## Logistics of the Living: Variations on a Crystal Case

Text by Aslı Seven

They read Botanic Treatises,
And Works on Gardenin thro' there,
And Methods of transplanting trees
To look as if they grew there.
[...]
They read in arbours clipt and cut,
And alleys, faded places,
By squares of tropic summer shut
And warm'd in crystal cases.

Alfred Tennyson, "Amphion", 18421

No discipline has influenced the fate of the colonial endeavor as much as botany in the 19<sup>th</sup> century. A hybrid fascination with the lush, tropical plant life and for the industrial and economic benefits of the newly discovered species drove not only the colonial settlers, administrators and scientists, but also members of the elite in metropoles to collect, study and display plant life from the colonies.

The global circulation of non-human living beings, however, was nonexistent, at least not until the 1830s. Transportation was by sea only. It took weeks or months for a ship to get to the ports of London, Bordeaux or Amsterdam. As almost 90% of the plants that were shipped from the colonies in Asia, Africa and America were dead by the time they arrived in Europe, botanists were appointed to these "floating gardens", as they were referred to at the time, to care for the plants, but to no avail. The solution came from an unlikely source in the form of a small glazed case that revolutionized the global colonial infrastructure.

Dr. Nathaniel Bagshaw Ward, who was a plant enthusiast, physician by profession, tried to grow fern and moths in his garden but failed at it due to the polluted London air in 1829. The accidental growth of moss and fern inside a sealed bottle where his moth cocoons were buried allowed Dr. Ward to observe "the moisture which, during the heat of the day arose from the mould, condensed on the surface of the glass, and returned whence it came; thus keeping the earth always in the same degree of humidity"<sup>2</sup>. Thus, the Wardian case, which allowed plant life to survive in autonomy inside a sealed box, was invented.

The so-called crystal case that could enclose and sustain "squares of tropic summer," as Tennyson once wrote, defines a pivotal aesthetic regime within modernity and historically unleashes one of the most pervasive human actions on the planet at an unprecedented scale, namely the global trade and manipulation of plant life and interference in ecosystems. With it, the late 19<sup>th</sup> century saw an accelerated spread of invasive plant species in all directions, as plant acclimatization, industrial agriculture and bio-patenting turned out to be the vital forces sustaining European colonialism. The Wardian cases

<sup>&</sup>lt;sup>1</sup> Lord Tennyson, Alfred. "Amphion", 1842. http://www.public-domain-poetry.com/alfred-lord-tennyson/amphion-464. Last access 22 October 2020.

<sup>&</sup>lt;sup>2</sup> Ward, Nathaniel Bagshaw. On The Growth of Plants in Closely Glazed Cases. London: John Van Voorst, originally published in 1852. https://archive.org/details/ongrowthplantsi00wardgoog. Accessed on 22 October 2020.

were the smallest and the most vital link in terms of the networks of exchange between the small-scale botanical stations in the colonies and the spectacular political and scientific powerhouses in Europe: Kew Gardens in London and, a bit later, *Le Jardin d'Agronomie Tropicale* [The Garden of Tropical Agriculture] in Paris. These institutions lead the selection of industrially and economically profitable species of plants, and their distribution across the globe, in order to replace less viable species and establish vast zones of monoculture.

From a conceptual point of view, the object itself condenses two modernist imperatives in their apparent contradiction and fundamental entanglement still operative today: conservation and display. The Wardian case is at once an object, a space and a tool. It is not only an integral part of the colonial infrastructure with its portable size and protective design; it is also the ancestor of the present-day terrariums adorning our homes and our gentrified neighborhoods as commodities, and our schools as pedagogical tools. Moreover, it is a miniature greenhouse, a glass box of autonomous life on display, and a scheme for the accumulation of knowledge, capital and attention, all at the same time. As such, the Wardian case collects, displaces and isolates plant life, and serves as a display device that absorbs the gazes of the onlooker on its glazed surfaces.

Over time, the Wardian case diverged in design, as their functions evolved in two directions: logistics (transportation) and display (exhibition). Following the recommendations of *Muséum national d'Histoire naturelle* [The Museum of Natural History] in Paris, dating 1877, in its transportation function, the dimensions of the case needed to ideally be 100x50cm—height varying between 70-100cm. The base had to be elevated for protection from seawater. The upper part needed to have a frame to accommodate the glass, supported by wooden beams every 7 or 8cm. A wire fence had to cover the whole to shelter the glass against frequent impacts at the deck. Inside, the seedlings were planted, preferably in wicker pots to isolate them without breaking, within a careful layering of humid clayey soil that was followed by good quality soil mixed with compost. The soil was, then, covered with a bed of straws, which, in turn, was secured by wooden beams to prevent frequent tremors from affecting the plants<sup>3</sup>. In terms of protection, covers and layers, this design had diverged from the exhibitionary type of the Wardian case, which laid flat on the ground. Instead of solidity and insulation, it prioritized visibility.

Let's take this object-space-tool, and attempt a spatial reasoning test in reverse: unfold this crystal case into its parts and lay it flat. What does it shelter and what does it reveal? What does it truly care for?

The description above, of how to best secure a Wardian case, regardless of what it is that it carries, besides a utilitarian understanding of the category of "plants", is a poignant example of life reduced to a method of governance. On a symbolic level, "life", as an attribute, abandons the biologically living and its relational conditions of existence. The necropolitical capture of life in order to produce capital also curtails generative potentials not just in the biological realm, but also in the cultural and epistemological sense. Life primarily becomes a feature of the death-distributing infrastructure: growth of productive and reproductive networks, with accumulations of capital and cycles of returns on investment, surrounded by protective measures—material hardware, as in the Wardian cases, and software as in epistemic violence, insurance policies and catastrophe bonds.

<sup>&</sup>lt;sup>3</sup> Taken from "Caisses Ward", Magasin Pittoresque. Paris, 1877, pp. 383-384. https://gallica.bnf.fr/ark:/12148/bpt6k31460s/f388.item.planchecontact. Accessed on 22 October 2020.

There is a paradoxical relationship between what an unfolded Wardian case shelters and reveals, in line with its conservation-display function: the closed-off and wooden surfaced ones materially cover the plants as they reveal the colonial logistics of power, whereas the exhibitionary ones lay bare the display device in all its theatricality: procedures by which plant life is extracted, isolated and reduced to an image on a grid, as much as it reveals the gazes collected on its surfaces.

And what if we imagine it not only laid flat, but also pulled inside out: does it not look like a theatrical décor or a model house where plants become cut-out fragments? Could we interpret the case as a stage, and the plants as puppets?

When life is symbolically taken away from the living milieu and transferred to become a characteristic of human infrastructures of knowledge and capital, plants do seem like lifeless pieces that need human manipulation to be artificially inseminated, to breed, to travel and to sing a song.

There is, however, another way of looking at this. Humans do not process visual/spatial information without some form of identification. The mimetic bond goes in both ways, affecting the mime's identity – or the puppet master's: every time we manipulate a plant, in some tiny fragment of our consciousness, to a minor degree, we become one – or we think we do. Instead of holding on to the old and exhausted idea of autonomy and purity (be it of species, of knowledge categories or of artistic mediums), we could rewind and try to stay still for a minute in the midst of transition: between mask and persona; between the organism and its surroundings, between the ghost and the mime. Yes, the ultimate problem is, indeed, that of distinction: between the real and the imaginary, between waking and sleeping, between knowledge and ignorance, as literary critic Roger Caillois put it a long time ago<sup>4</sup>. But we could also explore the possibility that we have been—and still are—collectively suffering both from legendary psychasthenia and universal tropical neurasthenia<sup>5</sup>.

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<sup>&</sup>lt;sup>4</sup> Legendary psychasthenia is used, here, as the disturbance of the relations between personality and space, as does Roger Caillois in "Mimicry and Legendary Psychasthenia", October (31), Winter 1984, MIT Press, pp. 16-32.

<sup>&</sup>lt;sup>5</sup> Universal Tropical Neurasthenia was a diagnosis in early 20<sup>th</sup> century colonial medicine, with symptoms ranging from exhaustion, amnesia, sun-pain, neurosis and suicide, affecting colonial settlers in tropical zones and thought to be an effect of tropical light. Anderson, Warwick. Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines. Durham, NC: Duke University Press, 2006.







