

# *Miniature landscapes*

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## ABSTRACT

The concept of miniature landscapes is used in this paper for human-made, three-dimensional landscape at reduced scale. Their diversity ranges from Japanese gardens to indoor habitats and from scientific and artistic dioramas to mini-railroad-systems and snow globes. Many of them employ mixed media and combine natural with artificial items. Depending on their genre, context and addressee, micro-landscapes critically reflect on the naturalization of vision in science, replicate cosmogenesis at small scale, satisfy biophilia, fascinate for their skillful reproduction of details and nostalgically recall childhood pleasures. The enjoyment of making and watching them can be explained in terms of functional beauty and interplay of scales; moreover, miniature landscapes “trap” the outer world in capsules, creating a domestic sublime, and activate attention and imagination.

## KEYWORDS

Landscape, Miniature, Diorama, Aquarium, Contemporary Art, Scale, Imagination, Sublime

“Miniature is one of the refuges of greatness”, claimed Gaston Bachelard (1994, p. 155), and although his analysis focused on literary fiction, his statement can be applied to miniature landscapes as well. The concept of landscape has inspired a plethora of interpretations in philosophical aesthetics, art history, (cultural) geography, and landscape planning, yet less attention has hitherto been paid to miniature landscapes. After a brief conceptual clarification of micro-landscapes, the paper gives an insight into their overwhelming diversity in scientific, artistic, and everyday settings, focusing on selected case studies. The last part explores the roots of their aesthetic enjoyment along four axes: their visually pleasing functionality, the intriguing consequences of scale reduction, the controlled simulation of sublimeness by using mixed media that bring the outer world indoors, and finally, a specific relation between attention, perception, and imagination.

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## 1. *What is a miniature landscape?*

Given the present inflation of images of landscapes in art, popular culture, media, and everyday life, the following discussion excludes from the outset two-dimensional representations of landscapes, from paintings to postcards and maps, and focuses on three-dimensional replicas of landscapes. This is admittedly insofar problematic as the concept of landscape emerged in Europe precisely in relation to landscape painting, as a genre of images that *scales down* real landscapes.<sup>1</sup> For the sake of clarity, three further categories will be left out of the discussion: full-scale gardens irrespective of their size (to which several cultural traditions assigned the *meaning* of microcosms); images of 3D environments obtained with magnifying devices; finally, the landscape-like visualization of astronomic data. Even if, seen under the microscope, the texture of a leaf looks like a scape and is indeed a 'landscape' for the infinitesimal creatures that inhabit it, the dissimilarities between their and our life-world remain too strong to allow for an as-if mode of imagination. Also, although videos invite viewers to imaginarily embark on a journey to and amidst foreign galaxies, they downscale space only at the cost of distorting the temporal scale, given that no human being could ever reach them within the human lifespan. After clearing the field, it is now time for a positive characterization of micro-landscapes.

The concept of miniature landscapes is confined in the following to human-made, three-dimensional natural landscapes at small scale. Therefore, along with their (phenomenological) constitution as landscapes by the viewer, they will also be analysed in their empirical making and in relation to the specific media involved. The double difference of miniature landscapes from full-scale landscapes – partial or total material artificiality and a reduced scale – already suggests that also their purposes diverge from practical ones and, as it will be shown, are put into the service of aesthetic enjoyment. An incomplete enumeration of miniature landscape includes Japanese Suiseki gardens, scientific and artistic dioramas, terrariums and aquariums, snow globes, mock-ups in architecture or for children, mini-railroad-systems, lego games, and even fridge magnets. Only some of these categories fall at present under the category of art; in general, miniature landscapes illustrate the entanglement of environmental aesthetics, the aesthetics of science, everyday aesthetics (including

<sup>1</sup> Besides, the issue of miniaturization in art in general would deserve a special analysis. On the scale model as prototype of the work of art see Lévi-Strauss 1962, pp. 37f.

creative hobbies) and contemporary art. Given the huge variety of small or tiny landscapes, the following analysis concentrates on representative categories.

## 2. *Varieties of landscape miniaturization*

If miniaturization in general can be considered a transcultural phenomenon, the Japanese culture manifests a striking propension for it in the art of gardening, the best evidence for it being the miniature trees called bonsai and the Suiseki landscape stones. Suiseki stones have usually the form of mini-mountains and are displayed so that they form the center of miniature landscapes. Like an ikebana and a bonsai, a Suiseki stone invites to meditation by diving into the small world of an as-if landscape: “Suiseki make one see mountains, bonsai trees, ikebana flowers and foliage, in a different way. They heighten the sense of the beauty of the world to a point of utmost poignancy, until one sees everything as art and art as not-art, but as spontaneous nature.” (Sartwell 2004, p. 122)

At the opposite of the refined aestheticism of this gardening that teaches to see at a different scale can be placed dioramas and mock-ups for children. Dioramas etymologically mean “through that which is seen” and refer to three-dimensional scenes with figures that are used in natural history museums to show animal habitats and in historical museums to reconstruct past events and environments. Not all dioramas rescale the original: life-sized dioramas which present animals or people do not apply the principle ‘see small as big’, but ‘take the part for the whole’ (which in rhetoric terms corresponds to a synecdoche).

Children are recommended to model dioramas with cardboard, paint, crayons, fabric, clay, buttons, beads, glue, scissors, and string (Dyer 2017). Nature features can be created by cutting photographs from magazines and sticking them to the background, yet moss, stones and pebbles, twigs, small flowers, and leaves enhance the authenticity of such ‘landscapes’. While real water “can be messy”, “great-looking water effects that look almost real” can be achieved with the aid of blue-colored paper or sand, glass beads that simulate water reflections and shredded paper strips to imitate a fast-moving river (Dyer 2017, p. 19). The aesthetic ideal of these models is to stage nature as realistically as possible, even though this illusion concerns only its *aspect* and neglects the *multisensory* experience of real landscapes. Nature becomes a visual composition consisting of several layers, called canopy, understory and forest floor for scenes

of tropical rainforest. At the end, self-made or store-bought animals not only add “final touches” (Dyer 2017, p. 23) to this scene, but also bring life into it, prompting the young stage designer to imagine a story. Seen through the lens of environmental aesthetics, these landscape dioramas appear as deceitful art-oriented landscape surrogates, whose aesthetics is insofar “superficial” (Hepburn 2004) as it is satisfied with a naïve enjoyment. Nonetheless, despite its focus on decoration, simulation and spectacularity, this invitation addressed to children to make diorama aims also to unleash creativity, train hands-on skills, and engage questions.<sup>2</sup>

While children produce toy-like environments with low-tech means, contemporary artists playfully develop avatars of scientific dioramas, as the exhibition *Dioramas* in Paris (Palais de Tokyo, June-September 2017) demonstrates. Its curators Claire Garnier, Laurent Le Bon, and Florence Ostende polemicized with the deprecation of the diorama as a minor art and reconstructed its history along three types of exhibits: illuminated images, miniatures, and full-scale vignettes. The dioramas invented by Louis Daguerre and Charles Marie Bouton in 1822 were two-sided paintings which appeared as three-dimensional and animated grace to a masterful illumination. They frequently reproduced dramatic landscapes, such as volcanic eruptions, bringing nature indoors and “taming” its wilderness. The sublime could thus be experienced not only at a secure distance, as Kant had claimed a generation before, but also in a comfortable illusionistic mode, even without having to leave the city. As a “diminutive model” – a meaning which was added only in the early twentieth century (Siddiqui 2017, p. 171) –, diorama had predecessors in the religious miniature scenes and objects of the Baroque era. Finally, natural history museums use full-scale vignettes, in which wildlife habitats are fictionally staged by placing taxidermic fabrications along with further objects within a glass case with a painted background. Here, too, the spectators enjoy their double location – within a natural, potentially dangerous environment and safely outside it – with a sort of voyeuristic thrill. In fact, dioramas epitomized the negotiation of the relationship between nature and culture in 19<sup>th</sup> century science and satisfied at the same time the visitors’ of all ages biophilia and their intellectual curiosity. Moreover, they interrupted the everyday tediousness and invited to an imaginary adventure to exotic places. In a way, dioramas were a symbol of modern democracy: they translated scientific information into an almost ‘graspable’ perception and enabled travelling without

<sup>2</sup> The latter explains why even WWF develops games for children that simulate climate change in the Arctic by constructing landscape models. (Haslacher)

all those inconveniences that a real journey would have implied, from travel conditions to unaffordable expenditure.

New artistic interpretations of dioramas combine old with new media and include calculated estrangement effects, with the aim of determining the spectator to critically reflect on the power of representation in modern culture (Siddiqui 2017, p. 174). Typical in this respect is Richard Barnes, whose photographs produce surprising *Verfremdungseffekte* by bringing together animal corpses with living human bodies who paint the background, arrange natural items, move dead animals covered in plastic bags and do maintenance work. These scenes denaturalize the mini-environments and disclose their hybridity: ‘nature’ turns out to be a scientific *representation* and a construct of human *practices*. Instead of keeping visitors behind the glass, Barnes transforms the viewers into accomplices by allowing them to throw a glimpse behind the scenes. The effect of this hyperrealistic photography is almost surreal. Similarly, the photographer Klaus Pichler (2010) and the film director Joerg Burger (2023) deconstructed the strategy of naturalizing nature in the Museum of Natural History in Vienna. Such projects correspond to the praxeological turn in epistemology and present scientific research primarily as a hands-on practice.

However, not all contemporary artistic reinterpretations of dioramas reflect on the ‘making of’ natural science. Patrick Jacobs’ *Yellow Slime Mold with Pinkgills* (2015) sets forth the illusionism of dioramas, suggesting a living landscape which is in fact completely artificial. Particularly ingenious is Mathieu Mercier’s installation *Untitled (coule d’axolotls)* (2012): a glass box whose floor is covered by sand contains a second, smaller glass case, which is half-filled with water and inhabited by two strange, seemingly immobile creatures. To the visitor’s surprise, both axolotls are alive. Mercier’s diorama performs a double, almost Hegelian twist, reinstalling nature by negating its negation, given that the animals are not stuffed, as in a conventional diorama.<sup>3</sup> Moreover, this half-diorama and half-aquarium recalls Roger Caillois’ concept of the discreet fantastic (1965), which instead of striking with an impressive collection of strange creatures, insidiously ‘creeps’, producing unsettling effects.

In contrast to dioramas, terrariums and aquariums provide surrogate habitats to living animals. In addition to natural materials (charcoal, gravel, sand and rocks, roots, and vegetation), the human designer may add artificial decoration, like fake plants and kitschy

<sup>3</sup> The installation may also allude to Julio Cortázar’s short story *Axolotl* (1978) which describes an uncanny exchange of glances and perspectives between the museum visitor and an axolotl.

miniatures (from shipwrecks and Buddhas to divers and skeletons), whose unique function is to stir imagination. Companies that produce supply for indoor animal habitats are aware of their aesthetic potential when they invite customers to “capture nature under glass and create beautiful mini living art” (Ancient Wisdom). In case these do not conceive such micro-landscapes merely as stylish accessories of the art of living,<sup>4</sup> a sophisticated technology enables pets to feel ‘at home’ and human spectators to enjoy watching them in an environment that reproduces nature “after nature” (Böhme 2017): “landscaping foam” shape waterfalls without damaging fish and plants, “the finest spray mist” makes reptiles “lucky” (Zoo Roco) and so on.

More articulated is the aesthetics of aquariums. Blogs do not give only practical advice, but contain also design recommendations regarding the colour and thickness of the substrate, the aquarium background, the placement of plants of various heights, (futile) unnatural decorations, the number and size of rocks etc. (e.g. Bogert). Companies selling fish tanks and aquarium supplies, too, explain the latest trends in aquascaping and employ without any hesitation notions like “artistic”, “visual aesthetics”, “design”, and “landscape” (e.g. FishTanks 2023). Noteworthy in this context is the recent trend that has shifted the focus from simple fishkeeping to shaping their environment according to three distinct styles of designing “immersive underwater landscapes”: minimalist Iwagumi, Dutch style, and nature-inspired layouts (ibid.). “Simplicity, clean lines, and harmony with nature” should be achieved in the “Art of Zen Aquascaping” by using few plants that contrast to the rocky “hardscape.” In contrast, the “lush, colorful plant groupings” of the Dutch style evoke an “underwater garden” with a “multi-dimensional and cohesive composition.” The ideal is again a pleasing image, yet – compared to the minimalistic version – the landscape is conceived both as a contemplative and an explorative one<sup>5</sup>, given that the arrangement of plants suggests depth and invites “the viewer’s eye to travel through the aquascape” (ibid.). Finally, the third style unfolds the layout from an eye-catching point, such as a driftwood or an interesting rock formation and aims to produce an aquascape that resembles a natural, dynamic terrestrial landscape by balancing “realistic environmental representations” with “artistic creativity” (ibid.). A fourth type of aquascapes, called “biotope

<sup>4</sup> The same company recommends using glass cases as decorative hanging objects, even without animals inside.

<sup>5</sup> On the fourfold taxonomy of landscape as contemplative, explorative, lived and sentient see Diaconu 2024.

aquascapes”, reaches the peak of design precisely grace to its fake authenticity: in purest Kantian manner, real art conceals its human making and presents itself as nature. However, this requires appropriate scientific knowledge to combine visual appeal with functionality: the aquatic inhabitants’ well-being goes hand in hand with the aquarium keeper’s enjoyment.

Terrariums and aquariums are brilliant examples of interspecies cohabitation, for their making involves a double (living) interior design: humans create the conditions for other species to live in ‘their’ real-size landscape and, in doing so, they artfully design their own interior, given that such indoor miniature landscapes are veritable eye-catchers. Like in Mercier’s diorama, living capsules are nested into each other and indoor animal habitats resemble encapsulated micro-landscapes, dwellings for small non-human living beings within human dwellings.

Different is the case of human-made mini-worlds. Amateurs of mini-railroad-systems design minuscule landscapes with tiny bridges and buildings, fake trees, fake snow, and other decorative features. The lego world, too, supplies vegetal background for various environments; some of these are animal habitats, others are inspired from films and videogames, more seldom from art, like Hokusai’s *Great Wave*, which is a nature representation to the second power. *Ad liminem*, the reconstruction of the Milky Way from lego pieces represents a masterpiece of downscaling that converts cosmic space into an abstract mini-sculpture (Lego). Most such miniature worlds conceive ‘Nature’ as a mere stage for human narratives.

Probably the best way to appease one’s own Lilliput complex or fascination for miniature worlds is to visit the Canadian museum Miniature World, whose “over 85 exciting miniature dioramas and displays” cover subjects ranging from space travel and car rallies to historical and legendary historical settings and scenes that include micro-landscapes, such as a lumber company (advertised as “the world’s smallest operational sawmill”) and a valley of castles (Miniature World). The meticulous realization of these replicas must have taken years, which recalls Bachelard’s remark about medieval miniature art: “All small things must evolve slowly, and certainly a long period of leisure, in a quiet room, was needed to miniaturize the world.” (Bachelard 1994, p. 159) The museum expectedly attracts youngsters in the first place, but visitors of all ages are explicitly invited to enjoy becoming children again.

Nostalgia for childhood was also the context in which Orson Welles’ *Citizen Kane* made the Viennese snow globes famous. These globes were invented in 1905 by a surgical instrument mechanic and



are still produced in Vienna by a family-run manufacture (Original Wiener Schneekugelmanufaktur). The snow globes illustrate a liminal case of landscapes, containing various motifs (Viennese tourist attractions, foods, animals, but also Christmas-related subjects and typical Alpine landscapes) within a globe which, when it is shaken, fills with fake swirling snow. Usually, such banal and kitschy objects are ignored by aestheticians. An exception makes Bruno Surace's semiotic analysis of the fridge magnets, some of which reproduce landscapes (Surace 2019). According to Surace, it is neither their stereotypical representation nor their aesthetic quality, but their evocative appeal that explains some individuals' fascination with fridge magnets. The fridge magnets with tourist subjects are typical examples for the industry of souvenirs and trigger nostalgia, occasionally even a paradoxical nostalgia for places one has never visited before.<sup>6</sup>

While the aforementioned categories of mini-landscapes are rarely taken seriously in aesthetics, the idea of playing God by creating own worlds (needless to say, at the human scale) inspires also contemporary art,<sup>7</sup> for example, Marie-Luce Nadal's installations for "fabricating clouds" (Marie-Luce Nadal). In her series *Extrait de nuage* and in *Paysage de plomb*, small aquariums equipped with a heating and cooling system and of different forms simulate, in combination with water, polymer and lead sheet, strange landscapes, whose atmospheric dynamics is recorded in poetical videos. The artist describes her *La fabrique du vapoureux no. 1* (2015) as "the first cloud-capturing machine", whose idea "oscillates between an industrial production and an utopian dream" (ibid.). The system extracts air and water from the environment and, at the end of a series of operations, produces "pure synthetic cloud and storm essence" (ibid.). Other videos Nadal's are likely to use magnifying macrophotography to suggest landscapes, as when dry leaf nervures can be guessed in the ghostly 'landscape' of *Dans le cimetière des exhalations*. No less intriguing is the artist's list of materials, which short-circuits the cosmic and organic scale, mixing clouds, breath, smoke, sweat, saliva, water, wine, and lightning. Occasionally, Nadal, too, plays with estrangement effects by disclosing the viewer the 'making of' her minuscule worlds, when videos show how she magically 'conducts' the circulation of air and steam currents.

<sup>6</sup> Surace uses the passion for fridge magnets to make the case that texts in general must be seen in relation to something external and thus "transcendent" to them. This justifies in his view Eero Tarasti's concept of existential semiotics, in which signs mediate the movement between the *Dasein* and the outer world (Surace 2019: 136).

<sup>7</sup> The replication of natural environments, including the simulation of weather events within gallery spaces, will be left out in the following discussion to concentrate on dioramas.



Obviously the categories of mini-landscapes analyzed so far are miscellaneous in terms of media used (natural or artificial), of scaling (some of them downscale the items of natural landscapes, including mountains and water, vegetation and animals, others only recreate small-size ecosystems), of the spectator's engagement (from hands-on projects and regular maintenance to the passive consumption of industrially produced objects and handicraft masterpieces), of the user's motivations, let alone the aesthetic categories they epitomize and their aesthetic quality. Notwithstanding this overwhelming heterogeneity, it is worth attempting to structure their aesthetics along a few axes.

### *3. Aesthetic features of miniature landscapes*

The visual appeal of micro-landscapes and their combination of creativity with manual and high-tech skills would suffice to subsume them under the object of aesthetics, no matter if their making has already been acknowledged as an art or if their results may be considered of a doubtful taste. Additionally, some miniature worlds are dynamic systems that illustrate functional beauty.

#### *3.1. Functional beauty*

According to Glenn Parsons and Allen Carlson (2008), the idea of functional beauty may imply that beauty emerges from function, being “internal” to it, or that beauty is *also* functional. The latter approach to “external” functional beauty can be easily applied to miniature landscapes since these can be informative and educative, satisfy intellectual curiosity, stimulate imagination, and train hands-on skills. Other categories of micro-environments, which were left out of discussion here, serve practical purposes, as when architectural models facilitate to better imagine planned environments. Given the fuzziness of the concept of function, one can even ascribe a psychological function to micro-landscapes that are produced for pure leisure and awake the child in us.

Moreover, Parsons' and Carlson's stricter, “internal” approach can partly be used as well. For example, although aquariums can be appreciated solely for their momentary appearance, this remains a ‘shallow’ aesthetics compared to the aquarium keeper's ‘deeper’ satisfaction of having created a sustainable, functional living system. The smaller a miniature landscape is, the more unstable is also its ecosystem – translated again into Kantian terminology: the smaller

and more fragile a system is, the more it needs care and the less can conceal its making and pretend to be nature. In this case, scientific knowledge is required not only to keep an aquarium, but also to appreciate it properly, given that beauty arises out of function and function must be understood. In this account, the vitality or “ecosystem health” (Callicott 1999) turns into a cognitive-based aesthetic quality, since proper knowledge is indispensable for maintaining (albeit not *creating*) life in a non-human habitat. Despite this analytical distinction, both accounts of functional beauty can coexist and enhance each other: the superficial enjoyment of an aquatic *tableau vivant* can trigger the desire of keeping an aquarium, which in turn makes necessary the understanding of how it works and modifies the initial ‘naïve’ evaluation.

### 3.2. *Interplay of scales*

In fact, minuscule landscapes represent only one example of miniaturization, a phenomenon whose general implications transcend aesthetics. In his “sketch of a phenomenology of the small”, Roland Breeur argues that the fascination with tiny things underlies “the consciousness of a disproportion between form and matter”, in the sense that “matter shrinks without affecting the form itself” (Breeur 2014, p. 29). As a result, we cannot help keeping gazing at the careful tiny reproduction of details and admiring the precision of their artisan skills, as if we were wondering how far can be matter reduced without affecting form and recognizability. Breeur does not exclude a sort of metaphysical shudder in our admiration of minuscule things and environments and recalls Pascal, for whom the experience of endlessly zooming in until the point of (almost) nothing, where matter disappears, makes us humans realize our place in the universe between the small and the big infinity. Nevertheless, in Breeur’s view, neither metaphysical reasons nor intellectual ones, such as curiosity for small structures, are indispensable for enjoying small worlds. Typical for miniature objects and environments is not an “ontological reduction”, but a “hyletic” one (Breeur 2014, p. 37), when a form remains recognizable at the boundary of the visible.

Breeur’s interpretation is applicable without further ado to some of the miniature landscapes described before, such as mini-railway-systems, but is less satisfactory for living habitats and scientific dioramas, which scale down the extension and complexity of natural environments, yet not the size of their flora or fauna. Abstracting from this, his explanation has the merit of capturing the

ocularcentrism of this experience: the pleasure drawn from looking at miniature worlds and imagining crossing them leaves unaffected non-visual parameters. In a way, all the aforementioned micro-environments are dioramas, given that their openness is equivalent with transparency; the viewer never fully bodily dives into them, no matter if the smell of an aquarium, for example, may evoke larger aquatic smellscapes.

### 3.3. *Domestic sublime*

Landscapes are transformed into cultural landscapes (*Kulturlandschaften*) through our everyday practices; miniature landscapes are even more human shaped than these, yet emerge without any immediate practical purpose and imply more or less creativity in selecting and mixing media. Moreover, they challenge Siegfried Kracauer's "basic aesthetic principle" according to which "the achievements within a particular medium are all the more satisfying aesthetically if they build from the specific properties of that medium" (Kracauer 1960, p. 12) in at least two respects. Firstly, the media of micro-landscapes (whether dioramas, human-made habitats or three-dimensional models) have been ignored by aesthetic theory so far, which makes difficult to describe their 'nature'. Secondly, micro-environments frequently combine media, including natural and artificial elements and unusual 'materials' (recall Nadal's list), and epitomize the propensity of contemporary art for multi- and intermediality (Seel 2007, p. 66). This is only a reason for which conventional art taxonomies can hardly integrate the genre of diorama: scientific dioramas include painting, natural objects and fake 'nature', including taxidermy, and the artists who revive them describe their works as sculptures or installations, but use also photography, video, even living material, like Mercier and Mathias Kessler.<sup>8</sup> In doing so, contemporary art recontextualizes historical forerunners of dioramas related to entertainment and scientific display to build landscape surrogates indoors.

Regarding space, while landscapes lack sharp borders, these are indispensable for micro-landscapes, which stage a landscape and therefore need a stage as frame of representation, be this a transparent glass, a pedestal or another marker that delimits a micro-environment from its environment. Besides, miniature landscapes negotiate a new relation between the inner and outer space,

<sup>8</sup> Kessler's *Nowhere to Be Found* (2010-) is a saltwater aquarium in which corals grow in time on a skull, feeding on its calcium carbonate. The work may symbolize the cycle of life and death.

bringing the outer world indoors and creating a sense of interiority. Self-made micro-landscapes are more *humanized* and *controllable* than any other 'real' landscape. *Ad liminem*, their making simulates a cosmogony, brings the sublimeness of nature into our own four walls and conveys the subject the impression of sovereignty: "The cleverer I am at miniaturizing the world, the better I possess it." (Bachelard 1994, p. 150). Put it differently, miniature landscapes are "dominated worlds" (Bachelard 1994, p. 161) that foster fantasies of omnipotence. In this respect, landscape capsules are "bubbles" (Sloterdijk 1998) that combine the pleasure of intimacy (aquariums are the very incarnation of homely coziness) with a sense of controlled adventure (accidents happen in mini-railroad settings only on purpose). Eventually, they domesticate the outer vastness and trigger in a comfortable way the experience of the sublime – under the condition of activating imagination.

### 3.4 *Attention and imagination*

A microcosm can be enjoyed only by paying full attention to it. Zooming in miniature landscapes decelerates the everyday life and interrupts its unfocused attentiveness. Moreover, the observation of tiny landscapes engages the interplay of perception and imagination. According to Bachelard (1994), fantasy in engaging into a game of make believe is crucial for the experience of miniature worlds, and this as-if includes the fiction of an own minuscule body. Like in the experience of a body aliasing, on one hand, I feel oversize, on the other hand, I cannot resist the temptation of imagining myself so small that I become able to dwell and cross this microcosm. Obviously, this implies an inversion of perspective: the onlooker zooms herself into the landscape and imaginarily engages with it and its equally small inhabitants; she may even occasionally look 'obliquely' at the world 'outside', which suddenly becomes magnified.

However, it would be premature to conclude that "representation is dominated by imagination" (Bachelard 1994, p. 150) whenever one experiences micro-landscapes. The fact that Bachelard discusses only literary examples, including fairy tales, may explain his view. While some miniature landscapes are indeed a springboard for imagination (remember the children's dioramas), others are cut-outs from exotic life-worlds whose perceptual exploration produces satisfaction enough; finally, a third category of mini-environments downscales real world so accurately and with such a profusion of details that, like in watching picture puzzles with hidden objects (*Wimmelbilder*), their attentive observation alone is rewarding. Not

even all phenomenologists share Bachelard's enthusiasm for imagination. Sartre, for example, considered perception as superior to imagination, since it is possible in principle to endlessly zoom into a perceived image, whereas imagination gives back only what the subject has already put into it (Sartre 1940). Besides, the categories of miniature landscapes that serve cognitive purposes depart from Bachelard's "absolute" and "self-accomplishing" (autotelic) dimension of imagination which is useless for learning (Bachelard 1994, p. 153). In sum, the pleasure derived from watching miniature landscapes may be rooted in imagination, may be mainly perceptual, but it can also be informed by higher cognitive interests regarding human and non-human life-worlds. In general, such environments transport us to other worlds, activate a specific attention for detail that diverges from "lazy contemplation" (Bachelard 1994, p. 159) and decelerate life. Both the making and viewing of miniatures require patience, meticulousity and time for leisure, even if instructive effects cannot be excluded either.

Looking back at the categories of miniature landscapes discussed in this paper, their settings range from scientific to artistic displays, their know-how from meticulous handicraft to art-like hobbies that require technical skills, scientific literacy, and creativity. In terms of aesthetic categories, some of them illustrate an interior sublime, by reproducing awesome natural scenes indoors, others set forth the aesthetics of nature and replicate terrestrial gardens underwater. Some 'designers' of micro-landscapes passively benefit from the companies' offers and conventionally reproduce picturesque landscapes, which represent a mere *decorum* for their story and may be 'embellished' with artificial figurines. Other individuals cultivate an aesthetics of minimal resistance, uncritically enjoying tiny environments that remind them of their childhood and of visited places or invite them to imaginary travels to popular tourist destinations. Finally, other mini-landscapes deconstruct mechanisms of 'making nature' with or without critical purposes. The aesthetics of miniature landscapes thus covers the space between sublimeness and kitsch or cuteness and appears to lack any minimal common denominator.

Nevertheless, this paper argued that their aesthetics may be reduced to four features: functional beauty, the interplay of scales, a domestic form of sublimeness and a specific relation between perception and imagination. Firstly, although most types of micro-landscapes are associated with leisure, they can be assigned a functional beauty, in the sense that their aesthetic appeal derives from the manner how they transmit information, unleash creativity,

train manual skills and in a more general sense fulfil an affective 'function', by activating pleasant memories and enabling a harmless and temporary regression to childhood. Secondly, miniaturization in general produces enjoyment to the spectator who can still recognize forms of objects despite drastic size reduction; in this respect, micro-landscapes are typical for a scopic regime and impoverish the common multisensory experience of landscapes. Thirdly, the size of miniature landscapes inverts the human's embedment into a larger landscape insofar as 'outer' nature is being allocated a place within public and private spaces, and exotic (and dangerous) wilderness is integrated into domestic settings, where it can be comfortably enjoyed. Being made by humans, micro-environments eventually provide a surrogate of nature that conveys the subject the impression of standing outside and above it as its demiurge. In brief, miniature landscapes are 'pocket editions' of nature which can be possessed and transported, modified and controlled. Last, but not least, the making and use of micro-environments focus attentiveness and activate imagination. The visual exploration of details tempts onlookers to embark on imaginary journeys or at least to construct narratives for minuscule *alter egos*. Undisputedly, a ludic imagination is at work across the variety of miniature landscapes, whether they are meant for children or for adults.

To conclude, no matter if miniature environments are trivial or poetic-meditative, stereotypical or inventive in their mixing of media, if they invite to fictitious adventures or unveil the mechanism of illusion, they reveal upon closer inspection a complex aesthetics of practices which may be denied the status of art, yet nonetheless significantly shape the aesthetics of our everyday life.

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