

# TAKING CARE OF PLASTIC: DISCURSIVE JEWELLERY AND ANTHROPOGENIC DEBRIS

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## ABSTRACT

Tons of plastic waste pile up in our oceans by the minute. This paper discusses a jewellery design project where anthropogenic debris takes centre stage. The project investigates how marine plastic trash literally may be turned into treasures through approaches that transverse design, craft and communication design. The main design material are plastic pieces selected from the shores of Norwegian fiords. Each piece of plastic selected for jewellery is treated as precious. Care is thus a concept that frames this jewellery design project as it both connects to the micro and macro perspectives on plastic. The jewellery is relating aesthetic exploration of tiny fragments of marine plastic waste to global issues of plastic (mis)use – and management. These tiny objects carry histories of our recent past, as well as the story of the earth yet to be written. Caring for these tiny fragments of human presence in nature is thus a material and embodied means for expressing the urgent need for taking better care of the ocean.

## INTRODUCTION

My family spends large parts of every summer at my parents' summerhouse at the south-eastern coast of Norway. The seaside cabin is located nearby small islets, beaches and bays. Some of them are much

visited, while others are not, as they only can be accessed by boat. One day we discovered a beautiful small beach on the islet *Singløya*. At first glance, the beach looked pristine, except for a pile of discarded plastic objects. However, once ashore, a plastic waste nightmare materialised before our eyes. Amidst seashells, stones and seaweed, thousands of plastic pieces were mixed into the ground. Pieces of plastic waste had blended into the natural environment. The beach had become an 'archaeological' site, a repository of fragments from our recent history with plastic. When looking closely at the ground, a messy archive of broken, bleached and weather-bitten fragments from years of plastic use appeared. These traces of human activity, design, and industrial manufacture had aggregated through years. It was almost inseparable from the natural environment.



Figure 1. Earrings made from marine plastic pieces and gold fittings. The pieces were collected from Singløya, Østfold, Norway.



Figure 2: Marine plastic earring as worn. The pieces of plastic form the central element of each jewellery piece.

The discovery of this beach was pivotal in what later grew into a multi-faceted explorative jewellery project. The project specifically revolves around a close study of plastic pieces collected from the shores of Norway. It inquires into how these may be turned into discursive and embodied objects that may be worn as fully functional jewellery. The beach at Singløya has since then become a source of material (see fig. 1, 12 & 13).

This paper discusses how we might approach marine plastic, what is referred to as marine anthropogenic debris (Jagiello, 2017), as a potential discursive design material through the medium of contemporary jewellery. With close reference to notions of care, embodiment, and discursive design, this paper asks how care for the ocean may be expressed within an explorative jewellery design context. It also aims at connecting discursive approaches to design with notions of care. This is in particular related to addressing a difficult issue aesthetically. Care is thus articulated via the means through which the problem of marine plastic litter is addressed. The paper is structured as follows: First, anthropogenic debris and its relations to jewellery is discussed, followed by a brief section on methods and hybrid objects. This is followed by positioning the project in a discursive design frame, a section on material approaches, as well as a section on mediation and context. This is followed by sections that take up various implications of the project, and how the jewellery may serve as heuristics for raising wider

issues relating to care for the planet, we as a species inhabits rather aggressively.

## ANTHROPOGENIC DEBRIS

In the project, marine anthropogenic debris is investigated as a potential material for jewellery design, however leaning slightly towards craft. The jewellery designer and artist Pennie Jagiello defines anthropogenic debris as (2017, p 4) ‘...human-made materials that has been discarded causing serious negative environmental impacts’. She (2017, p.11) points to jewellery designers within the broader community of practice that has found materials and objects central to their jewellery design practice. These include among others David Bielander Helen Britton, and Lisa Walker, just to mention a few. According to Jagiello, these have been central in raising debate about what may be considered precious or non-precious, and about the role of contemporary jewellery as an expanded discursive design arena.

## EMBODIED DISCOURSE

As jewellery is worn in close proximity to the body, it is also an embodied form of expression. Wegenstein (2010, p19) sees the body as ‘...the inseparable medium of experience, which is to say, as a constituting basis for all experience, including that of its own thematization’. Being worn on the body, jewellery may thus be accessible outside of gallery- or museum settings, carrying the potential for conversation also in everyday contexts. Wegenstein (2010) points to the body as a site for inscription through embellishment practices such as wearing make-up or jewellery. If recognising the role of the body in the ways we perceive the world – and are perceived by others, jewellery is a rich platform for material reflection and potential discourse. Because jewellery is worn on the body, as embellishment, the connections to the field of fashion are prominent. Jewellery and fashion may thus be approached as wearable articulations and as communication (Barnard 1996), in such linking jewellery to fashionable discourse.

## SMALL PROJECT, BIG PROBLEM

Marine plastic pollution is now on the agenda politically and is a problem that needs to be solved on a global scale now. Just to be clear: We do not believe that the pieces of jewellery discussed in this paper will change the world (fig.12). One might even argue that designing jewellery from carefully selected pieces of marine plastic debris not really matters. Or, one may argue that an aestheticization of marine plastic waste is nothing, but an obfuscation of the ‘real’ solutions needed for handling plastic responsibly. As we use silver and gold fittings, we do not *only* use anthropogenic debris in the jewellery. Initially, we only used found material. However, in transforming waste to jewellery, we found the need to introduce custom silver parts. We strive for increasing the reuse of silver, as well as the use of fair

mined metals. However, we do believe that an exploration of a 'new' jewellery design material as part of a discursive design project might provide other insights into marine plastic pollution. Pollution, unfortunately, crosses national boundaries, and affects complex marine eco-systems brutally. And, the actions of those who consume the most affect those who have the least. It is estimated that every year, the staggering amount of eight million tons (!) of plastic is thrown into the ocean (Earthday.org). The marine litter that does not sink to the bottom of the sea moves across vast distances with ocean streams. Whilst addressing the problem of marine plastic litter from within academia, and from a privileged Nordic position in a communication and design department, this project acknowledges its limitations. However, it aims to articulate further reflections on these issues as the project evolves.

As the project is a small-scale operation without a large team of skilled designers, photographers, jewellers, stylists, make-up artists etc, the ways through which we are able to mediate the project is also limited by practical-pragmatic aspects. However, this also provides freedom to approach jewellery as an open platform for visual and material reflection, and as a material point of departure for discursive design activity outside of the white cube. The jewellery is designed to be worn by people in their real lives.



Figure 3: Earrings made from marine plastic debris and sterling silver. The plastic in these earrings is collected in Hoddevik by NOW.

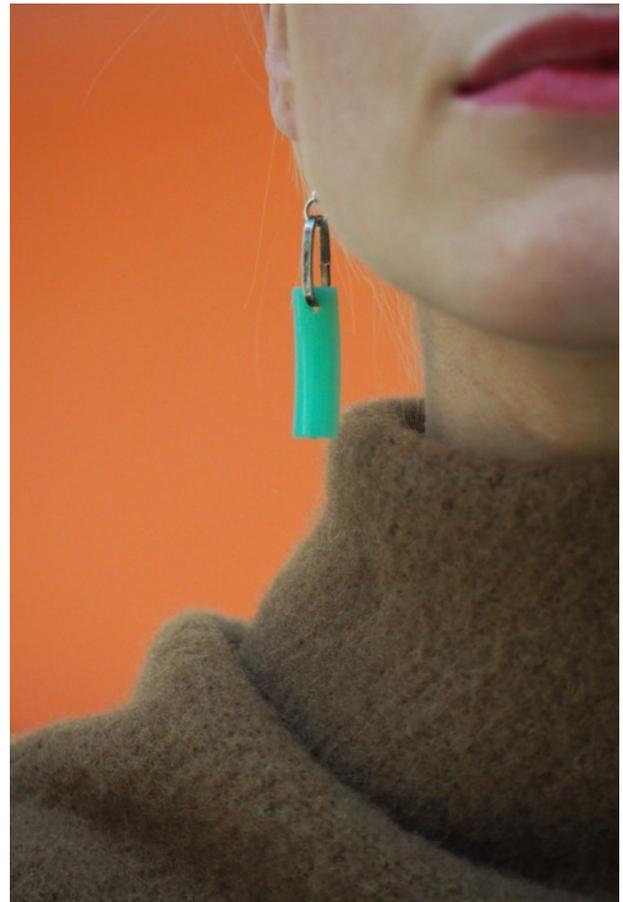


Figure 4: Earrings made from marine plastic debris and sterling silver. The plastic is used in the shape it was found, except for the hole for custom hand-made silver fittings.

## METHODS AND BACKGROUND

The research design is characterised by a rather organic development of the project. This allows it to move along paths which may branch out as we go. The project is framed as a reflective journey in conversation with marine plastic debris as material for jewellery (Schön 1983). It is positioned as a mixed method practice-based research inquiry. As Durrant et al. (2017, p.3), who discusses research through design refers to it, such a mode of inquiry is a practice-based one, one that '...generates transferrable knowledge.' However, the project has sprung out of many years of more theoretically oriented academic research within and across humanities-based approaches to communication design, visual communication, as well as close studies of contemporary mediations of fashion (Skjulstad 2018, 2017a 2017b, Skjulstad & Morrison 2016). Not trained as jewellers, issues and questions relating to mediation of design within a contemporary mediational context has provided important background for the project. This also extends to teaching communication design and fashion media in a university college setting. For example, in a publication in press (Skjulstad 2019 in press), Victor Schklovsky's (2017) concept of defamiliarization serves as a heuristic for unpacking how visual aesthetics often associated with matters of ocean pollution may be replaced by visual references

from the field of fashion. One of the aims of the project is to evoke interest in the issue of ocean plastic pollution through addressing it via visual articulations that differ from expected ones. Setting a different aesthetic in motion, the audience is invited to look very closely at each piece of plastic.

## PROCESS

When making jewellery, we typically spread a large number of plastic pieces out on a flat surface on the floor in our living room. For the moment we focus mostly on earrings, but we are also working on pendants, rings, and brooches.



Figure 5. Earrings in the making, spread out on a flat surface for review.

As part of beach cleaning, we typically bring three bags. One for pieces we keep, one for pieces we recycle and one for other items. Pieces are selected by informal criteria, but if the size, shape and texture trigger something in us, we keep it. The pieces go through various preliminary rounds of sorting and cleaning. Often, pieces of similar colours are gathered and spread out close to each other so as enable us to get an overview. Pieces we find particularly interesting because of its shape, colour, or texture is taken slightly aside. Pieces we particularly like are placed on one end of the surface, and typically they are matched with pieces we believe might enter an aesthetic 'conversation' with another one. Sometimes we find

'given' pairs, that is two pieces that are similar to one another (see fig. 10). Because our 'studio space' is our living room floor, we equip ourselves with headlamps to see the nuances, cracks and textures better. Earring pairs in the making are placed on a different surface and is often left for review for a couple of days (fig. 5). We design custom fittings, and a local goldsmith produces them for us. We use a cordless drill, and the only alterations of the plastic pieces we 'allow' is to drill tiny holes for assembling them with silver or gold. For this, we use a set of pliers.

## SOURCING MATERIAL

We collect most of the plastic pieces, as part of beach cleaning trips, where the plastic we bring back and keep is only a tiny fraction of the waste we recycle or discard. Other pieces are sourced from the NGO *Nordic Ocean Watch* (NOW), who promote beach cleaning as a collective activity for raising awareness of ocean plastic pollution, and for advocating the idea of caring for the ocean collectively. The organisation was founded by a group of surfers who for years have been cleaning the spectacular beach in Hoddevik, in the north-western part of the country, from which they surf. This informal surfer's collective has since then grown into a multi-level NGO who collaborates with a range of policy actors working towards ocean clean-up and plastic management. We have recently begun a collaboration with NOW. In this collaboration, we draw on the material outcomes of the infrastructure for plastic sorting and depositing they have installed in Hoddevik.



Figure 6. Earrings designed from selected pieces from a plastic brought by NOW from Hoddevik to Oslo. Fitted with custom sterling silver and presented in a jewellery box.

This is a facility for archiving the plastic debris they collect from this beach. Through this collaboration we have gained access to some of the plastic pieces collected there, and have designed a series of earrings from Hoddevik plastic debris (Figure 3 & 6). Through this collaboration, we position our jewellery as part of a collective endeavour in reframing this material as a resource astray. Drawing on Lash & Lury's (2007) analysis of how objects may have mediational capacity, the jewellery is used by members of this organization as tangible examples of how marine waste may be regarded as a resource that may be looped back into the value chain. In such, they become discursive objects.

## HYBRID OBJECTS

As mentioned in the section on methods, the jewellery project oscillates between design exploration (e.g. Fallman 2008), humanist design research inquiry, and a bricolage-like explorative design practice. However, the project also has a strong element of craft. Lees-Maffei and Sandino (2004, p 209) discusses the relationship between the concepts of design, art and crafts. They point to how the historical distinctions- and contemporary blurring between them may stir up heated debate in all camps. However, they address the need to reach across traditional demarcations for acknowledging how the '...collaborative, interdisciplinary diversity of current practice produces hybrid artefacts that render discussions of the interplay between design, craft and art essential'. The jewellery project is situated somewhere in between these domains. Each piece of jewellery is unique and made by hand. However, the design process is a trajectory shaped as an open dialogue with a material that initially was novel to us. This process bleeds into other processes of communication design, where the jewellery is photographed on models and mediated via different media platforms, also journalistic ones, spanning from Instagram to academic papers such as the paper at hand. The design process thus exceeds giving material form to pieces of jewellery: It is also design for mediated discourse.

Each piece of jewellery is thus 'a hybrid object' in more than one sense. Each pair is made in an uncontrolled and at times accidental relationship between industrial design, manufacture and nature. All the plastic pieces we collect are fragments of designed objects which were once placed in industrial production and circulation. However, these objects have been broken, discarded or lost. But at the end of the day, they have all transformed from a (dys)functional plastic object, and via a range of different circumstances ended up as marine debris washed ashore in Norway. In the design process, time, water, heat and friction – among a range of other forces, have left marks on each piece of plastic. Hence, before we have collected the plastic pieces, each piece has been through a series of processes that are unknown to us. Some pieces have melted.

Others have been bleached and polished. Each plastic piece is thus an accidental hybrid object shaped by the friction between culture and nature.



Figure 7. First step in sorting newly found plastic pieces. Typically, the pieces are spread out.

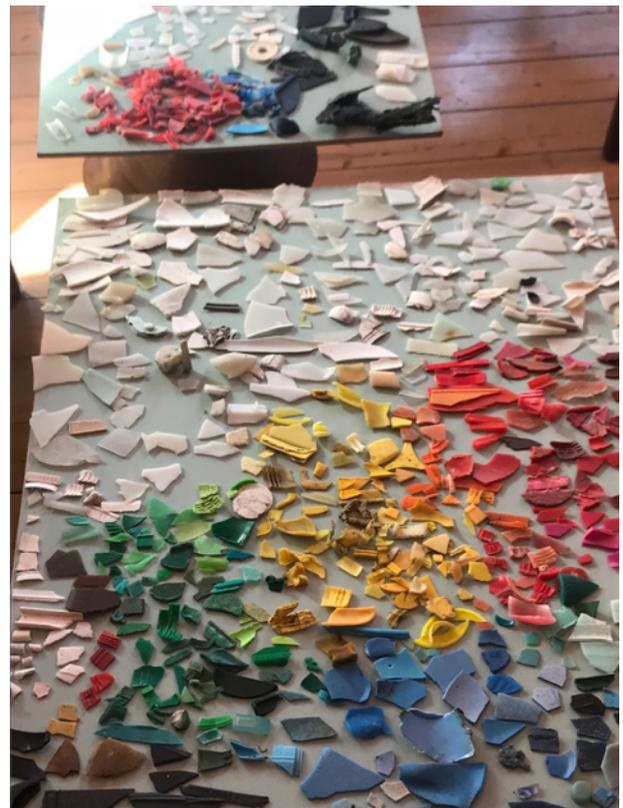


Figure 8. A temporary living room 'work bench'. Often, the plastic pieces are sorted by colour on a flat surface so as to get an overview of the pieces.

## FRAMING DISCURSIVE JEWELLERY

The project is positioned within a multi-perspective framework that combines notions of *discursive design*, drawing on Morrison et al. (2011), Arnall (2013), Mollon & Gentes (2014), and by Tharp & Tharp (2013,

2019 forthcoming). In the summary of their forthcoming book on MIT Press, Tharp & Tharp (2019) define discursive design as targeting the way we think and reflect:

“While many consider good design to be unobtrusive, intuitive, invisible, and undemanding intellectually, discursive design instead targets the intellect, prompting self-reflection and igniting the imagination. Discursive design (derived from “discourse”) expands the boundaries of how we can use design—how objects are, in effect, good(s) for thinking.

In addition, the project draws on approaches to practice-based research, where the relations between design practice, design exploration and design research interpolate, as for example discussed by Fallman (2008). The project moves via different trajectories, loops and dimensions; It oscillates between different kinds of practices – spanning from cleaning plastic waste from beaches, to photographing and presenting jewellery on models, to academic writing and teaching. It also involves presenting the project to students as part of sustainability initiatives, but also as a means for generating awareness of the possibility of design practices that reuse and transform existing, but discarded material objects that are readily available. The jewellery project thus opens for a broad spectrum of design practices and reflective modes. Our investigation of marine plastic debris as a design material for jewellery, is also one that inquires into how such a material – and its exploration, might be mediated to a non-specialist audience in contexts outside of art and design schools. For example, the jewellery is designed to be worn *as jewellery*, but as jewellery with a story that differs radically from industrially manufactured ones. In such an approach, one that may be referred to as a communication design approach (Skjulstad 2008) all the different elements, such as the Instagram profile, jewellery boxes, as well as the various contexts in which the project are presented form part of the discursive aspect of the project. (Dunne & Raby, 2013, Dunne, 2008). According to the abovementioned authors, design may stimulate for debate, dialogue, reflection, and preferably – also action. This may open for engaging in problems of sociological, ethical or psychological nature – also including difficult ones, and making these issues visible (Tharp & Tharp 2013, Arnall 2013). Drawing on such design approaches, the imaginative potential in marine anthropogenic debris as a material for jewellery design, opens for inviting the audience to actually engage in a close study of marine plastic pollution rather than turning away from it. When included into a piece of jewellery, a tiny piece of waste becomes something that is generally treated with great care; These tiny pieces of plastic waste may through this stimulate reflections on our relationship to this staggering amount of plastic that pile up in the oceans.

As argued by Auger (2013), a certain level of provocation is needed for engaging the audience in design scenarios. However, in the case of marine plastic

pollution, reality is far more uncomfortable than any speculative design presentation of it. Jewellery as a platform is interesting, as ocean pollution as a threat may simply be rejected because it becomes too uncomfortable to relate to. However, in the form of jewellery, it is presented in a way that gently invites the potential audience to reflect on the topic, and relate to it bodily and as a means for self-expression and critical fashion practice (Geczy & Karaminas 2017). Resembling a functional speculation taking place in the present, repurposed marine plastic debris is treated as a precious material and presented in the form of fully functional jewellery. The main mode of address is aesthetic, as opposed to confronting. Care in this context may thus be described a mode of address.

As the grim reality of ocean pollution is of great importance, addressing these matters gently may potentially stimulate an embodied and aesthetically imbued form of reflection. Design may provide gentle nudges towards changing the perception of a phenomenon (Dunne & Raby 2013). However, this is made possible not only by the designed objects alone. As demonstrated by Arnall (2013), visual mediations of the exploration of a specific material (in his case the material of RFID technology) can be an incremental part of the research- and design process. Material knowledge is shaped via design practice often through a close dialogue with, and about a material (Schön 1983, Fallman 2008). In our case, marine plastic debris is the design material scrutinised via material and mediational practices. This may lead to new material knowledge, as put forward by McCosh (2013), as she writes on embodied and time-based artistic explorations of the material sublime as a dialogue between her and the material agency of paint. In the context of jewellery, our engagement with marine plastic strives for what Dunne (2005, p. 147) regards as encompassing a ‘...critical aesthetic experience with everyday life.’ As jewellery is carried on the body, the discursive potential is thus an embodied one (Negrin 2013). Jewellery is a part of everyday life, and the material fragments of the objects we surround ourselves with. While many of the origins of many of the pieces we use in our jewelry are unknown to us, pieces with reference to construction sites, hunting, boats and fishing frequently appear. Some pieces, such as the lower ones in figure 11 are melted into shapes that are hard to relate to specific objects or domains.



Figure 9. These earrings are made from two pieces of plastic that initially were parts of construction material from the producer *Thorsman*. We believe these plastic objects have been the middle element of a set of expander bolts that have been torn off and used. Such pieces appear on shores in several different colours. These pieces were found in the Oslo Fiord area. They are assembled with custom sterling silver fittings.



Figure 10. Earrings made from melted plastic pieces from Hoddevik. The pieces were initially collected by Nordic Ocean Watch.



Figure 11. Earrings made from multiple pieces of unknown origin, collected in the Oslo Fiord area.

#### CRAFT AND MATERIAL APPROACHES

As marine pollution is a pressing problem of today, these issues are discussed across different research contexts and disciplines. Drawing on Latour, and perspectives from Science and Technology Studies (STS) studies, Liboiron (2016) discusses marine plastic pollution in a material perspective. He regards marine plastic debris as objects with agency. However, marine plastic pollution is in need of more nuanced conceptual work, as the complexity of how marine debris relates scientifically to matters of *harm* depends on how different knowledge communities understands this. Combining natural and social science-perspectives, Liboiron (2016, p. 90) discusses how various knowledge communities ‘...make emerging amorphous forms of harm not only discernible but articulate enough for action’. For policy that may reduce ocean plastic pollution, nuancing the ways such plastic is understood at a complex chemical micro-level is challenging. How we conceptualise marine plastic pollution as a phenomenon- a diverse collection of fragments from a great variety of petro-chemical substances that may differ chemically from each other matter. Different kinds of plastics may cause different types of harm. How harm is understood also differ significantly within knowledge communities. According to Liboiron (2016) greater nuance is in other words important for the kinds of actions and policies needed to better understand of how this growing Leviathan might be productively tackled. Such an approach to matter and meaning situates this material(s) within struggles relating to power and meaning. ‘Dead’ objects, such as small pieces of marine plastic debris may thus be understood as matter with agency.

Zooming out drastically, each piece of marine plastic potentially enables a conceptual move from micro to macro level in reflections on the history and prospective evolution of the planet. It is easy to envision a seagull with its belly filled with plastic debris. Unfortunately, we have grim images of molested turtles and birds on our retinas. However, the immense number of man-made objects and constructions, the left overs of the era of plastic in industrial design and manufacture, connects the tangible material of plastics to debates about slow processes in deep time. Such macro perspectives are important in relating these small, and overlooked plastic fragments in relation to the proposed onset of the ‘Anthropocene’, what Liboiron (2016, p. 90) refers to as:

‘...a proposed epoch characterized by human activities impacting atmospheric, geologic, hydrologic, biospheric and other earth systems, where industrial materials with unprecedented tonnage, toxicity, and heterogeneity are having unintended consequences [that already] threaten to disrupt all orderings, all plans, all impacts’, on a planetary scale, from ocean acidification to the survival of the human species.’

According to Liboiron (2016), a *material* approach to plastic pollution is important because the properties of plastics guides what kind of political solutions can be derived from research on marine plastic pollution. As there are multiple types of plastic in use, the material quality of the pieces we collect differ significantly. Some pieces are soft, while others are brittle. We therefore test the strength of every piece for breakage manually before choosing it for use. When designing jewellery from this material, one of our discoveries is the recurring presence of certain objects among the plastic pieces we collect. An aesthetic approach to this material is thus one among many that may shed a slightly different light on these issues.

## MEDIATION AND CONTEXT

The mediation of the project follows the activity and pace of the work. The project is framed as an informal approach to co-design-related dissemination practices. This is informal in the sense that people who in various ways become involved in the project can contribute with their time, efforts, and competencies as part of a collaborative practice. However, jewellery as a communication platform is also explored via a range of mediations so as to reach a diverse audience outside of academia (fig 12 & 13). This aspect of the project includes for example the use of social media platforms such as Instagram<sup>1</sup>, and Facebook. The exploration of the discursive outcomes of mediations of the project also involves presentations in fashion- and life style magazines (fig 12 & 13). Drawing on Arnall (2013), a significant part of the design process has to do with mediational material. In presenting marine plastic debris as jewellery, and by treating selected pieces of marine debris as precious material, the ontology of the plastic

piece is affected. It is not only treated as a precious material, but it becomes so.

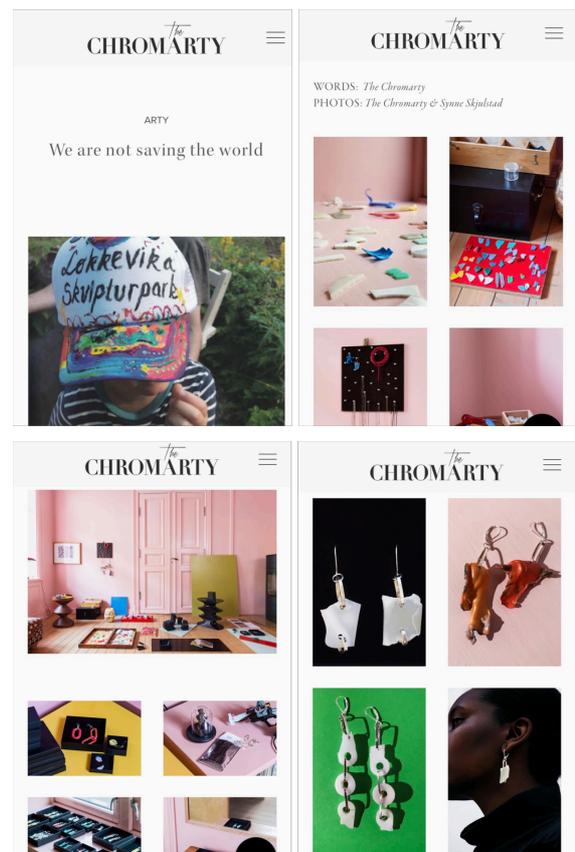


Figure 12. Images from an article about the jewellery project published online in thechromarty.com.

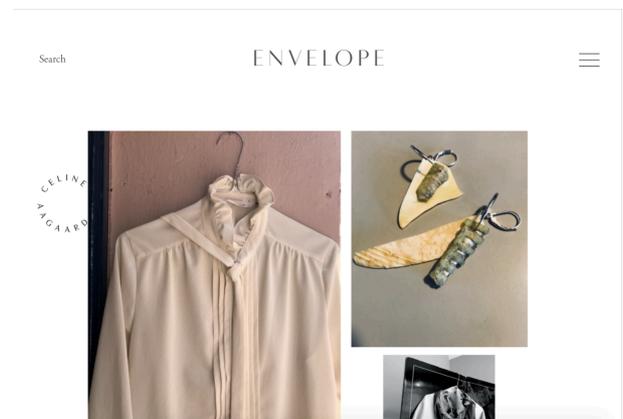


Figure 13. The jewellery as featured as part of the fashion blog *envelope.no*.

The jewellery is designed with agency in mind. Either they are worn, or as conversation pieces, they appear in real life retail settings. For example, displayed in the Museum shop at a Maritime Museum, they calmly invite visitors to the shop to enter a conversation about ocean plastic pollution. They silently contribute to the inscription of ocean plastic pollution into the

<sup>1</sup> See Instagram (@seablingsta)

national maritime history. They are invitational, as the jewellery readily awaits, but does not force dialogue with shop visitors. Once the jewellery is situated in 'real world' settings, such as shops, these contexts may add an extra layer to enabling the jewellery to be perceived as *real* jewellery. The jewellery was for a while available in a vintage fashion boutique. Such a context adds the notion of the existence of vintage plastic – in contrast to *virgin plastic* (that is newly produced plastic). The context and display thus contributes conceptually to disseminate the idea of marine plastic debris as a resource astray to non-specialist audiences.

Drawing on Mary Douglas anthropologic study of dirt – *Purity and danger*, from 1966 the concept of dirt as matter out of place is relevant. However, her views are contested if acting politically upon the different kinds of harms stemming from the very complex and different materialities of plastics (Liboiron 2016). However, the material qualities of marine plastic debris are highlighted and aestheticized (Welsch 1997) in this project. By making aesthetic what is not, in imposing aestheticized form on a deeply problematic material, a certain sense of dissonance is one of the desired outcomes. Such a dissonance is discussed by James Auger (2013) with reference to Freud and the uncanny. The strangely familiar unfamiliar is for example present in earrings made from fragments of screw caps. The forms are familiar but removed from its original contexts on bottles, or as plastic litter on a beach, they carry the potential for tickling the imagination of those who encounter it as jewellery. Care is thus articulated as a slightly provocative, but also unobtrusive aesthetic invitation to reflect upon the different, and at times unexpected cycles of use and misuse our industrially designed plastic objects go through. As screw caps often is marked with a brand logo, these logos are repositioned when visible in a pair of earrings (fig. 15). The logos 'talk' back, but this time, the 'conversation' is directed towards the idea of these brand's responsibility for the harm their products do.

**AN EXPANDED APPROACH TO JEWELLERY**  
Jewellery is carried on our bodies. Humans has always embellished themselves by wearing jewellery of different kinds, also made of materials at hand. Material for jewellery includes a range of different ones: From diamonds and precious stones to flowers, seeds and other natural material. Jewellery is historically part of human life. Plastic, a material that has been steadily produced in greater and greater amounts since the 1950s (Liboiron (2016) is in this project treated as something we might care for in its afterlife. On an imagined continuum – spanning from precious to worthless on the other, every piece of jewellery carries the potential to move our thoughts gently across it. In 2017, the staggering figures of 348 million tons of plastics were produced on a global scale (Plastics Europe 2018). The amount far exceeds what is possible to relate to for most people. However, presented as a carefully selected

precious piece of plastic, one that is unique, it carries the potential for thinking about this material differently. The jewellery is thus designed as a means to prompt discussion on the massive scale of plastic production, along with questions about what we perceive as valuable and why. These carefully selected pieces of plastic point to a problem that threatens our very existence as a species and is therefore a difficult one to embark on in everyday situations.

## MICRO TO MACRO WHAT COMES IN COMES OUT

The plastic pieces we end up using for jewellery are all unique. The careful selection and presentation of each plastic piece forms a contrast to the staggering number of plastic pieces adrift in the ocean. However, from each tiny piece of plastic, it is possible to point to companies that produce and disseminate large amounts of objects that end up as marine waste. This implies a responsibility many of these industry giants have for what happens to their products after they are sold.

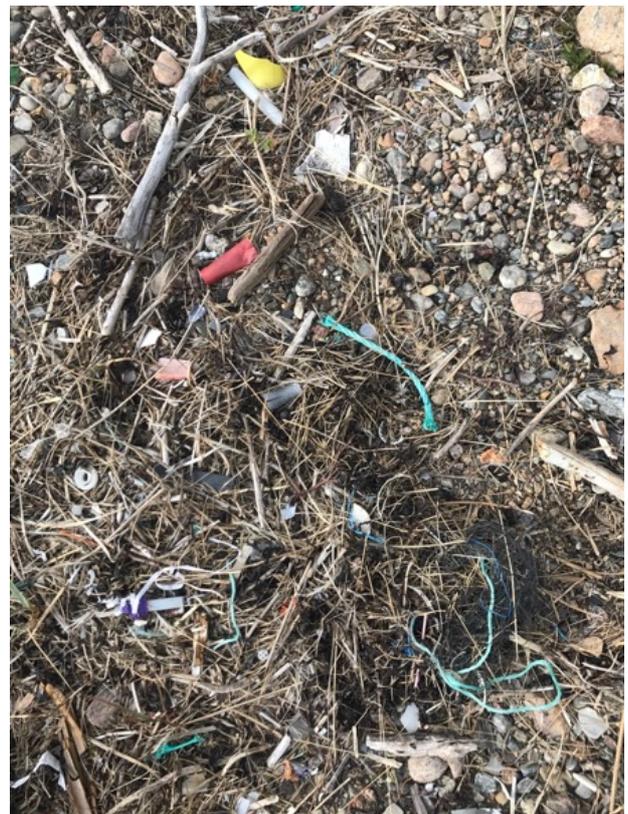


Figure 14. Plastic debris intrusion at Singløya Østfold, Norway. The small plastic objects are unintended industrially produced components in a hybrid landscape where nature and culture are entangled.



Figure 15. 'Soft Drink War'. Earrings made from Coca Cola and Pepsi screw caps, and sterling silver. The screw caps are collected in Østfold, Norway.

Such a responsibility is at the core of a pair of earrings made from two screw caps. One has the logo of Coca Cola, and the other has Pepsi. These earrings point gently, but directly back at these companies. The race between these two companies for the position as marked leader have resulted in a staggering number of bottles and bottle screw caps in the ocean, and on the shores of many countries across the world. One result of entering a close dialogue with marine plastic debris is the recurring fragments of industrial design objects of today, such as screw caps, q-tips and shell cases. Care at a micro level, expressed through selecting, washing, and assembling two fragments of soft drink screw caps and assembling them into a pair of earrings is a move to infuse these fragments with discursive agency, but also to fold these fragments into the time horizon ahead of us. The concept of *technofossils* was originally introduced by Zalasiewicz et al. (2014). Dibley (2018), discusses such prospective fossils in the context of contemporary archaeology; The growing layers of man-made items are prospective fossil material. In the context of the onset of the Anthropocene, Dibley discusses such fossils as a new sedimentary layer of the earth. According to Dibley, the man-made objects of our time is what will become the new sedimentary layers, that is, the prospective fossils in a distant future. This sedimentary layer may according to Dibley (2018, p. 44) be regarded as a *memento mori*. Thus, they become a heuristic for drawing a long line from the industrial

design of branded plastic objects to a world after the human species and '...the era of its doing and undoing'. These pieces will be folded into a readable future, however one that will take place without us. The jewellery may thus become, drawing on Dibley (2018, p.48-49) affective objects, '...serving as a reminder of one's mortality and the trajectory and material afterlife of human activity'. Such affective objects carry a story that is yet untold.

#### A PLASTIC LEVIATHAN

Through the jewellery, an exploration of various ways to articulate care for the ocean is set in motion. Through aesthetic exploration of the very material that is part of destroying it, material qualities such as edges from breakage, texture, colour and shapes are exposed as jewellery. In collecting, selecting, washing and embellishing these fragments, the ontology of the chosen pieces is affected and altered. They have become precious. Through this project our own gaze has been interrupted. What we initially perceived as waste is now seen differently. Our micro transformation of something worthless into something we perceive as precious have implications for design. The jewellery tells a story about and the interrupted life cycles of mass-produced everyday plastic objects astray. It tells a tale of how these objects are crushed into fragments that bleed into the natural environment. It is about objects that we use for a short time, objects so mundane that we do not take notice of them in our brief interactions. They build up and remain. Plastic is a great material when used responsibly. But this versatile, cheap and enduring material has one main characteristic: It stays on. It endures, even as it is slowly grinded into smaller and smaller fragments, it degrades extremely slowly.



Figure 16. Earrings made of old screw caps, maybe from the 1960's. Both pieces were found at Singløya, Østfold.

The jewellery thus serve as affective reminders that what we design today shapes our future. Our hope is that they may act as unobtrusive reminders of the mistakes of the past and the present, but also as objects that carefully remind us that how we use plastics matter.



Figure 17: Ocean surface, Løkkevika, Østfold, Norway.

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