

# Symbiotic Stories

Royal College of Art  
Information Experience Design  
Summer School 2023

Lucy Sabin, Liina Lember, Nirit Ben-Meir





Nirit  
[www.niritbin.com](http://www.niritbin.com)



Liina  
[hello@liinalember.com](mailto:hello@liinalember.com)  
[www.liinalember.com](http://www.liinalember.com)



Lucy  
[lucy.sabin.20@ucl.ac.uk](mailto:lucy.sabin.20@ucl.ac.uk)  
[www.lucysabin.world](http://www.lucysabin.world)

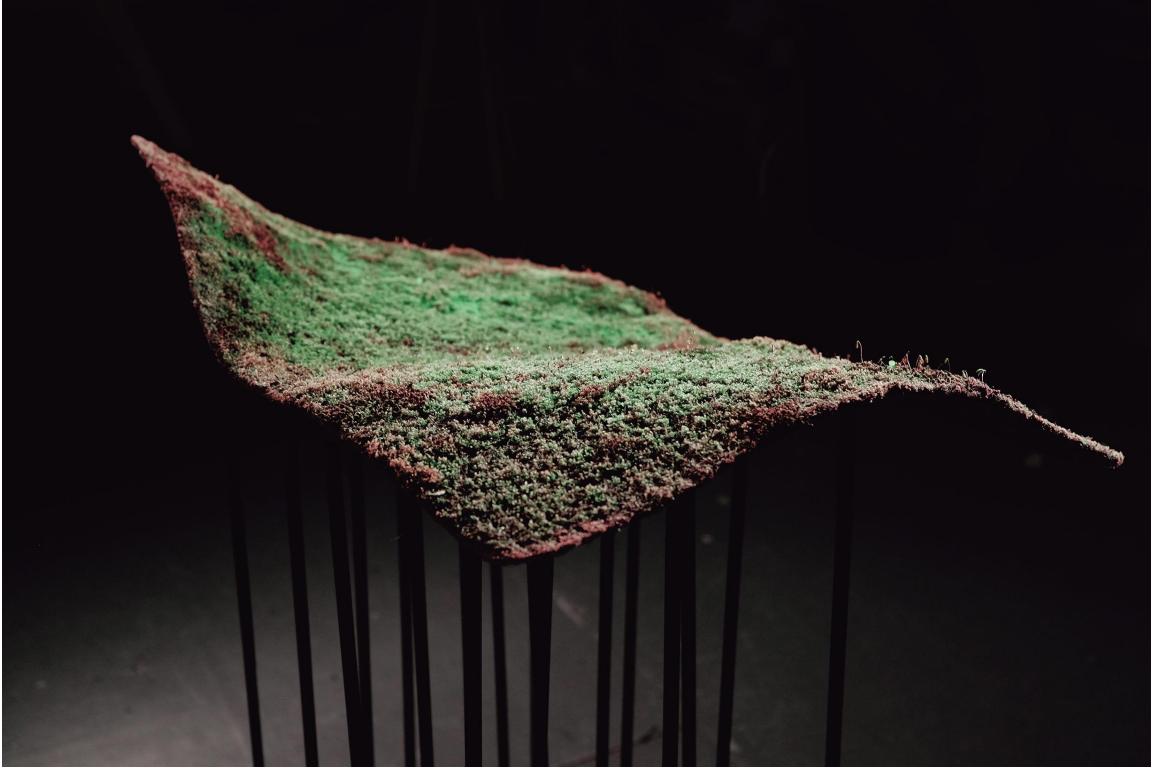
What lives in your home that  
you are fascinated by /  
distracted by / afraid of /  
fond of?

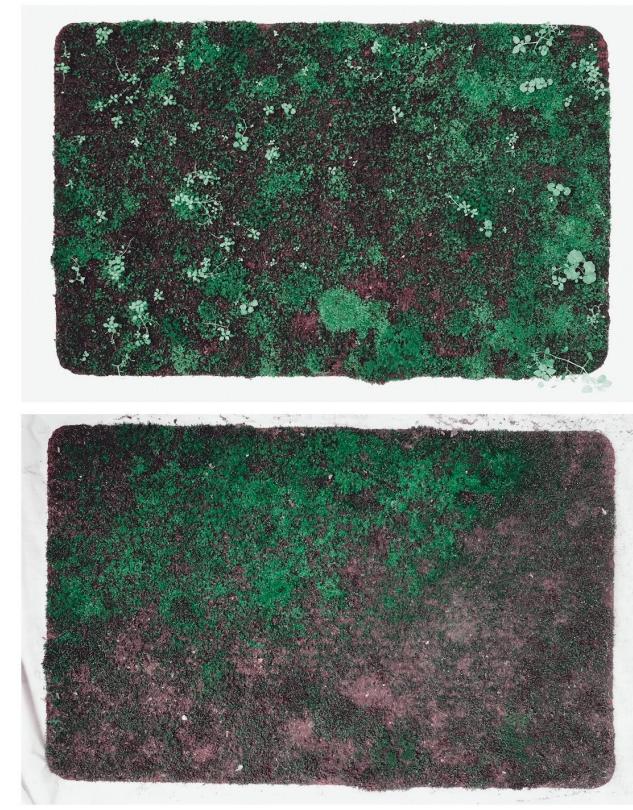
Describe an encounter and  
how you dealt with it.

# The Bio-Digital Garden

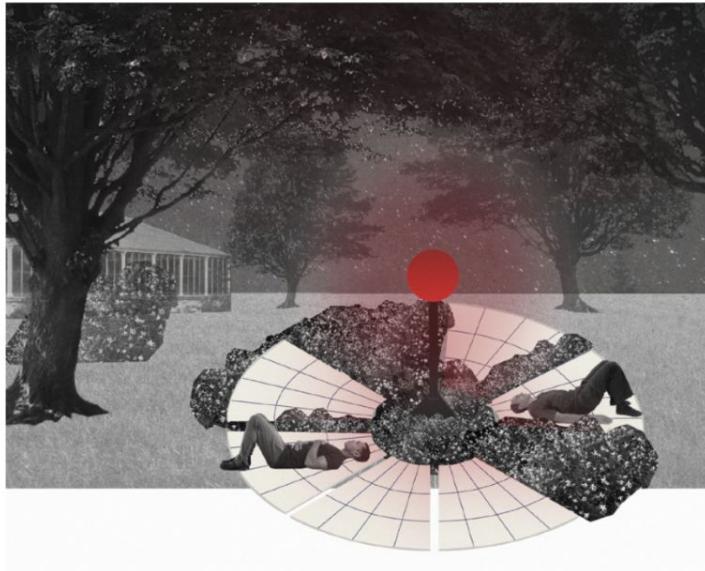
How might a triangular interaction between  
human-computer-plant have  
a meaningful impact on participants'  
perceived accountability  
leading to higher engagement with  
Pro-Environmental-Behavior (PEB)?



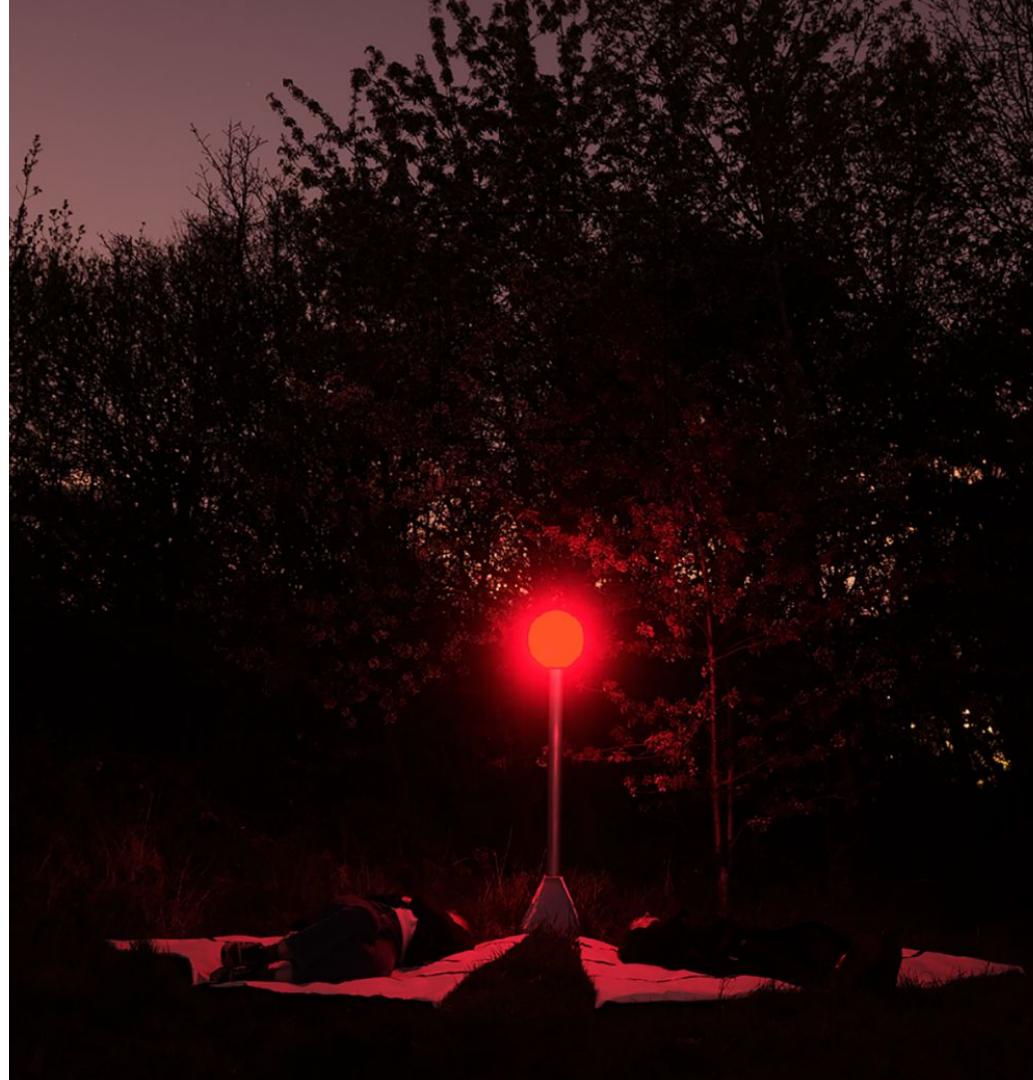








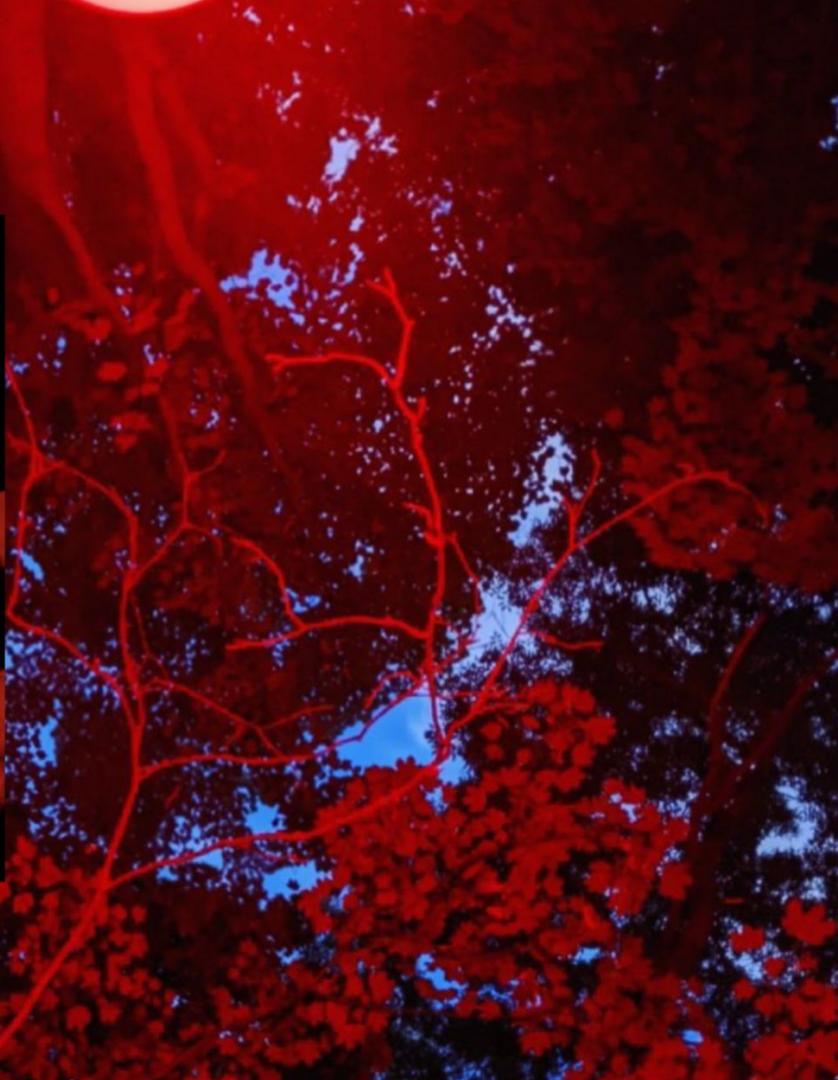
In-visible Moth Spells red light installation  
IED MA 2021 final project. The installation creates  
a shared multispecies space and experience.

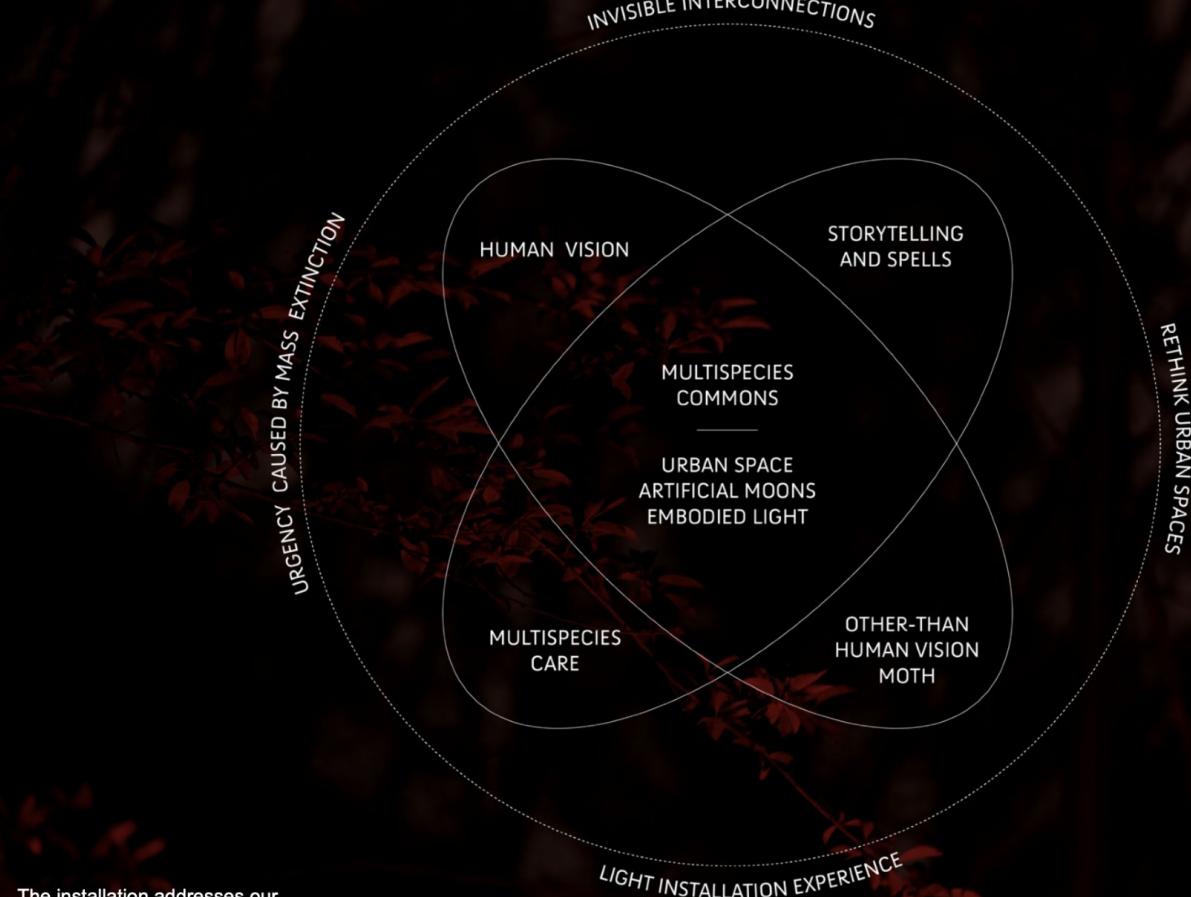




*"I really like there is a strange transition to darkness. Hard to put into words."*

*Right: what the visitor sees when experiencing the installation.*



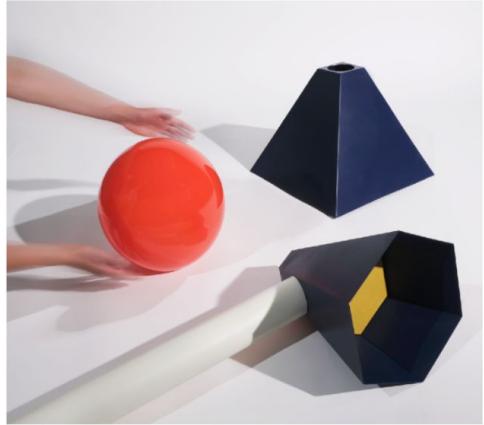


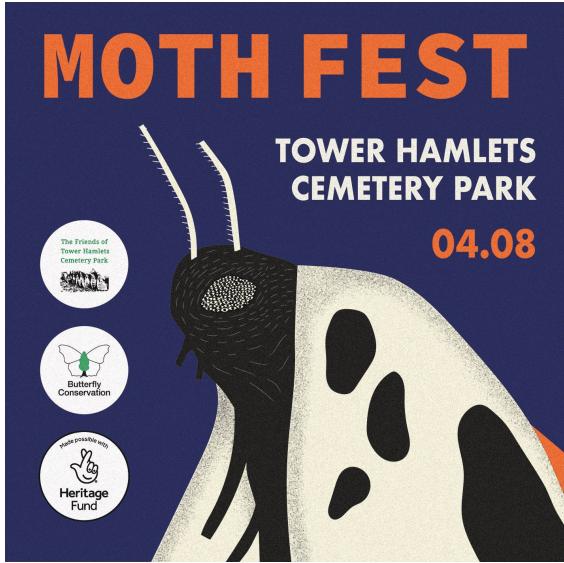
The installation addresses our connection to other species, urban light pollution and the urgency caused by mass extinction



*Right: scaled models of  
the Urban Playground.*

*Below: two sculptures  
from the installation that I  
built in 1:1 scale*

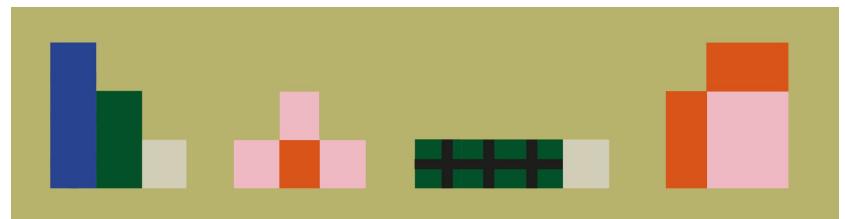




Community engagement through workshops that introduce more-than-human ways of seeing and sensing.



'Together' installation  
That introduces the  
Importance of insects and  
Plants that suit them,  
Tallinn May 2023





Lucy Sabin 2023

KOLONIAAL INSTITUUT.  
GEHEELING HANDELSMUSEUM.

TELEFOON CENTRUM 2600,  
POST- & TELEGRAPHEN-DIENST NO. 12249,  
PARVENTE GIORO SERIE K. NO. 8579.

dat noch niet openbaar maken der doos  
dat Herbarium vertrekte advisezen  
wordt ondankelijk voorbehouden.  
oil seeds.

RETOUR op XX  
RETOUR: NONE.

125  
No. 539.21. BLAD: 1.

AMSTERDAM, 4th April 1921.  
PLANTAGE PRINSLAAN 17, HOEK PLANTAGE MIDDENLAAN  
BIJ HET PANORAMA (LIJN 9, 10, 14 EN 15.)

Kew Gardens,

L O N D E N .

Dear Sir,

We should be very obliged to you,

if you could help us to get some seeds of:

Elaeis guineensis var. diwakkawakka,  
tenera et dura, Bücher & Fickendey,

(syn. Elaeis poissonii, var. tenera et dura E. Annet).

This variety is said to be indigenous in Upper-Camerun, Togo

und Nigeria.

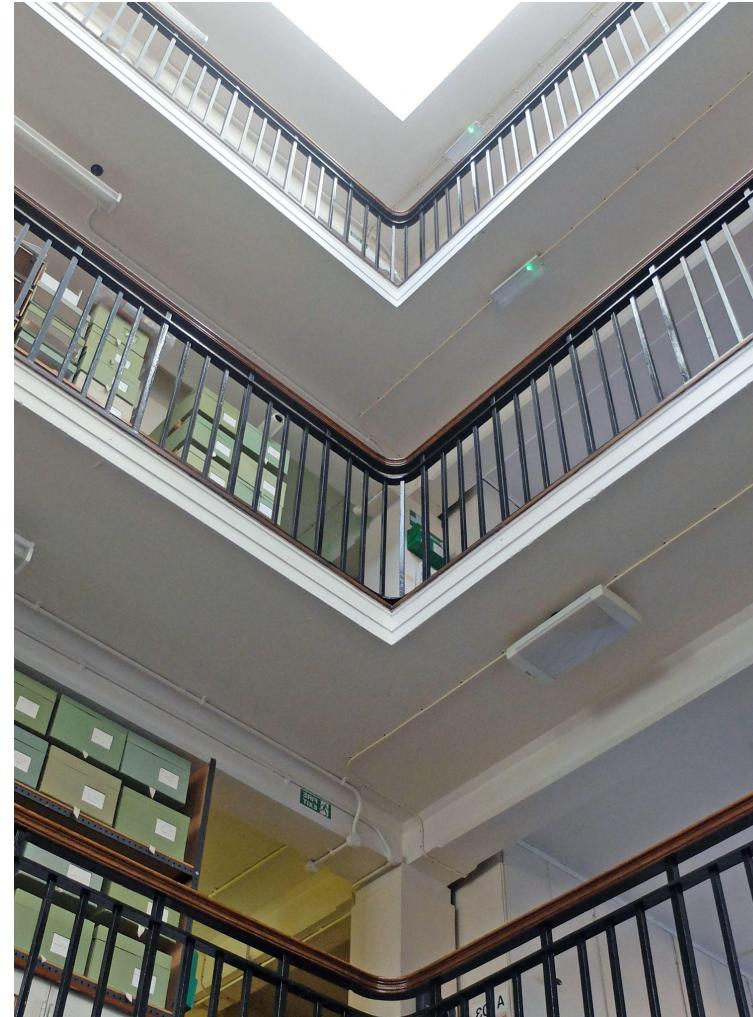
Respectfully yours

*P. de Bary*  
Director Commercial Museum  
Colonial Institute.

Promised share of  
last expected from Nigeria.

11. 4. 21.

1. Sent advised  
16. 8. 21



Kew  
Herbarium  
2022

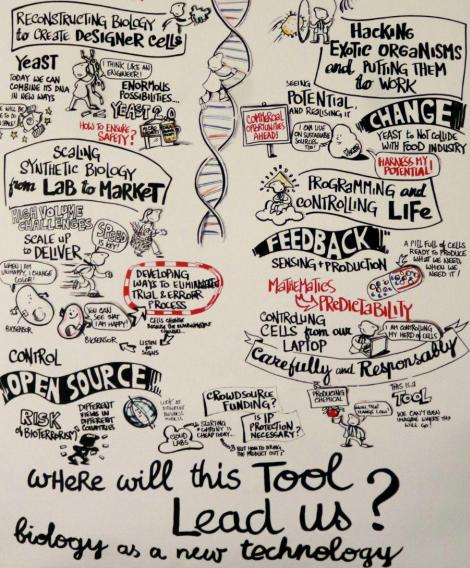
Synthetic Biology Hub, Imperial College London, 2022.



## the Revolution in Synthetic Biology

How are ADVANCES in SYNTHETIC BIOLOGY PAVING THE WAY for NOVEL PRODUCTS and NEW INDUSTRIES?

IMPERIAL COLLEGE LONDON 帝国理工学院



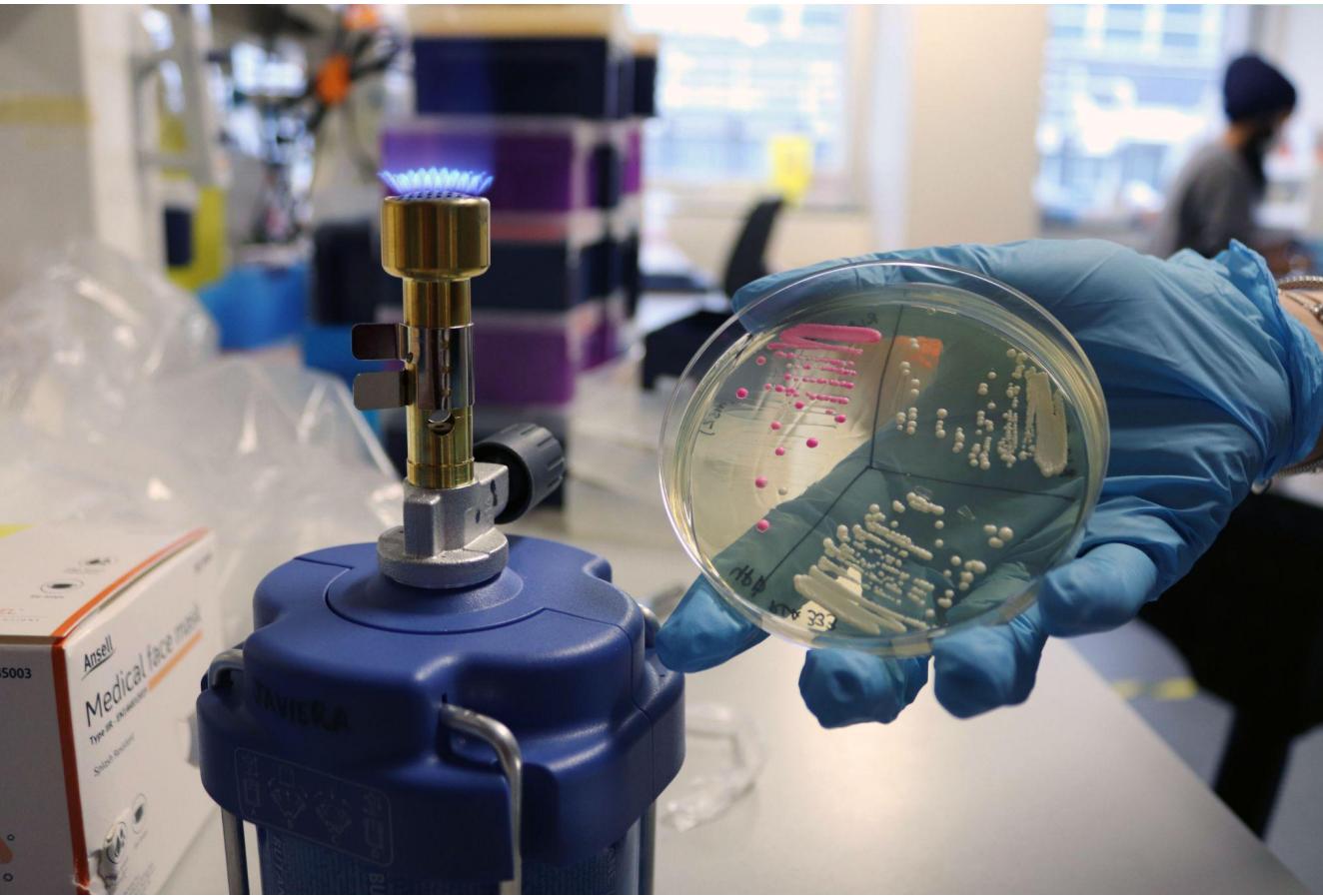
## The Revolution in Synthetic Biology

How are advances in synthetic biology paving the way for novel products and new industries?

[...]

Where will this tool lead us? Biology as a new technology

– Poster in Imperial College London





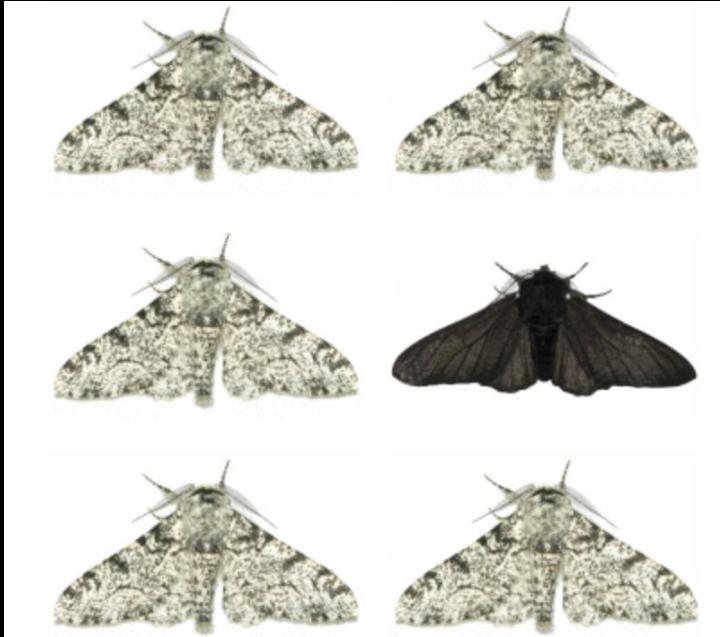
IS THE  
FRIDGE SHUT?  
IS  
IT?







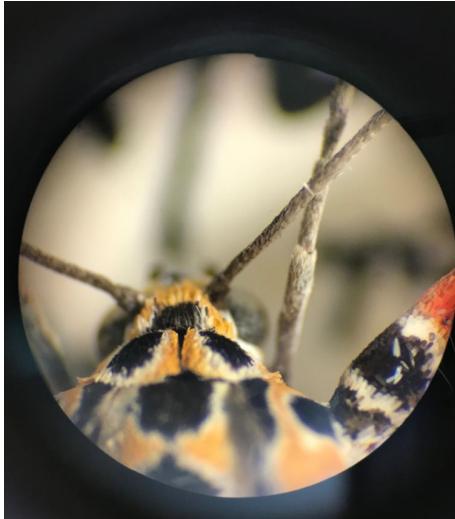
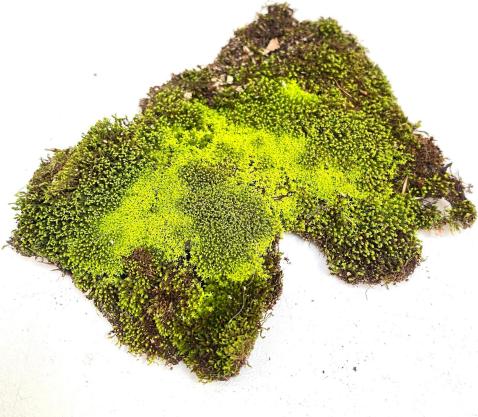
# Background story



The Peppered Moth and its gene change due to air pollution

# Shared interests

- o Both moss and moths are bioindicators of air pollution
- o Also light pollution
- o All our subjects are invisible or tiny or overlooked but omnipresent (especially yeast and algae)
- o Moths, moss, and microorganisms are often seen as 'out of place' and might be cleaned away by humans
- o Concept of cleaning – links to pesticides, fungicides, biocides, insecticides – but also agency and practices of care and homemaking



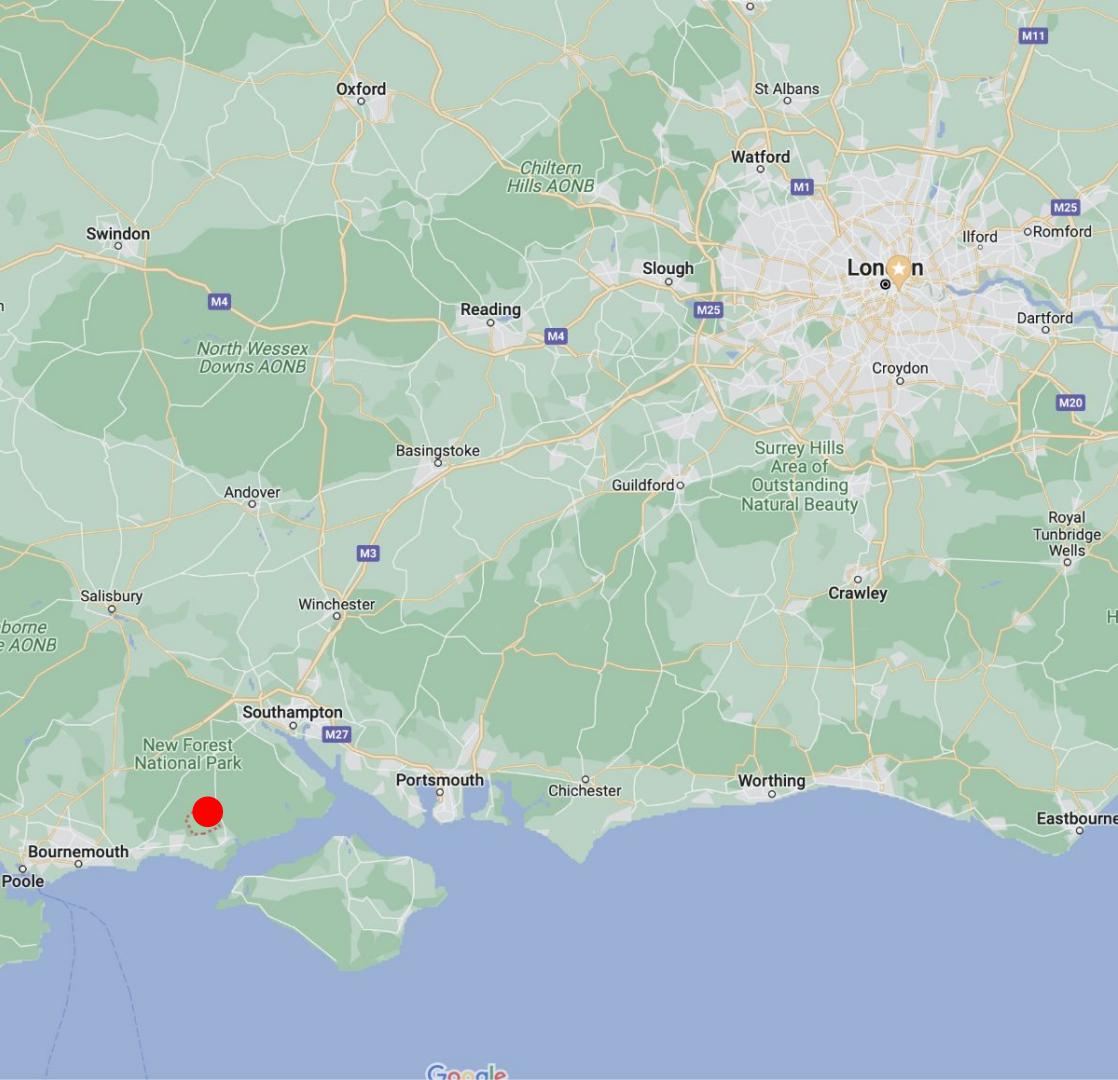
# Residency

8-14 August 2022

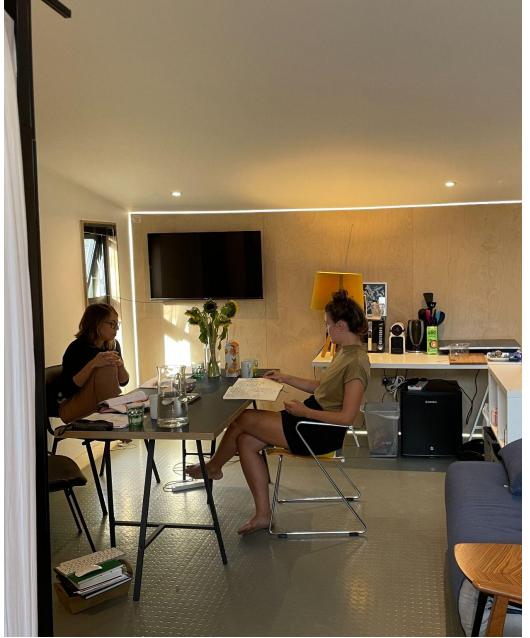
At Sway, Lymington, New Forest National park

A-n artist funded collective residency at SPUD,  
which is an arts and educational charity

Local wilderness and space for reflection.











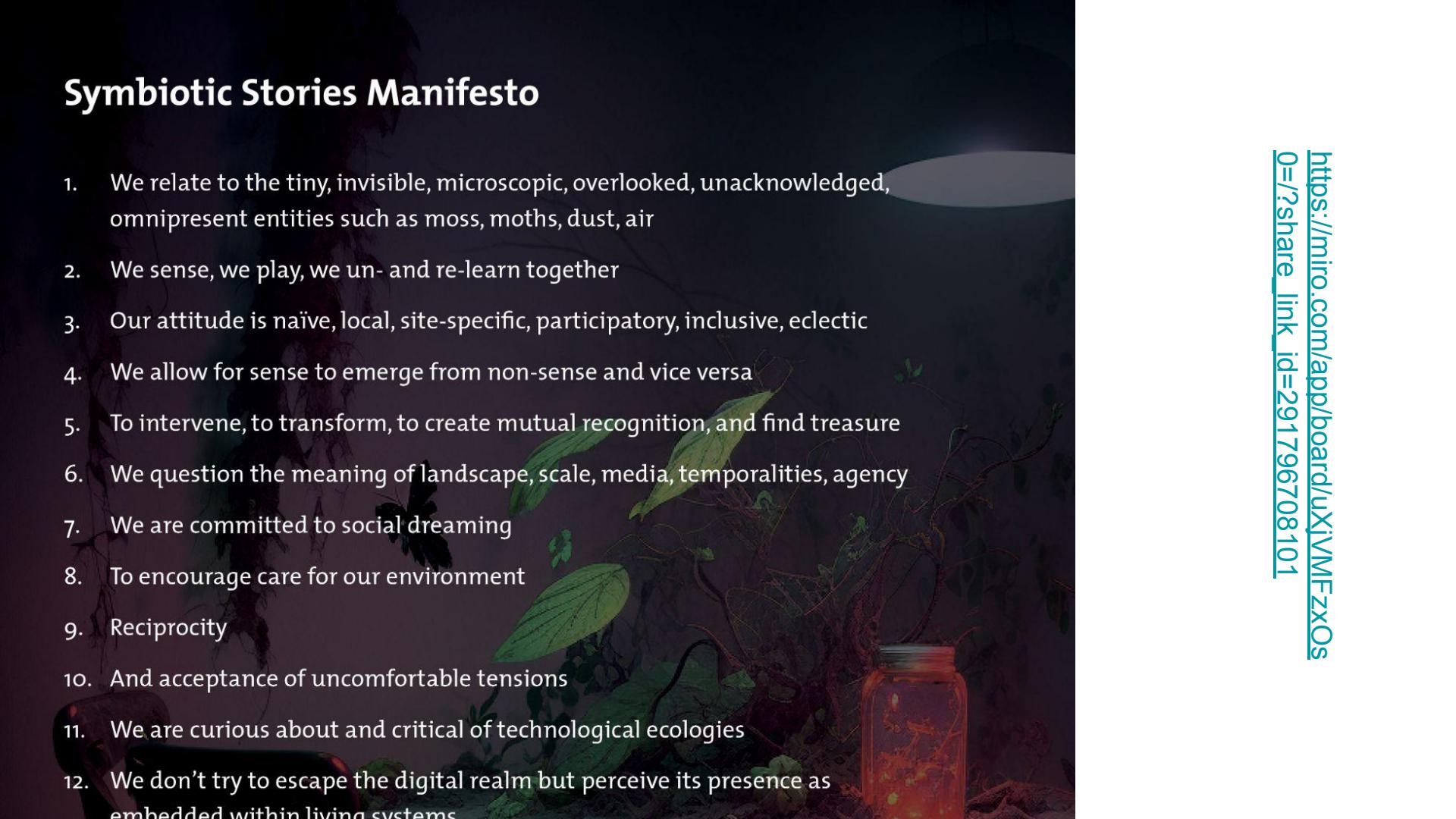
Making the manifesto





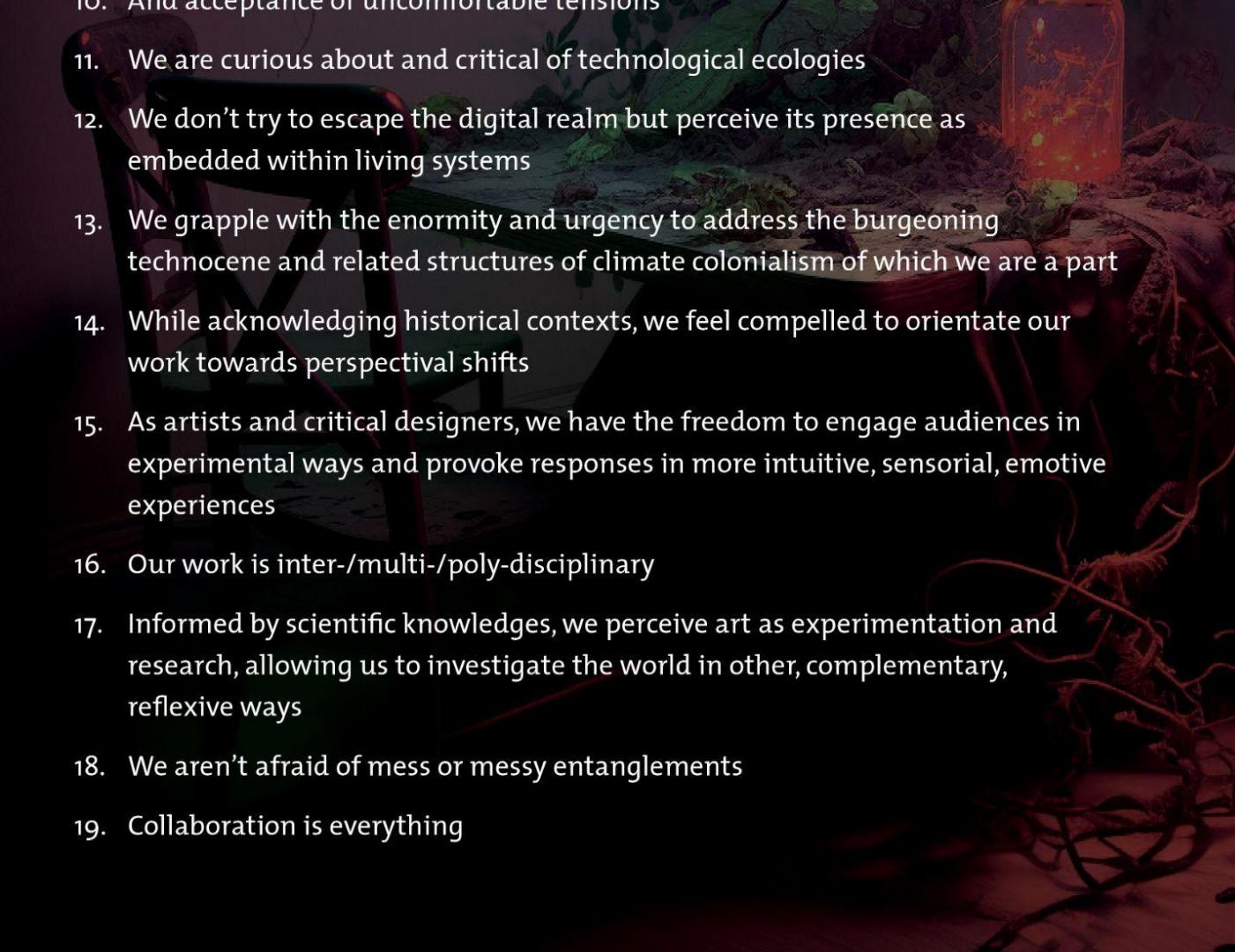


# Symbiotic Stories Manifesto

- 
1. We relate to the tiny, invisible, microscopic, overlooked, unacknowledged, omnipresent entities such as moss, moths, dust, air
  2. We sense, we play, we un- and re-learn together
  3. Our attitude is naïve, local, site-specific, participatory, inclusive, eclectic
  4. We allow for sense to emerge from non-sense and vice versa
  5. To intervene, to transform, to create mutual recognition, and find treasure
  6. We question the meaning of landscape, scale, media, temporalities, agency
  7. We are committed to social dreaming
  8. To encourage care for our environment
  9. Reciprocity
  10. And acceptance of uncomfortable tensions
  11. We are curious about and critical of technological ecologies
  12. We don't try to escape the digital realm but perceive its presence as embedded within living systems

[https://miro.com/app/board/uXjVMFzxOs0/?share\\_link\\_id=291796708101](https://miro.com/app/board/uXjVMFzxOs0/?share_link_id=291796708101)

10. And acceptance of uncomfortable tensions

- 
- 11. We are curious about and critical of technological ecologies
  - 12. We don't try to escape the digital realm but perceive its presence as embedded within living systems
  - 13. We grapple with the enormity and urgency to address the burgeoning technocene and related structures of climate colonialism of which we are a part
  - 14. While acknowledging historical contexts, we feel compelled to orientate our work towards perspectival shifts
  - 15. As artists and critical designers, we have the freedom to engage audiences in experimental ways and provoke responses in more intuitive, sensorial, emotive experiences
  - 16. Our work is inter-/multi-/poly-disciplinary
  - 17. Informed by scientific knowledges, we perceive art as experimentation and research, allowing us to investigate the world in other, complementary, reflexive ways
  - 18. We aren't afraid of mess or messy entanglements
  - 19. Collaboration is everything

[https://miro.com/app/board/uXjVMFzxOs0/?share\\_link\\_id=291796708101](https://miro.com/app/board/uXjVMFzxOs0/?share_link_id=291796708101)

Our proposal and next steps

## Method

This project is twofold. On the one hand, we are offering a tripartite workshop, or indeed a workshop series in three parts depending on the scope. Each workshop will involve a sensory engagement with the materiality or species in question.

For example, the “Oily Palms” workshop would involve making “slime” with palm oil, algae, and yeast. The activity is family-friendly but also draws attention to hidden ingredients and possible food futures. The workshop would ideally take place in a pseudo-scientific, kitchen space.

On the other hand, alongside the workshop(s) we would create an interactive installation of a kitchen–garden–living space. The installation would speculate about what a future home with biological systems might look like. With atmospheric lighting, tubes, plants, interconnected systems, the installation would evoke a sense of multiple species thriving together.

In the exhibition space, we would also use an AI image-generator as screen-based media. Audiences could submit their ideas for a symbiotic home, which the AI would be able to render visually. Lastly, throughout the project, we would engage audiences digitally with online storytelling.

Summary of outcomes:

1. Immersive and interactive “future home” installation in a gallery space
2. Inclusive, participatory three-part workshop (or workshop series)

## Project Aims

1. To de-scale the enormity of environmental problems by co-creating multisensory and inclusive experiences.
2. To subvert potentially negative stereotypes about sharing space with other species by sparking conversations about hopeful, symbiotic futures.
3. To apply the above two objectives to a relatable environment where familiar rituals take place: a future home with integrated symbiotic systems.

# Symbiotic Stories workshop and installation proposal





These are an example of the concept imagined by the AI



These are an example of the concept imagined by the  
AI

# Future trajectory, speculative design, what inspires us some references and inspiring methods

## References shared

- See Michelle Westerlaken's work on multispecies worlds:  
<https://michellewesterlaken.com/publications/>
- Extrapolation Factory: <https://extrapolationfactory.com/>
- See Jorge Orta food installations  
<https://www.studio-orta.com/en/artworks/serie/16/food>
- Also, check out this dining table installation by Ainoa Burgos:  
<https://ainoaburgos.com/the-solanum-tuberosum-banquet>
- Superflux's work *Refuge for Resurgence*:  
<https://superflux.in/index.php/work/refuge-for-resurgence/#>
- Phenology Clock:  
<https://www.tegabrain.com/The-Phenology-Clock>



Angelo Vermeulen, 2008. Biomodd.  
Hardware, plants, reused materials.  
Hardware heats up; plants cool down



Biomodd (ATM) • 2008  
In collaboration with volunteers and students  
Reused computer parts, peripherals and monitors, arcade game cases, audio mixing table, speakers, plants, algae culture, gold fish, aquariums, lighting, air and water pumps, tubing, metal casing, Plexiglass

Biomodd (UBA) • 2009  
In collaboration with volunteers and students  
Reused computer parts, peripherals and monitors, plants, algae culture, goldfish, aquaponics system, aquariums, lighting, air and water pumps, tubing, coconut wood, woodcarving, glass panels



Studio Orta – food-related installations

(<https://www.studio-orta.com/en/artworks/serie/16/food>)

Left: Bread (2016) | Right: Hortirecycling – Mexican Kitchen (2008)



Anne Lowe and Ashes Withyman  
Kitchen Midden (2016-17)

(<https://catrionajeffries.com/artists/ashes-withyman/exhibitions/kitchen-midden-september-25-2016-january-14-2017>)

Definition of 'kitchen midden' is a  
'prehistoric refuse heap'!





Saša Spačal, 2017. Soil tasting workshop

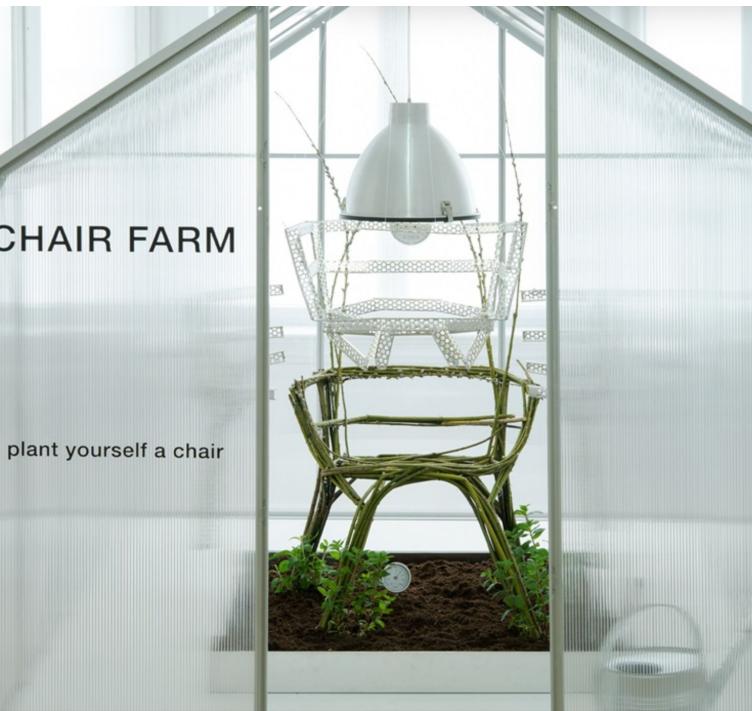
Mitigation of Shock, 2017-2019, Superflux Studio



Superflux, *Refuge for Resurgence*,  
La Biennale di Venezia, 2021



## Kitchen farming, 2012, Werner Aisslinger



Food is produced instead of processed, mushrooms are harvested from coffee grounds and fish excrement fertilizes a vegetable garden – all of it in a greenhouse-like shelf biotope.

Tega Brain  
*Phenology Clock*

Timing of life cycle events  
for species in urban  
ecosystems



**Your home is perforated.** The familiar, cosy space has undergone a remarkable transformation. In the pursuit of restoring biodiversity, humanity ventured into uncharted territory, reshaping their dwellings into structures that embrace the cohabitation of other species. However, with this evolution comes a shift in the comfort and control you once enjoyed. The temperature and climate within your abode can no longer be meticulously regulated as before. The absence of locked glass windows opens your home to the whims of nature, inviting in the elements, both gentle and fierce.

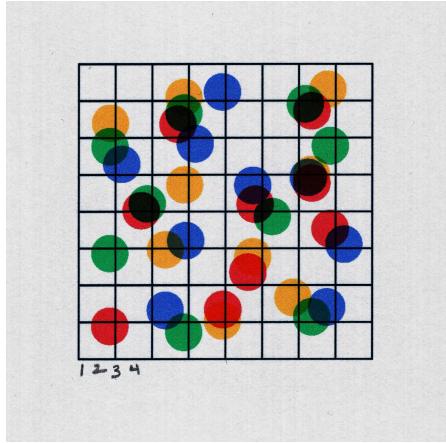
The once tidy and immaculate atmosphere has given way to intentional disarray. It may unsettle you, seeing the flourishing of microbes and fungi in the corners and crevices of your dwelling. Yet, amidst this unsettling transformation, there is a sense of wonder. You witness the resilience of life in every nook and cranny, as these often-ignored organisms thrive, painting a vivid tapestry of diversity.

The walls, once sterile and uniform, now bear the marks of a vibrant ecosystem. They breathe with pulsating energy, pulsing with the ebb and flow of life. While it may challenge your preconceived notions of a perfect home, there is an undeniable allure in witnessing the harmonious coexistence of species within your very walls.

# Ways of observing or documenting observations



footprint tunnel



Ryan Carl, Circle Study, 2020  
"language and typography or simple geometric forms to explore concepts of identity and being, hope and togetherness".



Being present and gaining trust



Time of the day is important

## **Brief day 2:**

In this evolutionary leap, you find yourself straddling the thin line between comfort and wonder. The loss of control over your environment stirs unease, yet an undeniable fascination captivates your senses. Your home becomes a microcosm of a world in flux, offering a glimpse of the transformative potential of human-nature coexistence.

### **Humble Attention:**

Spend time in slow, prolonged learning through observation of another species, entity or system in the home environment.

Forage for information about these living entities – provide and try to collect it using one or more of the following methods:

collect traces / capture the visual presence of it / record its sounds / trace its movement / document your own feelings or memories / imagine a scene of encounter / express your hopes for and speculations about possible futures while observing the other.

**Time:** 2.5 hours

## About us

We first collaborated during a research and development residency at SPUDworks in 2022, with an Artist Bursary from a-n The Artists Information Company. During the residency, we solidified our shared interests and began concocting ideas together. Individually, we have conducted in depth research into three areas as part of our artistic development and postgraduate coursework. Lucy has investigated substitutes to palm oil made with yeasts and algae. Nirit has explored moss as a system for responding to indoor atmospheres. Liina looks at moth's vision and lights effects on human health.

Lucy is an artistic researcher with a background in user experience (UX) design. Her creative work uses participatory and art-science methods to probe interstices between media, environment, and bodies. Lucy is completing a practice-related PhD in Geography at UCL with funding from the AHRC. She has a Master's in Communication from the Royal College of Art and a First-Class BA in Liberal Arts from Durham University. In 2021, Lucy received a DYCP Award from Arts Council England and launched her first solo exhibition at the University of Bern in May 2022. She works part time as a tutor in film studies at the University of Sussex. <https://lucysabin.world/>

Liina is a multidisciplinary designer and media artist. Liina investigates the human and other-than-human beings' bodies and senses, guided by research, experimentation and questioning the status quo. Her work addresses global problems such as mass extinction, the use of technology and light pollution. She holds an MA in Information Experience Design from the Royal College of Art in London. Website: <https://liinalember.com/>

Nirit is an artist and designer and is doing her PhD research at the EPSRC funded Centre for Doctoral Training in Intelligent Games and Game Intelligence, based at the Queen Mary University of London, UK. Her work explores the interconnection between society, technology, and ecology. Nirit has an MA in Information Experience Design from the Royal College of Art, London where she now teaches as an associate lecturer. Her main research interests are around the integration of a living organism into games and digital interactions, and how these hybrid interactions influence players' apprehension of environmental stewardship. <https://niritbin.com/>