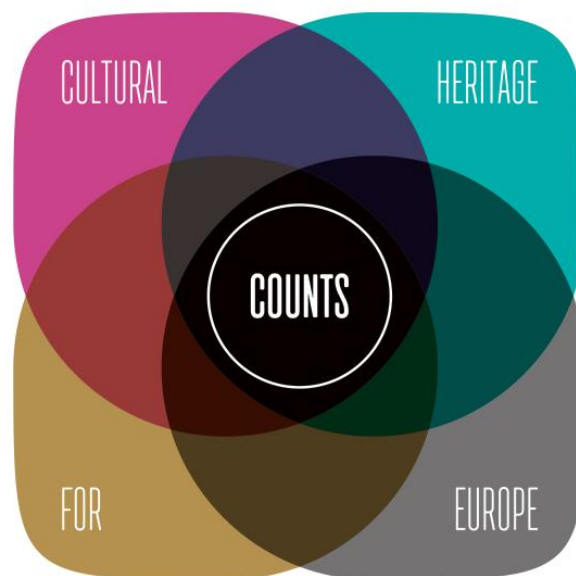




DEPARTMENT OF CONSERVATION

PERSPECTIVES ON SUSTAINABILITY

In Cultural Heritage Conservation



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Degree project for Bachelor of Science in Conservation
2020, 180 HEC
Second Cycle
2020:26

Perspectives on Sustainability in Cultural Heritage Conservation

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ABSTRACT

In the last few years, 'sustainability' has become one of the greatest and most inevitable topics of discussion. Investigating contemporary approaches to sustainability in the cultural heritage sector shows how current development needs are perceived in order to better address the future.

In the field of cultural heritage management, an increased focus on sustainability is both a stress factor and an opportunity. Despite the challenges and issues caused by development needs, increasing motivation seems to be the current direction within the field.

This thesis aims to investigate contemporary approaches towards sustainability in the cultural heritage sector and how it affects the field of cultural heritage conservation. With a starting point in the United Nations Sustainability Development Goals 2030 Agenda, examples of how the increased focus on sustainability manifest itself within the cultural heritage sector will be analysed through qualitative studies of selected study material.

Despite being a small field in a small sector, cultural heritage conservation must face the demands for sustainable development like all other sectors within our society. Society determine the preconditions for cultural heritage management, regardless of the individual's approach to sustainability, the world is changing and so are the conditions for cultural heritage. Conservation of large selections in museum and art institutions is often of great costs, and the professional cultural heritage conservator has great impact on the overall management of cultural heritage. Therefore, the cultural heritage conservator can contribute to sustainable development in various ways. However, requirements for sustainable conservation procedures and new approaches to materiality are not always easily compatible with contemporary theories of conservation, why further discussion on contemporary theories of conservation should be revised to ensure the high professional standard. The profession of cultural heritage conservation has strong global networks, and with international cooperation and implementation of sustainable procedures in everyday practice, the engagement of professionals within the cultural heritage sector contributes to sustainable development.

Title: Perspectives on Sustainability in Cultural Heritage Conservation

Language of text: English

Number of pages: 36

3-5 Keywords: Agenda 2030, sustainable development, heritage sector

ISSN 1101-3303

ISRN GU/KUV—20/26--SE

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1. INTRODUCTION

1.1 Background and Research Problem

With the United Nations' formation of the *Global Sustainability Development Goals 2030* (SDG 2030), sustainability is one of the most crucial topics in the present.

The term 'sustainability' describes an approach to meeting development needs, often with specific efforts to ensure that our current way of life does not negatively affect future generations (UNAI 2020). The increased focus on sustainability calls for advancement of the cultural heritage sector and generates new approaches towards cultural heritage management. Cultural heritage conservation is one of the most resource demanding fields within cultural heritage management, at least when it comes to collection care and conservation treatment of larger selection of objects. Major issues include energy and water consumption, material consumption and waste, and the use and disposal of harmful substances.

Despite this, the cultural heritage sector is small and its relative impact on world development rather insignificant, compared to larger sectors such as industry and transportation. To some, this means that sustainable development in cultural heritage management can seem less important. Does the development of sustainable conservation practice make a difference in the whole? Do we really have to develop new ways and improve conservation procedures, perhaps at the expense of the material cultural heritage we strive to preserve? It seems so. Despite being a small field in a small sector, cultural heritage conservation must face the demands for sustainable development like all other sectors within our society. Society determines the preconditions for cultural heritage management, and regardless of the individual's approach to sustainability, the world is changing and so are the conditions for cultural heritage.

1.2 Objective and Aim

The objective of this thesis is to investigate contemporary approaches towards sustainability in cultural heritage management and how it affects the field of cultural heritage conservation.

The aim is to lay a foundation for further individual work resulting in a scientific thesis, that should contribute to a collection of essays devoted to perspectives on sustainability in the field of cultural heritage conservation, distributed by the *Sustainability in Conservation network*. The goal of this collection of essays is to contribute to a shared understanding of what it means to work sustainably and how the field is approaching the issue.

1.3 Research Questions

- 1) *What are the contemporary approaches towards sustainability in the cultural heritage sector?*
 - How does cultural heritage management relate to the United Nations Sustainability Development Goals 2030?

- How do new approaches towards sustainability manifest itself within the Swedish cultural heritage sector?
- 2) *How does an increased focus on sustainability affect the field of cultural heritage conservation?*
 - What are the ethical complications between new assets in the cultural heritage sector and the ethical guidelines of the profession of Conservation-Restoration?
 - How can we assess the expected climate changes and their consequences for the cultural heritage?
 - How do we engage practitioners within the profession to promote sustainable practice?

1.4 Methodology and Material

This thesis is divided into two parts: the first section is a comparative analysis of contemporary approaches towards sustainability in the Cultural Heritage Sector, the second section is focused on sustainability in the field of cultural heritage conservation.

The first section of this thesis will take its starting point in the *United Nations Sustainability Development Goals 2030*. Further analysis will be based on qualitative studies and intends to investigate practical examples of how the increased focus on sustainability is evident in the cultural heritage sector. Study material will consist of published material from on-going research projects, scientific writings, international guidelines and charters and material obtained from two conferences: *Climate Conference* held at the Museum of World Culture in Göteborg, Autumn 2019, and NCK's Annual Spring Conference *Shaping a Sustainable Future through Heritage* held at Jamtli Museum in Östersund, Spring 2020.

The selection criteria for the study material have been topicality, reliability, and its ability to exemplify approaches toward sustainability in the cultural heritage sector. It is selected with the intention of covering a broad section of the cultural heritage sector by presenting both national and international projects. The sources consist of a selection of universities, acknowledged international organizations, scientific journals, and acknowledged global conservation networks.

The second section of this thesis consist of a discussion on how the increased focus on sustainability affects the profession of cultural heritage conservation, mainly based on scientific publications from conservation associations and own reflections. Discussion of ethical aspects will be based on contemporary ethical charters as presented by ICOM-CC.

1.5 Previous Research

This thesis is based on research presented on the two conferences previously mentioned and publications from acknowledged international conservation associations.

Research presented at conferences includes various scientific projects, subjects for further studies including *Staying (With) Things: On Circularity, Heritage and Future* (Staffan Appelgren, University of Gothenburg), and *The Dead Fall, World Heritage and UN:s*

Sustainable Development Goals (Anders Hansson, Jamtli, and Peter Ladan, Världsarvsbolaget Ragundadalen). Additional study material includes research project *Re:Heritage* (Centre for Critical Heritage Studies and the Museum of World Culture) and conference presentations by Swedish Council for Higher Education (*International opportunities for sustainability?* by Sanna Holmkvist and Maria Wennberg) and Mid Sweden University (*Preserving archival records for the future – for whom, and for what purpose?* by Samuel Edquist).

The discussion on sustainable development of cultural heritage conservation is based on revision of the global network *Sustainability in Conservation (SiC)* and scientific writings published in *Journal of the American Institute of Conservation* (the American Institute for Conservation, AIC), *News in Conservation* (International Institute for Conservation of Historic and Artistic Works, IIC), *Conservation Perspectives GCI Newsletter* (The Getty Conservation Institute, GCI) and *Journal of the Institute of Conservation* (International Centre for the Study of the Preservation and Restoration of Cultural Property, ICCROM). The collection of scientific writings includes research on risk assessments (*Preparing for the Future: Mitigating Disasters and Building Resilience in the Cultural Heritage Sector* (Macalister 2015)), education within sustainable management (*Teaching Sustainable Collection Care* (Pearlstein 2017)) and approaches towards sustainable conservation (*Sustainability, Access and Process in Conservation* (Getty Conservation Institute 2018)).

1.6 Limitations

When it comes to research on sustainability related to cultural heritage, the amount of material is overwhelming, and it will be impossible to report all relevant information within the framework of this thesis. Examples are individually selected, framed, and presented in order to illustrate arguments within a manageable span. This means however, that the study material shows only some perspectives on sustainability in the cultural heritage sector. The practice of selecting and framing examples is a strategy for persuasion, and this thesis cannot be exempted from this method. The intention is to present a broad, general exemplification of how the increased focus on sustainability affects the field of cultural heritage conservation, and the selection of study material restricts to what is considered most relevant for the aim of this thesis.

The cultural heritage sector is not defined as a delimited part of society within the theoretical framework of this thesis. The cultural heritage sector is in this thesis a unifying term for all work within cultural heritage and its management. This, of course, causes uncertainty of which specific areas within the field of cultural heritage are included in this study. The intention has been to choose a selection of study material that shows aspects of sustainability in the cultural heritage sector relevant for cultural heritage conservation.

1.7 Theoretical Frameworks

Sustainability is the central concept in this thesis, but sustainability is a broad term and the caption itself does not delimit its span. Sustainability is an entangled academic, political, and societal field, and the term is highly normative, depending on the context in which it is used.

In 1987, the *United Nations Brundtland Commission* defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” In other words, ‘sustainability’ is a term that signifies an approach on how to meet development needs, often with specific efforts to ensure that our current way of life does not negatively affect future generations. This is also the prevailing definition within the framework for this thesis, the aim originating from the *United Nations Sustainability Development Goals 2030 Agenda*. This definition is the very basic and should thus be used accordingly.

Comparative analyses are made with a holistic approach, looking at the manifestation of approaches towards sustainability in modern society in general (represented by SDG 2030) as well as in the cultural heritage sector.

Exemplarity serve as an effort to better combine theory and practice. It seems to be a useful tool for researching and communicating a phenomenon such as sustainability, which is both specific and abstract. Exemplifying approaches towards sustainability in the cultural heritage sector is a way to understand how sustainability through cultural heritage management is made socially and culturally meaningful (Kverndokk 2019). Exemplarity is in this thesis a demonstration of examples that illustrate how approaches towards sustainability manifest themselves in the cultural heritage sector. It is a way of broadening the discourse of what role sustainability plays in the management of cultural heritage.

Ethical theories will lay the foundation for a discussion on complications caused by new approaches towards sustainability being somewhat incompatible with contemporary ethical theories in the profession of Conservation-Restoration.

2. ANALYSIS – *Cultural heritage and sustainability*

2.1 Cultural Heritage and SDG 2030

The perhaps most significant manifestation regarding sustainable development is the formation of the *United Nations Global Sustainability Goals 2030 Agenda* (SDG 2030). The SDG 2030 Agenda consists of 17 goals of sustainable development (Fig. 1, p. 12). It is a collaboration between almost 140 countries, seeking ways of how to meet the needs of the present without compromising the ability of future generations to meet their own needs (UNAI 2020). In other words, it is a collaborative effort to ensure that the development today does not negatively affect future generations.

The SDG 2030 Agenda includes sustainability goals related to a wide spectrum of environmental, societal, and economical aspects of human activity. It holds large quantities of different ambitions, but the overall idea is that we as a world community unite and work towards a common understanding – to care for our planet and the people who populate it.

It is a common view within the cultural heritage sector that with responsible use of cultural heritage, the sector has the potential to contribute greatly to the enhancement of the sustainability development goals (NCK 2020).

Many of the sustainability development goals are interconnected, and the cultural heritage sector can relate to most of them - more or less directly. It is a broad consensus that the field of cultural heritage has a reach that extends far beyond its own sector. Besides developing sustainable procedures for cultural heritage management, the sector can contribute to the enhancement of SDG 2030 by using cultural heritage to promote sustainable living - be it from an individual, professional, or societal perspective. It has the capability to build awareness, illustrate, educate, inspire, and motivate. It can make the abstract, distant, and unrelated accessible.

Material culture plays an active role in these qualities of cultural heritage, both being shaped by and shaping the ways people interact with material resources. It leads to a broader and richer understanding of how ‘things’ are involved in the constitution of identity, social, cultural and symbolic aspect of society and culture (Appelgren 2018).

“Imagine a world without cultural heritage collections: no more libraries, archives, museums, treasured artefacts in temples, cultural centres, and communities. How big a difference do you think this would make in your life?”

In a survey from 2019, ICCROM asked this single question to investigate how important cultural heritage collections are to society. Out of 2400 responses from 102 countries, over 90% said that the lack of cultural heritage would have at least a large impact on their lives. Two out of every three people said it would make a huge difference (ICCROM 2019). The survey question does not cover the aspect of whether the responders find the lack of cultural heritage a loss or a gain to society, but it shows that even in today’s fast-changing world, people in general care about cultural heritage collections. And as long as people care about cultural heritage collections, the cultural heritage sector remains important to society.

SUSTAINABLE DEVELOPMENT GOALS



Fig. 1. The United Nation's Sustainability Development Goals 2030.

2.2 Sustainability in the Cultural Heritage Sector

The increased focus on sustainability is expressed in almost all areas of modern society, be it advertisement from private enterprises or institutional policies for strategic development. Especially the increasing threat of climate crisis is an imminent concern in many sectors within our society. But how does this increased focus on sustainability manifest itself in the cultural heritage sector?

To make new approaches more tangible is to investigate specific examples of sustainability-related movements in recent times. This includes examining different activities and discussions on sustainability, including both local exhibitions, national conferences, and global organizations.

The following examples has been selected to exemplify the contemporary approaches towards sustainability in the cultural heritage sector:

- UNESCO Chair on Heritage Futures (United Nations)
- Conference *Shaping Future through Heritage* (Nordic and Baltic countries)
- International heritage networks (Global)
- The Heritage Academy (Sweden)
- Exhibition *Human Nature* (Gothenburg)

UNESCO Chair on Heritage Futures

Institutions and organizations have a great impact on the preconditions for cultural heritage management including most of the work by conservation professionals. One of the most important of such organizations is the *United Nations Educational Scientific and Cultural Organization (UNESCO)*.

The UNITWIN/UNESCO Chairs Programme is an executive part of UNESCO's Policy Action towards the enhancement of the SDG 2030 Agenda. The Chairs Programme consists of over 700 Chairs, with 30 of these relates to cultural heritage. The Chairs Programme aims to build bridges between academia, civil society, local communities, research, and policymaking.

In 2017, UNESCO Chairs and UNITWIN Networks in Natural Sciences met in Geneva, to engage a reflection on how to best contribute to sustainable development. During this conference, the Chairs and Networks built synergies and pooled resources to promote international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work.

Since 2017, the UNESCO Chair on Heritage Futures has been held by Cornelius Holtorf, Professor of Archaeology and Director of the Graduate School in Contract Archaeology (GRASCA) at Linneaus University in Kalmar, Sweden.

“The UNESCO Chair on Heritage Futures aims to build global capacity for future thinking in the heritage sector. Heritage Futures are concerned with the roles of heritage in managing the relations between present and future societies, e.g. through anticipation and planning.”

- Cornelius Holtorf, UNESCO Chair on Heritage Futures 2020

The ambition is to develop professional strategies that can enhance how heritage shapes the future through questions such as: Which future do we preserve the heritage for? Which heritage will benefit future generations most? How can we build capacity in future thinking among heritage professionals worldwide?

At NCK's Annual Spring Conference in Östersund February 2020, Holtorf presented the current work of the UNESCO Chair on Heritage Futures.

In his presentation *Sustainable Futures for Heritage* Holtorf discussed some of the relations between future, sustainability and cultural heritage, by addressing the question: Why deal with future in the cultural heritage sector – is the future relevant to heritage? Holtorf argues that future is important for heritage management, because heritage is at risk due to various threats - while at the same time it is unique, irreplaceable, and inherently valuable, so that it must be preserved for the benefit of future generations (Holtorf 2020).

Yet 'the future' is not an easy framework. How do we know what future generations need? Is the future knowable at all? For whom do we manage cultural heritage? Which SDG 2030 is more important? These questions are a part of the UNESCO Chair's work when striving to build capacity for future thinking among heritage professionals.

Shaping Future through Heritage

An example of a manifestation of approaches to sustainable development within the Nordic cultural heritage sector is a conference that took place in Östersund February 2020. The Annual Spring Conference held by *The Nordic Centre of Heritage Learning and Creativity* was centred around how cultural heritage can be used in order to move towards a more sustainable future by addressing questions such as: How do we position the future as something we can shape in the present? How do we position sustainability as something that affects and concerns everyone? How do we fill these words with meaning and content?

The two-days conference was held at Jamtli Museum and was aimed at development towards a common approach that highlights how the future is continuously shaped by our present-day actions, instead of seeing the future as an abstract and distant entity. The ambition was to prepare the sector to meet other demands and expectations that a different future will place on heritage management, and – ideally – make the sector an active creator of a more sustainable future.

With the intention to initiate a broad discussion, the conference hosted speakers from different Nordic universities, museums, and archives. They presented their sustainability projects, exemplifying how the cultural heritage sector can act in order to contribute to the ambitious sustainability development goals. The conference also included workshops in which each participant actively contributed to discussions and exchanges of ideas and perspectives that could benefit the heritage sector, including discussions on how different fields within the large heritage sector may have different approaches to the future.

Presentations and discussions were related to the SDG 2030 goals: *Climate Action*, *Peace, Justice, Strong Institutions* and *Reduced Inequalities*, and divided into three sub-themes:

- *Conflict Resolution through Dissonant Heritage*: How can the heritage sector use contested heritage in order to shape more sustainable futures?
- *Creating a Future of Diversity through Heritage*: How can the heritage sector help accommodate a future of diversity?
- *Heritage and Climate Change*: How can the heritage sector address the global challenge of climate change?

Presentations that exemplified how cultural heritage can contribute to the enhancement of SDG 2030 of *Peace* and *Justice* were related to conflict resolution. The research projects concerned long term perspectives on dissonant heritage, as well as the potential for commemorative periods, the role of tourism in facilitating transformative dialogue (autoethnographic journeys through contested spaces), and heritage dissonance in politics and pluralist societies, moving from the ghettoization of conflicts).

Exemplifying how cultural heritage can help accommodate a future of diversity with contribution to the enhancement of SDG 2030 *Strong Institutions* and *Reduced Inequalities* were research projects on how to include refugees through heritage learning (heritage learning methodology), for whom and for what purpose we preserve archival records, and how refugee heritage will shape future heritage management.

Climate changes are perhaps the most imminent threat to modern society and probably the greatest focus of sustainable development today. Climate changes are of one of the greatest concerns in the cultural heritage sector and the selection of projects exemplifying these issues included aspects of circularity in relation to heritage and future and the development of new exhibition rooms with innovative techniques. Workshops were focused on bridging ages and the use of waste material to design creative solutions by developing and sharing ideas on how to make society more sustainable.

International Heritage Networks

A considerable aspect of sustainable development is internationalization. The cultural heritage sector's capacity of pursuing SDG 2030 is increased with international programmes and tools (NCK 2020). The formation of global sustainability organizations and international associations show the awareness of the necessity of global thinking for sustainable development. This also affects national policy making and agreements determining the preconditions for local cultural heritage management.

The cultural sector has long been dictated by the fact that cultural heritage is often interconnected and relates to more than one community or cultural group. We often speak about 'World heritage' and 'World heritage Sites'. The well-known *UNESCO World Heritage List* is an example of this widely shared view on a "common cultural heritage". International relations have a huge impact on both sustainable development and management of cultural heritage. An example of international relations affecting the common cultural heritage is the attack on the world heritage site of Palmyra. The American attack on the Syrian world heritage site has resulted in the loss of irreplaceable material cultural heritage.

Global thinking is necessary for broad discussions of development strategies and important exchange of knowledge and experiences. Sustainable development by pursuing the SDG 2030 requires greater impact than national approaches alone can provide - it requires a global perspective. The cultural heritage sector has great potential to further develop international work and collaborative care of cultural heritage – at regional, national, and global levels. Today's approaches towards international cooperation for advancement of sustainable cultural heritage use and management can be exemplified with the formation and development of several international networks. Some examples of important international associations working to promote sustainable development of the Swedish cultural heritage sector are *Erasmus+* (Europe), *Nordplus* (the Nordic countries), and the *Climate Heritage Network* (global).

The various international networks cover a wide range of ambitions related to various SDG 2030, e.g. sustainable development through inclusion and equality, sustainable development through conflict resolution and sustainable development related to climate change.

The potential of these international associations lays in the opportunity to use common resources strategically (NCK 2020). International networking is a way to inspire and be inspired, find partners in collaborative projects, conduct international courses and conferences, develop skills by sharing and taking part in research such as case studies, reports and other publications, initiate broad discussions and keep updated on guidelines, and policies. Engaging in international collaborations increases the competences of cultural heritage institutions and practitioners, increasing the capacity for sustainable development of the cultural heritage sector.

The Heritage Academy

Where international associations have broader reach and bigger capacity for pursuing SDG 2030, national and regional heritage associations are just as crucial for sustainable development. Collaborative work on a national or regional level has alternative qualities and can sometimes be more accessible and effective than working at an international scale.

Organizational and institutional heritage work such as collaborative research projects, events, or exhibitions, often benefit from partnerships between local institutions that have somewhat similar preconditions, ambitions, and methods. Working in the same region often generates discussions and exchange of experiences and ideas that better relates to all participating agents.

There are several smaller associations collaborating on sustainable development in the Swedish cultural heritage sector, both at national and regional level. They often cooperate with bigger organizations and institutions, with the aim of broadening their reach and increasing their capacity for financial support and resources. An example of this is the *Heritage Academy*, which is a collaboration between the *Centre for Critical Cultural Heritage Studies* at the University of Gothenburg, *Västarvet/Region of Västra Götaland*, the *Regional State Archives* in Gothenburg, the *Swedish National Museums of World Culture* and *Museinätverk Väst*. The *Heritage Academy* is a part of the global *Climate Heritage Network*, which with over 70 arts, culture and heritage organizations from around the world aim to emphasize the role these sectors can play in achieving the ambitions of the Paris Agreement and SDG 2030 (CCHS 2020, p. 13).

Throughout the year of 2020, the *Heritage Academy* focuses on “*Cultural heritage and global challenges*” with the overall idea to see the cultural heritage as a resource for sustainable development (the *Heritage Academy Annual Newsletter* 2019).

The work of the *Heritage Academy* illustrates how regional cooperative work can result in more projects orientated the local community, such as local conferences (e.g. the *Heritage Academy’s Spring Conference* concerning Cultural Heritage and Agenda 2030) and seminars (e.g. on the importance of heritage, art and creativity for human survival and wellbeing). With a starting point in the close relation between participating institutions, the work is adjusted to common preconditions and interests. An example of this is the *Heritage Academy’s* distribution of the podcast series ‘*Inside the Box*’ that focuses on different issues in heritage, current discourses and research on materiality in a globalized world. The collaborative project is produced by the *Centre for Critical Cultural Heritage Studies*, the *Museum of World Culture* and *Folkuniversitetet*. In each episode, a cultural heritage object from the museum’s collection is presented to a selection of researchers, writers, curators, and artists with following debate on the object’s historical context and how it relates to contemporary societal issues. This is also a fine example on how material cultural heritage is used to initiate discussions and can be viewed from different perspectives according to varying approaches.

Human Nature

A specific example of how cultural heritage can be used to promote sustainable living is the exhibition *Human Nature*, presented by the *Swedish National Museums of World Culture*. *Human Nature* is on display at *The Museum of World Culture* in Gothenburg from the 8th of February 2019 until May 2020. The exhibition will then move to *The Museum of Ethnography* in Stockholm where it will be on display from Autumn of 2020. The exhibition aims to promote sustainable living by making awareness of the need of reducing the costs of world resources, especially by decreasing mass consumption (SMVK 2019).

The exhibition *Human Nature* invites the visitor to follow some of the threads in our tangled world. It is all connected: how we live our lives is closely related to the state of our earth. There are other relationships with earth than just as a resource for human needs.

Our excessive consumption is a huge problem, yet there is a strong wish for change around the world. (The Swedish National Museums of World Culture 2019).

“It's about the biggest societal change we are faced with today. Based on current scientific research as well as unique collections and objects from around the world, we want to contribute with knowledge and perspective related to the situation of today, and perhaps even inspire to a more sustainable way of life in the future.”

- Ann Follin, Director General of the Museums of World Culture

Additionally, the exhibition *Human Nature* is an example of cross-disciplinary cooperation between scientific research projects and cultural heritage institutions. One of the scientific research projects that has contributed to the exhibition is *MistraSustainableConsumption*, a large investment in science financed by *Mistra*, the Swedish Foundation for Strategic Environmental Research. The research program aims to develop guidelines for how to corporate enterprises, politicians, decision makers and the civil society can make it easier to consume in a more sustainable way.

Regarding research on cultural heritage, the exhibition has cooperated with social anthropologists on the research project called *Re:Heritage* which explores the relationship between humans and things. Another part of the exhibition shares new scientific results from an international study in environmental psychology that shows how human and societal gains can motive people to implement environmental improvements – regardless of whether the individual believes in climate change:

“This is not just a dark and sad story. There is a lot of hope through all the initiatives that are created around the world, and hopefully the visitor will be inspired. As consumer and citizen, you can make a difference – we can all contribute to change through the choices we make.”

- Lena Stammarnäs, exhibition curator of *Human Nature*

2.3 Current cultural research

Investigating current cultural research is a way of getting a broader insight in contemporary approaches to sustainability in the cultural heritage sector. Research programmes exemplify how the sector prioritizes areas of cultural heritage research to better address sustainable development. It identifies how theoretical approaches, debates and directions are expressed in scientific research. There are numerous research projects to exemplify the scientific research of the cultural heritage sector, beyond what is possible to cover. A single topic has been chosen to illustrate an aspect of cultural research. For the purpose of keeping close to the field of cultural heritage conservation, two research programmes on materiality has been selected: *Re:heritage* and *Staying (with) Things*.

Re:heritage

Re:heritage is a research project that focuses on the circulation of material culture on the second-hand market from a heritage perspective.

The research is based on a combination of qualitative methods, such as archival studies, text- and image analysis, as well as ethnographic fieldwork. Re-use and second-hand integrate heritage and sustainability, but the primacy of recycling and recovery is that it often reduces cultural, social, and historical value of objects (Re:heritage 2017).

It is an entirely new approach to the change and development of material cultural heritage, where authenticity lays in the material it-self and its context, not in the state or history of the object. It is an approach where objects are not what they were made to be but what they have become - an approach not easily compatible with contemporary theories of conservation.

Most cultural heritage studies tend to primarily focus on material culture associated with 'legitimate' and recognised forms of heritage - high valued cultural heritage objects found in public institutions. Re:heritage works with a broader approach, creating an alternative field of material heritage by extending the context of material cultural heritage, focusing on small-scale entrepreneurs and shops, as well as private individuals. The project wishes to develop theoretical perspectives on the circulation of material culture with heritage values, such as authenticity and stability of materials, as well as deepen the understanding of an expanding economy based on circulation, shared ownership, and reuse - issues of great significance for sustainable development (Appelgren & Bohlin 2015).

The research is particularly interesting for cultural heritage conservation since the circularity of materials and heritage demands alternative and vernacular forms of preservation.

Re:heritage covers a broad selection of research topics related to circulation of material cultural heritage resulting in different publications and reports of fieldwork. Published works include cultural research on areas such as the re-definition of heritage (e.g. second-hand as "living" or "growing" heritage) by investigating intangible dimensions of material heritage (Appelgren & Bohlin 2015), the reuse of textiles with focus on material and cultural wear and tear (Palmsköld 2015), and the assemblance of nostalgia as a device for affective caption (Brembeck & Sörum 2017).

Re:heritage is also an example of how cultural heritage research can be part of cross disciplinary projects. Re:heritage is an international cooperative that consists of six researchers from the University of Gothenburg collaborate (*School of Global Studies, Centre for Consumer Science and Department of Conservation*), and three in the United Kingdom (*Department of Cultural Geography, Durham University*). The research programme also illustrates how cultural research can collaborate with cultural heritage institutions to promote sustainable development:

"Our current project Re:heritage focuses on how people's relationships to things go beyond language, and it is therefore exciting to work with museum educators and exhibition producers who are used to thinking creatively about how to involve our bodies, senses and emotions. It is also a challenge not to communicate through traditional academic writing, but through specific parts of an exhibition. How do you capture the interest of a ten-year-old? How do you communicate sustainability issues to teenagers? Is it possible to do both at the same time?"

- Anna Bohlin, social anthropologists at the School of Global Studies.

Staying (with) Things

The research programme *Staying (with) Things: Alternatives to Circular Living and Consuming* is a project founded for 2020-2023 by the Swedish Research Council. In contrast to research on circularity as in *Re:heritage*, *Staying (with) Things* focuses on of how and why people form lasting relationships to things and how preservation can be an alternative to circular living and consumption.

The research originates in the intersection of material culture, heritage, and sustainability - in the interplay between intangible and tangible aspects. This is an area of high relevance for cultural heritage conservation because conservation work is strongly determined by the approaches towards material culture and preservation.

Member of the research project and co-leader of the research cluster *Making Global Heritage Futures* of the Centre for Critical Heritage Studies, Staffan Appelgren, is a senior lecturer in Social Anthropology at the School of Global Studies, University of Gothenburg.

At *NCK's Annual Spring Conference: Shaping Future Through Heritage*, Appelgren presented the recently initiated project. Appelgren describes how the change of approaches towards a circular economy can be an issue in cultural heritage management.

Conventionally, cultural heritage is produced and performed as a human-centred activity based on the work of categorizing material into the “valuable” and the “valueless”. Cultural heritage conservation is often limited to treating the “valuable” cultural heritage - materials that for various reasons are considered worth preserving.

In a circular economy, this dichotomy dissolves because the category of ‘waste’ (or “valueless” material) ideally will disappear as all materials are seen as valuable resources (Appelgren 2018). This poses issues to the field of cultural heritage conservation. What are the implications for notions of ‘preservation’ and heritage ‘value’ when the circulation and perpetuation of materials become mainstream societal practice?

3. OBSERVATIONS AND COMMENTS

3.1 The Cultural Heritage Sector and SDG 2030

The overall tendency within the cultural heritage sector is that the SDG 2030 Agenda is a global collaborative - a team with the same goal, and as a team member, the cultural heritage sector should take great responsibility. A way to take responsibility is to promote sustainable development. This is best done with a shared understanding of sustainability, figuring out just what this means and how to induce it in everyday practice.

The many manifestations of sustainable movements in the cultural heritage sector – such as sustainability conferences, research projects and exhibitions - indicate that the common belief is that with deliberate use of cultural heritage, the cultural heritage sector has the potential to contribute to the enhancement of SDG 2030. It further appears that a common view is that the field has a reach that extends far beyond its own sector. It can be an inspiring, motivating and educating contributor to sustainable development, adding to a wide range of sustainability development goals.

There is an awareness that this is not always easily done, and that pursuing some sustainability development goals may affect others negatively. With the use and management of cultural heritage the sector must consider both sustainable development of the sector itself and its affection on civil society.

3.2 A Shift in Approaches

Investigating examples of sustainability movements within the cultural heritage sector shows some aspects of how sustainability is perceived and how we address the future. New approaches towards sustainability is evident within the cultural heritage sector and current cultural research, and with its close connection and co-development with civil society the cultural heritage sector is somewhat representative for the common tendencies in modern communities.

The way we address development needs has somewhat changed within the last few years. Former rhetorical practice has somewhat represented a notion of cultural catastrophe by calling upon a fear of an uncontrollable disastrous future (Kverndokk 2020). Now we see a shift from this negatively emphasized approach towards a more positive mind-set, moving away from exemplification of devastating consequences, towards a common ambition for a better tomorrow.

This swift in mental approaches is most likely to result in development strategies build from hope and solidarity, where communities support a sustainable way of living - a society with a common ambition to develop conscious institutional sectors where it is beneficial to implement sustainable actions.

Discussions about sustainability has one of the most demanding and tangible frameworks – future. When promoting sustainable development, we try to position the future as something we can shape in the present. But we know nothing about the future - other than that it lies beyond today. It is impossible to predict the future, no matter how intensively we work. As American philosopher-sociologist Steve Fuller illustrates it: *“You can be sure that if a model says the world will end in 50 years, the model itself will be gone in 25”*. All we can do is base our strategies on what we observe in the present, why sustainable development requires a trust in science and an acceptance of uncertainty.

A common focus is that we can act preventive, yet we have no guarantee that our efforts are effective or even helpful. We know nothing about the future, but we can address it through anticipation and planning (Holtorf 2020). The cultural heritage sector must adjust to sustainable development to ensure that heritage can exist in the future. Though the future is indefinite and a ‘sustainable future’ can seem utopic, it is believed that sustainable development is not unachievable – and that sustainable development is a path towards sustainability.

International associations state that the resources for development of the cultural heritage sector are there, our capacity depend on whether we use them strategically. Cultural heritage institutions around the world have common challenges – we do not have to re-invent the wheel, but we must develop new methods together. This implicates that you take part in other’s ideas and let them take part in yours. Developing the competence for professionals working within the field of cultural heritage increases the total capacity of the sector.

Possitopians

The direction of more positively emphasized approaches to sustainable development can be illustrated with an example from one of the most acclaimed and progressive heritage institutions working for sustainable development. *The Climate Museum UK* advocates the notions of “Possible Culture” and “Possitopian”. This refers to the idea that cultural organisations *may* continue to exist despite climate emergency (McKenzie 2018). The belief is that the world’s cultural heritage institutions can promote a future with the existence of cultural heritage by accessing climate change with sustainable development. This requires a cultural heritage sector that can identify imminent challenges, imagining possible futures, and be relevant to its community. It is a greatly expanded perspective, an approach that is much more open to realities, to diverse perspectives and future possibilities. Being Possitopian make you less likely to be fixed into positions of either doom or hope.

“Being Possitopian means both facing the worst and imagining the best, in ways that are both much more rational and critical, and much more creative and open-minded. And also, it means anticipating the future much more frequently, in many more situations and permutations, involving a greater diversity of people. Managing the risks of the planetary emergency is not about working out the best response to the most likely outcome, it is about determining the best response to the full distribution of possible outcomes.”

- Bridget McKenzie, founder of the Climate Museum UK

4. DISCUSSION – *Cultural heritage conservation and sustainability*

4.1 Sustainability and Cultural Heritage Conservation

Looking at sustainability in the field of cultural heritage conservation is a way of exemplifying how sustainability actions can be implemented in cultural heritage management in order to promote the development of a more sustainable cultural heritage sector – and a more sustainable society.

Conservation – preventive and active - is often of great cost, both in terms of material resources and demanding procedures. Considerations about sustainability in cultural heritage conservation is a way of thinking of costs. And an important part of sustainable development is to reduce costs, both in terms of decreasing consumption of natural resources and the proportion of the sector's total capacity.

The use of harmful substances and the disposal of chemicals and waste are common issues affecting health and environment. For professionals working with management of large collections, e.g. in conservation departments at museums or art institutions, issues such as large material consumption and climate regulation are common issues (Pearlstein 2017). This includes the use of disposable equipment (plastic gloves and materials for packing and storage), energy and water consumption (magazine maintenance inclusive integrated pest management and remediation), and conservation treatment, including health prerequisites such as air ventilation and the disposal of harmful substances (Southwick 2019).

Conservation professionals strive to preserve highly valued material cultural heritage in the best possible way. With the current development, considerations about sustainability is often incorporated in how we wish to work as a united conservation community.

The professionals of cultural heritage conservation have formed a strong professional network with acknowledged international conservation associations and organizations.

International associations are often seen as authorities that highly influence the common conservation practice. Conservation associations such as *The International Institute for Conservation of Historic and Artistic Works (IIC)* and *European Confederation on the Conservator-Restorer Organizations (E.C.C.O)* have in recent years begun to promote sustainable development of conservation practice. Associations and departments focusing on sustainable development has been established, i.e. *ICOM Working Group on Sustainability* and *AIC Sustainability Committee*.

IIC brings attention to sustainability by publishing articles about sustainability in their popular journal *News in Conservation*, introducing organizations and movements promoting sustainable development. In 2019 the journal published a featured article about the exponentially growing organization *Sustainability in Conservation (SiC)*.

“SiC hopes that by creating a platform for sharing information in real time and encouraging more collaborations, professionals can obtain access to the types of research and information. (...) Ideas and tips, research projects, and innovations can be accessed by the global community instantaneously, fast-tracking the movement toward sustainable thinking and treatments”

- Caitlin Southwick, founder/executive director of SiC, 2019.

Still, sustainable development being possible does not mean that it comes without costs. These days, the approach towards sustainability is predominantly positive. It is the common approach that sustainable development is a challenge, yet favourable. But sustainable development often evolves on the expense of other features that benefit the current generation – be it on a financial, social, or individual level.

Overall sustainable development includes sustainable economies, but for the individual practice, this may not be so simple. New requirements and demands caused by the common aspiration towards sustainable development affect the areas within the field of cultural heritage conservation differently. For some conservation practices, sustainable development will improve the current working conditions, having a positive impact on economy and health. For others, it may be the exact opposite due to different preconditions.

The costs of making thorough risk assessments and other preventive conservation, may consume resources that otherwise could have been used for current interests such as active conservation treatment or exhibitions. Improving sustainable actions can degrade the current generation's exploitation of material cultural heritage. But is the future more important than the present? Should we hide away artifacts in climate friendly magazines to preserve them for future generations, or exhibit them for the benefit and pleasure of the current generation - at the expense of natural resources and long-time preservation? If delimited to either or, who should benefit from material cultural heritage, the present or the future generations? It comes down to the question: *shall we be sustainable for future generations at the expense of generations today?*

4.2 Ethical Aspects of Sustainable Conservation

As cultural heritage professionals, conservators take part in deciding how material cultural heritage is preserved and used, for how long, at what costs. This comes with responsibilities and ethical dilemmas, increasing with the ambition of sustainable development. For whom do we manage cultural heritage? Which sustainability development goals are more important? Deciding what cultural heritage is most valuable, lowering costs and prioritizing resources includes complex issues. Because for whom and for how long we strive to preserve material cultural heritage varies due to the various context of conservation work.

Actions taken to safeguard material cultural heritage such as conservation and restoration varies due to the intention, beliefs and ethics of the professionals working within the field of cultural heritage management. Yet some common approaches are widely accepted as general principles and obligations for the profession of cultural heritage conservation. These principles are often established by acknowledged international associations, an example being the *Code of Conduct* (formerly *Code of Ethics*) from the *Institute of Conservation* (ICON 2014).

This *Code of Conduct* lists professional guidelines for specific activities and ethical responsibilities of professional conservators, as assigned by the *European Confederation of Conservator-Restorers' Organisation (E.C.C.O.)*.

Contemporary theories of conservation state that conservation work should be defensible according to a well-defined aim of treatment, reversible interventions, and an outcome easily distinguishable from the original remnants - in order to maintain the object's integrity and authenticity. These contemporary theories of conservation are not always easily compatible with requirements for sustainable conservation procedures and new approaches to materiality.

This introduces new questions to the field of cultural heritage conservation: What ethical considerations are more important, sustainable procedures or preservation of the objects and its integrity? How do we prioritize conservation needs and select which cultural heritage objects are worth preservative actions - what determines whether conservation treatment is necessary or not? We cannot predict exactly which ethical approaches individual conservation professionals value the most, but these new ethical considerations will have an impact on conservation strategies such as choice of treatment, selection of objects and collection management.

It is impossible to form universal professional guidelines that are applicable for everyone at all time, and that is why professionals working within the field of conservation – and cultural heritage management in general - keep discussing possible solutions and ethical codework. How do we act when contemporary guidelines are not enough? Has the time yet again come to review international codes of conduct for the profession of conservation and adjust the guidelines according to the *Global Sustainability Development Goals 2030 Agenda*?

Accessibility

Ethical theories of conservation include the aim of making material cultural heritage more accessible and beneficial for as many as possible. To make the cultural heritage sector more inclusive and material culture accessible for more cultural groups, objects may be exhibited more, sometimes with transfer between institutions and exhibitions. Sometimes at long distances and across borders.

This transfer process includes transportation, work resources and possible treatment needs, unavoidably with consumption of materials and impact on the environment.

Transportation and the increased use of resources have a negative impact on sustainable development related to environment and climate change. It would be less exhaustive on world resources and result in lower CO₂ emissions to keep the cultural objects stored in suitable magazines designed with climate friendly systems – and thus more environmentally sustainable. The conservator's ethical concern is then what is more important - to make the world's material cultural heritage accessible for as many as possible, such as ethical theories of conservation predict, or to have as little damaging impact on the environment as possible, pursuing the sustainability development goals of climate action and environment?

Resource Distribution

According to the professional guidelines presented by the *European Confederation of Conservator's-Restorer's Organisations*, the decision and design of any conservation treatment – whether being less interventive such as cleaning or more comprehensive such as restoration - should be carried out by well-educated professionals, and approached from scientific analysis based on thorough investigation of the object (E.C.C.O 2011). The procedures should be continuously documented to secure accessible knowledge of the object's antiquity, incl. description of its historical context, former condition, treatment, outcome, and the experiences of the professional working with the object.

This can be very time consuming and create great demands on work resources. Working resources and time spent per object are costs that affects the energy, water- and material consumption, and thus the total expense of natural resources. Development towards more sustainable conservation practice requires decreasing the amount of costs per object, but contemporary ethical theories of conservation dictate working procedures with systematic and thorough handling of all cultural heritage objects. Reducing costs per object may accordingly be reducing the care of each object.

Considering resources and costs, some conservation treatment may be omitted, and though this may seem reasonable, there is an ethical clash in the deselection of certain actions in the management of the cultural heritage objects.

Material Resources

A great aspect of sustainable development is the need to ease the exhaustion of natural resources, and thus reduce material consumption. For cultural heritage management of large collections, this includes decreasing the amount of materials used for e.g. packing and storage. Sustainable actions such as this may be implemented at the expense of the objects by lowering storage and handling conditions. This is most likely to be a problem for conservators working with large cultural heritage collections, where the practitioner is often constrained by institutional decisions that may require change of strategies, including ethical considerations on how to balance between sustainable conservation procedures and long-time preservation of objects.

Re-use

The aspect of re-using equipment and packing materials is a concern for all conservators striving to work in a sustainable way. Even if the re-use of some materials is considered appropriate, re-using can clash with a strictly ethical approach favouring the objects over sustainable methods, because re-use of materials may lower treatment and storage conditions. Some packing and storage solutions can be improved rather simply without greater ethical dilemmas, procedures not directly affecting the objects – re-using cotton gloves instead of disposable plastic gloves and re-using mouth filters when possible. Other sustainability actions may however diminish the treatment and storage conditions for objects. An example is the re-use of uncontaminated tissue paper used as interlayers for rolled textiles. Re-use of paper will cause a less smooth paper surface, possibly affecting the surface fibers of the fabric negatively.

4.3 The Conservator's Sustainable Potential

The belief is that sustainable conservation practice can contribute to the enhancement of *SDG 2030*. But when it comes to the greater picture, exactly how much of a difference can we do in the field of cultural heritage conservation? And what can we do to promote sustainable development of the profession and of the society?

Conservation procedures are strongly related to environment and health affecting sustainability development goals such as *13. Climate Action*, *6. Clean water and sanitation*, *12. Responsible consumption and production*, *3. Good health and well-being*, and *7. Affordable and green energy*.

Furthermore, conservators have a great impact on the overall management of cultural heritage, and can - with the use of material cultural heritage - advance the cultural heritage sector into an inspiring, motivating and educating contributor to sustainable development, adding to a wide range of other sustainability development goals.

But how do we do it? How do we contribute to sustainable development keeping our high standards and professional integrity?

The Importance of Caring

Professional cultural heritage conservators tend to have high standards and ambitions, yet they often work under a lot of constraints. Institutional policies and decisions determine work strategies based on economic prerequisites and organizational procedures. Pursuing sustainable development is not always straightforward, and the individual practitioner may not have ideal preconditions. Conservation work are often restricted by delimited financial reserves, lack of work resources and the conservator's overall position in decision-making in administrative issues.

This can make it hard to have a positive mind-set and pursue sustainable development with all the challenges it generates. When funding is short and the outcome may have a limited impact at a larger scale, it can seem as if the biggest challenge is to maintain motivation and your own capacity to care. Why should we strive to develop a society where caring is important? Why strive to make a small sector such as cultural heritage management sustainable when the impact on a larger scale may be insignificant? These considerations are like those found when looking at individual engagement such as sorting waste or decreasing consumption and CO₂ emission. Does it matter? Why try to act sustainable when positive results are not given beforehand?

A reason could be that caring is likely to benefit you - both directly and subsequently as an effect of a well-functioning society. Psychological studies indicate that caring affects personal well-being positively (Inagaki 2017). Caring is a way to deal with mental challenges, such as pre-traumatic stress syndrome of anticipating future catastrophe due to climate crisis. We must act if there is a future and believe that what we do influences has an effect on sustainable development long term. Aiming for the possible is the foundation for development. And development is the foundation for living. Caring is a strategy to aim for the possible, a way of living. Aiming for the possible is to work effectively, with beneficial intentions, so that you have a positive impact on your own well-being and society development. Acting responsibly is an ethical necessity for a functional society and a functioning self. Acting responsibly requires caring, and caring is to act sustainable.

So how do we care? We are concerned about our own health, other's health, object's health, environmental health. We are critical about new sustainable actions and needs. We cooperate to determine which actions are necessary for a more sustainable profession, which actions should have the highest priority and what is realistic to implement in daily practice. New ideas and expectations must be based on what is realistic in the conservation treatment and collection management, in order to be implemented at all. Greater actions require more deliberation and research before initiated.

Some aspects of sustainable development are beyond our reach as a profession, but cultural heritage conservators have much sustainable potential. We take part in deciding how material cultural heritage is preserved and used, for how long, at what costs. We act responsible in our own procedures and methods - we consider green solvents, recycle materials when appropriate, and re-use equipment when appropriate. We improve the use and maintenance of our tools to last longer and consider treatment priorities in a responsible way, thereby omitting less important treatment. We favour preventive conservation and design well-planned strategies to avoid temporary storage, unnecessary use of disposable materials and decrease work resources and time consumption.

However, besides ethical considerations, being critical about implication of new procedures is also crucial for keeping a high professional standard. This includes various considerations in choosing an approach to sustainable development – both concerning object treatment and everyday procedures. An example can be the specific issue of the consumption of material resources, where an ongoing debate revolves around what is more sustainable; the re-use of materials (incl. actions taken to prepare the materials for recycling) or keeping an approach which favours single-use materials but with improvement of its disposal.

This is also an example of some of the more extensive sustainability actions often requires interdisciplinary cooperation. Being critical on the implementation of new materials (e.g. green solvents and surfactants, long-lasting materials for packing and storage, and fully degradable single-use equipment) requires an intersectional approach - research and sparring with other society sectors such as manufacturing industry and waste management.

Preconditions

Sustainable potential and possibilities for the development of sustainable conservation practice depend on the institution's capacity and willingness to support sustainable conservation and collection management. The preconditions determine what is possible for the individual practitioner.

Economical aspects and terms of employment determine how large a capacity there is for sustainable development. Institutional policies control the preconditions for conservators working within collection management, and the small conservation business may not have the economical capacity for more sustainable but expensive materials and equipment.

Collection management of large collections are in general often very resource heavy, especially in terms of energy and water consumption for climate regulation and remediation of magazines, and materials for packing, storage, and transportation. The water- and energy consumption and amount of waste relates to various issues concerning sustainability, an example being CO₂ emission, exhaustion of natural resources and working costs.

A key factor is to identify issues and adjust sustainable development to the individual practice. What are the main sustainability issues where you are? What are the needs of your agency? What competencies do you need to develop? And then do the best you can under these conditions.

An example of specific circumstances that illustrates how different preconditions cause different sustainable development needs, is the concern of water quality.

The problem can be how to determine development needs for the individual practice and which sustainable actions should be implemented, when the knowledge and experiences of the conservator and science in general is somewhat delimited.

Risk Assessments

Long term planning incl. risk assessment is necessary in a sustainable approach. Risk assessment is a part of responsible preventive conservation, and a thorough and detailed maintenance plan is often more sustainable because of the decreased costs and less damage to the objects. Improving risk assessments is a way to assess the expected climate changes and their consequences.

Risk assessment require analysis of both objects and collections, in both private and institutional conservation practices. For objects, risk analysis concerns whether treatment is necessary and what the consequences of treatment (or lack of treatment) are - short and long term. To detect changes and block the risks is less resource demanding – thus more sustainable – than active conservation treatment. Treating the risk instead of the object is often more sustainable, with less intervention yet long-lasting preservative efforts, such as actions of flood protection.

4.4 New Assets and Research

Engagement and commitment from the practitioners are crucial for sustainable development. But how do we engage practitioners within the profession to promote sustainable practice? How can we identify, adapt, and integrate sustainability actions in the conservator's daily work? How do we sort new information and develop new procedures – while keeping our high professional standard?

Motivation and engagement require education and continuous updating, why we need relevant information to be presented in an easily accessible way.

Collecting information and directing it at conservation professionals in its entirety makes the material more manageable, eases understanding and increase relevance. Creating a well-informed conservation community is a way to educate and engage more conservation professionals in sustainable practice. Discussions, exchange of ideas and experiences, and published information on new research and activities are necessities in developing a common knowledge of sustainability in the field of cultural heritage conservation. Collaborating and learning from each other help overall education, a sustainable action it itself - when you do it right the first time, you will avoid the costs of redoing it.

The global community *Sustainability in Conservation* is growing to be one of the biggest resources for the development of sustainable conservation. Building awareness through conferences, social media, a monthly newsletter, and by word of mouth, *SiC* has successfully demonstrated how sustainability can be linked to conservation (News in Conservation 2019).

SiC is a global organization collecting all things sustainable – providing resources, information, and educational programmes. The webpage is a central point of reference for a network of conservators internationally. This network allows conservators to address issues regarding sustainable development, discovering solutions and relevant research.

SiC unifies researchers from all over the globe to supervise the development of sustainable treatments and methodologies with reliable information, facilitated by various programmes and platforms.

The website has even information from other sectors and professional fields tackling the issue, such as built heritage, chemistry, and universities.

SiC partners with, and highlights, other organizations within cultural heritage which are also engaging in sustainability, such as *AIC Sustainability Committee* and *he Coalition of Museums for Climate Justice*.

One of the strongest qualities of this organization is its ability to qualify new research and distribute it to the conservation community in a motivating and accessible way. The *SiC* webpage contains sections of Tips and Tricks, digital handbooks and toolkits, educational programmes (e.g. the *Student Ambassador Programme*), research projects, webinars, and newsletters.

Research projects include topics that are truly relevant for conservators such as green solvents and recycling of disposable gloves.

Furthermore, *SiC* holds surveys that are extremely useful in prioritizing sustainability actions and adjusting these according to the various practices with different preconditions (Fig. 2)

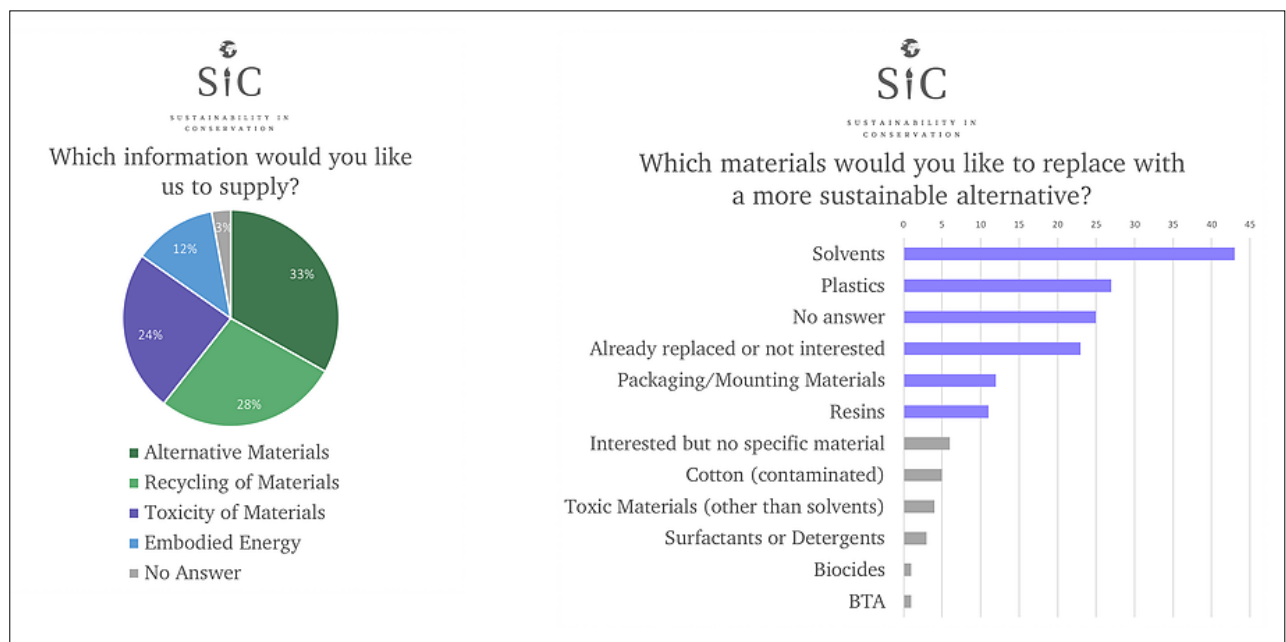


Fig 2. Sustainability in Conservation Surveys (14-04-2020)

5. CONCLUSION

Within the field of cultural heritage management, an increased focus on sustainability is both a stress factor and an opportunity. It is impossible to predict exactly what consequences new approaches to sustainable development will have on the management of cultural heritage, but changes are unavoidable. These changes will have an impact on the way we approach material cultural heritage including its conservation.

The continued interest in sustainability affects the preconditions for cultural heritage management and the way we work as cultural heritage professionals - it will influence available resources, work procedures, and ethical approaches to how we use and treat cultural objects.

Some objects are seen as unique, irreplaceable, and inherently valuable cultural heritage, and it is our responsibility to manage and preserve it in the best possible way. Professional guidelines present ethical theories of conservation that are sometimes incompatible with guidelines for sustainable practice. It is not possible to form universal codes of ethics that applies everywhere always, yet the common view within professional associations is that conservators must promote preventive conservation and responsible use of collections.

Despite the challenges and issues caused by development needs, increasing motivation seems to be the current direction within the field. Instead of seeing the future as an abstract and distant entity, the cultural heritage sector aims for an approach which highlights how the future is continuously shaped by our present-day actions. The general tendency is that professionals within the cultural heritage sector are engaged in the sustainable development of the sector as well as the society. There is an increased amount of sustainability activities in the cultural heritage sector and conservation networks. It gives the overall picture of cultural heritage institutions that are conscientious and encourage their employees and respective communities to sustainable development.

The engagement of professionals within the cultural heritage sector contributes to making sustainable development possible. Each professional conservator contributes to sustainable development when engaging in sustainability networks and implement sustainability actions in everyday practice. It is the belief that cultural heritage management can contribute to the development of a more sustainable world, and thus that cultural heritage institutions are important facilitators for sustainable societies.

The field of cultural heritage is a small sector that is often strongly affected by global phenomena – be it a virus pandemic, a financial crisis or climate changes – and working procedures within the field need to be adjusted accordingly, in close cooperation with other society sectors and across borders.

The overall engagement within the profession of cultural heritage conservation gives rise to new associations and organization that promotes sustainable conservation and proper use of material cultural heritage. Cooperation and communication between conservation professionals makes the concept of sustainability less intangible, and sustainable development realistic.

“The excitement around sustainability – the engagement and actions – demonstrate the possibility we have in the cultural heritage sector to lead the way in this movement”.

- Caitlin Southwick, founder/executive director of SiC, 2019

6. SUMMARY

A shift in approaches towards greater sustainability has resulted in more societies that support a sustainable way of living. Despite the challenges and constraints associated with doubt and uncertainty, it is necessary that we aim for the possible, in order to develop sustainable living. Aiming for the possible is an approach that is much more open to realities, to diverse perspectives and future possibilities.

It is believed that with responsible use of cultural heritage, the cultural heritage sector has the potential to contribute to the enhancement of *SDG 2030*, the field having a reach that extends far beyond its own sector. The increased focus on sustainability is expressed in various areas within the cultural heritage sector and has a great impact on cultural heritage management, including the majority of the conservation professionals. Current research on material culture includes investigation of theoretical perspectives on circulation of material culture with heritage values such as authenticity and stability of materials. Research on how and why people form lasting relationships to things is a way to explore how preservation can be an alternative to circular living and consumption.

Institutions and organizations have a great impact on the preconditions for cultural heritage management, building bridges between academia, civil society, local communities, research, and policymaking. A common ambition is to develop professional strategies that can enhance how heritage shapes the future and prepare the sector to meet other demands and expectations that a different future will place on heritage management. The cultural heritage sector's capacity of pursuing *SDG 2030* is increased with international programmes and tools, promoting global thinking for sustainable development. The potential of international associations lays in the opportunities of using common resources strategically, but collaborative work on national or regional levels has alternative qualities and can sometimes be more accessible and effective.

The profession of cultural heritage conservation has formed strong professional networks which in recent years have begun to promote sustainable development of conservation practice.

However, requirements for sustainable conservation procedures and new approaches to materiality are not always easily compatible with contemporary theories of conservation. Examples of complications between sustainable development and conservation ethics are accessibility versus environmental impact, object care versus natural resources, and long-time preservation versus reduction of costs.

To develop a more sustainable cultural heritage sector, working procedures within cultural heritage management must be reviewed and improved. Conservation procedures are strongly related to environment and health and the professional cultural heritage conservator has great impact on the overall management of cultural heritage. Thus, the cultural heritage conservator can contribute to sustainable development in various ways.

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Figures:

Front Page: Cultural Heritage Counts for Europe (Culture Programme of the European Union):

<http://digicult.it/news/the-socio-economic-impact-of-the-cultural-heritage-on-the-communities/>

Figure 1: United Nation's Global Sustainability Development Goals 2030:

<https://www.unilever.com/sustainable-living/our-strategy/un-sustainable-development-goals/>

Fig 2. Sustainability in Conservation Surveys:

<https://www.sustainabilityinconservation.com/surveys>