



THE DYNAMIC MUSEUM AND HERITAGE FUTURES WORKSHOP

A Handbook for Eco-social Bildung Work in Museums

**Leena Paaskoski, Katriina Siivonen, Noora Vähäkari, Pauliina Latvala-Harvilahti,
Päivi Pelli, Maria Granlund & Teppo Hujala**

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DYNAMO



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SUMMARY

By embracing new practices, museums can become even more effective societal actors and contributors to the common sustainability transformation in society. New concepts and methods based on scientific research offer possible development paths for these efforts. The **Dynamic Museum** is an operating model for museums that invites people to engage in futures processes together and intentionally explore their ideas about the future. The model is built on the foundation of cultural heritage, living heritage, and **Heritage Futures**. Heritage Futures is a form of heritage that allows individuals to contribute to the cultural sustainability transformation in society. The **Heritage Futures Workshop** is a tool for futures-oriented thinking that Dynamic Museums can use to create new heritage futures with and for individuals and communities.

Taken together, Dynamic Museums, Heritage Futures, and Heritage Futures Workshops allow museums to engage the public in the search for today's sustainability transformation and understanding the relevance of past transformations. What sets a Heritage Futures Workshop apart is its focus on temporal transitions from the present to the past, from the past to the future, and from the future back to the present.

The now-launched Dynamic Museum model, Heritage Futures concept, and five-step Heritage Futures Workshop method (including its preparatory and post-workshop steps) are freely available to all museums. When the materials from a Heritage Futures Workshop are included in a museum's collections, it opens up the possibility of documenting and examining sustainability themes from different periods of time.

The most important tools for museums include reliability, empathy, and long temporal dimensions, as they build mutual understanding and allow for the co-creation of transformative processes. When museums take on an active role in society, they create links with various actors, stakeholders, and communities. Museums

can arrange Heritage Futures Workshops in their own exhibition halls or in other spaces, such as outdoors, and they can include multisensory or other artistic exercises. Living heritage work is a key form of activity for any museum, and it is particularly essential for discussing values and working together to find the seeds for everyday sustainability transformations.

Ecological reconstruction has become an increasingly pressing issue. New methods are needed to approach to the concept of *bildung*, stressing the trans-generational and moral understandings that people have about themselves, as a part of the world's living and non-living nature. Solving the environmental crisis and other futures-oriented work are seen as cultural activities that involve individuals and communities. Merely drawing on previous temporal cultural layers will not result in a sustainability transformation – we need museum activities that combine different temporal levels and provide novel ideas for futures work. The Dynamic Museum aims to do this by incorporating eco-social *bildung*, a cultural formation that concerns the relationship between living nature and human society, into the already extensive *bildung* work done by museums.

A total of 10 facilitated online and in-person Heritage Futures Workshops were piloted during the DYNAMO project. The project's pilot partners included the A&DO – Learning Centre for Architecture and Design project, the Finnish Museum of Natural History Luomus, the Finnish Museum of Agriculture Sarka, the Finnish Forest Museum Lusto, the Finnish Museum of Photography, the Museum of Technology, the Museums of Varkaus, and the Finnish Science Centre Heureka. The project also involved extensive and interactive collaboration within the Finnish museum sector. The project placed particular emphasis on disseminating its efforts and results across a multitude of communication channels, such as social media platforms, as communications play a central role in the design of Heritage Futures Workshops.



FOREWORDS

Looking to the future requires courage. But before heading off into the future, one should take a detour through the past, as it is worth remembering how people lived before, even when life was not that easy. Looking back at history gives us a view of how people made decisions in the face of an uncertain future. Perhaps this will also help us find the hope we crave. We need hope, especially at this point in time, as the ecological crisis keeps painting a devastating picture of the future. That is why it is important to find ways to make better choices for the future. The future is built on everyday lives, systems, and ideals. The significance of cultural values and ideals stem from their permanence. The more we integrate values and ideals into our choices for a sustainable future, the more lasting these changes will be.

The DYNAMO project has taken an ambitious approach to exploring the possibility of cultural change in the context of museum work. How can this change be understood, and could it be consciously promoted? The Heritage Futures Workshop method, developed together with the project's pilot museums, provides a structured way of looking at the future from the past. Since the method is implemented in museum environments, based on the Dynamic Museum approach, it provides museums with creative avenues for conducting their museum operations and offering new insights into their existing collections and customer work. This allows museum visitors to engage with futures-oriented thinking in their daily lives, much like they do with the past. Foresight and transformative thinking also play an important role in highlighting the societal role that museums play in modern times.

Making futures-oriented thinking a part of everyday life is crucial not only for the future but also the present, as contradictory as that may sound. We must understand that the choices we make for the benefit or at the expense of the future are contained here, in the present. The recent changes in the museum sector also reflect this mindset, as museums are increasingly looking to the future rather than the past: what should future generations know about this time; what should be preserved for their enjoyment and benefit?

The consortium behind the DYNAMO project is a great example of the type of synergy that can be achieved through collaboration. Bringing together forward-thinking methodological developments, transformative museum work, and open-minded forest sciences has been more than the sum of its parts. It has fostered new ways of thinking, cross-boundary applications of knowledge, and interesting perspectives both for those involved in the museum sector and for others interested in cultural change, futures studies, and the forestry sector. I would like to extend my warmest thank to Katriina Siivonen (Finland Futures Research Centre, University of Turku), Leena Paaskoski (Finnish Forest Museum Lusto), Teppo Hujala (School of Forest Sciences, University of Eastern Finland), and the project's other participants for their inspiring collaboration.

And I can't help but think that, in this case, nomen est omen: DYNAMO is sure to bring a new boost of energy to the entire museum sector!

On behalf of the Bildung+ project

Pia Mero

Pia Mero, Specialist
The Finnish Innovation Fund Sitra

I was introduced to the DYNAMO (Dynamic Museum and Heritage Futures Workshop as instruments for ecological reconstruction) project in 2019 at the Finnish Museum Days seminar, which was organised by the Finnish Heritage Agency. The seminar centred around “facing the big questions”, i.e. addressing pressing future issues related to climate change and sustainable development, and reflecting on the collective choices and actions that society would need to take. We asked the following questions: what concrete actions could museums take in the face of inevitable change, and what roles could they play in building a sustainable future?

The seminar included a pitching event for the Finnish Heritage Agency’s Ratkaisuriihi (Solutions Workshop) funding, where the Finnish Forest Museum Lusto wowed the event’s prestigious panel with its Dynaaminen museo kestävyyden väylänä (The Dynamic Museum as a Gateway to Sustainability) project. The aim of this innovative and inspiring project is to develop the Museum’s Heritage Futures Workshop method, in collaboration with the University of Turku’s Finland Futures Research Centre and the University of Eastern Finland’s School of Forest Sciences.

The project has already demonstrated that, by reviewing their activities and collections and by developing new operating models, museums can leave their mark on the kind of cultural heritage we pass on to future generations. A Dynamic Museum is adept at navigating the past-present-future time axis, and it perceives the close links between culture and nature. It contributes to the creation of a new kind of eco-social bildung that our communities need to protect life on our planet.

My hope is that the project’s model will spread across the museum sector. I want to thank all of our authors and wish the best of luck to the Dynamic Museum!

Tiina Merisalo

Tiina Merisalo, Director General
Finnish Heritage Agency

A whirlwind of events across the globe has shaped our understanding of the world and our place in it. In fact, it is safe to say that we are in an era of constant change, and museums are not exempt from this trend. Amid global changes, museums must renew their role in relation to their surrounding societies and environments. The Dynamic Museum concept is a great demonstration of how museums can help people bear their responsibility for biodiversity and look after future generations.

In their article *The Future of Museums: Why Real Matters More Than Ever* (2023), David Prince and Daniel Laven use research-based narratives and meanings to describe the trust different societies place in museums. As these narratives and meanings have changed over time, museums have responded to these changes and will continue to do so in the future.

The International Council of Museums (ICOM) is also engaged in futures-oriented dialogue. As a global network of museum professionals, we have joined forces to seize any opportunities where we can collectively shape the future of the museum sector. We work together to safeguard our code of ethics, which is the cornerstone of museum professionals and serves as a unifying force in the museum sector. Our aim is to strengthen the role of museums as vital pillars of society and catalysts for growth, both now and in the future.

The 2025 ICOM General Conference in Dubai will place a strong emphasis on the museum sector’s pursuit of the sustainability transformation and their ability to engage people in this goal. The three interlinked themes of the General Conference will inspire new debate on the protection of intangible cultural heritage, the power of the younger generation, and the rise of new technologies. Once again, the voice and expertise of Finnish museum professionals will have a decisive impact on the future of museums and their surrounding communities.

In a world of constant change, the DYNAMO project provides a platform for dialogue, collaboration, and action, where museum professionals and communities can combine futures-oriented thinking with their current activities. This approach is also referred to as futures skills.

As we prepare for the multitude of decisions that will shape the future of the museum sector, we must chart our path forward together.

Uula Neitola

Uula Neitola, Vice-Chair
ICOM Finland

MUSEUMS, BILDUNG, AND THE NEED FOR CHANGE

Museums act as windows into different periods and environments of humanity history. They provide an experiential understanding of human behaviour, values, and the ways in which people engaged with society and their surrounding environments. The 2020s have been characterised by accelerating global uncertainties and discontinuities, and museums must be able to respond to the changes we see today. They can no longer serve merely by observing and documenting change – museums have a societal imperative to participate in the cultural sustainability transformation through futures-oriented thinking and living heritage.

The global sustainability crisis as the operating environment for museums

Museums should regularly review their existence, purpose, and relevance in relation to current developments¹. As museums reflect on their role in today's eco-social crises, their focus must be on their activities, their management practices, and their impact on culture and society. These perspectives have long been at the forefront of both domestic and international debate. The creation of new policies is not an easy task, as museums must operate in a world of rapid change and under very diverse conditions. This was reflected, for example, in ICOM's efforts to redefine its Museum Definition, the final outcome of which was reached in 2022 after a long and challenging series of international debate among museums.²

Research suggests that the global sustainability transformation should focus on leverage points, i.e. societal structures and practices and the resulting interrelationships that present the greatest potential for promoting sustainable development. The most important of these are the so-called deepest leverage points, which consist of world views, values, and people's relationship with nature. These are the cultural effects that are needed alongside more accessible policy measures.³ We must embrace a fundamental change where we can develop completely new ways of understanding and acting in today's culture, while also rejecting any unsustainable practices of the past and present.⁴ This is the challenge we wanted to address with our 2020–2022 pilot project *Dynamic Museum and Heritage Futures Workshop as instruments for ecological reconstruction (DYNAMO)*, in collaboration with Finnish museums⁵.

Over the past decade, Finnish museums have contributed to Finland's societal implementation of sustainable development by ensuring the continuity of its cultural heritage. The museum sector sees the opportunities presented by museum collections, cultural environments, and cultural heritage knowledge for increasing the general population's understanding of long-term

developments and, thus, for promoting ecological, economic, social, and cultural sustainability.⁶

The Finnish museum policy programme for 2030 (Mahdollisuuksien museo – Museum of Opportunities), published in 2018, provides an essential context for the DYNAMO project, as it lays the groundwork for inclusive museum activities and thus also for the cultural sustainability transformation. It emphasises an open and democratic work approach that spans both the past and future while providing people with opportunities for self-directed participation in museum activities, and it also places sustainability at the heart of museum work.⁷ The revised Museum Act, which entered into force in 2020, also supports these perspectives⁸. In accordance with Prime Minister Sanna Marin's Government Programme⁹, a cultural heritage strategy was prepared in Finland between 2021 and 2022. The completed strategy entered into force by Government decree in 2023 and will remain in effect until 2030. The strategy defines cultural heritage as a key asset for future sustainable solutions in all areas of society. The



Figure 1. A museum that aims for inclusivity and the cultural sustainability transformation must develop and renew its audience-related efforts. Photo: Pauliina Latvala-Harvilahti.

strategy's background study, which supports the strategy's implementation, emphasises individual-level action alongside cultural heritage communities. This supports the development of a diverse and citizen-oriented cultural heritage policy.¹⁰

This publication explores the concepts of the Dynamic Museum and Heritage Futures, and the method of Heritage Futures Workshop as means of cultural sustainability transformation in society. This approach is based on the observation that the mere utilisation of past cultural layers will not produce a sustainability transformation – instead, museum activities that combine different temporal levels and build new kinds of futures are needed¹¹. The Dynamic Museum aims to do this by incorporating eco-social bildung, a cultural formation that concerns the relationship between living nature and human society, into the already extensive bildung work done by museums. Heritage Futures is a form of cultural heritage that allows a Dynamic Museum to contribute to the production of a cultural sustainability transformation in society.¹²

Sustainability transformation and bildung

Global ecological problems affect all human individuals, communities, cultures, and societies. Climate change, biodiversity loss, and pollution are reducing the resilience of our habitats, threatening the living conditions of humans and many other species. These global sustainability problems are the result of humanity's actions, and their impact on the environment has been so great that many have dubbed this period of time the Anthropocene, i.e. as the era where the Earth

has been most strongly influenced by human activity. In other words, before we can reverse this negative trend and ensure the viability of our environment, we must make fundamental changes to our way of life.¹³ This is particularly important in societies of overconsumption that can afford this change and have the capacity to develop the means to achieve it. From an ethical point of view, their role as the main cause of these sustainability problems increases their responsibility for bringing about a purposeful change in how we live.

Sustainability problems are a combination of many intricately intertwined problems and issues. The well-being of nature and humans is interlinked, as a viable environment forms the basis for all life. However, sustainability problems cannot be solved by focusing on environmental issues alone – the right solutions can only be found by simultaneously addressing interdependent ecological, social, economic, and cultural phenomena. It has been shown that if, for example, a solution focuses primarily on social or economic problems, it can also cause ecological problems, leading to a disregard for the foundations of life.¹⁴

Sustainability problems are also complex in the sense that the impacts of local actions can be broad and complex on a regional and temporal scale. Our eating, living, and transportation habits form complex, international consumption chains that affect the climate, biodiversity, and environmental pollution worldwide. Often, the negative ecological and social impacts of our way of life become truly visible far away from where we are located, and the price of our habits is effectively paid by those who have not been able to enjoy any of the benefits. Sustainability problems and our understanding of them have been built up over a long period of



Figure 2. Sustainability problems challenge humanity to adapt to the limits of the Earth's carrying capacity. Photo: Pixabay.

time. They affect both the immediate future and new generations far into the future.¹⁵

Sustainability problems are linked to the challenges presented by unpredictable and unknowable developments. From a systemic thinking perspective, humanity has been able to determine the planetary boundaries for changes on Earth and in the climate within which life can safely continue to exist. However, any small or unpredictable developments could push the Earth's entire system over the threshold, with unforeseeable and irreversible consequences.¹⁶

Bildung has been highlighted in current debate as a means of tackling broad, interlocking problems. Especially in this context, bildung refers to an understanding of a complex, interdependent world and the ability to adapt human activity in a way that we can overcome what are often referred to as 'wicked' sustainability problems. In an interdependent world, people must be capable of taking other people, other species, and their future generations into account. Maintaining and developing bildung is seen as one of the cornerstones of educational institutions, research institutes, libraries, archives, and museums – and all people also have a part to play in these efforts. Global sustainability problems pose new challenges for bildung that need to be addressed in our time.¹⁷

The debate on the need for and the production of the sustainable transformation has already permeated Finnish society. Yet the means and scale are still limited to solutions that do not sufficiently challenge our entrenched worldview and way of life: we exploit natural resources in selfish ways that only consider our

own well-being. The relationship that over-consuming societies have with nature is illustrated by the unspoken notion of humanity being above and apart from the rest of the environment¹⁸. In this publication, human ways of being, understanding, believing, acting, and relating to the world around us are referred to as the spectrum of humanity's multiple relationships with nature, as conceptualising this phenomenon is important for understanding human activity. At the same time, it is important to be aware of the contradiction that is built into the concept of the 'human–nature relationship', as it separates nature and humans¹⁹. In this new conception of bildung, humanity has a trans-generational and even moral understanding of itself as part of living and non-living nature.

Addressing sustainability problems centres around ethical reflection and action. Every human being is constantly making ethical choices that affect people and the natural environment, both now and in the future. Action and inaction are both ethically significant choices.²⁰ The debate on bildung can be used to highlight ethical reflection in different contexts, social institutions, and the everyday lives of individuals and communities. Museums are good partners and venues for bildung-related debate, as they are open to all, inspire trust, and address the entire spectrum of life with their broad expertise in temporality, change and culture.

Museums and the intangible turn

Culture is one of the factors influencing change in society, alongside and as part of legislation, governance, the economy, and research. Culture can be defined in many



Figure 3. Trans-generational ethical reflection represents a cornerstone of the sustainability transformation and the new bildung concept. Photo: Pixabay.

ways – however, when culture is examined as a broad concept covering everyday life, it can be seen fundamentally as a structure or process, in two partly contradictory ways²¹. Both definitions are possible, but it is a good to be aware of which of these two perspectives is used when examining cultural issues. One's choice of perspective affects what they will pay attention to when discussing culture, studying its effects, or using it as a tool for influence.

On the one hand, culture can be defined as a relatively stable structure or framework²². Such a definition makes it easy to perceive cultures as distinct, finite entities that guide people and their cultural activities. On the other hand, the concept of culture can be seen as a process; it has been likened to a river, where one cannot step into the same river twice²³. In this river's stream, culture is constantly renewed and created in the interaction between people and between people and their environments, which, in addition to people, contain other living beings and human-made phenomena and natural phenomena, both tangible and intangible²⁴.

By defining culture as a river, it is easy to see the constant changes in it and the human contribution to that change, as well as how culture is shaped by the environment and how it, in turn, actively shapes the environment, both locally and globally. Thus, the concept of the Anthropocene²⁵, which reflects the strong human impact on the state of the planet and the eco-social crisis, can be easily linked to this definition of culture, and the Anthropocene as a phenomenon can be perceived by the river of culture. A key factor here is the human-nature relationship, or the way people understand their place in nature as a whole²⁶.

The streaming nature of culture shows that it is impossible to prevent cultural changes. In the river of culture, people pass on tangible and intangible cultural expressions, either knowingly or unknowingly, resulting in constant changes to that culture. Thus, culture always possesses at least an imperceptible transformative power that needs to be consciously harnessed in the pursuit of a cultural sustainability transformation.²⁷

Cultural heritage is an expression of culture that has been lifted from the river of culture, with the purpose of influencing the future. Both in everyday activities and cultural policy, different parts of culture can be designated as cultural heritage, to be cherished and preserved for future generations. For a long time now, people have protected and preserved objects, buildings, and cultural environments as tangible cultural heritage. These conservation and preservation efforts have focused their attention on the past. However, cultural heritage has always been a tool for building the future, and it has influenced culture throughout society. The very act of defining a manifestation of culture as cultural heritage adds an essential and new intangible dimension to it, thus transforming it. Even as cultural heritage, cultural expressions take on new meanings and constantly change in the river of culture. In our time, the focus has shifted to individuals and communities and their way of maintaining or co-creating their intangible cultural heritage – their worldview, knowledge, skills, habits, and daily activities.²⁸

In societal activities, the use of cultural heritage focuses particularly on strengthening social and economic well-being²⁹. This is in line with general, long-standing



Figure 4. Playing in the snow is an example of intangible cultural heritage that allows people to experience the effects of climate change and reflect on how they can adapt to the future. Photo: Pixabay.

cultural policy, where the support provided by cultural heritage and cultural production for identities, communal cohesion, regional attractiveness, and tourism represent desirable outcomes³⁰. This is currently reflected in a novel way in the museum work that focuses on intangible cultural heritage, where interactive, empathetic, socially cohesive, and egalitarian ways of building the future, even through activist-like methods, have been developed.³¹

Intangible cultural heritage, or living heritage, is vital to addressing eco-social problems, as intangible cultural phenomena, i.e. worldviews, values, and human–nature relationships, are central to the pursuit of the cultural sustainability transformation. At the same time, it has been noted that living heritage work has gained strength as part of the current globalisation upheaval. One of today’s megatrends, i.e. the increasingly intensive mobility of information, material goods and people, and the resulting greater interdependence of different population groups³², is contributing to this change.

People are no longer mere unaware cultural actors, but are instead aware of their cultural actions. They are becoming increasingly purposeful in using culture to influence their environment and their future. In this way, the work on the intangible dimensions of cultural heritage has been extended to areas in society where it has previously had little impact. However, the desired directions of change are multiple, and they may not prove sustainable in any dimension.³³

The institutionalisation of intangible cultural heritage in 2003 as a result of *the Convention for the Safeguarding of the Intangible Cultural Heritage*³⁴, prepared by the United Nations Educational, Scientific and Cultural Organization (UNESCO), is a phenomenon of current global change that has brought an intangible turn to cultural heritage work. This work was continued by the 2005 Faro Convention, i.e. *the Council of Europe Framework Convention on the Value of Cultural Heritage for Society*³⁵. The ‘intangible turn’ has made it necessary for museums and other cultural heritage actors to change the way they think about cultural heritage: instead of being the authorities of cultural heritage, it is the people and heritage communities who define their own heritage from their own perspectives.

Intangible cultural heritage can support the resilience of people and communities as they adapt to global problems. While protected intangible cultural heritage can help in the adaptation process, it cannot in itself bring about a substantive transformation in cultural sustainability. Protected intangible cultural heritage and other cultural phenomena can alert people to ecological problems and thus support their resilience. Some ex-

amples of this approach include the use of communal art processes in integrating migrants, or playing in the snow to raise people’s awareness of climate change³⁶.

However, it has been noted that, so far, cultural policy has failed to make a strong contribution to solving the eco-social crisis. This is due to the typical position of cultural policy as part of the internal policies of states or cultural heritage communities, and the difficulty of addressing the global dimensions of these problems. Solving these various issues will require structuring cultural policy through a global sense of eco-citizenship.³⁷ Thus, the ecological impacts of cultural policies will remain limited and local, such as when local biodiversity is supported through the protection of cultural landscapes. The most serious problems are much broader in nature, and they are being addressed through a cultural sustainability transformation.

The aim of Heritage Futures is to help people think and act in ways that will fundamentally orient culture in a more sustainable and newly bildung-oriented direction. The many mutually supportive Heritage Futures across the globe have the potential to contribute to a cultural sustainability transformation that will result in a more sustainable world.³⁸

Opinions and beliefs are cultural expressions of people’s worldviews and values, which should be addressed through Heritage Futures in order to bring about the sustainability transformation. This is the source of tension that will be central to the quest for a cultural sustainability transformation.

The situation can be assessed through the ethical reflection of today’s bildung debate. In essence, the professionals involved in cultural heritage and futures-oriented work have the same ethical responsibility for humanity’s future as part of nature as all people do, as well as a professional ethical responsibility. The ethical responsibility of cultural researchers, which also applies to cultural heritage work, includes assessing the impact of their professional activities on the well-being of individuals, communities, and the environment, as well as on the manifestations of cultural expressions³⁹. In futures-oriented work, this ethical responsibility is particularly related to how professionals can help people see the impacts of their different values for alternative futures⁴⁰.

In cultural heritage and museum work, the pursuit of a cultural sustainability transformation requires reconciling different ethical perspectives. The constant involvement of people and communities in defining the content and use of cultural heritage and Heritage Futures, and the voluntary nature of this involvement,

are prerequisites for the ethical implementation of the cultural sustainability transformation⁴¹. The goal-oriented direction of cultural change, necessary for the production of the sustainability transformation, limits the diversity of cultural expressions. However, since diversity is one of the key strengths of cultural heritage and museum work, it must not be lost in the pursuit of sustainability, but turned into an asset.

A museum does not serve itself, but all society. Therefore, the question of what museums have to offer to individuals, communities, and their stakeholders is as important as what the general public has to offer to museums. Stakeholder work in the form of multi-perspective discussion and dialogue is fruitful for all parties involved, and sometimes it allows museums to identify needs that their stakeholders are not yet aware of.⁴² On the other hand, stakeholder engagement can also provide space for stakeholder expertise and encourage participation. Individuals, communities, and museum stakeholders have a strong role to play in citizen-led cultural heritage work.

When it comes to the intangible turn, it is important for museums to have discussions within their institutions about how they foster inclusion at any given time: what factors influence inclusion and how, for example, some people experience involuntary exclusion within their local communities, while others have a stronger connection to their chosen communities. Similarly,

museums should investigate what they want to influence with their stakeholder work or in society at large, and what effects their desired impacts would have on different individuals and communities. It would also be useful to ask whether people feel at home when operating in museums and whether there is strong trust between museums and their stakeholders. How are local communities or other stakeholders currently highlighted by museums? Could they gain visibility in new ways in their chosen contexts?⁴³

A museum can develop its activities by asking how a topic is perceived from different perspectives. A common source of motivation for the planning process can be found by consciously surveying and listening to individuals and groups with different backgrounds or experiences. A museum can strengthen people's social attachment by finding out what themes are important to them and what kind of understanding is needed to resolve potential conflicts of interest. This new societal role for museums values everyone's input and involvement.⁴⁴

Figure 5. In addition to highlighting living heritage, the intangible turn of museums places great emphasis on listening and inspiring discussion, possibly with the help of the collections curated by museums. Photo: Lusto, Timo Kilpeläinen.



THE DYNAMIC MUSEUM

The Dynamic Museum is a model for museums that wish to become more socially effective and purposeful in building the future. It is built on the foundations of cultural heritage, living heritage, and Heritage Futures, and extends across the entire temporal dimension. A Dynamic Museum cannot function without its communities and stakeholders. All museums have the potential to become Dynamic Museums.

The concept of a Dynamic Museum

The Dynamic Museum responds to the broader challenge of the societal impact of museums. It is a museum concept that encourages each museum to use its own strengths and talents where they are particularly needed in society, for example to support sustainable development.⁴⁵

Museums have always had an impact on individuals, communities, and societies. They have increased the awareness that individuals and communities have about the past and thus responded or assisted in the response to the knowledge needs or challenges of the present. In the future, museums are expected to have an even greater social impact⁴⁶, and museums themselves are keen to find new operating methods and even new foundations for their activities. Museums have the potential to participate, foster participation, and involve⁴⁷ others to address societal challenges and even wicked problems, such as the sustainability crisis.

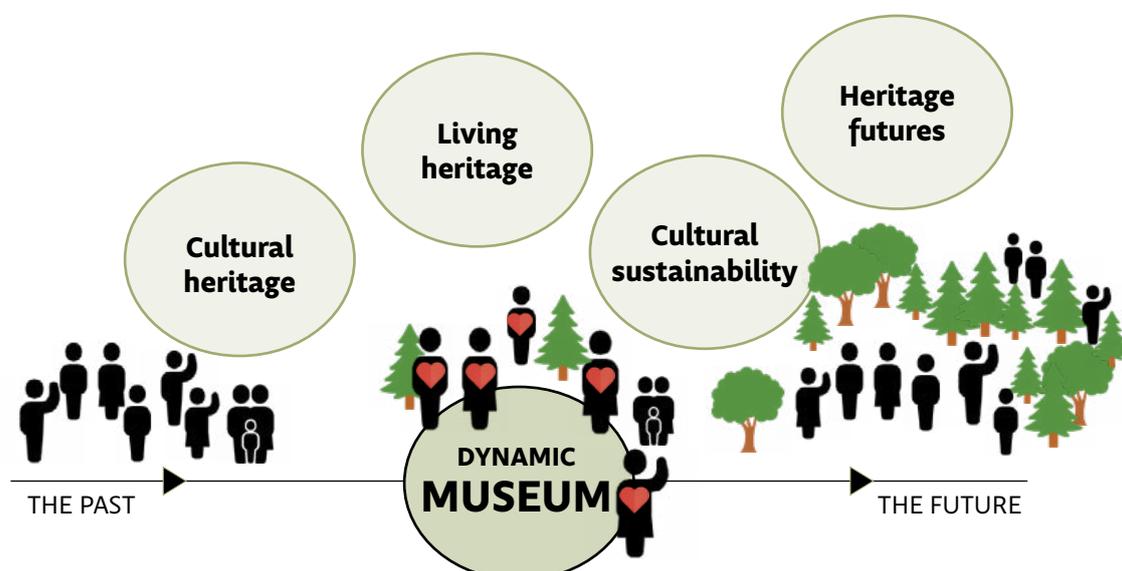
All museums have the potential to become Dynamic Museums, regardless of their type, location, subject matter, size, or resources. The Dynamic Museum approach guides museums to strategically develop their purpose, objectives, activities, and stakeholder relations. The key to adopting this approach is to identify each museum's societal capabilities and resources, its

superpowers, as well as its specific expertise and special skills, as well as the tools that it has or could have at its disposal. By working closely with its stakeholders in the present, a museum can remain deeply aware of its operating environment and the individuals, communities, and institutions in it, along with their needs as users and stakeholders.⁴⁸ In addition, all museums should be able to identify wider, current societal problems and needs.

Each museum is different. Despite their commonalities, all museums also have their own specific expertise and know-how, regional or thematic specificities, stakeholders, and challenges in their operating environment and society.

A Dynamic Museum (Diagram 1) can expand its temporal dimension: it looks to the future, but is actively engaged in the present while keeping a firm eye on the past. It also informs society of the importance of understanding the entire temporal dimension, the constant change of culture, and the cultural process.⁴⁹ The aim of museums should be to combine people's awareness of the past with their futures competence⁵⁰. To stay relevant in the present, a Dynamic Museum must

Diagram 1. A Dynamic Museum harnesses its knowledge of the past, engages with the present, and helps people build their futures competence. Diagram: Leena Paaskoski.



constantly monitor its operating environment, society, stakeholders, and world-wide megatrends⁵¹. To pass on its knowledge of the past, the museum must have a solid grasp of cultural and historical research, the ability to engage in high-quality collecting and documentation processes, and an active and versatile approach to the use of collections and collection development.⁵² Futures competence refer to the ability to imagine different futures, purposefully change one's actions in a more sustainable direction, and empathise with people and non-human nature. To promote this competence, museums must have an interest in futures-oriented thinking, methodological skills in futures studies, and the ability to assess new societal challenges and their implications.

The main difference between the Dynamic Museum and previous museum concepts is that a Dynamic Museum does not simply collect, document, study, and exhibit developments from the past and present, but is an active participant that allows a diverse range of people to purposefully contribute to the creation of sustainable futures. Thus, in time, it will also document the present of the future, which it has itself helped to shape in the past.⁵³

A Dynamic Museum is strongly networked in society, collaborative, knowledgeable about its stakeholders, and open to all. It is an individually and communally oriented actor that listens, discusses, participates, and involves others. Its cornerstones are the new perspectives on cultural heritage, the concepts of living heritage and Heritage Futures, and the participatory significance analysis process linked to the cultural heritage in its collections, all in the name of enhancing social impact and building a sustainable future.

The superpowers of a museum

Museums have a wealth of qualities, strengths, talents, and competences that are specific to museums as institutions. Identifying, developing, and leveraging these qualities is a prerequisite for the activities of a Dynamic Museum. Some are common to all museums, while others are specific to particular museums. A Dynamic Museum can consciously draw on the strengths it has identified and developed further – when these are used to solve society's wicked problems, such as the sustainability crisis, we can safely refer to them as superpowers.

The main superpower of a museum is its ability to operate within a temporal dimension. Not only do museums help us remember the past, but, above all, they help us understand the cultural process and its transformative power to shape the world and constantly develop humanity and our communities. A museum's temporal dimension includes three equally essential points: the past, present, and future. The impact that a museum

has on society depends on its direction of travel: is it looking to the past, with the future behind its back, or is it facing the future head-on, with the past firmly in its rear-view mirror?⁵⁴

A museum's collection has evidential value that is based on authenticity, research, and the power of real objects⁵⁵. Museums are seen as trustworthy because they house such collections and provide information on real lives, people, events, and experiences from many different time periods.

Museum collections and the cultural heritage knowledge they contain also underpin the ability of museums to reconstruct and represent. This can take the form of, for example, restorative nostalgia, where the past is reconstructed through museum collections (in the form of evidence)⁵⁶, or as experiential presentations in general. Experiential learning can be more effective than the traditional approach to sharing knowledge. As museums are adept at reconstructing the past, even when they have very little or incomplete evidence to work with, they can use the same skills to imagine alternative futures.

Figure 6. Museums can use their superpower of moving in the temporal dimension to strengthen the public's futures-oriented thoughts and actions. Photo: Pauliina Latvala-Harvilahti.



Museums allow people to reflect on their life stories with stories from history and culture. This is why museums play an important role in building the identities of individuals and communities⁵⁷. Museums create empathy and reduce tensions in society by increasing people's understanding of different people, communities, species, and non-living actors⁵⁸ from different times, places, and circumstances. Through empathy, museums can build and support *bildung* in its broadest form. In addition to being informative, such *bildung* can be ethical, promoting justice and sustainability, as well as societal, contributing to constructive social debate.⁵⁹ Museums provide information, act as places of learning, and promote broad *bildung*-oriented values in society.

Museums are close to their local or thematic communities and stakeholders. Museums promote inclusion and collaboration between different people and groups, because they can easily approach and invite almost anyone, and pretty much everyone. This allows for a broad range of impacts. Museums are meeting points in society that facilitate interaction between different parties.⁶⁰

Heritage Futures collections

The question of museum collections and their relevance and use is central to the Dynamic Museum. Collections are typically seen as the cornerstone and core of museums as institutions, and their collection, documentation, management, and preservation form a significant part of museum work and require a large amount of museum resources.⁶¹ Although a Dynamic Museum places its users and stakeholders at the core of its operations, it still needs collections to function. The role of said collections must therefore be defined and taken into account in the activities of a Dynamic Museum. However, the impact of a Dynamic Museum is based, above all, on active significance analysis and the use of its collections, instead of their perceived intrinsic value.⁶²

Collection management refers to a set of activities related to the collection, documentation, management, care, and use of a museum's collections.⁶³ However, alongside the concept of collection management, international museology literature often contains references to 'collection development' and 'dynamic collections', which emphasise the utility of a museum's collections and their value as tools, rather than their intrinsic values and outcomes.⁶⁴

A museum object is created through the musealisation process, where an individual tangible or intangible cultural expression – such as an object, image, or memory – is identified, isolated from its original cultural context, and made a vehicle for cultural significance.⁶⁵

Without meaning-making, which can be implemented through various tools, such as the significance analysis method⁶⁶, the musealisation process will remain incomplete. In addition to museum professionals, the musealisation process typically involves other people and organisations, such as the donors of museum collections and those who can provide background information on the collections.⁶⁷ A museum object is:

– a combination of selected information, significance and meanings as well as a tangible or intangible expression of culture. – [T]he significance and meanings relating to the object are essential. A museum object's purpose of use is almost always something else than what it was originally designed for. For example, it works as a piece of evidence and source, conveys information and meanings, produces identities, experiences and well-being. A museum object's authority as evidence is guaranteed by its genuineness; authenticity strengthens the 'power of the genuine object', on which the relationship with the viewer or user is often built.⁶⁸

Museum objects are therefore authentic examples or samples of real cultural processes, and they possess the power of a real object, both intrinsically and through the significance analysis process⁶⁹, and this power is deftly utilised by Dynamic Museums. As museums preserve evidence of what has happened or existed⁷⁰, their collections can be understood as a means of remembrance and thus tools for understanding change and temporal events in the present and those relevant to building the future. As museums, together with their communities, continue to subject their collections to the significance analysis process from new perspectives, the museum value⁷¹ and social relevance of these collections will continue to increase, helping them to adopt the principles of dynamic collections.⁷²

A Dynamic Museum actively makes use of its collections together with its communities and stakeholders. How do collections help us understand the processes of change that apply to the past, present, and future? What useful methods from the past could still be of use, and what bad customs should we give up to build a sustainable future?⁷³ How can we combine our understanding of the past and present to realise a new and more sustainable future? Above all, how can we draw attention to the impending need for change? When a Dynamic Museum, together with its communities, uses and signifies its collections for the purpose of creating Heritage Futures, all museum collections can be seen as Heritage Futures collections that produce cultural transformation.⁷⁴



Figure 7. A Dynamic Museum uses its collections to encourage the public to understand the past and build purpose-driven futures. Photo: Pauliina Latvala-Harvilahti.

Functions and tools

A Dynamic Museum develops and uses traditional forms of museum work to increase its social impact. Its collection-related activities place greater emphasis on collaborative collecting⁷⁵ and on the wider-ranging, increasingly diverse, and novel use of its collections. Its exhibition media responds to current issues in new and inspiring ways and is also able to attract new visitors. Its research is open-minded, focused on new issues, and fosters multidisciplinary partnerships.

Living heritage work is a key activity for a Dynamic Museum. Living heritage focuses on the people and communities who wish to cherish the intangible cultural heritage they see as their own, such as their customs, skills, and practices – the things that they recognise as a reflection of their own identity. For example, many Finns wish to preserve the Finnish sauna tradition of making a vasta or vihta (sauna whisk) and how it is used in the sauna especially on certain days of celebration, or as a means of passing on the craft of making them to future generations. The concept of living heritage relates as much to tangible objects as it does to intangible phenomena. The meanings of their uses and representations in relation to identities are negotiated by people from different perspectives, and museums can help facilitate this cultural heritage process.⁷⁶

Living heritage phenomena can change for a variety

of reasons – for example, their users may develop new formats or combinations of traditions. Some living heritage phenomena can be used to support a sustainable future, while others may be renewed as the users of that tradition recognise the need for change. As part of their Heritage Futures work, Dynamic Museums can use various methods, such as Heritage Futures Workshops, to help people purposefully change their mindsets and wider worldviews while also supporting their futures-oriented agency.

Above all, a Dynamic Museum is always willing to adopt new operating methods (Diagram 2). It takes a flexible and innovative approach to the concept of a museum’s “core task” or “real museum work”⁷⁷, which are well recognised by museum professionals: in a museum context, any activity that contributes to the objectives set by, set for, or desired by the museum can be considered part of its “core tasks”.

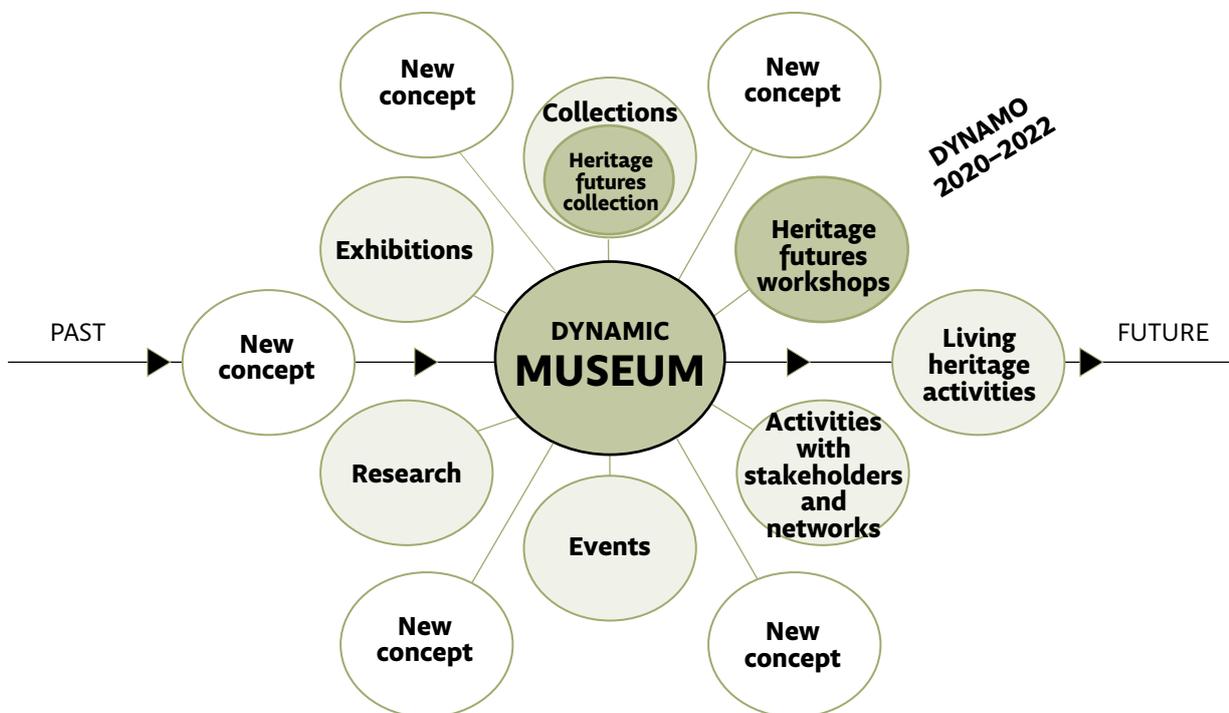


Diagram 2. A Dynamic Museum has a number of established operating forms, but it is also open to new approaches, such as Heritage Futures Workshops, and can make use of them in a flexible and innovative manner. Diagram: Leena Paaskoski.

How a museum can become a Dynamic Museum

Strategic development of a museum (Diagram 3)

- self-assessment: The MOI Framework⁷⁸
- superpower analysis: see the chapter The superpowers of a museum
- skill survey and skill development plan
- definition of values, dreams, mission, and strategic objectives

Surveying the operating environment and stakeholders

- analysis of regional and thematic operating environments
- analysis of wider operating environment: e.g. megatrends, societal needs, and wicked problems
- stakeholder analysis: individuals, communities, and organisations within the museum's sphere of influence or operating environment

Deeper integration of cultural heritage perspectives

- introduction of a past-present-future timeline
- significance analysis of museum collections and developing their use
- introduction of living heritage work
- initiation of Heritage Futures work with communities
- diversification of communality and inclusion

Implementation and development of activities and services

- updating and aligning policies and practices with objectives
- development of new operating methods and forms

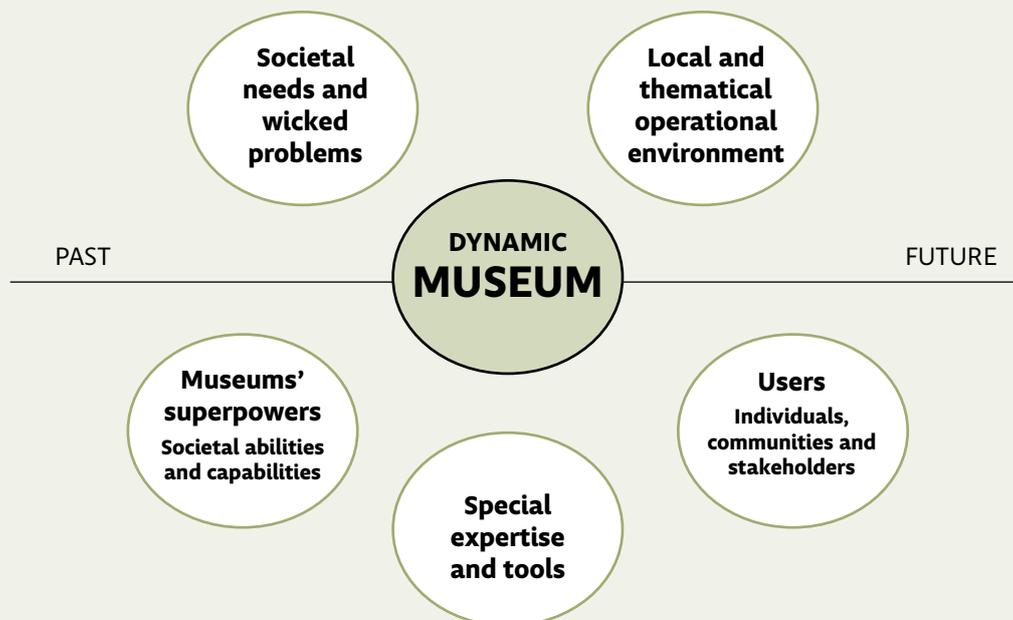


Diagram 3. A Dynamic Museum understands its operating environment and the needs of society, and responds to them with its special expertise by engaging its users.

Diagram: Leena Paaskoski.

THE INTANGIBLE TURN OF LUSTO

The Finnish Forest Museum Lusto is a national museum responsible for Finnish forest culture. The museum, which was opened in 1994 in Punkaharju, Eastern Finland, is owned by the Finnish Forest Museum Foundation, which was founded in 1988 by numerous organisations in the Finnish forest sector. Since its founding, Lusto has always had an exceptionally close relationship with its forest-related stakeholders.⁷⁹ The museum's own history can be divided into three periods: its founding phase (1990s), expansion phase (early 2000s), and intangible turn (2010s–2020s). The founding phase included the construction of the museum building, establishing the museum's collections, defining and organising the museum's activities, and hiring its staff. The expansion phase involved extending the building, adding staff, broadening the theme of the museum's collections, and shaping new operational approaches.

Lusto's intangible turn was initiated in 2010 for three reasons: the need to strategically develop the museum, the general population's current interest in forests, and the realisation of living heritage work. The museum required a completely new strategy to renew itself and ensure the impact of its future operations. For this new strategy, the museum interviewed its stakeholders and developed its own model for stakeholder engagement, dubbed the Lusto Model.⁸⁰ The public debate surrounding Finland's forests has always been a complex part of societal discourse in Finland, but its prominence and scope has expanded considerably as a result of climate change and biodiversity loss. As a result, forests have become a more prominent topic of discussion than perhaps ever before. In 2014, when the Finnish Heritage Agency set out to implement UNESCO's *Convention for the Safeguarding of the Intangible Cultural Heritage*⁸¹, it asked Lusto to list living heritage phenomena related to forests. As part of this inventory exercise, the museum came to reflect on the overarching phenomenon of living heritage related to forests, i.e. the human–forest relationship.⁸²

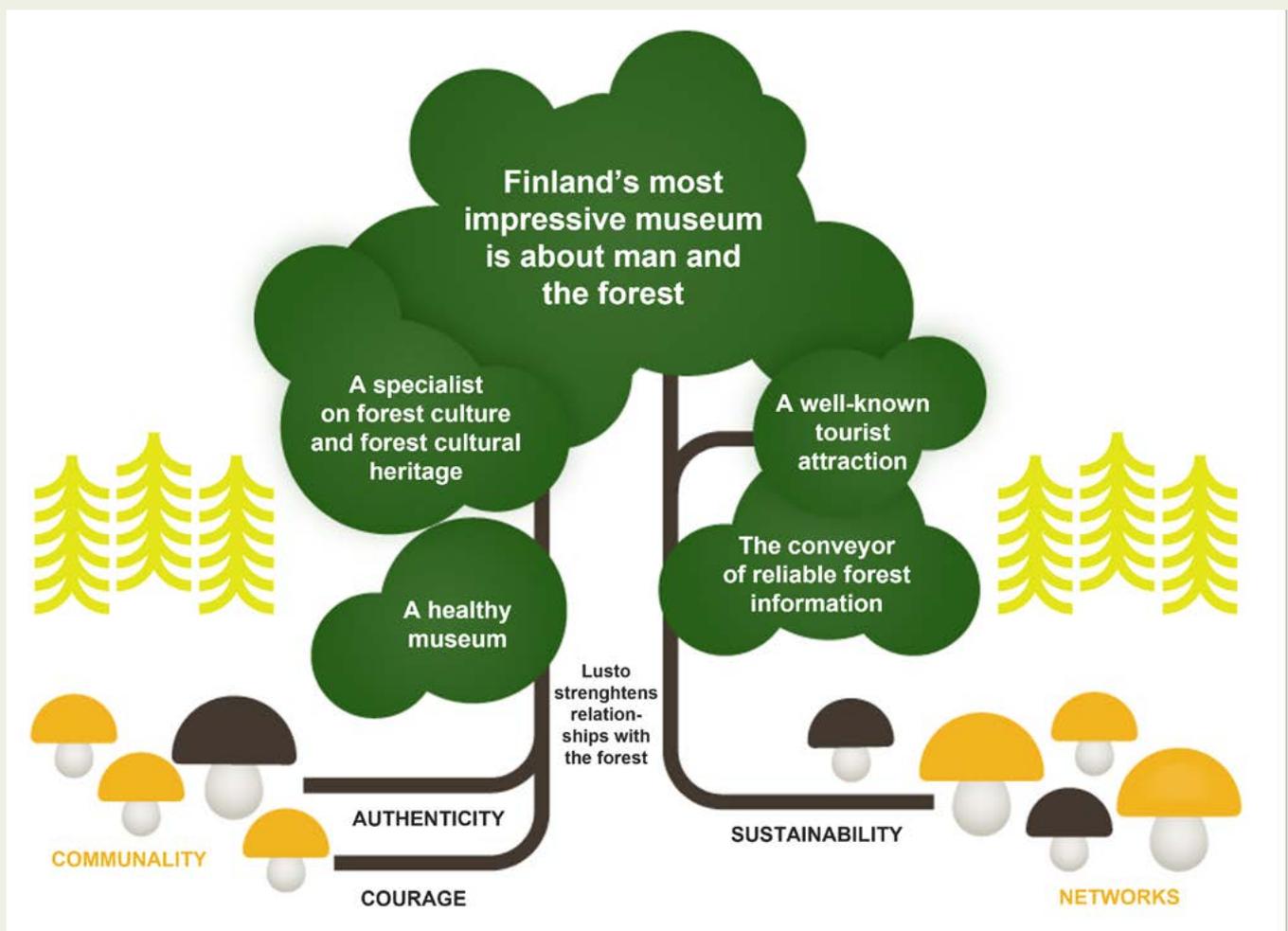


Diagram 4. The intangible turn of the Finnish Forest Museum Lusto was built on a renewal strategy that emphasised active social engagement.
Diagram: Lusto⁸⁵.

The museum's renewal started with a self-assessment process using the *Museum Evaluation Model*⁸³ developed for Finnish museums. Lusto then prepared a new strategy (Diagram 4), built around strengthening people's relationship with Finnish forests (mission), the societal impact of forest culture (vision), and four strategic objectives (the best expert on forest culture and forest cultural heritage; a reliable provider of diverse forest information; a renowned tourist destination; a prosperous museum). It identified authenticity, courage, and sustainability as its core values, while networking and communality served as its operating models. The museum's expertise in forest culture and heritage – not only in terms of its collections and exhibitions but also its know-how – allowed it to examine its activities from a new perspective. As a result, the museum also had to restructure its organisation, so that it reflected the museum's new strategy and adhered to its new operational guidelines.

The work on strategic and substantive concepts, such as forest culture and human–forest relationships, served as the main driving force behind Lusto's renewal. They also enabled the museum to engage in concrete development measures.⁸⁴ Lusto decided to set the human–forest relationship's status as national and international living heritage as its concrete objective. More important, however, was the general dialogue on human–forest relationships that the museum had fostered with its stakeholders. Lusto's membership in the Finnish National Forest Council, the establishment of the Human–Forest Relationship Research Network, and the expansion of its expert role were all based on its human–forest relationship work. This approach was further refined through the definition of the museum's impact at different levels, i.e. what kind of societal impact does Lusto, together with its users and stakeholders, want to achieve at the international, national, communal, and individual level?

Gradually, Lusto's renewal process became increasingly clear and goal-oriented. As the museum solidified its future direction, it also became more adept at seizing important opportunities and partnerships. The result of the extensive and inclusive renewal of Lusto's core exhibition, its numerous larger and smaller project partnerships, and the redesign of its museum concept is a dynamic forest museum that both functions as an integral part of modern society and helps its communities prepare for the future.

Figure 8. Communal urban farming is an example of how people create sustainable practices in an urbanising society. A Dynamic Museum can promote the sustainability transformation by collecting and spreading the message about this kind of living heritage to the public. Photo: Pauliina Latvala-Harvilahti.



HERITAGE FUTURES WORK

The Heritage Futures approach utilises the methods and theories developed in futures studies. Futures-oriented thinking is the process of perceiving present-day actions amid an open-ended future, while futures literacy and futures awareness can empower individuals to act, even in the face of an uncertain tomorrow, and navigate a world of unpredictable change, complex global phenomena, and wicked problems. These methods are a core part of Heritage Futures work, much in the same vein as the Futures Workshop method, various living heritage approaches, the superpowers of Dynamic Museums, and shifting perspectives on museum collections.

Futures-oriented thinking

Futures studies researchers claim that the future cannot be found, as the future is not a singular entity. In other words, the future cannot be predicted or predetermined, but everyone can influence it⁸⁶. Since the future is uncertain and open, it can be seen as a collection of possibilities, continuities, and changes that can be influenced by present-day actions⁸⁷.

A range of possible, probable, and desirable futures must be explored so that we can prepare for them and work towards the ones we seek the most⁸⁸. Creating change requires imagining alternative futures⁸⁹. As a result, conscious change forms a core part of futures studies⁹⁰. Futures-oriented thinking is present in all cultural and societal futures-oriented, anticipatory activities that are used to produce the sustainability transformation.

Taken together, the model of the Dynamic Museum, the concept of Heritage Futures, and the method of the Heritage Futures Workshop make building the future an active, cultural activity for both individuals and communities. These concepts emphasise how we can collectively reflect on and change the cultural ways in which people understand and apply meaning to the world, giving them the support they need to adjust their practices and create the future in the present. The aim is a cultural sustainability transformation.⁹¹

In order to create multiple and alternative futures, futures-oriented thoughts and actions need to be liberated, democratised, and decolonised, so that people can become aware of and dismantle the oppressive power structures that can influence the future⁹². Futures-oriented thinking is normative in its approach, as it seeks to question assumptions, find alternatives, and seek desirable futures. Thus, it is a natural part of the co-creative sustainability transformation process. In recent years, new perspectives on futures-oriented thinking have emerged that emphasise novel ways of understanding the future, such as futures awareness⁹³ and futures literacy⁹⁴.

Futures literacy is a fairly recent concept that was developed and defined by UNESCO⁹⁵. Futures literacy represents the individual's ability to use the future in the present while understanding how our present decisions affect the future. According to the concept of futures literacy, people must be able to perceive wicked problems

Figure 9. Futures-oriented thinking requires the ability to imagine worlds that do not exist. To stimulate creativity, futures workshops often employ a variety of artistic, multisensory methods. Photo: Pauliina Latvala-Harvilahti.



and complex phenomena that affect the future before they can purposefully create and imagine different futures. Constant, multi-directional change is inevitable, and future literacy provides the skills for navigating an increasingly uncertain world. Futures literacy allows people to critically examine their current assumptions about the future and create a range of alternatives in the pursuit of a cultural sustainability transformation.

Creating the future requires not only open-minded thinking but also knowledge of the past, which is why museums are particularly good partners and places for thinking about and building the future together. Museums are experts on the cultural and social changes that have already taken place, and since museums are adept at reconstructing the past, they can use this same skill to imagine new futures with their communities. As a concept and method, the Heritage Futures Workshop helps people focus on the entire timeline, from the past to the present and the future, while Dynamic Museums can support those who wish to navigate this timeline and make new discoveries.

Heritage Futures as a concept and practice

Heritage Futures are collectively developed and valued skills and practices that can be used to adapt today's culture to planetary boundaries. The co-creation of Heritage Futures allows people to discover more sustainable approaches and ask important questions, such as *what new, shared skills should we create to enhance the well-being of nature, and humanity as a part of it?*⁹⁶

Heritage Futures helps people comprehend humanity's role in the natural world and how they can act within it. It is based on the intangible, living heritage emerging from the everyday experiences of various people and communities: worldviews, human–nature relationships, skills, habits, and activities. Heritage Futures also encompasses the idea of a new form of cultural heritage. Indeed, the ultimate purpose of Heritage Futures is to purposefully adapt and create new and novel cultural expressions that are central to societal leverage points, instead of merely preserving previous forms of living heritage for future generations. Heritage Futures represent the ways of understanding the world, human–nature relationships, knowledge, skills, and the resulting activities that can be used to produce the desired changes necessary for achieving sustainability. The cultural sustainability transformation can be promoted when people from all walks of life work together to create and embrace a wide range of Heritage Futures. Like the future in general, Heritage Futures is a form of intangible living heritage that exists only in people's minds. Much in the same vein, Heritage Futures exists only in the present – in the actions we carry out in the current moment.⁹⁷

Heritage Futures is proactive actions, changes, choices, and forgetfulness. Above all, it assigns new meanings and incites changes in perspective. Heritage Futures can be found in existing museum collections by finding new meanings in their tangible and intangible cultural heritage, and thus finding the support needed for building a sustainable future. What solutions in these collections could help us live more sustainably, and what should be left out? We can also derive Heritage Futures from Heritage Futures Workshops and document them in museum collections.

Heritage Futures Workshops are a key part of the Heritage Futures work done by museums. The Heritage Futures Workshop is based on the Futures Workshop concept developed by Robert Jungk and Norbert Müllert in the 1950s, where participants are asked to imagine alternative futures to the developments they have observed in the present. In the Jungkian workshop model, the aim is to empower people to build the future by identifying the problems of the present, imagining the future they would like to see, and making this desirable future a reality. This approach is supported through safe teamwork, comfortable venues, and loosely defined schedules, as well as by providing opportunities for relaxation, for example by offering refreshments.⁹⁸



Figure 10. Museums can use their knowledge of the past to help their communities build alternative futures as part of the sustainability transformation. Photo: Pixabay.



Figure 11. Heritage Futures generate new meanings and shared practices for strengthening the well-being of nature and humanity. In this photo, a group of volunteers are cleaning up a stream. Photo: Pixabay.

The empowering Heritage Futures Workshop incorporates the principles of future literacy by making use of the uncertainties and unpredictability of the future. The complexity of the world, its wickedness, and its increasing ability to surprise are thus used as resources for understanding in the Heritage Futures Workshop, as its participants navigate towards desirable futures.⁹⁹ Futures literacy fosters openness and the ability to encounter and imagine different futures. What do we not yet know? What are the unknowns we are not even aware of? The Heritage Futures Workshop invites its participants to envision new understanding and skills, as well as find new meanings for them – to create the Heritage Futures we need for a more sustainable world.¹⁰⁰

The key benefit of Heritage Futures work is that it allows people to voluntarily participate in a co-creative process and influence the creation of Heritage Futures. In order to achieve the cultural sustainability transformation, the organisers of the Heritage Futures Workshop must guide participants on the kinds of issues they should consider when working together to promote a sustainable future. From an ethical perspective, it is important to ensure that everyone can participate

as comprehensively and equally as possible in defining their Heritage Futures and its use. The change towards a more sustainable world will not happen without inclusion. The participants of a workshop must therefore be encouraged to make use of their entire life experience, as we cannot disassociate ourselves from our world-views, perceptions, values, and beliefs in the same way as we can from, say, our professional roles. A successful workshop strengthens its participants' futures-oriented thinking and helps them find new ways to promote the sustainability transformation.¹⁰¹

In a Dynamic Museum, a key dimension of Heritage Futures Workshops is the exploration of past alternative futures through the museum's collections. The experiential understanding that participants have of cultural change and its transformative power can be strengthened by allowing them to experience the uncertainties, visions, and solutions that people had in the past as they faced a then-surprising future. In this way, these illustrative examples of past transformations from the museum's collections are signified as collections of Heritage Futures.



Figure 12. In Heritage Futures work, different examples from a museum's collections are signified in a co-creative process. The Heritage Futures Workshop, which is part of the activities of a Dynamic Museum, draws on museum collections and the personal experiences of its participants. Photo: Lusto, Timo Kilpeläinen.

ORGANISING HERITAGE FUTURES WORKSHOPS

The Heritage Futures Workshop is a tool for futures-oriented thinking in a Dynamic Museum, as it increases the futures awareness and agency of the museum's users, stakeholders, and staff. Dynamic Museums can use Heritage Futures Workshops to influence society by empowering people and communities to build the future and by supporting their ability to navigate timelines from the past to the future. Heritage Futures Workshops create Heritage Futures for the use of people and communities, and it can also be added to the host museum's collections. The five-step Heritage Futures Workshop model and its preparatory and post-workshop steps are freely available to all museums, and the model can be applied in other locations as well.

Workshop structure

The Heritage Futures Workshop is comprised of five steps (Diagram 5 and Appendix), and its most essential component is the temporal transition from the present to the past, from the past to the future, and from the future back to the present. The workshop's primary focus is on the individual co-creation of new understanding, the assignment of shared meaning to actions and measures that can change how people act, and, through them, the cultural sustainability transformation. The workshop does not aim for a consensus, common strategy, or specific action plan – instead, it aims to awaken individuals to sustainability issues, to foster the co-creation of Heritage Futures together with other

participants, and to enable the sharing of new ideas and meaningful, novel, and more sustainable practices. It is more than co-production, i.e. the joint implementation of a known solution.¹⁰²

By visiting the future through the past, we can alter our perceptions and understanding of the reality that surrounds us today. Previous generations who lived through past changes had to make their choices with the understanding available to them at the time, based on the risks they understood and the futures they could imagine. In the same way, future generations will look at the decisions and choices we make today from the perspective of the future that came to be and with the understanding accumulated by humanity over time.

The question posed by Heritage Futures is this: what could we do differently today to make the future more sustainable and better equip future generations for the challenges and opportunities that they will face in their daily lives? Museums are inspiring workshop spaces that provide the ideal setting for addressing the past in a concrete way. Participants are invited to use their whole life experience in the workshop's temporal transitions between the past and future, as well as in the co-creation of Heritage Futures.¹⁰³

WHAT MAKES A HERITAGE FUTURES WORKSHOP?

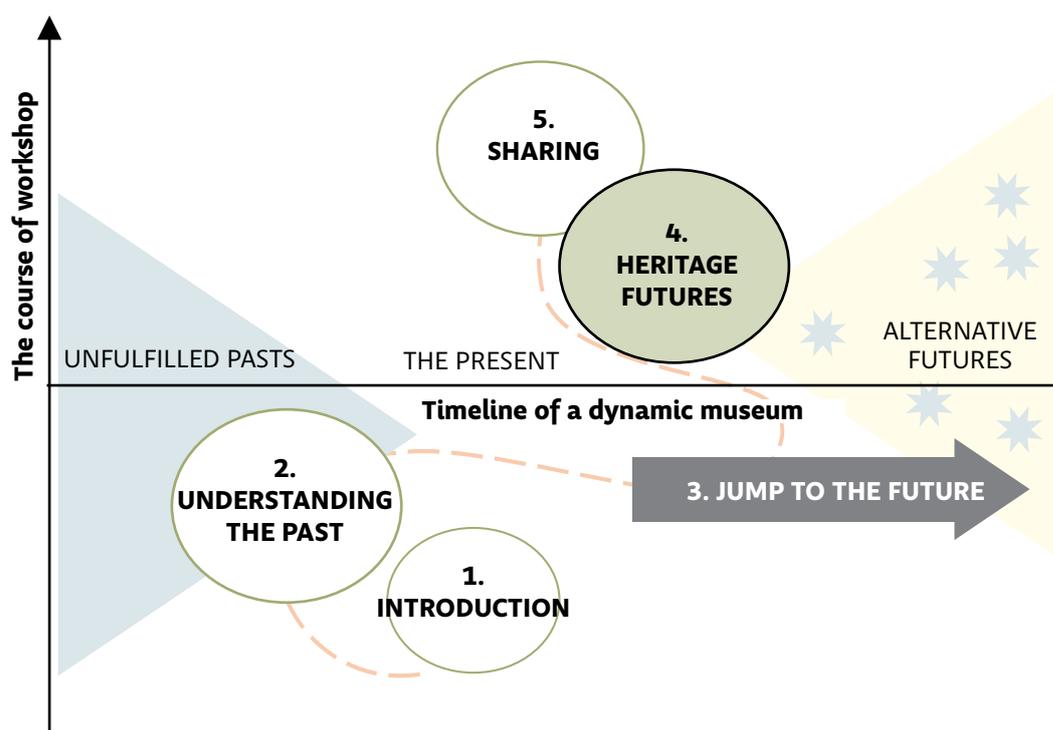
- The organiser of the Heritage Futures Workshop provides participants with information on the boundary conditions for a sustainable future
- Together, participants create Heritage Futures that will help them incrementally bring about a sustainable future
- The museum or other organiser of the Heritage Futures Workshop does not determine the contents of this Heritage Futures
- The most important outcome of the Heritage Futures Workshop is the Heritage Futures that the participants will bring with them after they have completed the workshop
- In the Heritage Futures Workshop, moving between the past, present, and future is key to understanding transformative solutions and the collaborative Heritage Futures creation process.

The Heritage Futures Workshop starts with an introduction to the topic at hand and ends with a joint discussion and the sharing of Heritage Futures. The leap into the future is supported with a suitable, experiential imagination exercise. During these steps, every participant is together in the same space. Otherwise, the workshop is conducted in small groups of around 3–6 people. Each group is provided with tools for taking notes, such as large paper sheets if they are indoors, chalkboards if they are outdoors, or a suitable digital platform if the workshop is conducted online. These notes are reviewed at the end of the workshop, and they can be compiled into a summary that is sent to the participants afterwards.¹⁰⁴

1. Introduction, all participants (Diagram 5):

For the introductory section, the museum plans a short provocation or thought-provoking introduction to the theme of the workshop. This can be done by a representative of the museum or its stakeholders, or by an expert on the theme at hand. The introduction can take the form of a short expert lecture, interview, video, series of images, or sensory experience and discussion. The point is to allow the participants to acclimate themselves to the event and understand the aim and purpose of the workshop, the core of the work, i.e. breaking away from everyday life and redirecting the river of culture into a new direction. Participants should also be provided with information about the workshop's steps

Diagram 5. The steps of a Heritage Futures Workshop, from the introduction to understanding the past and then a leap into the future and towards Heritage Futures. Diagram: The DYNAMO project¹¹¹.



and when there will be breaks. If the progression and results of the workshop are to be documented, the participants should be asked to fill in the relevant consent forms at this point.¹⁰⁵

2. Understanding the past, small groups (Diagram 5):

The museum uses its materials and spaces to provide participants with a view of the past. This way, they will understand how the choices made in the past resulted in the world today, but they will also learn about unrealised past trajectories, i.e. futures that never came to be. This can be achieved by looking for and presenting past inflection points, but more general descriptions of past alternatives can also suffice. The past can be examined through, for example, stories or objects where, due to surprises, coincidences, or purposeful action, the course of history was completely altered. Even in the past, people have faced situations that posed big questions about the future.¹⁰⁶

This section can focus on centuries of history or just the recent past – the further back you look, the more imagination you need. How did people justify their choices in the past, based on the information available to them at the time, and what impacts did they believe their decisions would have on people's daily lives, both then and in the future? Examining past futures and reflecting on them together can help shed new light on the present as well.¹⁰⁷

The participants in each group are asked questions that help them make and share their own observations about the stages of change they could identify in the past. The facilitators or the participants themselves document the main points of the discussions. Here are a few sample questions: What thoughts or feelings did the story evoke? Why? How did people back then act or make choices that would affect their future?

3. Leap into the future, all participants, discussion in small groups (Diagram 5):

After visiting the past, the participants are asked to leap into the future. The aim is to make this temporal transition feel personal to each participant, for example by making use of a variety of multisensory breathing or imagination exercises that have been tailored to the situation (see the info box on Sensory-motor exercises). The span of time between the present and future should not be too short – in most cases, facilitators help participants imagine futures that are at least 20 years, even 100 years into the future. As imagining different futures is difficult and often driven by personal assumptions, the Heritage Futures Workshop can provide inputs to

spark the imagination: news headlines, short stories, pictures, or brief boundary conditions that describe the future and help participants remain in the future and far from the present and their everyday lives. The aim is to break away from conventional thought patterns that typically envision the future as a dystopia, utopia, or a continuum of the present: no future is exclusively good or bad, only different.¹⁰⁸

Questions are used to stimulate thinking and discussion about new and surprising yet desirable futures. The facilitators or the participants themselves document the main points of the discussions, as was done in step 2. Here are a few sample questions: What will that future be like? What is surprising about it? What is different? How would you work together with other people in that world?

Finally, the participants select the most desirable future phenomena that they have imagined. For example, each participant in a group can be given three personal votes to the most desirable ideas that the group has documented. These votes can be allocated to different phenomena, or several votes can be given to an especially preferred phenomenon. In practice, these votes can be documented as checkmarks on the notes taken during the discussions. It is important to ensure that every documented detail is visible to all participants at all times, so that they can effortlessly cast their votes. Once everyone has submitted their vote, the group discusses and selects a few of the most desirable future phenomena for the next step of the workshop.

4. Heritage Futures, small groups (Diagram 5):

The co-creation of Heritage Futures requires a return to the present. The participants in each group select the most desirable future phenomena from the previous step and summarise the insights that they have gleaned from their understanding of the past and their leap into the future. At this moment, their shared findings take on a new meaning: the actions they take today can enable some futures, but they can also restrict others.

Questions are used to clarify the participants' insights into their daily lives. As in the previous steps, the facilitators or the participants themselves document the main points of the discussions. Here are a few sample questions: What would I do differently today? What approach would I strengthen and what information do I need more of?

While these questions are personal, they also share the same goals. It is important to provide adequate space to reflect on what the group has collectively learned from the time jumps and how these findings affect each participant's own thoughts and actions. In the end, the

participants are left with an idea of what they can personally do for the future. These alternative approaches are summarised as Heritage Futures that each participant can bring with them after the workshop has ended. Everyone can select the Heritage Futures that speak to them the most, and they can also share their Heritage Futures with the other participants.

5. Sharing, all participants (Diagram 5):

During the final step of the workshop, the small groups come together to share and reflect on their experiences: what Heritage Futures did each group produce and what key discussion points inspired them? The workshop's facilitator helps each participant reflect on how they could change their behaviour and the insights that they have gleaned from the workshop. At this point, the participants should also be reminded of the workshop's purpose: change does not happen overnight, and their shared leap in time – and from their everyday

lives – can often lead to continued reflection and new insights, even after the workshop has ended.

Before the workshop

Even if you already have a structure in place, it is worth preparing for the Heritage Futures Workshop well in advance. A new script should be prepared for each workshop, and a sample script is available at the end of this book¹⁰⁹. Here are a few questions that should be answered during the preparation of the workshop:

1. *Who* is the workshop for, i.e. who are its participants or target groups?
2. *How* will the workshop be organised, i.e. in person or online?
3. *What* question will the workshop answer, what workshop questions will help you reach your goal?
4. *How much* time and human resources are available?
5. *How will the workshop end*, i.e. what will partici-



Figure 13. The Heritage Futures Workshop ends with a session where participants can share and reflect on their experiences. Photo: Lusto, Timo Kilpeläinen.

pants gain from it, will it include a feedback survey, and how will the data from it be documented?

The preparation of the workshop will require around three to four meetings, and up to a maximum of 10 hours. The planning process should be initiated about two months before the workshop date, the invitations should be sent a few weeks in advance, and registrations should be requested a week before the event.

The workshop's organisers should also consider their roles and personal perspectives on the future. Otherwise, they run the risk of colonising the future, i.e. influencing the workshop's approach to the future through their choice of invitees and framing of the workshop's questions.

1. For whom

Changing temporal perspectives and breaking away from the patterns of everyday life is a challenge. By bringing together as diverse a group of participants as possible, the workshop can provide a platform for mixing different backgrounds, views, and expertise, but also opportunities for challenging one's own thought patterns. The Heritage Futures Workshop should be developed as an open event for all types of participants, and it should also be framed as a chance to experience the museum's collections in a new light. However, the organisers should also be aware of the fact that the workshop's participants are likely to be active, interested individuals with a prior understanding of how these types of workshops are conducted.

When targeting a specific museum stakeholder group or, for example, a desired group of participants, it is important to plan how you will invite them – in some cases, you may even need to contact them personally. Remember to always inform your participants about the workshop's objectives.

2. In-person or online workshop

The Heritage Futures Workshop steps described above are suitable for both in-person and online workshops. In an in-person workshop, the museum's spaces, exhibitions, and collections lend the workshop a tangible sense of time. An online workshop, on the other hand, allows for equal participation, regardless of geographical location and travel costs. However, an online workshop requires adequate skills, access to a computer, and the ability to use various applications. The number of participants in an online workshop can be quite large, and this can pose a challenge to facilitation. Participants should be divided into smaller groups, preferably of 3–4 people, to facilitate the work.

When conducting an online workshop, particular em-

phasis must be placed on the preparation of the workshop's materials. Accessibility must be ensured by providing easy-to-use tools and clear instructions in advance. It may be advisable for each group's facilitator or other organising party to act as a note-taker if the group's participants have difficulties with the workshop's various technical applications. Online workshops can make use of various collaboration platforms, such as free, easy-to-use virtual whiteboards and notepads.

The links and functionalities of the chosen collaboration platforms must be verified in advance before the online workshop. The groups for small group work should be selected in advance. It is also a good idea to recruit a technical support person for the online workshop – this person can also be responsible for documenting the event and taking screenshots, if these are part of the workshop.

3. Formulating questions and taking notes

Adequate time should be allocated to formulating the workshop's discussion questions. How will each question influence the course of the discussion? Will these questions bring new insights, or could they reinforce old assumptions and habits? Will these questions help the participants go beyond the conversational nature of museums? Aim for simplicity and make use of everyday language and expressions that resonate with the participants' own life experiences. Has the content been tailored to the group coming to the workshop? One or two well-articulated and brief questions is a sufficient number of questions per workshop step.

Taking notes on large sheets of paper with a highly visible pen is a good way of ensuring that each participant can always see their group's discussion points, which helps keep the futures creation process open to all. These notes are also necessary if the material is to be used afterwards, for example for research or museum collection purposes.

4. Necessary resources

Each small group should have its own facilitator, but this can be adjusted to the situation and resources at hand. The script for the Heritage Futures Workshop can also be designed in a way that allows the groups to autonomously complete their tasks while being provided with support when necessary. Overall, to ensure a smooth workshop experience, one person should be responsible for the big picture: keeping track of the schedule, managing the summarisation process, and documenting the workshop. This means that at least 2–3 people are needed to run a workshop day, especially when you already have some experience running a workshop and

know what types of situations you may encounter.

Heritage Futures Workshops can be arranged in museum exhibition spaces or lecture halls, at a stakeholder's premises, or even outdoors. The space should be easy to move around in. The practical arrangements for a workshop – such as vocal considerations, the way that questions are expressed, how participant answers should be documented, and how to allow for free movement – must be determined according to the workshop space at hand.

5. Final considerations

Even before the workshop, you should think about what will happen after its completion. If the museum wants to use Heritage Futures Workshops to generate Heritage Futures for its collections, special attention should be paid to the documentation of the workshops, and this documentation process should also be planned in advance. What should be documented and how will the museum archive and use this material? Good practices include recording conversations, answering questions on sticky notes, chalkboards, or flipchart sheets, and taking photos. The resources available for the Heritage

Futures Workshop and its recording should be linked to the relevant documentation objectives. The role that material collection will play in the workshops is ultimately determined by the organisers themselves. If any material is collected, it should be handled according to the usual research ethics principles¹¹⁰, and consent must be sought from all participants for its use. You should use your workshop invitations to inform your participants that the workshops will be documented and archived, and, at the beginning of the workshops, you must ask your participants to sign the consent forms permitting the archival and use of the material.

A good method for collecting feedback is to email a survey to your participants about a week after the workshop. The feedback survey should aim to reinforce the shared insights and changes in everyday habits: What insights did the different steps of the workshop provide? Have your thoughts about the future or the theme of the workshop changed? How? The workshop's organiser can also use this opportunity to ask for suggestions on how they could improve the workshop's practical arrangements, structure, timetables, facilitation, group work, or communications.



Figure 14. In addition to planning the content, space, and facilitation of your Heritage Futures Workshop, don't forget the importance of breaks and refreshments for ensuring a collaborative and creative atmosphere. Photo: Pauliina Latvala-Harvilahti.

COMMUNICATION: OPPORTUNITIES AND PITFALLS

Communication plays a vital role in the transformation of museums into Dynamic Museums and in their attempts to influence society with the help of Heritage Futures Workshops. Each Heritage Futures Workshop is different not only in terms of its contents, but also in terms of its communications.

The communication challenges that a museum may face typically concern its internal communications, general external communications, and how it informs its audience of upcoming events. Depending on the available resources and channels, each museum should consider at least the following opportunities and pitfalls

Opportunities: Think about how you can...

- incorporate the core messages of Heritage Futures Workshops, Heritage Futures, and the Dynamic Museum in your museum's communications plan. Make your audience aware of the fact that your museum is not focused solely on the past.
- introduce new concepts (the Heritage Futures Workshop, Heritage Futures, and the Dynamic Museum) in an understandable way in your museum's communications well before the actual event.
- use interactive communications to encourage people to participate while you are still in your planning stage: everyone should be able to suggest which topics they would like to discuss in their area and where the workshops could be held (outside, in other spaces...).
- prepare your invitations to the Heritage Futures Workshop. Participants should be aware in advance of the workshop's objective and the core issue it will focus on.
- maximise the clarity of your communications – to attract participants and encourage other museums, make sure that everyone understands the what, where, when, why, and to whom. And remember: a good cup of coffee can be a powerful motivator.
- communicate proactively. It's better to inform people early rather than waiting for them to ask. And don't forget to send those personalised email invitations and tag your stakeholders.
- make the start of your Heritage Futures Workshop as clear as possible while also reiterating its core idea.
- inform people about the future use of the material that your museum may document as part of the workshop.
- ensure that the results of your workshop or its materials are not left to gather dust in the museum: what mementos or insights could your participants take with them, immediately or after the fact?
- help your participants amplify your message and their workshop experiences on social media: create and share the hashtags of your Heritage Futures Workshop.

Pitfalls: Think about how you can avoid a situation where...

- your workshop-related communications are left on your museum's website. People rarely share these types of pages on social media.
- people do not understand what you expect from your participants and why.
- your museum does not know what its audience expects from the workshop or a Dynamic Museum in general. This can also be a good thing, but you can use your invite to survey people's expectations so that your organisers know where they stand at the start of the workshop.
- you are unable to clearly communicate your museum's values. People will not be able to see the link between the goals of your Heritage Futures Workshop and your museum's activities if you fail to articulate your values.
- your key stakeholders and support associations are not sufficiently informed (in time) about the nature of your museum's new activities.
- the open discussion on the need for a Dynamic Museum in society and new futures-oriented methods of inclusion (Heritage Futures Workshops) is limited to e.g. your museum's director and a stakeholder representative, instead of your entire museum staff and the wider public.
- your museum's external communications do not reflect the atmosphere and results of your Heritage Futures Workshop.
- your communication efforts are so impersonal that they become lost in the flood of information from other organisations.
- you have no contingency plans for any surprising events (which always occur).
- your communications reach only a small and/or homogeneous group, resulting in a lack of diversity and plurality in your futures-oriented work. This will also make your ideas about the future more one-sided.

SENSORY-MOTOR EXERCISES

Satu Tuittila

The atmosphere and working environment of a Heritage Futures Workshop can be supported through various means, for example by creating a pleasant and inspiring environment, serving food and drinks, and arranging various exercises.

The stimuli provided by your museum environment for time travel and spurring the imagination should be used as diversely as possible. Heritage Futures Workshops are often tightly scheduled, but with small physical and multisensory exercises, you can foster a stress-free atmosphere and the creativity of your participants.

Sensory-motor exercises help support

1. presence and concentration
2. team building and a good work environment
3. imagination and creativity

Short concentration exercises are well suited to the start of a workshop or before your participants break off into small groups. If your workshop is longer, you can arrange multiple exercises. Play and humour support creativity, and in group work, building rapport and flattening hierarchies encourage co-creation and brainstorming. The leap into the future is a part of the

process where it is particularly important to support the imagination and creativity of your participants. Imagining that which is not yet possible or likely requires encouragement, and using the different senses can broaden your participants' perspectives. Whenever possible, it is a good idea to link your exercises to the theme of your Heritage Futures Workshop and museum environment, even if only loosely.

The facilitation process in a nutshell

- Choose exercises that you believe in and that you find meaningful. Test and practise any new exercises beforehand so that you have some experience with them.
- Think carefully about the instructions for your exercises: make them as short and clear as possible, and make sure that they contain all the essential and necessary information your participants need.
- Remember to encourage and support your participants.

Figure 15. An outdoor Heritage Futures Workshop allows for nature-oriented sensory-motor exercises. Photo: Pauliina Latvala-Harvilahti.



- Even if you're on a tight schedule, give your instructions calmly and try to foster a sense of non-urgency – an atmosphere that has room for imagination.

Exercises that support the presence and concentration of your participants by asking them to pause and relax for a moment

Stand up in a sturdy wide stance, or sit up straight – close your eyes. Put one hand on your chest and the other on your diaphragm. Let your shoulders relax. Breathe calmly. Listen to your breathing and feel the warmth and slight movement of your hands. (Duration: around one minute.)

Stand up in a sturdy wide stance – close your eyes. Let your spine grow long, relax your shoulders, and breathe calmly. Imagine deep and widely spreading roots growing from the soles of your feet. Slowly shift your weight from one foot to the other until you can sense it. Shift your weight across the soles of your feet and imagine yourself swaying in a light breeze. Use your roots to greet to the other participants. (Duration: 1–2 minutes.)

Sit in a comfortable position – close your eyes. Pick one hand and calmly stroke the opposite shoulder and arm. Breathe calmly and relax your shoulders. Pick the other hand and repeat. (Duration: around one minute.)

Your relaxation exercises can include soundscapes, poems, or short stories that stimulate your participants' imagination, travels through time, and futures-oriented thinking.

Concentration and futures-oriented thinking

This exercise can be conducted both outdoors and indoors. You can combine different observational tasks to support your participants' concentration, and you can also augment their multisensory observations with retrospection and visits to the past or by helping them imagine the future.

Stand in a sturdy wide stance – close your eyes.

- Listen to the soundscape, what kinds of sounds can you hear? What could this place have sounded like X years ago, and what might it sound like X years from now?
- Can you smell any scents or odours? What kinds of memories and/or images do they bring to mind?
- Did you feel the wind or sun on your face? Imagine how the weather, climate, and landscape will change in X years?

- Feel the environment – its surface textures, warmth, humidity... connect your thoughts to the theme of the workshop.
- Take a short observational walk in your local environment: what signals of change can you notice? Stop every now and then and sharpen your senses: listen, smell, feel.

Exercises to support team building and a good work environment

During the introduction round, you can ask your participants to tell their name and answer a personal question related to the workshop's theme (e.g. favourite nature spot or other theme-appropriate location, wish ..., favourite and least favourite ...). Disregard any roles that could introduce unneeded hierarchies between your participants.

Short pair interviews that are related to the theme of the workshop, where your participants can get to know each other on a more personal level. This can also include, for example, a scent or an object they can touch with their eyes closed as well as a related question.

Participants in small groups can use their bodies to build new imaginary organisms, future machines, family portraits, or snapshots (workshops for children or families). For example, one participant takes the first position, the next one adds to it, and so on.

SERVICE DESIGN IS THE DESIGN AND DEVELOPMENT OF A SERVICE

Riitta Forsten-Astikainen

From a service design perspective, a successful and productive workshop will produce satisfied participants and a wealth of insights on the workshop's topic for both participants and organisers. The following are observations and recommendations that can be used to create an effortless Heritage Futures Workshop for your participants.

Planning ensures success

Organising a workshop requires advance preparation and diligent background work. A well-planned and executed preparatory process will allow your workshop to flow more smoothly and give you more time to focus on the topic at hand. Once you have decided on your date, venue, and target group, the next step is to choose the way(s) in which you will reach your target group: personal email invitations, invitations to different networks, social media marketing, print media marketing, and so on. Your marketing message must include a link to your registration form. The registration form can be made in advance using a suitable digital tool, and it should describe the nature and objectives of your workshop. Email registration can be a sufficient choice if your intended group will not include too many members.

As your workshop date draws near, it is important to send a welcome message to your participants. It should detail the accessibility, venue, time, arrival instructions, and other relevant information about the event. If your workshop includes catering, remember to take the time of day into account – for example, many people tend to prefer savoury options over sweet ones in the evening. And you can never go wrong with fruit, no matter the time or season.

Focus on a clear theme and easy-to-understand concepts

To make it easier to communicate the aim of your workshop to your participants, use your invitation to explain the workshop's theme in everyday language. When your participants understand your theme, it makes it easier for them to be aware of their role in the brainstorming process. "Heritage Futures Workshop" is, in itself, a mouthful, which is why it is important to explain it in a very concrete way. An evocative photo or illustration can also help, as people use different learning styles to internalise new concepts.

It is advisable to keep the questions in your workshop as clear and consistent as possible across the bo-

ard. This way, your participants will better understand your workshop's objectives and where its results will be used, and to whose benefit. Making use of overly broad themes or world-embracing/abstract questions will distract your participants from the essential point of your workshop. If a participant has to ask what a question means, it is too difficult. A good rule of thumb is to make your questions so simple that anyone could answer them in some way, even if they knew nothing about the topic beforehand.

Your groups need facilitators

Facilitators play a crucial role in Heritage Futures Workshops. They must be able to clearly describe the workshop's different steps and the expectations related to them. Participants should be informed of their role in the process, i.e. why they are there. The facilitator should stress that the Heritage Futures Workshop is not about seeking the "right answers" or even a consensus – everyone's views are valuable.

While the facilitator does not take part in the discussion, they help guide it through the workshop's different steps. The facilitator's role is to build trust, create a safe space, and promote creative thinking. They must not voice their own opinions, as this could influence your participants' thinking and prevent them from coming up with their own ideas. The facilitator subtly guides the group in the desired direction and helps to include even the quietest participants. A skilled facilitator can monitor the brainstorming process closely and diplomatically "hush" overly outspoken participants. They are impartial, non-manipulative, and non-judgmental. Their open questions, discussion summaries, positive feedback, and flexibility help the group proceed in their work.

To support the facilitation process, you can use e.g. a large paper sheet or fibre tablecloth that is taped to the wall or placed on a table so that it is visible to all participants. You also need sticky notes and highly visible markers, as the process for co-creating different futures requires freely shared knowledge and open debate. A facilitator's toolbox can also include masking tape, a portable whiteboard, and a whistle.

To keep the group's energy level up, it is a good idea to occasionally encourage your participants to move, do light exercises, or stretch. Another good mood lifter is to swap writing for drawing or presenting things using picture cards. A short exercise that looks at an

issue from a new perspective can provide new food for thought – for example, what would your grandmother say about this topic?

Make a schedule and stick to it

You must schedule your workshop, even if your aim is to gather as many different ideas as possible in a creative atmosphere. It is a good idea to reserve a predetermined amount of time for each step of the workshop to avoid a sense of urgency. Even if your workshop will last for several hours, time can fly by surprisingly quickly during conversation. The appended workshop script template can be used as a basis for creating your own Heritage Futures Workshop, as well as a practical support for your facilitators during the workshop itself. A script is particularly important for those facilitators who were not involved in the planning process.

Ensure that everything is ready before the arrival of your participants: your venue, its accessibility, guides to the venue (signposts), catering options, group divisions, work areas, materials, and technological solutions. You must consider your technological solutions (lighting, audio, devices, device compatibility) and how they will fit your venue in advance, and they should be set up well ahead of time. Technology is a typical point of failure at any event, and it is time-consuming for you and frustrating for your participants if you cannot find the right cable when you should be holding a presentation. If your venue can accommodate a large monitor or projector screen, a friendly “Welcome!” slide is a nice way to greet your participants.

Your schedule should include a little extra time for transitions, questions, and other interruptions. It is also a good idea to include a few breaks in your schedule, and you must communicate these to your participants. Agree beforehand who will oversee the workshop’s schedule. A whistle or a loud bell is a handy tool for getting everyone’s attention and indicating when it is time to move on.

Step 4, the co-creation of Heritage Futures, is a key element of the Heritage Futures Workshop. It is a good idea to reserve enough time for this step, as your participants are likely to find it the most challenging step of all.

An important, but usually time-starved step, is the debriefing and final summary, which draw on your participants’ reflections on what they have experienced. You

should set aside a fair amount of time for the reflection round – if need be, you can reserve less time for your introduction, for example.

At the end of the workshop, the organiser should summarise the experience and tell their participants how the results will be used in the future. When planning your workshop, you should also work out a plan for what will happen after the workshop, what your participants will be informed about regarding the next post-workshop phases and how, who will process the workshop’s results, how they will be processed, and how the results will be concretely made available and incorporated into people’s lives.

Most workshops include a feedback survey that is sent to participants after the event. You can use it to thank your participants again and remind them of how and where its results will be made available in due course. If you do not intend to send a feedback survey, you should at least send a thank you note as a polite gesture.



Figure 16. The co-creation of Heritage Futures is intensive work, and enough time should be reserved for the process. Photo: Pauliina Latvala-Harvilahti.

PILOT MUSEUMS' WORKSHOP EXPERIENCES

The DYNAMO project, which developed the Heritage Futures Workshop method, organised 10 experimental Heritage Futures Workshops, half of which were carried out online due to the coronavirus pandemic. The project partners' descriptions of the pilot workshops are available below. The workshops were divided into in-person and online workshops. The in-person workshops were held at the Finnish Museum of Natural History Luomus, the Design Museum (A&DO – Learning Centre for Architecture and Design 2020-2023), Tehtaan koulu in Varkaus (in collaboration with the Museums of Varkaus), and the Finnish Forest Museum Lusto. Lusto's second in-person workshop was held outdoors, on the top of Punkaharju Ridge. The remote workshops were arranged in collaboration with the Finnish Museum of Agriculture Sarka, the Museum of Technology, the Finnish Museum of Photography, the Finnish Forest Museum Lusto, and the Finnish Science Centre Heureka.

LUOMUS

Organisers: The Finnish Museum of Natural History Luomus and the DYNAMO project. Planners Anni Granroth and Markku Liinamaa, Marketing Coordinator Essi Huotari, and Head of Public Engagement Sanna Vuori from Luomus.

Date and duration: 7 June 2021, 12:00–15:00 (3 hours)

Venue: Luomu's exhibition spaces

Themes and context: The workshop focused on the importance of people's relationship with the environment as a tool for ecological reconstruction. The workshop was designed for professionals and students in the education sector. The workshop's questions focused on the changes in Finnish schools and the role of the education sector in ecological reconstruction. The discussion was strongly structured around what new emphases, approaches, or contents would be needed in the school sector's operating culture to bring about necessary changes. Challenges were found both in the definition of concepts (operating culture, sustainable development) and the scope of the National Core Curriculum (OPS) and the amount of content in it (no room for additional content, covering all current content is very demanding due to the OPS's stringent timetables). The important practices that emerged during the discussion were based on cognitive abilities, emotional skills, and empathy, and they also emphasised the ability to perceive and influence phenomena, connections, and entities that were related to the planet itself. Some suggested that it would be crucial to incorporate the aforementioned elements in all teaching, rather than in specific contents.

Number and description of participants: Due to the University of Helsinki's pandemic restrictions, a maximum of ten people were allowed to participate in the indoor workshop. The workshop included six participants, two group facilitators, one general facilitator, and a service designer who monitored the work. Three of the participants were teachers, while one of them was an adult educator. Two of the participants worked

as guides at Luomus, where they were responsible for Luomus' practical science and environmental education efforts. The workshop originally included three groups, but due to the limited number of participants, this number was reduced to two groups with three participants each.

How the workshop proceeded in practice: The participants gathered at the Muutosta ilmaassa (Change in the Air) exhibition at Luomus. After the opening remarks,

Figure 17. Facilitated reflection on ecological reconstruction at Luomus' Heritage Futures Workshop. Photo: Pauliina Latvala-Harvilahti.



they were given a tour of the exhibition as an introduction to the workshop's theme (guided by Planner Anni Granroth). This introductory session looked at the changes in humans and the environment from the end of the latest Ice Age to the present day, and it provided further information on the scope and impact that humanity has had on the environment.

After the expert presentation, the groups delved into the workshop's contents and questions. The groups' leap into the future was conducted with the help of a breathing and imagination exercise. After the leap, both groups were given a daily newspaper (Uudenmaan alue-uutiset) from the future: the first group's newspaper was from 20 years in the future (2041), while the second group's was from 100 years in the future (2121). Both newspapers were created on the basis of an ecological reconstruction report by the independent and multidisciplinary BIOS Research Unit and the scenario contents provided by the IPCC (Intergovernmental Panel on Climate Change). The participants felt that the news about the near future was belated, while the news from 100 years from now (which was based on the success of ecological reconstruction) was considered hopeful.

After reading the news articles, the workshop's participants answered core questions and discussed how this

Figure 18. An extract from the cover page of the fictitious Uudenmaan uutiset newspaper from a hundred years in the future, which was used to stimulate discussion on the future at Luomus' workshop.

future came to be and what this world's education sector might look like. They also considered what changes need to take place in today's schools to achieve this type of desirable future, and what skills this will require of teachers. The discussion was enthusiastic, and the time seemed to pass much faster than expected.

How the museum supported the futures work of its participants

How the participants were invited: Participants were invited through Luomus' channels, the Department of Teacher Education, and the Foundation for Environmental Education (FEE) Finland's newsletter, which is distributed to all Eco-Schools in Finland. The timing was challenging due to the start of the summer holidays, but on the other hand, daytime activities are always challenging for teachers.

How the workshop's material was documented: The workshop's material was documented by the museum.

Results: The workshop was a positive experience for everyone, and its careful planning paid off: it worked well as an in-person event, but it would certainly have been a different experience had it been held online. The exhibition spaces were clearly inspiring and made the visit worthwhile to the workshop's participants. The advantage of the small group size was that it allowed for seamless dialogue – the participants were able to

UUDENMAAN ALUE-UUTISET

LAUANTAI 7. KESÄKUUTA 2121. VIIKKO 23.

HINTA 3,20 €



Arktiksen suosio matkakohteena nousussa

Koko arktiksen kattavan suojelualan luontomatkailu lisääntyy - tunturilapin suosio matkailijoiden puolimatkan krouvina kasvaa.

“Suomi on matkailijoiden väylä Arktiselle alueelle”

“Ihmiset tulevat tänne valmistautumaan arktiseen merimatkaan” retkeilykeskuksen johtaja kertoo. Työllinen lomamatkan nituus on noin kuukaudesta vuokertoista. Suomi on keuhkoinen

Kaupunkisuden yleistyvät

Uusi susipopulaatio havaittu Helsingin biopolialueella -

Asukkaat toivottavat uudet naapurit tervetulleiksi.



Asutuksen salliminen suojelualueilla puhuttaa

Monikäyttömetsän osuus nyt 50% Suomen metsäpinta-alasta, Suomen kattavaa suojelualueverkostoa kehitetään edelleen. Asumisyhteisöjen perustaminen monikäyttömetsän yhteyteen jakaa mielipiteitä.

converse naturally, and there was no need to guide who could speak and when, as everyone participated fairly equally in the discussion. The questions guided the discussion well, the newspapers supported the futures-oriented vision work, and the discussion was quickly elevated to the level of thinking and world-views, instead of concrete (and one-dimensional) ideas, such as “recycling bins for schools”.

Feedback from participants: Oral feedback: “When will you arrange the next workshop?”

The museum’s own observations and comments: The design and implementation of the workshop required some amount of human resources from the museum. Attracting participants to the workshop proved challenging. Teachers are a key target group for training in the principles of ecological reconstruction, and they have also expressed the need for activities that provide time and space for reflection and discussion. In the future, this type of workshop or training could be held on a weekday evening and could also include, for example, a more comprehensive tour of the museum, to better

interlink the museum with the workshop and make it a more attractive prospect.

At first, the idea of a three-hour workshop seemed long, but, yet again, we nearly ran out of time, resulting in a very abrupt summary. The three-hour workshop also allowed for the gradual build-up of ideas; the first discussions differed greatly from those at the end.

A very interesting experiment; as its Heritage Futures, the facilitated group highlighted experimentation and the redefinition of operations (if something doesn’t work, try doing it differently), empathy and planetary thinking, where the primary level of consideration is very broad and holistic (we are inhabitants of the same planet together with all other organisms), and the more local thinking that stems from this view: are we also identified by being from Finland, Helsinki, or specific boroughs like Kallio? The idea of “co-identities” (we are citizens of the planet, Europe, and Finland at the same time) was also an interesting point.



Figure 19. The benefit of having small groups at Luomu’s Heritage Workshop was seamless dialogue and equal participation. Photo: Pauliina Latvala-Harvilahti.

DESIGN MUSEUM AND MUSEUM OF FINNISH ARCHITECTURE: A&DO - LEARNING CENTRE FOR ARCHITECTURE AND DESIGN 2020–2023

Organisers: A&DO - Learning Centre for Architecture and Design and the DYNAMO project

Date and duration: 17 November 2021, 15:00–18:00 (3 hours)

Venue: Design Museum auditorium, Helsinki

Themes and context: The workshop's theme centred around the local environment, which was considered in the context of sustainable design and the creation of the built environment. The workshop's main questions were the following: What is the core mission of planning-related skills and disciplines in the creation of a good and sustainable local environment? How can we create good local environments for everyone in 2077?

Number and description of participants: 15 people. Design professionals (architects, designers), the A&DO team, and staff from the Design Museum and the Museum of Finnish Architecture.

How the workshop proceeded in practice: Leena Svinhufvud, Educational Curator of the Design Museum, introduced the idea and objectives of the A&DO Lab to the participants. The A&DO Lab is an exhibition space, learning environment, and collection exhibition that is housed in two exhibition containers. It invites everyone to reflect on the nature of a good local environment. The exhibition challenges people to think critically and provides food for thought for individuals and groups alike. It does not offer ready-made solutions, but instead demonstrates how the future is not predetermined and how we can all influence it through our own actions. Together, we can envision possible futures through exploration, curiosity, experimentation, and play.

The participants were then shown a taped interview with an expert in the field of humanistic and ethnographic urban studies (Docent Pia Olsson, University of Helsinki, Ethnology). This helped broaden the participants' thinking about the right of urban citizens to define their local environment, urban cultural heritage, and place-relationship.

Examples from urban planning were used to illustrate past transformative points and changes in values. Head of Collaboration Arja-Liisa Kaasinen from the Museum of Finnish Architecture presented the Helsinki traffic plan (Smith-Polvinen) from 1968 and the Bjørvika waterfront area in Oslo in the 1960s and its development into the culture and entertainment area it is known as



Figure 20. The A&DO project's workshop explored what local environments could be like in 2077. Photo: Pauliina Latvala-Harvilahti.

today. The Smith-Polvinen plan proposed inundating Helsinki and its neighbouring cities of Espoo and Vantaa with motorways, some spanning up to eight lanes. For people interested in urban planning, this plan has come to symbolise the kind of dystopia that car-centric planning can lead to. The working groups discussed what these plans valued, what kind of future vision inspired them, and how they took nature into account.

The workshop then leaped into 2077 through an experiential transition where a member of the DYNAMO project recited a mood-setting passage. The participants considered what could be different or surprising about 2077, what all people value about their local environments at this time, and the condition of nature in these envisioned futures.

How the museum supported the futures work of its participants

How the participants were invited: Member bulletins to stakeholders (Ornamo design community, Finnish Association of Architects SAFA, Information Centre for Finnish Architecture Archinfo) about two weeks before the workshop. In addition, posts on social media (Twitter, Facebook) and the events sections on the

organisers' websites. Jaana Räsänen, principal of the Arkki School of Architecture for Children and Youth, advertised the workshop to the school's teachers (20) as well as to the architecture students and architects on the school's substitute list. The A&DO team informed a selection of museum staff, and the A&DO working group and steering group informed their own contacts in the design field.

How the workshop's material was documented: The workshop's material was documented by the museum. So far, the museums have not generated any documentation reflecting on their workshop activities, and this is something that should be discussed with the collections departments in the future. Anni Koponen, the Museum of Finnish Architecture's photographer, captured the event for A&DO and the museums. The documentation of futures-oriented thinking feels essential, as it is a topical perspective that affects the museums and A&DO in many ways today.

Results: The workshop's details were communicated well, and the participants had a clear idea of what they were in for beforehand. Identifying weak signals and emerging themes through moderated discussion and debate can help us develop our own activities. Understanding the needs of different users is a topical issue in the museums' joint project for increasing customer understanding, and similarities could be observed in how the workshop was operated. It was surprising and interesting to note that the images of the future produced in the workshop favoured nature, a calm pace, and the physical environment over VR, AR, or other such technologies – a good example of weak signals.

The various fields of design are future-oriented, and the professionals in these fields typically wish to explore multiple perspectives. Planning is always linked to anticipating the future, and it is characterised by a conversational, co-creative, and iterative approach. For this target group, the workshop proved to be a particularly enjoyable and motivating experience.

As a method, the workshop proved thought-provoking, and it also sparked the question: What would A&DO's own workshop and workshop concept look like? The built and designed environment, and the museums' expertise in this area, could provide a good basis for futures-related efforts.

It was rewarding to learn about DYNAMO's sophisticated workshop concept and be invited into a system designed by professionals. Museums have a lot of experience with the sort of audience engagement that is part of any workshop, but it was interesting to see how the workshop's script was constructed, what vocabulary should be used, and how the concept can be used to

conduct research. The experience proved empowering, and it inspired us to reflect on our own work in a positive way.

Feedback from participants: The participants were excited about working together and felt that the method worked and helped them generate new ideas. No one was disappointed, even though the process took quite a lot of time. The participants felt that being able to stop for a moment was really important. The long duration, clear structure, and suitably calm rhythm of the workshop allowed for listening and equal participation, which the participants considered a rare occurrence these days. Overall, the experience was very positive.

The museum's own observations and comments: On the one hand, the long duration of the workshop was a problem as, for example, several of the invited museum colleagues were unable to attend. However, we received feedback praising A&DO's participation in this pilot.

Due to scheduling constraints, our colleagues were unable to attend this inspiring workshop. We believe that it could have also inspired them and provided them with new perspectives on their work. It was a real luxury for the A&DO team to be part of a workshop facilitated by DYNAMO's experts. It was a meaningful and instructive experience to participate in the entire process, from the planning meetings to the workshop itself and even the feedback session.

MUSEUMS OF VARKAUS

Organisers: The Museums of Varkaus and the DYNAMO project

Date and duration: 23 November 2021, 13:00–16:00 (3 hours)

Location: Tehtaan koulu hall, Varkaus

Theme and context: The core question of the workshop was: what could be the kind of industrial know-how in the present moment that is making the future sustainable? Its context was the transformation of the energy industry both nationally and internationally, as well as in Varkaus.

Number and description of participants: 14 people and the facilitators. The participants included museum staff, experts from the core exhibition project, and researchers from the Ihmiset aineettoman teollisen kulttuuriperinnön haltijoina (People as Holders of Intangible Industrial Cultural Heritage) project, a collaboration between the Department of History and Ethnology of the University of Jyväskylä and the Varkaus Museum Centre Konsti.

How the workshop proceeded in practice: In the section that concentrated on the past, the participants were shown a video from the archives of the Finnish Broadcasting Corporation (YLE) about the energy crisis of the 1970s and 1980s. The ideas raised by the video were then discussed in three small groups, and their reflections were documented on sticky notes and flipchart sheets that were attached to the wall. The leap forward into the 2050s was conducted with the help of a bodily exercise. The small groups discussed the topic by focusing on a specific set of boundary conditions and the following question: How will industry function in relation to the given boundary conditions in the early 2050s? The desired futures were voted on and included in the Heritage Futures section as a starting point for discussion. At the beginning of the Heritage Futures section, DYNAMO's project leader explained the meaning of Heritage Futures and its goals. The groups then discussed what new measures could be taken by industry in relation to the desired futures, as well as what everyone could do individually. In the last section, each group shared three chosen perspectives or ideas to the other groups. Before the closing remarks and the feedback survey, the participants reflected on their experiences from the day and what elements each intended to incorporate into their futures-related pursuits.

How the museum supported the futures work of its participants

How the participants were invited: The museums sent personalised invitations to each participant.



Figure 21. The Varkaus workshop was inspired by archived footage of the energy crisis that started in the 1970s. Photo: Pauliina Latvala-Harvilahti.

How the workshop's material was documented: The workshop's material was documented by the museum.

Results: The Heritage Futures Workshop and approach deepened the museums' exhibition planning practices and reinforced the idea that modern industry and its impact should be more visible and felt in their exhibition plans. The Heritage Futures Workshop was also an excellent starting point for the group of experts involved in exhibition planning and served as a good team-building exercise. According to the community coordinator of the Museums of Varkaus, serving as a facilitator in the workshop was a professionally interesting and even educational experience.

Feedback from participants: After the workshop, the participants were emailed a feedback survey, to which

four people responded. Their feedback varied widely. The hall where the workshop was held had poor acoustics, which affected the experience. The feedback on the archival footage, which consisted of a long newscast from the 1970s, focused on its different and demanding, even boring, nature. On the other hand, the survey also provided ideas for broadening the approach to futures-oriented thinking – some also emphasised that it would be interesting to reflect on what museums could be like in the future. Some highlights from the feedback:

“These should be arranged regularly for every work community. It was a good reminder of why I’m in this line of work and what drives me.”

“The future looks much brighter.”

”It was nice to hear what others think about the future of industry. The workshop really got people talking and provided an avenue for discussing possible scenarios and noticing different perspectives on developments, forecasts, and trends.”

“The acoustics were bad. I couldn’t hear any of the in-

roduction at the beginning. I could hear the video, but following a newscast from that time was a bit boring. As an academic, I’m used to listening to boring things, so I was able to keep my thoughts to myself, but it was testing my patience. Nowadays, current affairs programmes are presented at a slightly different pace.”

The museum’s own observations and comments:

The workshop was interesting, inspiring, and rewarding, and the immediate feedback from our participants was positive. The process of designing and organising the workshop itself still requires some conceptual refinements, and this could be achieved with the help of service design, for example.

Figure 22. In the Tehtaan koulu hall in Varkaus, the small groups explored industrial changes and actions that would lead to a sustainable future. Photo: Pauliina Latvala-Harvilahti.



LUSTO

Organisers: The Finnish Forest Museum Lusto and the DYNAMO project

Date and duration: 6 October 2020 at 12–15.30 (3½ hours)

Venue: Lusto's exhibition spaces

Themes and context: The human–forest relationships of the future, sustainable futures: What will future human–forest relationships look like?

Number and description of participants: 18, stakeholder members

How the workshop proceeded in practice: The participants were first briefed in a classroom on the Heritage Futures Workshop's purpose and key concepts. They then proceeded to the museum's exhibition spaces, where they were split into three facilitated groups, each in their own quiet area. After reflecting on their own relationship with the forest, the groups were introduced to pre-prepared future scenarios that focused on imag-

inary forests, such as a deserted fast-growing forest, a congested forest, and “metsänpeitto”, a concept from Finnish folklore where people are covered, or hidden, by the forest. After visiting the forests of the future, the participants returned to the present to consider what should be done today for the future. At the end, the groups came together and shared their experiences with one another. The Lusto workshop was the DYNAMO project's first pilot workshop, and it helped evolve both the concepts and the structure of the workshop model.

How the museum supported the futures work of its participants

How the participants were invited: The museum's staff invited locals with different connections to the forest. The groups talked about the workshop's themes with ease, and there is clearly demand for more discussion between the actors in the forest sector.

How the workshop's material was documented: The workshop's material was documented by the museum.

Results: The first Heritage Futures Workshop provided good practical experience of how a museum's exhibition spaces can be used for group work and what contents are needed to achieve the workshop's goals. The workshop also resulted in a lot of photos.

Feedback from participants: Not requested.

The museum's own observations and comments: The invitation specified that the workshop would be documented for research purposes and the museum's use. Timo Kilpeläinen, Lusto's photographer, was asked to take photos, and the group discussions were also recorded. For this reason, the participants were informed in advance that they would need to sign a consent form for the documentation and research use. The event included complimentary coffee and tea.

Observations from facilitators: In the discussions, the status quo was considered to be fairly ideal, or it was not challenged. The groups did not discuss any undesirable issues, such as the loss of biodiversity. We felt that, in the future, this type of consensus-building should be avoided and differing opinions should be encouraged, for example through various roles. The start of the process should also include more fears and uncertainties, so that the focus is not solely on positive aspects and aspirations.



Figure 23. In the first workshop at Lusto, each participant talked about their own relationship with the forest, either through an object or a picture, as a basis for mutual discussion. Photo: Lusto, Timo Kilpeläinen.

LUSTO

Organisers: The Finnish Forest Museum Lusto and the DYNAMO project

Date and duration: 31 August 2021, 12:00–15:00 (3 hours)

Venue: Forest in the Punkaharju Ridge area

Themes and context: Meaning from the forest. How can we work together for a sustainable future? What will future human–forest relationships look like?

Number and description of participants: The maximum number of participants was set at 20, and around 15 people attended in all. This group included local teachers, entrepreneurs, researchers, and museum employees. The personal details of some participants are unknown, as they were not required to disclose their full names and professional backgrounds at the event.

How the workshop proceeded in practice: The participants gathered in a nearby car park, from where they walked together along the ridge area to the start of a nature path. A multi-sensory relaxation exercise was used to help the participants tap into their personal memories of the forest. They were then given a short presentation on the human–forest relationship as a form of living heritage. After being told the workshop's instructions, the participants proceeded to a location where they heard a story about Punkaharju's conservation history since the 1800s. The participants then

broke into groups to reflect on what thoughts or feelings the story evoked in them and why. The participants were also asked to ponder the kinds of human–forest relationships they could identify from the past, and how these could influence Punkaharju's future. Their observations were written on chalkboards.

Next, the participants walked to a location for an imagination exercise where they were transported in time to the early 2070s. Each participant was asked to stand next to a tree, close their eyes, and imagine leaping 50 years into the future. They then opened their eyes and described how the surrounding forest could look like in 2071; what plant species they could see, what was occurring in the forest, and what the forest meant for the well-being and livelihoods of people. Next, the participants listened to a futures-oriented article titled Punkaharju 2071, which had been prepared by three forest researchers as a concrete basis for their leap into the future.

After a coffee break, the participants were introduced to the Heritage Futures section, where they were given a brief introduction to what Heritage Futures is from the perspective of the human–forest relationship. The small groups worked together to reflect on the changing relationships between humanity and the forest/nature over time. Each group was asked to ponder the following: What form should these relationships take to ensure a sustainable future? What changes should I make to my relationship with nature? What small new actions could I take to support the forest and the future?



Figure 24. At the Heritage Futures Workshop in the Punkaharju Ridge area, a horn was used to get the attention of the entire group. Photo: Pauliina Latvala-Harvilahti.

The groups then walked along a forest path back to near the starting point, where they shared their experiences with one another. In the final discussion, the participants talked about the elements of their workshop experience that they intended to incorporate into their future activities.

How the museum supported the futures work of its participants

How the participants were invited: A visual invitation to the event was produced and published on the museum's website. In addition, staff from the museum and the DYNAMO project emailed invitations to individuals they believed would be interested in the workshop. The event was also promoted on Twitter. The invitation described the event as a Heritage Futures Workshop that would take place outdoors, in an easily walkable ridge landscape in the middle of beautiful Punkaharju. It also specified that no preparation was necessary for the workshop, and that it was suitable for anyone interested in forests and the future. Participants were asked to wear comfortable, weatherproof clothing and shoes. The invitation also mentioned that the event was free of charge and would include a complimentary coffee and tea break.

How the workshop's material was documented: The discussions of the four working groups were recorded, and the chalkboards filled in by the participants in the groups were photographed. The workshop's material was documented by the museum.

Results: The historical ridge landscapes of Punkaharju proved an ideal setting for exploring different temporal levels. Seeing the landscape also helped the participants envision what changes could take place in the area. During the Heritage Futures section, the participants engaged in lively discussion and considered sustainable activities from different perspectives, for example by concretely examining the responsibility and possibilities of entrepreneurs to influence cultural change by promoting bicycles instead of car commutes. Every chalkboard that was used was also photographed. The good weather and lack of intense sunlight, rain, or wind also helped the participants concentrate and write down their thoughts. The regular walks and the coffee break also kept everyone energised throughout the workshop.

Feedback from participants: In the final discussion, the participants were exceptionally active in pondering how they could share the results of the workshop with the general public. Many noted that they were very happy to discuss issues related to nature and sustainable futures with people they did not know beforehand. A feedback survey was also sent to the participants, and it received responses from five individuals (two of whom were from the DYNAMO project). The workshop had sparked new insights about the future. The preservation of the ridge environment was also part of the desired vision for the future. The respondents also believed that new technologies could provide services for experiencing and moving around in forests without straining and harming the environment. The instructions given by the organisers were considered to be appropriately long and interesting for the different steps of the group work process. Working in groups with people from different fields, without knowing anyone's professional background, created a more open environment for dialogue.

The workshop encouraged its participants to think concretely about the future of different types of trees, species of trees, and forest-related experiences (for example, the proliferation of certain insects could make traversing in the forest a less alluring experience). It also inspired them to think about how carbon sequestration will affect the aesthetics of various landscapes: will we begin to appreciate places with untamed trees and bushes, or will we continue to idealise human-controlled, tidy, sparse, and park-like landscapes?

The experience of being heard and the ability to interact with others were seen as important parts of the workshop. Some groups discussed small, everyday matters, while others focused on global issues. Some of the participants felt that their discussions had changed



Figure 25. The participants were able to effectively record their ideas on the chalkboards, which were then photographed. Photo: Pauliina Latvala-Harvilahti.

how they think about the future or their human-forest relationship. For example, a few had never considered the ‘timeline’ of a forest in their work. This was a novel experience, and, from a historical and futures-oriented perspective, it made them think about their human-forest relationship in a new way. In addition, many were surprised to learn that they possessed the capacity to reflect on future forest environments. Working outdoors also offered new perspectives on how being in nature will continue to be part of our lives in the future. However, climate change can become a concrete obstacle to this: for instance, landslides and melting glaciers could cut off the nature trails we use today. Increasing heatwaves could also affect how much we can or should be outdoors.

The organisers and facilitators received positive feedback for arranging a thought-provoking and unhurried workshop, although some participants had trouble un-

derstanding the nature of the workshop beforehand. One idea for improvement was that the workshop’s theme could be explained better in its marketing, and that the participants could have been given a paper list of the workshop’s discussion topics, although the oral instructions helped retain the free-form nature of the discussion. The participants also found the workshop and the time spent in the forest to be a relaxing experience.

The museum’s own observations and comments: The outdoor space made it possible to start the event with a breathing and relaxation exercise, where the participants could listen to the soundscape of the forest and activate their other senses by touching the environment around them and breathing in its scents. The exercise was designed to remind people of their memories and thoughts about the forest before the group work.

FINNISH MUSEUM OF AGRICULTURE SARKA

Organisers: The Finnish Museum of Agriculture Sarka, ProAgria’s Lumolaidun project, and the DYNAMO project

Date and duration: 29 April 2021, 10:00–13:00 (3 hours)

Venue: Online

Theme and context: The theme of the workshop was the future role of farmers in future society.

Number and description of participants: The organisers were Museum Director Sami Louekari, Exhibition Coordinator Iina Wahlström, Landscape Specialist Laura Puolamäki from ProAgria and the Lumolaidun project, and the four farms involved in the project.

How the workshop proceeded in practice: After the opening remarks of the workshop, Antti Majava – an artist, researcher, and member of the independent and multidisciplinary BIOS Research Unit – introduced the workshop’s topic with his expert talk on Ecological Reconstruction. Then, in the first part of the workshop (Past Futures and the Present Need for Change), Museum Director Sami Louekari spoke about the changes in history and the historical transformation of the landscape. The concrete examples from the farms in the presentation came from the workshop’s participants. The presentation led to a discussion about the changes that have taken place on their farms – in particular, how their landscape and environment have changed and how they have attempted to influence the future.

In the second part, the participants leaped into the future to 2070. This leap was stimulated with the help of a newspaper from the future that had been created by the museum. The participants were shown a fictitious front page from *Maaseudun Tulevaisuus*, a well-established Finnish newspaper that focuses on rural and agricultural issues, dated 29 April 2070. The newspaper included an article about the profits made by a company providing services to rural tourists and its plans for expansion, how species were being brought from species freezers to urban parks and meadows, and a comparison of school lunches in 2070 and 2020.

During this journey into the future, the participants were asked to discuss in groups about what was different and surprising about this society, and how they saw the role of farmers in it. What would the actual work at farms look like? Which parts of the work could be considered expert work, and what parts still involve working in the field or with livestock? What are the areas of expertise of these future farmers? How is natural capital taken into account in the stock market? These reflections were recorded on a digital platform.

After the break, in a sharing and discussion session, the groups presented their Heritage Futures and discussed what they will take from the workshop and incorporate into their future endeavours.

How the museum supported the futures work of its participants

How the participants were invited: Laura Puolamäki from ProAgria agreed on the date of the workshop with the farmers, while the museum invited the participants by email.

How the workshop's material was documented: Sarka documented the generated material and experiences from the workshop. The museum's cooperation with the participants continued in the planning, production, and collection of the material for the Sarka Museum's temporary exhibition in 2022. The exhibition included a futures-oriented section.

Results: The concrete results of the workshop's content are somewhat difficult to describe. The workshop provided valuable insights into how a museum's activities can be structured and what benefits Heritage Futures Workshops can provide as a work method. The workshop also provided valuable experience in involving the public in new approaches. Sarka values its connection with Finnish farmers, and this connection was strengthened and partly created in the Heritage Futures Workshop. Futures-oriented thinking is very relevant to the museum's work, as well as to the work of today's farmers and the role society perceives them as having. Sarka sees a lot of potential for collaborating with farmers in these types of activities.

Feedback from participants: The workshop, and especially its last parts, featured lively and open debate about the future of agriculture and farming, and the role of farmers as the makers of the future. This can be considered positive feedback, as the organisers received little direct feedback.

The museum's own observations and comments: Our advance instructions to the participants could have been more detailed. The participants were a little unclear about what a Heritage Futures Workshop is, what Heritage Futures thinking is, and what the workshop

aimed to achieve. These were things that also gradually became clear to us during the project.

We informed our participants in advance about Sarka's 2022 temporary exhibition Enchanting Pastures, which was being organised in collaboration with ProAgria's Lumolaidun project and the participating farms. We were unable to clearly explain in advance the workshop's role and its relationship to our future exhibition-related collaboration.

The Heritage Futures Workshop was full of new things for both us at Sarka and the attending farm representatives. It is not easy to imagine yourself in the future and think about the major questions of life. Although the workshop included a good introduction to the topic at the start, and we had commissioned a stellar presentation to introduce the topic, the workshop's theme, operating idea, and objectives were still somewhat unclear to our participants. One reason is certainly that the world of museums and farming are wholly different, and, despite our best efforts, we speak a different language and use different jargon and terminology than our workshop participants. Perhaps it would have been easier to leap into the future, find a common language, and generate discussion if the workshop had a moderator, a presenter from outside the museum sector, who could concentrate solely on creating a free and even playful atmosphere.

Figure 26. The Sarka Museum's leap into the future was induced with the help of a simulated front page from a newspaper set 50 years in the future, created by the museum and excerpted here.

MAASEUDUN TULEVAISUUS

KESKIVIikkONA 29. HUHTIKUUTA 2070 NRO 47

PERUSTETTU 1916 - 154 VUOTTA KOKO SUOMEN ASIALLA

MT.FI

IRTONUMERO 7,00 €

XYZ tyytyväinen kuluneen vuoden tulokseen

Suomessa muutaman vuoden toimitus kansainvälinen vapaa-ajantoi-
ntoihin ja -palveluihin erikoistunut XYZ Ltd julkaisi viime vuoden tilinpäätök-
sen. Yhtiön liiketoiminta on osoittautu-
nut hyvin kannattavaksi ja yhtiö aikoo
tehdä Suomeen mittavia investointeja
lähivuosina. Yritys tarjoaa turisteille
ja matkailijoille vierailuja maatilakoh-
teisiin ja päiväretkeilyyn, mutta myös
pidempiaikaiseen oleskeluun ja majoit-
tamiseen maaseudulla. Suosituimpia

ovat kuitenkin olleet kertaliput, jotka
oikeuttavat kolmen tunnin ajan palve-
luiden käyttöön ja liikkumiseen maati-
lojen mailla. Elävät eläimet, opastetut
polut ja taukopaikat vetävät vierailijoita
varsinkin viikonloppuisin.

Yritys on hankkinut omistukseensa jo
kymmeniä tiloja ja tuhansia hehtaareja
maata ympäri Suomea.

- Maanhankinta ei ole viime vuosi-
na edistynyt ostokaupoin toivotulla
tavalla. Maata on myynnissä vähän.

Kiinnostavista kohteista on pulaa eikä
myyntihalukkuutta ole. Siksi aiomme
jatkoissa keskittyä maanvuokraukseen.
Etsimme jatkuvasti uusia kohteita ja
käymme koko ajan neuvotteluja maan-
omistajien kanssa vuokraamisesta, yri-
tyksen tiedotteesta todetaan.

RUOKATORSTAI

Mitä söimme tänään, mitä söimme 50 vuotta sitten?

Ruokatorstain toimittajamme
vieraili tällä kertaa Lempäälän
alakoulussa kysymässä koulu-
lailisilta päivän ruokailusta. Mitä
muuta koulupäivän aikana syötiin
kuin omia eväitä? Noin puolet
haastattelemistamme oppilaista
kertoi käyneensä syömässä leipää
ja hedelmiä koulun ruokalassa.
Tämän kevään suosikkeja ovat
olleet myös ravintojuomat, joita
oppilaat voi ostaa koulun auto-
maatista. Muutama oppilas kertoi

MUSEUM OF TECHNOLOGY

Organisers: The Museum of Technology and the DYNAMO project

Date and duration: 26 March 2021, 15:00–17:00 (2 hours)

Venue: Online

Themes and context: The key questions were: What kind of technology matters? From relevance to sustainability. What will be relevant technology in 30 years' time?

Number and description of participants: Ten people from outside the project and the Museum of Technology's workshop team participated in the workshop. Six of the participants were from stakeholder groups already identified by the museum, one person found the workshop via the museum's social media channels, and the rest were new museum employees. The organisers tried to invite secondary school students and their teachers, especially from vocational schools, but they were unable to get them or any familiar participants from universities of applied sciences. This was most likely due to the impact of the coronavirus pandemic on Finnish education.

How the workshop proceeded in practice: The past section explored the meanings of objects through a series of images and a time capsule. The following questions were used to guide the discussion in the small groups: What do these images tell us about change in the past? Which modern-day object would you take with you in a time capsule today? What object could stand the test of time and change? The participants then leaped into the future to 2050. Each participant was randomly assigned different boundary conditions that reflected the future of 2050. For example: Every child dreams of becoming a repairer, since it is a job

with excellent pay and prestige; the number of items in a home is limited to 5,000 per household (compared to around 50,000 in 2018). The participants then considered the following questions: What is our relationship with technology in this future? What is our most versatile object? What kinds of human–nature relationships do we have? How is well-being defined and who gets to define it?

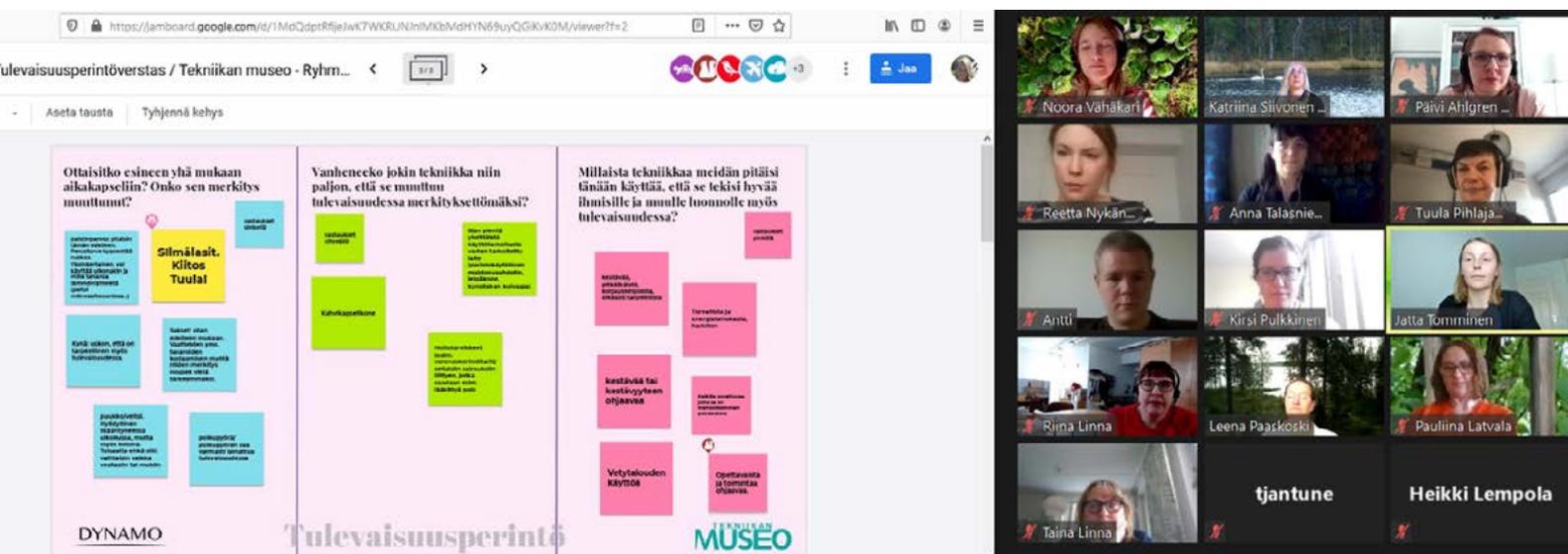
After a short break, the Heritage Futures section “opened the time capsule” and looked at the objects in it with fresh eyes. The discussion was led by questions about whether the participants would still take the same object into the time capsule and whether its meaning had changed. They also wondered whether technology is becoming so outdated that these objects will be rendered obsolete in the future, or what kind of technology we should use today that could benefit people and nature in the future as well.

In the sharing and discussion section, the groups presented the ideas they had recorded on the digital platform. They also discussed which elements of the workshop each would incorporate into their future work.

How the museum supported the futures work of its participants

How the participants were invited: The invitations were sent primarily by email. The first message was sent about three weeks before the workshop, and a reminder about a week before. Each email was slightly customised according to the recipient, but not fully personalised. The invitation and the theme of the workshop remained too abstract, as did the reason why the organisers were interested in hearing each invitee's opinion about the topic.

Figure 27. The role of the facilitator is more pronounced in online workshops. Screenshot of the Museum of Technology's workshop.



How the workshop's material was documented: The workshop's material was documented by the museum. However, converting the discussions at the workshop, as well as the ideas and meanings related to technology, into a Heritage Futures collection will require its own separate efforts, partly at the system level, so that they can be integrated into the museum's collections. The ideas generated in the workshop are currently limited to the pilot, but some of them may serve as inspiration for the Museum of Technology's staff.

Results: The degree to which the workshop experience influenced the participants remains largely obscured. A few participants reported in their feedback that they had been inspired to think about their own consumption choices, or that they had been surprised by the fact that many centuries-old technological inventions are likely to remain with us for centuries to come. As I observed the workshop and the discussions in it, I was happy to hear our participants talk about how many of the basic needs of people have remained the same, and that new and old technologies are operating all around us, in parallel and in different continuums. New technologies do not always replace old ones, and they can live side by side.

Feedback from participants: The workshop received three official responses. The feedback from the participants was very similar to the Museum of Technology's own internal feedback, and it also echoed the views shared during the workshop's debriefing session. Of course, there were some differing opinions on certain details.

The workshop's timing was criticised (Friday afternoon, from 15:00 to 17:00), as was the duration of the workshop in relation to the amount of content included in it. The participants felt that they were rushed, especially in the past section at the start of the workshop, and this was also highlighted in the Museum of Technology's internal feedback. More time had been allotted to the leap into the future and the jump back to the present, but, due to individual and small group-related differences, the feedback was not unanimous – some felt that their discussions stalled, while others felt that their lively debates ended prematurely as they had to move on to other topics.

A fully virtual workshop requires someone to provide technical facilitation, document ideas, and guide the participants' interaction. It is difficult for a single person to inhabit all of these roles, which can result in more outspoken people dominating the conversation at the expense of quieter participants. However, according to the feedback, the workshop was successful in stimulating ideas, even insights, about the future.

The museum's own observations and comments: As a participant in the design and implementation of the workshop on behalf of the Museum of Technology, I can easily agree with the feedback from our participants. Two hours is too little time for a virtual workshop. Getting together, checking that everyone is present, turning on our microphones, and greeting people takes time. There must also be time for breaks, and the introductory sessions should have been less rushed and allowed for deeper reflection, rather than being quick, ten-minute run-throughs.

The shorter the time, the sharper and limited your focus should be. I also got the feeling that perhaps an online workshop is not the best format for a workshop. An in-person workshop, with both coffee and a chance to explore the exhibitions after the workshop has ended might work more naturally and provide some much-needed time for reflection and new ideas.

Even with its shortcomings, the few hours we spent left a good impression: at its best, our discussions about the role of technology in our lives was very varied and rewarding, and even gave me new ideas. It was great that as we were discussing technology, we ended up thinking about what it means to be human. Or that, perhaps in the future, instead of valuing any single item, device, or technology, what will matter most is knowledge. We do not yet know what we will need to know in the future, but the importance of learning and democratic access to education is growing. These discussions have given me new insights and ideas for my work.

FINNISH MUSEUM OF PHOTOGRAPHY

Organisers: The Finnish Museum of Photography and the DYNAMO project

Date and duration: 19 May 2021, 12:00–15:00 (3 hours)

Venue: Online

Themes and context: The materiality of digital photography. The theme of the workshop was the carbon footprint and environmental impact of digital photography. The ideas gained from the workshop will be used to design the workshop programme for the museum's main exhibition.

Number and description of participants: 15 employees from the Finnish Museum of Photography working in different tasks, and Professor Jukka Manner (Aalto University, Department of Information and Communications Engineering) as the workshop's expert guest. The four facilitators were provided by the DYNAMO project.

How the workshop proceeded in practice: Jukka Manner gave a presentation on the materiality of the digital as part of the workshop's introductory section. In the section focusing on the past, the Museum of Photography presented cartes-de-visite, i.e. visiting cards, from the 19th and 20th centuries and Polaroids from the 21st century. They were used to discuss the following questions: How can we now assess the footprint or environmental impact of analogue photography? What are the factors that influence these? How are carbon footprints and environmental impacts distributed globally?

The leap into the future extended to 2080, with the theme of "doing more with less". This visit to the future was facilitated by a physical relaxation exercise and a descriptive text about 2080, which was read aloud. The small groups pondered the following questions under the guidance of a facilitator: What is photography like during times of scarcity? What good can come from scarcity in the context of photography? What is worth photographing? How does our relationship with nature manifest itself in photography? The Heritage Futures section focused on the following: What new insights and actions can be gained when people realise the scarcity of their resources? How are your own actions helping to build the future you desire? As a museum, how could you support the transformation of photography towards sustainability? Finally, the participants chose a few examples of Heritage Futures from their group discussion to share with others.

Every group's ideas were recorded on a digital platform during each section.

How the museum supported the futures work of its participants

How the participants were invited: All museum staff were sent an open invitation to the workshop.

How the workshop's material was documented: The workshop's material was documented by the museum.

Results: The museum used the workshop as inspiration for planning workshops for different audiences. The ecological footprint of photography will be one of the themes of the museum's main exhibition, with related programming. Promoting ecological sustainability reflects the museum's core values, and while the footprint caused by photography is not the biggest in digital culture, the current world of digital photography requires a massive and global digital infrastructure for its image distribution.

Feedback from participants:

"The workshop followed the five-step workshop model created in the DYNAMO project, which worked very well as a three-hour session led by skilled facilitators."

"The visit to the past world of visiting cards and Polaroids was rather quick, but it was still a sufficient reminder to the workshop's participants of the continuity, of how photography has always required material resources."

"The workshop gave me food for thought, and the same topics were still buzzing in my mind and in the conversations among the museum's staff for days after. I'm certainly going to pay more attention to the electricity that digital devices consume from now on. A wired internet connection is much more ecological in terms of its consumption than a mobile network."

"What particularly stood out from the workshop was Jukka Manner's keynote on ICT and the environment, which contained a lot of new information on the ecological sustainability of our digital society."

The museum's own observations and comments: As a widely trusted institution, museums provide an excellent environment for the kind of multi-sided debate that is not always easily accommodated in today's society. The DYNAMO project's workshop is a great model for bringing people together. The workshop for the museum's staff provided a lively space for an imagined leap into the future where serious and playful ideas – big and small – for building a good future could freely intersect. This kind of debate for supporting ecological reconstruction could also be organised for other kinds of audiences.

LUSTO

Organisers: The Finnish Forest Museum Lusto and the DYNAMO project

Date and duration: 22 March 2021, 9:00–12:00 (3 hours)

Venue: Online

Themes and context: The theme of the Heritage Futures Workshop was the future of forests and the human–forest relationship. The leap into the future took place in 2070.

Number and description of participants: The participants were forest sector professionals and stakeholders with different perspectives and objectives in relation to forests.

Description of the workshop: In the introductory part of the workshop, Professor Teppo Hujala and other forest sciences researchers from the University of Eastern Finland presented the results of an ongoing forest foresight study to the participants, as well as some key highlights from current debate.

As part of online workshop’s introduction, the organisers wanted to include a breathing and relaxation exercise, which was led by Satu Tuittila, a dance artist and futures researcher.

In the section “The future of the past and the need for change in the present”, the participants watched a short video on how life in 19th-century Finland threatened the nation’s forests, and the ensuing debate about their future. Its purpose was to illustrate that the future has always been an open book, with visions of what will come to be and the resulting need to think about how one should act now to build a desirable future. After the video, the participants were divided into small, facilitated groups. Their discussion started with an initial question: What thoughts or feelings did the video evoke? Why? The discussion continued with the following questions: What other forest-related changes have taken place in the past that have changed the direction of the future and emphasised the unexpected? When and how have people tried to influence the future? What are the latent challenges that people have identified today? What small, human-made changes are now underway that could grow into larger ones in the future? What surprises can’t we even identify yet? Each group’s members were asked to document their reflections on a digital platform. The platform also offered the possibility of drawing or attaching pictures, but the participants did not produce anything other than text.

The leap into the future was carried out in two stages. First, Satu Tuittila led the participants through a

tree-themed imagination exercise with the help of a future-oriented soundscape. Then, a short text that had been prepared at the University of Eastern Finland was read out to the participants:

FOREST 2070: FORESTS ARE A SOURCE OF GROWING PROSPERITY

The targets set at the start of the 2020s for carbon neutrality and safeguarding biodiversity have largely been met. We set the right objectives, even though we didn’t know that, in hindsight, we would discover our solutions in very surprising and ground-breaking ways. Looking back, one can only wonder whether, in envisioning our possible futures and setting our goals, we had actually seen the forest from the trees?

Finland has always received its livelihood from its forests, which is the case in 2070 as well. Forests are the source of our physical and spiritual wealth. We use our resources wisely and interactively. People’s material well-being is no longer connected to biodiversity loss. Or perhaps it would be more accurate to say that people have been reconnected to the forest, because in 2070, the forest employs Finns in many different ways, much more so than at the start of the millennium.

At the same time, we are facing a whole new set of challenges. Just as it was 50 years ago, today, in 2070, we can see those challenges as threats – or opportunities.

The Forest 2070 story was discussed in the small groups. The discussion was structured around the following questions: What will forests in 2070 look like – what is surprising about them? What is different? What goes on there? What species can be found there? What is the significance of forests for people’s well-being and livelihoods? How will people work in the forests of the future? What new phenomena will be observed in forests in 2070? What could unexpected changes be like in the future?

In the Heritage Futures section, the participants returned back to the present. The following questions were selected in advance as the core topics for the debates at the workshop: What do we still or no longer know about forests and human–forest relationships? What new insights and actions could this realisation bring? How are your own actions helping to build the future you desire?

How the museum supported the futures work of its participants

How the participants were invited: The museum’s staff invited the representatives of the museum’s forest-related stakeholders by email.

How the workshop’s material was documented: The museum documented the results of the workshop in its collections.

Results: The online workshop experience was valuable, with the previous in-person workshop as a comparison.

Feedback from participants: We used a form to collect ideas from our participants about the Heritage Futures Workshop. We asked what insights the different steps of the workshop provided them. We collected suggestions for improving the workshop (e.g. structure, scheduling, facilitation, groups) and inquired whether the participants thought differently about the future after the workshop. We also asked other questions, such as:

What kind of future actor do you or your organisation want to be? The participants felt that the small groups were effective in giving people room to speak, but that they also fostered fewer alternative perspectives. The participants also felt that the timetable was very strict, which is why the workshop could have focused on a smaller number of questions.

“It’s important to perceive cultural traits in relation to different visions of the future.”

SCIENCE CENTRE HEUREKA

Organisers: Science Centre Heureka and the DYNA-MO project

Date and duration: 24 May 2021, 12:00–15:00 (3 hours)

Venue: Online

Themes and context: The pilot workshop was integrated into Heureka’s “Facing Disaster” exhibition and was implemented through the exhibition’s themes. During the design phase, resilience was chosen as the workshop’s theme.

Number and description of participants: The staff pilot involved 12 people from three different Heureka units. There were also participants from outside Heureka.

How the workshop proceeded in practice: The intro explained what Heritage Futures is and introduced the theme of the exhibition. In the second step, the participants were instructed to prepare zines that they would use to document their thoughts and reflections during the workshop. At this point, the participants were told three real-life stories of past disasters. These stories were also part of the Facing Disaster exhibition. After hearing the stories, the participants were divided into groups to discuss the following questions: What helped people to survive? How did the relationship between humanity and nature play out in the disaster? How did the disaster change people’s perception of the future?

In the third step, the participants leaped 50 years into the future. During the leap, the participants were told a story that explained the events that the world had gone through in 2030, 2040, 2050, 2060, and 2070. The de-



Figure 28. The workshop for Heureka staff, which was related to the planning of the Facing Disaster exhibition, focused on resilience. Photo: Pauliina Latvala-Harvilahti.

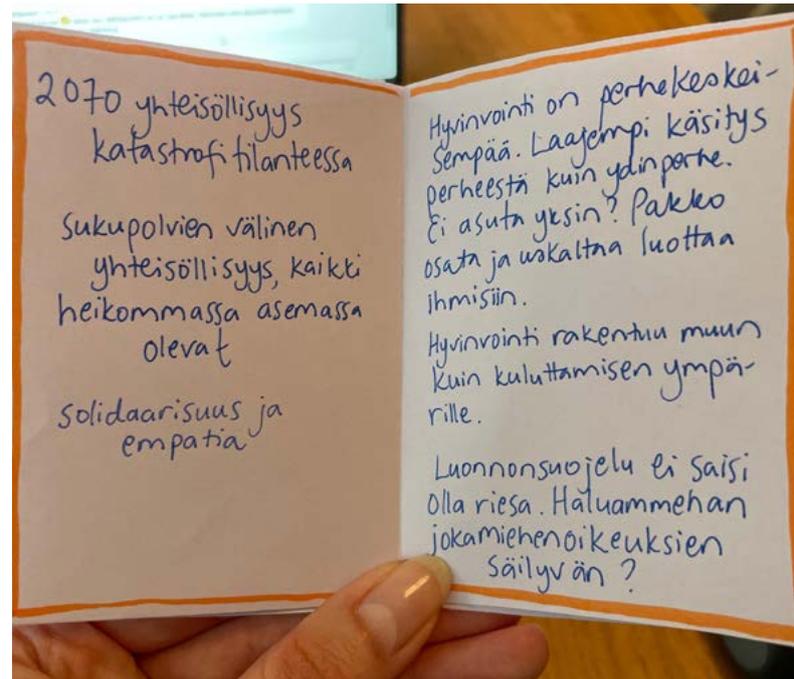


Figure 29. Even online workshops can include the guided creation of zines that serve as platforms for documenting one’s thoughts during the event. Photo: Heureka.

sign of these events was planned in a way that the resulting world would not seem too utopian or dystopic. Afterwards, the groups discussed the following topics: What does communality mean in a disaster situation in 2070? What do well-being and living a good life mean in a world where disasters are commonplace? How will disasters affect people's relationships with nature in the future?

In the fourth step, the groups returned to the present to reflect on the kind of Heritage Futures they wanted take with them into the future. The participants were asked to use their zines to ponder the following question: what new resilience- and community-building actions do you want to take in the present? Finally, the workshop's participants gathered together for a final discussion, and those interested were invited to share their own ideas and zines.

Heureka as a supporter of the futures work of its participants

How the participants were invited: The DYNAMO pilot workshop was held for Heureka's staff.

How the workshop's material was documented: Heureka stored the workshop material.

Results: Overall, the pilots went really well, and with just a few minor modifications, the workshop would be suitable for working with lower secondary school pupils and upper secondary school students. Heureka created a Heritage Futures Workshop guide for school

classes that was published on Heureka's website for schools, in conjunction with the opening of the Facing Disaster exhibition.

Feedback from participants: The feedback from staff was good, and especially Heureka's inspirers received new ideas for their work with school groups.

Heureka's own observations and comments: The Heritage Futures Workshop was piloted four times at Heureka, the first of which was DYNAMO's pilot workshop. It was held among Heureka staff. The three hours allocated for the Heritage Futures Workshop pilot went by almost too fast, and the small groups had plenty to discuss until the end. During the leap into the future, one group focused its discussion almost solely on 2070, which was the final date of the leap. Some felt that this world was a utopia. This shows that the worldview created for an envisioned future can divide opinions. However, overall, the workshop was a success and provided a lot of good food for thought.

Later, Heureka conducted three school workshops with groups of 13–15-year-olds from Heureka's science camps. At the science camps, a total of 55 young people in three different groups took part in the Heritage Futures Workshops. For them, the pilot's runtime was reduced to two hours, and with some groups, the workshop could have been even shorter. The workshop received mixed feedback from the participants. Some would have liked to continue discussing the topics for longer, while others needed more time to immerse themselves in the subject. Some could not do it at all. However, each group was able to generate some amount of discussion, but these younger participants were likely to view the world of 2070 through two extreme lenses: either as a dystopia or a utopia. As an area for development, more questions could be formulated for Heritage Futures Workshops with younger participants, as some groups of young people were likely to only answer questions without really reflecting on or discussing the topic at hand.



Figure 30. Participants in Heureka's staff workshop presenting their results. Screenshot.

HERITAGE FUTURES IN MUSEUM NETWORKS

Heritage Futures awareness in museum networks

The Dynamic Museum concept and the Heritage Futures Workshop method were developed by the DYNAMO project for use by museums and other interested parties. Each museum – or association, organisation, etc. – can choose a theme for its workshop that suits its own activities and the people and communities in its networks, in the same way as the DYNAMO pilot workshops did.

The shared Heritage Futures created in the workshops are intended to build futures that suit each chosen theme. The pursuit of a sustainable future is a natural future direction for society as a whole, which is why it is an integral part of the concept. The specific contribution of the Heritage Futures Workshop is the step-by-step implementation of the cultural sustainability transformation through the creation of Heritage Futures.

While the workshop's organisers provide participants with information on the boundary conditions for a sustainable future, the organisers and facilitators do not define the content of the desired future or Heritage Futures. These are skills that the participants will gain from the workshop in the form of Heritage Futures, which will help them promote a more sustainable future. Each participant in the Heritage Futures Workshop is given the opportunity to create Heritage Futures together with the other participants.

The organisers of a Heritage Futures Workshop should also inform their participants that other museums have organised similar workshops, albeit on different themes. They can also convey the idea that more and more Heritage Futures will be created with each new

workshop. Heritage Futures will thus gradually cover an increasingly wide range of topics related to human life, culture, and society, through museums that focus on different themes or areas. The museums' Heritage Futures Workshops form a network of contemporary documentation for building a sustainable future, and these efforts will also ripple in the river of culture with the active participation of museum users.

When museums include Heritage Futures in their collections, over time, they will also accumulate information about the future-oriented thoughts and Heritage Futures of the participants in the workshops. If museums continue to arrange and develop Heritage Futures Workshops, they can later return to the workshop materials archived in their collections. Thus, futures workshops will be able to incorporate past workshop materials into their sections that focus on the past, and utilise their understanding of the ways in which cultural sustainability transformation has been pursued at different times.

Being aware of the fact that Heritage Futures are constantly being accumulated as part of each museum's documentation of the present can be used to signify Heritage Futures as a whole. When the organisers of a workshop talk about the Heritage Futures work done by other museums, their participants will gain a better understanding of the wider regional, thematic, and temporal context for their work. This can make smaller forms of Heritage Futures and the resulting ways of approaching sustainability feel much more powerful than they ever would in a vacuum.

Figure 31. Repeated encounters in Dynamic Museums, where Heritage Futures are created among each museum's collections, can produce cultural sustainability transformation. Photo: Lusto, Timo Kilpeläinen.



In the DYNAMO project's pilot workshops, a variety of common human skills were identified as Heritage Futures that support the cultural sustainability transformation, regardless of the theme. These include experiential learning, thinking and emotional skills, such as empathy and planetary thinking, and understanding the connections between large entities and the phenomena they contain. The pilot workshops also found concrete examples of promotable actions that have less of a negative impact on the environment, such as corporate support for bicycle commutes, and favouring wired rather than mobile internet connections. However, many felt that changing one's own over-consuming practices is challenging, for example due to the activities required by their respective professions. In addition, many found it difficult to reconcile their habits that generate eco-social problems with their strongly positive experiential human-nature relationships.

The interest of museums in Dynamic Museums and Heritage Futures

Finnish museums are very interested in an operating concept that is based on the Dynamic Museum model and Heritage Futures. This has been reflected in national events, such as the national Museum Days organised by the Finnish Museums Association, and the theme days for the museum sector organised by the Finnish Heritage Agency, as well as the Museums and Power event organised at the Ateneum Art Museum as part of the Time and Power Perspectives discussion series and Sitra's Bildung+ project. When the participants at the 2020 Museum Days were asked whether their museums could act as Dynamic Museums, 61% (16) said yes, 27% (7) maybe, and 12% (3) did not know. However, no one said no.

The concepts of the Dynamic Museum, Heritage Futures, and Heritage Futures Workshop were new to many of the participants at these events. As such, the main focus of the events was explaining the content and definitions of these concepts while also gathering input from the museum sector.

TAKO, the Network for Collections Management and Contemporary Documentation in Finland, and the DYNAMO project collaborated on the Konstit campaign from 1 November 2021 to 31 January 2022 on their social media channels. Their aim was to highlight the significance of museum collections as a resource for society, while also encouraging museums to look at their collections with fresh eyes from the perspective of sustainability challenges and the related Heritage Futures. The campaign asked: why could a particular object, image, or work from a museum collection still be part of a sustainable lifestyle – or why not? The campaign used the following hashtags in its marketing: #konstitkampanja (#konstitcampaign), #takoverkosto (#takonetwerk), #dynamohanke (#dynamoproject), #tulevaisuusperintö (#heritagefutures), #museokokoelmat (#museumcollections), #kestäväkehitys (#sustainabledevelopment), and #sivistysplus (#bildungplus).

The following museums participated in the campaign: Aboa Vetus Ars Nova Museum of Archaeology and Contemporary Art, Hanko Museum, Helsinki University Museum, the Toy Museum Hevosenkä, the Maritime Museum of Finland, the National Museum of Finland, the Craft Museum of Finland, the Finnish Museum of Agriculture Sarka, the Finnish Forest Museum Lusto, the Vapriikki Photo Archive, the Finnish Labour Museum Werstas, and Vantaa City Museum.

INSPIRATION FOR THE KONSTIT CAMPAIGN

The DYNAMO project provided the Konstit (“Ways of Doing Things”) campaign with inspiration by demonstrating new and old ways of doing things.

The old way is better than a bagful of new ones.

Aprons used to be important to both women and men, as they prevented clothes from getting dirty and worn, and reduced the need for laundry. Aprons could still be part of a sustainable lifestyle.



Figure 32. A cook's apron from a logging site in the 1950s.



Figure 33. A sawmill worker's leather “förrkeli” from the 1940s.

A new way is sometimes much better than the old one.

In the 1970s, the forest industry invented the protective seed planter. The idea was that when a seed was dropped from the planter onto the forest floor, the planter would pop a small plastic cover over the seed, to protect it from the elements. However, this resulted in sowing areas that were full of little plastic covers! As a result, people stopped using protective seed planters – fortunately, today's methods are much better for the environment!

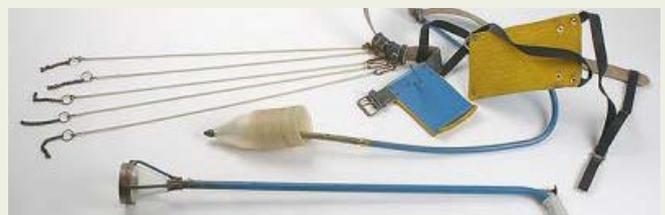


Figure 34. Protective seed planter and harness from the 1970s.

DYNAMO – PROJECT DESCRIPTION

Objectives and methods

The DYNAMO (*Dynamic Museum and Heritage Futures Workshop as instruments for ecological reconstruction*) project is a research and development project that ran from 1 August 2020 to 31 May 2022. Its purpose was to develop the societal impact of museums and their sustainable development activities. The DYNAMO project's aim was to develop the Dynamic Museum and Heritage Futures concepts and Heritage Futures Workshop method by piloting them in the participating museums. The key to the concepts' and the Heritage Futures Workshop method's development was their applicability in the co-creation of the cultural sustainability transformation and a more sustainable society. The project also aimed to gauge the participating museums' experiences with the pilots, as well as the museum field's general interest in the project's activities.

The project originally planned to organise most of its pilot workshops at the museums while also running a single online workshop as an experiment. However, the start of the coronavirus pandemic in early 2020 soon altered these plans. In autumn 2020, it seemed possible that the in-person workshops could be carried out in spring 2021. However, due to the resurgence of the pandemic, almost all of the originally planned pilots were organised online. The project thus gained more expe-

rience in running online Heritage Futures Workshops than it had anticipated. However, these will have value in terms of broad regional accessibility, even after the pandemic has subsided. This is important for various museums, such as those with national responsibilities, which may otherwise find it difficult to reach their entire potential user base. In autumn 2021, the project was able to organise a few more in-person workshops that provided it with more data on running in-person events.

The DYNAMO project's communications focused on reaching the entire Finnish museum sector, especially on Twitter. The project's over 300 followers included museums from all over Finland, museum professionals, and other professionals and researchers involved in futures studies and cultural heritage work. The project's tweets and updates were marked with key hashtags – #dynaaminenmuseo (#dynamicmuseum) and #tulevaisuusperintö (#heritagefutures) – as well as Sitra's #sivistys+ (#bildung+) hashtag.

Figure 35. In a panel discussion that was held at the Ateneum Art Museum and streamed online, Leena Paaskoski, Development Director at Lusto, talked about the Dynamic Museum concept. Photo: Pauliina Latvala-Harvilahti.



Actors and funders

The DYNAMO project was implemented by the Finland Futures Research Centre at the University of Turku, the Finnish Forest Museum Lusto, and the School of Forest Sciences at the University of Eastern Finland. The project was led by University Lecturer, Docent **Katriina Siivonen** from the University of Turku, and its management team included Development Director, Docent **Leena Paaskoski** from Lusto and Professor **Teppo Hujala** from the University of Eastern Finland.

DYNAMO was funded by Sitra and the Finnish Heritage Agency. The grant from the Finnish Heritage Agency was awarded to the Finnish Forest Museum Lusto based on its pitch at the Ratkaisuriihi (Solutions Workshop) funding event. With the funding from Sitra to the University of Turku, the project became part of Sitra's Bildung+ project.

The project piloted Heritage Futures Workshops at Lusto and at seven other partner museums/organisations: the A&DO – Learning Centre for Architecture and Design project, the Finnish Museum of Natural History Luomus, the Finnish Museum of Agriculture Sarka, the Finnish Museum of Photography, the Museum of Technology, the Finnish Science Centre Heureka, and the Museums of Varkaus.

In addition to the management team, the project's staff included Senior Research Fellow, Docent **Pauliina Latvala-Harvilahti**, Project Researcher **Maria Granlund** (M.A.), from August 2021, Project Manager **Noora Vähäkari** (M.Sc), until August 2021, and dance artist and futurologist **Satu Tuittila** (M.A.) from the Finland Futures Research Centre at the University of Turku, as well as Researcher **Jakob Donner-Annell** (M.S.Sc.), and Project Researcher **Päivi Pelli** (M.Sc. (Econ.)) from the School of Forest Sciences at the University of Eastern Finland (until June 2021). In addition, the project included a service designer, **Riitta Forsten-Astikainen** (M.Sc.(Econ.)), who was commissioned by Lusto.

The project's steering group included **Carina Jaatinen**, Director – Museum of Architecture, Executive Board – ICOM International Council of Museums (from March 2021); **Vesa-Matti Lahti**, Senior Lead, Sitra; **Kirsi Laurén**, Docent, University of Eastern Finland; **Antti Majava**, doctoral candidate, BIOS Research Unit; **Tiina Merisalo**, Director General, Finnish Heritage Agency; **Pia Mero**, Specialist, Sitra; **Mikko Mönkkönen**, Professor, University of Jyväskylä; **Anssi Niskanen**, Director of Information Services, Finnish Forest Centre; **Satu Teerikangas**, Professor, University of Turku; **Niina Uronen**, CEO, Finnish Forest Museum Lusto (from March 2021); and **Pekka Äänismaa**, CEO, Finnish Forest Museum Lusto (until March 2021).

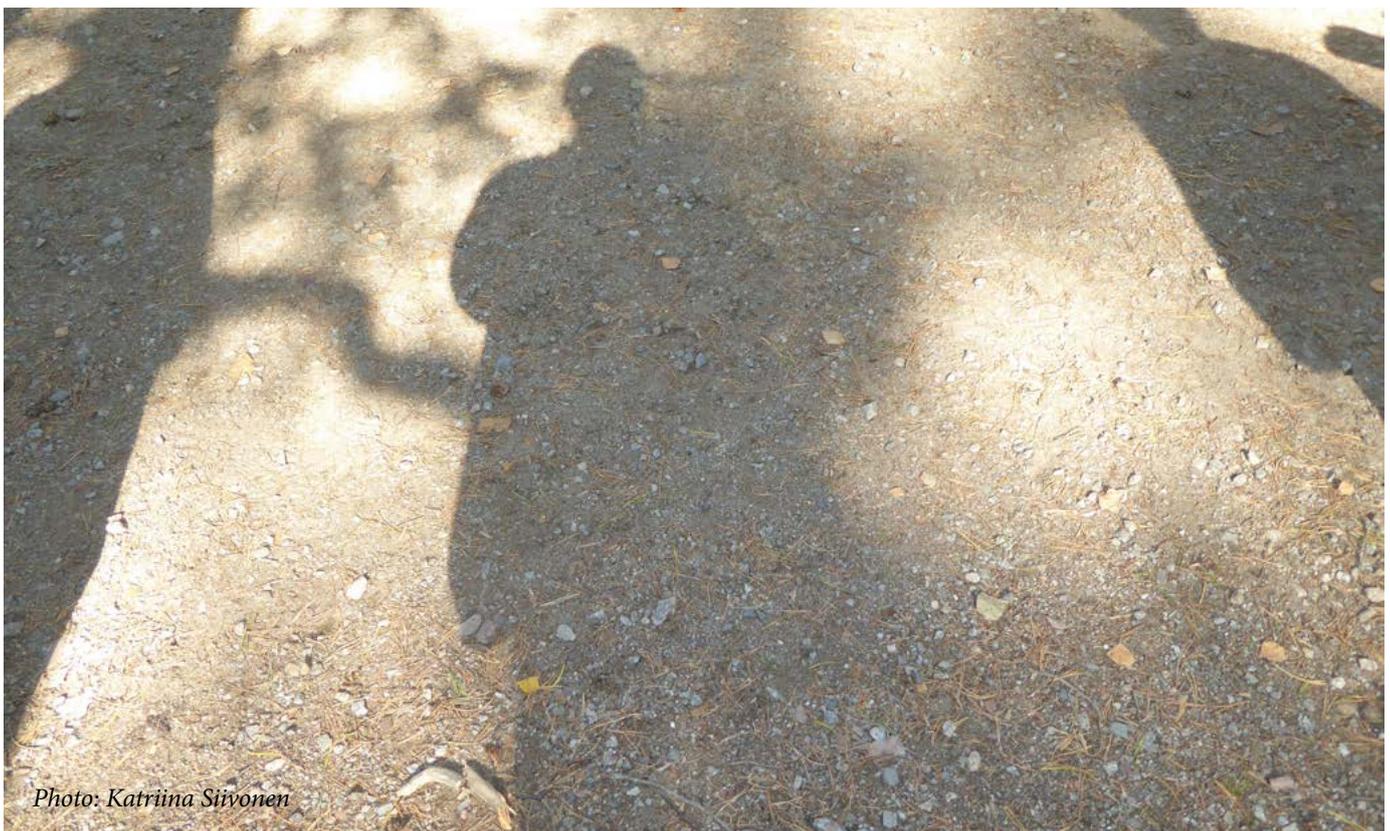


Photo: Katriina Siivonen

GLOSSARY

Anthropocene

The informal term for a period in the Earth's history when human (i.e. anthropogenic) activities have a significant impact on the Earth's biological, chemical, and physical processes.¹¹²

Awareness of the past

Knowledge and understanding of the past, its nature, people, events, and experiences, as well as development paths and their causes.

Bildung

Wisdom, open-mindedness, and intellectual development acquired through education¹¹³. See also ethical bildung, eco-social bildung, cognitive bildung, and societal bildung.

Biodiversity loss

The reduction or loss of biodiversity, such as the abundance of genotypes, species, or biotopes.¹¹⁴

Cognitive bildung

Cognitive bildung generally refers to the mastery of knowledge that is related to e.g. established facts in science, history, and mathematics. This is forms of bildung can also be described as learned or formal bildung. Cognitive bildung is divided into school and academic bildung, or humanistic, mathematical, and scientific bildung. In the context of academic bildung, the concept is also occasionally referred to as literacy bildung.¹¹⁵ See also ethical bildung, eco-social bildung, bildung, and societal bildung.

Collection development

A concept that emphasises the dynamic nature of the management of museum collections, as well as the potential and use value of said collections. Aims to replace the concept of "collection management".¹¹⁶

Collection management

A set of activities related to the documentation, management, care, and use of museum collections.¹¹⁷

Cultural expression

Any tangible or intangible expression or object created in a cultural process or produced by a cultural process that can be interpreted and understood in its own context. Cultural expressions are tangible objects stored in museums, which, when transferred to museums, are referred to as "museum objects".¹¹⁸

Cultural heritage information

Information that is related to cultural heritage and that contextualises or explains museum objects and collections.¹¹⁹

Cultural heritage process

The cultural heritage process refers to the ways in which cultural heritage from a particular past is redefined today, resulting in, for example, a change in the meaning of a place. The cultural heritage process also involves intangible features, which are transformed in the process by the chosen forms of memory and narrative, for example. The cultural heritage process can also centre around power and economic gain. Cultural heritage can be defined by various parties, such as public authorities, tourism entrepreneurs, or communities that wish to create their own cultural heritage.¹²⁰

Cultural process

A definition of culture as an interactive process that it is likened to a river. In this river's stream, culture is constantly renewed and created in the interaction between people and between people and their environments, which, in addition to people, contain other living beings and human-made phenomena and natural phenomena, both tangible and intangible.¹²¹

Cultural sustainability transformation

The cultural sustainability transformation is a holistic, cultural-level change that will permeate throughout society's values, attitudes, ways of producing information, governance structures, and decision-making, and that will transform culture to align with planetary boundaries¹²². Cultural signifying and action define all of these aspects. See also sustainability transformation, planetary boundaries, transformation.

Dynamic collections

A perspective that emphasises museum collections as evolving and living resources that are actively, dynamically, and continuously researched, signified, contextualised, managed, and used. Dynamic collections are produced through a collaborative musealisation process. Their potential and value are accentuated when they are seen more as tools for museum work than outcomes.¹²³

Dynamic Museum

An operating model for a more societally impactful museum that aims to purposefully build the future – based on the concepts of cultural heritage, living heritage, and Heritage Futures – while focusing on the entire temporal dimension and a strong level of community and stakeholder engagement. A Dynamic Museum cannot function without its communities and stakeholders. All museums have the potential to become Dynamic Museums.

Eco-social bildung

Eco-social bildung refers to a set of skills and ways of thinking that are relevant to nature and other people. This includes, for example, the ability to consider the consequences of one's choices or consumption patterns.¹²⁴ See also ethical bildung, bildung, cognitive bildung, and societal bildung.

Eco-social crisis

A state of the planet where the well-being of nature and people is threatened by human activities.

Ethical bildung

Ethical bildung means the ability to examine things from the perspective of justice and fairness, good and evil. The term "moral bildung" is also used. In general, ethical bildung is associated with the ability to think about actions from a broader perspective than that of everyday activities or technical-economic benefits. Ethical bildung is characterised by questioning and critical reflection on the goals and norms that guide action: What kinds of goals should I aim for, are my choices sustainable? A key prerequisite for ethical bildung is the experience of empathy.¹²⁵ See also eco-social bildung, bildung, cognitive bildung, and social bildung.

Forest culture

The values, perceptions, meanings, and practices related to forests and shared by individuals and communities in social contexts. Forest culture is a continuous and changing process that involves the past, present, and future. Forest culture affects both people and forests.¹²⁶

Forest debate/discussion

The social discussion and debate on forests and the goals related to them. The Finnish forest debate/discussion consists of public, pluralistic, and multi-faceted discourse on, for example, the meaning of forests, what kinds of human-forest relationships are sustainable, and how forests can and should be used in Finland.¹²⁷

Futures agency

In sustainability science, the concept refers to the extent to which different actors have futures consciousness, literacy, guidance, and so on, as well as how strongly people understand alternative futures and their ability to influence the future; including the capacity of inanimate agents, such as society.¹²⁸ From a cultural perspective, the concept has been used to refer to people's readiness and willingness to act for a sustainable future, including by informing other people about current environmental information and their responsibility.¹²⁹

Futures consciousness

An active and action-driven perspective on the future, present, and past, and the relationships between them. An internalised form of how thought is constructed. A specific effort to form an understanding of the meaning

and consequences of our actions and daily activities. The parts of futures awareness include understanding the time perspective, openness to alternatives, agency beliefs, systems perception, and concern for others.¹³⁰ See also futures literacy.

Futures literacy

The ability to use the future for a specific purpose and in different ways.¹³¹ See also futures awareness.

Futures-oriented thinking

A way of thinking that is oriented towards the future and is interested in or concerned about future issues and phenomena. It is based on the need to discover both clarity about future events and the basis for current choices.¹³²

Futures studies

The collection, critical analysis, creative synthesis, and systematic presentation of intuitive or other knowledge about different futures. Also referred to as "futures research". This field of research emerged during the Second World War. The perspective of futures studies is determined by the acting subject (individual person, company, agency or institution, community, settlement, state, group of states, humanity, or living nature) whose perspective serves as the basis for inspecting the future.¹³³

Futures Workshop

Originally developed by Professor Robert Jungk, the Futures Workshop is a multi-step, empowering group work method. Futures Workshops have typically been organised to solve current problems in a community, company, municipality, or other such organisation from a futures-oriented perspective, or to explore future options. Several different types and lengths of workshop methods have been developed over the years. The participants in these workshops are seen as experts on the situation in their region or group, that they are best placed to understand the overall situation, and that their opinions are essential for choosing the most desirable future and strategy.¹³⁴

Heritage Futures

A form of cultural heritage that can be used to contribute to the production of the cultural sustainability transformation in society. It consists of collectively developed and valued skills and practices that can be used to adapt today's culture to planetary boundaries.¹³⁵ See also intangible cultural heritage and living heritage.

Heritage Futures collections

Museum collections that a Dynamic Museum can use and signify together with its communities to create Heritage Futures. All museum collections can be seen as Heritage Futures collections that can bring about cultural transformation.¹³⁶

Heritage Futures work

The work used to create Heritage Futures. Heritage Futures work can be done, for example, in Heritage Futures Workshops arranged by museums. Heritage Futures work empowers participants to build the future while acknowledging its uncertainties and unpredictability. The key part of the process is allowing people to voluntarily participate in a co-creative process and influence the creation of Heritage Futures.¹³⁷

Heritage Futures Workshop

The Heritage Futures Workshop allows people who want to get involved in Heritage Futures work to communally create and signify the Heritage Futures that can help them build a more sustainable world. The Heritage Futures Workshop is a five-step workshop where participants can leap into the future and work together to define the futures that are important to them and create Heritage Futures. The Heritage Futures Workshop makes use of the methods and theories of futures studies, such as the Futures Workshop method and futures literacy, as well as living heritage practices, and, when conducted in a museum, the superpowers of the Dynamic Museum and the perspectives of its museum collections.¹³⁸

Human–forest relationship

The unique and direct or indirect living relationship that individuals or communities have with the forest. The human–forest relationship is shaped over a person's life and manifests itself in different ways in different environments or roles. It is part of an individual's relationship with the environment and often also part of their identity.¹³⁹

Human–nature relationship

The human–nature relationship represents the different ways in which people exist, understand, believe, act, and relate to the world around them. The concept is helpful in conceptualising nature in the context of understanding human activity. The concept is also contradictory in the sense that it separates nature from humanity.¹⁴⁰

Intangible cultural heritage

The UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage defines intangible cultural heritage as the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognise as part of their cultural heritage.

For example, oral traditions and expressions, including language as a vehicle of the intangible cultural heritage, performing arts, social practices, rituals, and festive events, and knowledge and practices concerning nature and the universe, as well as traditional craftsmanship, are intangible cultural heritage.¹⁴¹ See also living heritage and Heritage Futures.

Intangible turn

The intangible turn refers to a paradigm shift where the cultural focus has shifted to intangible cultural heritage. In museums, the intangible turn gained momentum in the 2000s following the enactment of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003). As a result, the memories, information, and interpretations of museum objects are also often explained to the public. The intangible turn also emphasises the importance of living heritage. See also intangible cultural heritage and living heritage.

Interdependent world

In an interdependent world, an increasing number of phenomena are difficult to distinguish unambiguously from the other phenomena that affect them, creating an increasingly pressing need to examine the interdependencies between different phenomena simultaneously, using different scientific methods and perspectives.¹⁴²

Leverage point

Leverage points represent societal structures and practices, the relationships between them, and the associated values and worldviews, that are believed to represent the best avenues for promoting sustainable development.¹⁴³

Living heritage

The concept of living heritage has come to mean the dynamism and inclusion of intangible cultural heritage in people's everyday lives in a multitude of senses. The concept emphasises that cultural heritage should not be understood as immutable, but that its various forms live on in people and their communities.¹⁴⁴ See also intangible cultural heritage and Heritage Futures.

Lusto model

A stakeholder engagement model developed by Lusto for the museum's societal impact and active interaction with its users and stakeholders.¹⁴⁵

Megatrend

A major wave or trajectory of development, a coherent set of phenomena with an identifiable and distinct history and a clear direction of development. The direction of a megatrend cannot be defined by looking at individual actors or factors alone, as it is a broad (and often global) set of macro-level phenomena and events that include many different and even conflicting sub-phenomena and chains of events. Nevertheless, the entirety they form can be seen as a trend in its own right, which is often expected to continue in the same direction in the future.¹⁴⁶

Musealisation process

A museum process where a single cultural expression (object, knowledge, or phenomenon) is identified, isolated, and signified to become a transmitter of cultural meanings and part of cultural heritage.¹⁴⁷

Museum Evaluation Model

A tool for developing museum activities and learning from them. The Museum Evaluation Model helps museums to identify their strengths and areas for improvement, and to review the objectives and effectiveness of their operations.¹⁴⁸

Museum object

A set of knowledge, meanings, and expressions of authentic culture, whether tangible or intangible, that is selected for a museum's collections and serves as e.g. evidence or a source, conveying knowledge and significance and generating understanding, identities, experiences, and well-being.¹⁴⁹

Museum value

The value of a museum object or collection to museum work, the museum itself, the museum's users, or society. The museum value of an object or collection increases when it becomes more capable of conveying its significance after it has been signified in the musealisation process. To have a good level of museum value, the object must also fit within the museum's collection profile.¹⁵⁰

Planetary boundaries

Planetary boundaries, i.e. the planet's boundary conditions, are key environmental processes that regulate the Earth's stability and resilience. These include climate change, ocean acidification, ozone depletion in the upper atmosphere, nitrogen and phosphorus cycles, freshwater use, changes in land use, biodiversity loss, atmospheric fine particles, and chemical pollution. The precautionary principle sets quantitative thresholds for these boundary conditions, and exceeding these thresholds presents an increased risk of major and unavoidable environmental changes.¹⁵¹

Restorative nostalgia

A form of nostalgia in which the past is rebuilt or reconstructed. In museums, this is done through museum collections that act as evidence.¹⁵²

Sensory-motor exercise

An exercise that makes use of multiple senses, such as hearing, smell, and touch, as well as bodily experiences and movement.¹⁵³

Significance analysis

The continuous process of investigating and exploring the museum value and significance of a museum object or collection from a wide range of perspectives. The significance analysis method is used to carry out a significance analysis.¹⁵⁴

Societal bildung

Societal bildung relates to the skills that people need to function as full members of society. This concept is also often referred to as civic skills. These skills include knowing the political system, understanding the responsibilities and rights of citizens, and being able to engage in constructive debate that respects other points of view. Such bildung is often associated with the ability to tolerate different views and opinions. The term political bildung is also used.¹⁵⁵ See also ethical bildung, eco-social bildung, bildung, and cognitive bildung.

Superpowers of a museum

The typical and specific characteristics, strengths, abilities, and competences of individual museums and the museum institution that a Dynamic Museum must identify, develop, and utilise to operate in a purposeful and effective way in society.

Sustainability transformation

The sustainability transformation is a holistic change that will permeate throughout society's values, attitudes, ways of producing information, governance structures, and decision-making, and that will transform society to align with planetary boundaries¹⁵⁶. See also cultural sustainability transformation, planetary boundaries, transformation.

Sustainable development

An ambitious social change that aims to align society with the Earth's planetary boundaries. It also encompasses the idea of safeguarding the opportunities for a good life for present and future generations of humans.¹⁵⁷

Systemic thinking

A process where an object under consideration is understood and described as entities, systems for which identifiable boundaries, factors, and actors and their interactions can be defined. An open system interacts with its environment and shares its information and energy with it, while a closed system is insular. A system can have sub-systems, it can be part of a larger comprehensive system, and different systems can interact with one another.¹⁵⁸

Transformation

A holistic, society-wide change in values, attitudes, ways of producing information, governance structures, and decision-making¹⁵⁹. See also sustainability transformation, cultural sustainability transformation.

REFERENCES

- 1 Hudson 1977.
- 2 See e.g. Ahmas 2014; Newell et al. 2017; Ehanti et al. 2019; ICOM Finland 2025.
- 3 Abson et al. 2017; Meadows 1999; Siivonen 2022; Siivonen et al. 2024.
- 4 See e.g. Siivonen 2017.
- 5 This publication of the DYNAMO project was published in Finnish in 2022: Paaskoski et al. 2022
- 6 See for example Karvonen et al. 2007; KEKE – Museot ja kestävä kehitys 2010.
- 7 Mattila (ed.) 2018, 10–12.
- 8 Finlex 2019.
- 9 Programme of Prime Minister Sanna Marin’s Government 2019.
- 10 Latvala-Harvilahti 2021a.
- 11 See Siivonen 2017.
- 12 Paaskoski 2020; Siivonen et al. 2022; Siivonen 2022.
- 13 Steffen et al. 2015; Richardson et al. 2023; Crutzen and Stoermer 2000; Lewis and Maslin 2015; Johnson et al. 2022.
- 14 See e.g. Huttunen et al. 2021.
- 15 Independent Group of Scientists 2019; Independent Group of Scientists 2023.
- 16 See e.g. Steffen et al. 2018.
- 17 For example, In Finland, Sitra has used its Bildung+ project to highlight the need for developing bildung as a response to contemporary issues (see Sitra 2021).
- 18 See Soinnunmaa et al. 2021.
- 19 See e.g. Soinnunmaa et al. 2021.
- 20 Poli 2011.
- 21 Goody 1994.
- 22 See e.g. Geertz 1957, 33.
- 23 Hannerz 1992.
- 24 E.g. Siivonen 2008a.
- 25 Crutzen and Stoermer 2000; Lewis and Maslin 2015; Johnson et al. 2022.
- 26 Siivonen 2018.
- 27 Siivonen 2022.
- 28 Smith 2006; see also Siivonen 2017.
- 29 Kuutma 2019.
- 30 Kangas & Hirvonen 2001.
- 31 Elpers 2020.
- 32 Kiiski Kataja 2016.
- 33 See Siivonen 2008b; Siivonen 2017; Siivonen 2019.
- 34 UNESCO 2003.
- 35 Council of Europe 2005.
- 36 Elpers 2020; Wiki-inventory for living heritage, Playing in the snow 2025.
- 37 Duxbury et al. 2017.
- 38 Siivonen & Kouri 2020, 97; Siivonen 2020; Siivonen 2022; Siivonen et al. 2024.
- 39 American Anthropological Association 2024.
- 40 Poli 2011.
- 41 Siivonen 2022.
- 42 Koski et al. 2020, 14–15.
- 43 See Hovi 2021; Koski et al. 2020; Siivonen & Latvala-Harvilahti 2019, 50; Cameron & Neilson 2015, 4.
- 44 See Koski et al. 2020.
- 45 Paaskoski 2020; Koski et al. 2020, 6–7; Siivonen et al. 2022.
- 46 For Finnish museums, see Mattila (ed.) 2018.
- 47 See Ryyänen & Rannikko 2021.
- 48 See e.g. Koski et al. 2020.
- 49 Paaskoski 2020.
- 50 The concept of futures competence combines, in a way that is central to the Dynamic Museum, a selection of the characteristics from three different concepts: futures literacy, i.e. the ability to imagine and work for alternative futures (Miller 2018); futures consciousness, i.e. one’s time perspective, openness to alternatives, agency beliefs, systems perception, and concern for others (Ahvenharju et al. 2018); and futures agency, i.e. the willingness of actors to use futures literacy and futures consciousness (The Helsinki Term Bank for the Arts and Sciences, Tulevaisuustoimijuus 2025; Latvala-Harvilahti 2021b).
- 51 See e.g. Kiiski Kataja 2016.
- 52 Mensch & Meijer-van Mensch 2015, 13; Häyhä et al. 2019.
- 53 Paaskoski 2020.
- 54 Ibid.
- 55 See Pearce 1994, 25.
- 56 Paaskoski 2014, 33; see Boym 2001, 41–49.
- 57 Hall 2002, 11.
- 58 Barad 2003.
- 59 See Miettinen 2020.
- 60 See Mensch & Meijer-van Mensch 2015, 49–61; Simon 2010.
- 61 See e.g. Heinonen & Lahti 1988, passim.; Rönkkö 2007, 70; Kostet 2010, 266; Häyhä et al. 2021, 181.
- 62 Paaskoski 2020.
- 63 Ekosaari et al. 2013, 18.
- 64 Mensch & Meijer-van Mensch 2015, 24–26; see also Häyhä et al. 2019, 10.
- 65 Bohman 2003, 16–19.
- 66 Häyhä et al. 2019; see also Häyhä et al. 2021, 172–177; Russell & Winkworth 2009; Reed 2018; Versloot (ed.) 2014.
- 67 Mensch & Meijer-van Mensch 2015, 51–53.
- 68 Häyhä et al. 2019, 10.
- 69 Pearce 1994, 25–26.
- 70 Finnish Museums Association 2021; ICOM 2021, Article 3, Section 1.
- 71 Häyhä et al. 2019, 10; see also Valtonen 2006.
- 72 Paaskoski 2020; Mensch & Meijer-van Mensch 2015, 13.
- 73 Häyhä et al. 2021.
- 74 Paaskoski 2020.
- 75 Ekosaari et al. 2013, 21.
- 76 See Smith 2006, 4.
- 77 See Hakamies 2019.
- 78 MOI Framework 2025.
- 79 See Paaskoski 2006.
- 80 Koski et al. 2020.

- 81 UNESCO 2003.
- 82 Wiki-inventory for living heritage,
The forest relationship in Finland 2025.
- 83 MOI Framework 2025.
- 84 E.g. Karhunkorva et al. 2016.
- 85 Koski et al. 2020.
- 86 Amara 1981, 25; Bell 1997, 150–154.
- 87 Masini 1993.
- 88 Bell 1997, 150–151, 305.
- 89 Jungk 1969.
- 90 Wilenius 1999.
- 91 Siivonen 2022.
- 92 Pouru-Mikkola & Wilenius 2021.
- 93 Ahvenharju et al. 2018.
- 94 Miller 2018.
- 95 Ibid.
- 96 Siivonen 2022; Siivonen 2020; Siivonen & Kouri 2020.
- 97 Siivonen 2022.
- 98 Jungk & Müllert 1987; Armanto et al. 2022.
- 99 See. Miller 2018.
- 100 Siivonen et al. 2022.
- 101 Ibid.
- 102 Ibid.
- 103 Ibid.
- 104 The workshop process is largely based on the work
shop description presented in the textbook of the
Finland Futures Academy (FFA) (Siivonen et al. 2022).
- 105 Siivonen et al. 2022.
- 106 Ibid.
- 107 Ibid.
- 108 Ibid.
- 109 For more information on planning a futures workshop,
see Siivonen et al. 2022.
- 110 The Finnish National Board on Research Integrity
TENK is responsible for issuing research ethics
guidelines in Finland: Kohonen et al. 2019.
- 111 Paaskoski et al. 2022, 26.
- 112 The Helsinki Term Bank for the Arts and Sciences,
Antroposeeni 2025.
- 113 The Helsinki Term Bank for the Arts and Sciences,
Sivistys 2025.
- 114 The Helsinki Term Bank for the Arts and Sciences,
Elonkirjo 2025.
- 115 Miettinen 2020.
- 116 Mensch & Meijer-van Mensch 2015, 24–26;
Ekosaari et al. 2013, 18; Häyhä et al. 2019, 10.
- 117 Ekosaari et al. 2013, 18
- 118 Paaskoski & Ekosaari, manuscript.
- 119 Paaskoski & Ekosaari, manuscript.
- 120 See Tuomi-Nikula et al. 2013, 20; Bendix 2009,
263–264.
- 121 E.g. Hannerz 1992; Siivonen 2008a.
- 122 Siivonen 2022; see also e.g. Feola 2015.
- 123 Mensch & Meijer-van Mensch 2015, 24–26;
Ekosaari et al. 2013, 17; Häyhä et al. 2019, 10.
- 124 Ibid.
- 125 Miettinen 2020.
- 126 Lusto 2021; Paaskoski et al. (eds.) 2022
- 127 Lusto 2022.
- 128 The Helsinki Term Bank for the Arts and Sciences,
Tulevaisuustoimijuus 2025.
- 129 Latvala-Harvilahti 2021b.
- 130 Rubin 2004b; Ahvenharju et al. 2018.
- 131 Miller 2018, 2.
- 132 Ibid.
- 133 Rubin 2004b.
- 134 Rubin 2004b; Armanto et al. 2022.
- 135 Siivonen 2022.
- 136 Paaskoski 2020.
- 137 Siivonen et al. 2022.
- 138 Ibid.
- 139 Lusto 2021.
- 140 See Soinnunmaa et al. 2021.
- 141 UNESCO 2003.
- 142 Laine 2015.
- 143 See Meadows 1999; Abson et al. 2017.
- 144 UNESCO 2003; see also Intangible Cultural
Heritage 2025.
- 145 Koski et al. 2020.
- 146 Rubin 2004a.
- 147 Bohman 2003, 16–19; Ekosaari et al. 2013, 21;
Häyhä et al. 2019, 10.
- 148 MOI Framework 2025.
- 149 Häyhä et al. 2019, 10.
- 150 Häyhä et al. 2019, 10.
- 151 The Helsinki Term Bank for the Arts and Sciences,
Ympäristötieteet, planetaariset rajat 2025.
- 152 Boym 2001, 41–49; Paaskoski 2014, 33.
- 153 Nykysuomen sanakirja 2002, 116.
- 154 Häyhä et al. 2015; Ekosaari et al. 2013, 20.
- 155 Miettinen 2020.
- 156 See e.g. Feola 2015.
- 157 The Helsinki Term Bank for the Arts and Sciences,
Kestävä kehitys 2025.
- 158 Rubin 2004b.
- 159 See e.g. Feola 2015.

SOURCES

Literary sources

- Abson, David J. & Fischer, Joern & Leventon, Julia & Newig, Jens & Schomerus, Thomas & Vilsmaier, Ulli & Wehrden, Henrik von & Abernethy, Paivi & Ives, Christopher D. & Jager, Nicolas W. & Lang, Daniel J. 2017. "Leverage points for sustainability transformation." *Ambio* vol. 46, 2017, 30–39.
- Ahmas, Kristina 2014. *Norsunluutornin purkajat. Jaettu johtajuus ja kollektiivinen asiantuntijuus museossa*. Acta Wasaensia 318. University of Vaasa: Vaasa.
- Ahvenharju, Sanna & Minkkinen, Matti & Lalot, Fanny 2018. "The five dimensions of Futures Consciousness." *Futures* vol. 104, 2018, 1–13.
- Amara, Roy 1981. "The Futures Field. Searching for Definitions and Boundaries." *The Futurist* vol. 15, 1981:1, 25–29.
- Armanto, Riikka & Luttamäki, Ville & Siivonen, Katriina 2022. "Monimuotoinen tulevaisuusverstas." *Tulevaisuudentutkimus tutuksi – perusteita ja menetelmiä*, 222–236. Eds. Hanna-Kaisa Aalto, Katariina Heikkilä, Pasi Keski-Pukkila, Maija Mäki & Markus Pöllänen. *Tulevaisuudentutkimuksen Verkostoakatemia julkaisuja 1/2022*. Finland Futures Academy: Turku.
- Barad, Karen 2003. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs* vol. 28, 2003:3, 801–831.
- Bell, Wendell 1997. *Foundations of Futures Studies: History, Purposes and Knowledge. Human Science for a New Era. Volume 1*. Transaction Publishers: New Brunswick, NJ.
- Bendix, Regina 2009. "Heritage between economy and politics: An assessment from the perspective of cultural anthropology." *Intangible Heritage*, 253–269. Eds. Laura-jane Smith & Natsuko Akagawa. Routledge: London & New York, NY.
- Bohman, Stefan 2003. "Vad är museivetenskap, och vad är kulturarv?" *Museer och kulturarv. En museivetenskaplig antologi*, 9–24. Eds. Lennart Palmqvist & Stefan Bohman. 2nd Edition. Carlssons: Stockholm.
- Boym, Svetlana 2001. *The Future of Nostalgia*. Basic Books: New York, NY.
- Cameron, Fiona R. & Neilson, Brett 2015. "Introduction: Climate Change, Museum Futures." *Climate Change and Museum Futures*, 1–8. Eds. Fiona R. Cameron & Brett Neilson. Routledge Research in Museum Studies. Routledge: New York, NY & London.
- Crutzen, Paul & Eugene F. Stoermer 2000. "The 'Anthropocene.'" *IGBP Newsletter* 41.
- Duxbury, Nancy & Kangas, Anita & Beukelaer, Christiaan De 2017. "Cultural policies for sustainable development: Four strategic paths." *International Journal of Cultural Policy* vol. 23, 2017, 214–230.
- Ekosaari, Maija & Jantunen, Sari & Paaskoski, Leena 2013. *Kokoelmapolitiikan muistilista museoille*. Museoviraston ohjeita ja oppaita 3. Museum 2015 & the Finnish Heritage Agency: Helsinki. <https://stmuseovirastoprod.blob.core.windows.net/museovirasto/Arkisto-ja-kokoelmapalvelut/Julkaisut/kokoelmapolitiikan-muistilista-museoille.pdf> (27 January 2022).
- Elpers, Sophie 2020. "Past and Future Presenting in Museums. Four Cases of Engaging with Intangible Heritage from the Netherlands." *Volkskunde* 2020:3, 429–442.
- Feola, Giuseppe 2015. "Societal transformation in response to global environmental change: A review of emerging concepts." *Ambio* vol. 44, 2015, 376–390.
- Geertz, Clifford 1957. "Ritual and Social Change: A Javanese Example." *American Anthropologist* vol. 59, 1957:1, 32–54.
- Goody, Jack 1994. "Culture and Its Boundaries: A European View." *Assessing Cultural Anthropology*, 250–261. Ed. Robert Borofsky. McGraw-Hill: New York, NY.
- Hakamies, Inkeri 2019. "'Real Museum Work' and Information Technology – Does not Compute!" *Ethnologia Fennica* vol. 46, 2019, 36–60. <https://journal.fi/ethnolfenn/article/view/74238/47358> (27 January 2022).
- Hall, Stuart 2002. *Identiteetti*. Translated into Finnish by Mikko Lehtonen & Juha Herkman. 4th edition. Vastapaino: Tampere.
- Hannerz, Ulf 1992. *Cultural Complexity. Studies in the Social Organization of Meaning*. Columbia University Press: New York, NY.
- Heinonen, Jouko & Lahti, Markku 1988. *Museologian perusteet*. Suomen Museoliiton julkaisuja No. 34. Finnish Museums Association: Helsinki.
- Hovi, Pia 2021. *Kyl maar tääl kaikenlaista kulttuuria on! Kulttuurisuunnittelu kokonaisvaltaisena kulttuuri- ja taidelähtöisenä yhteiskehittämisen menetelmänä*. Annales Universitatis Turkuensis, Ser. B, Tom. 554, Humaniora. University of Turku: Turku.
- Hudson, Kenneth 1977. *Museums for the 1980s: a Survey of World Trends*. Unesco: Paris.
- Huttunen, Suvi & Kaljonen, Minna & Lonkila, Annika & Rantala, Salla & Rekola, Aino & Paloniemi, Riikka 2021. "Pluralising agency to understand behaviour change in sustainability transitions." *Energy Research & Social Science* vol. 76, 2021.
- Häyhä, Heikki, Jantunen, Sari & Paaskoski, Leena 2019. *Analysing Significance*. Suomen Museoliiton julkaisuja No. 75. Finnish Museums Association & ICOM Finland: Helsinki. <https://museoliitto.fi/wp-content/uploads/2023/10/AnalysingSignificance.pdf> (26 March 2025).
- Häyhä, Heikki & Jantunen, Sari & Paaskoski, Leena 2021. "How to be Dynamic – The potential of analysing significance in Finnish museum collections." *Museum Studies – Bridging Theory and Practice*, 169–184. Eds. Nina Robbins, Suzie Thomas, Minna Tuominen & Anna Wessman. ICOFOM & University of Jyväskylä, Open Science Centre: Jyväskylä. <https://jyx.jyu.fi/handle/123456789/78848> (27 January 2022).
- Independent Group of Scientists 2019. *The Future is Now – Science for Achieving Sustainable Development. Global Sustainable Development Report 2019*. United Nations: New York, NY.
- Independent Group of Scientists 2023. *Times of crisis, times*

- of change: Science for accelerating transformation to sustainable development.* United Nations: New York
- Johnson, Amy & Hebdon, Chris & Burow, Paul & Chatti, Deepti & Dove, Michael 2022. "Anthropocene." *Oxford Research Encyclopedia of Anthropology*, Editor-in-Chief Mark Aldenderfer. Oxford University Press: Oxford. <https://doi.org/10.1093/acrefore/9780190854584.013.295>
- Jungk, Robert 1969. "Imagination and the future." *International Social Science Journal* vol. 21, 1969:4, 557–562.
- Jungk, Robert & Müllert, Norbert 1987. Tulevaisuusverstaatt. Translated into Finnish by Kai Vaara. Keskinäisen sivistyksen seura – Suomen Lataamo: Helsinki.
- Kangas, Anita & Hirvonen, Johanna 2001. *Kulttuuriprojekti. Euroopan unionin rakennerahastot, kulttuuri ja alueet.* Opetusministeriön EU-rakennerahastot -julkaisu 7/2001. Ministry of Education: Helsinki.
- Karhunkorva, Reetta & Paaskoski, Leena & Matila, Airi & Arnkil, Nora 2016. *Merkityksellinen metsäkulttuuri.* Tapion raportteja No 10. Tapio Oy: Helsinki. https://tapio.fi/wp-content/uploads/2021/11/julkaisu_merkityksellinen-metsakulttuuri.pdf (27 January 2022).
- Karvonen, Minna & Teräs, Ulla & Mattila, Mirva & Kukko, Eeva 2007. *Museot vaikuttajina. Tarve- ja tavoitekartotus.* Finnish Heritage Agency: Helsinki. <https://stmuseovirastoprod.blob.core.windows.net/museovirasto/Arkisto-ja-kokoelmapalvelut/Julkaisut/museot-vaikuttajina.pdf> (27 January 2022).
- KEKE – Museot ja kestävä kehitys. 2010. Finnish Museums Association: Helsinki.
- Kiiski Kataja, Elina 2016. *Megatrendit 2016. Tulevaisuus tapahtuu nyt.* Sitra: Helsinki. https://media.sitra.fi/2017/02/23211717/Megatrendit_2016.pdf (27 January 2022).
- Kohonen, Iina & Kuula-Luumi, Arja & Spoof, Sanna-Kaisa 2019. *Ihmiseen kohdistuvan tutkimuksen eettiset periaatteet ja ihmistieteiden eettinen ennakkoarviointi Suomessa. Instructions of the Finnish National Board on Research Integrity 2019.* Tutkimuseettisen neuvottelukunnan julkaisuja 3/2019. Finnish National Board on Research Integrity: Helsinki. https://tenk.fi/sites/default/files/2021-01/Ihmistieteiden_eettisen_ennakkoarvioinnin_ohje_2020.pdf (27 January 2022).
- Koski, Anna-Kaisa & Karhunkorva, Reetta & Paaskoski, Leena 2020. *Luston malli – Museo, sidosryhmät ja yhteiskunta.* Luston julkaisuja 3. Lusto – Finnish Forest Museum: Savonlinna. https://lusto.fi/wp-content/uploads/2022/03/luston_malli.pdf (27 January 2022).
- Kostet, Juhani 2010. "Suomalaisten museoiden kokoelmat 1800-luvulla ja 1900-luvun alussa." *Suomen museohistoria*, 266–284. Eds. Susanna Pettersson & Pauliina Kinanen. Suomalaisen Kirjallisuuden Seuran Toimituksia 1265. Finnish Literature Society: Helsinki.
- Kuutma, Kristin 2019. "Afterword. The politics of scale for intangible cultural heritage: Identification, ownership and representation." *Politics of Scale. New Directions in Critical Heritage Studies*, 156–170. Eds. Tuuli Lähdsmäki, Suzie Thomas & Yujie Zhu. Berghahn Books: New York, NY & Oxford.
- Latvala-Harvilahti, Pauliina 2021a. *Kulttuuriperinnöt kestävän tulevaisuuden avaimina. Taustaselvitys kulttuuriperintöstrategian laatimisen tueksi.* Opetus- ja kulttuuriministeriön julkaisuja 2021:28. Ministry of Education and Culture: Helsinki. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163037/OKM_2021_28.pdf?sequence=1&isAllowed=y (27 January 2022).
- Latvala-Harvilahti, Pauliina 2021b. "Mire Art: Environmental Artivism and Future Agency in the Landscape of Mining." *Ethnologia Scandinavica* vol. 51, 2021, 81–101. <https://erepo.uef.fi/bitstream/handle/123456789/26525/1638532011496698945.pdf?sequence=2&isAllowed=y> (27 January 2022).
- Lewis, Simon L. & Mark A. Maslin 2015. "Defining the Anthropocene." *Nature* 519: 171–180. doi:10.1038/nature14258
- Lusto 2022. *Core exhibition manuscript of the Finnish Forest Museum Lusto.* In the museum's possession.
- Masini, Eleonora Barbieri 1993. *Why Futures Studies?* Grey Seal Books: London.
- Mattila, Mirva (ed.) 2018. *Mahdollisuuksien museo. Opetus- ja kulttuuriministeriön museopoliittinen ohjelma 2030.* Opetus- ja kulttuuriministeriön julkaisuja 2018:11. Ministry of Education and Culture: Helsinki. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160600/OKM_11_2018.pdf (27 January 2022).
- Meadows, Donella H. 1999. *Leverage Points: Places to Intervene in a System.* The Sustainability Institute Hartland, VT.
- Mensch, Peter van & Meijer-van Mensch, Léontine 2015. *New Trends in Museology II.* Muzej novejše zgodovine & ICOM Slovenia: Celje.
- Miettinen, Timo 2020. *Sivistysihanteen jäljillä. Sivistys on aina elänyt ajassa ja ollut mukana muutoksessa.* Sitra: Helsinki. <https://media.sitra.fi/2020/02/17111838/sivistysihanteen-jaljilla.pdf> (27 January 2022).
- Miller, Riel 2018. "Introduction. Futures Literacy: transforming the future." *Transforming the Future. Anticipation in the 21st Century*, 1–12. Ed. Riel Miller. Routledge: London.
- MOI Framework. NEMO Network of European Museum Organisations. <https://www.ne-mo.org/resources/moi-self-evaluation-tool/> (24 January 2025)
- Newell, Jennifer & Robin, Libby & Wehner, Kirsten 2017. "Introduction. Curating connections in a climate-changed world." *Curating the Future. Museums, communities and climate change*, 1–16. Eds. Jennifer Newell, Libby Robin & Kirsten Wehner. Routledge: London & New York, NY.
- Nyky-suomen sanakirja. Viides osa S-Tr. 2002. 15th edition. WSOY: Porvoo & Helsinki.
- Paaskoski, Leena 2006. "Extensive annual rings – from the first decade of Lusto." *Essays on the history of Finnish forestry*, 141–151. *Vuosilusto* 2004–2005. Lusto Tuki: Punkaharju.
- Paaskoski, Leena 2014. "Experienced, recollected and reconstructed. The establishment of Nordic forest museums in the 1940s–60s." *Nordisk museologi* 2014:1, 21–37.
- Paaskoski, Leena & Ekosaari, Maija. *Täytetty susi museossa ei ole susi.* Manuscript. In the authors' possession.
- Paaskoski, Leena & Heikurainen, Matti & Latvala-Harvilahti, Pauliina (eds.) 2022. *Metsäkulttuurinen kestävyys.* Luston julkaisuja 5. Finnish Forest Museum Lusto: Savonlinna. <https://lusto.fi/wp-content/uploads/2022/04/Metsakulttuurinen-kestavuus.pdf> (27 January 2022).
- Paaskoski, Leena & Siivonen, Katriina & Vähäkari, Noora & Latvala-Harvilahti, Pauliina & Pelli, Päivi & Granlund, Maria & Hujala, Teppo 2022. *Dynaaminen museo ja tule-*

- vaisuusperintöverstas. *Käsikirja museoiden ekososiaaliseen sivistystyöhön*. Luston julkaisuja 6. Finnish Forest Museum Lusto: Savonlinna. <https://lusto.fi/wp-content/uploads/2022/03/lusto-dynaaminen-museo.pdf>
- Pearce, Susan M. 1994. "Objects as meaning; or narrating the past." *Interpreting Objects and Collections*, 19–29. Ed. Susan M. Pearce. Leicester Readers in Museum Studies. Routledge: London & New York, NY.
- Poli, Roberto 2011. "Ethics and futures studies." *Int. J. Management Concepts and Philosophy* vol. 5, 2011:4, 403–410.
- Pouru-Mikkola, Laura & Wilenius, Markku 2021. "Building individual futures capacity through transformative futures learning." *Futures* vol. 132, 2021.
- Programme of Prime Minister Sanna Marin's Government 10 December 2019. *Inclusive and competent Finland – a socially, economically and ecologically sustainable society*. 2019. Publications of the Finnish Government 2019:31. Finnish Government: Helsinki. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161931/VN_2019_31.pdf?sequence=1&isAllowed=y (27 January 2022).
- Reed, Caroline 2018. *Reviewing Significance 3.0. A framework for assessing museum, archive and library collections' significance, management and use*. The Collections Trust: London. <https://collectionstrust.org.uk/wp-content/uploads/2018/01/RevSig3-Introduction-1.pdf> (27 January 2022).
- Richardson, Katherine & Steffen, Will & Lucht, Wolfgang & Bendtsen, Jørgen & Cornell, Sarah E. & Donges, Jonathan F. & Drüke, Markus & Fetzer, Ingo & Bala, Govindasamy & von Bloh, Werner & Feulner, Georg & Fiedler, Stephanie & Gerten, Dieter & Gleeson, Tom & Hoffmann, Matthias & Huiskamp, Willem & Kumm, Matti & Mohan, Chinchu & Nogués-Bravo, David & Petri, Stefan & Porkka, Miina & Ramstorf, Stefan & Schaphoff, Sibyll & Thonicke, Kirsten & Tobian, Arne & Virkki, Vili & Wang-Erlandsson, Lan & Weber, Lisa & Rockström, Johan 2023. "Earth beyond six of nine Planetary Boundaries". *Science Advances* 9. <https://www.science.org/doi/10.1126/sciadv.adh2458>
- Russell, Roslyn & Winkworth, Kylie 2009. *Significance 2.0. A guide to assessing the significance of collections*. 2nd edition. Collections Council of Australia: Canberra.
- Ryynänen, Sanna & Rannikko, Anni 2021. "Johdanto." *Tutkiva mielikuvitus. Luovat, osallistuvat ja toiminnalliset tutkimusmenetelmät yhteiskuntatieteissä*, 11–30. Eds. Sanna Ryynänen & Anni Rannikko. Gaudeamus: Helsinki.
- Rönkkö, Marja-Liisa 2007. "Museon idea ja historia." *Museologia tänään*, 70–92. Ed. Pauliina Kinanen. Suomen Museoliiton julkaisuja No. 57. Finnish Museums Association: Helsinki.
- Siivonen, Katriina 2008a. *Saaristoidentiteetit merkkien virtoina. Varsinaissuomalainen arki ja aluekehitystyö globalisaation murroksessa*. Kansatieteellinen arkisto 51. Finnish Antiquarian Society: Helsinki.
- Siivonen, Katriina 2008b. "Culture is basically creative. What is the relationship between a culture as a whole, and heterogeneous cultural processes with individual traits, change, variation and creativity?" *Creative Futures Conference Proceedings 10.–11. October 2007 in Pori, Finland*, 180–190. Eds. Marjo Mäenpää & Taina Rajanti. University of Art and Design, publication C 6. University of Art and Design, Pori School of Art and Media: Pori.
- Siivonen, Katriina 2017. "Kulttuurinen kestävyys." *Kaikki vapaudesta*, 275–287. Eds. Kari Enqvist, Ilari Hetemäki & Teija Tiilikainen. Gaudeamus: Helsinki.
- Siivonen, Katriina 2018. "Sustainable everyday culture from glocal archipelago culture." *Cultural Sustainability and the Nature-Culture Interface. Livelihoods, Policies, and Methodologies*, 19–34. Eds. Inger Birkeland, Rob Burton, Constanza Parra & Katriina Siivonen. Routledge: London & New York.
- Siivonen, Katriina 2019. "Intangible cultural heritage will revolutionise the future." *Wohin geht die Reise? Eine Geburtstagsgabe für Johanna Rolshoven 2019*, 93–97. Eds. Sabine Eggmann, Susanna Kolbe & Justin Winkler. Akroama: Basel.
- Siivonen, Katriina 2020. "Metsäsuhde kulttuurisesti kestävästä tulevaisuusperintönä." *Metsät ja kulttuurinen kestävyys. Vuosilusto* 13, 10–23. <https://lusto.fi/wp-content/uploads/2023/03/vuosilusto13.pdf>
- Siivonen, Katriina 2022. "Tulevaisuusperintö kulttuurisen kestävyysmurroksen välineenä." *Tulevaisuudentutkimus tutuksi – perusteita ja menetelmiä*, 444–458. Eds. Hanna-Kaisa Aalto, Katriina Heikkilä, Pasi Keski-Pukkila, Maija Mäki & Markus Pöllänen. Tulevaisuudentutkimuksen Verkostoakatemiassa julkaisuja 1/2022. Finland Futures Academy: Turku.
- Siivonen, Katriina & Cantell, Hannele & Ihanainen-Rokio, Outi & Kurenlahti, Mikko & Laakso, Senja & Latvala-Harvilahti, Pauliina & Pietikäinen, Janna & Salonen, Arto O. 2024. "The means of achieving sustainability transformation". *The Avenues to Sustainability. Key Lessons from Sustainability Science*, 215–254. Eds. Tarja Halonen, Kaisa Korhonen-Kurki, Jari Niemelä & Janna Pietikäinen. Gaudeamus: Helsinki.
- Siivonen, Katriina & Kouri, Jaana 2020. "Tulevaisuusperintö ihmisen kestävästä merellisen luontosuhteen perustana." *Muutoksen tyrskyt ja kotirannan mainingit. Kulttuurisia näkökulmia merentutkimukseen*, 76–100. Eds. Jaana Kouri, Tuomas Räsänen & Nina Tynkkynen. Suomalaisen Kirjallisuuden Seuran Toimituksia 1462. Finnish Literature Society: Helsinki.
- Siivonen, Katriina & Latvala-Harvilahti, Pauliina 2019. "Osallisuuden mahdollisuudet kestävässä kulttuuriperintö- ja kotiseututyössä." *Kotiseutu* vol. 105, 2019, 45–52. Suomen Kotiseutuliiton julkaisuja A:39. Finnish Local Heritage Federation: Helsinki.
- Siivonen, Katriina & Latvala-Harvilahti, Pauliina & Vähäkari, Noora & Paaskoski, Leena & Pelli, Päivi 2022. "Tulevaisuusperintöverstas kestävästä tulevaisuuden edistäjänä." *Tulevaisuudentutkimus tutuksi – perusteita ja menetelmiä*, 250–259. Eds. Hanna-Kaisa Aalto, Katriina Heikkilä, Pasi Keski-Pukkila, Maija Mäki & Markus Pöllänen. Tulevaisuudentutkimuksen Verkostoakatemiassa julkaisuja 1/2022. Finland Futures Academy: Turku.
- Simon, Nina 2010. *The participatory museum*. Museum 2.0: Santa Cruz, CA.
- Smith, Laurajane 2006. *Uses of Heritage*. Routledge: London & New York, NY.
- Soininmaa, Pihla & Willamo, Risto & Helenius, Leena & Holmström, Charlotta & Kaikko, Anni & Nuotiomäki, Annika 2021. "Voiko luonnosta tulla pois? Mikä on se luonto, johon olemme suhteessa?" *Ihminen osana elonkirjoa. Luontosuhteet, luontokäsitteet ja sivistys kestävyyskriisin aikakaudella*, 65–79. Eds. Risto Haverinen, Kirsikka Mattila, Aleksi Neuvonen, Rinna Saramäki & Otso Sillanaukea. Muistio. Sitra: Helsinki. <https://media.sitra.fi/2021/12/02161503/sitra-ihminen-osana-elonkirjoa>

- joa.pdf (27 January 2022).
- Steffen, Will & Richardson, Katherine & Rockström, Johan & Cornell, Sarah E. & Fetzer, Ingo & Bennett, Elena M. & Biggs, Reinette & Carpenter, Stephen R. & Vries, Wim de & Wit, Cynthia A. de & Folke, Carl & Gerten, Dieter & Heinke, Jens & Mace, Georgina M. & Persson, Linn M. & Ramanathan, Veerabhadran & Reyers, Belinda & Sörlin, Sverker 2015. "Planetary boundaries: Guiding human development on a changing planet." *Science* vol. 347, 2015, 6223.
- Steffen, Will & Rockström, Johan & Richardson, Katherine & Lenton, Timothy M. & Folke, Carl & Liverman, Diana & Summerhayes, C. P. & Barnosky, Anthony D. & Cornell, Sarah Elisabeth & Crucifix, Michel & Donges, Jonathan F. & Fetzer, Ingo & Lade, Steven John & Scheffer, Marten & Winkelmann, Ricarda & Schellnhuber, Hans Joachim 2018. "Trajectories of the Earth System in the Anthropocene." *Proceedings of the National Academy of Sciences* vol. 115, 2018:33.
- Tuomi-Nikula, Outi & Haanpää, Riina & Kivilaakso, Aura 2013. "Kulttuuriperintökysymysten jäljillä." *Mitä on kulttuuriperintö?*, 12–27. Eds. Outi Tuomi-Nikula, Riina Haanpää & Aura Kivilaakso. Tietolipas 243. Finnish Literature Society: Helsinki.
- Valtonen, Hannu 2006. *Tavallisesta kuriositeetiksi. Kahden Keski-Suomen Ilmailumuseon Messerschmitt Bf 109 -lentokoneen museoarvo*. Jyväskylä Studies in Humanities 49. University of Jyväskylä: Jyväskylä.
- Versloot, Anne (ed.) 2014. *Assessing Museum Collections. Collection valuation in six steps*. Cultural Heritage Agency: Amersfoort. <https://collectionstrust.org.uk/wp-content/uploads/2017/08/Assessing-Museum-Collections-Collection-valuation-in-six-steps.pdf> (26.1.2022).
- Wilenius, Markku 1999. "Tales of Transition. Futures Studies and Sociological Explanation." *International Review of Sociology* vol. 9, 1999:3, 373-385.
- ## Digital sources
- American Anthropological Association. Anthropological Ethics. <https://www.americananthro.org/LearnAndTeach/Content.aspx?ItemNumber=22869> (7 January 2025).
- Council of Europe 2005. Convention on the Value of Cultural Heritage for Society (Faro convention). Council of Europe: Strasbourg. <https://rm.coe.int/1680083746> (18 May 2025).
- Ehanti, Eero & Turtiainen, Minna & Patokorpi, Lassi 2019. Mitä tapahtui uuden museomääritelmän äänestyksessä? ICOM Finland. <https://icomfinland.fi/blogi/museomaaritelma> (7 January 2025).
- Finlex 2019. Museolaki (Museums Act, 314/2019). <https://finlex.fi/fi/laki/alkup/2019/20190314> (7 January 2025).
- Finnish Museums Association 2021. Meistä ja museoalasta. ICOM's Museum Definition. <https://www.museoliitto.fi/mikamuseo/icom> (7 January 2025).
- ICOM 2021. International Council of Museums (ICOM). Statutes. https://icom.museum/wp-content/uploads/2021/09/SD_Statutes_2021_EN.pdf (7 January 2025).
- ICOM Finland. Museum Definition. <https://icomfinland.fi/museomaaritelma/> (12 February 2025).
- Intangible Cultural Heritage. <https://www.aineetonkulttuuriperinto.fi/en/> (7 January 2025).
- Laine, Paula 2015. Sitran trendit: Keskinäisriippuvuus lisääntyy. Sitra, articles. <https://www.sitra.fi/artikkelit/sitran-trendit-keskinäisriippuvuus-lisaantyy/> (7 January 2025).
- Lusto 2021. Metsäkulttuurisanasto. <https://lusto.fi/wp-content/uploads/2021/03/metsakulttuuri-sanasto.pdf> (7 January 2025).
- MOI Framework. Network of European Museum Organisations. <https://www.ne-mo.org/resources/moi-self-evaluation-tool/> (12 February 2025).
- Paaskoski, Leena 2020. Dynaaminen museo kartuttaa tulevaisuusperintöä. Finnish Museums Association, Museo-Pro. https://www.museopro.fi/fi/dynaaminen_museo_kartuttaa_tulevaisuusperintoa (7 January 2025).
- Rubin, Anita 2004a. Käsitteitä I-R. TOPI – Tulevaisuudentutkimuksen oppimateriaali. Finland Futures Research Centre, Turku School of Economics, University of Turku. <https://tulevaisuus.fi/kasitteet/kasitteita-i-r/> (7 January 2025).
- Rubin, Anita 2004b. Käsitteitä S-Ö. TOPI – Tulevaisuudentutkimuksen oppimateriaali. Finland Futures Research Centre, Turku School of Economics, University of Turku. <https://tulevaisuus.fi/kasitteet/kasitteita-s-o/> (7 January 2025).
- Sitra 2021. Sivistys+. <https://www.sitra.fi/aiheet/sivistys/> (7 January 2025).
- The Helsinki Term Bank for the Arts and Sciences Antroposeeni. <https://tieteentermipankki.fi/wiki/Nimitys:antroposeeni> (7 January 2025).
- The Helsinki Term Bank for the Arts and Sciences Elonkirjo. <https://www.tieteentermipankki.fi/wiki/Nimitys:elonkirjo> (7 January 2025).
- The Helsinki Term Bank for the Arts and Sciences Kestävyystiede, tulevaisuustoimijuus. <https://tieteentermipankki.fi/wiki/Kestavyystiede:tulevaisuustoimijuus> (7 January 2025).
- The Helsinki Term Bank for the Arts and Sciences Kestävä kehitys. https://www.tieteentermipankki.fi/wiki/Nimitys:kestava_kehitys (7 January 2022).
- The Helsinki Term Bank for the Arts and Sciences Sivistys. <https://www.tieteentermipankki.fi/wiki/Nimitys:sivistys> (7 January 2025).
- The Helsinki Term Bank for the Arts and Sciences Ympäristötieteet, planetaariset rajat. [https://tieteentermipankki.fi/wiki/Ympäristötieteet:planetaariset rajat](https://tieteentermipankki.fi/wiki/Ymparistotieteet:planetaariset_rajat) (7 January 2025).
- UNESCO 2003. Convention for the Safeguarding of the Intangible Cultural Heritage. UNESCO: Paris. <https://ich.unesco.org/en/convention> (18 May 2025).
- Wiki-inventory for living heritage. Playing in the snow. https://wiki.aineetonkulttuuriperinto.fi/wiki/Playing_in_the_snow (7 January 2025).
- Wiki-inventory for living heritage. The forest relationship in Finland. https://wiki.aineetonkulttuuriperinto.fi/wiki/The_forest_relationship_in_Finland (7 January 2025).

APPENDIX

Heritage Futures Workshop manuscript

The Workshop is prepared according to the theme and objectives, including possible stakeholder cooperation, customer needs, and perspectives. The purpose of this template manuscript is to help with planning, scheduling, preparing questions and instructions, and allocating the workshop's organisational responsibilities. The manuscript is intended to support the workshop guidelines in the publication. The workshop's roles, breaks, and questions should be adapted according to your situation and needs.

HERITAGE FUTURES WORKSHOP – SAMPLE SCRIPT		
1. INTRODUCTION – 20 min.		
Common space		
5 min	Welcome and a brief introduction to the theme of the day Incl. the aim and core question of the workshop	Museum / organiser
5 min	Calming down at the start of the workshop E.g. relaxing and breathing, listening to the soundscape with one's eyes closed and, depending on the location, also tactile sensations/scents – what memories or thoughts does the soundscape etc. bring to mind?	Facilitator
10 min	Instructions for the workshop, emphasising the importance of the Heritage Futures created by the participants (sections 4–5) and how the participants can introduce their results to the wider public, how the day will proceed, agreeing on possible documentation, and division into small groups	Facilitator
2. PAST FUTURES AND CURRENT NEEDS FOR CHANGE – 30 min.		
Common space		
10 min	Introduction to past transformative points E.g. text, video, tour of the museum, interview	Museum / organiser
Discussion in small groups		
20 min	What thoughts or feelings did the story evoke? Why? What challenges and/or changes from the past can you identify, and how did they affect the present and/or the future?	Facilitator asks the questions
	The participants write down their reflections by themselves and/or on the group's shared sheet.	
BREAK (if necessary) 10 min.		
3. LEAP INTO THE FUTURE – 35 min.		
Common space		
5 min	An imagination exercise to support the leap into the future E.g. a multisensory exercise – see the examples of physical exercises or the exercises performed at the pilot workshops.	Facilitator reads and guides
5 min	Future images/story Looking far enough into the future, seeing the future as many different futures	Facilitator reads out a text they have prepared beforehand

Discussion in small groups		
25 min	<p>What will the future be like in xxxx?</p> <p>What is surprising about it? What is different? What goes on there?</p> <p>Finally, the small groups vote on their preferred futures. E.g. each participant chooses their most desirable futures (3 choices per person). If none are desirable, the group is asked to formulate them. The desired futures are used as a basis for discussion in the Heritage Futures section.</p>	Facilitator asks the questions
	The participants write down their reflections by themselves and/or on the group's shared sheet.	Participants, aided by the facilitator
LUNCH BREAK incl. schedule buffer time 25 min.		
4. HERITAGE FUTURES – 30 min.		
Common space		
5 min	Explaining the concept of Heritage Futures, looking to the present	Museum / organiser
Discussion in small groups		
15 min	<p>Return to the present, questions based on desirable future scenarios</p> <p>What can be done in relation to the desired future states?</p> <p>What could I do? How should I change how I act?</p> <p>What small new actions can I do for the future?</p>	Facilitator asks the questions
10 min	The participants write down their reflections by themselves and/or on the group's shared sheet. Finally, the group decides what it will share with the other groups.	Participants and facilitator
5. SHARING AND DISCUSSION – 30 min.		
Common space		
20 min	<p>The groups present their Heritage Futures (2 ideas per group).</p> <p>What elements from today's workshop will you incorporate into your future efforts?</p>	The facilitator asks each group in turn
10 min	<p>Closing words</p> <p>Incl. remarks on a possible feedback survey</p>	Museum / organiser

Supplies:

Facilitators

- scripts to support the facilitation
- paper copy of the discussion questions for each workshop step, distributed to the groups
- recorders to document the conversation

Participants

- note-taking equipment (e.g. chalkboard and chalk or large paper sheets, sticky notes and pens)



PUBLICATIONS OF LUSTO

1. Metsäsuhteiden kenttä (2017)

Reetta Karhunkorva, Sirpa Kärkkäinen & Leena Paaskoski

2. Metsäsuhdemenetelmä (2019)

Tuulikki Halla, Reetta Karhunkorva, Sirpa Kärkkäinen & Leena Paaskoski

3. Luston malli – museo, sidosryhmät ja yhteiskunta (2020)

Anna-Kaisa Koski, Reetta Karhunkorva & Leena Paaskoski

4. Katsaus metsäalan tulevaisuustöihin (2021)

Teppo Hujala, Päivi Pelli, Jakob Donner-Amnell & Leena Paaskoski (toim.)

5. Metsäkuulttuurinen kestävyys (2022)

Leena Paaskoski, Matti Heikurainen & Pauliina Latvala-Harvilahti (toim.)

6. Dynaaminen museo ja tulevaisuusperintöverstas.

Käsikirja museoiden ekososiaaliseen sivistystyöhön (2022)

Leena Paaskoski, Katriina Siivonen, Noora Vähäkari, Pauliina Latvala-Harvilahti,
Päivi Pelli, Maria Granlund & Teppo Hujala

7. Museot ja tulevaisuusajattelu (2024)

Asta Vaittinen, Mona Taipale, Maria Granlund & Leena Paaskoski

8. Perhesuhteita ja sukusiteitä metsään (2024)

Reetta Karhunkorva

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