

Today, plastic objects like Takashi Murakami's Cosmos Ball (2000) can be infinitely reproduced using injection molds. Liquid high-density polyethylene plastic (HDPE) is injected into a formed cavity of a mold. Once the plastic sets and hardens, the object is removed. The process is then repeated.

Creating Cosmos Ball is not too dissimilar to the process and technique used to produce the 19<sup>th</sup>-century porcelain sculpture Group of Freemasons from Meissen, Germany, though one is much more tedious and time consuming. Meissen ceramists also used molds, and each component or form (the figures, the dog, the globe, the trowel) came from a different and separate cast. Once firm, the porcelain parts were assembled and then fired a number of times to achieve different glazing effects.

*left to right:*

**Takashi Murakami (Japanese, born 1962)**

***Cosmos Ball***

Molded plastic, 2000

Gift of George and Nancy Ellis (2012-12-04)

**Unknown Artist (19<sup>th</sup> Century)**

***Meissen Group of Freemasons***

Hard-paste porcelain

Gift of Steve and Ginger Spiegel (2012-41-06)

**Aurora Robson (American,  
born Canada, 1972)**

*left to right:*

***Madhu, 2011***

***Midas, 2011***

***Verity, 2011***

***Oleum, 2011***

***Kardia, 2011***

Plastic debris (PET), aluminum rivets,  
tinted polycrylic + mica powder  
Courtesy of the Artist

**Aurora Robson (American,  
born Canada, 1972)**

*left to right:*

***Marina Gasolina, 2014***

***Fibroblast, 2012***

***Fermi, 2012***

***Heart Condition, 2012***

***Soft science, 2012***

Plastic debris (PET), aluminum rivets,  
tinted polycrylic + mica powder  
Courtesy of the Artist

In 2006, on Kamilo beach, Hawai'i, oceanographer Charles Moore found a rock-like object that consisted of natural materials (rocks, coral, and shells) held together by what seemed to be melted plastic. After further study in 2012, the rocks were given a name: Plastiglomerate.

With more than 300 million tons produced each year, plastic is fast becoming a physically significant part of our world and objects like plastiglomerate support scientists' proposed name for the present epoch—Anthropocene, which refers to mankind's influence on Earth system processes.

Maika'i Tubbs makes references to the Anthropocene in this body of work made of waste collected from the streets in his Brooklyn neighborhood and from museums where he has worked, reverting and ensconcing manufactured and processed debris back to natural states. Similarly, Aurora Robson illustrates an altered world by taking plastic bottles and transforming them into organisms, ethereal, otherworldly, and beautiful.

At what point does plastic, so alien and invasive, become naturalized and accepted? Can it ever?

**Maika'i Tubbs (American, born 1979)**

***Stepping Stones, 2015***

Found paper plates, fliers, plastic bags, newspapers, cardboard boxes, magazines, postcards, napkins, cigarette butts, paper towels, egg shells, office paper, beach plastic, letters, yarn, videocassette tapes, posters, potato chip bags, junk mail, plastic containers, styrofoam  
Courtesy of the Artist

**Maika'i Tubbs (American, born 1979)**

***MAD Fossil, 2015***

found plastic bags, newspapers, cardboard boxes, aluminum foil, magazines, plastic bottles, postcards, napkins, paper towels, office paper, styrofoam, letters, yarn, posters, food wrappers, packing peanuts, potato chip bags, junk mail, plastic takeout containers, gum wrappers, coffee cups,  
Courtesy of the Artist

Studies show that 500 billion to more than 1 trillion plastic bags are used worldwide every year. While the figures vary greatly, they are still immense, incomprehensible numbers. Of these billions of bags, 98 percent are thrown away. Where do they all go, and what happens to them? Dianna Cohen has devoted much of her career working with the ubiquitous plastic bag and its inherent irony: a disposable pedestrian object made of possibly the world's most important, durable, and long-lasting materials.

While Cohen's body of work touches upon global proliferation of plastics through overt imagery coupled with activism, Swaantje Güntzel takes a more obscure and abstract approach using scientific data to illustrate the significance of our waste. Embroidered lines, bright red and crisp, meander over fabric flags or napkins. Their start and end are anonymous until one reads the accompanying text. Ultimately, the path of pollution starts everywhere and ends everywhere.

Dianna Cohen (American, born 1965)

*Box*, 2007

Plastic Bags and thread  
Courtesy of the Artist

Dianna Cohen (American, born 1965)

*Nonstop*, 2005

plastic bags and thread on linen  
Courtesy of the Artist

Dianna Cohen (American, born 1965)

*Wave lens*, 2007

Plastic Bags and thread  
Collection of Jackson Browne

**Swaantje Güntzel, (German, born 1972)**

**15FXZ, 2015**

thread, linen

Courtesy of the Artist

Tracking pattern of a large piece of marine debris that has been tagged in the Pacific Ocean on April 2nd, 2008. The tagging of marine debris objects is part of the „High Sea Ghost Net Project“ launched to trace down accumulations of debris and ghost nets to be able to remove them from the ocean. The tag has been sending its location until March 22nd, 2013 when the signal stopped.

**Swaantje Güntzel (German, born 1972)**

***NEVA, 2015***

thread, linen

Courtesy of the Artist

A group of St. Petersburg ecologists conducted a test in 2014 and dropped ten miniaturized waterproofed GPS-tracking units down the toilet of a single apartment home in Novoye Devyatkinno. The trackers spilled out directly into the open-air waterways outside the building, without encountering even the most basic sewage filtration. From Novoye Devyatkinno, five of the devices reached the open waters of Neva Bay, where the units' batteries died. Trash that has been flushed down the toilet can enter the Baltic Sea directly.

**Swaantje Güntzel (German, born 1972)**

***"friendly floatees"*, 2015**

thread, linen

Courtesy of the Artist

On January 10th, 1992 the vessel „Ever Laurel“ going from Hong Kong to Tacoma/USA lost part of its freight in a heavy storm. One of the containers opened and released 29 000 rubber toys (ducks, beavers, turtles and frogs). Oceanographer Curtis Ebbesmeyer began to track their progress and has been documenting the toys washing up the shores ever since. Some of the toys landed along Pacific Ocean shores, like Hawaii. Others traveled over 17,000 miles and spent years frozen in Arctic ice to reach British and Irish shores 15 years later in 2007.

**Swaantje Güntzel, (German, born 1972)**

***Anthropocene/overfishing, 2009***

Thread, linen

Courtesy of the artist

Conceptual embroidery series dealing with the change of the Earth's surface caused by the extent of human activities ("anthropocene"). Eastern and Western garbage patch of the so called "Great Pacific Garbage Patch". The huge carpet of rubbish of more than three million tons of plastic drifts with the gyres of the Pacific Ocean covering an area as big as Central Europe.

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Seabirds like the Laysan albatross spend days on the open ocean searching for fish, squid, and crustaceans, which can be seemingly easy to spot against a vast uninterrupted blue canvas of water. Birds that have been nesting return to land frequently to feed their progeny by regurgitating portions of their meal directly into the fledgling's mouth. The baby birds digest what they can and expel the rest in the form of a pellet, called a bolus, normally comprised of squid beaks, fish bones, and crustacean shells. In recent years, researchers observing seabirds are finding that boluses are containing plastic debris, bottle caps, lighters, container shards, and nurdles (pellets used in the manufacturing of plastic products). The bolus is the animal's natural defense mechanism against indigestible substances. In 2009, photographer Chris Jordan visited Midway Island to document how the seabirds were faring. On view are five of the images captured on that trip.

To the left is an actual Laysan albatross bolus collected by NOAA researchers on Kure Atoll during the spring of 2015.

**Chris Jordan (American, born 1963)**

*near to far:*

**CF000478, 2009**

**CF000441, 2009**

**CF000774, 2009**

**CF000668, 2009**

**CF000313, 2009**

Digital print of unaltered stomach contents of a Laysan albatross fledgling, Midway Island,  
Courtesy of the Artist

Cultures around the world have wood container-building traditions. Porous wood needs to be sealed for it to be able to hold liquid, and early craftsmen first did this by using plant- and animal-based oils and waxes to create a moisture barrier on its surface, as well as to bring out the grain and natural beauty of the wood. Oils and waxes worked to various degrees, though it wasn't a permanent fix. Bowls and containers needed to be oiled and waxed frequently to retain the wood's beauty and protection from liquids. In the 19<sup>th</sup> century, shellac (a resin secreted from an insect found in India and Southeast Asia) was discovered, and proved to be a superior way to treat and seal woodenwares. By the turn of the century, advances in plastic finishes—such as nitrocellulose, acrylics, polyurethanes, and epoxy resins—came fast and frequently, and it wasn't long before wooden objects could be made extremely durable and impervious to moisture.

*left to right:*

**John Mydock and Greg Smith (American)**

***Collaboration, 2010***

Segmented and turned wood,  
paint and gold leaf, Urethane  
Purchase, Hawaii Craftsmen Purchase Award, 2010  
(14257.1ab)

**Unknown Artist (Hawaiian)**

**Calabash**

Carved kou wood 18<sup>th</sup>-19<sup>th</sup> century  
Gift of Anna Rice Cooke (3061)

Vasa Velizar Mihich (American, born Yugoslavia,  
1933)

*Untitled, 1975*

Lucite columns on Formica-covered bases  
National Endowment for the Arts grant and matching  
Academy Volunteers Fund and partial donation by  
the artist, 1975 (4317.1a-j)

**Joe Zucker (American, born 1941)**

***Porthole #4, 1981***

Acrylic, cotton batting, Rhoplex on canvas  
Gift of The Contemporary Museum, Honolulu, 2011,  
and gift of the Hirschl & Adler Modern, New York  
(TCM.1987.10)

Often overlooked is the other, original definition of “plastic.” The word “plastic” is also an adjective used to describe a material’s ability to be shaped, formed, and manipulated. It is a quality that is important in art making. The more plastic a material is, the easier it is for artists to transform it into something new. Clay is an incredibly plastic material. It remains soft and easily malleable as long as it retains moisture. As it dries, clay becomes rigid and when heated to 1063° F, it is chemically changed forever and is no longer plastic.

Metal, like copper or steel, as seen in Junko Mori’s Propagation Project (2006), is also a plastic material. Much more rigid than clay, metal becomes plastic at high temperatures and is manipulated and shaped by being repeatedly struck with great force. This process is known as forging.

Wood requires steam—the combination of heat and water—to become plastic. Steamed planks of wood can be bent and shaped to create art and furniture like this LCW chair by Charles and Ray Eames. The mid-century modern design duo were pioneers in shaping and bending laminated wood to create furniture and designs that complemented the human form. In their quest to push the limits of materials and technology they soon began working with plastic resins and fiberglass.

*left to right:*

**Ken Ferguson (American, 1928-2004)**

***Vessel with Hares***

Wheel-thrown and Hand-built, glazed stoneware  
Gift of The Contemporary Museum, Honolulu, 2011,  
purchased with a gift of funds from the Peter G.  
Drewliner Trust, 2007 (TCM. 2007.19.4)

**Junko Mori (Japanese, born 1974)**

***Propagation Project, 2006***

Forged and welded steel  
Gift of The Contemporary Museum, Honolulu, 2011,  
and purchased with funds given in memory of Dr.  
Alan Pavel by his friends and family (TCM.2006.1)

**Charles and Ray Eames (American, 1907-1978,  
1912-1988)**

***LCW Chair, designed 1945-46***

Molded plywood, teakwood veneer,  
rubber shock mounts  
Gift of Mrs. Sumie Yoshioka, 1976 (4410.1)

While artists, designers, and corporations research and develop new ways to use plastics, some cultures integrate the contemporary material in traditional techniques. In Papua New Guinea, a bilum, their version of a tote bag, is typically made of natural plant-based fibers. The smaller bilum shown here is constructed with synthetic twine. It was used to hold soap while doing laundry and bathing in the river, making good use of plastic's superior durability.

*left to right:*

**Unknown Artist (Papua New Guinea)**

**String Bag, Bilum, 21<sup>st</sup> c.**

Plastic twine

**Unknown Artist (Papua New Guinea)**

**String Bag, Bilum, late 20th c.**

Possibly wild tulip bark fiber  
Gift of Linda Hee, 2007 (13747.1)  
2007.19.4