The Research Perspectives of Australian Museums & Galleries

An Australian National University (ANU) and Australian Museums and Gallery Association (AMaGA) exploratory study

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1. Executive Summary

This report offers a snapshot of Australian museum research culture and practice. Although museums are engaged in research, there has been little consideration across the Australian museum sector about how this research is manifested. This raises the question of whether this research is aligned with their strategic needs, or the communities they represent and work with[1].

Australian museums are subject to numerous strategic imperatives, as they navigate a demanding funding landscape, increased competition for audiences and the challenge of adapting to new digital forms of culture and engagement. Under these conditions, there is also increasing pressure for Australian museums to demonstrate their relevance and resilience at a time of local and global upheavals[2]. As public institutions, museums have opportunities to move beyond a tacit assumption that they create social good through their mere existence, towards better articulating the unique contribution they can make towards a rapidly changing, and increasingly complex, social and public sphere. They can do this in collaboration with other civic institutions and communities. Research can play a vital role in supporting museums to interrogate this context if interpreted as a socially embedded pursuit able to respond to diverse needs. There is, however, a knowledge gap in how research is currently manifested across Australian museums, and thus an inability to inform where it could productively go.

Drawing upon museum strategic documents and interviews with Australian museum practitioners, this study analyses and compares the current perspectives of Australian museum research from both a policy and practice perspective. The report reveals a disconnect in the strategic understanding of museum research and what the museum workforce is seeing in its work. These museum practitioners see their museums less as enabling the institutional orientated production, presentation and communication of research, but rather inhabiting alternative public roles that inspire different forms of research value. For them, research agendas within museums are less anchored in traditional disciplinary formations, leaning more towards pressing questions of public interest. Museum research activity happens less as fixed types of organisational pursuit, and more as fluid forms of publicly embedded endeavour. Their expressed desire is for museum research relationships to move from transactional, ad-hoc and uneven research collaborations with universities; to growing supportive collaborative understandings.

The report builds on these perspectives by concluding with a discussion of the opportunities to move forward in collaborative museum research, outside the neoliberal imperatives of research partnerships, to frame a new space for future dialogue emphasising the social and civic roles and responsibilities of Australian museums. These are mapped as follows:

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[1] "Museums" will be used as shorthand reference, or proxy, for museums and galleries across the rest of this report.

[2] Public programmes and campaigns such as Museums Change Lives (Museums Association, UK) https://www.museumsassociation.org/campaigns/museums-change-lives/, Museums as Site for Social Action (MASS) https://www.museumaction.org and the Museums are Not Neutral movement https://artmuseumteaching.com/2017/08/31/museums-are-not-neutral/ are indicative of the groundswell that's occurred around the topic of museums and social justice, internationally.

MUSEUM'S ROLE & PURPOSE	
PRESENT *Museum as preserver, holder, exhibitor, communicator of collections and cultural heritage.*	**FUTURE:** *Museum as social, civic and public agent.*
RESEARCH FRAME	
Research framed as institutional **function**.	Research framed as public **value**.
RESEARCH AGENDAS	
Research focused on disciplinary specific **subjects & objects**.	Research focused on public interest **challenges**.
RESEARCH ACTIVITIES	
Research enacted as **types** of organisational activity.	Research enacted as **modes** of publicly embedded activity.
RESEARCH RELATIONSHIPS	
Research enabled through **transactional connections**.	Research enabled through **collaborative culture**.

2. Research Context and Background

Across the last thirty years, museums have globally undergone an evolution from their traditional role as institutions of enlightenment and education of the public, to increasingly audience centred organisations (Hooper-Greenhill 2000). Aligned to this participatory turn, there has been a growing interest in the ways that museums conceptualise and practice research (Dewdney et al 2013, Walsh 2016, Bjerregaard 2019, Pringle 2019, Rito et al 2020) embedded within a much wider and longstanding debate about how new knowledge, scholarship, ideas and practices should and could be produced today (Wenger 1998, Friere 2000, Facer et al 2019). Globally, as the social responsibility of public institutions is being put under the spotlight, research offers a productive opportunity for museums to respond to key questions of public purpose.

Research offers a practical and reflexive space to address these questions, enabling museums to rethink their practices. Research should not be presumed to be solely a scholarly activity undertaken by research experts, but also a collective and socially engaged pursuit, that is actively embedded in the world. After all, research doesn't happen in a vacuum. It is a situated activity that exists within cultural, social, environmental and political contexts. Interpreted in such a way, research practice can become an essential tool for museums in grappling with public, social and civic relevance. This approach to research also helps shape future collaborative research agendas with other cultural, civic and public organisations that share similar public relevance challenges as museums. This includes universities, who are increasingly exploring and expressing their "third mission" as their service to society (Department of Education 2023, Pg 85).

In supporting Australian museums in their strategic journey through research, there is a need to understand their current research needs, identifying strengths and gaps. To date, there has been no sector wide review of the research orientations of the Australian museum sector. In 2022, AMaGA and the ANU set out to address this deficiency by initiating a small-scale study, presented in this report. Drawing upon museum strategic documents and interviews with Australian museum stakeholders, this study responds to the following questions:

- How do Australian museums frame their role in connection to research?
- What potential research agendas are of interest to Australian museums?
- How do Australian museums operationally enact research?
- What do museums see as the opportunities and challenges of working with universities around research?
- How might future research opportunities for museums be considered?

This report is for anyone working in any Australian museum, in any role, who is personally and professionally interested in new and alternative approaches to help their organisation achieve public, social and civic goals. It is hoped insights from this study will help to inform future learning and advocacy into new collaborative research development opportunities

between Australian museums and universities, and other relevant stakeholders, to better address social, public and civic needs[3].

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[3] See for example ASSEMBLY: A New Conversation about Museum Research. https://www.amaga.org.au/news/assembly-new-conversation-about-museum-research

3. Methodology

This study is concerned with understanding research from the perspectives of Australian museums themselves, and specifically how they articulate and practice research. The questions posed are organised in the following themes:

RESEARCH FRAMING	*How do Australian museums currently frame their role in connection to research?*
RESEARCH AGENDAS	*What potential research agendas are of interest to Australian museums?*
RESEARCH ACTIVITIES	*How do Australian museums operationally enact research currently?*
RESEARCH RELATIONSHIPS	*What do museums see as the current opportunities and challenges of working with universities around research?*
RESEARCH OPPORTUNITY	*How might future research opportunities and directions for museums be considered?*

The source material upon which this study relies is two-fold. Firstly, the published statements of Australian museums were analysed, including (but not limited to): websites, mission and vision statements, strategic plans and evaluation reports. This was augmented by a series of semi-structured interviews with 14 individuals from 7 Australian museums. These museums were chosen as they either had a public strategic research agenda, were working collaboratively with different stakeholders, or grappling with particular change agendas.

The breakdown of relevant museums and interviews is as follows:

- The Australian Museum (1 interview).
- The Western Australian Museum (WAM) (2 interviews).
- The Museum & Art Gallery of the Northern Territory (MAGNT)(2 interviews, 3 people).
- The Powerhouse Museum (1 interview).
- Bathurst Regional Art Gallery (BRAG) (1 interview).
- The Museum of Discovery[4] (MOD) (3 interviews); and
- Questacon (3 interviews).

In terms of the choice of interviewees, the study sought out museum employees who had a good understanding of the strategic and public goals of their institutions, and who were personally and professionally interested in exploring new approaches to achieve these goals. They could be in any role, and seniority level, within the museum.

Whilst the responses provided rich insights into the perspectives and experiences of interviewees, they do not represent the entire Australian museum sector. To maintain the confidentiality of the people that were interviewed, personal names or direct quotes are not used in this report.

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[4] One of the interviews was with someone employed at the University of South Australia (UniSA), which MOD is part of. As this interview tended to focus primarily on the work of MOD, albeit more from a university research perspective, for ease of reference we have referred to this as a MOD interview.

4. Findings

The findings offer insights into current perspectives of research within Australian museums through an analysis of their research framing, agendas, activities and relationships.

4.1. Research framing: *How do Australian museums currently frame their role in connection to research?*

For many museums globally, the importance of research is acknowledged explicitly in their outward pronouncements of institutional function and purpose. For example, the current International Council of Museums (ICOM) definition of a museum states: '*A museum is a not-for-profit, permanent institution in the service of society that* **researches,** *collects, conserves, interprets and exhibits tangible and intangible heritage*' (ICOM 2022).

Unsurprisingly, this aligns with the published statements of several larger collections based Australian museums. Some have specific research departments or research institutes[5], following a model of traditional academic research, in which in-house research experts pursue disciplinary lines of enquiry, following established academic research methodologies, funded by competitive research grants, disseminated in academic, peer reviewed journals[6]. Even where major Australian museums do not have discrete research institutes or departments, research is still explicitly written into their strategic descriptions, as a clear institutional function[7]. In contrast, many smaller regional museums and galleries don't publicly state any explicit organisational connection to research.

This 'all or nothing' framing of museum research as institutional function is however not how museum practitioners see its positioning. From their responses, interviewees interpreted research as a way of imagining the public agency of the museum, rather than simply serving as an enactment of organisation function. Interviewees were able to reflect more expansively on their museum's purpose, compared to that contained in many museums' institutional statements, opening opportunities to situate research more progressively. The most common expressions of museum purpose from interviewees are modelled across 3 types:

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[5] See for example the South Australian Museum https://www.samuseum.sa.gov.au/research, The Australian Museum, https://australian.museum/get-involved/amri/, Museums Victoria https://museumsvictoria.com.au/research-institute/ and Western Australian Museum https://museum.wa.gov.au/research/research-areas

[6] For example, the following statement by South Australian Museum, conforming to and operationalising embedded/established metrics of academic research excellence: '*The academic research status of the South Australian Museum is strong among museums nationally as determined by the number and combined value of external, competitive research grants, the majority of which are secured from the Australian Research Council, and the number of peer-reviewed publications that its researchers produce*' https://www.samuseum.sa.gov.au/research

[7] For example: *'**Research** and scholarship are central to all of the Museum's activities, including the development of collections, exhibitions, publications and program.' (National Museum Australia).* https://www.nma.gov.au/explore/curatorial-research

*'We **research,** collect, preserve and share material culture and document our non-material culture to better understand the past and the present (History Trust of South Australia).'* https://www.history.sa.gov.au/vision-values/

*'The Australian National Maritime Museum is Australia's national centre for maritime collections, exhibitions, **research** and archaeology (The Australian National Maritime Museum).'* https://www.sea.museum/about/about-the-museum/what-we-do

A) Porous civic entities that enable dialogue and engagement with publics and communities

Several interviewees, particularly those from MAGNT, BRAG, WAM and Questacon, referred to their museums as places that enable dialogue and engagement with communities, publics and various local stakeholders. Some described their museums as *porous entities*, embedded within external and local ecosystems, mutually engaging across a broad range of productive relationships.

B) Collaborative platforms that foster connection between people

Others, particularly those from the Powerhouse, MOD and Questacon, emphasised the connecting power of their museums. They referred to their institutions as *platforms for collaboration*, places to foster the creation of communities of practice and experience, promoting interdisciplinary knowledge exchange that explore different ways of knowing. Some participants talked about their museum as a site of *research connection*, connecting researchers with audiences, enabling audience participation with live research hosted by their museums, as well as communicating research to audiences in creative ways.

C) Creative hubs that inspire new ways of thinking and acting.

Some interviewees, particularly those from MOD and the Australian Museum, referred to their institutions as important places to enable alternative modes of doing, thinking and feeling. They spoke of their museums as places to inspire new practices, provoking new questions and risk-taking, in order to reimagine the future and nurture curiosity.

From this analysis of museum framing of research, it's clear that there is a gap between the strategic expressions of museums, and the experiences of those working within them.

4.2. Research agendas: *What potential research agendas are of interest to Australian museums?*

Australian museums in their public statements focus, perhaps unsurprisingly, on their particular areas of disciplinary subject and object expertise. These typically centre on disciplinary areas that include (but are not limited to): art history, social history, local history, natural sciences, planetary sciences, biological sciences, technological sciences, mineral sciences, zoology, biodiversity, anthropology, archaeology, palaeontology, Indigenous cultures and Asian & Pacific Art[8]. This contrasts with the interests of the museum practitioners we interviewed, whose research agendas were less anchored to fixed disciplinary categories and were instead oriented around public interest and cultural value. These interests can be mapped broadly to the following four themes:

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[8] For example:

'The Australian Centre of Asia Pacific Art (ACAPA) is a platform for the Gallery's research into Asian and Pacific art.' (Queensland Art Gallery | Gallery of Modern Art (QAGOMA)) https://www.qagoma.qld.gov.au/qagoma-collection/asia-pacific-art-research/

'The research areas of WAM include Terrestrial Zoology, Aquatic Zoology, Maritime Archaeology, Maritime History, Materials Conservation, Anthropology & Archaeology, Social History, Molecular Systematics' (WAM) https://museum.wa.gov.au/research/research-areas

A) Engaging in ethical collaborative research processes with First Nations communities.
The nurturing of respectful and ethical research relationships with First Nations communities that are meaningfully collaborative was a central concern. Importantly, the emphasis was not on research *about* First Nations communities, but rather how museum research as a knowledge generation process could sensitively align *with* the needs and interests of these communities, noting that this could only happen if it was First Nations led.

The MAGNT interviewees highlighted the significance of working with Traditional Owners in framing the meaning and history of the objects of their collection, decentring the museum as sole expert in order to recognise Indigenous knowledge systems and learning from community. This requires a clear articulation of benefits for the Aboriginal and Torres Strait Islander communities involved. Questacon interviewees also expressed their commitment to showcasing other ways of knowing, including First Nations knowledge, through their exhibitions. For the Australian Museum interviewee, the question of how First Nations Communities were represented within research needed greater discussion across the museum sector, particularly the need to critically examine who is being represented in research and interrogating the relationship between subjects and researchers.

Several participants also highlighted the necessity for museum sector research to be culturally safe, aligning with a different set of ethical mandates and protocols that were more responsive to the needs of Aboriginal and Torres Strait Islands people. It was suggested that this could be done by partnering with Aboriginal research organisations, as they bring the appropriate ethical frameworks to ensure the necessary cultural safety required to enter into this type of research.

B) Empowering publics to engage with, and respond to, the climate crisis.
Interviewees spoke about the increased need for their museums to engage with climate change. The Australian Museum has their own Climate Solutions Centre[9] which is largely focussed on public outreach; and their interviewee emphasised the significant role of museums in empowering the public with the necessary tools to become more adaptive and resilient to climate change. This corresponds to an increased interest in the politics and praxis of care in the museum sector. From this perspective, the task is not simply to preserve the past or represent communities and the environment in their programs, but to support future communities. In Australia, there is a need for a more collaborative approach to this issue, following the success of multi-partner research initiatives internationally[10].

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[9] https://australian.museum/learn/climate-change/

[10] For example, The Museums and Climate Change Network (MCCN) https://mccnetwork.org, the UK Museum Association's Museums for Climate Justice Campaign https://www.museumsassociation.org/campaigns/museums-for-climate-justice/
or the Museums for Climate Action Project https://www.museumsforclimateaction.org

C) Developing projects that are more anchored in, and engaging with, the needs of local communities.

Participants also spoke of their commitment to developing projects and initiatives within their museums that better address local needs. The BRAG interviewee emphasised the strategic importance of representing their locality, addressing a broad range of social issues through the Gallery's programme. For example, a project focused on ageing brought together younger and older generations towards the creation of a piece of public art. The Gallery was interested how this work could be framed as research, and contribute to future research agendas, noting there is a wealth of untapped local and community-based programming that is happening across the Australian regional gallery sector, upon which future museum-based research, focusing on place and locality, could be based.

Those from Questacon recognised the importance of being responsive to local contexts when discussing their work in regional Australia to cultivate Australian STEM learning ecosystems in Tasmania, the Northern Territory, and Central Queensland. This represented a strategic shift in focus from delivering primarily one-off inspirational STEM experiences, to a model offering sustained, collaborative engagement with communities. This work requires sensitivity to different localities and stakeholders, requiring a form of programming that was responsive and flexible.

D) Engaging with science and technology as an influencing public culture, rather than just a set of disciplines.

Some interviewees, particularly those from institutions that emphasised science and technology, expressed a desire to move beyond the dissemination of thematic museum content, in order to critically examine and catalyse key questions of public interest and culture.

The MOD interviewees described how the Museum's initial emphasis was on science and technology as a disciplinary project, seeking to advocate for the wider take up of STEM. However, they recognised the need to pose questions about how science and technology is shaping public culture. In developing their first exhibition that focused on space, they recognised this was inseparable from issues relating to the development of the space industry. When subsequent exhibitions focused on technology and defence, they sought to provoke discussion related to defence budgets in the context of pursuing and maintaining peace. Since then, all of MOD's exhibitions have used STEM as a framework for raising important social and public issues shaping the future. These include questions of data sovereignty, climate change, mental and physical health, supported by public programming that facilitates discussions between the public and the research community[11].

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[11] For example, the Ethos Series (https://mod.org.au/discover/ethos/) which convenes events around ethical questions of the application of science and technology for the future. Or the Q Series (https://mod.org.au/events/types/q-series/) which hosts more informal conversations around a broader range of questions related to experiments in science, art and innovation.

4.3. Research activities: *How do Australian museums operationally enact research currently*?

Australian museums provide information about their involvement across a range of different research activities. In what follows, we present a typology of museum research activity, offering a snapshot of this work. The development of this builds upon the Powerhouse Museum's research strategy (MAAS 2018) which has been overlayed and extended.

Museum Research Activity	Subcategory	Description
Collections Based Research	*Collections Management & Conservation Research*	Facilitating the highest standards of collection care and conservation through understanding the chemical and physical properties of materials, their methods of manufacture and the deterioration processes that affect these materials[12].
	Object Based Research	Focusing on the objects of collection, generating knowledge about their design, manufacture, function, provenance, and significance. This type of research is usually conducted internally by museums as part of their collecting and archiving policies, practices and ethics[13].
	Collection Field Research	Placing objects in their current or historical contexts (economic, physical, political, cultural, environmental and social), seeking to better understand the creation, design, exchange, use and significance of material culture. This research activity develops new knowledge by positioning collections as a research resource or infrastructure[14]. This dominant form of museum research activity is typically carried out in-house by curators, museum scientists, as well as university researchers[15].

[12] For example, per the National Gallery of Victoria (NGV): '*Research is a cornerstone of conservation practice and innovation at the NGV. Prior to treatments, conservators closely examine art objects to better understand their material composition, fabrication, degradation issues, damages and previous restorations. Conservators use a variety of scientific tools and methods to reveal hidden aspects about works of art and how they are made. Technical research also involves investigating an artist's materials and techniques.*' https://www.ngv.vic.gov.au/explore/collection/conservation/research/

[13] For example, Queensland Art Gallery | Gallery of Modern Art (QAGOMA) undertakes provenance research, which is *'used to denote the history of ownership from the time an art object is created until it is acquired by the Gallery. Provenance can help establish an object's 'pedigree' and contribute to a better understanding of historical trends in collecting, while the location of an object at a particular time can suggest influences it may have had on the work of other artists. Provenance is also used as a means of confirming legal ownership of an object. Provenance research aligns with existing codes of ethics for museum professionals and demonstrates the Gallery's acknowledgment of a moral obligation to determine whether there are objects in its possession to which it may not have legal title.'* https://www.qagoma.qld.gov.au/qagoma-collection/provenance/

[14] As noted by the Council of Australasian Museum Directors (CAMD); '*museums and their collections provide a critical research resource which generates ground-breaking in-house research projects and collaborations with other research agencies and academies.*' https://camd.org.au/showcasing-museums/research-and-innovation/

[15] For example curatorial staff at the Queensland Museum Network, are working with academics from a number of universities, to draw on relevant specimens made available through Queensland Museum Network collections, in order to create a curated genomic and taxonomic repository of Australia's threatened coral reefs that will inform our understanding and conservation efforts of the Great Barrier Reef. https://www.museum.qld.gov.au/collections-and-research/projects/project-dig/research-projects/coral-bank

Exhibit/Exhibition Connected Research	Exhibition Design and Development Research	Focusing on conceptualising and designing exhibitions and experiences in the museum context. It draws upon a broad range of museum practice[16], including aspects of curatorial practice, installation and experience design.
	Exhibitions as Research	Positioning the practice of conceptualising, assembling, curating, staging and evaluating a major museum exhibition[17].
	Research Communication, Translation & Engagement (via exhibitions, events and experiences)	Museums using their exhibits, events and exhibitions to host, communicate, translate and engage audiences with research projects and findings[18]. Universities and academic researchers are increasingly looking to work with museums, given their role as an access point to wider publics, to help them address public communication and engagement of research agendas which have increased importance within the Australian university sector. Museums are also increasingly looking for authoritative, rigorous and relevant content for their audiences, which university research often can provide[19].

[16] See for example AMaGA Victoria's Exhibition Design for Galleries & Museums https://amagavic.org.au/assets/uploads/2021-10/exhibition-design-update-1.pdf

[17] For example, a research study that used the Identity exhibition at the Immigration Museum in Melbourne to test the public role of museums in countering racism and promoting positive attitudes and acceptance of diversity.

https://museumsvictoria.com.au/immigrationmuseum/resources/identity/exhibition-research-project/

[18] This includes the MOD that is part of the University of South Australia, 'and which *aims to unite the public with research to increase their understanding of current research taking place.'* https://mod.org.au/discover/research-at-mod/. The MOD considers itself a *'site of research'* interpreting its exhibits as live research projects which audiences participate in.

[19] These practices are often grounded in the principles of science communication, commonly found science-based museums and centres, which emerged globally in the 1970s and 1980s, and peaked in Australia in the late 1990s. Acknowledging the importance of science to society and keen to adopt new forms of communication, these institutions provided 'hands-on' learning experiences. https://www.nma.gov.au/research/understanding-museums/Museums_science_introduction.html. More recently this has also led to the development of museums (often connected to universities) that are solely dedicated to this form of audience engagement with research. For example, the Science Gallery Network https://sciencegallery.org/about-network which is an international collaboration of leading universities dedicated to public engagement through interdisciplinary art-science initiatives. This includes a site at the University of Melbourne. https://melbourne.sciencegallery.com The Network programs 'feature emerging research and ideas from the worlds of science, art, design and technology, presented in connective, participative, and surprising ways.'

Audience Research[20]	Market research	Understanding a museum's existing and potential visitors, in order to attract and retain new audiences, and inform audience development, marketing, engagement and donor strategies[21].
	Evaluation-Based Research	Understanding whether a museum's offerings (including, but not limited to, its exhibitions, programs, events, digital tools) are working for their intended audiences. Whilst some museum evaluative research can focus on capturing quantitative (and arguably crude) measures of audience 'engagement' by way of footfall, visits and attendance numbers, there are also other examples of Australian museums undertaking evaluative research that has more direct audience value[22].
	User Design Research	As museums embrace interactive and digital forms of audience experience and engagement, there is a need for research that strives to understand the 'users' of museum technology, to improve future design and develop understanding of how audiences interact with museum offerings[23].
Museum Technology Research		A newer, yet increasingly prominent, form of research amongst Australian museums also stems from the proliferation of digital content, channels and technologies that museums are now grappling with. This research might focus on explorations to digitise certain collections, or it might be about inspiring new and innovative uses of those digitised collections, or it might be about enriching the visitor's experience of the museum through multiple digital channels[24].

[20] Another very common practical application of research within many Australian museums seeks to better understand audiences, their needs and their engagement experiences with museums and their content, in order to establish greater understanding of the value of museums and their offerings to audiences and visitors (for example see https://mgnsw.org.au/wp-content/uploads/2020/08/Engaging-Art-How-to-Conduct-Audience-Research.pdf and https://creative.vic.gov.au/resources/audience-research-toolkit). Whilst these research activities are often influenced by the need to account to funders and boards, or by marketing and income generation agendas, which have less obvious consequential benefit for audiences, they are also often anchored in a sire by some museums to improve the experiences of, and value derived by, their audiences.

[21] For example, museum audience research that uses Morris Hargreaves McIntyre's Culture Segments, a sector-specific audience segmentation system for arts, culture and heritage organisations. https://creative.gov.au/wp-content/uploads/2021/07/pen_portraits_cs_ausco_4595_9_-598a64fd744ea.pdf

[22] For example, the International Audience Engagement Wellness Framework, developed by the International Audience Engagement Network https://www.ngv.vic.gov.au/international-audience-engagement-network-iae/about-the-international-audience-engagement-iae-network/ of which the NGV is a steering group member. The framework is intended to guide museums to evaluate their operations and services across multiple dimensions of audience wellness: 'This approach recognises that the audience experience does not begin at our front doors, but rather encompasses the opinions, perspectives, emotions, physical journeys, conversations, interactions, use of content and even types of experiences that our community members encounter before, during, after or even without a visit. Crucially, this approach also recognises not only that an individual's sense of wellbeing is an important part of their museum experience, but that museums can actively contribute to the wellbeing of individuals and the community. To do this, we must recognise and consider the full dimensional range of our audiences needs to include their social, emotional, physical, intellectual, spiritual, environmental and physical wellbeing.' International Audience Engagement (IAE) Network 2021 Museum Guidelines https://www.ngv.vic.gov.au/international-audience-engagement-network-iae/international-audience-engagement-guidelines/#:~:text=The%202021%20International%20Audience%20Engagement,to%20gather%20and%20use%20meaningful

[23] For example, reviewing web analytics data provide insights into how well audiences are using the museum website, as well as what museum content (present on the website) they are engaging with.

[24] ACMI is a leader across the Australian museum sector in this research type. ACMI has undertaken various R&D digitisation projects, including digital film restoration and the creation of collection API https://labs.acmi.net.au/introducing-the-acmi-public-collections-api-

Museum Pedagogy Research		Supporting pedagogical innovation in the museum sector. It seeks to understand how visitors learn in museums and helps museum educators to better understand the agency of their work. This study's evaluation of publicly available research strategies[25] reflects little current activity within the Australian museum sector in this arena in contrast to significant activity in museum education and learning research internationally[26].

This typology of museum research activity demonstrates the practical importance of research to many Australian museums and their work, with many fruitful museum research activities occurring across these categories. For museums that are seeking to better understand their relationship with research, it is useful to consider their interests and work against this matrix.

It is worth emphasising, however, that this typology presents Australian museum research activity as the *institutional* orientated production and communication of knowledge, anchored to established institutional interests including: collections, exhibitions, curatorial practices, disciplinary expertise, education, marketing and offering accountability to funders and visitors. In contrast, the interviews undertaken with museum employees offer an articulation of research activity less oriented toward the knowledge and values of the institution, and more embedded in the world. The research values espoused by interviewees broadly aligned with the following four themes:

A) *Collaborative processes of discovery and production of knowledge, not just museum led.*

Interviewees described how their museums were increasingly embracing collaborative and participatory forms of research, drawing on perspectives outside the museum or academy. WAM interviewees emphasised their desire for their research to be at the heart of the Western Australian communities they worked with, recognising knowledge from multiple perspectives. This community-based research has informed new WAM exhibitions and, in some cases, new WAM institutions: *Boola Bardip*, which means *many stories*, was established to accurately represent the voices of all relevant local communities, particularly Indigenous

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40d25dd8e5a4. The museum has collaborated with many artists, technology companies and universities to use the API to develop new digital experiences such as gallery interactives and online exhibitions. It was also involved in two major collaborative research projects Play it Again 1 https://www.acmi.net.au/stories-and-ideas/play-it-again-1/ and Play it Again 2 https://www.acmi.net.au/stories-and-ideas/play-it-again-2/, with a broad range of partners, which explored ways of documenting, preserving and creating an accessible and playable history of 1980's and 1990's Australasian videogames and videogame culture.

[25] Examples from Australian museums generally relate to the late 1990s and early 2000s. One of these relates to The QUT Museums Collaborative (1997-2004), which in working with Queensland Art Gallery, Queensland Museum and The Sciencentre, conducted several studies of young children's engagements with museums and their collections, including a major three-year project investigating young children's interactive and informal learning https://eprints.qut.edu.au/480/1/CALLAN_BK.pdf. Another relates to a study in the early 2000s focusing on museum audience learning carried out by Dr Lynda Kelly, a prominent Australian cultural sector audience researcher, who at the time was Head of Audience Research at the Australian Museum. https://media.australian.museum/media/dd/Uploads/Documents/9293/what+is+learning.e7e9718.pdf

[26] For examples see the educational research agendas described by the American Museum of National History https://www.amnh.org/learn-teach/evaluation-research-and-policy/research and the Tate https://www.tate.org.uk/research/research-centres/tate-research-centre-learning

and migrant communities, informed by collaborative research conducted in partnership with them.

Others emphasised the importance of adopting the right contexts and processes to amplify participatory approaches, thereby challenging traditional and disciplinary hierarchies of research. The Powerhouse Museum interviewee spoke of the Museum's interest in research being a genuine collaborative process of discovery with diverse communities of practice, resisting a sole disciplinarily focus, to ensure the involvement of multiple voices throughout, and where outcomes can evolve and adjust as new discoveries are made across the research process. There was a focus on creating less hierarchical and flatter structures around research, to better facilitate two-way communication and dialogue, and flexibility to develop new agendas and ways of telling stories. For the future, the Powerhouse envisions research that is more collaborative and co-designed, but also adventurous in testing new methods, asking new questions, and exploring directions not previously travelled.

B) *New scholarly practices of knowledge generation, beyond an established curatorial and collections focus.*

Building on interest in new participatory forms of knowledge formation in the museum, interviewees discussed alternative and emergent forms of museum research practice. For some this involved challenging traditional curatorial roles that are often the primary research focused positions in museums. For others, it meant leveraging contemporary art and creative practice-based research, an area that many Australian galleries were well connected into. For example, as a regional gallery, BRAG was used to working with local artists, and were exploring how creative research could also support and benefit from local community engagement and participation. Those from MOD also emphasised the value of creative practice-based research, based on their record of exhibitions operating at the intersection of science, art, and innovation. Interviewees discussed how creative research is increasingly being supported as a legitimate research practice within Australian universities, although more work still needs to be done. Museums have a key role in legitimating creative work as research, providing platforms to showcase and advocate for its value, not only artistically but through enabling new forms of knowledge generation.

C) *Immersing and activating audiences and publics with knowledge, not just communicating it to them.*

Interviewees challenged the assumption that museums are sites for communicating knowledge and research, which implies a dissemination from active knowledge holder (museum) to passive audience. Instead, they proposed museums need to be in dialogue with audiences, incorporating a wider range of knowledge and expertise. Those from Questacon expressed their desire for their programming, much of which showcases research, to depart from simply relaying facts and information, to instead nurture different ways of being and thinking: eliciting emotional responses, encouraging curiosity and developing audiences' interpretive and analytical abilities. They emphasised a need to consider audience engagement in a wider context, for example from an active citizenship lens, and the need for greater research into broader dimensions of audience experience e.g.: meanings, values, intentions. This approach would reframe Questacon from being a place with plentiful exhibits

and content for audiences to consume, to becoming a more active space that engages audiences to develop their own agency for how they understand the world.

This was echoed by the Australian Museum respondent who spoke of opportunities to engage audiences more actively with research - beyond the dissemination of information - to inspire and empower the public towards effecting positive change in relation to societal challenges, particularly climate destruction. MOD interviewees also discussed an explicit emphasis in creating immersive encounters with research, that could activate particular emotional pathways and inspire ideas, curiosity, new interpretations and ways of thinking. Its Open Lab[27] initiative provides opportunities for researchers and artists to engage directly with the public to demystify the process of research, enabling them to participate in research as an iterative and habitual practice.

> D) *Evaluation-based research that understands the value of the museum within external ecosystems, not just its internal one.*

Museum evaluation-based research usually focuses on a static and institutional view of museum value, anchored to the activities in its own space and place, based on narrow metrics oriented towards accountability to key stakeholders (e.g., museum boards and funders). In contrast, interviewees expressed a desire to undertake evaluation-based research anchored in understanding museums' applied value externally to their networks, places and communities.

Interviewees from Questacon described how their regional work demanded them to rethink their approach to evaluation-based research from a place-based perspective, to emphasise the significance of extended engagement with communities, that is cognisant of a broader ecosystem of provision and need. The revised approach not only measured success by the uptake or outcomes of Questacon's individual programs, but also measured their capacity to support and connect to other providers according to the specific learning ecosystems that they participated in.

> 4.4. Research relationships: *What do museums see as the current opportunities and challenges of working with universities around research?*

While museum research can be undertaken with a broad range of organisations, this study was concerned with how Australian museums navigate their relationships with universities. Despite some international examples (Bonacchi et al 2016, NCCPE 2023) there appears to be no existing research that explores this in an Australian context. Whilst there are certain national networks that seek to connect museums and universities agendas in Australia, these focus on particular types of museum and university associations, usually around a shared interest in collections[28].

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[27] For more information about Open Lab at the MOD see https://mod.org.au/discover/research-at-mod/

[28] For example, CAUMAC aims to link all those working for, or interested in, Australia's 200-plus university museums and collections. https://caumac.wordpress.com/ Aside from an important emphasis on university museums and its role in facilitating shared conversations about collections, CAUMAC's remit doesn't extend to exploring the broader relationship between the Australian university sector and the wider Australian museum sector, across a number of domains.

The insights that follow are drawn from the perspectives of interviewees and focus on the strategic and practical dimensions of these relationships, which are useful in undergirding the future directions of research collaborations. Almost everyone within the interviewee cohort had experience of working with universities in some capacity, recognising the value of these relationships. However, numerous challenges were highlighted, alongside suggestions for future collaborative alignment. Overall, these reflections speak of the need for Australian universities and museums to invest more time, energy and attention to understand each other's strategic objectives, ensuring that collaborations can be mutually valuable, equitable, effective, and ultimately successful.

4.4.1 Relationship Challenges

Universities do not spend enough time seeking to understand the needs of museums, which leads to unbalanced relationships in favour of universities.

Several respondents expressed a desire for genuinely collaborative and meaningful partnerships with universities but recognised that this requires good understanding of the mutual value each partner derives from the relationship, which was not the case with all universities they engaged with.

A key barrier was that university researchers often positioned themselves as the sole authoritative experts, obstructing genuine collaborative knowledge exchange work. Some researchers did not always contribute or give back to institutions, or the communities they worked with, leading to an imbalance in value generation skewed towards academia. Examples included situations when university researchers were not open enough to share expertise and knowledge that could benefit museums, such as methodological tools or processes, or did not share insights back to the communities that they were gathered from. For one interviewee there was an unfortunate sense that some researchers would come to the museum, "suck" all the knowledge, and then disappear. There were also experiences with researchers who did not appropriately attribute their museum collaborators on shared publications or other outputs. There was also a perception that certain universities and researchers wanted to only work with larger urban, state or national museums, thereby missing the opportunities of building relationships with smaller, regional institutions where there might also be research collaboration potential. This spoke to a lack of understanding from the university sector about the diversity of the Australian museum sector.

Lack of strategic engagement

Universities need to engage the museum sector on a strategic level to better enable partnerships. Interviewees described how some partnerships suffered due to insufficient willingness from university leadership to prioritise relationships with museums. Another highlighted that relationships with universities were often held with individuals rather than with the institution as a whole, creating fragile connections if the person moved on. If universities and museums are keen on developing more strategic partnerships with each other, they should consider specific roles that broker and mediate relationships on behalf of their institutions.

Current partnership agreements not fit for purpose.
Museums are looking for partnership agreements that are more meaningful in scoping and enabling relationships, compared to those that currently exist with university partners. Agreements need clarity regarding the benefits and responsibilities of each partner and the ongoing management and maintenance of the partnership, how to manage risks and review progress.

The bureaucratic nature of universities creates logistical challenges in getting the agreement established and approved, often hindering the collaborative relationship even before it starts. While the easing of burdensome bureaucracy on both parties would be welcomed, interviewees noted this could be eased by realistic expectation setting to support mutual understanding.

Mismatch in timescales & resources.
There is often a mismatch in expected timing and resources when undertaking collaborative research. The rhythm of academic timeframes are different to those of museums; universities also typically have more resources (staff, money) than museums to support the work. While these differences cause obvious power imbalances, interviewees felt that being upfront about these influencing factors could lead to better approaches in managing them.

4.4.2 Relationship Opportunities
Interviewees identified a number of benefits their museums accrue from relationships with universities. This includes access to the latest disciplinary knowledge and insights, and the prospect of undertaking in-depth research on specific topics, or having exhibited content validated externally. For others, university partnerships can lead to new products and prototypes, and new knowledge through co-authored publications.

Interviewees also highlighted how relationships could be established based on common interests and needs across both sectors, helping to address the power imbalance previously described. These include:

Pursuing common need to build public trust.
Participants referred to universities' interest in working with them as a route to engage audiences with their research through exhibitions, workshops and public programming. While this could be interpreted as the transactional exchange of research content for audience reach, it could be more collaboratively repositioned as the shared pursuit of public trust agendas. For some interviewees, this work was about making a clear statement about how public institutions can serve society, promoting personal and societal wellbeing. Others imagined working in this way could help strengthen and sustain public trust in institutions, recognising that whilst the Australian public may be losing trust in politicians and media, this is not the case with museums and universities (CAMD 2022).

Pursuing shared need to develop capacity and skills of staff.
Respondents reflected on university partnership opportunities to build capacity and capabilities in museums, highlighting access to university short courses on strategic planning, leadership, policy, project management and program evaluation, or building capabilities in

key strategic areas such as collaborative methodologies or digital innovation and engagement.

While these perspectives present universities as servicing the capacities of museums, respondents also highlighted how museums also could support university capacity building in public engagement skills development. Museums do not just provide platforms for public engagement, they also hold deep public engagement expertise and experience that could benefit researchers. This might include helping them to think more deeply about audience needs and interests, simplifying complex research concepts in engaging and creative ways, working iteratively, adopting design thinking and managing budgets more effectively.

Pursuing shared role as knowledge institutions.
Respondents reflected on how, as different kinds of knowledge institutions, there are many untapped opportunities for knowledge exchange between their museums and universities. These include the establishment of more shared appointments, as well as student placements and internships – which, if managed well, is an obvious source of mutual value creation, and a surprisingly untapped area. One interviewee discussed how business faculty students had helped them around procurement processes to align those with university structures. For others, marketing interns had helped with their brand and marketing strategies. There were also significant benefits for universities in connecting student experiences with the public, which enabled younger audiences to see what students do at universities, and helped students to see their work on display, giving them opportunities for public engagement.

Interviewees also discussed other, less structured, forms of knowledge generation anchored to content assessment, curatorial exchanges, collaborative lectures, and seminar organisation. Some spoke of the benefits of exchanging experiences about learning in different spaces, not only in universities and museums, but also schools. This could help both institutions reflect on how to re-think learning environments to develop new learning strategies and pedagogies.

A shared sectoral need to come together.
Universities could help museums collaborate better with each other, and vice versa. Some interviewees highlighted the need to challenge a prevalent sense of competition among museums, recognising societal and sectoral issues are bigger than any one institution. Universities have the capacity to foster networks of collaboration, by bringing a diversity of expertise and connections into them. Conversely museums can help researchers from different universities to connect across their shared interest in public and community engagement, by providing opportunities to collaborate through their exhibitions and related public programming.

Respondents wanted to explore less formal ways of participating in each other's spaces and build shared understanding and connections. Suggestions included "speed dating" style methods of introduction and exchange or hosting shared conversations about transversal approaches to research as opposed to singular disciplinary or sector myopic ones.

5   Opportunities

The findings illuminate the limits of how museum research is framed discursively by the institution. The way museums imagine research in their strategic institutional expressions is not the way that museum people practice or understand it. Research is modelled very differently across these contrasting policy and practice lenses.

This section draws from the reflections of interviewees to speculatively map future opportunities for dialogue around museum collaborative research, based on a more public, social and civic interpretation of a museum's role and purpose. This can be mapped as follows:

MUSEUM'S ROLE & PURPOSE	
PRESENT *Museum as preserver, holder, exhibitor, communicator of collections and cultural heritage.*	*FUTURE:* *Museum as social, civic and public agent.*
RESEARCH FRAME	
Research framed as institutional **function.**	Research framed as public **value.**
RESEARCH AGENDAS	
Research focused on disciplinary specific **subjects & objects.**	Research focused on public interest **challenges.**
RESEARCH ACTIVITIES	
Research enacted as **types** of organisational activity.	Research enacted as **modes** of publicly embedded activity.
RESEARCH RELATIONSHIPS	
Research enabled through **transactional connections.**	Research enabled through **collaborative culture.**

This map offers a shift in focus from a discursive-institutional model of museum research that is functional, siloed, instrumental, mechanistic and fixed; to a future publicly embedded model that is instead purposeful, forming, flexible, progressive, responsive, relational, values based and democratic.

The specific opportunities are now outlined in more detail.

5.1 Opportunity 1: Move from framing research as institutional function to public value.

Research is an action or practice that can help answer a particular question or achieve a goal. It is the means to an end; it should never be an end in itself. For a museum, research should contribute to its purpose, not be the purpose. Yet many museums frame research in this way. In developing and moving beyond their mission statements, museums have the opportunity to consider their public value and how research might serve their communities.

The research highlights three broad areas of museum public value expressed as follows:

Museum as Civic Actors. Museums focus on place-based engagement, seeking to strengthen connections with local communities to better understand and respond to their needs. In this case public value is generated by creating **local value.**

Museums as Convenors. Museums being platforms for collaboration, places to foster the creation of communities of practice, promoting interdisciplinary knowledge exchange between different stakeholders, in order to explore different ways of knowing. Public value here is generated through the creation of **relational value**.

Museums as Places to Imagine the Future. Museums are positioned as places to consider issues that affect society's future, enabling alternative modes of doing, thinking and feeling by fuelling imagination and nurturing curiosity. Public value is generated through the generation of **creative value.**

Having considered if they align with one or more of these categories of public value creation (or any others), museums might consider how their research might be pursued through alternative research agendas, activities and relationships described below.

5.2 Opportunity 2: Re-orient research agendas based on disciplinary subjects/objects to public research challenges.

In this study, museum practitioners strongly supported a research agenda more connected to pressing social and cultural themes, including First Nations Knowledge and Epistemology, the climate crisis, resilient communities, and science & technology futures. These interests might be framed as research questions that include:

- *How might we meaningfully collaborate and embed First Nations knowledge into our core institutional research and knowledge activities, in an ethical, equitable, generous and safe way?*
- *How might we empower and activate publics to engage with and respond to the climate crisis?*
- *How might we develop projects that are more anchored in, and engage with, the needs of local place and community?*
- *How might we recognise science and technology more as a political and social process, rather than a set of specific disciplines, tools, objects and subjects?*

Such an approach would require museums to articulate the public challenges that they are or need to be grappling with. Interpreting these as shared challenges enables museums to take

active, creative and collaborative steps towards establishing publicly relevant research agendas.

5.3 Opportunity 3: Move from institutionally embedded types of research activity to publicly embedded research modes.

The research has shown how an initial typology of museum research activity could be extended in its practical application to be more aligned with a museum's public role. Drawing on these findings, museum research has the capacity to move beyond a set of institutional activities, and towards a set of flexible alternative public *modes* of research that can be variously applied to existing museum activity in more participatory, diverse, connected and human ways. These are underpinned by alternative interpretations of research practice, knowledge, value and engagements, that have a greater civic dimension. The following modes are proposed based on the reflections of interviewees. The intention is not to prescribe these as definitive but rather prompt museums to consider how they may create space for other alternative modes of research activity.

5.3.1 Alternative Practices: Practice Based Research Modes

Museums could consider alternative research *practices* (and roles), in addition to curatorial practices and roles, which tend to follow the model of scholarly collections-oriented research. This could relate to museum-led creative research, developing from the existing relationships that many museums have with artists. There is also the opportunity to learn from emerging examples of museum professionals, particularly those that are working across disciplines (for example in museum learning (Pringle 2019) or digital roles (Mortensen et al 2022)), who argue for their practice to be understood as a form of research and for themselves to be identified as researchers in some capacity.

5.3.2 Alternative Value: Systems Based Research Modes

Museums could also consider research activities that seek to widen the perception of value and impact of museums. Moving from more functional forms of evaluation-based research, that focus on understanding the internal value of the museum largely to itself, to much broader considerations of how research understands a museum's public value, out in the world. This research could adopt a more a *systems-based approach*, recognising that museums do not operate in a vacuum or only engage with other museums, but rather work within broader public ecosystems of complex issues and multiple stakeholders.

5.3.3 Alternative Knowledge: Participatory Research Modes

This participatory research mode meaningfully collaborates with different non-academic and non-cultural organisation stakeholders, typically as co-researchers, drawing upon their diversity of knowledge, experiences and practices in order to widen understanding of a particular issue.

5.3.4 Alternative Engagements: Arts Based Engagement (with Research) Modes

Museum stakeholders stressed the importance of more deeply and actively engaging audiences with research in ways that could spark a range of emotions, senses and responses. To do so, museums might want to consider more arts based public engagement approaches with research (Ball et al 2021, Gardner et al 2021) by collaborating with artists, to create

alternative forms of engagement than traditional exhibits. As well as creative installations, this might include performance art and events.

5.4 Opportunity 4: Move from establishing transactional relationships to building a principled collaborative research culture.

As this study indicates, museums and universities could benefit by investing more time, energy and attention to understanding each other's strategic and practical objectives, needs and contexts. Yet, if museum and universities consider themselves to be essential public, civic, social agents then there should be a recognition that they are entangled not just with each other, but with a broader ecosystem of communities and stakeholders. Any discussion about mutual needs, interests, cultures and capacities around research, must also align with these communities and stakeholders. There should be less emphasis on creating specific collaborations, but rather nurturing a *collaborative ethos and culture*.

This means greater investment of time, energy and attention must be dedicated not just to the content of the relationship or its management, but also to understanding, agreeing and activating the correct set of *principles that underpin the collaboration*[29]. For museums this may support a shift from transactional, ad hoc and uneven research collaborations with universities; to mutually valuable, strategic collaborative research partnerships involving a whole host of civic and community partners, including universities, for broader public benefit.

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[29] Useful here to consider is the principled partnering approach advocated for by the Partnership Brokers Association, an international professional body for those managing and developing collaboration processes. https://partnershipbrokers.org/w/wp-content/uploads/2021/02/Brokering-Better-Partnerships-Handbook.pdf. The principles advocated are diversity, equity, openness, mutual benefit and courage. These have been developed in direct response to common partnering challenges such as anxiety about difference, power imbalances, hidden agendas, competing interests and uncertainty. These principles could form the foundations of expressed collaborative intent (perhaps as a partnership manifesto) between museums, universities and other stakeholders.

6   Next steps

This study represents an emerging base for better understanding research in the Australian museum sector to support future scoping around where and how museum research could collaboratively move forward. It highlights emerging opportunities and an appetite and interest for doing research differently across the sector. There is a now a need to build on this, by collectively reflecting on, and discussing, how future collaborative research can better serve Australian museums and the diversity of communities they work with and stand for.

In response, *ASSEMBLY*[30], a new national sector-wide initiative, is currently being developed by AMaGA, ANU, Monash University and a broad range of Australian museums and galleries. This initiative asks: *How might we convene a dialogue across the Australian museum and university sectors (and other stakeholders) to reimagine research collaboration aligned to their shared public values?*

ASSEMBLY will look to nurture this conversation by hosting a series of nation-wide assemblies in 2024. These gatherings will be convened online, to enable stakeholders from both areas to respond to a series of provocations and think-pieces, relevant existing research (including this study) and examples of new and progressive forms of museum collaborative research practice, from Australia and internationally. It is intended that *ASSEMBLY* can provide the platform for critical reflection and dialogue of this study's key findings and ideas to better assess how these can inform reimagined Australian museum sector research collaborations for the future.

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[30] https://www.amaga.org.au/news/assembly-new-conversation-about-museum-research

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