

CONSERVATION IN THE 21ST CENTURY: MATERIALS, CONCEPTS AND AUDIENCES

Conservation is a field of inquiry focusing on the ways cultural heritage is preserved, enjoyed and used. It encompasses professionals from different disciplines who often have different views on the realisation of its aims and objectives. Conservation practice varies widely around the world. In some countries it is a traditional craft with skills obtained through apprenticeships, while in others it is studied at postgraduate level and requires accreditation from a professional body. In summary, conservation is an interdisciplinary field, with multivocality and diversity in both theory and applied practices which need to be embraced. Repair of damaged objects has been practiced from the beginning of modern civilisation, with objects made by craftsmen or artisans considered too precious to be discarded once damaged. Instead these objects were repaired and reused even if their original function and appearance were compromised. The opening of museums in the 19th century signified the professionalisation of museum practices. Conservation was carried out by highly skilled craftsmen and artists, and was established as a profession in the 20th century with a number of international organisations laying out principles and codes of practice. This professionalisation followed to a certain extent the general developments which were happening in museums and society at large. The field evolved from an artistic, craft-based profession into one based on scientific inquiry. In the last two decades the approach has changed again to reflect a new understanding of the way cultural heritage is viewed and used. As a result, conservation has moved towards a values-based practice, where the significance and values an object carries are also to be preserved along with the material. More recently, the focus has shifted to a people-centred approach. The field will continue to evolve, each change reflecting wider societal changes and needs that require evaluation and adaptation.

One of the most significant changes is in the way we study, understand and use objects to inform and educate audiences about the past in a more inclusive way. Objects are no longer solely material testaments to the past. They are part of a wider narrative. It is imperative to accentuate such changes in attitude while recognising that it takes time for practices to evolve, and, more importantly, that this does not happen concurrently around the world. This chapter discusses current challenges, how these affect the profession's *raison d'être* and how these can be used to unite a highly fragmented field.

DRIVERS FOR CHANGE IN CONSERVATION

Museums are multi-headed institutions with diverse aims and objectives. Over the last few decades the focus of museums has shifted from collections to audiences. Objects have stories to tell and museums can no longer exist as exclusive warehouses; they are institutions with many functions, the most important of which is to serve the public¹.

In addition to the new and expanding roles museums play in society, museums embrace openness, inclusivity and engagement with local communities with a number of social, political and economic implications at managerial levels and ripple effects in the way a collection is cared for, conserved and used.

EVER-EXPANDING COLLECTIONS, MODERN MATERIALS

From newly excavated objects to collections from indigenous cultures and contemporary art, the number of objects collected is constantly growing, and museums need to conserve and store them. Each collection brings a new set of challenges.

With collections from indigenous and world cultures the focus relies on the significance of objects for the users. In countries like Canada, the US, New Zealand and Australia there is a new paradigm when it comes to the way cultures are represented and objects are used and conserved, with communities being directly involved in decision-making.

The use of modern materials in contemporary art raises new technical and philosophical questions. Ephemeral media, kinetic art, performance art, installation art and the issue of technologies becoming obsolete all bring complex challenges, with the expected lifetime of an artwork being a primary concern (fig. 1). In addition to this, consumer goods that are created with a predetermined shelf life are becoming part of today's collections. Plastics include a broad range of polymers which for environmental scientists are a nightmare due to the time it takes for them to decompose completely, but for conservators are a challenge to preserve as they deteriorate at a fast rate, altering the original appearance of an artefact.

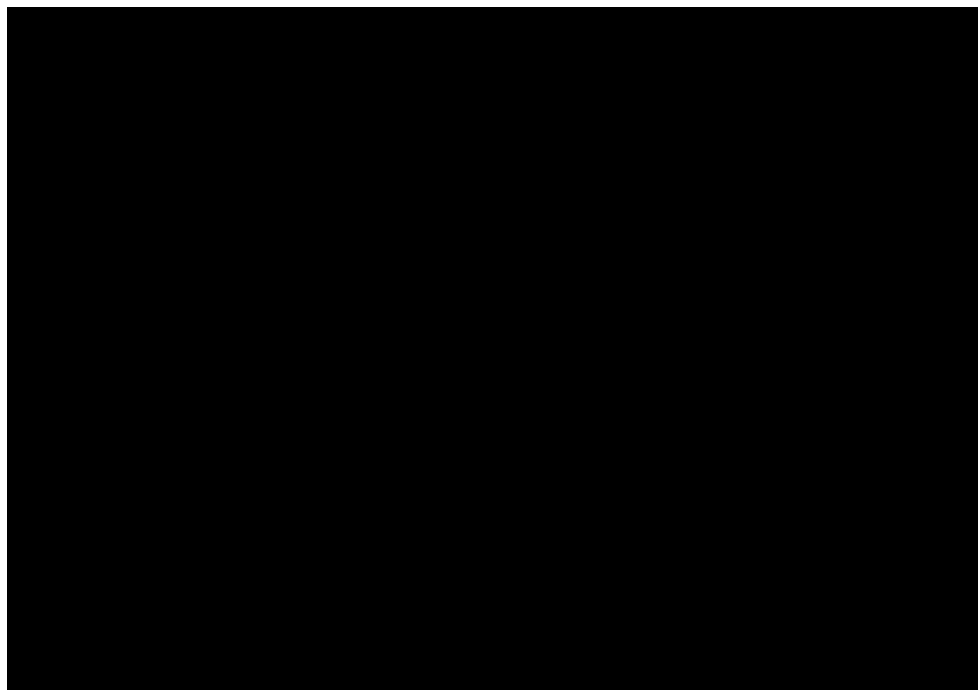
All these factors force the field to develop beyond traditional practices and signify a new era in the way conservation and curatorship are practiced. They demand early-on collaboration between conservators and artists, curators, and other custodians. Artworks existing in a material form can be replaced or reproduced. Materiality and the dematerialisation of art are very complex topics and are beyond the scope of this paper. Art will continue to find new, creative ways of expression. For some, the materiality of an artwork plays a very significant role and needs to be accounted for and preserved, while for others the material medium is unimportant. Artwork that is distributed solely via the internet, known as net art, is an example where there is no physical evidence of the artwork with the exception of the digital archive storing it. Still there is need for archiving and storage.

Conservation of contemporary art needs to take account of why something is preserved and for whom. The conservation of artworks requires new methods of preservation which might not necessarily involve a static form, but document the intended creator and user experience.

NEW ECONOMIC REALITIES

The sources of museum funding can be diverse, from public funding to private endowments, grants, sponsorships and internal/commercial revenue. Nevertheless, the majority of museums – especially those run by small, local and special interest groups – rely on governmental support and/or sponsorships. Museum funding is dependent on a number of factors, with recent analyses showing that political decisions regarding public funding affect museums more than economic crises, which, however, still affect sponsorships or endowments². Diversifying funding models can provide financial sustainability to museums and their various operations. Reduced funding leads to a diminishing of resources such as museum jobs and a reduction of supplies. As a result, many museums opt to hire conservation managers who are authorised to make decisions in relation to what needs to be conserved and what resources are required. But a flexible approach in relation to treatments and procedures followed is necessary. An example of this is the use of a risk management approach as a quick way to identify and eliminate hazards to a collection³ assisting in setting up priorities based on resources available.

Fig. 1 Damien Hirst's »The Miraculous Journey« was installed in Doha in 2013. Within a few years the silicon bronze sculptures were covered with dust and corrosion streaks. The artwork was cleaned in October 2018 and is now open to the public. – (Photo S. Golfomitsou).



One of the main questions here is the extent to which conservators could or should forgo their professional principles to follow a less rigid approach to conservation. In addition, how can this be done in a way that it is safe for the objects? Raising funds requires skills conservators do not usually have and staff training is necessary to support long-term agendas.

There is a real need for low-cost, sustainable solutions in museums. A number of museums have extensive programmes for volunteers who are called on to take up complex roles. As conservation is a specialised field, volunteering is less common. It is, however, clear that conservation in the broader sense, including preventive measures for environmental control in storage and exhibition galleries, takes up a considerable proportion of funding.

SPECIALISATION AND FRAGMENTATION

Conservation includes conservators, scientists, architects, managers, archaeologists and art historians, to name but a few, each of whom displays differences in education and specialisation. One paradox is that although the widening of the scope of museums requires conservators with general skills, new specialisations keep emerging as new types of objects and media are collected. One example of this is the new time-based media specialisation announced by the New York University's Institute of Fine Arts Conservation Center in 2016⁴.

It is fair to say that specialisation in conservation is a necessity given the diversity in types of collections and materials. However, it can also lead to further fragmentation of roles in the profession. This fragmentation is observed at all levels (e. g. academics/researchers v. practitioners) and specialisations. As a result, professionals form smaller groups to communicate with and attend more specialised conferences and meetings. The sheer number of national and international conferences held each year makes it both financially and physically impossible to keep up with all of them. In addition, some conferences, such as the triennial In-

ternational Council of Museums Committee for Conservation (ICOM-CC), offer parallel sessions, making it difficult to attend sessions outside one's immediate field of interest. The biennial congresses of the International Institute for Conservation of Historic and Artistic Works (IIC) are usually thematic, thus mainly attracting professionals interested in the topic. Added to these are conferences which have a specialised focus and are particularly attractive to specialists. Emerging issues may be raised at different venues/in different specialised fields with little crossover dialogue. ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property), an intergovernmental organisation promoting heritage conservation, has run forums on a number of subjects. In 2013 the focus was on conservation science. The outcome of the forum was a critical reflection of the field and the way forward⁵. Although these forums have only a limited number of participants, they are necessary to instigate discussions on the bigger issues related to conservation. Such exchanges increasingly include professionals outside conservation to offer a broader view on the issues discussed. The launching of the European Research Infrastructure for Heritage Science (E-RIHS) is a new initiative to bring together researchers from Europe and beyond to support and enhance research efforts in relation to »heritage interpretation, preservation, documentation and management«⁶. Through this project a number of efforts are made to bring together a significant number of researchers; however, in addition to this the field needs to reflect on the bigger issues and communicate with professionals from related disciplines.

CHANGES IN MANAGEMENT

Museums, like other organisations, need to demonstrate their benefit to society. Key performance indicators (KPIs) are used in certain countries to quantify visitor numbers, visitor satisfaction, revenue generation, learning and outreach and other aspects⁷. KPIs are of great importance to help management realign strategic goals. Scholars argue that museums need to accept that museums can serve different purposes and use management models accordingly⁸. A. Hatton argues that an alternative would be »speciation« of museums where different museums will serve distinct purposes with leadership development and strategic thinking being the way forward⁹.

Conservation should be included as a service and purpose of the museum. Conservation activities require dedicated and specialised staff, facilities, equipment, consumables and a substantial annual budget. The activities surrounding conservation are not usually visible to the public, even though a number of museums offer behind-the-scenes tours or carry out conservation in galleries or behind glass viewing panels to allow the visitor behind-the-scenes access. It is imperative that outreach and learning activities include conservation, which can offer an insight into the way objects are made and conserved. On the other hand, conservation management should also adapt to meet bigger organisational goals. One should acknowledge that changing organisational culture and patterns are a difficult task, but effective management is possible when activities are aligned under a shared vision¹⁰. Any changes will be slow to be accepted, as staff will be retained even if the management style changes.

An example of how conservation can be part of the strategy is the use of participatory processes involving stakeholders in the conservation of objects and monuments. One example of this is Room of Marvels of the Zoetemeer Museum in the Netherlands, where the local community was involved in the overall process of »making heritage«. This approach creates a dialogue and a new relationship with stakeholders¹¹ who share responsibility with professionals. It is important to state that these relationships and decisions are not easy or common when it comes to large (universal) museums, as in these cases the definition of stakeholders is a lot more complicated.

Each of these approaches has consequences that could potentially affect the long-term preservation, display, interpretation and authenticity of an object.

SHELF LIFE OF OBJECTS

There is no definition of what the »shelf life« of an artwork or an object can be, yet conservation continues to invent methods to preserve both the notion and the material. Should the artwork be left alone until there is a need for intervention or should conservation start from the moment of acquisition? Is documentation replacing conservation, will we reach a point where artworks will be just archived photos and videos of the original? All these are issues conservators need to deal with. As museum collections grow exponentially, the cost of maintaining them in museums becomes unsustainable. Deaccessioning objects is not very common in archaeological or historical collections. Scholars and museum managers often argue that objects can be deaccessioned and sold to raise funds for the collection. However, this raises criticism and questions regarding ethics and the responsibility of museums to the public¹².

Preservation through documentation

Numerous documentation methods are used in conservation. Reflectance Transformation Imaging (RTI), 3D Structure from Motion (SfM), Graphics Interchange Format (GIF), Multispectral Imaging and videos are some of them. When it comes to installation art or art made of ephemeral media, documentation is particularly important as it may be the only way to preserve an artwork. The storage of such data is a new challenge, as 2.5 quintillion bytes of data are created every day¹³. As this number will keep increasing, the storage of the data and the format/s to be preserved will entail a substantial annual cost.

USE OF SOCIAL SCIENCES IN CONSERVATION PRACTICE

Conservation endeavours are shaped by the cultural milieu from which they originate, which in turn is set within a broader socio-economic, geographical and historical context. C. Kreps discussed the need to liberate ourselves from the Eurocentric Western models of practices in museums in order to have more voices and perspectives represented in practice¹⁴. Conservation is practiced worldwide and there are a number of unwritten, often unknown factors influencing the way it is done. Even though it is not easy to accept, we must acknowledge that conservation has the power to alter objects. An example of this is cleaning. Cleaning is an irreversible step in conservation, yet we do it to present the object in its »original form«, which, however, ceased to exist a long time ago. During the conservation process we interpret the object and choose (in collaboration with curators and other professionals) which value/s is/are most significant for the object and should be preserved or even enhanced through conservation. Only in recent years have conservation projects begun to incorporate research on public perception (**fig. 2**) and the input of social scientists¹⁵.

Social media

Social media offer different ways of communicating with the public. Awareness of current issues is raised and online visitors learn from other professionals in the field. Behind-the-scenes stories fascinate the public



Fig. 2 Coming Clean researcher Flavia Ravaioli during the public perception surveys at the National Trust property of Attingham in the United Kingdom. The public was asked to select the acceptable level of dust on the boards and fill out an attitudes questionnaire in relation to the cleaning of the property. – (Photo S. Golfomitsou).

and museum professionals make use of them. The notion is that social media can connect people and offer an additional avenue to discuss conservation practices around the world. An obvious question is the depth in which professionals engage and discuss certain issues on social media, especially given language and cultural barriers. An additional concern is that not everyone is prepared to engage in social media discussions or raise critical questions on public platforms. Universities and well-established institutions make significant efforts to encourage online debate, with attempts to answer live questions by curators and even more advanced services, such as »Ask a Curator« or »Ask a Conservator«, the latter being led by the conservation team of the Leeds Museums and Galleries. Professional social media bubbles still limit communication to known circles sharing similar views. Nevertheless, it is a start, and it will be only a matter of time before these expand to include professionals from different contexts.

CONCLUSION

As S. E. Weil rightly points out¹⁶, tomorrow's museums cannot be operated with yesterday's skills. Like other museum professionals, conservators need to adopt an open mind in relation to their responsiveness to new realities. Expertise and specialisation are admirable, but before getting to the actual hands-on work of conservation, conservators need to gain a holistic understanding not only of the collection but also of the museum and how it makes use of it for the benefit of the public. There is a need to find creative ways to respond and adapt to the public's requests. Flexibility in the way we carry out conservation means that conservators are active participants in the museum as an organisation in a broader sense. It is necessary to appreciate that new management models require time to be accepted. As many new tasks go beyond traditional training, museums should invest in training personnel to be able to fill the new roles. Educational programmes also need to contribute creatively to prepare professionals with skills that will allow them to deal with new complexities as well as to adapt to future changes following holistic needs assessment prac-

tices. In summary, conservation is evolving, following the bigger changes observed not only in museums but also in the wider audiences they serve. This new era will bring to the fore new forms of practices which currently do not fit existing models.

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Notes

- 1) Weil 1999.
- 2) Lindqvist 2012.
- 3) Brokerhof/Bülow 2016.
- 4) New York University 2016.
- 5) See Heritage/Golfomitsou 2015.
- 6) www.e-rihs.eu/about/about/ (13.09.2019).
- 7) See for example the Performance Indicator Guidance from the Department for Culture, Media and Sport of the United Kingdom, 2013/2014: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/477934/Performance_Indicators_Guidance.pdf (13.09.2019).
- 8) Hatton 2012.
- 9) Hatton 2012.
- 10) Jung 2016.
- 11) Meijer-van Mensch 2013.
- 12) See Vecco/Piazza 2015.
- 13) Marr 2018.
- 14) Kreps 2003.
- 15) See www.comingcleanucl.com (13.09.2019); Dillon et al. 2014.
- 16) Weil 1999.

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Konservieren im 21. Jahrhundert: Materialien, Begriffe und das Publikum

Konservierung ist ein sich kontinuierlich weiterentwickelndes Forschungsfeld. Objekte verändern sich im Laufe der Zeit in vielfacher Hinsicht, wobei der Wandel durch den unvermeidlichen Verfall des Materials verursacht oder mit der Bedeutung der Objekte verbunden sein kann. Natur- und sozialwissenschaftliche Entwicklungen bereichern unaufhörlich die Art und Weise, wie Objekte untersucht, dokumentiert und behandelt werden. Bei zeitgenössischer Kunst wird heute die Intention des Künstlers mitbetrachtet und verschiedenste Interessensgruppen haben Zugang zu weltweiten Kultursammlungen, wobei das Publikum nicht länger die Rolle des passiven Zuschauers, sondern vielmehr als aktiver Mitwirkender einnimmt. Darüber hinaus hat sich der Fokus des Konservierens von einer ausschließlichen Betrachtung des Materials hin zum Einbeziehen der Funktion von Objekten erweitert. Zudem verändert sich die Wahrnehmung von Werken in Museen. »Neue« und soziale Medien sind mittlerweile zentrale Faktoren des Besuchererlebnisses, gleichzeitig steigt die Anzahl behandlungsbedürftiger Objekte und die zur Verfügung stehenden Mittel schrumpfen. Die wachsende Bedeutung der Museen in der Gesellschaft stellt eine Herausforderung für die Art und Weise dar, wie das Konservieren umgesetzt wird. Dies macht Veränderungen nötig, um die Zukunft des Berufsfeldes auch in Zukunft sicherzustellen.

Übersetzung: A. Kleuser

Conservation in the 21st Century: Materials, Concepts and Audiences

Conservation is an evolving field. Objects change over time, in multiple ways – changes can result from the inevitable deterioration of materials or can be associated with meaning. Developments in the natural and social sciences continue to enrich the way we examine, document and treat objects. Contemporary art is now approached by considering artists' intent and world culture collections are accessed by different interest groups where audiences are no longer passive viewers but rather active contributors. Expanding to notions of function of an object, conservation has shifted beyond only the material. In parallel, the perception of works in museums is changing. »New« and social media have become central to visitor experience just as the number of objects needing treatment grows and funds shrink. Indeed the expanding role that museums play in wider society now challenges the way conservation is conducted, making changes necessary for the sustainability of the profession.