

OUR PLASTIC OCEAN

MANDY BARKER

EXHIBITION GUIDE AND CAPTIONS

PLEASE RETURN AFTER USE FOR OTHER VISITORS

WE MUST ACT NOW

Plastic Smartie lids stopped being made 14 years ago, when the packaging was replaced by a completely card version. However, the old plastic Smartie lids have continued to wash up on beaches around the UK and beyond. The lids were originally embossed with a letter of the alphabet, and some featured faces, motifs, and limited edition colours for special events.

Barker says, 'In one afternoon I collected almost the whole alphabet (except 5 letters) from Spurn Point, a nature reserve on the east coast of England. Some of the lids in the image are more than 40 years old.'

The artist arranged some of the lids to spell out the message 'we must act now', which became the title of the artwork.



Image originally commissioned by WeTransfer as part of their WePresent series.

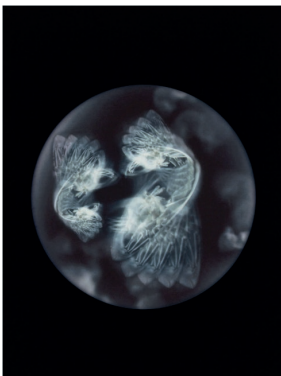
Barker was selected to be part of WeTransfer's Union of Concerned Photographers, an initiative which uses the power of photography to underline the urgency of environmental concerns.

BEYOND DRIFTING (2015 TO 2016)

In *Beyond Drifting*, Mandy Barker traces the footsteps of 19th century botanist John Vaughan Thompson. Thompson collected and studied plankton, the ocean's most basic life form, at Cobh, Cork Harbour, in Ireland. When Barker visited this site, her search revealed plastic wiring, fragments of bottles, discarded limbs of plastic dolls and other items now commonplace in our seas.

Barker photographed the plastic objects as pseudo-scientific specimens, drawing parallels between Thompson's findings and her own. She highlights the similarities between the plankton and plastic which both now form the basis of our food chain.

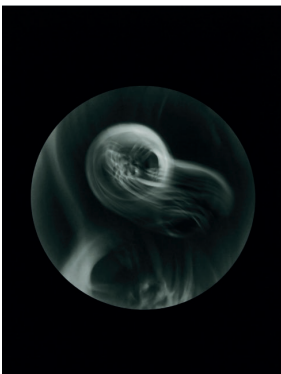
Barker devised new scientific names for each 'specimen'. These imitate original Latin words, and incorporate the word 'plastic', spelled out in red.



OPHELIA MEDUSTICA

Pram wheel

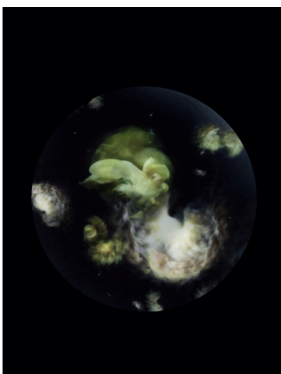
Specimen collected from Glounthaune shoreline,
Cove of Cork, Ireland



PHORONILASTERI CRAE

Tricycle wheel

Specimen collected from Whitepoint, Cobh shoreline,
Cove of Cork, Ireland



NEBULAE PLAUIOSBRATHIC

Plastic flowers partially burnt - group

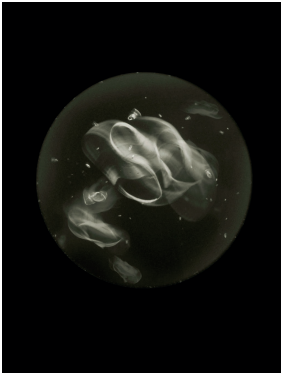
Specimen collected from Carrigaloe estuary, Cove of Cork, Ireland



PLAMACINA RETROVERSTA IC. III

White plastic horse, 3

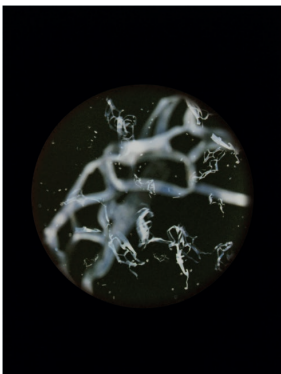
Specimen collected from Cobh shoreline, Cove of Cork, Ireland



AUREPLIA AURISTICE

Shoe sole

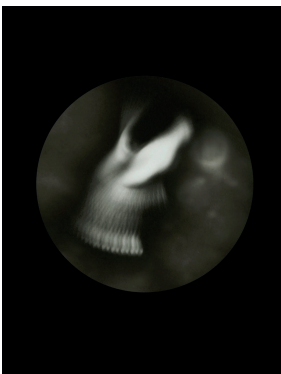
Specimen collected from Blackrock shoreline, Cove of Cork, Ireland



COPEPOD LANGISTICUS

Six pack plastic yoke

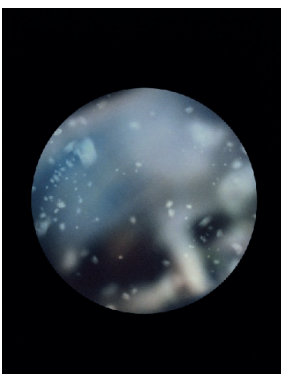
Specimen collected from Roche's Point, Cove of Cork, Ireland



PLIVIDAS CHLOTICUS

Barbie doll arm

Specimen collected from Fota Island, Cove of Cork, Ireland



RHIZOPOLENIA ROBUSTICA

Book with plastic cover 'Ireland A Terrible Beauty'

Specimen collected from Fota Island, Cove of Cork, Ireland



BEYOND DRIFTING: ARTIST'S RESEARCH CABINET

Mandy Barker's notes, inspirations and objects that informed her series *Beyond Drifting*.

You are welcome to view the drawers in this cabinet. However it is an old and fragile cabinet, so please pull out the drawers gently.



SAND POLLUTED WITH MICROPLASTICS

The microplastics in this case were collected from Kamilo Beach, Hawaii, July 2012. The containers show bite marks from turtles, sharks and fish.

SOUP (2011)

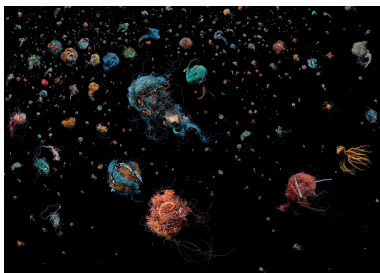
‘Soup’ is the term for plastic debris suspended in the sea. It particularly refers to the mass accumulation in the North Pacific Ocean widely known as the ‘Garbage Patch’.

The plastics photographed for this series have been collected from beaches around the world. They represent a global collection of debris that demonstrates the mass of plastic in our seas. Some of the images featured are part Barker’s sub-series *Hong Kong Soup: 1826*, referencing the 1,826 tonnes of municipal plastic waste that goes into landfills every day in Hong Kong.

Barker says, ‘This series concerns the relationship that sea creatures have with plastics. The creatures are initially attracted to the plastics and attempt to eat them, leading ultimately to their death.’

The captions list the ‘ingredients’ that have been assembled to make the soup in each image.

Caption information written by Mandy Barker.



BIRD’S NEST

Ingredients: discarded fishing line that has formed nest-like balls due to tidal oceanic movement.

Additives: other debris collected in its path.



LIGHTER HONG KONG SOUP:1826

Discarded cigarette lighters make reference to our single use throw away society. The panda, a national emblem of China, represents endangered species and faces away from the group, symbolising Mother Nature turning her back on humankind's inability to take ownership of its waste.



REFUSED

Ingredients: marine plastic debris affected by the chewing and attempted ingestion by animals. Includes toothpaste tube.

Additives: teeth from animals.



RUINOUS REMEMBRANCE

Ingredients: plastic flowers, leaves, stems and fishing line.

Additives: bones, skulls feathers and fish. Recovered from a one metre square area of shoreline on Spurn Point Nature Reserve, England.



BURNT

Ingredients: all plastics partially burnt.



TRANSFORM **HONG KONG SOUP: 1826**

Recovered toys, action heroes and transformers reflect inadequate disposal of children's toys - the message to TRANSFORM the habits and behaviour of the younger generation in Hong Kong, with the emphasis being to take action (Includes ACTION figures and transformers recovered from various beaches over the past three years).



WILDLIFE **HONG KONG SOUP: 1826**

Plastic ice-lolly wrappers with syringes collected from single visits to three different beaches on Hong Kong Island, Lantau Island and the New Territories. Includes: seahorse, dolphin, elephant, crocodile, pig, cat, bear and fruits, with Chinese New Year animals: snake, rabbit and pig. (Recovered from Waterfall Bay & Tong Fuk Beach 2013, Lung Kwu Tan 2014).

PENALTY (2013)



THE WORLD

The FIFA World Cup 2014 was the spark for this project. In the year leading up to the event, Mandy Barker put out an international call for footballs found in the sea and on shorelines.

In just 4 months, people sent her a total of 992 marine debris balls. These originated from 144 different beaches in 41 different countries and islands.

The World, presented here alongside the *Soup* series, shows 769 marine debris footballs collected globally.

For the first time, some of the original footballs sent to Barker are presented here in the gallery.

ALBATROSS (2012)



276 pieces of plastic found in the stomach of a 90-day old albatross chick from Midway Island, North Pacific Ocean in 2012.

Statistics show that plastics at sea have no boundaries. 100% of marine turtles, 59% whales, 36% of seals, and 40% of seabirds have eaten marine plastics.

INDEFINITE (2010)

Indefinite shows plastic objects, presented unwashed and unaltered, as they were found on the shore.

The forms and shapes might seem reminiscent of sea creatures, but are actually man-made from different plastics. As they gradually break down into microplastic particles, they are likely to be eaten by fish and birds.

Based on information sources from 2010, the images are captioned with the estimated time it takes for discarded plastics to degrade in the sea.

Barker says, 'Since this series was created, new research by polymer scientists has found that, unless burned, all the plastic ever produced is still with us on the planet and is merely fragmenting into ever smaller pieces. We should now regard the degradation time for marine plastics to be indefinite.'

Caption information written by Mandy Barker.



1 YEAR, OR INDEFINITE?

Nylon Rope - Rope can become entangled around the necks and beaks of curious animals, causing death as they grow larger and the noose tightens.



1 - 3 YEARS, OR INDEFINITE?

Plastic Bag - A person uses a plastic bag for an average of 12 minutes before disposal. When a bag enters the sea suffocation or entanglement may occur but ingestion is the main issue. Sea turtles often mistake bags for their favourite food of jelly fish and squid when seen floating in the water column.

(Since this project was created research now estimates that a plastic bag takes between 10 to 15 years to degrade in the sea).



1 - 5 YEARS, OR INDEFINITE?

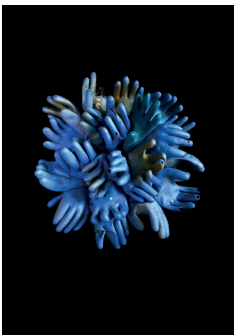
Clothing and Material - Swallowing marine litter mistaken for food can damage the digestive tract of marine animals and also result in the absorption of toxic pollutants. These toxins are then passed up the food chain to the fish that we consume.



10 - 20 YEARS, OR INDEFINITE?

Plastic Bag Seams - Almost half of all marine mammal species including seals, whales and porpoises have been found dead from suffocation and starvation after having ingested plastic bags.

Between 290 to 300 plastic bags are used per person per year in the UK.



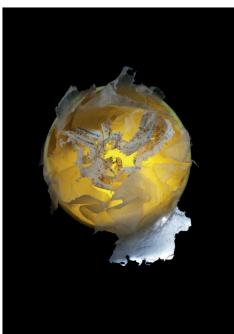
30 YEARS, OR INDEFINITE?

PVC - Corals are destroyed when discarded fishing equipment, such as overalls, gloves, damaged lobster pots and nets drag along the ocean floor. Coral reefs provide home for lots of species, most of which are also affected.



30 - 40 YEARS, OR INDEFINITE?

Nylon - Tangled giant underwater balls of nylon rope, netting and other plastic debris, sometimes weighing up to one ton roll with the currents, scouring and destroying reefs like giant bulldozers.



400 YEARS, OR INDEFINITE?

Plastics - Mixed - Plastic never biodegrades, it merely breaks down into smaller fragments. These microplastic particles and fibres are found in filter-feeding barnacles, lugworms and amphipods which are in turn eaten by larger sea creatures including fish, and ultimately eaten by ourselves.



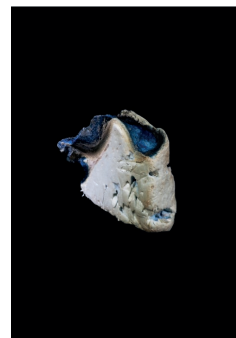
450 YEARS, OR INDEFINITE?

Plastic Bottle - 90% of marine rubbish found on coastlines worldwide is related to single-use plastics; bottles, tops, straws, food packaging and general packaging. 111 different species of seabirds are known to ingest plastics, many of which are bottles.



600 YEARS, OR INDEFINITE?

Monofilament and Macrofilament Fishing Line - Fishing line affects the mobility of aquatic animals, once entangled they struggle to eat, breathe and swim, all of which have fatal results. Discarded fishing nets cut loose by fishermen continue 'ghost fishing', indiscriminately sweeping up fish, seals, turtles and whales in their foul web.



INDEFINITE

Polystyrene - the most significant and alarming offender to impact on marine life. When released into the environment it will never decompose or biodegrade to a non-recognisable form.