

TERRARIUM AS A DESIGN METAPHOR

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A climate within a climate, a little world within a world. (Ward 1854, p. 11)

The word *Terrarium* has many different meanings and interpretations. Its roots lie in the Latin word *Terra* (earth or ground), and earth constitutes its base layer. Its primary function is to create a self-sufficient ecosystem which sustains plants and other living beings. Indeed, a *terrarium* is designed to create and maintain a specific ecological state, which is self-contained and self-perpetuating. The history of *Terraria* begins with the story of the *Wardian case*, created in the 19th century by Dr Nathaniel Bagshaw Ward to nurture plants used for medical purposes, which were struggling to survive during the Industrial Revolution. The *Wardian case* was then used to transport vegetation, in particular the exotic plants which were discovered during geographical exploration. It worked as a

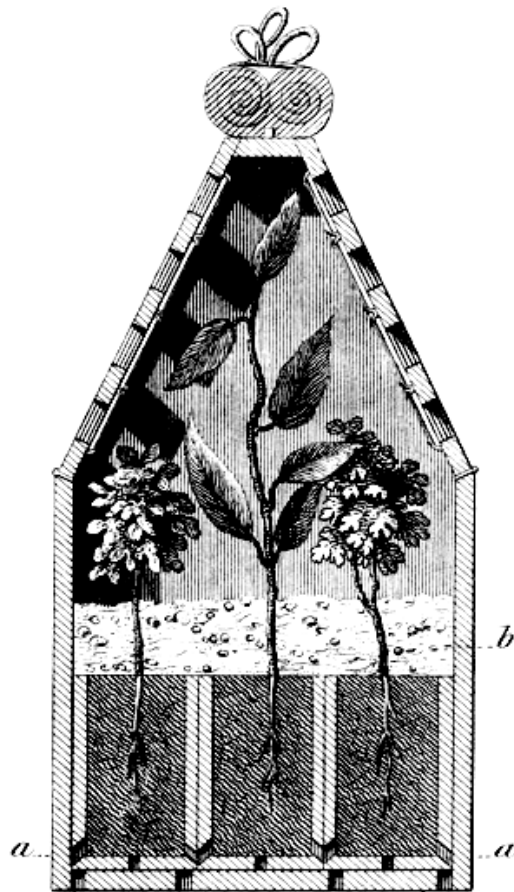
vehicle for environmental scrutiny in Victorian culture, the Wardian case married seductive visions of fertile growth with frank discussions of the human activities that put all vegetation at risk (Wells 2018, p. 168).

The concept of the *terrarium* as a structure which encloses an ecosystem, poses architectural challenges. In this regard, *terraria*, which are tools to sustain, transport and display rare species from faraway lands or different climates, can be interpreted as artifacts for observation and as spaces to nurture living forms which require particular growing conditions, as well as places for leisure.

As described in *On Wardian Cases for Plants and Their Applications*, the *terrarium* aims to

obtain, in short, in the isolation afforded by the glass covering, a climate within a climate, a little world within a world, in which, while their wants

Box to protect plants during sea voyages. Drawing of the inside.
 Image published in the paper by John Lindley, "Instructions for Packing Living Plants in Foreign Countries, Especially within the Tropics; and Directions for Their Treatment during the Voyage to Europe," Transactions of the Horticultural Society of London 5 (1824). Work under no copyright protection according to the Biodiversity Heritage Library.



are satisfied, the plants enjoy an immunity from external disturbing influences (Ward 1854, p. 11). *Terraria* are protected space, as well as a miniature version of a specific environment or an architectural structure. They are both desirable ecosystems and structures in which nature is artificially grown and displayed. Therefore, the *terrarium* represents both the container and its content, as well as the relationship between these two elements. This allows us to link the *terrarium* to the idea of *future nature* (Gissen 2019), where the latter is interpreted as both a process and a space for interaction. The concept of *terrarium* as an object is replaced by the concept of *terrarium* as a metaphor of man's impact on natural ecologies. These hybrid ecologies display new ways to coexist for humans and other living beings and new forms of nature. By reflecting on the meaning of the *terrarium*, the contributions to this book show that man's understanding of nature is continually in flux, in both theory and practice. Indeed, this concept of *terrarium* leads to discussion—often both contradictory and oppositional—about the critical relationship between architecture and nature.

Architecture has often drawn inspiration from nature, as described by architectural critics such as Adrian Forty (2000), and has also used nature as a model to reinforce the authority of design choices (Whiston Spirn 1997). Nature's physical and atmospheric presence has also provided inspiration for the design and amplification of sensory experiences (Rahm 2023). However, in the final decades of the twentieth century, science has often been used to emphasise the supremacy of nature, paradoxically questioning its own role. Ian McHarg's *Design with Nature* (1969) undoubtedly changed the relationship between design and the natural environment, by introducing the subject of ecology.

Ecology not only took its place in the design world but also became a driving element for many designers, replacing, in a way, the role of nature (Whiston Spirn 1997). Furthermore, the increasing relevance of urban nature for ecology highlighted the potential interplay between spontaneous vegetation and spatial design (Kowarik 1991). This led to a different interpretation of the boundaries between the built and the unbuilt and to an interest in the inner dynamics of this in-between space. Architecture culture was also influenced by the identification of the environmental crisis – which was first mentioned in the seminal report *The Limit to Growth* (1972) – as well as by the recent recognition of climate breakdown. It showed how man has modified the precarious relationship between territory, climate and technology, by reshaping the geological strata of Earth and by playing with topographies, as discussed in *Robotic Landscape* (Giot 2022) and in *The Earth is an Architecture* (Trévelo, Viger-Kohler 2021). Also, the recent exhibition at the MoMA in New York, *Emerging Ecologies. Architecture and the Rise of Environmentalism*, explores the relationship between architecture and the environment with a focus on the rise of an ecological consciousness (Carson, 2023). Therefore, the *terrarium* can also be interpreted as an element of mediation between the space for life, the atmosphere, and Earth (Ingold 2021). It is evident that man's understanding of nature has become multifaceted and open to question, and so the *terrarium* itself appears to be a system which unveils not only desirable and endangered environments but also “the decay and the uncanny” (Morton 2007). The uncertainty underlying the cultural debate, which is a common thread running through every chapter in this book, results in the various critical interpretations of the *Terrarium*.

As part of the Prin Sylva series, *Terrarium* gathers diverse contributions which investigate the relationship between architecture and nature from multiple perspectives; through texts, drawings and photos. Some authors describe the *terrarium* in visual essays, documenting both designed and abandoned landscapes through photos and drawings. Other authors use the metaphor of the *terrarium* as a means to explore theories and projects, which range from the scale of the landscape to the scale of the building.

Terrarium has five sections which look at the metaphor of the *terrarium* from different perspectives: *Islands*, *Machines*, *Biomes*, *Wildness* and *Metamorphoses*.

Islands focuses on the notion of *terrarium* as an enclosed ecosystem, exploring portions of landscape and architectural constructions as isolated microcosms. The island is a metaphor for an enclosed space which is separated from the outside. The chapters in this section concentrate on the contrast between what stays inside and what is left out, both in domestic spaces and in the urban realm.

Machines looks at the *terrarium* as a system in which single elements reveal the whole. Nature is shaped by architecture and architecture is shaped by natural dynamics. The chapters in this section interpret the *terrarium* by looking at the tectonic as well as the typological resonance of land or vegetation.

Biomes highlights the relationship between entities within a certain environment, whether that is a small plot or the whole planet and overcomes the binary thinking that separates human beings from other forms of life. These biomes reveal the coexistence of different living and non-living beings, exploring their interaction and evolution. They are investigated not only from a human point of view but also from various

Islands, Machines, Biomes, Wildness, Metamorphoses,
Photos by Sara Anna Sapone, Various locations
(Berlin, Amsterdam, The Hague, Almere, Venice), 2022-2023.



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other perspectives which focus on the relevance of the biotic community.

Wildness looks at how unpredictable natural dynamics can be, in spaces which seem to be enclosed by defined boundaries, either physical or conceptual. These natural dynamics create places which are unexpected *terraria*. Vegetation develops outside the rules, creating precious reserves for biodiversity and attractive spaces between the built and the unbuilt.

Metamorphoses defines the *terrarium* as a space where profound changes occur. In this sense, the contributions to the book are reflections on climate change, territorial alterations and reclamation processes, describing architecture as a space in continual transformation, growth and decay. Therefore, each contribution with its own concept of *terrarium* is a critical reflection on the relationships between ecology, architecture and landscape.

Box to protect plants during sea voyages. Drawing from the outside.
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