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Emerging institutional models and notions of expertise for the conservation of time-based media works of art

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Pip Laurenson

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Abstract. *This paper describes four institutional models that have emerged in response to the conservation of time-based media works of art and outlines the key ideas and questions which frame this emerging area of conservation. The paper looks at the way in which conservators explore the significance of the medium, attitudes to change, questions of obsolescence and the impact of the how the artist conceives of their practice on the conservation of these works as they enter the museum. In addressing the conservation of time-based media works of art, this paper highlights the variety of knowledge and expertise required; expertise that is embodied in a network of people who support these works both inside and outside the museum. The author concludes by suggesting that developing and maintaining these networks has become an essential part of the time-based media conservator's role.*

Keywords. *Time-based media conservation, conservation of contemporary art, museum conservation, change, obsolescence, expertise.*

Résumé. *Cette étude décrit quatre modèles institutionnels apparus récemment dans le domaine de la restauration des « time-based media », et présente les principaux enjeux de cette nouvelle discipline. Comment les restaurateurs analysent-ils l'importance du support ? Quelle attitude adoptent-ils face au changement et à l'obsolescence ? Quelles sont les répercussions des méthodes de l'artiste sur la conservation et la restauration des œuvres qui entrent au musée ? L'auteur souligne la diversité des connaissances et des compétences requises. Les différents savoir-faire s'incarnent dans un réseau de professionnels qui interviennent à l'intérieur et à l'extérieur du musée. Les restaurateurs doivent désormais s'attacher à consolider et à développer ces réseaux.*

Mots-clés. *Conservation, restauration, « time-based media », art contemporain, musées, changement, obsolescence, compétences.*

Time-based media conservation is a relatively new field within fine art conservation and includes works of art which use film, video, 35mm transparencies, audio, software or performance as their primary artistic medium. This paper considers the institutional models that have emerged in response to the conservation needs of time-based media artworks in museum collections and offers an explanation as to why time-based media artworks have not been easily absorbed into existing conservation specialities. At the heart of this short history are different institutional responses to changing artistic practice.

Different institutional models

From a survey of contemporary art museums, four dominant models emerge to describe how the preservation needs of time-based media works of art are dealt with:

- A specialist conservation department where *conservators* are hired specifically to take responsibility for the conservation of time-based media artworks (e.g. Tate).
- A specialist curatorial department where the *curators* retain responsibility for the conservation of the time-based media artworks (e.g. Centre Georges Pompidou).
- A cross-disciplinary model where an internal team is developed to respond collaboratively to the needs of time-based media artworks including conservators, registrars, technicians, curators and legal and copyright representatives, plus any additional freelance specialists (e.g. San Francisco Museum of Modern Art).
- Finally, an external agency, perhaps one that operates on a national level and works closely with a group of museums to support the conservation of the time-based media artworks (e.g. the Netherlands Institute for Media Art).

Commonly, in each of these models, conservators, curators and collection managers work closely with specialist technicians, artists and artists' assistants

Dr Pip Laurenson, Head of Collection Care Research, Tate (pip.laurenson@tate.org.uk).

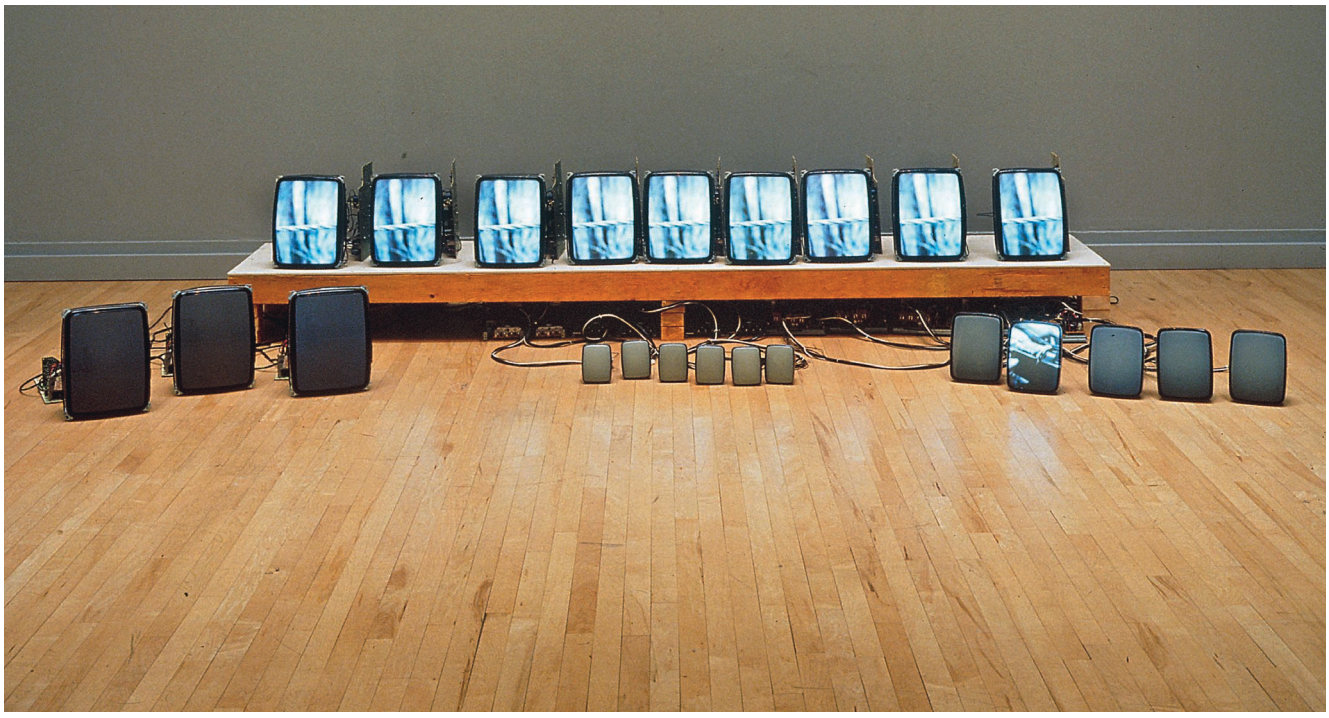

Fig. 1. Gary Hill, *Between Cinema and a Hard Place*, 1991, Tate Modern. © ADAGP, Paris 2013/Tate Photography.

Why do different institutions adopt one or other of these models?

Each contemporary art museum, like any institution, has a distinct character. In some cases different models will be adopted at different times within the history of a specific institution; furthermore, institutions may also adopt hybrid models. The drivers determining the adoption of a particular model include both internal and external factors. Internal factors include departmental structure, governance, institutional culture, access to expertise, and individual champions. External factors include the increased visibility of time-based media conservation within conservation and the influence of peer institutions. All of these models have emerged as a response to changing attitudes regarding the nature of conservation and the changing nature of fine art collections.

For the purposes of illustration, I will explore these models in relation to the development of time-based media conservation at Tate, in the UK, the Museum of Modern Art (MoMA) in New York, San Francisco Museum of Modern Art (SFMOMA) and the Netherlands Institute for Media Art (NIMk). My use of these institutions as examples is not to suggest that they are the only institutions engaged in this way; instead I have chosen them as they illustrate certain trends.

The history of the development of time-based media conservation at Tate

I will start with the collection and institution that I know best, namely Tate. Tate is the earliest adopter of the first model, establishing its first specialist time-based media conservation post in 1996. As a case study, I will consider some of the drivers that led to the adoption of this model.

The first driver stems from the engagement of Tate's trustees, a direct consequence of the governance structure of Tate. At Tate, the trustees authorise the acquisition of works recommended by the curators. In a meeting in May 1995, Tate's trustees discussed the possible acquisition of Gary Hill's *Between Cinema and a Hard Place* (fig. 1). During the meeting the trustees raised questions about the longevity of this video installation; specifically they asked what it was that the gallery would acquire and what was the significance of the hardware to the identity of the work (Tate, 1995). This acquisition therefore prompted questions about time-based media conservation to be raised at the highest level in the institution.

The second driver was the increase of acquisitions of time-based media works of art in the 1990s. Although Tate had begun to acquire time-based media artworks in the 1970s, in the mid-1990s the number of these acquisitions increased. Tate has a well defined process for managing the acquisition of new works coming into the collection. Hence, once time-based media works begun to be collected in larger numbers in the 1990s, it became clear that systems and protocols to manage these works from the point of being considered for the collection and throughout their life within the museum were lacking and needed to be developed. Because Tate has traditionally not organised its curators by media, there was no question of specialist media arts curators taking on the responsibility for the conservation of time-based media works and adopting the second model.

The third driver was the high prices that began to be commanded for time-based media installations in the 1990s and the routes by which they entered the collection; this served to support the case for the equal status of time-based media works. The majority of time-based media works coming into Tate's collection came via standard commercial galleries or directly from the artists, rather than specialist distributors; again this served to minimise the distinction between these forms of art and more traditional forms of artistic media. [1]

In response, Tate nurtured its in-house expertise, establishing a specialist post in 1996 and a Time-Based Media Conservation Section in 2004. This staff team now comprises four conservators and four specialist technicians. The case made within Tate to legitimise the expansion of conservation to include time-based media works focused on the argument that the standards of care should be equal across the collection irrespective of medium. One of the biggest risks for any new form of artistic practice entering the museum is that it is seen as lying outside the standard systems and procedures. For this reason, even if the needs and vulnerabilities of time-based media works translate into different processes and activities, the principle applies that these new forms of artistic practice are legitimate objects of conservation and should have equal standards of care applied.

Comparison between Tate (model 1) and other museums (models 2-4)

Time-based media conservation has developed differently in museums which organise their curatorial departments by medium. For example, although MoMA began collecting time-based media works of art in the 1960s, the specialised focus on contemporary artists who were working with film and video came later. In 1981, the curator Barbara London, then in the Prints and Illustrated Books Department, won a Rockefeller Foundation grant to enable her to dedicate time to artist's video. In 1994, Barbara London moved to the newly named Department of Film and Video, and in 2006 a new curatorial department, distinct from the Film Department, was formed and named the Department of Media. [2] There is practical significance at MoMA in the creation of this distinct department, as structurally it brings with it a dedicated committee of trustees and dedicated conservation and registration staff. Although media conservators work across the seven curatorial departments at MoMA, the creation of a new Department of Media was a significant factor in the appointment of a dedicated conservation position in 2007 and also a registrar with a special remit for media arts. The main factors influencing these changes were shifts in internal structure within MoMA and the growing recognition within the general field of contemporary art conservation of the need for this new specialist area of conservation. MoMA continues to build its media conservation team: in 2012 it employed an Assistant Time-Based Media Conservator and in 2013 it created a ground-breaking new post of Digital Repository Manager to work within the Conservation Department on the museum's digital collections.

Prior to 2007, MoMA represented an example of the second model, with specialist curators taking responsibility for the conservation of the media collection. With the arrival of a dedicated conservator, MoMA also explicitly adopted a collaborative approach with the establishment of the *Media Working Group* drawing on a model developed at SFMOMA (model 3).

In the late 1990s SFMOMA pioneered an interdisciplinary team approach, our third model. Created in 1988 and led by the curator Robert Riley, SFMOMA's Media Arts Department was largely responsible for the conservation and management of the media arts collection. A 1997 paper by SFMOMA staff described the role of assistant curator of media arts as 'part installation, part registration, and part conservation'. [3] This paper was the impetus behind the creation of an internal interdisciplinary group, *Team Media*, which successfully brought together a range of staff to collaboratively care and manage their media arts collection. This model has been widely adopted, either in conjunction with specialist staff or without. However, it requires a commitment and an institutional culture of collaborative working to be successful. A strength is that it provides a structure to address the needs of time-based media artworks without requiring additional resources. This model also recognises that responding effectively to changing artistic practice involves an engagement throughout the museum.

Within Europe there have arisen national central agencies that support museums in the care and management of their time-based media works, and this type of working forms our fourth and final model. For example, the Netherlands Media Art Institute (NIMk) [4] has spent many years working with museums in the Netherlands to respond, not only to their needs for media migration and storage, but also to broader, more holistic preservation needs of specific works. This is the least developed model and perhaps best suits countries which have a tradition of centralised conservation facilities. Despite the significance of the cultural differences between organisations, when considering the range and depth of knowledge, which is required to support these works, the logic of this more co-ordinated approach is clear, especially where very specific and somewhat rare expertise is required.

Collaboration and influence

The desire to build consensus and address these challenges collaboratively across institutions was the primary driver behind the formation in 2004 of Matters in Media Art, an interdisciplinary consortium between MoMA, SFMOMA and Tate. [5] As an ongoing project, Matters in Media Art continues

to be a conduit for shared learning. The influence of organisations and institutions upon each other is known as isomorphism and is defined as 'a constraining process that forces one unit in a population to resemble other units that resemble the same set of environmental conditions'.[6] The influence of the development of professionalism and also the desire, particularly where there is uncertainty, to adopt an organisational model which is perceived as being successful are seen as drivers for isomorphism.[7] While acknowledging the mutual influence of the partnership, the members of the Matters in Media Art consortium have felt it important to fully acknowledge the non-trivial distinctions between the three institutions involved. Hence, although these three institutions closely share practice, a far more hybrid range of models and approaches has emerged than one might expect. As we will see, these structures will continue to evolve in response to the rapidly expanding need for new forms of expertise.

The first section of this paper explored four models illustrative of the way in which museums have responded to the conservation needs of time-based media works of art: the specialist conservation section, the specialist curatorial department, the interdisciplinary team and the external consultancy. All of these models assume that the conservation of time-based media works of art cannot simply be absorbed into the work of an existing conservation section or discipline. This paper will now consider why time-based media conservation has not been absorbed into existing conservation disciplines by examining the key ideas that have emerged as fundamental to the conservation of time-based media works of art.

Key ideas framing the conservation of time-based media works of art

It is of primary significance that time-based media works of art are not simply objects which involve analogue or digital media components, but that they are artworks. This determines where attention is directed, the ethical framework in which the work is treated, the context in which the work was produced and is displayed, and also the significance of the relationship that the maker has with the work. Fundamental to conservation is the question 'What is it we are trying to preserve?' and our ability to answer that question for specific time-based media works depends on understanding the following:

- The significance of the hardware and the media
- Attitudes to change
- The impact of obsolescence
- The impact on conservation of an artist's practice
- The expertise needed

I have discussed many of these points in more detail elsewhere[8]; however, in the context of this paper, I will briefly address these key ideas.

The significance of the hardware and the media

For some works the technology which was used when a work was made and first displayed may be closely aligned to its meaning; in other cases it may be incidental. Within a museum context, the most significant voice in determining the relationship of original technologies to the work is the artist. However, the artist is not the only stakeholder and certainly the museum may well be more interested than the artist in the historical value of the original media and hardware. Where an artist has exploited the sculptural properties of particular forms of hardware, the significance of the hardware to the identity of the work is clear. But in other cases, locating the value of display equipment can be challenging both for the curator and the conservator. Within current contemporary art museum practice, the artist determines the significance of the original technology to the meaning of the work at acquisition. These judgements will largely depend on the artist's own conception of what constitutes an artistic medium and its importance to the understanding of the work. This may change over time; for example, a work may become more or less fixed in its relationship to a technology in response to a critical appreciation of the relationship of the technology to the meaning of the work or when, once the artist is no longer alive, decisions fall to museum staff. The more fundamental the relationship of a particular technology is to the meaning of the artwork, the greater value; and the greater the risk of loss due to the obsolescence of that technology. Many analogue media depend on a technological ecosystem which is currently under severe threat; despite heroic efforts, it may become impossible to continue to support the display of these works in the way in which the artist intended.[9]

Attitudes to change

The question 'What is it we are trying to preserve?' is clearly a broader question than can be answered by conservators alone; it is a question for the whole museum as custodian. In *The Transfiguration of the Commonplace,* Arthur Danto describes an exhibition of nine identical paintings of red squares. One, for example, is called 'Kierkegaard's mood', one is called 'Red Square' and relates to the square in Moscow, another is ground for an unfinished painting by the Venetian renaissance artist Giorgione[10]. It is possible to imagine a variation of Arthur Danto's famous experiment and a range of identical time-based works where their context and the way in which the value and meaning of the technology used in the work was articulated varied. For example, imagine an artwork made up of 35mm transparencies in a carousel that is mounted on a white plinth projecting a two-metre wide series of images on the wall. The images depict a journey across rural Sri Lanka. In one case the 35mm transparency was chosen as an artistic medium to echo the ubiquitous medium of the 1970s and 1980s holiday travelogue, endlessly looping, with the monotonous clunk of the slide projector as the only soundtrack.

We can imagine another iteration of the same work where the artist actually wished to show the work digitally but at the time the cost of high-quality scans was too high. She is now delighted to rid the work of the clunky apparatus of 35mm slide technology and instead aspires to have ephemeral images which 'lack all materiality'. In a third example, the artist has chosen 35mm slide at a point when the technology is on the cusp of obsolescence and is set to become rare. This artist has used the 35mm technology to create a work which changes during the course of the exhibition in that the slides are allowed to deteriorate whilst on display.

The analysis of this group of works would lead to different answers about what should be preserved and also where one would define the point at which it would be appropriate to talk about loss, should the display medium change.

Obsolescence

One of the purposes of assessing value and significance is in order to judge the scale of risks as they are identified. Within time-based media conservation the dependence on particular technologies presents a very specific magnifying factor, namely obsolescence. Magnifying factors increase the consequences of risk. For example, a lack of emergency procedures is a magnifying factor, assuming that if a flood occurred before procedures were put in place, the damage would be worse. In the case of a technology-based artwork, if a part of the system fails and the system is obsolete then this will make the ability to repair the fault and recover from the failure far harder. As Patricia Falcao has written on obsolescence, 'unlike other types of magnifying factors that tend to be constant over time (or until action is taken) the effect of obsolescence actually increases over time'. [11] Despite the works in their care being under fifty years old, time-based media conservators are for the first time facing some very concrete challenges from obsolescence.

The impact on conservation of an artist's practice

The impact on conservation of how artists conceive of their practice is perhaps one of the most interesting and potentially controversial developments in the conservation of contemporary artworks. Traditionally, fine art conservation has operated under the assumption that an artwork is finished, perhaps within the artist's studio, and then displayed, sold and delivered to the museum or collector. Running counter to this is a strand of artistic practice which is essentially a process, a project or a situation, where the objects of art are either props, debris or documentation formed as by-products of the activity or alternatively as situations, which are designed to be re-activated by the museum. [12] For the museum conservator this can be disorientating, running counter to fundamental ideas underpinning conservation. Although conservators recognise that they cannot arrest change, there is a strong professional narrative concerned with managing change, where change is seen as a necessary evil. In cases where an artwork creates a situation, or is conceived of as a research project or process, the relationship to change is radically altered. The idea that conservation should refer back to the moment a work entered a collection or left the artist's studio as the point against which change is measured, perhaps an ideal state to be maintained, is problematic when the work becomes a growing archive or another form of evolving artwork.

The term artistic practice points beyond the materials and techniques used to create an artwork, to the way in which an artist approaches and goes about the task of creating a work of art. How different forms of artistic practice impact on conservation's approach to specific works has not as yet been fully explored, and it is beyond the scope of this paper to attempt such a task. However, as museums begin to collect artworks which are explicitly designed to evolve and change over time, these questions are becoming increasingly important.

The expertise needed

Within the field of conservation the development of a conceptual framework to enable conservators to understand what their role might be in relation to time-based media works of art has been important to enable an effective response to artworks whose primary vulnerabilities are not about their materiality or material decay. This requires building on and expanding existing concepts of risk, loss, significance and authenticity. [13]

The considerable expertise that has been developed within contemporary art museums to address the needs of time-based media works of art is evident in the establishment of efficient procedures for quickly understanding the critical details associated with each specific work coming into a collection, each display to be prepared and each loan to be successfully executed. Given the volume of works that the museum deals with, a broad range of skills is needed. To illustrate this I will consider some examples of both analogue and digital works of art (fig. 2).

In the conservation of analogue 35mm slide installations, Kodak's decision to cease production of any 35mm slide stocks by the end of 2012 created a new urgency to questions about the significance of the medium of 35mm transparencies to specific works and whether it is essential to these works that they continue to be displayed using this analogue medium. A tiered strategy has been developed including stockpiling, scanning, exploring alternative technologies, and ultimately facing the decision about whether a work can be displayed in another form. [14] Such a strategy is required to be somewhat holistic; for there is no sense in storing more slides than might be needed before it becomes impossible to keep a slide

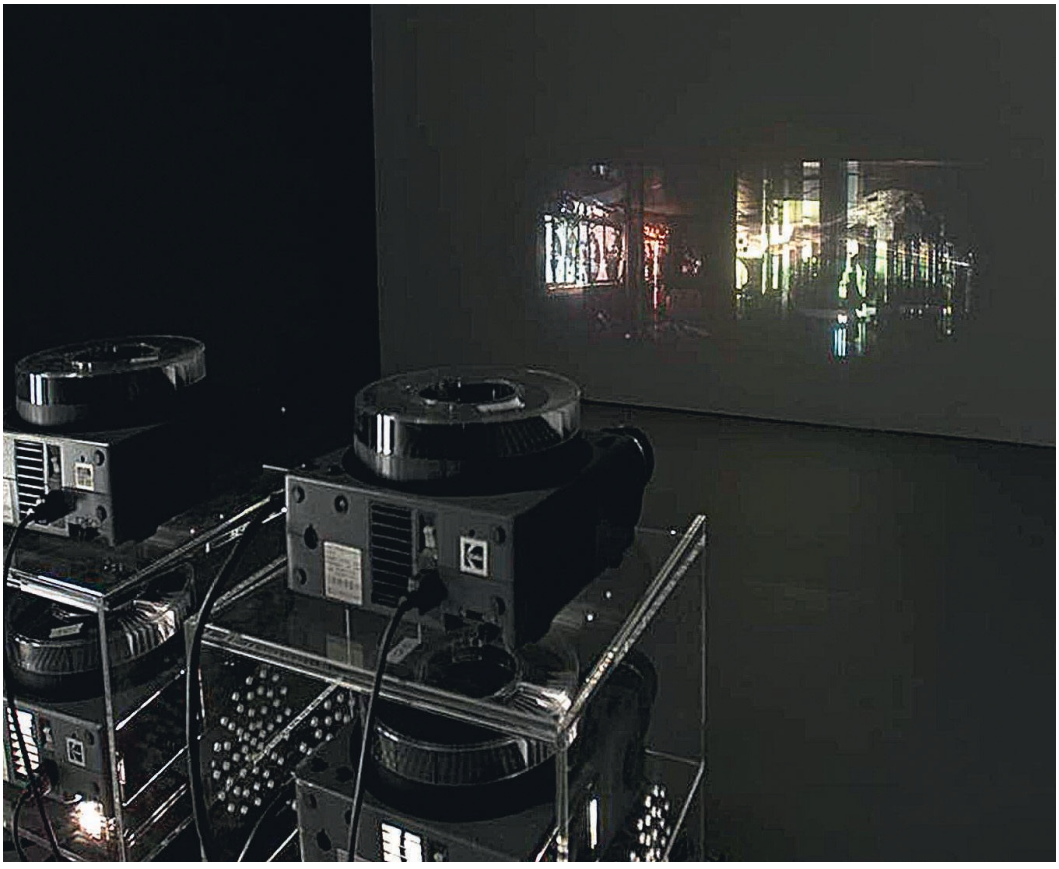

Fig. 2. Armando Andrade Tudela, *Casas Alteradas*, 2006, Tate Modern. © Armando Andrade Tudela/Tate Photography.

projector in spare parts. All of these assessments operate within an uncertain environment; the only certainty is that at some point in the future the technology is not going to be supported. The skills involved in producing accurate analogue duplicates and digital scans involve many years of training. There are few people with this training, and even fewer who have the patience and sensibility required to work with artists' material. For these works there is a point beyond which the conservator must draw on expertise from a wider network and translate this for the benefit of the conservation of these time-based artworks.

Similarly for software-based art, even a small collection will contain code written in many different languages. It is beyond any individual to be able to have a deep understanding of all of these languages. In a recent interview, the artist David Rokeby talked candidly about his concerns regarding the code which forms an integral part of his work *The Giver of Names* (1991-). He talked about the difficulty in finding people with the requisite skills, who are sympathetic to the way in which an artist works, about the significance of the code, and about the difficulty of resurrecting the work in the future as 'there is no specification except that it should work like it used to work and there are things that may not seem like good programming practice which are there on purpose.' [15] This interview highlights the need to find individuals who not only have this expertise but who also have an empathy with the work of a given artist.

The range of required expertise identified in just the two examples discussed above indicates that new models are needed if museums are to find sustainable ways to respond to new and disparate forms of artistic practice. Around any complex artwork, there is a possible or existing network of people who have the expertise and knowledge necessary to support that work. Experience is teaching us that the conservation of these artworks is as much about the development or preservation of these networks or ecosystems as it is about the object in isolation.

Artists at times are frustrated with the lack of time and attention that is available for each work, even in museums with relatively large conservation departments. Where skills might be taught to members of staff but not then exercised for many months, or even years, it is easy to see why some artists prefer to have a team of their assistants or producers managing the installation of their works. As museums we need to be more open to these types of collaborative models whilst being mindful of their implications.

It is important to recognise the skills that conservators contribute in helping to successfully bring these works into collections, working with the different stakeholders and thinking in a structured way about the management of a work across time. However, there is a point where the conservator cannot develop all the in-depth expertise demanded by these works, and a more distributed model is needed, supported by new

alliances both inside and outside the museum. The challenge is to build sustainable networks that can support our collections; foraging for the expertise needed and maintaining these networks, not as a peripheral part of the role, but central to what it means to be a time-based media conservator. While this need might also be felt in other areas of contemporary art conservation, the extent of the challenge posed by time-based media works of art points to at least a partial explanation of why time-based media conservation has developed as a distinct area of the field. It also provides an indication of how this might develop in the future; recognising a far broader multidisciplinary approach, drawing on expertise beyond the confines of the museum.

Conclusion

This paper began by considering the institutional, historical development of four models that have been adopted by museums in response to the need to develop strategies for the conservation of time-based media works of art. It has also briefly explored five key ideas that are fundamental to how this new conservation discipline approaches the conservation of time-based media artworks. These questions in turn served to highlight the nature of the challenge and the types of expertise needed to support the conservation of time-based media works of art.

Different institutions have responded differently to the need to conserve time-based media works of art depending on specific historical circumstances and contexts. As we develop an ever clearer understanding of what it means to conserve time-based media works of art, it is clear that there is value in a broadly defined interdisciplinary approach. This points to a requirement not only for new forms of expertise but also a more open approach to the networks needed, both inside and outside the museum, to support these forms of artistic practice.

Notes

1. Legally Tate can only accession works for which it has title, hence it is unable to accession licensed works in distribution from organisations like Electronic Arts Intermix (EAI).
2. The department name was changed again in 2009 to the Department of Media and Performance.
3. Graham and Sterrett, 1997, 1.
4. Sadly NIMk closed in December 2012.
5. Matters in Media Art, 2004.
6. Hawley quoted in Powell & DiMaggio, 1991, 66.
7. Powell and DiMaggio, 1991, 76-77.
8. Laurenson, 2001, 2004, 2008, 2010.
9. An example of such a heroic effort is that undertaken by the artist Tacita Dean, who is campaigning to win support for the proposal for UNESCO to recognize the medium of film as world cultural heritage.
10. Danto 1981, 1.
11. Falcao, 2010, 27.
12. Bradley and Esche, 2007; Bishop, 2006; Doherty, 2004.
13. Laurenson, 2008.
14. Weidner, 2012.
15 Dipple, 2010.

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