

Chapter 4 Synthetic Environments

In the era of advanced economic globalization, the increased use of material resources and reliance on synthetic materials generated a culture of disposability that spread across the world, 'eclipsing the practices of recycling' that, as Christophe Bonneuil and Jean-Baptiste Fressoz pointed out in *The Shock of the Anthropocene*, were fundamental to pre-consumerist economies of reuse. Synthesized from petroleum and designed to provide a cheaper alternative to natural materials for the mass production of goods, plastic exemplifies the consumerist boom of global trade that thrives on the circulation of shrink-wrapped necessities and packaged desirables. The colonial plunder of wild species and natural wealth, as well as growing resistance to imperial domination, were also factors in the development of plastic, with the first synthetic polymer, Bakelite, invented in 1907 at a time when the supply of ivory and silk was failing to keep up with demand. Paradoxically, the frequently short commercial lifespan of plastic is inversely proportionate to its lasting presence in the natural environment due to the resistance of synthetic materials to biodegradation. Equally, the 'planned obsolescence' of electronic machines that compels users to regularly update their technological devices, a marketing phenomenon described as early as 1960 by Vance Packard in *The Waste Makers*, has swelled the stockpile of e-waste. The worldwide proliferation of synthetic waste in terrestrial, atmospheric, aquatic and marine environments through the dispersal of polycarbonates, mineraloids, aluminium, concrete and tarmac calls for a further terminological refinement of the Anthropocene, with the notion of the Plasticene identifying another detectable layer of anthropogenic changes to the Earth's strata.



21 Mary Mattingly, *Life of Objects*, 2013

The ecological impact of an economic system based on the accumulation of objects, as well as the psychological burden on individuals of feeling trapped within a cycle of desiring, owning and discarding consumer goods, was investigated by New York-based artist Mary Mattingly in her sculptural series *House and Universe* (2013). Bundles of mass-produced objects the artist had amassed over the years were bound up with string into unmanageably large balls and then photographed in various settings. In one she is pictured engaged in the Sisyphean task of dragging her ball of possessions along a city street, another scenario has the bundle suspended pendulously from a hoist, while a third, entitled *Life of Objects*, depicts a hunched up

naked body crushed by the weight of the ball of superfluous objects. She also pulled her boulder across a bridge of strategic importance to the New York shipping industry, in order to draw attention to the journey made by the raw materials found in her personal possessions along global supply chains from zones of extraction, exploitation and toxicity. As Jennifer Gabrys et al. put it in *Accumulation: The Material Politics of Plastic*, things have become decidedly synthetic to the extent that 'plastic now appears as the archetypal material of invention, mass consumption and ecological contamination'.

The connection between consumption and contamination is also explored by Beirut- and Paris-based duo Joana Hadjithomas and Khalil Joreige in their series of three photographs *A State* (2019), which display the content of a drilling core sourced from an escalating rubbish dump in the Lebanese city of Tripoli. After accumulating waste for a period of twenty-five years, the open landfill, which is in close proximity to the sea, has reached a height of 45 metres. In fact, the country has made international headlines since 2015 when the failure of local waste management saw streets filled with rivers of rubbish, triggering a health crisis and rolling mass protests. The artists countered the sensationalism of media coverage to disclose how, as a result of political irresponsibility, urban waste is deposited in the Earth's strata. They pointed in particular to the toxic residues of plastic which, resisting biodegradation, pollute waterscapes and mingle with edible matter, before being ingested by animals and entering the food chain, turning us all indiscriminately into plastivores. Art theorist Heather Davis, in her study on plastics in the Anthropocene, has drawn attention to the 'porousness of our bodies and thoughts that leach into economics and materials, that transfer our wastes across the planet and into the deep future'. The accumulation of plastic waste as the end point for the discarded and obsolete outputs of techno-consumerist production chains is, in its subterranean layering, one of the most recognizable signs of the Anthropocene.

'Sometimes I imagine the world as a network of things moving from one place to another. Often their journey begins in China and ends at landfills in Africa. Europe is somewhere in between.' This is the rationale behind Polish artist Janek Simon's interest in an increasingly synthetic world, in which transcontinental synchronization is transforming cultural geographies governed by artificial intelligence and toxic post-





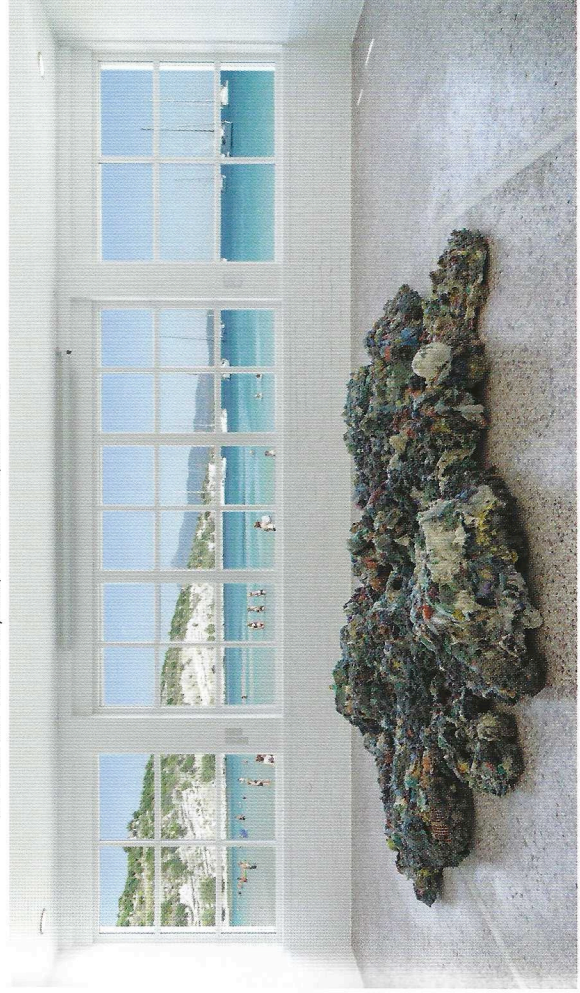
23 Janek Simon, *Huaqiangbei Commercial Street: A Selection of Objects from Shenzhen*, 2019

colonial economies. His sculptural piece *Alaba International: A Selection of Objects from Alaba, Nigeria* (2019) referred to Africa's largest open-air market in Lagos, where a sizable portion of the trade is devoted to *tokunbo*, second-hand electronics imported from Europe. The market also serves as a station for the disassembling of dysfunctional items into parts for recycling, to separate out gold and other precious metals for reuse, a form of hazardous urban mining. Such electronic waste is turning into technofossils, the geologically novel phenomenon of the material remains of the technosphere in the stratigraphy of the planet. Simon's related work, the installation *Huaqiangbei Commercial Street: A Selection of Objects from Shenzhen* (2019), dealt with the Pearl River Delta megalopolis, China's largest industrial hub and global electronics manufacturing centre, where the main factory of Foxconn, producer of electronic goods for companies such as Microsoft, Apple and Huawei, is also located. Through the investigation of these two conflicting trading sites, Simon delineated the unsustainable and unjust circulation of consumer products in the technosphere.

It is the scale of its production, with currently a billion tonnes made globally every three years, combined with the speed with which it has found its way through waste to the furthest reaches of the planet and its technofossil longevity that make plastic one of the most tangible markers of the Anthropocene. Conjuring its global spread, palaeontologist Jan Zalasiewicz has observed that 'if all the plastic made in the last few decades was clingfilm, there would be enough to put a layer around the whole Earth'. The intrusion of plastic into the makeup of the lithosphere is exemplified by plastiglomerate, a hybrid material composed of molten plastic debris and rock fragments. First observed in 2014 on a beach in Hawaii, this novel geological phenomenon was brought to critical light in an interdisciplinary paper co-authored by an oceanographer, a geologist and Canadian artist Kelly Jazvac, who also exhibited examples as readymade artworks. For the author of *Plastic Capitalism*, Amanda Boetzkes, plastiglomerate is a 'marker horizon' that stands as 'both a scientific measure of the Anthropocene and a cultural signifier of its impact'.

In his expansive sculpture *Plastic Reef* (2008–13), melted from plastic debris collected from five major gyres in the North and South Atlantic, the North and South Pacific and the Indian Ocean, Maarten Vanden Eynde pointed to the enormous accumulation of floating plastic waste collected

24 Maarten Vanden Eynde, *Plastic Reef*, 2008–13



by the currents of the world's oceans. As an amalgam of discarded consumer products, the work could be considered a monument to capitalism as a system of waste, which has led to an estimated 250 pieces of debris in the ocean for every human in the world. What is more, by modelling the coral reef, the bleaching of which has become one of the starkest warnings of climate change, the artist drew attention to the fact that two thirds of the plastic debris that has entered the oceans through river deltas is not drifting on the surface, but actually dissolving into microplastics and sinking to the ocean floor. Floating plastic waste is not just a polluter of ocean life, but also a significant contributor to global warming, emitting greenhouse gases when exposed to sunlight and threatening plankton populations that play a vital role in absorbing carbon dioxide.

A critical aspect of the discussion of plastic and technological trash is its relation to colonialism, both in terms of a 'waste colonialism' that literally turns indigenous land into toxic sinks and of the wider issue of the intrusion of synthetics into the materiality of non-Western worlds. To assemble his *Herbarium of Artificial Plants* (since 2001), Colombian artist Alberto Baraya retraced the scientific expeditions of colonial botanists, borrowing their taxonomic procedures to classify exotic discoveries, but with the essential difference that he only collected plastic plants. The paper sheets of his herbarium contain artificial specimens, drawings and photographic documentation arranged on the page as a record of location and other data about the collected item. On the one hand, the work is an indictment of the role of botanical collections, and the rationally minded scientists who removed living plants from their native environment to study and categorize them, in establishing colonial domination and the knowledge conditions for the economic exploitation of conquered territories. At the same time, by collecting plastic plants from the most remote and biodiverse places on Earth, including the depths of the Amazon rainforest, Baraya drew attention to the global reach of the synthetic products of mass consumerism and the equally insidious infiltration of a throwaway culture in which artificial and natural worlds are interchangeable.

Post-styrofoam grounds, polymer habitats, post-electronic terrains and textile environments constitute the collection of the *Centre for Living Things* (since 2016), initiated by Polish artist Diana Lelonek to investigate the novel transformation of the biosphere into the plasticsphere, the living micro- and macro-biotic communities that are now adapting to plastics. In her field research, the artist mapped and documented sites



25 Alberto Baraya, *Another Amapola*, NY, 2018

of urban and forest rubbish dumps, where illegal fly-tippers discard plastic, electro-waste and construction debris, observing that these environments have become hybrid habitats for local flora and fauna. She also selected some specimens of 'waste-plants' for resettlement in the Centre's premises in a disused greenhouse of the Botanical Gardens in Poznań. The created ecosystem of ruderal plants and synanthropes (species that adapt to artificial habitats), such as plants growing on discarded handbags, odd stilettoes and worn-out mops, or moss covering styrofoam chunks and polyester carpets, is a testing ground for research into hybrid nature forms. By inserting them into the taxonomic regimes of highly managed botanical gardens, the artist destabilized the established classifications of scientific knowledge, pointing to the unsustainable division between natural and artificial categories in a world transformed by anthropogenic interventions.

The defining characteristic of the plasticene has turned out not to be the longevity of synthetic materials and their resistance to biodegradation, but rather that upon breaking down into microparticles they infiltrate into natural organisms and environments. The proliferation of plastic pollution is both extensive, reaching to the extremities of polar regions, rainforests and maritime realms, and intrusive, entering the corporal makeup of plants, animals and people. The artists also point to the personal and societal dimensions of petrochemical synthetics and their role in intricate global relations of capitalist production that depend on and deepen social inequalities.



26 Diana Lelonek, *PET-environment*, 2017. Found object from the collection Centre for Living Things, 2017