

Accepting the decay of plastic artifacts in museums: pasts and futures surfacing in a life preserver from sunken MS *Estonia*

Aura Colliander

To cite this article: Aura Colliander (22 Oct 2024): Accepting the decay of plastic artifacts in museums: pasts and futures surfacing in a life preserver from sunken MS *Estonia*, International Journal of Heritage Studies, DOI: [10.1080/13527258.2024.2417060](https://doi.org/10.1080/13527258.2024.2417060)

To link to this article: <https://doi.org/10.1080/13527258.2024.2417060>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 22 Oct 2024.



Submit your article to this journal [↗](#)



Article views: 115



View related articles [↗](#)



View Crossmark data [↗](#)

Accepting the decay of plastic artifacts in museums: pasts and futures surfacing in a life preserver from sunken *MS Estonia*

Aura Colliander

Cultural Heritage Studies, School of History, Culture and Arts Studies, University of Turku, Turku, Finland

ABSTRACT

This is a case study of a deformed life preserver originating from the ferryboat *MS Estonia* that sank in the Baltic Sea in 1994. In this post qualitatively positioned research article, I argue that transformed plastic is an active agent of both the decision-making and interpretation of a museum object made of plastic. This article contributes in a new way to the discussion of how museums of cultural history could manage deteriorating plastic objects. So far, a scientific materialist approach, guided by research in conservation science, has emphasised the need for special conditions to safeguard rapidly deteriorating plastic artefacts for future generations. However, the agency of deteriorating plastic does not only call for conserving the plastic material 'forever', but it also requires letting go of the ideal of minimising the further degradation of plastic.

ARTICLE HISTORY

Received 12 March 2024
Accepted 11 October 2024

KEYWORDS



Post qualitative research;
plastic; museum;
deterioration; affect

Introduction

On the night of 28 September 1994, in the Baltic Sea, the wind was blowing at twenty metres per second, and waves were six metres high. The cruise ferry *MS Estonia* was en route from Tallinn, Estonia to Stockholm, Sweden. After 1 a.m., the front of the ferry cracked open, and in less than one hour the ship had sunk. Only 137 people survived while 852 people lost their lives. This research article explores the affective capacities of a degraded life preserver from the ferryboat *MS Estonia*. The life preserver was found on the shores of the Finnish island of Hamngadden in the autumn of 2017 and is currently on exhibit at the Finnish Maritime Museum in Kotka (Figure 1). The life preserver has become deformed, providing material evidence of its previous whereabouts. It is neither jetsam nor flotsam but rather a piece that likely remained at the bottom of the Baltic Sea with the shipwreck of *MS Estonia* for twenty-three years before resurfacing and coming ashore.

Materials don't act alone; what comes to matter about them and how they come to affect other things, human and nonhuman, is a contextual process. It is in relations with myriad other entities that the particular properties of materials are enacted and their unexpected capacities or liveliness might emerge. (Hawkins 2018, 96)

Material philosopher Gay Hawkins describes the liveliness of plastics, meaning that plastics have an agency that emerges in relation to for example other materials, places, humans, thoughts. Plastics ending up in unwanted places have made plastics known as the material inheritance of the Anthropocene (Harrison 2021; Sterling and Harrison 2020), as ocean gyres, piled in landfills, breaking down into microplastics and lingering into food chains (Fredengren and Åsberg 2020; Liboiron 2016). Archaeologist Holtorf (2023) argues that the plastics that have been washed onto

CONTACT Aura Colliander  afcoll@utu.fi  Cultural Heritage Studies, University of Turku, Arcanuminkuja 1, Turku 20500, Finland

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

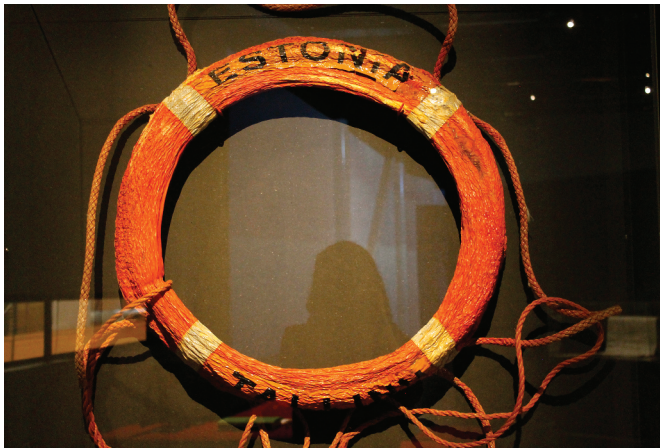


Figure 1. The life preserver from MS *Estonia* at the Finnish Maritime Museum. Copyright: Aura Colliander.

the world's beaches form a 'distributed world heritage site' which location is not set to any one place but to the littered beaches worldwide as the world heritage of the Anthropocene (Holtorf 2023, 119). Especially single-use plastics such as packaging materials are at the centre of these plastic-related issues. Hawkins (2018) inspects single-use plastics and borrows from philosopher Ingold's (2012) notion that materials are the stuff of time itself as she explores how materials' properties give form to time. Single-use plastics are caught in a durability paradox, where they are used for a brief time, but might continue to exist as waste and microplastics for centuries.

Within heritage studies, plastics have been identified as part of 'the future legacies diligently being produced today' (Sterling and Harrison 2020, 39). Christina Fredengren and Cecilia Åsberg borrow Michelle Bastian's and Thom van Doore's concept of 'the new immortals', within the branch of heritage studies with an archaeology-orientation, and view plastics in the intersection of waste and heritage at the Gärstadverken, as a part of nature-cultural heritage phenomena (Fredengren and Åsberg 2020, 60). Plastics are also entangled in ecosystems and as Stein Farstadvoll demonstrates describing how a plastic cemetery lantern has several effects on its surroundings in a derelict garden: "by dispersing involuntary memories, absorbing and leaching chemicals, and sheltering small ponds of water, forming habitats for microorganisms (Farstadvoll 2021, 342). In sum, plastic has been approached within heritage studies as the discarded or forgotten, unwanted or disliked form of heritage, where the sense of plastic not belonging to anyone becomes the essence of the negative values often attributed to it. It is worthwhile noting that the plastics that have been studied within heritage studies and archaeology are the single-use plastics, whereas studies about the plastic objects that have been produced to be in use for a longer amount of time are lacking.

Plastics as heritage is not only an unwanted or unliked form of heritage disrupting ecosystems or creating new kinds of natural-cultural heritages (as opposed to e.g. Farstadvoll 2021; Fredengren and Åsberg 2020; Godin 2023; Pétursdóttir 2020). Plastics have been recently explored as curated museum objects, focusing on technological and science museums collections, design objects as well as plastics entangled with the human body and with the environment (Cole et al. 2024). But when approaching plastic cultural heritage in museums, the illusion of the immortality of plastics fades and it would be an understatement to agree with archaeologist Graves-Brown (2024, 546) that plastics are durable. Plastic artefacts that are produced for long-term use might show visible signs of degradation three to thirty-five years after they have been acquired by a museum collection (Shashoua 2016). As Odile Madden, Senior Scientist of the Modern and Contemporary Art Research Initiative at the Getty Conservation Institute describes (2017, 13–14) the issues of plastic

heritage from a museum and conservation point of view, the relatively quick chemical degradation of plastics is a challenge for museums. Conservators have looked for solutions to prolong the lifespans of plastic objects which may show signs of degradation by for example discolouring, shrinking, or becoming brittle (13–14). Such changes in the material might happen rapidly and cause an object to turn into crumbles, fine powder or a sticky or almost liquid surface that sticks to its surroundings. Such changes in plastic materials are rarely seen in our everyday environment. Even if we are constantly surrounded by plastic objects in our daily lives, we might not become aware of the changes that happen to plastic materials at the end of their material lifespan, since usually everyday items are disposed of as soon as they start to show first signs of degradation or as the plastic objects become obsolete due to development in material culture and trends. In a museum storage, however, a plastic object such as a toy or kitchen utensil that would have been disposed of forty years ago from the everyday use for various reasons would still exist and show increasing signs of deterioration. As these changes are chemically irreversible, the focus of preserving plastics with historical or cultural value has been on strategies of preventive conservation.

In museums the management of plastics has been informed by advances in conservation studies. The emphasis of the extensive research has been on for example identifying and describing the degradation mechanisms of different types of plastics (Krieg, Mazzon, and Gómez-Sánchez 2022) and identifying and describing signs of degradation (King, Grau-Bové, and Curran 2020). These approaches give valuable information for the management of plastics if the premise is that plastics should last in museum collections for several generations, ideally in an unchanged form. The research within the conservation field aims to identify the types of plastics in individual objects and make storage strategies that are suitable for delicate materials (Curran 2018; van; Oosten 2022).

As noted, the conservation science approach is aiming at long-term preservation and minimum transformation of objects made of plastic. However, the conservation science approach to plastic heritage doesn't consider how the 'conservation ethos' (Holtorf and Högborg 2015) guides the narration on how plastics should be preserved in museum collections. Winter (2013) explores how scientific materialism has guided the conservation field. The division of the sciences and humanities (Winter 2013) is re-enacted when it comes to plastics. This division can be seen in the management of plastic heritage in museums, where it seems that the humanities-oriented and conservation-oriented views have not found mutual ground, combining each other's respective knowledge on plastics and working towards a common future of plastic heritage – guidelines and practices that consider both the ageing properties of plastics, the accessibility of culturally or historically significant objects made of plastic as well as the potential of material degradation. Museum plastics are a growing number of materials with special needs, with most museums not having the resources to keep up with the ideals of storage environments designed for plastics or even having professionals specialised in plastic matters. This has already resulted in numerous plastic objects degrading in museum collections worldwide. It is a common issue in museums to open a storage box containing plastic artefacts only to notice that they have already deteriorated irreversibly or become unrecognisable (see Kean 2021).

When the aforementioned archaeology-oriented approach to plastic heritage shifts towards a museum studies approach, the focus on plastics needs to be widened from a problem-based approach to learning how to live and work with plastics. I suggest a new materialist approach to museum plastics which is a first step in starting to build a bridge between the different approaches. In this article, a new materialist approach is developed to demonstrate the agency of transformed and degrading plastic and the potential of transformation or loss (DeSilvey and Harrison 2020) that plastic can have as a part of museum collections. With a case example of the life preserver that originates from the sunken cruise ferry MS *Estonia*, I explore the pasts and futures narrated by a deformed and degrading object made of plastic to demonstrate the agency that transforming plastic can have. The article will challenge how museum and heritage professionals view objects made of plastic. It challenges the conservation ethos that assumes that plastic objects ought to be safeguarded for the long term with minimum changes. Instead, this study shows how decay and

degradation can become a part of plastic artefacts' lifecycle, and material transformation is at the core of new layers of interpretation of the object.

Plastic as a material requires new types of approaches compared to traditional materials due to plastic properties. There are thousands of different types of plastics, and they have different deterioration mechanisms. I cannot emphasise enough how much work there is still to be done to gain control of plastic collections. This is something that is already being dealt with within conservation studies. The approach of this study, however, is different. In this article I ask what happens when the already occurred and the anticipated degradation of a plastic object is allowed to speak for the object's past and future. Based on the study, I will suggest a list of steps on how to manage a degrading plastic object in the museum.

Research design

In this article, the analysis of the affective capacities of the degraded life preserver is informed by a framework that draws from new materialism and post qualitative inquiry. New materialism emphasises the materiality and agency of objects and how they intra-act with their environment (Barad 2007). This study has been demonstrated as an assemblage (DeLanda 2016) in Figure 2. These theoretical perspectives highlight the importance of considering the ongoing transformation of the material and the significance of cultural heritage objects made of plastic. Post qualitative inquiry, on the other hand, recognises the limitations of traditional research methods and seeks to embrace new and experimental ways of engaging with research subjects, allowing a more open and collaborative dialogue between the researcher and the object of study (Murriss 2021). The post qualitative doesn't mean that qualitative research and its methods would be abandoned. Karin Gunnarsson and Linnea Bodén have called it *embracing* and *reshaping* (in Swedish *omfamna* and *omforma*) of qualitative approaches (Gunnarsson and Bodén 2021, 1–3).

Le Grange (Le Grange 2018, 5–9) describes what post qualitative research is, including the following insights. First, post qualitative research is not something that there is a textbook for and instead of being a totalising methodology it is rather a myriad of methodologies. Secondly, in post qualitative research knowledge is decentred and 'embraces the inseparability of ethics, ontology and knowledge' (Le Grange 2018, 6). And thirdly, post qualitative research is post-anthropocentric. Data and data analysis are thought about differently in post qualitative research, as data cannot be isolated from the researcher or others involved in the research. This is the first time that the management of a plastic museum object is approached with new materialisms. Whereas research in conservation science typically includes material analysis and other experiments on a specific object, this study approaches the museum object with methods that are more typical to human sciences. This opens a new perspective that challenges the previous assumptions of agencies of plastic

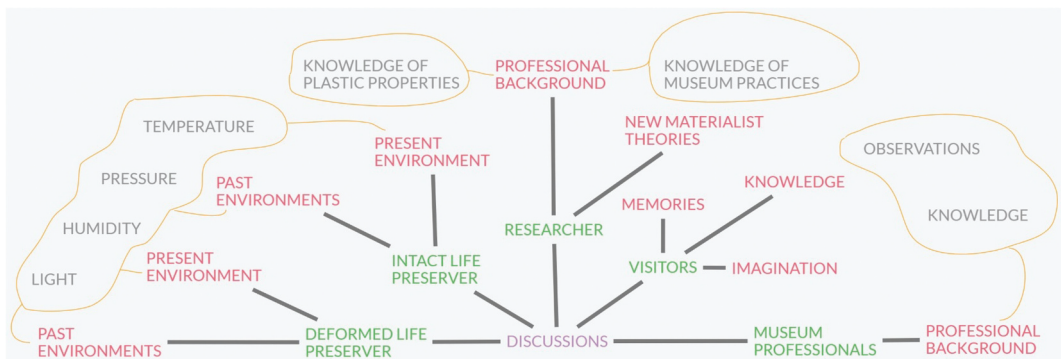


Figure 2. The research assemblage. Copyright: Aura Colliander.

heritage. I contribute to a deeper understanding of the emotional resonance (see Smith 2020) and affective power (see Varutti 2023) of degraded objects made of plastic and highlight the importance of considering the ongoing transformation and significance of these objects as a part of their lifespan by adopting Karen Barad's agential realism, which

rejects the notion of a correspondence relation between words and things and offers in its stead a causal explanation of how discursive practices are related to material phenomena. It does so by shifting the focus from the nature of representations (scientific and other) to the nature of discursive practices (including technoscientific ones), leaving in its wake the entire irrelevant debate between traditional forms of realism and social constructivism. Crucial to this theoretical framework is a strong commitment to accounting for the material nature of practices and how they come to matter. (Barad 2007, 44–45)

The research material for this study consists of discussions with museum visitors and professionals. I discussed with them in the presence of the deformed life preserver except for one of the discussions over a Teams meeting where neither one of us were at the Maritime Museum of Kotka. I call the method an object interview (see also Nordstrom 2013; Schofield et al. 2020). This method of object interview is a new opening to studying the plastic heritage in museum collections. It gives space for discussion between humans and plastic and allows imagination on what the transformation of the plastic material has done and might do to the interpretation of the object in the future. The discussions with visitors provide a way to create meaningful connections between both the life preserver and the audience as well as between the people who participated in the discussions (see Taylor 2018). As Gabriel Taylor emphasises that allowing the museum audience to talk to the object gives room for what he calls dynamic beings, 'with a greater range of potential uses, possibilities, and stories' (Taylor 2018, 48).

I travelled to Kotka where the life preserver is exhibited in the permanent exhibition of the Maritime Museum. I sat close to the artefact for two days and asked any visitor who walked by if they would like to discuss with me about the life preserver. Some stayed for five minutes, some for half an hour. One of the discussions was in English and the rest of them in Finnish. I had seven discussions with fourteen museum visitors. They were all museum visitors who came randomly to the site, not because of my research. I made them my co-researchers and I was also observing their body language during the conversations. The discussions with visitors were not based on a ready-made set of questions, but they developed organically according to themes that emerged from the very beginning of each discussion. Concerning the sinking of MS *Estonia*, I asked the visitors the question of what they knew or remembered about the sinking of the ferry and after the initial question I only asked them to specify things in their replies. When looking at the life preserver I asked them to describe it and again after the initial question I only asked them to specify things in their replies. I gave many opportunities to continue the discussion with whatever came to the visitors' minds by for example asking if something else came to their mind. I also encouraged them to think and speak about the material of the life preserver by asking them to describe what it looks like or what it makes them think about, or by simply letting them silently look at it. The discussions included silent moments, where we would look silently at the object, and after that, I would ask the visitors to describe what they had thought about. The silent drift in thoughts gave them space to visualise or sense the affect of the object. I would not hurry them or give the impression that there was anything wrong with whatever popped up in their minds or their reactions. These drifts resulted in various conversations that touched on the biography of the object.

Additionally, I discussed with three museum professionals next to the artefact and with one museum professional over a Teams meeting. They had all been part of making the curatorial decisions concerning the life preserver and provided information on the past and current management practices of the artefact: the acquisition of the object to the museum's collections, exhibiting it as well as telling the audience about it.

My aim was to discuss the materiality of the object with both the visitors and the museum professionals. With the visitors, I started the discussions by speaking about what

memories or visions came to their minds when thinking back to the sinking of MS *Estonia*. We then had a closer look at the object together with the visitors that I spoke with. The discussions developed into a pattern where we would next walk around the corner, where another life preserver from MS *Estonia* was exhibited. This other life preserver had been collected from the sea soon after the ferry had sunk and therefore it was in its original form. After taking a look at this more intact life preserver we would go back to see the deformed life preserver.

Post qualitative inquiry includes being aware of how the researcher and research design co-create the data (Murriss 2021). My background as a conservator specialised on plastics is a key to why this study came to exist in the first place. But during the discussions with museum visitors and professionals I muted the ‘conservator ethos’ from my own input in the discussions. Instead, what remained present but on a low volume from my conservator background was the knowledge of how plastics behave (see Figure 2).

The discussions with both visitors and museum professionals were recorded as audio files and I wrote a field diary where I added my observations such as the body language of visitors. In this article, I use vignettes from the discussions, which combine the recorded discussions with my observations from the discussions. The use of vignettes in this article allows the readers to gain a sense of ‘being there in the scene’ (Erickson 1986, 150 cited by; Humphreys 2005, 844; see also Jenkins, Ritchie, and Quinn 2021).

Figure 2 illustrates the assemblage of this study. The concept of assemblage, as described by DeLanda (2016), brings together entities and combines them from both micro and macro levels. Assemblage thinking was integral throughout the research, from fieldwork to analysis and writing. Figure 2 highlights the key elements involved in this study. The assemblage is not hierarchical, nor does it encompass every aspect of the study. Rather, it focuses on the primary components that participated in the research.

Disaster

During the morning after the sinking of MS *Estonia*, people were getting prepared for their daily lives in Finland and getting to know about the events at sea during the previous night. A young woman at high school, whose friends told her that a ferryboat had sunk didn’t believe it at first because ferryboats don’t just sink (Discussion 3). And a man sitting with other builders at a gas station for a morning coffee, where they were supposed to sit for only some minutes as usual and then drive to their work site, instead gazed at the TV for several hours together with many others, following the news and wondering about what had happened (Discussion 1). This is how museum visitors recalled the morning of 28 September 1994 during our discussions in the Maritime Museum of Finland.

A visitor takes the initiative to describe to me what he can see when looking at the life preserver. He remembers recordings of the radio signals from the ferry that were played on the news. And he recalls what some of the survivors have said in interviews about how it was inside the ferry before they managed to climb out to the side wall of the tilted ferry and jump into the water. He also recalls the life rafts, which were more or less all filled with water. It was dark and the water was cold, and the waves were big. He had been surprised that so many managed to be rescued from those conditions. To him, the life preserver looks like it has gone through suffering, and it reminds him of how tough it was to follow the news about the accident. (Discussion 1)

The visitors spoke about the coldness and darkness and the horrors and difficulties that there must have been escaping the ship and trying to survive the extreme weather conditions outside of the ferry. The older visitors mentioned images that they had seen on television and in tabloid newspapers in the years after the sinking of MS *Estonia*, and recordings from the sinking ferry calling for help from nearby ships (Discussion 1; Discussion 2; Discussion 6). When encountering the life preserver, they were recalling these images and sounds.

For the visitors who did not have memories about the sinking of MS *Estonia* and had not been following the news at the time, or the yearly reminders in tabloid newspapers about the sinking of the ship, nor followed conspiracy theories about what might have caused the sinking of the ferry (see Sorokin 2022), they were looking for external clues for the interpretation of the object.

A young couple discusses the object with me. They were born only after 1994 and have become aware of the accident only in recent years. The other one is very well familiar with the case due to Maritime Studies where the case of MS *Estonia* has been a recurrent example of things that can go wrong at sea. As I discuss the object with them, they are looking for clues to their views from the texts around the object as well as what they have previously read and learned about the sinking of MS *Estonia*. They conclude together that the sea is dangerous, and you have to have respect for it. (Discussion 5)

Having been familiar with the sinking of MS *Estonia* as a part of Maritime Studies introduced a frame story to stick with. It seemed to help them to have the title of the section of the exhibition written next to the life preserver, *Dangerous Sea* (Figure 3).

In light of the research material, the affective capacity to produce vivid imagery about the disaster first seemed to be limited to the adult audience who were well familiar with the disaster and had seen footage from the rescue work, whereas young adults resonated with the object together with the stories and discourses they were familiar with, instead of giving room for the imagination of what the object or people during the disaster had endured. However, the life preserver proved this impression wrong. Two young adults, both from a non-Finnish origin, discussed the life preserver with me (Discussion 4). I gave them a summary¹ of the sinking of MS *Estonia*, which they had not heard about before. When I later encouraged them to talk about what they could see when looking at the object, the other one seemed to have gotten into a deep conversation with the life preserver. After having looked at the object for a while in silence the visitor told me that he was going through visions of how it might have been for someone trying to save himself or herself from the ferry and the sea. He was envisioning big waves and the coldness and darkness all around even if these were all details that I had not discussed with them. This was very much in line with what other visitors, who were very familiar with the disaster, would tell me when looking at the life preserver.



Figure 3. The life preserver and its surroundings in the museum exhibition. Copyright: Aura Colliander.

Drift

The four museum professionals I discussed with (Discussion 8; Discussion 9) told me that the life preserver was found in the autumn of 2017 on the Finnish coast, twenty-three years after the sinking of the cruise ferry *MS Estonia*. The forestry ministry's workers were on their annual task to cut down *Rosa rugosa* (an invasive non-indigenous species of roses in Finland) on the island of Hamngadden in the Tammisaari archipelago when they came across a life preserver with the text ESTONIA TALLINN. After contacting the Finnish National Museum, the life preserver was taken to the Finnish coastal city of Kotka and has been a part of the Maritime Museum's collections since 2018. It is currently exhibited at the museum. When the life preserver arrived at the National Museum of Finland and then at the Maritime Museum, the conservators decided not to conserve the object. It has not been cleaned or consolidated but has only been documented in the shape it was in when being registered as part of the museum's collections. Because of its deformed shape, visitors keep wondering and giving suggestions about the biography of the life preserver.

A mother and daughter start to ask and answer their own questions to find mutual understanding on how the life preserver might have ended up looking the way it does. They begin by stating that it must have been under quite some pressure and the sun must have had an impact on it as well. But for how long has it actually been there on the beach, where has it been before that, and where has it been on its adventure? Since it's a floating life preserver, could it have been at the bottom of the sea? Perhaps all the life preservers were not released during the accident? And instead, this one released itself later on and then drifted away. And there is no vegetation on it, which means it can't have been lying around the beach for ten years, otherwise, there would be lichen on it. (Discussion 3)

The vignette above is an example of the kinds of guesses that have been connected to the previous whereabouts of the life preserver, based on its material evidence. Several visitors stated that the life preserver must have been under great pressure at the bottom of the sea (Discussion 2; Discussion 6), whereas some were guessing that it had been hit by waves and ice (Discussion 3), or the sun might have been shining on it for an extensive amount of time (Discussion 3; Discussion 4). The life preserver has a strong impact on some visitors as they encounter it. The vignette below demonstrates the almost hypnotic effect that the life preserver can have on visitors.

A visitor is walking past the life preserver when her eye catches the object. She stops very suddenly and stands there silent staring at the object. It is hung on the wall at eye level. The vitrine glass that is preventing sensory connections is just a few inches away from the surface of the object and it is the only thing limiting the physical presence of the object and its spectator. The visitor described to me afterward that she thought the object was spooky as it had emerged from a tomb and reminded her of the disastrous events long ago. (Discussion 7)

The current state of the object sparked both the imagination as well as some worries in the visitors (see Figure 4). The plastic material of the object made a visitor think of what might have been dissolved from the object to its surroundings at the bottom of the sea in terms of microplastics or other pollutants (Discussion 3). A museum visitor considered the object part of an Anthropocene layer that our present times and the material culture defined by plastic objects will leave behind, and this thought further sparked the imagination of the visitor to think about how a fossilised Barbie doll might look like (Discussion 3). Although this imagery moved from the context of the curated life preserver at the museum, it also emphasises the richness of layers that the object bears with it due to its plasticity and current physical form.

Deformation

I have been discussing with a man for eight minutes when I ask him to describe the object to me. 'Physically I can see the agony that is connected to *Estonia*. A squeezed heart. How *Estonia* has evoked so much emotions in both the people who died and in their loved ones'. After a while he continues 'I feel like touching it. — I got somehow the feeling of apologizing that something like this happened. — To say goodbye to the ones who lost their lives there. Like laying a hand on a grave' We stand silent next to each other for a while looking at the



Figure 4. The deformed life preserver. Copyright: Aura Colliander.

object from half a meter away. He is holding and caressing his biceps like hugging and comforting himself. (Discussion 6)

The urge to touch the object surfaced only during the above-described discussion. Malpas (2021) discusses the potential of touching things when being in their presence and touch being ‘the experience of being here, in this place – of one’s active, embodied, placing in the world’. In the urge to touch the life preserver, the visitor was not looking for tactile information about the material in its degraded form but was looking for reconciliation.

During my discussion with the museum professionals, the theme emerged of what makes this life preserver affect the viewer much more intensely than the intact life preserver exhibited around the corner. The view was, that the deformation of the object makes it look like it has gone through suffering, unlike the intact life preserver. Even if the intact preserver might have been participating in the events of one of the passengers trying to save themselves from the sinking ferry, the deformed life preserver is not likely to have been used during the disaster.

Discussing with museum visitors next to the life preserver showed that the life preserver made a strong impact on the visitors. It became clear that the affective capacities of the life preserver did not only lie in the fact that it belonged to the ferry boat MS *Estonia*. The passing of time and on the other hand the re-emergence of the life preserver after more than two decades were a recurrent theme during the discussions with museum visitors. The deformation of the life preserver added distinct types of value to the object. Not only did it spark the imagination about what conditions might make a life preserver end up looking like it does 30 years after the disaster. During each discussion with museum visitors, we also looked at the other life preserver that originates from MS *Estonia* and was exhibited just around the corner. This other life preserver looked intact since it had been collected from the Baltic Sea by the Finnish Safety Investigation Authority. One of the visitors described the difference between the two objects as the intact one looked like it had just been removed from the ship whereas the transformed life preserver looked aged, and it indicated that time had passed.

Allowing the visitors experience the comparison between the two life preservers made it easier for them to verbalise how the deformed life preserver affected them. Also, after seeing both versions they were able to describe the transformed life preserver in the following way: like the skin of someone who has sailed the seas their whole lives (Discussion 3), frozen (Discussion 2), or petrified wood (Discussion 4).

Futures present

During the discussions with museum professionals (Discussion 8; Discussion 9), the conservator seemed to think that this object does not fit the framework of the types of objects that need conservation or special conditions to be preserved by the museum for the long term. The curator on the other hand pondered how a further degradation of the material could well be seen as part of the character of the object. DeSilvey (2017) asks whether institutional heritage practices would be able to adopt forms of care that do not include care of the material. On the level of practice, the management of the life preserver is already participating in what DeSilvey calls ‘curated decay’ (2017). With some of the visitors, I discussed that plastics are known by museum professionals for having a sometimes surprisingly short lifespan. After getting to know this, a visitor suggested that he would give it 50 years on display and then have it well stored (Discussion 4). When the generations who have memories of following the news about the sinking are gone, the meaning of the object will change. The life preserver would eventually become a part of the sediment of things found in shipwrecks.

Kate Bowell similarly presents the idea that museums could actively consider that some objects in the museum should deteriorate (Bowell 2018; in terms of archaeology see; Shanks 1998). Bowell discusses this alternative future for ‘unloved’ objects in museums, but I would like to extend the idea of cherishing the impermanence of certain objects to the life preserver from MS *Estonia*. The object unarguably has the value of an affective – if not loved – object. Plastic objects are a good example of materials that are not made to last for eternity. The life preserver from MS *Estonia* cannot be replaced by another similar life preserver, which would be the case of an intact life preserved from MS *Estonia*. But for now, the object’s ability to affect its audience is at its peak. Once one or two generations have passed, the affective value might decline, leading to the necessity to preserve the material remains becoming less important than for the audience of today. As I discussed the potential future of the object with museum visitors, they were unanimous that the life preserver is where it should be, being exhibited in the Maritime Museum. On the other hand, museum visitors in general might not be aware of museum policies and that a vast amount of museum objects are stored most of the time instead of being exhibited.

Conclusion with a policy recommendation

The amount and variety of plastics in museum collections is constantly growing, and the lifespan of plastic is relatively short. In this study, the museum professionals and visitors joined in discussions concerning the past and the future of the life preserver from MS *Estonia*. The central finding was that despite the strong affective capacity of the life preserver, the research participants did not view the potentially short lifespan of the life preserver as problematic. Rather, they thought that further deterioration would add to the story of the life preserver, and that the object could live and die in the museum according to its material properties.

The new finding of this study is that even when museum professionals are aware of the potentially short lifespan of a plastic object, and they have the capacities of prolonging the lifespan to some extent, they recognise the affective capabilities of the object and view it as an important object for the museum. Both museum professionals and visitors suggest that the deterioration might even add to the story of the object.

The case study of a life preserver that originates from cruise ferry MS *Estonia* that sank in the Baltic Sea in 1994 demonstrates the ability of degrading plastic to communicate with its audience. Whatever the object became in the encounters between the researcher and the museum visitors and professionals, I emphasise the potential that the object had, as museum visitors were experiencing its material transformation in the museum exhibition, or in other words, as it got to participate in the interpretations. In the case of this life preserver, mainly the museum visitors who had memories of the event of the ferry sinking were able to connect with it on a deeper, affective level. The younger visitors I spoke with could only view the artefact through the narrations that they were familiar with or could learn at the museum exhibition: such as how the sea is dangerous and so many things went wrong that led to the substantial number of victims in the sinking of the ferry.

The post qualitative approach in this study has meant using qualitative approaches but going beyond them by adding theoretical nuances from new materialist theories. One example of how this can be seen in the study was that the interviews with visitors and professional became discussions and object interviews. Discussing the object in its presence is a powerful method of gaining intricate knowledge of the affecting capacities of the object. The post qualitative approach made it possible for the study to move beyond studying the material properties or practical conservation needs of a plastic artefact, the emotions of visitors and the policies of the museum. All of these aspects and many more were present in the discussions at the Maritime Museum, as both the researcher and the visitors and museum professionals were highly engaged in the discussions. As [Figure 2](#) highlighted different elements that contributed in the data and analysis of the study, the outcome of the study moved beyond any of those single elements to form a holistic view of the future of the life preserver. At the intersection of all these elements, the discussions focused on the impermanence of plastics and what it meant for the future of the degraded life preserver. In other words, this approach allowed the life preserver to gain a voice that was not merely a reflection of one of the aforementioned elements. The affective capacities of the object resonated with my input in the conversation, even if I was very aware of not guiding the thought and imagination of the visitors I discussed with. A further research topic would be to develop guidelines for defining lifespans for objects that are known not to last 'forever' in the museum. In other words, to curate the decay of museum objects.

The *potential* of plastic decay and thereby the physical transformation of objects made of plastic has not been discussed within heritage-related fields. I argue that this is an important opening that considers both the material properties of plastics and the urge to preserve objects made of plastic as cultural heritage as well as recognises the vast amount of plastic objects already in museums combined with the usually scarce resources to preserve them in an ideal manner according to a conservation point of view.

As the case of the life preserver demonstrates, museum objects made of plastic are much more than material that museums should strive to preserve for eternity. Museums would need to consider the value of the material artefact in the present time, the eventual degrading of the material and its affective capacity, and the need for communication between the artefact and the visitors as well as museum professionals and academia. I recommend the following practical steps for the future of the life preserver, which can be adapted to any plastic museum artefact that the museum allows to decay.

- (1) Exhibit the object to let it connect with the audience.
- (2) Adding context and content such as video, audio, digitising, or 3D modelling. This becomes relevant especially when museum professionals need to consider a new generation of museum visitors: a generation that has not experienced whatever the object has been monumentalised for.
- (3) Discuss with the audience to balance between the need to maintain the physical and eventually decaying plastic object versus the need for conservation for the long term. These discussions could be recorded by the museum and archived for the future.
- (4) Repeat steps 1 to 3 as many times as needed.
- (5) Let go of the material object.

Note

1. As background information I told the two non-Finnish visitors that the ship sank in 1994 and the life preserver was only found in 2017 and had not been through any restoration or conservation. I also told the amount of casualties. Next to the object the visitors could themselves read the following text in English.

A memory from 1994A life preserver from the passenger ship *M/S Estonia* was found south of Jussarö island in the outer Ekenäs Archipelago in October 2017. It was found by Metsähallitus employees who had been weeding Ramanas rose bushes on the shores. The life preserver had probably sunk with the ship in a depth of 80 metres, where it had been compressed due to the pressure. It must have been later broken loose from its attachment and washed up ashore. *M/S Estonia* sank in a storm on 28 September 1994. The accident claimed the lives of 852 people.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Suomen Kulttuurirahasto [75212236, 00220193, 00231262]; Turun Yliopistosäätiö.

Notes on contributor

Aura Colliander is a PhD candidate at the Department of Cultural Heritage Studies at the University of Turku. Her research interests are in plastic heritage in museums and human-plastic relations within and beyond museums. She holds a degree in furniture conservation and has previously worked in the museum field as a conservator.

References

- Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Bowell, K. 2018. "Object Reincarnation." In *Active Collections*, edited by E. Wood, R. Tisdale, and T. Jones, 153–161. New York: Routledge.
- Cole, R., H. M. Isabelle, L. Susan, and P. Helen. 2024. "Curating Plastics." In *The Routledge Handbook of Archaeology and Plastics*, edited by G. Godin, Þ. Pétursdóttir, E. Praet, and J. Schofield, 99–122. Routledge. <https://doi.org/10.4324/9781003272311-7>.
- Curran, K. 2018. "A System Dynamics Approach to the Preventive Conservation of Modern Polymeric Materials in Collections." *Studies in Conservation* 63 (sup1): 342–344. <https://doi.org/10.1080/00393630.2018.1476959>.
- DeLanda, M. 2016. *Assemblage Theory*. Edinburgh: Edinburgh University Press.
- DeSilvey, C. 2017. *Curated Decay: Heritage Beyond Saving*. Minneapolis: University of Minnesota Press.
- DeSilvey, C., and R. Harrison. 2020. "Anticipating Loss: Rethinking Endangerment in Heritage Futures." *International Journal of Heritage Studies* 26 (1): 1–7. <https://doi.org/10.1080/13527258.2019.1644530>.
- Discussion 1 to 7 with Museum Visitors at the Maritime Museum of Finland. Translations by Author.
- Discussion 8 with Museum Professionals at the Maritime Museum of Finland. Translations by Author.
- Discussion 9 with a Museum Professional on Teams. Translations by author.
- Erickson, F. 1986. "Qualitative Methods in Research on Teaching." In *Handbook of Research on Teaching*, edited by M. C. Witrock, 119–161. 3rd ed. New York: Macmillan.
- Farstadvoll, S. 2021. "Mold, Weeds and Plastic Lanterns: Ecological Aftermath in a Derelict Garden." In *Heritage Ecologies*, edited by T. R. Bangstad and Þ. Pétursdóttir, 327–349. London: Routledge.
- Fredengren, C., and C. Åsberg. 2020. "Checking in with Deep Time." In *Deterritorializing the Future*, edited by R. Harrison and C. Sterling, 56–94. London: Open Humanities Press.
- Godin, G. 2023. *Materiality, Monstrosity, and Queer Ecology: An Archaeology of Failure*. UiT The Arctic University of Norway. PhD.
- Grange, L. L. 2018. "What is (Post)qualitative Research?" *South African Journal of Higher Education* 32 (5): 1–14. <https://doi.org/10.20853/32-5-3161>.
- Graves-Brown, P. 2024. "The Substance of Dreams: Plastics and "The Future"." In *The Routledge Handbook of Archaeology and Plastics*, edited by G. Godin, Þ. Pétursdóttir, E. Praet, and J. Schofield, 536–549. Routledge. <https://doi.org/10.4324/9781003272311-37>.
- Gunnarsson, K., and L. Bodén. 2021. *Introduktion till Postkvalitativ Metodologi*. Stockholm: Stockholm University Press.
- Harrison, R. 2021. "Legacies: Rethinking the Futures of Heritage and Waste in the Anthropocene." In *Heritage Ecologies*, edited by T. R. Bangstad and Þ. Pétursdóttir, 31–48. London: Routledge.
- Hawkins, G. 2018. "Plastic and Presentism: The Time of Disposability." *Journal of Contemporary Archaeology* 5 (1): 91–102. <https://doi.org/10.1558/jca.33291>.
- Holtorf, C. 2023. "Towards a World Heritage for the Anthropocene." In *Rethinking Heritage in Precarious Times: Coloniality, Climate Change, and Covid-19*, edited by N. Shepherd, 111–126. London: Routledge.
- Holtorf, C., and A. Högberg. 2015. "Contemporary Heritage and the Future." In *The Palgrave Handbook of Contemporary Heritage Research*, edited by E. Waterton and S. Watson, 509–523. London: Palgrave Macmillan. https://doi.org/10.1057/9781137293565_32.
- Humphreys, M. 2005. "Getting Personal: Reflexivity and Autoethnographic Vignettes." *Qualitative Inquiry* 11 (6): 840–860. <https://doi.org/10.1177/1077800404269425>.

- Ingold, T. 2012. "Toward an Ecology of Materials." *Annual Review of Anthropology* 41:427–442. <https://doi.org/10.1146/ANNUREV-ANTHRO-081309-145920>.
- Jenkins, N., L. Ritchie, and S. Quinn. 2021. "From Reflection to Diffraction: Exploring the Use of Vignettes within Post-Humanist and Multi-Species Research." *Qualitative Research* 21 (6): 975–989. <https://doi.org/10.1177/1468794120920258>.
- Kean, S. 2021. "When Plastics are Precious." *Science* 373 (6550): 40–42. <https://doi.org/10.1126/science.373.6550.40>.
- King, R., J. Grau-Bové, and K. Curran. 2020. "Plasticiser Loss in Heritage Collections: Its Prevalence, Cause, Effect, and Methods for Analysis." *Heritage Science* 8 (123). <https://doi.org/10.1186/s40494-020-00466-0>.
- Krieg, T., C. Mazzon, and E. Gómez-Sánchez. 2022. "Material Analysis and a Visual Guide of Degradation Phenomena in Historical Synthetic Polymers as Tools to Follow Ageing Processes in Industrial Heritage Collections." *Polymers* 14 (1): 121. <https://doi.org/10.3390/POLYM14010121>.
- Liboiron, M. 2016. "Redefining Pollution and Action: The Matter of Plastics." *Journal of Material Culture* 21 (1): 87–110. <https://doi.org/10.1177/1359183515622966>.
- Madden, O. 2017. "Balancing Ingenuity and Responsibility in the Age of Plastic." *The Age of Plastic: Ingenuity and Responsibility. Proceedings of the 2012 MCI Symposium*, edited by A. E. C. Odile Madden and K. C. Cobb, et al. 1–18. Washington DC: Smithsonian Institution Scholarly Press.
- Malpas, J. 2021. "In the Presence of Things." In *After Discourse. Things, Affects, Ethics*, edited by B. J. Olsen, M. Burström, C. DeSilvey, and Þ. Pétursdóttir, 59–71. Abington, Oxon: Routledge.
- Murris, K. 2021. "Making Kin. Postqualitative, New Materialist and Critical Posthumanist Research." In *Navigating the Postqualitative, New Materialist and Critical Posthumanist Terrain Across Disciplines*, edited by K. Murris, 1–21. Abington, Oxon: Routledge.
- Nordstrom, S. N. 2013. "Object-Interviews: Folding, Unfolding, and Refolding Perceptions of Objects." *International Journal of Qualitative Methods* 12 (1): 237–257. <https://doi.org/10.1177/160940691301200111>.
- Oosten, T. V. 2022. *Properties of Plastics: A Guide for Conservators*. Los Angeles: Getty Conservation Institute, Getty Publication.
- Pétursdóttir, Þ. 2020. "Anticipated Futures? Knowing the Heritage of Drift Matter." *International Journal of Heritage Studies* 26 (1): 87–103. <https://doi.org/10.1080/13527258.2019.1620835>.
- Schofield, J., K. J. Wyles, S. Doherty, A. Donnelly, J. Jones and A. Porter. 2020. "Object narratives as a methodology for mitigating marine plastic pollution: multidisciplinary investigations in Galápagos." *Antiquity* 94 (373): 228–244. <https://doi.org/10.15184/aqy.2019.232>.
- Shanks, M. 1998. "The Life of an Artifact in an Interpretive Archaeology." *Fennoscandia Archaeologica* XV:15–30. <https://journal.fi/fennoscandiaarchaeologica/article/view/126675>.
- Shashoua, Y. 2016. "Mesocycles in Conserving Plastics." *Studies in Conservation* 61 (sup2): 208–213. <https://doi.org/10.1080/00393630.2016.1168074>.
- Smith, L. 2020. *Emotional Heritage: Visitor Engagement at Museums and Heritage Sites*. London: Routledge.
- Sorokin, S. 2022. "The "In-Between Land" of Suspicion and Ambiguity: Plotting the MS *Estonia* Shipwreck." *Humanities* 11 (4): 92. <https://doi.org/10.3390/H11040092>.
- Sterling, C., and R. Harrison. 2020. "Introduction: Of Territories and Temporalities." In *Deterritorializing the Future: Heritage In, of and After the Anthropocene*, edited by R. Harrison and C. Sterling, 19–54. London: Open Humanities Press. <http://www.openhumanitiespress.org/books/titles/deterritorializing-the-future/>.
- Taylor, G. 2018. "What Happens When Audiences "Talk" to Objects?" *Active Collections*, edited by E. Wood, R. Tisdale, and T. Jones, 47–48. New York: Routledge.
- Varutti, M. 2023. "The Affective Turn in Museums and the Rise of Affective Curatorship." *Museum Management & Curatorship* 38 (1): 61–75. <https://doi.org/10.1080/09647775.2022.2132993>.
- Winter, T. 2013. "Clarifying the Critical in Critical Heritage Studies." *International Journal of Heritage Studies* 19 (6): 532–545. <https://doi.org/10.1080/13527258.2012.720997>.