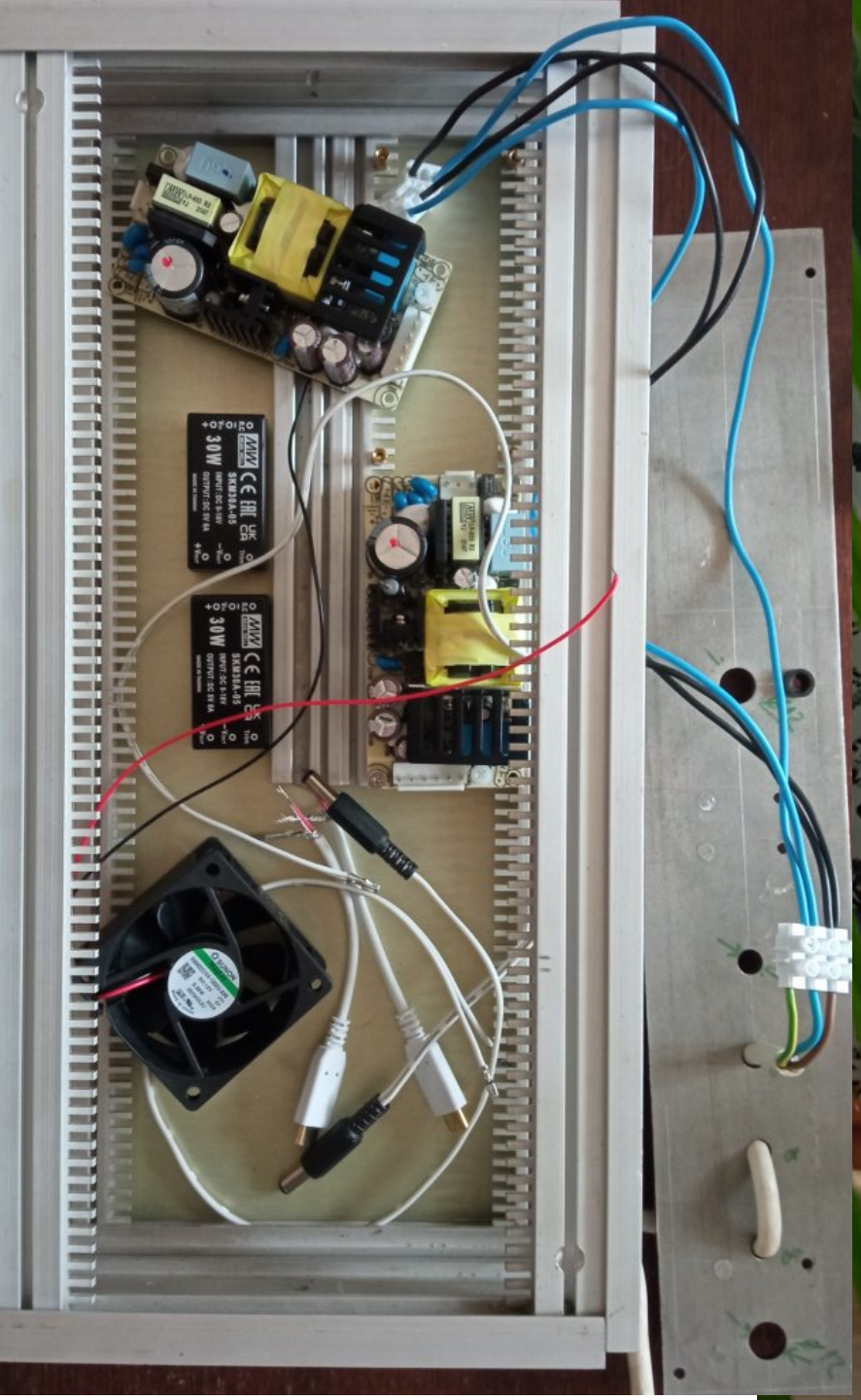
forest care and permacomputing
node9.lab

Michal klodner

Fiber Reassemble Lab Symposium Amsterdam 2.12.2023



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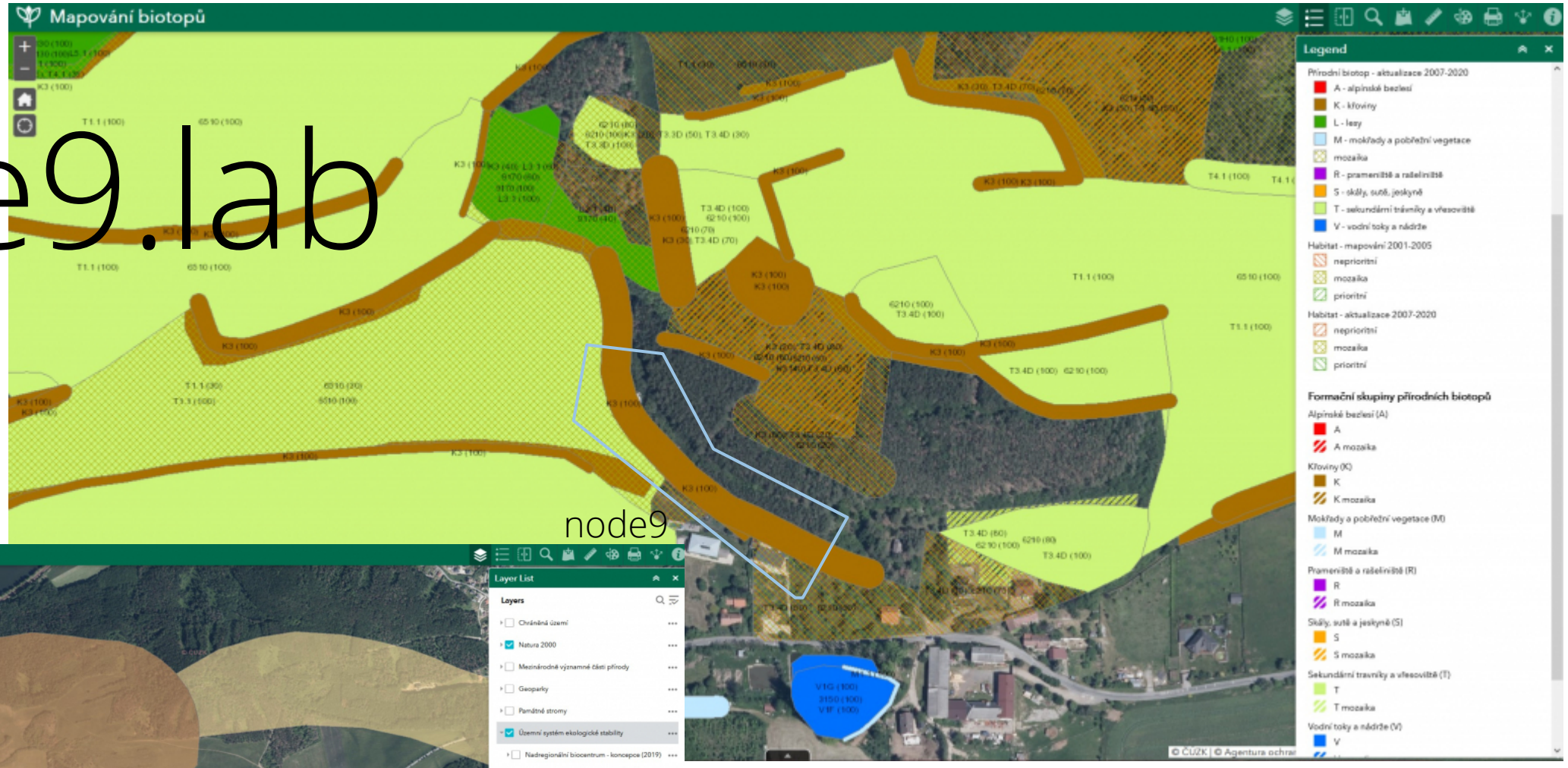
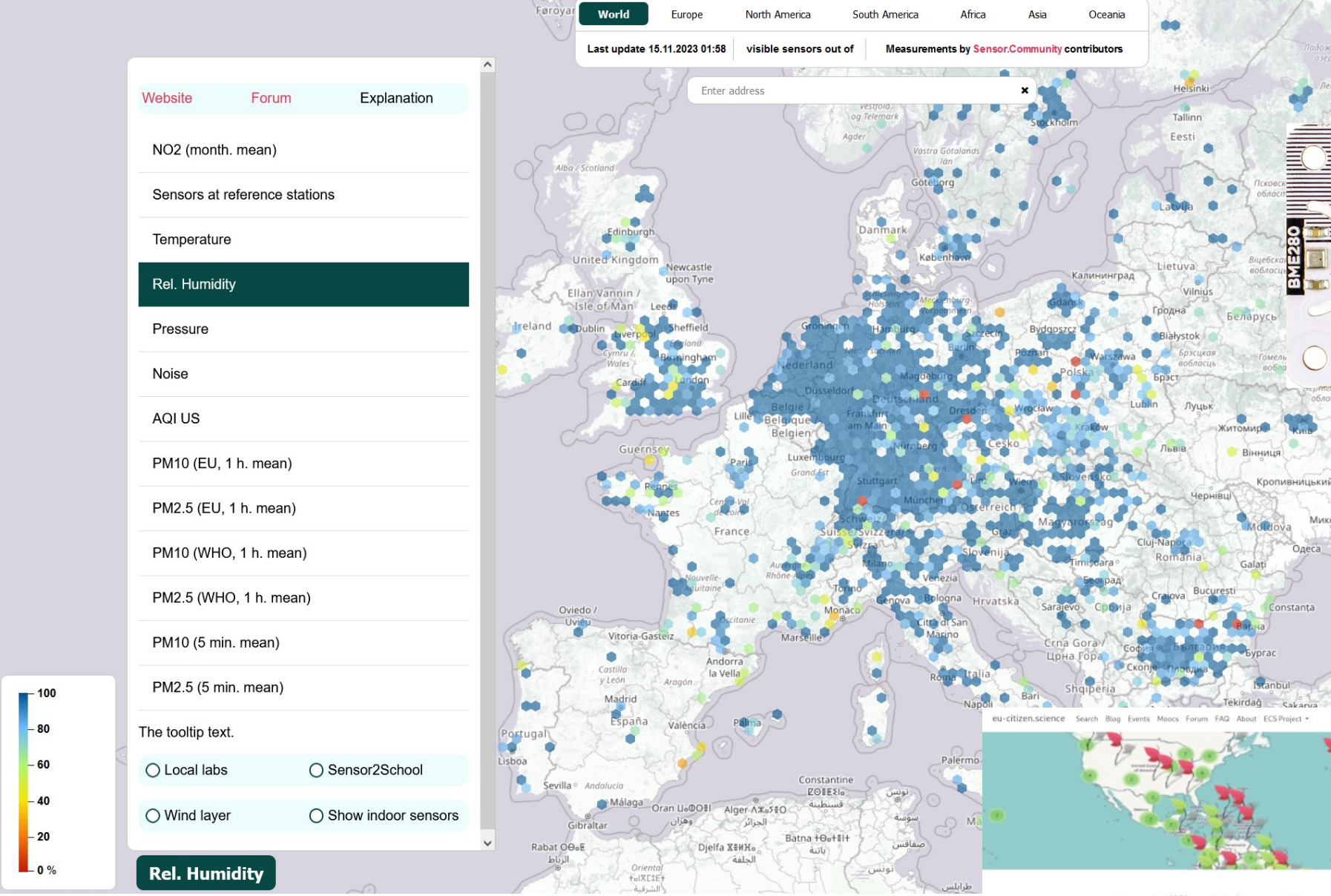
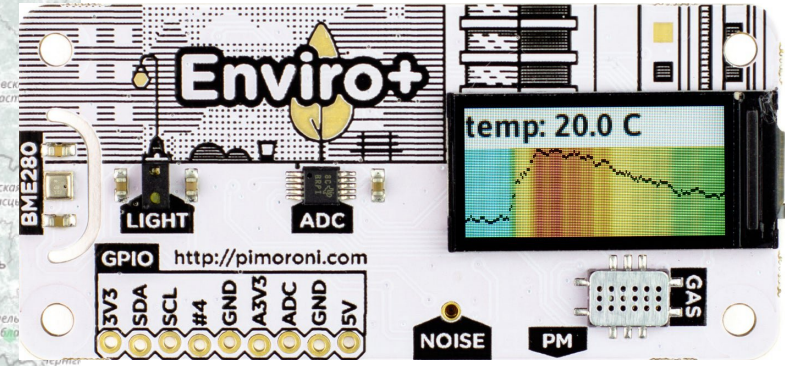


Biotope maps of the area (Agency for nature and landscape conservation)

Top: Bush (brown) vs. monoculture (not mapped)
Left: Regional biocentre and biocorridors, Natura 2000 (violet)





Citizen science

One Million Voices of Agroecology

Created Sept. 28, 2023, 8:07 p.m.
Updated Nov. 8, 2023, 3:23 p.m.

The One Million Voices of Agroecology is a citizen science initiative implemented by the Agroecology TPP in collaboration with partners from the Asian Farmers Association (AFA), Groundswell International, the facilitator of the McKnight Andes Community of Practice, Agroecology Map and knowledge partners from ETH Citizen Science Centre Zurich. The initiative is funded by the Swiss Agency for Development and Cooperation (SDC).

Building on a global co-creation process, and informed by a global review of citizen science initiatives, the One Million Voices team with support from Agroecology Map developed this digital citizen science platform that combines several main features:

1. Map a location where you practice agroecology.
2. Register one or several practices, both on- and off-farm, that you practice in that location.

One Million Voices

Context:

Deforestation by warming climate, in some countries desertification

- Spruce monoculture in unsuitable conditions
- spruce bark beetle (native, northern invasive)
- Industrial forestry failure, slow intervention

Czech Republic

2016: 100’s bark beetles it feromon traps
2017: 19 M m^3 harvested (6M damaged)
2018: 25 M m^3 harvested (13M damaged)
2019: 100 000’s bark beetles in traps
wood price fall, heavy financial losses

Stills from a documentary Forest sorrow (2023, dir. Barbora Klocova)

Natura 2000: 9170 * Galio-Carpinetum oak-hornbeam forest

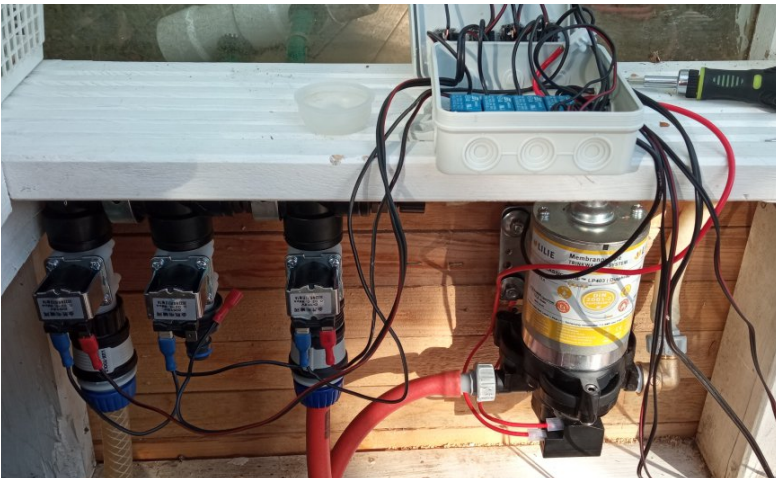
Pine monoculture:
shade and little air due to dense planting
leafy shoots nibbled by animals in winter
weaker trees dry out and are food for bark beetles and carpenter beetles
supermarket for deers and wild pigs - eat all leafy seedlings in winter

biodynamic: cutting releases nutrients from roots to nearby trees and boosts them or the tree sprouts quickly from the stump and makes several trunks, leafs can be used for compost and enriching the soil, dead wood also makes better soil, funghi, insects, birds... Not using the wood for burning it can make the cycle very fast and capture carbon into soil.

coppice forests (thinnings forests) - records from 17th -18th century

- cutted every 7-14 years, used for heating, carpentry
- Twigs or wicker every (1-2 years) used for cattle feeding, baskets
- Principles of biodynamic regenerative agroforestry used in permaculture

Soil profiles:
mostly shale
(silur clay mineral)



Ecosystems ~ LivingLabs ~ Bio shelters
livinglabs@node9.org

3 years ago

Just the analog termistors are working (1.13,1.64,1.30), all the digital sensors are off.

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21-1-13 13:35,-0.00,0,0,4.86,1.13,1.64,1.30,99.90, NAN, NAN,0.00,32,54612
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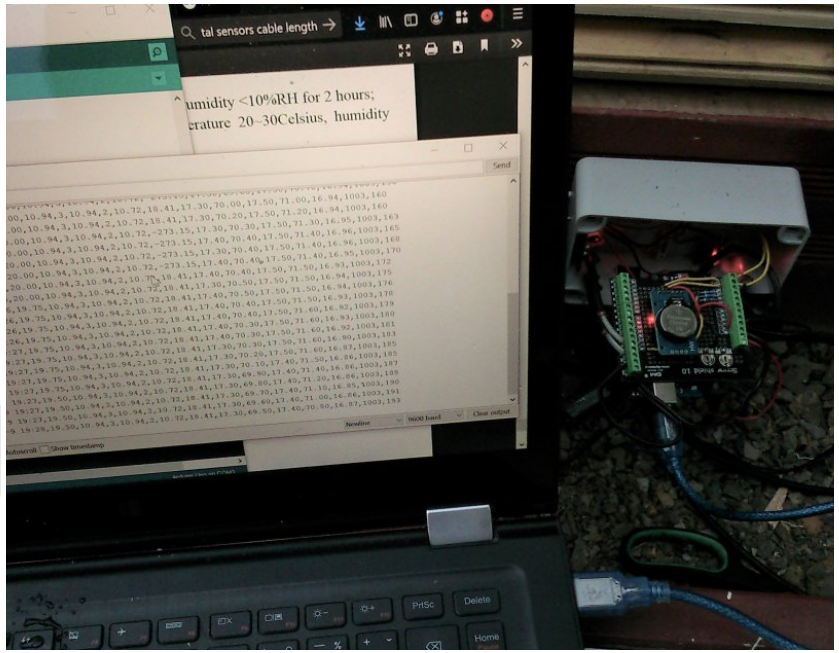
✱ livinglab ✱ sensors

Sensors use:

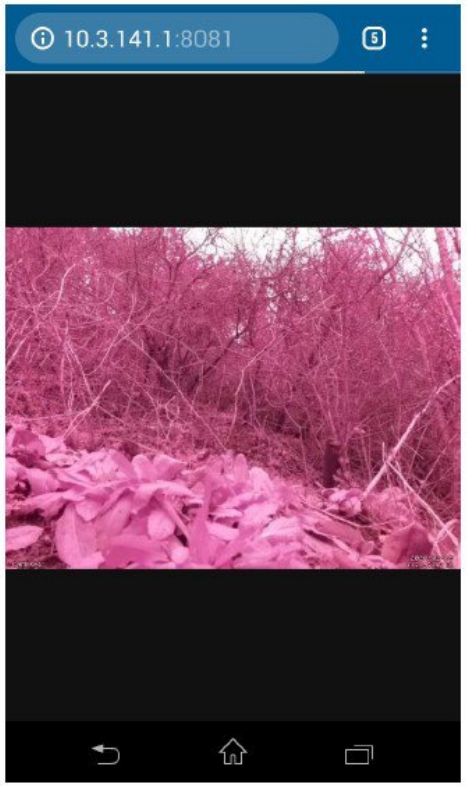
- (micro)climate conditions
- automation



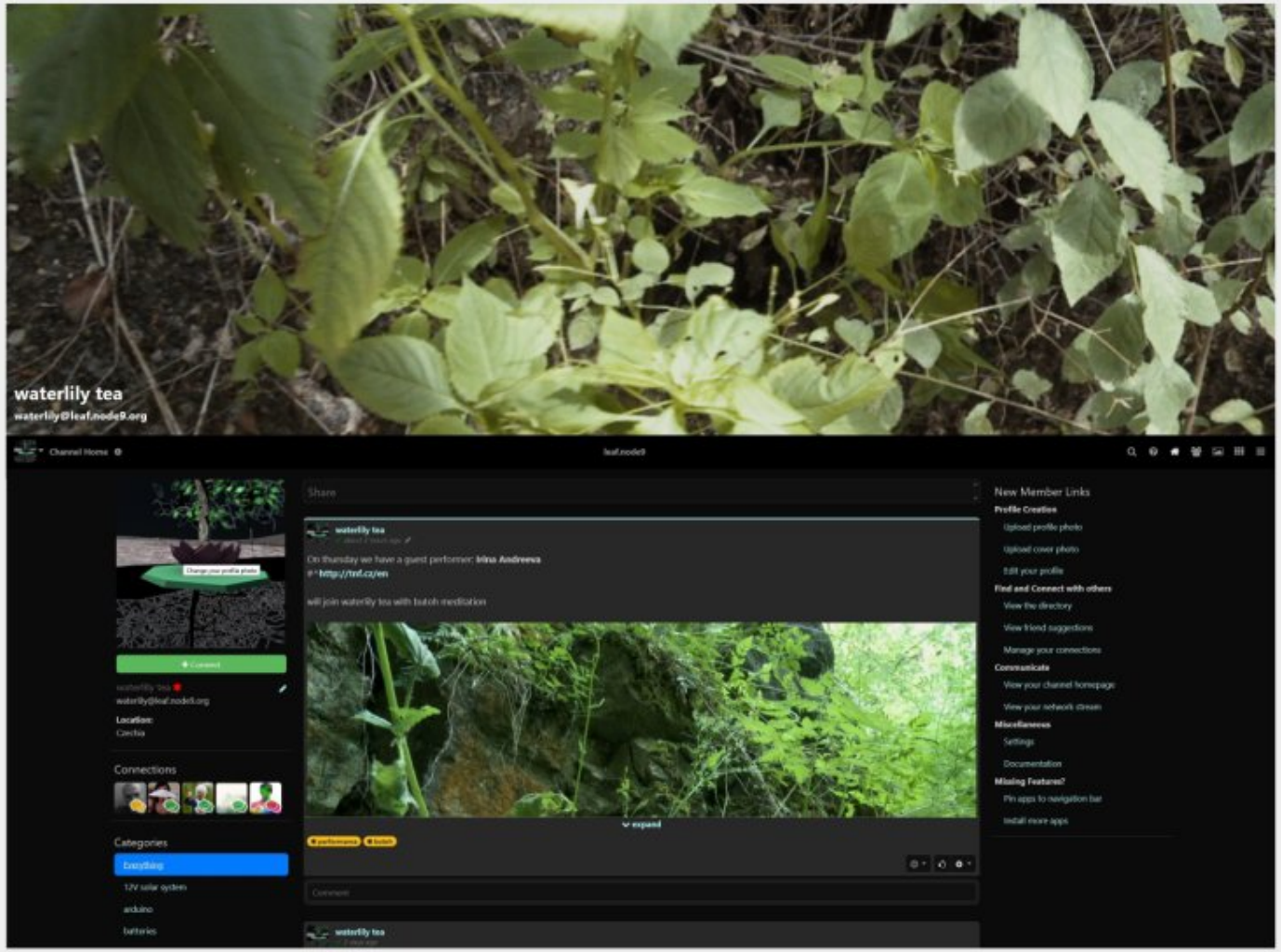
~~GLAMPING~~

~~CABIN PORN~~

LIVINGLAB



- 02/2020 Leaf field research server RPi 3B 1GB RAM
- Hubzilla instance - Idea (hypothesis) on social networking with ecosystem actors: re-focus attention fixed to digital media
- RPi memory and 10GB/month data limit insufficient for social networking, fediverse software not designed for offline-first



livinglab, node9 site Prague
2020 Entrance gallery
2021 Farmstudio, TRSY festival
2022 Pop-up gallery AVU

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LiViNGL/-\BS ZiNE

We need an architecture that separates us from the wild surroundings as little as possible. Architecture, free from unnecessary restraints, which we only make out of habit and have lost their foundation long since. We do not need houses isolating us, with dry weed free organized yards around. The new prestige is to come out the door right into the rampant edible forest.

We need a different architecture. Architecture that has the possibility of expansion our relationship with the environment. Our homeostasis and our media do not need liquidation of nature. Instead, it can convey the creative connection and enrichment of biodiversity.

Living labs are development networks and ecosystems, based on an open philosophy and respect to local conditions and all participants. Technologies are applied directly in the real environment, their impacts are tested and all stakeholders, ecosystems and organisms involved are indistinguishable from scientists. There are no observed objects on which procedures devised by someone else are verified. Productivity is not a major concern. The sign of successful development is the overall prosperity of the local ecosystem.

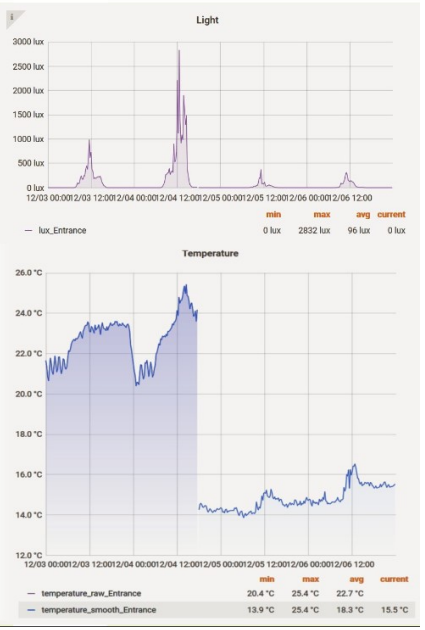
There is a strong principle of discovering and creating open situations in livinglabs. New connections of architecture and nature, non-consuming approach to cultivation. Using renewable resources and waste recovery, testing open technologies to thrive biodiversity. Every construction should include sustainable ubiquitous technologies, in least necessary measure, sensitive to land, water and communicating with people using decentralized media protocols. You only need one solar panel and the rest remains self-sufficient. But self-sufficiency is not a dogma either. It's always more a research of self-sufficiency, evaluation and cooperative exchange.

Local on-site information maintenance is included in the practice of care. Each space has its own experience of human encounters and their history, their memory, coming in and going out and all of this has an electronic trace, connectable to others.

Livinglab is the research method and an art of creating architecture and infrastructure for emergence and maintenance of the most fragile things: organisms, relationships, ideas. A biotope and microclimate without which they could not exist.

SYMBIOSIS OF ROOM PLANTS, TREES AND DECENTRALISED MEDIA

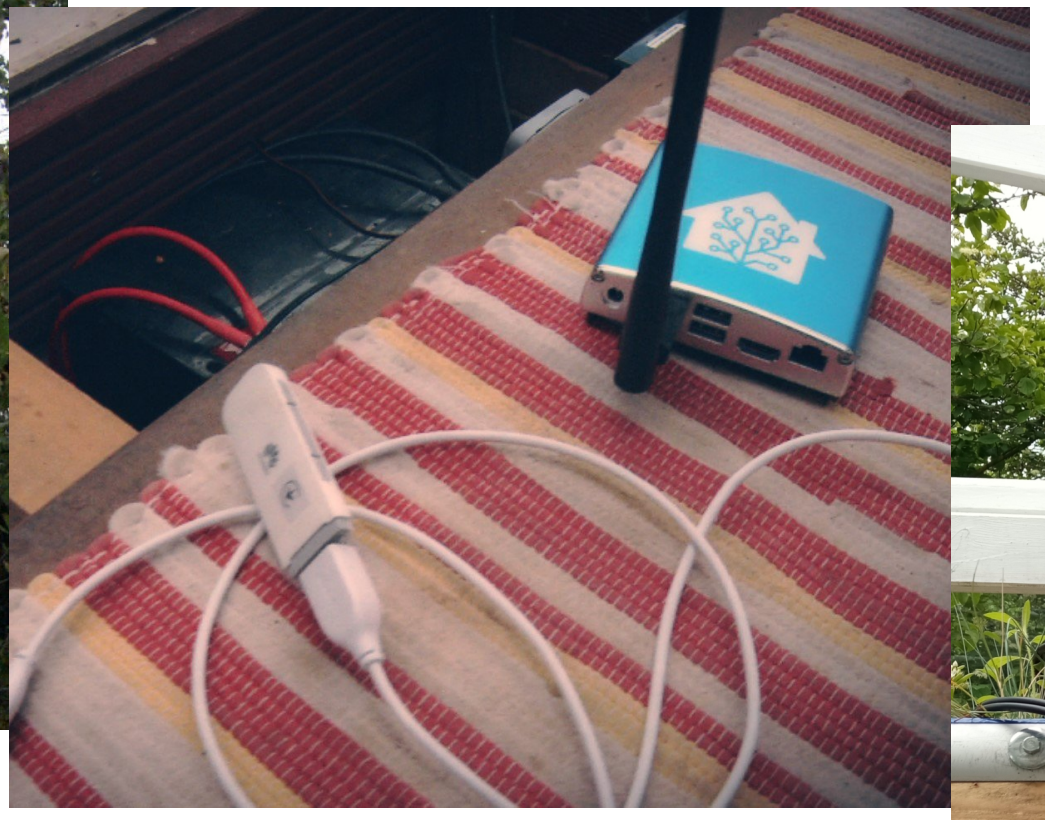
Leaf-cam view of Entrance Gallery, orangery , on the graphs left

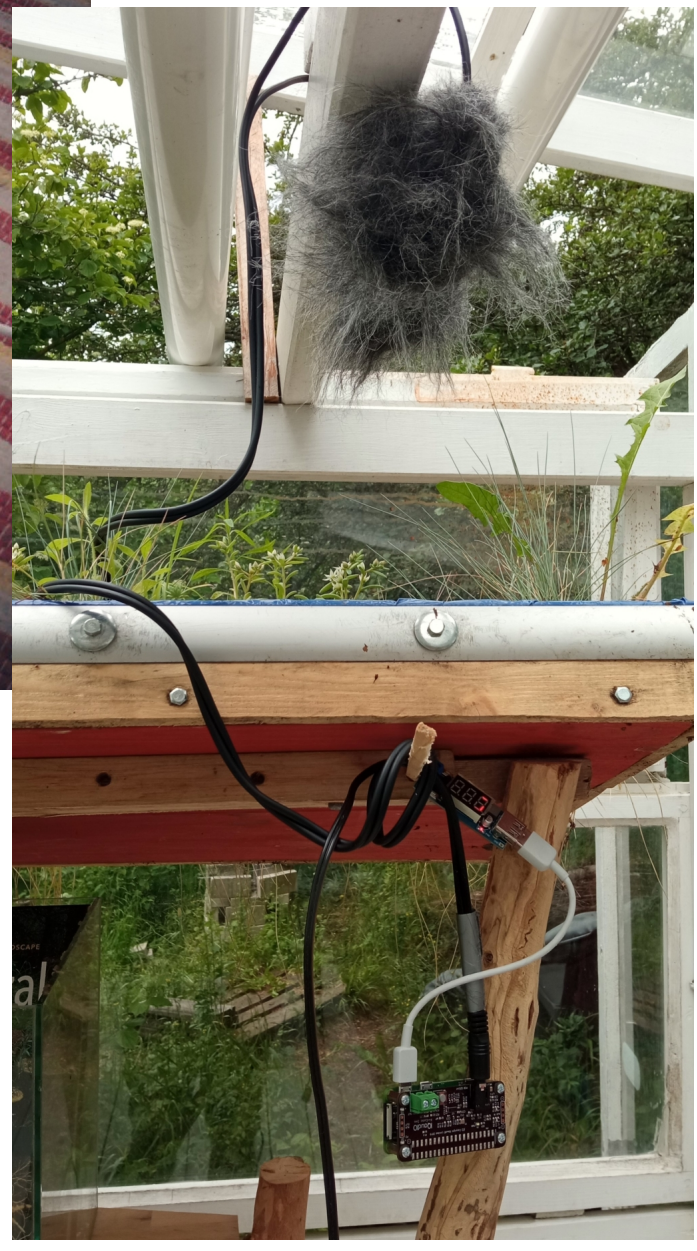


Root lat. “radix” radical not in the sense of political revolution and physical disruption of the system, but as a post-political discontinuity with the past, the transition from the old consciousness to the new consciousness through open information tools. Media ecology is at the same time a condition and accompanying phenomenon of the natural one.

Leaf-cam view of Entrance gallery foyer, on the graph right

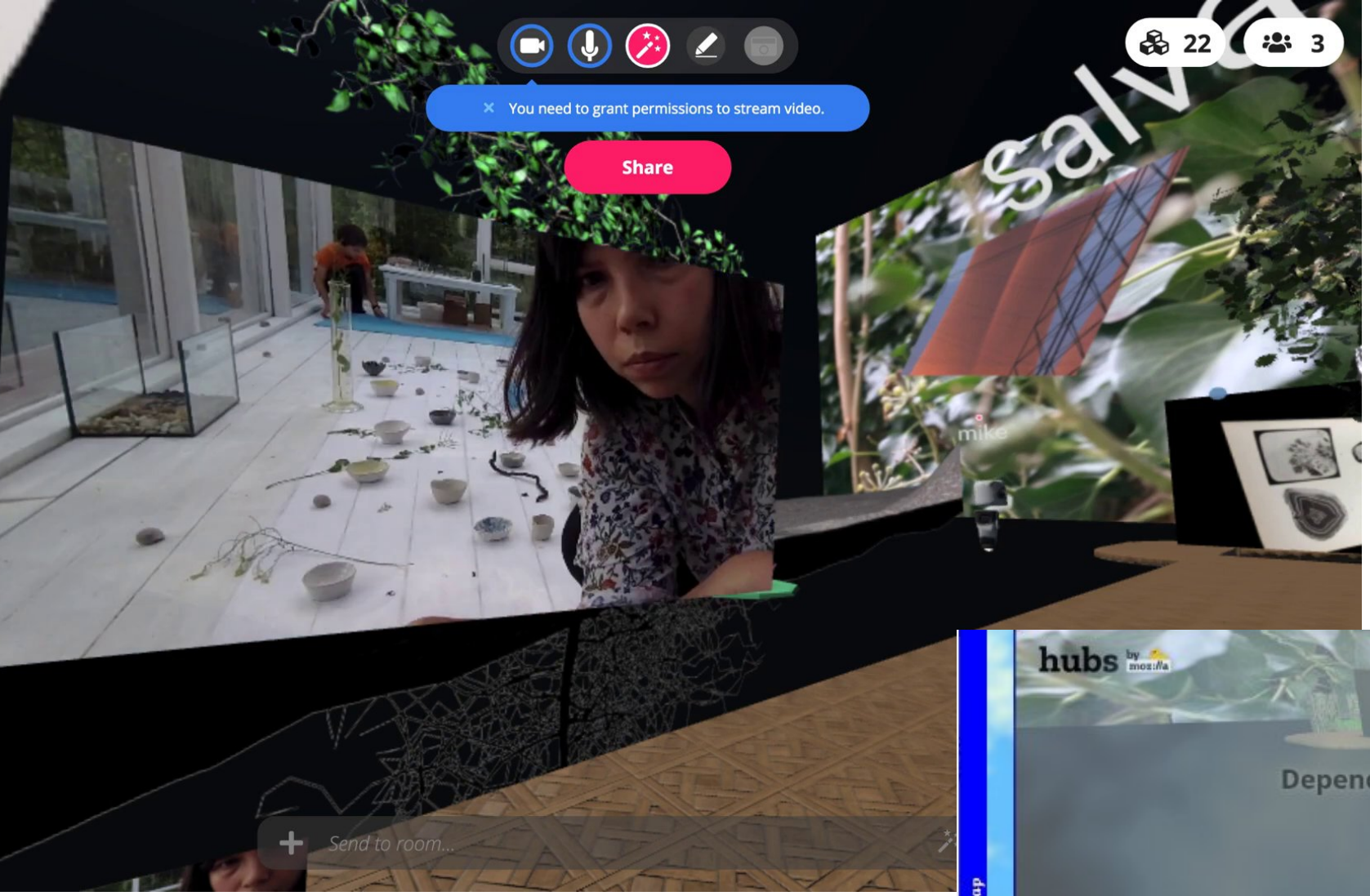
Alternative networks allow us access the experiences of others. It is not about "making art" in the prison of the art world, the aesthetics of galleries institutions and corporate palaces, but about creating reality. The greatest possible connection of organic forms, which is symbolized by permaculture and the development of biodiversity is a convincing model of socio-political life.

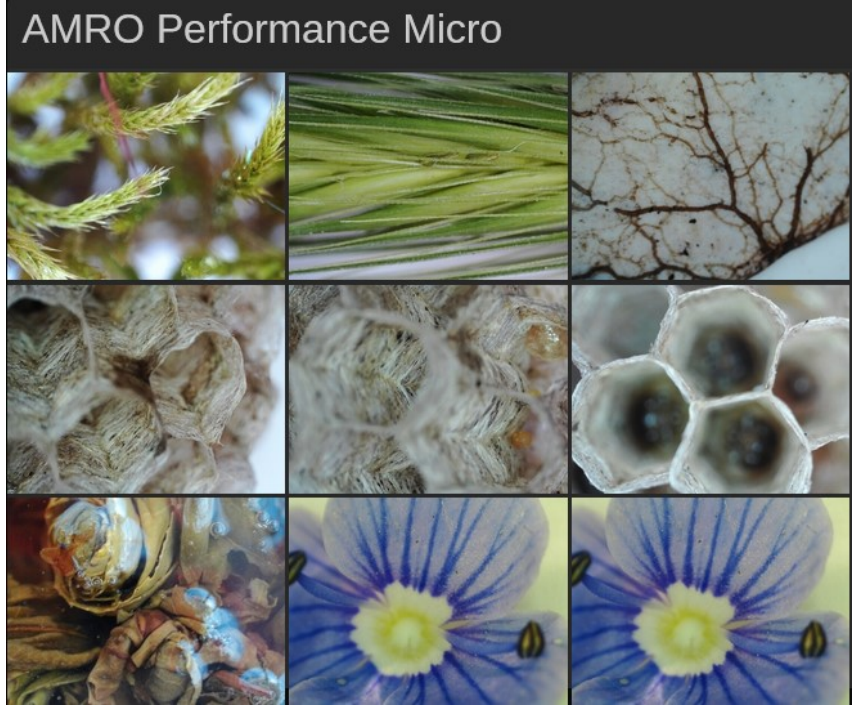


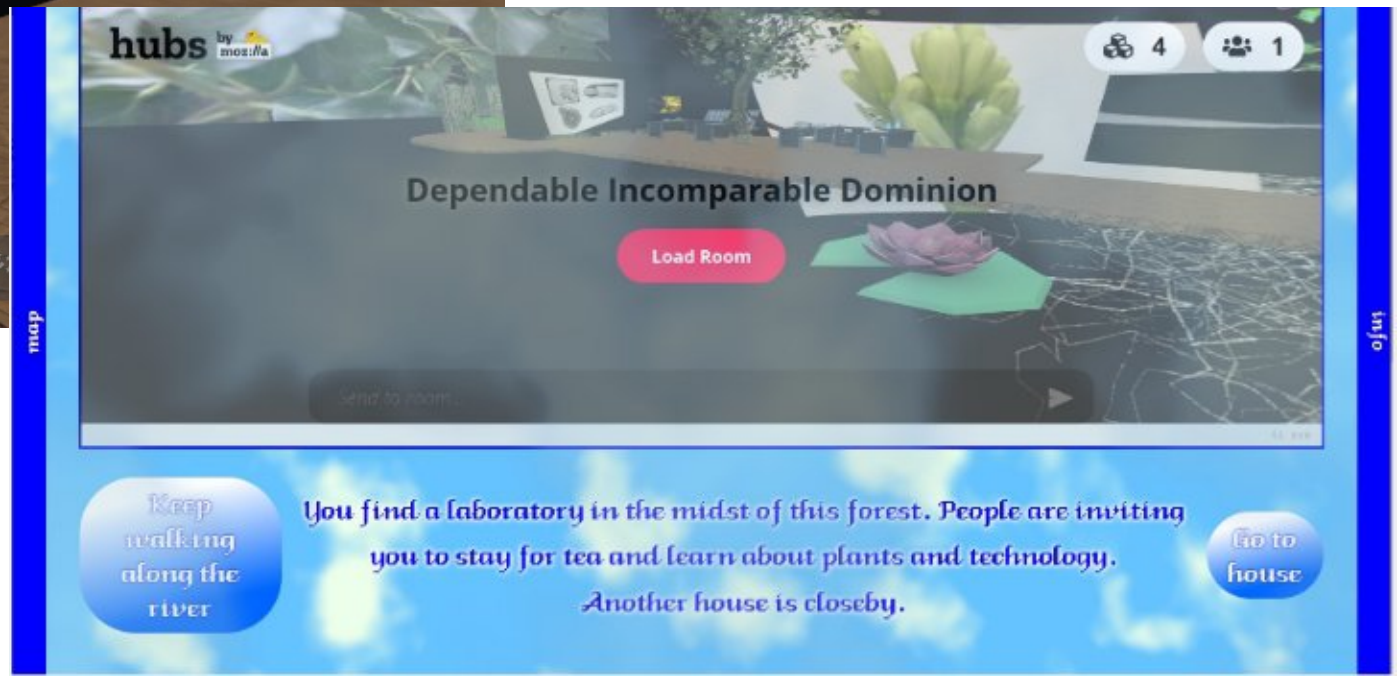


2023

- Leaf rework, only RaspiCam/mic + Liquidsoap stream
- Stationary wood0: Odroid N2+ 4GB RAM, Wifi
- Hosting Radio Aporee MobileMic (RPi Zero + audio HAT)
- Connection upgrade 100GB/month

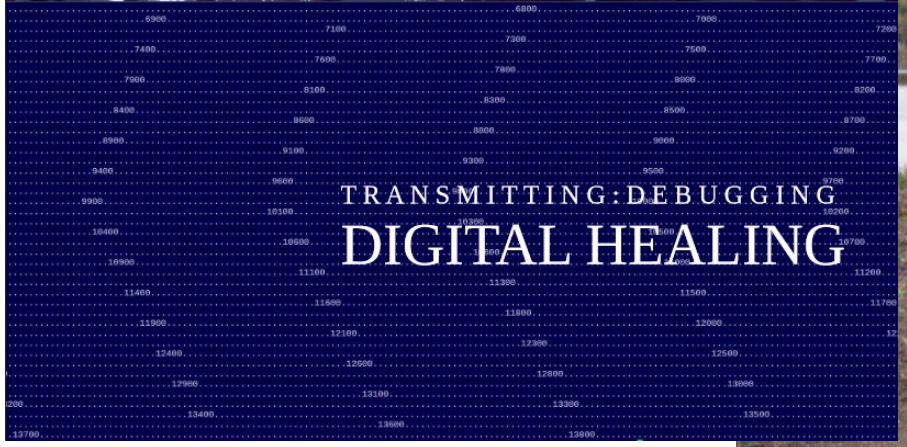






waterlily tea performance

Art Meets Radical Openness (2020, online)
with Irina Andreeva and Nikola Brabcova
butoh dance, tea ceremony, microscopy, VR stream



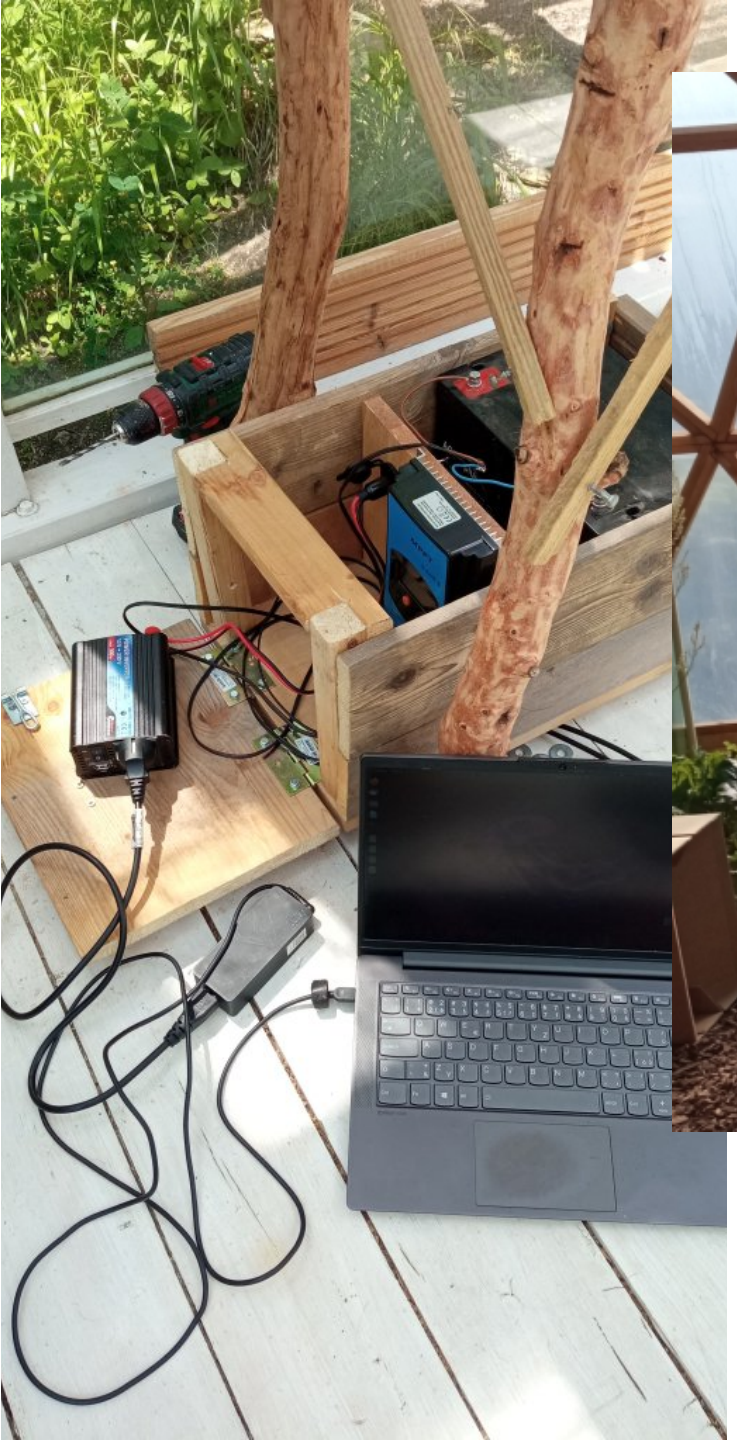
permacomputing use: local library, care of information, transmitting knowledge, connecting people

Perma-computed digital communities as a social sculpture

Trip to the Silbersee (Bitterfel-Wolfen)
research on toxic waste from media and art 2021

Zine 2022

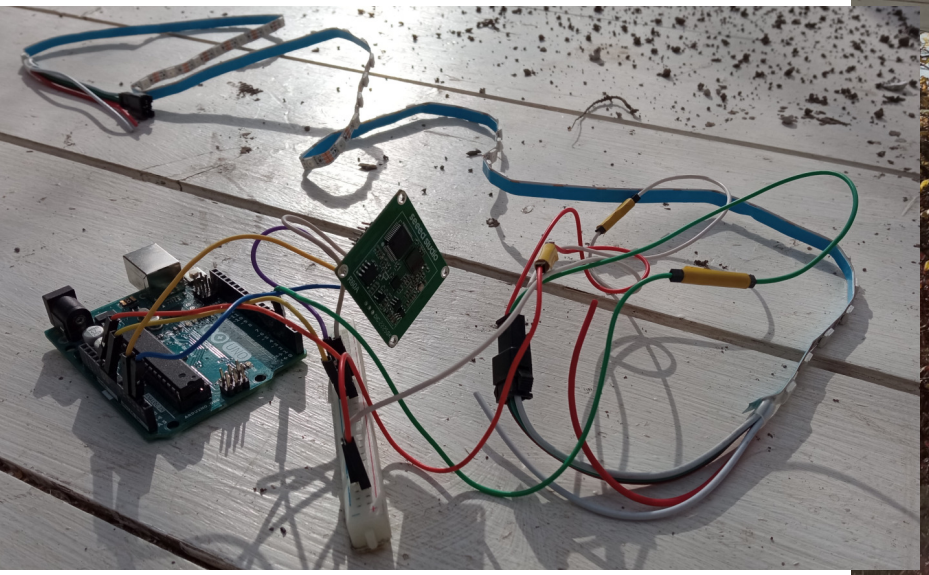
Sculpture is a transmitter, it radiates (J. Beuys)



Rural library with video gallery
hosted by VegLab Freistadt
Festival of Regions Austria 2023

Al Yakubouskaya
Reminiscence

60GHz mmWave Radar Sensor detects Heartbeat (Breathing) of people (more than human?) around cocoon, reacts by lightpulses



Detach media art from urban context, server farm processing, fomo...
Reimagine rural social sustainability

Trees and plants thank you for your attention