



TIME BASED ART CONSERVATION

and the Australian
situation

An International Specialised Skills Institute
Fellowship.

ASTI SHERRING

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i. Executive Summary



Image one: audience participates in Maya Stovall's three channel digital video work *Liquor Store Theatre, vol 1, no.1* 2014, *Liquor Store Theatre, vol 2, no.3* 2015, *Liquor Store Theatre, vol 3, no.5* 2016. © MAYA STOVALL Photo Asti Sherring.

'Time-based art' encompasses film, slides, multimedia installations, video, and artworks that involves kinetic, light, computer-based, sound and performance art. Time-based art and digital conservation is a particular area of museological practice that requires development and resourcing in Australia. Currently there is very little expertise available in the sector and a lack of domestic training programs for specialists in the field. The isolated efforts of Australian institutions to develop policies, procedures and programs for time-based art are not moving quickly enough to meaningfully reduce the risk of losing important twentieth and twenty-first century time-based artworks. As such, there needs to be a greater push from the sector to develop and implement conservation and collection management strategies that will ensure the survival and ethical display of these works. The results of the international research undertaken has provided the groundwork to establish best-practice policies and processes for the acquisition, display and care of time-based artwork in Australia. The outcomes of the fellowship, funded by the Grozzo Ruzzene Foundation have assisted in changing how Australian institutions understand and manage their time-based art collections.

Internationally, there are numerous conservation professionals who are attempting to engage with the full spectrum of time-based art. As the only time-based conservator in Australia, I traveled to the United States and Europe meeting with experts and participating in workshops that focused on the development and education of time-based art conservation. The Fellowship formally began in May 2017 with Attendance at Getting Started: A Shared Responsibility, Caring for Time-Based Media Artworks in Collections five-day workshop run by MoMA (Museum of Modern Art). Further research was undertaken at the Whitney Museum of American Art, Solomon Guggenheim Museum, The Metropolitan Museum of Art, New York University, The Anthology Film Archives and Electronic Arts Intermix.

In September 2017 I travelled to the United Kingdom to attend The Preservation and Archiving Special Interest Group (PASIG) Conference, which was hosted by Bodleian Libraries & Digital Preservation at Oxford and Cambridge (DPOC) at Oxford University. I also formally visited the British Council and Tate Modern registration and conservation departments. By undertaking research at these esteemed institutions, I participated in ethical discussions, expanded on areas of knowledge by participating in artwork case studies, and created opportunities for cross institutional collaborative projects. Moreover, the successful admittance into the MoMA time-based art training program provided critical training for myself, enabling me to make a significant contribution to the knowledge of and conservation approaches to time-based artworks in Australia. My participation in the Preservation and Archiving Special Interest Group (PASIG) Conference at Oxford provided connections with international institutions that are also addressing the issues of digital permanence and data longevity.

The specialist engagement and research gathered during this international exchange has strengthened my knowledge and skills as a professional conservator working within the growing field of time-based art conservation. The outcomes of this field research have cemented my future vision and goals for the establishment of time-based art conservation in Australia. The exchange has informed and extended my formal research with differing international perspectives on time-based art collections. Through this opportunity I have been provided with opportunities for inter-institutional collaborative projects and have established an international network of curators, conservators and educators.

My contribution to the Australian practice and education of art conservation by establishing a specialist framework for time-based art, is well underway. The learnings have and will continue to be shared in selected journals, conferences and through public engagement. This experience has forged my capacity to communicate and engage with other Australian conservators about the unique needs of time-based artworks and the ways we can better work together to meaningfully reduce the risk of losing important 20th and 21st century artworks

in Australian collections. The presentation of lectures and workshops at key institutions offering Conservation and Heritage training (University of Melbourne, University of Canberra) and related peak bodies e.g. Australian Institute of Conservation of Cultural Materials (AICCM) and at AGNSW to the interested public, has contributed to the understanding and pedagogy of time-based art and its conservation.

ii. Abbreviations/Acronyms and Definitions

Abbreviations/Acronyms

Time-based Art: TBA

Art Gallery of New South Wales: AGNSW

Museum of Modern Art: MOMA

Definitions

Time-based art: constitutes a multiplicity of artistic forms that use the passage and manipulation of time as their essential element, which encompasses both analogue and digital artworks across a range of media such as video, film, kinetics, performance, computer generated interactives, slide works, iterative works and sound installations.

Conservation: The conservation-restoration of cultural heritage focuses on the care of cultural heritage, including artworks, architecture, archaeology, and museum collections. Conservation activities include preventive conservation, examination, documentation, research, treatment, and education.

Digital preservation: the series of managed activities necessary to ensure continued access to digital materials in the long term.

Digital asset management system: the system or systems in place to manage the storage and access of digital materials.

Long-term preservation: Continued access to digital materials indefinitely

1. About the Fellow



Asti Sherring is the time-based art conservator at The Art Gallery of New South Wales, a position which began in 2015. Asti completed a Bachelor of Media Arts with honours from Sydney University in 2005. She completed a Post-Graduate Certificate in photographs conservation (Melbourne University) in 2011 and a Masters of Materials Conservation specialising in paper and photographic materials in 2012. Asti began her research into time-based art in the form of a minor thesis on the conservation of computer-based art in 2011. The outcomes of this research proposed a new 'virtual' theory for conservation, based on collaborative engagement with new technologies and their inherent binary format. Asti undertook a photographs conservation fellowship at the Los Angeles County Museum of Art in 2014. Previously, Asti has worked as such notable institutions as The Biennale of Sydney, Museum of Contemporary Art and The National Archives of Australia. In 2017 Asti began postgraduate research in the form of a PhD at the University of Canberra.

2. Fellowship Background

2.1 Aim

What constitutes a time-based artwork is a complex notion, which often brings with it an innate formalism, as the medium is dictated by both virtual and physical principles. Moving away from the notion of a work of art as a static object, a time-based artwork has a commitment to movement, albeit actual or an illusion and as such, can be likened to a performance, where the formation of the work is event driven.

To assist with this concept, the medium can be viewed in three distinct ways:

1. The first is to view the work of art as a representation of data that is embedded within a series of interactions.
2. The second is the object's physical representation, which comes in the form of integral electrical components and display equipment.
3. The performative element of the work being the installation (or the process of enactment) where all the components of the work, along with integral installation and documentation elements come together to allow the work to perform.

The example below is artwork, *SERVERS FOR .YU and Frauenbank 03.17.2017 – 06.11.2017* by Irena Haiduk, that I spent a lot of time exploring during Whitney Biennial 2017 held at Whitney Museum of American Art, which presents the unique concepts of data, physicality and performance/audience experience that make up a time-based artwork. The Whitney Biennial wall didactic text for *SERVERS. FOR .YU and Frauenbank* explains (Whitney 2017):

“This mirrored tower broadcasts the “Whitney Frauenbank” network, which visitors can access using their WiFi-enabled devices.... Visitors who log into “Whitney Frauenbank” and self-identity as female will be directed to the Frauenbank web app on the .YU domain, which is only accessible at the Museum. Upon opening the app, they will be guided through the process of acquiring membership to and taking part in the future of Frauenbank.”

The following sequence of images represents:

1. Data in the form of a web browser
2. The physical object
3. Performance / audience interaction

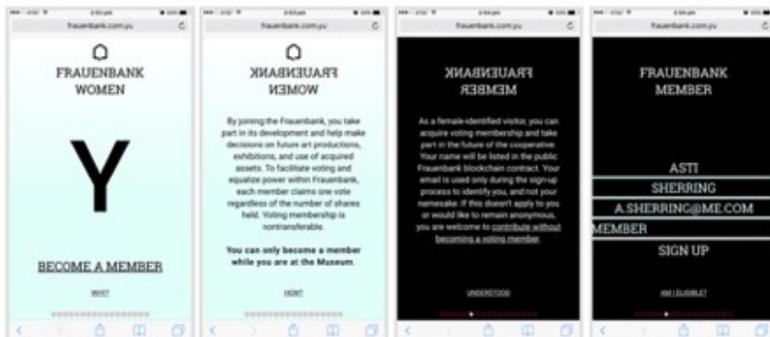
1. Data in the form of a web browser



2. The physical object



3. Performance / audience interaction



Images two - six: Irena Haiduk, *SERVERS FOR .YU and Frauenbank, Installation...*, 2017. Router hardware, metal housing, And objects from Yugoslav... Photos and screenshots Asti Sherring.

Since joining the Art Gallery of New South Wales (AGNSW) as specialist conservator in time-based art, I have supported the preservation of the Gallery's time-based art collection through my research, which has led to the establishment of best-practice policies and processes for the acquisition, display and care of time-based artworks. This research has set important precedents for how time-based works can and should be managed to meet best practice standards in Australian institutions. The research recognises that artists will continue to adopt new media and push the boundaries of technology, and in turn, curators and conservators need to keep pace to understand, protect and preserve their artworks now and into the future.

I am invested in growing the field of time-based art conservation within the Australian heritage sector, as well as leading a new generation of emerging conservators who are focused on advocating and developing this area of specialisation with the Australian conservation profession.

The larger aims of this fellowship were to articulate a broad vision for the future of Australian time-based art collections by:

- » Creating permanent positions for time-based art conservation in Australian institutions
- » To implement comprehensive new policies and procedures for the time-based collection that can be shared nationally
- » To educate and advocate for the conservation and management of the time-based art collection within the conservation and heritage community
- » To research the development of digital infrastructure and secure long-term storage solutions for the preservation of significant digital heritage collections.

This fellowship was an invaluable professional experience that directly enhanced my work and research on time-based art conservation in Australia. Through this fellowship I have solidified current conservation approaches and inspired new ways of thinking about the long-term conservation strategies surrounding time-based

art. This fellowship provided an opportunity to engage with leading curatorial and conservation thought around the display and management of time-based artworks. It provided pivotal connections with international institutions that are also addressing the issues of their time-based art collections and as such, provided new avenues of support and resource. Advocacy for the future of Australian time-based art collections have been strengthened throughout this fellowship. Contact with peers from esteemed institutions, has allowed me to continue to advocate for the future of Australian time-based art collections with greater authority. This point has been hugely beneficial in garnering nation-wide support for a coordinated, cohesive and formalised approach to the time-based art collection.

2.2 Methodology

The methodology for this field research was to visit prominent international institutions who have engaged with their time-based art collections and developed successful policies, procedures and preservation strategies. I selected organisations and opportunities that allowed me to meet with formative experts in the field who could provide a unique perspective on how time-based art collections are managed and the change management involved in building a new discipline within their institution. During this Fellowship, I investigated my research questions by engaging in four central international activities where primary research was gathered. The research implications and subsequent results will be attributed in research papers, conference talks and a postgraduate thesis which is likely to extend past the current time frame. I recorded all conversations with colleagues by video recording (with permission) and through notations over the course of the conversation. With approval, I also took photographs. Where possible, I asked for copies of institutional documentation that may aid in answering my research questions.

Over the course of this fellowship research was gathered in a variety of way:

1. Formal training environment, five-day MoMA workshop. Attendees from eight different institutions across six countries undertook training, participated in problem solving activities, group discussion and feedback sessions. Attendees were provided with articles and research material and institutional documentation.
2. Informal conversations with peers over the course of the workshop. As this was an international workshop with participants selected from all over the world, it was a unique opportunity to engage with colleagues from institutions and gain different perspectives on issues relating to time-based art conservation.
3. Conference attendance, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University. PowerPoint presentations and official group notes were made available to download at the conclusion of the conference via the PASIG website (Preservation and Archiving special interest group 2017).
4. Information conversations with Digital asset management systems vendors present at the PASIG conference. I collected brochures and was provided with case-studies on successful systems, notably *Arkivum* for Digital Heritage.
5. Formal meetings and tours with colleagues from major international institutions in the United States and United Kingdom.

2.3 Period

This fellowship will support research which is being undertaken over one year, from May 2017 - February 2018

» 1st May – 5th May 2017

Attendance: *Getting Started: A Shared Responsibility, Caring for Time-Based Media Artworks in Collections* five-day workshop run by MoMA (Museum of Modern Art). Lisa Catt, assistant curator of international art and I secured a joint invitation to attend a workshop held at the Museum of Modern Art, New York on behalf of AGNSW. We traveled together to New York for one week and attended the workshop at MoMA. See Appendix One - Four - copies of letter of acceptance, list of attendees, list of speakers and agenda.

» 6th May – 12th May 2017

I stayed on for a second week to meet with colleagues at major institutions who are also involved in time-based art management in New York City, which included the Whitney Museum of American Art, Solomon Guggenheim Museum, The Metropolitan Museum of Art, New York University, The Anthology Film Archives and Electronic Arts Intermix to discuss their unique conservation approaches to time-based artworks.

» 11th September - 13th September

I attended a conference on Preservation and Archiving - digital Special Interest Group (PASIG). The conference was held at Oxford University and hosted by Bodleian Libraries & Digital Preservation at Oxford and Cambridge (DPOC). The information presented at this event focused on international standards and best practices of digital preservation for Libraries and Archives. See Appendix Five for list of speakers.

» 14th September – 16th September

I met with colleagues at The British Council and the Tate Modern to discuss each institution's approaches to the care and management of their time-based art collections.

2.4 Fellow Biography



Image seven: Conservator Asti Sherring with Anthony McCall's Meeting you halfway II at Art Gallery of New South Wales © Anthony McCall. Photo Christopher Snee.

I have been employed at the Art Gallery of New South Wales (AGNSW) as conservator of time-based art since 2015. It is a new role not only for the Gallery, and the only such role at any Australian arts institution.

I came to the role with the following qualifications:

- » Bachelor of Media Arts (Honours) from the University of Sydney
- » Master of Cultural Materials Conservation (University of Melbourne)
- » Postgraduate Certificate in photographic conservation, and
- » PhD research at the University of Canberra, Arts and Design Faculty.

I began my research into time-based art in the form of a minor thesis on the conservation of computer-based art in 2011. The outcomes of this research proposed a new 'virtual' theory for conservation, based on collaborative engagement with new technologies and their inherent binary format. Previously, I worked as conservator at the Biennale of Sydney, Museum of Contemporary Art, The National Archives of Australia and AGNSW National Art Archives. In 2014 I undertook a prestigious photographs conservation fellowship at the Los Angeles County Museum of Art, funded by the Institute of Museum and Library services (IMLS) institute. I am a member of the AICCM, AIC and ICOM conservation bodies.

Throughout my career I have contributed to key conservation conferences and publications such as:

- » 7th Conference of the Australian Institute of Conservation of Cultural Materials (AICCM) Paper Book and Photographic Symposium (2012) I presented *The conservation strategy of emulation for the preservation of computer-based art and Preservation issues surrounding the digital medium.*
- » I presented a paper at the National 2015 AICCM conference titled *Towards a Tangible Virtuality: a holistic approach towards the conservation of time-based art.*
- » I co-presented two papers on this subject at the AICCM 2017 conference The Shock of the New titled *What is the Object? Identifying and describing time-based artworks And Contemporary Art Detectives: or conservation sleuths and the mysterious case of the time-based artworks. A Collaborative tale.*
- » I presented at the National 2017 AICCM conference on *A Shared Responsibility: Caring for Time-Based Media Artworks and the MOMA experience.*
- » I presented at the National 2015 AICCM conference on *towards a tangible virtuality: a holistic approach towards the conservation of time-based art*
- » In 2014 I co-presented a paper at the WAAC American conservation annual meeting and symposium, titled *The big picture: a collaborative approach to the collections care of the Los Angeles county museum of art photography collection*
- » In 2011 I contributed to the paper *Collaboration, learning and a positive response to disaster: preparing a collection of 16mm film for digitisation*, published in AIC 'topics in photographic preservation' vol.14, pp.146-152

3. Australian Situation

3.1 Current Situation

Australian conservation, registration and curatorial departments have been working independently to develop policies, procedures and programs for time-based art however, these efforts are not moving quickly enough to reduce the risk of losing important twentieth and twenty-first century time-based artworks. Existing efforts of individuals while adequate to resolve minor issues at hand, have not addressed the broader ongoing challenges of time-based art conservation as a focused discipline. Consequently, many Australian institutions have fallen behind their international counterparts in participating in the development and specialisation of the field of time-based art conservation. Due to the inherent vulnerabilities of the medium and a lack of understanding within the sector components of artwork are being lost due to format obsolescence, technology degradation and a misunderstanding of what constitutes the artwork at the time of acquisition. It is acknowledged that the traditional paradigms for static artworks do not apply to works that utilise technology and digital elements, however the investment required to keep these works functioning is not necessarily understood or accepted by the sector at this point in time.



Images eight - nine: MOMA workshop participants undertaking obsolete media carrier identification activity. Photo Asti Sherring.

3.2 Strength, Weakness, Opportunity and Threats

An analysis of the Strength, Weakness, Opportunity and Threats in Australia shows that one clear advantage the sector has is precedent. The Australian conservation community can rely on established standards from our international counterparts. Moreover, the evidence to support a risk based argument is well established within the international digital heritage community. An identified weakness is the lack of training within the field to develop an emerging practice in time-based art conservation. Without Australian specialists who understand the unique nature of this specialisation it is difficult to embrace potential opportunities to establish this area within the heritage sector and mitigate the very real threats of loss and obsolescence.

Strength: timing

The Australian conservation community is aware of a gap in this area of specialisation. Particularly museum professionals who are attempting to manage and preserve time-based artworks and digital archives and assets. Organisations from around the world, such as The Digital Preservation Coalition, The Library of Congress and Media Matters group have disseminated information concerning inaction and loss. Moreover, significant donations have been made internationally to support research in the area of time-based art conservation such as, The Andrew Mellon foundation who awarded The Tate \$1.5 million to research models to conserve contemporary works ‘that challenge the structure of a museum (Sharpe 2018).

An important takeaway that has been recently heard throughout the Australian conservation community that in-action has significant financial and cultural consequences.

“The basic technology issue for collections of moving images and sound is the necessity for digitisation of all content that is currently sitting on shelves. Audio and video need digitisation for their very survival, owing to obsolescence and

decay of physical items, whether analogue or digital” (The Digital Preservation Coalition 2012).

Weakness: Geographical isolation

Time-based art and digital conservation is a particular area of museological practice that requires development and resourcing in Australia, which may be in part due to geographical isolation. Therefore, forming relationships with key international institutions is essential.

Weakness: Conservation training

Time-based art and digital conservation in Australia is a particular area of museum practice that requires development and resourcing. Currently there is very little expertise available and a lack of training programs for specialists in the field. While conservation employment often requires the completion of a Masters degree in a specialised discipline to date, there are no formal conservation training programs in Australia that offer specialities in the conservation of technological based materials. This means that if the sector were to start creating positions in time-based art or digital preservation conservation employing conservators who formally trained in Australia may not be advantageous. It is possible that institutions may look to employ graduates from Europe or the US where the specialised skills necessary for the role are being taught. See Appendix Fifteen for the course overview of the newly established Masters program for time-based media art conservators.

Opportunity: Institutional mindset

Time-based artworks pose numerous ethical, theoretical and technical problems for cultural institutions, where strong foundations based on the concepts of originality and authenticity that focus on the tangible material object, have long been established. Time-based art challenges this paradigm in that unlike traditional artworks, which are safest in inert conditions, time-based artworks require active management. As such, every decision, even that to do nothing, has consequences. The goal for the specialisation of time-based art conservation

will be to find the right balance between conservators upholding their duties as custodians of cultural heritage and finding new ways to address new problems that fall outside of current cultural knowledge and areas of expertise.

Opportunity: Advocacy

The development of a national-wide level of support is needed for a coordinated, cohesive and formalised approach to the care of time-based art collections around Australia. Continuing work, research and advocacy is necessary, for the benefit of national and international institutions. While in recent times there has been a shift in thinking and a tangible momentum from conservation professionals towards addressing the needs of Australian time-based art collection, much remains to be done to ensure this progress can be both consolidated and built upon to bring about lasting, comprehensive change at a national level.

Opportunity: Principles of conservation

Technology based artworks have not always been treated equally, regardless of “the guiding principle underpinning conservation, that all works in the collection should receive the same standard of care regardless of the medium” (Noordegraff 2013). It is acknowledged that the complex set of standards, expertise and skills surrounding the discipline of conservation, including the importance of conservation to be ‘guided by the moral imperatives of a code of ethics’ (Clavir 2009), is integral to the practice of conservation. However, it is imperative that our ability to develop new practices for new materials is not stagnated by the prevalent principles of conservation. By embracing new technologies within the professional field of conservation, the conservator’s role in the examination, documentation and conservation of time-based art could be significantly enhanced. By taking a lead role in the decision-making process, conservation professionals can ‘reinvent themselves’ in regard to their conservation approach (Witcomb 2007) and their current role as custodians of time-based art.

Opportunity: Holistic approach

The research recognises that artists will continue to adopt new media and push the boundaries of technology, and in turn, curators and conservators need to keep pace to understand, protect and preserve their artworks now and into the future. The gradual introduction of new technical capabilities into all facets of conservation will require time, resources and education. Given the complexity of the technology involved in time-based art and its virtual nature, it is unlikely that conservators will, in the interim, be able to fulfil these requirements alone (Bishop 2001). The conservation of time-based art requires a holistic approach, with a mandatory degree of the collaboration, cooperation and resources of the Curatorial, Conservation, Registration, Audio-Visual, Information Technology, Copyright and Collection Systems departments. - this means that efforts must be collaborative and involve convincing many different departments within an institution that this case is worthy.

Threat: Inherent vulnerability

For conservation professionals working in this area, there is a need to look back and address the declining functionality of obsolete technologies of past artworks while concurrently keeping up to date with rapidly emerging technologies. While this is not necessarily a problem only related to time-based art conservation, the commercial nature of the medium with its dated technology, lack of specialists, difficulty finding replacement parts for playback equipment and proprietary analogue and digital carriers means that keeping these works functioning is a difficult and costly process.



Image ten: Artwork condition reporting and inspection using three different monitors: LCD, CRT and grading monitor © Museum of Modern Art. Photo Asti Sherring

Threat: Rapid technological advancement

On the other hand, the development of computer generated artworks that utilise the latest technology also pose problems for the future, as they also require specialist knowledge and skills to display, conserve and maintain functionality.

Threat: Digital preservation

Digital preservation encompasses all procedures, systems and activities that ensure the preservation of, and continued access to, digital assets and collections. Digital preservation systems and policy frameworks “must inspire the same level of trust

and confidence in users and stakeholders as do traditional preservation and access services.” (Conway 2010) Institutions are increasingly under a lot of pressure to store large files and maintain highest technology digital asset management and storage systems. To maintain and preserve time-based artworks and audio-visual collections it is necessary that Australian institutions invest in a trusted digital repository to store, maintain and preserve digital collections. Much like physical collection stores, a trusted digital repository requires ongoing investment and specialised skills to maintain.

3.3 Skills Enhancement Identification

The research gathered during this fellowship has provided a broad overview of current knowledge gaps in this area. Terminology and establishing a common language to discuss the issues surrounding time-based art conservation is required. The development and success of a range of policies and procedures surrounding the way institutions are gathering information around artworks, artist interviews, display and end of life strategies is necessary in order to capture and conserve the full spectrum of time-based artworks. To address the urgent concerns of long term digital preservation storage that meets international standards, a review of institutions digital archive and digital asset management systems to store and preserve audio-visual and time-based art collection works was undertaken. As previously established, the conservation of time-based art requires a high level of collaboration with various internal and external specialists. In practice, collaboration can be seen as a challenge for a range of interpersonal and professional reasons. For this reason, research was undertaken to explore successful collaborative models. Lastly, as the role of time-based art conservator is yet to be solidified with Australian institutions, the duties, ethics, decision making and responsibilities of international counterparts were explored.

4. Skills Enhancement and Knowledge Acquisition areas

Skills Enhancement 1: There is a need to properly define time-based art, as no current terminology fully elucidates this medium. I will posit the question of ‘what is time-based art?’ to all institutions.

- » Document how the institution defines a time-based artwork
- » Document what language and terminology is used
- » Request documentation if the institution has formalised their definition and terminology.
- » Ask whether the current definition of the medium suits the needs of the collection
- » Interpret the results

Action: Based on this investigation, I will analyse how the medium is defined in these institutions and write a report on how the definition of what constitutes a time-based artwork impacts the conservation of time-based works.

Action: Develop recommendations and an approach for the use of terminology that fully describes the medium.

Skills Enhancement 2: Record and investigate the terminology used to catalogue and record time-based artworks in each collection.

- » Investigate what the process is for determining database cataloging in relation to ‘media category’ and ‘medium description’ fields, and ‘object part’ naming
- » View examples of database cataloging on museums databases
- » Record examples of artwork objects in the institutions database that cover a range of mediums, e.g.: video, kinetic sculpture, video installation and a performance piece

Action: Develop and implement cataloguing guidelines, specifically in relation to ‘media category’ and ‘medium description’ fields, and ‘object part’ naming system that accurately reflects the physical, digital and variable elements of a time-based art object.

Action: Share my findings with the conservation community and other institutions who deal with contemporary art object – e.g.: The Biennale of Sydney.

Skills Enhancement 3: A review of institutions digital archive and digital asset management systems to store and preserve audio-visual and time-based art collection works.

- » Investigate the digital asset management system and digital storage system in use for the digital collection store of audio and visual artworks and archives.
- » Assess the relevant methods of data back up in use and investigate whether current systems meet long-term digital preservation standards
- » Discuss the naming protocols and re-cataloguing the works stored on the digital archive

Action: Interpret the results to report on the successfulness of each system.

Action: Provide a complete best practice management recommendation to the AGNSW in order to develop an appropriate long term digital asset management system and storage system that ensures the long term secure preservation of digital content through a multilayered hardware and software platforms.

Action: Report on finding to the wider conservation community.

Skills Enhancement 4: to address future conservation issues, investigate and review how institutions are creating artwork management plans.

- » Learn new innovation documentation methods
- » Request/review artist questionnaire, if applicable
- » Interview conservators on the successfulness of each strategy
- » Assess the process of decision making for the institution when creating an artwork management plan

Action: Development of an artist questionnaire that asks significant questions regarding artist intent and their wishes for renewal and replacement of parts and or their artwork.

Action: Implement new documentation methods on a series of case studies through the Art Gallery of New South Wales.

Action: Develop a set of criteria for determining the appropriate artwork management plan for each time-based artwork.

Skills Enhancement 5: Investigate how an intuition comes to the decision to renew or replace a broken or obsolete component.

- » Assess the review process that the institution undergoes in regard to the replacement and renewal of parts
- » Report on the decision-making process and level of collaboration undertaken to make these decisions.

Action: Recommend the establishment of a time-based art committee to determine a life extension strategy for an object.

Action: Development of life extension strategies for works that contain object parts that can become obsolete, damaged or fail to read the system commands.

Action: Based on this investigation, identify when is the best time to gain artist approval for the renewal or replacement of their work.

Action: Develop a strategy of collaborating with the artist to decide life extension strategies.

Skills Enhancement 6: Ascertain the role of technical support in the conservation of time-based artworks.

- » Gather information on the support team for time-based artwork at each institution
- » Research who works with the conservator and what technical expertise has been identified as essential to the conservation of time-based art?
- » Research what is the level of collaboration conservators have with other departments

Action: Document findings and report back to the wider conservation and audio-visual committee.

Skill Enhancement 7: Research and identify what is the role of the time-based art conservator?

- » Identify what is the role of the time-based art conservators employed at each institution
- » Research what tasks time-based art conservators complete on a daily/weekly/monthly/yearly basis
- » Enquire as to how the specialisation of time-based art was identified in the institution and how long the position has existed?
- » Assess what areas these conservators believe is not currently being addressed in their institution

Action: based on the knowledge gained, interpret the role of time-based art conservator in an institution.

Action: Provide recommendations to the Australian conservation community on how the role of time-based art conservator has developed in the United States and the impact this has had on the international conservation community.

Action: Advocate for the establishment of the specialisation of time-based art conservation

Skill Enhancement 8: Investigate new techniques used to conserve time-based art works.

- » Identify and assess the methods undertaken to conserve a time-based art object
- » Assess the degree of crossover between objects conservation and time-based art

Action: Document the methods used, with examples that are undertaken when conserving time-based artworks.

5. The International Experience and Discovery



5.1 Summary

The original skills enhancement section outlined the discovery of 'new techniques used to conserve time-based art works'. What this fellowship has come to prove is that every artwork involves new techniques to conserve time-based artworks. While the application of skills to support the field of time-based art conservation has expanded significantly during this period of research, with new methods of documentation being provided, different levels of acceptable loss and changes to an artwork being understood on a deeper level, and undoubtedly a greater understanding of the institutional challenge and advocacy required to create a permanent role for time-based art conservation. One thing remains certain - the conservation treatment of a singular time-based artwork varies on a case by case basis. Thus, requiring conservators to be advanced decision makers - basing acceptable change and loss on a foundation of traditional conservation ethics and a re-definition of authenticity.

Image eleven: artist Jon Kessler, Evolution, 2016 installed at the Whitney Biennial 2017. © Jon Kessler Photo Asti Sherring. Medium: Aluminum, custom-printed fabric, mannequins, coral, driftwood, snorkels, foam fish, Bridget Riley exhibition catalogue, virtual-reality headsets, plastic, closed-circuit camera, iPhone, media player, analogue video switcher, video amplifier, microprocessor, lights, LCD screens and motors.

5.2 Analysis of Skills Enhancement and Knowledge acquisition

Area 1: Definition of time-based art

In “Collaborations in Conserving Time-Based Art: A Summary of Discussion Group Sessions of a Colloquium” held at the Smithsonian Institute in 2010, it was discussed that the issue of terminology when applied to artworks that use the passage and manipulation of time as the essential element was arguable.

“The discussants recognised that the issue of terminology is problematic; the same term might be used differently by different speakers and understood differently by different listeners” (Neves 2010).

As no current terminology fully elucidates this medium, there is a need to properly define time-based art. Artists who choose to take advantage of the facilities of interactive and transformative computer interfaces may see their work defined as conceptual art, media art, new media art, non-traditional art, video art, installation art or performance art. Based on The Tate’s definition of the medium “as any artwork that has ‘duration’ as one of its elements” (Noordegraff, 2013) the medium can be expanded to include analogue and digital artworks across a range of media such as video, film, kinetics, performance, computer generated interactives, slide works, iterative works and sound installations.

It was noted during the research that all major institutions, such as MOMA, Whitney Museum of American Art, Solomon Guggenheim Museum and The Tate all referred to the specialisation as Time-based media art. However, in Collaborations in Conserving Time-Based Art: A Summary of Discussion Group Sessions of a Colloquium held at the Smithsonian Institute in 2010, in order to broadly fit the subjects discussed in the colloquium, the committee chose to use the term ‘time-based art’. Similarly, for the AGNSW, it was determined that removing ‘media’ from the term ‘time-based media art’ would allow for an expanded definition of what constitutes a time-based artwork. The conceptualisation of a time-based

artwork as a durational, ‘anti-static’ artwork, which may or may not have analog or digital media components, meant that the inclusion of the term ‘media’ may cause confusion within the organisation.

Area 2: Standardisation of terminology for cataloging

The development and implementation of cataloguing guidelines, that can be applied to time-based art is necessary in order to accurately reflect the physical, digital and variable elements that constitute a time-based art object. Without accurate descriptions and a clear mandate applied to these components at acquisition, the institution may not truly understand what it is that is being acquired - to which there may be conceptual, financial and organisational consequences.

Area 3: Digital archive and digital asset management systems

Successful digital preservation projects depend on people, policies, processes, technologies, and an advanced digital repository system. A fact learnt during the MOMA workshop is that there is no form of permanent or archival digital storage. It does not exist. In order to achieve a best practice digital preservation strategy that is right for an organisation, a successful project requires a holistic approach that embraces change surrounding record keeping and collection management practices, an acceptance of the variable nature of digital assets, equipping people with the right skills within the organisation, interdepartmental collaboration and an organisation commitment to this area of museological practice. It also requires significant financial investment in I.T infrastructure and ongoing maintenance of systems.

During the investigation into suitable digital asset management system and digital storage systems for the digital collection of audio and visual artworks and archives, it became apparent that there are many different products and programs on the market that aim to address digital preservation management and storage. See Appendix Seven for an extensive list of links to software and webpages that can aid in data integrity and digitisation resources. This list was gathered at the



Image twelve - fifteen: multi-layered system of digital preservation extracted from slide presentation at Museum of Modern Art workshop May 3rd 2017

Conference, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University. A major goal of this research was to find a suitable best practice digital archive and digital asset management that I could recommend to Australian institutions who collect audio visual assets or time-based artworks. My investigation led to one potential solution, Arkivum, specifically the Arkivum Perpetua solution (Arkivum 2017). At the Conference, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University I met with Paula Keogh who is the sector manager for the United Kingdom. She provided me with two case studies undertaken at MOMA and The Tate - see Appendix Eight and Nine. I followed up with this research by participating in a web seminar run by Paula Keogh on the 24th November 2017 titled, "Making the case for digital preservation. How to engage your stakeholders". While visiting The Tate time-based art department on 16th September 2017, Time-based media art conservator Patricia Falcao took me on a virtual tour of the Arkivum eco-system and discussed how it works for The Tate. The Arkivum Perpetua solution has been developed with assistance from multiple international institutions and seems to be the most suited to deal with artworks and the unique digital preservation needs of audio visual assets. Moreover, this system has been developed to be used with the TMS database, which is very similar to the Vernon database. However, while this solution is in use in the United States and the United Kingdom, it is not present in Australia. This means, that there would be a significant financial and infrastructure investment to set up this solution in Australia. The software programs would also need to be re-written to work with the Vernon database. While this is a potential solution, it also requires an Australian institution to pioneer this territory. It is possible however to begin developing an organisational digital preservation project, which supports the argument for long term digital preservation solutions. See Appendix Six for the researcher developed overview of how to initiate an organisational digital preservation project based on the research gathered at the Conference, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University.

Area 4: Artwork management plans

“Whilst the point of acquisition is critical for all works entering the collection, it is perhaps particularly so for time-based artworks. One could say that at this point a work is prepared for its future life in the collection. When a work is acquired, information is gathered that that will guide its care and display” (Noordegraaf, J 2013).

A range of innovative documentation methods were provided over the course of the fellowship from a number of institutions, notably from MOMA, The Guggenheim and The Tate. These documents support thorough, detailed documentation that seeks to pre-empt deterioration and aids in managing both the tangible and intangible aspects of an artwork. As the documentation required around the acquisition of a time-based artwork is extensive, it can be difficult to receive all the necessary information once the artwork is acquired. In order to ensure that all components and associated documentation is provided in full, multiple USA institutions are withholding complete payment until all components can be checked by conservation and determine that the full scope and complete artwork has been acquired. The following documents were provided:

1. An iteration report template was provided by The Guggenheim - see Appendix Ten
2. An artist questionnaire was provided by MOMA - see Appendix Eleven
3. A pre-acquisition identity report was provided by MOMA - see Appendix Twelve
4. A pre-acquisition report template was provided by MOMA - see Appendix Thirteen

An acquisition cost matrix was provided by The Tate - it has been withheld from the appendices at the request of the institution. This cost matrix was developed by time-based media art conservator, Pip Laurensen in order to demonstrate that the level of complexity and installation/production cost for these works needs to

be considered and taken into account at the time of acquisition. The Tate break down the costs by establishing a definition of difficulty e.g.: simple - complex and then assigning staff hours, storage costs and production costs for the artwork.

Area 5: End of life strategy for technological obsolescence

The investigation around how an intuition comes to the decision to renew or replace a broken or obsolete component has revealed that there are no definitive answers and no overarching strategy for these kinds of artworks. “Ready-made answers for preserving and re-exhibiting these works do not exist” (Wijers, 2013) and as such, each decision is made on a case-by-case basis. What is clear is that without a group of specialists, who have an understanding of concept, variability and technologies it is very difficult to make a decision that serves in the best interest of the artwork. After discussions with staff from The Whitney, the recommendation of the establishment of a ‘Replication Committee’ to determine the end of life strategy for an object seems viable. This committee brings together collection management staff, such as curatorial, conservation, and registration as well as the artist or artist estate to collectively determine appropriate acceptable change (end of equipment strategy) which may allow for the artwork to be updated or change technologies in order to remain functional (Lerner 2016). Based on this investigation, the best time to gain artist approval for the renewal or replacement of their work is at the pre- acquisition phase.

Developing a strategy of collaboration with the artist at the time of acquisition means that an institution can have these questions addressed before the artwork comes into their care. The necessary decisions can be recorded through a formal artist interview (written or verbal) or via email correspondence. As long as these decisions are attached to the artwork record, ensures that an institution will have the required information when approaching the difficult task of determining end of life strategies for an artwork. Legally there is language that can be written into Copyright licenses, Agreements of Sale and Deeds of Gift that ensure the institution has a legal right to store, transfer, migrate, replace and upgrade obsolete technologies. - see Appendix Fourteen for MOMA copyright license.

Area 6: How does technical specialists support the conservation of time-based artworks

As previously established, the conservation and display of time-based artworks require a high level of collaboration. Research found that technical expertise differed based on the institutional requirements and preservation programs. However technical expertise has been identified as essential to the conservation of time-based art, and requires specialist skills that a conservator might not have.

The Tate employs five time-based media art technicians who support the acquisition, preservation and display of all time-based artworks across four locations. Uniquely, The Tate employ one full time technician who provides conservation support in acquisitions, legacy equipment maintenance and collaborates with the acquisition conservator in the decision making around acquisition and technological obsolescence. In conjunction, The Tate employ four full-time technicians who work on the display and installation of artworks across four locations. These technicians have nothing to do with event audio visual, which is run by a separate AV department which functions within the I.T. department. Role description for time-based media art technician, acquisitions and display were provided by The Tate - withheld from appendices at the request of the institution.

The Whitney employs one time-based media art technician who was selected out of the Audio-visual team to move into conservation three days a week to provide conservation support in acquisitions, equipment maintenance, migration and digitisation and display decision making.

While The Guggenheim does not have time-based media art technicians, instead working with the Audio Visual department for the display and installation of works, they do employ part-time video engineer is employed two days a week to complete all the digitisation and migration steps for the TBMA collection in house in the media labs. The Guggenheim has also employed a computer sciences graduate to undertake a two-year fellowship into the conservation strategies surrounding their computer-generated artworks.

All other institutions surveyed do not have dedicated conservation technicians, but have collection AV staff that they work closely with. In two cases, AV technicians have been absorbed into conservation part time to assist with collection management practices. It is acknowledged that this collaboration is crucial to the preservation and management of these works.

Area 7: What is the role of the time-based art conservator?

The first employed time-based media art conservator in the United States was in 2008 Johanna Phillips, The Guggenheim. Predating this appointment Pip Laurensen had held the position at The Tate since 1996. MOMA employed Glenn Wharton as their first contracted time-based media art conservator in 2007, a position that was made permanent in 2009. Slowly other institutions around the world have been successful in employing time-based media art conservators with some institutions creating departments for the specialisation. What is clear from these dates is that the field of time-based media art is comparatively new - with institutions first investing in contained, contracted positions which develop over time into permanent ones and then potentially expand into entire departments as the need for specialists in this field grows.

The first permanent position at The Tate was established in 1996. A conservation section was later established in 2004 with 10 years between establishing a single position and committing to a specialist team. Currently there are four time-based media art conservators who manage approximately 600 collection works, and The Tate library and Archives. One full time senior Acquisitions conservator (also completes the database cataloguing of TBA works), one conservator who works three days on Loan and two days Acquisition and two full time conservators dedicated to installation and display. A role description for acquisitions time-based media art conservator was provided by The Tate - withheld at the request of the institution. MOMA currently employs three conservators for their collection of approximately 2000 works. One full time senior conservator, one full time associate conservator and one full time junior conservator – funded by Andrew Mellon foundation on a two-year fellowship (on-going funding). While The Whitney

does not have a permanent position for the care of 570 artworks, the institution employs two private conservators contracted three days a week to develop strategies, perform treatments and build the department. While the Guggenheim has a significantly smaller collection, there has been a Time-based media art position since 2008. As well as employing a full time senior conservator, two full time conservators are employed on two-year fellowships (ongoing funding). It is agreed across each institution that the role of a time-based media art conservator differs from a traditional conservation role, where conservators act as a facilitator in a process driven environment that relies on documentation and acceptable loss embedded within the decision-making framework. "In Laurenson's view, conservators are working in a professional context, acting as brokers between the artist and the museum in order to facilitate certain technical aspects of integrating works into the collection when a work is first acquired" (Noordegraff, 2010).

Area 8: Investigate new techniques used to conserve time-based art works

Collection survey: One of the first sessions at the MOMA workshop was run by Glenn Wharton, MOMA's first time-based art conservator, who took the workshop participants through what he considers is the most successful way to argue for a time-based art department – a collection survey. He provided several successful case studies, such as MOMA and The Guggenheim where staff spent a period of one year surveying the collection to provide both a condition survey and a risk assessment of the TBA collection. For institutions with a smaller budgets successful surveys have been conducted over 12 weeks, as was the case with The Whitney and The Smithsonian, who employed a contractor and conservation interns to complete condition and risk surveys. In all these cases, the outcomes led to the creation of contract or permanent roles within the conservation department and the development of TBA labs.

Physical re-housing: The appropriate physical preservation housing of all media carriers is necessary to reduce the risk of deterioration or damage of the carriers. Appropriate housing standards for film and magnetic media are well established,

whereas digital carrier storage has yet to be thoroughly explored. The following materials were recommended during the MOMA workshop:

- » ESD (electro-static discharge) bags for the storage of digital materials, e.g.: USB, SD cards, hard drives
- » Polypropylene hard drive cases, impact resistant - best used for transportation
- » Archival enclosure with hard drive placed in an anti-static bag. Archival, non-corrosive foam is placed with the enclosure to support the objects



Image sixteen - seventeen: examples of physical storage used at at Museum of Modern Art,. Photo by Asti Sherring



Black box studio concept - due to the complex nature of these works, the variable components, performative aspects and specific installation requirements and technology, it is almost impossible to undertake treatment, by way of testing all the components before going on display. Therefore, we must rely on documentation, artist provided installation guidelines and institutional memory. Especially as more and more the installation period is becoming crucially the time for interventive treatments. Institutions such as SFMOMA have addressed this issue by developing a Black Box Studio, a multipurpose, collaborative space that is fitted out with sound paneling, ESD protection, power outlets, projectors etc.... where contemporary installation works can be installed, tested and documented in advance to the installation schedule.

SFMOMA



Image twenty one: photograph of SFMOMA black box studio extracted from slide presentation at Museum of Modern Art workshop May 4rd, 2017



Image eighteen - twenty: examples of physical storage used at at Museum of Modern Art,. Photo by Asti Sherring



Image twnety two: photograph of SFMOMA black box studio extracted from slide presentation at Museum of Modern Art workshop May 4rd, 2017

Time-based art laboratories - the importance of establishing a dedicated, purpose built space to inspect, treat and safety store time-based artworks. A TBA laboratory is similar to an audio-visual studio and a computer repair workstation.

The Whitney - Time-based media workstation



Image twenty three - twenty four: Whitney time-based media workstation. Photo by Asti Sherring

The Guggenheim - Time-based media art workspace and digitisation studio

Image twenty five: photograph of The Guggenheim's time-based media art workspace and digitisation studio extracted from slide presentation at Museum of Modern Art workshop May 4rd, 2017





Diagram one: made by Asti Sherring on 23/03/2018

6. Considerations and Recommendations



Image twenty six: Steve McQueen *Static* 2009 installed at the Museum of Modern Art.
© Steve McQueen Photo Asti Sherring. Medium: 35mm film transferred to video (colour, sound)

This experience has supported what I had suspected, that many Australian institutions have fallen behind in participating in the development of the field of time-based art conservation. What was revealed through this field research is the need for a larger and ongoing effort within the arts sector to consider the entire life of artwork, that is, from the moment it is acquired and enters a collection, through to its display and loan, right up to its storage and long-term preservation. The successful long-term conservation of time-based artworks requires an eco-system of collection management activities (see diagram one), with the role of conservator acting as a facilitator within this eco-system.

Role of the conservator: As many of these changes required fall outside of the traditional responsibilities of conservation, it is necessary to adopt a distinctly different way of thinking and working, that is still to be refined and established, but one that is categorically more collaborative and coordinated, more focused upon shared documentation and the continued centrality of the artist voice. The long-term conservation of time-based artworks require consultation with and considered input from all collection management departments as it is clear that the more people who become involved in this area, and the more this range of expertise is drawn from, the more successful the outcomes. This supports the dynamic nature of the time-based art conservation and necessary evolving approach required to caring for it.

Policies and Procedures: Adopting a legal framework and guidelines that support the changes required and allow the institution to reach its long-term goals.

Collection management: The inherent conflict with current best practice procedures and policies that have been formulated according to traditional media,

and are based upon principles of medium specificity, uniqueness, permanency and perpetuity, are aimed at actively minimising, if not outright preventing, any degree of variability in an artwork. Therefore, a host of institution-wide changes that implement new policies and procedures can ensure that an institution maintains best practice in all areas of its collection.

Conservation activities: One of the most fundamental takeaways from the research is the need for extensive artist liaison at the point of acquisition, accompanied by thorough documentation and technical specifications is paramount to caring for time-based artworks in the long term. If this moment passes it becomes increasingly difficult to dedicate time and engage the artist in the same way in the future.

Acquisition is the best time to gain artist approval for the renewal or replacement of their work, which must be determined on a case-by-case basis. Documentation to better manage the variability of time-based artworks formally recognises, as an institution, that these artworks will change – whether their technological components become obsolete or whether different display environments will call for the adaptation of certain elements. A high level of collaboration is required to make these decisions. As such, it is recommended that each institution establishes a time-based art/ contemporary art committee to determine a life extension strategy for an object.

Digital Preservation: Digital preservation encompasses all procedures, systems and activities that ensure the preservation of, and continued access to, digital assets and collections. A best practice management recommendation to Australian museums and galleries that ensures the long term secure preservation of digital content through a multilayered hardware and software platforms, requires a significant institutional, state or national financial commitment. Internationally, a solution with significant potential has been developed. However due to funding limitations, institutional support and geographical isolation, it may take years to enact change in this area.

Training and advocacy: Without Australian specialists who understand the unique nature of this area, it will continue to be difficult to mitigate the very real threats of loss and obsolescence. A national-wide level of support is needed for a coordinated, cohesive and formalised approach to the care of time-based art collections around Australia.

7. Knowledge Transfer, Application and Dissemination



Image twenty seven: Amalia Pica's *Asamble*, performed on May 6, 2017, The Guggenheim. Photo Asti Sherring

Aim: To educate and advocate for the development and implement action of comprehensive new policies and procedures, conservation, training and collections management of the time-based art collection within the conservation and heritage community. The dissemination of the field research aims to garner nation-wide support for a coordinated, cohesive and formalised approach to time-based art collections in Australia.

What is achieved?

- » Planning and implementation of conservation approaches to artworks due to technological obsolescence
- » Inspired new ways of thinking about the long-term conservation strategies surrounding time-based art
- » Engagement with leading curatorial and conservation thought around the display and management of time-based artworks
- » Pivotal connections with international institutions that are also addressing the issues of their time-based art collections, which provided new avenues of support and resource
- » Advocacy for the future of Australian time-based art collections
- » Establishment of standards for best practice storage, access and data management procedures to ensure safety of digital materials

Who is it achieved for?

- » Australian conservation professionals and students
- » Alignment within the Art Gallery of New South Wales and therefore establishes the AGNSW as a leader in the sector
- » Supports Australian cultural institutions to develop dedicated digital collection storage and systems for the long-term preservation of time-based artworks
- » Maintains trust with Australian artists/dealers/donors who create, sell, donate and fund the time-based artworks

- » Enables major institutions to better serve regional galleries, indigenous communities, researchers, staff and global online community by having safe and accessible time-based art collections
- » Australian state and federal collecting institutions, who are mandated to preserve and display of art collections – in all its evolving forms.

Impact of research

The institutions I visited have developed conservation specialties within their departments that focus on the preservation of time-based artworks. An active engagement with American and European institutions that have established collaborative and thoughtful processes that manage the physical, digital and conceptual concepts surrounding time-based artworks over the works life span have presented me with the unique opportunity to prepare a framework for the future of Australian time-based artworks that will guard against epistemic failure and confront the intrinsic dilemma of digital permanence. The field research conducted during this fellowship is but one element in a larger, ongoing body of research. The larger aim of this fellowship is to articulate a broad vision for the future of Australian time-based art collections in the form of a postgraduate research thesis on the topic. A positive, long term aspiration of this research is the establishment of permanent positions in time-based art conservation within Australian institutions. In the short term, the research will be disseminated in the following ways:

- » As a part of my role as time-based art conservation at the Art Gallery of New South Wales, in 2018 I plan on running time-based art workshops that will assist state and national institutions in caring for these significant collections. This workshop will be open to institutions in Australia who require assistance in dealing with these works.
- » I have shared my experiences with AGNSW staff by way of a formal presentation and present key findings to AGNSW acquisition committee, senior curatorial

and conservation staff with the intention of bringing new ideas into AGNSW collection management practice.

- » I authored an article featured in the 2017 AGNSW members newsletter
- » I have formally presented on my research at an AGNSW all staff meeting in early 2018
- » I will provide a lecture/workshop on my research and approaches to The University of Canberra Museum heritage undergraduate students and The University of Melbourne conservation masters students.
- » I presented a conference paper on my findings at the National 2017 AICCM conference on *A Shared Responsibility: Caring for Time-Based Media Artworks and the MOMA experience*.
- » I have written and submitted a paper to the peer reviewed journal AICCM National Bulletin on the findings of this research
- » I have presented a paper on my findings at the NGV triennial contemporary art symposium on *A Shared Responsibility: Caring for Time-Based Media Artworks and the MOMA experience 6-8 March 2018*
- » The AGNSW magazine, *LOOK*, ran a story on my role as the first time-based art conservator at the AGNSW in 2017
- » I have co-authored a paper with colleague, Lisa Catt which will present key findings from this research and the urgency of the Australian situation. This paper will be presented at the New York University (NYU), USA Symposium 'It's About Time! Building a New Discipline: Time-based Media Art Conservation' in May 2018.
- » I will be presenting a paper on the current progress of time-based art conservation in Australia. I will also be participating as a panel member to address the issues of advocacy and funding in this area at the AIC National Conference 'Material Matters 2018' American institute of Conservation, Houston, Texas, USA which takes place June 2018.

- » I will be a keynote speaker at the ARC time-based art conference titled: Duration and Dimension to be held at Melbourne Museum October 1st - 3rd

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9. Acknowledgements

Awarding Body – International Specialised Skills Institute (ISS Institute)

The ISS Institute exists to foster an aspirational, skilled and smart Australia by cultivating the mastery and knowledge of talented Australians through international research Fellowships.

The International Specialised Skills Institute (ISS Institute) is proud of its heritage. The organisation was founded over 25 years ago by Sir James Gobbo AC CVO QC, former Governor of Victoria, to encourage investment in the development of Australia's specialised skills. Its international Fellowship program supports a large number of Australians and international leaders across a broad cross-section of industries to undertake applied research that will benefit economic development through vocational training, industry innovation and advancement. To date, over 350 Australian and international Fellows have undertaken Fellowships facilitated through ISS Institute. The program encourages mutual and shared learning, leadership and communities of practice.

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- » Preparing a detailed report for distribution to government departments, industry and educational institutions
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- » Delivering training activities including workshops, conferences and forums.

The organisation plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice. By working with others, ISS Institute invests in individuals who wish to create an aspirational, skilled and smart Australia through innovation, mastery and knowledge cultivation.

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Grollo Ruzzene Foundation Fellowship Acknowledgement

The Grollo Ruzzene Foundation was established by Rino Grollo and Diana Ruzzene Grollo to direct their family's charitable contributions. The Grollo Ruzzene Foundation is committed to a number of charities, institutions and causes in the State of Victoria and in Melbourne in particular. These causes and institutions are ones that the founders, Rino & Diana Grollo, have supported in various ways over a number of years. The Grollo Ruzzene Foundation Fellowship supports the continued development of conservation and preservation practice and skill development.

I would like to express my deepest gratitude to the Grollo Ruzzene Foundation who funded this research.

The Institute of Specialised Skills for supporting my research at all stages. To Sir James Gobbo, Lousia Ellum and Nicole Andrea Tse thank you for choosing to fund a new area of specialisation within the conservation sector. Thank you Fiona Waugh for your enthusiasm and encouragement towards this research. As well as Wendy Draayers and Nick Johns for your support with the final stages of piecing together this report. The Art Gallery of New South Wales and my colleagues for helping to shape this research and supporting my field research. AGNSW head of conservation, Carolyn Murphy and fellow TBA project team members Lisa Catt and Jesmond Calleja for their significant contributions to this research. Dr Alison Wain, Course Convener, Bachelor of Heritage, Museums and Conservation University of Canberra for her continued feedback, ideas and ongoing support in developing this body of research. Lastly, I would like to thank all colleagues and participants in this research, who have taught me how to do my job better.

10. Appendices

For the following appendices, please see accompanying pdf file ("Asti Report Appendices"):

Appendix One - MOMA workshop letter of acceptance

Appendix two - MOMA workshop list of attendees

Appendix Three - MOMA workshop list of speakers

Appendix Four - MOMA workshop agenda

Appendix Five - Conference, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University 11- 13 September 2017 list of sponsors and attending organisations

Appendix Six - Developing an organisational digital preservation project

Appendix Seven - Digital asset management systems and storage - important links. Information was gathered at the Conference, Preservation and Archiving - digital Special Interest Group (PASIG) held at Oxford University

Appendix Eight - Arkivum Perpetua case study - MOMA

Appendix Nine - Arkivum Perpetua case study - The Tate

Appendix Ten - Iteration report template - <https://www.guggenheim.org/wp-content/uploads/2015/11/guggenheim-conservation-iteration-report-2012.pdf>

Appendix Eleven - Artist questionnaire - provided by MOMA

Appendix Twelve - Pre-acquisition identity report - provided by MOMA

Appendix Thirteen - Pre-acquisition report template - provided by MOMA

Appendix Fourteen - Copyright Licence - exert Time-Based media art clauses - provided by MOMA

Appendix Fifteen - NYU time-based media art Masters program - course overview



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