

THE UNIVERSAL SEA

PURE OR PLASTIC!?

The Art and Innovation Guide
Against The Plastic Epidemic







THE UNIVERSAL SEA

PURE OR PLASTIC!?

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Welcome

From our supporting partner the European Commission

In recent years, 8-10 million tonnes of plastics are annually leaked into the oceans. This is the equivalent of dumping the content of one garbage truck into the sea every minute. If we don't act, in less than ten years there could be one tonne of plastics for three tonnes of fish in our oceans.

Resolving this issue requires complex solutions. Building on its strength in the bioeconomy and by acting as a first mover with its robust waste management systems, the EU is helping to set global standards and is emerging as a global leader.

In May 2018 the European Commission proposed a Plastics Strategy with a long term vision that within the EU all plastics should be designed, manufactured and used in a sustainable way. All plastic packaging should be reusable or recyclable by 2030. To achieve this, the EU's research programme will invest more than 200 million Euro in plastics innovation until 2020. The business community needs to be strongly engaged, as they'll turn these goals into reality.

An additional aspect should also be recalled: the importance of reaching out and involving the public through the transformative power of culture. We need innovation and change, and cultural initiatives have become one of the main agents for change in society. Cultural investment influences economic development and the morale of people. Today culture infiltrates our daily life and reaches out well beyond traditional structures. It can be found in technology hubs or media clusters, triggering social and economic interactions.

Consequently, cultural policy is no longer only about managing the arts. It is becoming a tool to address global challenges like sustainability, climate change or environmental degradation, as well as to connect artists and creative entrepreneurs. Cultural policy is also about ensuring that the arts and humanities are fully engaged in the debates shaping the future of our societies.

Creative Europe, the EU's cultural funding programme reflects these recent developments by supporting a new generation of cross-sectorial projects. It also co-finance The Universal Sea, which explores new business models by motivating emerging artists to employ art as a catalyst to initiate social changes with a spill over effect on the environment, and engages artists as well as European citizens for creative, societal participation.



*Dr. Tamas Szucs
Member of the European Commission
Directorate-General for Education and Culture*

Our oceans and seas are the most valuable shared natural resource on Earth. They remove carbon from the air, regulate the Earth's climate, provide food and jobs and oxygen.

And yet they are under threat, amongst other things, from plastic—a global problem of enormous dimensions. No shore, no seabed is spared from the presence of plastic, and its effects are being felt throughout the food chain, from microscopic organisms all the way to our dinner plates.

However, the future of plastics in our seas and oceans will be determined mainly by the way we handle plastics on land. Europe has put strict laws in place to protect the marine environment, impose waste and wastewater management and introduce obligations to ensure that waste is properly treated in ports.

But we know it's not enough, so we're stepping up action with new legislation that firmly enshrines a Europe-wide effort to halt the entry of plastic litter and microplastics into our seas and oceans.

With the European strategy for plastics we aim to transform the way plastic products are designed, produced, used and recycled in the European Union. The strategy also includes a draft law to cut the use of single-use plastics, targeting fishing gear and the items most frequently found on beaches. Inputs of plastic from our coasts to the seas and oceans are estimated to be the single most significant source, but significant quantities also enter from inland sources via rivers. We are looking at how effective the Union's legislation on treating waste water and protecting river basins has been at helping to control these inputs. Member States are already required to report on actions taken against litter in rivers, and the Commission has contributed to discussions on how to address the issue. Our Joint Research Centre has been conducting a monitoring campaign to quantify plastics entering the sea from rivers.

We welcome the efforts being made by several Member States, for example through the Network of Environmental Protection Agencies, and through the International River Basin Commissions (e.g. for the Rhine and Danube), to investigate and address the problem. We are also committed to working with our partners in wider international fora, such as the UN, G7 and G20. In October 2018, at the Our Ocean conference in Bali, the EU announced a further 23 commitments to improve the condition of our oceans. This was backed up by an extra 300 million Euro for EU-funded initiatives, including projects to tackle plastic pollution, make the blue economy more sustainable, and improve research and marine surveillance.

Our oceans are our gold mines and we cannot continue using them as a dumping site. Protecting our oceans is protecting our survivability.

Karmenu Vella
European Commissioner for Environment,
Maritime Affairs and Fisheries



Hey there.

You. Yes you.

Welcome to our book. This is our guide exploring the universal issue of plastic pollution, and some of the inspirational people and organisations fighting against it.

But first, a little about why we are here.

Water is the source of life—life on earth cannot exist without it.

Think about the last time you used water. Did you brush your teeth this morning, do some laundry, cook something?

It doesn't matter who you are, where you are from, whether you are rich or poor, young or old. We are all connected by water. We interact with it every single day. We drink it every single day. We use it to grow crops and livestock, to cleanse and keep ourselves healthy, to keep cool or provide heat. We use it as a transportation system, for sport and entertainment, and it is home to millions of lifeforms; with many more yet undiscovered. It is all around us, yet we often take its abundance for granted.

How about the last time you used plastic?

Did you brush your teeth this morning, do some laundry, cook something?

We are universally connected by these everyday resources, and now one threatens the other. The amount of plastic in our oceans continues to grow dramatically; microplastic has made its way into our food chain, into our bodies. We can hardly even distinguish between natural and plastic items on the beaches anymore.¹ No matter if it is bottled water or tap water, plastic is everywhere. Plastic pollution threatens our vital water sources and brings an issue that unites us globally.

¹ Artist Liina Klaus, p. 124

Alright, so this all feels pretty heavy. Scary, even. It seems like a lot to tackle, but we are here to offer hope. To show that there are already many wonderful and inspiring people fighting for a better future and cleaner water. Our book applauds just a small selection of the brilliant minds already taking on this seemingly mammoth challenge, be that through creative expression or practical solutions. It is a celebration of everything we have already collectively achieved towards a plastic-smart future. It is also a message of inspiration for work yet to be done and how we can reduce, reuse, and replace plastic consumption in our day to day lives.

That's where you come in.

We all know that two heads are better than one, so what if we all put our heads together?

So why art.

Have you ever seen a painting, film, sculpture, or installation that moved you? Has a piece of art ever made you laugh, cry, stop to take a closer look?

We believe that art, like water, is a basic right. It speaks a language that knows no borders. Art can bring us new perspectives, it can bridge the gap between abstract ideas and news stories and put a tangible feeling right in your gut; imagine a two metre high labyrinth made of plastic waste accompanied by sounds of the sea.² By allowing us to see and feel and confront global issues, art is a fantastic vehicle to connect us emotionally to our world. We believe that art can be a catalyst for change; that to be moved can encourage us to move, to act. Harnessing this power of creativity to raise awareness and find solutions for universal issues just makes sense to us. That's why we've enlisted the help of so many brilliant artistic minds in this book and why continuing to commend and facilitate socially engaged art against plastic pollution of our waters is at the core of what we do. You can spend some time connecting to the issue of plastic pollution through **artworks by over 500 artists** from a vast variety of creative disciplines and backgrounds.

² Plastic Waste Labyrinth, Júlia Végh & Erika Kapronczai, p. 68

In this age where visual communication rules, if art can bring emotional allegiance to universal issues and ask us to rethink existing systems, then innovation is the tool for providing sustainable solutions. In the pioneering world of plastic-smart living, this means some very exciting solutions. Who needs plastic when you have gorgeous sustainable and biodegradable solutions like bamboo straws, edible water carriers, and cardboard surfboards?

Hopefully, you are with us this far because this is something you care about too, and you think that making single-use plastic history is an idea worth sharing. If so, have a browse through all the innovative and inventive solutions featured in our business section. Delve into the world of plastic-free and plastic-smart products and incorporate some ingenious solutions from **over 500 entrepreneurs and organisations** into your daily life. These clever individuals and organisations are a proclamation of just some of the small changes we can all make to have a big impact for us, our planet and future generations. Every little action counts, and you don't have to be an innovator to make a difference. We can all start making little changes of our own—taking a tote bag to the supermarket, or owning a reusable coffee cup.

We recognise that every situation is different, and we all face different issues with our own consumer environments, waste management, and access to recycling. We have tried to fill our guide with different approaches from around the globe to help you find your own answers, to show that there are many like-minded people with solutions all over the world, and help you connect with them. This is why our **Art & Innovation** essay anthology delves into this topic with a little more depth; a collection of writings by passionate contributors in the fields of art, science, technology, and business. Decide for yourself about the role of the contemporary artist and how we might engage the public in such universal issues as plastic waste.

This book is for everyone, and these pages yours to use. Maybe you will excitedly read this book cover to cover. Maybe you will feel inspired by all the incredible artworks included here and rush to rent a studio so that you can spend all your spare time weaving giant tapestries from reformed recycled plastic.

Maybe you will read the business section and be so overwhelmed by the idea that you can create disposable tableware that is not only biodegradable but also edible, that you will immediately quit your job in pursuit of a career creating sustainable food packaging.

That would be really great.

More likely, maybe you will just flick through this guide one lazy afternoon; while waiting for a friend to arrive; in the classroom or office. We hope that something will catch your eye and you will spread the word, connect with others, and help make a change. Because at the end of the day, every single person on the planet is affected by the uncertain future of our waters, and so we are all part of this conversation; we're all in this together.

This book has been driven by a whole host of like-minded people who know that by coming together we can make a difference. Driven by care and a genuine appreciation of the inspirational people around us, this book is a labour of love not possible without the time and dedication given by so many. You will find the almost endless list of wonderful contributors in the **Acknowledgements** section at the end of this book.

We hope that by reading this book you will feel not only activated and motivated, but passionate and empowered to make a change for a better future, just like we do.

P.S. Creativity and play is what makes people rethink their situations and get innovative. We saw just this in Budapest when we hosted a creative hackathon to troubleshoot plastic pollution of our waters. The team spun an inspiring and funny little text which we are glad to publish on the next page. Enjoy the lighthearted interlude!

Happy reading!

The Universal Sea team

The Myth of Plastic

Once upon a time, there lived on earth a powerful being called Plastic. Plastic saw that humans were constantly struggling and had difficult lives, being constantly cold, or wet, or getting infections, or being unable to keep fresh food, and an endless string of other problems. So Plastic decided to help them, by keeping them dry, helping them build, keeping their stuff sanitised, helping with transport, packaging, and providing assistance in many other ways. At first, people were grateful, and they were happy to be friends with plastic. But after a while, they got so used to all the help, they forgot to be grateful; they kept getting greedier and asking for more help every day, taking everything for granted. They stopped inviting Plastic to their parties, they forgot to say "hello!" they even started to call Plastic names, like "Garbage!" "Trash!" "Waste!"

Plastic was all alone on the beach, in the woods and the environment. But Plastic was kind, and sensitive, and deeply hurt by this behaviour. And Plastic was lonely, and angry, and sad-scared of being left all alone. In order not to feel so terribly lonely, Plastic tried to work its way back into human company, as small and unobtrusively as possible. However, that was not the right way for such a powerful being to behave and it was bad for all involved: trying to get back to people by worming its way into their bodies, it made everyone sick, including the plants and animals, even the ground, and the sea.

So in order to get healthy again, people have to get back to their old ways and respect and value Plastic again. Plastic wants to be cherished, it wants kindness and company, like everyone else, and to feel loved. So people started to make plastic parties, and build gathering places for Plastic, and recycling places, where Plastic could pull itself together, and center again, and slowly come back to health.

Co-written by Victor Nyabuti, Ede Sinkovics, Kaethe Wenzel, Hatem Affes, and Fatima Aslam during the 'co-creation hackathon' workshop at Art Moments - The Universal Sea Budapest Festival 2018.

CULTURE OF REPRODUCIBILITY

Be an Artist or a Model!

Nicole Loeser & Viktoria Trosien

The Universal Sea Project Leads

Bad dream...

I had a bad dream: My nephew didn't like to brush his teeth. He found it boring and he always cried. When I looked into his mouth, I was shocked to discover most of his teeth were black and had fallen out. The remaining teeth had to be pulled.

That morning, I realised that the dream served as a metaphor for how we deal with nature. Are we too ignorant, too stubborn or simply don't like to be reminded that we need to take responsibility in our own convenient time? Why is it so hard for us to comprehend that we are connected to our environment?

Two friends coming together

Millions of well-meaning people try to force, to convince, to argue, to beg their fellow citizens to change their consumerist attitude and behaviour; to stop them from littering, get them to consume less or at the very least buy less plastic-packaged food.

When we met as neighbours three years ago, neither of us could have imagined the impact that this first meeting would have. Although we come from very different professional backgrounds—Nicole as a curator and gallerist, Viktoria being an innovation strategist focusing on social change—we were fortunate to discover our mutual passion for art.

We both understood that being born in East-Berlin and having experienced and participated in the systemic changes

*"My objects are to be seen as stimulants for the transformation of the idea of sculpture or of art in general. They should provoke thoughts about what sculpture can be and how the concept of sculpting can be extended to the invisible materials used by everyone. THINKING FORMS-how we mold our thoughts or SPOKEN FORMS-how we shape our thoughts into words or SOCIAL SCULPTURE-how we mold and shape the world in which we live: sculpture as an evolutionary process; everyone an artist."*¹

- Joseph Beuys

that took place there at the time (in a country that doesn't exist anymore), we shared the belief that the movement of people and their communities can change a whole system.

Our precious water and Dream together

After our first meeting we began to dream about putting our ideas into practice and we agreed right from the beginning that we wanted to bring some bigger impulses to the water issue—

the most precious resource on earth: drinking water.

¹ Joseph Beuys' quote from *Theory of Social Sculpture*, 1979, as cited in: Chris Thompson. *Felt: Fluxus, Joseph Beuys, and the Dalai Lama*. 2011. p. 88-89

"Water is the source of life - no life without water," we wrote in our proposal, "because historically seen, cultures have mostly settled near oceans, rivers, coasts, lakes or other freshwater springs. But this source is at risk, because of waste. We needed a common awareness; therefore, it needed to be addressed to everyone. The problem can only be solved by acting in league with an all-encompassing understanding of the gravity of water pollution. (...) While the issue is obvious and becomes pressing for people living close to the sea, people living more inland sense no urge. Yet we all depend on it!"² To make it more tangible, we decided to specify our focus on the plastic pollution of our waters.

We knew that a lot of strategies to tackle the problem had not reached nearly enough people. We therefore both felt the need to attempt a completely different approach. Within our network of befriended professionals, we were lucky to quickly form the core group of partners for the project. Although the project had a complex premise, combining art, science, entrepreneurship and public actions, the goal itself remained simple: to fight plastic pollution and to reach the public. Because of this combination of ideas and solutions to a universally (seemingly) simple problem we could convince our new partners and the EU to join and finance the project.

We anticipated finding artists and colleagues who are dealing with the interconnection of disciplines. What began as curatorial and entrepreneurial curiosity—in artists and creatives responding to the open calls and the use of educational and innovative workshop

tactics to unload materials and questions found in the work— promptly became a process of knowledge production for all of those involved. Throughout this project we enjoyed working with creatives, scientists and entrepreneurs; curating shows, producing creative interventions, while exploring varied formats, disciplines and public spaces to mediate sites where socio- political and ecological issues and creativity converged with visual and start-up culture and civil engagement. That was the beauty of this project: open collaborations, interdisciplinary contexts, and engagement within diversely shaped communities.

Our project and the artists

We believe that art is an expression of human desire, thought, action and wonder— around the world and throughout time. Many artists show us how freedom, independence and interdependence can be lived and shared. We believe they are change agents, with the ability to shape society for the better. With the on-going commercialisation and marketisation of art, this perspective has however become somewhat lost.

We therefore regard it as an absolute necessity to reposition and propel artists and their form of critical and reflective thinking into the forefront of society.

Artists as catalysers for social change are at the core of "The Universal Sea - Pure or Plastic?!". They are the perfect match for bridging the gap between knowledge and action by providing new perspectives and reaching audiences on an emotional level.

² Nicole Loeser/Viktoria Trosien in EU proposal for Creative Europe Programme, 2017

Meeting more and more friends

Over the past 18 months, we are very proud to have met with almost 7 million people who supported our efforts and who have participated in the project's actions. For us it was a miracle to have found so many likeminded people who created artworks, founded start-ups and organised clean-ups to aid in the global effort to save the planet's oceans and drinking water. Sparks flew as concepts and strategies were exchanged, diverse audiences were reached, and new efficient solutions and ideas against plastic pollution were explored.

Joint forces against the plastic mess

Hard facts and statistics inspire others to contribute and act, but not when it comes to plastic. This seems to be too big of an issue, or even too big of a taboo, to be tackled. While it is good to see that the continent's unions agree on (societal and environmental) changes, many of the governments do not (want to) take the appropriate action. While politicians are setting new rules to reduce plastic waste, production continues to grow rapidly, setting back these preventative measures again and again.

So, the current question is how we can transform ourselves when we know that our life-styles endanger our lives. We could question: Is that really the freedom we want? to be 'free' when drowning in plastic waste? to be free when consuming microplastics? We must continuously ask ethical and moral questions. We need to persist! It's like taking care of your teeth, you need to do it constantly and to do it right. We must continuously ask ethical and moral questions. We need to persist! It's like taking care of your teeth, you need to do it constantly and to do it right.

The common goal

It is our aim to show that while it is easy to justify the damaging behaviour we commit on a daily basis in all sorts of ways, we should expect much more from ourselves and our fellows. When it comes to business, greed is just foolish and it is the sum of our human actions that is polluting our environment. We can't stand still—this is a major risk. We can't pretend to just be victims of circumstance. We need to be optimistic, only then can we decide and choose what we do in our everyday life. Most importantly, despite resistance, let's be committed and develop a united purpose together!

SCREAM FOR CLEAN!

It's up to the people of the world to "scream for clean," one of our latest campaigns that we would like every reader to join.³ When we look at the plastic mess that has tremendously increased over the past decade (instead of getting solved!) this is an emotion we are missing from most of its affected people. We need to shout out loud, to cry, to scream that we get heard that we really need suitable laws!

This project has shown us that we are not alone with our beliefs. We made many new friends and colleagues who are already experimenting with alternative models. Avant-gardists are no longer only found amongst artists and writers, but in all disciplines, even business. This

can be seen with the growing number of socially conscious businesses or so-called purpose companies. This concept seems contradictory. It implies that profit is not the main or only goal of business, which is what we have come to take as a given. But like with anything, the more frequent a concept or idea becomes, the more it is accepted and normalised. Environmental protection is a societal necessity to safeguard the foundations of our existence, and all businesses named in this book were carefully selected because they hold potential for great (societal) change towards a more sustainable future for all of us.

We are grateful that we joined forces with so many people who believe in the same vision and devote their time and passion, going together through moments of frustration and moments of inspiration and happiness. Please see the detailed acknowledgments in the end!

Reaching further

As for our experience, the festivals and workshops were the best option to meet already affine people and focus on local needs in their various contexts. Often questions were asked e.g. how the discourse can be further publicised, or what individuals can do to generate less plastic waste and take zero-waste living seriously. What rules do we need in our communities for a sustainable life within ecological boundaries?

“We know the fact, now it’s time to act!” The overall goal was simple, and is still a big challenge. Many told us that it is about empathy, compassion and the ongoing demand to question and re-define our values and personal responsibility.

Becoming part of a societal transformation is when you understand that an open and inclusive atmosphere needs to be created.

We can start right away by transforming our passive behaviour into proactive behaviour.

We will reach the summit with a collective of courageous forward-leading activists, and this book proves that they are already out there!

Another dream

For us, the search for supporters, sponsors and funding organisations who understand the complexity of the issue of water pollution is not over and we will continue to explore art and innovation collaborations.

We will keep looking for open lines of communication, try new approaches and experiment with different models. And if you reach out to us or start your own project with a group of friends or a team of likeminded people feel welcome on our online platform.³ There is always space to share your knowledge and experience. But first you need to feel and see the necessity of transformation, seek to get informed, and then try hard to facilitate change.

We are certain, you will find what you are looking for.

³ universal-sea.org



© Nicole Loeser

Nicole F. Loeser is a Berlin-based independent curator and art manager with over fifteen years of experience in running interdisciplinary projects on an international level.

She holds the position of Artistic Director at the independent think tank 'Institute for Art and Innovation', that initiated the 'The Universal Sea' and serves as the creative lead in the project. Nicole has been the director of the art gallery WHITECONCEPTS for over 10 years now. Her central interests lie in instigating visionary, socially reflective and environmentally focused endeavors with an interdisciplinary scope. These projects have included explorations of art in relation to politics, economics, neuroscience and astrophysics. She acts as strategist and coach for artists in e.g. the fields of AR and VR installations, art in public space and social art.

As an art critic, Nicole has published topic-related books and monographs of artists, and is a regularly featured author in catalogues, journals and publications.

Through her sought after speaking engagements and process facilitations she pushes boundaries of thinking and developing future trends.

Nicole studied Musicology, Cultural Sciences and Economics at the Humboldt-University in Berlin as well as Fine Arts and Project Management at the Academy of Arts in Berlin.



© Viktoria Trosien

Viktoria Trosien is an innovation strategist and digital entrepreneur, with a keen interest in social innovation and research, pushing interdisciplinary ventures on a global scale since 2004.

She is the Director of Innovation & Research at the independent think tank 'Institute for Art and Innovation' as well as the strategic lead in the project 'The Universal Sea'. Driven by her passion for people and ideas, Viktoria is known for her talent to inspire and catalyze solutions with a clear focus on human-centered value creation leveraged by technology. Altogether she has collected over fifteen years of experience in consulting with a focus on digital and innovation strategies, being called a visionary future storyteller and venturer. Some of her current endeavors explore opportunities for governments based on artificial intelligence/ machine learning, blockchain and immersive technologies.

Viktoria holds a Master of Arts in Digital Communication from the University of the Arts in Berlin, Germany and the University St. Gallen, Switzerland. She received a graduate diploma in Sociology from the Free University Berlin, Germany with studies at Pontificia Universidade Catolica Rio de Janeiro, Brazil.

ART

1

Where do we go from here?

We all know that art forms the way we look at the world around us; it creates new meaning, new contexts and coherencies. Art makes its own rules, structures and patterns. We cannot say that art has to be this or that way, art is free: on any subject, objects of art can be righteously crafted in hundreds of different ways. But viewed another way, art is still a child of its time: art leans on the discourses and on the worldly problems surrounding it, not to reproduce, but to reshape and re-contextualise them. There is a root in art, and this root is the attempt to subvert our never-questioned everyday life.

The artworks collected in this section all revolve around the pollution of water by plastic waste. But the variety of artworks collected proves that there is not one true artistic approach on life, but many.

The artworks' diversity shows that the topic of water pollution can take manifold—almost uncountable—expressions.

The artworks you are about to see are the results of three different open calls issued throughout the project "The Universal Sea." A jury selected 100 top-artworks from the entries handed in for the first call. Of these, five artists (or artist duos)—Frankie Moughton-Small, Robertina Šebjanič, Iina Klaus, Ewa Markiewicz, Júlia Végh and Erika Kapronczai—were ranked on top and received a residency for the duration of the project. From the second call three artworks were selected as top-artworks and were awarded a prize to fund their projects. The third call addressed filmmakers in particular. The project proudly presents a series of films that deal with the topic of water pollution. Other artworks represented here have been contributed by creative ambassadors for the cause and a list of further artists has been assembled in order to create an archive of artists who tackle the issue of water pollution. The list, however, is not exhaustive, but should rather be conceived of as a starting point and an inspiration.

As "art" does not only mean "pictures" and "sculptures," throughout this section you will find a couple of poems dealing with our human relation with water and plastic. They never ran as competitors in the open calls but are here to round up the notion of art by giving this section a textual input as well. We hereby thank the authors for their beautiful contributions.

There is no predicting which aesthetics—a poem, a sculpture, an audio-visualisation, a pencil sketch, if any at all—will eventually succeed in inspiring you, in creating a transformed mind-set towards the world. And

it might be obvious that each and every person has a different mind-set, a different approach to the world, and hence gets his or her vision irritated by different works of art. On the pages to follow there are many attempts to do so. They show that water pollution is a serious topic around which an aesthetic dialogue is already taking place—all over the world. May it be successful! May you be touched by some of them.

What you'll find here:

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ALESSIO CERUTI (IT) WHAT-ER Acque Acide

Painting 2, from the series WHAT-ER

www.alessioceruti.com

This series of paintings was inspired by ocean acidification, an effect caused by rising carbon dioxide levels in the oceans as a result of pollution. When we think about plastic water pollution we often visualise thousands of plastic pieces floating in the ocean, but plastic production also pollutes the atmosphere, releasing tons of carbon dioxide that enters our air and waters.

The artist started to experiment with acidity levels of water to replicate the oceans. He then submerged shells in the water and recorded their decay using time-lapse photography, creating an exact replica of a single shot through the medium of paint.

Ceruti is fascinated by the fact that something as beautiful and unique as shells that take years to grow and are part of our planet's history, can slowly disappear unseen in our waters. The artist sees the beauty in this fragility, while questioning its causes.





ALEX LAWICKA CUPER (PL) & ALAIN LAPICORÉ (FR) *Venus*

Installation

www.alexsculpt.wixsite.com/landart-alex-alain

This installation takes as a starting point the famous historical painting *The Birth of Venus* by Sandro Botticelli. It is among the most famous paintings in the world, regarded as an unprecedented masterpiece of the Italian Renaissance. The Renaissance marked the beginning of a new European culture based on the blending of Greek philosophy with Christian values; artists at that time rediscovered the concept of ideal beauty to illustrate love and spiritual beauty as the driving forces of life.

Cuper and Lapiçoré ask, How do we regard these values in relation to our future if we let the market forces and the resulting pollution take power over our

lives? over the air we breathe? the water we drink? the sea we emerged from millions of years ago?

Ah! Botticelli, if you were here!

The artist duo believes *The Universal Sea: Pure or Plastic!?* campaign and art-as-activism initiatives put artists in the spotlight to wake up and shake our neighbours. They ask us to consider that a return to love and beauty in our lives requires many changes. Contrary to the Renaissance, which marked the end of a dark period, today we face a very dark period, a regression, for the whole of humanity. We must make changes toward a sustainable future.

ALEX CÔTÉ (FR)

Submerge: A Meditative Experience Into Water

Short film

www.alexcoteh.com

A creative team from Canada and Portugal developed *Submerge* during a stay at the Agit Águeda Art Residency, Portugal, in 2016. The inspiration to create metallic plastic creatures came from working with a gold and silver ribbon material. The concept developed where the artists embodied plastic characters while exploring watery environments. After a transformation process that took almost two hours, the group of six artists literally plunged into the river to explore their connection with water through improvisation, movement and dance.

By performing human actions and translating their feelings into the water, these two characters aim to explore a global question: can we find harmony between plastic and organic on Earth? This project aimed to reflect on and change the artists' collective attitudes towards plastic by creating a harmonious aesthetic from an interplay between the plastic, the water, and the sun. Alex Côté's short film documents the performance and provides viewers an opportunity to share in the creativity and connectedness of the moment.





ALEXIS ROCKMAN (US)

Pioneers

Oil and acrylic on wood panel

www.alexisrockman.net

Alexis Rockman is an established contemporary artist known for his paintings that provide rich depictions of future landscapes as they might exist with impacts of climate change. He has exhibited his work in the United States since 1985, including a 2004 exhibition at the Brooklyn Museum, and internationally since 1989. This painting, from his series *The Great Lakes Cycle*, shows the infiltration of man into our majestic waters.

Ali Jahanfar's photo collage deals with the frightening future we are looking at if we do not change something. Our earth, with its oceans, is tied up in and smothered by a plastic bag. In a simple yet powerful image, Jahanfar communicates just how dominating the plastic problem is and how disastrous it is for the state of the entire planet. Plain and simple, it begs action before we suffocate from our own plastic waste.



Do Not Use Too Much Plastic !

ALI JAHANFAR (IR)
Do Not Use Too Much Plastic!

Photo collage

www.facebook.com/ali.jahanfar.artworks



ADRIENN GORBE (HU) Changed

Installation

www.adrienngorbe.tumblr.com



ALAIN LAPICORE (FR) IWKW, WKO (If We Kill Water, We Kill Ourselves)

Sculpture

www.alexsculpt.wixsite.com



AMANDA AUSTIN (DE) Charlie and the Sea

Photograph

www.instagram.com/aa_travel_Photography



ANDREW STOOKE (UK) Moon Phases - Aldeburgh, Suffolk

Lunar calender



ANIS TABARAE (IR) Dehydration

Graphite drawing

www.instagram.com/anistabaraee



ÁLVARO GUZMÁN (ES) Océano Plástico

Short film

www.alvaroguzmanfoto.com

Álvaro Guzmán's concern about how we care for nature and ourselves is rapidly growing, and he uses visual concepts, microplastic sculptures, mosaics or pictures with messages and symbology to raise awareness. He loves working on preconceived ideas and enjoys the serendipity of the creative process.

This short film, shot in Lanzarote in 2017, shows how Guzmán encountered the global plastic problem when he

left Madrid and moved to his favourite place: a biosphere reserve in the Atlantic Ocean near Lanzarote. By the end of 2015 Guzmán had naturally started creating artworks with the plastic he collected from the coasts, to speak out about the problem and show that we all are responsible.

Footage editing: Brian Perkins
Voice over and music: Álvaro Guzmán

ANDREW HORNETT (UK)

A Subtle Approach...

Installation

www.andrewhornett.com

Almost all of the materials Andrew Hornett uses to create his art would otherwise be destined for the recycling centre or landfill. In recent years, Hornett has been collecting and creating artwork from his own personal plastic waste; an amount which shocked the artist. Most of the waste that he accumulates, he will use again and again in the production of different installations, often in unique ways.

Once Hornett has built an installation, it continues to develop and grow throughout the course of the exhibition as he generates more material and his process and ideas evolve alongside it. This is how Hornett works within his studio, constantly experimenting with and moving his collected materials

around. He tries to transfer this playful energy into the gallery space.

Contrasting how harmful waste plastic is to the environment, Hornett finds it an extremely beautiful and versatile material to work with. He particularly enjoys the texture and translucency, and depending on the light, how it can shine like metal, or become almost invisible to the eye. The installations he builds are always specific to the space and often include recognisable figurative or animalistic elements. This recognition gives the works an immediate accessibility, enabling a more direct human connection with the material, and by extension, a connection with the plastic waste issue.





ANGELIKA HECKHAUSEN (DE) Works Made With Marine Debris

Mosaic, tapestry

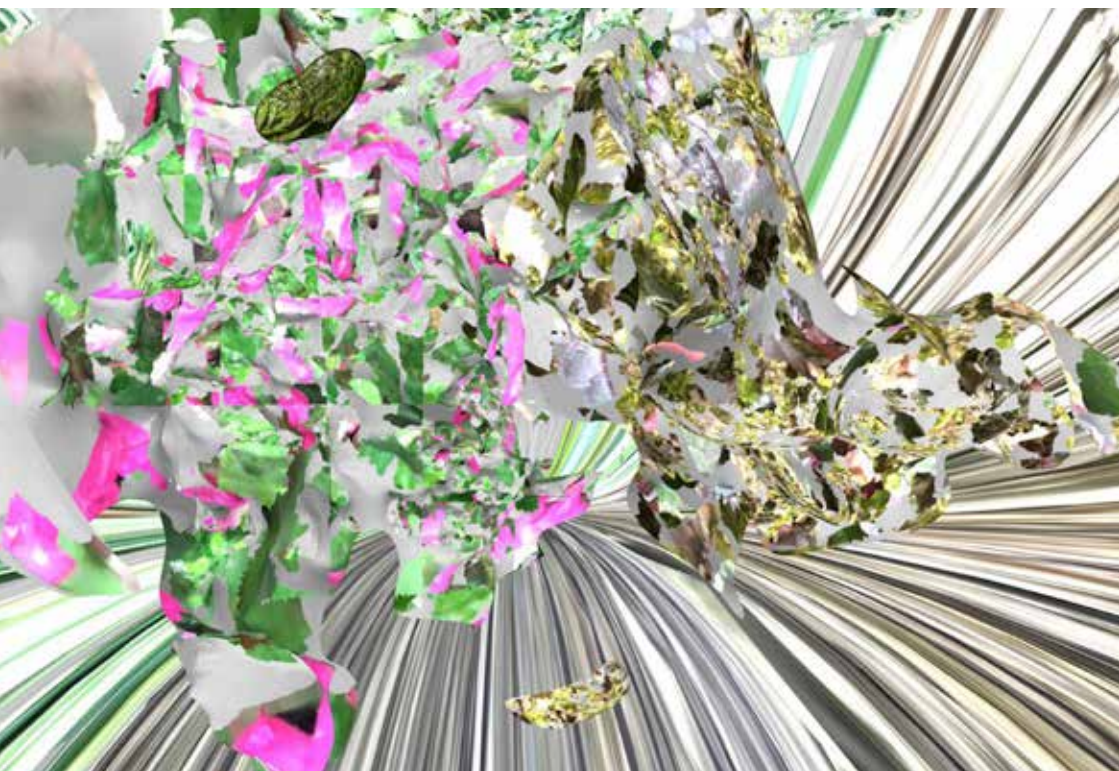
www.angelika-heckhausen.de

Angelika Heckhausen's work is devoted to various questions about the complex problem of litter in the seas. A main issue for her is the cyclical nature of waste; being produced by humans, reaching the sea, and making its way back to us. This plastic waste is often confused for food by animals and so enters the food chain; we are literally consuming our own waste when we eat these animals.

She asks, What impact does our waste have on animals in the seas? This is something that creates an emotional

response from many, because most people are opposed to animal suffering when confronted with it. Can we use this dismay to create a change in our own behaviour?

To Heckhausen, the seas and oceans are much more than just "ecosystem services providers." Heckhausen says that she feels her connection to the whole world most strongly when she is walking along the beach or snorkelling underwater. To protect and preserve this part of the world has become her life's work.



ANNELI GOELLER (US)

Ocean Flower

Video

www.anneligoeller.net

This web video explores the idea of water as a precious limited resource, even a commodity. It presents a virtual hypothetical situation where potable water is hidden away and only attained after a difficult process. Only once obstacles are overcome, precious water is found within a valuable vessel: a locket. A symbol of wealth, it is jewelry that holds within it a treasure, here in the form of an extravagant bottle of water. Once the viewer attains this vital prize, the video prompts them to begin the process again, suggesting a commentary

on the cyclical nature of capitalism. The interminable quest to be able to afford basic life necessities; the eternal labour required to earn money to exchange for goods.

Through the virtual experience of *Ocean Flower*, Anneli Goeller asks, What historical events have led to an essential source of life that makes up the majority of our own bodily composition being transformed into a commodity? What steps need to be taken to dismantle this system. Is it even possible?



ANNA-LENA KUHNER (DE)
Plastik Instruments/Watermusic

Musical installation



ANOUSHKA HAVINDEN (UK)
Caught in a Dream

Painting

www.anoushkahavinden.com



AREZUO BAGH SHEIKHI (IR)
We Will Go by the Wind

Photograph



ART CLAY (CH)
Nine Levels Between Heaven and Earth

Community event

www.gamesandwonderments.blogspot.ch



ASIA ROMANIUK (IT)
Salvami

Installation

ANTOANETA TICA (RO)

Are You Thirsty?

Garment, wearable art

www.behance.net/AntoanetaTica

This work was driven by Antoaneta Tica's personal reaction to the plastic epidemic; particularly its effect on aquatic life. Millions of tonnes of plastic are thrown into the ocean annually and are ingested by fish, birds, or other sea organisms; eventually entering the human food chain. Tica's sculptural garment points towards a simple action we can take as individuals: replacing plastic bottles with reusable glass ones.



In textures and colours reminiscent of the ocean and the life it contains, Tica's wearable sculpture both repurposes used PET plastic bottles and transforms the material to suggest a solution. By cutting, melting, and remodelling the plastic of over 250 used bottles, Tica transforms it into a glass-like texture that points to how we all must make the move to glass. As wearable art *Are You Thirsty?* goes beyond sculpture to question not only our everyday plastic habits, but also our choices surrounding fashion and textiles. In June 2018, the garment won the International Artist of the Year Award in Wearable Art Mandurah competition.

Photo: Stephen Heath
Photography, courtesy of
Wearable Art Mandurah
Model: Ryliee Benson

This work was a jury-selected winner of the The Universal Sea - Pure or Plastic?! second international open call.

White Death is a personal reaction to the disastrous coral bleaching that occurred in 2016, affecting a large and important part of the Great Barrier Reef. Waste, plastic waste in particular, intensified an already critical situation for coral life forms.

To draw attention to this, the artist chose to create a garment made from scraps of usually-discarded materials: plastic wires, used CDs, beads, second-hand clothes made from synthetic fibers. Using these materials she created a variety of decorative elements and different textures within the work—corals, algae, jellyfish, and other marine organisms that cling to the body like a wearable sculpture. The base of the garment is a peach colour reminiscent of a healthy coral, yet the forms clinging to it are pale and white like a bleached coral reef.

To create a plastic texture which resembles the appearance of fish scales underwater, Antoaneta Tica used CDs donated by more than a hundred friends.



ANTOANETA TICA (RO) White Death

Garment, wearable art



ALEXANDROS SIMOPOULOS
(GR)
Afterlife

Print

www.alexsimopoulos.com

AMY ASH (UK)
Harbour

Graphite drawing

www.amyash.ca



ANJA WITT (DE)
Polymeer

Photograph

www.anjawitt.de

Ara Dolation (AU)
Gendered Machines

Sculpture

www.aradolation.com





BARBARA NATI (IT) A Whole Sea of Contradictions

Photography

www.b-n.it

Barbara Nati selected this piece from a body of work called *Cages of Tranquillity*, where humans deprive themselves of the beautiful nature surrounding them for fear of the unknown. Nati's work focuses on social and environmental issues, with a distinctive stylistic approach that combines history, visual art and advertising in a new artistic formula. Art fulfills its goal by becoming a playful tool, speaking in a versatile and universal alphabet. Every setting invites the viewer to look again at the things we

take for granted, while diminishing the naïve trust we have in things which we assume to be real—but which might not be.

The messages concentrate on the idea of "inversion"—the possibility of offering the spectator the opposite point of view from the expected or predicted one. In her attempt to analyse the chaos reigning underneath the surface of reality, Nati combines visual landscapes that blur fantasy and reality.



By painting sperm whales Barnabas Jacob Herrmann intends to trigger new perspectives for human beings to understand the world and our place in it. Like the whale, we too are part of the evolution of nature and the natural world, yet we have created a higher status for ourselves and all too often abuse our power. Throughout history the whale has been a strong cultural symbol; from ancient mythology through to industrial whaling and now as an emblem for ocean conservation.

Herrmann muses that the discovery of whale intelligence and communication draws parallels to that of humans yet is something we cannot fully comprehend, therefore making the whale the perfect emblem for the mysteries of the deep sea and a figurehead for the respect of marine life. Here Herrmann draws on the whale to represent the rich multitude of species under threat from human pollution, and appeals to us to change our perspective.

BARNABAS JACOB HERMANN (DE)

Sperm Whale

Painting

www.barnabas-herrmann.jimdo.com

BASURAMA (ES)

Zaborra Putzu

Inflatable playground

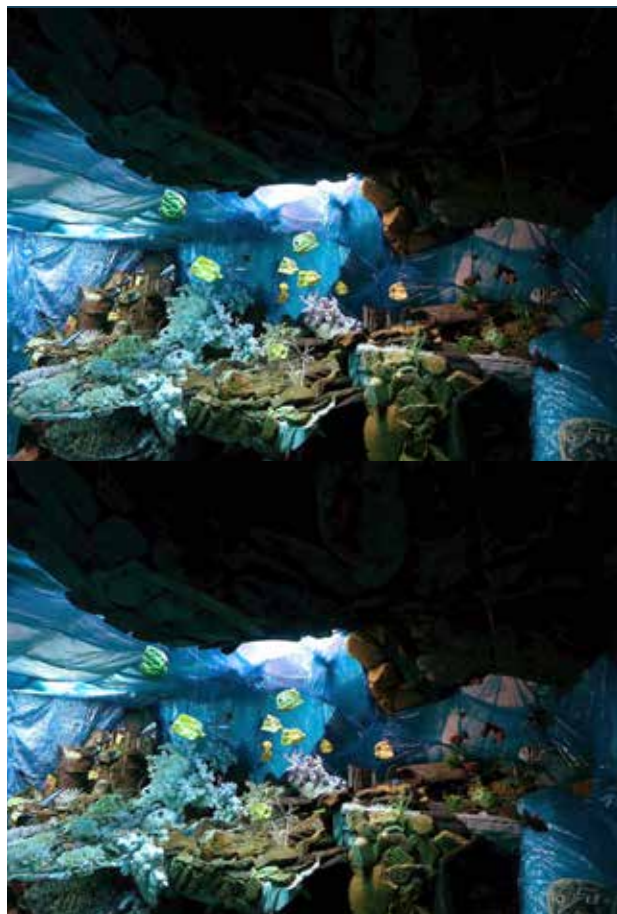
www.basurama.org/zaborrapuztu

Zaborra Putzu, literally translated as “inflate your waste” from Basque, is a playground structure made with local plastic waste. Created in collaboration with workshop participants during KALEKA International Street Theatre Festival in Lekeitio, 2016, it is the last of the series of Basurama projects that use waste plastic to generate inflatable spaces. Two icons of the consumer

society, the supermarket plastic bag and plastic packaging, are treated as raw materials to build an air-based network of structures powered by domestic fans.

Basurama proposes that the inflatables produced will be offered to festivals or other related gatherings to establish new experimental lines of collaboration, and cross-pollination of ideas.





Sea of Tomorrow is an artistic-environmental exhibition with an educational vocation. Using nearly 10m³ of waste collected from the sea, Beatrice Neirinckx has recreated an underwater world. Visitors enter a landscape including coral reefs, a cave, seagrass, and seabed complete with sea creatures all made from plastic waste; bottles, bags, rubber gloves, flip-flops, polystyrene, and other debris. Serene and beautiful at first, the visitor ends up immersed in a vortex of waste similar to those discovered in the middle of the oceans. *Sea of Tomorrow* recreates the photographs taken by Thierry Peres, freediving photographer, with Neirinckx offering her own plastic world that visitors can experience first hand.

BEATRICE NEIRINCKX (RE) Sea of Tomorrow: Pure or Plastic?

Installation

www.bea-riviere.wixsite.com/mer-de-demain

BEN DUAX (UK)

The Days of This Society Is Numbered

Performance, communal meal

www.benduax.com

In 2015 the Ben Duax re-staged artist Rikrit Tiravanija's utopian project of cooking for gallery guests. In Tiravanija's action he prepares and serves the food inside the gallery space, holding the entire event as an artwork. However, Ben Duax's version had a twist: he used fish harvested from New York's East River, one of the most polluted bodies of water in America.

For this project, Duax aims to prepare a meal for gallery guests, but with fish harvested from polluted water in Poland. Facts about water pollution can be easy to ignore in everyday life, yet here his audience is confronted with them through the communal act of a shared meal and in the contemplative space of a gallery.



BERNHARD COCIANCIG (AT)

Microplastic

Installation, website

www.keicie.com


The work is a graphic installation depicting the origin of micro-plastic in global water bodies. Plastic waste is ground down by wave motion, milled into fine particles, and ends up in huge whirls of garbage. Marine life swallows it and consequently it arrives in the human food chain. Microplastic attracts and concentrates poisonous substances such as insecticides (DDT), carcinogenic

plasticizers (PCB) and other hazardous chemicals. Cociancig's work, especially positioned in front of a fountain full of plastic bottles, tells a narrative that aims to educate and instigate action. A purpose-built website (micro-plastic.keicie.com) dedicated to the microplastic issue accompanies the work and is available in eight languages.




Environmental communicator Bette Booth was devastated on her recent Caribbean vacation when she saw the amount of plastic in the ocean and on the beaches. She began making art out of the trash to raise awareness and found that, all around the world, people were doing the same.

The International SplashTrash ArtExpo is one of the first global platforms that honours, shares and promotes the art and activism of these unsung ocean heroes. In six months, over 160 artists from 38 countries have entered and more join every day. Entries range from ages seven to seventy, from whimsical creations made on the beach to larger-than-life installations, created by both professional artists and people new to art, yet they all share a common passion—fighting plastic pollution in our waterways and inspiring people to reduce their plastic footprint.



More than
160 artists
from 38
countries
and more entering
every day.



HARNESSING THE POWER OF
ART TO SAVE OUR OCEANS

BETTE BOOTH (US)

Harnessing the Power of Art to Save Our Oceans

Global platform and art expo

www.splashtrash.org



BHAVANI GS (IN) Embedded Water

Video, 2.54 mins

www.bhavanigs.com

In the name of urbanisation hundreds of lakes in Bangalore, India have dried up. River Cauvery and her tributaries are the life veins of south Karnataka and Tamilnadu state, but how long they are going to flow is uncertain. Bhavani GS's video work reveals how we consume water in our daily lives in more ways than we realise. Food, drinks, clothing,

cars and homes, and even electricity use embedded water in their production. A sheet of A4 paper needs 10 litres of water; a cotton t-shirt uses 4000 liters of embedded water; 1 litre of Coca Cola contains seven liters of embedded water. Moreover, the plastic bottle ends up in a landfill, or else gets recycled, using even more water.

Bianca Hlywa describes herself as playing an observational role in this artwork. She explores global warming in relation to the human species, questioning what the state of our world tells us about ourselves. She applies the Freudian theory that we all possess an innate drive towards death and self-destruction as a framework for understanding our culture, proposing that the human tendency toward mass consumerism and the resulting destruction of our environment and health, such as global warming and water shortage, are direct examples of this drive.

Hlywa believes that the consumptive lifestyles we choose make it obvious that we have an innate desire for destruction; that we are driven to be absorbed back into the earth through death, or drawn toward the void left behind after our planet's destruction. Her installation symbolises this ominous pull via a dark smoggy room filled with the call of a siren whose voice moves up and down with the waves of the ocean, caught in some beautiful, awful technoloop. A projection on the wall shows a close up image of a moving tide, while on the other side of the room a white robe is weighed down by two blocks of butter in the pockets. The butter is melting, and so is the invisible figure wearing the robe: a symbolic statement of our innate desire to return to death through over-consumption.



BIANCA HLYWA (CA)

Sirens and Tide

Video, performance

www.biancahlywa.com

BIANKA KATALIN NAGY (HU)

The Future

Sculpture made from collected waste

Bianka Katalin Nagy's sculpture is a wooden cage wrapped in plastic sheets to suggest an aquarium. Inside are sea animals made from recycled materials like plastic and metal cans, gathered over two months with the help of friends, classmates, and teachers. The piece was originally made in January 2018 responding to the theme "past, present, future," and Nagy still adds and takes away from it from time to time. Her plastic creatures stand in for the reality that we are slowly replacing our wildlife with plastic waste.





Bill Sander's collage presents a boy standing on a plastic trash island surrounded by ocean. He is marooned on a floating battleground of weapons against nature; plastic "bullets" lay at his feet in every direction. The ocean itself is crumpled paper; a trash seascape. The text is the artist's pledge that he invites viewers to join. It is a commitment to peace between humanity, and between us and our environment.

BILL SANDER (US) My World Pledge

Photo collage

www.behance.net/billsander

BRYDEE ROOD (NZ)

May the Winds Not Carry Us Out to Sea

Collective sculpture, co-creation and performance

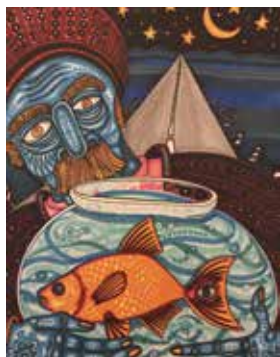
www.circuit.org.nz

May the Winds Not Carry Us Out to Sea is a large-scale windsock sculpture, that has been collaboratively workshopped with festival visitors. The sculpture takes the idea of wind as a symbolic vehicle of the elements.

The artwork is an expression of the collaboration between human hands, plastic waste, and the sea. This work physically and socially connects the dialogue about the impact of plastic pollution in the ocean with the act of flailing precariously and urgently towards a solution. It centers the need for preserving the Earth's vital oceans and critically engages with mankind's relationship to climate change and alarmingly polluted ocean habitats.

May the Winds Not Carry Us Out to Sea is created through collective actions, using reused collaged sections from assorted single-use plastic trash bags including yellow biohazard waste bags, Californian orange jumbo sacks, titanium glutton sized trash bags from the USA, common blue Berlin garbage bags, pink Auckland Metrowaste bags, pink charity collection sacks, green Wellington council rubbish bags and more. The various bags come from the artist's personal collection and will be broken down and recycled properly after the project concludes.





AZARAKHSH FARAHANI (IR)
Untitled

Illustration

BARNIE EMMA (UK)
A Different Kettle of Fish

Illustration

www.barnie.xyz



CARL ALEXANDER (NL)
Cataclysm

Photo collage

www.carl-alexander.nl

CLAIRE WILLBERG (UK)
Shelf 10

Painting

www.clairewillberg.com





CALDER KAMIN (US)

Consumption

Crochet with plastic bags

www.calderkamin.com

Mass consumption of natural resources by humanity and the consumption of plastic waste by sea life make a deadly combination. Calder Kamin's materials and imagery remind us that consumer choices have a profound impact on the environment. *Consumption* is a series of large crocheted plastic bag tapestries

depicting whales, ocean waves and nets. Nature's ability to endlessly reuse and adapt, inspires Kamin's reimagining of post-consumer plastic as art. Equipped with a crochet needle, and the help of his extended community, this ongoing series diverts hundreds of plastic bags from our oceans.

CARO KREBIETKE (DE)

I Found You

Video documentation of a performance

www.carokrebiecke.com

January 10th, 1972. The cargo vessel "Elviscott"—499 tons and 65 meters length—is on her way from Naples to Marseille. During a heavy winter storm she hits the Oglieria cliffs near Elba, Italy, and sinks. Now, so many years later, the huge wreck has become a paradise for marine life. A great diversity of plants covers the entire hull and swarms of small fish drift around. The video captures a floating text, a poetic call to the spirit of the broken ship. A memory of a different existence a long time ago.

*I formed you and found
rightness in your light,
until your pain alarmed me:
you are alive.
Rain tumbled onto my hands,
wind rocked my body.
You are other.*

Poem by Triin Soomets, Estonia



CHRISS AGHANA NWOBU (NG)

Poisoned Earth

Performance, short documentary video, photography

www.chrissnwoibu.com

Poisoned Earth is a three-part art project that integrates performance art, a short documentary video, and still photography. Through enquiry, it seeks to understand the reasons behind our destructive attitudes toward our environment. The inspiration for this project resulted from Chriss Aghana Nwobu's collaboration with another artist in a project titled *Rite of Becoming*. It was a water ritual performance—inspired by Afrobeat legend Fela Kuti's song *Water No Get Enemy*—to cleanse us of our impurities and help us learn new ways of living by caring for each other and our environment.

Poisoned Earth is an intervention through public participatory art performance which questions the fundamental causes of pollution. It explores the impacts of our growing consumerism driven by global capitalism but is also a catalyst for action through a short documentary video and still photography. The work asks us to rethink the future and the symbiotic relationship between humans and the environment. It implores us to cut our waste production and to encourage alternative living as a way of saving the environment. For the artist, water in its purest form is one of the greatest gifts of nature to all.





CHRISTINE SIMPSON (IE)

Plastic

Digital photo collage

www.christinesimpsonphotoart.com

Plastic pollution affects humans, wildlife, and habitat, impacting nearly 700 species in the ocean. According to the organisation Ocean Conservancy, plastic has been found in over 60% of seabirds and 100% of sea turtle species. Even biodegradable plastic breaks down

into 1000's of micro-particles that are ingested by fish and other sea creatures. Christine Simpson's vivid and emotive digitally manipulated photograph presents an ocean dominated by plastic. Plastic waves crash on the rocks in a dark vision of the future.

CHRISTOPH BOTH-ASMUS (DE)

Cave at the End of the World

Community action and habitation project

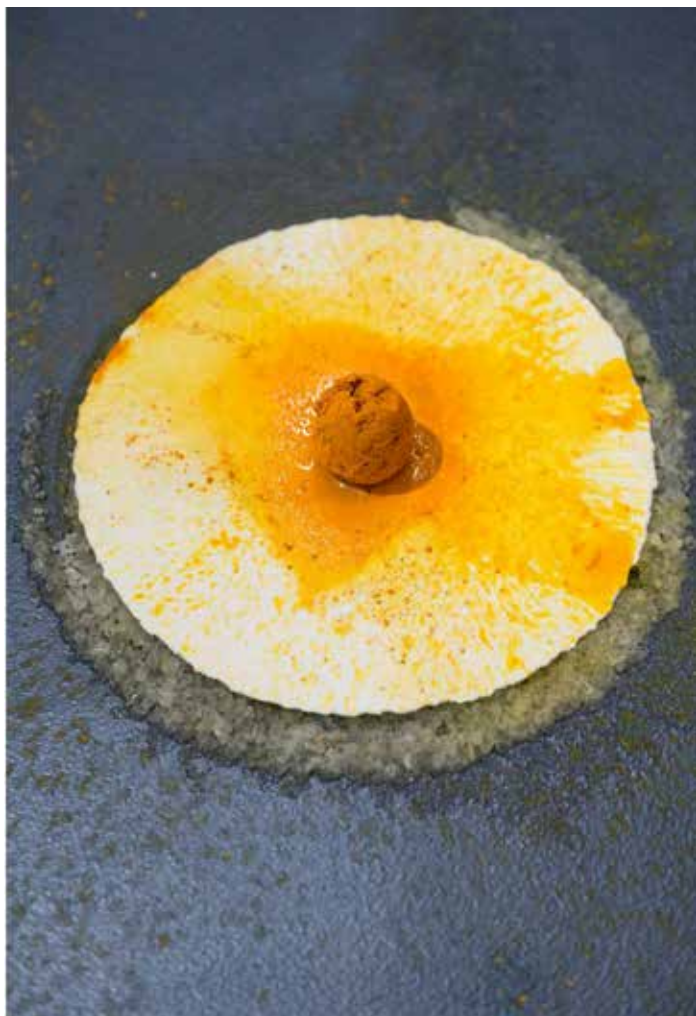
www.christophbothasmus.de

This multifaceted ongoing work is what Christoph Both-Asmus calls a "life is art" project. The artist chose to live in a cave in the Anaga Biosphere Reserve on Tenerife, Canary Islands, with the aim of learning how to live more sustainably and in harmony with nature. The obvious struggles of this created questions and conversations around how we as a society can change our consumption.

People from diverse backgrounds such as artists, scientists, activists, urban gardeners, architects, and teachers exchanged perspectives and ideas. Future stages of the project will include an online platform for documentation and exchange, as well as a summer school open to guests.



Claire Krouzecky proposes to re-create her artwork every time it is exhibited in a new country, drawing from the specific endangered bird species relevant to the location. The physical characteristics of each of these birds, as well as their known surviving populations, determines the sizes of the glass balloons and the hues of pigment chosen for each iteration. Water, that drips from the glass balloon onto the pigment below, is also collected from the local area. The residual marks left from each painting process will travel with the work to the subsequent location, in effect accumulating a series of "stains" representing each of the birds, honouring their noble and tragic fates. This travelling project opens up a conversation about our human impact on individual endangered species, the finitude of natural resources, and the precarious balance of the environment which we humans are responsible for.



CLAIRE KROUZECKY (AU) Bad Luck at Sea

Installation

www.clairekrouzecky.com



CLAUDIA BORGNA (IT)

SEA Agitators

Participatory performance

www.youtube.com/watch?v=pacVIQILAaY&t=180s

"SEA" stands for both 'Socially Engaged Art' and for the sea. As a participatory performance work, the audience is tied to the artist with ropes. The artist begins to throw all sorts of rubbish and junk food against a wall where a video of the sea is projected. Forced to be an accomplice, the audience is presented with the choice and the responsibility to prevent the simulated pollution of the sea. The push and pull from all sides engages and confronts the audience and the performance becomes a strenuous struggle of resistance. Bodies are

activated into action by seeing, smelling, listening, touching, moving, perspiring, breathing and screaming.

As the agitation builds, the sensory overload and the chaos of objects, textures and colours transforms the space into a kind of sensorial abstract painting; composed by the marks from the artist's and participants' struggle. After the struggle is over the participants must clean up the aftermath, as a further confrontation with humility and responsibility.

CLAUDIA LIVIA (DE)

Emotional Resonance

Installation

www.claudia-livia.com

Empathy for nature is crucial in life, as well as in art. Claudia Livia asks, How can art aim to generate empathy? *Emotional Resonance* attempts to answer this question by exploring the phenomenon that creates an invisible bond between emotions, people, and experiences.

The heartbeat is a linear and independent response to our emotions. In her work, Livia translates the heartbeat of the audience into water droplets that trigger small radiating waves of motion

captured by light and shadow through large glass bowls. Acting like lenses, delicate and rhythmic light refractions dance on the surface below the hanging installation.

This visualisation transforms a heartbeat into a shared emotional experience that ties us to the rhythm of nature and proposes our shared fragility. Just as water and light are essential for life, so too is emotion. We rely on our heartbeat, just as we rely on water, and the world's water now relies on us.





In her practice Claudia Schmitz works with video, in particular, projecting onto water. A troubling coincidental fact is that the more polluted the water, the clearer the projected image.

In *Trans-Waste* she collaborates with voluntary participants from the public to collect plastic waste, from a designated coastline to use as a sculptural material. During these public workshops, the artist and the participants transform the salvaged waste into wind-activated sculptures. These sculptures then act as silver screens upon which Schmitz projects her public video interventions.

CLAUDIA SCHMITZ (DE)

Trans-Waste

Video installation

www.cces-claudiaschmitz.de

COD STEAKS (UK)

The Bristol Whales

Sculpture, public installation

www.codsteaks.com

Cod Steaks were commissioned to create an artwork of national significance to celebrate Bristol being named the European Green Capital in 2015. Their gigantic and dynamic sculptural installation depicts two whales, diving into and breaching a "sea" of plastic bottles, and drew worldwide media attention to the environmental impact that our oceans face from plastic pollution. The internal steel structure of the whales supports a skin of locally harvested organic willow, and feature a

working blowhole. The bottles and lids used to create the sea were collected from the Bristol 10km race and the Bath Half Marathon, which have since been recycled, and the two whales now reside in a nature reserve along the main thoroughfare into Bristol. The stunning sculptures continue to delight visitors and passers-by well beyond their intended three month commission; a success both as a thought-provoking statement and artworks in their own right.



COLLEEN FLANIGAN (US)

VR Coral Reef

Virtual reality video

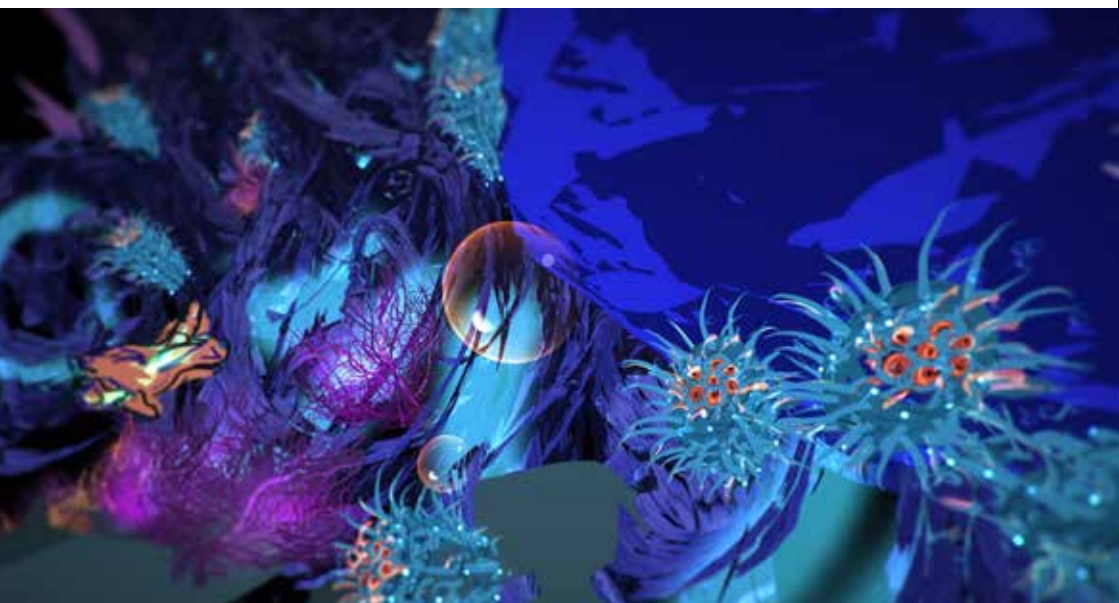
www.colleenflanigan.com

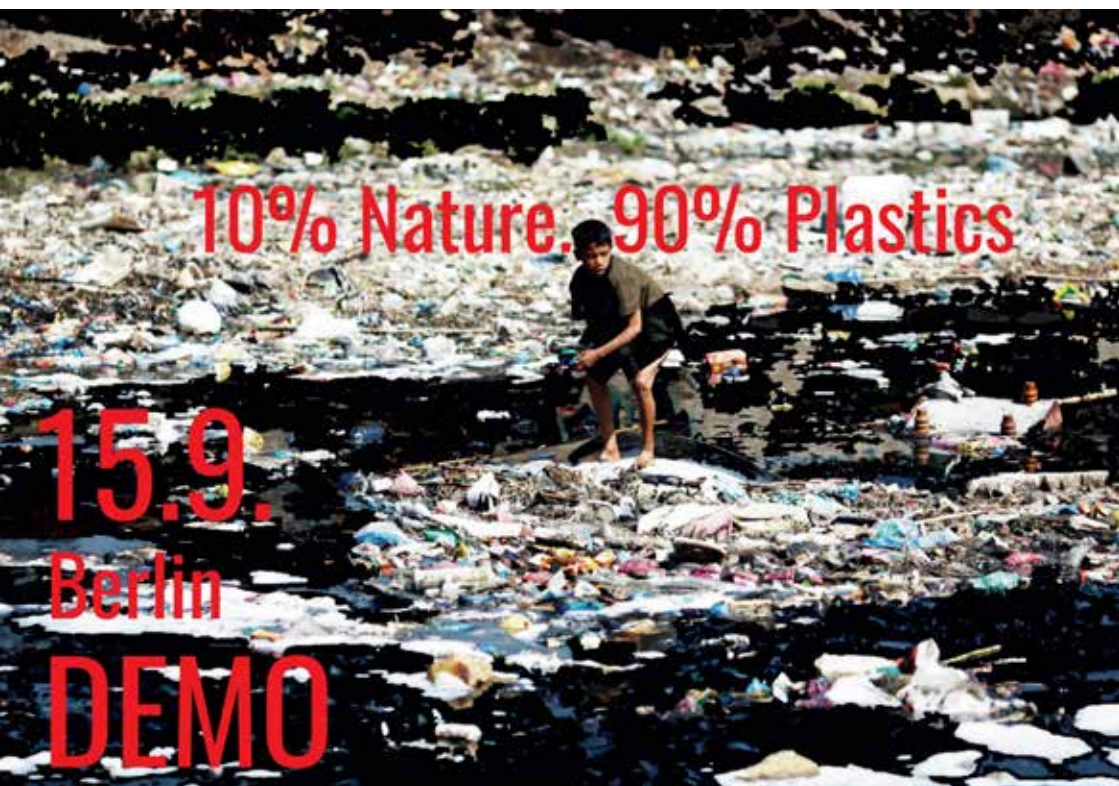
This digital image is taken from within a fantastical VR coral reef ecosystem Colleen Flanigan created for the International Year of the Reef, 2018. She aims to create a 360° immersive experience for participants to discover the wonders of the vibrant ocean environment.

When Flanigan was Artist-in-Residence with Google's Tilt Brush in August 2016, she discovered both how easy and extensive the technology is and how immersive and engaging it can be for sharing a message.

"Rather than avoiding the real world, as some people say, it is another extension of creativity, catharsis, and true connection with myself, and another means to highlight what matters,"

- Colleen Flanigan.





CONSTANTIN BÖHM (DE) Demonstration: BE(rlin) Against Plastic!

Public demonstration with artistic interventions

Constantin Böhm is fed up with people still walking around with PET bottles and plastic wrapped organic bananas from our supermarkets in 2018. So he mobilised the people of Berlin with a public intervention. On 'World Cleanup Day,' September 15th, 2018, Berliners joined together on the streets and marched to raise awareness about

plastic pollution. The demonstration also served as a foundation for artistic performance.

In cooperation with different artists, activists, DJs and dancers this combined public action aimed to reach the people of Berlin in unexpected and stimulating ways.

CONSTANZE FLAMME (DE)

Floating Plastics

Photograph

www.constanzeflamme.de

This photograph, taken from part of a documentary, shows the carpets of floating plastic appearing on the beaches of a much-loved coastal nature reserve for sea turtles in the south of Lebanon. It shows the reality of the condition of the entire coast, where going for a short swim can reveal the alarming amount of floating plastics in the water.

Constanze Flamme recognises that photography might be limited in its ability to enact change in a direct sense, but she firmly believes in its ability to raise awareness and encourage people

to contemplate making changes. When we see environmental art we are forced to ask ourselves, Do I resonate with this topic? How is my own consumption part of this issue? To what extent can I actively contribute to a change toward greener social attitudes?

Of course, just acknowledging the situation does not create change, but the first step to changing behavioural patterns is the moment where we finally see the truth. Flamme believes the artist's role in society is to contribute to education and empowerment.





CORINNA ROSTECK (DE)

Bitter Water

Photograph

www.corinna-rosteck.de

Water is the basis of human existence. Water fundamentally connects the realities of life on every continent in multiple ways. The artwork of Corinna Rosteck shows how artistic and social issues are becoming ever more explosive.

Rosteck focuses on the power of water as inspiration for her photography series, lighting objects and video installations. Presented in the context of the liquid and intended to open a political discourse, the painting-like photographs show the light and dark sides of our relationship with water. The statement of the work contrasts with the beautiful aesthetic experienced by the viewer.

Rosteck is a freelance artist in the field of photography, video and installation. After scholarships in London, Paris, New York and Japan, she lives and works in Berlin, still teaching and lecturing in New York, Dresden, Frankfurt and Berlin. Her works are shown in numerous exhibitions at home and abroad. Since 2001 Rosteck has also designed public spaces with well-known companies from the water industry, energy and medical technology, such as B.Braun AG, Vattenfall AG, Airbus AG, Berliner Wasserbetriebe, and many others. She is a member of the German Society for Photography, Cologne, DGPH, as well as the Professional Association of Visual Artists, BBK and the German Artists' Association.

COSMOGRAFIK (FR)

Plastic Looter

Sculpture

www.cosmografik.fr



Cosmografik imagines a near future where plastic will become a precious material that looters scavenge and sell. This *Plastic Looter* has been almost entirely created with plastic waste found in nature. Through this character and what it represents, Cosmografik hopes to raise awareness about plastic pollution and communicate how waste materials can become valuable.

CV PETERSON (US)

Fabrication Purification

Installation, performance

www.instagram.com/cv_peterson

CV Peterson's installation and performance art piece centres around Chemist Dr. Sherri Mason's current research on the level of plastic in sea salt. This multifaceted performance carries out a series of movements that react to and manipulate plastic and salt with themes of purification, cleansing, ritual, and pollution. Though whimsical and playful, her work brings the environmental ramifications of our actions to the fore.

Public interaction is an important part of Peterson's practice. Prior to the main performance, tea is served, and the resulting trash integrated into the performance. She evokes poetic gestures by raking and pouring sea salt into symbolised representations of words to

"spell" out phrases. This purifying ritual works as a commentary on humanity's active contribution to a plastic-based ecosystem. Salt has been a symbol of purification, preservation, and wealth for centuries. But now, with the high concentration of plastic in the oceans that contaminates the salt, the artist questions these traditional associations.

Peterson performs within a woven plastic installation that has salt crystals growing upon it. Imagine crocheted plastic bags that create a waterfall type effect, suspended from the ceiling and cascading down. Through the fusing of natural and artificial materials, this installation emphasises humanity's real legacy.





DANIEL STRICKLAND (BR)

The Altar of Intentions

Installation

www.danielstrickland.co

As a sacred space *The Altar of Intentions* evinces the themes of both primal connection and the evolution of human awareness.

Water is the most common element on planet earth. For the last 20 million years it has bound all living things. Researcher Masuru Emoto coined the term 'Hado' to describe a unique elemental phenomenon defined as, "The intrinsic vibration pattern at the atomic level in all matter, the smallest unit of energy. Its basis is the energy of human consciousness." Experiments conducted at labs around the world have shown that water receives input such as magnetic fields, light, or even the energy transmitted by our thoughts, and then

makes molecular imprints of these inputs. In other words, water perceives and reacts to activities and emotions that occur in its vicinity. According to studies conducted by Emoto, human emotions are one of the most powerful forces to influence molecular water clusters.

With this in mind, *The Altar of Intentions* invites you to experience water as a living divine element, an embodiment of how all things are connected. The water vortex within this installation captures the fundamental cyclical pattern of every force within nature, and in itself creates a powerful energy field. By meditating on or directing one's energy toward the water spiral, we have the power to change the structure of the water cluster.

During a run along the coast one evening in September last year, Daniel Webb came across vast amounts of plastic waste that had been swept in by the waves. It got the artist thinking, How much plastic is in the sea? Is any of it mine? Do I recycle enough? How much rubbish could one person living alone actually produce?

This instigated a project where the artist collected all of the plastic waste he produced for 12 months. He estimates to collect around 22 bin bags, filled to the brim, with this simple ambition and the clearly measurable results forming the basis of a new project exploring our individual contribution to plastic pollution. Each collected piece has a single fleeting function, yet an almost eternal existence. The results so far are as tragic as they are shocking.



The centrepiece of the project will take the form of a large sculpture laid across the floor, as if disposed of right there, a year's worth of all his salvaged plastic waste. Viewers will be surrounded by tens of thousands of familiar pieces of everyday rubbish. Through sheer volume, the immersive sculpture will starkly illustrate one person's impact on plastic pollution in a tangible, visual and visceral manner. The final sculpture is over 15m in length and 4m wide.

DANIEL WEBB (UK)

Everyday Plastic

Installation

www.danielwebb.me

DARIA WARTALSKA (PL) & REINER MARIA MATYSIK (DE) The Sea in the City

Installation

www.tohuandbohu.com

www.reinermatysik.de



This artist duo reimagines public space as a site for the sea to tell its story. Urban fountains are transformed into moving garbage, where trash flows like water. The personified sea becomes an artist and reveals itself to the audience under the cover of the famous sculptures of urban fountains.

"We are a lifelong art and design duo. For the first time, we are performing a joint project because we have both been involved in work about sustainability and ecology for years. We both try to deepen ecological awareness through our work."

- Wartalska and Matysik





DEEP FEMME FUTURES (DE)

Ogygia

Performance

www.ello.co/deepfemmefutures

Ogygia is a space intended to be dynamically utilised for live performative actions and events building upon the works of Heather Davis and Roland Barthes, and other theorists who are also merging the worlds of queer theory and plastic. It is intended to transfer these thinkers' theories toward artistic representations, inspired by conditions of non-reproduction, toxicity, and extinction. It inspires the audience to believe in the capacity of thought as a force for change.

The artwork is representative of a queer future where one can develop relationships to a new earth, while the one we are currently inhabiting acts as an aesthetically charged space

designed to shift perspectives towards a collectivity that decentralises the human. The aesthetics and actions inside of Ogygia speak to more than simply pollution, but also to non-reproductivity, infertility, absence, internal geologic landscapes, deep time, the effects of colonisation, human-animal intelligence, currents of water, and the endless unfolding and collapse of life on Earth.

Embracing difference and exposure to others, Ogygia acts as a catalyst for change through ideas in action, representative thinking and empathy. Ogygia is a siren song intended to shift the way we perceive community while re-establishing trust in the fundamental metabolism of the Earth.



Plásticos Multicolorus is an installation presented as a natural history museum exhibit. Its different components are a bird—named the *Plásticos Multicolorus*—a globe showing the location of the plastic sea, and a mock press release describing the discovery of the *Plásticos Multicolorus*. The seventh continent is rendered on the globe with glued plastic bags, giving us an estimate of the surface of this new plastic land.



Made from plastic trash, the work pinpoints issues of consumption, waste and recycling, and also reflects on the fate of animals such as birds. If nothing is done to stop the plastic pollution epidemic, we will have only plastic birds in the future.

DENISE FRECHET (CA) Plásticos Multicolorus

Installation, sculpture

www.denise-frechet.com

DIANE LANDRY (CA) Knight of Infinite Resignation

Installation

www.dianelandry.com

The artist's inventiveness is seen in the transfiguration of these everyday plastic objects into sculptural elements. Since she began her investigations of movement, Diane Landry has often called on elementary machines—wheel, screw, pulley, lever, and inclined plane.

"This intricate web of turning lights and darks operates cyclically, as does the iron installation. Lights appear and disappear with the rotation of the wheels, and the number of the wheels—twelve—references both the hours of the clock and the months of the year. Sand pours down the bottles as though they were hourglasses. Landry has called attention to the threat to our most precious resource: clean water, which is

conspicuously absent from the bottles here. Filled with sand, the bottles are dried up, sterile. In Quebec water is intimately linked to the question of energy, and thus the perpetual motion problem and fantasy. There are 237 bottles here, the liquid contents of which would apparently fill a bath—no more. The short-sightedness of human management of natural resources is made pitifully obvious by the work's evocation of cosmic time, in comparison with which the human lifespan and even the existence of the species seem simply irrelevant. And there is something terrifying about this assemblage, which is so cold and serene, so unperturbed by the viewer's presence."

- Alison Syme



DIANE WATSON (UK)

Case A Drop in the Ocean

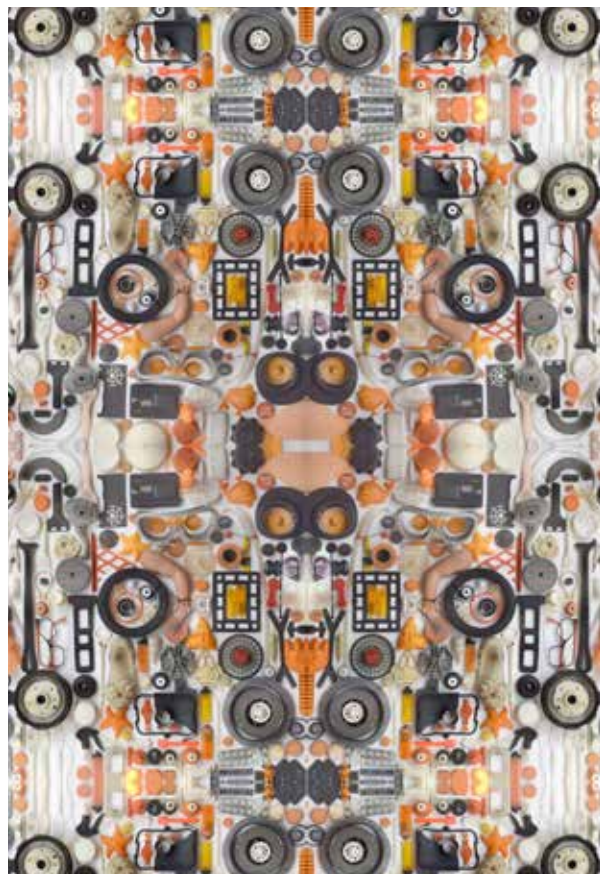
Installation, community engagement

www.diane-watson.com

A Drop in the Ocean explores the issue of ocean pollution by representing just a fraction of the plastic waste which ends up in the oceans every year. This 10m image visualises one tonne of plastic by repeating a single image of 5kg of plastic waste, 200 times.

The work comprises images of disposable plastic collected from coastal areas. Some of these are familiar such as bottle tops, broken spades, chip forks, cigarette lighters, beach toys and tampon applicators. Others are more unusual—industrial waste, marine pumps, even cassette tapes from the 1980s. The plastics are cleaned, collated and organised into themes—colour, size, frequency or shape, before

being photographed. The photographs are then manipulated to create a striking, visually complex artwork, which demands closer inspection.



Watson's work highlights the disposability of modern plastic products and how people are oblivious to the long-term impact of discarding an object. It challenges the viewer to inspect these objects in an unfamiliar context and re-evaluate their relationship with single-use plastics. Look again and consider not just the manufacturing cost but also the cost to the environment.



CHERYLE GANNAWAY (US) Reflection

Painting

www.cheryle-gannaway.pixels.com



CHRISTINE GAJIN (CY) H2O Plastic See

Painting

www.christinegajin.crevado.com



COS CHAPMAN (UK) Splash!

Installation

www.coschapman.com



EDDY DREADNOUGHT (UK) Waterbottle Glacier

Installation

www.eddydreadnought.tumblr.com



EHSAN DOROUDIAN (IR) Our Sea

Photograph

COLLECTION-CONDENSATION- EVAPORATION-PRECIPITATION

COLLECTION

*we are taking a walk now
to the closest body of water
naturally, intentionally or
accidentally formed
we go to practice the processes
by which saliva turns to sea
we press our teeth together
inviting spit
to offer to this body*

*we feel several distinct impulses to accelerate
the processes by which saliva turns to sea
by way of a kiss
especially
when we allow for non words to happen we want to
be a body by way of a kiss but are held back
because we are conditioned to be
leak free; we make a weak joke
with "leek" and "leak" we think
"cliffs are there to be licked the sea is there to protect" we want to
protect one another*

CONDENSATION

*we look into each others face now
and it turns into a well
welcomes us in we let
ourselves fall
into an ocean truly and actually flowing
at the bottom of our bellies
who would've known
theres so much space*

*in our oozing bodies it is familiar
and we allow the sea to wash us
free of hard tissue and tears
with an in-breath we let the water penetrate
every orifice with an out-breath
let it trickle down our throats
coating our inner thighs and twigs
from nearby thoughts
get caught in our solar plexus region and it tickles
"whats so funny"
"nothing"*

EVAPORATION

we have never done it before
not in this exact constellation
we walk each other home
20 meters before our entrance door we listen to the present state
of our neighbourhood
the sky ocean sky in the
liquid horizon of air is salivating
tender droplets of sea

rain onto us we lose our edges
transform into something smooth, soft

perhaps so smooth that a new
moment or edge takes form
like calcified cliffs or seashells: seething secretion
of carbonates and kisses

PRECIPITATION

we did not anticipate that
seashells can move love like this
but we are doing nothing that comes
as a surprise to the sky ocean sky
there is no position that
the stars haven't already
tried

- Amanda Hohenberg (DE)

www.prawnstarpoems.com



EDE SINKOVICS

The Dirth of Venus

Mosaic, 107 x 160cm

www.saatchionline.com/EdE

It's a bit like looking at the Earth from a distance—everything looks fine and beautiful until we zoom in and see all the wounds and damage we make. With *The Dirth of Venus*, 2018, EdE Sinkovics is hoping to positively provoke viewers and "liberate the trash from prejudice" by making something meaningful out of garbage through art. This particular work is made with plastic 80% recovered from the ocean.

Sinkovics first started to work with waste in high school and sought to build and create new projects with unconventional materials. After attending the Hungarian Academy of Fine Arts, he began to seriously think about recycled art and started incorporating sustainability into his work. TerraCycle CEO Tom Szaky, also a native Hungarian, connected with Sinkovics through a mutual interest in art several years ago, and the two continue to work together.

EDUARDO ROMAGUERA (ES) & IRENE CARRASCO ABAD (ES)

Sea

Installation, public activity

www.creativeirenecabad.wordpress.com

Eduardo Romaguera and Irene Carrasco Abad approach this project with a common interest in the sea and social citizen engagement. The duo has a playful artistic approach. Irene is a designer with conceptual perspective, Eduardo is an artist, and the technical developer of the artwork.

"We decided to create the concept of Sea to show that the sea itself wishes to engage people so it can be free of plastics. Sea is the character of the artwork by itself, related to the individual collective (of humans in this case). You can be part of the solution. Are you in the game?"

- Romaguera





There are differing estimates of how much plastic waste has been produced in the last century. By one estimate, one billion tonnes of plastic have been discarded since the 1950s. Others estimate a cumulative human production of 8.3 billion tonnes of plastic of which 6.3 billion tonnes is waste, with a recycling rate of only 9%. Much of this material may persist for centuries or longer, given the demonstrated persistence of structurally similar natural materials such as amber.

This shirt is eternal. You won't have to buy another one...

EDURNE HERRAN (DE) Re-Use-Me

Photograph

www.pinkblood-globulosrosas.blogspot.com

EIFFEL WONG (DE)

Water Space: Magnification of a Transcendent Infinite World

Photograph

www.eiffeltecture.com

From abandoned plastic objects, photographs to multimedia shows, this body of works defines its own specific kind of aesthetic and style. Personal obsession with and observation of the underwater and the natural world lead to a specific concept of another world—Eiffel Wong's world. It attempts

to envisage what things might be like in the future, fantastic worlds and possible perspectives.

These images show the search for the unknown, tactile manifestations of invisible technologies, to liberate plastic, art, space and architecture.



EINATI SHTECKLER (IL)

Disaster

Installation, photography

Capturing her environmental installations with photography, Einat Shteckler creates powerful ecological visual statements. Her projects aim to remind us of our individual responsibility to limit our waste and pick up pieces of trash and, at the same time, raise awareness and stimulate discussion around the impact of our rampant consumption.

Inserting plastic bottles into unpolluted natural environments, *Disaster* confronts us with the contrast between a seemingly untouched nature and the very real

future of this same environment. Often using locations that inspire her and constitute a personal interest, this contrast reminds us of the future we are creating. Shteckler's serene and inviting photographic style breaks with the news images of water pollution that we are used to seeing, jarring her audience into personal reflection. Through her poignant subject matter and compositions, she activates our self-awareness and implores her spectators to see the impact of humanity's intrusion in the natural world.





Einati Shteckler's intricate collaged photographic series presents spiralled plastic forms as delicate patterns. Out of context the plastic creates beautiful decorative designs, though under this surface is the reality of our global plastic problem. Set against a jet black background, the plastic forms almost glow, like mysterious creatures from the deep sea. Shteckler reminds us that even deep sea organisms consume and are harmed by our plastic trash.

EINATI SHTECKLER (IL)

Organism

Photo collage



Elham Jahanfard's simple mixed media drawing works to remind us of the basic fact that the sea is the habitat of sea animals. Greed, consumption, and carelessness often override this fact and we treat the sea as our own endless resource as well as garbage dump. Just as Jahanfard's plastic fish devours the other fish, we too are taking over the ocean with plastic.

ELHAM JAHANFARD (IR) Replacing the Plastic Fish

Mixed media

ELLA SCHOFIELD LAKE (UK)

The Myth of the Mermaid: Greed VS Sacrifice

Sculpture

www.behance.net/ellvisuals

This imposing sculptural work takes the form of a mermaid's body, sprawled across the exhibition floor. Ella Schofield Lake's aim is to create a figure that is both beautiful and terrifying at the same time.

During the exhibition, audience members receive an account of the mermaid myth in a booklet and read it as they stand over the three meter long mermaid. Both the text and the sculpture give the audience a palpable insight into the future. It presents them with the fear and fantasy of the mythical sea creature and with some of the genuine implications we could encounter if we do not change our behaviour.



ELMAR HESS (DE)

War Years

Film still, c-print, 100 x 70 cm, 1996/2016

www.elmarhess.de



In Elmar Hess' surreal film *War Years*, private conflicts are seen to be the consequence of compulsory actions conditioned by technology and the system. The individual occurrences are placed on a par with a cascading fantasy of political-historical events. Hess' works include films and videos as well as multi-media installations consisting of thematically intertwining, staged spaces. These provide the installations a primary structure much like the dramatic sequences of a film. At the same time, the individual spaces address sub-issues formulated by the overarching theme.

Elmar Hess has participated in numerous group exhibitions including *Lost Paradise* (Kunstraum Wien), *German Open* (Kunstmuseum Wolfsburg), *Surfing Systems* (Kunstverein Kassel), *Man Son 1969 - The Horror of the Situation* (Hamburger Kunsthalle), and others. He was a recipient of the Deutscher Kunstfonds Bonn and the Deutsche Akademie Rom, Villa Massimo.

Water is polluted around the world and is a far cry from its original, pure quality. For their sculptural installation work, the artist trio substitute real water with artificially polluted agar-agar gel, emphasising how unnatural our waters are becoming. The fish are dead and dried, a clear symbol of our suffering and dying sea life. Plastic, as the final component, appears in the familiar form of trash.

To reinforce the idea of a water made of plastic, the artists serve the agar-agar fish food creation from sinks. Everything around and on top of the sinks is edible including the soap, the sponge, the toothpaste, the toothbrush, the gel, and the fish.

There are five sinks fastened to a wall. The artists fix a mirror above each sink emblazoned with the text of the 5R principles of zero waste: Refuse, Reduce, Reuse, Recycle and Rot. In this way, the viewer faces both the problem and the solution at the same time. At the food event, everything is edible. Therefore, visitors not only walk away having experienced an interesting expo of ideas, but they will also have collected tangible experiences by touching, smelling, and tasting the food displayed.



ENIKO HODOSY (HU), KATA MOLNÁR (HU) & ZSUZSI MATÓK (HU)

Fish

Installation

www.enikohodosy.com
www.behance.net/nedill

ENRICO BERNARDIS (IT)

Plastic Fountain

Installation

www.enricobernardis.com

Enrico Bernardis' project is designed to evidence the invisible pollution of microplastic. It is composed of a fountain installed in a public space. A vaporizer spills onto a collection of high quality tropical plastic plants that turn and direct the falling water into a continuous delicate dripping. A mesh is positioned under the plants, suspended from the ground; it is composed of a special synthetic fabric able to block microplastic fibres. The mesh slowly gathers the small amounts of plastic coming from the water, and the imperceptible decline of the plastic plants' surfaces.

Bernardis' choice of plastic plants address the irresponsible attitudes that transform a very durable matter (plastic) into kitsch, useless or disposable products. They also underline the beauty of the sculptural and functional natural forms as well as

the great imitative ability of human technologies. If the Ben-Gurion University has developed a bacteria genetically modified to feed off polyethene-terephthalate, we can perhaps optimistically imagine a future where plastic plants will be as degradable as natural ones.

The project will be realised with the collaboration of Stop!MicroWaste, a non-profit organisation in Berlin dedicated to informing people about smart use of plastic and to raise awareness about plastic-related environmental problems.





DEBORAH NEVILLE (UK)

No Sea - No Life

Installation

DIPANKAR ROY (IN)

Destroy the Nature

Painting



DOMENICO CV TALARICO (DE)

There Were Plenty Fish in Sea But Because of Radiation They're All Dead Now and I Will Stay Alone Forever

Painting

www.domenicocvtalarico.com

EDDY OCHIENG (KE)

Crystal Clear

Photograph

www.instagram.com/eddybeuer



ERIKA KAPRONCZAI (HU) & JÚLIA VÉGH (HU) Plastic Waste Labyrinth

Public installation

www.plasticwastelabyrinth.com

Plastic Waste Labyrinth is an interactive public art installation. This eco-art project created by Júlia Végh & Erika Kapronczai stood as a huge monument made of plastic waste cubes at a central public square in Budapest (Madách tér) September-October 2018.

Raising awareness of the plastic pollution tragedy through a direct and immersive experience, the artwork uses spatial language by creating a challenging pathway through this landscape of waste. The audience enter into the narrow corridors and experience the shock of being submerged in a vast amount of plastic waste. The completed installation was presented with sound design by Robertina Šebjanič: the sound of waves and seagulls providing an oceanic atmosphere that made the cause immediately clear to the viewer. This emotional connection to the natural environment served to ask viewers to consider their individual impact on the planet.





By developing the original labyrinth-shape concept the artists arrived at a more abstract pillar-system format, complementing the huge block form of the plastic waste cubes used. The cubes were huge, heavy and rustic, consisting of standard-compressed transparent plastic folia blocks rented from a Hungarian waste recycling company. At 2.2 meters high, each pillar consisted of 24 individual blocks with a combined weight of 20 tonnes.

Plastic Waste Labyrinth was born through the meeting and collaboration of painter (Júlia Végh) and film director (Erika Kapronczai); artists who both like to experiment with pushing the boundaries of their practice in order to acutely affect their audience. The directness of public art makes the contact between artwork and viewer tangible and alive, offering unexpected moments for communication and reflection. Végh and Kapronczai believe that this artistic approach is key to bringing this environmental issue to the forefront of the public mind, reaching those otherwise able to avoid meeting the consequences of their plastic consumption.

Erika Kapronczai and Júlia Végh were selected as The Universal Sea Artists-in-Residence. Read more about their project on 449.



ERNESTA DIRBANAUSKAITE (PL)

Thirsty

Performance

Ernesta Dirbanauskaite employs her body in a performance of physical endurance, constraint, deprivation and symbolic thirst. Bound in plastic "ropes," she tries but cannot drink the water in front of her.

Her bound body is suspended just out of reach of a glass of clean drinking water while a big clock looms over her, counting every second. As she hangs like this for hours, her own thirst and discomfort grows. In another variation, Dirbanauskaite's

plastic-bound body struggles to pick up a bottle of water placed on the ground. Her physical struggle and desperation to fulfill this basic bodily need becomes a representation of the limited access to clean water so many experience and how polluted the water right in front of us is becoming.

The audience is welcome to help her drink. It becomes a choice and an action by the viewer. We choose to forget that somebody is thirsty everyday. We need water and we are water, and not acting will continue the disruption of this balance.





ESKILD BECK (DK)

Selfie

Photograph

www.starflight.dk

Eskild Beck adapts the format of the “selfie” photograph to communicate an important and urgent message. Just how a selfie can capture a spontaneous moment in time, Beck captures the environmental crisis moment we live in through a spontaneous snap at their local dump. Upon seeing how much plastic waste was being discarded, the artist took a picture of it with their own

shadow cast over it, making it a kind of double-layered selfie, of the artist and of our plastic world.

With a touch of humour, a plastic bucket sits over Beck’s head. The message: get your head out of the bucket and take care of the planet, and hopefully this message can one day be as pervasive as selfies are.

EWA MARKIEWICZ (PL) Scheme to Survive Ages

Sculpture

www.instagram.com/ewa_z_pabianic



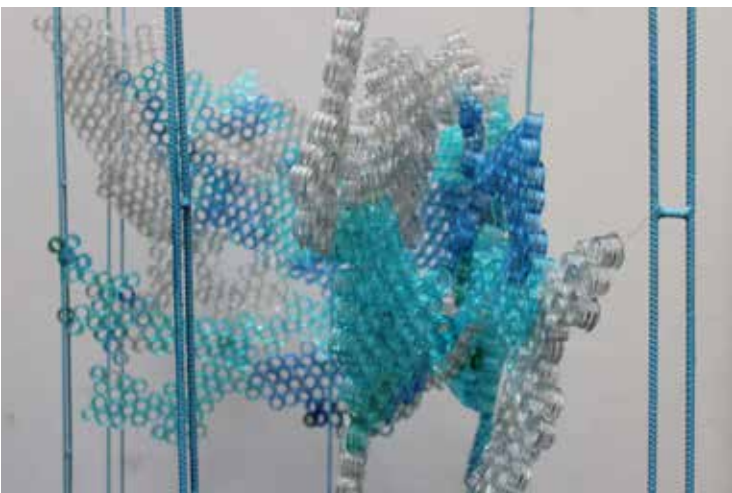
This dynamic and immersive sculptural series consists of four parts, each made with recycled plastic bottles. *Choleric*, which stands at three meters high, towers over its observer. Shaped like an upside down hook, the form is logically arranged, yet it gives the impression that it can topple over at any moment. *Phlegmatic* is an elongated, gently undulating surface with meticulously sorted shades of blue stretched within the structure's frame. Like a passive sea creature, it exudes a calmness and ability to adapt to every situation. *Sanguinic* is seven small independent sculptures of different sizes and colors, suspended from the ceiling. They invite you to play with them and make them gently sway. Lastly, there is *Melancholic*, a deep blue upside down pyramid with a sharp apex—a giant spike—cased within a rectangular frame.

For this project, Ewa Markiewicz was inspired by her

observations of children during summer trips, where she worked as a tutor. The groups were large in order to encourage better cooperation and she tried to identify their ways of expressing emotions and individual habits. The distinctions between *Choleric*, *Phlegmatic*, *Sanguine* and *Melancholic* are reminiscent of these observations. Markiewicz was aware of the limitations of any perceived pattern, yet she still found in her observations a brilliant tool for educational and then artistic work.

Scheme To Survive Ages consists of a system of contrasting parts that form a coherent spatial arrangement. She also wanted the material to accumulate and develop—like human character does. At the start of the project, Markiewicz had to consider what materials she would use. For ease and simplicity, an option was to buy identical cubes, balls, small industrial elements, all of which could be purchased in dizzying quantities

at low prices, yet the waste involved would be huge. It quickly became obvious that it would not require any particular new strategy in order to increase her amount of materials: she stopped throwing away the plastic she uses and instead collected it, processed it, and upcycled it.



Ewa Markiewicz was selected as a The Universal Sea Artist-in-Residence. Read more about her project and her experience on page 405.



ERIKA HAYES (DE)
What If

Painting

www.arterihay.de.to



ERIKA PETUNOVIENE (LT)
Plastic Invasion: Fighting the Sea

Painting

www.instagram.com/ayte_art



GIUSEPPE LA SPADA (IT)
Suffocating

Photograph

www.giuseppelaspada.com



GWENVAËL MOTTAS (FR)
La Vague (The Wave)

Short film

www.vimeo.com/search?q=gwenvael+mottas



HANNAH SOPHIE
DUNKELBERG (DE)
Forming Relict

Video

www.hannahsophiedunkelberg.com



FERNANDA BLOCK (DE) Message in a Bottle

Non-toxic printmaking

In this work, Fernanda Block represents, both in subject and technique, the need to take action and preserve the natural beauty of our seas. Block's technique reuses empty drink cartons as the matrix plate on which she engraves her images, here a mermaid trapped in a PET plastic bottle. Her non toxic printmaking practice, known as 'green

printmaking' sends a message to other artists, innovators, and the public about finding eco-alternatives to artmaking and everyday products and also about the power of art to be activism.

"Art has been changing the world for decades, now it's time for us to transform plastic pollution into powerful actions."

- Block



FATEMEH PISHVAEE (IR)
Bottle of Water

Painting

FRANCISCO PEREZ (CL)
Don't Use Plastic Trees

Sculpture

www.totemperez.com



GABY LEES (UK)
Jellyfish

Sculpture

GARETH BUNTING (UK)
What Silence Brings

Drawing

garethbunting.com



FRANZISKA RUTISHAUSER (DE)

Aggregation I - Dark Light Matter

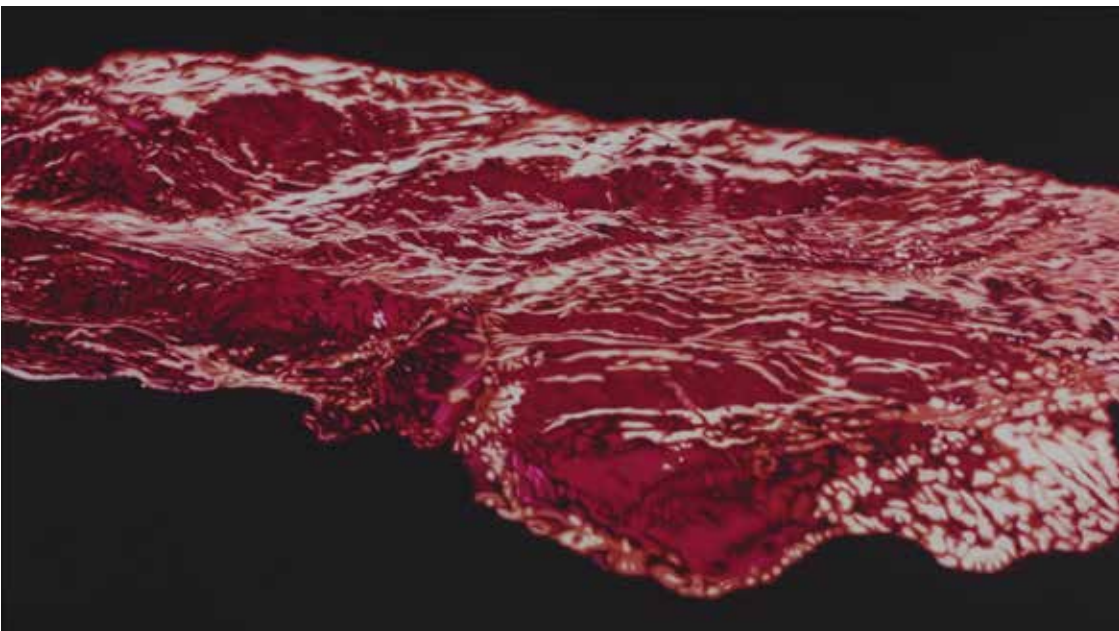
Oil on canvas

www.franziska-r.ch

In her most recent painting series titled *Aggregation I - Dark Light Matter*, Franziska Rutishauser combines a rich red palette with forms derived from snapshots of flowing water. The result is an ambiguous image that disrupts the impulse to reconcile the forms with reality. The red holds an emotional significance that contrasts the common synaesthetic association of the colour blue with cold. The red transfers a diversity of meanings onto the water. One strong impression in particular is

the perception of the water as flesh and blood, "as if it were a part of me," says Rutishauser.

Rutishauser's artistic attitude is based on the now widespread term 'Anthropocene,' coined by Paul J. Crutzen in 2002, as an expression of a newly developing worldview of and about Homo Sapiens. Driven by an empathic identification instead of increasing alienation, this sentiment has become the focus of her artistic activity.



FRANKIE MOUGHTON-SMALL (UK)

The Plastic Sea

Interactive sculpture

Frankie Moughton-Small's graduate collection *The Plastic Sea* presented a series of objects and jewellery pieces made from waste fishing gear and plastic marine debris. By transforming the materials beyond recognition, her intention was to set up a conflict for the viewer; the bright colours and interesting textures of the pieces contrasting with the grim reality of where the materials came from. Her aim was that the viewer's initial visual engagement with the work would translate into a thoughtful reconsideration of the unvalued, throwaway status of plastic—the status it is largely given in our current society.



The Universal Sea project inspired Moughton-Small to continue exploring ways to present plastic in transformative or visually-pleasing ways, with the intention of creating a more in-depth connection with the viewer after being drawn in by aesthetic appeal. During an artist residency at the University of Flensburg in Germany, she continued to explore the transformation of plastic into objects using waste she collected at a local fjord.



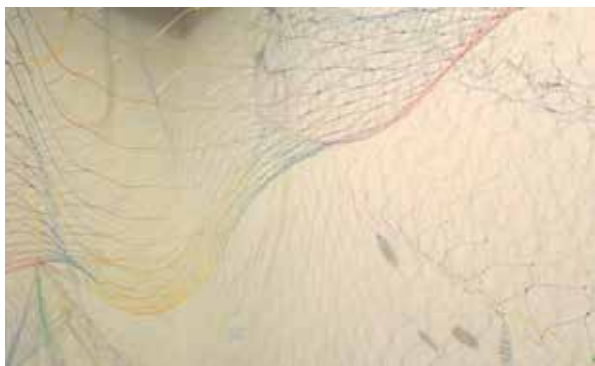
With the intention of creating work of a more immersive nature, her final installation consisted of a series of dyed fishing nets suspended in a gallery space. Punctuating the installation were small pieces of hanging text with information about plastic waste and tips for reduction. Viewers could enter the net installation freely and choose their own level of engagement with the work by becoming entirely immersed in the visuals and information there, or merely passing through.



As an artist, Moughton-Small wanted to try a more positive approach to informing people about the pressing issue of plastic pollution, feeling that other artworks of a similar nature often seem negative and judgemental; shaming and chastising the viewer for not doing enough. By creating something visually pleasing as well as providing accessible information, Moughton-Small wishes not to bombard the viewer but to entice them softly into seeing from a different perspective.



Frankie Moughton-Small was selected as a The Universal Sea Artist-in-Residence. Read more about her project and her experience on page 376.





FRANCO BORGOGNO (IT)

Untitled Series

Photography

In July 2018 Franco Borgogno documented, for the first time, huge quantities of plastic close to the Arctic ice floes, 81°N, further north than the Svalbard islands. Even here, in this paramount environment with stunning and ethereal landscapes untouched by human hands, you can find our trash. The artist's commitment is to tell the world about plastic pollution and instill

ocean values for life through writing; photography; videos; talks; exhibitions; and even school visits.

This work was accomplished with support from European Research Institute, 5 Gyres Institute, Italian Navy Hydrographic Institute, economART-AMY D arte spazio.

FREDERICK HUBBLE (UK)

The Turner Frequency

Sculpture, sound installation

www.fredhubble.com

This sculptural piece comprises a glass sculpture that houses water from the Atlantic Ocean. The body of water, which at first seems clear, contains a complex mix of saline water and plastic and is accompanied by a sound installation. Through this combination of water and sound, Frederick Hubble conjures the aural experience of deep sea divers who can feel passing ships through the sound waves they cause.

The audio installation compiles sea shanties, the sound of waves crashing and other weather phenomena. It follows a narrative that references 19th century british romanticist JMW Turner who tied himself to a ship's mast to paint a storm. The work brings together different experiences of water and our relationship to it, from romanticism to the reality of plastic pollution.



GAL YAKOBOVITCH (US)

Makemoret Collective - Biodegradable surfwear

Surfwear clothing line, knowledge exchange platform

www.galyakobovitch.com

www.makemoretcollective.com



Makemoret Collective is a surfwear collection made from self-produced, biodegradable materials through techniques traditionally used in surfboard and sails production. The collection and the natural biomaterials aim to show that these plastic manufacturing techniques can be applied to the production of biomaterials and plastic alternatives. What generates a surfboard can now create an eco-friendly garment. The materials and manufacturing techniques were translated into a DIY practice, which is available on the Makemoret Collective online open-source platform. The platform allows creators and craftsmen to exchange biomaterial and manufacturing knowledge in the form of tutorials and workshops.



GEERT-JAN HOBIJN (NL) Plastic Souls

Musical instrument made from plastic waste

www.staalplaat.org/projects/machines/architonte/plastic-souls

Beaches all over the world are buried under plastic. This reality inspired Geert-Jan Hobijn to create *Plastic Souls*, a floating musical instrument made entirely of beach combed plastic waste. The waves of the sea act as the musician, and thereby also take on the role of a siren, making viewers more aware of the disturbing trend of plastic waste on beaches and in the sea.

The instrument works by waves pushing air through a collection of different plastic bottles and pipes bound together on a long floating structure. Placed at a 90 degree angle to the coast, each wave produces a series of notes as it moves towards the shore. *Plastic Souls* is the sonification of the plastic waste problem that faces us. The energy of the waves continuously pumps air through the instrument, calling us to action.



GEORGE LORIO (US)

Clean Water

Sculpture

www.georgelorio.com

Water is a recurring motif in George Lorio's work. Water supports life. The precarious condition of the seas covering three-quarters of the surface of the Earth, is symptomatic of the health of the entire planet. Food, oxygen, and climate control are moderated by the oceans. Lorio's sculpture *Clean Water* ironically questions the purity of blackened seas.

In his current sculptural practice, Lorio uses a narrative of social concern to engage dialogue. His images convey

commentaries on the privilege of class, the plight of the immigrant, the curiosities of social hierarchy and ecological destruction. Frequently, he uses irony to communicate his message. Employing constructed and found forms, especially wooden toys, carved and assembled works become poetic allusions incorporating the recognisable attributes of natural and manufactured objects. To him, toys are abstractions of grown-up possessions, professions, or spaces, which provide role models for children.

GEORGE LORIO (US)

Mutant

Sculpture, installation

www.georgelorio.com

In his sculptural work, George Leorio imagines an alien form surrounded by a landscape of plastic. His mutated organic creature, made from carved and painted wood, emerges out of a bed of round plastic stones like a plastic river bed or rocky beach. The stones are made from repurposed plastic shopping bags and stand in for our plastic polluted coastlines, rivers and oceans. Leorio paints an uncertain future, where plastic will transform our landscape and wildlife.





Plastic Pelagic offers a snapshot of what plastic waste in the sea looks like: misshapen, imperishable and discarded, here trapped inside the disturbing form of a murky green gelatin dessert. Georgina Peach forces viewers to evaluate the damage to the marine environment by plastic waste and what it means to corrupt our food chain and waterways in such a way. To create *Plastic Pelagic*, the artist mixed ink, sea water and gelatin to give the work a sea-like appearance. The piece is kinetic, like a suspended body of water threatening to spill its contents.

The gelatinous mass is a proxy for the plastic saturated world's oceans. Peach is currently developing the artwork further by designing large, complex jelly moulds to display the substance in more beautiful, marine-like, and horrifying shapes. Exhibited in public spaces and accompanied by the facts of ocean plastic pollution, the piece engages viewers who work through a process of intrigue, horror, and then self-reflection.

GEORGINA PEACH (UK) Plastic Pelagic: Dare to Taste?

Gelatin sculpture

www.georginapeach.co.uk



GIULIA GENTILI (IT)

Petro, Pitch and Plastics

Sculpture

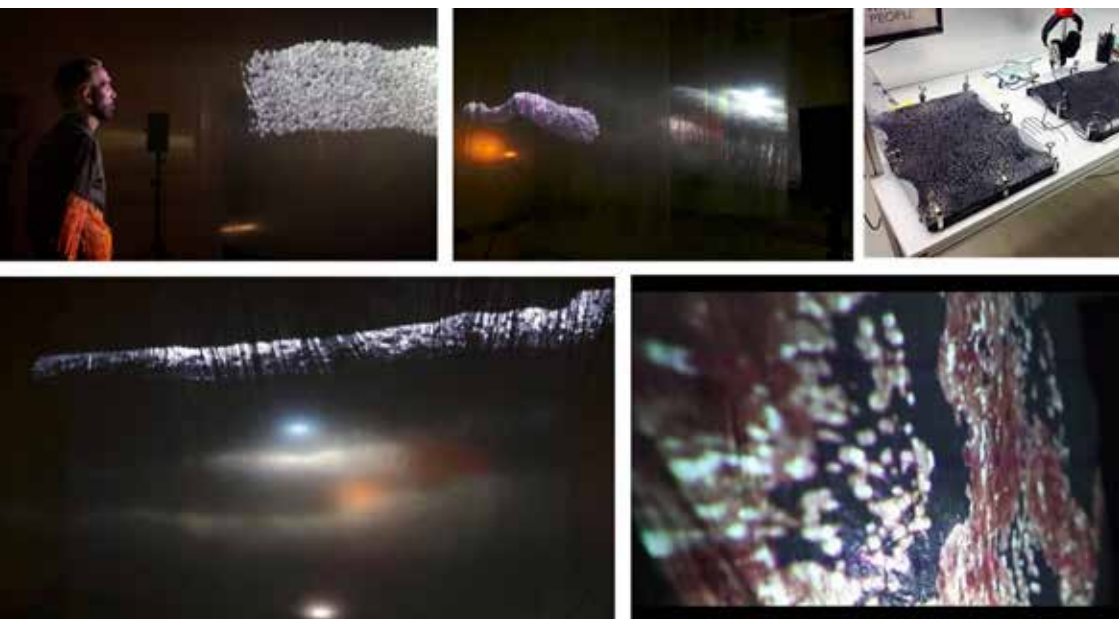
www.giuliagentili.com

Giulia Gentili works with pitch resin, a material with a multifaceted association with nature, here used by the artist to cast a piece of wood. Similar to bitumen it is a natural material with a plastic-like appearance. Gentili finds the material's viscosity particularly interesting, "the material slumps and changes shape, and like the geological formations of the Earth, these movements are not visible to the naked eye but are observed over time."

At room temperature, tar pitch flows at a very low rate, taking several years to form a single drop. It has been the subject of scientific research over the past hundred years in the form of the 'Pitch Drop Experiment.' The material's

movement resembles the way ice flows and sets in glacier formations.

Gentili's practice often hinges on material culture and a scientific approach. She believes that art is a non-scientific use of science. "As artists, we try to find a way to understand the world that surrounds us—in one way or another—in a similar manner to scientific research. Yet it is unconstrained by the rules of rationality. Using the arts to deepen our emotional understanding of nature and the environment can strengthen our passion for it, and could consequently catalyse change. Ultimately, how can we love something if we do not learn to understand it?" says the artist.



GWEN VAN DEN BOUT (NL) Ocean of Plastics

Installation

www.gwen1992.wixsite.com

Ocean of Plastics focuses on the abundance of plastic now polluting the world's oceans. Once in the water, debris plastic shreds rapidly into microplastics that spread into the most remote areas of the planet. With her installation, Gwen van den Bout aims to transform our knowledge of this phenomenon, usually expressed as numbers, data, and words, into a physical, atmospheric experience.

As visitors enter the installation, they are immersed in an ocean of light and phonetic sounds. Projections onto

floating sheets of transparent plastic foil present speculative visualisations of water quality, the afterlife cycle of plastic, and its effect on marine organisms. The plastic pollution crisis is embodied by the installation as visitors gain a sensory experience of wading through the slowly moving plastic sheets as well as finding your way through this maze and its projections. Visitors follow a poetic journey through the work, developing an understanding of the effects of pollution on our universal sea.

HELENA RAKIC (CA)

Plastique en Vogue

Graphite on paper

www.helenarakic.com

When the artist stopped to consider the amount of plastic waste she came into contact with everyday, Helena Rakic was inspired to make some kind of positive and beautiful statement from it. She wanted to combine plastic waste with fashion and art in some way, and so created a graphite portrait to represent both the weight of the plastic problem and also how we can reuse plastic waste as a creative material.

The drawing depicts a young woman with styled hair held together by various pieces of typical plastic trash. She also wears an elaborate collar made from the plastic waste. Represented in their original forms, the plastic items are easy to recognise as objects from our everyday life. The plastic sculptural adornments appears like fashion accessories, like the products of our consumer culture, yet also bring to mind images of sea animals tangled and choked by plastic in the sea. Rakic's work suggests that we can reuse the plastic waste that surrounds us in so many ways; it just takes a little vision and creativity. The artist believes that any object can become a thing of beauty, even something that we have disregarded and thrown away.





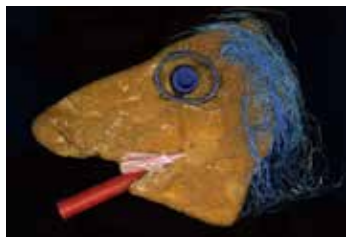
HELENA WADSLEY (CA)
Glimmer Glamour

Short film

www.helenawadsley.com

HELOISE WOOSTER (UK)
20:50

Photograph



HUBI W. JAEGER (DE)
Strandgeister1

Sculpture

www.hubi-jaeger-berlin.de

HANNAH SCOULAR (UK)
Transience

Installation

www.hannahscoular.com



INÊS M. FERREIRA (UK)
The Destruction of Destruction

Installation

www.inesartistaif.wixsite.com/webfolio-mfa/home

HERVÉ ALL (FR)

Ritual Wave

Public performance, video

"The fever of consumption is a fever of obedience to an order not stated," said Pier Paolo Pasolini. Today we consume our nature as we consume a disposable pen or a hamburger. Where does humanity go next in its quest for pleasure and experience of nature?, asks Hervé All. The only way it can have this is to create another nature, a hybrid world, the fruit of an intermingled culture and nature.

"Consumer society" is an expression often used as a critique of our capitalist society and media obsession. In some aspects, the artist can see our culture's mimicry of nature. In *Vague Rituel*

(*Ritual Wave*), an art video made in 2016 with support from the Good Planet foundation, nature and culture appear as one and present the same face; a play that humanity plays.

For the public performance element of the work, involving children and students, each participant acts like a cog in a machine. They act out in a ritualistic way the throwing away of a plastic bottle, and through this action materialise a plastic "sea." This action becomes a symbol for what separates man from nature.





HO MAN LAW (CN) The Noblest Pain

Installation

www.lawhoman.com

For this project the artist posted some seawater from Mirs Bay, Hong Kong to Germany, which was then poured into the Baltic Sea. At the same time, seawater from the Baltic Sea was transferred into a plastic bottle. The two bottles containing the seawater from Germany and Hong Kong were placed next to each other in the installation. The distance between the two seas is made minimal, the separation of distance is eliminated.

The Noblest Pain transforms plastic bottles, that end up as waste in the sea, into an artistic medium. They become storage for the seawater, instead of pollution, and imply that humans can

twist the relationship between plastic waste and the ocean toward the positive. The project also contains within it stories of the two seas. Years ago, the Chinese escaped from the Communist Party by swimming from the mainland to Mirs Bay, Hong Kong. While the Baltic Sea is where East Germans escaping from the DDR swam from Rostock, Germany, to Denmark. The similarity between the two seas is like a shared destiny connecting the two of them together. The plastic bottles house not only the seawater but also the histories. This project is still ongoing as every sea has a different yet similar story.

INGRID GOLDBLOOM BLOCH (US)

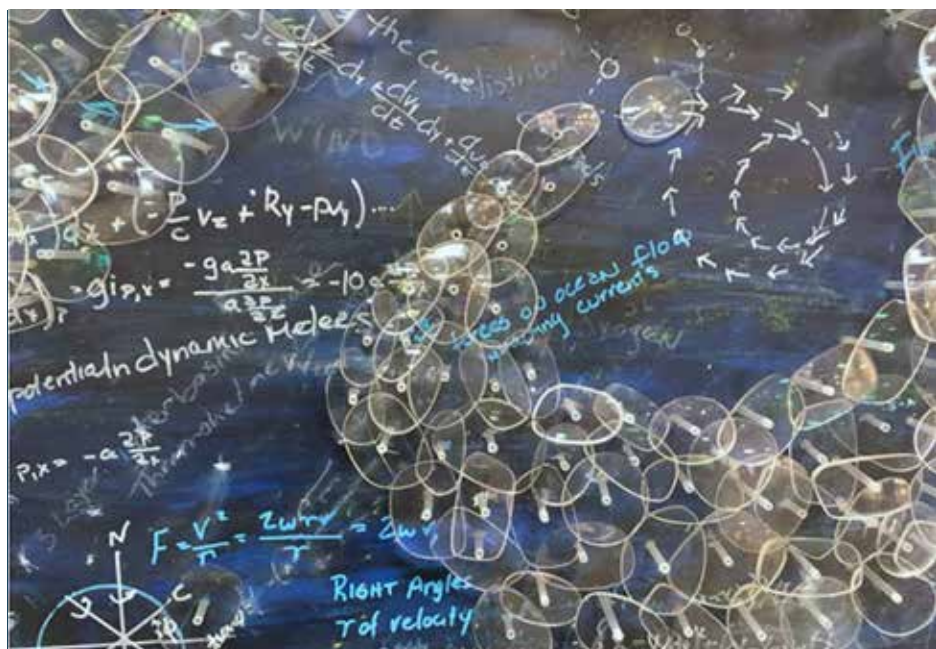
"SEE!" - Stop Feeding The Monster!

Installation

www.IGBStudio.com

What if every time you washed your clothes, put on cosmetics, or drank a bottle of water you were unknowingly feeding a destructive sea monster that would grow to enormous proportions and ruin the planet? "SEE!" - Stop Feeding The Monster! is an art project by Ingrid Goldbloom Bloch that provides a window into how our actions are contributing to mass destruction without us even knowing it.

Created out of hundreds of discarded plastic eyeglass lenses and plastic acupuncture needle guides, *SEE!* visually shows the mathematical modeling of ocean dynamics and how plastics converge into a giant floating garbage heap. The eyeglass lenses are themselves windows into the problem and also take the tentacle-like form of an ever-expanding man-made sea creature that is harming the world's oceans.



J HENRY FAIR (US)

Oil From Deepwater Horizon Spill, Gulf of Mexico

Photograph

www.jhenryfair.com

Believing that in order to instill change, we must force it, J Henry Fair's photograph of an oil spill is an angry call to action. The solutions are there, we must discard apathy and complacency and demand them; this is the message the artist brings. We can do something about this, if we really want to.

"My intent is to engage the viewer, stimulate curiosity, and encourage dialogue. This is what art can do. This is the power of art."

- J Henry Fair

J Henry Fair was a jury member for the first The Universal Sea international open call for artists.



Jan Sajdak's public project could be called an environmental intervention. It involves filling the Orońsko pond with thousands of PET bottles. The cleaned and unlabeled bottles will be sealed so that they float, covering the entire surface like a plastic lake. The installation title asks the local public, *How Do You Like It?*

For maximum effect, the bottles are left floating in the pond for as long as possible. The artist hopes that the largest possible number of local inhabitants will come and see the pond, their favourite place for Sunday walks, in a state of terrible transformation, resembling a dumping ground. The remote issue of "stains on the Pacific" now seems less remote but actually touches on their everyday lives in a very immediate way. It is easy to ignore problems you cannot see, and Jan Sajdak makes the issue very visible.



The next stage of the project moves into public actions, for example a clean-up mission with the help of local children where the children make an active contribution while learning about recycling. Another action involves building rafts from the recycled bottles, and these rafts are used as clean-up boats. These actions can be applied to any public body of water, spreading the message against pollution, the call to action, and the creative approach to reusing waste.

JAN SAJDAK (PL) How Do You Like It?

Public Installation

www.sites.google.com/dem.cool/jansajdak/about-me



JANA CRUDER (US) & MATTHEW LAPENTA (US) Natural Plasticity

Public installation

www.naturalplasticity.com

With their bold public statement, this artist duo confronts viewers with their consumer choices around single-use plastic items. They believe change in production and marketing begins with the individual. *Natural Plasticity* installs giant inflatable plastic bottles, disposable cups and straws into natural environments. These larger than life objects immediately stand out and grab attention, magnifying the problem so large that it's hard to miss.

The awareness this project creates aims to trigger an inward look at the viewer's own consumer habits. Working with inflatables allows the project mobility to be set up in many different locations. The duo will also install a public plaque that provides supporting information about the project as well as actions the public can undertake.

JANNE ROEFKE (DE) Plastic in Progress Part III

Sculpture

www.jannuschroefke.wordpress.com

This sculptural work is the third part of Janne Roefke's series that follows a progress narrative of plastic—and non-plastic—materials. *Part III* utilises a self-grown biocellulosis made from fermented kombucha as a replacement for the textiles in these ubiquitous bauhaus-style modernist chairs. The chairs bring up notions of mass production and cheap plastic knock offs, at odds with the organic material covering them.

Surely, the kombucha material could not hold the weight of a person, rendering the object functionless. Roefke's chairs do not suppose to be the ultimate answer but rather a symbol of where we are at in the progression towards a plastic-free solution, with some ways to go.





Jasmine Shah's self-portrait imagines her body as the ocean. Wrapped in plastic and covered in motor oil she embodies the nature we abuse with carelessness, neglect, and a deliberate disregard. Naked and in a foetal position, Shah appears vulnerable and in anguish, reminding us of the suffering of sea animals that die year after year from oil spills. Covered in plastic, her body is a symbol of our plastic waste that is smothering the planet.

JASMINE SHAH (DE)

Pollution

Photograph

www.shah-photographies.de



INGRID COTELLESA (SE) Horror of the Sea

Installation

IZABELLA ZULAWNIAK (PL) How Not to Feel Like an Alien?

Installation



JAROSLAW (PL) Exhaust +% (CO₂) -% (O₂)

Installation

www.facebook.com/formai.kolor



JASON O'HARA (NZ) Weed #1

Painting

www.jasonohara.co.nz



JOELLE MCTIGUE (US) Los Angeles River

Sculpture

www.joellemctigue.com



JASON DECAIRES TAYLOR (UK)

Museo Atlántico

Underwater sculpture park

www.underwatersculpture.com

Jason deCaires Taylor is best known for his site-specific underwater sculptures that evolve into artificial coral reefs, integrating his skills as a sculptor, marine conservationist, underwater photographer and scuba diving instructor. His most ambitious installation to date, is the creation of Europe's first underwater sculpture park, *Museo Atlántico*, a 14-metre deep permanent exhibition located on the coast of Lanzarote, Spain.

Taking two years to complete, the monumental new installations include a 100-tonne, 30-metre long wall, a sculpted garden that references local flora and fauna, and *The Human Gyre*, a set of 200 life-size human figures arranged in a whirlpool. The sculpture park was created with a conservationist

approach: built with pH-neutral materials and designed to adapt to the endemic marine life.

The first parts, installed in February 2016, have already experienced a significant increase in the abundance of species, and are already being frequented by angel sharks, shoals of barracuda and sardines, octopus, marine sponges and the occasional butterfly stingray. By creating a strong visual dialogue between art and nature, the sculptures promote a better understanding of our precious marine environment and how much we depend on it.

This work has been supported by the Government of the Canary Islands, and the Art, Culture and Tourism Centres of the Cabildo of Lanzarote.

JING ZHOU (CN)

Use Recycle Bag

Poster series

www.jingzhoustudio.net

Use Recycle Bag is part of the *Backward Waves - Social and Environmental Poster Series*, which Jing Zhou began to create in 2007. Inspired by many internationally acclaimed designers, such as Gunter Rambow, Lanny Sommese, and Luba Lukova, this body of poster-design work is a manifestation of current social and environmental crises on a global scale, which includes war and peace, human rights, gender issues, AIDS, climate change, environmental problems and more. The theme of this series addresses contemporary problematic realities and impacts on the future of the world.

Creating this poster series not only encourages Zhou to observe life against a larger background and gain empathy for the unfortunate but also gives her the firsthand experience of being a conceptual designer for social change. The title of the wider project "Backward Waves" is based on a John L. Castri quote, "Reality is a wave function travelling both backward and forward in time." These posters have been exhibited and published in Europe, the U.S., Brazil, and Australia by international organisations and galleries.





JING ZHOU (CN) The Scoop in Every Milk Bottle

Photography, DIY project

www.jingzhoustudio.net

Plastic milk bottles are an ubiquitous piece of plastic waste we use and dispose of on a nearly daily basis. What most people do not know is that there is an invisible functional scoop designed into each bottle! With simple instructional photographs, Jing Zhou helps us to unlock this hidden potential. With basic DIY projects like these, the artist aims to change the way we think about a used plastic item and encourage creative repurposing of plastic waste.

JULIA BARTON (UK) NEO Terra

Installation

www.littoralartproject.com

This image shows a close-up shot of *Cord Island*, one of the *NEO Terra*—Barton's plastic archipelago installations constructed out of hundreds of plastiglomerate samples collected from 42 Shetland beaches in 2016.





JULIA GANOTIS (BE)

Underwater Bar

Installation, photography

www.juliaganotis.com

By combining her diving skills with an eco-conscious art practice, Julia Ganotis started a small-scale project in 2016 drawing the attention of the local community to the problem of marine plastic pollution. She gathered objects found at the bottom of the sea, and assembled them into arrangements, prompting her to explore the possibilities of underwater installations. At the mercy of nature, her work was swept away and she decided to start again in 2018.

"We only see the plastic on the sea surface or on the shores but there is as much of it underwater," says Ganotis. She aims to show what is, for most people, unseen. Her artistic attitude draws from Duchamp's ideas about "other kinds of art, which are far less concerned with

pleasing the eye than with deepening the way we think."

Underwater Bar is located at a depth of 22m on a sandy platform at the bottom of a stiff marine cliff. This geological conformation gathers debris which rolls down the cliff and is deposited at the bottom. The chairs, table and other plastic material are covered with a velvety layer of algae which gives the objects a soft textile quality. After Ganotis's initial investigatory dive of the area, another four dives were necessary to compose the installation and make the video. Considering the sometimes strong undercurrents, adequate light and visibility were all challenges unique to her underwater artspace.



WetMeWild is the artist's performative incarnation of a Slavic nymph—a mythical green-haired creature with special seductive powers, living in rivers and small forest streams. Through the nymph, Justyna Górowska is the author of and guide through topics on the global water crisis and plastic pollution. The project began during the residency program *Art in General* (NY) and is ongoing.

WetMeWild combines ephemeral appearances in public and video performances, produced artifacts from found objects (following the idea of sustainable art), educative images, and online communication platforms. In the project, the artist often uses augmented reality technology through which she distributes educational information in public space by hacking and incorporating found elements and imagery or through her AR interactive stickers. The overarching idea of the project is to represent an engaged model of art by being a tool of social change in the context of post-avant-garde.

JUSTYNA GÓROWSKA (PL) *WetMeWild*

Performance, artifacts and images

www.justynagorowska.com

KAETHE WENZEL (DE)

Daily Sea

Graphics, public intervention

www.kaethewenzel.de

Kaethe Wenzel utilises graphic design, public space, social media and humour in her educational artistic intervention. Wenzel's pictograms, posted in public spaces, appear recognisable at first, but upon a closer look are actually complex depictions of human-animal-plant combinations, evoking science fiction and fantasy. The amalgamated graphic forms represent the connectedness of humans to nature.

Accompanying the pictures is a link to another essential part of the project. Videos of interviews with specialists in ocean clean-up, zero-waste practitioners, and marine biologists discussing issues of plastic pollution are made available online and spread through social networks. Viewers learn tips and recommendations for how to manage and reduce waste. For Wenzel, the most important factors of the project are applicability, visibility and playfulness. Creativity, story telling and laughter need to be part of the solution.

Kaethe Wenzel writes more about her project and the role of the artist in the Art & Innovation section on page 381.



TO BE WITH THE SEA

Fill the jar that will feel most comfortable against your lips with water. Take 7 sips and remember something you had forgotten.

1

At the start of summer holidays mum gave us money to buy reading material. I selected a stack of remaindered coming of age books. Among them was a hard cover with painted ocean waves and two girls facing the vast surface, the wind brushing apart their thick wisps. The book was called something like Sea Sisters. I was magically excited to read it as our vacation trip would take us nowhere near the sea, but the book would. So much that i became one with the little sister in the story, following the older sister who is madly in love with the sea (or with someone who lives by it?) and ran away from their grim home to a faraway island place. I don't remember what else happened in the book. I only recall an overwhelming feeling to the rest of it. The sensation of losing my big sister to a tragic immutable thing i couldn't understand. The love for a thing that was much bigger than me: the ocean and a man who lived by it. When i finished the book i thought there was something wrong with it, like a chapter missing, that would take away the bewildering uncanny feeling of lostness. I don't think there was anything wrong with the production of the book. I was beginning to meet the ocean.

2

Aunt Alli and her girlfriend took me with them to a Spanish Island to give concerts in a luxurious hotel and stay there for a holiday. I don't think i understood the extent of the sea, watching the airplane dot crossing lots of blue. It was the first time I would touch Mediterranean water. All the hotel staff were crazy about me and gave me lots of kisses all the time. Especially the director. He took me to the city one day and bought me a swimming barbie. I could spin her arms back like a clock and let her swim in the sea. I remember wanting her to be stronger against the waves which kept flushing her down.

3

One day my dad heard some kids speak on the radio about an island in the far North of Scotland where they went to each summer to play music. I called up the radio station and asked if i could come. Nowhere had I ever seen so many different types of water bodies as on this archipelago. The curved Atlantic line, ponds, puddles, watercolour skies, clouds, rain, storm, lakes, streams and all mixed up with SO much air and light. The vastness of elements made me quiet but i would come back every summer and eventually fall in love with one of the kids my dad had heard on the radio.

4

My older sister cried a river when i left to South America. I was fifteen and had read many books about travelling the Amazonas to find one's spirit animal. So i went to live in Colombia to learn magic. I didn't know what i was looking for or how to look for it. My heart got broken soon and for the first time of my life because my Spanish (not me obviously) was too weird to talk to the boy i liked. The christmas holidays seemed to last forever. Uncle Gabriel took me along the pacific coast and i stood by the shore that was too dangerous to swim in and i drew hearts into the wet sand wishing the sea would wash my aching one away as well.

5

My first queer lover took me camping on the beach they had grown up nearby. For twenty years i had not known what beautiful coast parts there were in Germany. A blood orange full moon rose above the dark Ostsee. My lover said they thought i was mostly into girls and i said i thought they were mostly into boys. Afterwards we swam naked and explored our organs because it felt easy.

6

We were five artists and took our damaged female bodies into Welsh wilderness. Felt moss on our lips and dew on our butt cheeks. Hobbled along the coastline and found a witch's cauldron made by our lover's lover. Relentless fingers dug it into the cliffs so that the ocean's dripping tongue could find their way deep into earth. We returned our bodies to their element, the water, so iced we could perhaps feel essence for a second, or exactly no essence as in becoming plankton within hydro matter.

7

Follow dreams, follow streams. Last night i dreamt my friend and me and someone else went on an underwater expedition with a scientist. We were using antique diving gear to dissect a torso on the rocky ocean bottom. There were massive human shaped ancient sculptures carved into the rocks around and the water was turquoise and saturated with sunlight even though we were working deep down.

I told the dream to the friend who was with me in the dream and we booked plane tickets to an island that looked rocky on pictures of the internet.

Do not ignore when the ocean calls.

- Lotti Seebeck (DE)

www.lottiseebeck.wordpress.com



JONAS BLUME (DE)
Virtual Seas

Video installation

www.jonasblume.com



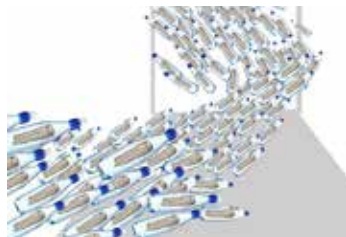
KAREN LEBERGOTT (US)
Dead Sea

Photograph



KAROLINA LUKAWSKA (PL)
My Own

Installation



KAROLINA ZIELAŻEK-SZESKA (PL)
Ostatni List

Digital drawing



KAT AUSTEN (UK)

The Coral Empathy Device

Participatory installation, headset device

www.katausten.com

The Coral Empathy Device is an experiment in interspecies empathy. It translates the physical experience of a coral in its native marine environment to a human in their native terrestrial environment. Corals are subject to anthropogenic marine noise pollution, microplastics and ocean changes in pH. *The Coral Empathy Device* creates a discomfiting experience designed to trigger an emotional response and encourage new perspectives.

Worn over the head, the device is driven by field recordings from the marine environment near Norwegian coral reefs and pH recordings from Arctic waters. It creates a vibrating, smelly immersion that bypasses the visual and disrupts usual modes of cognitive engagement.

The headset surrounds the wearer in a sensory experience that evokes the marine environment and creates a conversation between us and coral in our role as environmental stewards. Austen challenges her audience to connect with marine environment in a new way. She asks, Can we foster action by creating knowledge of another species from within the body?

The Coral Empathy Device research began at Píksel Festival in 2015 as part of the Píkslo_Deep_Diving workshop co-organised with Robertina Šebjanič, Slavko Glamočanin and Gjino Šutić. It was created as part of a residency at PCI and NYU Shanghai Gallery, Shanghai, China.

KEELEY HAFTNER (NL)

Leaves

Public installation

www.keeleyhaftner.com

Leaves is a collection of over one hundred 3D-printed maple leaves made from disposable cups which were then "littered" in Montréal in Parc Jarry for an exhibition with Studio XX. The cups used to make these 3D prints are made from PLA—a polymer derived from corn sugar designed to be compostable at an industrial scale. Under the right conditions (high temperature, condensation, microbes) they may break down, but without such conditions they are similar to ordinary plastics.

By collecting these used cups, processing them, and 3D printing them into naturalistic forms, the artists muddies the concept of these so called eco-friendly plastics. PLA cups are a popular eco-conscious choice for cafes and beverage companies, yet Haftner is calling that marketing and our consumer choices into question with the littering of PLA "eco-leaves."



Kinga Gradowska is an upcycling designer working with old synthetic fabrics. *Viazalka* is a multifunctional, upcycled and creative amulet. Gradowska makes each piece individually, focusing on originality of design to create works unique in length, colours and form. *Viazalka* are intended to be combined and styled in multiple ways to create many different looks for the wearer; styling head, necks and cleavage, or even worn as jewellery or as sport accessory. *Viazalka* is the beautiful power of upcycling.

Kinga Gradowska was an invited speaker and workshop facilitator at The Universal Grand Opening at The Center of Polish Sculpture in Oronsco, Poland.



KINGA GRADOWSKA (PL) *Viazalka*

Wearable art

www.instagram.com/hipihapi



KLAUS BUSCH (DE)

Artwork Title in Lower Case

Painting in pastels, 106 x 60 cm

www.malerei-busch.de

The idea for *Seascape in the Year 2016* was born on Klaus Busch's visit to the Maritime Museum in Hamburg. At the museum is a large wall covered with seascapes from different epochs, typically demonstrating impressive technique and a reverence for nature. To Busch, these works romanticised and idealised the sea, and was not the sea he recognises today in our industrialised, consumer-culture world.

The seas of today are instead characterised by pollution and overfishing rather than the seafarer's fantasies of vastness, freedom, and raw beauty. Busch's painting is the updated seascape for today. It captures the majesty of the ocean on the one hand, but on the other, recognises its vulnerability and precarious polluted state.

KOJO BINEY (GH) Virgin Breaker

Performance

www.facebook.com/kojobineynatureart

Untouched nature is often described as virginal; virgin forests and virgin snow, undisturbed by humans. Kojo Biney's performance piece laments the virgin state of nature before humankind.

Wearing a mask to symbolise the often devious and deceitful character of human interaction with nature, Biney performs this destructive behaviour. The performance is a reminder and a warning. Your actions that leave a

negative impact upon nature parallel you with this masked destroyer.

The work aims to highlight the various health hazards and damage caused by dumping waste, sand winning, and many more destructive activities on our coastlines. It pleads that we uphold a social standard to protect, prevent, and preserve.





KOJO BINEY (GH) Entangled

Performance, installation

www.facebook.com/kjobineynatureart

Entanglement is a performance, installation, and photography work that engages viewers through the tragically familiar imagery of marine life entangled in plastic debris. The title describes the physical impact of our waste, but also communicates that we are all entangled in a communal responsibility to act.

Biney believes in karma and that what you put into the world, will eventually come back to you. Using performance as intervention, Biney asks viewers to place themselves in the animal's position and consider how we are all entangled in this future.

This work was a jury-selected winner of the The Universal Sea: Pure or Plastic?! second international open call.

KONSTANTINOS LELOUDAS (GR)

Bloom

Sculpture

www.leloudas.com

Konstantinos Leloudas' artwork portrays the destructive power of seemingly insignificant everyday objects and materials such as plastic bottles and scrap metals. He experiments with their scale and size, combining them in a playful manner. In this way, he attempts to give them unique forms that carry their own distinctive meanings, meanings which transcend their original uses and stimulate the viewers to think about the side-effects of their irresponsible use.

Bloom aims to portray metaphorically the destruction that is caused by our commitment to plastic consumer and industrial materials. The system of pipes represents the drainage system

of our cities which is under huge pressure because of the large amount of unrecyclable, discarded materials going through it. Most of these materials end up in the sea, ocean or otherwise and it is expected that ignoring their destructive potential will lead to irreversible destruction—depicted through the work's blue explosive forms.

The title *Bloom* is used in an ironic manner. While we believe that our lives become richer, stronger and more sophisticated, we tend to ignore that this development is taking place to the detriment of our natural environment, with the tipping point not far away.



KRISTIINA UUSITALO (FI)

A Song for Time

Painting

www.kristiinauusitalo.fi

Kristiina Uusitalo paints to make visible the places where energy is stored and released. The human will vibrates in the elements. Her paintings take us into the midst of the plastic soup that we live in. She calls for a drastic shift in priorities if we are to move forward from here.

"The sky is still blue, but we are choking in the useless material boiling away in our seas and on our shores. We let it go down the drain. We make it momentarily invisible when we flush it down the toilet. But it cannot go away. It stays swirling around in our waters. It fills vast areas of land. It gets washed up on our shores. It will eventually reappear in our food. It will not decay in our lifetime. We will

go before it does. It comes in all colours and shapes. There is so much variety to delight in. It has been created and distributed with no stinginess of mind. But it is no good—except as a concept.

I can hardly go and pick it all up myself. There are very small stretches of actual places where I can do this concretely. But as I do so, I simultaneously gather an endless collection of shapes, colours and textures. What an abundance of materials to set minds in motion. The landscape is the stage that displays it. And the best tool I have is making these paintings. Here is what I have. This is my contribution."

- Uusitalo



KRISTINA OKAN (RU, DE)

Vanitas

Photograph series

Vanitas is a series of five photos alluding to the Dutch classical painting tradition from the 16th-17th centuries. Originally, the vanitas style was meant to remind viewers of the transience of life, the futility of pleasure, and the certainty of death.

Today, plastic is used to preserve things that bring us temporary pleasures, while it lasts unalterable for centuries. Practically almost everything that we consume is wrapped in plastic, bringing us only temporary satisfaction that quickly fades, but plastic is like a ghost that will outlast our lives and the generations after us. It is a dead reminder of all those ephemeral enjoyments and it leaves indelible consequences in the environment, polluting oceans and killing nature. Now is the time to decide if this price is worth all the damaging that plastic brings to our planet.



With the sculptural work *Plastic in the ocean... Plastic in Our Bodies*, Kyna Hodges attempts to create a resonance between form and material. The form is the death mask. The material is plastic.

Plastic is a powerful current within consumerism. It makes our lives easier in so many ways, yet there is a growing body of research that reveals plastic is not an inert substance but in fact one from which harmful and sometimes deadly chemicals and microplastics leach into our food and our bodies.

These substances are flushed into our waterways and oceans, to add to the already critical levels of plastic that reside there. They then make the full loop back into our water and food. The shiny new surfaces that promise to enhance our lives may, in fact, be eroding them, along with other life on earth. By using melted plastic packaging cast into death masks, the artwork plays with the double-natured qualities of plastic, and our relationship with it.



KYNA HODGES (UK)

Plastic in the Ocean... Plastic in Our Bodies

Sculpture

www.kyna-hodges.squarespace.com



KONIKSTUDIO (IR) In The Beginning Was Water - Bradán Feasa

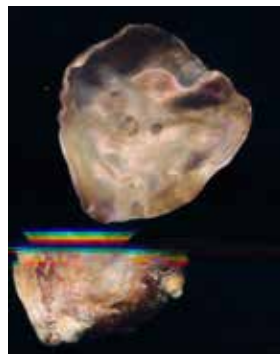
Installation

www.konikstudio.jimdo.com

KAMI BUGNET (DE) Transparency

Digital collage

www.cargocollective.com/KamiBugnet/Kami-Bugnet-1



KATHERYN FRUND (US) Turbulence

Installation

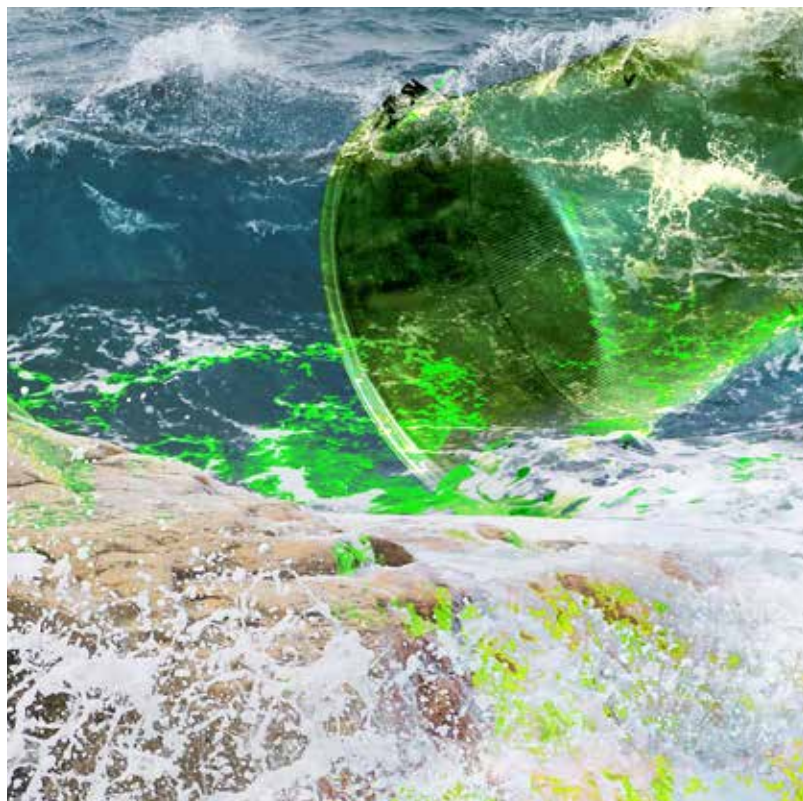
www.website.if.provided.com

LISA REINDORF (US) Ocean Invaders

Painting

www.lareindorf.com





We are creating our own monsters in the sea. They are gluttonous and deadly. Our daily use of plastics is fleeting, yet our plastic monsters will outlive us. Lara Mouvéé's photographic work imagines a toxic mass with an insatiable open mouth moving through the waves. A poisonous looking substance floats on the surface and crashes on the rocks. The message is clear: it's time to fight the monster of plastic consumption, and restore our relationship with our natural environment.

LARA MOUVÉE (DE)

We Create Our Own Monsters, We Must React

Photograph

www.lara-mouvee.com

Are You Aware? is a conceptual fashion series with a focus on environmental pollution and climate change. Laura Knipsael tackles seven different issues within her project: acid rain, chemical pollution, electronic waste, oil pollution, plastic pollution, smog pollution and soil pollution. Each issue has its own visual concept, a surrealistic vision that threatens to become a reality. Here Knipsael visualises the problem of plastic pollution and in doing so not only hopes to inspire her viewers but create a space for dialogue about the issue.



LAURA KNIPSAEL (NL)

Are You Aware?

Fashion series

www.lauraknipsael.com

LIINA KLAUSS (HK, ID)

Broken Dreams No.1

Mosaic

www.liinaklauss.blogspot.com

Broken Dreams No.1 is a mosaic that transforms its materials from trash to treasure. Consisting of 518 broken-down pieces of plastic and natural matter, the work organises and coordinates the fragments by shape, colour and luminosity. Used in the original way they were found, nothing is manipulated in colour or size. Liina Klauss collected every piece on the shores of the South China Sea in Hong Kong over one year. The resulting mosaic is perceived as beautiful. In contrast, a single piece of waste by itself is considered unsightly, dirty and worthless.



klauss explores the perception of value and waste. The found objects intrinsically stay the same, but the perception of their worth, beauty and belonging changes depending on context, location and integration into a bigger picture. She asks, At what point do these objects become beautiful? Is it waste or is it art? What is it now worth and was it worthless before?

Worth is not inherent. It is something we as humans create, yet we are mostly unaware of our power to create value. If something is cheap in monetary terms it does not mean it is cheap in environmental and social terms. We are paying a high price for plastic with our health, with inhumane working conditions, with toxins in our food, with polluted natural environments and lost cultural heritage, the list goes on and on.

Growing up in the 1980s, klauss remembers clear blue water and pristine beaches playing with shells and seaweed in Italy and Greece. Thirty years later,

her own children are growing up in Hong Kong and Bali and are playing with discarded straws and bottle caps. Single-use plastics are polluting both the South China Sea and the Indian Ocean. In only one generation the environmental situation has changed dramatically.

On a material level, humans measure success by realising their materialistic dreams. Plastic is the substance of these dreams. With plastics, we have created an avalanche of commodities. Are we happy now? The dream breaks again and again.

liina klauss was selected as a The Universal Sea Artist-in-Residence. Read more about her project and her experience on page 422.





KORALLIA STERGIDES (UK)
Foam Theatre

Short film

www.korallia.co.uk



LEONIE BRANDNER (CH, DE)
You and Me

Installation

www.leoniebrandner.com



LUKASZ SKAPSKI (DE)
The Waste Project

Installation

www.skapski.art.pl



LYNN DENNISON (UK)
Dress, Sea

Short film

www.lynndennison.com



MADI ACHARYA (UK)
Drift-in-Tent

Installation

www.madiacharya-baskerville.org

LINDA BYRNE (US) & MAGGIE DUBRIS (US)

Vanishing Oceans Project

Installation

www.vanishingoceans.com

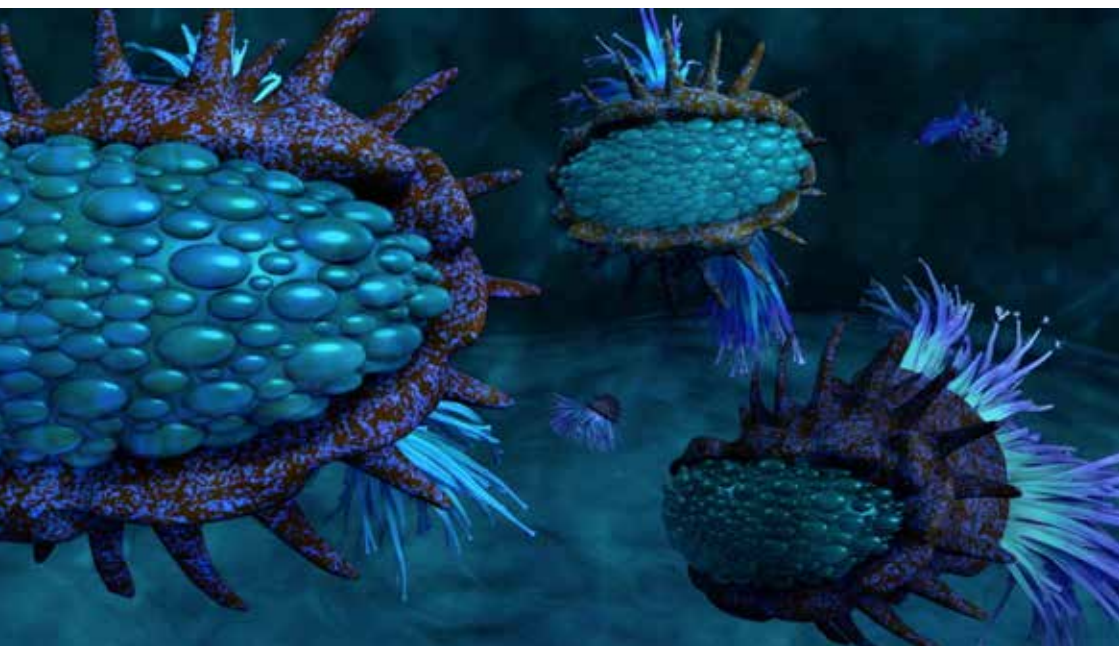
This project is a collaboration between the visual art of Linda Byrne and Maggie Dubris' sound practice. *Vanishing Oceans Project* is fueled by the pair's mutual concern over the massive environmental problem of plastic marine trash.

The collaborative process involved co-developing a concept, researching, and regular meetings to review individual progress and refine their vision. The installation combines two sculptural works, lights, and an original sound piece into a haunting vista of oceanic decimation. The sculpture *Coral Reef* uses recycled plastic 6-pack rings as its main component. The very plastics that are polluting our oceans become the

reef itself. Its translucent, ghostly quality mimics a dead coral reef drained of vibrant colors. *Skeleton Ships* consists of 12 bone-like ship hulls. Their rib shapes visually echo the destruction of sea life, the fishing industry, and our coastal communities.

Binding the installation together is the soundscape that melds traditionally "beautiful" sounds like whale calls and sailing songs with sounds that are killing the ocean: engines, underwater construction and sonar, heard from an undersea vantage point. *Vanishing Oceans Project* is a visual and aural experience of the reality of our ocean.





LOCALSTYLE (NL)

...After and Before

3D animation and sound

www.localstyle.tv

In this video work, LocalStyle imagines a dystopic future for our ocean and the creatures that have adapted to survive in the toxic conditions. Five expeditionary post-Anthropocene survivors display social behavior and conduct a leisurely patrol of their toxic habitat. As the alpha directly confronts our interloper's gaze with its own unblinking, compound eye, the weakness of our position becomes glaringly obvious. In a sea where the balance has tipped in favor of industrially fertilized nitro-phosphoric acid, we are not the masters, these gene-drive-enabled CRISPR-ed critters are.

We do not know how they escaped from the research facility, or how a glitch in their genomes provides the longevity of hexactinellid sponges (living for thousands of years), or how they evolved to metabolise microplastics and 3D print their shells to be impervious to the surrounding acid, or how they evolved to live as now-extinct corals did, symbiotically nourished by algae living inside their eyes. It is clear that they have adapted with unique advantages to thrive in seawater that would strip the paint off the hull of a ship.

LOEK GROOTJANS (NL)

Storage for Distorted Matter / The 20th Century Sculpture Masterpiece That Could Not Be Made / Out of Numbering

Sculpture

www.loekgrootjans.com

Storage for Distorted Matter is a series of works that questions what remains of our temporary existence. What can we hold or store of our existence on earth, and what will we leave behind.

From relics to dirt to air and light, Loek Grootjans collects traces of his and others' lives and presents them in a range of display techniques reminiscent of a museum or *Wunderkammer*. In the context of what we already know about microplastics in our water, we can wonder how much plastic is already in Grootjan's preserved objects and substances and what will samples of our existence look like in the future.

In this particular work, Grootjans has collected pieces of everyday plastic debris and preserved them in a concrete sculpture. Like an austere monument to our global reliance on plastic, this sculpture will be around long after we are.





Deep time is the continuous evolving flow which unites us, stretching from primordial time through to future potentials. It is a state of ongoing inspiration in the face of continuous change and unsettling moments. A space in which we are not separate or isolated from each other or the Earth, but deeply connected. Underlying all things, from the flaring forth of the universe, there is an evolving flow that calls us to action and to sustainably care for ourselves, each other, our past, our future and the planet—if only we can be still enough to realise it.

Lorna Carmen McNeill proposes to develop her installation *Unboxing*

Deep Time into a film. The work emphasises the beauty of oceans, formed from the darkness of deep time, and their current risk of contamination from plastics.

This installation consists of different forms of recycled plastic which have been heated and sculpted to project a film of our sea, to create a visual sense of beauty and inspiration. Rather than being discarded into the sea, the inherently unnatural plastic can be made to appear beautiful. The artist's hope is that the film project *Love Or Lose It?* will act as a springboard to explore the question as to whether we will love and care for our oceans or lose them to plastic contamination.

LORNA CARMEN MCNEILL (UK)

Our Universal Sea - Love or Lose It?

Installation

www.lornacarmenmcneill.com



MARIA COTELLESA (SE)
Plasthavet - The Plastic Sea

Sculpture

www.cotellessa-skulptur.com

MAHDIYE JAFARI (IR)
The Deepest Oceanfront

Painting



MARYAM NAYEB RAZMEGAHI
(IR)
The Tiger in Water

Painting

NOAH TRAVIS PHILLIPS (US)
Water x Rival 2.0

Webpage

www.noahtravisphillips.com



MAKSIM FINOGEEV (UA)
Season Closed

Installation

www.cargocollective.com/finomaks



MAARTEN VANDEN EYNDE (BE)

Plastic Reef

Installation

www.plasticreef.com

In March 2008, Maarten Vanden Eynde learned about the North Atlantic Garbage Patch, a huge mass of plastic waste swirling off the coast of the US between California and Hawaii the size of Texas. He wanted to raise awareness of this incredible phenomenon and find out what could be done with this new artistic material.

Vanden Eynde visited Charles Moore in 2009; the marine researcher at the Algalita Marina Research Foundation in Long Beach who discovered this phenomenon. The artist melted a sample of the plastic from the patch into a small plastic coral reef. The trash became beautiful and this seemed to solve two problems at once: the plastic

in the ocean and the disappearance of coral reefs worldwide. Vanden Eynde decided to make *Plastic Reef* as big as possible, with the reef growing with each exhibition. He travelled to Hawaii to see the incredible amount of plastic on their beaches, joined a research expedition crossing the Atlantic, and visited major gyres worldwide to gather as many samples as possible.

His work *1000 Miles Away From Home* continues to use these plastics with snow globes filled with microplastic representing the five major oceanic gyres where these plastic masses are accumulating. Vanden Eynde preserves the image of these plastic gyres, like a time capsule or souvenir for the future.

The sea is full of plastic and threaten the danger of our lives. It is imperative that we all be in control of understanding and dealing with the problem. With this graphic illustration, Mahshid Hashemi points to how we must all carry this issue in order to move towards positive change; in our head and in our heart.



MAHSHID HASHEMI (IR)
Sea and Plastic and Destruction

Digital illustration

MAISOON AL SALEH (AE) Money Doesn't Float

Mixed media

www.maisoonalsaleh.com



Delving below the obvious meaning of stories and accounts of the past, Maisoon Al Saleh focuses on the story of a shipwreck and the fragility of the human body in water as a means of telling stories that transcend age and gender. Exploring documentation of the shipwreck of Dubai passenger liner M.V. Dara, Al Saleh's watery visuals tell different personal perspectives of the event, inspired by letters written by the shipping company and police investigators, news articles, and stories told by survivors or family members of those who perished.



MALCOLM D B MUNRO (US) Or, Rather, It Was

Photograph

www.malcolmdbmunro.org
www.saatchiart.com/malcolmdbmunro



MANION KUHN (US) Optimum Hydration

Video Art

www.cargocollective.com/manionkuhn



MARIA BITKA (PL) Fountain

Installation

www.mariabitka.pl



MO BARRANGI (UK) Rescue

Print

www.mobarrangi.com



MYRTO VRATSANOU (GR) Screen of Waters: Aquarium

Digital Video

www.cargocollective.com/myrtovratsanou

MALATION (FR) Healing the Sea!?

Installation

www.malation.de

"Could this be a science fiction motif like the artificial development of new species made of plastic, growing through its assimilation of new plastic particles? Is it a utopia, or a dystopia with unpredictable consequences?"

- Malation

The installation shows plastic moving in water—in the shape of fantastic marine creatures. The soft sculptures made of silicone are presented as fragile objects of experimentation, in a setting suggesting a sterile place of scientific research or therapy. Each organism discreetly bears the traces

of its undergone treatment, which is specifically documented by photographic sheets in a file on the table nearby. These uncomfortable details contrast with the scene of tranquillity in the water.

The spectacle of these regenerating lifeforms, and the evidence of their undergone treatment, creates sympathy for the marine ecosystems in urgent need of rescue. Furthermore, the artwork can be seen as an optimistic vision that science could contribute to healing and protecting the environment, through taking inspiration from the dynamism of nature.





MALGORZATA BASINKA (NO)

Visionary Transcendence

Photography

www.malgorza-basinska.com

With her triptych *Visionary Transcendence*, the artist attempts to portray meditative symbols of perfection, union with the world, and the sublime. A poetic articulation of recollected emotion from the spontaneous sharing of a moment of visionary transcendence that records, validates, and celebrates nature's redemptive beauty. Both the original moment of experience in the

presence of nature and the artistic reflection of the inspiration are visionary transcendence.

Curved lines, subtle pastels and colours create delicate visuals that are alive and vibrant, connecting the viewer to the meditative beauty of water and in turn warning of the growing devastation of nature.



MALIHEH GHIYASIAN (IR) Under the Paradise

Photograph

www.instagram.com/maliheh_ghiyasian

Capturing the natural beauty of a river becoming more and more polluted by household sewage and waste, the artist tries to immortalise the image of an area whose plantlife is already affected by pollution.

MAP OFFICE (HK)

Moving Lemuria: From the Indian to the Pacific Ocean

Installation

www.map-office.com

Myths, legends, stories, histories—many narratives are needed to define the contours of a new territory. MAP Office takes as a starting point the hypothetical ancient landmasses that propose an explanation for the distribution of animal species on different continents, and inserts the modern reality of floating trash masses into this narrative.

In 1969, land artist Robert Smithson visualised the lost continent of Lemuria—a hypothetical landmass proposed by zoologist Philip Sclater that connected Madagascar and India which could explain the presence of lemurs in both countries. Lemuria sunk into the ocean in the age of the Eocene, to be

reimagined by Smithson and now again by MAP Office.

From myth to reality, the identification of the Great Pacific Garbage Patch, marked the return of the hypothetical landmass. The plastic garbage vortex located in the North Pacific Ocean is a continent in motion that materialises visible traces of the Anthropocene era.

Building on Smithson's artistic proposal for the location of Lemuria, MAP Office presents a variation with a collection of seashells from Sanibel Island, plastic particles and drawings, moving Lemuria from the Indian to the Pacific Ocean.



MARA RUZZA (IT)

Mare Nostrum

Sculpture

www.mararuzza.it

A significant part of Mara Ruzza's artistic research comes from the observation and collection of residues, organic waste, and plastic waste from beaches and the natural environment. The juxtaposition of natural materials such as ceramic with synthetic materials like plastic offers her the opportunity to show the contradictions of contemporary living and the environment, bringing attention to degradation.

Ruzza emphasises the sculptural beauty of organic organisms by using the fragile and rare shells of sea urchins against a large formation of plastic recovered from the beach. The interplay of the two materials symbolises, beyond the fragility, a message of hope; the strength of the residual nature that can still regain possession of a possibility of life.





MARGO TRUSHINA (RU, UK)

Iceberg

Site-specific installation

www.margotrushina.com

This work was inspired by a cover of the National Geographic magazine featuring a plastic bag partially submerged in water and resembling an iceberg; it suggests the world's plastic pollution is "just the tip of the iceberg."

Iceberg, installed in the courtyard of the St. Regis Hotel in Moscow, references the popular cover image. Constructed from plastic, wire, mesh screen, and video works, the scale of the work also suggests the scale of the problem and plays on perception as well as imagination of the viewer. During the event, with the theme of the Titanic, the audience was invited

on the journey throughout the building in order to see the whole picture. As for those on the top floors of the hotel only the tip of the iceberg remains visible and for those who were downstairs only its bottom part.

Margo Trushina explores metaphor, communication and public participation through site-specific installations, sculptures, live performances and interventions. Her work is optimistic in its reflection of moments of shared experience, often incorporating signifiers of celebration and communal gatherings.

MARILLINA FORTUNA (IT)

Milano, Vicina All'Europa

Assemblage

www.marillinafortuna.it

Marillina Fortuna's plan of Milan is meant both as a topographic study as well as a representation of the city as a biological element. In the latter sense, it is projected towards the topics characterising Expo Milano 2015: Moving To The Future, a technology expo focused on sustainable food production. Taking a look at Milan's past through the water of its Navigli (Leonardo da Vinci's canal project), its trees, lawns and lands, the project proposes "a new way," beginning with water as its centerpoint.

The three actions the artist conducts embrace her personal opinion on sensitising children and adults towards issues of plastic waste. The first action is to bring people to clean our shores, collecting colourful pieces of plastic. The second action is creating something useful and new starting from those collected pieces, re-using them for their practical and aesthetic qualities. The third—and most important—action is to emphasise and normalise recycling and reusing in everyday life; if this is successful, step one and two become redundant in a waste free future.



The city throws its garbage into the sea. The sea returns it back.

For her work *White Enough*, Marina Fomenko collected trash that she found on the beach and painted it a bright sterile white. Out of the trash she then recreated forms and objects from her own city: a house, a TV tower, a monument, a zoo, a yacht. Fomenko symbolically returned these objects to the water, continuing the ongoing cycle of plastic pollution.



MARINA FOMENKO (RU) *White Enough*

Installation

www.marinafomenko.com

MARISA MERLIN (IT)

Mermaid's Tears

Installation

www.marisamerlin.it

Marisa Merlin's art installation *Mermaid's Tears* derives from the name given to the small plastic beads that wash up on the shores of beaches all over the world. These small particles of plastic come from a variety of sources: by-products of plastic manufacture; microbeads found in cosmetic products; plastic objects discarded either accidentally or deliberately into the ocean and broken down through water erosion and photodegradation. Similar in appearance to plankton and fish eggs, this pollutant-absorbing matter is often mistaken for food by marine animals; harming them and allowing these toxins to enter the human food chain.

Composed of elementary shapes made from hundreds of pieces of brightly coloured plastic waste joined by metal rivets, at first sight the installation appears bright and cheerful. On closer inspection, the sculptural form is actually thorny, dangerous and unfriendly.



Plastic is versatile and economical. These qualities led us to an excessive consumption of plastic goods and the consequential environmental pollution. Merlin aims to draw attention to the responsibility of the individual and the relevance of our daily choices, even small ones.



MARJORIE CHAU (DE) Caleuche

Interactive installation, performance

www.marjoriechau.de

A large projection screen woven from plastic waste provides the backdrop for performers in Marjorie Chau's interactive installation *Caleuche*. Inspired by a South Chilean legend from Chiloé Island, the story tells of a ghost ship that appears in the night with dazzling white sails before disappearing beneath the waves to continue its journey there. The same woven fabric as used for the screen adorns the performers, the monochromatic shades adding to the ghostly effect. Made from EU-banned plastic, the artist sources the material directly from Chile before weaving it using a traditional Mapuche loom.

The screen's wrinkled and translucent surface reflects effervescent images

of underwater fauna, visuals that are accompanied by ethereal soprano singing. Sewn from several parts, the screen symbolises the white sails of the ghost ship, as well conjuring eerie imagery of an oceanic carpet of plastic; alluding to the marine life deaths caused by plastic in the Pacific Ocean.

The expressive power of costume is the lifeblood of Chau's artistic practice; at the center of a multimedia work which combines installation, performance, film and choreography. Its scenic impact is intensified by the use of stilts and the grand dimensions of its quasi-sculptural presence, indissolubly linked to the body that wears it.

MARY ANNE ZAMMIT (MT)

Consumed

Painting

Painting with acrylics and incorporating plastic into the work, Mary Anne Zammit's figure is a representation of humanity and our dependence on plastic. Repurposing plastic as an art material she hopes to bring attention to the situation of our plastic infiltrated seas and oceans. At the current rate of pollution, by the year 2050 there will be more plastic than fish in the oceans. We are already consuming plastics into our bodies and Zammit's plastic figure symbolises this dark reality.





MAZYAR ASADI (IR)

Small Pollutant, Massive Effect

Photograph

The first step towards positive environmental change is to recognise the sources of pollution. Looking into the major sources to mitigate pollution is good but not definitive, photographer Mazyar Asadi believes. Growing cities and fast-changing technologies lead to a large number of pollutant sources that end up causing massive devastation to our sea and environment in general. This image is a good example of lack of knowledge and negligence: the damage that gasoline causes to our environment can be easily overlooked. It depicts the lack of training, regulation, and understanding that characterise the millions of small incidents of

pollution that happen everyday and are damaging our sea.

Gasoline is typically transferred to boats in plastic containers; not only is the plastic material problematic, even “empty” containers are a noticeable source of pollution. Continuous leaking when carrying the fuel, overflows of fuel into the boat’s tank, damaging practices by boatmen cleaning engines using gasoline and sea water, flipping the fuel tank toward the sea to remove internal clogs, are a few examples of everyday pollution that the photographer wants you to think about when looking at this picture.



MEADHBH O'CONNOR (IE)

Climate Simulator - A DIY Project, Try it Yourself

Photograph

www.meadhbhoconnor.info

This photographic project combines a simple scientific demonstration, which mimics the scattering of light as it appears in the Earth's atmosphere, with analogue techniques used in early cinema to create artificial cloud scenes. The technique is a combination of nothing more than water, a colloidal substance, salt, temperature and a plain light, producing an incalculable amount of unique weather scenes, using no coloured lighting and minimal digital effects. The resulting images bear a

convincing resemblance to atmospheric phenomena seen at a macro scale on Earth.

The project shows how the combination of just a few simple elements produces an incalculable number of possible results, not dissimilar from the chaotic nature that governs our own weather and climate system. In other words, Meadhbh O'Connor's message is that we interfere with the Earth's atmosphere and environment at our own peril.

MICHAEL & ANNA ROFKA (DE, UA)

Blue Whale

Sculpture

www.europeanatelier-michaelrofka.de

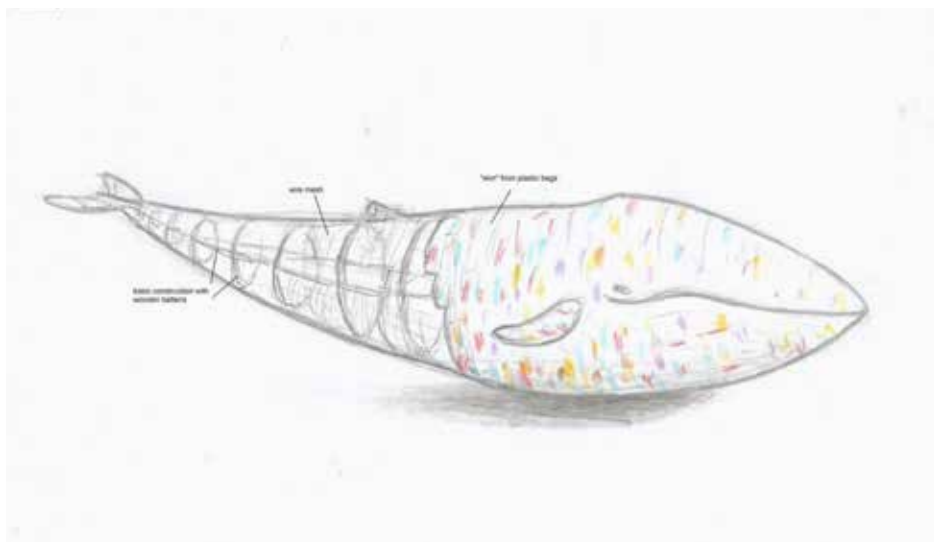
This project by artist duo Michael and Anna Rofka is a series of gigantic blue whale sculptures. The whales will be constructed from a wooden-batten skeleton, covered with a light wire mesh and an exterior skin of plastic bags. The size of each whale depends on the exhibition space. An actual blue whale can be 30m long, however they will also make baby whales to be presented indoors.

To realise their artworks, the artists require help from their audience. They want the scale of the whale sculptures to be impressive and make an impact, and hope that participants will contribute all

kinds of plastic bags for the material. The artists aim to guarantee that every giver will get something in return, perhaps cards with original whale drawings.

"The blue whale is like a symbol of the sea. The whale-sculptures made of plastic are collectors of plastic bags that will not end up in the sea. It's important that people join the idea, so that it can be a shared, common artwork. There is also a poetic aspect; at every exhibition we create a new whale. So there will be an international whale family."

- Michael and Anna Rofka



MICHELE SANTOMARCO (DE)

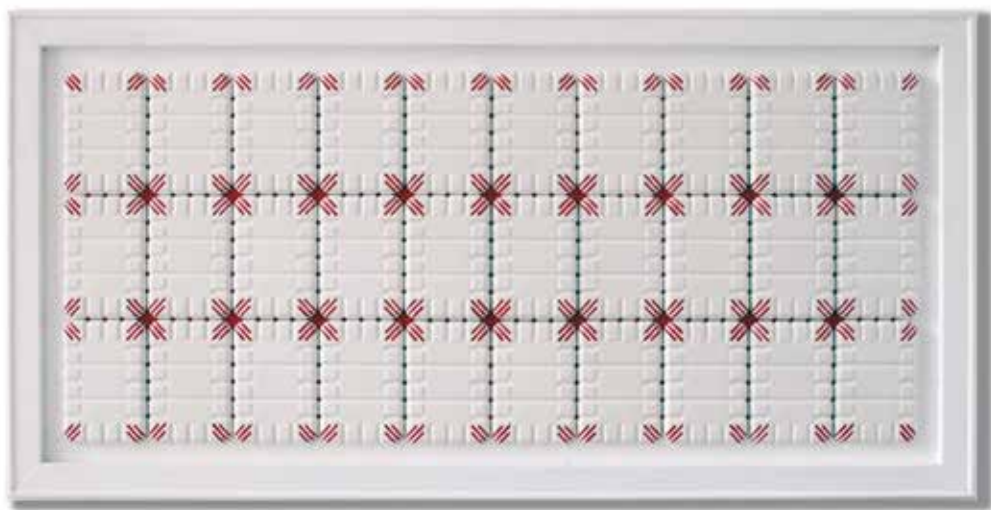
The Human Foodprint / 30 Snowpeas Dark Red

3D wallpaper

www.instagram.com/michele.santomarco

Michele Santomarco started working on *The Human Foodprint* in 2011 when he realised the immensity of the variety of plastic packaging used to contain the food we eat. Almost everything is packed in plastic containers that we trash as soon as we eat the contents. Plastic packaging comes in countless shapes and their production requires labour, energy and resources to create objects that are in use for a very short time, but have a huge and long-lasting impact on the planet.

Santomarco's artwork is made of pieces of plaster cast from different plastic packaging, using the packaging itself as molds to create a solid replica to give it an immortal and dramatic physical presence. The objects are arranged in sequences and are hand painted creating a three dimensional wallpaper or a contemporary stucco.



The focus of Miep Adenacker's work is on the inner connection between human beings and nature. Adenacker conceptualises the processes of growth and metamorphosis, especially biomorphic structures such as coral reefs that fascinate and inspire her. She considers them as a "constant fountain of inspiration." For *Reorganisation*, Adenacker directs this focus towards the deep oceans which are filled with the rubbish of human civilisation. Since deep seas are inaccessible and almost unreachable, we cannot control the impact of our actions. This ticking bomb is largely invisible to us and is so easily blocked out of our consciousness.



A central theme in Adenacker's practice is the confrontation of nature with humankind's rubbish. Her view is neither scientific nor objective. As she forms with her hands, she is always on the quest for finding access at an emotional and spiritual level. In this manner, Adenacker aspires to reach and touch the "inner depths" of her art. For her it is important to recognise that not everybody has the opportunity to start big actions. Nevertheless, small changes can have a big influence.

MIEP ADENACKER (US)

Reorganisation

Sculpture

www.atelier-adenacker.de



MIHAYLINA LEFTEROVA (BG) Costume + Puppet Seahorse II

Costume puppet

www.mihaylinalafterova.com

Costume + Puppet Seahorse is a project Mihaylina Lefterova started in 2018 as a reflection of her concerns regarding issues of plastic in the oceans and the living creatures that depend on the marine world. All materials for this project are reused—various plastics, fabric remnants, paper collected from relocation packaging, wire, and old shoes.

The idea behind the project is to incorporate puppet and costume design to create a unique piece of art with various applications and scope for dance performances, storytelling, puppetry, and fashion. It is intentionally lightweight, so the human body can feel comfortable in it to move and perform.

MIRABZADEH-ELHAM SADAT (IR)

Trash

Illustration

Many of the damaging effects of pollution on rivers and lakes can be seen in the oceans. As many rivers eventually reach the ocean, contamination of the rivers also causes ocean pollution. In the East, for decades it was common to dump garbage directly into the Atlantic. Large amounts of hospital waste, wastewater and waste suddenly returned back to Massachusetts and New Jersey in the summer of 1988, causing much public protest.

The US Congress, under pressure from the public, passed the following year's law to ban the dumping of waste in the ocean. The law forbade the pouring of any pollutants into the ocean, however, 10 to 20 percent of the pollution still happens this way. Despite the international ban on dumping waste into the ocean, it is estimated that over 500,000 pieces of plastic are being dumped in the sea everyday.



MOI TRAN (VN, UK)

See / Sea

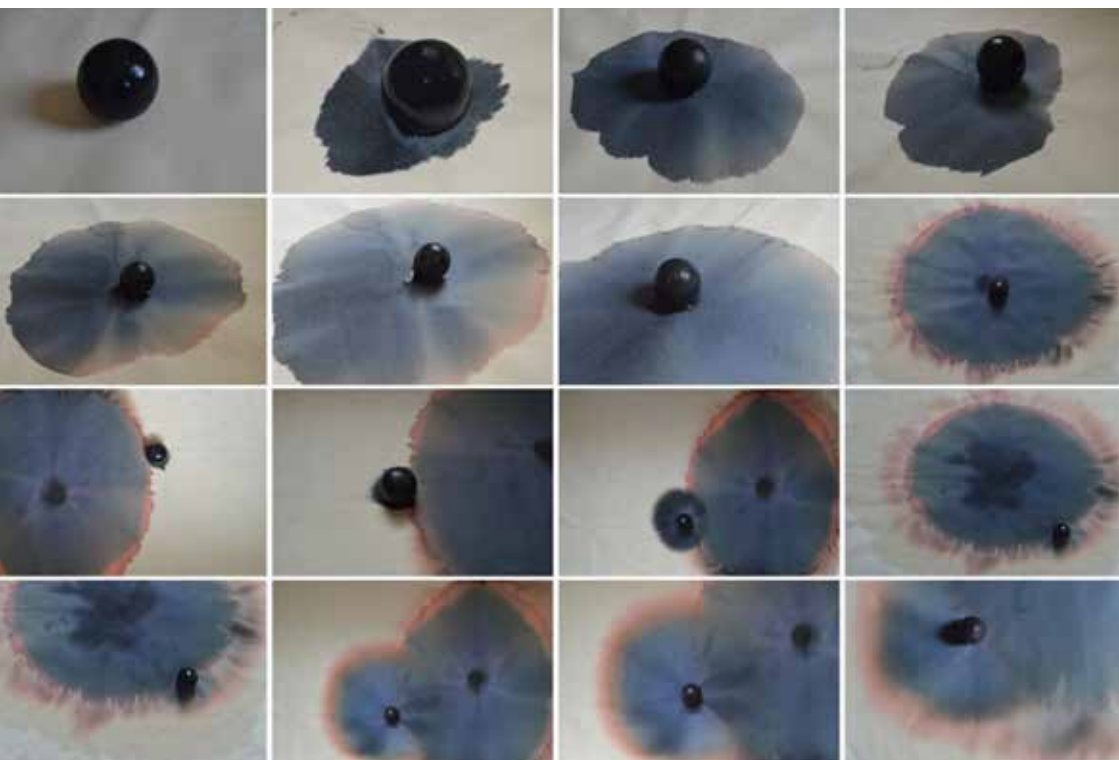
Installation, performancewww.moitran.com

In Moi Tran's live art performance, water acts as the primary medium. Water is an everyday element that we are all dependant on and use as part of our everyday rituals.

"It is a live element, responding to time and life and I am very interested in presenting the essence of liveness in this work."

- Moi Tran

The components used in this performance installation provoke thoughts about climate change and pollution. A large canvas made of unprimed calico is installed on the ground, upon which the viewing experience is composed. Viewers are activated as witnesses to the performance; they are called upon to engage and reflect.



MONA LÜDERS (DE)

Windows of Consumption

Window installation

www.monalueders.com

Windows of Consumption is cause to pause and confront the effects of consumption in German society, while revealing individual identity as seen through the lens of garbage. Participants, asked to collect their trash over 2-3 months, were stunned by the sheer volume of waste accumulated. From this heap of refuse, a tapestry of plastic remnants were arranged within the glass windows of their homes. The play of light through the varying colors and transparencies of plastics creates an experience reminiscent of sunlight filtered through the sacral stained-glass windows illuminating a house of worship.

The window is more than a common gateway between inside and outside, but rather maintains a balance between protection and vulnerability—sound piercing tranquillity, light illuminating dark. By using trash to obstruct the view, the artist challenges the public to look beyond, and understand the “garbage” they produce from excess consumption is blocking their ability to live a more self-aware, spiritual existence. The triumph of what we want, over what we need, has led to the human tragedy of over-indulgence. Individual’s tastes and choices are embodied in their window display, allowing the public to view that identity, to formulate understandings of those lifestyles. Lüders’ hope is that *Windows of Consumption* will lead people to adopt more self-accountable consumer behaviours and find creative solutions to a growing problem of our modern day society.



MONICA CARVALHO (DE)

Venice in a Bottle

Digital collage

www.instagram.com/mofart_photomontages



For this work, Monica Carvalho used a plastic bottle to create a digital photomontage highlighting the issue of plastic pollution in rivers and oceans, taking the popular tourist city of Venice in Italy as an example. Carvalho hopes that her work *Venice in a Bottle* will demonstrate how the simple act of purchasing an item made of plastic—say a water bottle—can have a huge effect on the Earth's ecosystem. The image can be interpreted in two ways: either Venice is encapsulated in the plastic bottle, trapped; or Venice is making an effort to reduce plastic consumption so it is getting slowly out of the bottle. It depends on your actions: if you choose to consume less plastic, or if you carry on consuming plastic. Carvalho's artwork is a call for action. If we don't stop consuming plastic, it will consume us, the animals, the environment, the planet.



This film was produced at the Munich Business School by the students of Prof. Dr. Jose Manuel Alcaraz Barriga's "Business and Society in a Global Context." The making of the documentary was a tool for this class of business students to understand the model of the 'Planetary Boundaries' which describes nine bio-physical limits that should not be transgressed if humanity is to remain in a "safe operating space." "Novel entities" including plastics is one of those nine boundaries.

The amateur film-making became a collaborative and embodied approach to learning in which business students identified key issues related to plastics and its impact in their local environments, examining solutions and opportunities from a business perspective. The process was used by Barriga as a way to expose his postgraduate students to a powerful storytelling approach that resulted in deep learning: transforming knowledge, skills and emotions in very significant ways for most of the groups.

**MOHAMED KORRA, TAMMY YONASHIRO
BOCUZZI, BUGRA CEYHAN, AXEL DUPEYRON,
RATKO KOS-IGEL, THIAGO KÜCKELHAUS DE
OLVEIRA (DE)**

Plastic Planet

Documentary film



NASIM ZAHEDI MOGHADDAM
(IR)

Healthy Oceans, Healthy Future

Illustration

PAUL MATOSIC (UK)
A+B=cc(an).

Mosaic

www.matosic.org.uk



PING ZHENG (US)
Cave

Painting

www.zheng-ping.com

POLINA GM (CO)
Missing Sea

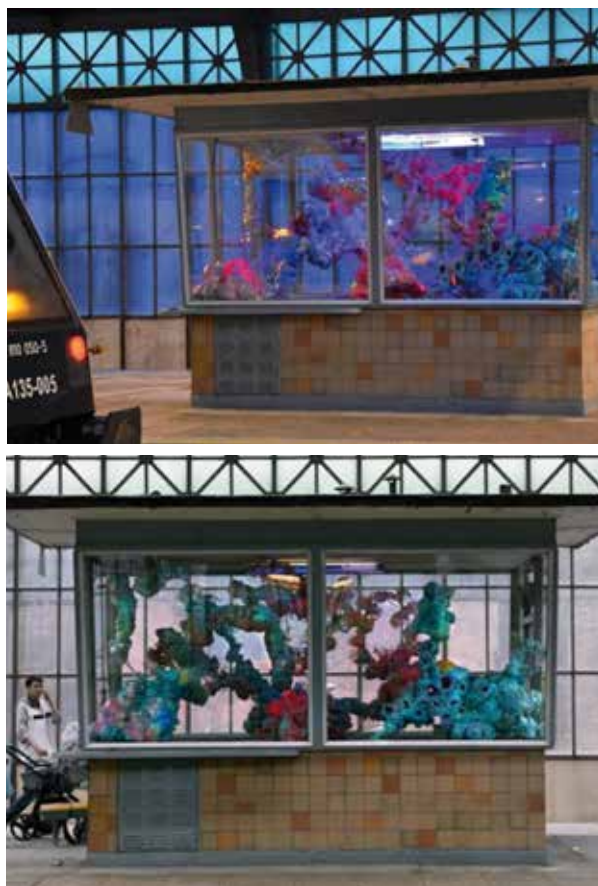
Installation

www.golovatinamora.info/



It is the year 2100. The world as we know it no longer exists. Plastic has occupied the whole Earth and life has changed dramatically. As most of the plastic waste ended up in the sea, the living beings in the sea had to cope with the impact of various microplastic invasions. Unbreakable polymers in small pieces in the water had a deforming effect on marine life. The futuristic *Cabinet of Plastic Wonder* shows the impact plastic had in the 2050s and how life dealt with it—or not. It displays objects or curiosities from a dystopian, but nonetheless near vision of our future.

What will the *Cabinet of Plastic Wonder* look like?



NADINE BALDOW (DE) Cabinet of Plastic Wonder

Installation

www.nadinebaldow.com

NANCY OLIVERI (US)

Angel Knot

Photograph

www.nancyoliveriphotography.com

Angel Knot is part of a fine art and documentary photography project that explores the Gowanus Canal in Brooklyn. It is considered one of the most contaminated waterways in the US and is designated a superfund site—a site contaminated by hazardous waste and labelled a cleanup priority. This photograph captures faded plastic that the tides have formed into knots. Suspended in the murky polluted water, the plastic knots are somehow elegant like woven fine fabric and intricate like a sculpted art-object. Nancy Oliveri searches for classical beauty in cultural debris. She finds both poetry and horror in the toxic water. By centering this juxtaposition, *Angel Knot* tugs and twists at our expectations of beauty and the natural world.



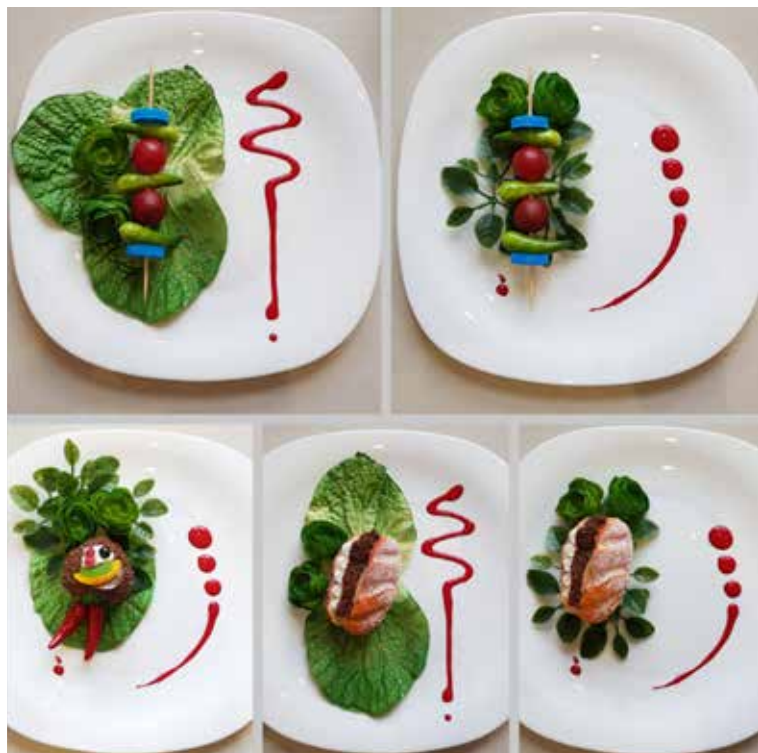
In her practice, Oliveri researches and explores places that have absorbed the shame of human destruction. The power and resilience of nature is as much a character in her work as pollution and destruction. A future aspiration of this ongoing project is to photograph the clash between pollution and sea life surrounding a location like Fukushima. Though her chosen sites are specific, the project communicates the truth that every country and every town has.

NASRIN YOUSEFI (IR)

This Menu Costs 400 Bucks

Installation

With his seemingly delicious plastic feast, Nasrin Yousefi draws attention to the less than delectable truth of our food chain as polluted by plastic. Having gathered and made the banquet from plastic waste, Yousefi intends to deliver the message of nature in a different way, asking his audience to sit at the table and start eating from the plates. The impossibility of the task highlights the impervious nature of plastic in our world, as well as our frequent unwillingness to confront and deal with the issue.



NEDILL (HU)

Delta

Installation

www.behance.net/nedill



Delta is a food design installation inspired by the idea that we are a part of nature's circulation. The table symbolises this process, as it comes from nature, but its form is developed by humans. Water is directed by channels, just like rivers flow from the source to the sea, or as blood flows in vessels of our bodies.

It is an interactive game: the materials at the table, the colour or taste of the liquids, can be modified, symbolising the act of human intervention. The liquid flows through the channel system and into glasses, ready for the audience to drink.



NEVENA VUKSANOVIC (RS)

Waves

Installation

"We are victims of a system that skillfully manipulates us, a system that exploits our weaknesses, thriving on them. The only way out of this vicious cycle is to stop accepting things easily and automatically, and instead to decide on our own needs and lifestyles. Resisting the unscrupulous influence of the marketing industry is the only way out of this cycle. The way we influence the planet today is crucial for our future tomorrow."

- Nevena Vuksanovic

Through her work, Vuksanovic directs people's attention to the recycling of garbage, one of the most important issues of our time. With her new recycling form that turns garbage into an artwork, she draws attention to the unconscious behaviour of a modern consumer and warns of an unwanted future that awaits us if we continue to behave selfishly and disrespectfully towards nature.

NEZAKET EKICI (TR, DE)

Water to Water

Performance

www.ekici-art.de

Nezaket Ekici stands with a pedestal on the water. She wears a long red dress, fitted with five water tubes that reach the shore. She takes water with a bucket from the lake and cleans the water with a filter to make it drinkable. The water runs through the tubes and arrives into glasses over at the shore. Helpers take the water and invite the public to drink.

The idea for this performance derives from the differentiation between water as essential for life, and water as a commodity and a privilege. Clean drinking water is a resource we take for granted. Ekici wants to make people understand what is at stake for mankind. Presented for the first time at Haus am Waldsee in Berlin,

2015, *Water to Water* also considers taking water as something existential. As a limited resource, water shortage is a real risk for future generations; we need to find ways to protect it in order to sustain our lives. Her confrontations with the ordinary allow Ekici to explore the social and cultural atmospheres in which she operates. These confrontations are then translated and expressed as performances and installation art. She uses her body in this context as a means of expression and investigation in order to increase public knowledge around the issue of water pollution.

This work was a jury-selected winner of the The Universal Sea: Pure or Plastic?! second international open call





OPHELIA JACARINI (FR)

Mandra

Installation

www.instagram.com/jacariniophelia

"Sometimes past works can inspire new ideas and pieces," says Ophelia Jacarini. The idea for *Mandra* was inspired by the artist's previous exhibition of pieces that were both aesthetic and "diagnostic." Her concept was to partially record psychic maladies and contemplate how differently disordered brains might work. "A visitor who came to my show was intrigued and asked me why wasn't I making art that could go into hospitals. Just like that, her question gave me my next subject."

Jacarini researched soft medication and meditation as treatments and learned that in some meditation practices, the sound of water relaxes the mind. Some

hospitals even have water incorporated into their architecture so that the patients can see and hear its soothing influence. The artist imagined *Mandra*, a moving sculpture based on this idea of relaxing the mind with water.

Jacarini creates art installations that challenge perceptions of the body, energy, time and space. She is interested in cultivating spaces in which the mind and body can listen and the heart can open. In this state, individuals find the possibility of fresh insights and new connections between themselves and the world around them.

PABLO DILET (IT)

A Poem Against Plastic Waste... Sinking In This Sea Is (Not) Sweet To Me

Installation

www.pablodilet.com

A Poem Against Plastic Waste... reflects on one of the most famous Italian poems in the world, *The Infinito* by Giacomo Leopardi. The last line of the poem translates to "... and sinking in this sea is sweet to me." *The Infinito* dreams about the beauty of the world and nature. But sinking in a contaminated water is not so sweet. Therefore, Pablo Dilet modifies Leopardi's poem: "Sinking in this sea is (NOT) sweet to me."

In the artwork, Dilet focuses on the idea of pure water and on its opposite, plastic waste. The work depicts a boat that is wrecked in a plastic sea. On the horizon, there is a glass of pure water.

The installation drives three messages: the boat is created using newspaper (be informed), the plastic makes the navigation impossible (be educated), but the horizon is the hope (be proactive). *A Poem Against Plastic Waste...* has an important dual role as an artwork addressed to adults, which will reflect on their everyday behaviours and on their consequences, and also an art-education project that has the potential to educate the new generations. Adapted to a learning activity, children will build a newspaper boat that is placed in a glass container full of plastic. The boat will only sail when the plastic is removed and the water becomes clean again.



This image is created to acknowledge the poisonous effects of plastic and continue to spread awareness about the issue. Paola Idrontino feels that as an individual, she can take action to change the fate of our world's oceans. As an artist she feels responsible to present the story of our oceans in ways that engage a global audience and create awareness that leads to the necessary action. 160,000 plastic bags are used globally every second, and each bag takes hundreds of years to break down, meaning they remain in the environment long after we have finished with them: blighting cities, choking rivers and filling the oceans.

The swan is connected with water. It is a symbol of purity, beauty, grace, divination and love. The swan acts as a messenger of faith; a totem animal, capable of bringing transformation and light into wounds to be healed.

Paola believes that focusing on plastic-free packaging that is 100% natural, biodegradable, sustainable, compostable and recyclable, must be our focus and responsibility to save this planet.



PAOLA IDRONTINO (ES) The Messenger

Photograph

www.papayapie.com

PATRICK DEMAZEAU (FR)

A Good Blow of Brooms!

Public installation

www.nature.art.free.fr

"A Good Blow of Brooms! is an awakening message about the polluted state of our ground, of our water, of the air, and about the urgency to preserve our environment. The pollution of oceans often comes from the land where waste is dumped at sea. It also comes from fertilizers and animal waste that pollutes the oceans by infiltration,"

- Patrick Demazeau

Demazeau's brooms symbolise the need to clean our environment if we want to save our oceans. The scene of this "corps de ballet," performed by fifteen brooms in rhythm, personifies a will to restore and maintain nature. The huge scale of the brooms (seven meters tall) is equal to the task which is assigned to us.

The artwork was realised during a three-week residency in Eco Park at the National Museum of Marine Sciences and Technology, Keelung, Taiwan. Throughout the years 2016-2017, Eco Park has become a meeting place where people come together and take pictures. During his project, Demazeau collected more than 1000 photos on the internet and made a notebook to show the joy of this site. Its coastal location makes it an appropriate place for visitors to be confronted with the issue of ocean pollution. The artist proposes now to realise *A Good Blow of Brooms!* in different locations, to spread his message.





PAVEL MATOUSEK (CZ)
One-way Future

Photograph

www.pavelmatousek.cz

Capturing a moment of play, Pavel Matousek's photograph comments on the bleak reality that we often choose to ignore. By framing this image of a child inside a plastic sphere floating on water, Matousek reflects on our future entrapment within a plastic world.



Temporary Density of Matter is a project comprised of a number of sculptures, photographs and mobile installations, made in collaboration with Prof. Marek Krajewski. Paweł Błęcki's objects are inspired by folk art, in which form plays a significant role. With their rich colours and complex designs, folk decorations treated as lucky charms secure good harvest or prosperity in the coming year. Apart from their symbolic character, what is important is the collaborative work of their makers, which involves talking, singing, and spending time together. This is a kind of social consolidation for the sake of the common good.

It is through such joint activity that Błęcki would like to activate local communities, inviting them to create together objects inspired by the folk art of both the artist's country, and the country in which the project will be carried out. The artist does not want these activities, and the topics that will be addressed, to be merely an ephemeral event that is over on the last day of the project. Instead, he would like them to become part of local life. To achieve this he is planning on collaborating with local cultural representatives in the country where the project will be carried out.

PAWEŁ BŁĘCKI (PL)

Temporary Density of Matter

Sculpture

www.pawelblecki.com



MONIKA TOBEL (UK)
Living by Proxy Of

Installation

www.monikatobel.com

NOEL KASSEWITZ (US)
Lunar Pull 4889

Photograph

www.noelkassowitz.com



PAUL WIERSBINSKI (DE)
Toys

Installation

PEIMAN DANESHVAR
AGHCHAI (IR)
Reverse Blue

Photograph

www.instagram.com/peyman.daneshvar



PERSIA CASTELLANI (UK)
Splash

Painting

www.instagram.com/persiacastellani

PHILLIPA HORAN (UK)

Foreign Exchange

Sculpture

www.phillipahoran.com

Charon, the ancient ferryman of Hades, rows his boat across the river Styx carrying human souls to the world of the dead. Standing taller than his viewers, the figure is an organic mass that both questions the future of humanity and gives hope for its salvation.



Biodegradable and made from a sustainable resource, Phillipa Horan's Charon was grown in a lab in humidity chambers using mycelium, the single cell root system of a mushroom. Mycelium offers scientists and innovators a new versatile and eco-friendly material that can be used for medicine, water filtration, building, packaging and much more. The sculpture is part of a larger project that includes a presentation by expert mycologist Merlin Sheldrake, demonstrating how mycelium is a suitable sustainable replacement for plastics and is also capable of digesting plastic waste.

Instead of ferrying us to the underworld, Horan's mycelium Charon delivers us a viable alternative to the unsustainable future we are sailing toward.

Pinar Yoldas' project is a comprehensive art installation addressing the impact of the plastic oceans of the Anthropocene. As environmental activist and discoverer of the Great Pacific Garbage Patch, Captain Charles Moore boldly claims, "The ocean has turned into a plastic soup." Referring to Kantian aesthetics, the garbage patch is a truly "sublime" kinetic sculpture built by all the nations around the Pacific Ocean through many years of mindless, unsustainable consumption. From primordial soup to plastic soup, this work asks, If life started today in our plastic filled oceans, what kind of life forms would emerge out of this contemporary primordial soup?

The project conceptualises pelagic insects, marine reptilia, fish and birds endowed with organs to sense and metabolise plastics

as a new Linnean order of post-human life forms. Inspired by the groundbreaking findings of new bacteria that burrow into pelagic plastics, *An Ecosystem of Excess* envisions life forms of greater complexity, life forms that can thrive in man-made extreme environments, life forms that can turn the toxic surplus of our capitalistic desire into eggs, vibrations, and joy. "Plastosensory Organ Plastoception" is the sense by which an organism perceives plastics in the environment. Starting from excessive anthropocentrism the project reaches anthropo-de-centrism, by offering life without mankind.



PINAR YOLDAS (TR, US) An Ecosystem of Excess

Installation

www.pinaryoldas.info

PSJM (ES)

The Hydrogen Island

Installation

www.psjm.es

The Hydrogen Island can be classified within the framework of reflective, ironic criticism of the consumer society, its symbols and messages, and the rhetoric that places these in circulation. This relational monument belongs to both the functional and representational sphere of present societies.

PSJM acts as a commercial cutting-edge art brand. Their work questions the economic reality with an interdisciplinary and critical practice emphasising spectacular seduction techniques of late capitalism. PSJM concentrate on creating paintings of various sizes and media including lacquered aluminum, laminate on wood, acrylic on natural linen and gouache or ink on paper. In addition, the artist duo has expanded its creative work to sculptures, mural paintings and videos focusing on economy and society.



Their work has been featured in numerous exhibitions throughout Europe, USA, Chile, Brazil, Mexico, Argentina, Cuba, Russia and South Korea—including “Beyond the Tropics” within the context of the 56th Venice Biennale, MoMA PSI, Riflemaker Gallery, and Fundació Joan Miró. In parallel to their visual research, carrying out intense theoretical and literary work they have published novels and curated international shows and projects.

This work was developed in collaboration with Instituto Tecnológico de Canarias.

PRZEPRASZAM GROUP: OLA KOZIOL AND SUAVAS LEWY (PL)

Song of the Age of Penumbra

Video, song

www.przepraszam.eu

The idea for this composition stems from the theses and conclusions of the book *The Collapse of Western Civilization* by Naomi Oreskes and Erik Conway. The authors outline a real vision for the future that the world will someday have to face if humanity continues to neglect the need to address climate change through global policy. The authors call the 21st century the 'Age of Penumbra'—the age of denial and ignorance.

Despite the knowledge and the ability of governments and people to effect change, they show themselves to be ineffective in preventing potential future catastrophes.





This work is one of a series of mono-prints of discarded plastic carrier bags that the artist has picked up whilst walking along the river. Rachael Causer is fascinated and repelled by the physical trail that we leave behind us. It is a complicated relationship; she finds the images hauntingly beautiful, and yet highly disturbing in their repercussions for our tenuous ecology. The floating plastic bag is both fragile and indestructible. The mending of plastic bags, whilst beautiful, is a useless endeavour; unlike a sock or a pillowcase, plastic cannot be repaired.

RACHAEL CAUSER (UK) Historical Flotsam

Mono-print

www.rachaelcauser.com

EVERYONE YOU EVER FELL IN LOVE WITH IS AT LEAST 60% WATER

*what if you didn't end where you thought you did
not with skin but with water*

*not with arms but with
meadows of watercress, daisy chains evaporating particles of thick waves*

*every wet fibre of your witch body is oscillating in between
hard and soft city and country beach and body*

*but enough about beach bodies!
you want to be a forest body,
with soft moss growing where your armpit hair should be
you want to be a desert body and emotions rippling like wind across your wide
open face
you want to be a volcano body leaking hot fire from every opening most of all you
want a sea body to be merging with your lovers without boundaries*

*the whole history of the ocean is already folded into your watery flesh but it
became illegible with all the
by products of plastic witch hunts borders bespoke ivory chain-hotels competing
for your body*

*so little sea
gather your kin
perfect yearnings in humans with seashells for ears and rewrite your end*

- Amanda Hohenberg (DE)

www.prawnstarpoems.com



Invasive Medusae is an image series in progress that aims to draw attention to and facilitate action against the proliferation of plastic waste and its unbalancing effect on our oceans.

The project consists of a growing series of cyanotype photograms that document specimen-like jellyfish forms made from waste plastic removed from the environment. This photographic technique was first used in the 1800s by botanist and pioneer of early photography Anna Atkins to document natural plants that she observed in her local environment. Two hundred years later, the artist is using this technique to document and exhibit the waste plastic that she comes across. She replaces the natural specimens of Atkins' practice with the ubiquitous plastic pollution found everywhere in our modern natural environment.

RACHEL THOMSON (UK)

Invasive Medusae

Cyanotype photogram

www.rachelthomsonstudio.co.uk

RAFAEL IBARRA (MX, DE)

Das Ding an Sich

Photo collage series

www.rafaelibarra.de

Rafael Ibarra's series *Das Ding an Sich* was inspired by Kant's idea of a world independent of our sensorial experience. Each photo collage in the series is made out of around thirteen different pictures from found objects (mostly garbage).

How would it be to see the world for the first time?
How would it be to see an object without recognising it?
How would it be to perceive the things the way they are, independently of our experience, or preconceived ideas about them? These questions are Ibarra's starting point for the series.

The artist imagines the possibility of forgetting what we know and having the chance to reinterpret our reality anew. The original objects become detached from their original role. This shift allows the viewer to perceive them in a different way; a new order with its own rules is given.

When the rational and goal-oriented perception processes become useless another perception 'modus' is activated. A more intuitive and irrational interpretation takes place guided mainly by feelings.



RAMESH KUMAR BISWAS, SARA TUSAR, TOM STROBL (AT, SI)

We Drink This!

Installation

This collaborative project aims to shock and inspire people of all ages and social backgrounds. *We Drink This!* is a public intervention. The artists do not want to preach to the converted, but rather touch people who never think about sea and lake pollution or ocean ecology. It hopes to grab and shake viewers personally, to enlighten them without scolding, to open their eyes, inform them, move them emotionally and make them act.

From a distance, it looks like a beautiful, LED lit-up blue sculpture. Upon approaching the giant PET water bottle, you see generic plastic rubbish floating—flip-flops, PET bottles, plastic bags, packaging and reflecting plastic beads to represent micro-plastics that today are distributed through all water bodies and ecosystems, and which eventually enter our bodies and cause disease. The sculptures cause disgust and horror, but are also fascinating and draw attention. By placing these provocative large installations in public spaces where everyone passes by, they demand attention and engage the public directly.





RESA BLATMAN (US) Drenched and Overgrown

Installation, painting

www.resablatman.com

Resa Blatman's use of plastic materials, in both the installations and paintings, causes a paradox of thought. She is repulsed by the proliferation of plastics in nearly everything we use and how it is littered throughout the natural environment, yet she is attracted to the seductive smoothness, ease of cutting, and the durability of working and painting on this material. Her tiny-haired brushes glide along the surface, allowing the oil paint to leave delicate marks and statements.

Most plastic has a short lifespan—it gets discarded after one use, or sometimes it may be recycled. The work of the artist offers plastic a long shelf life, thereby raising its hierarchical value in the material world. It also becomes ambiguous: the way the paint sits on the surface, how it captures the light and its transparency, calls to mind old master modes of painting. A sleek, silky, glossy, human-made material is cut, painted, layered, and transformed into a contemporary, swirling waterscape, where beauty and darkness reside.



RICCARDO ATTANASIO (UK)

Take Care of Me

Participatory installation

www.matlakas.co.uk

Take Care of Me is a participatory installation which emerged from a five day symposium around a clay table called Atelier n.4. Readapted for The Universal Sea, this piece takes the form of an exhibition where the artist creates a large clay table landscape and invites people to join him in conversation. As the group simultaneously work the clay on the table they engage in discussion about how we shape our landscape together and solutions for taking care of our planet.

After several days the artist will leave the table landscape alone and viewers must then become active participants

to keep the clay moist and pliable. Sound recordings of the previous days' discussions will be played to the public now responsible for the clay landscape, keeping the dialogue alive and encouraging a new cycle of conversation and ideas. Left without water, participation, and conversation the landscape will dry up, crack, and eventually collapse. *Take Care of Me* functions as a public platform for discussions about water, our seas, our landscape, and our future. Only through cooperation, sustained activity, and the generation of new ideas can the clay landscape, and our natural world survive.

RICHARD DAWSON (UK)

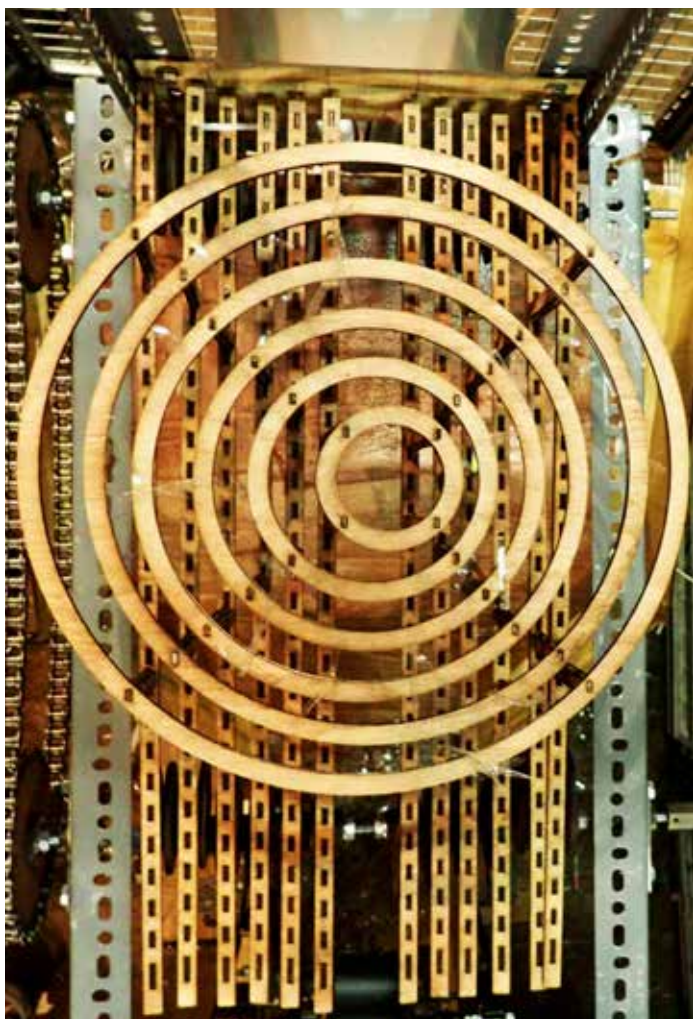
There Is No Away (Or Just A Drop In The Ocean)

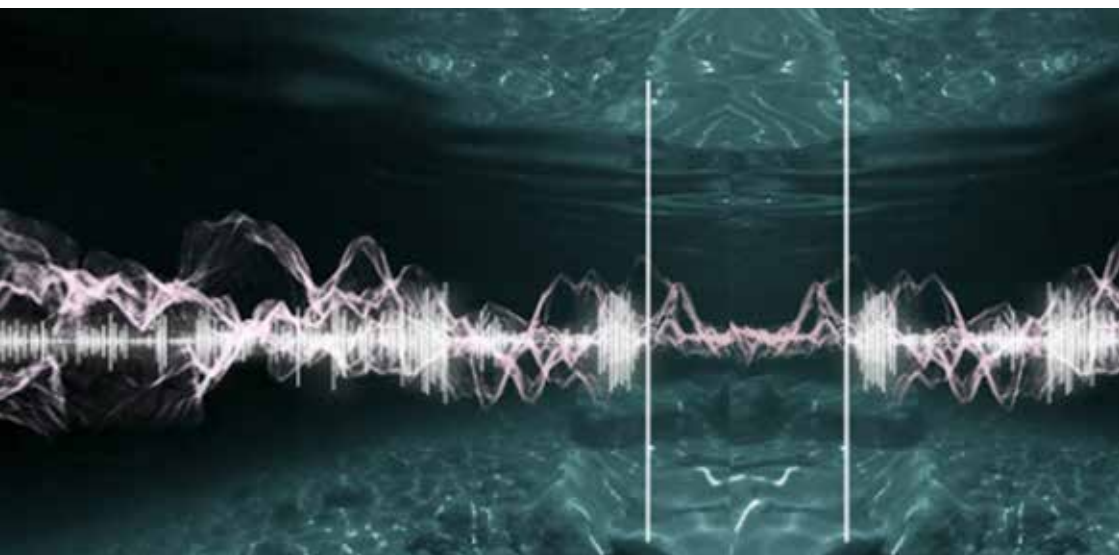
Kinetic sculpture

www.arbarus.co.uk

Though *There Is No Away* appears to be a functional recycling machine, it actually just cycles the waste material in a pointless loop, wasting energy and achieving nothing. In this way it acts as an analogy for the current trend of dumping plastic into recycling bins as an answer to the problem of plastic pollution. Rather than actually removing plastic waste from the environment, society fails to accept that ceasing the manufacture of pointless plastic items is a necessary and vital step towards solving current problems.

The artwork will be exhibited at Gallery Oldham as part of *Natural: History (a fable of progress)*, an exhibition exploring the loss of biodiversity, extinction and the Anthropocene. *There Is No Away* will become interactive by the addition of a commercial paper shredder converted to shred plastic bottles. This will allow people to "recycle" their plastic bottles into the artwork and hopefully understand that there is no away! That whatever is created has to go somewhere and that somewhere is actually the closed system of planet Earth. The expectation is that during the exhibition eventually the amount of plastic will overwhelm the device and destroy it.





ROBERTINA ŠEBJANIČ (SI)

Aquatocene / Subaquatic Quest for Serenity

Audio installation

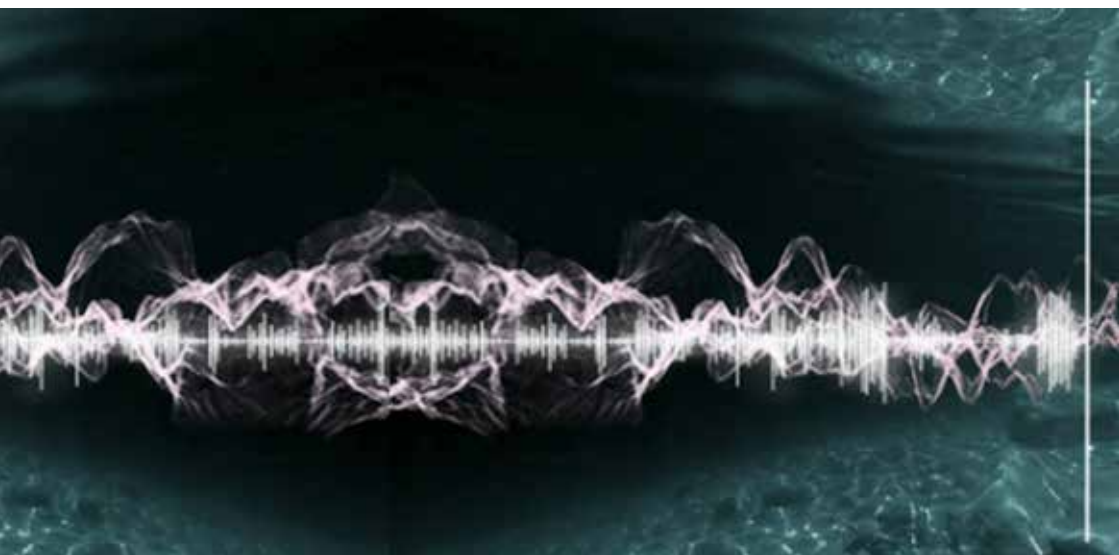
www.robertina.net/aquatocene

Aquatocene / The Subaquatic Quest for Serenity investigates the phenomenon of underwater noise pollution created by humankind in the seas and oceans. The sound compositions are a re-mix between the bioacoustics of marine life (shrimps, fish, sea urchins etc.), the aquatic acoustics, and the presence of

human generated noise in the world's oceans and seas. The audio compositions of the subaquatic soundscape encourage us to reflect upon the anthropogenic sonic impact on the underwater habitat and marine life, as well as illuminate awareness and underscore the importance of maintaining safe sound environments for animals living in the world's water habitats.



Over the last few years Robertina has made a number of recordings using hydrophones (underwater microphones) in different locations around the globe. In 2018 the *Aquatocene* project was selected by The Universal Sea for an artistic residency. During the residency Robertina visited numerous locations in her quest for underwater serenity. During the year she presented multiple



audio visual performances, exhibitions, and workshops, as well as filing and recording underwater soundscapes for *Aquatocene*. Locations included Corfu next to the Aegean Sea, Dubrovnik and Poreč by the Adriatic Sea, Amsterdam at Markermeer and many more.

Despite the broad availability of popular aquatic sounds, we aren't really aware that the underwater soundscape is as rich as the one heard by terrestrial creatures above water. Aside from lacking experience in terms of the fascinating diversity of marine sound, we are also not aware that noise pollution caused by humans is already changing the soundscape of the waters and even the communication of its inhabitants.

Robertina Šebjanič was selected as a The Universal Sea Artist-in-Residence. Read more about her project and her experience on page 445.



RICHARD LANG & JUDITH SELBY LANG (US)

Unaccountable Proclivities

Assemblage, Photography

www.plasticforever.blogspot.com

This artist duo has been visiting Kehoe Beach, Point Reyes National Seashore, in Northern California since 1999. Gathering plastic debris washing up from the Pacific Ocean, Richard Lang and Judith Selby Lang carefully collected and curated the plastic waste, converting it into works of art that show the materials as they are, with minimal artifice. The viewer is often surprised that this colourful stuff is the thermoplastic junk of our throwaway culture.



Oceanic plastic does not biodegrade but photodegrades, rubbing itself into ever-smaller pieces, planktonic in size; a toxic meal for the next in line on the food chain. Along with the news about BPA and the chemicals leaching into our food from plastic, we have learned that every human being on planet Earth has traces of plastic polymers in their bloodstream. The plated plastics depicted in the *Unaccountable Proclivities* series represent the tasty bites we are feeding to ourselves and to our children. The artists aim to show that from the air we breathe, the water we drink, the food we eat, art makes visible the environmental challenges we face; art can activate, bringing us together to navigate the complexities of life.

ROBERT ROELINK (NL)

The Plastic Soup

Installation

www.robertroelink.com

"Our society has reached its edges. Politicians and their voters are no longer able to influence this. Artists, philosophers and scientists are needed now more than ever to show new ways, because governing the world out of fear or financial gain is not a durable vision."
- Robert Roelink

Roelink views his mobile home as a means to manifest himself as an artistic nomad. He positions himself in the middle of society but, on the other hand, likes to keep the possibility to escape and experience nature freely.

He describes his way of living not as an escape but as a search for new values. As an artist he works with household plastics, plastic waste, acrylics, and tape to create paintings, collages, objects and installations exploring themes such as current environmental issues, the glorification of economical values, and various contemporary revolutions. He looks for images that imply a new enlightenment of ourselves. Roelink likes to expose current culture and values as opposite to the power of nature; which will outlive us all.





Near the home of Robin Beuscher is Chapman's Pool—a small cove on Dorset's Jurassic Coast, a recognised area of outstanding natural beauty and a World Heritage Site. Access to this remote spot is via a twenty minute hike across fields and seriously steep inclines to the bay below, or via the sea in a small boat. Many artists and photographers visit the area to capture the majesty and atmosphere of this unique landscape but often disregard the reality of an environment polluted with human waste. In just two visits Beuscher collected enough plastic debris and waste to create her sculpture, highlighting the very real threat of plastic waste washed up on our shores. Plastic waste degrades over time to become microscopic sized particles and combined with industrial amounts of plastic granules washed into the sea every day, create a deadly toxic cocktail absorbed by wildlife and fauna. These plastic granules are locally known as 'mermaids tears.'

Beuscher believes that art as activism is necessary to shock a contemporary audience out of apathy, and wants to utilise the

powerful subliminal messages art can communicate in an informative and influential way. The actions we take now, if any, will affect our children and their children in the immediate and foreseeable future.

ROBIN BEUSCHER (UK)

Floating on the Tears of a Mermaid

Sculpture

www.robinsart.co.uk

RON WILD (CA)

Plastic Bottle Glacier

Sculpture

www.gigapan.com

Plastic Bottle Glacier by Ron Wild is a proposed outdoor ice sculpture installation to publicly confront the Earth's alarming rate of global warming and the plastic waste epidemic. A frozen ice block tower (1x2x3m high) represents a pristine polar or mountain glacier and envelops dozens of plastic water bottles, some new and filled with water, others dirty and empty. As the sun shines on the block, the ice melts, gradually releasing the bottles in the process. The final scene is a pile of plastic bottles heaped in a puddle of water on the ground.

The artwork examines our staggering dependence on bottled water and single-use plastic products. It draws attention to the planet's shrinking glaciers and natural frozen water. While tapping glaciers, rivers, and other natural sources for fresh drinking water, we paradoxically flood our environment with the plastic containers and packaging used to deliver it, left with this waste for eternity. The convenience of consumption does not justify the plastic waste problem it generates in our landfills and oceans.





RUTH BILLER (DE)

Broken Wishes

Photography and watercolour series

www.ruthbiller.de

In her series of five artworks titled *Broken Wishes*, Ruth Biller addresses cultural tradition in contrast to sustainability. Exploring the ancient belief of water as evoking a purifying power and spiritual effect, Biller travelled to Cornwall, UK, to document a remote water source since known antiquity. With these ancient sources seen as the origin of life, Biller comments on the tragedy

of the plastic and impurities surrounding the source.

According to legend, babies were once bathed here by their mothers in a sacred May ritual. Biller alludes to this past, and hopes for a cleaner future, through a series of documented evidence and interventions.

RUTHI HELBITZ COHEN (IL)

A Girl Facing a Tree

Mixed media, 155 x 96 cm

www.ruthihelbitz.com

The work refers to the inability to break out of the chains humans have tied together over centuries. The girl's hands are disconnected from her body, reflecting that she can't move to free herself from the burning tree. The relationship between her and the remains of a tree symbolising a shattered memory, a forgotten experience. Nature and its whole complexity and interconnectedness stands as a symbol of life represented as a black, burned tree.

The Israeli artist Ruthi Helbitz Cohen invites the spectator to enter the shadows of the soul. Her archaic figures remind the observer of a sunken culture to put an end to the pillage of the world. Her works are realised through sheets of tracing paper, scotch tape, fabric softener, paint, ink and other substances. They touch on youth and innocence and its loss as well as on sexuality and motherhood, and the anxiety it causes.

In addition to the numerous museum exhibits in Israel, she was invited to show her work in Germany, Netherlands, France, Hungary, Denmark, Greece, China, and the USA. Alongside the artistic work in her studio, Ruthi teaches art in both the Beit Berl Arts College and the Oranim College.





REGINA MAGDALENA SEBALD (DE) Bond

Photograph

www.reginasebald.com



ROMICON REVOLA (IN) Ocean Within a Drop

Film

www.romiconrevola.com



ROSIE PEARSALL (UK) Phase Five

Installation

www.rosiepearsall.com



SANAZ AFSHARI (IR) Woman's Life Deep Down the Sea

Painting



SH FISHMAN (US) Plastic Sea/Rising Tides

Mixed media collage

www.susanhoffmanfishman.com

With her illustration, the artist intends to comment that human life involves a close relationship between us and other creatures.

"We suffer from our actions about other creatures but they are always kind to us. Next generations also are suffering from our actions and I'm not sure that there will be any creatures to be kind to them."

- Sara Artang



SARA ARTANG (IR)

Generosity

Illustration

SARAH JULIG (US)

Sirens Net

Performance

www.sarahjulig.info

In 2014 Sarah Julig spent a year on a self-directed residency in the archipelago of Penghu off the coast of Taiwan, where she found countless remote beaches covered in waste. The endless miles of trash, in various states of decomposition, inspired her. She decided to expand on her previous body of work where she made maps of ocean currents using street trash and built sculptures out of ceramic beads, this time using the trash she gathered from the local coast of Penghu.

The waste was cut into small beads and woven into a series of floating nets. The small beaded elements of the sculptures move on the ocean currents and reference the tiny microbeads and

threads that plastic breaks down into in the open sea.

When they were complete the nets were returned to the beach for a performance piece. Women dressed in matching swimwear played in the waves with the nets, acting as sirens and dancing in the waves. The five sculptural nets are named after the sirens who tempted Odysseus with their beautiful songs and lured his ship onto the rocks. Like sirens, the plastic objects and habits of excessive consumption are beautiful and tempting. On closer examination however, their beauty only lasts for a moment, and they lure us to the destruction of our oceans, our health, and the environment that supports us.





SARAWUT CHUTIWONGPETI (TH)

One to Another

Installation

www.chutiwongpeti.info

The artwork focuses on personal and larger issues of cultural transformation related to global mobility and the precarious situation of the nomadic artist. Sarawut Chutiwongpeti's installation incorporates packaging, mainly from food products. The artwork represents and symbolises how objects and people come together from around the world to be re-combined at one new location. The context and significance of the artwork for Chutiwongpeti is highly personal as a means to make

connections between her native country and background and her present situation.

The subject of the artwork, however, also touches upon more general issues related to contemporary global mobility and everyday aesthetics and routines. Chutiwongpeti's work signifies cultural transformation and the challenges of living and surviving for neo-nomadic artists.



SASKIA OLDE WOLBERS (NL)

Pfui - Pish, Pshaw / Prr

Video

www.saskiaoldewolbers.com

Saskia Olde Wolber's work deals with raising environmental awareness of fossil fuel waste, particularly relating to marine oil spills. Telling the unheard perspective of an oil spill responder, the narrative gives voice to the enigmatic Mr Theodosios Alifrangis; the longest-serving worker of a Greek toxic waste management company. The 70-year-old employee has travelled the world cleaning up oil spills and unofficially filming emergency call outs on his camcorder.

The title of the work derives from a DH Lawrence letter in which the author abandoned language to express an onomatopoeic anger.

The work features an eclectic sample of Alifrangis' prolific VHS archive of films from the 1980's, alongside imagery created in Olde Wolbers' studio, where model sets of cruise ship interiors, ferromagnetic mussels and molecular structures are covered in dripping oils and filmed in tanks. It also features sonar imaging attempts of the unsalvageable Sea Diamond, a cruise ship in Santorini that has commanded Alifrangis' daily care for the last 10 years.

The work was commissioned by Polyeco's Contemporary Art Initiative (PCAI) and Invisible Dust.

SCHEREZADE GARCIA (DO)

Cathedral/Catedral

Sculpture

www.scherezade.net

The centerpiece of Scherezade Garcia's exhibition *Aguas Libres/Waters of Freedom* is *Cathedral/Catedral*, a large-scale sculpture made of stacked inner tubes dipped in gold paint to resemble a floating altar, evoking universal migration stories. The inner tubes are attached together by electrical ties, distressed in places to allude to pain and suffering. The piece is adorned with airport suitcase ID tags in different colors, referencing the diversity of origins on this metaphorical journey in search of paradise. These airport tags are transformed by adding an all inclusive cinnamon coloured statue of liberty; the result of mixing all colours together—an inclusive colour. The altar is surrounded by a collection of silkscreen prints of water titled *The Liquid Highway*, representing the journey that migrants from all over the world take in crossing to reach the land of opportunity.

Each artwork in the exhibition is created as an individual piece yet conceptually united by a common thread, building a narrative in the process. This allows endless possibilities for Garcia's visual storytelling; the pieces maintain individuality yet create a cohesive narrative when presented together.

At the opening reception the public will each be given a luggage tag resembling airport suitcase ID tags and asked to fill out the info on the tags. The questions listed are: (origin) where are you from, (destination) what are your life's expectation or dreams, then the public will attach them to the piece. *Cathedral/Catedral* will become a floating universal altar.



SIMA BAGHERZADEH (IR)

Children and Sea

Painting

Artist Sima Bagherzadeh cites the sea and the oceans as one of her favorite topics. She explores how the sea, along with the sense of tranquility and greatness that we take from it, also provokes a kind of horror and fear. In the modern world this horror and fear have increased tenfold but this time through our own doing, with the copious amounts of plastic waste from our consumption

and mass production of plastics. The future generation and our children will suffer from this catastrophic event. Bagherzadeh tries to illustrate the close relationship between life and nature in her drawings. She believes that the more careful and responsible we are about nature and the seas, we make a much safer life for generations to come.





SHELLEY HEFFLER (US)

Geospheres at Verde Valley Art Gallery

Installation

www.shelleyheffler.com

SIMON COATES (UK)

Zola Panama

Installation

www.simoncoates.com



SNOW YUNXUE FU (US)

Pool

Computer rendered animation

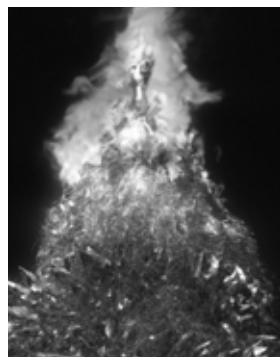
www.snowyunxuefu.com/home.html

STEFAN TSCHACKERT (DE)

Ice on Fire

Photograph

www.instagram.com/secret_spaces





SOPHIE CARNELL (AU)

The Ocean is Crying, Bleeding, Dying

Jewellery

www.sophiecarnell.com

Reimagining the possibilities of beach debris including plastic bottles and straws, recycled sterling silver, brass and glass beads, Sophie Carnell creates beautiful decorative adornments.

Degraded rope and water bottles broken up by tide and time, fishing line fragmenting into ever smaller pieces, even innocuous disposable contact lenses all become an invisible poison in our oceans, harming all sea life from the

tinest krill to the largest whales.

The repeated hexagonal shapes in Carnell's work represent the chemicals added to plastics to increase their flexibility, transparency, and longevity.

Once ingested, plastics compromise the gut and starve sea creatures, but ominously these plastics also leach their chemicals affecting sea life, and the entire food chain, in ways we are only just beginning to comprehend.

STEFANO CAGOL (IT)

The Ice Monolith

Installation

www.stefanocagol.com

The pure water from glaciers and polar ice sheets is melting and joining polluted seas; an irrevocable process is due to climate change and CO₂ pollution. It tarnishes the purity that Stefano Cagol evokes in *The Ice Monolith*, which depicts a block of ice from the Alps melting in Venice.

Cagol, invited by the National Pavilion of the Maldives to the 55th Venice Biennale, chose ice (an element very present in recent art history) as his topic for the first time, to speak about water in the context of our current Anthropocene. This work in turn received a great amount of attention from the public, and from media organisations such as the BBC and The New York Times.

Cagol installed a block of ice, bringing it from the Alps to Venice, and let it melt on the street along the shore, under the eyes of the passers-by. This process lasted 72 hours and was documented by a continuous video shoot. He was influenced by his personal experience—he was born in the Italian Alps and his father used to show him the glaciers, which he called “eternal,” but which are now just about disappearing. He created a metaphor for a phenomenon happening far away from our eyes; an act of aesthetic and emotional impact aimed at a large audience, to attract attention and stimulate reflection for change.



STEFFEN BLANDZINSKI (DE)

Neophropinat

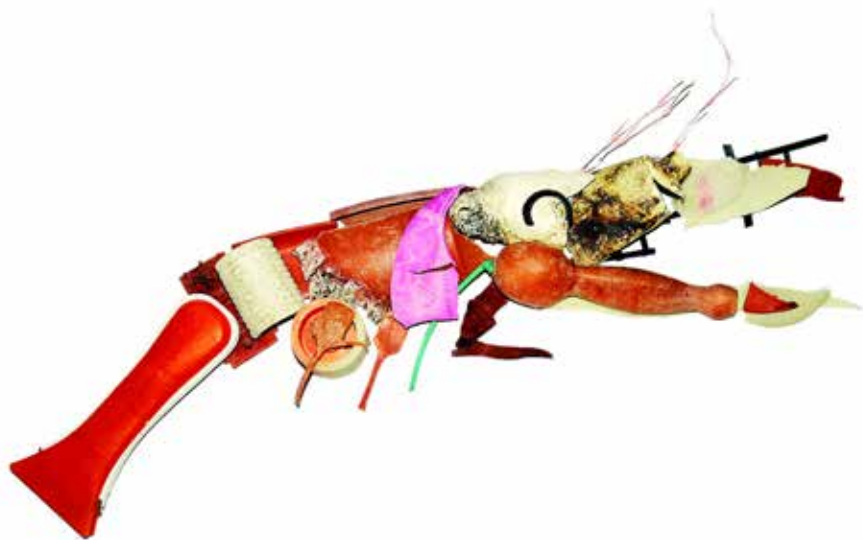
Sculpture

www.plasticwasteanimals.org

Neophropinat, from the series *Plastic Waste Animals*, is the first plastic animal designed by Steffen Blandzinski in August 2017. The artist collected two trash bags of plastic waste from the coast of Corsica and was inspired by the bright orange handle of a beach ball set to create a kind of lobster out of the collected waste. After an hour of arranging without any glue, duct tape or tools—this beautiful new creature was created. After documenting the work, Blandzinski disposed of it in the correct recycling bins. The series *Plastic Waste Animals* is a design and art project which aims to recreate natural aesthetics from plastic to communicate the problem of plastic waste. Blandzinski redesigns pieces of waste into unique new animal forms, manually creating arrangements

to form temporary sculptures before photographing them to eventually exhibit as prints. *Plastic Waste Animals* aims not only to provoke or to make us feel guilty but is a way for Blandzinski to directly interact with the problem of plastic waste. In 2018 the first design workshops were launched in Germany, Spain and France, collecting waste and designing creatures. Italy and Denmark are soon to follow.

Steffan Blandzinski is a designer with a degree in Visual Communication at The University of Applied Sciences and Art, Hannover. He has established his own Company, Hesse Blandzinski Design and also teaches Design and Interior Architecture at The University of Applied Sciences and Art, Hannover.





STEPHEN WILKS (DE) Bottle River

Installation, ceramics

www.stephenwilks.net

Working alone in their Berlin studio, and the BBK studios, Stephen Wilks and his wife began creating around 1800 ceramic vessels. "Each piece is individually crafted. No automated processes were involved and attention was paid to every single ceramic object," says the artist.

The vessels were modeled on the abundance of ubiquitous plastic water bottles in our world; the very same plastic bottles which pollute the oceans and destroy nature, but at the same time, the vessels used for drinkable water—the essence of life. This paradox is an inherent part of *Bottle River*.



STEVE MCPHERSON (UK)
An Undesirable Archive

Photography

www.stevemcpherson.co.uk

In an ongoing project, Steve McPherson has created a continuing photographic archive of over 3000 images of individual plastic items in situ on the beaches of the UK.

These objects present a personal paradoxical dilemma between a fascination with discovering novelties and treasures, and the regret for their existence in the environment. Their

stories of origin are many—some are sea born, floating from further shores and rivers, or from the busy shipping lanes that skirt beaches, but most are from day trippers, holiday makers and visitors to coastal towns. While these works clearly foreground the project's important environmental subject, each image also triggers curiosity and asks questions about the origin and history of the individual objects within.

SWAANTJE GÜNTZEL (DE)

Plastisphere

Performance, public intervention

www.swaantje-guentzel.de

Swaantje Güntzel's work addresses the alienated relationship between humanity and nature; exposing the inconsistencies of our actions and the hypocrisy of our value system; drawing attention to the unthinking exploitation of the environment in the industrialised global economy.

Plastisphere is an unsettling critique of modern life in the 21st century. The work aims to instigate an impulse in the audience to question the state of their surrounding environment. Güntzel's performances and interventions playfully engage and comment on our consumer and waste management habits, our polluting lifestyles that overwhelm the natural world, its consequences for marine life, and our inability to address this global problem.

For almost ten years now Güntzel has been dealing with the various facets of anthropogenic pollution of the oceans with an emphasis on phenomena such as the Great Pacific Garbage Patch, the emergence of the plastisphere and microplastics. Much of her work is inspired by scientific research. One of the main concerns of her work is to find ways to visualise anthropogenic pollution of the seas and the presence of plastic in our everyday lives to bring it into consciousness. Güntzel's art practice stems from a deeply held aesthetic position that explores the essential dichotomy between visual pleasure and disturbing global issues.





STEFANIE KLINGEMANN (DE) Everlasting

Floating sculpture

www.stefanieklingemann.de



STEPHANIE GARON (US) Heirloom

Installation

www.garonstudio.com



SYLWIA GORAK (PL) Significance & Water Properties

Painting

www.instagram.com/sylwiagorak/



SZIVA ZSUZSI (HU) Bon Appétit

Installation



TAGHRID ABDELAL (LB) The Sea Is the City of Our Clouds

Illustration

www.instagram.com/abdelaltaghreed/



TAMARA ZECEVIC (RS)

Packed Sea

Installation

www.emanbej.weebly.com

Picture a near future where humankind did not stop polluting the environment. Some people tried their best, but it was too late and nothing more could be done. Humankind had killed its Mother Earth. The sea was the first to give life, yet it was the first to die. Only at this point did humankind realise what it had done. Somewhere in the wasteland, explorers found fragments of the dying sea. One company was permitted to make a product: Packed Sea. In order to feel and smell the sea, consumers are going to stores and buying this commodity.

In this short story, the artist shares her fears for what will happen if we do not stop polluting. "Sadly, I think that mankind is not completely aware of its bad impact on nature. Thus in a near future we can see and feel the sea only as a packaged commercial product. Sea found on store shelves in plastic bags. My goal is to confront the audience with this threatening possible future," says Zecevic. *Packed Sea* is presented on a simple store shelf with price tags and a sign reading: ALMOST SOLD OUT.



TIMO BRUSEWITZ (DE)

Political Plastic: From Frutti di Mare to Mare di Frutti

Video

This political artwork depicts the production journey of *Mare di Frutti*, a soft drink made from plastic to be purchased like any other consumer good. Colourful and abundant ocean plastic debris are worn-down by weathering, altering the form, colour, and surface structure. Natural processes continue to reshape this material until it transforms into 'Frutti di Mare,' upgrading synthetic plastic into a high-value natural product. Processed into microplastics called 'Mikrofrutti,' the fictional particles are then put into contact with a microbe species called *Ideonella Sakaiensis*.

This real microbe discovered by a team led by Kohei Oda of the Kyoto Institute of Technology in Japan, is a remarkable bacterium with the ability to metabolically convert polyethylene

terephthalate (PET) through a process similar to brewing. The fictional narrative goes on to suggest that once metabolised into organic material this plastic water can be easily broken down by the human body—the fictitious company's mission.

Mediated by live performance, Brusewitz's dystopian installation explores our collective connection to plastic consumerism. He hopes to engage audiences with the issue through a playful approach, believing that merely focusing blame is not the most effect catalyst for social change. In the Anthropocene, humans shape the world, which raises the question, In what kind of world do we want to live?

TIMO KAHLEN (DE)

Footprint

Installation

www.timo-kahlen.de

The raw, grinding, splashing, spluttering, dirty, gurgling sound at the base of Timo Kahlen's sound installation *Footprint* has an emotional impact described as "the brittle surface beneath your feet opening, breaking and tearing apart, as waves and water and debris rush into the unstable vessel."

The audio installation with visual elements allows for multiple and complex references. Metaphors of erosion and pollution, of dissolution and instability, of fragility and chaos, of the refugee crisis in the Mediterranean and radical environmental change all come to mind

and immerse the viewer in the acoustic and visual contrasts and analogies at the base of the work.

Working with sound, Kahlen intends to sculpt emotions and space. With intervals of several short spans of silence, the sound is projected from two small stereo loudspeakers focused at ear level in the exhibition space, or—for intimate listening—from directional loudspeakers or headphones suspended from the ceiling above. In conjunction with a single photographic still image mounted in the gallery space at eye level, directly in view of the sound installation.



TOM HACKETT (UK)

7 Sea Apology

Installation, performance

www.tomhackett.org

For his installation *7 Sea Apology*, Tom Hackett designs and prints seven beach chair fabrics, creating a chair for each of the seven seas that define the edges of Europe: the Baltic, the North Sea, the Atlantic, the Mediterranean, the Adriatic, the Aegean, and the Black Sea. Each design contains the name of the sea and images of fish and maritime life that live there, as well as images of plastic bottles and collected data which relates to plastic pollution specific to that geographic locality.

The fabrics are bright and cheerful, fit for a recreational beach aesthetic, but

also contain clear messages about the problems we face and written words of apology. The chairs counterpoint the attractiveness of a beach holiday with the hard facts of plastic pollution and our shared responsibility in it.

In its complete form, the installation includes a sound collage of found ocean sounds and spoken apologies from the artist and the public. Hackett's work proposes to apologise to our "universal seas" on behalf of humanity for the appalling state of plastic pollution.





TUULA NÄRHINEN (FI) Baltic Sea Plastique

Installation

www.tuulanarhinen.net

The installation *Baltic Sea Plastique* combines the plasticity of visual arts with the creative and resilient capacity of marine life. The work consists of nine creatures made of plastic waste washed onto shore in Helsinki, Finland. The plastic compositions put together by the artist were released back to the sea and filmed swimming and interacting with marine organisms. The astonishing beauty of these plastic marine creatures evokes the formative process of nature.

The creatures were preserved in cylindrical glass jars and their movements in the water were recorded in eight videos, 4-5 minutes each. A series of analytical drawings on paper explore the plastic physiognomy of the creatures. For better or for worse, plasticity is a testament to life's metamorphic capability. *Baltic Sea Plastique* presents a plastic world of sensations in which synthetic and organic forms coexist, interact, and create puzzling natural artifacts.



Veronique Egloff often finds that images created by the world of communication and advertising form the basis of her work. She is inspired to have fun with these messages inciting us to continually consume; this is her form of protest. Egloff's aim is to show what such compulsive attitudes can upset, distort and degrade us and our environment.

She remains deliberately free of any artistic influence, with her work acting as a pretext for diversion, bypass, or reversal, no matter the medium. Inspiration for this particular piece arose while looking for ways to get rid of her daughter's old videotapes of cartoons. Egloff describes how these plastic objects had given joy to her daughters and made them dream, yet the act of throwing them away made her weep for the environmental impact and emotional nostalgia. So she decided to immortalise them. "I wanted to extend these stories in my own way and realise this circle of peace."

VERONIQUE EGLOFF (FR)

Circle of Peace

Sculpture

www.veronique-egloff.com

WIEBKE PANDIKOW (FI)

By the Sea

Jewellery

www.silver-crane.com

Since 2014 Wiebke Pandikow has been turning used plastic bags into jewelry art with a technique using a clothes iron and a soldering iron. This by-hand process is grounded in the diligence and patience of traditional craftwork. While addressing the problems of plastic waste in general, she also wants to show the potential of a discarded waste material. Pandikow strives to create something beautiful, something visually and tactilely pleasing in order to reframe the material and the ecological gravitas attached to it, all the while questioning what makes something precious.

With photographer Mikko Joona in 2016, Pandikow created a series of photographs that built a visual

narrative around her works. "I imagine a tribe of people living on an island, separated from the rest of the world. There, they make do with what they find on their shore. Maybe they don't realise that some of what they find is other people's waste or then they are swayed by the positive properties of the material—whatever it may be, they adorn themselves with precious things made from driftwood, stones and old plastic bags. To them, all of it is precious, as precious as it should be to us; a lot of energy and material has gone into creating plastics in the first place, and in general it is a versatile and useful material, much too precious to waste on disposable cutlery or plastic bags. Use it, and use it well and only where needed."





WARREN LYNN (US) Prehistoric Fish

Painting

www.veridycus.com

WILLIAM DURKIN (US) Lola the Lemon Shark

Installation

www.the-shoaling.com



YAMBE TAM (UK) Catch if Catch Can

Installation

www.yambetam.com

YASER MIRZAEI (IR) Two Wolves

Oil on canvas

www.instagram.com/yassermirzaei/



ZEMIR VELATOVAC (DE) The Water

Video

The artwork can be understood as a provocative and exuberant demonstration of the terrifying fact that we are responsible for over 150 million tonnes of plastic waste in the ocean today.

Nearly everyone in the world comes into contact with plastics every day, especially plastic packaging. If current plastic consumption patterns and accumulating amounts of plastic waste remain the same the amount of plastic waste is expected to double over the next 20 years. This artwork is a proclamation to society that each of us (must) bear the responsibility to make a change for the environment and future generations.

Covered by a blue plastic bag, the globe underneath is clearly visible to the observer. The blue plastic envelope should represent the sea, and on the other hand, it reflects the disturbing plastic waste issues in the sea and around the globe. It recalls the plastic trash islands existing in the North and South Pacific, in the North and South Atlantic and in the Indian Ocean.



YASMIN-PALIJ (DE)
The Globe in a Plastic Bag: Ocean To Go

Sculpture



YORKSHIRE LIFE AQUATIC

The Human Aquarium

Installation, photography

www.yorkshirelifeaquatic.co.uk

Yorkshire Life Aquatic believe that we all hold the power to create positive change. They are a UK-based organisation founded in 2013 by Lucy Meredith and Zoe Parker focusing on promoting health & wellbeing and highlighting environmental and animal welfare issues through the arts.

The Human Aquarium is their new project looking at human impact on the oceans and its inhabitants. It tackles our overdependence on plastics and the issues surrounding captivity. The artists will be creating an interactive SeaWorld style aquarium installation for the public to explore. Participants will be taken on the journey experienced by confined sea mammals, from their capture, to training,

to performing and living in man-made tanks. The installation contains photographs of mermaids and mermen in place of marine mammals to explore our ethical detachment from animal captivity for entertainment purposes.

The original concept was conceived by Lucy Meredith from Yorkshire Life Aquatic and is a collaboration between Yorkshire Life Aquatic and Photographer Tom Martin. Project partners include The World Cetacean Alliance and Plastic-Free Me. This is phase one of a three phase multi-discipline activism project which collaborates with many artists and art forms. The exhibition premieres February 2019 in the UK. Photography by Tom Martin.

The Universal Sea also recognises the following artists:

Ade Awofadeju	Chris Madden
Adrienn Molnár	Chwen Wen Tsay
Agathe Tarillon	Citizen LoveTM
Aimee Jones	Clara Maseda Juan
Alberto Nanclares da Veiga	Claudia Berrios
Alejandro Duran	Clément Aquilina
Aleydis Nissen	Colombine Noubès-Tourés
Alfredo Blasquez	Conor Coghlan
Alistair Mackinnon	Cory Zwerlein
Alvaro Soler Arpa	crackthefiresister
Ana Campillos Sánchez-Camacho	Cynthia Minet
Anabel Otero Zamora	Dan shuai Feng
Andre Pace	Daniel Calderón Ramos
Andrew Hughes	Daniel Silva
Andy Mercer	Daniela Garreton
Angela Haseltine Pozzi	Dara Herman Zierlein
Angry Dan	Dave Farnham
Anna Siekierska	David Crespo
Annegret Müller	David Edgar
Annie Percoco	Deepa Mahajan
Antoine Repesse	Deirdre Weinberg
Armin Linke	Di McGhee
Aurora Robson	Dianna Cohen
Barbara Ludovico	Doris Leuschner
Bayak Made	Ebbie Wisecarver
Ben Castro Terán	Edward Burtynsky
Bence Krisztián	Elena Gallego
Benjamin Von Wong	Elena Rodríguez Alcoba
Benjamin Walther	Elisa Zenoni
Benna Gaeen Maris	Ellen Driscoll
Bernandi Desanda	Eloise Dethier-Eaton
Bordalo II	Emily Durman
Borys Lewandowski	Emily Hide
Brian Chu	Eugenio Tarantino
Caitlin Mkhasibe	Ewa Dąbrowska
Camila Pulidor Ramírez	Fabien Bouchard
Carlos Alarcón Allen	Fabrizio Plessi
Carol Mattos	Fana Wogi
Carol Sogard	Fernando Herrero
Carolina Reguera Olivares	Florie Salnot
Caroline Cecilia Tallone	Florien Allemeersch
CatweazleMagic	Fran Crowe
Charles Kim	Francesca Alessandro
Charlotte Fisher	Francesca Pasquali
Chris Jordan	Francesca Vercellino

Francesca Williams
Franklin Gavua
Gabriela Bustamante
Geraldine Haberfield
Gerd Pilz
Gergely Kovach
Gergő Nagy
Gilbert de Rooij
Gilles Cenazandotti
Gintare Gruzinskaite
Gjino Sutic
Goya Torres
Gregg Segal
Hanna Una Holmquist
Harriet Lyall
Hayley Stevenson
Hector Orellana
Helen Falconar
Heloise Fontaine
Hong Yane Wang
Ian Trask
Ignacio Bertola Longhi
Ilka Raupach
Imogen Welch
Jacqueline Starmans
Janas Lau
Jane Perkins
Jason Klimoski
Javier Morrás de la Torre
Jayne Orfano
Jee Young Lee
Jenny Beyer
Jesús Jiménez Ambite
Jezabel Mejías
Jill Greenwood
Jinwon Lee
Joanna Collins
John Dahlsen
Jörn Birkholz
Josette Matthew
Juan López-Aranguren Blázquez
Juana Arana de Andrés
Julia García Lozano
Julia Rubio Ruiz-Ayucar
Jürgen Michaelis
Kara Salinas
Katarzyna Pietrzak
Katharine Harvey

Kelly Jazvac
Kim Leou
Kim Youdan
Kirsty Benedict
Klara Hobza
Klára Némethy
Konsta Linkola
Kristian Askelund
Kristyna and Marek Milde
Krystle Nolan-James
Lara Roberts
Lars Vilhelmsen
László Vajna
Laura Corradi
Lesley Chang
Leslie Atkins
Leslie Tucker
Leva Skaurone
Lina Doenmez
Lorna Jewitt
Lowell Stephens
Lucy Morris
Luis de Dios
Maddalena Cerruti
Maia Canes
Maj Djourup
Malena Boullosa
Mandy Barker
Manuel Polanco Pérez-Llantada
Marcos Palacios
Maria Cristina Finucci
Marianka Grabska
Mariel Gottwick
Mark Dion
Mark Scammell
Marta Martín Funes
Marta Sanmamed
Martha Quinche Bautista
Martha Rossler
Martina Borfiga
Mary Elizabeth Cantu
Mary Mattingly
Mathilda Oosthuizen
Mathilde Noirot
Max Liboiron
Mbongeni Buthelezi
Michael Dlugosch
Michael Leigh

Michèle Vidal
Michelle Kuen Suet Fung
Michelle Reader
Micol Masetti
Miguel Rodríguez Cruz
Mike Dziubek
Milly Francis
Minami Nishinaga
Mohammad Zarghi
Mónica Gutiérrez Herrero
Moniera Buck
Mustafa Akman
Nazrin Musayeva
Nerea Sanz
Nigy Nagy
Oktaravianus Bakara
Oliver Elson
Olliver Orthuber
Onishi Yasuaki
Pablo Rey Mazón
Paige Middleton
Pamela Longobardi
Pascale Marthini Tayou
Patricia Meseguer
Patricia Shrigley
Peya Dhaka
Pilar de Vera Castaño
Portia Munson
Prasopsuk Lerdviriyapiti
Radha Diaz Hublitz
Rainer Jacob
Raksha Patel
Reem Elattar
Rezai Amin
Ria Gerth
Rima Khraief
Robin Whitecross
Roelof Bakker
Roland Wegerer
Rubén Briongos Izquierdo
Rubén Lorenzo Montero
Russell Bruce-Youles
Ruth Peche
Saki Hayashi
Samira Roostaire
Sandra San Gregorio
Sara Ababseh
Sara Goic

Sara Rodrigues de Melo Cruz
Sarah Bellum
Sarah Turner
Sayaka Ganz
Scarlett Chetwin
Scott Segal
Silvia Bean
Shaikha alDhaheri
Sonya Seccombe
Stephan Groß
Stéphane Billot
Stephen Beer
Steve Chapman
Sue Lipscombe
Susan Middleton
Susan Scott
Tamás Dani
Tara Smith
Tess Felix
Tewodros Bekele
Thibaud Dubrule
Tim Pugh
Tom Deinenger
Tomás Saraceno
Tyrome Tripoli
Veronika Posta
Veronika Richterová
Vesa Kivinen
Victoria Santos Peralta
Viktor Kováč
Virginia Merchán Suita
Walter van Broekhuizen
Wojciech Krupa
Wren Miller
Xandi Kreuzeder
Xav Marseille
Yago Bouzada Biurrún
Yang Qing
Yannis Ouaked
Yasmin Joan Qureshi
Yea-eun Jang
Zachary Miller
Zoe Douglas-Cain

INNOVATION



2

What is profit?

When we hear the word “business,” other words often spring to mind: “profit margin,” “market value,” “everlasting growth” and “economy” to name but a few of these capitalist associations. When talking about plastics, we all know the world’s plastic crisis is deeply connected to the consumerist choices we face every day as we walk the streets, in the supermarket, online, or in any kind of shop. For companies, it is cheap and easy to manufacture this resource, either as a main product material or wrapping their products in it. Mostly it appears as an economically rational decision to use this material—it’s cheap, easily available, easy to work with, and durable. This is why plastic is probably the universal product in our consumerist society. And this is why economy, it seems, is the enemy of ecology.

But what if we can start to rethink the value of “profit”? When you look at the roots of the term “business,” there is far more to it than market values. “Business” derives from a medieval English language, it is the Northumbrian word for careful, anxious, occupied, diligent; the word *bisig* actually means “busy.” Now, if you look at the entrepreneurs on the following pages, there is one thing that keeps them busy: ensuring a sustained living on this planet. This has become their major task and overall goal.

For the economy, this is the real innovation taking place: that the real “profit” for humankind could be a planet worth living on.

Easily arranged alphabetically in categories, these wonderful entrepreneurs will offer you all kinds of specific economic and ecological innovations. For one, our selection gathers innovative businesses that focus on one of the categories that the EU Commission hopes to ban with its proposal against single-use plastic products: balloons and balloon sticks; bottles and beverage cups; cigarette buds; cotton buds; cutlery, plates, straws and stirrers; food containers; fishing gear; food packages and wrappers; plastic bags; and wet wipes and sanitary items—all these categories are fundamental for the way we produce, distribute and consume products at work and in our everyday lives.

In the following pages we present to you creative, practical, economical, and yet beautiful alternatives. There is information about the products—the specific problem they target and the specific solution they offer—and where you can find them.

Additionally, we found even more areas of production and consumption that reuse plastic waste or can work plastic-free. This is why the latter

part of this section gathers “innovative businesses” that extend the categories proposed by the EU. Here you’ll find zero-waste retail stores, design objects and furniture made from plastic waste materials, home water filters protecting us from microplastic consumption, and many more unique and inspired innovations.

At the start of this section you’ll find a fact sheet with some hard truths about marine plastic pollution, and we’ve rounded it off with some practical tips you can apply to your everyday life. Plus a step-by-step guide for how to make your own DIY water filter.

You know an ecological business without a profile on these pages? You did not find what you were looking for? Or you want even more input on a certain consumer niche? At the section’s end you will find a long list of businesses working to change our reliance on plastic as the universal material. Our lists can never be exhaustive, because—fortunately—there is a new ecological innovator in the game every week.

Flip through this section as a consumer or an entrepreneur looking for contacts and new ideas. Feel inspired to try out something new, something organic, something without plastic. It might feel good—in your hands, on your tongue, in your body, in your mind.

What you’ll find here:

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The Problem With Plastic

Durability, stability, and mechanical capacity are the main features of plastic products. Exactly this characteristic makes plastic a problem when it becomes waste. As a consequence, plastic litter needs hundreds to thousands of years to disintegrate.



Plastic bottle
= 450 years



Fishing net
= 650 years



Cigarette butt
= 1-5 years



Disposable
tableware
= 50 years



Plastic bag
= 10-20 years



Food
packaging =
10-20 years

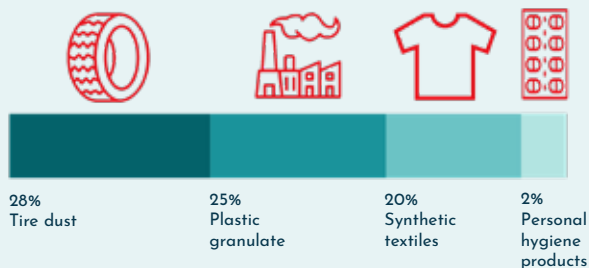
80% of trash in the ocean comes from land trash
20% comes from marine activities and the fishing industry.

Microplastics

Due to the durability of plastic, only sun exposure, wind oscillation and undulation breaks it down to smaller and smaller fragments. A distinction is made between macro plastics (>25mm) and micro plastics (<5mm). Micro plastics form when macro plastics deteriorate into smaller and smaller pieces. These secondary micro plastics are almost impossible to remove from the water.



Main sources of microplastic in the ocean:



1 in 10 sand grains on our beaches is assumed to be microplastics.¹ Microplastics binds to toxins in the water, increasing toxicity entering the marine, and eventually human, food chain. Even human stool samples have been shown to contain 20 microplastics particles per 10g.²

Types of Plastic:

#1 PET (Polyethylene terephthalate)

e.g. water bottles, medicine containers. Most common and easily recyclable. Recycled into fiberfill for coats and sleeping bags, rope, other plastic bottles.

#2 HDPE (High-density polyethylene plastics)

e.g. heavier containers for milk, shampoo, motor oil. Recycled into toys, piping, truck bed liners, rope.

#3 V (Vinyl)

e.g. plastic pipes, shower curtains, vinyl dashboards. Recycled into vinyl flooring, window frames, piping.

#4 LDPE (Low-density polyethylene)

e.g. food wrapping, grocery bags, soft packaging materials. Very difficult to recycle and often not recycled (only 5.7% of LDPE is recycled). Recycled into garbage cans, furniture, bubble wrap.

#5 PP (Polypropylene)

e.g. food containers and plastic caps. Very difficult to recycle and therefore often not recycled. Recycled into spatulas, shovels and automotive battery cases.

#6 PS (Polystyrene)

(commonly called Styrofoam) e.g. coffee cups, disposable cutlery, insulation. Recycled into rigid insulation or cheap coffee cups. Often thrown away at recycling facility.

#7 Others

From various combinations of plastics or unique and uncommon plastic formulations. These plastics are the most difficult to recycle.

The Effects of Plastic Waste

About 90.5 percent of the 6.3 billion metric tons of plastic waste produced in the last 60 years ago is lying around our planet in oceans and landfills or has been incinerated. If our production processes do not drastically change, there will be about 12 billion metric tons of plastic waste by 2050.³

Worldwide surface currents create huge formations of plastic trash in the ocean. There are five of these known gyres across the globe. The largest, known as the "Great Pacific Garbage Patch", is the size of Central Europe and extends north-east from Hawaii to California.⁴



Plastic litter causes 13 billion US dollars of environmental damage per year,⁵ damaging or destroying sensitive habitats like coral reefs. Over 1 million seabirds and 100,000 mammals perish annually due to plastic.⁶



Human side effects of ingesting microplastics include enhanced inflammatory response, adsorption of chemical pollutants, and disruption of the gut microbiome.⁶ Studies on animals ingesting microplastics showed higher rates of physiological effects, tumor formations, mortality rates and hormonal potencies.⁷

1. Thompson, R. C., et al. „Lost at sea: where is all the plastic?“ Science 304.5672 (2004): 838-838.

2. Schwabl, P., et al. „Assessment of microplastics concentrations in human stool - Preliminary results of a prospective study.“ Presented at the UEG Week 2018 in Vienna on 24 October 2018.

3. news.nationalgeographic.com/2017/07/plastic-produced-recycling-waste-ocean-trash-debris-environment

4. Ambsdorf, J., et al. „Meeresatlas: Daten und Fakten über unseren Umgang mit dem Ozean.“ (2017) p.18.

5. Raynaud, J., „Valuing Plastics: The Business Case for Measuring, Managing and Disclosing Plastic Use in the Consumer Goods Industry.“ UNEP (2014).

6. The Ocean Conference, Factsheet, (2017), sustainabledevelopment.un.org/content/documents/Ocean_Factsheet_Pollution.pdf

7. Wright, S. L., and F. J. Kelly. „Plastic and human health: a micro issue?“ Environmental science & technology 51.12 (2017): 6634-6647.

8. Anbumani, S., and P. Kakkar. „Ecotoxicological effects of microplastics on biota: a review.“ Environmental Science and Pollution Research (2018): 1-24.

Carry Your Bottle

An invitation from this company in Goa, to avoid plastic waste by using reusable bottles.



What is the problem targeted?

Every tourist visiting Goa uses 2-3 single-use plastic bottles on average. Approximately five million tourists visit Goa each year. If one million tourists on an average stay in Goa for one week, the consumption of plastic bottled water is three million.

What is the solution, how does it work exactly?

Carry Your Bottle is a project aimed at making people aware of the need to

carry their own water bottles instead of buying bottled water. This empowers each one of us to make a difference in a significant way, both in maintaining a healthy lifestyle and in reducing environmental pollution.

We promote reusable steel and copper bottles with a message to carry it along. This helps to significantly reduce the use of single-use plastic bottled water.

Who is the target audience?

Our target audiences are tourists, yoga schools, institutions and beachside resorts.

We try to bring the change at an institutional level and ask them to create water refill points in their locations, which creates further awareness on the option of reusing water bottles.



How many people can be reached?

In the past two years, we have been able to reach 1,000 per year with the direct message to carry a reusable water bottle.

How much plastic can be reduced?

Until July 2018, after promoting the message and selling 6,000 reusable water bottles, we have managed to reduce three million plastic bottles so far.

How big is the scaling potential?

The message to Carry Your Bottle is very strong and can be accepted globally. Water Refill Points are also a major program of our project, which will create awareness on the possibility of refilling bottles when carrying one.

Where can we find you?

Online, major boutiques in Goa, some restaurant and beachside resorts and supermarkets which support eco-friendly products.

Headquarters
Goa, India

www.carryyourbottle.com

Category
BOTTLES &
BEVERAGE CUPS

Dopper

At Dopper, we love, protect and celebrate crystal clear water. In every ocean. From every tap.



What is the problem targeted?

Every year, eight million tonnes of plastic waste make its way to our oceans. That's about 100 times the weight of the Titanic. Or 2.5 million times the weight of your car. Every year... Together, we can do better.

What is the solution, how does it work exactly?

We challenge the throwaway lifestyle and make reusable tap water bottles. The unique Dopper design, envisioned by Rinke van Remortel, makes a Dopper

easy to use and easy to clean. It will probably outlive any wardrobe, but will never go out of style. A sustainable lifestyle is always in fashion! Dopper Original is the first responsibly and sustainably produced water bottle contributing to the welfare of people and the environment.

Every bottle sold reduces plastic pollution, protects our oceans and supports projects to bring clean drinking water where people need it the most. 5% of Dopper's net turnover is donated



to the Dopper Foundation, which invests in safe drinking water projects and solutions for plastic pollution that go beyond the bottle. Besides that, Dopper is officially certified as a Benefit Corporation, that means we're part of a global movement in a new economy that uses business as a force for good!

How much plastic can be reduced?

Our research through impact assessments (Avance Impact 2016) has shown that one Dopper bottle saves an average of 40 single-use water bottles per year. That may sound as insignificant as just one drop compared to a whole ocean, but a lot of drops can make a big splash!

How big is the scaling potential?

There is a huge scaling potential since plastic pollution is a global issue. For Dopper, every country where tap water is available is an opportunity to reduce plastic use. We began in the Netherlands

dopper.

The bottle is the message

in 2009 and have started our global journey to share our mission abroad.

Where can we find you?

Retailers and consumers can order from our online store. Furthermore, we are active in European countries such as France and Belgium.

Have you ever worked with artists before?

We have collaborated with many artists and museums, for example Pablo Lucker and the Vincent van Gogh Museum.



Headquarters
Haarlem, the Netherlands

www.dopper.com

Category
BOTTLES &
BEVERAGE CUPS

Ecoffee Cup

We are here to give people the choice to re-use.



What is the problem targeted?

There are 100 billion single-use coffee cups that go to landfill each year. The average lifespan of a single-use cup is 10 min—and due to their plastic content, less than 1% get recycled.

What is the solution, how does it work exactly?

We believe only recycling is not the answer, and thus, we provide everyone with a stylish, practical and simple way to help them replace their single-use habits. Every time one uses their Ecoffee Cup, they make a tiny dent in reducing the number of single-use cups thrown away.



How many people can be reached?

So far, we've provided 3 million people with a re-usable Ecoffee Cup. Every year, we're reaching around 1.6 million, growing 100% per year.

We're building partnerships, creating bespoke products and activating our consumers worldwide to inspire everybody to re-use.



How much plastic can be reduced?

Half a trillion disposable cups are manufactured annually worldwide; over 70 cups per person. If someone drinks coffee daily, by choosing Ecoffee Cup, they save 365 single-use cups per year and around 15 thousand cups over a lifetime.

How big is the scaling potential?

There is immense scaling potential since we're targeting different markets worldwide, including people from all walks of life. We believe everyone who drinks any kind of beverage on-the-go is our potential consumer.

Where can we find you?

Sold in 30 countries worldwide with a growing network of distributors and retailers. We also have a webshop online.

Have you ever worked with artists before?

As we aspire to cater for everyone's taste, we have more and more international designers. Our influences come from the streets of Kyoto, or holy sites of Isfaha, to the coffee houses of Stockholm and hipster bars of Melbourne.

Headquarters
Amsterdam, the Netherlands

www.ecoffeecup.eco

Category
BOTTLES &
BEVERAGE CUPS

ECOtanka

We produce water bottles and lunch boxes made of high quality stainless steel.



What is the problem targeted?

Our environment and especially our oceans are polluted by a carpet of small plastic particles.

What is the solution, how does it work exactly?

Through the use of our product, single-use plastic bottles and containers are avoided.

Who is the target audience?

Basically everyone who is taking food and drinks with them when they go out.

How much plastic can be reduced?

If two people use a ECOtanka stainless steel water bottle for 10 years, they can avoid a whole building full of plastic bottles.

How big is the scaling potential?

Our products have the potential for worldwide growth and more and more 'ECOtanka countries' are opening up where our products are offered.

Where can we find you?

In retail stores in New Zealand, Australia, South Africa, Canada und Europe, and on our website and other webshops.

ECOtanka™



Headquarters
Düsseldorf, Germany

www.ecotanka.eu

Category
**BOTTLES &
BEVERAGE CUPS**

Kaffeeform

Kaffeeform is an innovative company aiming to replace fossil based plastics with household and design products made from its patented unique ecological material mix.



What is the problem targeted?

Several environmental problems and consequences caused by fossil based plastics and waste pollution. For example, three billion plastic and paper coffee cups are disposed of annually in Germany.

What is the solution, how does it work exactly?

The innovative material Kaffeeform is made out of recycled coffee grounds and renewable raw materials. The formula allows Kaffeeform to use a normally

wasted resource to create a sustainable and eco-friendly alternative to products based on mineral oils. The first products are a range of coffee cups and saucers and reusable take-away cups to fight the pollution caused by plastic take away cups. All Kaffeeform products are very light, durable, long lasting and biodegradable.

Who is the target audience?

Citizens living in a fast paced modern world with an eco-minded lifestyle. Currently focused on Europe.



How many people can be reached?

Coffee is one of the highest consumed commodities in the world. Therefore millions of people would be potential consumers.

How much plastic can be reduced?

2.25 billion cups of coffee are consumed in the world every day, which could be replaced with our reusable coffee cups.

How big is the scaling potential?

By penetrating just 20% of the market, that amounts to 450 million cups to be replaced globally.

The company is also currently exploring new application possibilities for the unique material.

Where can we find you?

Our products are currently distributed through the Kaffeeform online store and a selection of retailers and coffee shops across Europe and Japan.

KAFFEE FORM.

Have you ever worked with artists before?

So far we have not yet worked with artists, but would love to have a great collaboration! What we are increasingly doing is working with companies and events to create custom-made cups for the company staff or as giveaways. For example, we have started to pair up with festivals to reduce single used waste.



Headquarters
Berlin, Germany

www.kaffeeform.com

Category
**BOTTLES &
BEVERAGE CUPS**

JUST SWAP IT.

JUST SWAP IT. is committed to responsible and sustainable to-go consumption by offering customised reusable cups, water bottles and straws.



What is the problem targeted?

Due to daily coffee-to-go consumption habits, 2.8 billion disposable cups are thrown away annually in Germany alone. Water is driven across half of Europe to be sold in disposable plastic bottles. The short lifespan (15 min on average) for disposable packaging causes immense resource and waste problems.

What is the solution, how does it work exactly?

The material of our reusable cups consists of 90% renewable raw materials (bamboo and corn). They are lightweight, stable, stackable, dishwasher safe and durable. Our glass bottles and glass straws are also a sustainable alternative to plastic take-away products. The cool high-quality design of our products contributes to the fact that sustainability arrives back in the lifestyle.

Who is the target audience?

Cafes and businesses who want to show





support against disposable waste. We are currently focusing on the European market.

How many people can be reached?

People consume coffee and water daily in large quantities worldwide. With our products, we can address millions of people.

How much plastic can be reduced?

The annual 2.8 billion disposable cups can be replaced by our reusable cups. Using our water glass bottles, purchase of plastic bottles is also reduced. And our glass straws are a healthy alternative for their plastic version.

How big is the scaling potential?

Our production figures have tripled this year and we want to continue this trend.

Where can we find you?

Our products and finishing options are offered online. Cafés and lifestyle stores across Europe offer mugs in direct sales. Companies use our cups for events and trade fairs.

Have you ever worked with artists before?

Through our offer for individual printing, we work with artists. In the coming year, we will release limited editions in close cooperation with special artists and sell them for good causes.

In cooperation with -Kater Stets Berlin- we created our first special edition "Berliner Bär."



Headquarters
Berlin, Germany

www.justswapit.de

Category
BOTTLES &
BEVERAGE CUPS

reCup

reCup is a Germany-wide deposit system for reusable coffee-to-go-cups, saving resources and reducing waste caused by disposable cups.





return. reuse. recycle.

What is the problem targeted?

In Germany, about 2.8 billion disposable coffee-to-go-cups are used per year. These are not recyclable and create a huge amount of trash. Those cups have a life-time use of only 10 minutes, but require a lot of resources in production. With the use of reCup, we want to change that.

What is the solution, how does it work exactly?

The reCup system consists of two parts. First is the deposit system: a network, which connects coffee-shops all over Germany. The second is a reusable coffee-cup: the coffee-consumer can get coffee-to-go in the reusable reCup, pay a one Euro deposit for this cup and receive coffee discounts. The customer can then hand the cup back at all participating cafés.

Who is the target audience?

The target audience is people interested in ecological issues, but of course, ideally, everybody who drinks coffee-to-go or sells coffee.

How much plastic can be reduced?

You can use each cup about 500 times, so 500 cups can be replaced by one reCup.

How big is the scaling potential?

Within one year, there was a huge raise in demand; we are growing continually and plan to expand abroad.

Where can we find you?

At the moment, the reCup system is available all over Germany, offered in different cafés or bakeries, restaurants, companies, and public institutions. All partners can be found through the reCup app.



Headquarters
Munich, Germany

www.recup.de

Category
BOTTLES &
BEVERAGE CUPS

soulbottles

soulbottles are 100% free of plastic, produced carbon-neutrally and supports clean water projects.



What is the problem targeted?

We all have seen enough plastic waste trashing our oceans, with at least 140 million tonnes of plastic. We want to put an end to it and we want clean water.

What is the solution, how does it work exactly?

We provide people with plastic-free products, such as our soulbottles, the soulcup (a refillable coffee-to-go-cup), and plastic-free straws. With every soulbottle sold, a 1€ donation goes

into a WASH project (water sanitation hygiene) led by Welthungerhilfe and Viva con Agua de St. Pauli e.V. Within October 2018, we will have donated half a million Euro to the project.

Who is the target audience?

People worldwide interested in sustainability, zero-waste and eco-design.

How many people can be reached?

We have almost 50,000 followers on social media.



How much plastic can be reduced?

The use of ONE soulbottle for two years prevents at least 3 kg of plastic trash and 35 kg of CO₂.

How big is the scaling potential?

We try to produce as locally as possible to avoid long transits. For us, Made in Germany is more than just a label. Even though we supply internationally, we want to concentrate on local wholesale.

The market for sustainable reusable drinking bottles is always growing. We welcome market competitors as they show us that the public perception of drinking water and plastic bottles are

changing. We are all working toward the same goal.

Where can we find you?

We have an online store and ship our products worldwide, and also supply retail stores.

Have you ever worked with artists before?

For many years we have been working together with designers and artists all over the world to create the artworks printed on our bottles. The artworks tell us something about the intention of the product and they add additional meaning and worth. Art is a universal language, it's totally connecting.

Every soulbottle design (40 in our collection at the moment) is made by an artist. For events we work with different artists too, such as Swaantje Güntzel (check out this artist on page 223), who we collaborated with for Millerntor Gallery 2017 and made a funfair vending machine filled with plastic bottles instead of plushies.

Headquarters
Berlin, Germany

www.soulbottles.de

Category
BOTTLES &
BEVERAGE CUPS

Hydrophil

Offering sustainable alternatives for your bathroom and reducing the needless waste of plastic.



What is the problem targeted?

We aim to reduce plastic consumption and protect safe and clean water through the production of sustainable products. Since we started our company, we have avoided 23.3 tonnes of plastic in products like cotton swabs and toothbrushes.

What is the solution, how does it work exactly?

Most of our products are produced regionally, without artificial irrigation, and they contain bamboo instead of plastic.

Who is the target audience?

Everybody who is interested in a sustainable lifestyle. Age and origin are no parameters.

How many people can be reached?

Beyond our online shop, the brand interacts with customers worldwide. Because our resellers do such an amazing work, we are known all over the globe.

How much plastic can be reduced?

More than 23.3 tonnes of plastic annually; per year, it is hard to say—it increases day by day.

How big is the scaling potential?

The scaling potential for the Biotrem technology is unlimited. Biotrem keeps



extending its distribution chain. The company's products are or soon will be distributed in other European countries, North and South Americas, Australia, and hopefully soon, globally!

Where can we find you?

Many drugstores in Germany have listed our products. You can order our products on our website and avocadostore.de



Headquarters
Hamburg, Germany

Category
COTTON BUDS

www.hydrophil.com

Bambaw

Bambaw's mission is to reduce the waste generated on earth by providing affordable, quality, zero-waste products.



What is the problem targeted?

Stats tell us that one million plastic bottles are bought every minute around the world. Nearly two million single-use plastic bags are distributed worldwide every minute. Sadly, 91% of plastic waste isn't recycled. And since most plastics

don't biodegrade in any meaningful sense, all that plastic waste could exist for hundreds or even thousands of years. Solutions and alternatives to wasteful products can be found. Rethinking how we consume is the key to creating a world with less plastic litter.

What is the solution, how does it work exactly?

It is simple. Challenge the status quo of using disposable products. Say no to single-use and think reusable! For example, use a safety razor instead of disposable cartridge razor. Use reusable makeup removers. Store your lunch in a reusable container. Bring your own coffee cup or cutlery and reusable straw. Our eco-friendly bamboo products are plastic-free alternatives which are durable, reusable, and recyclable.

How many people can be reached?

We are active on Instagram, Twitter, Facebook and Pinterest, adding the online and physical shops to this, we estimate to have a reach of one to three million people a year.

How much plastic can be reduced?

It isn't easy to determine how much plastic one reusable straw takes out of circulation or how much plastic one reusable stainless-steel bottle helps to avoid. We are currently working on a way to calculate the impact of every reusable item being used.

How big is the scaling potential?

The scaling potential is as big as the plastic issue. So many people still use wasteful single-use products. By educating them and providing better affordable zero-waste alternatives we can have greater impact.

Where can we find you?

Our products are to be found in Europe and in the United States of America in online shops as well as physical stores.

Bambaw



Headquarters
Brussels, Belgium

www.bambaw.com

Category
CUTLERY, PLATES,
STRAWS & STIRRERS

Biotrem

A Polish technology company developing an innovative production process of bio-based disposable tableware and packaging.



What is the problem targeted?

The global population produces every day over 3.5 million tonnes of plastic waste. Only 1% of plastic used in the foodservice industry can be recycled. The rest is buried in landfills, burned, or just thrown away and pollutes soil, rivers, seas and oceans. At the same time, the agricultural and food industries are producing huge amounts of by-products that with our technology could be easily transformed into environmentally friendly, fully biodegradable disposable products.

What is the solution, how does it work exactly?

With our patented technology we manufacture biodegradable disposable tableware from sustainable organic raw materials, such as wheat bran, corn bran, cassava by-products, seaweed, algae, and also from bio-based polymers.

Biotrem disposable products are an excellent alternative to most disposable tableware made from plastic, paper and even some chemically-processed bio-based products, the production and utilisation of which has a heavy environmental footprint.

One tonne of wheat bran can be transformed into up to 10 thousand plates, bowls or cups. Biotrem wheat bran disposable products are extremely environmentally friendly and fully compostable (no industrial composting required) within just 30 days. The production of wheat bran products also produces far less CO₂ than disposable polystyrene products.

**How much plastic can be reduced?**

With our technology, wheat bran by-products could be easily turned into around 1.5 trillion pieces of wheat bran tableware (plates, bowls, cups). This is practically the entire global annual demand for disposable tableware!

How big is the scaling potential?

The scaling potential for the Biotrem technology is unlimited. Biotrem keeps extending its distribution chain. The company's products are or soon will be distributed in other European countries, North and South America, Australia, and hopefully soon, globally!

Where can we find you?

In over 40 markets, especially within the EU.

Headquarters
Warsaw, Poland

www.biotrem.eu

Category
CUTLERY, PLATES,
STRAWS & STIRRERS

DrinkingStraws.Glass

Helping people and businesses go plastic-straw-free with our reusable artisan glass straws and carrying cases.



What is the problem targeted?

Plastic straws are the target: 500 million plastic straws are used daily in the USA alone, equalling 127 school buses packed full. All those straws are still here in some form as they break down into microplastics, ending up in our landfills and oceans.

What is the solution, how does it work exactly?

To use less single-use plastics. Our glass straws are extremely durable with a lifetime guarantee. We want you to be able to keep reusing and to stay away from single-use straws.

We encourage people to bring their glass straw with them in our handmade carrying cases. When you bring them with you, you can refuse plastic straws when out and about.

Who is the target audience?

Everyone who is ready to make a change and help our environment.

How much plastic can be reduced?

The average person uses 1.6 straws per day. We have sold at least 50,000 glass straws. So we have roughly helped reduce 30 million plastic straws, in a year, from being used.

How big is the scaling potential?

As long as people are willing to change, there is potential. We do want to and are growing globally.



Where can we find you?

In over 175 retail outlets and Pike Place Market (Seattle, WA). Also on our website, Etsy, and lots of local markets in Washington.



Headquarters
Selah, WA, USA

www.drinkingstraws.glass

Category
CUTLERY, PLATES,
STRAWS & STIRRERS

Abeego

Abeego provides reusable beeswax food wrap, made with beeswax, tree resin, and jojoba oil infused into a hemp and organic cotton cloth.



What is the problem targeted?

In North America, over 40% of food is thrown away. Abeego is on a mission to change that. By storing food as nature intended, we save food from being tossed into compost, and save time and resources that go into putting food on our tables. Abeego keeps your food fresher, longer, than other conventional storage methods.

What is the solution, how does it work exactly?

Our wraps are breathable and opaque, like every skin, peel, and rind found in nature. Fresh foods emit gases, when trapped in an airtight environment, becomes condensation, resulting in bacteria growth and mold. Storing your fruits, vegetables, cheese, and bread in Abeego will result in fresher food.

At the end of its natural life, Abeego wraps are 100% biodegradable and can be composted.

Who is the target audience?

Thoughtful individuals who purposefully shop for products that offer a shift, stand for change, and impact the way of life. Learners who will invest the time to understand the product and what it stands for and make an informed decision based on new information.

How much plastic can be reduced?

About 80 million Americans used at least one roll of plastic wrap in the last six months. Abeego wraps last up to a year, or longer. Reducing the use of plastic wraps in the kitchen.

How big is the scaling potential?

Since inventing beeswax food wrap in 2008, Abeego has pioneered the beeswax food wrap industry, driving a movement that is growing around the world. Starting in Victoria, BC, Canada, Abeego was born out of a kitchen in Toni's home and has now scaled to a standalone production studio, employing 20 people, distributing products around the world. In 2017, we experienced 300% growth, and are on track to double that growth in 2018.

Where can we find you?

Directly through retailers in 36 countries (and growing) and online at abeego.com.

Have you ever worked with artists before?

Caribou Creative is the team behind our branding and design work for our wraps and packaging.

abeego®

KEEP FOOD ALIVE



Steven Spazuk, from Montreal, Canada, is internationally known for his work with fire and sculpting traces of soot on paper. Steven used our Abeego Twists, made from the discarded edges of our wraps as his 'candle' to create his art. Burning chemical free our Twists were a part of Steven's process, ensuring a safer environment for his artwork.

Headquarters
Victoria, BC, Canada

www.abeego.com

Category
FOOD PACKAGES
& WRAPPERS

BeeBee Wraps

A reusable, compostable alternative to clingfilm



What is the problem targeted?

Plastic pollution from single-use food wraps and food waste.

What is the solution, how does it work exactly?

BeeBee organic cotton beeswax wraps are reusable food wraps that shape around food using the heat of your hands to replace clingfilm. Simply wrap, wash and reuse; then after a year, compost for zero waste.

Who is the target audience?

We target people aged 25-50 with families; food lovers who care about good food preservation; and consumers with concerns around plastic pollution.

How many people can be reached?

Our reach is currently around 3,500 followers on Instagram, 2,500 on Twitter and 1,500 on Facebook. We have over 1,500 email subscribers and our customer base is growing rapidly. Through our stockists and retailers, we have a much wider reach.

How much plastic can be reduced?

Each BeeBee saves, on average, 100 uses of single-use plastic. This is a conservative figure and is likely to be much more.

How big is the scaling potential?

We ship globally, and with only a handful of other companies scaling to meet global demand, we know that the market is ready to grow and is currently under-populated.

Where can we find you?

Our online shop and one of our many



retailers: Abel & Cole, Booths, Aga Cookshop, Paxton & Whitfield, Steamer Trading, plus other smaller independent shops listed on our website. We also exhibit at a number of large events in the UK.

Have you ever worked with artists before?

Yes, we've worked with Karen Jinks who helped design our latest range and we're looking for our next designer.

Headquarters
Cambridge, England, UK

www.beebeewraps.com

Category
FOOD PACKAGES
& WRAPPERS

Honeywrap

Our goal is to stop single-use plastics by providing an alternative that works just as well—if not better!



What is the problem targeted?

Society's regard for plastic in the world today is shocking: plastics are cheap, versatile and used for everything, then thrown out after 20 minutes of use!

Plastic doesn't biodegrade, breaking into millions of tiny particles. Harmful chemicals then leach into the ground and waterways. Toxic chemicals used in plastic are linked to birth defects, child development disorders and cancers.

Plastics are not sustainable and made from non-renewable natural resources such as crude oil, gas and coal, with 32% of plastics ending up in our natural environment.

New Zealanders alone use over one billion plastic bags per year. In total, 268,940 tonnes of plastic are already estimated to be in our oceans.

What is the solution, how does it work exactly?

The solution is a changed attitude towards plastic. Plastic-free alternatives, such as our natural, organic wraps, are part of the answer. We are the first New Zealand company to make and sell beeswax wrap alternatives. They are environmentally friendly and biodegradable. Pop them in your compost when they are ready to retire (after one year or more of use).

We use paper tape and environmentally friendly envelopes and boxes for packaging. Our wraps are made using only Organic Certified Cotton. We give 1% of our income to the One Percent Collective, an organisation that works with amazing charities. We participate in beach clean-ups and tree planting, and we also team up with organisations like Project Jonah (save and protect whales, dolphin and other sea life); donating a percentage of every wrap sold to them.

Who is the target audience?

Our target base was initially people that had an interest in sustainability and the environment. However, overtime our customer base has extended to include all kinds of people. We receive great feedback from men, women, kids, international buyers and charities.

How much plastic can be reduced?

One Honeywrap can save the equivalent of 75 meters or more of plastic a year! This adds up—we can estimate that we have saved over 8.5 million metres of plastic from going into landfill or our oceans.

How big is the scaling potential?

Our company has the power and ability to grow as big as it needs to be! The potential is huge and the interest we currently experience from all over the world is pretty exciting.

Where can we find you?

You can find our products online at our website and in over 250 stores across New Zealand. We also stock multiple online stores as well as many overseas shops across Europe, Australia and



Japan and are constantly growing and extending our reach!

Have you ever worked with artists before?

We are always working with awesome New Zealand artists to produce our beautiful wraps. We have just released a limited edition Evie Kemp collection—a creative, abstract Auckland designer. Through our collaboration with the charity Project Jonah, we released a very special whale print, designed by the very talented New Zealand artist Natty. For every Project Jonah Honeywrap purchased, 50 cents goes towards helping this rescue charity to continue protecting our marine mammals.



Headquarters
Auckland, New Zealand

www.honeywrap.co.nz

Category
FOOD PACKAGES
& WRAPPERS

SuperBee

Natural, reusable, washable and biodegradable alternatives for plastic kitchen wrap and plastic bags.



What is the problem targeted?

Microplastic pollution that breaks down and makes its way into our waters.

What is the solution, how does it work exactly?

Our first and main product is a wax food wrap made of GOTS cotton and beeswax that replaces clingfilm. It is biodegradable, reusable, washable and bee-aufiful.

How much plastic can be reduced?

The potential is limitless!

How big is the scaling potential?

We are going global, also with workshops at schools to show children how to make the product themselves. We are trying a holistic business model. The business is easily scalable and has a lot of potential.

Where can we find you?

SuperBee is based in the northern mountains of Thailand, near Chiang Mai. We are supporting local communities in developing areas. You can find our products in our online store.



SUPERBEE WAX WRAPS

Have you ever worked with artists before?

Yes, we are now setting up a campaign to attract local artists to submit fabric designs and then provide them with royalties from sales. We also work with local Thai dyers.



Headquarters
Chiang Mai, Thailand

www.superbee.me

Category
FOOD PACKAGES
& WRAPPERS

TIPA

TIPA develops and produces compostable flexible packaging solutions, as a viable alternative to conventional plastics.



What is the problem targeted?

Plastic waste is an ageless hazard and takes more than 500 years to break down. Roughly 8.3 million tonnes of plastic have been produced in the world today, 5.8 million tons of which have been used only once and immediately discarded. Only 9% of all plastics is recycled, 12% incinerated and 79% stuck in oceans and ecosystems. TIPA aspires to slow down and eventually halt the manufacture and use of conventional flexible plastics by offering a fully compostable alternative.

What is the solution, how does it work exactly?

A realistic way to end the plastic epidemic is to replace conventional plastic with a viable alternative, one that maintains all the properties we love about plastic but that returns 100 % back to nature in its end-of-life. This can be achieved by utilizing polymers wisely, such that they will biodegrade into compost like an orange peel.

This is possible through the use of TIPA blends comprised of biomaterial polymers chemically designed to naturally disintegrate within several months under composting conditions.

Who is the target audience?

Brands, converters and retailers who work with both raw and made-to-order sustainable alternatives to conventional flexible packaging.

How much plastic can be reduced?

In the next three years, we intend to displace and replace a minimum of 10 thousand tonnes of conventional plastic with our materials worldwide. The flexible packaging industry is a 102 billion dollar industry worldwide. As business grows and more brands and retailers adopt our solutions, exposure will escalate. Millions of packaging units that incorporate our materials are already circulating Europe and the U.S., helping to displace and replace conventional plastic with this eco-friendly solution.

How big is the scaling potential?

TIPA operates on a global scale with Europe and the US currently serving as our main markets. By 2020, we expect to enter the Asian market. Our compostable polymer technology is applicable worldwide.

Where can we find you?

We manufacture TIPA packaging in Europe and the US, and ship worldwide.

Have you ever worked with artists before?

As part of our 2019 goals and overall aspirations, we aim to reach the end consumer as well as the industry. Through collaborations with artists, we can effectively spread awareness and promote education about compost and compost solutions.



Headquarters
Hod Hasharon, Israel

www.tipa-corp.com

Category
FOOD PACKAGES
& WRAPPERS

BioDOGradable

Offering you an alternative to plastic pet-waste bags.



What is the problem targeted?

We aim to tackle environmental issues related to plastic pollution, in particular, disposable plastic bags.

What is the solution, how does it work exactly?

Our mission is the use of renewable material technology as an alternative to conventional single-use plastic products. bioDOGrable bags are made from patented bio-based renewable material which makes them 100% biodegradable, 100% compostable, GMO Free and made from food-grade material.

Who is the target audience?

Our products target pet owners and also city dog parks.

How many people can be reached?

We estimate a potential of reaching 100 million plus people per year.

**How much plastic can be reduced?**

Our waste pick-up bags could replace 150 million plastic bags per day.

How big is the scaling potential?

We project sales will grow at a rate of 10 million bags per month and we're working on the global market.

Where can we find you?

Online, on our website and on sites such as Amazon and Ebay, plus some retail stores.



Headquarters
Orange County, CA, USA

Category
PLASTIC BAGS

www.biodogradablebags.com

Cali-Kart

To transport your groceries and purchases home, choose sustainability by using a superior solution to plastic bags.



What is the problem targeted?

To get rid of all unnecessary single-use and reusable plastic bags.

What is the solution, how does it work exactly?

Single-use plastic bags are one of the most commonly found items on California's beaches according to the Ocean Conservancy. A throwaway bag used for mere minutes will persist in our environment for decades. These non-biodegradable plastic bags are a direct threat to ocean wildlife with

plastic predicted to outweigh fish pound for pound in the oceans. All plastic bags must be replaced to protect our environment.

The solution is to use a Cali-Kart product over and over again!

We believe it is a choice to move away from harmful petroleum products. Single-use plastic bags break into tiny pieces that are eaten by marine life and enter our food chain. Together, we hope to promote awareness!

Who is the target audience?

All consumers need something to conveniently transport groceries and purchases home. Using our kart is a cultural buy: it says, "I care about my environment, I don't support plastic bags being produced, and I choose sustainability."

How much plastic can be reduced?

100 billion plastic bags currently pass through the hands of US consumers every year—almost one bag per person each day. Laid end-to-end, they could circle the equator 1,330 times.

Worldwide, a trillion single-use plastic bags are used each year, nearly two million each minute.

How big is the scaling potential?

The Cali-Kart® reusable box is the next generation beyond plastic bags, it is a product designed for the earth-conscious consumer that believes it is a choice to move away from petroleum products that are contaminating and harming our oceans and beaches. The Cali-Kart® is reducing the environmental impact of plastic every time it is used.

Where can we find you?

Many grocery stores, Bed Bath & Beyond, and online.

Have you ever worked with artists before?

Yes, we have worked with a wonderful calligrapher, named Dege Donati. She does sand calligraphy for some of our picture inserts. We also have a staff of photographers, Sandra Allen and Karlie & Brad Crawford.



Headquarters
Orcutt, CA, USA

Category
PLASTIC BAGS

www.Cali-Kart.com

greenBUG

Uniquely designed bags, made from upcycled newspaper and natural glue, to replace plastic garbage bags.



What is the problem targeted?

In India, 15 thousand tonnes of plastic waste are discarded every day, 40% being non-recyclable plastic. The remaining that is recyclable is largely not recycled. Segregating plastics, and cleaning and converting them into useful

products requires specific technology and is resource-intensive. There aren't adequate economic and systemic incentives to undertake recycling at the required scale.

The surest way to reduce plastic pollution, therefore, is to drastically reduce dependence on single-use plastics. Plastic garbage bags are prime candidates, not just by virtue of being plastic, but also because the sealed bags' organic contents are as unlikely to be recycled as the bags themselves.

What is the solution, how does it work exactly?

The greenBUG® dustbin liner is made



by upcycling discarded newspaper, hand-folded and stuck together with natural glue into its unique shape and decomposing harmlessly after use. Its flexible shape fits any bin, with the robustness required to handle wet solid waste.

Production requires little resources beyond time—no electricity, fuels, or other chemicals are used. It's 100% handmade, using custom-developed simple tools. Thus, production itself is resource-thin and green.

We spotted an opportunity to channel earnings to disadvantaged homebound women, training them to produce the product through this initiative. The production process has been kept simple for unskilled hands to learn.

Who is the target audience?

Primary customers are families in gated communities and condominium complexes of major cities, with increasingly strict waste segregation regulations. Waste segregation guidelines usually specify that wet waste bins are not to be lined with plastic bags. Awareness is growing in general about plastic pollution and its detrimental effects, leading to a growing demand for eco-friendly dustbin liners. We provide the perfect hygienic and convenient solution.

How many people can be reached?

Over one million households exist in India. We have reached fewer than 0.1% of this potential. However, we have relied exclusively on word-of-mouth and



occasional social media presence. In addition, several publishing houses and radio stations, including some national ones, have covered us during 2018.

How much plastic can be reduced?

In India alone, we expect that 300 to 500 million liners could be used each year, implying that 3-500 million plastic garbage bags may not end up in landfills! That would be 5-10,000 tonnes of plastics saved every year, as a conservative estimate.

How big is the scaling potential?

The product has all-India relevance and demand, available throughout India. It has potential to be rolled out through conventional distribution channels and marketed more deliberately to be more visible countrywide. There has been international interest in greenBUG® and we intend to go international.

Where can we find you?

In India on Amazon India and our website, and in several retail stores in Bengaluru.

Headquarters
Bengaluru, India

Category
PLASTIC BAGS

www.gogreenbug.com

Bean & Boy

Handmade all-natural soaps using responsibly-sourced vegan ingredients, pure essential oils and traditional low-impact methods.



What is the problem targeted?

In the UK, 13 billion plastic bottles are used every year, with only 7.5 billion recycled. Landfills and incineration produces approximately 233,000 tonnes of CO₂ emissions a year. Littering spoils our streets and threatens our wildlife and costs local authorities £778 million (2015/16) to clean and enforce. We can avoid plastic as a source of marine plastic pollution, as well as create an engaging and tangible issue for the general public, sparking consideration of other types of marine plastic pollution.

What is the solution, how does it work exactly?

We aren't trying to encourage recycling of plastic bottles and plastic packaging—this is a costly and lengthy process. We want to eliminate it all together.

We make traditionally-made natural bar soap in biodegradable wrapping—reducing waste in production and packaging, and reducing plastic consumption. We use raw natural ingredients, no synthetic oils or butters, no artificial fragrances or colourants that need to be modified or artificially

altered. Our traditional hand-made methods uses significantly less energy, produces less waste and has less environmental impact. With a strong focus on ethical production and skills development, we're driving the eco-friendly low-impact and sustainable production of handmade soap.

Who is the target audience?

Initially started with parents with children suffering from sensitive skin in and around the UK, but now retail to countries around the world to anyone looking to reduce waste and minimise ecological impact.

How much plastic can be reduced?

Considering our soap is made by hand and wrapped in biodegradable paper with compostable twine, we save at least 5,000 bottles a year (1:1) with potential to scale exponentially.

Additionally, our soap is multifunctional; it can be used to wash hair, clean surfaces, wash laundry, and generally as a traditional multi-purpose cleaner. If everyone embraced this low impact approach, this could replace up to ten plastic bottles (potentially more) per bar of soap, eliminating up to 50,000 plastic bottles per year.

How big is the scaling potential?

At the moment we make everything by hand, and we won't compromise on that. But more hands make more soap, and we have the potential to educate and empower individuals as they join our enterprise and grow our family business. Keeping the traditional method going and staying committed to our low impact



and ethical vision is key to our growth. We have the ability to scale quickly, and the ability to grow globally through sharing skills, knowledge and training.

Where can we find you?

Our Etsy shop and website, as well as physical retailers around the UK and abroad. A list of our stockists available on our website.

Have you ever worked with artists before?

We regularly work with artists to produce products to retail alongside our soaps, or imagery to use on packaging. We are currently working with a local artist to produce botanical illustrations to promote the amazing benefits of the natural ingredients used in our soap.

Headquarters
Southend-on-Sea, England, UK

www.beanandboy.com

Category
WET WIPES &
SANITARY ITEMS

Ethique

The Ethique vision is to eradicate the world of plastic waste from beauty products, and for bars instead of plastic bottles to be the norm.



What is the problem targeted?

80 billion shampoo and conditioner bottles are used around the world every year, destined for recycling facilities, where they are usually shipped offshore and left to languish, or put in a landfill. Plastic is streaming into our oceans at an alarming rate of one dump truck per minute. Some of the biggest polluters are plastic bags, bottles and, surprisingly, lip balm tubes.

What is the solution, how does it work exactly?

Ethique offers solid bottle-free products ranging from shampoos and conditioners to a laundry bar, body moisturizer and more. All Ethique products are plastic free, vegan and cruelty free, palm oil free and all ingredients are naturally derived and sustainably sourced.

Because we retail our bars and ship them around the place, they need to be



packaged in something. Our cardboard boxes are acid, chlorine, laminate and plastic free. We use soy inks too. All of our packaging is compostable, even our in-shower containers!

Who is the target audience?

Today our audience reaches beyond the eco-warrior consumer. Our customers are typically young adults who are online



ethique

shopping savvy, but really our product is for everyone and our customer base is always expanding as Ethique forges itself as a mainstream brand.

How much plastic can be reduced?

We are on track to reducing one million plastic bottles from entering landfills before the end of 2018.

How big is the scaling potential?

We are a rapidly growing business and continue to see growth in all of the markets we distribute in. Ethique has recently signed on to have 22 of its products sold in more than 420 stores throughout Australia, and USA customers are also set to see Ethique in physical retail stores in the coming year.

Where can we find you?

In India on Amazon India and our website, and in several retail stores in Bengaluru.

Have you ever worked with artists before?

We have collaborated with photographers on instagram to help spread our #GiveUpTheBottle message.

Headquarters
Christchurch, New Zealand

www.ethiquebeauty.co.nz

Category
WET WIPES &
SANITARY ITEMS

Niyok

We are revolutionising oral care, starting with the first all-natural toothpaste made from coconut oil in a sustainable chalk tube.



What is the problem targeted?

According to a national statistic, every German uses approximately five toothpaste tubes a year. Although the exact numbers may differ, it's undeniable that every country produces a vast amount of plastic waste from dental products. In addition, most tubes aren't fully made of plastic, but rather a wild mixture of PE, stabilizers, softening and light protection agents, antioxidants and waxes. If these tubes are eventually burned for energy generation, they produce a gas cocktail that even the best filtering machines can't handle.

What is the solution, how does it work exactly?

We are the first producer to introduce an innovative and sustainable tube to the toothpaste market. The tube body consists of a mixture of 50% chalk (calcium carbonate) and 50% pure PE. No additional agents needed. We believe that sustainability and usability should not contradict—yet they often do. By providing sustainable packaging solutions that still meet our customers' need for hygiene, flexibility and aesthetics, we make sure that our products are functional for long-term use.

Who is the target audience?

Every wonderful person who leads a conscious, healthy and sustainable life.

How big is the scaling potential?

Since everyone (or almost everyone) uses toothpaste, the potential is limitless. We are starting with the distribution

Niyok

of Niyok in Germany and Poland, but we are looking forward to expanding globally shortly after.

Where can we find you?

You can buy our products on Amazon and in our online store. Niyok will become available in drugstores, supermarkets and organic stores in Germany and Poland from the beginning of 2019.

Have you ever worked with artists before?

No, but since design is a crucial part of our product philosophy, we are planning to work with great artists from around the world on limited design editions of Niyok and packaging for new flavours.

Headquarters
Berlin, Germany

www.niyok.de

Category
WET WIPES &
SANITARY ITEMS

Ruby Cup

A Ruby Cup is a life-changing period product that is reusable for 10 years, making it eco-friendly and affordable, and provides more comfort and less fuss.



What is the problem targeted?

Most menstruating people will use about 10 thousand tampons or pads during their lifetime. Tampons and their plastic wrappers and applicators end up in landfills and in our oceans. For example, 170 thousand tampon applicators were found along US coastal areas in a single year. These take about 500 years to breakdown.

Ruby Cup also tackles the problem of unaffordable menstrual products, especially in East Africa. In Kenya, 65% of girls and women can't afford period products when they need them. This results in health hazards and disrupted

education. In Kenya, girls will miss an average of four days of school each month—that's 20% of the school year.

What is the solution, how does it work exactly?

Ruby Cup reduces the waste problem that disposable menstrual products cause. Using a Ruby Cup for only two years, saves up to 600 tampons or pads.

Through our Buy One, Give One model (where every Ruby Cup purchase includes another Ruby Cup donated to a girl without access to period products) and strategic partnerships, we provide Ruby Cups and education



on reproductive and menstrual health to girls and women in 11 countries. As a Ruby Cup can be reused for up to 10 years, receiving a Ruby Cup can help her get through school worry-free. It's not just about providing a sustainable product, but we also provide education and long-term support.

Who is the target audience?

As we ship worldwide, we are available to anybody with a period looking for a sustainable, healthier and more comfortable menstrual product.

How many people can be reached?

So far, we were able to donate over 50,000 Ruby Cups to girls without access to safe menstrual care products through our partners.

How much plastic can be reduced?

In 2017, all Ruby Cup users saved 1713.74 tonnes of tampon waste, which is the equivalent of about 8.5 blue whales. The year before, in 2016, all Ruby Cup users helped avoid 1093.43 tonnes of tampon waste, which can be measured in 5.5 blue whales.

Where can we find you?

Ruby Cup can be purchased on our website as well as through resellers in Europe, Asia, New Zealand and Africa. You can find Ruby Cups in over 20 packaging-free stores around the world. Currently, we run distribution programmes with trusted partners in Kenya, Tanzania, Uganda, Cameroon, Malawi, Benin, Ghana, Zambia, and Nepal.

RUB̄CUP

Have you ever worked with artists before?

We are currently working on a collaboration with Crafts & Cramps, the embroidery art project of a German artist who works around issues of feminism and body positivity.

Through our partner Womena, in collaboration with Welthungerhilfe, the local musician Lady Comfort wrote a song communicating information about Ruby Cup and healthy menstrual care solutions to her village in the Karamoja area in Uganda.



Headquarters
Barcelona, Spain

www.rubycup.com

Category
WET WIPES &
SANITARY ITEMS

Saathi Pads

100% biodegradable & compostable all-natural sanitary pads made from banana fiber.



What is the problem targeted?

In India, 84% of women lack access to sanitary napkins. Improvised alternatives to pads are a health risk, uncomfortable, and lack adequate absorbency—making it very difficult for women to manage work or school while on their period.

The key problem Saathi addresses is to provide a hygienic, effective alternative to improve lives without creating any negative environmental impact. The small percentage of Indian women using sanitary pads today already generates 100,000+ tonnes of sanitary pad waste each year—a figure that could rise to 1,000,000+ tonnes if disposable pads were used by all Indian women of

menstruating age. Plastic pads take 600 years to degrade, and worse, are frequently burned for disposal, generating CO₂ & toxic fumes. Looking to the future, access to affordable, biodegradable, non-toxic pads is essential.

What is the solution, how does it work exactly?

We developed a 100% biodegradable and compostable sanitary pad made from banana fiber, which is one of the most absorbent natural fibers and abundant in India. Unlike wood pulp or cotton, it is an agricultural by-product and does not require additional land

usage. Our all-natural pads do not contain bleach or chemicals, minimising skin irritation and release of toxins into the environment upon disposal. Not only are they more comfortable and safer, as they don't contain bleach which has carcinogenic dioxins, Saathi pads degrade within 6 months of disposal, 1,200 times faster than conventional pads, and eliminate the need for incineration, reducing CO₂ production.



Who is the target audience?

We have two types of target audience: middle & upper class urban women and NGOs that purchase our pads to distribute among women in villages in which they operate. Saathi pads are therefore accessible to all women with our two-pronged pricing scheme.

How many people can be reached?

Currently 6,000 women, with an aim to reach 1.5 million by 2023.

How much plastic can be reduced?

We eliminate 60 kg of pad waste per woman, per lifetime. Since we began, we have saved 6.4 tonnes of plastic waste and 9 tonnes of CO₂ emissions. By 2023, we project we will reduce plastic waste



by 9,212 tonnes and CO₂ emissions by 10,849 tonnes.

How big is the scaling potential?

We get at least 7-10 international queries about availability a week. We have the potential to scale globally and are working towards US and Europe as our first priority. We have some international partnerships and have successfully pitched at numerous competitions both nationally in India and abroad.

Where can we find you?

Available online in India.

Have you ever worked with artists before?

We have worked with calligraphers, videographers, filmmakers, designers, and design agencies.



Headquarters
Ahmedabad, Gujarat, India

www.saathipads.com

Category
WET WIPES &
SANITARY ITEMS

Eco Glitter Fun

Eco Glitter Fun is biodegradable glitter in plastic free packaging. Guilt free sparkles.





What is the problem targeted?

Plastic glitter causes unnecessary microplastic waste in our ecosystem. Our mission is to change every pot of plastic glitter to biodegradable.

What is the solution, how does it work exactly?

Biodegradable glitter made from a cellulose film exists so we are trying to educate consumers to make the switch. We also use plastic free packaging to help bring awareness to the amount of plastics used in everyday life. Whilst making people sparkle we make them consider their plastic consumption.

Who is the target audience?

All people and companies using plastic glitter need to make the switch to biodegradable, regardless of geographical location. Microplastics are a global problem.

How big is the scaling potential?

Glitter has so many applications in



everything from cosmetics, arts and crafts, soap and candle making, to bath bombs. The potential can be global.

All people using plastic glitter need to make the switch to biodegradable, regardless of geographical location. Microplastic is a global problem.

Where can we find you?

Online, plus a variety of independent online and retail stores worldwide.



Headquarters
Reading, England, UK

www.ecoglitterfun.com

Category
CLOTHING &
FASHION

Cultural Design

Cultural Design builds products, services and experiences with a positive cultural impact.



What is the problem targeted?

The goal is to redefine the product design process to include the consideration of cultural understanding and positive social and environmental impacts.

**What is the solution, how does it work exactly?**

We developed a new Cultural Design process that involves in-depth cultural research as a starting point for each design project. We also put a great focus on cultural impact. How will the designed product or service impact the world we live in? We think beyond the experience of individual users and plan for human-to-human social interactions, cultural change and environmental impact.

Who is the target audience?

We work with any organisation or business willing to get an in-depth understanding of the cultural, social and environmental contexts and impacts of their product or service.

Where can we find you?

We operate globally collaborating with various businesses and organizations from all over the world.



Headquarters
Berlin, Germany

www.cultural.design

Category
CONSULTING
& EDUCATION

GreenBuzz Berlin

GreenBuzz Berlin e.V. is an association that supports sustainability on regional and international levels through research, education and networking.



What is the problem targeted?

People lack access to information or motivation to pursue sustainable lifestyles or business endeavours. They are afraid or hindered in realising their sustainable idea. If they feel alone and lack access to resources, they cannot be as powerful as within a network.

What is the solution, how does it work exactly?

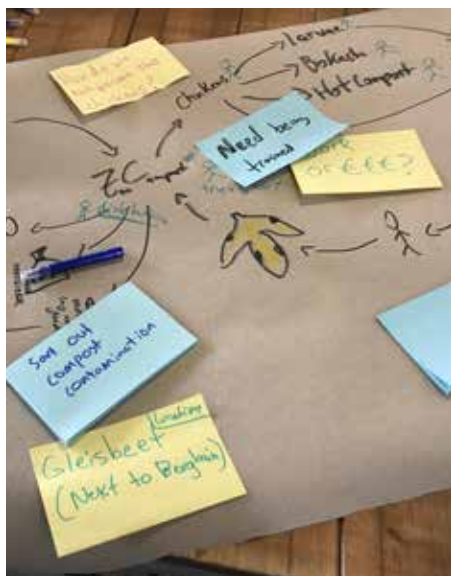
Founded in 2014, GreenBuzz is a sector-overarching network, connecting people working in sustainability and/or have a great passion for sustainable thinking.

Regular events, the Sustainability Drinks, brought together over 2,000 people over the first three years. We host open monthly get-togethers. We organise high-quality talks in a cozy atmosphere at each event.

Who is the target audience?

Everyone who is inspired by, wants to learn more about, and wants to network and connect with people in various fields of sustainability.

GreenBuzz Berlin e.V. mainly targets people in and around Berlin. Everyone can follow our activities online.



Where can we find you?

Our organisation consists of 25 members and a network of over 3,000 people in Berlin and beyond.

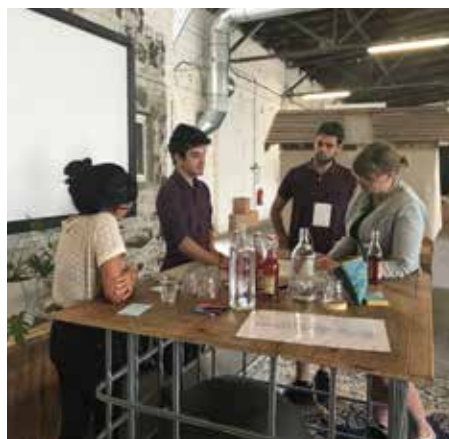
How much plastic can be reduced?

Since we promote many initiatives and just simple ways of changing everyday life, this is hard to measure. We hope, it is quite a bit!

How big is the scaling potential?

A cornerstone of the association is that it is set up according to a transferable blueprint concept. The idea is to create GreenBuzz chapters, which are easily replicated in other cities around the world to foster change towards sustainability. The global network was formed in Zurich (2010), with other chapters started in Bern, Amsterdam, Edinburgh and Bangalore.

Everyone is welcome to create their own GreenBuzz!



Headquarters
Berlin, Germany

www.greenbuzzberlin.de

Category
CONSULTING
& EDUCATION

Grinno

Grinno is an innovation agency specialising in the realisation of green innovation projects; our work starts where research projects and strategy consulting often end—at implementation.



What is the problem targeted?

Green innovations are different from traditional innovations and it can be difficult to translate good ideas effectively into practice.

There are several challenges, including clashing with existing structures, business models or behavioural patterns. Striving for ecological and social goals alongside monetary goals can take longer and often be incompatible with conventional financing methods. Also, teamwork is particularly important for the realisation

of green innovations. Not only within an organisation, but also with many external partners and stakeholders and this poses particular challenges to transparency, communication and coordination skills.

What is the solution, how does it work exactly?

We work with innovators who contribute to a more sustainable world in the context of the UN agenda 2030, hence also with innovators addressing the problem of plastics pollution in our oceans.



Our project management approach is especially tailored to address the various challenges connected to sustainability innovation and we support our clients in putting their ideas and concepts into action and to create a lasting impact. We help them to build a robust theory of change, manage the complexity of their project and measure and communicate the impact.



Who is the target audience?

Innovators and social entrepreneurs with an innovative concept, who are looking for a thorough project management approach to implement and scale their ideas.



How big is the scaling potential?

The scaling potential of a successfully implemented green project can be significant, it depends on the individual project.

Where can we find you?

Grinno can be reached via web, mail and phone. We then adapt tailored services together with the client.



Headquarters
Berlin, Germany

www.grinno.de

Category
CONSULTING
& EDUCATION

Plastic Pollution Coalition

A growing global alliance of individuals, organisations, businesses and policymakers working toward a world free of plastic pollution.



What is the problem targeted?

Plastic is a durable material made to last forever, yet 33% of it is used once and then discarded. Plastic cannot biodegrade; it breaks down into smaller and smaller pieces.

The list of problems it causes is extensive and alarming: plastic spoils groundwater, attracts other pollutants, threatens wildlife, it piles up in the environment, poisons our food chain, affects human health, and costs billions to abate.

What is the solution, how does it work exactly?

We envision a world free of plastic pollution, where:

- Individuals and systems embody zero-waste values of reusability and durability, plastic pollution is reduced at the source: in use & production.
- Packaging and goods are intentionally designed to be useful throughout their existence. Industry actively takes extended responsibility for all products and packaging throughout their lifetime, from cradle to cradle.
- Governments, industry and NGOs work collaboratively to create and sustain a circular system, eliminating the concept of “waste” by designing an ongoing use and positive outcome for every product and byproduct.
- Humans, animals and bodies of water thrive within the global ecosystem.



PPC provides a platform to amplify effective strategies and common messaging in order to foster sustainable solutions. We aim to empower people and organisations to take action to stop plastic pollution and to live plastic-free.

How many people can be reached?

Our coalition reaches 60 million people.

Where can we find you?

We have 750+ coalition members in 60 countries.

Have you ever worked with artists before?

Yes, we have 13 Supporting Artist Allies and our co-founder and CEO, Dianna Cohen, is a visual artist.

Headquarters
Los Angeles, CA, USA

www.plasticpollutioncoalition.org

Category
CONSULTING
& EDUCATION

Sustainable Seas Trust

Sustainability and poverty alleviation through education; working towards zero plastics in the seas of Africa by 2035.



What is the problem targeted?

Currently, Asia is the most polluted continent; however, growing investment in Asia is leading to an increasingly positive prognosis. If population and waste trends continue, Africa will become the most polluted continent in the world by 2050. To stop this growth of plastic pollution and set a target of zero plastic to the seas of Africa by 2035, the Sustainable Seas Trust (SST) has launched the African Marine Waste Network (AMWN) project.

What is the solution, how does it work exactly?

The AMWN aims to achieve this target by networking between all stakeholders, within countries and across borders of Africa. Collaboration with international stakeholders will provide channels for best practice in sustainable waste management. The amount of waste entering the seas of Africa has never been measured, but AMWN are taking steps to measure waste, set baselines and develop strategies that are

informed by factual knowledge. With the aim of teaching communities, industries and governments to manage waste where they live, work, learn and play, we can stop waste at its source, preventing it from entering the sea. Furthermore, AMWN will facilitate the development of waste related economic incentives, entrepreneurial opportunities and civil society movements within African communities, which are led by the people of those communities.

Who is the target audience?

We are targeting African communities, the youth, educators, industry experts, researchers and governments (local to national), especially those close to and within river catchments and along the coasts.



How big is the scaling potential?

We aim to build our network across the African continent and beyond.

Have you ever worked with artists before?

SST has several in-house artists who develop educational illustrations and infographics.

Headquarters
Port Elizabeth, South Africa

www.sst.org.za

Category
CONSULTING
& EDUCATION

The Last Plastic Straw

We strive to educate the public about the absurdity of single-use plastic, its effects on our health, environment and oceans.



What is the problem targeted?

It is estimated that 500 million straws are used each day in the US. Plastic straws are almost never recycled, nearly all single-use straws end up in landfills or the ocean and waterways, where they don't degrade and cause a significant hazard to wildlife. The most intense need is simple behavior and policy change. People need to refuse straws and businesses need to stop allowing their use. Plastic straws are emblematic of the general single-use plastic problem: they're a tool or material used for seconds and then discarded without further thought. The Last Plastic Straw (TLPS) project is shifting that habit every day.

What is the solution, how does it work exactly?

TLPS project and Plastic Pollution

Coalition are reinforcing momentum around a worldwide movement, so that plastic straws eventually become part of our community's history. In the short-term, we encourage eateries to no longer give plastic straws, we educate individuals to refuse plastic straws and spread the "straw free" message, and we work to change local regulation to prohibit such unnecessary plastic pollution. In the long run, this engagement around the "gateway" issue of plastic straws will meaningfully shift the way individuals and businesses think about plastic pollution—and about our society's disposable culture on a larger scale.

Who is the target audience?

1. Food vendors, restaurants, and food and drink related business owners, schools, institutions, including large event

and festival organizers.

2. Individuals who patronise those establishments and events, especially young people.

3. Leaders, NGOs, officials and policymakers at multiple levels of government.

How many people can be reached?

Traditional media outlets have sought the perspective and expertise of TLPS, resulting in thousands of press, video, and radio hits reaching up to 603 million people. TLPS participated in more than 32 community, conference, and school speaking engagements—many of which included schools and youth groups. TLPS collaborated with more than 2,500 businesses to change their straw protocol and advised on plastic straw language in 16 local plastic food-ware ordinances throughout the U.S. (11 of which have passed and are in various stages of implementation, most are due to be implemented between 2019-2020). TLPS is currently working with groups on language for plastic reduction ordinances in St. Johns, USVI, Belize, Bahamas, NZ, Hawaii, and Australia, through the PPC Straws Working Group.

How much plastic can be reduced?

We have prevented ten million plastic straws from entering the environment in the California and Hawaii regions, in addition to another 15 million straws worldwide.

Where can we find you?

You can find us on our website. Additionally, we have been represented through the short film *STRAWS* in



34 film festivals with more than 300 screenings in 22 countries to date. The film has been well-received in Honolulu, Wailuku, Kailua and Kona, Hawaii; and in more than 50 community and school screenings throughout California since Sept 2017. *STRAWS* was shown in Texas as part of the Earth X Film festival, and the launch of the successful “Strike the Straw” campaign resulted in 60,000 plastic straws eliminated as part of their summer goal. Through NOAA’s Ocean Guardian program, *STRAWS* Film has been shown to over 600 students. *STRAWS* has screened internationally in the UK, Spain, Jakarta, Belize, and British Columbia.



Headquarters
Santa Cruz, California, USA

www.thelastplasticstraw.org

Category
CONSULTING
& EDUCATION

WESSLING

Consulting and laboratory services covering legal, technological and quality management aspects in the accredited areas of environmental, food and pharmaceutical analyses, consulting and training, and research and development.



What is the problem targeted?

Microplastics are increasingly present in nature and pose a major environmental, food safety and health risk. Last year's measurements of our environmental testing laboratory unfortunately confirmed the assumption that there is a significant amount of microplastics in the river Tisza, similar to other European waters. In Tisza, a particle of 4.9 particles of diameter greater than 300 micrometres but less than 2 mm and 62.5 particles between 15 and 300 microns in cubic meters are found. Therefore, it is likely that millions of microplastic swim in Upper Tisza per hour!

What is the solution, how does it work exactly?

The Tiny Plastic Puzzle (TPP) project aims to draw attention to the increasingly serious problem of microplastics. WESSLING determines microplastic concentration measurements of the Ipoly, the Rába, the Bükkös stream and the Danube (in the case of the latter, measurements will be taken both above and below Budapest). These results, together with the already available Tisza data, will give us a more complete picture of how tiny plastics threaten our environment.

To learn about effects of microplastic contamination, further data collection and establishment of monitoring programs are necessary. TPP may be the first step with its double objectives of drawing attention to the problem and preparing the legislative process with measurement data.

These days, microplastics are already present in almost all living waters. One of the biggest challenges of our time is to understand the effects and solve this world-wide problem. We are actively involved in determining the risks of microplastics.

TPP was launched and operated by WESSLING Nonprofit Kft. (Head of communication: Gábor Szunyogh).

Who is the target audience?

First, our audience is all of Hungary through mainstream, professional, social media, conferences, effective communication campaigns, etc. Second, is the attention of decision-makers to help solve the problem. Third, we'd like to communicate results of TPP on an international level.

How big is the scaling potential?

Our project is one of the first steps. It is the first time in Hungary that a research institute and accredited laboratory is involved in measuring microplastics in surface waters.

There is scaling potential, this measurement can be the baseline for others to develop and standardise methods. A definition on the limit values for plastics and microplastics in waters should be made, and then, as a result of political decisions, serious measures taken to reduce pollution.



Where can we find you?

Located in Hungary, Budapest, we play an increasingly important role in Eastern Europe. As a member of a multinational laboratory network, we are in contact with foreign partners and laboratories.

Have you ever worked with artists before?

We had a great cooperation with a German art group called Finger who had a unique initiative of urban beekeeping. The hives were housed near a big museum in Budapest. Our laboratory checked the quality of honey produced there, which was excellent.



Headquarters
Budapest, Hungary

hu.wessling-group.com

Category
CONSULTING
& EDUCATION

Durat

Durat is a unique, sustainable solid surface material which contains recycled post industrial plastics and is 100% recyclable.



What is the problem targeted?

We target the left over plastic waste generated in industry.

What is the solution, how does it work exactly?

We collect industrial plastic waste ourselves from plants in Finland and mix the granulates of salvaged plastic to a polyester based material. Our Durat solid surface material is about 30% waste plastic. This material can be fabricated into different products for a range of purposes and industries, our main trade being countertops and vanity units for home and hospitality.

Who is the target audience?

Our product targets the green building industry and eco-oriented consumers.

How much plastic can be reduced?

We upcycle 20-30 tonnes of waste plastic per year.

How big is the scaling potential?

We want to create small local facilities that gather waste locally and supply



local products. The size of the surface market is enormous.

Where can we find you?

We supply some retailers in a few countries, mostly direct from Finland.

Have you ever worked with artists before?

We have worked with well-known Estonian sculptor Villu Jaanisoo on several projects, where Durat was the artist's material of choice for his large sculptures.

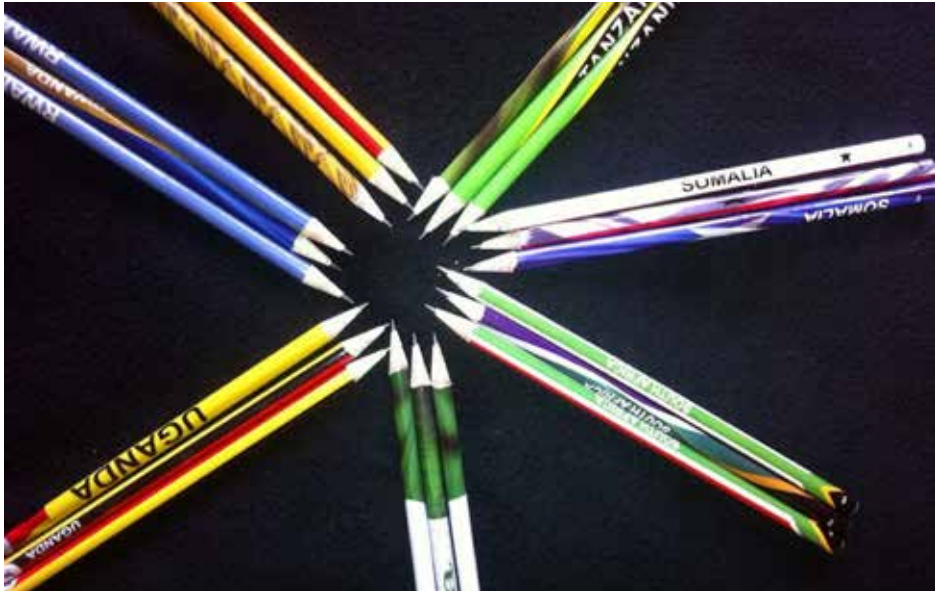
Headquarters
Helsinki, Finland

www.durat.com

Category
DESIGN &
UPCYCLING

Green Pencils

We convert recycled paper into wood to make pens and pencils, reducing plastic waste from pens and the cutting of trees to make pencils.



What is the problem targeted?

Plastic waste is a global menace. "Prevention is better than cure". We believe that if businesses can get sustainable substitutes to plastic items (e.g. paper pens instead of plastic pens), then that will help prevent the ever-growing production of plastic waste.

What does one do with a used plastic pen? Throw it away, or course. Can you imagine the yearly global plastic waste from this?

What is the solution, how does it work exactly?

The solution is making a pen by recycling paper, instead of manufacturing a plastic one and reduce the amount of plastic waste associated with pens. Hopefully, this will encourage other manufacturers, suppliers, and customers to sustainably tackle one plastic item at a time.

Who is the target audience?

Anybody who uses pens, therefore basically everybody.

How many people can be reached?

Since pens are already a staple consumer item, the reach of Green Pencils depends on product awareness and the distribution capacity, which we are working on.

How much plastic can be reduced?

The exact number of pens sold annually is difficult to measure, however we can assume it is much higher than pencils, and it's estimated that 14 billion pencils are sold annually. Assuming that each plastic pen weighs about 10 grams, we are talking about a reduction of 10 million kilograms per billion pens.

How big is the scaling potential?

The market is global. The assumption here is that people all over the world write. We would love to go global and have a greater impact. This impact also



encourages people with new ideas to substitute other plastic items, and we can hopefully be a model for how you can start.

Where can we find you?

Currently we are selling on a business to business basis, through emails or social media platforms. The next step is working with partners who can help develop our distribution angle.



Headquarters
Juja, Kenya

www.greenpencilsltd.co.ke

Category
DESIGN &
UPCYCLING

Green Toys

We make safe, earth-friendly products from recycled plastic and other responsible materials for kids and families.



What is the problem targeted?

The myriad of environmental and health problems caused by plastic pollution.

What is the solution, how does it work exactly?

We use recycled plastic (primarily HPDE) from consumer recycling bins, clean and reprocess it, and then make super-safe, durable toys.

Using 100% post-consumer recycled plastic, mainly plastic milk bottles, we not only divert material from landfills, but also reduce our carbon footprint and potentially harmful greenhouse gas emissions.

Who is the target audience?

Green Toys products are designed for children ages 0-6, families looking for safer, more environmentally responsible alternatives to traditional plastic toys.

How much plastic can be reduced?

Since our company's inception, we've used over 10 million pounds of recycled plastic to make our products—that's over 70 million milk bottles!

Where can we find you?

Our products are available internationally, at specialty toy stores, department stores, book stores, and online.



Headquarters
Sausalito, CA, USA

www.greentoys.com

Category
DESIGN &
UPCYCLING

Greenrail

Greenrail designs and produces innovative and sustainable railway sleepers made from an inner core of concrete and an outer shell of recycled plastics and rubber.



What is the problem targeted?

Growing urban populations entail fast-rising waste production. Waste management has already become an alarming issue, millions of tonnes of waste end up in landfills or in the oceans. The transition towards a circular economy has become a necessity, and smart solutions able to reuse waste are needed.

From the other point of view, the railway infrastructure sector has not seen any significant innovation and it is high time it was changed.

What is the solution, how does it work exactly?

Following the circular economy trend, the Greenrail production of sleepers reuses as much as 35 tonnes of end-of-life tires and recycled plastics per kilometer of

railway line. The result is a significant contribution to improving environmental issues and a much better performing product.

Our product's particular composition not only reuses plastic and rubber waste, but also increases a sleeper's lifespan, reduces vibration and noise levels, and incorporates various smart systems in its structure, for example solar panels for energy harvesting and real-time track diagnosis systems.

Who is the target audience?

Our market is railway authorities and



railway operators, but passengers are also positively affected.

How much plastic can be reduced?

On average, our product uses 17.5 tonnes of recycled plastics per each kilometer of a railway line.

How big is the scaling potential?

The Greenrail sleeper is currently patented in more than 80 countries worldwide. The company foresees to sign licensing agreements with companies in different countries to set up manufacturing plants in each territory.

Greenrail sleepers are a tailor-made product, meaning it can be used on any kind of railway line, even in most severe climate conditions, which greatly improves its global potential.

Where can we find you?

Greenrail sleepers are currently installed on railway lines in the north part of Italy. In December 2017, the company signed its first contract with an American company for commercialisation and production of Greenrail sleepers in the USA by the end of 2019.

Headquarters
Milan, Italy

www.greenrailgroup.com

Category
DESIGN &
UPCYCLING

KWD

As a designer, I bring new life to recyclable materials as a product or object in new and surprising contexts.



What is the problem targeted?

I realised that in many areas of everyday life high quality materials are going to waste and not being recycled. As a designer, this challenged me to think about new uses for an object while taking advantage of the benefits and characteristics of its materials.

What is the solution, how does it work exactly?

My products, objects and installations are unique and often made in a small series and therefore are not in

themselves a world-saving solution. Above all, it is the message of my designs that make the biggest impact. I show the audience and users of my work what potential still lies in used materials that are usually treated as waste.

In addition to selling my own products, I also offer companies individual development of product solutions.

Who is the target audience?

The target audience consists of people with an ecological awareness, as well as design-oriented people with a claim to individuality. The main distribution is in German-speaking countries.



Where can we find you?

In our own showroom in Berlin, in the online shop and at selected dealers in Europe. I also show my work in the context of art exhibitions, opening it up to the public.



Headquarters
Berlin, Germany

www.kwd.berlin

Category
DESIGN &
UPCYCLING

Lucentia

Transforming precious waste plastic into wonderful new sheet materials for our innovative artworks and high quality products.



What is the problem targeted?

The problem is the public and industry's perceptions of plastics as a single-use, throw-away material, resulting in the poor and premature disposal of plastics and the destruction of our environment. Through this, our projects challenge the overriding association between plastics and solely mass produced, throwaway goods.

What is the solution, how does it work exactly?

We work closely with clients to deliver high quality products and artworks to highlight the value of plastics. Working

with post-industry and post-consumer waste allows us to produce closed loop recycling systems which carry an admirable waste to product narrative.

Lucentia is about using plastic correctly. We recycle plastics in the truest sense: that is to transform plastic that has reached the end of its useful life into beautiful new products that use less energy than creating the same product from virgin plastics.

Who is the target audience?

Our products are not exclusive to the environmentally-conscious individual, as



we strive to inspire everyone to engage in a conversation about waste plastics. Our artworks and products boast the green credentials of recycled plastics, while having a powerful visual presence and permanency that will appeal to all.

How many people can be reached?

By developing feature artworks for both public and corporate spaces, we are able to inspire a large demographic of people who use each space. Our projects aim to spark a crucial conversation around recycled plastics and inspire the public to change their perceptions of waste.

How big is the scaling potential?

We are a small, but long established business, operating for over eight years. Our scale allows us to operate almost exclusively in-house, and work closely

lucentia - design . com

with our clients, from product concept to installation.

We would love to invest in the tooling that would enable us to scale-up our processes and offer our solutions to companies that can in turn share these to a wider audience, therefore, carrying our message forward.

Where can we find you?

We work on a project-by-project basis, our varied applications are currently contained within the UK, but we have the ability to supply worldwide.



Headquarters
Manchester, England, UK

www.lucentia-design.com

Category
DESIGN &
UPCYCLING

Nic&Mic - Ocean Sole

Recycling flip-flops into colorful art.





What is the problem targeted?

We recycle the world's most worn footwear: the flip-flop. About 3 billion people wear flip-flops around the world. After their use, they often end up in the environment as part of the plastic soup polluting the planet.

What is the solution, how does it work exactly?

We gather old flip-flops from Kenya's beaches and riverways and clean them. Then, we glue them together, and with local artisans turn them into art.

Who is the target audience?

We target mainly Europeans who enjoy art and want to take care of our seas.

How much plastic can be reduced?

We recycle over 500,000 flip-flops per year.

How big is the scaling potential?

We want to build workshops in many more countries to upcycle their flip-flops into art and crafts that best suits them.

Where can we find you?

We are based in the Netherlands and

Nic&Mic
Distributor of Ocean Sole



in Nairobi, Kenya. You can find the artworks on our website.

Have you ever worked with artists before?

All Ocean Sole sculptures are made by hand by local artisans in our Ocean Sole workshops in Kenya.



Headquarters
Boxtel, the Netherlands

www.nicmic.nl

Category
DESIGN &
UPCYCLING

Objet D'Fox

Producing creative products and works of art that add significant value to materials which are considered waste.



What is the problem targeted?

We aim to target the issue of plastic waste from single-use plastics, one of the most pervasive man made issues impacting our environment.

What is the solution, how does it work exactly?

Our work targets consumers of non-functional and functional design products. We produce one-of-a-kind injection moulded castings from moulds which we produce in our workshop. Our raw material is waste plastic that was otherwise destined for the landfill. Our machines and packaging are made from waste materials too.

We aim to show how approaching waste products in a creative and playful way can result in innovative and amazing products.

Who is the target audience?

Our target audience is fairly broad, however we aim our work at eco-conscious people who like quality design, and quirky Objet D'Art.

How many people can be reached?

Our social media channels are small, but growing. We have reached people all around the world, with some ad campaigns reaching over 20,000 people.

How much plastic can be reduced?

This depends on our demand, we fit a niche of smaller products and are aware that we aren't going to be recycling the most. We care about producing lasting and beautiful products which people will not likely throw away.

**Where can we find you?**

Currently, as we are a young business, our products will mostly be found on our webstore. We are working on growing our product catalogue and are looking at supplying certain stores around our country and eventually the globe.

Have you ever worked with artists before?

I am, myself, an artist and designer. I have exhibited in several exhibitions within New Zealand.



Headquarters
Christchurch, New Zealand

www.recycledplasticdesign.com

Category
DESIGN &
UPCYCLING

Refuse Factory

Design and production of everyday objects, urban elements, architectural and art installations with an environmentally friendly approach using wasted and upcycled materials.



What is the problem targeted?

Design on its own is not exactly a sustainable practice as it requires a great amount of resources and materials to be carried out. From this perspective, waste is the limitation of design thinking. Plus, the amount of plastic materials discharged into the environment way before they're past their lifetime is ever-growing. So, why not combining the two? Recycling locally and with the help of new technologies (3D printing, laser cutting, etc.), we give new life to waste.

In 2016, statistics showed a steep increase in urban waste collection per capita in Italy in relation to previous years. But at the same time, very little plastic material (7.8 %) was collected separately, with most not recycled at all. According to Eurostat, the average recycling rate of municipal waste in Europe is double the Italian percentage.

What is the solution, how does it work exactly?

The goal is to work with empathy and intuitive ideas, approaching the design and building process with thoughtful research and ethical resourcing and disposal of materials. We reuse the plastic, and at the same time, we raise awareness of the problems regarding the excessive use of plastic items in everyday life.

Who is the target audience?

People supporting the environment, architects, engineers, designers, art makers, students and everybody interested in sustainability, public included.



How much plastic can be reduced?

For our latest art installation, over 7,000 plastic bottles were used, and it just took us three months!

How big is the scaling potential?

With good social media planning, the potential scale can be huge. Right now, issues such as recycling and sustainability are really felt by most of society. We are getting in touch with people and associations dedicated to the matter, in order to seek collaboration and set up a network all over Europe (Portugal, Netherlands, Denmark) for people who love design and upcycling.

Where can we find you?

Our main focus is to increase the economy of South Italy by providing our products and services locally. But our plans are to open to new markets and possibilities (e-commerce sites, international fairs, competitions).

Headquarters
Battipaglia, Italy

www.facebook.com/refusefactory

Category
DESIGN &
UPCYCLING

Smile Plastics

Re-imagining waste materials into decorative panels for the design industry.



What is the problem targeted?

There is a poor perception of plastics by consumers and industry that plastics are of low-value and are disposable. Urban hubs are becoming increasingly populated, requiring more resources to sustain them. The linear take-make-dispose model is leading to unsustainable amounts of waste and is depleting scarce resources.

What is the solution, how does it work exactly?

With just 9% of all plastics recycled, there is a commercial opportunity to

explore a new model. We can redesign the way that resources are used in the built environment to become more locally sourced, reused and recycled, and in a circular economy.

Smile Plastics offers a range of off-the-shelf and customised decorative panels, bespoke design and build services, and a range of finished interiors products, all made from commercial and consumer waste plastics.

Who is the target audience?

Interior designers and architects in the UK and Europe.



How much plastic can be reduced?

We are in the process of setting up a plastics microfactory, which will be able to create 40,000 sqm of panels annually (around 770 tonnes of plastic a year). This will create 195.5 CO₂ kg savings per tonne of plastics recycled compared to conventional plastics recycling.



Smile Plastics

reimagined materials designed to inspire

How big is the scaling potential?

We are thinking big, with every major city in the world being a potential site for a micro-recycling factory, taking local waste and transforming it into decorative panels and products for local markets.

Where can we find you?

On our website and we ship globally.

Have you ever worked with artists before?

We are lucky enough to work with some great artists and designers around the world, from installation artists to furniture and product designers.



Headquarters
Crofty, Wales, UK

www.smile-plastics.com

Category
DESIGN &
UPCYCLING

TRASH Surfboards

Recycling cardboard into functional surfboards.



What is the problem targeted?

Cardboard is a single-use material which consumes energy to be produced and recycled. It's actually a strong material that can serve many other purposes.

What is the solution, how does it work exactly?

Before putting cardboard into the trash, or even recycling, we can think of a way to re-use it—as it is and in a more functional way. I use it to make surfboards, but there are a lot of other possibilities.

Who is the target audience?

I aim to create awareness in a worldwide audience, mainly surfers near the sea and developing populations.

**How big is the scaling potential?**

The scaling potential could be big: there are 4.5 million surfers in Europe, 35 million worldwide.

How much plastic can be reduced?

Surfing is a billion dollar industry, over 75% of surfboards are made with polyester foam.

Where can we find you?

My boards are available online, or you can make your own watching my videos found on the website.

Most of my work has been summed up in a short film that spreads awareness and gives practical advice about how to recycle and transform waste materials into functional objects.

Have you ever worked with artists before?

I myself am also a working artist, working with colours, gradient and ocean geometry. I show my art and exhibition photos alongside my surfboards on my website.

Headquarters
Hossegor, France

www.trashsurfboards.com

Category
DESIGN &
UPCYCLING

Van de Sant

Van de Sant Innovations designs and manufactures comfortable sustainable furniture made from recovered waste plastics from land and sea.



What is the problem targeted?

Our furniture stops deforestation (two billion trees cut annually for the furniture industry), reduces plastic waste (eight million metric tonnes end up in the ocean), creates local jobs (local clean-ups and manufacturing) and is 100% circular (after end-of-life, our furniture returns into the loop; customer becomes supplier).

What is the solution, how does it work exactly?

We change regular furniture into 100% recycled content: frames made from plastic waste and recycled foam and fabrics from recycled post-consumer textiles.

Who is the target audience?

Our target audience is corporate industry and hospitality. Furniture is everywhere, it's an all-day product we use in our lives. The larger industry can make an impact. Each chair contains 25 kg of recycled plastic. A hotel has a lot of furniture!



How many people can be reached?

The furniture industry is enormous. If we change only 10% of the industry, the impact will be immense; not only for a cleaner environment, but also for employment opportunities. On the long-term, we will make sure plastic will never end up in the environment!

How much plastic can be reduced?

We support a ban and lesser use of single-use plastic. But whatever is still out there, we will help to reduce through our processes. We have sold in the past year approximately 1,000 pieces, which means 25,000 kg of plastic stays out of our environment and stays in the economy!

How big is the scaling potential?

Our vision is to expand globally by setting up local manufacturing on SIDS (Small Islands Development States: local plastic pick up on beaches, build furniture, export to nearby countries). This can create local jobs and export, and also a big plus of reducing plastics!

Where can we find you?

We sell through interior architects and our own sales team. Everything is made-to-order and customisable, so direct contact with the customer is a must.

VAN DE SANT
a Circular Innovation Company 



Headquarters
Emmen, the Netherlands

www.vandesant.com

Category
DESIGN &
UPCYCLING

vanPlestik

Creating design objects using a plastic recycling 3D-printer.



What is the problem targeted?

The problem of plastic waste is obvious. Every minute a full truck of plastic waste enters our oceans. Many countries don't have proper recycling facilities, let alone any garbage collection services. Because nobody can economically make use of plastic waste, it's mostly discarded and finds its way into our natural world.

What is the solution, how does it work exactly?

vanPlestik has developed a giant 3D-printer that can take in those waste streams that otherwise are very difficult to recycle. In this way plastic can be

recycled locally and made into a wide variety of new objects without the need of an extensive recycling infrastructure.

How much plastic can be reduced?

Right now, we have the capacity to recycle around 4,000 kg/year. If adopted around the world, this could be in the thousands of tonnes.

How big is the scaling potential?

vanPlestik is proving and developing its business idea and 3D-printing technique as a small business in the Netherlands. In time, we will expand to other countries, building up



experience and a worldwide database collection of printable designs. In the end, entrepreneurs in developing countries will have to step in and help development to suit local needs. The ambition is to reach a global scale, mostly because we see high potential in developing countries.



Where can we find you?

You can find our products on our webshop. Some designs are also available through design shops in and around Amsterdam.

Have you ever worked with artists before?

We're currently building a 12m long statue together with KLEAN:
www.thepowerofone.nl



Headquarters
 Amsterdam, the Netherlands

www.vanPlestik.nl

Category
DESIGN &
UPCYCLING

Yardbird

With a love for the outdoors, Yardbird brings beautiful, eco-friendly and affordable quality furniture directly to the consumer.



What is the problem targeted?

As an outdoor furniture company, we love the outdoors, and strive to do our part to keep it pristine.

While our co-founder Jay was living in Asia to learn about the industry, he couldn't help but notice the excess of plastic litter in waterways and on beaches. Research revealed that just five Asian countries (Vietnam, Philippines, Indonesia, Thailand and China) contribute more than 60% of garbage in oceans.

This knowledge, paired with the fact that this industry is highly wasteful, inspired the founders of Yardbird to do things different.

What is the solution, how does it work exactly?

In many of these countries, an informal system of garbage collectors sell plastics to recycling facilities. Yardbird wicker is made with 50% recycled materials, with plans to increase that percentage.



We are also aware of our carbon footprint and offset this through partnership with carbonfund.org—inclusive of shipping from factories, delivery to customers and travel for our employees. Yardbird uses 30% less packing materials than industry standard. The bubble wrap we use is made from intercepted ocean plastics, and boxes are made from recycled cardboard. We continuously look to innovate Yardbird's packaging and hope to be completely foam-free by 2019.



How much plastic can be reduced?

30,000 pounds of intercepted ocean plastics are incorporated into Yardbirds collection, and we plan to increase that to 100,000 pounds for the upcoming season. This number will only increase, and not only because we will be expanding as a company. Currently, 50% of our handmaid resin wicker sets are made with recycled material, and we are looking to push that amount to 75%.

Where can we find you?

We mostly sell online and currently ship within the 48 contiguous states in the US. However, we have a showroom in Minneapolis, MN.



Headquarters
Minneapolis, Minnesota, USA

www.yardbird.com

Category
DESIGN &
UPCYCLING

TerraCycle

TerraCycle is an innovative waste management company with a mission to eliminate the idea of waste.



What is the problem targeted?

TerraCycle provides recycling solutions for hard-to-recycle products and packaging that otherwise often ends up in landfills. Those products include the most littered item in the world, cigarette butts, toothpaste tubes and flexible food packaging, just to name a few.

What is the solution, how does it work exactly?

TerraCycle partners with leading consumer product companies, retailers, cities and facilities to recycle products and packages, from dirty diapers to cigarette butts, that would otherwise end up being landfilled or incinerated. In addition, TerraCycle works with leading consumer product companies to integrate hard to recycle waste streams, such as ocean plastic, into their products and packaging.

Who is the target audience?

TerraCycle offers recycling programs to consumers and companies who want to recycle products and packaging that can't typically be recycled. Its beach plastic recycling program works with beach cleanup organisations around the world to use plastic recovered from rivers, waterways and beaches in new products.

How many people can be reached?

There are more than 80 million people around the world recycling through TerraCycle.

How much plastic can be reduced?

TerraCycle and its collectors have kept more than 4 billion pieces of waste out of landfills and incinerators.

How big is the scaling potential?

TerraCycle's programs are very scalable. While it already operates in 21 countries, it is always looking to enter new markets to provide recycling solutions for complex materials. Its beach plastic collection programs have collected plastic from seven continents.

**Where can we find you?**

TerraCycle's recycling programs are found in 21 countries including the United States, Canada, England, Australia, Japan, Brazil and many more. Its recycled beach plastic can be found in shampoo, dish soap and skin care bottles in Latin America, France, England and Germany.

Have you ever worked with artists before?

Yes, TerraCycle has worked with several artists, including graffiti artists who routinely paint on the outside walls of TerraCycle's headquarters as well as Hungarian artist EdE Sinkovics (see this artist's work on page 74).



Headquarters
Trenton, New Jersey, USA

www.terracycle.com

Category
INNOVATIVE
RECYCLING

WASTED

A reward system to improve and incentivise household waste separation.



What is the problem targeted?

Plastic is a fascinating substance, originally used as a more affordable alternative to wood and ivory. Now as a commercial material for just over 100 years, its continued success ultimately gave rise to mass consumerism as it made more products available to more people. But plastic's success in the consumer realm also led to widespread use of single-use products and waste.

As plastics are generally oil-based and rarely recycled, the ensuing

environmental challenges are formidable. This is common knowledge, however it appears that few consumers are motivated to change their consumption patterns. WASTED set out to change this.

What is the solution, how does it work exactly?

WASTED is a reward system that gives value to the act of recycling, while strengthening social ties between engaged neighbors and circular entrepreneurs. In its scheme, WASTED

members, who separate their waste are rewarded with digital coins that provide them with discounts and benefits at both local and digital vendors. Since its launch, WASTED has proven itself as an important enterprise, not only accelerating environmentally conscious action and sustainable consumption, but demonstrating itself as an effective tool for social inclusion supporting circular economies.

WASTED was born following CITIES Foundation's working method where we ask citizens and the local support network about their needs and ambitions for the neighborhood. Once this was clear, we developed a solution everyone can be part of. A solution where plastic recycling is a means, not an end.



Who is the target audience?

WASTED has the potential to reach any city where there's a need to improve the recycling habits of its citizens. The only condition is that there should be a public recycling infrastructure in place, which means an organisation who picks up and processes the waste.

How many people can be reached?

Once product, strategy and growth models are in place, the goal is to reach 5 Dutch cities in 2 years, and from year 3, expand to different countries in Europe and abroad.

How much plastic can be reduced?

Our goal is to reach 8.5 million kg of recycled plastic and 6 million kg of plastic refuse in 5 years.

Where can we find you?

At the moment (2018), we are active in the Northern district of Amsterdam. In 2019, we will scale to the whole city of Amsterdam, incentivising the Dutch capital's citizens to not only separate their plastic waste, but also refuse the use of plastic. After Amsterdam, we want to scale to new cities in the Netherlands and abroad.

Headquarters
Amsterdam, the Netherlands

www.wastedlab.nl

Category
INNOVATIVE
RECYCLING

Anything But Plastic

Discover alternatives to plastic products to reduce everyday plastic consumption and tackle plastic pollution.



What is the problem targeted?

Plastic pollution! Currently, finding plastic-free products is hard work for the average consumer who wants to reduce their plastic footprint. I want to change that. Unless pre-existing plastic-free alternatives are made readily available, this will not change, as unfortunately, most people won't spend time seeking out these products.

What is the solution, how does it work exactly?

Plastic pollution requires a multifaceted solution, part of which involves shifting consumer purchasing habits. ABP brings

together products from a range of vendors that fit the criteria of being environmentally friendly, plastic-free alternatives.

We provide a platform of convenience for the average consumer to purchase these goods. Cutting down on plastic should not be hard, inconvenient, or time consuming. We hope to get rid of these obstacles, and thereby bring positive change.

Who is the target audience?

We would like to gently encourage everyone to stop using as much disposable

plastic, but our target audience are mainly those who are already aware of the issue and want to take steps to tackle the problem. Our customers are mainly from the UK, where we are based, but we've been pleasantly surprised to have had significant interest from outside the UK, indicating a growing global awareness of the problem and support for a consumer-driven solution.

How many people can be reached?

Launched in October 2017, with over 90,000 visits made to the website (16% repeat visitors). Additionally, thousands reached through market stalls at various events.

How much plastic can be reduced?

Depending on the item, whether it is a single-use alternative (e.g. bamboo toothbrush) or a reusable item (e.g. reusable steel water bottle), if every item sold counted as one plastic item, that would be 15,000 less pieces of plastic used. As most products are designed to replace more than one item of plastic (e.g. 1 shampoo bar = 3 plastic shampoo bottles), the actual amount of plastic that hasn't been used, is much larger.

How big is the scaling potential?

There is definitely the power to scale, the shop is certainly getting busier as the months go by! We've so far been cautious about scaling up too fast.

Do we want to grow globally? No, purely for environmental reasons, as international shipping has a high carbon footprint. However, until plastic-free shops are available worldwide we can be used as an example for local businesses

ANYTHING
BUT
PLASTIC

to open their own shops, so that plastic-free options can become normalised.

Where can we find you?

Online and at markets or events around the UK.

Have you ever worked with artists before?

No, but we would love to in the future! There is a lot of scope to collaborate, and we have a few ideas already.



Headquarters
Glasgow, Scotland, UK

www.anythingbutplastic.co.uk

Category
RETAIL &
DISTRIBUTION

Ligeti Bolt

We provide a wide range of food and non-food products from reliable and preferably local resources, selling them in bulk, without packaging.



What is the problem targeted?

In 2015, according to Eurostat statistics, about 120 kg of packaging waste was generated per inhabitant of Hungary. Most of them were single-use items, thrown away right after opening the product. Only half will be recycled; the other half will end up in poorly managed wastelands where they will easily find their way into the water, causing serious harm to the ecosystem.

What is the solution, how does it work exactly?

In our shop, we offer products without packaging. The customers bring their own containers and fill them with the type and amount of product they need.

We also promote the idea of localisation as an essential part of sustainability by working with major local farmers, artisans, businesses and distributors.



Who is the target audience?

Everyone who has the possibility to visit our shop. Usually citizens of Budapest, and its surrounding area, who are conscious about environmental issues and committed in reducing their waste generation.

How many people can be reached?

We can comfortably serve about 15,000 customers per year.

How much plastic can be reduced?

According to Eurostat statistics, 31 kg of plastic packaging waste is produced per person per year on average in the EU. If we suppose that the shop is working on 80% capacity and all our customers are doing all their grocery shopping with us,



we can eliminate 465,000 kg of plastic packaging waste per year.

How big is the scaling potential?

We are not planning to grow globally, but the concept of package-free shops already exists and is spreading around the globe. However, we would like to open up more shops in the city.

Where can we find you?

Because of the nature of a package-free store, only in our shop in Budapest.

Have you ever worked with artists before?

Yes, we worked with Hungarian illustrator Anikó Radics who created beautiful paintings for our website.



Headquarters
Budapest, Hungary

www.csomagolasmentes.hu

Category
RETAIL &
DISTRIBUTION

McCall's Organics

McCall's aims to keep organic food as affordable as possible, so that good food is obtainable for all.



What is the problem targeted?

It has been a growing concern of ours that the amount of waste we pass to our customers is unnecessary. We would receive dry goods in bulk and decant into our branded biodegradable bags, but we wanted to do even better with a zero-waste system.

Changing our relationship to plastic is not just in the hands of the consumer. We, as vendors, have a responsibility to source affordable alternatives, so that customers can choose products based on their ethics, as well as their personal needs. By stocking our products in this

way, we put a plastic-free lifestyle in the spotlight, showcasing how easy it is to change how we shop.

What is the solution, how does it work exactly?

As of August 2018, we now decant around 80 products into containers so customers can bring their own containers to fill. The whole process is cheaper for our customers and has become a lovely shopping experience for all. Using jars and tins, we are able to keep our products airtight, and when required, out of direct sunlight, keeping products as fresh as possible.

Who is the target audience?

Conscious ethical shoppers have longed for this system, our main target is converting other shoppers to consider how much plastic they use with a gentle nudge. When they arrive bewildered, we guide them through the process and they are really enjoying the experience now.

How many people can be reached?

We supply the local community as well as city visitors, and the word is spreading fast.

How much plastic can be reduced?

We have over 80 products that have already been converted and we are extending that range all the time. Each product would arrive from the wholesalers and be re-bagged into smaller bags, sometimes eight bags for



each product. This is a huge saving on our own waste and that of our customers.

How big is the scaling potential?

We will always grow and change, the next step will be to use our website more productively in terms of selling online.

Where can we find you?

We are located on the historic Church Street in Manchester city centre. A street where the McCall family have traded fresh fruit and vegetables for over 90 years.



Headquarters
Manchester, England, UK

www.mccallsorganics.com

Category
RETAIL &
DISTRIBUTION

The Soap Dispensary

Our zero-waste shop provides refillable and sustainable choices for conscious consumers striving towards green living.



What is the problem targeted?

Our goal is to help our community reduce its plastic footprint. Our city, like many, is becoming buried under “single-use” plastic packaging waste. At last count, Vancouver put 2 million plastic bags and 2.6 million disposable coffee cups into landfill each week.

What is the solution, how does it work exactly?

We help customers reduce or eliminate waste by selling over 750 bulk products, incentivising our customers to bring in and refill their own containers. This is one direct way to help reduce purchase and

support for single-use plastic packaging in the consumer market. We also help shift the manufacturing process by creating a demand for package-free products. We help both customers and many of our suppliers reduce waste. Unlike many zero waste shops, we do all the refills for our customers. They come to our shop, place their order at the counter with our staff. They can look around the shop or leave and come back to pick up their containers later. This reduces any cross contamination and mess and frees the customers to do other things while we refill for them.



THE SOAP DISPENSARY & KITCHEN STAPLES

How much plastic can be reduced?

Every year, our count increases. For the period of October 2017 to October 2018, we diverted over 92,000 plastic containers.

Who is the target audience?

We serve everyone who makes decisions about what to buy for their household or themselves. Usually, it's moms and those who take care of the domestic needs of the home and care about natural, high quality products for their family.

How many people can be reached?

We had over 30,000 customers in 2018.

Where can we find you?

At the moment we are only located in Vancouver.

Have you ever worked with artists before?

We work with local crafts people to make products for our shop and lots of local food artisans.



Headquarters
Vancouver, Canada

www.thesoapdispensary.com

Category
**RETAIL &
DISTRIBUTION**

Guppyfriend

We initiate great ideas on how to avoid, replace and re-use plastics in everyday life and beyond, like the Guppyfriend washing bag.



What is the problem targeted?

With each wash, countless plastic fibers from synthetic textiles make their way from washing machines into rivers and oceans. Once in the environment, the microfibers concentrate pervasive bacteria and pollutants. They are consumed by aquatic organisms, resulting in gastrointestinal infections and blockages, altering reproduction, and leading to starvation—problems that ultimately work their way up the food chain. According to a study from the UC Santa Barbara, a city the size of Berlin releases a wash-related volume of microfibers equivalent to 500 thousand plastic bags—every single day.



**STOP!
MICRO
WASTE**
for a plastic free nature

What is the solution, how does it work exactly?

The Guppyfriend washing bag is the first solution to prevent microfibres from entering into rivers and oceans. It reduces fiber shedding and protects your clothes. It filters the few fibers that do break and doesn't lose any fibers itself. It's a daily reminder to change our buying habits and washing rituals.

Who is the target audience?

Everyone with a washing machine!

How much plastic can be reduced?

According to a study from the University of Plymouth, up to 700 thousand fibers can be released from a single 6kg wash. Countless people wash synthetic textiles every day.

Where can we find you?

Our products are sold on every continent. You can find them on our website.

Headquarters
Berlin, Germany

www.guppyfriend.com

Category
WATER
FILTRATION

Mitte

Creating smart and sustainable solutions that provide healthy hydration.



What is the problem targeted?

Our tap-water supply is becoming increasingly unreliable, driving people to pursue what they consider safer alternatives, and possibly part of the reason why over one million plastic bottles are sold globally every single minute.

This leaves behind a permanent, indestructible legacy. The insatiable demand for bottled water is a huge problem. Plastic eventually finds its way to our food chain, and the unknown

impact of microplastics hovers over the entire industry. Mitte eliminates the need for plastic bottles, leading to a fundamental reduction in plastic waste, water waste, and carbon dioxide emission.

What is the solution, how does it work exactly?

Mitte is the first of its kind smart home water system, turning tap water into mineral water working in two simple steps. First, it purifies water with a proprietary distillation-based method.

Then, Mitte enhances the water with essential minerals.

Our patent-pending distillation technology is based on the principle of a thermoelectric heat pump driven by two Peltier elements. This technology makes Mitte four times more energy efficient than other home distillers, and it purifies water to unprecedented levels, including removal of microplastics. Our patent-pending mineral cartridges adds back minerals and trace elements that other purifiers remove, giving water both clean and healthy.

Although country-dependent, home and office consumption of bottled water accounts for 40-60% of the overall bottled water market. We start at home, but our vision is creating a Mitte ecosystem to replace bottled water at all user touch points.

Who is the target audience?

Initially, we target US and European consumers who want healthy hydration solutions without creating an environmental crisis.



How many people can be reached?

Our short-term goal is addressing 190 million households in developed countries, and over the next 10 years, to address 340 million households in emerging countries.

How much plastic can be reduced?

One single cartridge produces approximately 250 litres of mineral water, enough to last around two months for a two-person household—effectively replacing 250 one litre plastic bottles every two months per household.

How big is the scaling potential?

The bottled water market is anticipated to be a \$280 billion market by 2020. Our goal is to launch globally in 2020 to provide sustainable alternatives to the fast-growing plastic madness.

Where can we find you?

Mitte products will be available online in the US & Europe starting June 2019.

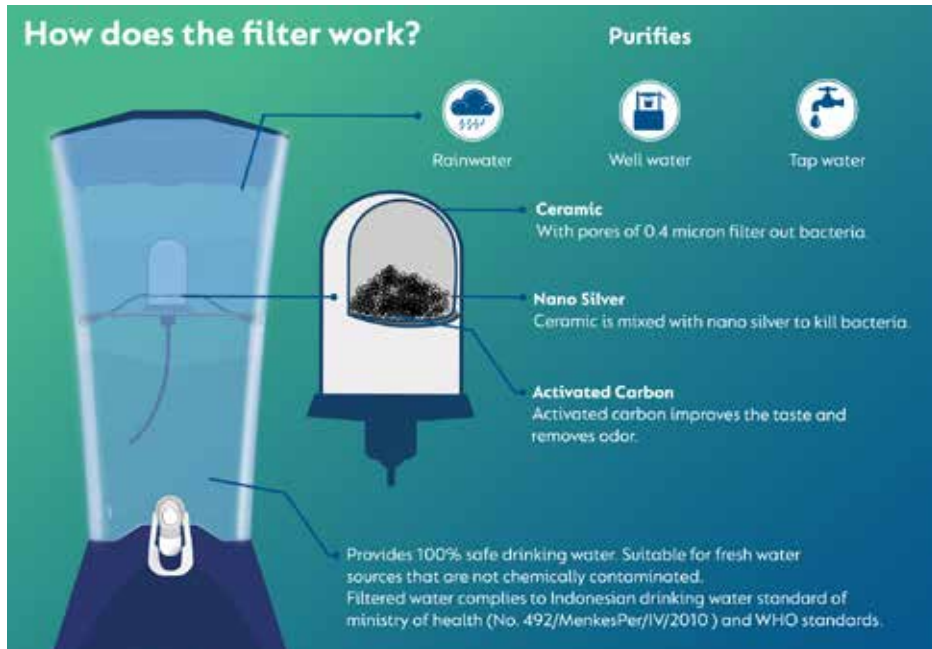
Headquarters
Berlin, Germany

www.mitte.co

Category
WATER
FILTRATION

Nazava

Nazava Water Filters is a for-profit social enterprise that sells affordable and safe household water filters to households that do not have access to a potable water source.



What is the problem targeted?

In Indonesia, 260 million Indonesians are without safe drinking tap water. Only 18 % of the population is connected to a water utility however, these are not able to provide safe drinking water. As a result, most households in Indonesia (72 %) prefer cheaper well or river water. Often, this is contaminated with bacteria because there are no sewage systems.

Due to the dense population, sewage water and well water get intermixed; contaminating the “drinking water.” As a result, over eight million Indonesian children (40%) are stunted, and over 26,000 children die annually due to water-borne diseases such as diarrhoea.

People without access to portable water either buy or boil their water, with well-

off households buying bottled water. This is expensive. Families spend up to 10 % of their income on water. Buying water from refill stations costs more than \$100 per year per family, but the government does not provide a certification system to prove this water is safe. Boiling water is often done improperly with 47.5 % of boiled water still contaminated with bacteria due to storage in dirty pots and pans.

What is the solution, how does it work exactly?

Our vision is that everyone has the right to safe, affordable drinking water. Therefore, we develop, produce and market the best affordable and most energy efficient household water filters on the Indonesian market.

Using gravity and a ceramic filter candle, dirty water becomes safe to drink. With upfront costs of just \$25 and a filtration capacity of 7,000 liters, the purified water is three times cheaper than boiling and nine times cheaper than buying bottled water. So besides improving health, we also enable households to save over \$100/year.



Nazava

for a healthy family

Who is the target audience?

We target everyone that has no access to piped and safe drinking water. As for the top 20%, buying water is not a significant cost relative to their income, so we primarily target the lower 80%. Specifically, we focus on the 150 million Indonesians that earn less than \$7/day, living in peri-urban and rural areas.

How many people can be reached?

Currently 100,000 households use our filters; this means 500,000 people drink from our filters daily. By 2020, we expect this to be one million people (or 200,000 families).

How much plastic can be reduced?

If we conservatively assume that each filter reduces the need for one water bottle per week. This means a reduction of five million plastic bottles per year, growing to ten million bottles per year in 2020.

How big is the scaling potential?

We try to double in size every two years.

Where can we find you?

Online at our website and stores and resellers in Indonesia. We are opening in many other countries, such as Ethiopia.

Headquarters
Bandung, Indonesia

www.nazava.com

Category
WATER
FILTRATION

TAPP Water

TAPP Water develops affordable, eco-friendly and easy-to-install water filters to deliver clean water from the tap with minimal environmental impact.



What is the problem targeted?

Clean drinking water was taken for granted in the past. The agriculture and industrial revolutions polluted many fresh water sources around the planet. While most governments in Europe and North America take action to prevent further pollution, many parts of water infrastructure are outdated, with updates often on the basis of economic decision making. As a result, people began drinking bottled water. In 2016, 480 billion plastic bottles were sold, corresponding to about one million bottles per minute, which is expected to grow another 20% until 2021. This comes

at a price: plastic waste creates high pressure on the environment and natural cycles, since plastic bottles are produced from non-degradable materials (mostly PET) and can contain various toxic and carcinogenic substances.

What is the solution, how does it work exactly?

TAPP filters remove bad taste, odor, chlorine, lead, microplastics and 80+ other contaminants, and are compatible with all standard faucets. You can easily switch between filtered and unfiltered water. Our second generation filters (TAPP 2) are the first faucet filters in the



market with biodegradable refills. After their three month lifespan, they can be composted.

Who is the target audience?

The over 1 billion people who have turned to bottled water as the solution over the past 30 years.

How much plastic can be reduced?

Of the 480 billion bottles of plastic used in 2016, only about 7% get recycled to new bottles globally.

How big is the scaling potential?

For now, our short-term goal is replacing at least one billion bottles by 2020 (and



10 billion by 2023) by helping people access clean and healthy tap water. We have already sold our first filter (TAPP 1) in five countries to 15,000 households. We just launched our next generation of products, with biodegradable cartridges, and have received EU funding to continue our research on water filtration and to keep improving our products.

Where can we find you?

Mostly online through our website and Amazon—products are available across Europe, US and Canada.

Have you ever worked with artists before?

Not yet, but we would love to do special editions of our filters featuring artists who want to have a positive impact on the planet.



Headquarters
Barcelona, Spain

www.tappwater.co

Category
WATER
FILTRATION

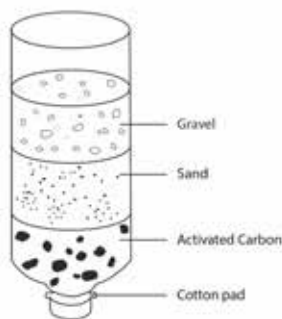
HOW TO MAKE A WATER FILTER

1. **Clean all the materials thoroughly.** Be sure to use uncoloured sand and gravel. Boil the sand, gravel, and carbon before use.
2. **Cut off the bottom of the plastic bottle.**
3. **Punch a hole in the cap using a nail and a hammer.**
4. **Put the cotton pad inside the mouth of the bottle and place the bottle cap-side-down in a container.**
5. **Place the materials on top of each other in equal layers.** Break pieces of carbon into small pieces no bigger than a pea. Leave enough space at the top to add water. See image below for order.
6. **Slowly pour water into the top of the filter.** The water will pass through the different layers and drip through into your container.
7. **You might need to repeat the process another time.** Especially if the filter is new and the carbon colours the water.
8. **Examine the clean water.** Check the color, the odor, and other physical properties, or if you are interested, check it under microscope for biological properties.
9. **You will get clean but not drinking water.** If you plan to drink it, boil it after filtration for minimum three minutes to get rid of any remaining bacteria.
10. **Enjoy using your water filter and be wise at not wasting water.** Remember, every drop matters.
11. **Change your filter after a couple of uses.**

YOU WILL NEED:

PLASTIC BOTTLE
KNIFE
HAMMER
NAIL
COTTON PADS
ACTIVE CARBON
SAND
GRAVEL
WATER CONTAINER

The workshop was carried out in Tembi village, Yogyakarta, Indonesia, in collaboration with Lilli Tölp during Transforming Festival 2015. Children could prepare these water filters and observe the difference between the 'before' and 'after' quality of local river water, which opened up a discussion on pollution, the water crisis and possible solutions.



© Eva Bubla

Eva Bubla is an environmental artist, activist and educator. Her works articulate current social and ecological concerns and are strongly connected to the specific environment and community. She is featured in The Universal Sea project for her workshops that address urgent sustainability issues. She has been active in Europe and Asia for some years and is currently based in Budapest, Hungary.

8 Ways to Use Less Plastic Every Day

1. Avoid buying items packaged in plastic.

Buy loose fresh produce where possible and look out for glass, cardboard, and aluminium alternatives to plastic containers and bottles. By reducing the plastic you use, you're also sending a powerful message to retailers about consumer choices.

2. Use cloth shopping bags.

Keep reusable bags somewhere handy—in your backpack or in your car or bike or by the front door—so you always have one when you are out and about.

3. Skip bottled water.

Carry a reusable bottle. Plastic bottles are one of the top five most common types of litter found on beaches. Cutting bottled water will also save you money and avoid the possible hazards of plastic toxins leaking into your beverage.

4. Upcycle and repair.

Find new uses for old items rather than discarding them or buying new ones. Repair where possible, or pass old items onto a friend. Sell unwanted electronics devices, gadgets and computer parts, or find a facility where you can turn them in for recycling.

5. Bring a reusable mug when you order coffee.

Stow it on your desk, in your bag or car so you have it on hand when you order or refill your drink.

6. Say “No straw, please”.

Straws are one of the top 10 items found on beaches. If you love using a straw, treat yourself to a reusable stainless steel, bamboo or glass one, and carry it with you.

7. Choose clothing made from natural fibres.

Synthetic fabrics such as polyester are actually made of plastic fibres. Heat during washing weakens synthetic yarns and causes tiny particles of plastic to enter our water system and eventually the ocean. If synthetic fabric is unavoidable, be sure to wash at 30 degrees.

8. Avoid disposable food containers and tableware.

Bring your own container and cutlery for takeaways and leftovers, or try using compostable alternatives—but be aware these will not biodegrade in a landfill and need appropriate composting conditions.

There once
was...

THE PLASTIC

There once
will be...



A long time ago humans invented
something smart and convenient. Plastic.

And since its qualities were so great, they came up with more and more uses for it. Today plastic is predominately produced using oil, gas and coal, in combination with softening agents and other chemicals. Products are then shipped across continents, only to be thrown away – often after a single use.

Plastic pollutes the oceans and the lands, endangers, injures and kills animals, and as it decays, releases microparticles – so called microplastics. In many instances, animals confuse plastics for food, harming the animals themselves and causing plastics to enter the food chain. Even vegetarians inhale it or consume it with water. Plastic decomposes very slowly, in some instances, taking up to 500 years.

Our use of plastics comes at the expense of the living ecosystem – a pattern of behaviour that threatens serious repercussions.

Which end of the story will we have told our children?

✚ A more beautiful life without plastic. ✚

FUTURZWEI

FUTURZWEI. STIFTUNG ZUKUNFTSFÄHIGKEIT

FUTURE PERFECT

Everything could be different.

For a sustainable, grandchild-friendly and open society.

Some more great businesses providing solutions for reducing or replacing plastic:

Balloons and Balloon Sticks

Balloon Boutique	www.balloonboutique.com.au	Australia
Balloonatics Designs	www.balloonaticsdesigns.com	Canada
Balloons United	www.balloons-united.com	Germany
Gemar	www.gemar.it	Italy
Georgie Loons	www.georgieloons.com	Australia
InkHead	www.inkhead.com	United States
Little Cherry	www.littlecherry.co.uk	United Kingdom
Qualatex Sticks	us.qualatex.com	United States
Pioneer Line	www.pioneerline.com	United States
Wisa	www.wisa.nl	Netherlands

Bottles and Beverage Cups

24bottles	www.24bottles.com	Netherlands
Anchor Hocking	www.anchorhockingbottles.com	Germany
Aquabook	www.aquabook.com	Germany
Astrea	www.astreawater.com	Germany
Bayonix	www.bayonix.com	Germany
Bhumi Products	www.bhumiproductions.com	Netherlands
Bormioli Rocco	www.bormiolirocco.com	Germany
Boroux	www.boroux.com	Indonesia
Bottles for Earth	www.bottlesforearth.com	Italy
Copper H2O	www.copperh2o.com	United States
D.still	www.dstill.com.au	United States
Drinkfinity	www.drinkfinity.com	Germany
E6PR	www.e6pr.com	Germany
Earth Lust	www.earthlust.com	United Kingdom
Freewa	www.freewa.org	Croatia
I go topless	www.igotopless.org	United Kingdom
J. Weck	www.weck.de	United States
Jerry Bottle	www.jerrybottle.com	United States
KeepCup	eu.keepcup.com	France
Klean Kanteen	www.kleankanteen.com	United States
Lemonaid	www.lemon-aid.de	United States
Love Bottle	www.lovebottle.com	United States
Memobottle	www.memobottle.com	United Kingdom
My Replenish	www.myreplenish.com	Australia
Nero	www.nerosmartwaterbottle.com	United States
Not Just Bamboo	www.notjustbamboo.com	United States
Qwetch	www.qwetch.com	Australia
Ratiodrink	www.ratiodrink.de	Germany
Skipping Rocks	www.skippingrockslab.com	United States
Steely Drinkware	www.steelysdrinkware.com	Germany
The Water Bean	www.thewaterbean.com	United States
Trendglas Jena	www.trendglas-jena.com	Germany
Vegware	www.vegware.com	Denmark

Watermill Express
We-refill
Xtreme Canteen

www.watermillexpress.com
www.we-refill.com
www.xtremecanteen.com

Germany
United States
Italy

Cotton Buds

Bamboo India
GoBamboo

www.bambooindia.com
www.gobamboo.co.nz

India
New Zealand

Cutlery, Plates, Straws and Stirrers

Aardvark Straws
Algae Goods
Bakeys
Bamboo step
Bambu
Bio-Strohhalme
Coconut Bowls
Eco Tableware
EcoProducts
EcoTensil
Everstraw
FinalStraw
Green Source Compostables
Greenbox
HALM
Harvest Straws
Littledeer
Loliware
Mann Bamboo Fiber
Manufactum
More clay less plastic
Pappco Greenware
Proudly Eco
Simply Straws
Straw by straw
Strawesome
Stream Straws
The Click Eat
The Last Plastic Straw
The Tickle Trunk
To go ware
U - Konserve
Viable Straw
Visfortec
Wisefood

www.aardvarkstraws.com
www.algaegoods.com
www.bakeys.com
www.bamboostep.com
www.bambuhome.com
www.bio-strohhalme.com
eu.coconutbowls.com
www.ecotableware.store
www.ecoproductseurope.com
www.ecotensil.com
www.everstraw.de
www.finalstraw.com
www.compostables.us
www.biologischverpacken.de
www.halm.co
www.harveststraws.com
www.littledeer.ca
www.loliware.com
www.mannbamboofiber.com
www.manufactum.de
www.moreclaylessplastic.org
www.pappcoindia.com
www.proudlyeco.com
www.simplystraws.com
www.strawbystraw.com
www.strawesome.com
www.streamstraws.com
www.theclickeat.com
www.thelastplasticstraw.org
www.onyxcontainers.com
www.to-goware.com
www.ukonserve.com
www.viablestraw.com
www.visfortec.com
www.wisefood.de

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Canada
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China
Germany
Italy
India
Czech Republic
United States
Netherlands
United States
South Africa
Chile
United States
United States
United States
United States
United States
India
Germany

Fishing Gear

Blue Ocean Gear
Bureo

www.blueoceangear.com
www.bureo.co

United States
Chile

No Fir
Planet Love Life
Remora Project
Undersea Bikini
Vestability

www.nofir.no
www.planetlovelife.com
www.alejandropelasencia.com
www.underseabikini.com
www.vestability.co.uk

Norway
Bahamas
Spain
United States
Rwanda

Food Containers

Avani Eco
Cuppow!
Das Tiffin Projekt
Do Eat
Eco Lunch Box
Elephant Box
Fresh Glow
Genpak
Kayu Package
Lunchbots
On Green Go
WoodStalk

www.avanieco.com
www.cuppow.com
www.dastiffinprojekt.org
www.doeat.com
www.ecolunchboxes.com
www.elephantbox.co.uk
www.freshglow.co
www.genpak.com
www.kayupackage.com
www.lunchbots.com
www.ongreengosolutions.com
www.woodstalkbamboo.com

Indonesia
United States
Germany
Belgium
United States
United Kingdom
United States
Canada
Japan
United States
Canada
United States

Food Packages and Wrappers

Agreena 3-in-1
Algramo
Bee's Wrap
Eco Food Wrap
Ekoplaza
Evoware
Honeybee Wraps
Khala Cloths
LilyBee Wrap
Nada - Just Food
Roll'eat
Snact
Spicers Mill
Stasher
The Beeswax Wraps Co.
The Rising Pili Nuts

www.agreena.world
www.algramo.com
www.beeswrap.com
www.ecofoodwrap.com
www.ekoplaza.nl
www.evoware.id
www.honeybeewrap.com.au
www.khalacloths.com
www.lilybeewrap.com
www.nadagrocery.com
www.rollseat.com
www.snact.co.uk
www.spicersmill.com
www.stasherbag.com
www.beeswaxwraps.co.uk
www.thecrackingmonkey.com

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Chile
United States
Australia
Netherlands
Indonesia
Australia
United States
New Zealand
Canada
Spain
United Kingdom
United States
United States
United Kingdom
Philippines

Plastic Bags

Biobag
Boomerang Bags
ChicoBag
Cleanbodia
CredoBags
Eco Bags
EnviGreen
Flip and Tumble
I was a bottle

www.biobag-germany.de
www.boomerangbags.org
www.chicobag.com
www.cleanbodia.com
www.credobags.com
www.ecobags.com
www.envigreen.in
www.flipandtumble.com
www.i-was-a-bottle.ch

Germany
Australia
United States
Cambodia
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United States
India
United States
Switzerland

REWE

The yellow bag
The rubbish whisperer
Top Cotton Bags
Natracare

presse.rewe.de
www.theyellowbag.org
www.rubbishwhisperer.co.nz
www.topcottonbags.com
www.natracare.com

Germany
India
New Zealand
United Kingdom
United Kingdom

Wet Wipes and Sanitary Items

Amazinc! www.amazincskincare.com
Bite - Toothpaste Bits www.bitetoothpastebits.com
Brush with Bamboo www.brushwithbamboo.com
Brushboo en.brushboo.com
Dame www.wearedame.co
Dental La ce www.dentallace.com
Dispenser Amennities www.dispenser-amenities.com
DivaCup www.divacup.com
Earth Baby www.earth-baby.com
Earth Berries www.earthsberries.com
Earth Well Refill www.earthwellrefill.com
Frangipani www.frangipani-shop.com
Frosch www.frosch.de
Full Circle Supply www.fullcirclesupplylax.com
Georganics www.georganics.co.uk
Gladrags www.gladrags.com
Greenspeed www.greenspeed.eu
Hannah Pads www.hannahpadusa.com
Heyday Care www.heydaycare.com
Homemade Betty www.homemadebetty.com
Intimina www.intimina.com de
Klo Organic Beauty www.klobeauty.com
Lamazuna www.lamazuna.de
Lavish Essentials www.lavishessentials.com
Leafico www.leafico.com
Lena Cup www.lenacup.com
Luna Pads www.lunapads.com
Lunette www.de.lunette.com
Lush www.de.lush.com
Luv Ur Body www.luvur-body.com
Mangle&Wringer www.mangleandwringer.co.uk
Meliora www.meliorameansbetter.com
MeLuna www.me-luna.eu
MenstrualCup www.menstrualcup.com
Mooncup www.mooncup.co.uk
Natracare www.natracare.com de
Non Toxic Revolution www.nontoxicrevolution.org
Om Naturale www.omnaturale.ca
Peoples Soap www.peoplessoap.com
Plaine Products www.plaineproducts.com
Poppits www.poppitstoothpaste.com

Czech Republic
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United States
United Kingdom
United States
Netherlands
France
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Sweden
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Canada
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Canada
Finland
Germany
Nigeria
United Kingdom
United States
France
Sweden
United Kingdom
United Kingdom
United States
Canada
United States
United States
United States

Raw Love Sunscreen	www.rawlovesunscreens.com	United States
Smart Bottoms	www.smartbottoms.com	United States
Soapnuts	www.soapnuts.co.uk	United Kingdom
Super Jennie	www.superjennie.com	United States
Switch Fresh	www.switchfresh.com	United States
Tek	www.tekitalyus.com	Italy
The Bam & Boo	www.thebamandboo.com	Portugal
The Clever Cactus	www.theclevercactus.com	United Kingdom
The Humble Co.	www.thehumble.co	Sweden
The Zero Market	www.thezeromarket.com	United States
TISHU Washable Wipes	www.tishufacewipes.com	United Kingdom
Virtue Brush	www.virtuebrush.ie	Ireland
Waste free products	www.wastefreeproducts.com	United States
Weleda	www.weleda.de	Switzerland
Yuuki Cup	www.yuukicup.com	Czech Republic

Other Innovative Businesses

5 Gyres	www.5gyres.org	United States
4Ocean	www.4ocean.com	United States
A Plastic Planet	www.aplasticplanet.com	United Kingdom
A Slice of Green	www.asliceofgreen.co.uk	United Kingdom
AB Torsten	www.hedinsplastatervinning.se	Sweden
ADN Materials Ltd.	www.adnmaterials.ie	Ireland
Algalita	www.algalita.org	United States
Algopack	www.algopack.com	France
All One Ocean	www.alloneocean.org	United States
Alwag d.o.o.	www.alwag.rs	Serbia
Ambigroup	www.ambigroup.com	Portugal
Amcor Flexibles	www.amcor.com	Switzerland
Aquasana	www.aquasana.com	Canada
Areare Eco Living	www.areareeco.com	Australia
Baricosan Trans	www.baricosan.ro	Romania
Base Nyon	www.basenyon.com	Switzerland
Bash the trash	www.bashthetrash.com	United States
Bast Surf	www.bastsurf.com	United States
Batoko	www.batoko.com	United Kingdom
BCDC	www.bcdc.online	United Kingdom
BE-ive	www.be-ive.com	Germany
BeEuroPack	www.beleuropack.by	Belarus
Better Future	www.betterfuturefactory.com	Netherlands
Betterplaces	www.betterplaces.nl	Netherlands
Big Berkey	www.bigberkeywaterfilters.com	United States
BioGreenChoice	www.biogreenchoice.com	United States
Bionic Yarn	www.bionic.is	United States
Bloom	www.bloomfoam.com	United States
Bolt Threads	www.boltthreads.com	United States
Brkovic LLC	www.brkovic.hr	Croatia
Bulk Market	www.bulkmarket.uk	United Kingdom

BuyMeOnce	www.buymeonce.com	United Kingdom
ByFusion	www.byfusion.com	United States
C.R. Plastic	www.crpproducts.com	Canada
CEWEP	www.cewep.eu	Belgium
Clean Ocean	www.cleanoceanproject.org	Spain
Crafting Plastics	www.craftingplastics.com	Slovakia
Creative Reuse	www.creativereusetoronto.ca	Canada
D.NET-Recycle A.E	www.dnetrecycle.gr	Greece
Dgrade	www.dgrade.com	United Arab Emirates
Eco-Emballages	www.ecoemballages.fr	France
Eco-Greenenergy	eng.eco-greenenergy.com	Hong Kong
ECOALF	www.ecoalf.com	Spain
ecoBali	www.eco-bali.com	Indonesia
EcoPlanet Bamboo	www.the-bamboo-straw.com	United States
Ecoplastic	www.ecoplastic.net	United Kingdom
ECOSIGN	www.ecosign-project.eu	Italy
Ecover	www.ecover.com	United Kingdom
Edible Film	www.ediblefilm.com	United States
Eko PET	www.ekopet.lv	Latvia
Elate Cosmetics	www.elatecosmetics.ca	United States
Envirobank	www.envirobank.com.au	Sydney
EnviroTestKits	www.envirotestkits.com	United States
Erema	www.erima.com	Austria
Fabrika Brzan Plast	www.brzanplast.com	Serbia
Fabtexiles	www.fabtexiles.org	Spain
Fairphone	www.fairphone.com	Netherlands
Fill good	www.fillgood.co	United States
Footprint	www.footprintus.com	United States
Fusion Recycled	www.fusionrecycledplastic.com	United Kingdom
G.P.R. Albania	www.gpr-albania.com	Albania
GCR Group	www.gcrgroup.es	Spain
Genusee	www.genusee.com	United States
GetNGreen	www.getngreen.com	United States
Glitterrevolution	www.glitterrevolution.com	United States
Demeto	www.demeto.eu	Switzerland
Green Boats	www.green-boats.de	Germany
Green Serendipity	www.greenserendipity.nl	Netherlands
Greenprint	www.greenprintsustainable.org	United States
Greentech Ltd.	www.greentech.rs	Serbia
Greentech Plastics	www.greentechplasticsltd.com	Ireland
Greentech S.A.	www.greentech.ro	Romania
Heimgar t	www.heimgart.com	Germany
Hej Hej Mat	www.hejhej-mats.com	Germany
Hey Jute	www.heyjute.com	Canada
HuMuSz-Recycling	www.humuszu-recycling.hu	Hungary
IGE Solutions	www.igesolutions.org	Australia
Impact Solutions	www.impact-solutions.co.uk	United Kingdom
Indaver	www.indaver.com	Belgium

Insecta Shoes	www.insectashoes.com	Brazil
Intercord doo	www.intercord.net	Serbia
Interface	www.interface.com	United Kingdom
ITABIA	www.itabia.it	Italy
IUCN	www.iucn.org	Switzerland
Ivlajn	www.reciklazaplastike.rs	Serbia
Jade Yoga	www.jadeyoga.de	United States
JJ Wheel House	www.jjswheelhouse.com	United Kingdom
Joining Bottles	www.joiningbottles.com	United Kingdom
K-Kanellakis A.E.	www.k-kanellakis.gr	Greece
Kanplast	www.kanplast.by	Belarus
Lifeforme	www.lifeforme.com	United Kingdom
LifeStraw	www.lifestraw.com	United States
Limpi	www.limpirecycling.com	Curaçao
Lingrove	www.lingrove.com	United States
Looplife Polymers	www.looplife-polymers.eu	Belgium
Looptworks	www.looptworks.com	United States
Ma:hi	www.mahi-yoga.com	India
MacRebur	www.macrebur.com	United Kingdom
Maldis	www.maldis.lt	Lithuania
Manduka	www.manduka.com	United States
Marc Skid	www.marcskid.com	United States
MCL Components	www.mclmalta.com	Malta
Mi-Plast Ltd.	www.mi-plast.eu	Croatia
Micronwaste	www.micronwaste.com	Canada
Miniwiz	www.miniwiz.com	Taiwan
Monomeer	www.monomeer.de	Germany
Movement	www.movement.global	United States
Mr Green Africa	www.mrgreenafrica.com	Kenya
MTM Plastics	www.mtm-plastics.eu	Germany
Nagaeearth	www.nagaeearth.org	Cambodia
Namé Recycling	www.name-recycling.com	Belgium
New Plastics	www.newplasticseconomy.org	United Kingdom
Nordic Plast Ltd.	www.nordicplast.lv	Latvia
Norwex	www.crystalevanoff.norwex.biz	Canada
Now nowaste	www.now-nowaste.com	Hong Kong
Ocean Sole	www.oceansole.co.ke	Kenya
Omaplast d.o.o.	www.omaplast.com	Slovenia
Optiplast	www.optiplast-sisak.com	Croatia
Outerknown	www.outerknown.com	United States
Pela Case	www.pelacase.com	Canada
Pentatonic	www.pentatonic.com	Germany
PET Baltija Jsc.	www.petbaltija.lv	Latvia
Petcore Europe	www.petcore-europe.org	Belgium
Plantics	www.plantics.nl	Netherlands
Plasta d.o.o.	www.plasta.si	Slovenia
Plastic Odyssey	www.plasticodyssey.org	France
Plastic Road	www.plasticroad.eu	Netherlands

Plastic Whale	www.plasticwhale.com	Netherlands
Plastics Recyclers	www.plasticsrecyclers.eu	Belgium
Plastrex	www.neular.com	Estonia
Plastval	www.plastval.pt	Portugal
Plaswoodgroup	www.plaswoodgroup.com	United Kingdom
Pokas-Arcadian	www.arcadianrecycle.gr	Greece
Polimeer	www.polimeer.com	Netherlands
PoliVek	www.polivek.by	Belarus
Pos-plast d.o.o.	www.pos-plast.hr	Croatia
Precious Plastic	www.preciousplastic.com	Netherlands
PulpWorks	www.pulpworksinc.com	United States
Quality Water	www.qualitywaterpr.com	United States
Quantis	www.quantis-intl.com	Switzerland
Quiero	www.somosquiero.com	Spain
Raff Plastics NV	www.raffplastics.be	Belgium
Ranmarine	www.ranmarine.io	Netherlands
Recycle To Coin	www.recycletocoin.com	United Kingdom
RecyclePoints	www.recyclepoints.com	Nigeria
Recycling Mondo	www.recyclingmondoplast.ro	Romania
Recycling Today	www.recyclingtoday.com	United States
ReDiscover	www.rediscovercenter.org	United States
Reflow	www.reflowfilament.com	Netherlands
Repack	www.originalrepack.com	Finland
Replas	www.replas.com.au	United States
Resource Depot	www.resourcedepot.net	United States
Retroplast	www.retroplast.lt	Lithuania
Revalmet	www.revalmet.com	Estonia
Romcarbon S.A.	www.romcarbon.com	Romania
Rothys	www.rothys.com	United States
S.C.R.A.P. Gallery	www.scrapgallery.org	United States
Sage Larock	www.sagelarock.com	United States
SCAR Ltd	www.skar.org	Belarus
Sea Bin Project	www.seabinproject.com	France
sea2see	www.sea2see.org	Spain
Seabin Project	www.seabinproject.com	Spain
Soda Stream	www.sodastream.com	Israel
Solace	www.solacesupboards.com	United States
Soul Zen	www.soulzen.de	Germany
studiokca	www.studiokca.com	United States
Sulapac	www.sulapac.com	Finland
Swerec AB	www.swerec.se	Sweden
Talenteco GmbH	www.talenteco.net	Germany
Terra Cycle	www.terracycle.com	United States
The Bravery	www.thebraveryishere.com	Australia
The Eco Trunk	www.theecotrunk.com	India
The Fillery	www.thefillery.com	United States
The Ocean Cleanup	www.theoceancleanup.com	Netherlands
Thread	www.threadinternational.com	United States

Tilley Surfboards	www.tilleysurfboards.com	United States
WasteBoards	www.wasteboards.com	Netherlands
Wijld	www.wijld.com	Germany
Wild Minimalist	www.wildminimalist.com	United States
Wild trails Coffee	www.wildtrailscoffee.com	Canada
Wolford	www.wolfordshop.net	Austria
Wood doing good	www.wooddoinggood.com	United States
Yes Crescent	www.yescrescent.com	United States
Zeleno	www.zeleno.in	India
Zero Waste	www.zerowasteco.com	United States
Zip2water	www.zip2water.com	United States

ART & INNOVATION



3

How to get together?

By now, you have witnessed hundreds of artworks and flipped through dozens of business profiles. You have seen artworks raising awareness about plastic pollution, and innovation working to fight it. But how can these two worlds intersect? Businesses, it seems, speak an entirely different language to the arts. Sure, they can share the same goal: sustaining life. But in everyday life there seems to be a gap between the world of subversive, perception-changing art and the rules of innovation for consumption. There are still so many questions! How can we define art? And what is a true innovation? When is it good? Why did you feel moved by some pieces we showed you but not by others? How on Earth can art and business go together?

The third and last section of the book is all about tackling questions just like these. Artists, scientists, people on the crossing of both worlds, founders of Non-Governmental Organisations, workshop teachers and a computer programmer will raise some of the most pressing issues when it comes to intertwining art and innovation. The first chapter will deal with [the role of the artist](#). You will see that the definitions and contradictions raised there are also valid for the artworks at the beginning of the book. The second chapter will tackle [the get-together of art and innovation from a business perspective](#). Most of the essayists in the second chapter work closely with businesses and start-ups—their insights help to see how artistic approaches can and can't be integrated into entrepreneurship. The heart of the third chapter pumps plastic through its texts: in here, every essay approaches the question of [how art can socially engage against plastic pollution](#) differently. The fourth and last subchapter relates all this knowledge about [art and innovation to the public](#).

[After all, reaching and involving every single one of you is the reason we are here.](#)

People around the world—those already suffering the effects of water pollution and those not even aware of the problem yet—are the cause and solution for social and political change. Art, business, innovation: it is all the work of fellow humans, unrelated with each other socially, but related by nature.

The voices heard in this section dissect, antagonise, and contradict each other at times. They are here to interrogate the way that we think, and hopefully initiate a little self-reflection. As the last essay declares, all public involvement starts with personal involvement. It starts with introspection. Art, the central nervous system of our entire book, changes the way you look at things. It changes the way you look at yourself. Seen this way, even the following essays are artworks altogether. If you

feel only half as inspired reading these beautiful, considered and self-critical essays as we did when including them, then the entire book has been worth it. We sincerely hope that by delving into these pages you will be able to get in touch with the problems and solutions offered here. We hope you get inspired, get moved, get involved, and get together.

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HEROINE OF THE SEA

Gilbert Beronneau



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The project 'The Universal Sea' combines science and art. Artists engage in different works by addressing the critical state of the oceans. The role of art as a social designer questions the traditional concept of art and promotes the necessary development of art (and design) to activate cultures of knowledge.

For Rainer Maria Rilke, art was a

"pondering possibility of new worlds and times," with a "creative will, that remains independent even as the world breaks under its feet." 120 years later, the world is already breaking apart, on land and on water. Johann Wolfgang von Goethe regarded art as a "mediator of the unspeakable," opening up understandings to the intellect. For Brian Eno, the link between creative activity and intellectual life is the precondition for the project of creating a new culture. It is still about reconciling art and creativity with research and intellect, and acknowledging both areas as necessary pillars of a truly sustainable world.

Sigmund Freud, a contemporary of Rilke, has described the practice of art as a

treatment of unconscious impulses. With the disclosure of the unconscious, art was able to free itself from the illustration of reality in the late 19th century. The abstraction also made it possible to give space to feelings, that were barely made visible before. With the knowledge of the unconscious, however, not only products, processes and aesthetics were created in the modern age, which could satisfy the individual as well as the mass needs,

also, destructive feelings have prevailed. Freud's realisation that destructive impulses and desires belong to the (dark) "majesty of the ego" was confirmed in two murderous world wars and later in the continuous destruction of the environment.

In 1954, Karl Popper demanded giving up the role as passive viewers of a world that imposes its laws on us and demanded the return to Kant and his moral philosophy of responsibility for one's own decision. At that time, research and art were still largely isolated disciplines. The ecological state of the world became more critical and not only the environmental movement recognised that disciplines are mutually dependent on the knowledge of each other, especially on the knowledge of the artists.

Ontological and epistemological questions, how artists see the world and their relationship to knowledge, have been extensively answered.

Today, questions about the potential for change and innovation through art have settled in the social consciousness and point in a new direction.

When art freed itself from the depiction of the material world, Rilke timelessly formulated that "the creator approaches even the most silent things with his

pleading questions and, satisfied with no answer, must go on and on."

According to Rilke's definition of art as a "world view of the ultimate goal" it not only focuses on the next work, but also on the work of world healing. In this sense, true art qualifies on a par with an independent science and intelligent politics as the social designer in the 21st century. In the project 'The Universal Sea' she becomes the heroine of the sea.



Gilbert Beronneau is a Professor at design akademie berlin, SRH Hochschule für Kommunikation und Design for Audiovisual Communication and Dean of the Department of Design. His research topics range around the boundaries of film, art, design and social topics. He is a Jury member at The Universal Sea, Supervisor of two Bachelor Theses about Plastic Waste and runs a student workshop in connection with plastic waste, film and design. He currently lives in Berlin, Germany.

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FAILING AT DOING ART, AND TRYING AGAIN

Frankie Moughton-Small

During the course of the 'The Universal Sea' residency, I felt quite scattered in how I approached the task of trying to engage people with the issue of plastic pollution. I think that perhaps I was chosen for work I had already done—transforming ocean plastics into wearable objects, which engaged through how unrecognisable the source materials had become—and not the proposals I also submitted. Whilst I saw this project as an opportunity to expand and explore other ways of using these waste materials—on a larger scale, focussing in on more specific issues etc.—I feel the new ideas were overlooked, and I was encouraged to return to the kind of work I had already made, to make more of the same, to keep going with what already works. This is not to blame anyone who suggested this, I think my problem was that as time went on, I lost conviction and enthusiasm for my new ideas, and then struggled to follow them through with the persistence that is needed to make anything happen in the art and

design worlds; I started to feel my ideas were not ones worth pursuing.

I think, rather than embracing the middle ground of being between numerous fields—art, design, science, environmental activism—I instead just felt inadequate and that I am not 'enough' in all areas:

limited by my chosen materials, feeling my design is not as 'good', not meeting the criteria for environmentalism.

Trying to bring environmentalism into your work, you inevitably link yourself to activism, and subsequently come under fire for anything you have done that is not a complete adherence to the ethos or cause you are making work about. Trying to be better or to do some good can feel hopeless, as it seems people only want to focus on the small mistake



or area that you know you still need to work on. Like a mark on a blank page, the rest of the clean paper seems not to matter, one flaw seems to make any and all good you are trying to do feel pointless.



I'm not sure if I would call myself an artist, however, what am I instead? Coming from a design background, yet making objects that are mainly symbolic and often shouldn't be handled excessively or worn (as they are made from polluted waste plastic), I feel I fit slightly between the two worlds of art and design, and yet, am less than the sum of my parts. Instead of being enriched by two worlds, I am instead an imposter in both.

What Worked and What Didn't Within My Project

Reflecting on the project, I feel I struggled with everyone encouraging me to continue the work I had been doing before, that is, making jewellery and objects out of plastic waste and transforming the materials into objects of beauty, and also how to really engage people with this as an art practice. You are essentially just making something to be looked at. Talking to viewers about how you did it or showing it to them is one thing, but it doesn't go far enough. The person you are talking to is still, on the whole, a passive spectator, there is not much of an exchange to build upon.

As part of the project, I was an Artist-in-Residence at the University of Flensburg in Germany.

In Flensburg, I made some more jewellery-based pieces.

In this context, I thought it would be interesting to see what I could make in such a short space of time—one week—as well as being forced to work solely with materials in my immediate environment. When making the pieces for 'The Plastic Sea' (my graduate collection) I had 7kg of plastic debris collected from a beach, as well as two enormous bags of assorted waste fishing gear, such as ropes, floats and nets.. Obviously, I was still restricted by my materials, but I had a much wider array of plastic debris to work with. My work in Flensburg became a mini-comparison project; I wanted to see if the aesthetic would drastically change, perhaps highlighting how diverse waste plastic is as a design material, or if I would be making more of the same work with the same outcome.

As a creative exercise, then, I suppose the work I made in Flensburg had some value. However, it felt very insular and did not really achieve my (and The Universal Sea's) goals of engaging members of the public and encouraging people to further involve themselves in this issue.

What Is The Point?

Another challenge within the project was the gap I felt there was between the work I created (during Flensburg) and how to use it to engage people on the issue of plastic pollution. Arguably, art does not have to communicate anything clearly; it can be wholly personal and all about the individual's response to it. However, it becomes more complicated when you introduce elements of activism and environmentalism; another motive is added into why the art was created, and another expectation arises for what that art has to achieve.

There is a very narrow path you have to stay on, where on one side, if a work becomes overly educational it, arguably, loses the artistic element. Viewers feel obliged to engage with educational art from a moral standpoint, yet pure information is generally not what people want from an art piece. On the other hand, if there is not enough of an educational factual element, or enough action or protest within the work, it can be accused of being frivolous or superficial, linking itself to a cause for some worthiness or gravity, but essentially changing nothing at all, merely being shallow and self-serving.

Whilst in Flensburg, I spoke to faculty members and students at the University, explaining my project and talking about the wider issue of plastic pollution. Whilst some of these discussions were fulfilling—talking to like-minded people, sharing information with people open to listening—others were more fractious and made me re-examine my approach to art and plastic pollution.

Some questioned the point of making jewellery out of waste
"What are you changing?"



One discussion in particular stood out to me: a student argued that by creating objects out of waste plastic, I was encouraging people to consume more of it; someone could feel that by buying it they were doing good, but they are simply buying more plastic.

I know that making jewellery out of waste plastic, or any sort of object for that matter, is hardly revolutionary. And I agree, I don't want to encourage unnecessary consumption of plastic. However, the jewellery industry exists. People want to look at and consume art and design objects, so if you can create something that offers a new perspective on an issue, you will perhaps slightly educate someone on something he or she hadn't thought about before.

My interactions (positive and negative) in Flensburg did highlight to me how I needed to expand my work. Upon reflection, I have felt a lack of connection, both to the project and to the public I am trying to engage. Perhaps this is due to the type of work I was making—small, jewellery-based objects, which can serve as a talking point and entry into a discussion on plastic pollution, but at the end of the day, can only really be looked at or perhaps held for a while. There is no lasting impact created there; the connection is temporary and weak. Even though the number of pieces I made for 'The Plastic Sea' and during the Flensburg residency is under twenty, I did not want to get caught in a cycle of just making *stuff*; making the kinds of objects that you can show to people and talk about but then you pack them away and it's done. The works that personally affect me, that engage me, are large-scale and immersive. Something that gives you space to contemplate an idea, and creates an impact through the knowledge that the piece is temporary. You have to engage with it now, before it is gone. You know you are part of something that not everyone can be; limited time adds value to the work.

The role of the artist for social change

At the end of this project, I still believe that a positive approach and a gentler form of environmental activism is the road to take in order to help people wholly change their attitudes and outlooks on issues and create long-lasting change—even if I have not really succeeded in it in the course of this project. Work driven by negativity and environmental art which shames the viewer or burdens him or her with guilt

leads to helplessness and apathy in people. The scale of a problem can become so big that you feel paralysed by the enormity, which makes you do nothing. People do not want art to lecture them, and there can be an almost wilful refusal to engage with the issue: you might be telling me what I *should* be doing, but you can't make me listen. I think both reactions are very understandable, and this is why I believe that framing issues within art in more open and positive ways is the way forward. I have not figured out how to do this successfully myself yet, but I believe it is the right approach. I think I will keep trying.

Ending With A New Approach: The Plan For Budapest

I hoped that my mixed feelings about this project would be changed by the outcome of The Universal Sea festival in Budapest. I decided to not make anything jewellery-based, instead focussing on the issue of ghost gear and ghost fishing in the oceans (640,000 tonnes of fishing gear ends up in the ocean every year). I planned an installation of waste fishing nets, dyed multiple colours and hung in the exhibition space in fluid forms reminiscent of how they would look in the water.



My aim was to create an immersive installation where people could walk in and amongst the nets, feel surrounded by them, and perhaps contemplate the issue of ghost nets and ghost fishing by seeing the nets transformed through dyeing and in an unexpected setting.

The installation was in collaboration with Incredible Oceans, a UK-based environmental organisation, who provided facts about plastic pollution and easy day-to-day actions that people could take in their own lives to reduce plastic pollution.

Expectations Versus Reality: The Outcome of Budapest

To be honest, I'm not sure what to say about the final festival in Budapest. The installation was fine, but that is all it was.



Due to time constraints, and last-minute changes out of my control, the nets did not really look how I wanted. The immersive space where someone would feel surrounded by the nets was not really achieved. Whilst I was there, I did see people go into the nets, read the pieces of text, and walk around in the space. But who can say if it had any impact on them at all?

I am aware this is not the positive conclusion, the transformative, optimistic outcome that would make a neat and happy ending, but it is what it is. Some things are a success, and in my opinion, my part in this project was not one. Sometimes, when you are still in the middle of something, you can't see how it will ever resolve itself or become a fruitful endeavour. So, I guess all I can say about this project overall, and of trying to tackle the issue of plastic pollution, is that I'm still failing, but maybe that means I'm not done yet.



Frankie Moughton-Small is from London, UK. She graduated with a BA in Jewellery Design from Central Saint Martins in 2017. She was selected as a The Universal Sea Artist-in-Residence. Her graduate collection 'The Plastic Sea,' made completely from marine plastic waste, was the starting point of her focus on this issue, and what led her to apply for The Universal Sea project. As part of this project, she was Artist-in-Residence at the University of Flensburg, Germany, making new work from plastic marine debris collected in the German fjord.

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ART, THE IMPORTANCE OF LAUGHTER, AND THE OCCUPIED IMAGINATION

Kaethe Wenzel

The topic of The Universal Sea project—the dying oceans—is oppressive and urgent. On social media, in public and private conversations, it is obvious that the state of the oceans causes widespread anxiety; it is difficult to find anyone who claims not to care about the sea, about maritime life, or at least about microplastic ending up again on their dinner plates.

The question is how to artistically approach this pressing subject: what is needed, and how can it be provided? My impression is that people (including myself) feel simply overwhelmed by the vastness of the problem, and by the structures of daily life and daily consumption, which make it difficult to avoid contributing to the destruction of what we actually want to be preserved and to thrive.

The problem is not awareness; it is going against hegemonic culture that makes some lifestyles and forms of acting in our societies easier than others; the difficulty is to go against the mainstream that makes it easier to buy pre-packaged foods, that keeps plying us with plastic straws, throw-away plastic lids and cups and all kinds of one-way plastic wares, handed to us unasked on every occasion.

The problem is the gap between consciousness and acting, knowing how to act, and finding the energy to do so.

What kind of project is needed to not just create awareness, but to create agency? How to avoid plastic waste, and

help maritime life survive? How to do this in our everyday lives? Saving the oceans requires a collaborative effort and a change of (consumption) culture.

Daily Sea therefore is a three-step project aiming at small, easily applicable changes in daily life. It is based on interviews with specialists who deal with the pollution of the oceans. These interviews resulted in 10 easy tips on how to avoid plastic waste and help preserve maritime life as part of your daily routine.

Published as billboards in the streets of Budapest, as part of the The Universal Sea festival in October 2018 and on the internet, they consist of easily applicable recommendations or tricks for waste reduction and images with pictograms very similar to street signs that depict the connectedness of humans, animals, and the oceans. The key to the entire project is applicability, striking images and research. The pictograms are easily identifiable but are also complex depictions of human-animal-plant combinations, evoking science fiction, folk motives and fantasies. They are simplified, highly visible, strange, and—hopefully—funny.

1. Laughter

In Germany, humour in art is often looked at askance; art is supposed to be serious and philosophical, which is considered mutually exclusive with laughter. The same often enough goes for activist art. In my opinion, this is to underestimate the power of laughter. Michael Bakhtin underscored the function of the carnivalesque to reverse

or destabilise power structures—if only momentarily. I think the most important thing about getting rid of any kind of oppression—personal, societal, political—is to shake off fear, even if only for a moment, and that is why we need to laugh. Laughter can set us free because it means that for a second we fully grasp the absurdity of everything that is holding us down.

In this respect, it's very interesting to look at the Russian-American art duo Komar and Melamid's work about irony and dictatorship.

While the capitalist democracies are not dictatorships, a noticeable atmosphere of fear has spread over the last two decades.

This becomes obvious when talking to my students, many of whom worry severely at an early age about their prospects, about economic safety and career advancement—which often influences their decision processes at the cost of creativity and personal development. Their worries are very different from the worries of the same age group fifteen years ago, and this seems to be part of the historical consequences of globalization.

Interestingly, this mixture of worry and conformity is not a mind-set most companies are looking for when hiring, and not at all what gets a start-up going. The soft skills actually required, and searched for, by the economy may be at odds here with the mentality engendered by the historical situation and recent capitalist development: in a situation of economic struggle, of rising costs and exploding rents, the fear of

losing our livelihoods, fear of losing privilege, fear for the future of the children can impede personal as well as economic and societal development. The weight of all this is oppressive, and can entirely paralyse the individual, caught up in the feeling that nothing can be done.

And we need to laugh this off to remember that other solutions are possible—solutions which do not dismantle democracy and the struggle for social justice and equality.

We need laughter to explode our fears.

Fear kills the imagination. My job as an artist is to keep imagination alive.

2. Mainstream

One critique of the current neoliberal order that dominates much of the West is that in recent decades the focus on identity issues—gender, race, sexual orientation—has been a distraction from the challenge of economic justice. It is my conviction that so-called identity issues are not a distraction but at the core of the problem. Being poor in a neoliberal society sucks. But try being poor, a single mom and a person of colour. And as long as the last is harder than the first, this cannot be waved aside as a mere problem of identity. This cannot be divided from, much less opposed to, the fight for social justice.

For the last 25 years we have been witnessing the politically organised sell-out of public property—the continuous chipping away at our public health and education systems, the general abandonment of societal solidarity and what used to be “the common good”—achievements gained over 250

years of struggle. And though some people get upset about our societies being turned into machines for the upward re-distribution of wealth, more seem to get upset about refugees and Muslim neighbours instead, or about issues that in many places seemed to have been resolved a generation ago, such as homosexuality, working women, and the fact that rape is a crime and should be persecuted. Here, too, laughter and irony remain important means of alleviating pressure—of taking the sting out of perceived and actual threats, and opening up space for new thoughts.

As an artist fascinated by machines, I am intrigued by the mechanical aspect of all this. There is no conspiracy here—there are historical and societal pressures that result in innumerable micro-decisions, including yours and my own, producing a gigantic mechanism that increasingly seems to be ruled by the logics of profitability. Fear imposes discipline, because fear creates an impression of limited options. This “mechanism” has nothing to do with Fordist ideas of mechanisation and assembly lines: it is the mechanics of contemporary culture and the result of a combination of globalisation and the digital revolution—both entirely new phenomena—which have in many ways re-structured our ways of communication and perceiving the world. As usual, the liberating aspects of these new technologies also include a problematic side. This is especially noticeable when it comes to public space and public discussion. These developments have led to a widening but also to the restriction of social interactions and public spaces—fragmenting political discussion, depleting old forms of public life, street life, chance encounters and the constant practice of negotiating shared physical space. The loss of these spaces and

abilities seems to lead to a depletion of specific social skills and options of communication, and to increase fear of change, variety and otherness.

3. Imagination

This is why in my own work I try to produce participation and communication, and to undermine stereotypes: my main instruments being drawing, interview, internet, mechanics, electronics, and street art. Appropriating techniques from survey to speculative fiction, mimicking urban signs, adverts, public screens or services, my projects provide sceptical footnotes on global history—jolting the viewers out of their habitual ruts and upsetting conventional ways of seeing and of representing the world.

When my interview-based animation project, *Future M*, was shown on the Berlin subway’s TV network in 2016, this combined the most important aspects of my work—invading an existing structure in the public realm and converting it to a new use; it connected the street and the internet, it dealt with future and alternative concepts for society. So does the *Daily Sea* project for The Universal Sea in Budapest.

I am convinced that the main aim of art today must be to recuperate the Occupied Imagination:

If by now, according to Mark Fisher (referring to Fredric Jameson and Slavoj Žižek), it is easier to imagine the end of the world than the end of capitalism because of a widespread sense that capitalism is the only viable political and economic system and that it has become impossible to even imagine a coherent alternative to it, then this means that

our imagination has fallen under outside rule; that it is being limited where it should not be.

Imagination means the capacity to devise alternative ideas, and even entire alternative worlds;

the capacity to invent what isn't but what might be, and to refute any argument claiming, "there is no alternative." And of course, this imagination is highly important for innovation and development, and held in high esteem in all kinds of economic and capitalist contexts. Imagination is necessary for progress, and imagination is indispensable for marketing; it is marketable, and that is fine, because it means that it is being cultivated.

However, imagination on a micro-level also means to live the life that suits you, though it may not suit others; to do things beyond the rules of productivity, profit, or even efficiency; to do things for no apparent reason at all. It is linked to desire, change, discontent, and doubt; imagination is the one person in the team who keeps insisting that there must be another way to do things, for no other reason than to do them differently.

Imagination is the prerequisite for any kind of agency—we cannot do, or live, or enact what we cannot imagine. If limiting the imagination is inherent to hegemonic culture, freeing the imagination is what subverts it.

The philosopher and cultural historian Mikhail Bakhtin has examined the carnivalesque as a means to reverse or destabilize power structures—if only momentarily. He argued that the temporary reversal of the hierarchical

order and social rules in medieval and early modern societies served as a safety valve to release pent-up social pressure. As long as everything went back to the old order as soon as the carnival was over, it functioned as a stabilising power. However, he underlined the potential of such reversals, stressing the power of laughter and ridicule: mechanisms of power, especially of power that protects privilege, rely not on physical violence or even on the threat of violence or deprivation, but entirely on belief—on the belief in their unchangeability, in their reasonability, in the possibility of participating in the protected privileges now or at some point in the future.

They often rely on respect and solemnity—both of which rarely survive serious attacks of irony and laughter. This is of course closely linked to the theory that pathos is normally a means to cover up some secret collective shame, such as the heroic image of the lone cowboy still often functions as a cover-up for the deep American shame about the genocide of the first nations. Or, as James E. Young put it in his essay on the work of Komar and Melamid, "... the most lethal of critical methods (is) play and whimsy. For as it turns out, the surest antidote to the traditional high-seriousness of monuments is blow-the-belt parody. Nothing, after all, looks sillier than a heroic bust brought low."

Of course, there is nothing wrong with seriousness or serious values. What is wrong, however, is the paralysis that stems from the conviction that "nothing can be done" because "that is how things are."

The capacity to imagine otherwise is the capacity to change. To imagine alternatives to existing structures and methods is the prerequisite for

solving the problems caused by an existing order—such as the destruction of the environment. Which is where the survival of the oceans is linked to the extent, and the uninhibitedness, of the human imagination; which, in this instance, means to realise that there are possibilities to protect the sea and to help the oceans survive even in our closely packed lives and within the small radius of our daily existence.

Laughter and irony can be powerful tools to achieve this end, where appeals and information fail. It is not enough to raise awareness; it is necessary to raise agency.

4. Summary

Social change requires imagination, and imagination should be limitless. Laughter is what helps to shake off limitations, real or perceived. Change requires desire, communication, and organisation. Art should produce all of this: laughter as well as power beyond words and concepts—that which makes you think in words and beyond words; an experience that leaves you changed; what you look at and want to keep looking at, even though maybe it is not communicating anything that can be put into words. But most of all, art is whatever allows us to stay human, to stay alive in any kind of war; to assert our humanity in the face of violence and emptiness and lovelessness. To connect with each other because there are things we cannot see and not not care about; a way “to keep the heart

awake to love and beauty,” as Coleridge put it. To connect across space and time, because art can be a container for feelings and ideas that we can receive across time and pass on into the future—like a bucket brigade full of dark dreams and enlightenment and hope.

To keep opening up the “open, untamed spaces of our imagination” (Jeannette Winterson), which will never be subject to dictatorship, or hegemonic culture, or any kind of system—that small, wayward window letting in chaos and fresh air, desire, longing, the forces of change.



© Kaethe Wenzel

Kaethe Wenzel is an artist and professor for Aesthetic Practice at European University Flensburg. She works between survey and science fiction, collecting and developing utopian ideas and alternative concepts. Her main instruments are interview, mechanics/electronics, drawing, and street art. As a University partner for The Universal Sea, she used advertising columns in the city of Budapest for her project *Daily Sea*. Together with Werner Fütterer and 38 students she held two project classes. Kaethe lives in Berlin, Germany.

STORYTELLING FOR SOCIAL INNOVATION

Keary Shandler & Jose Alcaraz

A common definition of insanity is doing the same thing over and over again and expecting a different result. Is it possible that we've applied this logic to the way we value Nature? Many may say so, with plenty of evidence to support their reasoning. We have, after all, expected Nature to regenerate, replenish and rebound despite our heavy withdrawals.

If insanity is not our present condition, why are plastic microparticles now in our food chain?

What rationale would lie behind disposing of enough plastic in the Pacific Ocean to cover an area equal to three times the size of France? These worrying examples are just some of the more shallow and visible issues. More troubling is our general disdain for a resource that covers over 70% of Earth and provides us with the service of absorbing the majority of our carbon emissions 'free of charge.' The exploitation of our water systems in particular has reached a very crucial point.

As a major proponent in the plastic pollution challenge, business has an inescapable role to play in positively altering the current course of ocean and marine health. Ecological challenges require sustainable decision making to be a more robust and distributed process, involving not only those in business and government but the underserved communities who ultimately bear the worst of other's

decisions. The Anthropocene provides frequent reminders of how we have altered the balance of environmental systems. With a clear view of human impact on the planet, we have a lot of work to do to bring these systems back into a state of equilibrium.

These realisations make us both nervous and frightened for the future—at least some of us are: you, the reader of this book, and we, the authors.

As facilitators of learning, we are working closely with business school participants all over the world.

They too are becoming acutely aware of the urgent action that is required to stop water pollution atrocities.

The Need for Innovative Teaching

For most people, the notion of 'global challenges' is illusive and abstract. People find it difficult to connect everyday behaviour with the ability to influence large-scale change. As global citizens and passionate educators how can we illuminate this vital connection? The challenge calls for business and therefore business education to be fully integrated with sustainability. Business education should be an active participant in this arena, creating engaging, potentially transformative learning that enlightens and informs. Our challenge: how do we foster integrative thinking that builds mental relationships between the local and the global?

We've tasked ourselves with introducing business decision makers to important science, using entrepreneurial-style thinking and creating 'backyard' learning experiences to resurrect purpose through knowledge, skills and emotions. We utilise the Planetary Boundaries model, a blueprint that reminds us that climate is just one of the nine global Earth-Systems whose integrity cannot be put at risk. This model provides us with an essential set of nine processes and systems that are imperative for the existence of humanity. Since 2009, it has received increased recognition, stimulating research and dialogue far beyond the realms of environmental science. The boundaries are synergistic with the structure and objectives behind the development of the UN Sustainable Development Goals (SDGs), aligning business and science-based targets. The model highlights the need for humans to be stewards of (and be vigilant of) the oceans (and their increasing acidification), the ozone layer, biodiversity, biochemical flows (nitrogen, phosphorus), novel entities that are constantly created, global freshwater use, and land systems change.

We know that by stimulating emotional connections we can move beyond the 'passive' to the 'active', creating a vital relationship that fosters a more cosmopolitan sense of responsibility for a better tomorrow.

By inviting participants of Master of Business Administration (E/MBA) programmes to an immersive and personal learning journey, we endeavour to anchor them to things that are very relevant.

As facilitators interested in transformations, our objective has been to design learning that reaches new levels of engagement and realisation. Our experiential learning segments have been in play since 2015 and, to date, we've worked with over 200 participants throughout Europe, Asia, the Middle East and Australia. Regardless of geographical location or cultural values, we've discovered learning outcomes are universally applicable, demonstrating that despite diversity, we are all connected.

Using arts-based assessments to illustrate how science is connected to business, we've witnessed participants graduating through critical points of self-reflection to reach higher levels of critical thinking.

We're not aiming to convert participants into climate experts nor environmental activists.

Instead, we suggest a recognition of the changing role of business and an approach to decision-making that equally considers the previously ignored value of ecological systems and the needs of all society.

As an essential blueprint, the Planetary Boundaries provides us with the previously mentioned set of nine processes and systems that are imperative for the existence of humanity. Since 2009, the framework has received increased recognition, stimulating research, dialogue and curiosity far beyond the realms of environmental science. The synergy of the Boundaries aligns with the structure and objectives behind the development of the UN Sustainable Development Goals (SDGs).

The question remains, How does art manage to bridge this gap between science and business?

Bridging gaps by telling stories

The employment of storytelling is a relatively new idea in a business school environment. However, the widening scope of today's E/MBA leans beautifully towards using art to help understand science in a business context. Just as an artist may tap into multiple dimensions in their creative thinking, a scientific mind may access the same approach when developing theories. And, as the world becomes more complex, we have a greater need for that same multi-dimensional exploration in business. Encouragingly, higher education programmes are now beginning to integrate across traditional silos in an effort to find innovative solutions to societal needs through 'discipline pollination'.

When it comes to making important connections, we often look to stories to help create understanding.

Storytelling itself offers versatility of expression—a way to communicate through speech, sound and image.

Stories have the ability to translate across different languages and cultures. We've utilised the power of storytelling in several different ways to connect participants to important issues,—particularly around the health and wellbeing of our marine ecosystems, access to clean water and the detrimental effects of consumerism and plastic pollution.

Each of the exercises we've employed

are designed to lay the foundation for the next realisation. It's a process of building on layers and developing an appreciation for multiple perspectives and interconnectivity.

For instance, the creation of a 24-hour diary noting all interactions with plastic, serves as an initial simple exercise. This forces a realisation of the total dependence we have on this material to accomplish everyday tasks. The experiment starts to awaken a consciousness of how much we consume, how much we dispose of and the resources used to create our conveniences.

The acute focus on plastic starts an eye-opening process—unveiling our 'out of sight, out of mind' mentality when it comes to our overwhelming levels of plastic pollution.

Building on this realisation, we work on developing visioning skills. Visioning is an important tool for intensifying a picture of the future. Without a clear picture of what we desire, how can we move towards it? Envisaging the year 2050, participants unleash their unlimited imagination on what life will be like. In pairs, the task is a 60-second recorded voice message—a voicemail from the future. Building a story, use of language, the engagement of sound—volume and pace—challenge artistic skills and articulation.

The dystopian outlook of the future has been the preferred story, with messages alluding to city capitals entirely submerged by rising sea levels,

floating cities built on islands of plastic and fish as a historic memory. The learning stimulates a breakthrough of ideas and solutions.

Our pivotal experiential exercise involves participants working in teams, creating their own amateur documentary using a smartphone. Within a 10-minute film, they need to demonstrate a clear connection between one or two global issues to their own local environment. At a very basic level, the films prompted many of our participants to put themselves 'in the skin' of multiple actors, and to *simulate multiple roles*. In their attempts to explore one or several of the planetary boundaries, participants filmed stories in which they included (hypothetical) representatives from the industry, professors, ecologists, policemen, farmers, seafood distributors, or even judges specialized on transnational ecological harm.

Perhaps more interestingly, the filmmaking prompted many of our groups to *talk with multiple specialists*, which are perhaps not the usual stakeholders with which business participants usually engage in dialogue. Learners discussed local, regional or planetary issues with multiple scientists (marine senior researchers, plant biology experts, climate scientists, experts on water), representatives of river trusts, traditional or biological wine makers, representatives from departments of parks and wildlife, and even with some city mayors.

This assignment would invite participants to think about their role as creators of long term, sustainable solutions:

solutions that are economically feasible

whilst producing a positive impact on the environment. For instance, one group looked at how a large-scale aquaponics system could help meet growing food requirements without polluting water sources. Another looked at biodegradable packaging made from seaweed.

For a business school student, creating a script is a task that feels foreign. The whole assessment aligns more with media than it does with business, but this discomfort—often experienced in any creative process—is an important part of experiential learning. This is where perspectives of learning are tested in unfamiliar ways. What emerges is a choice to resist or embrace the learning. Both reactions have great influence on the crafting of the story.

New narrative required

As shown by the combination of their artistic and entrepreneurial minds, the micro-perspective is connected with the macro-logical view. Small items have big consequences and our daily life is part of the global picture. As witnesses of these issues in their own backyards, our participants are increasingly participating in a new narrative—one that is personal and that is developing them not only as local stewards of the environment, but as social guardians in our increasing urban age.

The best learning experiences in life often transform us through knowledge, skills and emotions and a good E/ MBA programme should create this deep learning. We see our contribution of particular relevancy to engage with global sustainability issues and build resilient decision-making through storytelling.

The possibilities to engage business participants—the managers and executives of tomorrow—with the urgency and issues around climate breakdown, water, novel entities such as plastics, and other planetary boundaries, through entrepreneurship, experiential learning, arts, and creative forms are almost unlimited.

Our hope is that many other educators, inside and outside the realm of business schools, will continue exploring them, in order to foster deep learning and to (truly) transform knowledge, skills and emotions around these crucial issues.



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Keary Shandler, MBA, is the Program Coordinator for Undergraduate Business at Murdoch University Dubai. Her curiosity for facilitating real-world learning in business education led her to integrate arts-based assessments into sustainability literacy courses. Collaboration with The Universal Sea converge with her interests in storytelling as a way to promote entrepreneurial-style thinking and active public engagement. Keary lives in Dubai, UAE.



© Jose Alcaraz

Prof. Jose Alcaraz, PhD in Social Psychology, is the MBA IM Academic Director at Munich Business School. He sees in The Universal Sea the type of cross-fertilisation (art, entrepreneurship and science) required to foster deep learning and responsible citizenship. In his spare time he reads SciFi. Jose lives in Berlin, Germany, where he is the Academic and Faculty Director at the Berlin School of Creative Leadership.

THE TIME OF ART-DRIVEN INNOVATORS

or What Can Artists Teach the Industry About Creativity?

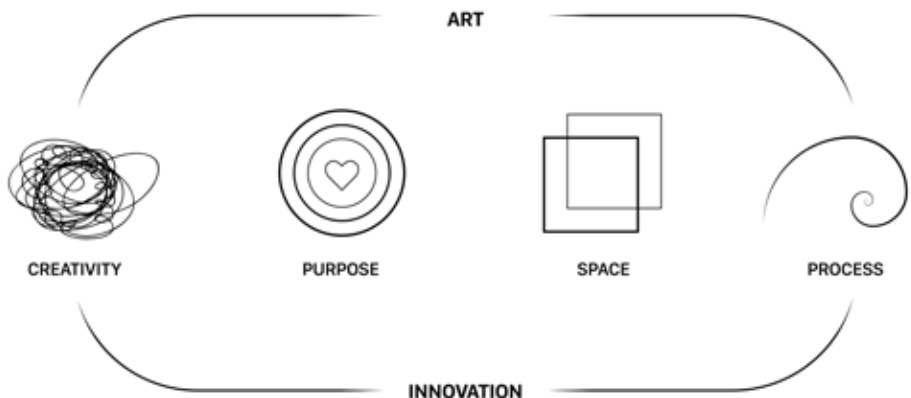
Olga Skoczyla

Our contemporary economy is often described as a “creative economy.” The role of imagination and creativity is instrumental for innovation and economic growth. Already in 2004, writer Daniel Pink stated on the pages of the New York Times that “The MFA Is the New MBA” (The Master of Fine Arts is the new Master of Business Administration). In the age when even the old-school corporations began appreciating the “right-brain” thinkers, the creatives, the imaginative souls, can artists and innovators work closer together? If we imagine the world where art has a crucial role in our society and economy, how would we go about integrating it with the non-artistic inquiries? One way to pursue that vision would be to teach the industry, the entrepreneurs and innovators about art as a process, a process which is not exclusively motivated by self-expression but rather has a utilitarian nature and can be adopted by industry practitioners

to create more meaningful products and even radical innovation.

Creativity

The inherent common ground of art and innovation is creativity. Dave Zaboski, former illustrator and animation artist at Disney Animation Studios, describes creativity as an ability to imagine the unseen, “turning a thought into a thing.” Entrepreneurs, innovators and artists alike try to create something new. Instead of moving from a point A to B, as Amy Whither puts it in her book *Art Thinking*, they invent the point B and strive towards it. They envision the unseen point B. Art as well as innovation ends up being a type of improvisation. It doesn’t follow the common route, models, definitions but rather explores the unknown and undefined territories.



Purpose

Taishi Kamiya, a Japanese artist-engineer, coined the term “art interaction design” to bridge the gap between art and innovation processes. The established “design thinking process,” widely adopted in the fields of design, engineering and innovation, aims at solving problems in feasible and viable ways. As a result of asking the question, “how can we do it better?” the process often leads to only incremental innovation.

Art interaction design, on the other hand, shifts the focus from thinking about solutions to thinking about creative questions to ask.

Utilising the art interaction design process, creators end up spending a lot more time in the probing space which results in developing a meaningful and often abstract question to work with.

The importance of “the question” also appears in the work of Amy Whitaker. Her “MDQ: Major Dramatic Question,” inspired by the screenplay writing technique, is a guiding question of your creative process. The question can be subjective, expressive, or intuitive. It should be neither problem solving nor customer-oriented, it has to be breakthrough-oriented. Where the industry looks out to the users for problem definition, the artists look within to intuitive feelings and reactions to personal or societal problems. The question also does not necessarily have to be feasible; it has to be big, relevant, engaging. You can refer to the big creative question as your purpose, belief, or your drive for the creative action. As Dave Zaloski says, the first step of the art-inspired creative process would be

to “cultivate clarity of intent capable of inspiration and dedication.”

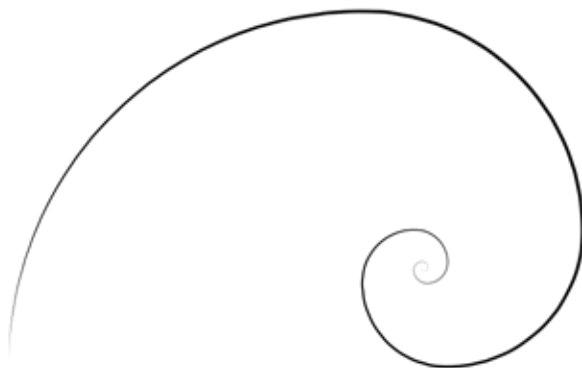
Space

The big idea of art thinking forms around carving space for creativity. The space for creativity might be a physical space specifically designated for your creative pursuit. It can be managing your physical and mental energy and carving out space for creativity, for observation and discovery within the reality of time pressure, deadlines, and everyday responsibilities. Finally, the space for creativity can be interpreted as Amy Whitaker’s “studio time,” scheduled time for inquiry and learning, for contemplation over your big creative question. Although the creative process can be more abstract, it shouldn’t be chaotic. It requires nurture and practice within a designated space and time.

When defining the basis and the rules of your creative space, allow yourself playfulness and intuitive accidents. The well-known Plato quote about human relationships says,

“You can discover more about a person in an hour of play than in a year of conversation.”

We can think the same way about innovation. By allowing playfulness in your work on the creative question, you can get a better understanding of what you are striving for. The creative space should be a “space out of the ordinary” which allows for immersion in the creative activity and stimulates the change in your mindset different from the ordinary, the usual.



Process

Creative process can be messy. Whether it is creating a painting, writing a piece of music or coming up with a new tagline, it is rarely a straightforward linear process. Let us imagine you are writing a book. It is very likely you start with one idea but at some point in the process you realise you want to change the concept. You start over and pursue the second idea. But your friend calls you and tells you an interesting story that inspires you. You go back to writing and the story unfolds in a completely different way than you had planned. The creators at Disney looked at the process and discovered that linear understanding of the artistic process, from starting point A to final creative result B, is not only incorrect but limits the artists themselves from creative exploration and ultimately creative growth. What the team ended up coming up with, as an alternative shape to illustrate the process, is a spiral. Just like in nature, in flowers, the galaxy, and the proportions of the human body, the creative process also follows a spiral-like shape.

The spiral illustrates that in your pursuit of the point B you might take various directions, you might change the course of the idea, you might take a few passes. But all those actions and divergences ultimately take you closer to the final creative outcome. The iterations teach and inspire what the final outcome should or should not be like.

Acknowledging the spiral's multiple turns frees you from the pressure and prepares you for constructive experimentation, prototyping and discovery.

What the spiral also teaches us is that the creator has to choose when the work is finished: when you zoom in the spiral you see that it is infinite. It is the role of the creator to establish when the outcome is final and ready to face the world.

Conclusion

When we look at art as a process, as another approach to channeling creativity, we notice that there are a lot innovators, entrepreneurs and the industry can learn from artists. In the work of artist-innovators like Amy Whitaker, Taishi Kamiya and Dave Zaboski, we discover patterns in the artistic process which could be adopted by the industry to increase the potential of innovation. Working with a meaningful question, carving out space for creativity in our schedules and accepting the spiral nature of creative work are just some of the steps industry practitioners can take to experiment with the art-inspired creative process.

In the constraints of the current economic system, artists, entrepreneurs and innovators alike face many constraints while producing their original ideas. As Amy Whitaker puts it, "Economics as a system is pretty good at paying you for what you already can do, but it's pretty bad to pay to you to experiment and try new things." I believe, bridging the gap between the artistic creative process and the industry creative process will allow for more understanding and collaboration—ultimately leading to a larger and more united creative force that has the ability and resources to solve problems and create innovative solutions to improve the world.



Olga Skoczyla is a design strategist and co-founder of the design agency 'Cultural Design'. Holding a master degree in Cultural Economics, Olga is passionate about understanding the value art has in the economy. She attended The Universal Sea - Pure Or Plastic?! exhibition in the Centre of Polish Sculpture in Oronsco and was inspired by the idea of utilising art for environmental innovation. Olga lives most of the year in Berlin, Germany, and enjoys working remotely from different parts of the world.

All images © Olga Skoczyla

> 2018.11.01-23.27; Attempt 9 () = Connecting with artist ... waiting for response ... starting to code

Nicolas Kristoffersen

#0000

We live in times of big change. Powered by digital technologies we see constant innovation in communication, production, transportation... in almost every field.

Most businesses and individuals are affected. That it also true for artists and for art as a profession.

Change caused by technology is nothing new. Paint was a new and revolutionary technology once. Artists who adopted it first could create new expressions that the world had never seen before. When we think that our time in history is special, it is worth remembering that every object created by humans did not exist until it was invented. It seems obvious when we say it out loud, but it is easy to forget. Next time you sit in a chair, use a fork or just look at things in your home or on the street, imagine that moment in time, when the first of its kind was created. The first fork, the first bicycle, the first screw, the first bottle, the first...

#0001 Reactions to digital technologies () =

Being an experienced software developer and business manager, I do not define myself an artist. But I collaborated with an artist on a successful and award-winning art project about artificial intelligence. I also co-founded a startup with two other artists.

I found the reaction to digital technologies among artists interesting. The reaction seems to fall into three categories. The first group is not really interested in technology. The argument usually being that the core

artistic expression focuses on human life and universal thoughts and for that technology is not that important. Others seem to believe that innovative digital technologies are not that different from what paint was to the first painters. It is a tool or a material. Some use it for art production. Some integrate it in art pieces. The last group engages more widely in digital technologies blurring their role as an artist.

Art pieces can have specific purposes. Perhaps the artist wants to make people aware of a problem. Awareness is a great first step, but in some cases, real impact does not happen until you develop a solution.

Solutions could in some cases arise from using and developing new technologies.

I learned, however, that among artists there is an ongoing debate on whether or not an artist can engage in creating products or solutions and get involved in commercial activities. I find this debate highly interesting and relevant, because it could influence the chances of artists engaging in technology startups. If you want to reach the full potential of technology and shape its future, you have better chances if you engage in its development as a part of a team of people with different backgrounds. This could mean some compromising. As an artist, would you let go of some principles, if it meant a bigger impact for your purpose?

#0010 The artist as part of the startup team () =

As in all contexts where different types of people work together, we have to learn from each other. We have to get out of our comfort zones, question our own views and challenge our assumptions.

So, can an artist think commercially and know about technical details? Absolutely.

Many successful artists already do. For some, it may require a reworking of assumptions and skills, but it is not impossible at all. The same is true for other people in a team. The programmer also needs to realise the value of people, who at first seem unnecessary for the strict development of software, but who bring in non-technical creative thinking that creates value for users in a different way. It is a team effort.

#0011 The new technologies () =

If you, as an artist, want to give new technologies a try, you may sometime in the near future find yourself developing virtual worlds. Perhaps it is an underwater world with the purpose of making people realise that plastic is not just a problem at the surface. Perhaps it would include 3D video from polluted places. As virtual reality can have a significant impact on learning and training, you may create simulators for people, who are going to clean the mess up. Training for any specific physical task can be easier, faster and less expensive with virtual simulations.

You may come up with detailed designs for vessels that collect plastic from oceans. Perhaps you could participate in the creation of a submarine robot that utilises artificial intelligence to identify and collect plastic in the oceans. These

are just two advanced but yet viable examples. Along the way, you may learn to build and test technology, pitch projects for investors or learn how to sell solutions to customers.

A wide range of technologies has become quite cheap. You can get started with basic technologies like virtual reality, flying drones, small programmable robots and many others for less than 2000 Euro. Soon you could be using 3D printers for prototyping. You could record 360-degree video. Perhaps you will present it with virtual reality headsets. And you could also use those for amazing art experiences or for training people with no access to education.

Perhaps you want to use programmable drones for finding plastic waste in the ocean.

Perhaps you will use a cheap brain scanner as a part of your breakthrough art piece about human nature's unfortunate desire for more stuff that will pollute the ocean. And of course, use it to illustrate how we can stop exactly that.

#0100 The beauty of programming () =

At the core of all digital technologies lies the processor, the digital equivalent to the human brain. Mainly it understands only 0 and 1, off and on, false or true. Looking at the zeros and ones would be like looking at the synapses of the brain. You would see all the details and understand nothing. Hence, in order to communicate, humans invented languages for computers.

With computer languages we can write instructions for the processor. It can do exactly as we tell it to do. One instruction

at a time. It is absolutely fascinating and very scary at the same time. Imagine a human that would do exactly as you told it, no questions asked. Only hypnosis, manipulation, extreme pressure or perhaps unconditional love can make humans come close to this.

Basically, computers follow instructions one line at a time. But computers have memory. So first, you can store information in the permanent memory and then you can run programming languages that creates virtual objects in the computers short term memory. Objects can react to each other, and soon the order of instructions are too complex for humans to understand in detail.

This is when it becomes really fascinating. You decide what your objects should do, you start the process, and you watch your code unfold.

Sometimes it works exactly as you intended, which is beautiful. Creating a rock solid object that reacts exactly as you wanted it to is an amazing experience. In some ways it is like raising your children and watching them become successful. However, watching it do something you did not expect but that sometimes makes even more sense easily brings up fascination, excitement and existential questions at the same time.

#0101 Human-like behaviors? () =

These days machine learning is hot. It basically means that humans do not even write the instructions for the objects. We give a computer access to data, let it learn from it and watch it act according to what it learnt from the data. We do it, because it is too difficult to write

instructions for everything. So, we teach computers to do as we would do; base our decisions on experience. However, humans share some common mechanisms like fear and love that regardless of our life experience will make us react, to some extent, predictably. So, the question remains, Will the unpredictability introduced by machine learning make computers more human or less human?

Machine learning and artificial intelligence raises so many dilemmas that we need everyone to participate. Philosophers, doctors, psychologists, programmers, architects and absolutely also artists. We need artists to question the direction and visualise the risks but also to participate in its development for the good of humans. We need artistic values, models and ways of thinking to become part of the experiences that computers base their views of the world on.

#0110 The programming artist () =

Learning how to write code is just as necessary as learning a foreign language. You may be able to communicate with a Norwegian in English, but you will never get to understand the details and get the full benefit of Norway, unless you spend some time understanding the way they think and react. Given the fact that computers are now an important part of most jobs and even our private lives, why would you not want to understand computers in more detail and learn to code? As an artist, programming could open up so many new possibilities and significantly increase your artistic tool box.

Virtual reality has grown tremendously in recent years. Artists have already built virtual artworks and even full museums.

When you put on the headset, you enter an artificial world. Is that not the ultimate freedom and extreme dream of any artist?

Being able to create all visual and aural stimuli to create the ultimate experience? or at least get close? With applications like Unity you can create visual worlds without programming. The programming could, however, make your artwork much more interactive and thus meaningful than more or less static worlds.

There is, however, an even more powerful role to play when artists know technologies in detail. They can participate in shaping the technologies as well. Developing technology is indeed a very creative task. Ideas are formed, prototypes are created and tested, problems are solved, human impression is tested, production is planned, and services and products are deployed. With the right mindset the artist can play a significant role in most of these steps.

#0111 The contribution of the artist in technology development () =

Generating ideas seems like the most obvious contribution from artists. Thinking outside the box and being creative is what artists are expected to do. However, if the artist also knows the possibilities and limitations in the technologies and they work with other parts of the team, the quality of the

ideas should increase significantly. When building prototypes there is also a need for creative thinking, as the process also includes finding the optimal design.

Eventually all projects face challenges. When something does not work as expected, the team needs to come up with ideas for solutions; once again this is a creative process that might include programming or other very specialised skills but also often requires creative thinking. And finally, for the last part, when deploying there could be a need for visual or physical designs for packaging, marketing etc., which also could benefit from artistic creativity and skills.

The most important contribution, however, would probably be to ask the right questions along the way. If you as an artist create art to make people think and see things in new perspectives, this is what you also need to do here. If, instead of creating art that comments on technologies from the outside, you use creative thinking to influence it from the inside, you can have a direct impact on the way that technology evolves.

Technology takes time. It is not easy. It is commercial, complex and competitive. But it can also be amazing and worth it. I strongly believe that technology can become better, more beautiful and safer if artists are involved in its development. I believe that technology needs philosophy, morals and art.



Nicolas Kristoffersen has a Master of Arts in Digital Media and Film. He combined it with studies in software development and environmental engineering. He worked for a medical corporation and a communication agency before starting his own IT-consultancy. Nicolas co-founded three tech start-ups. He also works with artists on creating art pieces based on computer programming and other technologies. Nicolas is based in Copenhagen, Denmark.

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"INNOVATION IS ONLY THINKABLE BY CONSIDERING THE HUMAN AT ITS CORE"

Interview with Galit Ariel

How would you describe your role with respect to art and innovation?

I would perceive myself as sitting inbetween. I've been playing back and forth between these spaces for a long time. I started as an industrial designer, which really makes you think about functionality, but of course part of design is also creative expression and a singular, individual vision. This is what gives it a different value. At the moment I'm focusing on emerging technologies. I'm noticing more and more that the creative aspect of it is more necessary than the functional, especially when we talk specifically about future technologies such as immersive technology—meaning technologies that add a digital layer directly onto our physical space, and that we can interact with in real-time. A fully reactive digital experience within a physical space means that we are creating a completely new domain—one that merges the physical and the digital in ways that we can predict but cannot fully anticipate.

There needs to be a lot more room for experimentation before we can get to understand the full impact of these technologies' application. We will have access to so many incredible tools and almost infinite possibilities of self-expression. It is really a fantastic time to create interactive art pieces, and for interactive applications within physical spaces as well. It will be amazing to explore new facets of physical art through digital means and the role of digital art in the physical space; mixing the way we create and experience them can give such depth to both.

What do you consider an expressive example when you think about experiencing the connection between art and innovation?

For me the ultimate example, even though it might be a bit old-fashioned, is Michelangelo. Michelangelo is the classic example of an artist connecting art and innovation. In many of his artistic studies about life, shadow, proportion, the human machine, machinery, you can see the synthesis between art and innovation. He is the 'Renaissance man' who holds both in his hands, and one fits the other.

Could you also give us a contemporary example?

A contemporary example is Olafur Eliasson. I think he is amazing

because, although he is defined as an artist, I actually think of him as an innovator in terms of immersive experiences. I always take him as an example when I give talks in order to demonstrate that when we consider 'immersive' experiences, it does not always have to be something completely overt; you can overwhelm people even with simple things. His artwork always has such beautiful visual impact, but when you are there, in the space he has created, you experience it on an amazing physical level; it is the incredible sensations, often very basic and nuanced, but you feel them 360 degrees. He has developed a very smart yet simple way to make us really connected to ourselves through technology and art.

When you think of art and innovation collaborations what are your expectations? What do you think could come out of such collaborations and why is it necessary to bring the two together?

Art is something that is always considered subjective and democratic: the artist creates an artwork with his or her personal intention, but the spectator is also free to interpret the artwork according to his personal perceptions. This is even more so in postmodernist art, for example.

In contrast, innovation is very purposeful and in need of quantifiable results and output. What is important is creating a hybrid system where you can allow personal experimentation with space; where you can allow subjective interaction with an input from art, but simultaneously you have a sense of purpose and an output. When you bring these two qualities together you are harbouring the creation of work that is not only either an intimate experience or technological system; it is a system that is validated by the intimate experiences.

Where do you perceive a potential for artists working with innovators?

In business or innovation schools, they teach you paradigms and formulas: do 'A' and then you will get 'B'. I don't think there is a magic formula for innovation or we would all be millionaires, but there are rules and systems in place. The human factor acts as a kind of bond for innovation. The human factor is something a little bit unpredictable, emotional, subjective. This is when creativity and art come into play. Innovation is only thinkable by considering the human at its core—the creativity and humanity.

As much as I love art, the harsh reality is that art needs to be more sustainable. I believe that partnering art and innovation can make art more accessible to people, which will allow people to experience,

experiment and contribute more. We live in an era where everything needs to have a purpose, and normally that purpose is not the human experience. What this world focuses on is business, consumption and all that can be quantified.

Even the world of sustainability seems to follow the credo “Show me the money, show me the outcome”, and while it is necessary to be able to measure and quantify, this leads to the point that we stop legitimizing experiences and values that we cannot quantify.

Why is it bad to just have ,art'? Why do we have to prove its value; prove it by showing how many visitors you had, how much money you make. I think there is a danger with this approach in discounting the validity of that which we cannot measure but can only feel.

In short, artists and innovators working together is mutually beneficial: innovators are bound up with creativity through their pioneering and forward thinking nature—they need a creative mind, while artists need innovators to become more sustainable, visible and validated. The collaboration brings growth and expansion for both.

What implementations or approaches have you already tested in this field, if any?

We have already tried two things in the book I have published about augmented reality. We applied an augmented reality layer that constantly updates the data layer and makes it into a ‘living’ media platform, but we also want to test what happens when you add little animations just for fun and see how people react to that. In every project that I’m doing, I’m trying to allow people to participate and experiment, but also to have purpose behind it. Even in projects that I’m doing about sustainability, it is about the art, it is about creativity, embossing something poetic and beautiful within the interaction, but it’s also about how we connect that with some tangible benefits—how we make it work together.



Galit Ariel defines herself as a ‘digital hippie’—since she is passionate about a future that will integrate technology into our everyday lives, but not control it. As a thought leader in Augmented Reality, she explores the wild and imaginative side of immersive technologies, but also their impact on our cultures, behaviors and ethical issues related to them. Her book ‘Augmenting Alice - The Future of Identity, Experience and Reality’ (July 2017) offers a context and futurescape to Augmented Reality applications, considering its impact on our public, personal and intimate space, that ultimately alters the way we experience reality and our sense of self. Galit is based in Toronto, Canada.

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"ART CAN TAKE ANY SHAPE AND GIVE MEANING AND AESTHETICS TO ALL ASPECTS OF LIFE AND BUSINESS"

Interview with Manish Gupta

Could you tell us what your organisation Knowledge Synonyms is all about?

Over the years, the human capital management function has evolved with significant contribution from diverse pedagogic models, research and advancement in the field of educational technologies, learning psychology, art, visual and media application of multi-modal learning principals, and above all, the way knowledge is consumed. There is so much involved in shaping and training the human brain, that it becomes difficult to gather and manage all the contributors within a traditional learning organisation.

We formed Knowledge Synonyms with a vision to network with the best brains in the world of learning and development, and create a 'Global Knowledge Ecosystem'.

Can you shortly explain what a learning design is? Is there a relation between a learning design and art?

Learning designs refer to a process, methodology and pedagogy to designing student learning experiences to achieve pre-defined learning objectives. The terms 'educational design,' 'learning design' and 'instructional design' are used interchangeably based on the vertical market, role, situation and requirement. The field of Learning Design emerged from a growing recognition that the role of educators is to tailor learning to the students needs.

There is a definitive and very strong relation between a learning design and art. Learning design has always been an evolutionary process. All that we know, understand and reflect is the outcome of our continuous learning, formal (structured) and informal environments. The more we research and delve into it, the more we realise that there is so much more to explore and understand.

If we constrain our approach to learning design with science then we may restrict ourselves to the methodologies we know and understand today, and may not evolve and innovate to unleash the unknown. If we approach learning design as an art, we bring creativity and do not bind ourselves to design only what we know, but rather we will be open to unleash new horizons of learning.

Do you identify a difference between art and design? If yes, how would you frame that difference?

The term 'design' can be used in a much wider perspective and may not have any relevance to visual output. Design can lead us to create solutions around all spheres of life. Design can involve a systematic approach to achieve certain objectives.

Art is free, imaginative, fluid and has no boundaries. Art can be collective or individual and it may or may not have any purpose. Art is an expression and culmination of your state of mind, knowledge and information. Art can take any shape and give meaning and aesthetics to all aspects of life and business. An artist could be a good designer, whereas not necessarily all designers are good artists.

If 'design' attempts to create solutions and 'art' is free thinking and original creation, how could we think of integrating art into a learning design?

To understand the difference between the use of art and design for learning we should delve more on the process and role of these elements. Human learning is dependent on five senses as we know: touch, smell, taste, vision and hearing.

Audio, text and visuals are primary sources of communication. Visuals can be used to enhance the aesthetics and instructional value of the other forms of communication. A good design can help us meet this basic requirement of learning solutions. We should not forget that there are other factors such as time, effort and cost that play a major role in the real world. Design seems to be a more practical approach to address learning solutions that have commercial motivations, as the results are required to meet specific predefined objectives, with limited time and effort.

In contrast, art can take a leap in the process and take a deeper dive into evoking human emotion and engagement and control the way we want a human brain to learn and interpret a certain learning solution. Art is not bound with time, effort and commercial motivation; it can explore ideas and issues not so common in the world of business. To be truly successful in the world where all investments are measured with respect to returns, we should have a more holistic and wider vision and thinking process to understand the importance of indirect returns for human life as a whole. All social and environmental issues can be addressed in an unparalleled way with the application of art thinking.

What is your opinion about the question of how design contributes to business development and innovation?

Design is everything. You need to be imaginative, intuitive and a visionary to design your business in a way that its people, product, service and communication work as a cohesive whole. With a visual perspective you have the power to connect with the emotional, aspirational and physical attributes of the human brain, which is the epitome of anything and everything we want to achieve in business, life and our soul. In this setup, innovation is not forced but is a natural phenomenon in this culture.

What is the main challenge in developing a learning design that tackles the question of water pollution?

The biggest challenge in designing a learning solution for water pollution is the diversity of the target audiences and its unique challenges and dynamics that it brings to people's lives in various regions, countries and communities. If we look at this problem more holistically, designing a learning ecosystem is not the solution but the need to be aware that how our socio economic activities and decisions are impacting on and contributing to water pollution. Hence the need is to start a movement where we design such a learning program that makes humankind aware and being considerate in all aspects of their life and business. The issue ranges from cultural legacies, traditions, farming practises, city design, product design to our lifestyles and economic growth aspirations. Each and every aspect of our life contributes to water pollution, directly or indirectly.

We need to design a curriculum that can help us evolve as a thoughtful and considerate human civilisation. This will help us bring change at the root level.



Manish Gupta has a Master in Marketing and Information Technology and specialises in Visual Communication, Digital Technologies and Learning Solutions space. He has travelled across the globe and visited, participated in world's leading book fairs, learning symposiums, art and technology exhibitions and innovation, business strategy conferences. He moved to India in 2013 and co-founded Knowledge Synonyms, dedicated to learning through its Research and Innovation based Learning Models, Technology Frameworks, Rich Media Infusion, Learning Centric Visual Design Principles and UX Experience. Previously based in New Jersey, USA, he worked with a global technology conglomerate as Vice President, Learning Solutions.

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INSPIRE

Ewa Markiewicz

Conscious choice

If, a year ago, someone offered me a secret look into the future, I'd have smiled at myself with sympathy, but I would never have believed it... The final result of the project 'Scheme to Survive Ages' was uncertain and the work caused me a lot of hardship and required a lot of determination. Especially during the hours I spent in the basements of student houses, where I often found remains of canned food, mouldy yogurts, and glass and cans in plastic garbage bags. In the end, I'm glad my willingness to do arduous work won over a sense of reluctance.

In spite of the challenges, I felt true creative freedom. It is a magnificent feeling when you can act according to your own rules. So as to not confuse this freedom with laziness, I hung over my bed my favourite quote from the *Attempt of Analysing Evolution in the Art* by Konstanty Regamey:

"Freedom and anarchy are not synonyms. True freedom consists in imposing on itself the bonds, norms and laws created by itself. The artist creates not only the work but the principles by which he creates and which imposes his freedom as a necessity. In this unification of freedom and compulsion, creativity is not limited, but on the contrary, as if it doubled. The greatest masterpieces arose from the self-limitation of the artist."

Especially now, I want to understand these words in a broader context than just in relation to art. We can apply them to ordinary life, where every person is a conscious creator and our common masterpiece will be a place for us and future generations to live. Meanwhile, for a long time now humanity has already exceeded the possibilities of its ecosystem and we are still pushing it!



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We never actually throw the rubbish away, we only change its location and—as if it meant its disappearance—we immediately get rid of the sense of responsibility.

How much could we achieve if more people made even one small decision to change their habits? I strongly believe that consistent action can have a real impact on our future. As for me, see for yourself how one decision about the conscious choice of using recycled materials materialised in an extraordinary cooperation with a group of amazing people in Poland and abroad. I invite you to learn about yourself with a number of unique challenges and events in which I had the honour to participate.

Responsibility

I was inspired by ancient humoral pathology, which focuses on the balance of nature and health and which over time has been supplemented with, among other things, character traits and types of temperaments—cholera, sanguine, phlegmatic, and melancholic.

Displaying various temperaments that form a coherent layout was a great creative challenge. In addition, the material from which it all originated became extremely important to me. From the beginning I wanted to find one repetitive material module and build the whole on the principle of layering—just as human nature is layered. It was initially suggested to me to buy small and cheap industrial items to facilitate this work. However, with the awareness of our planet's waste problem, I decided to do the work in my own way. My motivation was a childhood memory: I remember a fragment of a film that showed part of an island that was created by boundless heaps of rubbish. The host of the program said that every human on earth has had a part in it. Initially, I did not pay attention to the problem; I was just a kid and all I owned were toys. How could I have had any share in such a huge mess? The rest of the film gave a surprising answer. I can not recall the words, but I remember well how the host chose waste from the top and sorted it for the viewer: a pile of still intact toothbrushes, colourful hair combs... It made a big impression on me: after all, I was the owner of such objects.



© World Oceans Day - Poland

Truth be told, not much special attention is needed to notice the huge amount of pollution that is everywhere. What is much harder is identifying with the problem and finding a personal connection.

Then the real challenge is to encourage others to undergo conscious reflection.

It would be best if the feeling of responsibility came on its own. Instead of threatening and speaking loudly only about the dangers of pollution, it is also worthwhile to present the beauty and diversity of the ocean, for example by organising meetings between people connected to the ocean through passion and occupation. Professional actions with positive overtones are the activities of the organization 'World Oceans Day Poland', which instils empathy and teaches sensitivity through play (by 'plogging', which is running plus collecting rubbish; creative activities including painting, a photo booth with masks of sea animals, games and workshops; the presentation of alternatives such as a zero waste stand with home-made cosmetics; referencing new technologies such as virtual reality; and the opportunity to meet a real mermaid!). The 2018 event for World Oceans Day, celebrated on June 8th all over the world, took place in Warsaw aboard a floating restaurant on the water in the Czerniakow Port. The special guest was Aleksander Doba, a 72-year-old canoeist who in 2011 was the first person in history to sail alone across the Atlantic Ocean by canoe from Africa to South America. Stories about upcycling and about artists and works related to current socio-cultural problems corresponded perfectly to this event.

It is worth mentioning that bringing speakers from different backgrounds and professions together in one space meant that these stories reached a broad audience.

In addition, the participants were families with children, which is why I am certain that such activities have a real impact on the future. Let's keep our fingers crossed!

Synergy

During the academic year, I stopped throwing away clean plastic. Unfortunately, the space under my bed quickly filled up and saving the whole plastic bottle as a module was too big. I decided to keep only the bottle necks. In order to get more material, for a few months I cooperated with the management of student houses in Krakow.

I had my own recycling process: I retrieved plastic bottles from garbage bags, unscrewed the caps and cut off the top. After collecting a full bucket I thoroughly washed the contents in boiling water and cleaning liquids.

To unify each module, I cut off the remaining plastic rings on the bottle tops. For further work, I also sorted the material according to colours. I counted almost *ten thousand* items, but I do not consider it a special achievement. I am much prouder of the reaction of those around me; reactions I did not ask for and which I could not have planned. From the moment my work began to visibly build up, my friends took up



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engagement in the process. Most often they brought me individual pieces or rather small amounts. But such gestures gave additional meaning to my actions.

I noticed a similar rule of mutual inspiration at a place named 'Interplanetary Kingdom of Art,' where I visited to talk about upcycling art and my project. I am fascinated by this name, the more so when I delve into the ideas that accompany the supporters of this place. Interestingly, the annual festival at the Wolimierz Station (an authentic old railway station) is governed by unwritten laws and moral codes. Although trains no longer go there, a movement is driven by an artistic colony known for its pro-ecological and cultural activities. The program is updated on a regular basis by the people who build this event with their commitment. There are no prohibitions.

There is no intrusive education of others, but instead a co-existence of relatives.

There is eating and staying together, creating art and music, a cold shower (or swimming in a warm lake), and

composting toilets. It's all about taking care of the order and atmosphere of the place. Coexistence with empathy leaves a lasting mark and inspires people to continue these principles in ordinary life.

Cooperation

Unfortunately, most people involved in social activities often work in their spare time, and the scale of their operation depends on a private, dubious budget. Support in valuable projects from entrepreneurs is an important issue to reach individual citizens who co-create our world. Of course, the regulation by states and institutions would be very useful in the matter of excessive plastic, but not simply through new restrictions. Promoting engaged art is a good direction. Support for educational and entertainment activities and international cooperation are particularly necessary. It is very important that artists know about these elements and create a dialogue, because art is a great starting point for reflection and creating new and better systems.

A good example of cooperation between artists and entrepreneurs is the presence of Lemonaid and Soulbottles at the Watt En Schlick Festival. A mix of

great music, literature, film and theatre takes place directly on the beach in the World Cultural Heritage Wattenmeer in Germany. Although it is not always obvious to us, mass events produce plastic waste. For this reason, I decided to collect plastic debris to create a sculptural form in a visible place. The collection was carried out exclusively on site and during the festival. And, as in reality, nature was mixed up with waste.



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The “Schlick,” the mud of the sea, held the installation together and the garbage tower took on the appearance of a castle.

But even hiding plastic in the black mud did not make the problem disappear. I must admit, however, the Watt en Schlick Fest organisers took care of the festival environment: a deposit of 3 Euros for each cup and an additional deposit of 10 Euros per bag for garbage at the campsite effectively prevented an unnecessary accumulation of rubbish. I had to hunt for my work materials, but that’s a good sign! Plastic is a very modern material, it is eternal and it is everywhere. But I would not be sad at all if I did not find enough of this stuff for my creative work in the future.

Create and give a good example

I wondered what would happen if our common consciousness were shaped by what is really important. And I asked myself, why in pirate movies only huge whirlpools and gigantic, imaginary sea monsters are seen as a threat? Why doesn’t anyone mention the endless drifting islands of garbage? Imagine how frightening it would be to throw the popular character Captain Jack Sparrow on such an island. Or his opponent Davy Jones, a sea slave, stuck in toxic batteries instead of shells, his neck stifled by plastic string and a stomach full of plastic... However, it’s known that some things are easier and more comfortable to ignore, especially when living far from the sea.

Most of our planet is water, and water is life. Living in health should be a priority.

We do not need an intrusive education to know that. We can read about threats and problems from many sources. It is more difficult to find creative solutions that will encourage people to interact and engage with the problem.

I strongly believe that art can arouse sincere curiosity and, consequently, cause changes in the perception of reality. The best influences on society are events with positive overtones.

As for me, from the very beginning it was my hope that the visualisation of what one can create with waste materials collected in a short time will be remembered by the viewer better than words. Of course, I know I do not address all the problems. I am not even

a zero waste master. But I feel that I have succeeded, and this is expressed above all through the people who joined my waste collections or workshops and those who listened to my story about upcycling art. In the last six months and during the project *The Universal Sea* I met a lot of beautiful people and got to see other great projects. Maybe, in the beginning, all we have to do is give a good example. Let's inspire each other. Let's get to know the beauty of nature. Care will follow, because, as the quote from the film "Plastic Ocean" from 2016 says: "...care comes from knowledge, and, thanks to this awareness, changes take place."



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Ewa Markiewicz / Ewa from Pabianice, born in 1989 in Poland, is a graduate of the Faculty of Sculpture of the Academy of Fine Arts in Krakow (MA 2012-17) and Faculty of Visual Arts at the Academy of Fine Arts in Łódź (BA 2009-12). She is an instructor at the Faculty of Sculpture and Interactive Actions at the Łódź Academy of Fine Arts, and was chosen as a *The Universal Sea* Artist-in-Residence.

MICROPLASTICS AND CHAMELEONS—POETIC EXPEDITIONS INTO H₂O

Roman Kroke

"What a CHAMELEONESQUE material...!" This was the very thought which struck me in spring 2017, back in my atelier after various research travels to scientific laboratories in France and Germany specialised in the impact of microplastics on aquatic environments. Plastic, a material so variable in size, colour, shape, elasticity and chemical composition, always adapting to the countless functions mankind has in store for it—I decided to take a surf on that thought.

1. *Archaius polyethylenus*

For a start, venturing into the realm of reptiles at the Berlin Aquarium I immersed myself in an extensive drawing study of chameleons—and made an unexpected discovery. Serendipity! The scales of these animals reminded me of chemical symbols. Before my inner eye I saw it crystal clear: the symbol of polyethylene melding into the chameleon skin.



The chameleon species *Archaius polyethylenus*, a metaphorical personalization of plastic.



The chemical symbols display micro-pollutants attaching themselves to microplastics during their journey across the oceans - material gathered during my research travels to scientific institutes in France (EPOC laboratory/University of Bordeaux; Ifremer - L'Houmeau). In the final drawings, this research will be metaphorically melted into the chameleon's skin.

My thoughts then travelled to the doctrine of the five elements in Greek philosophy, based on the idea that mankind could explain the nature and complexity of all things just by using these substances alone. In view of the omnipresence of plastic in today's world and its significant impact on our entire ecosystem, I asked myself: If we want to be able to cope with the challenges of today's world, is it not long overdue to extend the classical Greek canon of water, earth, air, fire and ether to plastic?

And if so, would not plastic as well, like all the classical elements, deserve a poetic personalisation?



Poetic "coincidence" during my research travel to the Helmholtz Centre for Environmental Research – UFZ, Leipzig (Germany): It turned out that the technique used by the scientists to accelerate the natural process of plastic fragmentation through UV radiation is to expose it to lamps normally designed for terrariums – to shine on REPTILES ... (!)

The vision of a future artwork began to materialise in my mind: aquatic spring nymphs being joined in their sources by a new chameleon species: *Archaius polyethylenus*—a metaphor for the “evolving polarity”¹ between the natural and the artificial. This moment has been the starting point for a series of drawings—a work in process: utopian and dystopian drafts inspired by current scientific research as well as by contemporary philosophical currents dealing with notions of “responsible citizenship” and “sustainable development.”

On this basis, I subsequently developed a workshop concept which premiered in 2017-2018 as part of the interdisciplinary seminar “Microplastics and Medusae” for the Berlin University of the Arts (UdK) and the Technical University of Berlin

(TU), co-led with my colleague Henning Wehmeyer and in partnership with thirteen scientific institutes throughout Germany. During the first part of the seminar, a mixed group of students from both universities and diverse disciplines embarked on research travels to scientific institutes where they dived, together with the scientists, into the current

laboratory practice on microplastics. The students then faced the challenge of transforming this experience into hybrid artworks; some of these creations are now presented in the The Universal Sea touring exhibition.

2. Microplastics

With respect to plastic, my particular fascination did not concern macroplastics, visible with the naked eye, stranded along the coastline or found in the stomach of a beached whale. Accumulations of these larger chunks of plastic are obviously highly effective at making humans feel uncomfortable, as they directly disturb our aesthetic perception. However, this kind of plastic is nothing but the tip of the iceberg. An alarming portion exists in the form of so-called microplastics—particles smaller than 5mm—present on and below the water surface as well as buried in the

1. Cf. Bernadette Bensaude-Vincent, William R. Newman (Editors). *The Artificial and the Natural: An Evolving Polarity*. The MIT Press (2007).

sediments². But not only that, thanks to their size, the cycle of water and the food chain microplastics are able to travel over enormous distances. Starting their journey in small plankton that confuse it with natural prey, they may “meet” us again on our lunch table having been accumulated in all kinds of seafood. As purification plants are often unable to filter microplastics, they have also been found in our tap water.

We should, therefore, be even somewhat grateful to these tiny particles.

They help us to understand that plastic pollution is not an issue only relevant for people living close to the sea; it is a global problem which concerns us all. Artistic approaches may turn the invisible visible and thus serve as a bridge of communication creating an apprehensible encounter with this complex topic for the broader public.



Interdisciplinary seminar ‘Microplastics and Medusae’ at the Berlin University of the Arts/ Technical University of Berlin: RADULAmicroplastica, a sculpture by Janine Röfke (Student of the Teacher Training Programme Fine Arts) based on her research travel to the Institute of Evolution and Ecology and the Center for Applied Geoscience at the Eberhard Karls University, Tübingen

3. Mending mankind’s poetical bond with nature

Is the ecological crisis as we witness it today, in the form of the plastic pollution of the oceans, only due to a lack of information and knowledge? To master this global challenge, will it suffice to rationally enlighten mankind about the impact of its actions on the environment?

Many people know very well that a negligent use of plastic materials is harmful to our ecosystems. Nevertheless, this mere knowledge often doesn’t make them change their behaviour in a significant way. I argue for the following argument: the ecological crisis is also due to a *relational crisis*—the one concerning the connection between mankind and nature. If one takes a look at relationships between people, one could say that a sound relationship is generally built, on the one hand, thanks to the knowledge gathered about the other person.

2. Primary microplastics are particles originally manufactured at those sizes, like microbeads for cosmetic products (peelings, toothpaste, lipstick etc.); secondary microplastics are fragments generated by the breakdown of larger pieces (plastic bottles, car wires, cigarette filters etc.).

However, at least with respect to more profound relationships such as friendship and love, we are all very well aware that this tie is also substantially nourished by something well beyond pure ratio: a poetical bond.

In a comparable way, I believe that the ecological crisis also relies on the fact that many people have lost this poetical bond towards nature. Exploring an ecological, scientific topic through the medium of the arts, with its specificity of appealing to reflection just as well as to emotions, can make a significant contribution to mend this damaged connection.

Projecting this idea on the plastic pollution of the oceans I henceforth propose a vast understanding of the term “nature”—in a sense that art may not only serve as a medium to revitalise man’s poetical relationship towards the element of water but also towards plastic.

4. The poetical Triangle: Man, Plastic and Water

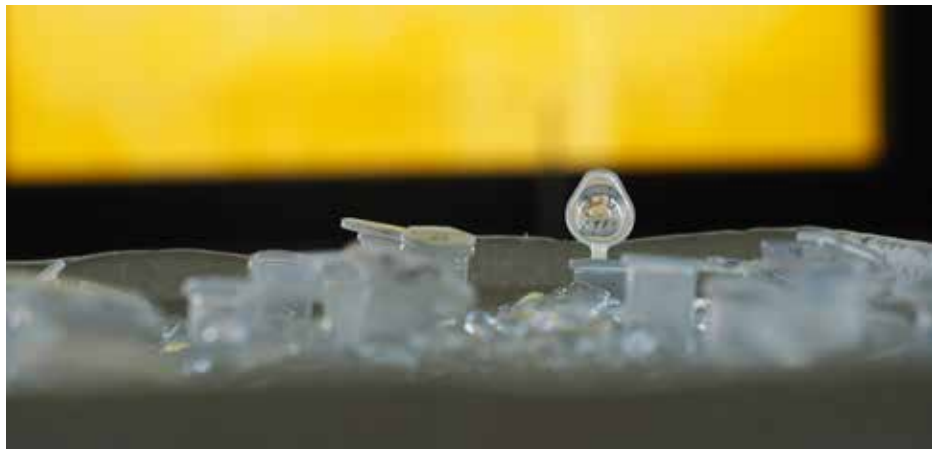
Let’s be honest. Who enjoys being constantly urged not to produce trash and pollute the environment? In general, the human psyche is not really keen on negative vibes. In order to foster the sustainable implantation of an ecological conscience in our daily activities, could it therefore not be favourable to work instead on developing a poetical relationship also towards plastic? In a certain way, its multifunctional nature has perhaps also had its downside.

A material that is able to serve us in almost any imaginable area of need may surely be practical and functional. But

it is probably due to this very reason, that plastic lacks another quality: sex appeal. There is obviously no point in cutting plastic’s highest virtue, its multifunctionality, just to allow us to fall in love with it. A poetic personification may point to new horizons: would it not be a lot harder for everybody to pursue a thoughtless, negligent use of plastic if it was not a “material” we threw away but—metaphorically speaking—something alive? How would it be, if dealing with plastic meant taking care of a chameleon? If assuring that a piece of plastic enters the recycling process meant allowing the *Archaius polyethylenus* to be reborn and continue its life in a new form of existence? I do concede, not all people may share my ardent passion for reptiles—not right away at least. However, the entry for building mankind’s future “love-affair” with *Archaius polyethylenus* may be found in the same source which nourishes other poetic relationships:

between humans these kinds of connections grow out of sharing stories; stories which make us discover “intimate” facets about each other.

The future chameleon skin may therefore be inspired by photos taken of plastic with a raster electron microscope during an accelerated process of fragmentation—revealing futuristic landscapes and breath-taking chasms, a microcosm of unimagined beauty. I believe that our rather factual relationship towards plastic is also due to us not knowing any charming anecdotes about this material.



Plastic Poetry: "Sunset in Crystalline Garden" - photographic research during my visit at the Institute of Molecules and Materials - Université du Maine, Le Mans (France).

Perhaps it's time to remind ourselves, comparable to certain couples which have been living together for eternities, of how it all "started": us and the plastic

—back in the times when people were enthusiastic about this new material. In my future artworks I may therefore also research possible poetic bonds towards plastic by diving into its *historical* origins: the "Grand Canyons," running through the fragmented chameleon skin, could therefore be inhabited by sceneries inspired by Roland Barthes' 1957 book *Mythologies* in which he passionately contemplates about this "magic material."

Contrary to this, revitalising our emotional bond toward the element of water should, at first sight, come along a lot more naturally. Our poetic relationship with water starts already with the fragile embryo free-floating in the mother's womb and continues with

every human's body being mostly made out of water. In a certain way, polluting any kind of aquatic environment therefore also implies polluting ourselves. However, as the contemporary French philosopher Jean-Philippe Pierron quite rightly points out, in our modern societies, for many people water has become an abstract reality. The public service of water is discreet, often invisible. In many areas, water has been reduced to a product, which is counted, dominated and instrumentalised to serve our needs¹.

Many structures that require a strong and rigid base depend on triangles. In my quest of strengthening neglected relationships within the ecological crisis, I am therefore not only exploring the bonds of man towards plastic and water but also the poetic potential hidden within the encounter of these two mediums.

1. Cf. Jean-Philippe Pierron. La poétique de l'eau. Pour une nouvelle écologie. Éditions François Bourin (2018).



Evaporated raindrops on a bull's-eye window, leaving behind crusted narratives, traces of their shapeshifting journey throughout our world – photographic research on the ferry which took me to the scientists of the AWI Helmholtz Centre for Polar and Marine Research, located on the deep-sea island Helgoland (Germany).

What happens in the moment of first contact between ambient water and a plastic particle? Within seconds the formerly virgin surface is colonised by microorganisms—the starter for repulsive and attractive interactions between their cell walls and the plastic. The phenomenon of these biofilm settlements hitchhiking on floating plastics across the oceans is subject to current scientific research¹.

5. (No) Conclusion

The term “conclusion” seems like an

affront to the element of water, which lives through infinite cycles and prefers to flow over being squeezed into a shoebox. It will therefore rather be a wish evaporating at the end of this article: entrepreneurs, artists, designers, architects and urban planners working together to create a new public appearance of canalisation, a new generation of taps, sinks, drains, shower-heads and bathtubs reminding us every day that water should always be a lot more to us than just the formula H₂O. And the same should apply to future plastic objects: visionary designs that inspire us to treat this miraculous, chameleonesque material with the thoughtfulness it deserves.

¹ See for instance : Christoph Daniel Rummel/Annika Jahnke/ Elena Gorokhova/Dana Kühnel/Metchhild Schmitt-Jansen. Impacts of Biofilm Formation on the Fate and Potential Effects of Microplastic in the Aquatic Environmental Science & Technology Letters 2017, 4, 258-267.



Roman Kroke, lecturer at the Berlin University of the Arts (UdK) and former lawyer, works as an interdisciplinary artist developing, coordinating and directing exhibitions, workshops and lectures throughout Europe. At the TUS-Festival in Budapest he presented, together with his students, the artworks created in a seminar at the UdK and the Technical University of Berlin.

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PLASTIC WASTE IN CONTEMPORARY AESTHETIC PRACTICE: An Attempt to Challenge Consumerist Culture Through Recycling

Urszula Staszko

The customary assessment of a sustainability movement focuses on embracing sustainability through science and technological development, excluding artistic practices from its wider outline. These preconditions are embedded in a traditional view on art production that considers it as a tool aiming at 'aesthetic pleasure' rather than as a means contributing to knowledge production. However, when we consider a constantly growing art current dealing with sustainability, the question may arise, do artistic practices have the ability to embrace change?

Linda Weintraub in her comprehensive compendium on sustainable art *To life! Eco art in pursuit of a sustainable planet*¹ depicts art as a possible catalyst for environmental change. According to Weintraub, artistic practice can be used as a tool to embrace awareness and stimulate the change in our daily habits through various direct and indirect creative solutions. Similar points were made by David Curtis and his co-authors². This theory seems to prove that the artistic practices can contribute to the behavioural change while recreating an emotional link between the spectator and environment.

Artists engage with environmental topics using a broad spectrum of methodologies and materials; many of them attempt to contribute to most pressing issues (i.e. plastic pollution) through the incorporation of rubbish into their aesthetic practice. The appropriation of plastic waste in artworks has its tradition in avant-garde practices, which frequently referred to collected rubbish as a romanticised carrier of memory or embodied the idealistic vision of making something new through means of something old.

This enthusiastic approach to plastic waste may be interlinked with modernist meta-narratives related to the myth of constant 'progress'.

These matters were addressed by Roland Barthes in his essay "Plastic" (1957). As the text was written at the time when plastic was still celebrated, it has essentially a similar overtone. Unaware of the environmental threat that the popularisation of the plastic presented, Barthes was in a way prophetic when he concluded his text with the words, "The hierarchy of substances is abolished: a single one replaces them all: the whole world can be plasticized, and even life itself since, we are told, they are beginning to make plastic aortas."³ As the myth of progress persists in

1 See: Weintraub, Linda, *To Life! Eco Art in Pursuit of a Sustainable Planet*. Oakland: University of California Press, 2012.

2 e.g. Curtis, J. David, et.al, "Communicating Ecology Through Art: What Scientists Think", *Ecology and Society* Vol. 17, No. 2, (2012). Accessed e at: www.ecologyandsociety.org/vol17/iss2/art3/ (2018.07.17).

3 Barthes, Roland, "Plastic" [1957], in: *Mythologies*. London: Granada, 1973, p. 99.

various fields of life (science and art included), we are more aware now of the endangerment for the natural environment caused by human activity and our excessive consumerism. Therefore, the new generation of artists has arrived, called by Nathalie Blanc and Barbara L. Benish “plastic pollution artists.”⁴ Those artists repurpose found or collected plastic waste, which later is transformed into an aesthetic object, treated as an ecological message carrier. The direct conceptualisation and recreation of plastic as an artistic material and subject is a focal point of artists’ critique towards our consumption habits. As the pioneers of this current in eco-art we can consider HA Schult, David Hammons and Mierle Laderman Ukeles, who long before the other artists expressed their apprehension related to the amount of waste produced by the world population.⁵

Similar concerns inform Maarten Vanden Eynde’s practice. In 2008, after finding out about the “floating landfill” of plastic he decided to raise awareness about this, back then, commonly unknown issue.⁶ In 2010 Eynde took part in the research expedition across the Atlantic organized by 5 Gyres Institute—the organization leading research on plastic pollution of the oceans.⁷ During the expedition led by Dr Markus Erikson and Captain Charles Moore, almost 400 kg of free floating

plastic waste was collected in the ocean.⁸ The chunks of plastic were melted by Eynde, who created sculpture known as *Plastic Reef*. The sculpture’s visual and textural qualities are reminiscent of a coral reef, which allowed the artist to point not only at the plastic patches in the water but also refer to the physical consequences that plastic pollution has on the marine environment, such as disappearing of coral reef worldwide. As *Plastic Reef* is travelling the world visiting various expositions,

Vanden Eynde continues to add more elements, which can be seen as a metaphor for the growing pollution of the oceans and for the constantly degrading marine ecosystem.

Furthermore, the work is an example of collaboration between the scientific and artistic community, an attempt to ‘translate’ the scientific facts into an artistic language. As pointed out by Yates McKee, those artistic ‘translations’ may also “raise essential questions about the very nature of research itself, at once highlighting its limitations and forging tools that could feed back into new modes of activism.”⁹

Many artists decide to resist the accumulation of plastic in our daily life by recreating plastic waste into aesthetic or functional design objects. Many of them have acquired a great audience, mainly through social media platforms. Those actions may point towards, or problematise the pressing issues of

4 Blanc, Nathalie; Benish, Barbara L., *Form, Art and the Environment: Engaging in Sustainability*. London and New York: Routledge, 2017, p. 139.

5 Levin, Kim, “Talking Trash”, in: *Artnews* (June 2011). Accessed <http://www.artnews.com/2011/06/01/talking-trash/> (2018.08.28).

6 Information from the Maarten Vanden Eynde’s website www.maartenvandeneinde.com/?rd_project=183&lang=en (2018.07.20).

7 Blanc, Nathalie; Benish, Barbara L., *Form, Art and the Environment: Engaging in Sustainability*. London and New York: Routledge, 2017, p. 140.

8 Blanc, Nathalie; Benish, Barbara L., *Form, Art and the Environment: Engaging in Sustainability*. London and New York: Routledge, 2017, p. 140.

9 McKee, Yates, *Strike Art: Contemporary Art and the Post-Occupy Condition*. London and New York: Verso, 2016, p. 71.

plastic pollution, making it visible, but they also seem to endorse the utopia of recycling affirmed among contemporary societies.

These actions are criticised by Slavoj Žižek, who accuses eco-artists of “accepting waste as such” and “discovering the aesthetic potential of waste.”¹⁰

In his understanding, the recreation of waste into an aesthetic object serves as a means to rehabilitate its status rather than as a critique of our ever-expanding consumerism. Therefore, the joined forces of academics, legislators, activists, and artists should aim at expelling plastic from our lives, rather than just repurpose it in a process of recycling.

Gillian Whiteley addresses ‘junk art’¹¹ through the prism of various political¹² and ontological contexts. She admits that most of the trash artworks—although masked as eco-conscious—have rather “fetishistic” and “talismanic” character comparable to that of *objet trouvé*¹³. Therefore, the political ambitions and potential content of the work is compromised by its aesthetic subject, which simply conceptualises reused waste. Seemingly, those works are registered by spectators as an object aiming at ‘aesthetic pleasure,’ rather

than the carrier of the political message.

The accuracy and urgency of plastic pollution in the contemporary world gave it a spotlight at various renowned international exhibitions. Consequently, those matters were touched upon during such events as the 55th Venice Biennale (2013) or the 15th Venice Architecture Biennale (2016). Maria Cristina Finucci’s *Garbage Patch State* project presented during the 55th Venice Biennale took the form of two cubes covered in a reflective coating with the flag of Garbage Patch State on it. Between two of the cubes, a net filled with plastic bottle caps was placed, heading toward the direction of the Grand Canal. Inside the cube, visitors could see Finucci’s video *Dentro* projected 360 degrees around the walls¹⁴, which was supposed to make the spectator feel as if they were in a plastic maze. The strategy used by Finucci aims at creating the sensation of discomfort in the spectator when faced with the problematic nature of the work. Similar presumptions motivated the collective Luzinterruptus to create *Plastic Waste Labyrinth* at Plaza Mayor in Madrid (2017). The structure made up of plastic bottles collected from neighbours and institutions, packed in plastic bags, and placed on a metal structure was lit by independent LEDs. Besides pointing at the amount of produced waste, the collective decided to act upon the emotions of the visitors, creating sensations of discomfort and alienation through “an intricate path and narrow passages” reinforced through the smell of heated plastic¹⁵.

10 Žižek, Slavoj, *Living in the End of Times*. London: Verso, 2011, p. 36.

11 See: Whiteley, Gillian, *Junk: Art and the Politics of Trash*. New York: I.B. Tauris, 2011.

12 Gillian Whiteley often emphasises that the approach to waste production is related with economic status, i.e.: “Everyone contributes to the domestic rubbish tip and landfill sites but the processing of waste is generally left to those on the social and economic margins.” Whiteley, Gillian, “Situating Junk: Art, Garbage and Trash Ontologies”. *Design Waste & Dignity*. São Paulo: Olhares, 2014, p. 137.

13 Whiteley, Gillian, “Situating Junk: Art, Garbage and Trash Ontologies”. *Design Waste & Dignity*. São Paulo: Olhares, 2014, p. 138.

14 Finucci, Maria Cristina, “The Wasteland Project”. The Garbage Patch State the ‘away’ state. Venice: Terra Ferma, 2013, p. 22. Accessed at: www.garbagepatchstate.org/eng/catalogo.html (2018.08.20).

15 Information available on Luzinterruptus’ website: www.luzinterruptus.com/?p=4516 (2018.07.10).

Although the initial aim of the works presented above is to carry the political message, the impression that those practices only aestheticise and spectacularise their ecological content cannot be avoided.

They are based on scientific facts, but they don't problematise content further, remaining as aesthetic curiosities for the spectators. However, as emphasised by Stacey Boldrick, artworks which simply acknowledge "trash as trash" may sustain a critique of our consumption habits¹⁶. Those works supposedly communicate a different message to the viewer, pointing out the magnitude of the problem and acknowledging the harm caused by our activity. However, the artists who wish to manifest their activist concerns through aesthetic practice may struggle with the question of how to deliberately visualise the problems derived out of our consumption habits

These issues may be tackled through participatory practices. Artistic practices transcend a scientific approach through their ability to elicit participation and highlight sensorial and emotional responses.

Simultaneously, participatory practices seem to work at an opposing end to capitalist culture as they are quite difficult, if not impossible, to market.

16 As asserted by Stacey Boldrick "the practice of presenting waste as waste can be identified as central to a critique of material excess". In: Boldrick, Stacey, "Trash as Trash as Art: Reflections on the Preservation and Destruction of Waste in Artistic Practice" (June 2015). Accessed at: www.nanocrit.com/issues/issue7/trash-trash-art (2018.08.20).

Such questions were mediated by various theories that refer to the "social turn" of art, which sprung up in the 1990s,¹⁷ for example Nicolas Bourriaud's 'relational aesthetics'¹⁸ or Grant Kester's 'dialogical aesthetics'¹⁹.

Among participatory artistic projects which refer to the topic of plastic pollution and recycling, we can outline volumes of projects which take up collective clean-up actions or educational workshops created by artists frequently in cooperation with various NGOs. An interesting example of a participatory environmental project was conducted by Joshua Soafer at the London Science Museum (2014). The two-part process entitled "The Rubbish Collection"²⁰ acknowledged rubbish thrown away in the Museum during a period of 30 days as both an identity carrier but also as problematic ecological heritage. The first phase of the project involved the participation of the Museum's staff and visitors who were encouraged to collect and sort the institution's waste displayed in plastic bags. In the second part of the project, the exhibition made of partially recycled waste, was installed while the items which could not be recycled were left in their primary state²¹.

17 See: Bishop, Claire, *Artificial Hells: Participatory Art and the Politics of Spectatorship*. London and New York: Verso, 2012.

18 See: Bourriaud, Nicolas, *Relational Aesthetics*. Dijon: Presses du Réel, 2002.

19 See: Kester, Grant, *Conversation Pieces: Community and Communication in Modern Art*. Berkeley: University of California Press, 2004.

20 Information about the project can be found on Joshua Soafer's website: www.joshuasoafer.com/2014/10/the-rubbish-collection/ (2018.08).

21 Stacey Boldrick sees the critical power of Joshua Soafer's practice in acknowledging trash as trash in order to later destroy it in the recycle process. She claims that this practice allowed theorist to escape further commodification of his work. In: Boldrick, Stacey, "Trash as Trash as Art: Reflections on the Preservation and Destruction of Waste in Artistic Practice" (June 2015). Accessed at: www.nanocrit.com/issues/issue7/trash-trash-art

This setup made the spectators face the uncomfortable truth regarding their consumption habits, as often we believe that when we throw waste away it simply disappears.

Drawing on the examples presented above we may understand how and why the practice of recycling in art often fails to deliver its political message or raise awareness among spectators. Those issues often arise due to the incorporation of eco-conscious works into a traditional aesthetic framework and their further commodification. The translation of scientific facts requires an engagement with activities which traditionally are not perceived as artistic practices. Instead of merely illustrating the issue, participatory practices may establish, through an open dialogue, a support system for scientific communities, help raising awareness and claim our collective responsibility for ecological issues.

Urszula Staszko holds a bachelor degree in Protection of Cultural and Natural Resources from the University in Warsaw and a Masters in Art History from the New University in Lisbon. She collaborates with various art institutions, being engaged in a variety of roles related mainly to educational programmes and research. As she takes great interest in socially-engaged art practices she joined The Universal Sea to support research on art and plastic pollution. Currently she lives in Szczecin, Poland.

CURATING THE BEACH

liina klauss



lost'n found at Ocean Art Walk, 2014, Stanley, Hong Kong



Art makes you perceive the unknown as known, the familiar as strange. It is like walking in someone else's shoes, like looking at the world through someone else's eyes. Art changes perception and inspires change.

In 2014 I put up a hawker stall in Hong Kong. These 'dai pai dong' are a common sight on Hong Kong's streets, typically painted green and crammed to the rim with 'stuff' to buy. Situated on Stanley's waterfront promenade, right between the ocean and a shopping mall, my stall is filled with colours from top to bottom. It looks like a beautiful rainbow. What is for sale there? People approach with a mindset of being able to purchase, to possess.

Jaws drop when these 'customers' realise that the items they are adoring are all marine litter:

lighters, plastic bottles, buoys, broken toys, driftwood, plastic straws and shells all retrieved from a single beach in Hong Kong during only one beach-clean.

Each of the found objects is labeled with a price tag, which does not state a number in dollars but concepts like 'awareness' or 'responsibility'. I am 'selling' single objects to visitors, complete with my signature, in exchange for the visitor's own interpretation of these concepts. I received everything



Marine debris objects from lost'n'found

from drawings, to poems, to complete manuals how to build a boat from marine litter.

lost'n'found is an intervention in the ordinary shopping experience, questioning what we worship and what we value in our current consumerist society.

Art is the trigger that changes perspective. Changing perspective is the first and most fundamental step towards innovation.



Marine pollution at Chi Ma Wan Beach, 2014, Lantau Island, Hong Kong

We have been looking at the world through the lens of economic growth and monetary profit since the start of industrialisation. After 150 years of mass production it is becoming increasingly obvious that these practices do not work: global warming, acidification of the oceans, plastic gyres, death of coral reefs, overfishing, the list goes on. From the outside a healthy ocean looks the same as a dead ocean. The surface stays the same. But life itself on this planet cannot be sustained without healthy oceans.

How can we make the unseen seen? How can I as an artist make people look at what they want to avert their gaze from?

Again my answer is art. *Curating the beach* makes the apocalypse look like a rainbow. It makes the ugly truth of marine pollution look beautiful. Once you look it is too late: beauty has already captured you in its net. Advertising is using the same technique. In contrast to an advertisement, I don't

want to sell you 'stuff'. I want to sell you awareness; all change, all innovation starts with awareness.

Curating the Beach is a process in which participants change their perception from 'ordinary' to 'creative' by looking at everything around them as if it were art. The findings on a beach range from everything that floats in the ocean to everything left behind on the beach by visitors.



Whatever we find, everything is art material, no discrimination made. Wherever we find ourselves, be it on a beach, on the side of a road, a river or a dump, on sand, concrete, grass or wasteland, it will be our gallery. Trash is ubiquitous. Art should be ubiquitous too. And as a consequence, awareness will be too.

The biggest object we found was a refrigerator, the oddest, a pink dildo, and the oldest a 21cm diameter horse-shoe crab; a living fossil over 400 million years old.



On a personal level, *Curating the Beach* is empowering as it defies the odds of being the culprit. In the face of an immeasurable amount of rubbish caused by human ignorance, it is only natural to feel sick, ashamed, helpless, depressed. This helplessness is changed into actively being part of a creative solution: You touch.

**You are being touched. You see.
You are a witness. You do not
look away. You care.**

And, what might be a paradox, you are being taken care of. It is the presence of nature that heals, soothes and makes you feel being part of a bigger whole.

Getting people physically out of the office or classroom, and psychologically out of their comfort zones, is as important if not more important than

the result. It is as simple as being in an untouched and wild part of nature. It is using your own hands and visibly changing the environment that makes *Curating the Beach* so successful.

'Curating' comes from the Latin word 'curare' meaning 'to heal' in its active form and 'being healed' in its passive form. The term was first used by Judith and Richard Lang who have been curating Kehoe Beach in California since 1999. For almost two decades this couple has been combing the beach for art materials using their finds for collages of marine debris, which are turned into photographs afterwards. *Curating the Beach* is, visually speaking, the opposite of a beach cleanup. The effect is not making waste disappear in black rubbish bags never to be seen again. 'Curating' treats waste as art material and the beach like a canvas.





I have organised more than 30 of these *Curating the Beach* outings with corporates, schools and environmental groups. "There is no 'away'" becomes a tangible reality when seeing a beach polluted by plastic and other man-made debris. And yet most people do not make a direct connection between marine pollution and their own daily habits. As long as we think it is 'the other,' as long as we keep pointing fingers, nothing will change. The human imprint cannot be ignored and we as humans cannot ignore our responsibility.

Trying to make personal responsibility more tangible, I started to do installations solely with shoes. Shoes are objects we wear directly on our bodies. Much loved pairs often carry the imprint of our feet, the imprint of our attachment, of time that passed, of memories.



'lost sole' found on YehGangga beach, 2018, Bali, Indonesia

In February 2017 we started to collect flip-flops from beaches on the West coast of Bali. On our first trip with school children from Bali Greenschool we salvaged 500 'lost soles' from one single beach. Other trips with One Island One Voice and EcoBali followed. By that time we had collected around 2000 single flip-flops. Lastly, highly motivated employees from Potatohead Beach Club found over

3000 more soles. All in all it took six trips and less than 100 people to collect 5000 seaborne soles on a stretch of 10km coastline. 5000 lost soles is a permanent installation at Potatohead Beach Club in Seminyak, Bali. To make the flip-flops into a permanent structure meant finding a way to join them together. Innovation Hub at Bali Greenschool produces a 100% recycled thread made from melted bottle caps. Using this thread to sew the flip-flops into a carpet-like surface took another eight weeks. The structure underneath the carpet of sandals is made from locally sourced, sustainably grown and harvested bamboo here in Bali. Ibuku, the company behind it, uses traditional methods and local craftsmen to build with bamboo. Working in a sustainable, responsible and creative manner like this is beneficial for everyone involved.

5000 salvaged shoes means literally 5000 less shoes on the streets, washing down the rivers and into the ocean every day; 5000 less shoes being burnt and polluting the air; 5000 less shoes in the earth, slowly leaking their toxins into the soil.



Marine pollution on Yeh-Gangga beach, Bali, Indonesia



Plastic pollution in a river that leads to the ocean 2km downstream, Bali, Indonesia 2017

Bali is a small island and everything done here has a direct impact on the environment. It can be seen and felt directly, bad as well as good practices.

The challenges we face when it comes to plastic are mismanagement, durability and sheer mass. The *lost soles* project visually addresses mismanagement and mass. Here is a simple calculation for flip-flops in Indonesia. This footwear is commonly worn in warm climates of South-East Asia, is inexpensive and chosen by rich and poor, young and old, villagers and city-dwellers. Most flip-flops get discarded after three to four months due to material weakness. Let's do the maths: 3.5 pairs of flipflops per person per year = seven single flip-flops. Seven flip-flops x 267 million (population of Indonesia 2018) = over 900 million discarded flip-flops in Indonesia alone. These flip-flops don't go "away". They are made from polyethylene foam that persists in the environment for hundreds of years without breaking down.



Working on the installation 5000 lost soles at Potatohead beach Club, 2018, Bali, Indonesia

Pete Seeger made the following statement in the 1960s, and if it was visionary back then, it is a matter of life and death today. "If it can't be reduced, reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned or removed from production." Plastic is a design failure. But it is also a 'perception' failure. If we start looking at waste from a perspective of value instead of waste we have a resource that is cheap (money), ubiquitous (place) and abundant (mass). As a global community of designers, manufacturers, retailers, consumers and waste managers we need to move from a linear economy to a circular economy.

At this point in the industrial age, humans have already removed an excessive amount of resources from the earth.

Fossil fuels and the plastics derived from fossil fuels are only one example. While still locked in this linear system we are left with an excruciating amount of what is perceived as waste.

Looking at this waste from a perspective of a circular economy, it is a resource. I want to mention two examples here of how to translate 'waste to value' into actual projects and products. The first example rethinks the creative process in a community of learners at Bali Greenschool.

Looking at flip-flops as a resource and harnessing the craftsmanship of local Balinese people, I developed a technique to use flip-flops as colourful tiles for mosaics. The mosaic was created with



Students from Bali Greenschool reinventing discarded footwear, 2017

students at Bali Greenschool, both locals and expatriates, in collaboration with KemBali in 2018. KemBali is an educational center for reduction, reuse and recycling of materials within the Greenschool community. KemBali inspired students to collect flip-flops in their respective community. After washing and drying the Polyethylene soles we cut them into squares. Reducing the soles to

a neutral shape seems simple but it is actually the most crucial step in creating value. Shoes are designed for a specific application and dissolving that initial application is of utter importance. Any innovation needs the ability to reshape the old, to reimagine the habitual, to reinvent the norm.



'The Bridge', 2018, mosaic made from 126 flip-flops retrieved



21 hotel slippers from Mengening Beach, Bali, Indonesia

This process of reinventing the former application of the product into some 'thing' originally new is the starting point for innovation. Once this is mastered, the rest is easy: the squares cut from old polyethylene soles are used to create an image much in the tradition of a mosaic.

The second example is of an entrepreneurial nature and feeds into the tourism industry here in Bali. While curating Mengening beach on the West coast we collected a total of 1000 discarded shoes.

Within these two hours we also collected the impressive number of 21 hotel slippers. Among others, the participants of this *Curating the Beach* outing were shoe designers from Indosole, a fashion brand dedicated to being "the most responsible footwear company in the world, featuring all natural, vegan, and recycled materials." Appalled by the 'design failure' of non-recyclable, non-compostable, single-use hotel slippers, the designers were inspired to invest in a solution: an all-natural and 100% biodegradable hotel slipper. Bali caters for 5.5 million tourists per year. Bali's economy does not include an efficient waste management system. Everything that is not used anymore



liina in Bali, Indonesia, 2018



5000 lost soles, 2018, Bali, Indonesia

is either burnt by the side of the road or thrown into the gutter from where it gets washed into the ocean. Ironically Bali makes money with the beauty of its beaches. From an environmental point of view it is ignorant to sell tourists products that pollute the very beaches they want to enjoy. In this environment, only biodegradability makes sense.

Everything changes but nothing is lost. This is how nature works and humans, as part of the big whole, cannot escape this law of nature.

Picking up litter on beaches I am constantly in touch with nature and the human leftovers therein. What I touch, touches me—that moment not only my hands connect, all of my senses and my heart are being touched. Being in nature I become like a child again: open, sensitive, innocent. The guard of criticism drops and waste simply becomes colour within a landscape, pollution becomes an open possibility.

My personal liberation from the burden of being 'the polluter,' of being part of the Anthropocene, is my deep connection with nature. It is this that I pass on to others by bringing them out into the wild. Everything else follows naturally from this connection with nature: awareness, responsibility and action—and last but not least, art.



liina klaus was born in 1974 in Germany. She studied fashion-design at the Kunsthochschule Berlin-Weissensee. After her diploma she worked for fashion brands in Berlin and Tokyo, moving to Hong Kong in 2007 and started to make environmental installations on beaches using marine litter 2011. Her installations have been part of multiple international festivals and conferences in Europe and Asia. She collaborates with various schools, universities and corporates facilitating art-awareness-activism projects. liina is currently living in Bali, Indonesia with her family, where she works as an Artist-in-Residence at Bali Greenschool. She was chosen as a The Universal Sea Artist-in-Residence.

All images © liina klaus

FROM MURKY TO MIRACLE: THE ROLE OF PUBLIC PERCEPTION IN EFFECTING ENVIRONMENTAL SYSTEMS CHANGE

Matt Stewart and Michael O'Neill

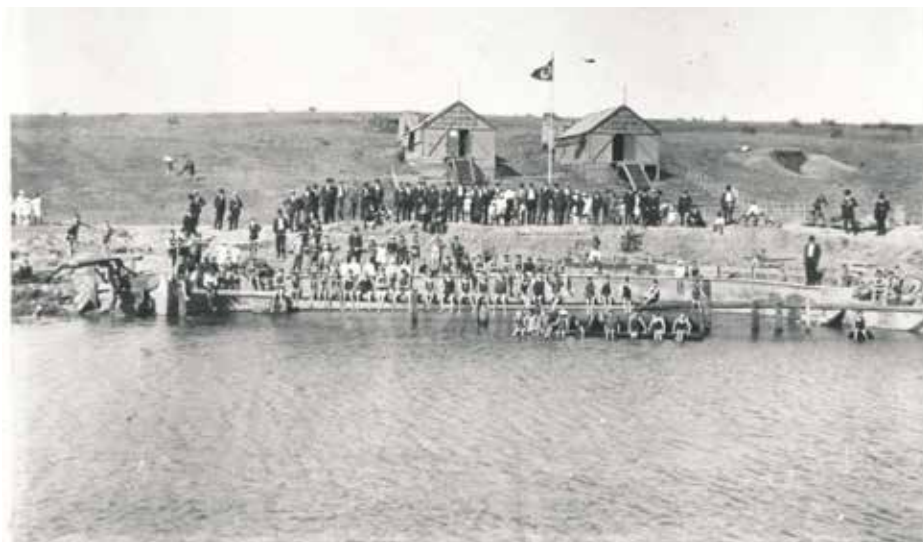
Melbourne's murky river

Stretching 242 km from source to sea, the Yarra River winds through mountainous rainforests, cleared farmland, sprawling suburbs, and the centre of Australia's culturally vibrant southern capital before dispersing into Port Phillip Bay. The Yarra has always been a central meeting place, a source of food and recreation, having nurtured the Wurundjeri indigenous people for thousands of years. Its banks are now home to numerous cultural, civic and sporting institutions from the city's post-colonial era. The river itself may not seem remarkable by global standards, but it is the lifeblood of Melbourne. Many locals may not know that 70% of the city's drinking water comes from the Yarra's closed mountain catchment.

It is not uncommon for Melburnians to joke about the river's 'questionable water quality' and murky brown colour, the result of urbanisation and industrialisation that has led the river to become increasingly polluted.

Surprisingly, despite this, the people of Melbourne maintained a desire to swim in it until quite recently.

In the mid-late 1800s the river hosted several floating public pools, and in the early 1900s began an annual swimming race.



© Matt Stewart

It was the discovery of this forgotten river swimming culture, hidden in old archives and publications, that led to the founding of Yarra Swim Co and the proposal to revive the 'Race to Princes Bridge.' We saw these stories as an entry point from which to engage people within the broader topic of water quality.

"I'd prefer not to get Ebola, thank you! Never going to happen,"

was just one of the many public responses to the launch of Yarra Swim Co. The public's negative perception of the river runs deep.

Yarra Swim Co is an organisation with the expressed mission to return Melbourne's murky Yarra River back to the people, and back to health. We established it based on the notion that ideas and small-scale actions can lead to large-scale transformation so long as the public is part owner in success.

We started with a simple hypothesis: The river is dirty because it's seemingly always been that way. The public doesn't know any different and can't imagine the value of changing it. The journey to cleaning and activating the waterway is complex, and government won't see enough political return on investment for dollars spent.

Our theory continued, if we could engage the public by sharing a vision they could actually understand, and if we could build a community around smaller interventions that fit into our larger goal, then affecting the system might be possible. If we could change the local perception of the Yarra River from being permanently dirty to an active public place and a beloved point of pride, politicians would finally have the required motives to make bold decisions

that will return the river to health.

Step 1: Provoke Public Discourse

When people talk about the Yarra, an off-putting narrative quickly emerges: that brown body of water awash with plastic and sometimes human waste, a potential hotbed for chronic illnesses. Many people revolt at the idea of eating fish caught in the river, let alone swimming in it themselves.

So, in mid 2014, this proved to be a perfect way to provoke a public discussion about the river's health. *Why shouldn't we be able to swim in the Yarra, right in the city centre?* We argued that the historic Race to Princes Bridge, which some 70 years ago was celebrated as the world's biggest open water swimming race, should return, and the river should be cleaned to make it safe.

Instead of trying to argue that the number of faecal matter molecules in a body of water should reduce—which it obviously should—we set our North Star as "a swimmable river", something people can grasp but also measure through indicators. Upon provoking this discussion, thousands of comments emerged on social media, online news comments and talkback radio.

People had the chance to join an open discussion about the myths and legends surrounding the River.

This initial discourse helped us to craft responses and plan our next steps. We knew we had to help people learn that the current state is not as bad as the media portrays, and that cities have already made similar transformations and it's absolutely possible in Melbourne. This ongoing public conversation became

the catalyst for building a community in an effort to engage the public and achieve our goal of making the Yarra swimmable again.

Step 2: Cultivate a Community

After launching the idea publicly, we set about building a network of supporters. The media exposure was a great starting point, but if we're unable to prove any progress, we feared that people would move on, and our vision would be forgotten.

On an unseasonably warm day in spring, we launched Yarra Swim Co at an event where more than 50 of our most loyal new supporters literally 'dipped their feet' and dived into the river. Decked out in blue swimming caps, contrasting dramatically with the brown water, many of these people had never swum in the river before.

The event drew our first followers together.

It helped us identify the core community from which to grow. It created a sense of excitement and solidarity. These people ranged from friends to avid swimmers, some who had actually swum in the historic 3 Mile Swim, from environmentalists to Melburnians who were passionate about the river and now finally had the opportunity to do something about it.

In the following months, as we continued to engage in various talks and events, some other ideas would surface independently, and saw our role to support others. One particular intervention started as a Facebook event for an 'Inflatable (blow up boat) Regatta.' It quite literally went viral, turning from a small group of friends



© Olivia Page Photography

to having thousands of Facebook users saying they would "attend." Inflatable Regatta has now become an annual event with public sponsorship. It allows people to directly engage with the water and experience the natural beauty themselves, helping to slowly build trust, confidence and value.

In 2016, we launched our proposal for the Yarra Pool. Inspired by successful urban swimming projects overseas—like Copenhagen's Harbour Baths, the Canal Pools of Paris and Boston's Charles River Race—Yarra Pools is a proposal for a public pool in the Yarra River at Enterprize Park, next to the Melbourne Aquarium. The project has appeared in publications and exhibitions across the globe, from the Venice Biennale to the New York Times. It has grown local support and understanding, but rather than attempting to push the project ahead based on a slick architectural rendering, we chose to take a bottom-up approach.

To ensure the proposal kept the community at the centre, we embarked on an ambitiously extensive user needs analysis.

Having informed and engaged more than 100 local organisations and companies, we garnered opinions and input from a huge array of Melburnians.

Our final user needs report lay out a clear set of guidelines from which to develop a business case, and ultimately a design to be implemented.

Step 3: Breaking Down Barriers

As an organisation, we've had to constantly pressure government agencies, and question their complicity in maintaining the negative image of the Yarra. We found that government bureaucracy is systematised to make it difficult for community organisers and the public to interact with the river. Though we're working towards the same goal—creating a cleaner environment and accessible public spaces—government often hinders more than it helps.

Despite the hurdles and lack of support from government, the most resilient organisers always push through. As our community grows and we increase our credibility, government is forced to engage. This gives us a chance to create better processes and lead the way for the next generation of Melburnians. Though our idea of building a pool in the Yarra is limited in scale, by creating a successful model where social innovators and river activators can thrive, our impact can scale immensely.

We, Yarra Swim Co, find ourselves at the forefront of pushing these barriers and making government more responsive to the public.

Having received government funding to launch a first business case and grabbing the attention of key decision makers, the most important step is still to come. We need to deliver on the Yarra Pool to allow the mainstream a chance to dip their feet and to prove to our supporters that it's possible. By doing so, we work towards solution-building to stop pollution and keep the swimmable Yarra dream alive.

Step 4: Delivering a New Normal

Making the Yarra swimmable will require serious investment whether the result is a floating pool or a pollution free river that can support a swimming race. For the former, the price tag sits at around €8-12m, but the latter, which would require significant changes to Melbourne's stormwater system, is much higher.

Realising the Yarra Pool will rely on the deep backing of a few and the broad support of many.

Beginning with a business case, our work will focus on key government actors and private partners. Building on their expressed interest we need to turn that into more funding, a willingness to discuss and co-create, and ultimately commitments of partnership to explore design approaches and testing of various business models.

Starting with the Yarra Pool, but expanding based on the community's creativity and appetite. We anticipate the arrival of more and more places for active appreciation of the river. It's our role to support and monitor this process moving forward, applying more and more pressure on government to

invest substantially in water sensitive urban design (WSUD) infrastructure. By building urban forests, green roofs and stormwater harvesting schemes, using smart monitoring and fixing aging pipes, we can stop contamination from spoiling the river. We know it's possible, just look at Boston and Copenhagen.

Finally, our goal is to allow the community to take over.

Having laid the groundwork, proven what is possible and reduced barriers, we need to continue to empower new pioneers, innovators and entrepreneurs to take advantage of the new regulatory opportunities and public attention. As the movement becomes decentralised, impact can grow exponentially.

If all this happens, the public will be able to come to the river to meet, play and exercise, not just next to but also on and in the waterway. The extra value of a clean and active river will become obvious and essential. At this point of the project, votes will be won based on genuine promises to invest and they will be lost by those who neglect it.

Does Perception Precede Progress?

So, when it comes to evoking the type of systems change that can lead to a swimmable river, what comes first, changing public perception, usage and activation, or government investment & regulation?

In short, we believe that it doesn't matter. They all influence each other, and each play an important complementary function in creating positive feedback loops.

Perception changes usage patterns.

People might not seek to partake in activities along a waterway, let alone swimming, unless they see other people *like them* doing so. Our response needs to encourage new ways for people to experience the river, while positively influencing the message stemming from the media and changing word of mouth discussions.

Usage and proximity change perception.

When new activities draw people to spend time by a river, the public can build a direct connection and grow perceived value, leading them to desire



© Matt Stewart, Photo by Yarra Swim Co / Studio Octapi / Picture Plan

protection of the natural resource and to share their experience with others.

Public perception changes policy.

When people perceive a natural asset as valuable to the point where they care enough to demand protection and regeneration, the government has to respond. Buoyed by public demand, policy shifts are also pushed by entrepreneurs and organisers who see new opportunities emerging. At this stage, it's important to not get complacent, but to take advantage of the growing support to remind and push for the ultimate goal, while keeping government in check every step of the way.

The feedback loop. This is not a linear process. It may start with government investment, it may start with public outrage, or it may start with a local entrepreneur. But the important thing is to understand each stakeholder's role and potential. When the river gets a little healthier, take that as a chance to engage more people, the media, and organisers to push for even more progress and celebrate in the steps already made.

Come say g'day!

It may be another few years before there's a pool in the Yarra, and some years more before it's a clean, welcoming waterway where people willingly taking the plunge on a hot summer's day. However, the stage has been set. The topic and our swimmable river vision have been discussed publicly on radio shows and in Melbourne living rooms. A series of new events and activities have popped up along the river already, allowing the public to get closer to the river than they have in years. And government is starting to engage, providing funding and slowly opening up their tedious processes.

So, if you happen to be in this part of the world some time in the future, do ask someone, "can I eat a fish from the Yarra?" or "is it safe to swim?" and see what they say. If our plan works out, you'll know by their responses. You'll know if a simple idea followed by a series of community actions can change the course of a city's dirty river.



© Matt Stewart

Matt Stewart is a co-founder of Yarra Swim Co and Yarra Pools. He has a background in urban planning, having conducted research into loneliness and the built environment. Matt is currently based in Berlin, where he helps large companies design strategies for innovation projects. In his spare time, he recently started an experimental arts festival called MetaDada and took part in a multi-media arts residency in Romania.



© Michael O'Neill

Michael O'Neill is a co-founder of Yarra Pools and the current President of Yarra Swim Co. He's a certified Environmental Practitioner with a particular focus on water policy, planning and project delivery. He is passionate about harnessing the power of our blue assets, our waterways, lakes, bays and oceans to bring people together and create better places we all can enjoy. He lives in Melbourne, Australia.

DO YOU WANNA SEE THE SEA? - An Activist Art Project Against Plastic Waste in the Oceans

Werner Fütterer

Site

European University Flensburg (EUF) is one of three universities in the federal state of Schleswig-Holstein. Situated on the border to Denmark, it is Germany's most northern university. At the moment, about 5100 students are being educated here, most of them preparing for careers in teaching (BA and MA). In addition, EUF offers international Bachelor and Master programmes in economy, languages, and the arts, including cross-border programmes. The Flensburg region is characterised by the mix of and the exchange between German and Danish culture.

Flensburg as a small but internationally minded seaport is the main economic and cultural hub in the border region,

attracting considerable tourism, and offering a large variety of possibilities for aesthetic-cultural encounters, experiences, and processes.

Space for Experience

Flensburg is surrounded by a lot of water. The fiord, the so-called "Flensburger Förde", and the Baltic Sea are right next door. It is a trip of no more than 45 minutes to the fiord at Kiel, and the North Sea and the rivers Schlei and Eider are close by. Schleswig-Holstein is actually nicknamed the "Country Between the Seas." The metropolis of Hamburg with the Elbe

river is just 2 hours away. Besides its importance for the general economy, the water is also important for tourism—and offering possibilities for artistic projects.

Project

The department of art and media at the Institute for Aesthetic-Cultural Education focuses on hands-on learning experiences and on the exploration of interfaces outside the university. We try to offer as many classes as possible beyond the usual realm of the university and its customary spaces. We encourage our students who are training as teachers to explore fields of study and research beyond school and school teaching.



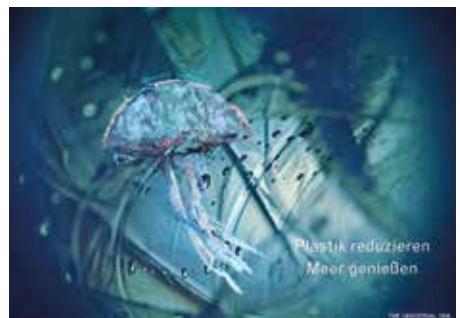


In the summer of 2018, the project class on “Art and Media Communication” and activist art developed posters and put them to the test.



Since ‘sustainability’ is one of the main values cultivated at EUF alongside ‘justice’ and ‘diversity’, The Universal Sea

offered a burning subject for artistic and political discussion. Especially because the problem of plastic waste in the sea has previously been discussed at length at our university. Reinforced by a local impulse, the subject became the starting point for an entire class: a sewage plant in the city of Schleswig released considerable amounts of plastic waste into the Schlei. This plastic waste originated from the local sewage plant’s



digestion tower where it had been mixed with organic leftovers which were used to generate heat and electricity. Somehow, an estimated amount of several tons of plastic ended up in the water—an environmental disaster.

In class, the problem of plastic waste in the ocean was vividly discussed. The seminar was about dealing with the topic “sculpture in the sea” and to design and present artistic posters (art-agitation posters) with insistent motifs and a slogan. Thus, the 60x84 cm posters show seascapes and scenographies, each combined with objects made of plastic, so that these have entered into an „ominous” symbiosis. The focus was on finding photographic ideas and compositional design.

The posters produced are intended to draw attention to the far-reaching ecological and economic consequences of the plastic in the sea, they can promote discussion and also provide for increased political interest.



Many thanks for the posters: Lena, Sinja, Kerrin, Lisa, Lavinia, Sandra, Sina, Zazie, Maja, Bente, Svea, Lisa, Henrike, Nele, Anne-Merle and Jascha.



© Werner Fütterer

Werner Fütterer, OStR i.H. teaches at the European University of Flensburg, Department of Art and Visual Media. Main focus is on art practice and scenography, extracurricular learning, didactics of primary school, deputy chairman of the executive board of the BDK, professional association for art education. He lives between the Baltic Sea and the North Sea. The cleanliness of the sea as the basis of his life is of great concern to him. The Universal Sea project was an opportunity to sensitise students to the context.

THE AUDIENCE YOU GET IS THE AUDIENCE YOU EDUCATE: A Case Study of the aMORE Festival

Sabina Damiani

Croatia's coastline spans over 6,200 km and its greater 12,450 km coastal zone, including Istria, covers 22% of the total surface of the country. It is a physical home for 23% of Croatia's inhabitants, but we can say it is everybody's shelter as tourism represents the main economic activity of the country. A quarter of the entire economy of the country is represented by sectors directly affected by climate change, including tourism, fishing and mariculture.

Despite Croatia's economic dependence on the sea, the level of public awareness and consciousness concerning marine environments is very low.

Additionally, 11 million tourists visit Croatia each year (twice the national population) and it should be our task and responsibility to raise awareness also within this 'temporary population'. Unfortunately, the scientific community, including dedicated institutes, is not very well connected to local communities and the general public. By hosting scientific presentations and talks, we hope to spread the word about the important work they are doing to protect the maritime heritage on a daily basis.

In the wider region there is no similar festival dedicated entirely to the sea. We decided to take action by organising the aMORE festival to gather together scientists from different disciplines, artists, activists, students, archaeologists,

historians, photographers, filmmakers, fishermen, divers and anyone interested in making the marine environment a better and safer place to live. The festival aims at drawing attention to environmental, social, and cultural importance of marine ecosystems and anthropogenic causes of their degradation. Throughout the two years of the festival we screened a series of sea and ocean related films, public talks, educational activities such as workshops, seabed cleaning actions, exhibitions, performances and more. We have partnered with more than 40 different subjects, on a local, regional and international level.

In many events, either science or art based, we noticed that the use of a very specific communication is inadequate for a wide public. It serves only a specialized, selective audience. We understood the need to change the approach and use a more inclusive language and communication that is more easily understood by a varied public.

As festival organisers, our opinion is that knowledge of science, environmental protection, ecology, and climate change needs to be presented in a way that produces engagement and participation. This could be done through public events like festivals, science days, public talks, exhibitions, and workshops. We discovered that combining specialised content with entertainment proved to be a good formula to attract a wider audience, to engage and educate the public about pressing issues. The combination of art, culture and

science was chosen in order to bring environmental science closer to the general public as well as meeting the global Sustainable Development Goals. The initial idea was to give citizens the tools to critically engage with global development issues, to foster new ideas and change attitudes towards the sea.

These tools are the different segments into which our program is divided: aMORE KINO (film program), aMORE EDU (educational activities) and aMORE ART (artistic program, exhibitions). Within the film and the educational program, we had the opportunity to further divide the audience into adults, young people and children. We engaged local schools in order to show the educational short movie *Straws* by Linda Booker to a specific audience of 13- to 18-year-old school children. The film condemns single-use plastics, especially straws, and offers ideas for alternatives. This target audience is a major consumer such of items and by talking to them after the movie we discovered that it did not occur to them to order a drink without a straw or pay attention to plastic packaging when buying food and drinks.

Another example of educating young audiences within aMORE EDU is the seabed cleaning action we organised in collaboration with a local diving center.

We invited children of all ages to take part in a creative workshop, while divers were performing their cleaning action. The children had the opportunity to learn about diving and to actually experience first-hand the amount of garbage the divers extracted from the

seabed. The reactions were often very emotional. While the cleaning action was taking place, the children were also involved in creative and art workshops, often using plastic garbage from the sea.

The aMORE ART section saw the most participation from tourists, as over the period of a month they could visit the exhibition spaces during their exploration of the city. Along with seeing the exhibition, they had the opportunity to read about the festival, its mission and vision and perhaps better understand the fragility of the current global situation. The well-being of seas and oceans is endangered by pollution, overfishing and climate change, but those notions can easily be overpowered by the general surplus of information we get on a daily basis. We believe that art could be a catalyst for critical thinking and therefore a good tool for a different, more involved learning experience.

The festival takes place in a popular tourist town, which means that a large number of people who take part in the activities, especially who visit our exhibition program, are foreigners on a short visit. Tourists often know very little about the places they visit, and therefore often do not respect its nature and heritage. It is our aim to work towards creating new means for understanding pressing issues regarding maritime protection that also reach short term visitors.

With the artistic programming of the aMORE festival, we strive to stand at the intersection between art, education and raising awareness about environmental issues concerning maritime habitats. In order to approach a wider public, we need to focus on different discourses that are accessible

to people from diverse national, cultural and educational backgrounds, to both local and visiting audiences. This is the reason why we have decided to work with alternative means of communication such as art or cinema.

The individualised approach and impact that could be generated through diverse visual languages and through the presentation of artistic works, could make a deeper impression on the visitor.

Education relies on the capacity to address each person individually, reaching out to his or her personal interests and emotions in order to transform perceptions. This is why it is crucial to make use of different languages—spoken and visual—in order to address each person in his or her position.

In contemporary art, social change can happen when artists are interested in initiating change in politics, economics and social structures, to tackle inequalities, poverty, environmental issues, and human rights. The artists who foreground the need for change could significantly raise the consciousness of a community or even a nation to direct energy towards social problems and general well being.

Today we live in a world with a somewhat hybrid culture, where there are little or no boundaries between what could be considered art or life itself. What was once considered “non institutional art” is regularly shown in large institutions, taking part in fairs and changing what was once considered an activity for the elites. Art, today, is trying to be

more inclusive, to level the differences between the social groups it approaches. Art is specifically suited to tackle the question of educating for social change, because art is capable of speaking many languages and addressing diverse publics.

In the 2018 edition of the festival, we hosted the performance *Aquatocene. Subaquatic Quest for Serenity* by the Slovenian artist Robertina Šebjanič. The performance took place in a local cinema and consisted of a half-hour-long audio-visual piece about underwater sound pollution. Before the performance we prepared the audience with *Sonic Sea*, a documentary film on this same topic. Many had not previously known the effects of sound pollution on sea animals and all ocean life and they reacted with shock and empathy. Robertina’s work at the aMORE festival was made with underwater recordings in different parts of the world, many in the Adriatic Sea. Viewers experienced first-hand the intensity of an underwater sonic environment. At some points, the noise was unbearable, yet few people left the room. After the performance, many visitors expressed that they chose to stay because the marine animals don’t have the choice to leave.

With our traveling exhibition *Out to Sea*, we could make an even larger-scale impact. This was an environmental multimedia exhibition that displayed a large collection of ocean plastic waste. It was conceptualised by the Museum für Gestaltung in Zürich, the leading Swiss museum for design and visual communication, and supported by the Drosos Foundation. The exhibition, which has already seen many other capital cities worldwide, was shown in Zagreb for the first time in May this year. *Out to Sea* presents alarming facts about

plastic garbage found in the ocean and illustrates to the visitor its catastrophic ecological consequences. In addition, it also examines possible solutions, summarised with six R's—reduce, reuse, recycle, recover, rethink, redesign. The ambitious exhibition deals with the effects of plastic pollution on our seas and oceans and, by consequence, on us and on all life on Earth.

"The whole initiative aimed at gathering important stakeholders and partners—such as public, media, the sectors of government, civil society, production, commerce and distribution, along with experts, researchers and innovators—into a unique research platform, whose goal is to jointly discover the sustainable and innovative solutions that will stop the further influx of plastic garbage into (Adriatic) Sea."¹

Three key achievements can summarise the success of the exhibition in Croatia: 1. It was visited by many schools and university students (it took place in the area of the Student Center in Zagreb) which was essential for us, as we believe it is important to introduce young generations to the topic of environmental protection. We had an "impressions book" where visitors could write down their thoughts and feelings and the most powerful comments came from children, for example, "I will do my best to help." We consider this a huge success, since children are one of the most important target groups when educating about social change and environmental policies.

2. Many people from the fields of politics, diplomacy and business were involved. They are decision makers and can directly influence policies towards sustainability.

3. The exhibition broadened the visibility of our festival and spread the word. It helped to connect our organisation with other NGOs, businesses, companies, authorities, individuals and pave the path toward new collaborations.

What we hope to trigger with our aMORE festival and collateral initiatives is a moment of understanding and acknowledgment in our public. A moment when any person, of any background, age and education level is able to understand and rethink the pressing issues concerning environmental endangerment, especially in the seas and oceans. Our goal is to educate this audience to not be a passive audience, but instead an active contributor for change. This education can only work if there is a sense of understanding and of compassion towards the sea. For some people, both concepts—understanding and compassion—take on meaning at face value. And sometimes, they can develop through a simple wordplay:

In Italian, "amore" means "love," as is commonly known. But in Croatian—the other language widely spoken in the bilingual region of Istria—"more" means "sea."

¹ From the catalogue of the exhibition "Out to sea?" ("Konačna postaja: more?"), Francuski pavilion Zagreb, 16.05. – 10.06.2018.

Sabina Damiani holds a BA in Visual Arts and Educations and an MA in Photography. She is Arts Programme Coordinator at aMORE festival moru in Poreč, Croatia, which is the first festival in the region entirely dedicated to the sea. Additionally she collaborates with independent organisations and institutions on delivering and curating socially and environmentally engaged projects.

AQUATOCENE - AURAL INTERCEPTION OF A TROUBLED (SUBAQUATIC) WORLD

Robertina Šebjanič

Sound is the main communication tool for most marine animals and plants that dwell in the deep darkness of the world's oceans and seas. Despite widespread knowledge of certain aquatic sounds, like those produced by animals such as whales, the public is predominantly not aware that the underwater soundscape is as rich as our terrestrial one.

Beyond lacking experience of the diversity of marine sounds, people are often unaware of the fact that sonic pollution caused by humans has already profoundly changed the soundscape

of waters, to the point where natural communication of marine animals is being largely disturbed. Today, man-made noise causes severe disruptions in subaquatic habitats with huge consequences for marine life.

With the audio compositions of subaquatic soundscape, the *Aquatocene* project reflects upon the anthropogenic sonic impact on the underwater habitat and marine life as well as it raises awareness and underscores the importance of preserving safe sound



© Robertina Šebjanič

environments for animals living in the world's oceans, seas, lakes and rivers.

In the past couple of years I have spent a lot of time on the sea researching the impact of man-made noise on underwater habitats. I have been working in the Mediterranean Sea, Adriatic Sea, North Sea, and Atlantic Ocean, using hydrophones (underwater microphones).

For most of the people being next to the sea, swimming in the water and relaxing on the shore, the presence of water triggers a sense of serenity. It was the same for me, but this changed dramatically when I started to record underwater sounds. The extent to which the sound penetrates into water habitats completely surprised me.

It turns out that nowadays man-made noise is undoubtedly omnipresent in the subaquatic environment.

My expectations of underwater serenity were fundamentally challenged. Everything else was present except



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© Robertina Šebjanič, Photo by Uros Abram

the silence. Sound travels across water much faster and also much further than, for instance, across air, which is also the reason why sound is the main communication tool for so many marine species. Light is only present on the very surface of the sea (in the upper 200 meters) while in deeper areas light disappears and gradually turns into deep darkness.

The human presence manifested through technological devices such as boats, sonars and sound cannons (when looking for oil) is most often highly disturbing for animals. It scares and confuses them while navigating across the ocean. These invasive sounds can easily overpower their communication abilities and therefore animals try to avoid them, often with drastic consequences.

These facts encouraged me to begin an ongoing investigation into subaquatic sound pollution. Field recordings capturing underwater sounds began in 2014 during my residency in Izmir, Turkey, where I took part at the Port Izmir triennial, curated by Saša Nabergoj and organised by K2. My aim was to record the sounds from swarms of jellyfish in the Gulf of Izmir. In the beginning I tried to

delete the “techno presence” of man-made sounds which have been present in most of the recordings.

But the more I recorded and listened to the material, the more I realized that man-made noise is the sonic reality of today’s ocean—in the same way as it dominates the terrestrial soundscape.

When recording with hydrophones and preamplifiers I try to practice a non-invasive way to interact with marine life. Therefore I also conduct workshops on how to build DIY hydrophones through which I tend to bring pressing issues of ecology closer to the wider public. Dropping a hydrophone into water during workshops is always an eye-opening moment for participants when

they experience the scale of underwater sounds.

My artistic practice exists on the intersection of cultural, (bio)political, chemical and biological realities of aquatic environments which serve as starting points to investigate and tackle the philosophical questions in the fields of art, technology, and science.

The cross-pollination of knowledge from diverse fields is often present while I am working on my artistic research

and also in the final representation of the projects. From the point of view of art, it is important to discuss the dominant scientific narratives and the way they shape our realities. To find a good equilibrium, it is essential to compare science to artistic and



© Robertina Šebjanič

philosophical narratives and not only analyse reality through statistics. For me it is imperative that I integrate and merge disciplines such as art, science, and technology.

Combining different disciplines can be very challenging and rewarding at the same time. Each of my projects involves a unique specific research process. The most difficult thing is to figure out basic parameters even before the process starts. Once the concept and the methodology of the research are clear, nearly half of the work is done.

When it comes to exhibitions, I always try to avoid simplifying the scientific research behind the project. This is the reason why I often organise symposiums to accompany my exhibitions and audio-visual performances. These events open up the topic and hand over the podium to all agents involved. I strongly believe that, alongside scientific research, it is highly important to pose ethical and philosophical questions as well as to understand current (bio)politics of the world we are living in.

In the past years I noticed a strong empowerment of citizens' science as well as an increasing number of scientific papers giving open access to their published articles. Knowledge should be accessible to everybody, not only to the privileged.

With my new project *aqua_forensic* (in collaboration with Gjino Šutić, produced and supported by Ars Eletronica, Project Atol and Ur Institute) we are working on other levels of pollution, such as focusing on the invisible anthropogenic pollutants in water habitats. Invisible chemical pollutants (such as legal and illegal drugs—mood controllers, antibiotics, antimycotics, painkillers, hormone pills) are the residue of human consumption discharged into underwater habitats.

During two residencies in the summer of 2018, first one in Linz, Austria exploring the Danube River and the second one in Dubrovnik, Croatia exploring the Adriatic Sea, we have been working with research about the presence of pharmaceuticals in waters. Furthermore, we are hoping to conduct similar research in other locations around the globe.

What drives my interest in this topic is that water is a fluid environment. Any changes to it would influence us all, for instance the phenomenon of plastic waste and plastic micro-particles that penetrate back into our food chain in an ongoing loop. We live in the period of Anthropocene where humans are consistently "terraforming" the land and "aquaforming" the waters. The environmental issues that we are facing are a complex combination of socio-political and economic relationships. Empathy and solidarity towards the environment are key ingredients for how to change them.



© Uros Abram

Robertina Šebjanič is working in the cross field of art, technology, and science. Her research focus for several years has been dealing with cultural, (bio)political, chemical and biological realities of aquatic environments. She was one of the five selected artists of mobile residency of The Universal Sea. She lives in Ljubljana, Slovenia.

INTRUSION

Anett Rago

'Plastic Waste Labyrinth' by Júlia Végh and Erika Kapronczai

Labyrinths are places of unreality. Spiritually, they connect us to our unconscious, to the mysterious part of ourselves. Symbolically, the labyrinth is where we face our fate.

By entering the maze we are getting lost in time and space. A blind search for an unpredictable end begins. We either fail or we get to the end and find something we haven't seen before: the angry monster, an outcast of society, an unacceptable, dark, and ugly kind. We can meet our dark side. Both Theseus and Harry Potter knew that there would be a fight at the end. Being a hero is not simple, even in the fairy tales.

To face the shadow of the self is shocking. It teaches acceptance of our unknown parts.

Surviving the labyrinth brings a revival: a hero was born there. Being a hero is not simply the knowledge but the capacity to live further with this knowledge.

We humans are running towards our future similarly blind. At the top of evolution we learned how to build shelters that prevent us from the harmful nature. The shelters became bigger and bigger, and we became stronger and stronger—while we got further from our ancient self. We lost connection to Nature and to our own nature adapted to reality hundred thousands of years ago. It's not just about forgetting the

myths or losing the connection to the inner part; it's about losing the capacity to be the part of the whole. We cannot see the consequences of our isolated life. But we feel frightened as someone stepping in the maze. Going into the unfamiliar. We slowly ruined the world around us. Acknowledging it and becoming sensitive to environmental issues could be our first step of realising what we are facing.

"The Universal Sea: Pure or Plastic?" project called artists to find form to help stop the 'plastic epidemic'. One of the winning ideas was the '*Plastic Waste Labyrinth*', the work of two young Hungarian artists, a painter and a filmmaker. Their creative collaboration resulted in a dramatic open-field plastic installation symbolising humanity's intrusion into Nature.

Meeting this work we face a simple maze impossible to get lost in. The ingress is not necessarily mystical. We can enter wherever we want and there are no dead-ends or frightening shadows. It is huge, though. Plastic bales measuring 2.2 meters high and 1.6 meters wide arranged three-by-four create a massive, isolated space that we cannot avoid looking at. Or looking up at. Being inserted into a public space it holds a simple but effective message to us: stay for a while, feel the hopelessness of our selfish desire to conquer. Wake up and try to do something to avoid the unpredictable end of natural beauty!

But an artwork should be distinguishable from a political act or message. The inherent beauty of the transparent plastic folia blocks might help us to really come closer, get lost for a while and feel the bondage of the conquered nature. The atmosphere of the ocean generated by the sound of waves and seagulls creates the depressing and painful contrast of nature and the Anthropocene. This labyrinth makes us drop the most evident interpretation. This is where the artwork starts to appeal. This is the moment when the spiritual connection is built. A public art installation can surprise unsuspecting people. They just run into it without any expectation. Art is a wonderful tool to make people sensitive by ensuring a direct experience.

Realising the problem probably activates the communal survival instinct and generates ambition for finding solutions. Art shouldn't be something separated as a privilege of the elite class of society. It has to create a better world for all the inhabitants of this planet.

These plastic bales are not simply a mass of artificial residue of human comfort and carelessly developed technology: Plastic became our monster, the Minotaur at the end of the maze. Our fate is to face the monster we created. As the animation of Frankenstein's Creature reflected on the deficiency of human beings, the plastic has become enlivened. It directs us, it takes charge: manufacturing

plastic created an indestructible waste we need to manufacture again. So plastic, this artificial creation, pushes us into an infinite circle of creation. We entered a timeless maze where we are to wander forever. The plastic cannot be demolished. It became a part of our life. Unfortunately, not just symbolically: creating smaller and smaller particles plastic mingles in. Micro-plastics invade water, our vital resource. We inhale, eat, and drink those particles. Plastic became part of us. Plastic made us hybrids similar to those creatures in stories. This way it became the dark side of ourselves at the end of the mythical maze.

The question is whether this natural-artificial hybrid is able to transfigure itself by being aware of the consequences of the amazing speed of technological development. As accepting our hidden part is made easier by reading ancient stories about monsters and deep forests, artworks could be crucial in this process. Art evokes emotions, lets us attach ourselves to it in spite of the frightening message. It can bring us far from reality while keeping us close to it. Talented artists are sensitive to change. They can invent solutions before science finds explanations for it.

These artworks are able to show us the unseen. To let us face our monsters. This labyrinth is a part of the movement that could teach us how to be heroes.

Find our more: Plastic Waste Labyrinth p.86.



© Anett Rago

Anett Rago, PhD is a cognitive psychologist at Eotvos Lorand University, Budapest, Hungary. Her research topic is knowledge acquisition and abstraction processes. She also teaches at the Fine Art University Budapest; here she developed a specific course for artists and theoreticians where the connection between individual mental representations vs. visual cultural representations is discussed.

ABOUT
THE
UNIVERSAL
SEA

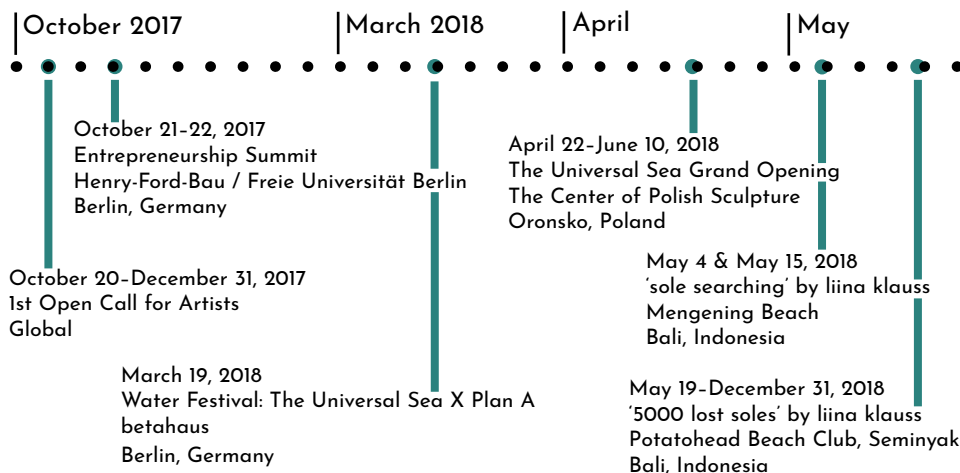


Why plastic? Why art?

Contemporary art and activism are often intertwined; art has the power to reach people in unique ways to spread a message. The Universal Sea project grew from a sense that we can draw from and build on this relationship, bringing what is unique about art as a means of communication into collaborations with other fields. Technology and innovation are in the business of new ideas. Innovation goes beyond simply creating new products or services: it seeks out better solutions for existing problems; it relies on new ways of thinking and problem solving. Combining these different perspectives, skills and resources could be beneficial for all involved and have practical and applicable outcomes. The next step was finding a common goal that would unite the different players; something important, urgent and universal.

The plastic pollution epidemic stares us in the face as one of the most critical global environmental issues of our time. The facts about the magnitude of the problem are everywhere, yet numbers are easy to ignore and habits are hard to break. For us, a solution had to include: promoting new and creative forms of communication; giving visibility to those who are already tackling the issue; offering tangible everyday lifestyle alternatives; and inspiring people to take action in their own lives.

A central aim of the overall project was to rediscover the role of the artist in our society and harness the opportunities that arise when art meets science, innovation and entrepreneurship. We believe that art can trigger emotions and incite action, open new ways of seeing and critical thinking, and support the development of creative solutions. The Universal Sea can be thought of as a community; an open global

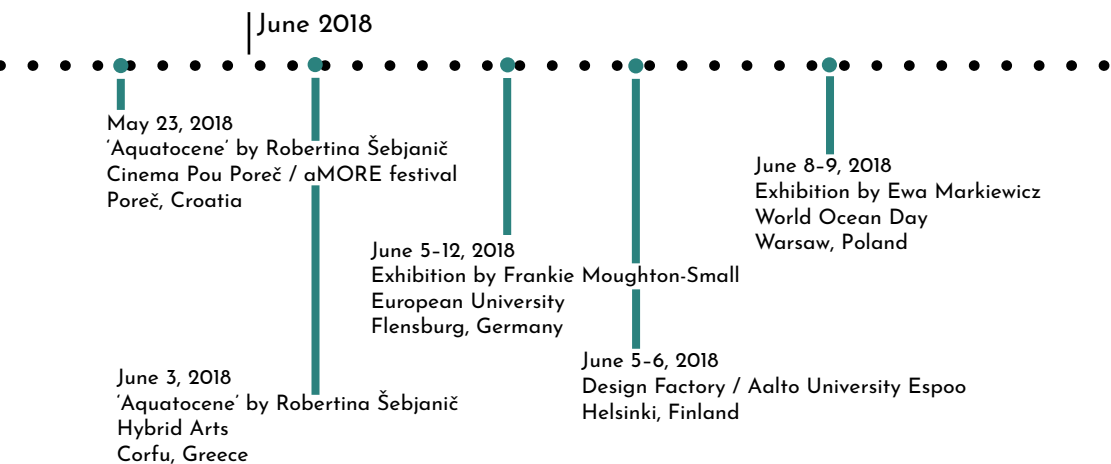


network of people from different backgrounds with unique skills and ideas to share. Collaboration is the key to maximising the potential of this community, and art is at the heart of that collaboration.

Step by step: launching The Universal Sea projects

We kicked off The Universal Sea in autumn 2017, at the Entrepreneurship Summit in Berlin. This was an audience who already looked toward new concepts of smart and sustainable business models, and we asked attendees for their ideas on managing plastic waste and how art and business might collaborate. Led by our project leads Nicole Loeser and Viktoria Trosien, a panel discussion—including an artist, an entrepreneur and an economist—considered the topic ‘new business models for artists,’ a theme that doesn’t simply ask how art can be employed for business, but rather how innovative strategies such as design-thinking and new business models can help artists broaden their influence.

The next public undertaking—this time targeting artists—was an international open call for art submissions that addressed the topic of plastic waste in our waterways and human impact on our environment. Jumping off from artist Joseph Beuys’ concept of ‘social sculpture’—that art requires social engagement and thus can transform society—the selection process had a strong focus on works that encouraged and facilitated public outreach and creative civil participation; we were looking for a certain inspirational kick. The response was outstanding with over 250 submissions from 38 countries from around the world. From this, we narrowed it down to a selected ‘top 100 artists’ who had images of their works shown in a 8 cities touring exhibition, beginning in spring in Oronsco, Poland with our partner institution The Center of Polish Sculpture, and finishing in fall in Budapest, Hungary, at Art Moments

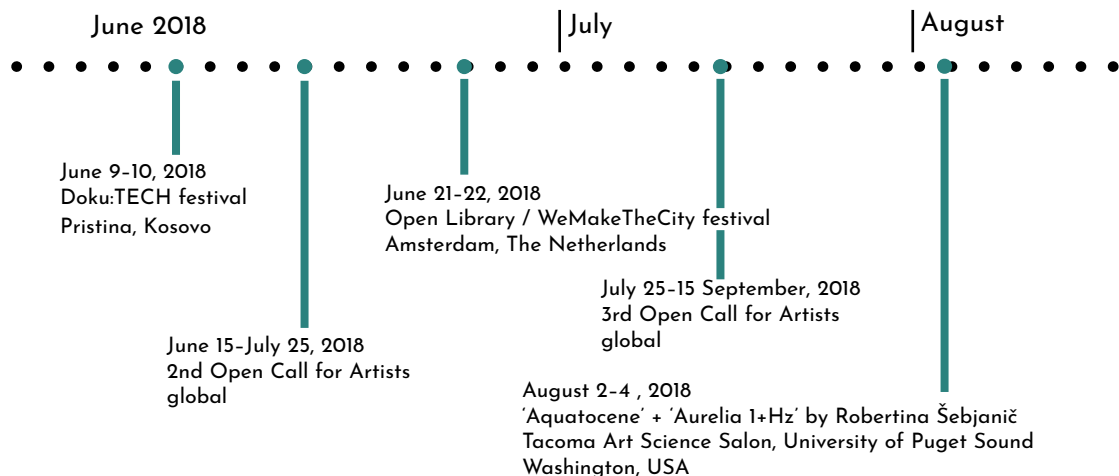


- The Universal Sea Budapest Festival with our hungarian partner Hybridart Management.

A key motivation of this first open call was to find five artists for our central Artists-in-Residence programme. The selection was based on the relevance and strength of the submitted works, but also on their potential for public actions or interventions. The approximately six-month long residency programmes involved funding, mentoring, collaborations, and exhibitions. Each artist (or artist group) had the opportunity to further realise and develop their project and undertake an action of deep public engagement such as a workshop or interactive installation. For every artist, the process, challenges, and outcomes were unique. The works of the selected four artists and an artist duo—Ewa Markiewicz, Frankie Moughton-Small, Júlia Végh and Erika Kapronczai, liina klaus, and Robertina Šebjanič—can be found in the 'Art' section of this book, along with personal writings on the outcomes and reflections of their residencies in the 'Art & Innovation' section.

Project landmarks: the Budapest festival, the book, and the stops along the way

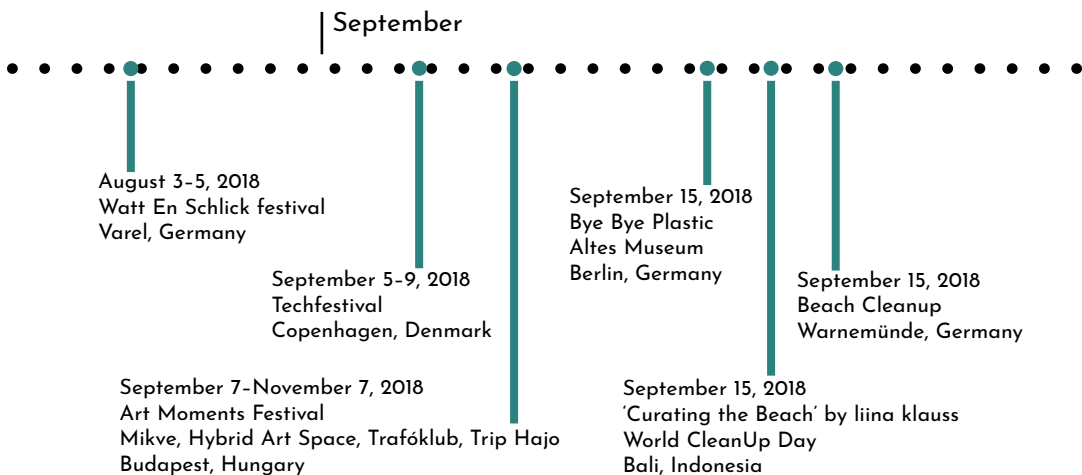
One of the main outcomes of the project was Art Moments - The Universal Sea Budapest Festival that began in September, 2018. Much of the work we had done up to this point came to a head during this eight-week long festival, hosted by our partners at Hybridart Management who dedicated their annual Art Moments festival to The Universal Sea project. The various events of the festival showcased the multifaceted goals and actions of the entire project. Alongside our art and science exhibition, another exhibition showcased Hungarian artists as well as art students from two Berlin universities who each collaborated with a



different research or scientific institution from Europe. Our Artists-in-Residence exhibited works and staged public workshops, installations and interventions, and a film screening presented the shortlisted submissions from our third international open call for film and video works.

A cornerstone of The Universal Sea has always been the exchange of ideas from different perspectives and this was central to two other Art Moments events: the Sustainability and Art International Conference—fittingly hosted on a boat on the danube river in Budapest—and the co-creation ‘hackathon,’ a fast-paced creative workshop. The conference, the most comprehensive gathering of experts in the project so far, was a day-long programme of panel talks, pecha-kucha-style presentations, and round table discussions, led by our creative lead Nicole Loeser and festival manager Kata Szeder. Contributing speakers included representatives from our partner institutions and from environmental and sustainability organisations such as the European Coastal Union, Greenpeace, and the superactive recycling initiative TerraCycle as well as academics, scientists, politicians, and artists including our Artists-in-Residence. The conference followed the four key themes of the project: rediscovering the role of the artist, art and innovation, socially engaged art towards the problem of water pollution, and reaching and involving the public.

This last theme was taken as the big question posed to the team that made up our co-creation ‘hackathon’ workshop. Channelling the productive energy of a hackathon, the participants including artists, change leaders, entrepreneurs, our core partners and our Artists-in-Residence split into groups and tackled the challenging question of how we can really engage the public and get people to act. Over four hours we shared our experiences and fears, talked target audiences,



workshopped ideas, and in the end, came up with some promising proposals for public actions and social media campaigns. Early on in the project development, producing this book became one of the main outcomes of the whole project and the funding behind it. Featuring at least 500 artists and 500 businesses was the ambitious goal we set ourselves, and this took a lot of research, two more open calls for art submissions. Once again, the submissions presented some inspiring and engaging works, and three jury-selected artists—Antoaneta Tica, Kojo Biney, and Nezaket Ekici—received a funding award for their art production.

Along the way, The Universal Sea appeared at the Techfestival in Copenhagen, Denmark, where we were invited to inspire the audience at the festival's 'w00dstock summit,' an event that focused on harnessing a sense of community and social responsibility to best use the tech tools and tech minds of our time to improve the human experience and the environment. Our touring exhibitions with accompanying fast-paced and concise 'pecha-kucha' presentations, workshops and networking events also made it to the Aalto University in Helsinki, Finland; the doku.TECH Festival in Pristina, Kosovo; the WeMakeTheCity Festival in Amsterdam in the Netherlands; the Watt En Schlick Festival in Varel at the North Sea in Germany; and the Entrepreneurship Summit in Berlin, Germany; before landing in Budapest, Hungary.

Reflections and going forward

Working to fight such an enormous problem as global plastic pollution, ingrained so thoroughly into our lives, can be an exhausting and emotional task. However here at The Universal Sea we hold a belief that the people we have discovered on this journey, or who have discovered

September 2018

October

September 28–October 1, 2018
'Plastic Waste Labyrinth'
by Júlia Végh and Erika Kraponczai
Madách Square, Budapest, Hungary

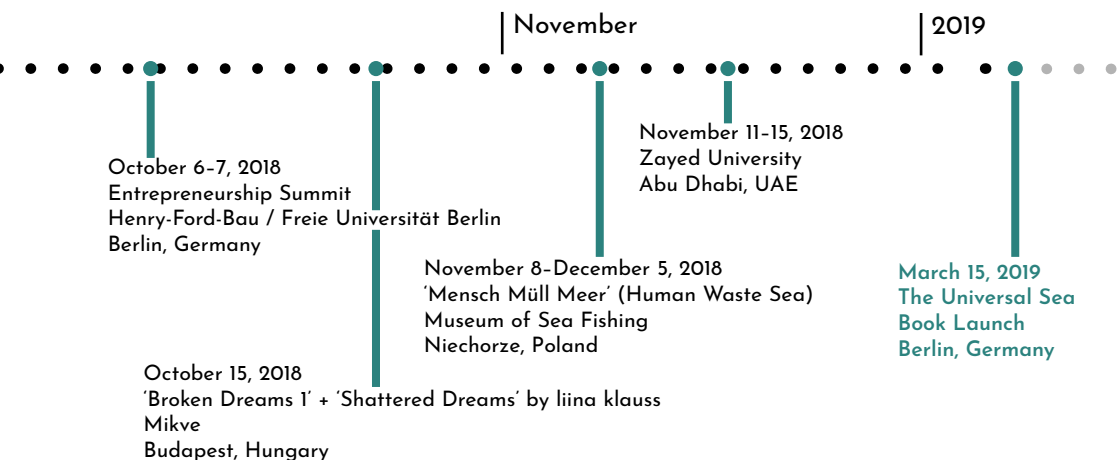
October 6–7, 2018
Designmarkt Ponyhof
DOCK INN Hostel
Warnemünde, Germany

September 26–November 8, 2018
'Mensch Müll Meer' (Human Waste Sea)
Erlebniszentrum Naturgewalten
List, Germany
Polish Natural History Museum
Wollin Poland

October 5, 2018
'Aquatocene' + 'The subaquatic quest for serenity'
by Robertina Šebjanič
'The Plastic Sea' by Frankie Moughton Small
Hybridart Space

us, are paving new ways forward. The creative input from artists from all over the world has been uplifting and energising. The range of practical solutions put forward by businesses—brilliant for their simplicity, resourcefulness, or inventiveness—goes to show what we can come up with when we look in a new direction. The number of social initiatives and organisations we have come across doing amazing work running educational programmes and clean-up events has been heartwarming. When we think about the motivated individuals who dedicate their time and energy to this issue, we can begin to feel positively about the future. And the changes we've seen on the policy front during the publishing of this book—namely the proposed EU ban of single-use plastics—are a testimony to this dedication.

From all of the encouraging connections we've made, we've grown an extensive network—a global collective under one goal who is engaged, active, and willing. Our online platform—at The Universal Sea website and social media channels—is both a community and a resource: you can discover artists, organisations, and innovations; learn about or promote upcoming events; follow our actions at The Universal Sea or read news from the world of the fight against plastic. We hope this network continues to grow and spark new connections and new ideas. With this guidebook, we aim to set an example—in fact hundreds of examples—for those looking for a way to make a difference. The Universal Sea will continue its mission to facilitate collaborations between artists and innovators with a dedicated funding programme. We will curate further exhibitions that encourage and give visibility to artists and creatives who are tackling the issue and educating communities in unique ways. And we will be as fast and as dedicated as we can to beat this epidemic!



This book would not have been possible without the dedication, passion, and determination of so many. A huge thanks to all who continue the ongoing fight against plastic pollution, you inspire us every day.

Partner Organisations

Center for Polish Sculpture, Oronsko
European Coastal Union, Germany
Foundation for Entrepreneurship, Berlin
Hybridart Management, Budapest
Institute for Art and Innovation, Berlin

The Universal Sea Team

Adi Yaakov	Inna Luft	Nicole Loeser
Agnieszka Sekscinska	Jonathan Kuhl	Olga Sismanidi
Alasdair McTernan	Julia Bacsek	Renate Eras
Alice Siblewska	Kata Szeder	Réka Pócsi
Amelie Robson	Kate Wolfe	Rosie Hastings
Anisa Hawley	Katrin Podohl	Róza Szilágyi
Anjani Parikh	Kevin Grünstein	Sandra Tolosa Medina
Anke Vorlauf	Klaus Weidner	Sheree Spencer
April Dell	Kristina Okan	Sian Huygens
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Constantin Böhm	Marco Papeo	Tabea Skala
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Eleonora Bidiville	Margot Belot	Tiziana Destino
Eniko Nagy	Marju Tajur	Urszula Kaszewska
Eulalia Domanowska	Maria Posern	Viktoria Trosien
Florian Komm	Mariem Barka	Vivian Makowka
Giulia Accrogliono	Marine Dezert	Weronika Elertowska
Grace Hewitt	Meret Taglinger	Yingyi Han
Günter Faltin	Milena Linke	Yunosuke Ozawa
Helen Russell Brown	Milena Olech	Zoé Kompa
Idiko Zigrari	Nardine Stybel	

The Artists-in-Residence (and their collaborators)

Frankie Moughton-Small

Gina Gow
Incredible Oceans

liina klauss

Anthony Dodds
Aurora Robson
Ilana Boltvinik

Robertina Šebjanič

Joanna Atherton
Judith and Richard Lang
Mandy Barker

Pauline OBrien
Bali Greenschool
EcoMarine HK
iHub Greenschool
KemBali
Living Lamma
Make A Change World
Microgalleries
Ocean Recovery Alliance HK

Ewa Markiewicz

Adam Brincken
Agata Sieprawska, Pure Tatrás project
Agata Szluker
Aleksander Śliwa
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Kingdom of Art
Andrzej Czapliński and Tosia
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Azja Kamińska
Bart Łukasik, founder World Oceans
Day Poland
Bartek Zawadzki
Bartosz Banasik
Bartosz Groman
Bogusz Salwiński
Borys Lewandowski
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Dawid Niedużak
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Dudek
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Duparec Kft.
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Plastic Free Seas HK
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Maciej Kokot
Magdalena Cisło, PhD
Magdalena Rębisz
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István Vincze
László Nagy
László Panyi
Mariann Sárközy
Róbert Sörös
Tamás Huszák
Tekla Uszkay

Additional Contributors and Supporters

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Amazing Experts and Innovators

Anna-Marie van der Lei	Gianna Main	Mona Lüders
Bence Fülöp	Heikki Karppinen	Nina Pestke
Carsten Baumgarth	Jennifer Josenhans	Paula Havaste
Christopher Owen	Jon Alapitvany	Peter Szebenyi
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Galit Ariel	Lucas Evers	Tony Rossy
Gergely Hankó	Martina Makai	Tove Holm

Ambassadors and Jury Members

April Dell	Júlia Bacsek	Róza Szilágyi
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 Anne Merle Krafeld
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 Carl von Ossietzky University, Institute
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 Cécile Vexler
 Eberhard Karls University, Center for
 Applied Geoscience (ZAG)
 Eberhard Karls University, Institute of
 Evolution and Ecology (EvE)
 Fraunhofer Institute for Ceramic
 Technologies and Systems IKTS, Dresden
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 Institut Français de Recherche pour
 l'Exploitation de la Mer

Janine Rölfke
 Leibniz Institute for Baltic Sea Research
 Leibniz Institute of Freshwater Ecology and
 Inland Fisheries
 Ludwig Niebuhr
 Niklas Weber
 Paul-Sebastian Angermeyer
 Rebekka Vaino
 Sophie Drünert
 Technical University of Munich, Chair of
 Aquatic Systems Biology
 University du Maine, Institute for Molecules
 and Materials
 University of Bayreuth, Chair of Animal
 Ecology
 University of Bordeaux, EPOC Laboratory

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Stefania Campogianni
Stefania Tonin
Stefanie Hessler
Stefano Donati
Sven Hille
Teresa Cecchi
Till Gerber
Tjeerd Visser
Tom Duscher

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The Universal Sea: Pure or Plastic?!

The Art And Innovation Guide Against The Plastic Edidemic

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Editorial team: Adi Yaakov, Alasdair McTernan, Amelie Robson, Anisa Hawley, April Dell, Constantin Böhm, Doris Wu, Eleonora Bidiville, Giulia Accroglano, Grace Hewitt, Helen Russell Brown, Jonathan Kuhl, Kata Szeder, Kate Wolfe, Kristina Okan, Lizzie Batchelor, Marco Papeo, Madeleine Bates, Margot Belot, Milena Olech, Nardine Stybel, Rosie Hastings, Sian Huygens, Sophie Cassel, Tina Bayer, Tiziana Destino, Yingyi Han, Yunosuke Ozawa, Zoé Kompa

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www.universal-sea.org
team@universal-sea.org
[#universal_sea](https://www.instagram.com/universal_sea)
[#PureOrPlastic](https://www.instagram.com/PureOrPlastic)
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Plastic, the truly universal material, has lost its virtue. From the discovery of vast oceanic “garbage patches” to the microplastics in our tap water, humankind and our natural environment are overwhelmed by plastic waste.

This guide brings together artists, business leaders, scientific experts, and everyday people from all over the world to explore strategies for fighting the plastic epidemic. Inside you will find

/ 500+ artists who take on plastic waste as their subject and material, creating work in a range of disciplines from installations and performances to short films and audio-visualizations.

/ 500+ innovators offering alternative solutions and products to fight both waste and water pollution.

/ An anthology of essays by artists, scientists, thinkers and entrepreneurs that investigate the interplay of these worlds, and the role of art & innovation collaborations.



THE UNIVERSAL SEA

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