Cover image:

David Daymirriŋu Malangi
1927–1999, Manharrŋu clan, Dhuwa moiety
worked Milingimbi and Ramingining
Biw’yunnaraw warrakan ŋatji dawurr, black cockatoo feather fan c. 1984
feathers, beeswax and wood
49.0 x 34.5 x 1.5 cm
collected by D Mundine 1980s, purchased JW Power bequest 1984–85
JW Power Collection, University of Sydney, managed by Museum of Contemporary Art, PW1984.86
Chau Chak Wing Museum, University of Sydney, Australia

Photograph: David James
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EDITORIAL

A year of disruption and chaos in higher education

Andrew Simpson, Marta Lourenco

It is becoming something of an aphorism to note that this year, 2020, has become a historic watershed for disruption and chaos across all of society as a result of the Covid 19 pandemic. It has exposed systemic problems with globalised supply chains, thrown many people into economic hardship with the closure of many businesses and posed challenges to the continued operations of many societal institutions such as higher education. All this disruption and chaos is occurring within the context of increasing global political tension, changing economic powerbases, huge and increasingly problematic prevailing social inequalities and the immense and imminent global existential crisis of human-induced climate change that many see as threatening the very future of humankind.
The threats and challenges to higher education need to be viewed in this same context. University teaching and learning were forced to pivot directly to remote and online delivery in many places. This was essential as the only other option, given the threat of infection for groups of people in close proximity, was the cancellation of programs all together. This, of course, is not really a viable option in the academic world of the twenty first century with its business models and endless pursuit of financial viability. The change to online delivery was forced into a compressed timeframe because of the health emergency. It has been argued that, this has accelerated higher education facing an issue it has been slow to confront, with some claiming as much as ten years have been forced into a few months (ANDERSON 2020). Faculty with little online experience were suddenly required to adapt curricula, develop new instructional methodologies and deal with changed student expectations.

Apart from the obvious impacts on teaching, the pandemic has also impacted research by the necessary limitations on laboratory practice and a greater impetus for dealing with digital data and undertaking virtual collaborations. The collections of many university museums have also, by necessity, had physical restrictions to access. University museums have been confronted with the need to be able to provide digital access for both researchers and for general audiences as an alternative to the public accessing physical exhibition spaces. In these ways, at least, the university museum has had to face similar challenges as the non-university museum. As would be expected, the incredible range of disparities between different collections in the higher education world, in terms of resourcing and development, meant that not all university museums and collections were in a position to be able to offer digital access when the pandemic hit.

UMAC, as an association of university museum and collection professionals, were also challenged to immediately change practices. This involved relatively early on, the realisation that it was simply not feasible to be able to hold our conference in 2020 at the new Chau Chak Wing Museum at the University of Sydney (SIMPSON & ELLIS 2019). We reluctantly reached the decision in view of restrictions and uncertainties about when social and economic life and international travel would return to normal. The Chau Chak Wing Museum, opening to the public on November 18, 2020, represents a drawing together of different collections and different academic disciplines into a new museum of the university and a new cultural destination for the city of Sydney. Planning for the conference was already well advanced and a flood of interesting proposals had already been received and were being
reviewed when the necessary decision to cancel was taken. This was the first, and hopefully the last, time we have missed an annual conference.

Conference themes for Sydney were to reflect on the journey travelled as an international committee of ICOM over the last 20 years and postulate what the future may hold. We sought answers to the following specific questions. Do museums and collections now represent the institutional DNA of a university? Are university museums and collections now the central drivers of cultural production in higher education? Do university leaders consider museums and collections to be core university business? Is museum and collection work in higher education an emerging professional specialism? Are university staff who work with material collections now recognised as an integral part of the global professional museum community?

There was a phenomenal response to these questions from the international community of university museum and collection professionals consisting of 130 submissions from a total of 30 nations. While the physical gathering of people was precluded by the coronavirus, we hope to put much of this material in front of you through the pages of our University Museums and Collections Journal, as we are now an open call journal that will be seeking recognition from various indexing services (LOURENCO et al. 2017, SIMPSON et al. 2019). This issue, therefore, represents a mixture of material. Some of it material that was to be presented in Sydney, some of it originated at our earlier meetings in Japan during 2019 at Kyoto and Tokyo, and some of it has simply emerged from our networks.

With the realisation that people would be separated from their workplaces, as isolation and working from home became the international norm during the first half of 2020, all of UMAC’s business also had to shift to online formats. ‘University Museums from Home’ was a project where people responded to the new normal by sharing their experiences through our website. In particular the challenges of working from home, maintaining engagement and maintaining solidarity were canvassed. A number of interesting responses were received from around the world on how the work day had been dramatically changed by the new circumstances. Many responses were about how work was currently being done to develop remote delivery with blended learning and future online teaching across the university. We hope to build on this in future pages of the journal.

Another essential tool in UMAC’s armoury of resources in these times has been a YouTube channel. This enabled us to conduct our first online Annual General Meeting. Non-voting members could observe the meeting live through the YouTube channel while voting members interacted via zoom. It
is certainly true that the webinar became ubiquitous during 2020 because of the Covid-19 pandemic, a major UMAC project producing much material for the channel was our series of webinars entitled ‘Lockdown Lessons’. There was a total of four webinars in this series, however, each was duplicated at different times to enable maximum participation of the global university museums community to connect across all time zones. Much of the series was informal, designed essentially as a series that would enable colleagues the opportunity to share stories and experiences.

The ‘Lockdown Lessons’ webinars had four specific themes. The first was about reopening for the public, covering safety measures that needed implementation, whether museums were reopening partially or fully and what the situation was regarding access for the campus? The second was about reopening collections, providing access for the whole range of specialist audiences who use academic collections. The third was all around the question of going digital, discussing which university museums were prepared and what technological, logistical, content challenges were faced. The final in the series was on students and online teaching. This one explored what the challenges were in moving object-based teaching online? How did students cope with the changes and how can we prepare for a future where online teaching is likely to predominate? With the YouTube channel all these webinars are recorded and available online for members and non-members free of charge. The webinar series produced the added benefit of providing a centre where people could pool helpful resources.

While we have attempted to adapt the nature and way we do our work as a result of the pandemic, big questions loom over the horizon about many things that could directly and indirectly impact university museums and collections. The sudden absence of international students will have a dramatic financial impact on those universities who have relied on income from this source to subsidise a whole range of other activities (THATCHER et al. 2020). It is reasonable to assume that the increased focus on financial stringency will raise the old questions about whether university museums and collections are actually core university business. These are questions that were all too familiar some twenty years ago when the founders of UMAC saw an urgent need to advocate the value of material collections to university leadership groups (NYKÄNEN 2018). The entrenched financial incapacity predicted to occur in higher education may see some of us having to repeat some of the arguments of old to secure back our place in the academy. Some may have to fight old battles again, ones that we had previously assumed were won. There are concerns in some parts of the sector that some art collections will be liquidated as a way of releasing much...
needed cash injections into beleaguered higher education budgets. Many universities have had to rethink their business models as a result of the pandemic. There has been upheaval with curricula as well as the rush to facilitate digitally mediated learning. Many universities have shed staff, casual and continuing, as they struggle to gain a sustainable foothold in the higher education marketplace. Some have argued that this has only accelerated what was a necessary and much overdue response from the sector. The economic impact of the pandemic is global and could be deep for many years to come, effectively influencing a whole generation of current and future students. One US survey (AUCEJO et al. 2020) has indicated that as a result of Covid 13% of students delayed graduation, 40% lost a job, internship, or offer, and 29% expect to earn less at the age of 35. Schleicher (2016) famously said we needed to prepare graduates for jobs that have not been created, to use technologies not yet invented and to solve new social problems that have not yet arisen. These were prophetic words with the benefit of hindsight. The pandemic means that nobody can really predict the type of society and the type of employment that will be available to graduates in the future. Perhaps higher education will be completely reconceived over the years ahead? Certainly some governments are using the pandemic to further constrain the higher education sector and make it more contingent to national needs and restrictive political agendas.

Universities, of course are one of the longest lived type of human organisation. At many times during their history they have seen a need to utilise collections of material in creative ways to serve their purposes. They always need to have a focus on the seemingly intractable problems of their times in a global rather than a local context. This has usually been central to the purpose of universities throughout history and at the very core of their activities in knowledge discovery and transmission. The problems of today are manifold, interrelated and confronting; climate change, environmental degradation, species extinction, over-population, inequality and social injustice. While we can say universities in the past have survived social upheavals, civil conflicts and global pandemics, can we be sure they will survive the current set of multiple crises?

If the rapid and continuing development of new knowledge is driving higher education, then it is up to those who work with material collections within the academy to find new ways to transmit that knowledge and new ways to help underpin pedagogy with materiality. We see some great examples of this sort of creativity every year with the UMAC Awards. The development of these future-focused pedagogies will require increasing innovation and
creativity from university museums and collections. We will all need to be creative and innovative in the face of these collective large-scale, complex problems that will beset our institutions and societies in the near future.

It has been argued that the future will need people with information literacy, data and media literacies, problem solving and the ability to communicate, collaborate and participate. The future is so much more uncertain than it was before the start of 2020. University museum and collection professionals will increasingly need to collaborate. Collaboration with educators, students, researchers, non-university museums, industry, commerce will all be needed to effectively build valuable education and research experiences in the future.

But perhaps the most important collaborator however, will be ourselves? That is where UMAC, your association of university museum and collection professionals can play a role in shaping the future.

**Literature cited**


NYKÄNEN, P. 2018. First steps in global advocacy: some perspectives on the formation of UMAC, an international committee of ICOM. University Museums and Collections Journal 10, 10-21.


Activating Anthropology’s Archive: Alfred Haddon’s Journals from the Torres Strait and Island Kastom

Anita Herle and Jude Philp

Abstract

University museums and libraries house huge collections of late nineteenth and early twentieth century ethnographic material, much of it compiled by early fieldworkers. A long-term collaborative project culminating in the publication of Alfred Haddon’s hand-written Journals from his expeditions to Torres Strait and southeast New Guinea in 1888 and 1898 (HERLE and PHILP eds. 2020) situates Haddon’s work within the broader social and political context of his research and demonstrates the active contributions of Islanders to the project to record their kastom. Activating anthropology’s archive highlights the enduring value of early anthropological collections for scholarly research and community engagement.
At the end of the 19th century anthropology was an ambitious new discipline linked with colonial expansion. Early fieldworkers gathered vast quantities of data now housed in university archives and museums. The theoretical paradigms guiding these undertakings now seem obsolete, but recent collaborative work demonstrates that archives and associated collections retain far-reaching value. The empirical orientation of research in the period, and the personal, often intimate nature of field experience and encounter give anthropological collections a remarkable salience – for scholars, communities of origin and as a resource for teaching and outreach.

A long-term project culminating in the publication of Alfred Haddon’s hand-written Journals from his expeditions to Torres Strait and southeast New Guinea in 1888 and 1898 (HERLE and PHILP eds. 2020), highlights the enduring value of early anthropological archives for scholarly research and community engagement. This ongoing project draws on the authors’ in-depth knowledge of Haddon’s work, over twenty years’ experience working in the region, and meticulous archival and collections research. Crucially, the process of publication included consultation and collaboration with Torres Strait Islander descendants from the communities where Haddon worked.

Haddon is renowned by academics and Islanders for his groundbreaking work in the Torres Strait. A Cambridge trained natural scientist, Haddon’s anthropological and wider scientific interests developed during his 1888 field trip to the Torres Strait to study marine biology. Working closely with Islanders, he became fascinated with their culture. Sharing a concern expressed by elders that customary beliefs and practices were under threat and needed to be salvaged, Haddon returned as leader of the 1898 Cambridge Anthropological Expedition to the Torres Strait. The goals and expertise of the seven Expedition members reflected an unprecedentedly comprehensive vision of anthropology, incorporating the study of local customs and beliefs, physiology, experimental psychology, medicine, physical anthropology, linguistics and art. With the assistance of named Islanders, the Expedition’s work generated an enormous corpus of information and materials. Crucially, both expeditions included comparative study in New Guinea and with Aboriginal Australians. In addition to the archives, Haddon’s comprehensive collections include drawings, objects, field photographs, sound recordings, film, zoological and plants specimens, and human remains. Extensive data published in the six volumes of the Expedition’s Reports (1901 - 1935) remains foundational for researchers working in the region. They continue to be of great interest to lineal and cultural descendants, are a source of inspiration for Islander artists, and have been extensively cited.
in local affirmations of Island Custom and in native title claims (Mabo, 3 June 1992; Torres Strait Sea Claim Cases, 2010, 2013).

The detailed information recorded by Haddon and the Expedition members is given particular salience by the direct input of Islanders who actively assisted with the project to record their kastom. Unlike many of his contemporaries, Haddon attributed knowledge to named individuals, with Islanders often quoted verbatim in the Expeditions’ Reports. He also sent copies of his publications to the Torres Strait where they generated much interest and discussion.

Haddon’s hand-written Journals are beautifully illustrated with over 120 drawings and offer an intimate account of his observations and experiences. They were sent as a series of letters to his wife Fanny in Cambridge for information and safe-keeping. While the Journals reference his interests and work in marine biology, geology and geography, his writing focuses on the lives of Islanders and neighbouring Papuan peoples at the end of the nineteenth century. Haddon’s research was concerned with documenting details of pre-colonial beliefs and practices, which appeared to be disappearing. A key aspect of his work was the recording of songs and dances from Indigenous peoples’ ceremonial and social repertoire. While the Journals demonstrate Haddon’s preoccupation with recording aspects of past kastom, they are replete with lively vignettes of contemporary Islander life. They are an important record of political and social changes in this dynamic and cosmopolitan region, with the activities of colonial agents, missionaries and traders threaded through his personal narrative. The Journals also detail Haddon’s research goals, methodologies and practices during a formative period for the discipline of anthropology. On the strength of his Torres Strait research, Haddon was appointed to the first position in ethnology at the University of Cambridge and he and his Expedition colleagues William Rivers and Charles Seligman, were among the few who taught the first generation of professionally trained anthropologists in Britain. Unlike most anthropological accounts of the period the Journals reveal how and from whom Haddon obtained his information and the broader social and political context of his research. Of particular importance is his interactions with named Islanders, many of whom became friends, and the relations of trust that developed over time. Notable differences between the 1888 and 1898 Journals outline significant changes in the region, Haddon’s shifting research agenda and his relationships with local people. One can see how Haddon’s expectations and goals were assisted, challenged and modified through his close interactions with his Islander hosts and collaborators.

Contemporary Islanders have a strong cultural memory of Haddon’s work,
which has been reinforced by the detail and provenance of the information recorded, the range of materials assembled, and their interest and ability to successfully use this extraordinary resource to address contemporary concerns related to self-determination. Over the last few decades numerous people from the Torres Strait have visited Cambridge to conduct their own research and connect with Haddon’s archives and collections (HERLE 2003; PHILP 2018). Movements and exchanges between the Torres Strait and Cambridge accelerated following an exhibition at the Museum of Archaeology & Anthropology (MAA) in 1998 to mark the centenary of the Cambridge Anthropological Expedition to the Torres Strait (HERLE and PHILP 1998, HERLE and ROUSE eds. 1998). Torres Strait artefacts from MAA’s collection have also toured in Islander-led exhibitions in Australia (MOSBY and ROBINSON eds. 1998, PHILP 2001). In 2011 MAA returned prints and digital files of nearly 1000 field photographs directly to the communities from where they originated and signed MOU’s with cultural leaders (HERLE, PHILP and DUDDING 2015).

While Haddon’s publications and photographic images have circulated widely, access to his personal journals have been restricted to those who are able to visit the Manuscripts Room of the Cambridge University Library. It is hoped that the material will eventually be fully catalogued and digitized as part of the Cambridge Digital Library. However, given the personal information about people’s ancestors and following community protocols, it was decided that the Journals should first be made accessible to families and communities of origin as part of broader discussions about future dissemination.

Plans to publish the Journals were first discussed during a field trip to the region in 2016. We met with Islander representatives including direct descendants of the people who worked with Haddon from the four main Island communities where his research was based – Goemulgal on Mabuyag, Meraim on Mer, Kulkalgal from Iama, and Aboriginal representatives for the Kaurareg Nation on Muralag. Powerpoint presentations were prepared for each community focusing on material that came from their respective islands. While the presentations were generally well-received and prompted much interest and discussion, overall people were cautious and requested more information and time to consult further before making decisions about publication. As potential authors and editors, we highlighted two conditions – if the Journals were published it was essential that the book included the...
full text; if it was agreed that the project should go ahead, that decision could not be retracted after substantive work had been done.

Over the next year, we worked on transcribing the Journals and sent hard copies of relevant sections to families and community representatives in the Torres Strait. Following intermittent communications, by mid 2017 we received enthusiastic and unanimous approval from our Islander advisors to go ahead with the project. Given patchy internet access and the limited number of personal computers in the outer islands and Papua New Guinea, it was deemed essential to have a hard copy publication that could readily be distributed to communities. Islanders strongly supported our proposal to link Haddon’s narrative with his extensive collections held in Cambridge and various institutions in the UK, Ireland and Australia and provide details as to how those collections can be accessed. Across the Torres Strait there was a common decision to reject our initial plan to include Islander commentaries about their ancestors or the details of Haddon’s work. Instead, people argued it was best to keep the project ‘simple’ and ‘true to Haddon’. Contemporary knowledge about people and places is personal and not considered appropriate for publication.

In October 2018 we went back to the Torres Strait to report on progress and publication plans. As in 2016 we conducted small group meetings with people from the four Islander groups where Haddon based his research. We also gave presentations at larger community meetings. Discussions about Haddon’s diaries were articulated within contemporary concerns – the interest in understanding more about the past in order to reinvigorate customary knowledge and practices, the maintenance of cultural protocols in the distribution of knowledge, and the ongoing negotiations within and between communities regarding rights to and ownership of knowledge, sea and land. We also gave a formal presentation about the publication project to Board members of the Torres Strait Regional Authority, who offered their support.

Negotiations with Sydney University Press and the existence of the extraordinarily rich visual material on offer led to an agreement to print full-colour high-quality copies of the book, a major commitment for an academic press increasingly focused on e-books and print on demand. The final publication includes the full text of Haddon’s expeditions to the Torres Strait and New Guinea and all of the original Journal drawings, with 200 associated field photographs, Indigenous drawings and images of some of the objects collected. The Journals are contextualised with a substantial introductory essay and extensive footnotes to assist diverse readers with navigating the remarkable variety of people, places and events. Islander colleagues Ned
Extensive research, bringing together collections of archives, photographs, artefacts and sound recordings has facilitated a detailed and nuanced account of the lives of Torres Strait Islanders and Papuan peoples at the end of the nineteenth century and the influence of missionaries, colonial agents and traders in this dynamic region. It has also provided crucial insights into Haddon’s research goals, practices and Islander agency at the very moment when field research was being advocated as the key methodology for the emerging discipline of British anthropology. An underlying goal of this research and publication project has been to facilitate access to Haddon’s Journals, especially for the communities where he conducted his research. External support has assisted with some of the costs of preparing the publication and, most importantly, subsidising copies for free distribution to schools, libraries, Indigenous community organisations and contributors. Haddon’s Journals will be an important resource for Islanders as well as multi-disciplinary researchers working in the Torres Strait region, including south-eastern Papua New Guinea. As noted in the Epilogue, ‘the significance of these Journals will be revealed in the varieties of histories and stories that Islanders and others will tell and write’ (LUI-CHIVIZHE 2000: 332).

Recording Kastom: Alfred Haddon’s Journals from his Expeditions to the Torres Strait and New Guinea, 1898 and 1888 by Anita Herle and Jude Philp will be published by Sydney University Press on 1 December 2020. sydneyuniversitypress.com.au

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**Literature cited**


from his Expeditions to the Torres Strait and New Guinea, 1898 and 1888. Sydney: Sydney University Press.


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**Keywords**: Torres Strait, history of anthropology, Alfred Haddon, archives, community collaboration
Abstract

This article describes the practice-based learning at RMIT University in relation to its design collections, and the hurdles we faced, and overcame, in delivering student programs during COVID-19. This article focuses on the innovative and playful digital exhibition, Les Mason Mindplay, presented by RMIT’s Master of Communication Design students in partnership with the RMIT Design Archives.
Introduction

The RMIT University’s Design Archives (RDA) collects material relating to Melbourne design from the twentieth century onwards. Both digital and material, the collections represent historical and contemporary practices that tell the story of Melbourne as a design city and demonstrate RMIT University’s important role as an educator of designers. Through the RMIT Design Archives’ collections students can study the process of design in the disciplines of architecture, automotive design, fashion and textile design, furniture design, graphic and communication design and independent publishing, industrial and product design, interior design and landscape architecture. Today, our collections are increasingly utilised as an integral part of the University’s practice-based learning programs.

Courses conducted in the Archive include communication design (Curating and Exhibiting Communication Design), architecture (Critical and Curatorial Practices in Design), and Industrial Design (Design Hacking). After surveying a designer’s archive, the students work collaboratively to develop exhibitions, create objects for display, design exhibition identities, hone their project management skills and devise interpretative schema and social media strategies. The programs are usually conducted on site in the RDA’s Active Archive, and in the design studios of RMIT University. The benefits of these programs for students include: creating a community of practice within the student cohort; acquisition of archival and research skills; an opportunity to work with original materials and meet designer practitioners; and to collaborate with, and receive feedback from, professional staff in the University such as curatorial, archival and exhibition project managers. For the Archives the benefits include: the activation of the collections with innovative programs and activities; (HAYLOCK et al. 2018) and the development of partnerships with students, academic staff, designers and donors.

The program has brought the RDA’s collection to the attention of an array of specialist teaching staff, contemporary design practitioners and artists1 In this short paper, I will analyse a recent project that was successfully delivered in spite of, and in response to, COVID-19. Since 2017, we have collaborated with faculty and students from the School of Design’s Master of Communication Design program, in a practical, collaborative class titled Curating and Exhibiting Communication Design. The students, who enrol in this semester length subject, mine the archive of a design
practitioner, and based on their research produce, propose and execute a collaborative design outcome. In the past the outcomes have comprised a physical exhibition and all manner of associated collateral, including wayfinding, wall texts and signage, catalogues, social media campaigns, and during the 2019 iteration, collection viewings. The physical displays occasionally have incorporated archival materials, but more frequently, students have re-imagined these materials in the form of new designed objects.

Fig. 1. Archivia: 2017 Curating and Exhibiting Communication Design, Studio leaders Suzie Zezula and Brad Haylock, RMIT University. Detail of invitation incorporating of façade of the RMIT Design, Archives designed by students.

Fig. 2. Master of Communication Design students during visit to the RMIT Design Archives, October 2017, photography by Ann Carew.

Fig. 3. Students on the opening night of Archivia exhibition, with their portrait of Alex Stitt, which incorporated QR codes linking to the RMIT Design Archives online collection database, October 2017, photography by Ann Carew.
Recent project work

The archival focus for the semester is set prior to the class, ideally in the preceding semester, to allow time for Archives Officer, Simone Rule, to prepare collection materials for access, and to digitise and catalogue collections, if necessary. In late 2019, we had agreed with design historian and Master of Communications Design Program Manager, Dr. Noel Waite, to focus the class on the study of the archive of art director and graphic designer, Les Mason (1924-2009), who pioneered a new approach in Australia to advertising, branding and packaging where design sat at the heart of the process.

In February 2020, Simone Rule and I met with Dr. Fayen d’Evie, a newly appointed lecturer who had been assigned as studio lead for the Curating and Exhibiting Communication Design project. D’Evie is an artist, writer, and curator, with a first PhD focusing on decision support systems, and a second PhD nearing completion in curatorial practice. Our context-setting discussion with d’Evie unfolded as both an orientation to the archive, and a brainstorming session about physical exhibition possibilities that might resonate with the architecture and protocols of our site.

In the first week of March, for the initial class, d’Evie accompanied the students on a visit to the RMIT Design Archives for a close viewing of a selection of works spanning Les Mason’s career. Not all the students attended, however. The disruptions of COVID were already starting to agitate teaching and learning norms. Some international students were subject to government mandated self-isolation, while others chose to stay at home, reluctant to take public transport or study in close proximity with others.

As the impact of COVID-19 began to intensify, it became apparent that the usual process of studio-based group work to design and install a physical exhibition was going to be problematic. D’Evie advocated that the project pivot to explore online exhibition outcomes. She argued that there were strong precedents for innovation in online curation, and for the design of digital archival exhibitions, but also significant scope for our students to innovate.2 We discussed how students could still engage in collaborative learning and teamwork, a hallmark of the program, but via online tools. By 23 March, the RMIT Design Archives had been closed to both staff and visitors in response to COVID-19, and as a precaution to keep our community safe. By 30 March, d’Evie was teaching all her courses online, with students using Canvas, RMIT’s Learning Management System (LMS), for lectures and group work.

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Fig. 4. Graphis 174, 1974/75, RMIT Design Archives Collection, Gift of Alex and Paddy Stitt, 2010, 0105.2010.0008, Cover design: Les Mason

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2 Fayen d’Evie to Ann Carew, Simone Rule and Noel Waite, March 18, 2020
To enable the RMIT Design Archives staff to interact with the students, d’Evie established a team, in Microsoft Teams, Epic Cure, where students could share narrated video proposals and digital blueprints of work in process, and receive feedback on their developing ideas from the professional staff, in addition to the virtual class room interactions with their peers.³ Microsoft Teams was a new platform for all of us, and has proven to be an invaluable tool, facilitating an increased level of engagement with individuals and teams, as we had more time to reflect on the student’s ideas, and provide written commentary.

It was the beginning of a roller coaster ride through the semester. In retrospect, in the eyes of the Dr. Noel Waite, a Senior lecturer and the Project Manager of the Master of Communication Design, a project that might have extended over two semesters was condensed into one.⁴ The participants dealt not only with the new model of online course delivery, but also the rapidly changing tools available to them, as RMIT University staff and students grappled with the plethora of possibilities for online learning tools and administrative programs.

In late March, the students pitched their exhibition concepts to the RMIT Design Archives staff. As d’Evie noted, the participation of professional staff in the project ‘made it real’ for the students in this new virtual environment.⁵ It was impressive to see students’ analysis of the collection from their perspective as designers, responding to Mason’s design processes, use of paper stocks, colour typography, and his integration of text and images. The students approach was playful and interactive - the visitor’s online experience being their primary consideration. One sensed the students respect for the design practice of Les Mason. The first series of videos presented for comment included the students’ wide-ranging research into public and commercial precedents for exhibition design in the digital arena, and deep engagement with Les Mason’s practice as an artist and designer. A press release for the project developed by the students describes the role of the American/Australian Les Mason in Australia communication design.

“Mason’s work has been instrumental in introducing the role of graphic design as a profession in Australia, and is a major contribution to the foundations of what we understand as design studio practice today ...

Les Mason immigrated to Australia from the US in 1961 and is perhaps best known for his design and creative direction of seventy-seven issues of Epicurean Magazine, a bi-monthly publication about Australia’s food and

³ Fayen d’Evie to Ann Carew, email, March 30, 2020
⁴ Noel Waite, Post Project Review meeting with Ann Carew, Fayen d’Evie and Ann Carew, Microsoft Teams, June 12, 2020
⁵ Fayen d’Evie, Post Project Review meeting with Ann Carew, Fayen d’Evie and Ann Carew, Microsoft Teams, June 12, 2020
wine culture, from 1966 to 1979. Beyond his ground-breaking work for Epicurean, Mason’s branding work for companies such as A.R.C Weldmesh and The State Bank produced extraordinary, eclectic graphic designs for posters, brochures and campaigns that are explored in this online survey of his work.”

One hurdle from the Design Archives’ perspective was access to the collections: indeed, the RMIT Design Archives was inaccessible to students and staff throughout the project. Fortunately, an archive had been selected that was already well documented. However, it soon became evident that additional digital materials would be required for the online exhibition and website. Simone Rule applied to the University for permission to return to campus to digitise additional collection items. Permission was granted with the strict condition that Rule spend only one solitary day in the Archives.

In the second iteration of the online engagement between the students and the staff of the RDA and the Production Team Coordinator, we were presented with blueprints from the teams focusing on Branding and Marketing, Landing Page, Story Pages, Design Play Page, and E-Commerce. Of particular interest was the development of a brand manual and identity coalescing the designing thinking of all the teams into a cohesive schema. The values of democracy ruled in the development of this collaborative project, with discussions, followed by voting in some cases to select, for example, final products for the e-commerce shop. In May, students established an Instagram account @mindplay.lesmason, where they began to post both original designs by Les Mason and artwork inspired by Mason’s oeuvre. Here also you will find the concept for the design for the RMIT Design Archives front window, which we hoped to realise, however due the Melbourne’s second lockdown, we were unable to access campus to install the window graphic. The RMIT Design Archives shared the student’s posts on the Archives official social media accounts, as well as promoting the exhibition through the RMIT Culture newsletter.

The website, mindplaylesmason.com, was launched on June 1, and will be available for 12 months. It incorporates four sections: About, Perspectives, MindGame and the Mindplay Store. Perspectives presents exhibition storylines such as Modern Art, The Art Director, From California to Victoria and Melbourne Design & Swiss Style; MindGame is a design platform, where visitors can explore their design skills by making Les Mason inspired stamps and postcards; and the Store is an online shop showcasing physical and

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6 Fayen d’Evie, Post Project Review meeting with Ann Carew, Fayen d’Evie, Microsoft Teams, June 12, 2020
7 Mindplayles Mason https://mindplaylesmason.com/ (accessed June, 19, 2020)
digital objects designed by students in response to Mason’s extensive body of work. The canvas bags, tea towels, posters, and digital offerings, such as mobile phone wallpapers and a downloadable font, are an innovative addition to the existing program.

Concluding remarks

The proceeds from sales in the Store will support future teaching and learning initiatives by the Master of Communication design students. The experimental spirit and creativity with which the students and staff approached the semester’s work was outstanding, and their focus on encouraging audience interaction is to be applauded. As their lecturer d’Evie commented recently, “This talented group of design students have overcome extraordinary logistical and emotional hurdles to persist with their master’s studies during COVID-19. It’s been humbling to witness their dedication, ingenuity, and enthusiasm in spite of everything stacked against them ... [A] digital exhibition-engaging with the work and process of designer Les Mason, ‘Mindplay’ has been created through virtual collaboration stretching across continents, languages and time zones.”

The Mindplay website presents the Archives in a novel and contemporary fashion. It is a wonderful 21st century homage to an important 20th century designer, Les Mason, and a positive outcome to the difficulties and uncertainties of teaching and learning, and sharing collections during COVID-19.

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The Master of Communication Design program continued in Semester 2, 2020 during the State’s second lockdown.

Literature cited

Websites


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Keywords

University archives, design, practice-based learning, graphic Design, Communication Design, COVID-19, curatorial
Abstract

This article proposes re-mapping ethnographic items’ social lives beyond the ‘collection’ as a method to activate potentials for generating new knowledge. Photographs taken during ethnographic fieldwork are put forward as visual entry points to extrapolate layers of information and build important relational contexts previously dislocated via institutional processes and practices. Re-framed as social objects, these items are thus understood as forming part of a ‘living collection’ that generates, and will continue to generate, forms of knowledge aligned to the interests of various Indigenous communities, institutional agencies and academic researchers.
Introduction

Although current work on ethnographic collections aims to ensure their effective management and care (SCHULTZ 2014; JONES 2019), the potentials for knowledge generation are often not fully realized. Traditionally, institutional holdings of ethnographic materials are understood and accessed via a mostly object-based focus, prioritizing the content over context. Seen primarily through the lens of a ‘collection’, large amounts of significant data that overlap and interrelate are often neglected and ultimately lost. The legacy of such institutional rationale and practice has resulted in the orphaning of various materials, isolated from relational contexts with which multiple meanings and connections could have been created. In ongoing access, engagement and collaboration, ethnographic collections remain situated within static pasts, despite the embedded potentials of knowledge generation relevant to the present-day as well as the future.

This essay briefly argues that ethnographic materials need to be understood beyond the ‘collection’, re-mapped along circulations of their social lives against relational contexts and connections.1 Focusing on ethnographic photographs as entry points, I demonstrate the multiple potentialities for activating knowledge production that can respond to both localized and shared interests of Aboriginal communities and evolving institutional agencies. The consideration of ethnographic collection items as social objects draws on Appadurai’s analysis of intra-cultural exchanges as “based on deeply divergent perceptions of the value of the objects being exchanged” (APPADURAI 1986, 14). Following this, socially relevant understandings encoded to an object shift as the object circulates within or between cultural units. These shifts provide a reflection of the classifications and hierarchies of knowledge that impact exchanges, mediations, translations and dialogue surrounding collections. Alongside Appadurai’s methodological approach, Kopytoff (1986) argues that a biographical model of analysis is effective in examining objects as culturally constructed and endowed with specific meanings and values. Understanding collection items as social objects with life histories and cultural biographies thus enables their effective positioning within contextual shifts of meaning, value and use which they reflect and reproduce. This also recognises processes of value creation as contingent and situated within inter-relational negotiations, reinforcing the participatory roles of collectors, museums and source communities (MORPHY 2020, 9). More recently, this approach has been influential within various types of

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1 For the scope of this paper, I focus my investigation on ethnographic collections. However, the application of this approach to critically analyse non-ethnographic collections or museum holdings can further contribute to the overall body of research in the wider field.
museums seeking to understand the history of their collections in relational terms, and to decolonise their status (GOSDEN & KNOWLES 2001; JOY 2009).

**Ethnographic fieldwork & collecting**

Within 20th century Australian anthropology, intertwined histories of scholarly discourse, institutional practice and government administration provide insightful layers of data that can contextualise social life trajectories of ethnographic collection items. These include the establishment of anthropology in Australia as a university and professionalised discipline, which emphasised particular standards of data collection and analysis. Research was informed by certain knowledge discourses and paradigms, with concepts about ‘valid’ data (and how this was to be collected) guiding areas of material and data collection and documentation (MORPHY 2020). Social anthropology’s intellectual and methodological shifts developed alongside intensive, ethnographic fieldwork in which researchers spent long periods of time within a community, building relationships with informants and collecting data in various formats (PETERSON, ALLEN & HAMBY 2008). These formats included material culture (artefacts and artworks), audio-visual recordings, maps, genealogies, fieldnotes, other documentation and photographs that captured various aspects of the social and cultural world of that community or group.

Some of these materials are now held in university and museum collections or in other collecting institutions, thus becoming distanced from the community or group to which they are related. As these materials have circulated, shifts in rationale and practice have affected the meanings, values and uses of the items. Relational connections and wholistic layers of context are lost as the items themselves are re-classified, isolated and separated. Additionally, the movement of these materials throughout anthropological and institutional networks need to be further considered against the influences of wider historical and political contexts. Government administration of Aboriginal people resulted in the imposition of policies, many of which informed or were informed by ethnographic fieldwork (GRAY 2007; BENNET et al. 2017). Institutional departments and fieldworkers were also reliant on government funding and support for anthropological research, particularly during periods of Australia’s history where their roles and relevance were challenged or critiqued (GRAY 2007). Museums today continue to be impacted by the socio-political landscape. As institutions that reflect, reproduce and respond to their broader environments (SCHULTZ 2014, 413), museum collections in Australia are embedded within evolving governmental and public agendas that concern the country’s First Peoples. These changes are ongoing and, alongside historical developments, are just...
as contextually important to acknowledge.

**The photograph as ‘entry point’**

In comparison to items institutionally categorised as material culture or art, photographs taken during ethnographic fieldwork have often been designated as historical references or associated records. Consequently, these items have been further separated from other related materials both physically and contextually. This has resulted in inconsistent acquisition and cataloguing processes that limit current efforts in access, engagement and productive collaboration with various source communities. Despite this, such photographic items can effectively provide points of entry to biographically re-contextualise various trajectories of information across the collection as well as beyond.

For Edwards (2003) the photographic item allows for parallel realities of information, relational connections and knowledges to be recorded. These materials can potentially re-frame perspectives that activate the generation of new knowledge occupying intersections of historical, political and socio-cultural domains. Photographs created during ethnographic fieldwork are social objects that align to processes of meaning and value creation, reflecting a “material performativity and phenomenological relationship” (EDWARDS 2003, 90) with the viewer. This relationship exists beyond content and static ‘collection’, providing visually encoded references that are locally and socio-culturally informed, allowing for access determined by multiple agencies and epistemologies. Rather than being limited within hierarchical silos of information, a photograph can be positioned as archival record, fieldwork collection item and visual image to generate numerous trajectories of polysemic data from multiple, referential points of entry.

To briefly demonstrate the use of photographs to re-map relational contexts and activate potentials for knowledge production, this article focuses on a 1939 photograph taken by anthropologist Ronald Berndt as specific case study. Ronald and his wife Catherine were eminent Australian anthropologists who made significant contributions in the fields of social anthropology, Aboriginal Australia, Indigenous art and Indigenous welfare and rights. The Berndts conducted fieldwork with Aboriginal people in numerous locations around Australia throughout their careers from 1939 to the late 1980s. In addition to writing fieldnotes, documenting genealogical maps and taking photographs in these locations, they also recorded songs and acquired objects which became part of their collection. This collection was formally gifted to the University of Western Australia in 1976 and officially opened as the Anthropology Research Museum in 1979 (later renamed the Berndt...
Museum of Anthropology). In the case of their earliest period of fieldwork in South Australia (1939-1944), the Berndts visited multiple Aboriginal settlements and communities across this region. Gray (2019) provides an in-depth account of the Berndts’ fieldwork movements during this time, highlighting additional layer of information that such contextual understanding can provide. Interacting with various government agencies and institutions (i.e. the South Australia Museum, University of Adelaide), the Berndts strategically – and pragmatically – navigated their ethnographic research and collecting against various intellectual, political and logistical frameworks as well as constraints.

The visual re-mapping of the 1939 photograph of a ‘canoe-tree’ taken by Ronald Berndt at Murray Bridge indicates multiple values, meanings and uses throughout its social life. The top figure shows an initial layer of such trajectories in the contexts of publication, fieldwork collecting as well as institutional acquisition and network exchange. From there, a secondary layer of information draws on the image’s referential connections to Ngarrindjeri knowledge and information provided by community members during the Berndts’ fieldwork, from which ancestral narratives, songs, ceremonies, traditional practice and links to kinship group and territorial boundaries can be identified and interrelated.

**New Destinations – Looking forward, looking back**

This brief demonstration uses materials reproduced in the Berndts’ 1941 and 1993 publications to map relational connections and intersections, starting from the photograph as a visual entry point. Understanding the photographic item as a social object within different networks allows for multiple trajectories of meaning, value and use that can be related to and referenced by various individuals, communities and institutions. It is positioned within wider contexts of knowledge production and exchange in its inclusion alongside particular information while at the same time, shown to transcend the boundaries that such positionings could create in themselves. This re-framing also presents a biographical analysis of ethnographic collection items that can effectively cut across historical, epistemological and ontological spheres. Such an approach recognises that the understanding of an item against previous shifts in meaning and value throughout its circulation allows for an expectation and accommodation of ongoing, future shifts. It repositions collection items, institutions and agents as interacting across multiple circulations, relationships and spaces, generating knowledge that can exist in simultaneous, non-linear potentialities.

In ‘looking back’, the above demonstration can provide information on fieldwork practices, collecting strategies, relationships and networks that serve to re-build contextual layers often institutionally dispersed and lost. Internally, this allows for new perspectives of collection research, management and care that could
Fig. 1 A photograph of a canoe-tree – demonstration of layered context, intersections and relationships. Image of photograph used with approval from the Berndt Museum of Anthropology.
assist in ongoing issues of orphaned items and inconsistencies of data. Beyond improving internal access to the materials, those working with ethnographic collections can develop an awareness of institutional practices and rationales informing the production of certain knowledges as reflected in and of collection items. As a source of information, the ethnographic collection exists within contextual and relational frameworks beyond its ontological designation as ‘collection’. As a site of information production, the ethnographic collection can generate new knowledge in potential trajectories and relational connections. Demonstrated by the canoe-tree photograph, it is possible to engage with the data extracted from re-mapping the item’s previous social life histories – in the collection and beyond - to circulate within new networks of exchange. Importantly, such circulations can result in the production of meanings, values and uses that complement, add to or challenge existing hierarchies of knowledge and ways of knowing.

For Aboriginal and Torres Strait Islander communities who have interacted with ethnographic collections for the past few decades, this reinforces and supports active reclamations of agency, custodianship and authority (PEERS & BROWN 2003, LYDON 2014). In the context of Australian ethnography, these cross-cultural interactions are recognised as significant in the historical shaping of collections as well as in contemporaneous sites of situational engagement (GIBSON 2020) Ongoing tensions surrounding these engagements can be navigated in a manner that does not ignore colonialist and racialist structures of power imposed on Australia’s indigenous peoples. Instead, the ethnographic collection is acknowledged as an active site rather than occupying a neutral position; uncomfortable interactions will occur and need to be accommodated. In such a space, the generation of new knowledge is just as important as the understanding of how it is generated (ways of knowing) and on whose terms. This can provide a basis from which previous power and political hierarchies are not reinforced or reproduced in the future.

For evolving institutional agencies, the potentialities of ethnographic collections to generate – as well as recognise and accommodate - new knowledge supports the implementation of strategic visions developed by various institutions. With universities, museums, art galleries, libraries and archives increasingly scrutinised against their associations with Australia’s colonial past, many are actively developing culturally responsive policies of engagement, collaboration and reconciliation. The creation of protocols surrounding Indigenous tangible and intangible cultural heritage has highlighted questions of knowledge, rights and authorities, which ethnographic collections can be positioned to navigate and facilitate. For
source communities, access is not only improved but it is presented in a manner that encourages active collaboration, mutual exchange and acknowledgement of custodianship, an approach that further contributes to the generation, organization and management of diverse knowledge bases. These opportunities for engagement grounded in the recognition, validation and inclusion of multiple forms of knowledge can encourage the removal of many boundaries; creating channels for Aboriginal people, whether in academic or professional positions, to add their own voices, on their own terms. This generation of new knowledge also creates opportunity to cross between multiple disciplines, adding new layers and connections that may have been previously unidentified or unrealised. For the institutions listed above, this can result in original, innovative and collaborative lines of research inquiry, exhibition development and public programming. As many institutional agencies align with digital and technological innovations, the data potentialities of collections can also demonstrate the ethical management and sharing of digital cultural heritage and knowledge.

Conclusion

Ethnographic collection items are objects with social lives that can be re-mapped to build relational contexts and links that activate the generation of new forms of knowledge. Positioned beyond the ‘collection’, these materials can be utilized for collaborative efforts in access and engagement, responding to the expectations of local Indigenous communities and evolving institutional agencies. Ethnographic photographs are well-suited for this approach, providing visual reference and entry points that can be navigated from multiple epistemological positions to accommodate community voices and agencies. For Indigenous peoples and communities in Australia, the knowledge that is produced, recorded and shared on their terms can be extracted from, and continuously added to, ethnographic materials as truly living collections.

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Literature cited


Melbourne University Press at the Miegunyah Press.


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Keywords

Ethnographic collections, photographs, social lives
New Collaborative Research on Ethnographic Collections: Bridging Archives and Communities through Podcasting

Jodie Kell and Steven Gagau

Abstract

Launched in 2019, the podcast series Toksave: Culture Talks is produced by PARADISEC (the Pacific and Regional Archive for Digital Sources in Endangered Cultures). It is a series of interviews with people who have cultural and personal connections to collections held in the archive. This paper argues that the podcast series has value as a research output that enables the voices of Indigenous communities to be heard. It also increases accessibility and findability through the reuse of archival recordings, engaging with community members through the podcast audio format.
Introduction

In 2018, Jodie Kell and Steven Gagau embarked upon a project to produce a podcast based on the collections held in the PARADISEC archive. PARADISEC (the Pacific and Regional Archive for Digital Sources in Endangered Cultures is a digital archive of records of some of the many small cultures and languages of the world accessible through an online catalogue. Using Jodie’s skills as an audio engineer and musicologist and Steven’s position as an Indigenous community member based within the archive, in November 2019 they launched the podcast ‘Toksave: Culture Talks’, a series of interviews with people who have personal and cultural connections with the archive.

This paper explores how the process of producing the podcast has not only generated new knowledge through metadata enhancement but has used contemporary technology to share and reshape archival collections through engagement with Indigenous community members. Building on a previous article co-written by the authors with Harris et al., this paper focuses to a greater degree on the Toksave: Culture Talks podcast series, arguing that the podcast production has value as a research output (HARRIS et al. 2019).

Starting with an ethnographic digital object from the PARADISEC archive, in the form of a collection of recordings, the podcast prioritises Indigenous people’s cultural expertise through discussion of their lived experience of this object and their connection and re-connection with the past. It is the voices of members of speaker communities that feature, and we argue that recognising the value of Indigenous knowledge systems and knowledge keepers has the potential to transform archival processes and recalibrate the power relationships within archival institutions.

Connection and Re-connection

“This is gold to me here holding it in front of you and in front of me. I am moved, it’s a sense of awe that has overtaken me. Here is something that is for my people.” (JOHNNY OBED, Episode 5: 06:14 – 06:32)

The importance of re-connecting Indigenous communities with heritage objects is a major factor in current archival practice and is central to discussions regarding accessibility (Harris et al. 2019, 138). Johnny Obed from Paama Island, northern Vanuatu described the TC1 collection of recordings and the publications of late Terry Crowley as valuable as gold. He saw the collection of Paamese language materials as great benefit for his people.

Formed in 2003, PARADISEC aims to provide access to archival media recordings of endangered cultural groups. Rather than hold material
objects, PARADISEC creates digital records of archival items, audio and video recordings, images and text. This ensures the longevity in digital form of often fragile obsolescent media such as reel to reel or cassette tapes. In its practice, PARADISEC aims not only to digitise and hold the materials into the future but also promote reconnection to communities by taking advantage of new technologies including its online catalogue. The findability and usability of the catalogue is a feature of PARADISEC as the user, after agreeing to PARADISEC access conditions, can search the collection of over 300,000 items using key search terms including names, places and languages. The materials can be listened to or viewed online or downloaded, according to the specific access conditions negotiated with depositors and participants.

The FAIR Data Principles (Findable, Accessible, Interoperable, Reusable) composed at a Lorenz Centre workshop in the Netherlands in 2015 have been recognised globally by organisations including FORCE 11, National Institutes of Health and the European Commission. They are a useful framework for approaching data sharing and the management of access to archival collections with a focus on maximising use and reuse (Australian National Data Service website, 2020). PARADISEC founding directors Linda Barwick and Nick Thieberger comment that these four principles of metadata management are practiced in the PARADISEC archive by “making previously locked-up analogue recordings available for re-use, [they] are giving new life to old records (BARWICK & THIEBERGER, 2019, 139). In the case of the podcast, the production workflow as well as the final online product enhances findability and accessibility of collections in the PARADISEC catalogue. As a way of re-using the materials, it empowers Indigenous community members to engage with the objects on a deep level.

Redefining Research Outputs

The ‘Toksave: Culture Talks’ podcast is an initiative that aims to make meaning from the archive by engaging with people who have personal and cultural connections. Each episode focuses on a collection from Papua New Guinea, Vanuatu, Solomon Islands, Fiji and Indigenous Australia. The public launch of the Podcast series at Verge Gallery in November 2019 achieved a high level of community engagement and the ongoing availability of the Toksave Podcast online, through the Sydney Conservatorium of Music website, will significantly contribute to awareness of the historical recordings held in the archive.

In Australia, the Australian Research Council (ARC) develops benchmarks to measure the quality of academic research, which in turn drives block funding for higher education institutions. Since 2010, Non-Traditional
Research Outputs (NTRO’s) have been classified by the ARC and audited alongside traditional outputs, defined by the University of Sydney Research Portfolio as “any form of publicly available, assessable materials embodying research, whether produced by writing, making, composing, designing, performing, or curating” (BARWICK & TOLTZ, 2017, 67). Barwick and Toltz point out that the requirements for the submission of NTRO’s as research is more demanding than for more traditional outputs. Analysing the process at the Sydney Conservatorium of Music, they found that NTRO submissions are more time consuming and do not always fit into the strict definitions of research statements (BARWICK & TOLTZ, 2017).

Podcasts are a comparatively new medium and we argue that they should be considered as NTRO’s as they can broaden the notion of research by presenting existing knowledge in a creative way. Journalism academic Siobhán McHugh describes podcasts and radio shows as “crafted audio storytelling documentaries” that hold value not only as engaging and accessible curation of archival materials but also as scholarly Non-Traditional Research Outputs (NTROs) (MCHUGH, 2019). McHugh comments that the new medium of the podcast setting and the power of audio has the potential to deliver innovative approaches to research. The use of audio editing and mixing techniques allows the producer to draw out experiences for the listener that shed new light on the materials, particularly through ‘visceral experiences for listeners’ as they connect with the affective nature of the sense of listening.

This emotive quality is apparent in the third episode of the series. For 25 years, ethnomusicologist Michael had not listened to his fieldwork recordings made around Rabaul, PNG in 1993. As he listens to excerpts prepared by Steven Gagau, we are taken on a journey into the past while Michael and Steven reminisce about Tolai musical practices. The locations include ceremonies, churches, festival performances and people’s homes. We listen to an intimate recording of musician Andrew Midian including the sounds of his home and the birds outside (Episode 3: 15:00-16:25). This draws us into the moment and Michael responds with a catch in his voice, explaining that Andrew would play for him after they had a meal together. It is this sensorial intimacy that highlights the importance of the recordings and unmasks the relationship of the researcher to the community, connecting with listeners on a different level than is possible in written text.

**Prioritising Indigenous Voices**

“Nowadays, we listen to radio but we used to listen to singing, no radio but beautiful singing by my elders. It was like going on a journey taking you to
places. Every little song had a message, just like a storybook, when you are flipping the pages, one page about each particular picture, it’s like that.”

(LINDA TJUNGKATA ANDERSON, Episode 4: 05:31 – 06:45)

Pintupi-Luritja woman Linda Tjungkata Anderson of the Western Desert of Central Australia was interviewed about heritage recordings of her father Nosepeg Tjupurrula singing traditional songs which she describes as being like books. The knowledge and meanings held within traditional songs in many cultures contain deep layers of ontological and cultural knowledge passed on orally. The disruptions to cultural continuity caused by colonisation have also disrupted this transmission of knowledge, and the prioritisation of written academic works over oral traditions has meant that Indigenous knowledge has been under-valued and overlooked.

The audio format of the podcast is a way of making meaning from research that values Indigenous voices and takes into account culturally appropriate research methodologies. In their discussion on the importance of ‘yarning’ – an Indigenous style of conversation and story-telling- as a method of gathering data, medical and social work academics Dawn Bessarab and Bridget Ng’Andu state,

“Story telling is a feature of Indigenous societies where oral traditions were the main form of transmitting and sharing knowledge with individuals and between groups.”

(BESSARAB & NG’ANDU, 2010, 38)

They propose that yarning allows Indigenous people to take control and direct the research perspective, moving away from the researcher driving the conversation. This requires the researcher to build and develop relationships that are accountable to the Indigenous people participating in the research, thus creating cultural security.

In the case of the Toksave podcast, we take this perspective further and see yarning not only as a method of gathering data but also as a research output in itself, shaped by the podcast editing process. This focus recognises that oral transmission is central to Indigenous pedagogy and pre-eminent in community expectations of research outcomes.

**Relationships rather than Rapport**

The workflow of the podcast production has been developed by Jodie Kell and Steven Gagau to allow for Indigenous voices to be valued. Central to this is the importance of establishing relationships that ensure cultural safety. Rather than establishing a rapport during an interview, the participants are engaged on a longer-term basis and given time and funding to synthesise their knowledge with the collection, employed as cultural consultants, as is
## Toksave: Culture Talks Podcast Production Workflow

1. **Identify a collection and assess if member of the relevant speaker community is available in the Sydney area.**

2. **Coordinate and collaborate with the member of the speaker community to enquire of his/her interest to participate in an interview of archival materials from his/her cultural heritage.**

3. **When the identified member of speaker community agrees to participate, a casual contract is set up with HR for the interviewee as a cultural consultant for a standard 20 hours of work to include listening and providing metadata on the recordings and the podcast interview.**

4. **A selection of recordings from the archive are made and shared with the consultant with a list of questions for metadata enrichment.**

5. **A first meeting is arranged to discuss the scope and intention to interview about the recordings at a set date for the podcast interview.**

6. **Once the consultant is confident with their knowledge and understanding of the recordings, the podcast interview recording occurs. This can be at a location of choice, wherever the consultant is comfortable.**

7. **Producers listen to the full recordings and the themes of the podcast are decided. The introduction is written and recorded.**

8. **Post production editing and curating of interview with archival recordings.**

9. **The podcast is shared and checked with participants.**

10. **The original interview is archived in PDSC with any photos or other archival materials from the interviewee.**

11. **The podcast interview is published online in streaming services, available on the PARADISEC website, the university website and streaming services.**

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Fig. 1. Toksave: Culture Talks Podcast Production Workflow
shown in the workflow diagram below. This workflow has been developed as the podcast was created with the producers listening to the participants to improve the workflow.

As co-producer Steven Gagau has a unique position in that he is an Indigenous community member in the role of an archivist. Steven is a Tolai man from East New Britain in Papua New Guinea, who is a Kuanua and Tok Pisin speaker. He started working as part of the PARADISEC team in 2018, bringing his knowledge of the culture and languages of the region of New Britain and New Ireland provinces and of PNG more broadly. In Australia, Steven is a PNG community leader representing the Sydney Wantok Association and it is his extensive connections amongst the Melanesian community in NSW that brings the podcast to life.

Episodes two and three of the podcast series are based on the materials collected by Sydney University based ethnomusicologist Michael Webb. Michael conducted his PhD fieldwork in Steven’s community around Rabaul in 1993. The process of digitising, entering and enriching the metadata of this collection lead to a unique relationship between archivist and depositor, community member and researcher.

“This collection is not just part of my archival work but has direct connection as an Indigenous man from the Gazelle Peninsula (New Britain Island). My people are known as the Tolai or Gunantuna and most of the recordings are about pioneers, innovators and creative artists of our people over four decades of our music history. I have come a long way from Viviran village but my work in Sydney as an archivist has brought me back to 1993 with my people.”

(Steven Gagau, Episode 2: 02:03 –03:04)

Steven sees himself as wearing different hats or acting in different roles within the archive. By fusing these roles, he aims to combine his position from within the archive to act as an intermediary for the community (Harris et al. 2019: 145). Collaborating with community members throughout the podcast workflow, as shown in the table above, supports Steven to feel more in control of the research output.

In this way, new technology driven NTROs such as audio podcasts are not only questioning but also shaking up the power relationships that have existed in archival and academic institutions. As argued in the article co-authored with the PARADISEC team,

“The act of consulting speaker communities as experts in their own knowledge, therefore, does not just enhance the archive but has the potential to disrupt the power structures of the colonial archive.”

(HARRIS et al. 2019: 145)
Until recently, archival practices have placed the non-Indigenous researcher as the ‘expert’ on cultural knowledge largely because of their ability to create research outputs that fit within the academy’s justification of valid research such as books and articles. The creation and validation of NTROs such as the Toksave podcast that are more accessible to the needs and expectations of the Indigenous communities changes the denotation ‘expert’ or ‘scholar’ to accept diverse knowledge systems.

**Conclusion**

“Our culture is just a heartbeat for the elders and if the new generation catch that before they die, it will be great to get some culture hanging onto our traditions. But that recording is great so please keep it.”

(Grace Hull, Episode 1: 23:18 – 23.40)

In conclusion, we draw upon the words of Kilivila language speaker, Grace Hull from the Trobriand Islands, off the east coast of Papua New Guinea. Grace worked with PARADISEC on the very first episode of the podcast and was central to the development of the research methodology explained above. Grace stresses the value of archives as safe keeping places for ethnographic objects, but she also views ethnographic collections as a way of getting culture back and hanging onto traditions.

With new technologies and a new approach to research outputs, the podcast as a product and as a processual engagement with Indigenous communities contributes to unlocking the archives and opening up access to ethnographic collections. By prioritising the voices of Indigenous people and valuing their knowledge, it can also be seen to empower Indigenous communities and change the power dynamics in archival institutions.

**Literature cited**


Throughout this paper we have directly referenced the voices of the podcast interviewees to provide perspectives from Indigenous community members. All episodes are accessible at https://www.paradisec.org.au/toksave-podcast/

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Mediation as a tool for resolving conflict regarding cultural property in museum collections

Helen Shurven

Abstract

Conflict about cultural property between museums and other entities or individuals is a fraught subject. Mediation is a process which focuses on all party interests, and as such offers some flexibility to parties to design their own resolution process, with the assistance of a mediator. Such a process may also assist museums with policy development in the area of cultural property disputes. The World Intellectual Property Organisation, and the United Nations Educational, Scientific and Cultural Organization, support the use of mediation.
Conflict about cultural property between museums and other entities or individuals is a current topic of debate (see for example, ROBERTSON 2019), and is likely to remain so into the future. Cultural property for the purposes of this paper is defined broadly as “moveable artifacts susceptible to economic evaluation, and...subject to exchange in international commerce” (FRANCIONI 2011, 1).

Cultural property disputes are often approached in terms of ‘ownership’, or rights based arguments about the use, access and management of the relevant property. This paper suggests rather than engaging in an adversarial rights based process (such as arbitration or court litigation), mediation may allow parties to negotiate an agreed way forward, taking into considerations such as the:

- cultural context of the property (for example, where did it originate, if that is known)
- spiritual context of the property (for example, what meaning does it have and to whom)
- environmental context (for example, whether there are any consequences from removing the item from its origin)
- commercial context (for example, what commercial value does it have, can such be calculated and if so, how)
- extent to which future generations of stakeholders should also be considered
- Mediation is a process where one or more dispute resolution practitioners assist two or more parties in a dispute to:
  - identify the issues in dispute;
  - explore the issues;
  - generate options for the resolution of the dispute;
  - negotiate on those options and consider alternatives; and
  - endeavour to reach agreement covering whole or part of the dispute.

Mediation is an impartial process well suited to multi-party disputes (SHURVEN 2014), and many cultural property disputes have multiple parties and stakeholders with interests in the outcome of the dispute. Parties can be thought of as those persons or groups directly affected and with a direct interest in the cultural property, and stakeholders as those with an indirect interest in the dispute and the outcome (for example, the members of the community who visit the museum, or belong to the museum as members).

Mediation is recognised as one of the potentially useful dispute resolution tools which can be used when people or organisations are in conflict about cultural property. O’DONNELL (2011, 73) outlines that the United Nations Educational, Scientific and Cultural Organization (UNESCO) Intergovernmental Committee for Promoting the Return of Cultural Property
“has accepted the addition of mediation and conciliation to its mandate”. Mediation rules of procedure have been developed by this Committee. It is important to note that while Committee’s such as this can assist to facilitate bilateral and multi-party resolution of cultural property disputes, their role is usually advisory and recommendations are not legally binding. However, parties can reach agreement and agree to be bound by the outcomes of any mediation process, whether it be conducted privately, or through an existing Committee or organisation (such as the World International Property Organisation, for example).

Many museums are working on policies to guide their thinking and operations in such an environment (SARR & SAVOY 2018). Articles in the media include information about such policy development – for example, the Director of the Macquarie University Museum of Ancient Cultures is reported as developing a “new policy that would return illicit antiquities voluntarily to source countries” (The Australian 2019, 3). In addition, professional associations are continually working on their codes and guidelines. The International Council of Museums Code of Ethics for Museums, for example, “sets minimum standards of professional practice and performance for museums and their staff”. These guidelines include Article 2.5, which deals with Culturally Sensitive Material, and Article 6.2, which deals with Return of Cultural Property, and which includes the standard that “Museums should be prepared to initiate dialogue for the return of cultural property to a country or people of origin. This should be undertaken in an impartial manner, based on scientific, professional and humanitarian principles as well as applicable local, national and international legislation, in preference to action at a governmental or political level”.

Arguably, the approach used by a museum in relation to cultural property disputes will have implications for the reputation of the museum, the engagement of parties and stakeholders with museum collections, and the resolution of such disputes into the future. Cultural property disputes can be complex, and legal remedies can be difficult to navigate or may not be applicable (for example, legislated time periods have expired). In a chapter titled Political Prudence and Museum Anxiety, a recent report on issues relating to cultural property states it is “still true that even today…the mere word “restitution” elicits a defensive reflex and a gesture of retreat” (SARR & SAVOY 2018, 16).

Mechanisms such as the Washington Principles were developed through the 1998 Washington Conference on Holocaust Era Assets. Principle 8 refers to
the importance of context, and that “...steps should be taken expeditiously to achieve a fair and just solution, recognizing this may vary according to the facts and circumstances surrounding a specific case”. The principles remain relevant today, having been revisited and endorsed at the 2018 German Lost Art Foundation specialist conference 20 Years Washington Principles: Roadmap for the Future, and also they apply to a wide scope of cultural property disputes in terms of a fair and just outcome being important to all parties and stakeholders. The avenues by which museums can attempt to resolve such disputes in a fair and just way warrant exploration. TOMPKINS & GOMMANS (2016, 66) (a Judge and a lawyer respectively) explore the Washington Principles in the context of hurdles for parties embarking on court based action in relation to cultural property disputes, and urge that “Litigation should be a last resort”.

In order to reach a sustainable and agreeable position on a cultural property dispute, which is also fair and just, the interests of parties should be fulfilled, and the relationship between parties preserved as far as possible. Mediation can encourage museums, and all parties, to build on the relationship between parties and the understanding of their respective interests. This can include examining cultural, spiritual, environmental, commercial and inter-generational considerations, to attempt to reach a meaningful resolution. Furthermore, it is also likely that resolution, either of the whole or part of the conflict, would have a positive flow-on effect to those stakeholders with an indirect interest in the cultural property dispute. As has been noted (FORREST 2010, 162), “Because cultural property is one of the basic elements of civilization and national culture, it can play an important role in facilitating cultural understanding amongst the nations of the world, and contribute to cultural tolerance, understanding and international peace”.

**Literature cited**


Australasian Dispute Resolution Journal 25: 166-171.

THE AUSTRALIAN. 2019. Article by Ashleigh Wilson. Aussie uni finds final piece in puzzle sparked by theft on the Nile. 11 April, 3.


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Key words

mediation, cultural property, museums
Object-based interaction in Japanese science and engineering university museums

Sayuri Tanabashi

Abstract

Modern society faces severe problems at the global level and various efforts have been made for problem solving in the higher education sector in Japan. How must the development of education and research in university museums be achieved to provide a range of knowledge from traditional to advanced? In this paper I propose three programs in two universities for students using university museums’ collections and objects to generate interdisciplinary academic interaction. Object-based learning, using authentic academic objects, such as 3D-printed artifacts, drivable textile machines, or nishiki-e, as evidence triggers valuable interaction between individuals that transcend space and time.
Introduction

Modern society faces severe global problems. Since the United Nations produced its sustainable development goals in 2015, various efforts have been made for the development of problem-solving initiatives in the higher education sector in Japan. Sustainable Development Goals consist of 17 goals for sustainability to combat poverty and hunger, to address energy and climate change, to achieve diversity and inclusion and to maintain peaceful societies. Currently, universities in Japan are collectively developing education and research programs that will support a sustainable future. For instance, these programs are focused on the practicality of active or experiential learning through group work to collaboratively solve issues at the local and global levels. How is the development of education and research in university museums achieved as a setting where past and present knowledge meet?

University museums have two characteristics that can differentiate them from other museums. First, it is their suitability for the examination of museological concepts. This is because university museums are education and research institutions in themselves that are similar to faculties within the parent university. Second, it is their usability for a range of different research professionals, such as professors, curators, and librarians, who implement interdisciplinary education and research using their collections and spaces. University museums may play a key role as a cultural common that facilitate the interaction of the past and present interdisciplinary knowledge in service of the future (LOURENÇO, 2008; SIMPSON et al., 2019) through object-based learning (OBL).

It has been suggested that OBL using authentic university museum collections and objects is a strong method to connect the diverse learning, teaching and research areas in the higher education sector and beyond (CHATTERJEE 2010, SIMPSON & HAMMOND 2012). The historical framework of OBL in museums was elaborated by CHATTERJEE et al. (2015) and it has been conceptualized in the areas of educational psychology, cognitive psychology, science education, and museum pedagogy (PARIS 2002).

There has been recent interest in the higher education sector where OBL is recognized as an area for initiating interdisciplinary learning and teaching in the 21st century (SIMPSON 2014, THOGERSEN et al. 2018). It has been noted that the pedagogical effects of OBL in university curricula have the advantage of both material objects and digital surrogate origins (KADOR et al., 2018; SIMPSON et al., 2013). Therefore, the evidence accumulating in support of
OBL with university museums and collections has been increasing in recent years. Moreover, Simpson (2019) noted the outcomes of OBL in terms of visual literacy, partial literacy, descriptive (linguistic) literacy, communication skills, comparative analysis and negotiation skills. This results from traditional pedagogical theories such as multisensory engagement, embodied and experiential pedagogies, meaning-making through constructivism, and a diversity of learning context (FALK & DIERKING 2000, KOLB 1984).

This study explores museum curating at two representative national science and engineering university museums in Japan and introduces three case studies from two university museums. Science and engineering form the basis of the achievement of sustainable development goals. Here, an effective method of pedagogy utilizing academically authentic objects is proposed to accelerate interdisciplinary interaction.

1. Case study Tokyo Institute of Technology

Tokyo Institute of Technology (Tokyo Tech) is a science and engineering university with six schools that combine undergraduate and graduate schools in science, engineering, materials and chemical technology, computing, life science and technology, and environment and society. It is home to valuable research that, like many other universities, intellectually enhances humanity. Tokyo Tech has a proud history, which has paved the way for manufacturing and advanced industry for over 130 years in Japan. Tokyo Tech originated as the Tokyo Vocational School. It was founded by a German scientist named Gottfried Wagener and several members of Japan’s Museum of Education and Ministry of Education. The original objective, when the institution opened in 1881 during the Meiji era, was to integrate traditional manufacturing with scientific theory. It was renamed the Tokyo Technical School in 1890 and the Tokyo Higher Technical School in 1901 during a period of industrial modernization in Japan. Later, it was called Tokyo University of Engineering and reborn as a national university named The Tokyo Institute of Technology in 1946. Since then, Tokyo Tech has grown as a renowned science and engineering university in Japan (TOKYO INSTITUTE OF TECHNOLOGY, 2018).

The historical collections of education and research activities in Tokyo Tech are exhibited with pride in the university’s Museum and Archives. It was established to display the collections within the Centennial Hall in 1987. To date, more than 10,000 in-house objects are related to manufacturing and advanced industry. The collection ranges from ceramic folk arts, modernist–architectural models, and holographic arts to materials in honor of Nobel laureates. It also includes industrial achievements, such as the discovery of Tanabashi.
ferrites, chemical synthesis of vitamin B₂, and electro-optical technologies.

**Program 1: Object-based learning with vivid 3D-printed autophagic cells**

The first example is the artificial cells in the science workshop. Autophagy is one of the universal phenomena known as an intracellular degradation system that maintains the health of eukaryotic cells. Yoshinori Ohsumi, an honorary professor, was awarded the 2016 Nobel Laureate in Physiology or Medicine after revealing the mechanism of autophagy. Ohsumi's achievement is represented using not only monochrome and flat papers, but also cubic and colorful infographics to help illustrate the subcellular system without the live imaging of cells. A model of 3D-printed autophagic cells was projected with the help of students majoring in computing. The outline of the mechanism of autophagy was confirmed in a review (NAKATOGAWA et al., 2009), and the 3D data of the intracellular structure were constructed for 3D printing. Autophagy is initiated to form a cup-shaped double-membrane structure; this forms a complete enclosure around cytoplasmic components. A double-membrane structure called autophagosome is then fused to the vacuole where the cytoplasmic components are degraded and recycled. The autophagic mechanism was separately illustrated in five stages with a focus on the extraction feature and dynamics for each stage. Ultimately, each stage of autophagy was completed and printed out through colored and transparent 3D printing technology (Fig. 1; TANABASHI, 2019).

Subsequently, a workshop for 4- to 11-year-old children was held, including those with little or no knowledge of cell biology. Understanding the mechanism of autophagy in detail is difficult, it is usually taught as advanced content at university level. However, the children were able to assimilate the hands-on observation of the 3D-printed autophagic cells and discuss the dynamics of the cytoplasmic components and arrange them in the proper order for each stage. As a result, the children gained a valuable museum experience through the introduction to a profound intracellular world using vivid 3D-printed models representing autophagic cells.

2. **Case studies at Tokyo University of Agriculture and Technology**

Tokyo University of Agriculture and Technology (TUAT) is also a science and engineering university with two faculties, namely, agriculture and technology. Here various streams of research that aim to enrich human life are conducted. Historically, TUAT has led the way in the sericulture and textile industries for over 140 years in Japan. TUAT was first established as the Naito-Shinjuku Branch Office of the Industrial Encouragement Department.
of the Ministry of Home Affairs in 1874 during the Meiji era. After the Faculty of Agriculture and Faculty of Technology was designated as Tokyo College of Agriculture and Forestry and Tokyo Textile College, respectively, the colleges were combined, converted into a national university, and renamed TUAT in 1949. At that time, the abovementioned departments mainly focused on agriculture and textiles, whereas the Faculty of Textiles was renamed the Faculty of Technology in 1962. Currently, TUAT has become well known as an outstanding science and engineering university in Japan (TOKYO UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, 2020).

Additionally, the historical collections of educational and research activities in TUAT are exhibited in the university’s Nature and Science Museum. It originated from the Reference Exhibition Room in the Laboratory of Silkworm Diseases of the Ministry of Agriculture and Commerce in 1886. Since then, more than 13,000 in-house objects related to the sericulture and textile industries have been collected, ranging from silkworm or cocoon specimens and various fibers to mechanized weaving looms.

Program 2: Object-based learning with dynamically drivable textile machines

The third example focuses on working textile machines in relation to technological innovation as part of special engineering lectures. The textile machine has played a critical role in the textile industry to date. In particular, automatic looms and silk-reeling machines are relatively large objects that narrate the history of mechanical innovation in Japan.

Moreover, they function to assist understanding from basic to applied mechanics, because they are assembled using all mechanical essence, from basal to advanced technology such as gears to computers, as many automobile companies originally started off as textile machinery companies. Specifically, automatic looms, such as the non-stop shuttle change Toyoda automatic loom type G ( 無停止梭替式第十四自動織機 G 型 ), and automatic silk-reeling machines, such as the Nissan automatic silk-reeling machine Type HR-2 ( ニッサン自動絹糸機 HR-2 型 ), enable the setting of working exhibits (Fig. 2). Both machines were developed during the Showa era by Japanese pioneers and have been used worldwide.

The first machine was invented in 1923 and equipped with innovative functions. For example it automatically feeds when the weft thread runs out, but automatically stops when the warp thread is cut. The second machine was developed in 1954 and performed all processes of silk reeling entirely
automatically from cocoon-boiling to pulling out the silk. Some museums exhibited them statically, but few museums exhibited them dynamically as working machines. I designed one display exhibiting the textile machines as objects in the museum where students in their respective engineering fields, such as biomedical engineering, applied chemistry, applied physics and chemical engineering, mechanical systems engineering, and electrical engineering and computer science, can engage with the working objects made by university alumni. First, the students were given an overview of the history of the Japanese textile industry through operating the object guided by museum staff, such as professors, curators, retired engineers, and alumni. The students are instructed by the staff on how each textile machine is operated and preserved. Additionally, they were tasked to contribute to content for poster tours generated from their discussions. The philosophy of pioneers was explained during the preparation of the poster tour, an active-learning method involving posters or panels made by students and discussing it reciprocally, where students had the opportunity to interact across generations. As part of the program, they gained valuable museum experience by discussing the posters. Thereby, the museum experience delivered not only knowledge of tangible mechanics but also an impression of intangible aspirations that rendered the engagement of the museum staff with the students.

Program 3: Object-based learning with scientific nishiki-e

Artistic painting in the curator course features as the third example. More than 400 beautiful multicolored ukiyo-e paintings named San-shoku Nishiki-e (三色錦絵) have been collected and housed in the museum. San-shoku pertains to sericulture in Japanese. Ukiyo-e, which commenced in the 17th century, is a depiction of Japanese life using pictures. In particular, nishiki-e refers to brilliantly multicolored ukiyo-e. San-shoku Nishiki-e was vividly drawn to demonstrate the multiple steps of sericulture from the Edo to Meiji eras. It has been a key visitor attraction for a long time (Fig. 3).

San-shoku Nishiki-e displays two aspects, namely, the academic and the artistic, and narratives that exhibit landscapes of silkworm rearing in mulberry leaves, cocoon formation in straw rooms, and silk processing. Therefore, San-shoku Nishiki-e captures various aspects of science, technology, and humanities for audience engagement. In one experimentation with San-shoku Nishiki-e as objects in the museum, students of various disciplines, such as history, sericulture, cultural anthropology, art, chemistry, and computing, can commit to ongoing interdisciplinary learning. First, students are given an overview of the history of Japanese sericulture through object-handling
with museum staff, such as professors and curators. Students surveyed each San-shoku Nishiki-e based on their majors within the university and discussed the objects among themselves. Additionally, they were tasked to make panels for the exhibition using content generated from their surveys. Preparing the exhibition is akin to induction to the actual work of museum curating, and students are provided with many opportunities for exhibition design, ethics, and strategy (SAND et al., 2017). As part of the course, they will gain important museum experience by holding discussions as student curators. Finally, the students will reflect on and evaluate the tasks related to museum curating, thus, deepening their understanding through academic interactions.

Discussion

This study describes the three OBL practices in two science and engineering university museums in Japan. The case studies comprise OBL with (1) vivid 3D-printed autophagic cells, (2) dynamically drivable textile machines, and (3) a scientific nishiki-e. These components not only utilized authentic academic collections and objects but also engaged museum staff and students with majors in different disciplines in each university. As a common point, the students interacted and communicated with one another over collections and objects. From another viewpoint, the respective programs mirrored the characteristics of the parent university, as Tokyo Tech has been contributing to the development of advanced research in Japan, whereas the TUAT has valued its history and tradition. Vivid 3D-printed cells were generated at Tokyo Tech using advanced knowledge and technology. Conversely, dynamically drivable textile machines and scientific nishiki-e were carefully preserved in line with the philosophy of the institution to transcend space and time.

Each OBL program was successful because of the interaction between students over objects. This interaction can serve as a scaffold for solving global issues. Notably, although these programs were conducted for students in science and engineering universities, planning and implementing the programs to target students in the literature or arts disciplines will be interesting avenues for further research. The achievement of sustainable development goals requires knowledge and technology in relation not only to science and engineering but also the humanities and social sciences. Moving forward, the study is in the planning stage for a science/arts program for OBL through authentic academic objects in the higher education sector.

Conclusion

As previously described, OBL is clearly a crucial pedagogy for not only
fostering knowledge, but also cultivating museum and academic literacy. Students are given the opportunity to handle and operate objects via multisensory engagement, using vision, hearing, and touch. It is expected that students majoring in various science and engineering disciplines meet at a place where they can break down the barriers between specific disciplines. I suggest that OBL connects various fields of knowledge from traditional to advanced and generates interdisciplinary dialog. The university museum functions as a central, cultural hub for future sustainability. This paper therefore emphasizes that OBL using authentically academic objects as evidence triggers valuable interaction between individuals transcending space and time. To further examine and analyze their effects, additional case studies should be undertaken in the future.

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Literature cited


exhibitions as undergraduate research. CUR Quarterly 37: 12–17.


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Keywords

interdisciplinarity, object-based learning, academic interaction, science and engineering university museum

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