



Bergit Arends

Making plants mobile

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Last week a long cardboard letterbox was delivered to my door. The box contained delicate cut flowers. Their flower buds were closed. As promised in the delivery note, they burst into life over 48 hours. Their long-lasting stems have now adorned my room for days. The packaging was 100% recyclable. It was a lovely gesture to receive these flowers and I was very touched by it.

Humans express their affection through plants. But not only single plants appeal, we also have affection and curiosity for the plant-based environment, described in 1807 by Alexander von Humboldt as ‘the large picture, the ensemble [that] excites our imagination’. As we delight, humans also destroy and care little about the natural environment. The range of artworks in *Transports of Delight* show conflicting emotions and various interests in plants. In the exhibition project, a tightly sealed, glazed structure to encase plants for safe global transportation, the Wardian case, a mini greenhouse now known as terrarium, serves to demonstrate connections between plants, imperial powers, and a planet in peril.

Plants, or nature more broadly, are considered resource for food, medicine and well-being, for clothing and as materials used in domestic interiors or at industrial scale. The exponential growth of uses from plant materials in industrialised societies however has become reckless, all while fewer and fewer plants are made use of. The resulting effects of climate change, habitat changes, biodiversity loss and alarmingly uneven food supplies are global challenges. But the history of plants and the associated challenges need to be understood as internally plural, diverse, with a differential distribution of responsibility and of vulnerability and need to lead towards social environmental justice.

The artists’ works demonstrate human socio-cultural entanglements with plants. But it is plants in their contexts and in the lives of individuals that convey the most eclectic imagination and aesthetic experimentation. Here I explore further how looking at plants reveals human relations to plants and their cultural histories. This essay thinks with the Wardian case and making plants mobile, but it also thinks about a longer history of plant transportation.

The controlled space of a terrarium was devised to ensure plants’ survival during extended periods of transport, say, from Brazil to Malaysia, from Australia or Uganda to London, Amsterdam, Paris, Berlin, or later the United States. The case offers a perfected growing environment and thereby provides a lens through which to read human interventions into the natural world. The terrarium becomes a metaphorical device through which to connect themes of collecting, displaying, and curating plants. It also condenses critical interrogations of plants as global commodities as well as the infrastructures of trade and design that enable plant mobilities historically, in the present day and for the future.

But the Wardian case centres around a fundamentally European perspective on plant mobility. The portable greenhouse spurred the effective movement of plants for European institutions, yet this innovation is but a part of complex histories of human-plant interactions. Plants and seeds accompany human migration across the globe. But then again, in the scenario here we are acutely aware of plants and seeds sent to or via Europe from locations and explorations that followed the economic, scientific, and political networks of the Global North from the beginnings of European exploration from the 1400s onwards.

Prior to the innovation of the Wardian case in the nineteenth century, the passage for plants as scientific or commercial cargo was more uncertain. Plants often died during long sea voyages. Main hazards were exposure to salt particles in the air, absence of light, lack of fresh water, extreme temperature changes, insects and rodents. Growing and shipping plants under glass was not new, but the Wardian case was almost completely sealed which is what made the difference. The case thus provided a safer way to transport plants and became a vital piece of infrastructure to transplant living organisms from their native habitats and to cultivate them in new habitats for commercial markets, for economic-scientific research as in botanical gardens, or in horticulture for leisure and social aesthetics. The Wardian case facilitated the Victorian craze for ferns and orchids and changed the history of private plant ownership. For economic-scientific purposes the Royal Botanical Gardens, Kew participated in the introduction of the tropical rubber tree from Pará (Brazil) via Kew and the cinchona plant from Bolivia to British colonies in Asia. Malaria was widespread in British India and quinine derived from the cinchona bark served as a treatment. The large-scale cultivation of rubber ensued habitat change and species loss not only in Asia, but later also in West Africa through the Firestone Tire and Rubber Company to serve the American automobile industry. The rubber plantations in Liberia tell a story of capitalism, racial exploitation, and environmental devastation, as Liberia was transformed into America’s rubber empire, a history recently revealed by historian Gregg Mitman.

It is useful consider the burgeoning concept of the Anthropocene to draw a longer history of plant

transportation, plant lives and human histories that precede the invention of the Wardian case. The Anthropocene is a storied narrative, which originated in the Western sciences, notably the geologic sciences. At the outset, this narrative sought to correlate symptoms of environmental change with their causes to effect political and societal transformation. A recently proposed alternative approach recognizes the Anthropocene as a blended geological and historical event beginning at different times over tens of thousands of years and still accelerating since humanity's disruption of the Earth's systems continues, particularly climate change.

How to frame these historical events in which people and plants participate? Arguments have been made to write the origins of the Anthropocene into the Columbian exchange from the late fifteenth century onwards. This modified Anthropocene, as put forward by global change scientists Simon Lewis and Mark Maslin, refers to colonialism and global trade through this interchange, which made people, plant, and animal species mobile for transatlantic trade. This origin lies in the tactics of empire and European world-building through forced migration and enslavement of African people, their racialization, and circulation of plants and animals in which the natural sciences co-operated. The mobility of plants through the Columbian exchange, such as the cacao bean, were transported in the hands of the enslaved and deported. These plants shadow the histories of African lives across the Atlantic, first in South America, then in the Caribbean and North America.

But the concept of the Anthropocene has shunted inherent correlates of capital, imperialism and racial coloniality. It has been critiqued as foreclosing political and ethical discussions, particularly in relation to race. In response, specific alternative narratives of global environmental change have also emerged, including the Capitalocene and Black Anthropocenes. The Capitalocene ('age of capital') argues for an integration of capital, power, and nature in the history of capitalism. It argues against not only an England-centric, but against a Euro-centric perspective towards a world-wide appropriation of what environmental historian Jason Moore refers to as 'cheap nature'. The term refers to nature as a free resource, as in capitalist societies. Drawing a specific arc of historical events, geographer Kathryn Yusoff's proposed Black Anthropocenes (in the plural) seek to interject and to articulate multiple events within the historical junctures of 1492 to 1950 in order to counter-act the 'racial blindness' of the Anthropocene. The dates are significant. Jamaican cultural theorist Sylvia Wynter refers to the 1492 event to connect European arrival in the Americas and the expansion of European capitalism. 1950 on the end of the time bracket is under consideration by the Anthropocene Working Group for the geological origin of the Anthropocene as a new epoch.

Dates make narratives. Since August 2019, marking the 400th year of the beginning of American slavery, the

1619 Project not only re-examines the history of the USA. Instead, the initiative proposes an alternative origin – one that doesn't start with the American Independence of 1776, but with the day the first deported African individuals arrived in Virginia and were sold to the colonists. This narrative re-frames the American 'success story'. Instead, it places the consequences of slavery and the contributions of black Americans at the very centre of the national narrative.

There are moves to integrate modernity's colonial history with environmental history and to challenge European-centric perspectives. The Caribbean is an area from which diverse ecological perspectives have developed. New narratives for the Caribbean articulate ecological thinking as embedded in the Caribbean world. Political ecologist Malcolm Ferdinand challenges the double fracture caused by capitalist civilisation and by Western colonisation. Thinking from the Caribbean world offers another genesis of environmental concern and challenges power relations passed on since the time of slavery.

Nathaniel Bagshaw Ward (1791–1868), the inventor of the glazed plant case, first encountered Caribbean plants as a young boy when he spent about 10 years living in Jamaica. The Caribbean world might have informed Ward's vision and his understanding of plants. He was an English inventor and plant lover of the nineteenth century and a physician who practiced in London's East End. Ward wrote about plants and their living conditions in large towns. His own house was referred to as an extraordinary city garden. But he also wandered the streets of London to seek out urban plants during fieldwork. He understood how plants adapted to environments and how gardens and urban greenery became constructed. He knew about atmosphere and air pollution, about dryness of air and the clogging up of lungs through thick smog. Throughout his professional life he treated people's ill health affected by London's polluted atmosphere. His invention was somewhat a riposte to open air. Ward created an almost closed system of condensation and evaporation to provide sufficient moisture and to seal in the plants.

Wardian cases make live plants mobile, but what about the mobility of plants themselves? In the plant's life cycle, it is the seed that has a robust and high capacity to travel. Once the plant has taken root, its mobility is limited. Plants can spread by developing intricate and vigorous root systems. Trees can walk. The 'walking' palm or cashapona (*Socratea exorrhiza*), native to rainforests in tropical Central and South America, moves from areas with different light conditions using its unique overground root system. Plants send out mobile seeds. Seeds may travel across vast geographical distances: dispersed through the influences of wind and water, the physical forces of gravity and ballistics, or with the help of animals through ingestion or by sticking onto their fur.

Seeds trouble the enclosed, controlled boxed space for plants. Seeds ascribe two roles to humans: humans are both inadvertent and active agents in the dispersal of

seeds. As collector and sower of seeds humans use seeds on cultivated land for food crops, to make plant-based objects and clothing, or for the pleasure of a garden. At home I keep some seedballs inside a food storage jar. The seeds, compacted within dried clay, were collected in the urban environment of Bangalore, India by artist Sunoj D and his collaborators. Whatever plants were found in the botanical field of the city – the clay balls may contain tomato, marigold, amaranth, Caribbean trumpet tree seeds – the plant seeds intertwine botanical histories with human histories of urbanisation. Seeds balls, like Wardian cases, put plants into close temporary proximity. For example, at the Royal Botanic Gardens, Kew, where the Wardian case was in regular use by 1847, a standard case held 28 plants.

Plants can exert their agency through their seeds and can propagate across sometimes considerable distances. My seeds, currently taken out of circulation and resting within the domestic interior, have been contrived into dormant passivity through human intervention. Yet, the intervention encouraged by the artist now is to throw the seed balls into a natural environment, where the seeds could disperse and settle with potentially unknown consequences. My seed balls are not there to do nothing, but as instructed by the artist, to be thrown in anger. An anger to reflect the stranglehold lending banks have over families on small farms, notably in India. But also, to express the anger over capitalist exploitation of seeds by international corporations who fix economic values, control access to seeds, who manipulate the seeds' genetic make-up and profit through patenting.

Seed balls, as much as Wardian cases, help to think through the current discussion of rewilding and the term 'feral'. The term is used by British environmentalist George Monbiot and is interpreted slightly differently by American anthropologist Anna Lowenhaupt Tsing. Both put forward positive environmentalism and stories of hope. Monbiot does so by showing how damaged ecosystems can be restored through rewilding, in which nature is allowed to find its own way. Tsing uses 'feral' to denote an environmental change that has been enabled by human infrastructures and activities, but which is no longer under human control. Levels of control are exerted through the structures of seed balls and the terrarium by singling out seeds or plants, by separating them from the complexity of their environment, and by cultivating them elsewhere. Feral however is about infecting, dispersing, meddling and, most importantly, about ceasing human control to give way or to become entangled with the agency of plants. Would a Wardian case be anti-feral? Its purpose in today's contexts could adapt to rewilding: to retrieve plants from one environment and to recultivate them in another where they have gone extinct. Present-day strategies to transport plants or to think plants within global networks are myriad. Here I have partly thought with and partly extended from the Wardian case to frame histories of plant mobility and migration, connecting plants and humans.

TRANSPORTS OF DELIGHT

Curated by Edward Chell

14 October - 12 November 2022

My bunch of letterbox-alstroemeria, or Peruvian lilies, have done their work. This week they are likely to find their way onto the compost heap in my garden. In the not-too-distant future the decomposed plant matter will enrich the garden's soil, its nutrients to be distributed with the help of fungi, and to be taken up by tree roots.

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