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# UNIVERSITY MUSEUMS AND COLLECTIONS JOURNAL

## Pedagogy Hub (2)

Alistair Kwan & Andrew Simpson (gardeners)

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# UNIVERSITY MUSEUMS AND COLLECTIONS JOURNAL

## Thematic Edition — Pedagogy Hub

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Cover image:
Goodness gracious, how Cretaceous! Two youngsters meet a museum object, a model of the dinosaur, Minmi paravertebra, the mascot for Macquarie University's former Museum Studies program. Object and audience both enjoy the engagement.
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# Introduction: The garden of pedagogical delights

ALISTAIR KWAN AND ANDREW SIMPSON

With a garden and a library, claimed Cicero, you have everything that you need. He was wrong, of course: our knowledge would be thin without also the museum. But it was in the gardens that this lesson was largely learnt, the gardens that sprang up in urban surroundings as if to confess that we could not survive completely apart from our origins in forests and meadows and plains. Many of those gardens were for pleasure alone, but the link between garden and knowledge, and the role of the garden as a repository and conveyer of knowledge, the role of gardener as a maintainer of conditions long before anyone thought of conservation; all these go back deep into antiquity. Our earliest examples of the botanic garden are seen in ancient cultures that collected plants for their pharmacological properties and their ready application as medicines, and as encapsulations of cosmological and sociocultural ideals.

The emergence of botany during the Renaissance saw the blooming of such gardens in universities modelled on the European higher education prototypes. Carolus Linnæus, the great Swedish physician who revolutionised scientific nomenclature, often led his students into the fields to 'botanise' because you study where the plants are. Specimens were collected from ever more faraway places. A significant number of his students died on fieldwork engagements, something that would horrify a modern university's fieldwork safety committee. Among the three botanical gardens at Uppsala, there is one, its plantings organised in Linnean thinking, named in his memory.

To become a botanical gardener then, you went to Linnaeus and apprenticed in his garden. You might have gone on a voyage or two to document and collect plants from their native habitats, tackling intercultural interactions in search of indigenous knowledge, freezing, or sweltering in unfamiliar climates, struggling through and over inhospitable terrains, all the time knowing that, on your return, your work still was to be vetted by Linnaeus himself. It was quite the education, with context-embedded examination built in at every turn. Today, the options are less intrepid.

The organisation, Botanic Gardens Conservation International has several courses you can do online. There are also face-to-face components that can be done. But all this is described as "training" and "capacity building" rather than education. What is there to do if you'd like to become a botanic gardens director? What are the modern issues of relevance to such organisations; how do they deal with conservation, sustainable practices, climate change and 'plant awareness'? Rakow and Dun from Cornell University suggest their boutique program, the Master of Professional Studies in Public Garden Leadership, as a solution. Here, the pedagogy for learning to lead a botanic garden is delivered by a university botanic garden. One studies botanic gardens leadership where the botanic gardens are. This article leads this collection of essays in this journal issue on the pedagogy of university museums and collections.

For our second offering, we consider the museum and gallery, specifically the oldest such structure in Hong Kong, the University Museum and Art Gallery (UMAG) at Hong Kong University. Here, Knothe leads us through the story of how a large university facility such as this made tentative steps towards offering components that would build into a museum studies program, while elaborating on the institutional benefits of doing so. These include cross-disciplinarity, international collaboration and a greater sense of institutional alignment. The pedagogy is straightforward – analysing and describing, recording and standardising – and a good example of pedagogic

possibilities in a centralised university museum and gallery.

Next, to the venerable University of Salamanca: here, we have the university's centralised unit of Scientific and Cultural Innovation. This group is responsible for permanent and temporary exhibitions, as well as events and festivals that promote an interaction between the public and academics with their scientific, technical, or educational heritage, breaching boundaries to link the academic and civic worlds. López-San Segundo & Frutos-Esteban outline a program that involves collaborative photography, teaching innovation, ethnographic inquiry, cultural creation, and heritage education. Here, the sustainable development goals and student control over their own learning are curriculum design features. They offer an educational portrait that is visually based and socially integrated. As gardens go, this one is no hortus conclusus where solitary souls sequester themselves to meditate alone, but a nexus where disparate paths intersect, where every year we find, remixed, the colours of the season before.

We know, of course, that art museums can be useful outside art. We return to the United States for a case study at the University of Wyoming where the art museum is used in the teaching of law. Here, the focus is on learning by engaging with the art museum's inner workings. The students' direct experience of the art museum's bureaucracy and with how, through behind-the-scenes mechanisms, it crafts a finished self for the world supplies an intriguing legal pedagogy. Unfamiliar practices, inbuilt systemic biases and their implications for legal issues are analysed and discussed with a freshness rarely found in the weighty expectations of legal rolls, wigs and gavels. The name 'stealing culture' gives a great sense of the perhaps somewhat-precarious nature of the museum institution as a whole as well as an insight into its historic origins. In a world where the legal, moral, and ethical dimensions of society never coalesce on the same framework, this is certainly a creative, and perhaps unique, pedagogical application for the art museum. Is there anything similar elsewhere? We haven't found it.

In Australia, we look at a relatively new suburban university and the brief history of its museum studies program, looking outwards on the global diversity of what commonly comes under the banner of 'museum studies' and speculating about factors that contributed to its temporary success. The program was articulated as a four-way partnership between students, academic staff, campus museums and external professional associations. In this case, the campus museum provision is dispersed but enthusiastic and cross-disciplinary. Here also the curriculum allows students some free room to co-design their educational experiences. This wayward program was eventually caught up in the turmoil of inflicted change as neoliberal corporatism came to the university, shedding the various curatorship of gardens for the vast, uniform monocultures of the industrial farm. They made the vine poor that it would make them rich, and niche vocational programs that serve relatively small learning audiences simply don't pull enough money into the hungry, gaping maw of the corporate university. The program thus went the way of its mascot, the Cretaceous dinosaur *Minmi paravertebra* (featured on the front cover engaging with young learners in a happier more innocent time).

For our last port of call, we return to the home of Linnæus. Here, Aronsson and Josefsson describe the museums and heritage program that they have offered as a collaboration between Uppsala University and the Museum of Medical History. Their paper proposes that some of the challenges for the profession will be profound and speculates about the future of such programs for emerging museum professionals – in particular, the ability to predict future competencies that will be essential. Our authors consider gender politics and identity politics as a recent example, and our relationship with materiality in an increasingly digital universe.

As a metaphor for learning, the garden has a long history. We plant seeds of knowledge, our students grow and flourish – or, like unwatered crops, they fail and rot, their learning the florilegium that never was. The garden brings us a perspective that the perpetuity-oriented museum and gallery by nature evade: the dynamism, cyclicity, and unavoidability of change. Change is what

this issue is about. Our authors describe how programs become, grow up, and pass away in response to resource and opportunity and need – emerging from change, weathering change, adapting to it. And then there is the hard-to-accept fact that we are party to it. No flower lives forever; the truth of the garden is that it must be dug up and planted anew. A broad message in these essays is that we must look, where we can, beyond the willing harvest of our graduates today, that they may be seeds and saplings, indeed pesticides and ploughs, for the reshaping of concepts, institutions and disciplines for tomorrow.

‘Our lives are reaped like the ripe ears of corn, and as one falls, another is born.’

Marcus Aurelius *Meditations* 7.40

# The Professional Development of Botanic Garden Leaders

DONALD A. RAKOW AND CHRISTOPHER P. DUNN

## Abstract

*Botanic gardens (particularly those in the Western hemisphere) have been educating students since the 16th century when the earliest such gardens were created as adjuncts to medical schools. From their initial roles as centers for the identification and display of medicinally active plant species, to more contemporary foci on plant conservation, sustainable practices, and climate change, one constant in the history of botanic gardens has been their educating of young people. The Cornell Master of Professional Studies program in Public Garden Leadership (MPS/PGL) is offered through a partnership between Cornell Botanic Gardens and Cornell University's School of Integrative Plant Science. It provides students with a combination of formal academic training, practical experience, and exposure to dynamic leaders in the botanic garden field. Each program student selects from Cornell University's wide range of course offerings, formulates and executes an action project of significance to the field, and partners with a Cornell Botanic Gardens staff member on an independent study project. Alumni of the program receive a well-rounded background in fiscal, organizational, and non-profit management providing them superb credentials to assume leadership positions at botanic gardens and arboreta. To remain relevant, all museum training programs, including the MPS/PGL program, must reflect contemporary issues of inclusion, diversity in staffing and programming, cultural sensitivity, and accessibility.*

## Introduction

Botanic gardens that are open to and welcome the public are considered living and public museums, owing to the high level of professional collections curation, conservation, education, and research relevance. This status is recognized by accrediting bodies and funding agencies, including the American Alliance of Museums and the Institute of Museum and Library Services (a branch of the US government). To ensure that botanic gardens and other living natural history museums, including zoos and aquaria, maintain this high level of collections and program management, curators, educators, and managers require the same level of professional development as for other institutions, such as art museums.

Botanic gardens contain specimens represented as plant collections that are curated, documented, and conserved using best management practices (BOTANIC GARDENS CONSERVATION INTERNATIONAL 1998; RAKOW & LEE 2011; GRATZFIELD 2016). For university gardens, these collections are critical to their education and research missions. Furthermore, many collections represent significant cultural traditions and practices of Indigenous and local communities and are thus important biocultural collections (DUNN 2017; SALICK et al. 2014).

In addition to curating their accessioned living collections, many larger gardens steward extensive and world-class collections of herbarium specimens and rare botanical art, books, and manuscripts. Given the complexity of botanic gardens as museums, it is imperative that they be fully engaged in the museum community and that new and emerging leaders receive and benefit from multi-faceted professional development opportunities.

To develop this context more fully, we provide a short history of Western botanic gardens followed by examples of professional leadership training. Our focus on the latter point will be the Public Garden Leadership program at Cornell University (USA).

## Botanic Garden History

In the 16th and 17th centuries, the need arose to instruct university students studying medicine and pharmacology on how to distinguish between medicinally active plants and poisonous ones. This led the first professor of botany in Europe, Francesco Bonafede, to propose to the Venetian Senate the creation of the *Orto Botanico* in Padua, Italy (RHODES 1984). The successful establishment of that garden as a teaching laboratory fueled the rise of university-based gardens in such Renaissance-era cities as Pisa (Italy), Montpelier (France), and Leiden (The Netherlands) (RAKOW & LEE 2015).

These 16$^{th}$ century botanic gardens responded to both recent innovations and economic needs. In the former category, the creation of the herbarium specimen (*hortus siccus)*, devised by Luca Ghini at Pisa in 1544, allowed for plant specimens to be preserved and compared, thereby greatly improving the study of the taxonomic relationships among plants. Coupled with this development, Bonafede and others began to lead field-based plant studies, allowing students to understand how species behave in natural settings (RAKOW & LEE 2015).

Much as botanists today search for medicinally active plant species to provide relief from human diseases, these early botanical explorers recognized the economic potential of monopolizing trade in species that could treat common maladies of the period. In the 16$^{th}$ century, the Venetian Republic derived considerable income from trade in plant-based drugs, but much confusion existed over the proper identification of medicinally active species. Thus, an additional incentive for the creation of the *Orto Botanico* in Padua was to serve as a verifier of plant identity. This ability

to provide quality assurance provided Venice with a market advantage over other commercial regions (MINELLI 1995).

In true Renaissance fashion, both students and their instructors engaged in the discovery of the complexities and wonders of the plant kingdom, which is still an active area of inquiry at many botanic gardens today. The earlier focus on the identities of medicinally active species eventually evolved to the identification and classification of entire groups of plants being brought back by colonial explorers from Africa, Europe, and the Far East. While naming practices remained cumbersome in this pre-Linnaean era, these early botanists displayed great interest in understanding what they viewed as the God-given plan for plant relationships (MIAN et al. 2014). The study of plants eventually became so popular in both scientific and amateur circles that botany was cleaved from medicine to become a separate scientific discipline.

Botanic gardens came to England later than to continental Europe, with the University of Oxford establishing the first British garden in 1621. The importance of such centers for both economic and scientific development was quickly recognized, and within a decade the Royal Botanical Garden, Edinburgh and Chelsea Physic Garden were thriving botanical institutions. Practices established at both of these gardens to collect specimens from a wide geographic range provided the basis for the colonial network of botanic gardens and stations under the administration of the Royal Botanic Gardens, Kew, formally established in 1773 (RAKOW & LEE 2015).

Throughout the 17th–19th centuries, as botanic gardens continued to develop in Europe, the British Empire, and eventually the U.S., a unifying thread has been the instructing of future professionals, as botanists, pharmacists, horticulturists, and ecologists.

**Botanic gardens as a component of the museum studies field**

As countries around the globe have become increasingly urbanized and the world's plant diversity heavily threatened, botanic gardens have proven to be indispensable scientific and educational institutions. In addition to their roles in curating accessioned living collections, conserving rare and endangered species, and educating the public on topics ranging from sustainable gardening to identifying local flora, gardens are also increasingly vital green oases, sanctuaries in which to rejuvenate and reconnect with nature. This is particularly important for botanic gardens associated with institutions of higher learning, because a series of recent studies has shown that college and university students are experiencing unprecedented levels of stress, anxiety, and other psychological concerns (RAKOW & EELLS 2019). For all persons, around the world, botanic gardens can serve as antidotes to the negative and divisive issues that face society and provide an enhanced sense of hope about the future.

Given the global importance of botanic gardens, it is surprising that there are relatively few degree-granting graduate programs that are specifically focused on training future botanic garden leaders. The University of Washington, through its Center for Urban Horticulture, offers graduate degrees in Restoration Ecology, Conservation Biology, and Environmental Horticulture (https://sefs.uw.edu/). The New York Botanical Garden, through partnerships with several universities, trains Ph.D. and master's students in Systematics, Genomics, Economic Botany, and related fields (https://www.nybg.org/plant-research-and-conservation/science-programs/commodore-matthew-perry-graduate-studies-program/).

What is not included in these programs is an emphasis on organizational management that would typically be part of a museum studies program. To prepare to lead a botanic garden, students would also benefit from studies in not-for-profit management, financial accounting and leadership theory The Longwood (Gardens) Fellows Program (https://longwoodgardens.org/education/longwood-fellows-program) addresses some of these needs through its emphases on group discussions, meetings with industry leaders, and collaborative project development. It is

not, however, a course-based program nor is a degree offered through it.

In the 21 century, all students of museology, including those interested in botanic garden leadership, must focus on how institutions remain relevant in their responses to critical global issues, including climate change, loss of biodiversity, and treatment of indigenous cultures (CRANE, 2022).

The continued viability of botanic gardens requires the maintenance of a pipeline of professionally trained individuals to serve the leaders of the next generation. For those botanic gardens associated with institutions of higher learning, students' education could be enriched by:

- developing and staffing courses in botanic garden history or management;
- offering case studies of challenges faced and how they have been overcome;
- sharing research on conservation or biodiversity issues;
- curating and sharing herbarium specimens;
- dedicating particular collections or garden areas for use by students;
- having staff advise individual students.

While each of these approaches is valuable in itself, taken individually they do not constitute an integrated preparatory program.

**Cornell Master of Professional Studies Program in Public Garden Leadership**

Current leaders in the botanic garden field, many of whom entered the profession in the late 1980s and 1990s, are reaching, or have already attained, retirement age. This has led to a deficit of trained professionals who have both the academic credentials and professional backgrounds to assume these leadership roles. This same leadership gap is present in many other museum fields.

This failure to maintain a diverse leadership pool motivated Cornell Botanic Gardens, a unit of Cornell University (Ithaca, NY, USA) to establish the Master of Professional Studies Program in Public Garden Leadership (MPS/PGL) in 2002. From its inception, this partnership with Cornell's School of Integrative Plant Science has provided a combination of rigorous academic coursework and practicum training to prepare graduates to qualify for professional positions at botanic gardens or in allied fields.

Initially, this was framed as a two-year program, with students required to secure an internship between the first and second years. In 2015, this transitioned into a one-year accelerated program to allow graduates to re-enter the workforce more quickly.

To ensure that students in the MPS/PGL program are fully prepared to meet the challenges and opportunities that lie ahead in the botanic garden field, students are required to complete three essential components:

1. Relevant coursework: the program co-directors work with each fellow to select courses most relevant to their career goals, and that address areas in which they lack academic strength or experience. Emphases are on leadership development, management of non-profit organizations, public garden management, and the fellow's area of career focus. Students select courses offered through various colleges and programs across the university.

2. Capstone project: students must complete a project that will increase their skills in identifying a problem or challenge within the field, and designing an approach to understand and address that challenge. Topics must be relevant to the public garden field and help the fellow prepare for their chosen career track. Most students consult with Cornell Botanic

Gardens staff members in the execution of their projects. Recent capstone project topics include:

- A Non-Invasive Public Guide to Approximating the Ages of Historical Trees
- A Toolkit for Evaluating Native Plants in Public Gardens.
- Ways that Botanic Gardens can Enhance Public School Garden Programs.
- Documenting the Horticultural Legacy of a Public Garden.
- Developing Inclusive Programs for LGBTQ and Trans Visitors.
- Creating Equitable and Accessible Public Garden Spaces
- An Exploration of Sri Lanka's Endemic Flora Through Ex-Situ Conservation
- Sustainable Landscape Design and Maintenance Practices in North American Public Gardens.
- Partnerships between Public Gardens and Community Schools.
- Visitor Motivations for Visiting Public Gardens.

Students conduct background research for their capstone projects by consulting with relevant botanic garden professionals, conducting surveys, searching appropriate literature, and developing pilot projects for assessment. The length of the written document associated with these capstones varies considerably from project to project.

3. Independent study: Cornell Botanic Gardens staff members hold a tremendous storehouse of knowledge, and each PGL/MPS fellow is required to conduct an independent study project with a selected staff member who has a focus aligned with his/her career trajectory. Semester-long projects are designed to enhance students' knowledge and experience in areas of curation, conservation, education, interpretation, fundraising, or leadership. Recent examples of independent study projects include a reassessment of nomenclatural decision making for arboretum taxa; horticultural exhibit development during the winter season; and innovative approaches to alumni engagement, cultivation, and stewardship.

Cumulatively, these three levels of academic activities demonstrate the indispensability of Cornell Botanic Gardens to the fulfilment of Cornell University's intellectual mission to "educate the next generation of global citizens, and to promote a culture of broad inquiry," (https://www.cornell.edu/about/mission.cfm) and the Gardens' mission of "inspiring people—through cultivation, conservation, and education—to understand, appreciate, and nurture plants and the cultures they sustain." (https://cornellbotanicgardens.org/about/mission/) Significantly, Cornell recognizes that true understanding occurs both within and outside the classroom.

Students are attracted to study in this program for multiple reasons. They recognize that Cornell University, as a world-class research and teaching institution, offers a wide range of courses to meet their individual needs. They also appreciate the multiple opportunities to interact with the leadership and staff of Cornell Botanic Gardens and other leading botanical institutions. The action project provides a framework for in-depth study of a topic of significance to the greater botanic garden community. Finally, the imprimatur of a graduate degree from Cornell University provides an advantage when students seek employment after completing the program.

**Impact of the MPS/PGL program on the botanic garden field**

To date, 45 individuals have graduated from the program and have secured high-level positions at botanic gardens and allied institutions. Recent alumni are directing programs in horticulture, education, visitor services, and native plant management. One is Executive Director of a children's garden and another is Executive Director of a college-based arboretum. Others hold senior

level positions at gardens around the globe. These individuals arrive at these positions with a well-rounded background in fiscal, organizational, and non-profit management, able to address the many challenges they will face in successfully fulfilling their responsibilities and vision. By providing this prescribed training, the MPS/PGL program is raising the professional standards of the field.

In recent years, several individuals selected for executive positions at US botanic gardens have come from backgrounds in the business world, rather than from the museum/botanic garden field. While they have the advantage of having succeeded in competitive corporate environments, they do not necessarily have the training in, or sensitivity to, the unique nature of botanic gardens. The MPS/PGL program provides coursework in not-for-profit management as well as extensive engagement with all types of botanic gardens.

**Attracting new leaders to the program**

Based on more than 20 years of experience, we know that the MPS/PGL program effectively prepares candidates for career success after graduation. The challenge lies in attracting individuals to apply to the program who might not otherwise have considered a botanic garden career. We have addressed this need in a number of ways. Firstly, to establish a professional "pipeline," Cornell University's Section of Horticulture has established an undergraduate concentration in public garden management. Because students are often uncertain about what they might study on a graduate level, or what career path they may choose, those with a burgeoning interest in this field can select this concentration and take coursework to prepare themselves for graduate study.

Secondly, Cornell also offers a course in Public Garden Management, based on the text of the same name (RAKOW & LEE 2011). During this semester-long study, students develop components of a master plan for a newly formed botanic garden. The class also includes a three-day study tour of various types of public gardens, often culminating in the presentation of results of their work to managers and staff at the case study garden. Recent examples of early stage gardens with which the students have worked are: The Botanical Garden of the Piedmont, Sacramento Botanical Garden, and Great Park Botanical Garden.

Thirdly, staff members of Cornell Botanic Gardens lead or contribute to several undergraduate courses. The Director of Horticulture is lead instructor in an *Art of Horticulture* course, and the Director of Education and the Interpretation Specialist have created a course in Interpretation of Collections. In addition, the Executive Director often provides guest lectures on biocultural diversity, environmental conservation, and horticulture. Students who enroll in any of these courses may have lite prior understanding of the world of botanic gardens but may be inspired by the instructor or curriculum. Thus, the various academic offerings in which Cornell Botanic Gardens is involved—on both the undergraduate and graduate levels—contribute to the integrated development of the individual as both intellectually curious and as an accomplished scholar.

A fourth way that students learn of and become interested in the MPS/PGL program is through summer internships at Cornell Botanic Gardens. These opportunities provide exposure to the varied aspects of public garden and natural areas management along with specializations in horticulture, education, natural areas management, fundraising, and administration.

In addition to these internal approaches, the co-directors promote the program at conferences, graduates endorse it with their professional contacts, and both traditional and online advertising venues are employed.

Development and mentoring of the next generation of leaders is not just a nationally focused goal. We are keenly aware that the leadership gap extends to many parts of the world. Thus, Cornell University and the botanic gardens have developed formal relationships with other organizations, including Botanic Gardens Conservation International (BGCI), based in Kew, UK and the Hubert

H. Humphrey Fellowship Program, USA. So, too, the botanic collections support the academic work of many faculty and students whose research in art, history, landscapes, writing, and music are inspired by the natural world and are dependent on accessing curated and professionally managed collections.

## Maintaining Relevance

Given the many pressing challenges in our contemporary societies, it is insufficient for a museum leadership program to limit itself to training that focuses solely on curation or conservation. Museums today must embrace their roles in civil society as trusted voices in discussions of major issues of local, regional, and global importance (AMERICAN ASSOCIATION OF MUSEUMS 2002; HEIN 2005; WOON 2020). Such issues include climate change (DUNN 2018), loss of biological diversity (SHARROCK et al. 2011), racial and environmental justice, and issues of equity, access, and inclusion, especially of those who have long been underrepresented in the museum and botanic garden fields (DODD & JONES 2020; VERGOU & WILLISON 2016).

The issues troubling society are also manifest within the museum community. The staff of many museums lack racial, ethnic, cultural, gender, and LBGTQ+ diversity, and visitation often skews heavily to middle class, middle-aged, and older audiences (LEVITT 2015). Effective museum leadership training must therefore be more deeply and sincerely engaged in social issues lest we lose our trusted and respected place in society.

Botanic garden leadership programs, including Cornell's MPS/PGL program, must also proactively engage young people who have traditionally been disadvantaged in higher education. For black, Indigenous, and people of color (BIPOC), the challenges of receiving a quality education are daunting, given racism and mistrust at many levels (BAILEY et al. 2020). The Black Lives Matter (#BLM) movement has shed a brighter light on systemic racism in many countries and organizations and has challenged cultural institutions to move beyond their traditionally narrow foci. The esteemed Royal Botanic Gardens Kew has addressed the decolonization of their collections openly (ANTONELLI, 2020) and other gardens are likely to follow their lead.

Botanic gardens, being engaged with nature and the environment, are uniquely positioned to address inequities in leadership training and opportunities, to increase awareness of the need for immediate action on the climate crisis, and to help close what can be referred to as the "nature gap" of access to green spaces for BIPOC individuals (ROWLAND-SHEA et al. 2020). Botanic gardens can also inspire a new generation of leaders by engaging with communities of color to break down the barriers between "black faces and white spaces" (FINNEY 2014).

Across all its programming, Cornell Botanic Gardens has committed to embracing the most pressing issues of our culture, and strives to ensure that these are reflected in the MPS/PGL program. Current students participate in annual meetings of the MPS/PGL International Advisory Committee, at which approaches to addressing societal and environmental challenges are presented and discussed. Thus, future leaders directly engage in, and contribute to, conversations and can bring this experience to bear in their future leadership roles.

In summary, the MPS/PGL program provides a model for comprehensive training in organizational/museum leadership, environmental sustainability, and social justice. In doing so, we feel that we are preparing tomorrow's leaders to provide progressive leadership of botanic gardens and related institutions, and to engage communities in meaningful and impactful actions.

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## Literature Cited

AMERICAN ASSOCIATION OF MUSEUMS (now, American Alliance of Museums). 2002. Mastering Civic Engagement: A Challenge to Museums. American Association of Museums, Washington, DC, USA.

ANTONELLI, A. 2020. Director of science at Kew: It's time to decolonize botanical collections. The Conversation. https://theconversation.com/director-of-science-at-kew-its-time-to-decolonise-botanical-collections-141070

BAILEY, K., N. MORALES & M. NEWBERRY III. 2020. Inclusive conservation requires amplifying experiences of diverse scientists. Nature Ecology & Evolution 4: 1294–1295.

BOTANIC GARDENS CONSERVATION INTERNATIONAL. 1998. The Darwin Technical Manual for Botanic Gardens. Botanic Gardens Conservation International (BGCI), London, UK.

CORNELL BOTANIC GARDENS MISSION STATEMENT (https://www.google.com/search?client=firefox-b-1-e&q=Cornell+Botanic+Gardens+mission+statment)

CORNELL UNIVERSITY MISSION (https://www.cornell.edu/about/mission.cfm)

CRANE, P.. 2022. Botanic gardens: seizing the moment while imagining the future. Plants, People, Planet, 1–10. https://doi.org/10.1002/ppp3.10306

DODD, J. & C. JONES. 2010. Redefining the Role of Botanic Gardens – Towards a New Social Purpose. Richmond: Botanic Gardens Conservation International.

DUNN, C.P. 2017. Biological and cultural diversity in the context of botanic garden conservation strategies. Plant Diversity 39: 396–401.

DUNN, C.P. 2018. Climate change and its consequences for cultural and language endangerment. In: The Oxford Handbook of Endangered Languages, ed. K. REHG & L. CAMPBELL, Oxford: Oxford University Press, 720–738.

FINNEY, C. 2014. Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors. Chapel Hill: University of North Carolina Press.

GRATZFELD, J. (ed.). (2019). BGCI's MANUAL ON PLANNING, DEVELOPING, AND MANAGING BOTANIC GARDENS. Botanic Gardens Conservation International. Richmond, UK. https://www.bgci.org/resources/bgci-tools-and-resources/bgcis-manual-on-planning-developing-and-managing-botanic-gardens/

HEIN, G.E. 2005. The role of museums in society: education and social action. Curator 48: 357–363.

INSTITUTE OF MUSEUM AND LIBRARY SERVICES. https://www.imls.gov/

LEVITT, P. 2015. Museums Must Attract Diverse Visitors or Risk Irrelevance. The Atlantic. 9 November 2015. accessed: https://www.theatlantic.com/politics/archive/2015/11/museums-must-attract-diverse-visitors-or-risk-irrelevance/433347/

LONGWOOD GARDENS FELLOWS PROGRAM (https://longwoodgardens.org/education/longwood-fellows-program)

MIAN A., K. WATANABE, M.M. SHOWJA, M. LOUKAS, & R.S. TUBBS. 2014. Guillaume Rondelet (1507–1566): cardinal physician and anatomist who dissected his own son. Clinical Anatomy 27: 279–281.

MINELLI, A.1995. The Botanical Garden of Padua 1545–1995.Venice: Marsilio Editori, 68–71.

NEW YORK BOTANICAL GARDEN GRADUATE STUDIES PROGRAM (https://www.nybg.org/plant-research-and-conservation/science-programs/commodore-matthew-perry-graduate-studies-program/)

PENNAY, A. 2020. The Civic Mission of Museums. Lanham: American Alliance of Museums, Rowman and Littlefield.

RAKOW, D.A. & G.T. EELLS. 2019. Nature Rx: Improving College-Student Mental Health. Ithaca: Comstock Publishing Associates.

RAKOW, D.A. & S.A. LEE (eds.). 2011. Public Garden Management: A Complete Guide to the Planning and Administration of Botanical Gardens and Arboreta. Hoboken: J. Wiley & Sons.

RAKOW, D.A. & S.A. LEE. 2015. Western botanical gardens: history and evolution. Horticultural Reviews 43: 269–310.

RHODES, D.E. 1984. The Botanical Garden of Padua: the first hundred years. Journal of Garden History 4:327–333.

ROWLAND-SHEA, J., S.DOSHI, S. EDBERG, & R. FANGER. 2020. The Nature Gap: Confronting Racial and Economic Disparities in the Destruction and Protection of Nature in America. Washington, DC: Center for American Progress.

SALICK, J., K. KONCHAR, & M. NESBITT (eds.). 2014. Curating Biocultural Collections: A Handbook. Richmond: Royal Botanic Gardens, Kew.

SHARROCK, S.L., S. BLACKMORE, J. CHENEY, C. DUNN, et al. 2011. The biodiversity benefits of botanic gardens. Trends in Ecology and Evolution 26: 433.

VERGOU, A. & J. WILLISON. 2016. Relating social inclusion and environmental issues in botanic gardens. Environmental Education Research 22: 21–42.

UNIVERSITY OF WASHINGTON, CENTER FOR URBAN HORTICULTURE (https://sefs.uw.edu/)

WOON, W. 2020. On museums and civic responsibility. MoMA Magazine. 12 June 2020 (accessed: https://www.moma.org/magazine/articles/334).

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## Keywords

Botanic Gardens, Public Gardens Leadership, Cornell University

# Museum-based Studies and Intern Training at the University of Hong Kong

FLORIAN KNOTHE

## Abstract

*University Museum and Art Gallery (UMAG) at The University of Hong Kong (HKU) was established in 1953 and is the oldest continuously-operated Museum in Hong Kong. While the art collections grew into depositories for teaching and learning activities, the curatorial team developed an undergraduate course in Museology and a one-year full-time Masters programme in Museum Studies.*
*These academic and often gallery-hosted and object-based curricula run alongside public museum education programmes, and benefit from connections to different departments and faculties to offer more interdisciplinary teaching, that, ultimately, make the Museum's collections more relevant to a larger studentship. UMAG collaborated on a Hong Kong Government grant for undergraduate teaching and learning initiatives with the Faculty of Science to engage students from diverse academic backgrounds in more art and science-related projects. The museum also widened its offerings of internship placements to HKU students from various faculties, as well as to individual partakers in credit-bearing summer internships offered to students from other local and international universities.*

FLORIAN KNOTHE

## Introduction

The University Museum and Art Gallery (UMAG) at The University of Hong Kong (HKU) is the oldest continuously-operated Museum in Hong Kong. Established by a professor of the Chinese Department, Faculty of Arts, in 1953, UMAG started out as a depository for locally excavated pottery and ceramic shards, and consequently built up an art (and archaeology) collection with important Chinese ceramics, bronzes and ink paintings. The collection was used continuously, albeit more sporadically than methodically, for the teaching of Chinese culture and art history students.

Over time, and while the art collections grew, the museum and the faculty separated administratively, and the museum director started reporting to the University's senior management team, rather than to related specialists in the same or a similar academic field. Seemingly a disadvantage at first sight, we have turned the lack of close relationship with the Faculty of Arts into an opportunity to work with different departments on projects that are organised in a cross-faculty and inter-disciplinary manner. A strengthened bond with the Faculty of Arts then followed this initiative and the continuous development of UMAG into a teaching museum is fully supported by the Faculty now.

The museum director – with and without other curators – has taught a single undergraduate-level Museum Studies course for years. This 2nd-year elective became the prerequisite for a 4th-year so-called 'capstone', credit-bearing internship at the Museum catering to art history undergraduate students. Upon this basis the current team of Art History-trained (and one first Museum Studies-trained) museum staff reached out to different departments and faculties to offer more interdisciplinary teaching, and, ultimately, to make the Museum's collections more relevant to a larger studentship. UMAG collaborated on a Hong Kong Government grant for undergraduate teaching and learning initiatives with the Faculty of Science to engage students from diverse academic backgrounds in more art and science-related projects. The museum also widened its offerings of internship placements to HKU students from Heritage Studies (Faculty of Architecture), Library Science (Faculty of Education) and Chinese, English, European and African Studies (all Faculty of Art), as well as to individual partakers in, mostly, credit-bearing summer internships offered to students from other universities, such as the University of Leicester and Nanyang Technological University (both Museum Studies), and Glasgow University and KU Leuven (both Art History) in regular exchanges, and students from North America and China in individual, though to date less comprehensively structured, internships.

## Analysing and Describing

Besides the regularly offered credit-bearing internships for final year undergraduate or Master students, UMAG also increasingly works with recent graduates who join the museum for an intensive study period as part of their first museum job. Since the academic backgrounds of interns vary, the projects are all both tailored to each student's interests and fully representative of genuine museum tasks.

While the museum director teaches 'Arts as a way of knowing' to medical students, he rarely has the opportunity to work in depth with a young doctor. This changed when Ashley, who studied Art History at Columbia University first and Medicine at HKU later, joined our programme to combine her theoretical and practical interests and to switch fields from medicine to art. The intern's training prepared her extremely well for the analytical study of pictorial compositions and iconographic contents, and she embarked on a comprehensive study of the painted oeuvre by a local artist, much of whose work has been donated to UMAG recently. Her refined observation

skill and ability to ask medium-specific questions – like a doctor examining a patient – let to an efficient and precise study of the visual nuances and technical and material differences between paintings that, thanks to the careful descriptions that followed, offer interesting insights into the artist's life and oeuvre. The meticulous explanations of the most minute details led to object entries that stand out for their comprehensive analysis.

In addition to such detail-oriented analysing, the scholar also practised to communicate these and other artefacts to the general public. Here, the use of language was refined in such a way that the pictorial contents, materials, and techniques, etc, were describe so well that short caption texts offer a wealth of information in an accessible format. This communication style – substituted further with the composing of short, pointed social media post – allowed the intern to gain those professional skills that art professionals sometimes lack, namely the precise assessment, recording and – no-less important – communication of artworks, making-specific details, and historic contexts.

The latter task is closely linked to the Museum's ambition to define firstly how and for which audience individual social media platforms are employed. The style of the communication and the language, English, more colloquial Cantonese for the local, or Mandarin for a wider audience, were discussed within the Museum team and this and other young scholars' voices were heard to develop communication channels that supply educational texts and insightful illustrations effectively.

Both her unusual, as well as the following examples, illustrate how a tailored approach to creating an internship and study programme benefit both the young scholar and the hosting institutions as they guarantee a successful and rewarding teaching and learning experience.

**Recording and Standardising**

Kenneth, who studied Art History at HKU and Oxford University, immersed himself in recording and updating a large part of the Museum's object database. Drawing on his experience as a cataloguer in an international auction house, he amended and revised the catalogue of our Museum's permanent collection. While reading and standardising hundreds of object entries, he also completed a glossary of terms which includes special terms related to our ceramics collection, as well as names of object-related workshops and locations, in both Chinese and English. The glossary is designed to help curators and researchers when they need to translate ceramics-related texts, as well as to standardise our word choice in translation. This important fundamental work will form the basis upon which a search engine for art-specific terms is programmed for the Museum's new online database to facilitate work with the extensive collection.

In parallel, and with the help from the museum director, the young scholar also initiated a new feature filtering system project for the Museum's website. Regarding the collection and catalogue, feature filtering refers to the process where a set of relevant features is manually generated for the objects in our collection. Using the feature filtering function, site visitors will be able to browse our catalogue with ease by selecting distinguishing features which are linked with the objects in the Museum's art collection. His work started by creating new data for the filtering system by determining specific features which are relevant to the objects in our ceramics and painting collections.

The collection related study and intensive cataloguing work led Kenneth to compile a literature review about Han-dynasty proto-celadon ceramics. He studied and summarised academic journal articles and papers related to the study of celadon wares by means of X-ray fluorescence analysis. This focussed examination later became part of the preparation for an exhibition in the Museum's new UMAG STArts programme focusing on science, technologies and the arts.

While working at the University Museum, Kenneth also submitted two paper abstracts, one studying the Museum's collection of Nestorian crosses to the Organizing Committee of International Conference on Heritage Conservation, and a second proposal on Hong Kong's ink art to the Society for Hong Kong Studies 2nd Annual Meeting 2020. While the abstracts were accepted, both conferences had to be postponed due to the COVID-19 pandemic. Both presentations very closely relate to UMAG's collection and they testify to an intensive in-depth training with the artefacts.

**Scientific and historic Studies**

A third young scholar, who possesses art history, archaeology and museum studies degrees from Durham University, researched and documented a sizable collection of different finds from mid-twentieth-century excavations in Hong Kong. The analytical skill she develops relates to recognising and classifying ceramic shards and identifying different ceramic types. The typology of local archaeology is little studied, which makes this project pioneering and rewarding. Historically, this study is closely linked to Professor F.S. Drake, a former Chinese Department member and the founding father of the Museum, and the early Chinese art collections he amassed at HKU that originally led him to lobby for the establishment of an 'archaeological team' and an art museum.

Tullia, who had witnessed the scientific analyses of Roman pottery in the UK, benefits from the university museum experience she enjoyed during her oversees studies as well as her curiosity for her hometown's little recorded excavation sites. For the modern city of Hong Kong, this learning experience presents a rare opportunity to work with locally excavated ceramic finds, to engage in a textural study of field reports from the 1950s, and to rediscover what objects or shards were previously recognised and published so they can serve as exemplifying identifiers for the large remaining number of similar but to date unidentified pieces. Patience, the ability to establish an organised overview, and the appreciation of a large long-term projects with a variety of unanswered questions will lead this young researcher and our museum team to new knowledge and a skill set that exceeds the regular solution finding and problem solving with more common and easier to study art.

Further, this project teaches the recording, in text and image, of the found objects, their stylistic features and inscriptions. The scientific analysis of the ceramic material and deciphering and evaluation of previous labels offer a wide range of activities and teach skills invaluable for museum professionals. Although our museum staff is small, we have three staff members with conservation degrees (two of the curators and the collection manager) and benefit from an open and ongoing dialogue about the assessment, preservation, and communication of artefacts. We task ourselves to include interns in every step of even longer processes to offer insightful and comprehensive learning experiences.

**Teaching and Learning**

At UMAG, the continuous development of more internship placements for an ever more diverse group of young scholars paves the way to an initiative to create a long-term project that will provide additional undergraduate courses as well as taught postgraduate programmes in Museum Studies and Preventive Conservation. In close collaboration with the Faculty of Arts, the plan emerged to contact, visit and learn from existing programmes in both academic fields. In order to jump-start, advance, and finance this new investigation, the dean of the Faculty of Arts and the museum director applied to the Andrew Mellon Foundation for a pilot grant. The application was first improved, then accepted, by the Foundation and resulted in US$ 150,000 in funding, that we spent primarily on visiting other well-established programmes and teaching laboratories and on inviting specialist to our campus. This 2-year-long study allowed us to foster a feasible plan we proposed to the university for the establishment of a dedicated teaching space and funds to develop undergraduate and Master-level courses.

In parallel, and partially by leveraging on the momentum and early recognition of our new teaching strategies, the museum itself built up two new endowments totalling, initially, about US$ 3 million. These funds were almost exclusively donated by museum friends and community members, and the interest they generated will be used to support the museum's teaching and public outreach initiatives, both on and off campus. The goal for the continuous and lasting employment of these funds is also to make classroom-related teaching applicable to publicly taught outreach programmes. In addition, we will use many of the same class materials and analyse some of the newly begun community programmes as case studies that inform our teachers and students in Museum Studies about actual and ongoing projects and real-world challenges.

**Future Endeavours**

Despite the many successes our teaching project experienced, the process of developing new programmes is slow and many of the building blocks are not self-evident. While the Museum Studies lectures can be classroom-based and benefit from museum visits and in-gallery teaching, the establishment of even the most modest conservation programme is costly and complicated. For the training in Museum Studies, the museum staff has used a traditional lecture room on campus, and in proximity to the art collection. In 2020, the University Museum added one in-house study gallery that functions as a multi-purpose teaching space and was converted during a recent renovation of the institution's historic building. Big enough for classes of 25 students, this gallery houses the museum's study collection and offers space for small and focused study exhibitions. This well-located room is near the museum's main entrance and opposite our institution's workshop space for public art classes.

The teaching lab for our Conservation courses is still being developed. Once it is in use, the Museum's study gallery will offer the opportunity to present preservation and conservation, as well as object-based studies to the public – and it is positioned to highlight student-initiated projects in the future – but it is not a lab space itself to accommodate the new, and, hopefully growing, programme. In order to establish a purpose-build teaching lab, offices and existing classrooms near the museum will have to be repurposed. The vision here is important, as the synergies between and cross-teaching opportunities of both Museum Studies and Conservation will be a key element of both programmes, and their physical proximity to the museum will enable us to make ongoing use of the art collections for the teaching of, for example, object examination and handling, to participants in different cohorts.

Besides the practical reasons for giving best access to the collections and having students with different professional specialisations participate, the closeness of the Museum Studies and Conservation programmes also aims at confronting pre-conceived notions about the fact that the professions are perfectly separate from one another. We aim, physically and academically, to bridge this still existing gap between curators and conservators by training them together. Our build classroom environment will be located and outfitted to such standards that it facilitates the students' access to art collections and work with original objects. It will be used for joint teaching sessions and shared projects. The space itself will help us formulate our teaching methodology and we anticipate that our future graduates will recognise the value of different academic approaches and specialist opinions so they are more likely to collaborate successfully with one another – something we are still missing in many traditional cultural institutions.

In addition to achieving this professional acknowledgement between related art professions, it is one of our highest goals to continue to remain sensitive to different cultures and diverse training methods. Located in Hong Kong, we have the advantage, as well as the challenge that our courses cater to students from different backgrounds, academically and culturally. We teach in English and attract students from East and South East Asia, as well as of Western and Western-influenced Hong Kong upbringing, and strive to incorporate local methodologies and topics, case studies and, in Conservation, Chinese materials and techniques.

A shared element in our two disciplines is the teaching of technical art history. The museum collection lends itself perfectly to the study of materials and techniques in art, and students from Conservation and, importantly, Museum Studies and traditional (and often iconography-based) Art History benefit from a more hands-on approach to art. More recently educated Museum Studies and Art History graduates aiming to work in art education and curatorial positions sometimes lack close experiences and learning opportunities with objects. Like for our existing internships, we are in the process of re-designing our course material and our teaching spaces to address this problem and strive to provide students with the opportunity to learn from handling and studying historic objects, as well as conservation and display techniques, and communication methods that too increasingly incorporate the voices of different, collaborating museum professionals.

## Conclusion

Over the past years, UMAG developed a variety of internships to work with various university department on credit-bearing learning opportunities for undergraduates and students in taught postgraduate programmes. These and the Museum's summer internships, which are available also to students enrolled or graduated from foreign universities, offer object-based learning and methodical analytical studies of museum-related disciplines. Young professionals are also engaged in public outreach and in-gallery and online education programmes in order to learn to communicate to and engage with museum visitors.

The establishment of these fundamental study programmes helped the Museum fundraise for more student training and public engagement initiative and led to the strategic development of future degree courses that will be both faculty and museum based and aim to teach different museum professionals in parallel to better prepare young scholars for an evolving cultural sector. Theoretical as well as practical problem solving and solution finding are key elements of the new academic teaching and learning experience for students and become a well-balanced and knowledge-based education for future leaders in the art and heritage industries.

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## Keywords

Museum education, academic museum-initiated programmes, scientific and historic studies, credit-bearing internships

# *Di(ver)sidades Collection*: A University Collection of Photo-Ethnography at the Service of Training Future Audiovisual Communication Professionals[1]

CARMEN LÓPEZ-SAN SEGUNDO AND
FRANCISCO JAVIER FRUTOS-ESTEBAN

## Abstract

*How can the development of a university collection of photoethnography be combined with the training of future audiovisual communicators and the contemporary debate on gender identity and affective-sexual diversity approaches?*
*Di(ver)sidades takes on this challenge as an action integrated into the experience of responsible research and innovation experience, FotoC3: Citizenship, Creativity, and Care[2] (FotoC3) ¬– an initiative that actively promotes community health in terms of diversity, inclusion, and equity through the systematic use of collaborative photography, teaching innovation, ethnographic inquiry, cultural creation, and heritage education. Specifically, 'Di(ver)sidades' combines the practice of photo-ethnographic portraiture and coeducation to foster a scientific culture aligned with three Sustainable Development Goals: good health and well-being (3), quality education (4), and gender equality (5). 'Di(ver)sidades' is renewed each academic year in the socio-educational context of the University of Salamanca, supported by three methodological practices of participatory action research: Photovoice, Project-Based Learning (PBL), and Service-Learning (SL), and the adoption of the ISO 9000:2015 standard for the continuous improvement of its management processes.*
*'Di(ver)sidades' achieves results in three specific dimensions: the implementation of good practices in teaching innovation, citizen participation, and social responsibility; the creation and dissemination of collective cultural content — such as traveling photography exhibitions and short audiovisual productions — and the implementation of the Di(ver)sidades Collection as a web repository integrated into the Network of Scientific Collections of the University of Salamanca (RC2_USAL)[3].*

1. https://fotoc3.usal.es/diversidades/
2. https://fotoc3.usal.es/
3. https://coleccionescientificas.usal.es/

CARMEN LÓPEZ-SAN SEGUNDO &
FRANCISCO JAVIER FRUTOS-ESTEBAN

## 1. University Collections, Social Debates, and Higher Education

Since the sixteenth century, when the scientific collections began their journey as assets for knowledge in the context of higher education in disciplines such as medicine, pharmacy, or astronomy, universities have been filled with anatomical theaters, botanical gardens, and astronomical observatories — spaces that required sets of material elements to stimulate the production and transmission of science. These collections provided supplementary knowledge that was not available in the textual records found in libraries. Since then, scientific collections have not only preserved for future generations the tangible and intangible culture associated with academic communities, but they have also served the three missions entrusted to every contemporary higher education institution: teaching, research, and social engagement.

From this perspective, the legacy safeguarded by the RC2_USAL provides a wide repertoire of teaching-learning experiences (ROCHINA CHILENO et al., 2020) each academic year, thanks to the valuable collections in Physics, Geology, Anatomy, Computer Science, Pedagogy, or Industrial Engineering that have been generated over its eight centuries of history. Similarly, the series of natural world specimens gathered in its Botany or Zoology collections are significant because they demonstrate past research practices. And as the nature of research questions evolves with technology, biological collections that were once the source of taxonomic research are now being rediscovered as valuable data banks for molecular biology research. The third mission, broadly defined as engagement and impact on society, is another area where the University of Salamanca systematically utilizes the potential of its scientific collections[1]. This is evidenced by the work of the University of Salamanca's Unit of Scientific Culture and Innovation[2], which for years has been organizing permanent and temporary exhibitions, as well as events and festivals that promote interaction between the public and academics with their scientific, technical, or educational heritage.

Behind the RC2_USAL lies a task force comprised of faculty, researchers, and administrative staff dedicated to safeguarding the scientific heritage produced or to be produced within the context of the Salamanca higher education institution. A commitment manifested in the stewardship of collections comprising tangible and intangible assets that have emerged from or contributed to a coherent and substantial scientific agenda. These assets are amassed, catalogued, curated, and preserved within secure environments to be disseminated to an audience that varies in its breadth. In this way, the RC2_USAL does more than safeguard the tangible and intangible heritage associated with the research, pedagogy, and social responsibility endeavors of its academic community; it also upholds fundamental rights by acknowledging and confronting the significant contemporary issues and public debates of our time. As repositories of human knowledge established in the milieu of higher education, scientific collections are compelled to be at the vanguard of contemporary discussions. Presently, the intrinsic worth of a university's scientific collection is highlighted by its renewed duties as democratic, inclusive, and diverse forums for critical and public discourse regarding the past, present, and future (SIMPSON, 2019). These academic collections not only conserve the tangible and intangible culture pertinent to research, education, and knowledge transfer for future generations but also affirm fundamental rights through their recognition and engagement with the pressing contemporary challenges and public controversies of our era. A good example of this is the Workshops on Good Practices in Quality organized at the University of Salamanca, where topics such as good practices in social

1. https://coleccionescientificas.usal.es/
2. https://investigacion.usal.es/es/ucci

responsibility are addressed, discussing these kinds of issues[3].

Under this revitalized paradigm and within the framework of the FotoC3 initiative, a responsible research and innovation experience articulated by FRUTOS-ESTEBAN & LÓPEZ-SAN SEGUNDO (2020), the 'Di(ver)sidades' action unfolds. This initiative synthesizes the contemporary discourse on gender identity and affective-sexual diversity with the advocacy of coeducation and the application of photographic portraiture. It culminates in the establishment of the Di(ver)sidades Collection, a scientific assemblage of photoethnographies that is integrated into the RC2_USAL. This collection serves not only as a repository of diverse human experiences but also as a dynamic platform for academic dialogue and societal engagement.

The 'Di(ver)sidades' initiative is the direct descendant of a series of scholarly activities initiated in the 2013-2014 academic year. It began with 'Orla 2.0' as articulated by FRUTOS-ESTEBAN, CALVO, & GONZÁLEZ DE GARAY (2016) alongside CEREZO (2016) and CEREZO & MANZANO (2017). This endeavor was subsequently advanced through 'Sendas_Fotovoz' by LÓPEZ-SAN SEGUNDO & FRUTOS-ESTEBAN (2018) and 'Fotoidenti(e)dades' (FRUTOS-ESTEBAN, LÓPEZ-SAN SEGUNDO, & CEREZO, forthcoming). Currently, it operates under the auspices of the FotoC3 framework. This cumulative seven-year trajectory has crystallized into the distinctive objectives that now define 'Di(ver)sidades'. This lineage not only underscores the sustained commitment to integrating diverse academic and social perspectives but also highlights the progressive refinement of methods and aims that characterize this innovative initiative.

a) To promote collaborative photography as a medium of photoethnography that crafts the visual prosopography, representing the collective and diachronic memory of project participants.

b) To bridge pedagogical innovation with applied research and the adoption of active pedagogies in tertiary education by cultivating a scientific corpus of photoethnographic work.

c) To orchestrate inter-disciplinary collaborative efforts among various academic programs involved in the initiative.

d) To heighten recognition of the profound significance that photographic images hold in contemplating gender identity and sexual diversity, underscoring their role in pivotal public discourse of pressing social significance.

e) To ensure the preservation and public propagation of the project's findings through the orchestration of both in-person (offline) and digital (online) engagements, thereby broadening the project's impact across all intended audiences.

The 'Di(ver)sidades' initiative synergistically integrates three methodological paradigms of participatory action research: photovoice, project-based learning, and service-learning.

In the wake of implementing service-learning and embracing the ISO 9000:2015 standard for the relentless enhancement of management processes via the Plan-Do-Check-Act cycle, 'Di(ver) sidades' unfolds in a dual-phase progression: the initial phase is dedicated to cooperative planning and production with an emphasis on pedagogical outcomes; the subsequent phase is oriented towards the conservation, public diffusion, utilization, and assessment of findings, all aligned with service-oriented and social responsibility objectives.

The inaugural phase of 'Di(ver)sidades' commences with each academic year's outset—specifically in the latter part of September—when small collaborative units, each consisting of

3. Durán A. (Coord.) (2019). *Buenas prácticas en calidad de la Universidad de Salamanca: recopilación de las I Jornadas. Repositorio de buenas prácticas.* Ediciones Universidad de Salamanca https://www.eusal.es/eusal/catalog/view/978-84-1311-213-8/4661/1720-2

three to four students, are established within the 'Photography Laboratory' course of the Degree in Communication and Audiovisual Creation at the University of Salamanca. Pursuant to fostering coeducational engagement surrounding gender identity and sexual diversity via photoethnography, these cohorts generate identity-focused portraiture, including self-portraits, alongside portrayals that accentuate aspects of sexual diversity. The latter is orchestrated in consort with equivalently sized student groups from the 'Gender and Society' course within the Sociology Degree at the University of Salamanca. For instance, in the 2019-2020 academic cycle, more than one hundred students engaged in this endeavor, culminating in the production of two hundred photographs. Since the 2014-15 academic term, it is approximated that over seven hundred students have contributed to this venture, amassing nearly 1,200 images that presently constitute the Di(ver) sidades Collection. The second phase of the 'Di(ver)sidades' initiative unfolds through a triad of activity strands. Foremost it seeks to safeguard the photographs produced during the initiative's primary phase, alongside those from antecedent iterations, within the Di(ver)sidades Collection. This collection, a constituent of RC2_USAL, is maintained in an institutional web repository. This repository is distinguished by its public accessibility and collaborative governance, as exemplified by https://coleccionescientificas.usal.es/diversidades. Furthermore, the portal not only consolidates the scientific assemblage of photoethnographic works but also classifies these images through a system of controlled vocabulary and folksonomies. This approach is in line with the initiative's collaborative ethos and has been devised and appraised by the students, faculty, and researchers directly involved in the project.

Secondly, and concurrently, the 'Di(ver)sidades' initiative extended its public outreach with the curation of the images into virtual galleries, notably on platforms such as Instagram. Additionally, the creation of an audiovisual making-of and a comprehensive photobook chronicled the extensive results of this iteration.

In tandem, 25 student-contributed photographs were meticulously curated to compose a collective and itinerant exhibition titled *Di(ver)sidades_2020 Collection: Photoethnography, Identity, and Sexuality*[4]. This exhibit encapsulates the dual facets of the 'Di(ver)sidades' action: it portrays the collective ethnographic tapestry woven by the Audiovisual Creation and Communication students of the 2019-20 academic year and visualizes contemporary intersections of gender and sexual diversity as conceptualized by Sociology students and materialized by their counterparts in Audiovisual Communication and Creation. The selection of the 25 images that constitute the *Di(ver)sidades_2020 Collection* is facilitated by a questionnaire enabling collaborative curation among all participants, aiming to balance quality and representativeness in the final image curation.

Thirdly, the University of Salamanca's Quality Evaluation Unit conducts annual satisfaction surveys among students and faculty as part of an internal review process to assess the 'Di(ver)sidades' initiative. For external evaluation, 'Di(ver)sidades' employs a tripartite strategy: a) executing a media plan for dissemination to the wider public, b) publishing articles in scholarly journals, and c) contributing to academic and professional symposia.

## 2. Between Responsible Research and Innovation and Photo-Ethnography

Responsible research and innovation (RRI) were enshrined within the European Union's Horizon 2020 program as a paradigm that not only contemplates societal expectations regarding research and innovation but also the ramifications of these activities on society at large. Presently, RRI is harmonized with the United Nations' Sustainable Development Goals, emerging as a pivotal notion in meeting the aspirations and necessities of contemporary societies as they navigate towards a paradigm shift from 'science in society' to 'science for society, with society' (LAROCHE, 2011). This transition towards a more profound synergy that

4. https://fotoc3.usal.es/diversidades/

culminates in sustainable and socially congruent science is manifested through the adoption of participatory and dialogue-oriented methodological-theoretical frameworks for inclusive research and innovation. Methodologies such as Photovoice, Project-Based Learning, and Service-Learning are the pillars supporting the initiatives encapsulated in the 'Di(ver)sidades' action. Photovoice, as initially delineated and implemented by WANG & BURRIS (1997), stands as a participatory action research technique rooted in the principles of photoethnography (ACHUTTI, 1997) and is highly esteemed for its efficacy in cultivating civic-minded and health-conscious social behaviors. This method empowers students to collate visual data through the creation of their own photographic content, thereby becoming catalysts in the processes of cognition, pedagogy, and the cultivation of civic consciousness. Within the context of 'Di(ver)sidades', Photovoice seeks to enhance the 'voice' of the educational milieu by fostering the production of images that articulate, comprehend, expound, and endeavor to metamorphose their reflections concerning the intricacies inherent in the construction of visual identities, as well as actively promoting communal well-being in the realms of sexual diversity and gender identity.

Problem-Based Learning (PBL) is an instructional paradigm wherein students independently forge their understanding by engaging with authentic, real-world projects or dilemmas (Font, 2004). The 'Di(ver)sidades' initiative embodies this conceptualization as the endeavor is inherently student-centric and propelled by learners themselves; it commences with a distinct inception, progresses through development, and concludes with a definitive closure. The initiative is palpably manifest within its context, targets explicit and substantive goals pertinent to an educational schema, and culminates in the realization of a concrete artifact that can be disseminated for public contemplation, thus stimulating discourse, and permitting assessment. Josep M. Puig conceptualizes service-learning as "a methodology that integrates the acquisition of knowledge, skills, and values with the execution of community service tasks within a singular activity" (PUIG, 2009: 9). This pedagogical approach directs the learning process towards community service endeavors, thereby enhancing the civic engagement and social responsibility of the students involved. Within the framework of RC2_USAL, service-learning facilitates students' efforts to preserve photographic heritage, aligning educational objectives with the practical stewardship of cultural resources. This methodology not only reinforces academic learning but also promotes the active participation of students in the cultural and communal life of the university.

The trio of methodological practices — Photovoice, Problem-Based Learning, and Service-Learning — are holistically applied throughout all stages of the 'Di(ver)sidades' initiative, encompassing the production, preservation, public dissemination, and creative utilization of photographic portraits. This is orchestrated by an open and interdisciplinary collective at the University of Salamanca, comprising:

**Francisco Javier Frutos-Esteban**, serving as the general coordinator. He oversees the 'Photography Laboratory' and 'History of Audiovisual Media' courses (Degree in Communication and Audiovisual Creation) and 'Responsible and Collaborative Research' (Master's in Science, Technology, and Innovation Studies).

**Professor Carmen López-San Segundo**, who manage all human and material resources. Their responsibilities include updating the web repository, maintaining the scientific collection of photographs, and facilitating the dissemination of results.

**Professor Estrella Montes**, responsible for the 'Gender and Society' course, coordinates the integrative practices between her Sociology students and those from the 'Photography Laboratory', which focus on producing images related to sexual diversity.

**Professor Modesto Escobar**, who leads initiatives related to social labeling and data processing within the scope of his Sociology courses: 'Measurement and Social Indicators' and 'Multivariate Analysis Applied to Social Sciences'.

**Miguel Battaner**, as the head of the Scientific Culture and Innovation Unit, supports the potential collective photographic exhibitions and other related dissemination activities.

**Rocío Galache**, from the Support Unit for the University Community with Disabilities, Social Affairs Service, and

**Pilar Vega**, from the Digital Production and Innovation Service, both contribute to the broader objectives of the 'Di(ver)sidades' action, enhancing its outreach and impact within and beyond the academic community. This collective effort ensures the initiative not only thrives in its execution but also in fostering an inclusive, educational, and socially responsible environment.

Annually, the work team is augmented by approximately 150 new participants from the University of Salamanca. These participants typically include students enrolled in the Degree programs in Communication and Audiovisual Creation, and Sociology; the Interuniversity Master's Degree in Science, Technology, and Innovation Studies; and the Doctoral Program in Training in the Knowledge Society. This influx of fresh perspectives enriches the collaborative dynamics and reinforces the interdisciplinary approach essential to the project's success.

## 3. Final considerations

'Di(ver)sidades' exemplifies the significance of an interdisciplinary methodology in cultivating a scientific and caring culture, which harmoniously engages with creative and participatory citizenship. This approach necessitates a transdisciplinary exploration of human knowledge, which enhances the virtuous integration of elements often considered disparate. Culture extends beyond mere products and services; it encapsulates a collective societal endeavor. Science, transcending the sole responsibility of researchers, involves every citizen and spans across fields from biology and chemistry to sociology, history, and philosophy. Creativity emerges not only from individual brilliance but also through collaborative ventures. Care extends its relevance beyond personal or emotional realms into community health and social responsibility.

The Di(ver)sidades Collection, thus, represents a collaborative effort among citizens from varied disciplinary backgrounds, dedicated to fostering citizen creativity and ensuring community well-being. This initiative aligns with the Sustainable Development Goals and aims to augment processes of citizen activism within the University of Salamanca's context, promoting a holistic approach to education and civic engagement. By scrutinizing evaluation procedures and identifying achievements and best practices, the Di(ver)sidades Collection can enhance several of its core strengths:

(a) **Systematic Application of Active Pedagogies**: The collection employs active teaching-learning methodologies to develop educational content that explores the construction of identities and diversities through photographic practices. This approach not only serves as a tool for understanding the mechanisms behind the construction of visual identities but also promotes civic-minded co-education.

(b) **Establishment of Coordination and Collaboration Protocols**: Protocols are defined to facilitate interaction between students, educators, and socio-educational communities. This expands the range of interventions that foster meaningful and impactful learning experiences beyond the conventional classroom boundaries. It transcends physical and organizational limits by integrating formal and informal learning environments and utilizing both curricular and extracurricular resources, thus enabling students to create personalized and collective learning spaces.

(c) **Routine Evaluation and Utilization of Learning Outcomes**: There is a consistent practice of assessing, disseminating, and leveraging the results of educational endeavors, which further encourages a commitment to both the physical and social milieu. This includes the preservation of

photographic works as essential components of cultural heritage, thereby stimulating engagement with the community's historical and aesthetic values.

(d) **Engagement in Scientific Cooperation Networks**: The initiative is keen on participating in networks of scientific cooperation to connect with other innovative and sustainable research projects. This involvement facilitates the sharing of insights and methodologies that enhance the collection's objectives and extend its impact within the academic and global community.

These strategic approaches not only reinforce the Di(ver)sidades Collection's educational and cultural objectives but also align it with broader academic and societal goals, promoting a comprehensive and inclusive understanding of community, identity, and diversity.

## Literature Cited

ACHUTTI, L. E. 1997. *Fotoetnografia: um estudo de antropologia visual sobre o cotidiano, lixo e trabalho*. Porto Alegre, RS: Palmarinca.

CEREZO, M. 2016. El retrato fotográfico como medio de identidad colectiva y representación social. El caso de Proyecto Orla 2.0. En Juan Francisco Blanco (Ed.), *Identidad e imagen en Castilla y León*. Actas del IV Foro de las Identidades de Castilla y León. Salamanca: Diputación de Salamanca, 177-188.

CEREZO, M. & MANZANO, S. 2017. De las aulas a la sociedad: representación de identidad de género y diversidad sexual a través del retrato fotográfico. En Juan Francisco Blanco (Ed.), *Identidad y género en Castilla y León*. *Actas del V Foro de las Identidades de Castilla y León*. Salamanca: Diputación de Salamanca, 31-40.

DURÁN A. (Coord.) 2019. *Buenas prácticas en calidad de la Universidad de Salamanca: recopilación de las I Jornadas. Repositorio de buenas prácticas.* Ediciones Universidad de Salamanca

FONT, A. 2004. Líneas maestras del aprendizaje por problemas. *Revista Interuniversitaria de Formación del Profesorado,* 18, (1), 81-97.

FRUTOS-ESTEBAN, F.J. & LÓPEZ-SAN SEGUNDO, C. 2020. FotoC3: ciudadanía, creatividad y cuidado. En *Buenas Prácticas en Calidad de la Universidad de Salamanca.* Salamanca: Ediciones Universidad de Salamanca, 47-48.

FRUTOS-ESTEBAN, F.J.; CALVO, K. & GONZÁLEZ DE GARAY, B. 2016. Proyecto Orla 2.0. La construcción de la identidad a través del retrato fotográfico. En Juan Carlos Alfeo y Luis Deltell (Eds.) *La mirada mecánica: 17 ensayos sobre imagen fotográfica.* Madrid: Fragua, 51-60.

FRUTOS-ESTEBAN, F.J.; LÓPEZ-SAN SEGUNDO, C. & CEREZO, M. 2019. Fotoidenti(e) dades: investigación-acción participativa, mediación cultural y educación. En Tamara Bueno Doral (Ed.), *Artecnología: tecnologías y cultura digital socialmente responsables e innovadoras.* Madrid: Trea, 299-310.

LAROCHE, G. 2011. Franco-British Workshop on Responsible Innovation. *From Concepts To Practice".* At https://cutt.ly/AtpFqR1 [Accessed 30 May, 2017]

LÓPEZ-SAN SEGUNDO, C., HERNÁNDEZ PIETRO, M. & GARCÍA PÉREZ OMAÑA, A. 2023. Di(ver)sium: imágenes para coeducar. *Fonseca, Journal of Communication*, (26), 327-343.

LÓPEZ-SAN SEGUNDO, C. & FRUTOS-ESTEBAN, F.J. 2018. Sendas_Fotovoz en Gomecello:

identi(e)dad y fotografía participativa. En J. FRANCISCO BLANCO (Ed.), *Edad e identidad en Castilla y León*. Salamanca: Diputación de Salamanca, 197-220.

OWEN, R.; MACNAGHTEN, P. & STILGOE, J. 2012. Responsible Research and Innovation: From Science in Society to Science for Society, with Society. *Science and Public Policy*, (39), 751–760.

PUIG, J.M. 2009. Aprendizaje servicio (APS). *Educación y compromiso cívico.* Barcelona: Graó.

ROCHINA CHILENO, S. C., ORTIZ SERRANO, J. C., & PAGUAY CHACHA, L. V. 2020. La Metodología de la enseñanza aprendizaje en la educación superior: algunas reflexiones. *Universidad y Sociedad*, 12(1), 386-389.

SIMPSON, A. 2019. Museums and Collections, Epistemic Convergence and Higher Education. In *Humanities and Higher Education: Synergies between Science, Technology and Humanities.* Barcelona: Global University Network for Innovation (GUNi),.209-219.

WANG, C. & BURRIS M. A. 1997. Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Education & Behavior*. ;24(3):369-387. doi:10.1177/109019819702400309

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## Keywords

University Collection, Photo-Ethnography, Coeducation, Higher Education

# Stealing Culture: Law Students Engage in Interdisciplinary Analysis Through the Museum

NICOLE M. CRAWFORD AND DARRELL D. JACKSON

## Abstract

*Museums can be foundational locations for training law students to become lawyers. However, unlike other professions where the museum is intertwined with the profession, for example, a medical museum or anthropological museum, we have no 'legal museum.' Instead, law students are using the whole museum to develop the litany of desirable skills required to become a successful lawyer. Because the museum does not exist 'for lawyers,' the students are engaging with the museum, its functions and its contents as a learning lab and a primary source. Thus, the museum is not built to accommodate the students. Instead, the students are learning through immersion in the museum and all that is involved in its operation.*

## Introduction

This article is our journey through theoretical conceptualization of this undeveloped learning environment to implementation, over a variety of class sizes and structures. Between domestic and international, we have been fortunate to teach a cohort of students, on average, once an academic year. Through praxis (our implementation and engagement, assessment, evaluation, theorization, and re-engagement), we have honed techniques that allow law students to interact with the museum in ways that benefit their personal and professional growth.

## Research collections in teaching

University museums can be traced to medieval times, when they were formed as teaching tools to support medical education through collections of medicinal and anatomical specimens (BOYLAN 1999). Subsequently, subject-focused collections were obtained through research activities, such as field specimens gathered by archaeologists, botanists and zoologists that formed natural history collections. As university museums grew, their focus and role as research resources continued catering to their specific fields. As a result, some professions – like archaeology, natural history, art history – have used museums for research for centuries. Others have yet to fully understand or develop relationships with a museum because there are no collections that relate specifically to their academic area. We recognize this untapped potential for law specifically, and show how the museum can be used, as a whole, to teach students in a way that reaches beyond the usual activities in discipline-specific collections and occasional visits.

## The Unique Relationship Between the Law Student and Museum

Research suggests that law students need specific skills to be successful in their profession (CROSKERY-ROBERTS 2020). These skills include analytical thinking, critical thinking, divergent thinking, interdisciplinary thinking, problem solving, writing well, speaking eloquently, and organizational skills, including the ability to slow down and thoroughly examine something. They have historically gained these skills through clinical training and classroom discussions through 'Socratic' dialogue. Here, we consider whether additional techniques might be employed to better prepare law students for their careers. Through an interdisciplinary collaboration between the University of Wyoming School of Law and Art Museum, law students are using the university museum as a primary resource to enhance these important skills.

Moreover, as HAMILTON (2013) explains, there are core competencies that each student should possess before graduation. These competencies might not be taught: HAMILTON (2013, 27) states that, "Even if law schools are not helping students understand and develop all the core competencies for effective and successful practice, each law student should take the initiative to understand and develop the core competencies." Our program builds on the competencies begun inside the law school and stimulates growth likely unobtainable without journeying to an unfamiliar location, like a museum, and engaging in unfamiliar exercises, like critically engaging with the functions and materials contained only within museums. But collaboration is key because, without guidance connecting their activities to law, students learning through a museum are not maximizing these benefits. Similarly, law students being guided by a lawyer unfamiliar with the intricacies of how a museum functions and collects would not learn optimally, and may even learn incorrectly.

Our use of the museum contrasts against the historically, discipline-specific use of museum collections. Medicine and anthropology quickly developed lineages of professionals in their own fields who were also trained as museum professionals. This allowed these fields to build,

maintain, and use collections for that profession's specific needs. This has not, and likely will not occur, within the legal profession. Instead, in order to optimize a law student's learning using art collections, we developed an interdisciplinary and interdepartmental collaboration between a university's art museum's director/chief curator and a professor of law. This collaboration provided the law students with an expert who could help them understand the collections, and the museum's functions, policies, and procedures, as well as an expert who could then translate all of this into utility within the practice of law.

An important distinction from the historical practices discussed above and our current implementation is that our 'unit of analysis' is *not* the museum, its collections and practices, but the student. Thus, we are not looking at the role of the museum in teaching and learning but are observing data depicting the outcomes attributable to the students. The museum serves as a tool to reach these desired outcomes and competencies.

**Importance of Collaboration**

While there have been museum exhibitions about a lawyer or a specific legal case, these have been historical recounting or analyses – we do not have a "museum of law," per se, at hand. Law students are not given any museum or collections management training, nor are they trained to use museum objects as primary or secondary source materials. Instead of focusing on these traditional museum knowledges, we gave our students a museum-located context for interdisciplinary research.

Among the skills that law students seek to develop are those identified by the National Conference of Bar Examiners (NCBE) as important for passing the bar examination. We were able to heighten two particular skills in the NCBE top 10—critical comprehension and attention to details (HAMILTON 2014)—in budding lawyers. An example that demonstrates critical comprehension came during the end of a class held during spring semester 2019. In that co-taught class, law students' final presentations involved confronting a 'real-life' scenario that involved both museum issues and legal issues. One student presented on the acquisition of looted cultural artifacts into a museum collection. The student had to confront the array of state, national, and international statutes that could be applied to and against the museum staff as well as the collectors. Simultaneously, the student was required to negotiate the museum's relationships with individuals from the donor to the 'local' individual who illegally extracted the artifact from the ground. The local was indigenous to the location from which the artifact originated and was dependent upon selling these artifacts to smugglers in order to feed and shelter his family. The student had to employ teaching and guidance from both the museum director/chief curator and law professor to critically engage the themes and controversies both implicit and explicit in this 'real-life hypothetical.'

Examples of our collaboration's ability to enhance a student's attention to detail came from both deep looking exercises and learning how to conduct provenance research. The deep looking exercises forced students to get uncomfortable staring at an art object, of which they had no background knowledge, for far longer than they ever had before, and for longer than most people ever would. They 'discovered' nuances and subtleties in an artwork that were not immediately apparent at first blush. This 'museum skill' transferred to the legal skill of more deeply reading case law and fact patterns. The intricacies of a painting easily translated into the intricacies of a victim's complaint. The full appreciation of either takes time, focus, and patience. The transferability had to be simultaneously taught and guided by the museum's director/chief curator and law professor in a manner that embraced both the congruence and the conflict.

Additionally, law students were taught provenance research. Teaching young students how to conduct detailed legal research is a challenge in itself. To then require them to learn a completely new and foreign research skill involves taking them out of their comfort zone (usually a law school library) and into a new arena to conduct research. Provenance research, uncovering the history

of a museum object's ownership, is deeply complex and involves investigative work to locate information which might be housed in museum accession files, archives, auction catalogues, and other sources. The research process itself might not be all that different from law research, but the distinctive methods of provenance research teach the law students how to research and investigate in a real-world way that applies directly to their lives after graduation. Moreover, the multiple and varied sources required for provenance research were instructional to law students considering non-normative tools for their post-graduate legal research and analysis. They learned that, to reach the best outcome for a client, they need not only to research a lot, but may also need to research in ways foreign to their previous training. Collaborative teaching was required to guide students on navigating these distinctive methods. The students were constantly comparing and contrasting the provenance techniques with the legal research skills they had previously learned and were continuing to develop. Individually, neither of us could have adequately instructed the students on how to distinguish and connect each research method. Together, we helped students envision a whole new way to enter into research.

**Specific Case Studies: Ways law students use museums**

*Students in London at the British Museum*

The first class happened during the summer of 2018. We took a cohort of approximately 14 University of Wyoming law students for a half-day visit to the British Museum. These students were spending part of the summer studying civil and criminal international law at the University of Cambridge. They had already learned about the foundations of the European Union and the European Economic Community when we took them to the British Museum to complicate their understanding of Europe's (then) current positionality. We encouraged the students to engage with the collections and exhibitions in order to better understand Europe's relationship with colonized societies and how that history shaped the EU and EEC.

To engage with the materials we instructed the students to think about the EU's current situation as they moved through the exhibitions at the British Museum. The students raised questions about the movement of objects between museums in the UK and the EU and the larger effect of Brexit, beyond just legal issues. They questioned how loan agreements would work, how shipments across the borders would change, and how this would affect those working in the museums. Before they entered the British Museum, they weren't even aware that these topics existed but, because of their engagement with the museum in real time, they were able to connect civil and criminal legal concepts with museum issues. As a result of having a museum professional as their co-instructor, who could explain the intricacies behind the exhibition work, law students were able to engage with the displayed objects and the museum on a deeper level.

Throughout the museum visit, the students engaged in visual thinking, critically describing and debating what they saw and the history behind the object, instead of their normative technique of reading a topic from a casebook or perusing the museum like a tourist. Thanks to their time at the British Museum, in a later visit to the UK Supreme Court that same day, the students were able to consider the larger implications of internal UK legal issues in new ways. The students' perceptions had changed because their museum visit had activated a new and different way of thinking. In this instance, students were forced to think about outcomes should one country, such as Scotland, leave the UK. They were able to think about changes that would be required to the visual symbols seen throughout the Court (such as the Court's official emblem that includes heraldic symbols of England, Scotland, Wales and Northern Ireland). As a result, the students had the tools to consider how changes in the UK legal structure would have broader implications than only to written laws. This visit activated their strategic and creative thinking skills, an important competency for lawyers, as discussed above.

*Honors/Law seminar class taught at the University of Wyoming*

The second class happened in a semester-long spring class in 2019 at the University of Wyoming. This seminar class was taught in the university's Art Museum and titled *Stealing Culture: The Intersection of Criminal Law and Museums.* The class included both law and undergraduate honors students. The course used creative thinking strategies to force students beyond their usual comfort of typical lectures, for example role playing during discussions to understand different points of view from real-world legal scenarios that integrated museum objects, policies, or procedures.

An example from this class: one student conveyed that "Changing a person's environment changes his/her perspective. A class (like Stealing Culture) would not have been as effective if it had not been taught *in* a museum, away from the familiar surroundings of the law school where law students spend all their time. For example, touring the facility and doing a threat assessment exercise was helpful to understanding a museum's unique security challenges, down to the specific security requirements for different types of items. Assessing the strengths and vulnerabilities of museums, from the museum's perspective, increased my understanding of criminal law. I was forced to think about the preventative measures associated with criminal statutes beyond what is conveyed through the usual law courses" (T. Hartzel, May 2020).

The third class is scheduled for the summer of 2021. In this three-week class, we intend to take students to Edinburgh, London, Paris, and Amsterdam in order for the students to engage a wide array of international collections and museums. The itinerary in each country includes a law-specific day, a museum-specific day, and a cultural day. Each day's learning can subsequently be applied to other locations. Students will keep journals throughout the class. These journals will provide data on whether students' perceptions are changed as they engage in this interdisciplinary research. If their perceptions *are* changed, the journals will help both us and them better understand the process behind the modifications. This skill is transferable to the life of a lawyer as they engage with different clients, assess different cases, and construct the best possible argument to present to each jury or board room.

*Research Assistants*

We are also engaging research assistants in new methods. Law students usually work as legal research assistants for a law professor and are paid through the law school. This project created opportunities for legal research assistants to work with both a law professor and the museum director/chief curator while housed in the museum. As a result, the current and future research assistants will have the museum listed on their resumes and job applications signifying a diversity in their educational framework that sets them apart from other applicants.

## Challenges

To be clear, there are challenges to using the museum to teach non-traditional classes in a non-museum discipline such as law. Law has a very regulated academic process for learning. Implementing these classes required, for example, gaining support from the College of Law's administration to allow a non-lawyer to teach law students, and finding an academic home for interdisciplinary learning. Finding the academic home proved especially challenging as we struggled to find support for a course that had never been taught before. Additional challenges included gaining buy in-from students to risk a class that deviated from their traditional professional training and assessments. Finally, we are still determining how to effectively engage in long term follow-up with students to better understand the benefits and challenges of this method of learning to their individual career growth.

## Outcomes

A former law student says it best: “The primary way my experience with Nicole working [in the Art Museum] on NAGPRA (*Native American Graves Protection and Repatriation Act* 1990) shaped my educational path, is that it broke down the traditional academic disciplines and showed me the advantages of an interdisciplinary approach to education and problem solving. I was a research assistant for [a law professor] at the time. I remember him encouraging me to think about my academic goals. I honestly was a little lost in law school. At one point, he simply asked what I enjoyed learning about the most. I said art, not expecting the comment to go anywhere. But both he and Nicole were willing and encouraging of me exploring the connections between art and law, and the NAGPRA project was a perfect fit.

I thought of law as the discipline of disciplines. Being able to break out of the traditional law school subjects made it apparent to me how the structure of the law can be applied to any subject. How it is applied to all subjects. In law school you know this in theory, as you know law extends beyond the subjects of property, crime, family structures, taxes etc. but I was able to have the experience of a ‘practicum’ in art to gain experience first-hand how it intertwines with the art world. While I may have thought of law as the discipline of disciplines, turns out it is one of the most interdisciplinary subjects there is” (F. Resor, March 2020).

## Conclusion

Students, generally, and law students more specifically, have much to learn and access from museums. As training tools, museums are important to developing non-traditional ways of engaging critical thinking and learning. While we use law students as an example in this chapter, this manner of museum engagement can be applied across the disciplinary spectrum. Instructor collaboration is amongst the most important factors in our work because, in order to genuinely access the information and knowledge relevant to a student’s studies, the instructors must be able to demonstrate expertise broadly enough to encompass all that the students encounter. While each of us brought significant expertise in our relevant fields, when we asked students to train across disciplines, we were similarly required to simultaneously provide a collaborative expertise and guidance at every stage of their journey. Next stages in our research will involve researching and assessing the long-term benefits of this instructional technique.

Above: University of Wyoming Law Students at the UK Supreme Court, London, 2018

Right: Students in the Stealing Culture class engage with cultural objects in the teaching gallery at the University of Wyoming Art Museum, 2019

Left: Students engage in deep looking exercises using artwork from the University of Wyoming Art Museum collection, 2019

Right: Law student, Toni Hartzel, gives her final presentation on art theft and provenance research for the Stealing Culture class, 2019

Left: University of Wyoming Law students and Professor Darrell Jackson at the British Museum, London, 2018

Students in the Stealing Culture class engage with objects in the teaching gallery at the University of Wyoming Art Museum, 2019

* All images are courtesy of the authors

## Literature Cited

BOYLAN, P. 1999. Universities and Museums: Past, Present and Future, Museum Management and Curatorship. *Museum Management and Curatorship* 18 (1): 43-56.

CROSKERY-ROBERTS, R. 2020. Ten Years in: A Critical View of the Past, Present, and Future of Skills Education at UC Irvine Law School. *UC Irvine Law Review* 10, no. Special Issue (January): 469-488.

Native American Graves Protection and Repatriation Act. Public Law 101-601, *U.S. Statutes at Large* 25 (1990): 3001-3013.

HAMILTON, N. 2013. Law Firm Competency Models and Student Professional Success: Building on a Foundation of Professional Formation/Professionalism. *University of St. Thomas Law Journal* 11, no. 1 (Fall): 6-38.

HAMILTON, N. 2014. Changing Markets Create Opportunities: Emphasizing the Competencies Legal Employers Use in Hiring New Lawyers (Including Professional Formation/ Professionalism). *South Carolina Law Review* 65, no. 3 (Spring): 547-577.

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## Keywords

Law, museum studies, interdisciplinary, critical race theory

# On Campus and Other Partnerships and Alliances for Developing Museum and University Museum Professionals

ANDREW SIMPSON

## Abstract

*The full life cycle of undergraduate and postgraduate museum studies programs, from proposal, inception, growth, and change, through to cancellation over a ten-year period at Macquarie University are discussed. This focuses on aspects of the program that made them successful with students, if not the institution, through a combination of analysis and personal reflection.*

## ANDREW SIMPSON

### Museum Studies at Macquarie University

Museum Studies programs ran for 10 years at Macquarie University. Museum Studies undergraduate units commenced in 2002 (SIMPSON & MAWSON 2003) and postgraduate units in 2004 as programs offered by the former Division of Environmental and Life Sciences (later merged with other divisions to become the Science Faculty). Programs were built around a series of core units with a range of optional cross-disciplinary units as a way of capturing a diverse cohort of students at a time when a maximum diversity of options and flexibility was encouraged in curriculum design.

Macquarie University is Sydney's third university, it was established in the 1960s at a time of expanding higher education globally (SIMPSON 2014). The undergraduate program evolved from a combination of study coherencies into a museum studies major in both the Bachelor of Science and Bachelor of Arts degrees. The postgraduate coursework programs consisted of an articulated Postgraduate Diploma and Masters, the same units of study for the Diploma were the foundation for the Masters. For much of its history, it was the only suite of museum studies programs delivered by a Faculty of Science in Australia and one of only a small number globally. It was also the first and only museum studies program offered at undergraduate level in Australia.

The programs were introduced when Australian higher education hosted a flourishing of named degrees and a plethora of programs linking to numerous vocational specialities. Delivered by the Science Faculty, the Museum Studies programs were designed as an alternative to the usual art history/cultural heritage path to a museum career. It produced graduates with an enhanced understanding of science in museum practice, both the scientific aspects of natural history and other field-based studies and the scientific approach to museum work, as well as the more traditional areas of history and culture. The multi-disciplinarity was designed to expose students to both arts and sciences and, with the vocational linkage, it was enthusiastically endorsed and supported by senior university staff. At the time of establishment, domestic students could enrol in the undergraduate program through Commonwealth government-supported places. The program went through three separate reviews during its history. The first two reviews resulted in the re-accreditation of all programs; the third, in their cancellation. But before reflecting on program specifics, some general contextual observations are required.

Museum work is undertaken by a highly diverse global community of practice. It requires both specialised knowledge and skill sets and an understanding of underlying theoretical principles. The right mixture of skills and knowledge that equips a person to successfully work in the museum sector is difficult to identify. This is to say nothing of the changing nature of work in the sector, as in many other areas of professional endeavour, over recent decades. Answers to this question are most likely to be variable from one nation to the next, as they are from one point in time to another. Furthermore, if the question is asked of different people and organisations, there is still likely to be a highly variable response even within a single national context. There are a number of reasons for this. The diversity of the museum sector itself, ranging from major cultural institutions through to small, predominantly volunteer-run organisations is a primary reason. In sector-wide studies in Australia this has been conceptualised as a core versus periphery issue (BIRTLEY & SWEET 2002).

Employers in the major cultural institutions run organisations with an abundance of specialist staff. They do not necessarily feel compelled to consider a base line of knowledge and skills when recruiting to fill many specific and specialised staff positions. At the other end of the scale, small volunteer run organisations rarely can offer paid work to a potential employee and are therefore more focussed on securing training opportunities for volunteers from either professional associations or government agencies to improve the efficiency of their work as

collecting organisations and to bolster their own organisational sustainability. Their approach to making museological advances for their organisations is often project-specific. In Australia, some commentators have identified significant issues that can only be addressed by coordinated and informed policy and some substantial investment (e.g. WINKWORTH 2005). More recently, the impact of covid-19 has endangered the future of many of these small volunteer-run museums from the sector's periphery (FAIRLEY 2020).

Another impediment to establishing a unified position on this question is the highly variable nature and geographic distribution of education and training programs that purport to build knowledge and skills applicable to the sector. This issue has previously been identified with the provision of programs in Canada (DAVIS 2005) and could certainly be argued to be pertinent to the current circumstances in Australia where recent changes in higher education provision – in response to the financial impacts of covid-19 – have narrowed the options for tertiary study.

Apart from higher education, many of the available training programs are offered in modular form with a focus on specific knowledge and skills. These are mostly provided by government or semi-government agencies and/or professional associations, often as a form of stand-alone professional service delivery, but occasionally through creative partnerships between agencies and professional associations. The range of opportunities, in a federated Australia, often appears to depend on the structure and priorities of state government departments.

In New South Wales (NSW), where this case study was based, professional development programs are offered by the government agency Museums and Galleries NSW. They are structured as short workshops focussed on the small to medium sized sections of the sector and cover topics such as succession planning, volunteer management, significance assessment, advocacy in local government, object handling and digitising the collection. The ability of other Australian states to offer similar training through similar agencies, or specific collaborations between agencies and associations, is highly variable.

The other forms of education and training comprise various less specific, more holistic education programs that address a raft of skills and knowledge implicit in attendant qualifications that purport to equip people for a career in the museums and collections sector. These are offered by tertiary education providers. The other category of tertiary education program is a university qualification in museum studies or a closely related field. Apart from law and medicine, vocational qualifications have always had an uncertain and often vexed relationship with universities. While these programs, like the others, aim to impart skills and knowledge, they also purport to expose students to museum history and museological theory. The last decade has seen considerable change and growth in this area. At the time of writing (April 2024) of Australia's 40 public universities, 8 have museum studies and / or closely related programs.

Apart from university study, what other pathways towards employment in the sector were available? At the time our university program was launched, the Tertiary and Further Education (TAFE) system in NSW offered a program in Museum Practice within the "Information Technology and Government Program" area. This has subsequently developed into a nationally accredited qualification at certificate IV level in Arts and Cultural Administration (Galleries and Museums). This program is offered as a traineeship, there are no entry requirements. This has a delivery base that is both urban and regional, but not rural and remote, so only partially covers the four geographic areas identified in the key needs study over twenty years ago (BROPHY et al. 2002). This course aims to provide skills, knowledge and understanding of museum and gallery practice that are necessary to work in technical and operational positions in the sector. It covers a foundation of core museum industry practices, including occupational safety, and provides opportunity for optional study in more specialised areas such as collection management, conservation, communication, administration, accounting, and customer service. There is an obvious focus on skill development like the training in the modular workshop components of

government agencies and professional associations noted above. Moreover, the TAFE course is designed for delivery and/or assessment on the job and within an operational museum or gallery environment. This sometimes involves delivery across various locations in partnership with other Registered Training Organisations, local museums, or regional galleries.

In contrast, many of the current university programs worldwide are characterised as lacking a stable disciplinary base within the university system (DUBUC 2011). Museology is not a recognised academic discipline and museum studies programs often reside within art history or anthropology, but increasingly in alternative areas such as media and communications, cultural studies and, rarely, science. This can partially be rationalised as reflecting an identity crisis within academia itself as it struggles to reconceptualise itself as a hybrid "learned-corporate" entity. For many years, Australia had only one tertiary program in Museum Studies, operating at The University of Sydney since 1975. The common model of a Museum Studies tertiary program had traditionally been postgraduate, based on the rationale that museum work requires a grounding in disciplinary knowledge specific to the subject matter of a collecting organisation. This has always been a common pathway into employment in large to medium-sized cultural organisations. Programs usually contain a significant amount of workplace-based learning where theoretical constructs can be tested by practical realities and students can reflect on the interplay of both. This is sometimes characterised as learning outside of formal learning paradigms (PEOPLES et al. 2010) and comparable in some ways with learning experiences in TAFE programs.

Up until 2006, ICOM's International Committee for the Training of Personnel (ICTOP) kept a worldwide list of university-level "museum studies" programs on their website. Keeping this list current has now outpaced the organisation's capacity. While the listing didn't claim to be comprehensive, it gave a flavour of the diversity of qualifications available –a bewildering variety of certificates, diplomas, masters and higher degrees. For example, in the United Kingdom 16 providers were listed as offering 24 programs, their nomenclatures suggesting very little in common. It was possible to pursue qualifications in Museums and Collections Management, Heritage Management, Museums and Galleries Management, Arts Management, or Arts and Museum Management.

More generalised, less managerial qualifications could be sought through Museum Studies, Heritage Studies, Cultural Heritage Studies, Art Gallery and Museum Studies, Gallery Studies or Museum and Gallery Studies. Presumably, more specialisation could be sought through Cultural Memory, Archaeological Heritage and Museums, or Conservation and Museology. A similar diverse array of programs was listed in the United States including Non-Profit Management, Heritage Resources Management and Community Arts Management (SIMPSON 2006).

Commencing in the 1970s, this massive recent growth in the diversity and number of higher-education based "museum studies" programs (VERGO 1989, KNELL 2005, SIMMONS 2007) is recognised as having paralleled the significant expansion in the number of museums worldwide, but also reflects the changing nature of museum work, diversification of career entry points and increasing professionalization within the sector. As noted by DAVIS (2011) there is little in terms of longitudinal studies that attempts any pertinent analysis. And, though the variety of offerings is wide, there is little professional regulation of curriculum standards (DAVIS 2005).

Other authors (e.g. BATES 2012, LATHAM 2015) have placed museum studies within the broader field of information sciences. This is partly a result of convergence of skills needed, particularly digital skills (MARTY 2014), in a variety of different collecting organisations commonly referred to as the GLAM (Galleries, Libraries, Archives and Museums) sector. Recently, SIMMONS and LATHAM (2019) conceptualise what is called museum studies in the USA, and museology in some other countries, to be an interdisciplinary field of scholarship that looks at the history, roles, and functions of museums in society using theory and analysis of professional practice. It is also acknowledged (SIMMONS & LATHAM 2019) that professional training in museums and

collections is both diverse and diffuse with both specialised and generalist programs.

TEATHER (2009) summarised earlier work that identified some of the main characteristics of professionalization in the sector. These included formal, academically based technical training and/or apprenticeships and the development of a professional social structure and culture – the growth of associations pertaining to the occupation with a system of communications and publications. LLORENTE (2012) identified three pre-conditions that indicate the emergence of professionalization in this area. Firstly, an increase in specialised publications addressing museological issues or museum theory; secondly, the organisation of professional associations of museologists or museum practitioners and finally, the establishment of formal, university-based training programs. The development of a professional museum association in Australia has been outlined elsewhere (BENTLEY & SIMPSON 2019).

The academic programs at Macquarie University were based on the educational principles of the American philosopher, John Dewey. Namely, that education and learning are social and interactive processes with a focus on experiential learning. The purpose of education is not the acquisition of a set of skills or knowledge, but a transformative process geared towards the realization of the learner's full potential and the ability to deploy that for the greater good. The network that facilitated this for museum studies students involved a four-way partnership between the academic program, an informal association of on-campus museums and collections, an external network of professional organizations, and a campus-based student club, the latter originated as a student initiative. Description of the participating museums and collections on campus were given by SIMPSON (2017).

The programs focussed on learning processes rather than content. Students were given significant flexibility in the design of their undergraduate program, which consisted of a set of core museum-related units and a range of optional units drawn from different faculties. The distinctive nature of the program design is outlined below. This is followed by some thoughts on the coherence of student engagement at an institutional level, broader impacts beyond the institution and some notes on the program's contribution to equity and inclusiveness. Some comparisons with other areas of professional training are also offered along with a brief analysis of the ethics of workplace-based training on campus. Finally, some observations are presented on why these programs were eventually abandoned by the host institution and what can be learnt from this.

I argue that, during the delivery of these study programs, the university's material collections were better and more effectively used. There was a level of student engagement that helped build the campus's cultural sustainability, and there was an extensive external network of organizations that proved to be of great value to the university's expanding work-integrated learning (WIL) program. It is also argued that the existence of the museum studies programs enabled greater crossover between faculties in the design of student experiences, and that strong student motivation for collaborative projects with broad educational and social benefits were the result.

Active engagement with the university's own museums, collections and cultural facilities and their respective programs (exhibition, education, community outreach) had a profound effect on the learning and engagement of students seeking a career in the sector. The majority of the university's museums and collections were involved – this included the university's art gallery, an Australian History Museum, and a Museum of Ancient Cultures. Despite already having very full workloads, they enthusiastically assisted with designing academic content and engaging directly with students in the program. In many cases this produced broader benefits beyond the museum studies programs and enabled the utilization of campus exhibition spaces and the development of a sense of 'museum literacy' in other academic programs.

Using on-campus museums for training future museum sector professionals is an expanding option because of the growing number of museum studies (and related) programs and the growing

number of university museums. It is also dependant on an institutional awareness that campus museums can be used in areas outside of their individual academic specialities. This requires an adjustment in strategic thinking because many university museums were originally formed to serve discipline-specific pedagogic needs, so their governance and management structures may limit their functional reach beyond faculty boundaries (SIMPSON 2012, 2019).

Collaboration to effectively utilise this transdisciplinary potential can often be difficult in modern higher education institutions. This is because it not only transgresses the boundaries of disciplinary silos, but it often also crosses the divide between academic and non-academic staff classifications. The collaborative modalities can also occur at many different levels extending from the simple use of individual objects to illustrate the effectiveness and versatility of object-based learning, as a way of demonstration to future museum educators, through to a full range of options around work integrated learning. The use of on-campus museums for formal professional training had not been widely documented in the literature, with a few exceptions (e.g. SIMPSON 2006, KWAN & SIMPSON 2021, this volume).

This essay is based on ten years' experience with undergraduate and postgraduate museum studies programs. It is argued that collaboration between the academic program and the campus museum, while difficult to establish, is a valuable platform for the development of an understanding of a range of professional practices and perspectives. However, it is also argued that such an alliance by itself is not enough to provide a full range of opportunities and learning situations. Other external and internal alliances, reflective of the professionalization pre-conditions noted above, are also required.

It should be noted that little has been written on any differences between preparing students for work in cultural collecting organisations and preparing students to work specifically for university museums. Except for REYNOLDS (1993), few have argued that a different set of skills and knowledge are pertinent to the university museum as a specialism within the broader cohort of cultural collecting organisations. REYNOLDS (1993) argued that the activities and services expected of university museums are subject to particular emphasis and therefore those working with these collections require different training, in particular, in scholarship. However, it can also be argued that a requirement for academic discipline-specific knowledge should also be sought for highly specialised positions within large public museum organisations.

When the Museum Studies programs were initiated, all the campus museums formed part of a university-recognised committee chaired by the university's Museums and Heritage Officer that reported directly to the Vice-Chancellor. In 2007, the position of Museum and Heritage Officer was abolished, and the museums committee lost its direct conduit to the university's senior leadership group (SIMPSON 2017). The university devolved its governance structure for its museums and collections from 'converged' to 'disjunct' (using the governance categories proposed by SIMPSON 2012). In response, the campus museum staff continued to meet as an informal committee as a way of keeping in touch, providing mutual support, and sharing resources.

As at many universities, Macquarie's material collections are diverse. Most, especially the two science and two history museums, were originally established to aid discipline-specific instruction (SIMPSON 2012). The cross-disciplinary museum studies programs gave these collections a rationale and utility that extended beyond their original academic boundaries. The program was located within the Department of Environment and Geography; this facilitated cross-disciplinary engagement between scientists and social scientists. The program drew on institutional infrastructure by integrating the university's museums and collections into the delivery of teaching programs – i.e. the Science Faculty's Biology Museum, Herbarium and Earth Sciences Museum (SIMPSON 2001, 2002a; SIMPSON & WINCHESTER-SEETO 2002; SIMPSON et al. 2000, WINCHESTER-SEETO et al. 2003) now only considered a collection; the Arts Faculty's Museum of Ancient Cultures and Australian History Museum and the University's Art Gallery (DAVIS

& JANISZEWSKI 2011, HILL 2006), and also included other lesser-known cultural collections such as the Elizabeth and Lachlan Macquarie Room, the Arboretum, and the Sporting Hall of Fame. The last of these was designed and developed by postgraduate Museum Studies students through a partnership between the program and the Sports Association (ANDERSON et al. 2013).

A number of curriculum changes occurred during the history of the program, the undergraduate program coalesced from a combination of study coherencies into a major of Museum Studies in both the Bachelor of Science and Bachelor of Arts degrees during one curriculum restructure. This included the introduction of what were called “People” and “Planet” units. These were broad units focussed on global issues – either social issues related to humanity (People) or environmental issues related to the health of the world (Planet). Every undergraduate was required to take one ‘people’ unit and one ‘planet’ unit regardless of the program that they were enrolled in. As such, these units of study were well subscribed with big enrolments. Unit convenors were required to submit an outline for deciding whether their units could be given ‘People’ or ‘Planet’ status – both of which statuses were capped. One of the core Museum Studies units, “Museology of Natural History”, was given Planet status, enrolment numbers swelled three-fold. In the next major curriculum restructure, the system of ‘People’ and ‘Planet’ units was abandoned.

The postgraduate coursework programs consisted of a Postgraduate Diploma and Masters. For much of its history, it was the only suite of museum studies programs delivered by a Faculty of Science in Australia and one of only a small number globally. The Macquarie program was also the first and only museum studies program offered at undergraduate level in Australia. The University of Canberra introduced a named undergraduate degree in Museum Studies in 2012, the same year when Macquarie University announced its intention to teach out its undergraduate program.

Macquarie’s undergraduate major consisted of optional units from Anthropology, Archaeology, Biology, Cultural Studies, Environmental Science, Human Geography, Indigenous Studies, Modern and Ancient History, Science Communication and Sociology. Apart from core units, the Postgraduate programs consisted of optional units from the Graduate School of the Environment, Modern and Ancient History, Archaeology and Biology. The optional Science and Arts units represented in this degree structure were both academic areas for which Macquarie has an outstanding research reputation as well as areas of principal discipline-specific concern for a range of museums and associated cultural collecting organizations.

The degree programs therefore demanded cross-disciplinary learning (breadth) but also required concentration in an area of recognised professional specialisation (depth). Breadth is the defining feature for skilled future museum sector employees capable of meeting a diversity of vocational challenges with flexible, creative, and agile responses. Depth is a necessary grounding for professional recognition and competence. This combination of breadth and depth developed through work-integrated learning that allowed students to pursue specific interests that shaped the nature of their scholarship. That richness, leading to identifiable vocational outcomes, attracted an enthusiastic and passionate cohort expecting active and transformative engagement. Undergraduate student numbers fluctuated between 80 and 120, and postgraduate student numbers between 30 and 50.

Below are a few brief examples of some practical outcomes that benefited campus museums and collections. Among the many projects that took place within the degrees, a Masters student researched and curated an exhibition in the University Art Gallery. A Postgraduate Diploma student redesigned and installed displays of teaching specimens in one of the science laboratories. A Masters student undertook extensive research and compiled documentation on the art collection of the Institute of Early Childhood Education at Macquarie, leading to the production of a series of extended labels to aid interpretation and the integration of this initially separate collection

into the university's art collection. An exhibition by an Honours student on the changing nature of the 'Anzac' myth was installed in the University Library's temporary exhibition space, it was undertaken as a collaboration with the Australian History Museum. All of these projects involved using campus resources in an articulation, or dialectic, between the development of skills and knowledge.

Two Honours student exhibitions were established in the Earth Science Museum during 2005. Both projects highlighted work undertaken by the university's palaeontology group. These museum studies projects involved effective communication of complex scientific phenomena through exhibition work. Apart from researching and designing the exhibition, one student developed a comprehensive education program for young children, including writing and illustrating a book with an associated education kit. This program was run as part of the University's contribution to Australia's 2005 "National Science Week" (SIMPSON 2006).

Benefits to the university can be quantified by the number of student projects undertaken in the university's museums and collections as work-integrated learning experiences. Each project was individually negotiated to match the needs of the university museum or collection with the student's learning needs and interests. Without this sort of planning, there is a possibility of placing mismatched students in the wrong projects, running the risk of under-serving both the students and the museums.

The active engagement with Macquarie University's own museums, collections and cultural facilities and their respective programs (exhibition, education, community outreach) had a profound effect on the learning and engagement of students seeking a career in the sector. It also had a galvanising effect on the staff working with the on-campus museums and collections. As noted above, the majority of our university's museums and collections were integrated into the delivery of undergraduate and postgraduate museum studies units. The University Art Gallery, the Australian History Museum and the Museum of Ancient Cultures staff were wonderfully generous with their time and contributions. Despite already having very full workloads, they enthusiastically assisted designing academic content and engaging directly with students in the program, many of them mentoring students, assisting with job searches, and providing additional volunteer opportunities.

The Postgraduate Diploma involved one compulsory requirement, and the Masters program involved two. Students in both programs were required to undertake a work placement, and students in the Masters program had to also complete a work-related research project. The programs were nested so that students in the Masters program could withdraw early and receive a Postgraduate Diploma.

Like the undergraduate work-placement projects, the postgraduate projects were individually negotiated and were focussed on specific workplace needs. They involved a three-way partnership between academic staff, workplace staff and the student, they only succeeded when there was careful planning and regularly scheduled communication between all three. In only a small number of cases was it deemed necessary (by agreement) to remove a student from a workplace project. Overall, the projects incorporated the best attributes and structures of work-integrated learning including formal feedback mechanisms (VENVILLE et al. 2021). Important also was the close relationship between the industry experience of the academic staff running the program, not just because of the need for a network of external museum and museum-related organisations to provide opportunities for students, but, for successful workplace design, academic staff also needed to have a sound, contemporary understanding of the sector (WHELAN 2017). This close sectoral knowledge is considered important in ensuring job readiness among graduates (KNIGHT & YORKE 2003, JACKSON 2010). Sector connections are the essential fourth partner for the threesome of students, on-campus museums and the program/academic staff.

In total, over 50 projects were undertaken for the university's campus museums during the history of Museum Studies at Macquarie. They included exhibition research and curation, collection documentation, audience research and the development and delivery of education programs, marketing campaigns and the design and delivery of events.

**Benefits**

Perhaps the best evidence of the impact on student learning and engagement, however, comes from initiatives generated by the students themselves rather than those that are a structured part of the academic program. The student club, the Museums Appreciation Society, initiated by Museum Studies students grew to be one of the largest clubs on campus, with a membership of over 400. Students organised their own events (including regular visits to museums in the broader Sydney region, a tour to Melbourne and volunteer work in regional museums), they conducted fundraising for museum-related causes, organised their own career development seminars, contributed papers to conferences and acted as a mentoring and support group for new students. Student initiatives such as this indicate strong motivation and close institutional alignment.

Student engagement was also incorporated into research investigations. These projects included one on cross-disciplinary, object-based pedagogies (SIMPSON & HAMMOND 2012), investigations of governance models in Australian University Museums and the status of museums and collections in the higher education sector (PEARCE & SIMPSON 2011). Through project work, three postgraduate students were also directly involved in different stages of the development of the only new museum on campus during the history of museum studies, the Sporting Hall of Fame Museum (ANDERSON et al. 2013). This museum is not aligned with an academic discipline, but is instead, directly focussed on nurturing a sense of institutional identity through the celebration of sporting history and achievements. It is the first sporting museum in an Australian University.

Students from the Museums Appreciation Society were always a ready audience for exhibition openings and on-campus museum events. The group grew so large at one stage that they attracted an informal support base from outside the university; much of this was achieved through word of mouth and social media. One of their social media outlets was an online magazine about museums and collections called aMUSine. It was badged as the 'museums, galleries and collections zine by interesting people for interested people'. Fourteen thematic issues were published during the program, with the final issue closing the publication when the program was being taught out in 2013.

Most laudable were the Museums Appreciation Society's fund-raising activities. The students raised money for the Nutcote Trust, an organization at North Sydney responsible for the upkeep of author, May Gibbs', former residence as a public museum. Two graduates subsequently secured employment with the Trust. The Society has also undertaken fundraising for Blue Shield to aid cultural heritage under threat from natural disasters. The students were drawn to the work of this organization because of the Queensland floods in 2011, bushfires and the Christchurch earthquake in 2011, all of which had considerable impact on cultural heritage.

The fundraising ideas the students have developed have also been creatively associated with museums and collections. In 2011 the Museums Appreciation Society was fundamental in assisting the development and delivery of a New South Wales conference of the peak professional body, Museums Australia (BENTLEY et al. 2011). This conference involved three of the affiliated partners, namely, the students, the sector and the on-campus museums, in other words all of the partners minus the actual academic program. Part of this involved a day-long walking tour of museums in central Sydney (marketed as the inaugural Sydney Museum Marathon) with special "behind-the-scenes" access to museums visited. The students negotiated free access to all the

museums in the tour with the museum donating the equivalent entrance fees to Blue Shield. After the closure of Museum Studies was announced, the Museums Appreciation Society students repeated the museum tour in central Sydney for delegates attending an international conference on museum management (INTERCOM) held at the Australian Museum in late 2012. Positive social outcomes generated by the students therefore extended beyond the life of the academic program. Some years later, the Museums Appreciation Society was involved in the university's 50th anniversary celebrations by presenting an exhibition about 50 years of student clubs and activities on campus (CHINNECK et al. 2015). This was, in fact, one of their last activities; the Society closed in early 2016.

The Museums Appreciation Society was fiercely proud of the campus museums. As noted above, many of their members contributed volunteer hours. They organised their own tours for new students as a way of mentoring new arrivals to the Macquarie campus. The Society was always particularly focussed during Orientation Week on connecting with new international students. They devised a tour that introduced those unfamiliar with Australia to the distinctive Australian fauna (Biological Sciences Museum) and aspects of Australian history and culture (Australian History Museum).

The close association of a university's museums with the same university's museum studies program gives the students a strong sense of institutional participation and therefore a strong sense of alignment with institutional identity, particularly so as they directly contribute to the work of the institution through its museums. There are also obvious benefits for the university museums themselves in having an enthusiastic cohort of students eager to make direct, tangible and visible contributions. This additional "voluntary workforce of learners" can make a profound difference to the practices and operation of campus museums (SIMPSON, 2006)

The student initiatives outlined above are significant evidence of expanded student engagement. The story of the development of the student club was presented at a national conference of Museums Australia in 2010 at the University of Melbourne by one of the club founders. A refereed conference paper (LEESON, 2011) was the result. The students group adopted one of the museum specimens as a mascot. *Minmi Paravertebra*, a small ankylosaur dinosaur from Australia, was made by artists specifically for an exhibition accompanying a major international conference on campus in 2002 (SIMPSON 2002, SIMPSON et al. 2003) the same year when undergraduate museum studies classes commenced (SIMPSON & MAWSON 2003).

Interaction with the student group developed a significant social media footprint for the program at the time. This included a Museum Studies Facebook page and a twitter account that represented a generic presence for the campus museums in combination with the academic program. At one stage it had over 13,000 followers and was recognised as the 5th most influential museum-related site in Australia. The account boasted, for a time, more followers than the university. Social media gave the students and the program connections to a community of interest that extended far beyond the capabilities of standard institutional marketing. The student group also assisted with sourcing a series of speakers for public talks, the "Uncurated" lecture series.

Campus museums weren't the only institutional infrastructure that intersected with the program. Other internal linkages that have benefited students included active engagement with the Soft Power Research Group in the Faculty of Arts; this included a funded research project involving museums, focussed on engagement with senior Chinese media personnel. Student opportunities also came from museum studies contributions to events for 'Diversity Week' in 2009 and 2010. This included a research exhibition based on the work of a higher degree research student at the time on body mapping (VINCENT 2014). A public event in 2009, entitled "Diverse Objects", featured objects from Macquarie University collections. It was followed by an event in 2010 "Diverse Objects: Trash, Treasure, Memory and Identity", where the Macquarie community was invited to bring in objects of personal significance for appraisal. Students and staff have also

combined to offer special tours of on campus museums and collections for university alumni (SIMPSON 2007).

In another example of a linkage between two of the partners, this time the sector and the students, at least 25 students have made presentations at the national conferences of Australia's peak professional organisation, Museums Australia (now the Australian Museums and Galleries Association). These have been mostly based on their course work units including projects undertaken with external museums as part of the postgraduate work-place based professional experience units and professional research units. A number have also presented and published their work in international forums (e.g. SIMPSON et al. 2003, ESTRADA-AREVALO et al. 2011, HILL 2006, HILL & DAVIS 2005, HALLIWELL & SIMPSON 2010, LAPWONG 2011, LI & SIMPSON 2011, HAMMOND et al. 2012).

Other evidence of international impact included a 2010 proposal for Macquarie University to be the lead institution in the Centre for the Inclusive Museum project under the auspices of ICOM in collaboration with a network of international institutions (universities and museums) from the then-Director General of ICOM to the university's former Vice-Chancellor. The offer was not accepted. Another cross-cultural initiative through field work in Thailand was funded by the Australian Thailand Institute. It established the basis of the current Memorandum of Understanding (MoU) with Mahidol University in Bangkok. With the closure of the Museum Studies program, this MoU remains of value to other university programs.

The ability to develop international partnerships reinforces the importance of the sector as partner in program development. It is also acknowledgement of the enormous corpus of museum-studies materials and expertise (directors, curators, technicians) available in galleries and museums globally; units were developed that take the students to the resources—often in rural townships far from metropolitan areas, to places where visual history and mythology coalesce—in carefully structured programs. This reflects historic links between teaching and practice previously identified (e.g. REDMAN 2015). It is also illustrative of the need to have issues related to vocational sector awareness embedded in curricula (HAMMOND et al. 2011, SIMPSON 2011).

Australia and Thailand both had complexly structured museum sectors that engage with a diverse range of audiences and organizations. The similarities, however, between Macquarie and Mahidol Universities enabled a unique partnership opportunity to be initiated. Both Universities, at the time, had fledgling Museum Studies programs focussed on practical outcomes through community engagement. Both universities have exhibition spaces, collections and programs that interpret indigenous cultures. In an increasingly globalised world, this collaborative project, resulting in field work in regional areas of both countries, sought to develop professional skills amongst our respective students in the preservation and interpretation of cultural heritage, both tangible and intangible.

Traditionally, Cultural Heritage and Museums Studies have been located within, or attached to, arts faculties or divisions and take little account of the sciences, though these bulk large in museums globally. At Macquarie University, the sciences as well as the arts were intertwined in the postgraduate as well as undergraduate programs. As a result, there was ample experience in the running of field excursions and a strong belief in the educational value of the underpinning pedagogy of direct engagement.

The Museums program at Macquarie found that such field-based units were more instructive and more pleasurable than lectures delivered seriatim in the classroom (even though appropriately illustrated). This approach was used on regional and international scales for undergraduate and postgraduate levels of the program. Taking a "field" approach has proved beneficial for the internationalisation of units of study we developed. As we had run a field-based units of study in rural Australia and in Thailand, we sought to strengthen our ties with Thailand through the

delivery of these units by involving students from both countries and subsequently significantly enhancing the student experience for both Museum Studies programs. We successfully sought a modicum of financial assistance from The Australia–Thailand Institute. This allowed us to build an integrated exchange program between Macquarie University (Australia) and Mahidol University (Thailand) for collaboration in teaching and research in museums studies aimed at developing in our students an understanding of cross-cultural concepts based on personal experiences.

Perhaps the best evidence of the breadth of impact, however, can be seen from the extensive network of external organisations who have hosted work placements for our students both nationally and internationally.

Australian examples included the Australian Museum, The Powerhouse Museum (including 3 student winners of their Moveable Heritage Fellowship), the Queensland Museum, the South Australian Museum, Sydney Heritage Fleet, Australian National Maritime Museum, Newcastle Museum, Newcastle Maritime Museum, Sydney Harbour Foreshore Authority, Concord Museum, Brush Farm House, Government House Parramatta, Nutcote Trust, Hyde Park Barracks, Westpac Museum, Western Plains Cultural Centre, Museum of the Riverina, Albury Museum and Art Gallery, St George Regional Museum.

International examples include the Imperial War Museum, London; Victoria and Albert Museum, London; Science Museum, London; Museum of Anthropology, University of British Columbia; Natural History Museum of Ireland, Dublin; Fernbank Natural History Museum, Atlanta; Asia Society Gallery, New York; Goldaming Museum, Surrey.

Here are some examples of what some of these organisations said about hosting workplace interns from the program, these comments were also compiled as part of the re-accreditation process for the programs in 2008.

“Museums in Australia recognise the importance of museum studies programs and a qualification is now the base employment standard across the sector where previous generations relied on other academic qualifications. The Macquarie University program is training students across the spectrum of museum work specialisations and all the Macquarie students that have passed through the Newcastle Regional Museum have gone on to positive museum employment both nationally and internationally. In a small employment sector this should be seen as a triumph.” (Newcastle Regional Museum)

“As work placements are project-based the organisation gains substantially from the completion of projects in a professional and timely manner. At the St George Regional Museum students take on real, high priority projects that have obvious benefits to the community. Students research and create exhibitions and public programs, document our growing collection, and develop policies and procedures in a range of museum-related fields. The quality of student work is regularly outstanding and always completed within the organisation and the university’s deadlines.” (St George Regional Museum)

Throughout the history of the undergraduate and postgraduate programs, Macquarie was fortunate to be able to provide commonwealth-supported places. Apart from the gallery-focussed Arts Administration programs at University of New South Wales, the only alternative was Australia’s oldest Museum Studies program at the University of Sydney. These are delivered only by face-to-face instruction and required the payment of full fees. They were hence better suited to people who had already secured a position in the sector and were upgrading their credentials. The Macquarie program, therefore, provided for learners not necessarily in economically sound circumstances, and not based in Sydney. In this way, it was possible to enable a vocational realization for a group who would have otherwise possibly not considered tertiary study a viable option. It was, at the time, a viable pathway for many whose only other training option was a

Certificate program through the TAFE (Tertiary and Further Education). For a brief decade, the program effectively diversified the nature of the museum workforce in Australia by offering this pathway.

## Concluding remarks

Over the years, the Macquarie University Museum Studies Program won many supporters both in the professional world of museums, galleries and collecting Institutions, including the university's own campus museums, and among the many students who have completed the course. The case study above offers insights into the essential elements of the program's success (albeit temporary) concerning the four-way partnership between campus museums, program/academic staff, students, and sector.

When the Museum Studies program commenced in 2002, it was the first of its kind in Australia. No other university had offered Museum Studies coursework at an undergraduate level. Marketplace positionality was obviously a factor, particularly at a time when the higher education operating environment supported a highly diversified set of tertiary program offerings. Macquarie University can also claim to have been the first to offer interdisciplinary study options in a museum degree from a Science Faculty. There were few Museum Studies Programs at tertiary level in Australia, and those which already existed taught the program largely from an Art History or Cultural Heritage perspective. Indeed, this has been the norm internationally; science-based tertiary study museum programs anywhere in the world are still rare. Yet science museums are an important part of the museum sector. The thinking behind the programs at the time was based on the contention that the most creative museum workers of the future will be those that are skilled across discipline boundaries. It was, therefore, designed deliberately to be a different kind of museum study program, another important aspect of marketplace positionality.

Many students chose to complete their professional experience within the museums and galleries on campus. These venues provided valuable real-world learning experiences for students while the students provided valuable, voluntary assistance to these campus institutions. The open-ended design of the curriculum and opportunities for engagement through constructive projects within and outside of the university meant that students were partners with the campus museums as co-creators and interpreters of knowledge. Some of the benefits of this were apparent for other academic programs and the university in general terms. The benefits can be summarised this way:

- Better use of material collections held at the university;
- Student engagement that builds cultural sustainability on campus;
- An extensive external network of organizations of potential value to other university programs in terms of workplace based learning;
- Greater cross-over between Faculties in the design of programs;
- Strong student motivation for collaborative projects with broad educational and social benefits;
- Effective leveraging of social media to reinforce and support the learning community;
- Potential for utilizing campus exhibition spaces by other programs as a way of developing museum literacy (JACOBS et al. 2009);
- Integration of object-based learning in other aspects of the curriculum (THOGERSEN et al. 2018).

It is well known that when campus museums and collections are an integral part of the university's business, a component of their identity and a central part of their vision, they are generally well

managed with appropriate governance structures (SIMPSON 2012) and access to resources. When this is not the case, however, museums and collections can be starved of resources, sidelined from mainstream campus activity, and buried and forgotten within the academy's labyrinthine bureaucratic structures. For a museum studies program that integrates on-campus museum practice into the curriculum to thrive, campus museums must be professionally managed, well-regarded within the academy and integrated into university business. Without this it is not possible for the academic program to flourish. It is worth noting that the period when the museum studies program was active at Macquarie University commenced with a converged and coordinated university museums group with direct access to senior management through a recognised formal committee structure, and it ended with the museum governance system reverting to disjunction (SIMPSON 2012, 2017). During the period when the museum studies program was running, the university extinguished the dedicated position to campus museums and collections (Museums and Heritage Officer in the Vice-Chancellor's Office), ceased to formally recognise the committee of collection managers, ceased any centralised museum and collection strategic planning, and ended up with no individual senior executive carrying portfolio responsibility for this area in its entirety.

The decision to close the museum studies program came when many vocationally oriented niche market degrees were being abandoned in favour of larger, more generalised programs as an economic decision seeking stable income streams. The only vocational degrees retained during a round of curriculum and administrative restructures commencing in 2012 were those accredited by professional organisations: a professional association would have input into the nature of the curricula, positing a certain baseline of knowledge and skills among graduates. In Australia, no professional body accredits any tertiary programs related to museums galleries and collections. It was also argued by university leaders at the time that accreditation is applicable in vocations where the professional malpractice could lead to ensuing legal action and claims for damages as was the case with medicine, law and town planning for example. However, any vocation where practice is underpinned by principles of ethics has the potential for generating legal action as a result of the actions of individuals. The university administrators' judgement that this wouldn't apply to museum practice was made from ignorance of the long history of establishing global standards in this field (MURPHY 2016).

Museums, in their great diversity, are a near-universal, cross-cultural phenomena. They are not vanishing from the human experience. If anything, they are growing in numbers, diversity, and relevance. Yet they are also changing and perhaps the recognition of these changes is one of the most valuable aspects of any museum studies program. If how we train students to become future museum practitioners is important, then students will be entering a museum world that is actively transforming itself to meet a whole new tranche of requirements. Creatively working with objects in exhibition spaces to connect people to narratives is a medium for interpreting our experiences and understanding of natural and cultural worlds, yet existing techniques are not always the best way to do this. Students need to be supported to experiment and develop creativity to take innovative new approaches. The diverse partnerships of academic program, on campus museums, the broader sector, and the students themselves, as outlined in the case study above, create a rich and diverse ecosystem that provides the right settings to foster the essential development.

Museum spaces no longer consist of dust-covered objects curated by dust-covered staff, purporting to represent universal truths. A plurality of voices now vies to occupy museum space, challenging prevailing meta-narratives and connecting diverse audiences to an array of alternative realities. Higher education, like the museum sector itself, is changing rapidly. The old model of the academy as the source of all knowledge is breaking down. Students want study programs that give them opportunities to be co-creators of knowledge. The Museum Studies program met these needs and provided an example to others of how to create a partnership between students,

academics, professional associations, and institutions.

The teaching philosophy should always mirror trends in the sector and be focussed on encouraging students to engage in creative collaborative work. This involves students taking control of. and shaping, their own learning outcomes with gentle guidance and facilitation from academic staff as partners in the learning process. I posit that in time, this will be the way of all future tertiary education. It also ensures that students will be enthusiastic participants in the cultural life of their own university.

Because of their interdisciplinary potential, university museums that are integrated into museum studies programs have the potential to experiment with unusual subject matter, innovative interpretation strategies, novel education programs and challenging and experimental curatorial concepts. They can be a template where museum practice and theory interact in new ways generating new museological concepts. This is often not possible in many of the larger public museums that are required to satisfy a broadly based mainstream constituency. University museums can provide fertile training arenas for the future museum practitioner.

## Acknowledgements

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## Literature cited

ANDERSON, D., GIBERSON, L., SIMPSON, A. & THOMSON, A. 2013. Australia's first university sporting museum: a case study. *University Museums and Collections Journal* (6) 35-44.

BATES, M. J. 2012. The information professions: Knowledge, memory, heritage. Paper presented

at the Association for Library and Science Education conference, Dallas, TX. 15. Retrieved from http://pages.gseis.ucla.edu/faculty/bates/articles/pdf/InfoProfessions.pdf

BENTLEY, P., PINCHIN, R. & SIMPSON, A. 2011 (Eds). *Place, Space and Identity: New Directions for Museums in NSW*. Symposium Handbook with Abstracts. Museums Australia, NSW Branch, pp. 14p.

BENTLEY, P. & SIMPSON, A. 2019. *A brief history of the NSW branch of the Australian Museums and Galleries Association*. NSW Branch of the Australian Museums and Galleries Association, pp. 24.

BIRTLEY, M. & SWEET 2002. Training to meet the key needs of Australia's heritage collections, and the wider implications of training in a globalised community. In (BOYLAN, P.J., Ed) *Resolutions and Recommendations of ICOM 2002 Annual Meeting: Museum Training in a Globalised World*, 1-12.

BROPHY, C., BIRTLEY, M., SWEET, J., CARR, R. & HAYSOM, R. 2002. Study into the key needs of collecting institutions in the heritage sector: final report, 21 December 2001, Deakin University Faculty of Arts; Cultural Heritage Centre for Asia and the Pacific, Melbourne, Vic.

DAVIS, J. 2005. Responding to Change: Challenges for Professional Education in the Museums Sector. *Curator* 48 (4), 427-438.

DAVIS, J. 2011. Putting museum studies to work. *Museum Management and Curatorship* 26 (5): 459-479.

DAVIS, R., & L. JANISZEWSKI., L. 2011. Integrated Vision: A New Direction. Interesting Times: New Roles for Collections. Museums Australia National Conference, 2010 Conference Papers, Museums Australia, Canberra.

DUBUC, E. 2011. Museum and university mutations: the relationship between museum practices and museum studies in the era of interdisciplinarity, professionalization, globalisation and new technologies. *Museum Management and Curatorship* 26 (5), 497-508.

CHINNECK, S., DOLLIMORE, C. & SIMPSON A. 2015. Picturing a living campus: fifty years of students at Macquarie exhibited. *Museums Australia Magazine*. 23 (4), 22-24.

ESTRADA-AREVALO, S., MICHAEL, V. & SIMPSON, A. 2011. Turning the muse um inside out: The biological sciences at Macquarie University, Sydney, Australia. *University Museums and Collections Journal* (4) 57-63.

FAIRLEY, G. 2020. NSW and QLD community museums are under enormous threat. ArtsHub, Friday 21 August, 2020. https://www.artshub.com.au/news-article/features/covid-19/gina-fairley/nsw-and-qld-community-museums-are-under-enormous-threat-260923

HALLIWELL, A. & SIMPSON, A. 2010. Visitor profiling for, and promotion of the biological and earth sciences museums, Macquarie University. *University Museums and Collections Journal*. 3, 149-158.

HAMMOND, G., CHAPMAN, J., DAVIS, R. & SIMPSON, A. 2011. Making applied history work. In BENTLEY, P., PINCHIN, R. & SIMPSON, A. 2011 (editors). *Place, Space and Identity: New Directions for Museums in NSW*. Symposium Handbook with Abstracts. Museums Australia, NSW Branch: 5.

HAMMOND, G. VAN DYKE, K., & SIMPSON, A. 2012. Adding value: Universities and their museums. *University Museums and Collections Journal* 5, 7-16.

HILL, K. 2006. Macquarie University Sculpture Park: promoting its value to ensure its continued development. *Opuscula Musealia* 15, 53-59.

HILL, K., & DAVIS, R. 2005. The spirit crying for meaning – University network support in research

enterprise. In Tirrell, P. (Editor) Proceedings of the Third Conference of the International Committee for University Museums and Collections (UMAC), Sam Noble Oklahoma Museum of Natural History, Norman OK: 27-32.

JACKSON, D. 2010. An international profile of industry-relevant competencies and skill gaps in modern graduates. *International Journal of Management Education*, 8 (3), 29–58.

JACOBS, C. ANDREWS, J. CASTLE, M. C. MEISTER, N. GREEN, W. OLSON, K. SIMPSON, A. & SMITH, R. 2009. Beyond the field trip: museum literacy and higher education. *Museum Management and Curatorship*, 24:1,5-27.

KNELL, S. 2005. Museum studies: past, present, future. *ICOM News*, 58 (4), 3.

KNIGHT, P. T., & YORKE, M. 2003. Employability and good learning in higher education. *Teaching in Higher Education*, 8 (1), 3–16.

KWAN, A. & SIMPSON, A. (Eds), 2021. Pedagogy Hub (1). *University Museums and Collections Journal* 13 (2).

LAPWONG, Y. 2011. The PSU Museum: Interpretation of peninsular Thailand's nature. *University Museums and Collections Journal* (4), 19-26.

LATHAM, K. F. 2015. Lumping, splitting and the integration of museum studies with LIS. *Journal of Education for Library and Information Science*, 56 (2), 130-140.

LEESON, A. C. 2011. Vital connections: Increasing Interest in Museums among University Students. In: Interesting Times: New Roles for Collections, Museums Australia National Conference 2010, Conference papers, Museums Australia: 97-100.

LI, R. & SIMPSON, A. 2011. A survey of university museums in Shanghai and their role in World Expo 2010. *University Museums and Collections Journal* (4) 5-11.

LLORENTE, J. P. 2012. *Manual de la historia de la museología*. Gijón, Spain: Ediciones Trea.

MARTY, P. F. 2014. Digital Convergence and the Information Profession in Cultural Heritage Organizations: Reconciling Internal and External Demands. *Library Trends* 62 (3), 613-627.

MURPHY, B. L. (Editor). 2016. *Museums, Ethics and Cultural Heritage*. Routledge, Abingdon & New York, pp. 410.

PEARCE, M. & SIMPSON, A. 2010. The exhibition of scientific principles: a case study from the Biological Sciences Museum at Macquarie University. *University Museums and Collections Journal*. (3) 163-174.

PEARCE, M. & SIMPSON, A. 2011. A recent survey of the current status of university natural history museums and collections in Australia. In: Interesting Times: New Roles for Collections, Museums Australia National Conference 2010, Conference papers, Museums Australia: 169-173.

PEOPLES, S., BECKMANN, E. & MESSAGE, K. 2010. Internships: Students and Collections. In: Interesting Times: New Roles for Collections, Museums Australia National Conference 2010, Conference papers, Museums Australia: 136-141.

REDMAN, S. J. 2015. Museum tours and the origins of museum studies: Edward W. Gifford, William R. Bascom, and the remaking of an anthropology museum, *Museum Management and Curatorship*, 30 (5) 444-461.

REYNOLDS, B. 1993. Training for Universi,ty Museums. *Aesthetex: Australian Journal of Arts Management* 5 (2), 33-38.

SIMMONS, J. E. 2007. Museum studies programs in North America. In S. L. WILLIAMS & C. A. HAWKS (Eds.), *Museum studies: Perspectives and innovations* (pp. 113–128). Washington,

DC: Society for the Preservation of Natural History Collections.

SIMMONS, J. E. & LATHAM, K. F. 2019. Wither Museum Studies? *Journal of Education for Library and Information Science* 60, 102-117.

SIMPSON, A. 2001. Macquarie University's Earth Sciences Museum Goes West. *CAUMAC News*, March, 8–10.

SIMPSON, A. 2002a. Bringing Current Scientific Research into the Classroom; Some Palaeontological Examples. *Science Education News* 51 (3), 116–120.

SIMPSON, A. 2002b. Palaeographia - artworks from deep time. *Museum National*, 11 (2), 2.

SIMPSON, A. 2003a. A Crisis of Support for University Geology Collections. *Museums Australia Magazine* 12 (2), 2–3.

SIMPSON, A. 2003b. The Plight of Geological Collections in the Australian Tertiary Education System. *Museologia* 3 (1–2): 37–44.

SIMPSON, A. 2006. Integrating university museums into Museum Studies programs. *Opuscula Musealia* 15, 85-92.

SIMPSON, A. 2007. Alumni discover hidden treasures at Macquarie University. *CAUMAC Newsletter* 15 (1), 17-26.

SIMPSON, A. 2011. Developing regional awareness in future museologists. In BENTLEY, P., PINCHIN, R. & SIMPSON, A. 2011 (editors). Place, Space and Identity: New Directions for Museums in NSW. Symposium Handbook with Abstracts. Museums Australia, NSW Branch: 6.

SIMPSON, A. 2012. Modelling governance structures for university museums and collections. In JANDL, S. & GOLD, M. (Eds) *A Handbook for Academic Museums: Beyond Exhibitions and Education*. MuseumsEtc: 178-218.

SIMPSON, A. 2014. Something new and fresh: shaping the cultural landscapes of Sydney's third university. Catalogue essay in DAVIS, R., HARGRAVES, K., JANISZEWSKI, J. & SIMPSON, A. (Eds), *Creative Revisions Retracing 50 years of Artistic Responses to the University Campus* (Exhibition Catalogue) Publisher: Macquarie University, Sydney, pp. 7-9.

SIMPSON, A. 2019. Museums and Collections, Epistemic Convergence and Higher Education. IN BUENO, D., CASANOVAS, J., GARCÉS, M. & VILALTA, J.M. (eds), Humanities and Higher Education: Synergies between Science, Technology and Humanities. *Higher Education in the World 7*. Global University Network for Innovation (GUNi), 209-215.

SIMPSON, A., DAVIS, R. & HILL, K. 2003. Palaeographia: an exhibition blending science and art. *Museologia* 3 (1-2), 111-116.

SIMPSON, A. & HAMMOND, G. 2012. University collections and object-based pedagogies. *University Museums and Collections Journal* (5), 75-82.

SIMPSON, A., & MAWSON, R. 2003. Macquarie University's undergraduate degree in museum studies. *Museologia* 3 (1-2), 133-138.

SIMPSON, A., & WINCHESTER-SEETO, T. 2000. Palaeontology down under 2000 and the new earth and environmental science syllabus. In A. SIMPSON, T. WINCHESTER-SEETO, & D. MATHEISON (Eds.), *Teaching Palaeontology Down-under: A Hand Book of Resources for Teaching Earth and Environmental Sciences* (pp. 1-3). MU Centre for Ecostratigraphy and Palaeobiology and Science Museums,ELS, Macquarie University.

SIMPSON, A., WINCHESTER-SEETO, T. & MATHEISON, D. 2000. (Eds.), *Teaching Palaeontology Down-under: A Hand Book of Resources for Teaching Earth and Environmental Sciences*. MU Centre for Ecostratigraphy and Palaeobiology and Science Museums,ELS, Macquarie

University.

TEATHER, J.L. 1991. Museum studies. Reflecting on reflective practice. *Museum Management and Curatorship*, 10 (4), 403–417.

THOGERSEN, J., SIMPSON, A., HAMMOND, G., JANISZEWSKI, L., & GUERRY, E. 2018. Creating curriculum connections: a university museum object-based learning project. *Education for Information*, 34 (2), 113-120.

VENVILLE, A., KOSTECKI, T., LYNCH, B., SANTHANAM, E. & WHITTY, A. 2021. Formalizing feedback in work-integrated learning partnerships: Opportunities for collaboration. *International Journal of Work-Integrated Learning*, 22 (1), 17-23.

VERGO, P. 1989. *The new museology*. London, England: Reaktion Books.

VINCENT, R. 2014. Experiments with bodies in social space: towards a contemporary understanding of place-based identities at the social history museum, *Museum Management and Curatorship*, 29 (4), 368-390.

WHELAN, M.B. 2017. Academic work-integrated learning (WIL): Reengaging teaching-focused academics with industry. *Journal of Teaching and Learning for Graduate Employability*, 8 (1), 172–187.

WINCHESTER-SEETO, T., A. SIMPSON, D. SCOTT, & M. PITTARD. 2003. Teachers as Learners: An Experiential Journey Through e-Learning." Proceedings of Improving Learning Outcomes Through Flexible Science Teaching Symposium, UniServe Science, The University of Sydney, 66–71.

WINKWORTH, K. 2005. Fixing the slums of Australian Museums; or sustaining heritage collections in regional Australia. Paper presented at the Museums Australia 2005 National Conference. 11pp.

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Model of the dinosaur, Minmi paravertebra, the mascot for Macquarie University's former Museum Studies Program ©photowrite; Effy Alexakis

# Challenges in Teaching Future Museum Professionals: Experiences from a long-term collaboration

INGA-LILL ARONSSON AND URBAN JOSEFSSON

## Abstract

*We present some findings regarding the teaching of future museum professionals drawn from a long-term collaboration between the Museum of Medical History in Uppsala and the master's track in museum and heritage studies (part of the ALM master's programme) at Uppsala University. The challenges for the heritage sector are profound as regards the identification of future competences. This paper advances the discussion and anticipates future rationale by identifying five challenges that we have encountered in our collaboration. These are gender politics, identity politics, participation, and materiality and its relation to digitalisation, as discussed in a political and educational context.*

INGA-LILL ARONSSON AND URBAN JOSEFSSON

## Introduction

What types of knowledge and expertise must be taught to meet future professional demands in the heritage sector, particularly among museum professionals? We have trained future museum professionals within a long-term collaboration between the master's programme track in Museum and Cultural Heritage Studies[1] and the Museum of Medical History, both at Uppsala University. The master's students in the programme come from a wide variety of disciplines and professional backgrounds. They enrol because they want to improve their marketability and professional profile with a higher university degree.

This article consists of three parts: Part one introduces the reader to the Swedish museum landscape, the Museum of Medical History and the master's programme in museum and heritage studies at Uppsala University; part two introduces the training sessions and curriculum development; and part three discusses identified challenges and our view of the solutions.

## The Swedish museum landscape

Sweden's first law on the protection of heritage was adopted in 1666 — *His Royal Majesty's Placat and Decree regarding Old Monuments and Antiquities*.[2] No similar legislative initiative followed for centuries, and the Swedish museum landscape developed without an externally prescribed hierarchy, allowing the museums, particularly the larger museums as state agencies, relative freedom.[3] The state governed through cultural politics and the distribution of money. In the 1990s, however, the state began to tighten the leash, as exemplified by the founding of the National Museums of World Culture in 1999, which was a merger of four large museums (SOU 1998).[4] Nevertheless, museum professionals objected with arguments relating to the disassembly of aggregated expertise.

In 2014, the state launched an investigation to review the state museums' mission, institutional structure and governmental control. In *New Museum Policy* (SOU 2015), it was suggested that the political governance should be both clearer and more generally formulated. To realise these seemingly contradictive objectives, it was recommended that a museum law should be established (SOU 2015: 11 f.)

In August 2017, the Museum Law (SFS 2017) came into force. The National Heritage Board (Riksantikvarieämbetet, RAÄ) was assigned the responsibility to implement and supervise the new organisational structure. Two themes in the law are particularly relevant here: first, that the principal of the museum "must ensure that a museum has decisive influence over the content of the activities" (SFS 2017: § 5); and second, that there should be an emphasis on knowledge in all aspects of the museums' activities (SFS 2017: § 4, 6 & 8). One year later, RAÄ evaluated the law and highlighted that knowledge and qualitative dimensions must penetrate all the core activities of the museum (RAÄ 2019,33).

The Swedish museum landscape is presently in the midst of deep transformation. It is still too early to tell what will happen and how, but this is the landscape in which the future capacities of museum professionals have to be identified, taught and acted upon.

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1. ALM master's programme in archival science, library and information science, and museum and cultural heritage studies. There are three tracks within the one programme.

2. ICOMOS SVERIGE 2016, Kongl. Mayst. Placat och påbudh om gamble monumenter och antiquiteter, with an English translation by Thomas Adlercreutz.

3. In 2020, the number of museums in Sweden differs according to the source, ranging from 395 (Museer i Norden 2018: In Rydbeck & Johnston 2020, 50, Tab 2.1 as the link to Museer i Norden was unavailable) to 489 (Myndigheten för kulturanalys 2020, Tab. 14, p 36). It depends on the definition of museum. In 2019, the number of museums that had been asked to participate in the official statistics was 741, including museums with less than one annual workforce member (Myndigheten för Kulturanalys 2020, Tab. 2, p 13).

4. The Ethnographic Museum, The Mediterranean Museum and the East Asian Museum, all in Stockholm. The new World Culture Museum was built in Gothenburg.

## The Museum of Medical History

The Museum of Medical History in Uppsala opened to the public in 1995.[5] It is the largest museum of medical history in Sweden. Behind the foundation was Professor Emeritus Lars Thorén, former surgeon and head of the surgical clinic at the Academic Hospital in Uppsala, and his wife, pediatrician Ingrid Thorén. The couple were the heart of the museum which, until 2003, was run entirely on a voluntary basis.

The museum is well visited by people from the health care sector and the general public. Moreover, it is a university museum and offers advanced guided tours for future physicians and nurses. The museum initiated a collaboration with the department of neuroscience on an annual course in the history of medicine (7.5 credits) in 2010. Since 2013, all lectures are given at the museum. The exhibitions and museum objects are a well-integrated part of the lectures and are used as pedagogical tools in the teaching.

## Heritage studies and museum expertise

The Department of Archival Science, Library and Information Science, and Museum and Heritage Studies (abbreviated ALM)[6] goes back to the late 1990s when a precursor to the present department was established at Uppsala University. Eventually, the teaching of three undergraduate programmes in archive, library and museum studies began. These programmes did not interact with each other, but were regarded as independent professional fields and theoretical and methodological spaces with only one exception – digitalisation.

The museum programme was mainly built around the new museology with its emphasis on postmodernism and postcolonial literature. Much has happened since then, among them a name change from “museology” to museum and heritage studies initiated by Aronsson in order to enhance the marketability of students.

At the present, the department has an ALM master’s with three tracks (archival science, library and information science and museum and heritage studies), which are integrated with several joint modules and teaching activities that, with every passing year, become more integrated. Only a few discipline-specific in-depth modules are still intact. When the integration process of the three pillars began in 2007, there was a discussion about the consequences for the professional profiles. Aronsson argued that there was a risk that all three professional fields could be drained of their professional profiles in favour of more generic profiles. The counter-argument was that, in the daily work of smaller museums, there is already a close interaction between library, collection and archive. Thus, the integration would not only be a professional advantage, but also a matter of resource streamlining. The strongest argument was that the sector will inevitably transform into a joint knowledge and professional sphere in the future.

These arguments go hand in hand with several museums’ internal reorganisation in combination with the merging of former independent museums into larger entities governed by a central authority. Economic reasons have been claimed as necessitating the reorganisations – a rationale criticised by both the museums and the public for undercutting specialist expertise in favour of generic knowledge. In response to this critique, the new museum law stresses that museum must have a high level of competence within their disciplinary area (SFS 2017: § 8).

Nevertheless, we encounter a paradox. The law recognises expert knowledge as an important feature for a museum professional while, at the same time, we educate students to become generalists not only because of the structure and content of the education, but also because of the general trend in the sector. As mentioned, the reorganisation supports the generalist in order

5. In 2013, the museum merged with the Museum of the History of Psychiatry, located in the same building and originally opened in 1980. The history of the museum is dealt with in Ekblom, B, Thorén, L., Ahlsten, E. & Josefsson, U. (2021), Medicinhistoriska museet 40 och 25 år – Fyra museichefer berättar. Uppsala medicinhistoriska förenings årsskrift 2021, 230–253.

6. In 1996, the Department of Culture and Library Studies was established at Uppsala University. At the millennium in 2000, this department was joined with the Department of Aesthetics. This new unit obtained the name Department of ALM, Aesthetics and Cultural Studies.

to streamline management, which means that a generalist becomes more employable than a specialist.

A further dynamic needs to be discussed: within the joint ALM master's programme, the A, L and M pillars differ in size and allocated resources. The merge may, therefore, see the museum track consumed by the larger library and information science with its strong focus on information science and digitalisation at memory institutions.

There is a potential risk that the museum and heritage studies knowledge base will be further undermined – a knowledge base that is grounded in objects, collections, advanced museum pedagogy, community-driven projects with participatory democratisation models and a digitalisation that puts people and objects in focus instead of the strong technologically-driven information science. Digitalisation is strong in the heritage sector, and university education follows.

In this context, the challenge for the museum and heritage research and educational field is to assert its unique knowledgebase and distinctiveness, while it must also connect to this strong digitalisation-information-systemic trend. What kind of science and educational field is museum and heritage studies? It is against this background that our medical museum–ALM collaboration has developed, having identified the professional capacities needed by future professionals in the real world.

## PART TWO

### How to become a professional

The question of identifying the "proper business" for a museum remains on the table (KAVANAGH, 1994): we need only recall ICOM's recent heated discussion about a new universal museum definition (ICOM, 2019) and, furthermore, the politicisation of the museum space and its professionals. In Sweden, an intensive museum discussion raged in the media when the new museum law was under preparation. It involved journalists, authors, museum professionals, researchers and the minister of culture. The focus was on how the museums' independence from politics could be guaranteed when the museums are economically dependent on the state. The expression "arm's length distance" (armlängds avstånd) was introduced to denote the separation between the museum and the political sphere. Ola Wong, a cultural journalist, (WONG 2016a, 2016b) argued that the government turned the museums and the professionals into propaganda centres with ideological preferences for identity politics. The Royal Academy of Sciences joined the debate, writing a public letter to the Ministry of Culture in which they argued that the government jeopardised scientific thinking in the museums (ANDERSSON, 2016).

When the joint training sessions first began, this political scenario was not on the horizon. At the time, we were dissatisfied with the dominant postmodern relativisation of knowledge and its fluid relation to any "hands-on" museological work. Intuitively, we aimed at a re-identification of the profession and an elevation of its expert status. To do this, we needed to return to basics.

As object learning, that is, university collections and museum pedagogy per se, is not our topic here, we will not dwell on the details of the training sessions beyond mentioning that two modules were developed, "Collection Management in Theory and Practice" (7.5 credits) and "Pedagogy and Display Techniques" (7.5 credits). These soon evolved into a more comprehensive approach when we noticed their impact on the students and their professionalisation.

Our collaboration demanded access to the museum's collections and exhibition rooms in an authentic way. As part of this "open-ended" enquiry, we developed interrelated hands-on exercises that took place partly in the museological space at the museum, and partly in the didactical space of the university. The aim is to train students to engage with the material world, with their senses, and also from a cognitive and knowledge perspective. The "hands-on" and the "real thing" determine the learning outcomes, but equally important is the theoretical training. Throughout these educational exercises, the students were never restrained to a staged museum environment, but instead had to learn to move both literally and metaphorically between the backstage (storage) and the frontstage (exhibition rooms). This dualism had them embody the museum profession, taking on professional responsibility including its tacit knowledge. That

realness cannot be substituted with role play.

In the spring of 2020, coronavirus restrictions saw us implement the materiality of the second module online. That was a challenge for all of us but, since the students had worked with the authentic museum objects in the first module in the fall of 2019, they could draw on that experience when they made a digital exhibition with the same objects on the exhibition platform Omeka. Given the circumstances, the students performed well. Nevertheless, this exhibition is not at all comparable to the real, physical exercise that would otherwise have been completed in the museum itself. Materiality, spatiality and its social learning components at the museum matter.

Our experiences are that the learning modules on materiality are threatened by an uncritical digitalisation in which traditional scientific methods such as ethnography are referred to as "off-line" (BERG 2012) as if there is no reality. Words matter, and to call ethnographic methods (and theory) "off-line" is to make the online world the norm. This will have consequences for collection management and pedagogical training. The question needs to be asked: Have we lost the battle between the material world and digitalisation?

Professionalisation is not only about expert knowledge or generic knowledge. It is also about linking professionals in a transdisciplinary network and making use, in this case, of the potential cultural, social and political content of objects for the benefit of the public in order for the museum to tap into and contribute to a transformational change of society without losing sight of the material world.

**Professional competence training: Challenges from the outside and the inside**

In our collaboration, we often discuss what kind of professional expert we train the students to become. We are concerned about the risk of training a "bad expert" who, according to SWEET & GIFFORT (2021), is a dangerous figure, but whose narrative is also used to transform expertise. Or are we training a professional "nobody" without any scholarly expertise, as described by IRENIUS (2016)? What kind of professional expert do we anticipate?

SWEET and GIFFORT (2021: 332) see the performances and power of experts and expertise as "tied to place, history and institutions, suggesting that cultures of expertise are dependent on symbolic and material resources". This means that "expertise must be historicized as part of a larger political and institutional context in order to understand its cultural transformations" (ibid 2020: 20). We find this statement to be in line with the critical Swedish academic and public debate about maintaining an arm's length between museum and politics. Since most museums are dependent on funding from politically appointed decision-making assemblies, the politicians can assert political distance but, in reality, the museums respond to economic and political incentives. Gender and identity politics are among the incentives that always give a museum good credit.[7]

As we see it, museum professionals lose their credibility and legitimacy by maintaining the false hope that "feel-good practices" and "feel-good exhibitions" would protect them from upsetting an increasingly misguided societal sensitivity.

There is something self-deceiving in the above problem context that becomes an obstacle for any professional training. This self-deception comes not only from within the museum; it emanates also from academia's political ambitions and whatever activism research happens to be in vogue. The usual remark is that museums have always been political, but that is an overly simplified answer and diverts attention away from the everyday challenges of educating future professional museum and heritage experts. We could ask: what kind of educational themes are relevant? On the other hand, it could even be questioned whether the concept of "relevant" is relevant in an

7. Artur Hazelius established The Nordic Museum and Skansen through his collection work, innovative use of dioramas and his ability to raise money. Nowadays, the museum guides problematise this narrative and present it as a product of "the Hazelius couple's" joint work. There are sources that indicate engagement by his wife Sofi; she accompanied him on his field trips, wrote a diary, participated in the early diorama buildings, and Artur himself calls his wife in 1874 his "only assistant" (PC Marie Steinrud 2021-01-22). This is important research, but the visitors seem to hear that gender and power structures have suppressed Sofi's role in the foundation narrative, which fits well into structural gender oppression theory.

educational context. As argued by SCRUTON (2007: 29), relevance is not only irrelevant; it is also associated with short-sightedness and the lack of core knowledge in favour of some societal trend.

We intend to train museum professionals to have factual, political, aesthetic and ethical knowledge, as well as personal integrity and rhetorical skills to defend an exhibition, or any other issue that the museum has decided on. The discussion about controversies should take place before an exhibition is launched, not after. A museum is never innocent (PAMUK 2012), and a museum professional can never be allowed to be naïve, ill-informed or faint-hearted. Neither is it acceptable for the authorities to make literary "dawn raids" at a museum and confiscate collections and single objects to satisfy the present time's normative view on past collected objects.[8]

Where does this lead us? According to us, it leads to the identification and teaching of core knowledge that consists of both theoretical and practical knowledge usable by the students over a longer time span for the benefit of the transformation of society. This can be read as a platitude, but let us return to SWEET and GIFFORT (2021) who emphasise that the study of expertise stipulates a "relational approach" (ibid 2020: 332) that accounts for equal attention to the "inside" and "outside" of the field and that recognises its ongoing renegotiations between agents, parts and themes (ibid 2020: 332). One problem is that museum and heritage studies is a relatively young science that, for decades, has been locked into a post-modern political agenda that has inhibited, both theoretically and practically, its scientific progress. In such an educational landscape, a true collaboration with a museum and its professional staff is of outmost importance, because a university-alone educational programme cannot do this necessary intellectual transformative work alone, and neither can the museum and the heritage sector.

## PART THREE

### Challenges and solutions

Let us now turn to some identified challenges that we have encountered.

### Relations

Teachers and students from the university often take museums for granted. Usually, the study visit takes place over a couple of hours and back at the university it is analysed without input from the museum. This is an asymmetrical power relationship in the Foucauldian sense. The museum will include the visit in its activity report, but in the end, it does not build any new capacities. On the other hand, the educational programme also loses, because it gets a rather limited view of the museum context and its multitude of activities. At a time-limited visit, theoretical and ideological views are seldom presented that could highlight everyday routine cultures with its controversies and problems.

To avoid this one-way-road and reach a "thick" description of the museum, we developed a long-term relation based on trust, reciprocity and transparency. In the university, Aronsson is responsible for the course, but Josefsson participates in the seminars and comments on the papers. At the museum, Josefsson is in charge and Aronsson participates. The future professional gets the better of both worlds. There are no short cuts in this building of relations: time and agency matter.

### Materiality

A solid understanding of the material world is at the core of the competences for future museum professionals. It becomes even more pivotal in this world of on-line activities. The international evaluation expert Hur Hassnain (PC 2020-02-10) argues that we are in an "information war" involving powerful techno companies and geopolitical interests. Context is infectious, and it is convenient to do things online. The danger is that the world gets used to it and loses knowledge, because human behaviour cannot be assessed online.

8. This happened in 2019 when the regional heritage administration *Västarvet* removed so-called controversial objects from the Gothenburg Natural History Museum research collection without any consideration of the objects' scientific values (Folkbladet 2019-12-01).

In the tutoring, the museum makes available a large variety of objects to be documented, researched and displayed. We measure, describe and feel the objects for documentation purposes and exhibitions; we theorise and philosophise about the relations among humans and objects including a phenomenological approach.[9] Theoretically, we acknowledge the difference between "knowing how" and "knowing that" in accordance with RYLE (1949). An object in a university museum not only *represents*, but also *carries,* in this case, the development of medical scientific knowledge, medical treatments and views of the human body over the centuries.

Despite the in-depth professional training about the material world, we recognise the vulnerability of it. For example, the cutting and pasting of a physical poster could be regarded as a doomed exercise, whilst the digitalised template is the obvious modern way of doing things. Are the critics right? Are there better ways to study the material world to become museum professionals than to dwell on materiality and its relation to the rest? Do we need the material object in the future?

However, with the risk of being obsolete, we strongly argue that the contact with the material museum object cannot be replaced. We assume that the handicraft is doing something with any acquired knowledge. The material seems to settle and become one with the human body; it is more than a flimsy experience: it is deeply anchored in human beings and belongs to *being alive*. How can we teach this and make it understandable and sturdy enough to resist a powerful and uncritical digitalisation?

## Participation

The participatory turn in museums is here to stay (SIMON, 2010). Museums have adopted the strategy, higher education teaches it, and research is flourishing. Participation has become a key tool in the democratisation of the heritage sector. But what does participation really do? What are the theoretical implications? ARONSSON (2020) is intrigued after years of working with the concept of participation.

To teach participation is tricky. The "pedagogy of participation" can be theoretically taught. It can also be practised as participatory observations with qualitative interviews. In our case, the students learn to know participation in their work with object documentation and exhibitions by interacting with people. Participation online — as a digital interface between the public and the museum — is not yet trained in the mentioned course modules at the museum. We have not yet found a proper educational approach to it, including its ethical aspects. Online and offline role-play, the *pretended* building of exhibitions, the *pretended* documentation of objects, the *pretended* conversation online and the *pretended* guided tour, are against our view on learning. Based on our experiences, we know that the authentic object, the real museum environment, the real on-line platform and the real subject influence the learning experience. SIMON (2010) made the participatory museum popular, with plenty of examples of participatory activities within the museum, but without considering the concept's relational complexity.

In *A History of Participation in Museums and Archives* (HETLAND et al., 2020), participation is discussed in relation to democratisation, divides, drives and developments. The central argument is that participation must be studied and understood in "traversing disciplines" in the contexts of participatory, educational and social turns (ibid 2020: 3) that are linked with broad concepts such as globalisation, creative industries, new public management, technology and innovation (ibid 2020: 3). A conclusion is that participation "represents a significant break with traditions in which quality was unequivocally associated with artefacts in museum collections and exhibitions" (ibid 2020: 5). Hence, the material world of the artefact seems to become irrelevant on this "meta-review level" that is "inextricably linked with advanced developments in socio-technological platforms" (PIERROUX et al., 2020: 18) and connected to the sharing and production of global knowledge.

9. We do not hesitate to become esoteric or even a bit magical with references to anthropological accounts of other people's worldviews where things have another position in the world (SANTOS-GRANERO, 2013). Our guiding idea is that to use all the senses in the interaction with the *unknown* object, and to investigate what kind of object it is, name it, articulate its use and history, and capture its social and cultural biography (APPADURAI, 1986), would train the student in collection management and promote theoretical insights.

In our daily work, we operate on a micro-level dealing with everyday routine cultures grounded in the museum's everyday practice. We maintain that this everyday knowledge must be grounded before any future professionals can turn to global knowledge production (whatever that is). Qualitative participation and reciprocal respect between the public and the museum are based on everyday practice and professional expertise in a long conversation, as in *Oumbärliga samtal* (Indispensable conversations; HEUMAN et al., 2020). Participatorily produced knowledge must be taken seriously because if not, it is just another manipulative pedagogical exercise.

Good participatory activities connect to community and democratisation, which enrich all. For future museum professionals the key words here are quality, values, integrity and context in order to avoid fallacies including fragmentation of knowledge and expertise.

**Gender and identity politics**

The classic volume, *Gender Perspectives* (1994), edited by Jane R. Glaser and Artemis Zenetou, laid the foundation for today's research on women in museums and its subsequent themes of gender, LGBTQ, class and race. The research on gender and identities has been essential for the transformational change of the museums over recent decades.

In 2005, Aronsson and Meurling published *Det bekönade museet* (*The Gendered museum*). The book was based on their course on gender and museum that was initiated in 2002. At the time, there was an obvious need for this kind of knowledge and many museum professionals took this online course.

This early expertise on gender connected well to the Museum of Medical History's collections, exhibitions and pedagogical perspectives because of its large collections of instruments that have been used on female patients and – to varying degrees depending on time period – used by female healthcare professionals. Not least is this noticeable in the fields of gynaecology and obstetrics. Consequently, the museum's rich and diversified collection constitutes an essential source for advanced gender discussions. At every documentation and exhibition exercise, the students have dealt with gender as an integrated part of the work, not as a particularity.

All research can be sensitive, but gender and identity studies have been shown to be especially so because of its explosive socio-political dimensions and the negative consequences for the museum when it is not done right. With this said, we want to tell a story about what could happen to a museum when identity and gender research loses sight of its primary goal of being scientific. In late 2018 and early 2019, the museum found itself at the centre of two gender studies written by a researcher who had followed and filmed five guided tours at the museum four years earlier (RODÉHN 2018, 2019). The method is claimed to be participatory observation, but no follow-up communication with the guides took place and the interpretations are shaky, to say the least.

In this kind of gender research, it does not matter what the guides say or do not say. In one article, they are first criticised for talking about patients at Ulleråker's Psychiatric Hospital in such a way that "patients [sic] became a *sticky sign* saturated with feelings of unhappiness" (RODÉHN 2018: 6). A few pages on, they are instead criticised for talking about entertainment arranged for patients, since that was to "cover up the unhappiness of mental illness and the stigma connected with the psychiatric hospital" (RODÉHN 2018: 10). How can anyone defend against this kind of argumentation ? A public debate took place in a well-reputable culture journal, *Respons,* between RODÉHN (2020) and ARONSSON and JOSEFSSON (2019, 2020) (see also GLANS 2020: 198-199).

A renewed critical discussion on gender and identity has been initiated in Sweden with a bearing on the "arm's-length" relation between government and the museums, and what is taught at the universities. The cultural journalist Ivar Arpi and researcher Anna Wyndhamn (2020) comprehensively discuss the impact on what they call "the gender doctrine" (*Genusdoktrinen*) in higher education and relate it to the dangerous cancel culture and academic freedom.

The consequences of this renewed discussion on gender and identity politics are profound for the future training of museum professionals: when gender and identity are to be educated at the museum and the university, it is of foremost importance that the entire conceptual framework of

gender and identity is critically analysed. Museum professionals need to be trained in recognising when a museum is approached by less rigid and/or ideologically driven research and learn how to secure, through written agreements, the design, consent and exit conditions so not to become a victim of political dogmas.

## Some concluding reflections

Gail Anderson, in her *Reinventing the museum* (2012) claims that the museum must change; otherwise, it will die. This is far from indisputable, but it guides us to think about future professional capacities. Collection management and exhibition skills can be taught, but how do we teach "heritage" and "materiality" and "arm's length distance" between the museum and the state in a polarised and politicised society? How do we teach heritage when well-known researchers claim that "there is no such thing as heritage" (SMITH, 2006) and we must at the same time assert the unique knowledgebase of heritage and museology and stand up for its existence in relation to an increasingly cannibalistic digitalisation that loses touch with the ground? Here we can discern the death in Anderson's claim that museums must "change or die". Future professionals are facing some profound challenges.

We have much faith in the powerful life spirits of the museums, and present development within the heritage sector gives us hope. A transformational change of the museum is on-going, and this must be better understood and taught. Transformation itself is a high-flying concept that must be taught. The students must acquire knowledge that is far from what we teach today, but also rooted in a traditional heritage and museological knowledge base that is experienced as both solid and fluid at the same time.

We anticipate that museum professional training will shift its focus from the post-modern to a more scientific approach. Discursive approaches, politically driven activist research and other metalevel reasoning will lose ground. Future museum professionals need to be trained in a way that enables them, as professionals, to distinguish between solid and usable knowledge and irrelevant and short-sighted imitations. It includes advanced pedagogical knowledge of the "know-how" and the "know-that". Another challenge for the teaching of future professionals is that many students come with a preconceived view of museums, almost an indoctrination that originates from their prior university studies, which makes it difficult for them to take in the real world of heritage and museums. Our duty is to learn the learnable and teach the teachable. That is no minor plea because our future depends on it.

## Literature cited

ANDERSON, G. 2012. [2004], *Reinventing the museum*, AltaMira Press, Lanham.

ANDERSSON, E. 2016. "Nu ger sig även Kungliga vetenskapsakademiens ledamöter in i museidebatten", *Svenska Dagbladet*, 27 November.

APPADURAI, A. (Ed.) 1986. *The Social Life of Things*, New School University, New York.

ARONSSON, I-L. 2020. "Participation: a game changer in memory work?" *POEM Newsletter 5*, 18 December, https://www.poem-horizon.eu/poem-newsletter-issue-5-adjusting-fieldwork-and-research-to-a-new-normal/

ARONSSON, I-L & MEURLING, B. (Eds) 2009. [2005], *Det bekönade museet. Genusperspektiv i museologi och museiverksamhet*, Skrifter utgivna av ABM institutionen vid Uppsala universitet, Vol. 1.

ARONSSON, I-L. & JOSEFSSON, U. 2019. "Normkritisk forskare ger missvisande bild av Medicinhistoriska museet i Uppsala", *Respons*, Vol. 6. 15-17. https://tidskriftenrespons.se/

ARONSSON, I-L. & JOSEFSSON, U. 2020. "Forskaren måste respektera den viktiga autonomin i forskningsprocessen", *Respons* Vol. 1. 16-17. https://tidskriftenrespons.se/

ARPI, I. & WYNDHAMN, A.K. 2020. *Genusdoktrinen*, Fri tanke, Stockholm.

BERG, M. (2015), *Netnografi: att forska om och med internet*, Studentlitteratur, Lund.

EKBLOM, B, THORÉN, L., AHLSTEN, E. & JOSEFSSON, U. 2021. ”Medicinhistoriska museet 40 och 25 år – Fyra museichefer berättar”, *Uppsala medicinhistoriska förenings årsskrift*.

Folkbladet 2019. ”Utländsk kritik mot svensk museigallring”, 1 December.

GLANS, K. 2020. “Efterord. Vem får säga vad?”, *Oumbärliga samtal: humaniora och samhällsvetenskap i svensk offentlig debatt*, Heuman, J., Sandström, J. and Widmalm, S. (Eds), Bokförlaget Daidalos, Göteborg.

GLASER, J.R. & ZENETOU, A. (Eds). (1994), *Gender Perspectives: Essays on Women in Museums*, Smithsonian Institution Press, Washington.

HASSNAIN, H. (2021), Personal communication. 10 February.

HETLAND, P., PIERROUX, P. & ESBORG, L. (Eds) 2020. *A History of Participation in Museums and Archives*, Routledge, New York.

HEUMAN, J., SANDSTRÖM, J. & WIDMALM, S. (Eds). 2020. *Oumbärliga samtal: humaniora och samhällsvetenskap i svensk offentlig debatt*, Bokförlaget Daidalos, Göteborg.

ICOM2019. “ICOM announces the alternative museum definition that will be subject to a vote”, July 25, Accessed 2020-12-19. https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/

ICOMOS Sverige 2016. *Kongl. Mayst. Placat och påbudh om gamble monumenter och antiquiteter*, with an English translation by Thomas Adlercreutz.

IRENIUS, L. 2016. ”Yrkeskunniga får allt mindre att säga till om”, *Svenska Dagbladet*, 22 October.

KAVANAGH, G. (Ed.) 1994. *Museum Provision and Professionalism*, Routledge, London and New York.

Myndigheten för kulturanalys 2020. *Museer 2019*, Kulturfakta 2020:2. Sveriges officiella statistik, Göteborg. https://kulturanalys.se/wp-content/uploads/2020/09/museer2019_webb.pdf Accessed 2020-12-09.

PAMUK, O. 2012. *The Innocence of Objects. The Museum of Innocence, Istanbul*, Translated from the Turkish by Ekin Oklap. Abrams, New York.

PIERROUX, P., BÄCKSTRÖM, M., BRENNA, B., GOWLAND, G. & WEEN, G. 2020. Museums as sites of participatory democracy and design In HETLAND, P., PIERROUX, P. & ESBORG, L. (Eds). *A History of Participation in Museums and Archives.* Routledge, London, 27-45.

Riksantikvarieämbetet 2019. *Uppföljning av hur museilagen tillämpas: Ett regeringsuppdrag,* Riksantikvarieämbetet, Stockholm.

RODÉHN, C. 2018. Emotions in the Museum of Medicine: An Investigation of how Museum Educators Employ Emotions and what these Emotions do, *International Journal of Heritage Studies.*DOI: 10.1080/13527258.2018.

RODÉHN, C. 2019. “Exhibiting Doctors and Nurses: Queering Professional Education in a Medical Museum”, *STEM of Desire: Queer Theories and Science Education,* LETTS, W. and FIFIELD, S. (Eds), Brill Sense, Leiden/Boston.

RODÉHN, C. 2020. ”Sakfel och missvisande bild av forskningsprocessen”, *Respons* Vol. 1.

RYDBECK, K. & JOHNSON, J. 2020. LAM institutions: a Cross-country Comparison of Legislation and Statistics on Services and Use. In AUDUNSON, R., ANDRESEN, H., FAGERLID, C., HENNINGSEN, E., HOBOHM, H.C., & JOCHUMSEN, H., LARSEN, H. AND VOLD, T. (Eds). *Libraries, Archives and Museums as Democratic Spaces in a Digital Age*. de Gruyter, Berlin/Boston. 25-52.

RYLE, G. 1949. *The Concept of the Mind*, Hutchison, London.

SANTOS-GRANERO, F. (Ed.) 2013. *The Occult Life of Things*, The University of Arizona Press, Tucson.

SCRUTON, R. 2007. *Culture Counts. Faith and Feeling in a World Besieged*, Brief Encounters, New York.

SFS 2017. *Museilag, Svensk författningssamling*, https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/museilag-2017563_sfs-2017-563

SIMON, N. 2010. *The Participatory Museum*, MUSEUM, Santa Cruz.

SMITH, L.J. 2006. *Uses of Heritage*, Routledge, New York.

SOU 1998. Statens museer för världskultur. Betänkande av Organisationkommittén för etablering av ett världskulturmuseum i Göteborg, *Statens offentliga utredningar*, https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/1998/10/sou-1998125/.

SOU 2015. Ny museipolitik, *Statens offentliga utredningar*, Stockholm, https://www.regeringen.se/contentassets/a7f58685a4964dbfb276541303516196/ny-museipolitik-sou-201589.pdf

STEINRUD, M. 2021. Personal email communication, 22 February.

SWEET, O. L. & GIFFORT, D. 2021. The bad expert. *Social Studies of Science*, 51(3), 313-338. https://doi.org/10.1177/0306312720970282

WONG, O. 2016a. ”Regeringen förvandlar museer till propagandacentraler”, *Svenska Dagbladet*, 9 August.

WONG, O. 2016b. ”Bah Kuhnkes kulturpolitik hotar kulturarvet”, *Svenska Dagbladet,* 28 September.

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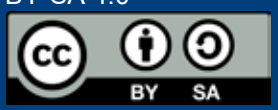


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