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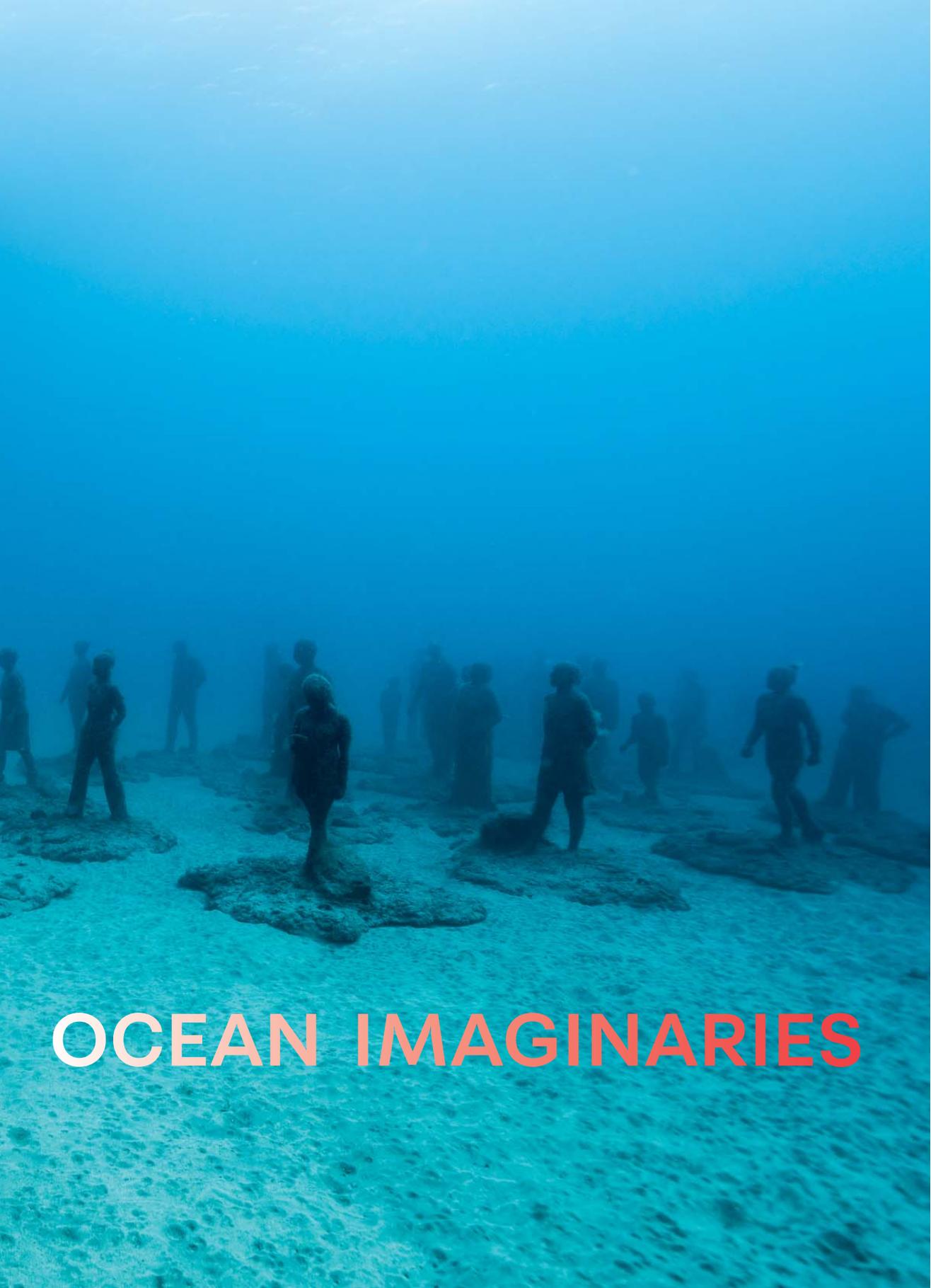
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# OCEAN IMAGINARIES

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Debbie Symons

teamLab

Guido van der Werve

Chris Wainwright

Lynette Wallworth

Josh Wodak

# Ocean Imaginaries. The Ocean's Eyes

Suzanne Davies

Timing is critical. For Victor Hugo the 19th century emblematic figure of French romanticism, the oceans gave life to the planet, offering a majestic symbol of eternity. In 2017, while still awesome in our imagination, what science is now revealing of the state of the ocean triggers despair. The global threat of climate change in the age of the Anthropocene, is decimating the ocean.

This exhibition, *Ocean Imaginaries*, features the work of twenty international and Australian artists whose works, inspired by science and shaped by the poetics of art, explore many of the contradictions and conflicted feelings raised by the way the ocean is imaged in an age of profound environmental risk. To an urban audience, the art-works reveal some of the invisible changes triggered by ocean acidification, the polluting effect of microplastics, coral bleaching and the impact of rising sea levels. Utilising a quiet, elegant aesthetic, the projections, paintings, photographs, sculptures, videos, animations and installations, in the words of ocean scientist, Professor John Finnigan, "subvert familiarity with information and surprise. They have added information and entropy to patterns that have become familiar to the point where they no longer cause us to wonder or to be alarmed at their possible disappearance". These art works reveal our frog in close-to-boiling water moment.

Since 2007, RMIT Gallery has developed and presented five vanguard exhibitions that address the impact of climate change. The timing in presenting *Ocean Imaginaries* is apposite to an urgent global discourse. The exhibition draws on research in the field of art and ecology undertaken by the AEGIS Research Network led by Associate Professor Linda Williams in the RMIT School of Art. RMIT Gallery is ideally located to bring this international research collaboration into the cultural life of Melbourne in the context of the 2017 Climarte Festival (Climate + Art = Change). We thank Linda for her committed initiative in proposing and curating a project of such critical significance.

Consistent with RMIT Gallery's pan-university remit, in partnership with SIAL (Spatial Information Architecture Laboratory) Sound Studios we presented two concerts, titled *Oceans*, of new and classical works in the electro-acoustic repertoire inspired by the sounds of the ocean: stories, journeys, tragedies, submersion, ice, politics, fishing, calls and waves. Each night the audience experienced multitrack pieces by established and emerging composers from Australia, Canada, Italy, France, New Zealand, Britain and Norway. Associate Professor Lawrence Harvey, Director of SIAL, curated and designed the sound diffusion, with intern Sophie Weston, and technical management by Simon Maisch with Ari Sharp. Jeffrey Hannam conducted a sonic workshop for Masters students.



*Number of the Machine*, opening night performance,  
RMIT Gallery, May 18, 2017.

A further creative partnership between choreographer Antony Hamilton and RMIT's Audiokinetic Experiments Laboratory (AKE Lab) led by Associate Professor Darrin Verhagen, with AKE's associated artistic collective ((20hz)), provides a performative kinetic sculpture to the exhibition. In the work titled *Number of the Machine*, two performers, Melanie Lane and Amber McCartney, engage with a machine in motion, labouring for four hours a day for three weeks to assemble and disassemble a timber dwelling from one synthetic island to another. Combined with an ominous sound design by ((20hz)) that amplifies the rhythmic patterns of two 6DOF (six degrees of freedom) motion simulators that activate the performers' bodies, there is a powerful sense of relentless motion, like the ocean, beyond human control and to which we are subject. The *Number of the Machine* can be read in many ways, and most particularly, in the context of *Ocean Imaginaries* it is resonant with thoughts of island migration, loss of habitat, of refugees seeking shelter and security. This trajectory of the work underscores in visceral terms the impact of an unstable environment on all life, particularly the most vulnerable.

The oceans project with its various elements is the result of extensive co-operation between artists, dancers, musicians and technicians to create an intensely rich, informative experience. We thank most warmly all the artists in the *Ocean Imaginaries* exhibition; Lawrence Harvey for curating and performing the Oceans concert; Darrin Verhagen for initiating the engagement with Antony Hamilton. John Finnigan in opening the exhibition delivered such a lucid address that we have included it in this publication, and we thank him for his generosity.

This exacting project extended the RMIT Gallery team who have ensured meticulously presented exhibitions and performances. Nick Devlin, Helen Rayment, Jon Buckingham, Evelyn Tsitas and Megha Nikhil with Mamie Bishop, Maria Stolnik and Kaushali Seneviratne have all brought their professional skills and expertise with a now familiar good humour and grace.

We thank Deputy Vice-Chancellor Research and Innovation and Vice-President Professor Calum Drummond who enables the gallery to deliver exhibitions of this complexity and calibre.

Finally we thank Richard Toop, world renowned musicologist who opened our eyes, ears and hearts to New Music of the 20th century and beyond.

**Suzanne Davies**, Director and Chief Curator



Performance of *Oceans: new and classic electro-acoustic compositions* by SIAL (Spatial Information Architecture Laboratory) Sound Studios, RMIT Storey Hall Auditorium, 2 and 3 May, 2017.



# Ocean Imaginaries, Introduction

## John Finnigan

Linda Williams and I first met at a symposium at the Academy of Science in Canberra to launch Future Earth Australia, the Australian arm of the biggest international program supporting global sustainability. So when she invited me to open Ocean Imaginaries, Linda asked me to talk about my science. But in fact I want to talk about science *and* art and the links between them. So please bear with me if I take a short excursion through science on the way to art.

I want to talk about entropy and patterns, about information and surprise and about art and sustainability.

Entropy is a mysterious concept, now beloved of science fiction writers, but it was originally introduced in the grimy, coal powered days of the early industrial revolution to understand how steam engines worked. The *first* law of thermodynamics, which states that energy is always conserved although it can change forms, was found to be insufficient to understand these smoke belching behemoths, which had recently come to dominate the new industrial landscape. The concept of entropy was needed too but its meaning remained obscure until Ludwig Boltzmann and Josiah Willard Gibbs showed that this mysterious thing, entropy, was actually just disorder by another name.

All natural systems, left to themselves tend to become more disordered and the most disordered state of anything is just the random movement and collision of a sea of its molecules. Scientists know this as heat and it is the ultimate fate of everything (and everyone). In fact, the second *law* of thermodynamics says that in all systems, disorder or entropy always increases.

So one way of stating the laws of thermodynamics is: *first law*-the best you can do is break even; *second law*-you can't break even!

What has this to do with patterns? Patterns are the opposite of disorder. Systems can only become ordered if there is a flow of energy through them. This flow can keep a system in a state of low entropy or order, overcoming the natural tendency to disorder.

The pre-living earth received energy from the sun and re-radiated heat from its warm but barren surface back to space. Its entropy was high. Over four billion years ago, the advent of life on earth started to change all this. Three billion years ago plants invented photosynthesis and began to use the sun's energy to create complex compounds-molecular patterns that were the antithesis of random molecular collisions. Since then, evolution and natural selection have continued to increase the complexity of the living earth, driving it further and further away from a high entropy disordered

state. Technological man has sharply increased the extent to which we keep entropy low on earth by utilizing new energy flows, first from fossil fuels then fissile uranium and now by more efficient ways of capturing solar energy.

So our low entropy earth consists of complex patterns at all scales from the ocean gyres to the global cycles of carbon and water on land and in the seas to the patterns in information flows typified both by the evolution of complexity in living organisms and by the structures of human society.

Now, humans are pattern-recognising creatures to a fault. We seek and impose patterns even on truly random objects-think of a Rorschach test. Science itself progresses by seeking patterns and organisation at larger and larger scale. It is on an eternal quest for principles that unite more and more disparate phenomena under a single banner.

Which brings us to information and surprise.

Just as Boltzmann and Gibbs revolutionised our understanding of entropy in the 19th century by equating it with disorder, in 1945, Claude Shannon redefined *information* as surprise-and showed that it could be related to entropy as well. Shannon said that, if you are sending a message to someone, the more predictable it is, the less 'information' it contains. Conversely, the more surprising it is, the more information it contains. Paradoxically, a message consisting of completely random words is completely unpredictable and so contains maximum information whereas, if most of the message's content can be guessed from just a portion of it, it has low information content. A clear pattern then, which has low entropy, has low information content whereas a random, disordered system, which has high entropy, has high information content.

Information *equals* surprise!

And just as humans are pattern seeking creatures, they have forever been driven to subvert these patterns by adding surprise and information through art.

In this exhibition we have a series of stunning works that add wonder and surprise to the patterns of our living earth. We will see reflections of patterns at myriad scales from the achingly slow creation of sedimentary rocks to the accelerating impact of ocean warming and acidification on the ice caps, on coral reefs and on sea level to the role of ocean gyres as giant concentrators of human detritus. These patterns are the signatures of a global system that inextricably mingles human choice and action with the natural workings of the planet. We will see the literally fabulous solutions that the endlessly inventive process of evolution has produced to living from the abyssal depths to the sun-warmed littoral. And we will see how the present course of our human-earth system might tip us out of our familiar environment to a new imagined ocean world with perfect indifference to our wishes.

The artists have seen all this through new eyes. They have added information and entropy to patterns that have become familiar to the point where they no longer cause us to wonder or to be alarmed at their possible disappearance. Subverting familiarity with information and surprise is a role artists have

played from the first objets d'art of prehistory: the paintings of Lascaux and Altamira or the Kimberly; from the Venus of Willendorf to Michelangelo's Pieta and Picasso's Guernica.

So science and art pull in opposite directions. Science aims to clarify patterns, to reduce entropy. Art adds surprise so the patterns are thrown back into stark relief. Societal choices, culture and zeitgeist are made in the tension between science and art. Human society needs them both.

Global sustainability is probably the greatest challenge we now face as a species as we head towards unprecedented levels of population and economic activity on earth.

Today we live in a time of collision between two major narratives that we use to understand our place on earth: the exploitation narrative and the nurturing narrative. Exploitation and economic growth on balance have improved the lot of billions-but at serious cost for the present of some of us and the future of all of us. The idea of *nurturing* rather than *using* the planet has roots that are not so deep in time as exploitation but which began to capture popular imagination through art with the poets, painters and writers of the late romantic period.

By the 1960's the environment movement was a growing narrative force. Every other student bedroom had the famous picture of earthrise taken from moon orbit by the Apollo astronauts, a potent reminder that our beautiful blue green planet was finite and fragile. For the last 50 years or longer there has been a continual interplay between the findings of science, which confirm earth's fragility and finitude, and the creations of artists who emphasize it by confronting us with images, words and songs that jolt us out of our complacency. And an enduring confrontation between the opposing values of conservation and exploitation- a conflict that waxes and wanes ever more fiercely as humanity's pressure on earth's resources intensifies.

In this wonderful exhibition artists have taken patterns of ocean life that science has revealed and they have made us see them anew. Through the creative tension they have built between science's cold equations and their own potent reimaginings, they have taken us one more essential step towards the time when sustainability will inform both our political choices and our personal behaviour.

Thank you and welcome to Ocean Imaginaries.

#### POSTSCRIPT 8 MAY 2017

The logic of the argument above, which says that science reduces entropy by explaining many different phenomena using universal organising principles, seems sound, at least at first blush. The notion that art adds surprise and information by revealing aspects of these same phenomena that science glosses over also seems to make sense. However, taken together, these two statements pose an obvious paradox. This is that it is generally assumed that it is the creative thinking of individuals that is responsible both for breakthroughs in science and novelty in art. In both cases, the artists or scientists are seeing old patterns in new ways. I would need to check this but

I believe that experiments have shown that the same areas of the brain are excited by the creative process in science and in art. So how can this fit with the notion that 'science and art pull in opposite directions'?

One possible solution to this conundrum lies at the level of the collective rather than the individual. It is often said that if certain great scientists had not solved some critical problem, then someone else would. If Einstein had not revealed special relativity, then Lorenz or Poincare or someone would have done so eventually. Darwin and Wallace both hit upon evolution by natural selection at the same time. The same goes for any other scientific discovery. The enterprise of science driven by the scientific method of data gathering and hypothesis testing is as inexorable as Juggernaut's chariot as it grinds onwards, generating verifiable knowledge. Individual scientists might be responsible for breakthroughs but the enterprise of science does not depend on any individual.

The opposite is assumed of art. If Picasso had never lived no one else would have painted Guernica. Works of art are always tied to individual artists. What about movements in art? These also are usually started by individuals or very small groups of collaborators even if others then follow on, forming whole schools of impressionists or cubists or pre Raphaelites.

So there is an essential difference between art and science. Although the creative act may be the same thing for individual scientists and artists, there is nothing in art or even movements in art that corresponds to the scientific enterprise.

The alert reader will have noticed that this explanation of how science works adopts by default the Platonic view that scientific truths are 'out there' waiting to be discovered, that they are enduring truths about how the world works. If instead we cleave to the constructivist view that scientific knowledge is entirely constructed by humans and would be different if developed by a different species, this argument breaks down.

Discuss.

[Professor John Finnigan FAA, CSIRO Marine Atmospheric Research and ANU Research School of Biology](#)

P 12.  
[Emma Critchley and John Roach, Passage, 2016.](#)  
Installation, HD film, digital print, Batesford limestone, chalk, glass jar, hydrophone, amplifier, speakers.  
Courtesy of the artists.



# Global Oceans and the Urban Imaginary

Linda Williams

*Though inland far we be,  
Our souls have sight of that immortal sea  
Which brought us hither.*

**William Wordsworth** *Intimations of Immortality* (1804)

*Ocean Imaginaries* considers how the ocean is reimagined by artists from a contemporary urban perspective informed by science. From this perspective, the vast circulatory systems of the world's oceans are seen as a web of ecological interdependence arising from the deep-time processes of natural history, and as the original source of human evolution. This evolutionary view complements the cultural legacy of Romanticism in which deep human connections with the ocean appealed to writers and artists as a compelling metaphor for the sacred mysteries of nature. Yet the Romantic image of the ocean as a potent, almost limitless source of energy has been contradicted recently by countervailing imagery of the slow violence of ocean pollution; this pollution not only represents a risk to human interests but also to a diverse range of endangered marine creatures. Consequently, while the vibrant imagery of wild, pristine oceans still persists in contemporary culture, it is now often displaced by an imagery of pollution, destruction and potential catastrophe.

This international exhibition includes works by twenty artists responding to various perceptions of global oceans: from immersive environments conveying the beauty of marine biodiversity or the representation of nonhuman time-scales, to uncompromising images of pollution, ecological erosion, and the global threat of anthropogenic climate change.

## FROZEN SEAS



The Dutch artist Guido van der Werve's large-scale video projection: *Nummer acht, everything is going to be alright* (2007) records the simple act of the artist walking slowly across an expanse of sea ice near the Gulf of Bothnia, off the coast of Finland near the Arctic Circle. Less than 10 metres directly behind him, a 3,500 tonne icebreaker thunders along as it slices easily through the ice. Despite the proximity of this massive ship van der Werve seems to walk on solid-enough ground. As a result of milder winters and fluctuating temperatures produced by climate change, pack ice in this region has become more solid and difficult for ships to break. Local conditions, then, seem to suggest things 'are going to be alright' – an assumption that the artist's confident stroll before the massive ship seems to reinforce. Yet there is also something risky about this venture that is suggested not only by how the artist's small silhouette is contrasted by the great steel hull of the ship, but also by the unyielding force of human technology and the endeavour to vanquish the elements that the icebreaker calls to mind.

Van der Werve had to travel to a cold, hostile environment to gain this footage, an enterprise matched by the English artist Chris Wainwright in his evocative large-scale photograph of an arctic iceberg *Red Ice 3* of 2007. For this work Wainwright travelled with UK arts project *Cape Farewell* to the north-west polar region of Greenland so he could manoeuvre a small inflatable dinghy around the icebergs. Working in sub-zero temperatures, Wainwright projected red light onto the ice to convey the paradoxical impression that it is burning before our eyes. While this is a clear allusion to the melting polar ice caps and mountain glaciers as a result of global climate change, Wainwright makes his point simply and subtly especially since there is something seductive about the transformation of the iceberg into the kind of artificial artefact that led the ecocritical writer Tim Morton to compare it to one of the 'hyperobjects' of end-time ecology (Morton, 2013). Wainwright's *Red Ice 3* glows with energy as it looms out of the ocean like a kind of semaphore in the new semiotics of potential catastrophe that has become a major current in environmental art. As his work suggests, however, the imagery of immanent catastrophe is often more compelling when aesthetically restrained, especially when it responds to changes to the ecologies of seas and oceans that are not always visible.



## LIMINAL ZONES

Another approach to the less visible ecological shifts in marine ecologies is seen in how artists reimagine geo-political and environmental tensions in the liminal zones where the ocean meets the land. *deadcalm tower 21* (2016) and *deadcalm border 132* (2016) by Australian artist Lynne Roberts Goodwin present two unadorned photographic images of the shores of The Dead Sea, the lowest elevation point on earth. It is an extremely hot region, well-known for its archaeological significance, enduring biblical narratives and the protracted geo-political conflicts of the present day. Roberts-Goodwin's photographs are situated from a site in the West Bank encompassing views of the invisible political border with Jordan that stretches from north to south across the densely concentrated salt water of the sea. The tower



shown on the shore in *deadcalm 21* is one of many that convey electricity to a controversial Israeli industrial plant to the south, which along with Jordanian plants in the area, draws on vast evaporation ponds to process locally extracted potash (potassium chloride) along with other salts and minerals for the global market. The source of The Dead Sea is the Jordan River, from which water is drawn extensively for agricultural irrigation. As this river continues to be depleted, the sea is further reduced by extractive mining and evaporation processes which over the last fifty years have led to a much smaller Dead Sea' and a range of other regional environmental problems such as shrinking aquifers and an alarming number of dangerous sink-holes. The Dead Sea is actually a large brackish lake rather than a sea as such, yet these photos speak eloquently about how urban and industrial processes have not only changed the surprisingly diverse coastal ecologies of this region, but have also intensified environmental change in seas and oceans across the world.



The Australian artist Dominic Redfern also explores the liminal coastal zone in his triple screen video panorama *The Beach at Skara Brae* (2013). The videos for this triptych were recorded in the Orkney archipelago off the remote north-eastern coast of Scotland, another site with long histories of human occupation and engagement in geo-political conflict. At first this is far from clear in the unhurried poetic rhythms of the tide that are typical of the slow, contemplative approach to ecology in Redfern's work. As the title suggests, the videos represent the beach at *Skara Brae*, one of the most important prehistoric sites in Europe where a rediscovered Neolithic stone village is now a UNESCO world heritage site that has become an important part of the Orkney tourism industry. The site also serves as a potent archaeological reminder of the ancient relationship between human histories and the sea in this region, and this is captured by Redfern's own semi-archaeological approach to the range of detritus that gradually emerges amongst the weeds and grasses along the shore. Unfolding slowly to the constant sound of the bracing north wind, the lens reveals the ropes, nets, cyclone fencing and submarine netting that recalls the history of Orkney's inhabitants. As these small material histories unfold, they recall the submarines used in two world wars, the centuries of fishing and gathering food on the shore, and further back before historical records to the first human settlements of the region, and hence to the deep, yet not always visible connections between the ocean and the present day.



In his photographic work *Algas (algae)* from the *Washed Up* series, (2013) the Mexican artist Alejandro Durán also works with ocean flotsam, in this case more recent objects from his *Washed Up* series based on the massive amount of discarded plastic and other rubbish from across the world that ends up on the tropical beaches of Sian Ka'an in the Caribbean. Sian Ka'an is Mexico's largest natural reserve which, like Skara Brae, is also a UNESCO World Heritage site, yet one polluted by the ocean currents that have brought the world's rubbish to its shores. On his website, Durán records how the detritus of the 'trashed landscapes' of the Sian Ka'an coast can be traced back to fifty-eight different countries across the world, including an aerosol

1 In 1950 the Dead Sea was around 50 miles long, but is only around 30 miles long today.

can of electric motor cleaner from Australia.<sup>2</sup> This collection of global debris is the raw material from which Durán selects objects in particular colours to construct coastal assemblages that he then photographs. In *Algas*, the assemblage comprises masses of bright green plastic bottles arranged to mimic the organic blooms of marine algae that develop in polluted waters. The effect is immediately visually attractive yet also quickly becomes repellent - a compelling combination which the artist has contrived to make a critical point and thus avoid a colourful aestheticisation of pollution.

By the same token, to approach the ocean purely as a matter of reasoned critique about its critical environmental problems is to elide its enduring aesthetic appeal and to overlook its sheer power over our emotional responses. This idea is expressed effectively with simplicity and wit in the painting *Resolution* (2014), by the Australian artist Joel Rea in which a bureaucratic-looking individual, complete with briefcase and note paper confronts the massive wave poised to engulf him. It is a salutary reminder that nature will always remain a bigger story than the human, and deftly makes a point which all the artists in this exhibition are aware of that images have the power to persuade in ways not always available to purely rational discourse.



The American artist Chris Jordan's work *CF000313 from the Midway-Message from the Gyre* series (2009), is a good example of the potentially affective power of a single image, which as in the work of Rea, Durán, Redfern and Roberts-Goodwin is located on a coastal site. Jordan's striking image of a decayed Albatross chick that died by consuming plastic rather than seafood was taken on the beach at Midway Atoll in the Hawaiian Archipelago in the North Pacific Ocean (a tactical American military base during WWII). The natural ocean currents near Midway Atoll constitute part of the North Pacific Gyre: one of the world's five major oceanic gyres that include the north and south Pacific Gyres, the Indian Ocean Gyre, and the northern and southern Gyres of the Atlantic. Plastic rubbish is now strewn across all major global gyres and other marine sites such as the Mediterranean, but the Pacific Gyre is probably the most polluted and contains a vast area now known as the Great Pacific Garbage Patch. Estimates vary on the extent of this garbage patch which very likely shifts in size and depth with the currents, but it is most concentrated in the subtropical convergence zone where plastic detritus has been photographed as far as the eye can see. Jordan's now famous image sends a compelling *Message from the Gyre* of the ecological impact of the non-biodegradable products of consumerism to urban audiences. In his digital print series *One Second More* (2010), the Australian artist Stephen Haley has amassed data on the number of material goods and financial transactions produced in a single second across the world at the production rates of 2010. Along with 43,259 energy intensive internet searches and \$46,392 spent per second by the US military alone, in 2010 every second the world produced 1,146 barrels of oil, 31,168 plastic bags, 2,963 kilos of wild fish, 961 toilet rolls, and 5,982 plastic water bottles. And Haley's work in this exhibition *One Second (Plastic Water Bottles 5982)* reveals where so many of the 5,982 plastic water bottles produced globally every second



<sup>2</sup> <http://www.alejandroduran.com/international-products/>

very often end up. And as a recent Australian-based study has argued, in order to prevent the kind of plastic pollution to which Haley, Durán or Jordan attest, a much deeper analysis is required of what kind of bio-political and socio-economic agencies are fulfilled by the mass markets for bottled water (Hawkins et al, 2015). What art can bring to this issue, however, is a palpably felt experience which has the potential to engage the public imaginary, especially through the visualisation of processes that remain out of sight -and as often as not- out of mind. The plastic objects we regularly discard reappear beyond our field of vision to present grave hazards to a range of marine creatures, yet one of the most insidious effects of plastic pollution remains largely invisible since microplastics are now suspended in water columns throughout the world. They are present in the sea surrounding Wainwrights *Red Ice* near the North Pole (Lusher et al, 2015), near Durán's work in the Caribbean, or where Redfern recorded the movements of sea near Skara Brae, and have now been shown to have infiltrated the once pristine waters of the Great Southern Ocean near the Arctic (Isobe et al, 2017).

### RISING AND WARMING SEAS

The Australia artist Josh Wodak considers another problem brought about by anthropogenic global warming and melting sea ice: which is how these factors have triggered a rise in global sea levels. Wodak's work *Two Degrees of Separation* (2012) speculates on how varying levels of global warming will affect the people of the low-lying Pacific Island of Tuvalu. On the right-hand side, a local man faces a future where there will be a less than two degree increase in global warming. In this future scenario, he is submerged but just manages to keep his head above water, though in the upper range of warming his land will no longer provide him with the home his people have known for centuries. On the right, however, the same man begins to drown beneath the waves that will completely overwhelm Tuvalu if the global temperature increases by more than two degrees. These are the uncompromising equations of potential oceanic change in the 21st century, a projection of data also followed in real time in the work of the Japanese artists teamLab. teamLab's video sequence *100 Years Sea* (2009) unfolds like a long Japanese scroll of islands in an Asian sea that increases in depth according to shifting predictions of sea level rise since 2009 when the work began. This digital artwork is designed to run for 100 years, and as the years pass, global shifts in sea level rise are measured on a small separate monitor as in the images the seas gradually subsume the islands that at least for now are still visible.



Just as global climate change is producing rising sea levels it is also increasing the temperature of the ocean, a gradual warming that threatens the fragile ecosystems of coral reefs and has already damaged large areas of another UNESCO world heritage site, Australia's Great Barrier Reef. The coral bleaching and general ecological erosion of this reef through warming seas and pollutants is a serious problem that has become a crucial concern in the work of Australian artist Janet Laurence. In *Collapse I - II: Reef Resuscitation* (2015) Laurence compiles a delicate web of organic and manufactured objects to convey a palpable sense of the reef's fragility and vulnerability to human activities. The imagery of transparent plastic pipes alludes to those used in oxygen masks and other equipment in hospital life-support systems,

which while serving our own vital needs also seem inadequate to the task of bringing the white coral back to life. Laurence's use of translucent materials such as glass or sheer plastics also reinforces the notion that many of the most serious threats to the world's oceans essentially remain invisible to the human eye until their impact becomes almost irreversible.

## UNDERWATER WORLDS

Many of the artists in this exhibition also explore the worlds below the surface of the ocean: some reveal its poetic power, while others represent its extraordinary creatures and how anthropogenic changes to global environments are impacting on fragile marine ecosystems. Marine species are still being discovered, especially those from the deep pelagic levels of the ocean which seem so unfamiliar when they are hauled to the surface as dead creatures in a completely alien terrestrial environment. Two small paintings by the Australian artist Sam Leach represent such strange creatures of the dark ocean depths that are transfigured by the alien environment of the urban gallery. Leach's accurate portrayal of an anglerfish specimen in *Angler (mare ditat)* (2017) for example, is much weirder than anything depicted by the Surrealists who were certainly no strangers to the uncanny imagery of predation or sexual parasitism. Here, this ancient creature is displayed with the luminescent growth emerging from her head which is used to lure curious prey into a massive mouth crammed with razor-sharp teeth. She is, cold-blooded, which is clear to human spectators in the entirely non-mammalian way she absorbs the tiny male of her species back into her body after mating. Next to the image of this monstrous hunter, another of Leach's works, *Granrojo (against the world)* (2017), reveals another deep-sea creature which at first glance looks more benign. First classified in 2003 as Granrojo (large red) (Matsumoto, 2003), this strange, red jellyfish grows up to a meter in size. It has four to seven fleshy 'arms' rather than stinging tentacles, though it is not yet known how it eats<sup>3</sup>. Extending across its primitive, soft body, Leach has inscribed the pseudo-Linnean Latin phrase: *scyphozoa contra mundum* (jellyfish against the world) - a warning, perhaps, that creatures from its world may become extinct before being classified, or that certain creatures, jellyfish amongst them, can rapidly become invasive species at the expense of others that have lost their natural habitats due to human activities.



Near to Leach's paintings, the German-British artist Mariele Neudecker's work *The Architeuthis Dux Phenomenon* (2017) comprises two video monitors running a slow, twelve-meter tracking shot of another deep-sea invertebrate: The Giant Squid (*Architeuthis dux*). These ancient creatures evolved long before humans, and though our origins also arise from the ocean we often represent it as a hostile realm in which these giant squid (which can grow up to thirteen meters) are represented in folklore and literature as 'kraken' or sea-monsters. The specimen in Neudecker's video is just over eight and a half meters long, and was caught accidentally by a fishing trawler near the



3 [http://news.nationalgeographic.com/news/2003/05/0505\\_030505\\_tvnewjellyfish\\_2.html](http://news.nationalgeographic.com/news/2003/05/0505_030505_tvnewjellyfish_2.html)

Falkland Islands before being contained in a ten-meter tank of formalin in the basement of London's Natural History Museum. Neudecker has worked a lot with tank installations containing submerged objects, but in this piece she has changed places with the position of spectator outside the tank as the slow horizontal movement of her camera emphasises the massive scale of this creature's pale, slightly decayed body. Squid and octopuses are thought to be the most intelligent of invertebrate species, with complex nervous systems; while octopuses have also been observed using tools. Squid have the largest eyes of any living creature and excellent eyesight, but here it is the squid itself that is the subject of observation, and like the deep-sea creatures in Leach's works, has been wrenched out of its dark world to become a strange spectacle of the contemporary city. This, of course, is part of these artists' strategy: to recognise the strangeness of the oceanic world, yet acknowledge its ancient connections with our own.

## SHIFTING SEDIMENTS AND CHEMISTRY

Images suggesting human connections with the ocean across deep, evolutionary time are more oblique, yet no less compelling in *Passage* (2016), a work by the English artist Emma Critchley in collaboration with US sound artist, John Roach. Filmed in a mysterious underwater passage, a video projection shows an underwater world where light becomes subtly diffused as it filters down from the surface. Placed before this projected image, a glass tank of water containing sedimentary chalk is connected to a hydrophone which records the soft, creaking sound of the chalk dissolving, so that the submerged sonic process is amplified and extended towards the viewer. Like marble and limestone, chalk (calcium carbonate) is formed by the slow accretion of layer upon layer of exoskeletons of microscopic marine plankton deposited on the sea floor. Over millions of years, geological processes produce sedimentary stone or chalk, which is why so many human artefacts and buildings owe their origins to the ocean. In this installation, the process of sedimentation is turned upside-down as chalk dissolves in water, yet in the underwater image that complements the sound, the two small cliffs of the underwater passage rise towards the surface as the material indices of the accretion of sediment over time. This allusion to geological processes across the aeons forms a stark contrast with urban concepts of time caught up in the expediences of everyday life and short-term electoral cycles. Through these visual and sonic tensions, Critchley and Roach convey an unexpectedly poetic rendering of the long, slow processes of natural history.



Scottish artist Anne Bevan's work *Ghost I* and *Ghost III (Ammonia Beccarii)* (2012) is the result of a collaboration with marine bio-geologists at the University of Edinburgh. In these she has adapted CT Scans used to record and magnify the minute shells from single cell organisms of marine plankton, or foraminifera. The species represented here *Ammonia beccarii* - one of a wide range of foraminifer species that form the crucial basis of the marine food chain on which creatures from minute zooplankton to whales depend. Bevan's works capture the structural complexity of microscopic plankton with fine exoskeletons, and highlights their fragility when exposed to marine habitats where the calcium carbonates such creatures need to construct their shells is depleted due to ocean acidification. Bevan's subtle gliclee

prints and the exquisite three-dimensional acrylic print from CT scans come under the rubric of the title *Ghost*: a reference to how countless fine foraminifera shells of once living creatures are found in our environment. The small, three-dimensional print is designed to be illuminated by diffused light, which further emphasises the fragility of the creature's spiral shell. More perturbing, however, is how the title also refers to the living plankton species in the world's oceans as they continue to absorb approximately one-third of the excess CO<sup>2</sup> produced by human activities, which has risen significantly with the consumption of fossil fuels. Ocean acidification is a biochemical process that constitutes one of the most acute environmental problems of our era, and has the potential to affect people everywhere. Yet recent studies suggest that, outside science, it is a process that is little understood (Gelcich, S. et al, 2014). Artists can open a channel of communication on such problems, and consistently they do this best through the subtle visual poetics of artists like Bevan rather than didactically.

The Australian artist Debbie Symons takes a more direct approach to data on ocean acidification, but she also reconfigures this poetically in her evocative artwork *Limacina helicina antarctica - The butterfly effect* (2016). The notion of a butterfly effect is a popularised version of the principle of interconnectedness in ecology, and the notion drawn from chaos theory that small causes can lead to large, unforeseen changes. In this account, a butterfly fluttering its wings on one side of the world has the potential to create a tornado on the other. In Symons' work this becomes a fitting metaphor for how small, individual acts (such as personal dependence on fossil fuels for example) can lead collectively to massive emissions of CO<sup>2</sup> and hence, potentially, to ocean acidification on a catastrophic scale. Symons focuses on the cold water pteropod of the Southern Ocean: *Limacina helicina antarctica* - a species of zooplankton more popularly known as the sea butterfly, which is vulnerable to the impact of ocean acidification. This minute creature is reconfigured as a digital animation swimming gracefully across a video screen as the level of pH in the ocean decreases from pre-industrial levels, which is recorded below, a decrease representing more than a 25% increase in ocean acidity. Almost imperceptibly, the shell of Symons' pteropod becomes less distinct as the creature struggles to adapt to its environment. Just as microplastics have been detected in the Southern Ocean, Symons' work shows how the sub-polar ocean, once considered pristine, is now also threatened by ocean acidification.

The Australian artist Simon Finn also approaches the ocean from beneath the surface to study how its motions unfold across time. In *Submerged Left Tilt* (2013) and *Submerged* (2016) Finn depicts the complex shifts of the ocean surface as seen from below. While in his big free-hand charcoal drawing *Submerged Left Tilt* (2013) he again observes the surface from below as observed while diving. Finn's works have a reflective quality that allude to the energy of the tides, along with powerful currents and surface winds that convey how the slow dynamism of the ocean unfolds over time. Finn's digital and sculptural work *Death Spiral* (2016) also considers the shifts in the ocean across time, but here the time-frame incorporates the impact of the human use of fossil fuels. Finn starts with points of geometrical data, then uses a physics simulator to generate a virtual ocean surface. This data is then



processed as a 3D resin print that sits on top of tile-like segments of charcoal stacked in a spiral. On the surface and at the top of the spiral the black waves appear to have their usual motion and surface tensions, but as it descends the ocean takes on the appearance of carbonised wood or coal. On one level this suggests the motions of sedimentation across deep time, but there is also a countervailing motion that throws this entire sequence into entropic reverse as the entire water column appears to be blackened by effects of using fossil fuels.

A similar concept of entropic motion also imbues the British artist Jason deCaires Taylor's work *Inertia* (2011) where a decadent figure made of non-toxic pH neutral concrete representing idle consumption, sits four metres below the Caribbean Sea near Cancún, Mexico. This life-like cast of an inveterate coach potato slouches impassively before a television with fast food on his lap, yet ironically, like deCaires Taylor's other underwater sculptures, he has become an agent of ecological regeneration. This is because he is located in a shallow sea in a region damaged by hurricanes and storms and has become something of an anchor for algae, crustaceans and small fish. The title of a more recent work, *Crossing the Rubicon* (2017), refers to the well-known classical analogy for a point of no return, or a tipping point in which the future life of the oceans lies in the balance. This video projection shows the work as part of a new underwater museum fourteen metres below the Atlantic off the coast of Lanzarote in Spain. DeCaires Taylor's *Rubicon* is a gateway in a long wall approached by thirty-five human figures walking to the gate as if towards a portal to another world. DeCaires Taylor has planned the entire installation as a structure for a new reef, yet also leaves the outcome of the environmental tipping point entirely open. The reference in the title to crossing the Rubicon suggests that we may well have left things too late, yet in another work *Portal* (2017), a different, almost magical new ocean is still seen as a possibility. Here the mythical figure of a child with animal features gazes at the under-surface of the ocean through a large mirror as a real diver swims by, observing her. It is an image in which a life-affirming transformation is made possible through the power of the imagination.



It is the transformational power of the imagination that inspires the immersive full dome cinema installation *Coral: Rekindling Venus* (2012) by the Australian artist Lynette Wallworth. Wallworth initially timed this work to be released in 25 countries in June, 2012 during the transit of Venus, a rare astronomical event that also occurred in 1769 when Captain James Cook sailed to the Southern Hemisphere to record its passing. The aim was to better understand the scale of the solar system and to work towards solving the problem of calculating longitude in navigation. Cook's journey was supported by an unusual international collaboration between the Royal Society and the Académie Française with the aim of solving a scientific problem. Now shown for the first time in an art gallery, *Coral: Rekindling Venus* refers to the acute need for international collaboration on a scientific challenge of our own era: how to prevent our coral reefs from further erosion by climate change and other anthropogenic stresses. For some years Wallworth has worked with Dr Anja Salih, a marine biologist specialising in coral fluorescence, a collaboration that has enabled the artist to show how corals filmed at night capture and emit light in radiant colours. In this sense,

her work enacts a kind of biomimicry: as the coral evinces its resistance to erosion as it channels light, so the viewer is momentarily transported by brilliant light and colour into the oceanic world as a realm of wonder. As Wallworth explains: 'My intent is to leave the audience with a sense of wonder for the complexity of the coral community and a deep-felt longing to see it survive'.

Many of the artists in this exhibition also convey this same sense of wonder, while others show how near we are to losing the marine world that has inspired it. Though inspired by science, the work in *Ocean Imaginaries* addresses the audience through the language of art, which is to say- often obliquely and seductively, and at a level of unstable emotional affects not always easy to define. What the artists share, however, is an unequivocally clear understanding of precisely what it is at stake in acknowledging that the future of the oceans remains uncertain.

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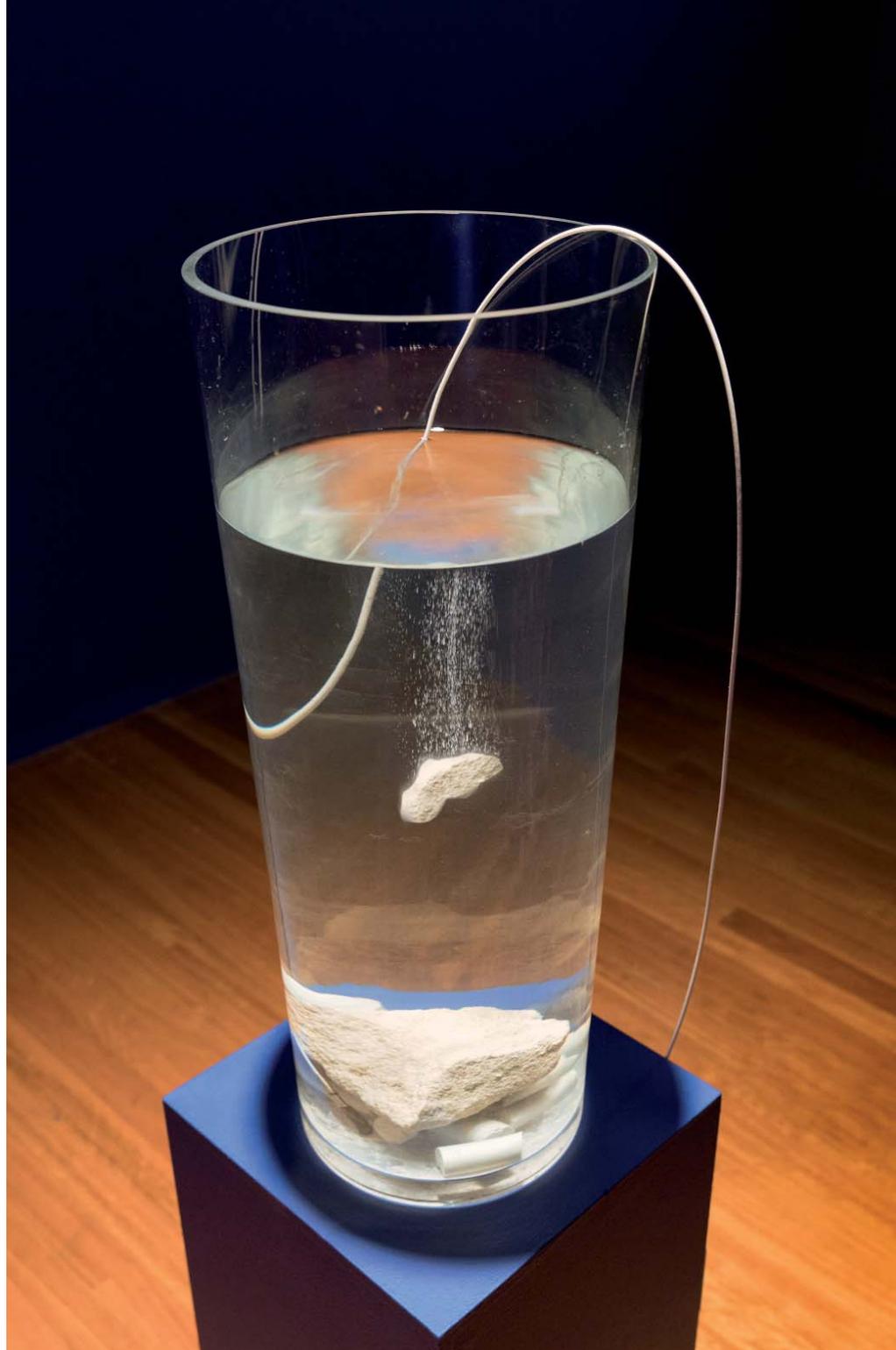
**Anne Bevan,**  
*Ghost*, 2012.  
3D acrylic resin print from CT scan, 12 x 12 x 6 cm.  
Courtesy of the artist.





**Alejandro Durán,**  
*Algas (algae) from the Washed Up series, 2013.*  
Digital print. Courtesy of the artist.

**Emma Critchley and John Roach,**  
*Passage, 2016.*  
Installation: HD film, digital print, Batesford limestone, chalk, glass jar, hydrophone, amplifier, speakers. Courtesy of the artists.

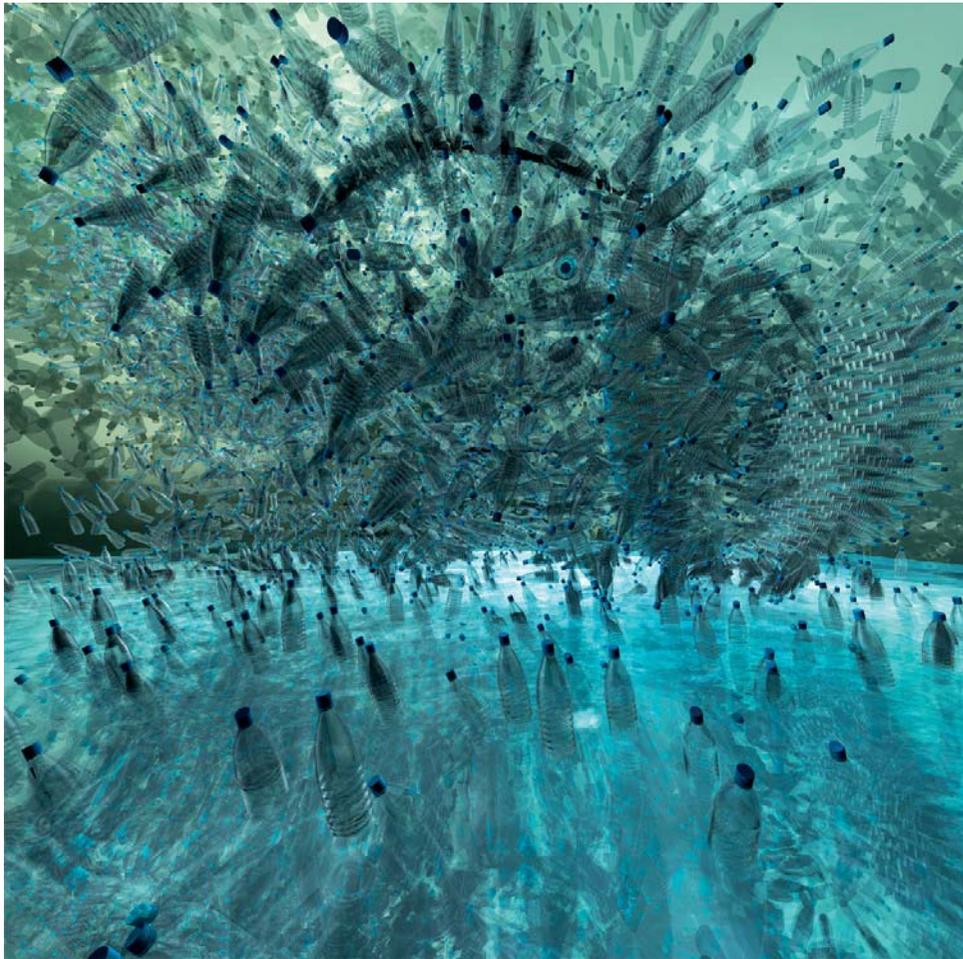




**Guido van der Werve,**  
*Numer acht, everything is going to be alright*, 2007.  
16mm film transferred to video. Duration: 10:10.  
Courtesy of the artist.



**Simon Finn,**  
*Death Spiral*, 2016.  
Synthetic polymer, wood, enamel and resin, 50 x 50 x 80 cm.  
Courtesy of the artist and [MARS] Gallery.



**Stephen Haley,**  
*One Second (Plastic water bottles 5982)*, 2010.  
Lightjet photograph, ed. 4/5  
120 x 120cm. Courtesy of the artist and [MARS] Gallery.



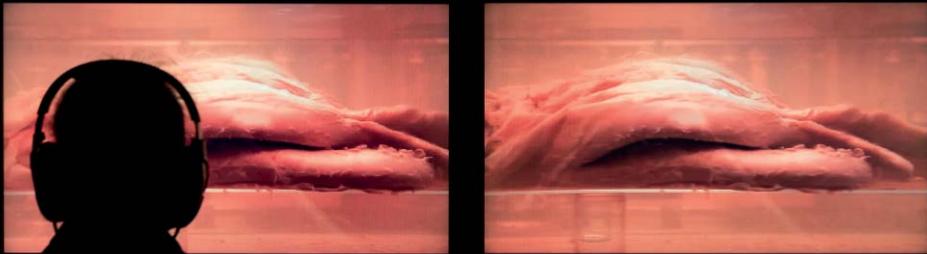
**Chris Jordan,**  
*CF000313 from the Midway: Message from the Gyre series*,  
2009. Digital print. Courtesy of the artist.



**Sam Leach,**  
*Angler (mare ditat)*, 2017.  
Oil and resin on wood. 30 x 23 cm.  
Courtesy of the artist and Sullivan + Strumpf, Sydney.



**Janet Laurence,**  
*Coral Collapse I - Reef Resuscitation*, 2015.  
Duraclear and acrylic box. 90 x 90 x 5 cm.  
Courtesy of the artist and ARC ONE Gallery.



**Mariele Neudecker,**  
*One More Time - The Architeuthis Dux Phenomenon*, 2017.  
Still from HD Video. Courtesy of the artist and Galerie Barbara Thumm, Berlin and Thomas Rehbein Galerie, Cologne.



**Joel Rea,**  
*Resolution*, 2014.  
oil on canvas, 100 x 100 cm. Courtesy of the artist, the Behan Family Collection and Metro 5 Gallery.



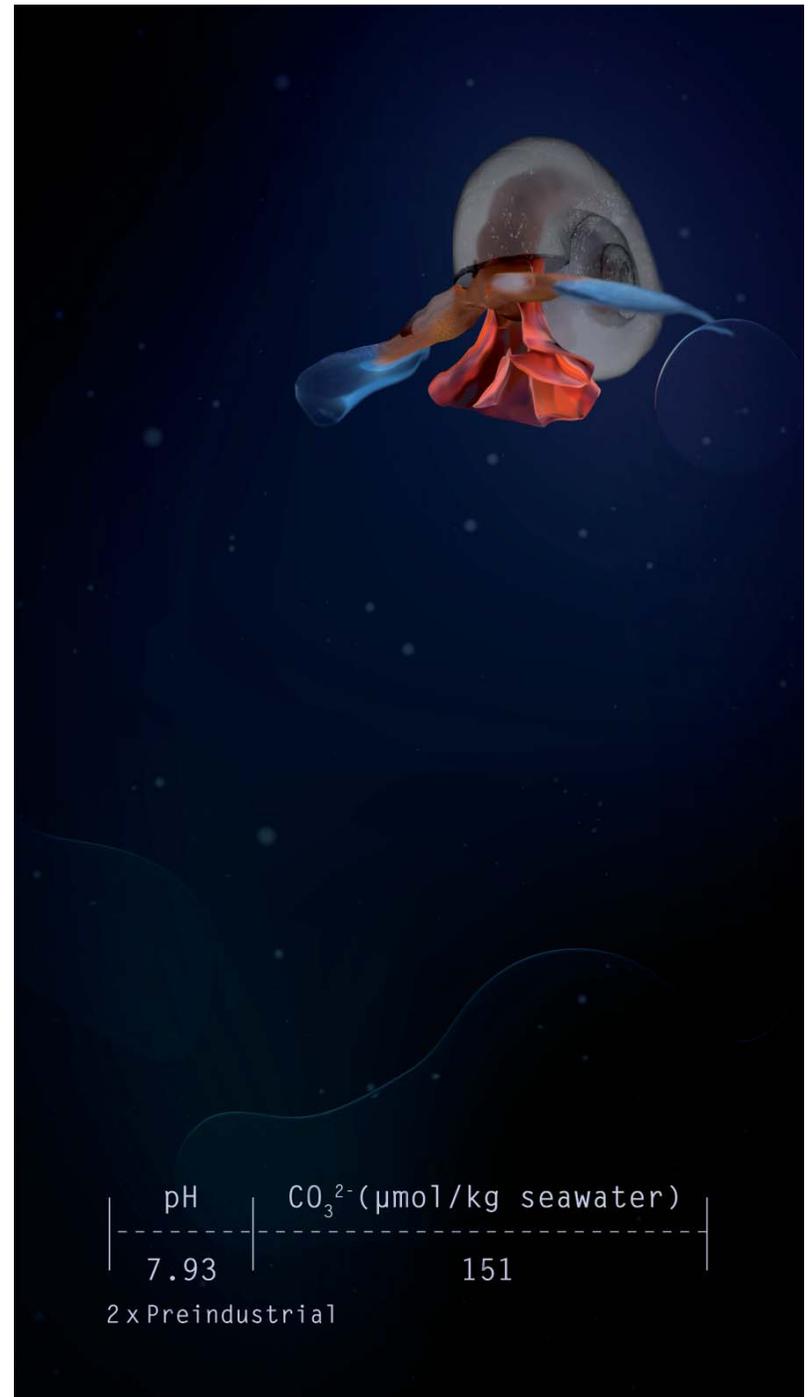
**Dominic Redfern,**  
*The Beach at Skara Brae*, 2015.  
Still from three screen video installation, three channel  
sound. Duration: 9:40. Courtesy of the artist.



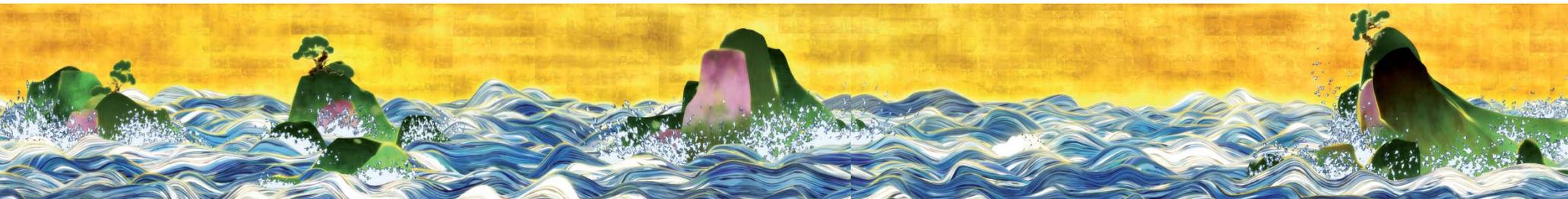
**Lynne Roberts Goodwin,**  
*deadcalm border 132*, 2016.  
Photographic print on Museo Silver Rag archival  
photographic paper, Courtesy of the artist and  
KRONENBERG WRIGHT ARTISTS PROJECTS.



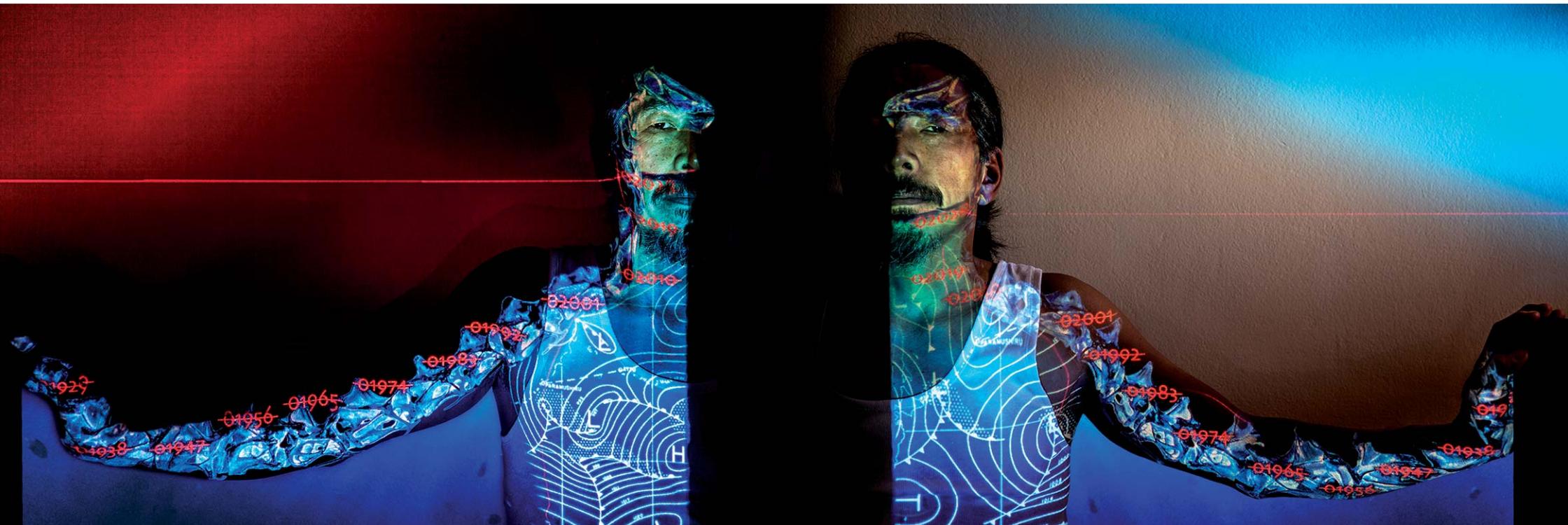
**Chris Wainwright,**  
*Red Ice 3, Disko Bay, West Greenland, 2009.*  
from the *Red Ice -White Ice* series, 2008 - 2009.  
C-type photograph, 1203 x 1711 cm. Courtesy of the artist.



**Debbie Symons,**  
*Limacina helicina antarctica - The butterfly effect, 2016.*  
Single channel video. Duration: 5:21. Courtesy of the artist.



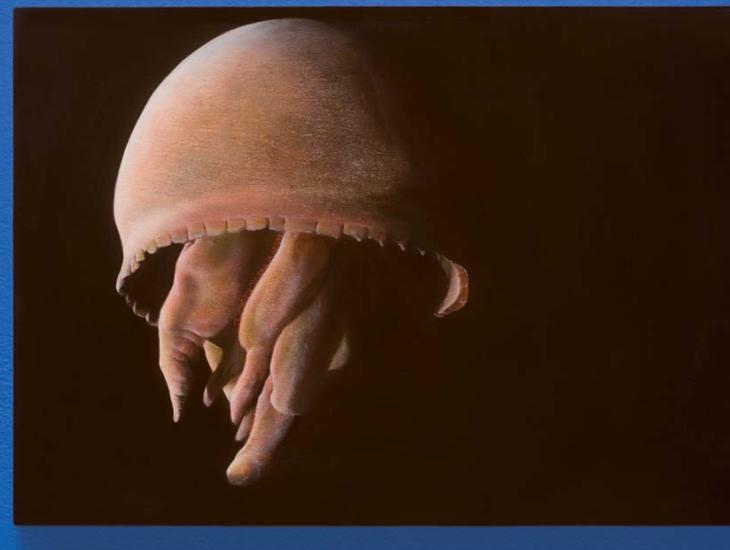
**teamLab,**  
*100 Years Sea* [running time: 100 years], 2009.  
Five channel digital video. Duration: 100 years.  
Courtesy of teamLab and Martin Brown Contemporary.



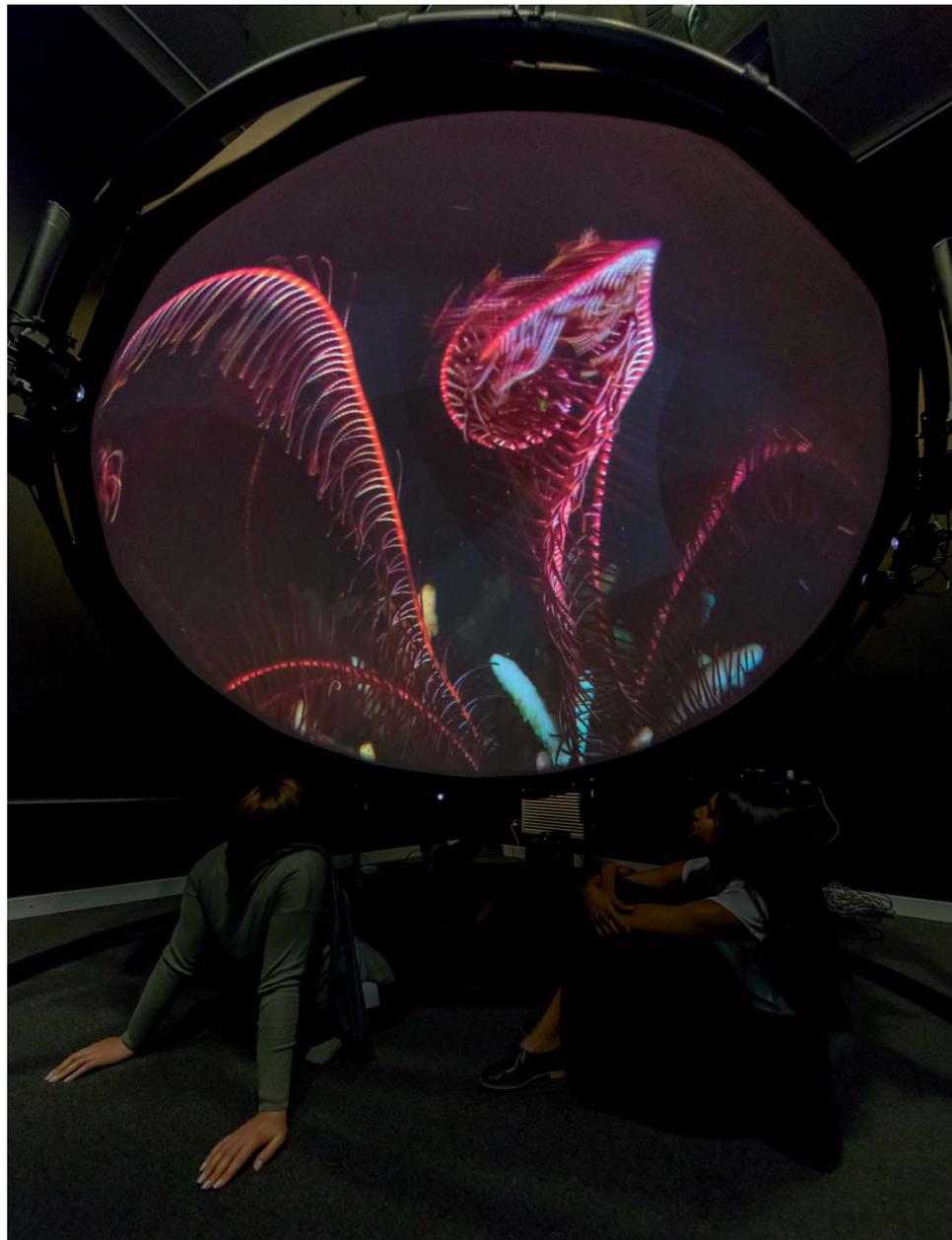
**Josh Wodak,**  
*When I Was A Buoyant*, 2012.  
Still from digital video. Courtesy of the artist.



**Jason deCaires Taylor,**  
*Inertia*, 2011.  
Digital photograph of underwater sculpture museum, Museo Subacuático de Arte, Cancún, Mexico.  
Courtesy of the artist.



**Sam Leach,**  
*Granrojo (against the world)*, 2017.  
Oil and resin on Japanese ash. 30 x 42 cm.  
Courtesy of the artist and Sullivan + Strumpf, Sydney.



Lynette Wallworth,  
installation images: *Coral Rekindling Venus*, 2012.  
Courtesy of the artist.

**ANNE BEVAN** is a visual artist based in the Orkney Islands in Scotland. Her research and artwork explores hidden or unseen things, histories, systems and change within our environment. She often works collaboratively with writers, poets and people from other disciplines, particularly marine scientists and archaeologists. Anne is currently an artist in residence for a multi-disciplinary project looking at deep time in the context of Orkney, she is also the Head of Art and Design at Orkney College, University of the Highlands and Islands.

Anne has exhibited widely, including Sweden, Norway, Finland, USA, Germany, Ukraine, Estonia, Poland, Mauritius, Switzerland and Japan; solo exhibitions include the Pier Art Centre, Orkney, The Fruitmarket Gallery, Edinburgh and the Hunterian Museum, Glasgow. She has also developed several site specific works for public spaces and continues to explore a place-based practice.

Publications include: *Pipelines* with Janice Galloway, The Fruitmarket Gallery; *Lifting Light*, Pier Arts Centre; *Rosengarten* with Janice Galloway, published by Platform Projects; *Things Unspoken*, *Things Unseen* with Andrea Roe published by the Pier Arts Centre.

**EMMA CRITCHLEY** is a visual artist who uses a combination of photography, film, sound and installation to continually explore the human relationship with the underwater environment. She is Royal College of Art alumni and has developed works funded by The National Media Museum, The Photographers Gallery, Arts Council England, the British Council, the Singapore International Foundation and the European Regional Development Fund. Awards include the Royal College of Art Sustain 'Moving Minds' award, winner of the British Underwater Image Festival, finalist in a number of Saatchi Gallery awards including New Sensations 2011. Her work has been exhibited extensively both nationally and internationally, including exhibitions at The Australian Centre of Photography, the ICA Singapore, Gerhard Marcks Haus Germany, Eyebeam New York, The National Portrait Gallery, The Photographers

Gallery and the Royal Academy. A recent commission for Opera North Projects toured to the Southbank Centre and the BALTIC Centre for contemporary art. Emma is currently undertaking a year's artist residency called Culture & Climate Change.

**JOHN ROACH** is an interdisciplinary artist from Queens, New York with a primary interest in sound. His highly collaborative practice uses numerous strategies and media to explore the auditory and his recent projects have delved into the performative qualities of different kinds of matter. His experimental and exploratory process, an amalgam of pataphysics and play, always aims to present an altered relationship between sound and its source. His work has been exhibited in venues in the USA and Internationally including The Nine Evenings Festival of Art and Technology in Seattle, Washington; Parkers Box Gallery in Brooklyn, New York; Glazenhuis Museum in Belgium; and The Ionion Center for the Arts and Culture in Kefalonia, Greece. Upcoming projects include a performance at Urban Glass in Brooklyn, New York; the curation of an exhibition at The New York Centre for Book Arts; and residencies at The Tacoma Museum of Glass in Washington and Marble House Project in Dorset, Vermont.

**JASON DECAIRES TAYLOR** graduated from the London Institute of Arts in 1998 and then went on to become a fully qualified diving instructor and underwater naturalist.

In 2006, Taylor founded and created the world's first underwater sculpture park. Situated off the west coast of Grenada in the West Indies, it is now listed as one of the Top 25 Wonders of the World by National Geographic.

In 2009 he co-founded MUSA (Museo Subacuático de Arte), a monumental museum with a collection of over 500 of his sculptural works, submerged off the coast of Cancun, Mexico; described by Forbes as one of the world's most unique travel destinations. Both these ambitious, permanent public works have a practical, functional aspect, facilitating positive interactions between people and fragile

underwater habitats while at the same relieving pressure on natural resources.

Numerous publications and documentaries have featured his extraordinary work, including the BBC, CNN, USA Today, the Guardian, Vogue, New Scientist and the Discovery Channel. Taylor is currently based in Lanzarote, part of the Canary Islands working on a major new underwater museum for the Atlantic Ocean.

Born in Mexico City in 1974, **ALEJANDRO DURÁN** is a multimedia artist now based in Brooklyn, New York. Through photography, installation and video, his work examines the fraught intersections of man and nature, particularly revealing the pervasive impact of consumer culture on our planet.

Durán has received En Foco's 2011 New Works Award, and was nominated for the 2014, 2015, and 2016 Prix Pictet and the 2016 Prix Thun for Art and Ethics. He has exhibited his work at the Galería Octavio Paz at the Mexican consulate in New York and was Hunter College's Artist-in-Residence for 2014-2015. Internationally, his work has been featured at Fotografie Forum Frankfurt in Germany, the Angkor Photo Festival in Cambodia and Mt. Rokko International Photography Festival in Japan. Selected publications include Art & Ecology Now (Thames & Hudson), Unexpected Art (Chronicle Books), Photo Viz (Gestalten) as well as National Geographic, Time and Wired.

**SIMON FINN'S** practice includes drawing, animation and sculpture and forms a continued exploration into the variable syntheses between artist, environment and technology. Finn utilises the spatial and temporal capabilities of virtual representations as subject matter that comes into being somewhere between experimental verification and poetic speculation. His studies include Masters of Fine Art, Victorian College of the Arts, Fine Art, RMIT University and Electronic Design + Interactive Media at Swinburne University.

Solo exhibitions include *Deluge Rotations* at Fehily Contemporary and *Beyond the Frustum* at LUMA, 2016. Group exhibitions include *New*

*Dimensions* at Hill-Smith Gallery, *Specific Gravity* at MOANA and *Synthetica* (NETS Victoria touring exhibition). Also He is also a finalist in the Hazelhurst Regional Gallery Art on Paper Award (2015), City of Hobart Art Prize (2015) and the winner of the 2015 Banyule Award for works on paper. In 2014 his work was included in 'Vertigo' (Asialink), shown at Galeri Soemardja, Bandung Institute of Technology Indonesia, MoCA in Taiwan and the POSCO Museum of Art, South Korea. He has been awarded the Howard Arkley Award, Kedumba Drawing Award, Athenaeum Award and the Stuart Black Travelling Scholarship.

**STEPHEN HALEY** is a painter and digital media artist. He produces paintings, 'virtual photographs' and videos by creating virtual scenes in 3D modelling software. The work considers the arrangements and poetics of space in the contemporary world particularly the dislocating blur between actual and virtual space.

Since 1994, Haley has had 22 solo exhibitions and over 150 group exhibitions, both nationally and internationally. Stephen has won a number of art prizes, awards and research grants. These include Australia Council VAB New Work Grant; the Australia Council's Los Angeles Studio Residency; an Arts Victoria Project Grant; The R&M McGivern Prize for Painting; the ANZ Art Fellowship; the Deacon Graham and James/Arts 21 Research Residency Tokyo and the Rupert Bunny Foundation Visual Arts Fellowship. He is also a writer and is published in a wide range of forums.

Haley is currently a part time Senior Lecturer in Painting at the VCA after 8 years as the Graduate Research Coordinator, MFA.

He is represented by [MARS] Gallery, Melbourne; Lumas Galleries internationally; and in Europe by Artitled Gallery, Amsterdam.

**CHRIS JORDAN** is a multi-media artist based in Seattle. His work explores contemporary mass culture from a variety of conceptual and photographic perspectives, connecting the viewer viscerally to the enormity and power of

humanity's collective unconscious. Jordan's works walk the line between beauty and horror, abstraction and representation, and the visible and the invisible, challenging us to look both inward and outward at the complex landscapes of our collective choices.

Jordan's work reaches an increasingly broad international audience through his exhibitions, books, website, interviews on radio and television, speaking engagements and school visits around the world.

**JANET LAURENCE** is a Sydney based Australian artist who exhibits nationally and internationally. Her practice examines our physical, cultural and conflicting relationship to the natural world. In her work she creates immersive environments that navigate the interconnections between organic elements and systems of nature. Thematically, she explores what it might mean to heal, albeit metaphorically, the natural environment, fusing this with a sense of communal loss and search for connection with powerful life-forces. Her work is included in museum, university and corporate and private collections as well as within architectural and landscaped public places. It often interconnects with natural history and art museum collections.

Laurence was the Australian representative for the COP21/FIAC, Artists 4 Paris Climate 2015 Exhibition, exhibiting a major work - *Deep Breathing: Resuscitation for the Reef* - at the Muséum National D'Histoire Naturelle, in Paris, France. She is currently a visiting fellow of the 2016/2017 Hanse-WissenschaftKolleg (HWK) foundation fellowship and artist in residence at the Australian Museum 2016 /2017.

**SAM LEACH'S** works are informed by art history, science, and philosophy. He combines the poles of the metaphorical and the empirical, the analogous and the objective, in an ongoing investigation of the relationship between humans and animals. With a distanced, scientific approach, he draws connections between data visualisation techniques, semiotics, and formalist abstraction that results in a kind of reductive aesthetics. The paintings extend their focus from animal life to the spectrum of all life itself, encouraging the viewer to contemplate their role as living creatures on this shared earth.

In 2015 Sam Leach featured in *Time Space Existence*, a collateral event of the Venice Biennale, and a major monograph with essays by Andrew Frost and esteemed fiction writer Tim Winton. In the same year he completed an Art OMI Australia Committee Fellowship Residency in New York. In 2010 Leach won both Wynne and Archibald Prizes at the Art Gallery of New South Wales, and he was a finalist for the Royal Bank of Scotland Emerging Artist Award in 2009. His work has been extensively exhibited nationally and internationally.

**MARIELE NEUDECKER** uses a broad range of media including sculpture, film, photography as well as sound. Her practice investigates the formation and historical dissemination of cultural constructs around the natural and technological world and notions of a Contemporary Sublime. Neudecker often uses technology's virtual capabilities in order to reproduce a heightened experience of landscape, thus addressing the subjective and mediated condition of any first hand encounter.

Solo exhibitions include Ikon Gallery, Birmingham; Tate St Ives and Tate Britain, Kunstmuseum Trondheim, Norway, Zeppelin Museum, Germany and she has shown widely in international group exhibitions; current projects are exhibited in Hull, London, Bonn and Melbourne.

Neudecker is Professor at Bath Spa University, Fellow for CERN's Visiting Artists Program and is on the EC's JRC SciArt panel. She is represented by Galerie Barbara Thumm, Berlin, and also works with Thomas Rehbein Galerie, Cologne.

**JOEL REA** graduated from Queensland College of Art with a Bachelor of Fine Art in 2003. He has exhibited his work in Australia, the United Kingdom and the United States and has been awarded many prestigious art awards throughout Australia. In 2013, he was selected for the *Archibald Salon des Refuses* exhibition in Sydney, the *Black Swan Award for Portraiture* in Perth, the *Fleurieu Landscape Prize* in Adelaide and was the winner of the 2013 ANL Maritime Art Award in Melbourne.

In 2014, Rea was a finalist in the prestigious *Sulman Prize* held at the Art Gallery of New South Wales, and for the second year in a row he was also a finalist in the 2014 *Black Swan Portraiture Prize*, winning the People's Choice

Award. In 2015 Rea undertook a New York City residency and solo exhibition with the prominent Jonathan Levine Gallery, and Rea was selected alongside 60 renowned international artists in the world's first Paintguide exhibition held in London. In 2016, he was also a finalist in the world largest portraiture prize, The Moran Prize and also gained selection as a finalist in The Mosman Art Prize, held in Mosman, Sydney.

**DOMINIC REDFERN** creates video works at the intersection of site, screen and identity, which give critical expression to the complexity of screen-mediated experience. Over recent years, his practice has become increasingly focused on natural history and contemporary understandings of place. These interests are expressed with a self-conscious approach to the technology and culture of video, making it both subject and medium for his work.

Recently Dominic has had exhibitions in Australia as well as in Tokyo, Stockholm and Shanghai and has undertaken research in Orkney and Mull as well in La Rochelle for future projects. Over the last decade his work has also been seen at many venues including: Tate Modern, Norwich Gallery and Bristol's FACT, UK, Te Tuhi Centre for The Arts, New Zealand, Gallery of Modern Art in Brisbane; Perth International Arts Festival; Perth Institute for Contemporary Art, Art Institute of Chicago, the Museum of New Art, Detroit, and Art in General in New York, US.

Sydney-based artist, **LYNNE ROBERTS-GOODWIN'S** photographic/video & installation practice evidences concepts centered on the foundations of extreme topographical landscape as a record, document, contemporary archive & aftermath of human values & actions imposed & impacted over time, both culturally and politically. Her artistic practice has actively sought to confront representations, both human & animal, of environmental conflict & sites of impact, aerially & at distance. Recent achievements include: Australia Council for the Arts American Academy in Rome Affiliated Mordant Family Fellowship 2017; Artist Residence & exhibition Wolkersdorf Castle, Schloss, Austria, 2016; Art Central + Art Basel HK 2015; MIAF, Milan Art Fair 2014; Artists Retreat Jaipur, Australia India Institute 2013; ONDARTE International Residency, Mexico, 2012; Eugenio De Almeida Museum, Portugal 2013; V11 Biennale Soncino,

Italy; Fondation Arabe l'Image Residency, Beirut, Lebanon, 2009; AQIS Residence, Sydney Airport 2005; ERWDA Abu Dhabi (EAD) Falcon Hospital Residency, UAE, 2002; Rockefeller Foundation Artist Residency, Alfred, New York, 2001; UNESCO Sanskriti Residency, Delhi, India, 2001-2002.

**DEBBIE SYMONS** was born in Melbourne, Australia and recently completed her PhD, *Anthropocentrism, Endangered Species and the Environmental Dilemma*, at Monash University. Symons' work utilises environmental data to investigate and interrogate the inextricable links between environmental degradation and free market capitalism; exploring humankind's ecological conundrum. Her works have been shown internationally and nationally; International Urban Screens, Galerie Prodromus - Paris, The Streaming Museum - New York, RMIT Gallery, [MARS] Gallery, Linden New Art, South Australian Museum, Craft Victoria, Shifted Gallery, c3 Contemporary Art Space, Carlton Connect Studio, Latrobe Regional Gallery, and others.

In 2014, Symons was awarded the [MARS] Gallery Exhibition Prize in the inaugural Linden Art Prize. In 2015, she was awarded the inaugural grant and residency at Creative Spaces: Carlton Connect Studio, LAB-14, Carlton and exhibited in Paris and New York as part of the ARTCOP21 program.

Based in Tokyo, Japan, **TEAMLAB** is a collective, interdisciplinary creative group that brings together professionals from various fields of practice in the digital society: artists, programmers, engineers, CG animators, mathematicians, architects, web and print graphic designers and editors. Referring to themselves as *ultratechnologists*, the group aims to go beyond the boundaries between art, science, technology and creativity, through co-creative activities.

**GUIDO VAN DER WERVE** began his career as a performance artist, but unwilling to perform live and more than once, he began to document his performances. Developing this practice, he quickly became interested in film and cinematography, where he found a similar emotional directness as in music, which he found was missing in visual arts. The key element of his work remains performance, but music, text, sport and atmospheric scenes

have become returning elements. His works are characterised by long meditative shots and a refusal to work with actors. Since 2007 he has been composing his own music.

To date, Guido van der Werve has created fifteen elaborate works, which have been exhibited and screened widely, finding acclaim in both the art and film world. He has received many awards including the Volkskrant Beeldende kunst prijs in 2007, and his work has been exhibited extensively in venues such as the Kunsthalle Basel, MoMA/PS1, the Venice Biennial, Kochi-Muziris Biennale, Performa, the Moscow Biennial, the Istanbul Biennial and Manifesta.

**CHRIS WAINWRIGHT** lives in London and is an artist and curator whose interests are based in environmental photography, performance and installation. His recent solo exhibitions include: *We Are All Stars*, Nihonbashi Institute of Contemporary Art, Tokyo, Japan, 2016; *First and Last*, Museum of Contemporary Art, Taipei, Taiwan, 2015; *Points of Departure* Fotografins Huis, Stockholm, Sweden, 2014, and *A Catalogue of Errors*, The Diawa Foundation, London. 2013.

His recent group shows include: *What Has To Be Done* (artist and curator) Today Art Museum, Beijing, China, 2017; *A Small Constellation of Photographic Evidence* (artist and curator), Chang Art, 798 District, Beijing, China, 2015; *Those Who Go East* White Conduit Projects, London, UK, 2015:

His work is held in many major collections including the Victoria and Albert Museum, London; The Arts Council of England; Bibliotheque Nationale, Paris; The Polaroid Corporation, Boston, USA; and Unilever, he is previously a member of The Tate Britain Council, London and has recently been appointed to the Board of Directors of the Today Art Museum, Beijing.

**LYNETTE WALLWORTH** is an Australian artist/filmmaker who has a long history of consistently working with emerging media technologies. Wallworth's work has shown at the World Economic Forum, Davos, Lincoln Center for the Performing Arts, American Museum of Natural History, MOMA, NYC, Australian Centre for Contemporary Art, Smithsonian Institution, Auckland Triennial, Adelaide Biennial, Brighton Festival and the Vienna Festival among many others. Wallworth was selected for the first

Sundance Institute New Frontier/Jaunt VR Residency Program. Wallworth's groundbreaking VR work *Collisions* premiered in January at WEF, Davos where Wallworth regularly attends as a Cultural Leader, followed by the Sundance Film Festival. In 2014, her documentary film *Tender* won an AACTA for best televised documentary and was nominated for a *Grierson Award*. In 2016, Wallworth was awarded the inaugural *Sydney UNESCO City of Film Award*, the *Byron Kennedy Award for Innovation and Excellence* and *Foreign Policy* magazine named her as one of the "100 Leading Global Thinkers" of the year. Wallworth lives in Sydney and mentors regularly at Sundance Labs.

**JOSH WODAK** is a researcher and artist whose work critically engages with cultural and ethical entanglements between environmental engineering and conservation biology as means to mitigate species extinction and biodiversity loss in the Anthropocene. He holds a BA (Honours) in Anthropology (Sydney University, 2002), a PhD in Interdisciplinary Cross-Cultural Research (Australian National University, 2011) and has exhibited his media art, sculpture and interactive installations in art galleries, museums and festivals across Australia and internationally. He is currently a Lecturer, UNSW Art and Design, a Chief Investigator on the Australian Research Council Discovery Project *Understanding Australia in The Age of Humans: Localising the Anthropocene* and a member of the Andrew Mellon Australia-Pacific Observatory in Environmental Humanities, Sydney Environment Institute, University of Sydney.

**Anne Bevan,**  
installation image: *Sprinkle*, 2009, digital video; *Ghost*, 2012,  
3D acrylic resin print from CT scan.



# List of works

## Anne BEVAN

Born Orkney, Scotland, lives Edinburgh, Scotland

*Sprinkle*, 2009  
Digital video  
Duration: 14:12

*Ghost*, 2012  
3D acrylic resin print from CT scan  
12 x 12 x 6cm

*Ghost I (Ammonia Beccarii)*, 2012  
Giclee print from CT scan  
120 x 120 cm

*Ghost III (Ammonia Beccarii)*, 2012  
Giclee print from CT scan  
120 x 120 cm  
Courtesy of the artist

## Emma CRITCHLEY and John ROACH

Lives Brighton, United Kingdom & Queens, USA

*Passage*, 2016  
Installation, HD film, digital print, Batesford limestone, glass jar, hydrophone, amplifier, speakers  
Duration: 12:02 continuous loop

## Jason DECAIRES TAYLOR

Born Dover, United Kingdom, lives Lanzarote, Spain

*Crossing the Rubicon*, 2017  
Digital photograph of underwater sculpture museum  
*Museo Atlantico*, Lanzarote, Spain

*Inertia*, 2011  
Digital photograph of underwater sculpture museum, *Museo Subacuático de Arte*, Cancun, Mexico

*Portal*, 2017  
Digital photograph of underwater sculpture museum  
*Museo Atlantico*, Lanzarote, Spain  
Courtesy of the artist

## Alejandro DURÁN

Born Mexico City, Mexico, lives Brooklyn, United States

*Algas (algae) from the Washed Up series*, 2013  
Digital print  
101 x 132 cm  
Courtesy of the artist

## Simon FINN

Born Melbourne, lives Melbourne

*Submerged*, 2016  
HD video  
Duration: 4:00

*Death Spiral*, 2016  
Synthetic polymer, wood, enamel and resin  
50 x 50 x 80 cm

*Submerged Left Tilt*  
Charcoal on paper  
100 x 175 cm  
Courtesy of the artist and [MARS] Gallery

## Stephen HALEY

Born Melbourne, lives Melbourne

*One Second (Plastic water bottles 5982)*, 2010  
Lightjet photograph, ed. 4/5  
120 x 120cm  
Courtesy of the artist and [MARS] Gallery

## Chris JORDAN

Born San Francisco, United States, lives Seattle, United States

*CF000313 from the Midway: Message from the Gyre series*, 2009  
Digital print  
63.5 x 76 cm  
Courtesy of the artist

## Janet LAURENCE

Born Sydney, lives Sydney

*Coral Collapse I - Reef Resuscitation*, 2015  
Duraclear and acrylic box  
90 x 90 x 5 cm

*Coral Collapse II - Reef Resuscitation*, 2015  
Duraclear and acrylic box  
90 x 90 x 5 cm  
Courtesy of the artist and ARC ONE Gallery

## Sam LEACH

Born Adelaide, lives Melbourne

*Angler (mare ditat)*, 2017  
Oil and resin on wood  
30 x 23 cm

*Granrojo (against the world)*, 2017  
Oil and resin on Japanese ash  
30 x 42 cm  
Courtesy of the artist and Sullivan + Strumpf, Sydney

## Mariele NEUDECKER

Born Düsseldorf, Germany, lives Bristol, United Kingdom

*One More Time - The Architeuthis Dux Phenomenon*, 2017  
HD Video  
Duration: 2:35  
Courtesy of the artist, Galerie Barbara Thumm, Berlin and Thomas Rehbein Galerie, Cologne

## Joel REA

Born Middlesborough, United Kingdom, lives Gold Coast

*Resolution*, 2014  
Oil on canvas  
100 x 100 cm  
Courtesy of the artist, the Behan Family Collection and Metro 5 Gallery

## Dominic REDFERN

Born Wangaratta, lives Macedon

*The Beach at Skara Brae*, 2015  
Three screen video installation, three channel sound  
Duration: 9:40  
Courtesy of the artist

## Lynne ROBERTS-GOODWIN

Born Sydney, lives Sydney

*deadcalm tower 21*, 2016  
Photographic print on Museo Silver Rag archival photographic paper  
153 x 243 cm  
Courtesy of the artist and and KRONENBERG WRIGHT ARTISTS PROJECTS

*deadcalm border 132*, 2016  
Photographic print on Museo Silver Rag archival photographic paper  
153 x 243 cm  
Courtesy of the artist and KRONENBERG WRIGHT ARTISTS PROJECTS

## Debbie SYMONS

Born Melbourne, lives Melbourne  
*Limacina helicina antarctica - The butterfly effect*, 2016  
Single channel video  
Duration: 5:21  
Courtesy of the artist

## teamLab

Based in Tokyo, Japan  
*100 Years Sea [running time: 100 years]*, 2009  
Five channel digital video  
Duration: 100 years  
Courtesy of teamLab and Martin Brown Contemporary

## Guido VAN DER WERVE

Born Papendrecht, Netherlands, lives Berlin, Germany

*Nummer acht, everything is going to be alright*, 2007  
16mm film transferred to video  
Duration: 10:10

## Chris WAINWRIGHT

Born London, United Kingdom, lives London, United Kingdom

*Red Ice 3, Disko Bay, West Greenland*, 2009 from the *Red Ice -White Ice* series, 2008 - 2009  
C-type photograph  
1203 x 1711 cm  
Courtesy of the artist

## Lynette WALLWORTH

Born Sydney, lives Sydney

*Coral: Rekindling Venus*, 2012  
A video work for full dome digital planetariums  
Duration: 45:00  
Director: Lynette Wallworth  
Screenplay: Lynette Wallworth  
Music by: Max Richter Songs by: Gurrumul Yunupingu, Antony and the Johnsons, Tanya Tagaq Gillis, Fennesz and Sakamoto  
Producer: John Maynard  
Cinematography: David Hannan  
Courtesy of the artist and Felix Media

## Josh WODAK

Born London, United Kingdom, lives Sydney

*When I Was A Buoyant*, 2012  
Digital video  
Duration: 3:08  
Courtesy of the artist

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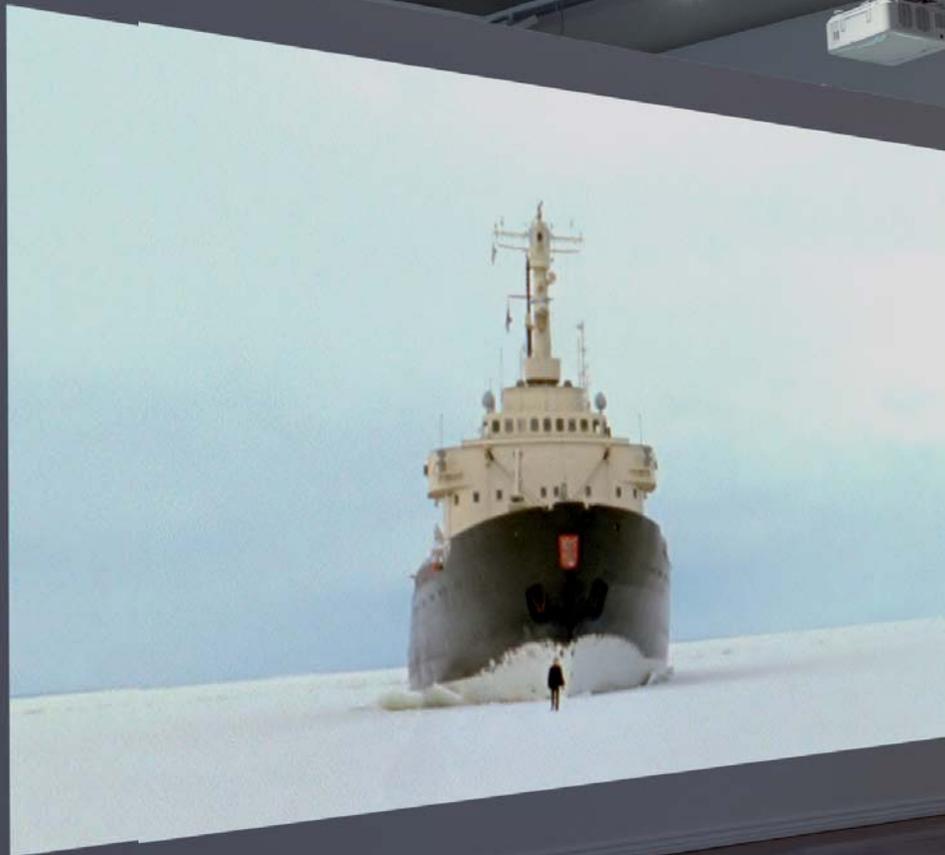
[Simon Finn,](#)

installation image (clockwise from left): *Submerged*, 2016; *Submerged Left Tilt*; *Death Spiral*, 2016.  
Courtesy of the artist and [MARS] Gallery.

P. 54-55

[RMIT Gallery installation](#)





## OCEAN IMAGINARIES

Curated by Linda Williams  
RMIT Gallery, 5 May – 1 July 2017

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**Director & Chief Curator:** Suzanne Davies

**Exhibition Installation Coordinator:** Nick Devlin

**Installation:** Fergus Binns, Christian Bishop, Beau Emmett, Ford Larman

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Free admission. Lift access available.



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Digital photograph of underwater sculpture museum Museo Atlantico, Lanzarote, Spain. Courtesy of the artist.



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