AN ART / SCIENCE COLLABORATION AND EXHIBITION ON THE IMPACT OF MICROPLASTICS IN OUR OCEANS

vanishing point
unseen
Vanishing Point artists will donate 10% of sales proceeds to support the South West Marine Debris Clean Up, an annual expedition led by Matt Dill to Tasmania’s rugged southwest beaches to remove marine debris. wha-marinedebris.blogspot.com.au
Front and back cover image: Peter Walsh
The 2017 exhibition will include the work of two new artists, Diane Masters – multi media artist and Gerhard Mausz – sculptor and designer. The exhibition will expand on the 2015 project by embracing the theme of Unseen. From micro-beads in personal care products, micro-fibres in synthetic clothing, and fragments derived from the breakdown of larger debris, microplastics are increasingly invading our marine systems and food chains. This is now recognised as a serious global environmental issue. The works emerge from an inquiry-based pursuit that is common to both art and science, presenting a commentary on the multifaceted nature of both scientific research and artistic expression. It’s possible to engage viewers through visual beauty and simplicity, leading them through a deeper story to raise awareness of the issue at hand; the dangers of plastic in our marine environment. We can all make a difference if we are mindful and small changes to our behaviours can have a positive impact. Our oceans ARE worth protecting.

"Even if you never have the chance to see or touch the ocean, the ocean touches you with every breath you take, every drop of water you drink, every bite you consume. Everyone, everywhere is inextricably connected to and utterly dependent upon the existence of the sea."

Sylvia A. Earle
THE SCIENTISTS

Patti Virtue

Patti Virtue is a marine scientist and an Associate Professor at the University of Tasmania. She has been involved in many Antarctic expeditions undertaking research with her students.

Her research incorporates aspects of biological oceanography, sea ice ecology, and studies on zooplankton particularly krill, which form the basis of the Antarctic marine food chain.

She recently returned from a circumpolar Antarctic expedition looking at the potential impacts of micro plastics in the zooplanktonic community. Working in such a precious environment such as Antarctica, Patti is only too aware that micro plastics (the size of krill food) pose an insidious threat to fragile marine ecosystems.

Heidi J. Auman

Dr. Heidi J. Auman has worked as biologist for most of the past 25 years, focusing mainly on seabird biology. Her research is global in nature with a preference for isolated islands.

Her specialisations focus upon human impacts on seabirds, including plastic debris ingestion, toxicology, human disturbance, physiology, urbanisation and diet.

She has demonstrated that our ecological footprint has reached the farthest corners of the Earth, often with disturbing consequences.

Garbage Guts

Garbage Guts was inspired by Heidi’s research on the impacts of marine debris on Midway Atoll’s Laysan albatross. She hopes to educate a future generation about the danger of trashing our seas. Signed copies are available from her website.

garbageguts@HeidiAuman.com.

Frederique Olivier

Dr Frederique Oliver is a marine scientist with 15 years of experience in Antarctica, the SubAntarctic, the Southern Ocean and Pacific seas. She has spent over two years bobbing around on the Southern Ocean, and about three years in tropical seas on her own yacht or research vessels on the Great Barrier Reef, witnessing the plastic issue in all its forms.

Growing up in Europe, she was well aware of the marine pollution issues and in 2001, as she started a PhD on marine debris at UTAS, it revealed even birds nesting on the pristine shores of Antarctica are affected by the problem.

Patti Virtue

Patti Virtue is a marine scientist and an Associate Professor at the University of Tasmania. She has been involved in many Antarctic expeditions undertaking research with her students.

Her research incorporates aspects of biological oceanography, sea ice ecology, and studies on zooplankton particularly krill, which form the basis of the Antarctic marine food chain.

She recently returned from a circumpolar Antarctic expedition looking at the potential impacts of micro plastics in the zooplanktonic community. Working in such a precious environment such as Antarctica, Patti is only too aware that micro plastics (the size of krill food) pose an insidious threat to fragile marine ecosystems.
Plastic pollution on our beaches is obvious; however, microplastics in our oceans are often invisible. The aim of this exhibition is to help visualise this insidious problem. By raising awareness of the threats of microplastics, we can work together to find solutions to this unseen marine pollution.

Phthalates (pronounced “thah-lates”) are a group of chemicals that make plastic flexible and durable. They are linked to asthma, attention-deficit hyperactivity disorder, breast cancer, obesity, type II diabetes, low IQ, neurodevelopmental problems, behavioural issues, autism spectrum disorders, altered reproductive development and male fertility issues.

An estimated 5-13 million metric tons of plastic end up in our oceans each year. Microplastic debris begins the journey to the sea as consumer and industrial products like exfoliants, cosmetics and industrial abrasives, or breakdown of larger plastic items. Even synthetic fibres shed from our clothes during washing contribute to this unseen but now widespread marine pollution.

Microplastics can affect wildlife in many harmful ways. Ingestion and physical obstruction can reduce feeding by marine life and lead to starvation. Microplastics act like sponges to chemical pollutants, and when eaten can affect growth, endocrine function and reproductive success. These contaminants also bioaccumulate through the food web.

Plastic pollution on our beaches is obvious; however, microplastics in our oceans are often invisible. The aim of this exhibition is to help visualise this insidious problem. By raising awareness of the threats of microplastics, we can work together to find solutions to this unseen marine pollution.

“What the Scientists Say

HEIDI AUMAN | FREDERIQUE OLIVIER | PATTI VIRTUE

As many as 51 trillion microplastic particles – 500 times more than stars in our galaxy – litter our seas, seriously threatening marine life.”

UNITED NATIONS REPORT
Sophie Carnell, The ocean is bleeding (neckpiece detail), recycled sterling silver, fishing line, glass beads, disposable contact lenses.
**ARTIST STATEMENT**

morphing, coral, plastic knives and forks, ping pong ball, cotton bud sticks, 4x4x2cm each

www.sophiecarnell.com

**ARTIST BIOGRAPHY**

Sophie is a contemporary jeweller who works from her studio on Bruny Island, where she is inspired daily by the stunning landscape of Southern Tasmania.

Having initially completed short courses in jewellery design after finishing her Fine Arts degree, she has gone on to teach herself an array of skills in jewellery creation using a diverse range of media. Sophie regularly participates in exhibitions and has been shortlisted as a finalist in a number of prizes including the Toowoomba Contemporary Wearables Biennial Award (2017), the prestigious Woollahra Small Sculpture Prize (2015), and was also awarded Highly Commended finalist in the Waterhouse Natural Science Art Prize (2014).

Her jewellery practice explores relationships to landscape, place and interconnections with the environment. Precious metals and natural found materials are combined and transformed into objects and wearable tokens that carry an essence of this beautiful land in which we live. Sophie’s work considers the effect that humankind has on its environment and conversely the powerful impact these landscapes can have on its inhabitants.

My work for this exhibition focusses on the chemical interactions of the phthalates (plasticisers) with the ocean. The repeated hexagonal shapes represent the chemical symbol for phthalates, the hormone inhibitors. The works have been made entirely from ocean debris, plastic rubbish & fishing line already in the waste chain, glass beads and recycled sterling silver.

**ARTIST STATEMENT**

From walking along coastlines and collecting bags of big bright ocean debris for the 2015 Vanishing Point exhibition and thinking about their effect on fish and sea mammals, my focus has now been narrowed down to particles of plastic we often can’t see without the use of a microscope. The dichotomy between the size of the micro plastics and the harm they do is mind-boggling. I am learning how these infinitesimally small particles have an enormous effect; not just on marine life; not just by working their way up the food chain to humans and causing massive health issues; but by endangering the oceans themselves. If the oceans become sick, then so do we all.
ARTIST STATEMENT
I’ve lived on Bass Strait Islands most of my life. Island life fuelled my passion for the wildlife and the environment allowing me the luxury of time to extensively study these creatures in their respective habitats.

Many hours have been spent photographing and documenting the Islands’ birdlife, in particular the seabirds, but over time more and more plastic waste began appearing on our Island beaches and our concerns grew as we observed the impact.

It has become increasingly obvious that plastic is now a significant environmental threat – from the obvious larger items breaking down into smaller and smaller pieces to the more significantly disturbing microplastics and microfibres – the tiny ‘unseen’ particles that affect the very beginnings of the oceans’ food chain.

Plastic ingestion doesn’t discriminate, impacting on one of the largest marine creatures, the Humpbacked Whale to one of the smallest ocean faring seabirds – the Southern Fairy Prion.

Creating greater community awareness of this enormous problem has become a priority in my work.
I was born on the island state, on the island continent and have chosen to live on much smaller and remote islands for much of my life. As a scuba diver and island dweller, I have observed the direct impacts of plastics pollution in our oceans.

When asked to join the Vanishing Point team of scientists and artists focussing on microplastics, I swiftly remembered my encounters with one of the largest and most majestic creatures in the ocean, the whale shark. I pondered the problem of providing a nutrient rich food source into the future rather than a lean plastic replacement for filter feeders such as whale sharks and other sea creatures.

Plastics never decompose, they just become smaller and smaller. In addition, many facial and body scrubs contain micro beads which are flushed into our waterways and ultimately into our oceans.

For this exhibition, I have created images which represent the start of a problem and draw attention to the beautiful plankton, which are not only the start of the oceanic food chain but a major part of that cycle of oxygen exchange which we are so dependent on.

DIANE MASTERS

Nyctiphanes Australis – krill, Aquatint and solar plate etching (Edition of 10), 46.5x42cm

DIANE MASTERS

ARTIST STATEMENT

I was born on the island state, on the island continent and have chosen to live on much smaller and remote islands for much of my life. As a scuba diver and island dweller, I have observed the direct impacts of plastics pollution in our oceans.

When asked to join the Vanishing Point team of scientists and artists focussing on microplastics, I swiftly remembered my encounters with one of the largest and most majestic creatures in the ocean, the whale shark. I pondered the problem of providing a nutrient rich food source into the future rather than a lean plastic replacement for filter feeders such as whale sharks and other sea creatures.

Plastics never decompose, they just become smaller and smaller. In addition, many facial and body scrubs contain micro beads which are flushed into our waterways and ultimately into our oceans.

For this exhibition, I have created images which represent the start of a problem and draw attention to the beautiful plankton, which are not only the start of the oceanic food chain but a major part of that cycle of oxygen exchange which we are so dependent on.

DIANE MASTERS

Nyctiphanes Australis – krill, Aquatint and solar plate etching (Edition of 10), 46.5x42cm

Plastics never decompose, they just become smaller and smaller. In addition, many facial and body scrubs contain micro beads which are flushed into our waterways and ultimately into our oceans.

For this exhibition, I have created images which represent the start of a problem and draw attention to the beautiful plankton, which are not only the start of the oceanic food chain but a major part of that cycle of oxygen exchange which we are so dependent on.
ARTIST BIOGRAPHY
Gerhard is an experienced visual artist (BFA UTAS 1996) working in three dimensions. He completed his pattern maker apprenticeship in the German car industry in the early 80s, and has a multitude of skills in the designing and making of objects.

Since 1994 Gerhard has completed 21 public arts commissions and many private commissions. Amongst his clients are Hobart City Council, Glenorchy City Council, Arts Tasmania, Tasmanian Department for Education, Salamanca Arts Centre, Moonah Arts Centre and Kickstart Arts.

GERHARD MAUSZ

His work utilises many different materials including upholstered, shaped foam; steel and other metals; wood and cardboard; cast and sandblasted concrete, cast and polished terrazzo; on their own and in various combinations.

Since 1994 Gerhard has completed 21 public arts commissions and many private commissions. Amongst his clients are Hobart City Council, Glenorchy City Council, Arts Tasmania, Tasmanian Department for Education, Salamanca Arts Centre, Moonah Arts Centre and Kickstart Arts.

ARTIST STATEMENT
My work for this exhibition reflects the extent of plastic contamination found in marine life.

The sparkling finish of my Hammerschlag work attempts to capture the essence of water. The crystals represent the contamination of sea salt – an intrinsic part of my diet – where microplastics are now being found.

I want to express and question my love of the ocean in relation to my responsibilities and commitment to a cleaner environment.
As an artist I have a responsibility to make social comment. At any point in history there are matters which concern humanity’s future, the environment it exists in or the way it sees that environment. Plastics – their pervasiveness and their convenience – have slowly entered every sphere of ours and the planet’s existence. I hope this show provokes thought and action, not fear and alarm.

Toby Muir Wilson is a Graduate of Parnham College in England, an institution steeped in the Arts and Crafts ethos of ‘the hand, the head and the heart going together’.

Since 1980 he has created furniture and wooden objects which have become more narrative in nature expressing his and his clients responses to our physical and social environment. Tasmania, its timbers, its light and colour, geology and geography are the primary resources for the photographs and drawings which inform these works. His work is represented in National collections including the Powerhouse in Sydney, The Museum of Applied Arts and Sciences Darwin, TMAG in Hobart and the Design Tasmania Wood Collection in Launceston. The most recent publication to feature his work is Beyond Parnham published this year (2017) in the UK.

Plastics – their pervasiveness and their convenience – have slowly entered every sphere of ours and the planet’s existence.

Poison Chalice, timber, iron and copper, 24x12x12cm

www.tobymuirwilson.com
It’s easy to feel overwhelmed.

My wish is that people coming to this exhibition leave with a better understanding of the issue, and a desire to contribute to solutions. Whether that’s by minimising your use of plastics that contribute to micro-plastic pollution, spreading the word to others, or making a contribution to enable more research – every act, small or large, makes a difference.

Inspired by the seascapes of Sugimoto and the colour field paintings of Rothko, my work attempts to break down form and composition to a simple visual statement. This simplification coupled with my use of colour is based in a desire for the viewer to see beyond the physical presence alone and consider the emotional impact of standing in this environment.

At first, you may feel calm, peaceful, impressed, grateful, perhaps even liberated. However, look deeper into the ocean and see the traces of micro-plastic fibres. Surprised, concerned, fearful, powerless, distressed may describe how you feel. Understanding, angry, motivated, determined, hopeful are some of the words I hope describe your feelings by the time you walk away.

PETER WALSH

ARTIST BIOGRAPHY

Peter has a diverse and busy background including photographer, researcher, musician, sound engineer and software developer. These days Peter spends his time working in marine research and following his passion for photography.

www.petewalsh.net

With a particular interest in wilderness/landscape photography, he strives to include a message of conservation and care for the environment and collaborates regularly on conservation projects and with scientists working in environmental research.

ARTIST STATEMENT

Almost daily, I find myself reading an article, watching the news, looking at social media on topics related to plastics pollution. Increasingly, the focus is on microplastics – in our drinking water, deep in the southern ocean, in the sediment of local estuaries and in the digestive system and muscle tissue of wildlife.

www.petewalsh.net
The Vanishing Point – Unseen, artists would like to thank everyone who encouraged and supported them on their Vanishing Point journey.

Thank you to the University of Tasmania through the Marine, Antarctic and Maritime Research Theme and the Institute for Marine and Antarctic Studies, for their assistance, contributions and continued support. In particular, we would like to thank Brigid Heywood, Elle Leane, Penny Edmonds and Annalise Rees plus members of the Oceanic Cultures and Connections research group. Also Richard Coleman, Mandy Richardson, Tracey Cochrane and Andrew Rhodes for their ongoing support of the IMAS exhibition space.

A special thank you to Dr. John Hunter for opening our exhibition – for his kind words, his generous support and his enthusiasm for the Vanishing Point collaboration and message. Thank you to our generous financial supporters: the University of Tasmania, Hobart City Council and 2A4. Additionally Katherine would like to thank Michaye Boulter and Adrian Barber for their advice and guidance; Antonia Cooper and Ed Dunens for their assistance with source photography. Peter would like to thank Roger Imms for his advice and guidance.

Many thanks to the scientists Heidi Auman, Patti Virtue and Frederique Olivier for their invaluable assistance, expertise and generosity of spirit.

The Vanishing Point Collaboration would like to sincerely thank Beverley Wadie of Coalface Design & Production for her expertise, talent and patience in coordinating our graphic design. Toby and Di acknowledge Handmark Gallery. Particular thanks from the artists and scientists to Katherine Cooper for initiating and driving this collaboration with such passion and good humour.

WITH HEARTFELT THANKS

THANK YOU TO OUR SPONSORS AND SUPPORTERS

Supported by ‘Oceanic Cultures and Connections’ through the Marine, Antarctic and Maritime Research Theme at the University of Tasmania.
WHAT YOU CAN DO

Simple steps to reduce your plastic footprint

› Most importantly, reduce your consumption! The vast majority of plastic materials consumed by society are not recycled or recovered.

› Recycle within your own home – how many new uses can you find for a plastic container? Go to the tip shop or second hand shop instead of buying new.

› Use natural fibres such as cotton or wool in clothing, linen, furniture covering etc. A major source of microplastics in the ocean is from washing our synthetic fabrics. Microplastics are very small and pass through the sewage treatment systems.

› There are over 300,000 microplastic beads in one tube of facial scrub. Don’t buy cosmetics, cleansing products and toothpastes containing microplastics.

› Say no to plastic utensils, plastic straws, disposable lighters and even plastic toothbrushes. Bring your own produce bags when you shop. Bring your own water bottle, coffee cup, eating utensils and containers when you order takeaways. Say no to that takeaway coffee plastic top if you don’t have your own cup with you.

› Buy in bulk if possible, and buy products in boxes, not plastic.

› Don’t let plastic waste reach the ocean in the first place! If you see a bit of plastic rubbish on the ground, pick it up.

› Participate in or initiate community clean ups at your local beach, riverbanks and roadsides.

› Educate yourself and others. What happens to your plastic waste? Check out the curriculum, activities, posters and fact sheets here: www.coastwatchers.com.au and discover more facts, stats, lesson plans, and a live Expedition Class up the west coast this March or April, to take your class or home school group outside to do your own coastal clean-up.