimens and data for the scientific community and the general public. The digital information technology used in the process transforms the way data about collection objects is recorded, stored, published and integrated. A central component in this transformation are specimen identifier systems for connecting and processing specimen data on a global scale, mediated by distributed computational systems. In conjunction with related technologies (e.g., machine-readable representations, RFIDs) they also enable new workflows in collection management. The symposium will present and discuss opportunities realized and challenges encountered in the introduction and use of new identifier systems (HTTP URIs, DOIs, ARKs and others) and related technology in natural history collections. The symposium is open to submissions. Topics of interest include, but are not limited to - use cases testing and demonstrating new workflows and applications in collection management, digitization, and collection data use based on new identifier systems - highlighting benefits, limitations and lessons learned - new technologies for physical association of identifiers with specimens - long-term usability and durability of labels and machine-readable representations for identifiers - conceptual challenges in the application of new identifier systems, integration of new identifiers with legacy data, and interoperability of collection data using identifier systems and linked data across domains of inquiry

- change management for introducing new identifiers and workflows in collections

Liberating Natural History Collections Data in Biodiversity Literature	Martin	Kalfatovic	Open	Abstract Globally, natural history collections encompass over a billion specimens. Over the past 250 years, these specimens have been documented in scholarly publications which provide invaluable additional information about the specimen. These data, however, remain mostly inaccessible for reuse in collections databases. The vast majority of these publications were generated in print form. Only in the past approximately 15 years have concerted efforts, such as the Biodiversity Heritage Library (BHL) made this literature available digitally. Locating specimen data in text that is mostly unstructured, lacking consistent specimen citation formats, and frequently with non-unique identifiers, poses challenges to integrating, at scale, specimen data from literature in natural history collections databases. The recent concept of "material citation", which is a reference to or citation of one, a part of, or multiple specimens in scholarly publications provides a semantic model for potential liberating of specimen data. This symposium will examine topics including linking literature in natural history collection databases; data mining BHL or other literature repositories for specimen data or references; use of specimen GUIDs in contemporary scholarly publishing; and development of the material citation concept.
Long-time No See – Updates from the natural science collections community	Glenn	Roadley	Open	Two years without seeing our museum friends and colleagues has been hard, but we know that our industrious community has learnt much over this time. In this session we are keen to help members reconnect with each other, sharing stories about what you have been getting up to. We want to highlight your projects, plans, discoveries, and diversions relating to collections, conservation, curation, engagement, and practice. This is an opportunity to re-establish networks and share your experiences. This 90-minute session will comprise a series of 5-minute lightning talks with opportunities for questions and discussion.
Managing Long-term Sustainability: Preparing Collections For An Uncertain Future	John	Simmons	Closed	Scientific collections are increasingly being used in new and innovative ways, yet many administrators and scientists fail to recognize the strategic importance of collections for research, teaching, and public education. As a result, most collections care professionals are left trying to cope with ever-growing collections and increased collection use using limited collections care resources, all while facing an uncertain future due to climate change. In this session, through the presentation of innovative ideas and critical case studies, we will initiate a long overdue and thoughtful discussion of how we can cope with these challenges while still providing quality collections care by approaching sustainability through strategic reduction of concerns. Collection growth is rarely linked to resource availability (time, space, and personnel), which often results in poor resource allocation, and the high costs of coping with growth and change can only be reduced through careful long-range planning and changes in specimen storage configurations. Although densely packing specimens in storage furniture may solve temporary space issues, it negatively impacts our ability to monitor specimen condition, particularly when using collection storage furniture designed for old organizational schemes—how can we better configure collection storage arrays for better access, care, and retrieval of specimens and objects? What parameters should be recommended to maintain a sustainable collection storage environment as collections worldwide confront the uncertainties of climate change? How might the concepts and guidelines generated by the "active collections" initiative be applied to natural history collections? All of the currently available collection databases were designed to make collections more accessible to users, not to improve collection information.
				Are you digitising your collection? Are you planning to digitise? Do you use digitised collections? Do you provide access to digitised collections? The massive effort currently taking place to digitise collections is being seen in collections of all sizes and of all kinds of specimens. This has been accompanied by the need to prioritise, plan, cost, fund, measure, report and monitor. This is needed no matter what size of collection you are digitising or if digitisation only covers part of the collection.

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5 - A digitisation standard for natural history collect Elspeth

The MIDS standard has been developed within the TDWG MIDS Task Group, the CETAF Digitisation Working Group, MOBILISE and SYNTHESYS+. A draft specification has been written comprising three MIDS levels of digitisation and one pre-digitisation level. The work then focussed on MIDS-1, aiming to finalise the elements and their definitions. An iterative series of trials with a number of institutes was carried out to ensure that there was clear understanding of the

The Minimum Information about a Digital Specimen (MIDS) standard is being written to provide the standard required for all these actions related to digitising a

				standard and that it could be implemented and measured.
				It is clear that the implementation of a digitisation standard needs collection and data managers, database developers and aggregated data portal developers to come together to ensure that the standard is useful, achievable and measurable.
Mobilizing specimens for fact-based conservation in the face of a global biodiversity crisis	Jutta	Buschbom	Open	Natural history collections preserve the best available documentation of global biodiversity outside of nature itself. Specimens and their derived and associated information provide primary biodiversity data and a well-structured public data source for answering critical questions about the historical and modern contexts contributing to the emergence, evolution, and extinction of species, the processes that govern ecological interactions between species and their environments, the factors that determine the abundance and distribution of species, and important clues for engendering long-term conservation of today's intricately linked diversity of life on earth. Here we offer presentations by leading biodiversity researchers and collections professionals from around the world that are underscoring the value of collections and the specimens they contain for addressing the current global biodiversity crisis and conservation of earth's natural endowments. Marshalling museum data as a key driver propelling research, forecasting, and conservation tools to extract answers to these critical initiatives will enable us to achieve ambitious future conservation goals. Scientific collections and the specimens, data, and knowledge preserved by them are essential contributions to the foundation for societal well-being and continued human existence. We welcome submissions to this symposium from researchers addressing timely conservation issues through creative use of natural history specimen data from all corners of the globe.
Moving collections: curse, blessing or?	Steven	van der Mije	Open	Moving collections is an integral part of day-to-day collection management activities in natural history collections. Besides frequent, short distance translocations of a few specimens or containers, from time to time large scale moves are required. Generally such large scale collection moves only take place with long intervals. Knowledge, experience and lessons learned from previous moves of the same collection are therefore often outdated or staff involved have left the organisation. Despite the ever increasing communication possibilities for institutes and their staff, exchanging information on collection moves is still a cumbersome process as information, both regarding content, as well as experienced institutes and people, is scattered. This symposium is organized by the CETAF Collections Group as part of an ongoing effort to establish a Blueprint Document on (large scale) collection moves for natural history collections. We like to elicit contributions linked to (large scale) collection moves tackling any of these themes: 1. Rationale: here we expect general reflections on the reasons behind collection moves, their necessity, the risks involved, the opportunities they offer. 2. Roadmap: here we welcome contributions zooming in on one or several aspects of a collection move from planning and budget to unpacking and evaluation. 3. Case studies: here we expect contributions from organisations that recently completed a collection move, are in the process of executing a collection move or are still in the planning phase. Sharing experiences and lessons learned is a key aspect of this symposium. 4. Innovative approaches: as a rule when planning a collection move there is no time to start introducing innovations. Still a key aspect of collection moves.
				Specimens preserved in fluid constitute an often small, but complex and important fraction of natural history collections. Their conservation and study require a set of specific competences and skills. The aim of this symposium is to gather specialists working on natural history wet collections in order to exchange information on the latest conservation and characterization methods for these specific artefacts. Two sessions of short presentations will promote discussions on the following topics:

Session 1

Best practice for preparation and conservation-restoration:

- o Sealing methods
- o Labeling methods
- o Mounting methods
- o Treatments on the specimen (Fixation process, re-fixation and re-hydration).
- o Alternative non-toxic and non-inflammable fluids to replace formaldehyde-based and alcohol-based traditional formulations.
- o Specific degradation issues (discoloration, formation of crystals or lipids migration).

Session 2

Natural History Wet collections

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				o Analyses: Non-invasive and accessible methods, or case studies on collections: - Characterization of the fluid's composition - Characterization of alterations - Understanding and documenting older preparation techniques o Research values: wet collections as a source of information for researchers and universities - DNA, Morphology, others - (Re)valorization of these collections in universities and research institutions Each session would have 3-4 presentations of 10 to 15 minutes and 5 to 10 minutes of questions, followed by conclusion words from the chair person.
Non-Fungible Tokens (NFTs), Blockchain, and Natural History Museums	Todd	Clardy	Open	Natural history museums have struggled with finances during the global Covid-19 pandemic. One potential revenue source proposed for museums, due largely to their success in the digital art marketplace, is the sale of digital representations of museum objects as non-fungible tokens (NFTs). A NFT is a digital tag associated with a digital object, allowing that object to be validated and tracked once it is sold, using blockchain infrastructure. Tracking museum NFTs on the blockchain, which creates a permanent record of transactions, has been suggested as a way to verify the authenticity and sales history of artifacts, track artifacts through repatriation, and eliminate the trade in illicit antiquities. However, the use of blockchain technology and NFTs carries important considerations for natural history museums. Notably, blockchain technology associated with the predominant cryptocurrencies, Bitcoin and Ethereum, has serious environmental impacts, including high energy consumption and electronic waste production. The environmental impacts of blockchain technology may run counter to the mission statement of natural history museums and undermine the positive fundraising benefits of NFTs. Monetizing objects by selling digital representations might in itself contradict the goals of museums and may impede efforts to increase equitable access to museum collections. The purpose of this symposium is to discuss the pros and cons of NFTs and blockchain technology for natural history museums. This is an open symposium, inviting presentations addressing questions such as: Is there a way to leverage NFTs as a fundraising opportunity while remaining environmentally friendly? Are the ancillary benefits of NFTs worth the potential risks? What implications might there be for managing the real objects underlying NFTs? Is there a way for natural history museums to exist alongside NFTs and blockchain? A series of short presentations will be followed by a discussion and Q-and-A with all presenters.
Reflections on the Biodiversity Heritage Library: Value in Collections and Collaboration	Kelli	Trei	Closed	The Biodiversity Heritage Library is an international open access digital library collaboratively curated by its member and affiliate organizations, and is the largest of its kind. The partners in the BHL represent museum, botanical, research, and national libraries all over the world with significant collections in natural history. Working together as a global consortium, partners make available oftentimes rare or otherwise unique materials, in addition to making significant strides in access, for example, retrospectively minting DOIs for the articles on BHL. However, the value of being actively involved with BHL has now been shown to go far beyond this original remit, with significant additional benefits for both partners and their collections. The consortium presents opportunities for collaboration on a global scale: including joint approaches to funders for BHL-linked projects and sharing of ideas in response to current challenges or opportunities. These connections continue to be paramount to achieving significant progress in adapting to new research needs: simplifying the process of digitization prioritization, connecting related works across libraries, and using DOIs and new best practices for publishers to incorporate new publications into the library. BHL has allowed partner libraries to further enhance the already strong connection between their natural history collections and the work of the scientists' they support by meeting these growing needs. By linking directly with partner goals, BHL ensures value at the institutional and administrative levels. This symposium will focus on the importance of these partner relationships in highlighting unique collections, improving services to scientists all over the world, and their contributions to open access of natural history resources.
Specimen Spotlight	Paul	Mayer	Open	We are looking for short, lightning-round type talks on one special specimen in your collection. Something that has an amazing story to tell. Why that specimen is your favorite or is critical to science or education. Why does it matter? Why is it important? What makes it important? What work have you done on it? Please be creative and if you have an idea try it and please feel free to email me any questions you might have. Talks will be limited to 5 minutes and just 1 slide. The audio will be recorded and presentations posted on our SPNHC YouTube Channel.

Virtual Access – transitioning natural history collections for digital-on-demand	Sandra	Кпарр	Open	Natural science collections are undergoing a digital transformation as access transitions to digital-on-demand models. Many different models for provision of digital access to specimens and natural history collections data are being developed, involving both individual requests and more community-based approaches. Individual institutions have developed models for digital loans, digital+physical loans, and other permutations of provision of access to natural history collections. These processes have necessarily sped up as institutions have dealt with access issues due to the global COVID-19 pandemic. As part of the DiSSCo project SYNTHESYS+ a Virtual Access (VA) pilot was implemented involving requests from communities of users rather than individuals. Two VA calls, in 2020 and 2021, were run using the ELVIS (European Loans and Visits System) platform, also developed as part of SYNTHESYS+ JRA activities. In this symposium we will explore how the variety of digital access projects worked for communities of scientists, institutions involved in digitisation, and the management of activities and workflows. We will also bring together lessons learned from the SYNTHESYS+ pilot and other projects for the DiSSCo community as we transition to new ways of working.
Year of the Student: Attracting College Students				Academic museums engage students, tourists, and the community with their programming and exhibitions. Locals will often state that these museums are some of the most engaging and interesting places to visit. However, does this translate to the institution's student population? Are student visitation numbers as consistent with other visitor groups? College and University museums face unique challenges and the last year has presented new budgetary and personnel difficulties to museums across the world. In some cases, museums are struggling to prove their worth, for funding, to parent organizations. For smaller, non research-based colleges, this demonstration of value can be linked to how the institution engages and interacts with the current student population. This symposium will address these challenges and seek to provide peers with ideas and knowledge to bridge the gap between the academic museum and the campus

Finkle and Innella Maiers Abstract

student population.

to Campus

Museums

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The Casper College museums are striving to improve campus outreach and are creatively inviting new departments, beyond the School of Science, for new initiatives. The Director of Museums and a faculty member from the School of Fine Arts and Humanities will discuss "The Year of the Student" initiatives; what worked, what didn't, and what the future holds. Additionally, considerations such as staffing and budget restrictions will be addressed. Further ideas and collaborative engagement with other academic museums will be encouraged.