

***A Botanist, an Architect, and a Garden*****by Jennifer Rudder**

Penelope Stewart's exhibition *Botanique* offers a visual inquiry into the subjects of utopian architecture, early photographic methods, and the colonial exploration and collection of botanical specimens via the raw beauty of photo lithography, cyanotype, and diazo print processes. Produced under the auspices of the Nick Novak Fellowship at Open Studio in 2018, the work continues the artist's investigation into the relationship between the natural world and the built environment, here culminating in the creation of a series of large scale prints as well as three artist books: an investigation into the industrial technologies of glass conservatories; the reconstruction of a found botanical schoolbook published in 1846 from France; as well as a visual topography of clouds printed as a book of fold-out maps.

Stewart has long drawn inspiration from the history of the eighteenth and nineteenth centuries when artists, geologists, cartologists, and botanists traveled regularly onboard ships of exploration and trade. Botanists were charged with identifying species of plants and trees and recording natural history in sketch books and journals. The accelerated expansion of European colonization in the late eighteenth century included the introduction to England of palm trees from the Caribbean, camellias from China, and plants from South Africa and Australia. The low-lying greenhouses of England were unable to shelter palm trees from the damp and cold, but new processes developed during the Industrial Revolution enabled the production of rolled glass and coincided with that of casting iron. Designed by architect Joseph Paxton, the construction of the Palm House in Hyde Park, London—later named the Crystal Palace due to its towering glass dome—was one of the first examples of the architectural possibilities delivered by the dual technological advances. The Palm House was built to display and provide shelter for plundered plants and trees from conquered lands. As Stewart remarks, these sunlit botanical museums served as “possible envelopes for Eden”.<sup>1</sup>

For her book *Echo Utopias*, Stewart focuses on botanical glass houses which continue to actively collect botanical specimens, including Kew Gardens in London, The Kibble Palace in Glasgow, and Allan Gardens in Toronto, printed as a series of delicate photo-lithography prints on *washi*. All these structures harken back to the ground-breaking design of the Crystal Palace. Originally built in 1851 in Hyde Park, London to house *The Great Exhibition of the Works of Industry of All Nations*, the Crystal Palace was visited by approximately six million people—one third of the population of Britain—over a six-month period. A conservatory on this scale had never been built before. Unlike previous trade and industry exhibits, the Great Exhibition shifted emphasis away from the individual maker to that of the British Empire and the power of capital.<sup>2</sup> Borrowing the structural design of the base from the ship building industry, the engineers built the twenty-six acre exhibition area following plans for the hull of a large seafaring vessel. While the structural design was guided by socio-cultural and industrial influences, architect Joseph Paxton simultaneously drew inspiration from his close observation of nature. The webbed radiating veins found on the underside of a gigantic lily pad in Hyde Park, provided Paxton with a conceptual way forward in his designs for the substantial construction of the dome. An exceptional and powerful print of the vigorous branching veins of the lily pads is thus included in Stewart's book.

When the Great Exhibition closed, the Crystal Palace was dismantled pane by pane. The glass and iron struts were moved to Kew Gardens in South-West London in 1852, where it was rebuilt in a much smaller configuration. The conservatory burned down in 1936, but was rebuilt again, with the delicate floral iron work on the spiral staircase evidence of art nouveau influences. The Palm House of Kew remains an iconic building and the world's most important surviving Victorian glass and iron structure.

Stewart is drawn to the space and volume of conservatories, the transparency and reflection of the glass, as well as the 'inscriptions' formed by condensation on the panes. While the glass houses of the United Kingdom and Europe displayed a wealth of botanical wonders, the greenhouse workers inadvertently acted as saviors of the world's horticultural bounty through the

diligent collection and categorization of thousands of seeds, many from plants that may have become extinct in their native countries. Palm Houses and conservatories displace, transplant, and diminish the natural world, and yet serve as sites that position and re-position the natural world in our collective memory as a replacement for Eden.<sup>3</sup>

Soon after the Great Exhibition, kits for greenhouses were in high demand and made available in a variety of sizes for cities and towns in Great Britain and its colonies to assemble. With this in mind, Stewart includes images of the conservatory in Allan Gardens, Toronto. Built in 1879, the Palm House of Allan Gardens was open to the public to provide public access to nature in the east end of the city. The central domed pavilion was destroyed in a fiery blaze in 1902 and was rebuilt in 1910. Allan Gardens also served as an important rallying point for social protest in the 1930s. Photographed here in the snow, the somatic experience of the light, the heat, and the earthy smells continues to seduce visitors today,<sup>4</sup>satisfying the need for refuge in a lush paradise especially in Canadian winters and for Canadians from tropical climates.

Accompanying *Echo Utopias*, two large diazo prints of the gardens at Audley End House hang on the gallery wall creating a horizontal mirroring. Located in the Essex countryside in England, Audley End is considered one of England's most celebrated gardens, redesigned by Lancelot "Capability" Brown in 1763. His sweeping landscape plans aimed for a natural look, at great expense to his clients. The widening of the River Cam at Audley created the appearance of a serpentine lake and the natural plantings of hundreds more trees provided extended views. In Stewart's photograph, the natural reflection of the trees and bushes on the bank of the river shimmers with movement and life. Her employment of the negative photographic image confers a painterly quality, making a ghostly vignette resembling eighteenth century wallpaper or toile fabric visible in one corner. Stewart's process creates a blurring that bestows animation and agency to her original crisp black and white photograph.

On the back wall of the gallery are images of the empty structures of El Palacio Cristal in Madrid. No longer used as a botanical repository, this barren edifice stands in contrast to the glass houses

included elsewhere in the exhibition, which are all still actively employed to collect and research living specimens. The empty space allows for solitary meandering and reflection without organized perambulation or a designated itinerary of plants and trees to follow. The shadows cast below mimic the skeletal bones of the structure and echoes of conversations remain. The hollow architecture here becomes an artifact of colonialism. Stacked in layers, the rich indigo blue of the diazo prints reveals the crowning domes designed in 1887 by Spanish architect Ricardo Velasquez Bosco. Bosco was likely inspired by Marc-Antoine Laugier's concept of the 'Primitive Hut' outlined in his *Essai sur l'architecture*, the first essay in western civilization to discuss the concept of architecture, published in 1773.<sup>5</sup> In this, Laugier rejected the Baroque architecture of his time, embracing the ideal architectural forms of nature. Antonio Gaudi, Le Corbusier, and Frank Lloyd Wright were all influenced by Laugier's essay, which continues to be taught in architectural studies today. Gaudi's employment of the arcing parabola structures in the attic of his Palacio Guell in Barcelona is a testament to Laugier and to his observations of the beehive. Stewart is renowned for her engaged interest in beehive-inspired architectural forms, and the images of El Palacio Crystal recall her own prodigious sensory architectural installations.

Stewart's second botanically-inspired volume, *Botanique*, is much smaller in scale, though equally substantial in its conceptual foundations. It is wholly remade from a small book of early nineteenth century botany found in a bin of discarded books in France. Titled *Nouvelle Botanique*, the schoolbook was intended to help identify specimens and included drawings of the leaves of Sage, Tilleul, Valérian, Verveine, Safron, and other herbs and plants. In the early nineteenth century, a significant number of citizens still lived in the country or in small towns. Students would have shared an intimate connection to the natural world around them, witnessing and acknowledging the subtle complexities of nature—weather, trees, plants, and animals. The original book is a touching document of that past. Carefully deconstructing the original volume, Stewart used it as the template to meticulously reprint each page using cyanotype, a contact photographic process in which copies (or 'blueprints') of drawings or specimens can be made by placing them directly onto paper specially coated with ferric ammonium citrate and potassium ferricyanide. The artist's employment of cyanotype consciously acknowledges the historic innovation of Anna

Atkins. The nineteenth century botanist saw the possibilities of the new technology for greater scientific accuracy in illustration. Her book *Photographs of British Algae: Cyanotype Impressions*, 1843, was the first to be printed and illustrated using photographs. With its fusion of science and art, the publication broke ground in an era when science and art were more closely aligned than today.<sup>6</sup> In addition to the reconstructed volume, Stewart has enlarged and printed plates 11 and 12 from the book, which she includes in the exhibition as framed diazo prints.

Shifting the viewer's focus from the earth to the skies, the third book, *cloud atlas*, includes images of the muscular structures of water and air, which unfold and open like a map to reveal the "turbulent power" and "vibrant materiality" of clouds with their "capacity to act as quasi-agents or forces."<sup>7</sup> Stewart has been taking photographs of clouds since 2004, many of which have found their way into her atlas. Here, clouds reflect the power of the weather system with its life and death possibilities, yet they remain neutral as they sail far above politically determined borders, the longitude and latitude of colonies, wars, and the ruin of climate change below. Viewing clouds through this long lens, Stewart sees a connection to Susan Stewart's "The Map of the World Confused with Its Territory", which she serendipitously stumbled across in 2018. The poem responds to the current disasters of war, borders, and refugees; thus, "the map of the world is an orphanage" with "fraying edges."<sup>8</sup> In the deep Prussian Blue of the towering images of clouds, the artist looks up from earth to a space of relief and possibility.

Gazing into this space, Stewart's luminous exhibition extends and shares her fascination with utopian architecture, the origins of photography, the allure and history of the English garden, and notions of archiving and collecting. For Stewart, the botanical gardens within the glass houses of the Victorian era continue to serve as "museums, monuments, and theatres of nature."<sup>9</sup> Accordingly, her intense visual studies reveal the close observation and connection to a natural world that we, in the twenty-first century, may have lost. At the same time, they remind us of the insight to be gained by looking closely at details too easily missed as we hurry on our way to the next thing.

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<sup>1</sup> Penelope Stewart in conversation with the author, November 2018.

<sup>2</sup> Tony Bennett, *"The Exhibitionary Complex"*, *Show and Tell: The Birth of the Museum, History, Theory, Politics* (London: Routledge, 1995).

<sup>3</sup> Ibid.

<sup>4</sup> Penelope Stewart in conversation with the author, December 2018.

<sup>5</sup> See Joseph Rykwert, *On Adams House in Paradise: The Idea of the Primitive Hut in Architectural History* (Cambridge, Mass: MIT Press, 1981).

<sup>6</sup> The cyanotype has had a comeback recently within art galleries and museums. An exhibition in 2016 at Worcester Art Museum in Massachusetts featured works by forty artists including those of Edward Steichen, Christian Marclay and Anna Atkins. Atkins' works were on view in 2018 at the New York Public Library in the exhibition *Blue Prints: The Pioneering Photographs of Anna Atkins*.

<sup>7</sup> Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), vii.

<sup>8</sup> Susan Stewart, *"The Map of the World Confused with Its Territory," The Hive*, 1987. (Atlanta: The University of Georgia Press, 1987), 47.

<sup>9</sup> Penelope Stewart, artist's statement, <https://openstudio.ca/exhibition/penelope-stewart-botanique> (accessed December 2018).