

# Weeds in the Greenhouse: Curating Posthuman Engagements

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ABSTRACT

In an ode to Latour and Woolgar's *Laboratory life* (1979), this visual essay traces what occurred during a series of fieldtrips and workshops I organized between students of Fine Art, Design, and Performance Art from the University of the Arts (Uniarts) and Aalto University, and researchers at the Viikki Plant Sciences Centre, University of Helsinki. It highlights how disciplines promote a particular way of looking and of understanding the world that privileges certain of its characteristics over others – a process that can lead to the development of potential blind spots that hinder discovery. The curatorial is posited as a means for combating these limitations and for understanding plant-human relationships in an expanded way through convening different disciplinary perspectives on the theme.

In *The Revolutionary Genius of Plants* (2018), Stefano Mancuso, a leading plant neurobiologist, writes about the qualities that sets plants apart from animals, focusing on two pivotal elements: concentration and diffusion, as well as movement and stasis.

Animals have concentrated and specialized organs that carry out essential functions (brain, liver, heart, eyes, nose, to name a few), whilst plants have a modular and diffused architecture – a “cooperative, shared structure without any command centers” (p. xii), he writes. Animals take flight at the sight (or sense) of danger; whilst plants – unable to move away – must adapt locally and build up resources to deal with the dangers at hand. Mancuso expands on the efficacy of these botanical ways of being and how it enables them to “flawlessly resist repeated catastrophic events without losing functionality and adapt very quickly to huge environmental changes” (p. xii). They do this by gathering a multiplicity of data from their highly attuned and sensitive modular parts, and based on this information, formulate the most appropriate responses.

In its format and outcome, the research discussed in this visual essay (part of my ongoing postdoctoral research, titled *Planthology*<sup>1</sup>) draws on these ingenious botanical qualities to address the current danger the Earth System is facing – a danger from which we cannot run but need to face and adapt to. It does this using the curatorial as method. The curatorial here applying not only to the making of exhibitions, but also to the bringing together of people with “different points of reference – ideas, concepts, objects, materials, histories, constituents” – into a “physical and conceptual arena” (Voorhies, 2023, p. 107) where how they are relevant to each other, is foregrounded and explored.

### Planthology and the Curatorial

The larger project of *Planthology* explores human-plant relationship through using the curatorial to convene interdisciplinary perspectives on the theme. Starting in April 2023, I formed a team of collaborators with students at Uniarts and Aalto University, Helsinki, consisting of

Masters and BFAs in Sculpture, Time and Space, Printing and Contemporary Design, as well as doctoral students in Fine and Performing Arts, and ones from the SIBA School of Music. In their practices, many of these students explore ecological issues and post-human and more-than-human theories. I then connected these students with doctoral and post-doctoral researchers from the University of Helsinki’s Viikki Plant Sciences Centre who explore a wide range of topics in their research – from tree biology, growth, and habits; plant genetics; ecosystem fluxes; stomatal physiology, development, and immunity; to plant-microbe interaction. The format of connecting occurred through a series of cross-institutional fieldtrips, workshops, and the making of exhibitions, facilitated by myself as curator-researcher.

Bringing together these students and researchers allowed me to explore a very important focus point of my research – the surfacing of what the sociologist Eviatar Zerubavel (2015) calls “attentional subcultures.” Attentional subcultures are cultivated through undergraduate curricula, discipline-specific taxonomies,



Figure 1



Figure 2

and research processes and encourages students to notice what is considered relevant to their community but also, and perhaps more interesting and by default, what to ignore because it is deemed insignificant to the discipline's research scope.<sup>2</sup> The latter, a consequence that can potentially lead to occlusion of relevant data and the development of blind spots.<sup>3</sup> These blind spots occur across all disciplines and is perhaps most eloquently captured in the historian of science, Thomas Kuhn's well-known example of the accidental 'discovery' of X-rays. Kuhn relates how this discovery was caused by a piece of equipment already widely deployed in laboratories worldwide for many years. To acknowledge the existence of this

'new' form of radiation was to also admit that they had gone unnoticed for quite some time (Kuhn 1979, p. 59). Kuhn argued that the use of a particular piece of laboratory equipment carried with it the assumption that "only certain sorts of circumstances will arise" (p. 59) – and that these *assumptions* limited the results noted down by the scientists conducting the experiments.

Blind spots occur in most, if not all, research environments. For me, they are the fertile places where anomalies, poetry, and discrepancies, also reside. Because the curatorial method promotes and embraces interdisciplinarity, it enables the surfacing of these spots. Its strategies

– juxta-positioning, visual suggestion, metaphor, and analogy – trouble our entrenched ways of doing and looking, and can show us its limitations whilst, at the same time, provoke a new understanding of these familiar objects and subjects of study. What follows is my exploration of the term 'curate' as it applies to the bringing together of these institutions, their researchers, and the data generated by my collaborators. I trace how we become more plant-like through this process, as the data generated by our different attentional subcultures (a 'multiplicity of data from highly attuned and sensitive modular parts'!) are convened through fieldtrips, workshops, and exhibition-making.

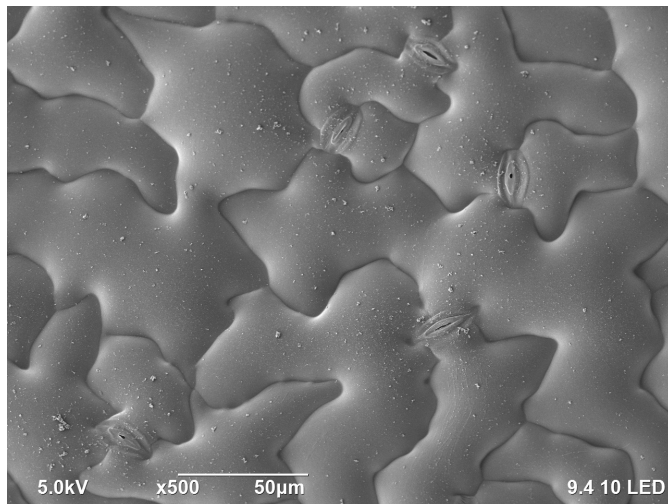


Figure 3

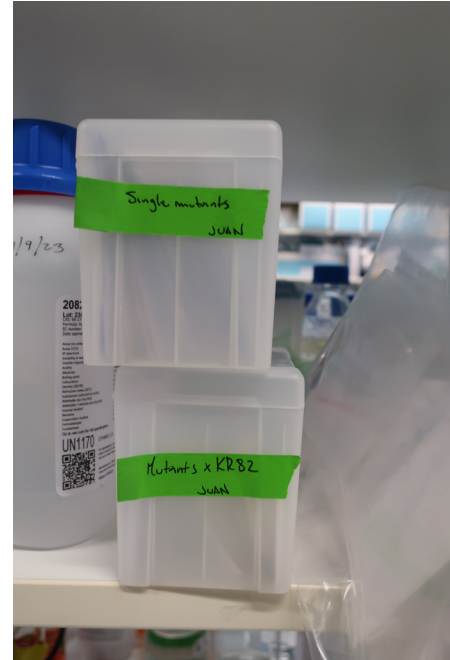


Figure 4

## The Fieldtrips

The first part of this collaboration consisted of a series of field visits between the Uniarts Campus and the Viikki Plant Sciences center, during which the students were able to experience first-hand, the working methods, environments, and tools used on the different campuses, to produce knowledge. Similar to the process explored when the sociologists Bruno Latour and Steve Woolgar took up the roles of participant-observers in Roger Guillemin's laboratory in the Salk Institute for Biological Studies (Latour & Woolgar, 1979), the students adopted the positions of quasi-anthropologists, (even donning white lab coats on their Viikki visits) whilst viewing the objects, tools, and processes their collaborators engaged with as part of their daily research activities.

Activities viewed and topics discussed during these visits included extracting DNA from spinach leaves;

exploring a 'lazy gene' that result in tree branches growing downwards, instead of upwards; handling a petri dish colonized by a plant pathogen that negatively effects the stomata cells of a plant (the 'breathing cells', researcher Jasmin Kemppinen quipped in response to our quizzical glances); as well as learning about *Arabidopsis Thaliana* – the model organism used in plant sciences, similar in function to the rat or white mouse used in laboratories researching disease and illness in human bodies. Questions were raised about how researchers *felt* about the disposing of their GM modified plants after the experiments were done and, on many different occasions, the images produced as part of the research of many of the collaborators were discussed by the Aalto and Uniarts students in terms of their formal and aesthetic quality and revealed the subjective and aesthetic choices exercised by the researchers in producing these images. The various ways that Viikki researchers use color

dyes in experiments to highlight the elements in an experiment that they needed to isolate or trace revealed, for instance, a process that was rooted in both a scientific as well as an aesthetic impetus. Visits to the Uniarts campus similarly allowed Viikki researchers not versed in the disciplinary language and terminology of the institution, to respond to a wide variety of elements within this environment that somehow (and surprisingly) echoed their own research methods.

A trip to the sculpture department and the process of mold-making resulted in the discussion of similar methods used at Viikki to attain images of the *Arabidopsis Thaliana* epidermis and its stomata cells involving dental alginate and nail varnish.<sup>4</sup> A visit to MFA in Sculpture student, Alves Ludovico's studio, involved discussions on the capitalization of scientific research within the pharmaceutical industry from a very personal vantage point – Alves suffers from diabetes and



Figure 5

discussed the varying price of insulin worldwide, highlighting the economic, social, and cultural implications of the knowledge produced in the laboratory. He uses sugar as a sculptural material.

The similarities between the studio and the laboratory were also expanded on at various instances during these visits<sup>5</sup> – with one of the most poignant instances, a discussion on failure and its role in productive re-assessment.

Even though the discussions around the research topics of the respective researchers were, at times, hard to follow because of the specialized language of the disciplines, the tools and objects found in these environments offered affordances that extended beyond their departmental framing and prompted novel conversational trajectories. The next section will discuss how the curation of materials encountered in these fieldtrips encouraged an exploration of plant-human relationships in a visual, tactile, and affective manner. It also demonstrates what occurs when an image or object moves from one research environment, into another.

## The Workshops and Exhibition-Making

Fieldtrips done, the next part of the project involved gathering the collaborators and exploring exhibition-making as a method that can enable objects, images, and text, drawn from the different disciplines to communicate across those boundaries and start meaning together in novel ways through various curatorial strategies – making the familiar strange, and the strange accessible to all the collaborators, as well as to an extended audience.

A pivotal outcome of this process for me as curator-researcher is for my collaborators to recognize themselves and their research in these exhibitions, but also, for them to become slightly unsettled and curious as to why their objects, text, or image was brought into a relationship with another researcher's material in that particular manner. I have found that this tension creates a fertile context for discussions where researchers and students do not revert to talking only about their own

research but focus rather on the new relationship between the objects, text, or images and what it might suggest.

In two separate instances to date, I have donned the role of curator-researcher, and gathered a repository of materials to curate the shows that would form the basis for discussions and activities during the workshops. These materials were garnered from the research environments we explored during the fieldtrips (and materials later shared by collaborators), as well as materials I deemed relevant, garnered from further afield (such as museum objects, contemporary and art-historical artworks, literary texts, and musical scores, to name a few).

In the following section, I will lift out some of the curatorial moments within these two exhibitions and explore what these prompted in terms of group discussions:

### Curatorial Example 01:

As part of an exhibition called *Object Studies*,<sup>6</sup> which consisted of



Figure 6



Figure 7

a grouping of four laboratory-like tables with objects, text, images, and projections, this curatorial moment consist of the following: a publication on the work of the artist Rachel Whiteread, opened on a page featuring her iconic sculpture, *House*;<sup>7</sup> two small orange dental alginate molds of the ‘breathing cells’ of the *Arabidopsis thaliana* made by Viikki researcher Jasmin Kemppinen, placed on this same page; and a photo of the Pompeii molds displayed in London’s Natural History Museum positioned below the book. Its label reading: *When the pyroclastic flow enveloped Pompeii, its inhabitants were buried. Ash solidified around their bodies. These eventually rotted away leaving behind human-shaped holes - found by*

*archaeologists more than 1,000 years later. These casts reveal the final positions people and animals took as they tried to protect themselves.*

Placed slightly below but in line with this description, is an image of the Helsinki-based artist-researcher, Vincent Roumagnac’s project *Data Ocean Theatre* – a project in which he transforms scientific data visualizations into artistic matters.<sup>8</sup> Next to Roumagnac, and below Whiteread, is an image generated by Viikki researcher, Marina Leal Gavarrón. Gavarrón produced this image by freezing an *Arabidopsis thaliana* leaf and then photographing its surface (a light dusting of ice is still visible on its surface). The image shows a tear in

the leaf caused by a protein deficiency. Perched on top of this image is a concrete pigeon, cast by MFA sculpture student, Sanna Nissinen. In 2023, Nissinen made 101 of these pigeons and dotted them throughout the Uniarts premises as part of her larger research project that explores more-than-human relationships through focusing on pigeons and highlighting our awareness (or lack) of them.

In viewing this, discussions with students touched on the empathic response that is provoked when viewing *House* (a monument to living – and perhaps, living only what we might term ‘an ordinary life’), the Pompeii casts, and the Roumagnac image, in combination with Jasmin’s



Figure 8

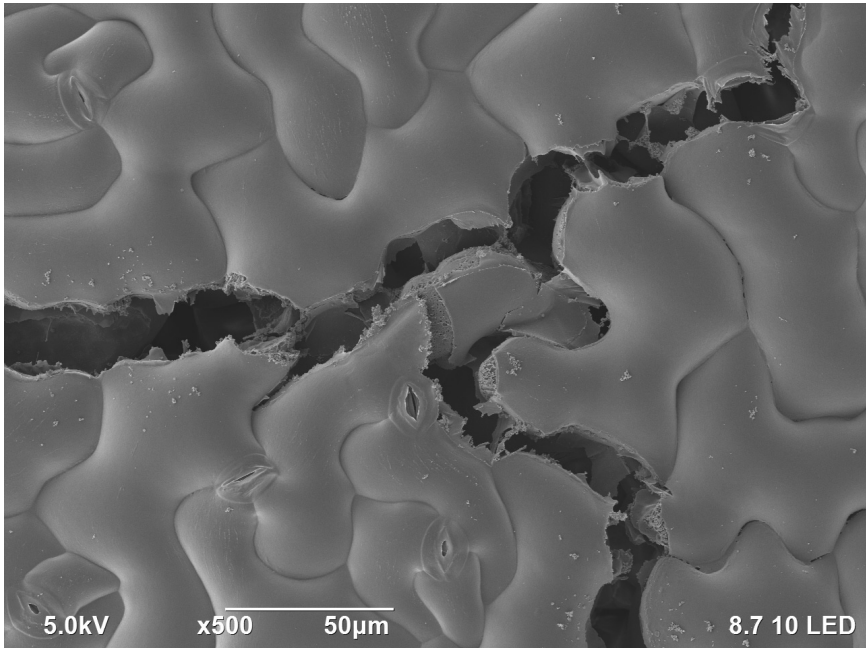


Figure 9



Figure 10



Figure 11



Figure 12



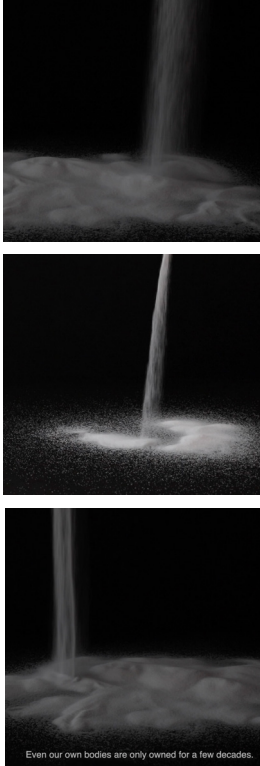
– and perhaps, living only what we might term ‘an ordinary life’), the Pompeii casts, and the Roumagnac image, in combination with Jasmin’s plant ‘breathing’ molds, and Marina’s wounded leaf surface. There was also a stark visceral juxtaposition between the frozen *Arabidopsis* leaves, and the lava that enveloped Pompeii’s inhabitants – both human and more-than human. Students felt it highlighted the futility of being alive (as human, animal, and plant), forever subject to uncontrollable natural forces impossible to predict, try as we might (cue those who believe in cryogenically induced eternal life) but also, how we are, in fact, influencing the occurrence of these disaster-events through global warming.

#### Curatorial Example 02:

In another moment of curation in *Object studies*, a taxidermized great spotted woodpecker sourced from the Finnish Natural History Museum, float on an enlarged print of the fragment of organic matter attained from its feathers by University of Helsinki researcher, Niko Johansson. Johansson researches the dispersal of seeds by birds, using museums specimens to garner a larger historical trajectory of this evolutionary development.<sup>13</sup> In the far corner, an image of the Copernicus Sentinel-2 mission documenting the green algae blooms swirling around the Baltic Sea is placed, whilst a copy of Darwin’s *The Power of Movement in Plants* (1880) open on a “Sleep of

Leaves” page, has a small image insert of an anesthesia workstation from the Töölö Hospital Museum. Vinyl lettering spell out ‘päivännäkemätön’ (a Finnish word meaning “not to be seen by the sun/day” and relating to the ‘magic objects’ in the vitrine next to it).

This display prompted discussion on modes of looking and noticing, and different imaging techniques and their affordances; how the use of visual suggestion and analogy can, again, encourage empathic engagement for more-than-human species and combat plant blindness; as well as how visual and tactile representations facilitate previously occluded aspects of plants, such as a historical understanding of their movements.



Figures 13-15



Figure 16



Figure 17



Figure 18

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more-than-human species and combat plant blindness; as well as how visual and tactile representations facilitate previously occluded aspects of plants, such as a historical understanding of their movements.

Curatorial Example 03: The last example is from another exhibition I curated titled *Planthology (The Anthropocene)*. The space, a bunker-like room with very few windows situated within the research premises of Uniarts, rendered the collections of materials I brought into it, oddly dystopian<sup>10</sup> – a visual prompt that I decided to continue working with and emphasize throughout the rest of the curatorial process. Scientific images were, for instance, enlarged, printed, and hung on the walls or placed on the floor, whilst a selection of other images generated by various Viikki researchers became comets, moons, and stars, when projected onto the ceiling.<sup>11</sup>

During the workshop, students discussed the various relationships between these images, the assembled artworks, and the way the display, scaling techniques, as well as the space itself, altered their meanings. They also had the opportunity to re-curate the space and explore how every new configuration offered new meanings and discussion points to emerge. I will highlight one moment in this process in which students discussed how certain artworks alluded to human attempts to test and quantify the natural world:

Aalto researcher, Jimin Hong's video work *Possession to Nature* explores man-made geo-political boundaries through the medium of performing with salt, whilst Uniarts doctoral student in Fine Art, Heini Nieminen's *Faraday's rocks* (2023) investigates how the mining industry weaves its web into outer space through the remote sensing of thousands of satellites orbiting our planet.

Apart from their more overt references to measurement and quantification, Hong's salt also became a discussion point for the decline of salinity of the Baltic sea due to climate change – a focus of much research in the last few years (see, for instance, Kankaanpää et al., 2023; Lehman et al., 2022), as well as the rise of sea levels that is resulting in the infiltration of saltwater into freshwater aquifers and the increase of soil salinity (Mancuso, 2018, p. 156).

In this respect, it also resonated with another work in the space, the *Swamp of Sadness*, a video piece that showed an extract from the film, the *Neverending story* (1984) in which the horse, Artax, dies. The clip retains the soundtrack of the drowning and the anguished cries of the protagonist but focuses solely on the plants in the scene. The juxtaposition of these two works prompted a discussion on halophytes – salt-tolerant plants able to grow in soil or waters of high salinity such as saline semi-deserts, mangrove

swamps, marshes and sloughs, and seashores. Halophytes has become the focus of recent projects such as the Jellyfish Barge<sup>12</sup> that draw on the unique qualities of these plants to generate fresh water from sea water energy using only solar power.

## Conclusions

To date, the curatorial has allowed me and my collaborators, to explore how the configuration and reconfiguration of our research materials can allow for new meanings to emerge and for new ways to talk – through image, text, and objects – about human-plant relationships. The continuous shift in relationality that is explored when curating the same materials in different ways, highlight different aspects of the subjects and objects of our study (our attentional subcultures) and, in this way, it celebrates our different perspectives but also combats the development of those blind spots that tend to develop when we become normalized to our own way of doing and thinking. In addition to highlighting novel aspects about our research, the curatorial also allows for the dissemination of materials beyond their disciplinary silos and to a wider more diverse audience. The art historian and curator, Irit Rogoff (2018) perhaps best elucidates what can be gained through this process when she talks of this type of research as one in which we can communicate “knowledge and share it in imaginative, enticing, sociable, and compelling ways that draw one in rather than keeping people at a distance, lecturing facts at one another” (pp. 45-46). The curatorial becomes a method for us to become more plant-like – embracing our modularity, whilst finding ways to work and think together in ever more imaginative ways.

## Figures



Figure 1. A label observed in the 'Useful plants' section at Kirstenbosch National Botanical Garden, Cape Town, South Africa. 2018. Photo: Nina Liebenberg



Figure 2. A moment of observation during a visit to the Viikki Plant Sciences Centre, by MFA in Sculpture student, Alves Ludovico. 2023. Photo: Alves Ludovico

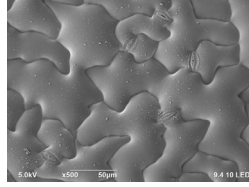


Figure 3. Cryo-SEM image of Arabidopsis thaliana. 2023. Photo: Marina Leal Gavarrón



Figure 4. A moment of observation during a visit to the Viikki Plant Sciences Centre. 2023. Photo: Nina Liebenberg



Figure 5. Sanna Nissinen. Bird Eye View. 2023. Colored Concrete. Photo: Sanna Nissinen.



Figure 6. Object studies. 2023. Installation detail. Photo: Nina Liebenberg



Figure 7. Object studies. 2023. Installation detail. Photo: Nina Liebenberg



Figure 8. Vincent Roumagnac. 2020 - 2024. Data Ocean Theatre/Tragedy & the Goddesses. Performance: Simo Kellokumpu. Photo: Vincent Roumagnac

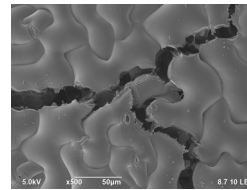


Figure 9. Cryo-SEM image of Arabidopsis thaliana. 2023. Photo: Marina Leal Gavarrón



Figure 10. Object studies. 2023. Installation detail. Photo: Nina Liebenberg

# Figures



Figure 11. *Baltic Blooms*. The Copernicus Sentinel-2 mission documenting the green algae blooms swirling around the Baltic Sea. Photo: CC BY-SA 3.0 IGO



Figure 12. *Object studies*. 2023. Installation detail. Photo: Nina Liebenberg



Figures 13 – 15. *Jimin Hong*. 2023. *Possession to Nature*. Film stills. Even our own bodies are only owned for a few decades.



Figure 16. *Heini Nieminen*. 2022. *Faraday's Rocks*. Film Still.



Figure 17. *Nina Liebenberg*. 2023. *The Swamp of Sadness*. Film still



Figure 18. A moment observing lightning flashes in the greenhouse during a Viikki Plant Sciences visit. 2023. Photo: Nina Liebenberg.

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## Endnotes

- 1** See <https://www.uniarts.fi/en/projects/planthology/>
- 2** See Lorraine Daston and Peter Galison's *Objectivity* (2007), as well as James Elkins's *How to use your eyes* (2000) and *Visual practices across the university* (2007) for historical overviews and discussions on disciplinary forms of looking.
- 3** Borrowing from anthropology, sociologists Bowker and Star use the term 'naturalisation' to describe this process of focusing only on details relevant to a particular community and becoming blind to anything outside of its scope (Bowker & Star, 1999).
- 4** This is part of Viikki researcher, Jasmin Kemppinen's ongoing research. See <https://research-portal.helsinki.fi/en/persons/jasmin-aleksandra-kemppinen>
- 5** The overlaps between the methods of knowledge production in the laboratory and the studio has been widely researched and written about. See, for instance, Alpers (1998) as well as Bürkle (2019).
- 6** This exhibition formed part of a symposium I curated as part of the annual Uniarts KuvA Research Days. For more info, see: <https://www.uniarts.fi/en/events/kuva-research-days-day-3/>
- 7** *House* (1993) was a temporary public sculpture by British artist Rachel Whiteread. It was a concrete cast of the inside of a home in northeast London that was slated for demolition.
- 8** For more information on Roumagnac's research, see <https://vincentroumagnac.com/recherche/>.
- 9** See <https://helda.helsinki.fi/server/api/core/bitstreams/fb842bbd-eb02-497e-b0aa-889450f198e9/content>
- 10** During the fieldtrips at Viikki, terms were encountered that would sit comfortably in the realm of science-fiction and space exploration: 'mutant' and 'alien', for instance, or 'centrifuge.'
- 11** One of the many strengths of scientific and artistic collaboration is the rendering of scientific data and imagery into new forms. See for instance, *A blueprint for bacterial life* (2004) by artist Prof. Elaine Schemilt: <https://www.elaineshemilt.co.uk/expositions/a-blueprint-for-bacterial-life/>
- 12** See <https://www.pnat.net/jellyfish-barge/>
- 13** See <https://helda.helsinki.fi/server/api/core/bitstreams/fb842bbd-eb02-497e-b0aa-889450f198e9/content>