

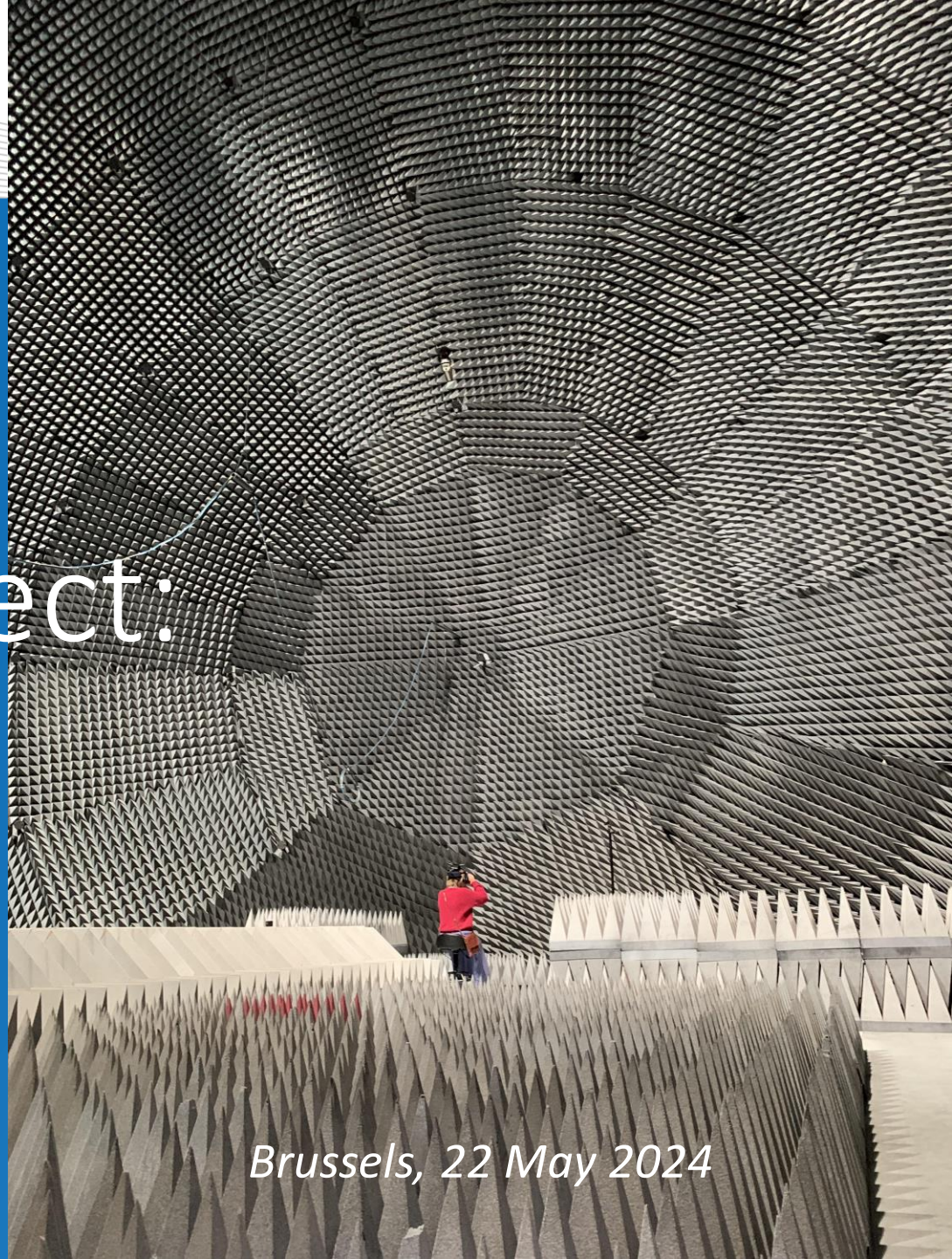


The JRC SciArt Project:

Art & Science for Policy

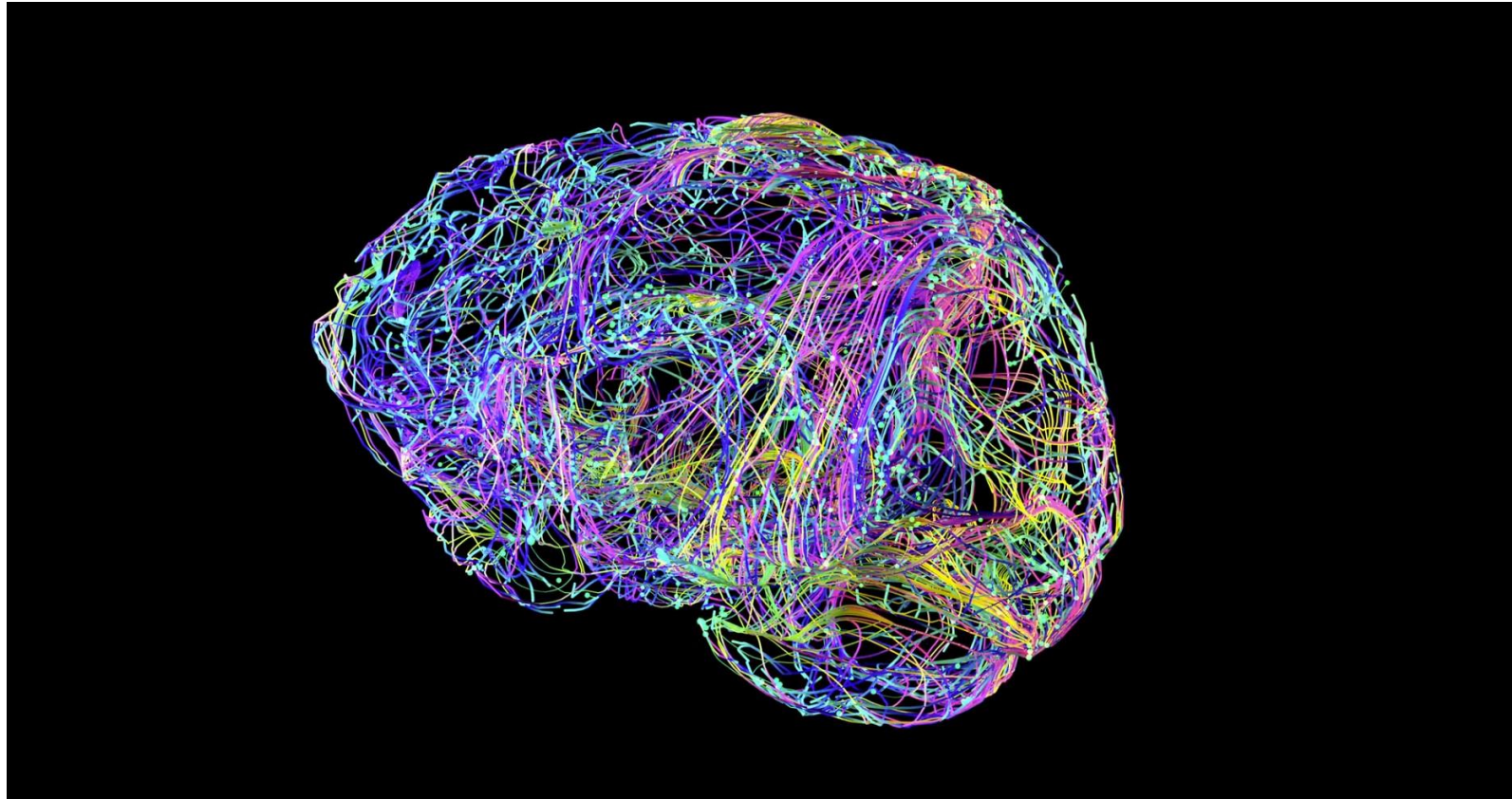
Adriaan Eeckels, JRC.S.4

Joint
Research
Centre



Brussels, 22 May 2024

1. Definitions
2. Some history
3. SciArt@JRC
4. NaturArchy
5. Results?



Rebecca Ballestra, still from *Conversation on Time*, 2019 – in collaboration with Nikolaos Stilianakis, epidemiologist (JRC)



Arts and humanities disciplines are essential to the cultural transformation necessary within the next generations. Promoting art-science and art-technology collaboration is part of the toolkit for survival. --- Roger Malina

Nous devons décider la paix entre nous pour sauvegarder le monde et la paix avec le monde afin de nous sauvegarder. – Michel Serres

*Ingrid Maria Ogenstedt, "Gata", 2019. Reed from Vaern Engene, Denmark
Local materials and local knowledge confront us with the time and textures and materiality and monumentality of natural process and cultural context*

TABLE 1.1. Partial Lexicology of Terms for Arts-Based Research

A/r/tography
Alternative forms of representation
Aesthetically based research
Aesthetic research practice
Art as inquiry
Art practice as research
Art-based enquiry
Art-based inquiry
Art-based research
Artistic inquiry
Arts-based research (ABR)
Arts-based social research (ABSR)
Arts-based qualitative inquiry
Arts in qualitative research
Arts-based educational research (ABER)
Arts-based health research (ABHR)
Arts-based research practices
Arts-informed inquiry
Arts-informed research
Critical arts-based inquiry
Living inquiry
Performative inquiry
Poetic science
Practice-based research
Research-based art (RBA)
Research-based practice
Scholartistry
Transformative inquiry through art

Note. From Chilton and Leavy (2014). Copyright © 2014 Oxford University Press. Adapted by permission.



Frames

- Vertical or “pipeline” frame
- Integrative frame
- Critical participation frame
- Horizontal or rhizomatic frame
- Post-critical and relational frame

Laura Colucci-Gray, ea, A Critical Review of STEAM (Science, Technology, Engineering, Arts, and Mathematics), *Oxford Research Encyclopedia of Education*, online publication, March 2019, DOI: [10.1093/acrefore/9780190264093.013.398](https://doi.org/10.1093/acrefore/9780190264093.013.398)



Siobhan MacDonald, *Breathe*, vulcano eruption projected on customised prism, Resonances III, 2019

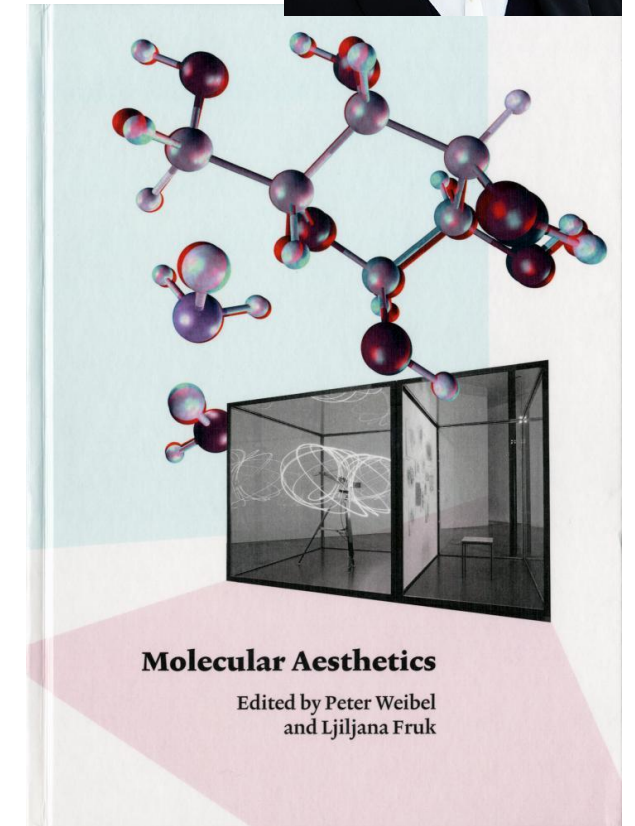
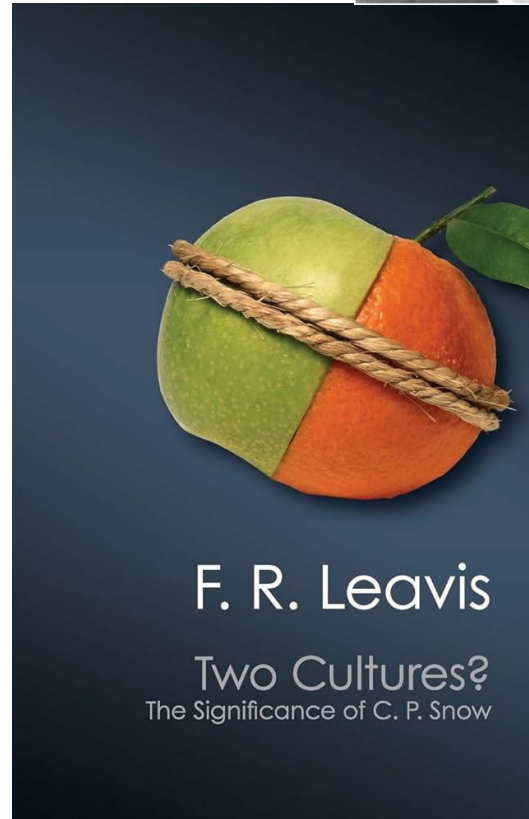
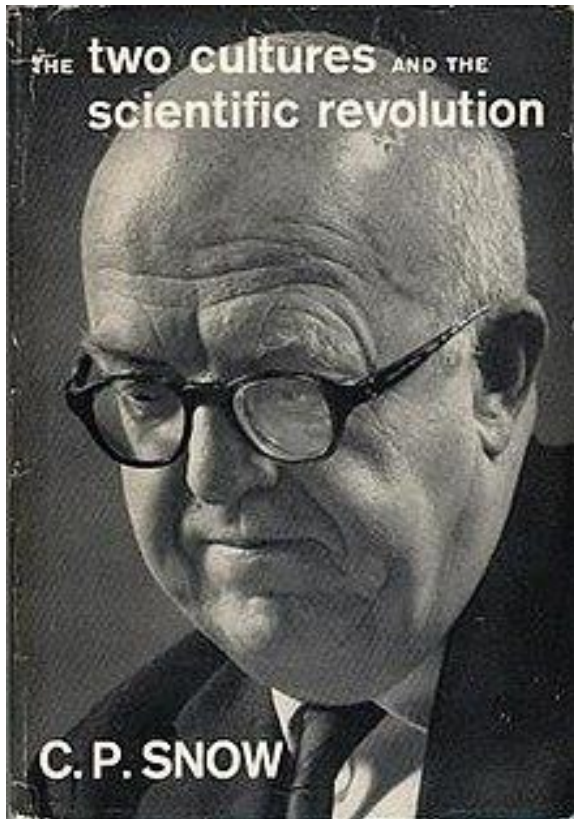
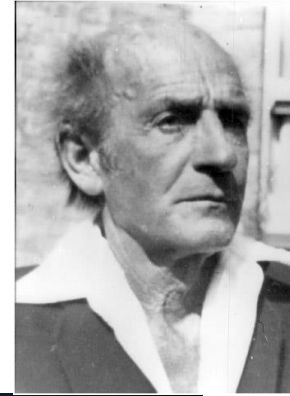


2. Some History

1. 19th Century
2. CP Snow
3. 20th Century
4. Paradigm shift (again)

Paul Klee, *Highways and Byways*, 1929

History: two cultures?

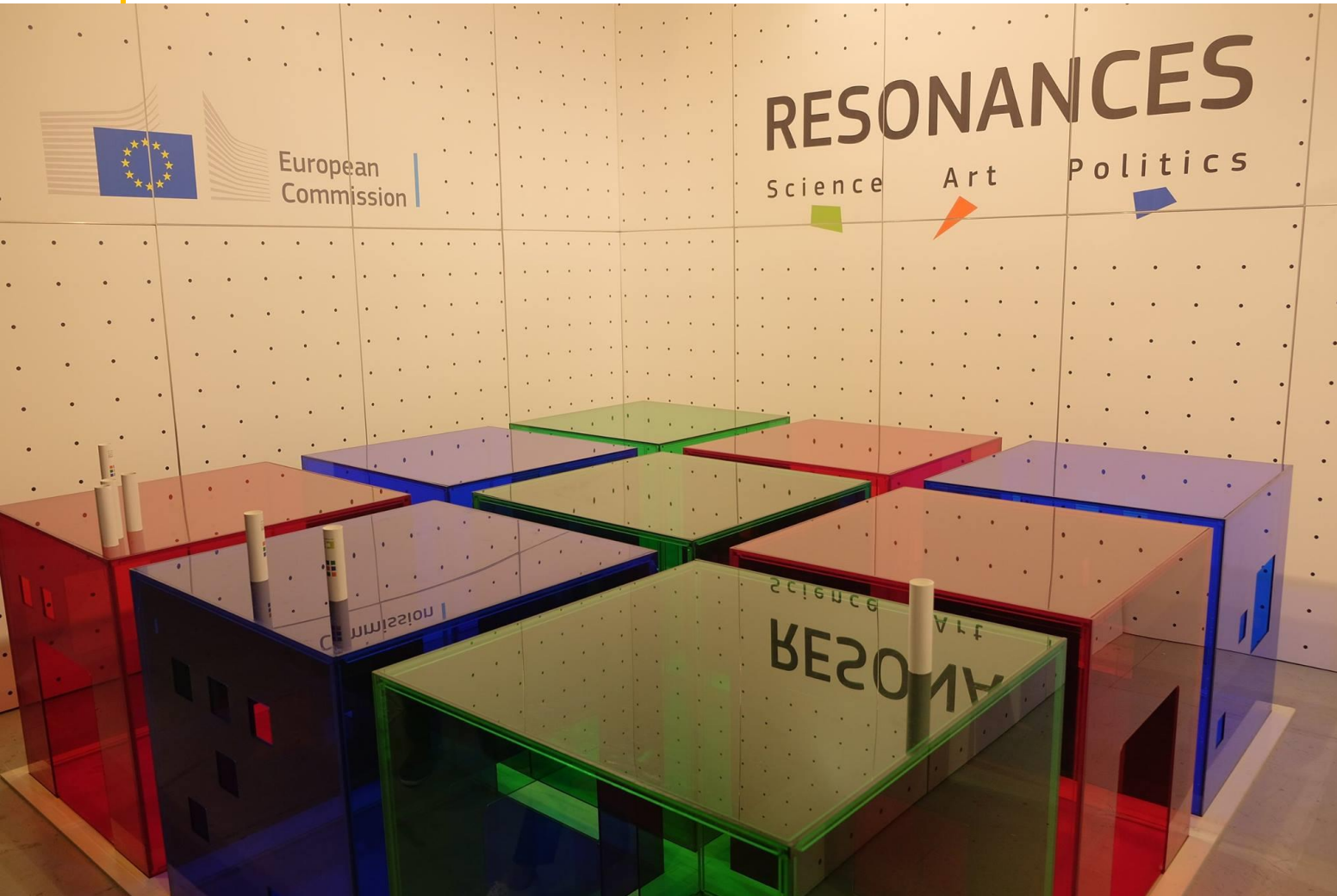


Art & Science at the JRC: background

- Resonance(s)
- Open to public
- Which questions?
- Creative collisions



Art & Science at the JRC: Method



- Safe haven
- Baseline
- Frame: Resonance(s)
- Experiment!

NaturArchy

-archy
/'ɑ:ki/

combining form
suffix: -archy

- 1.(forming nouns) denoting a type of rule or government, corresponding to nouns ending in *-arch*.
- 2."monarchy"



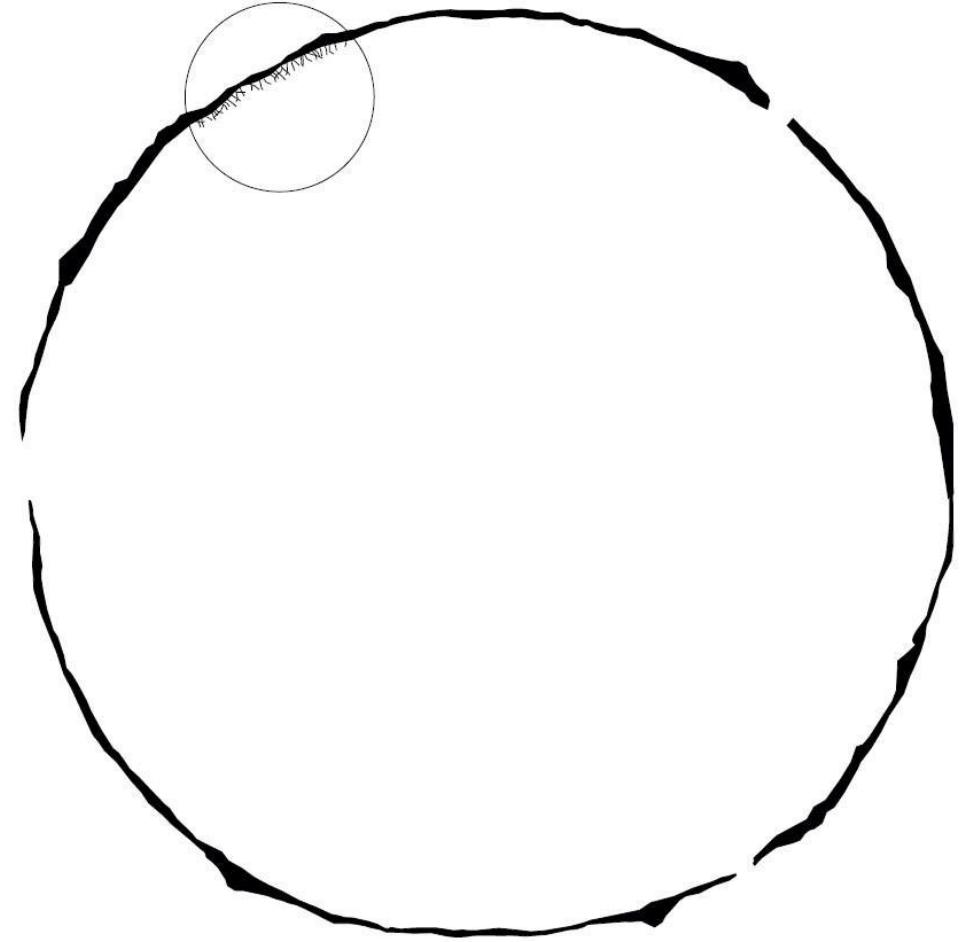
NaturArchy

Towards a Natural Contract

NaturArchy aims to explore – through artistic, scientific and legal expressions – how providing nature and its phenomena with a contract that integrates it totally into our society can redefine our anthropocentric relationship with nature.

Intersecting science and law, reason and style, art and judgment, policy and imagination, NaturArchy wants to re-imagine the western relation of human and non-human, in an attempt to ensure juridical persona to nature's many wonders, be they stardust or DNA.

— Excerpt from the [Curatorial Concept](#)



Alexandra Arènes, *the Thickness of the Critical Zone at the Planetary Scale*, 2019
– in: Bruno Latour & Peter Weibel, *Critical zones, The Science and Politics of Landing on Earth*, Karlsruhe – Cambridge, MA, 2020

Synocene

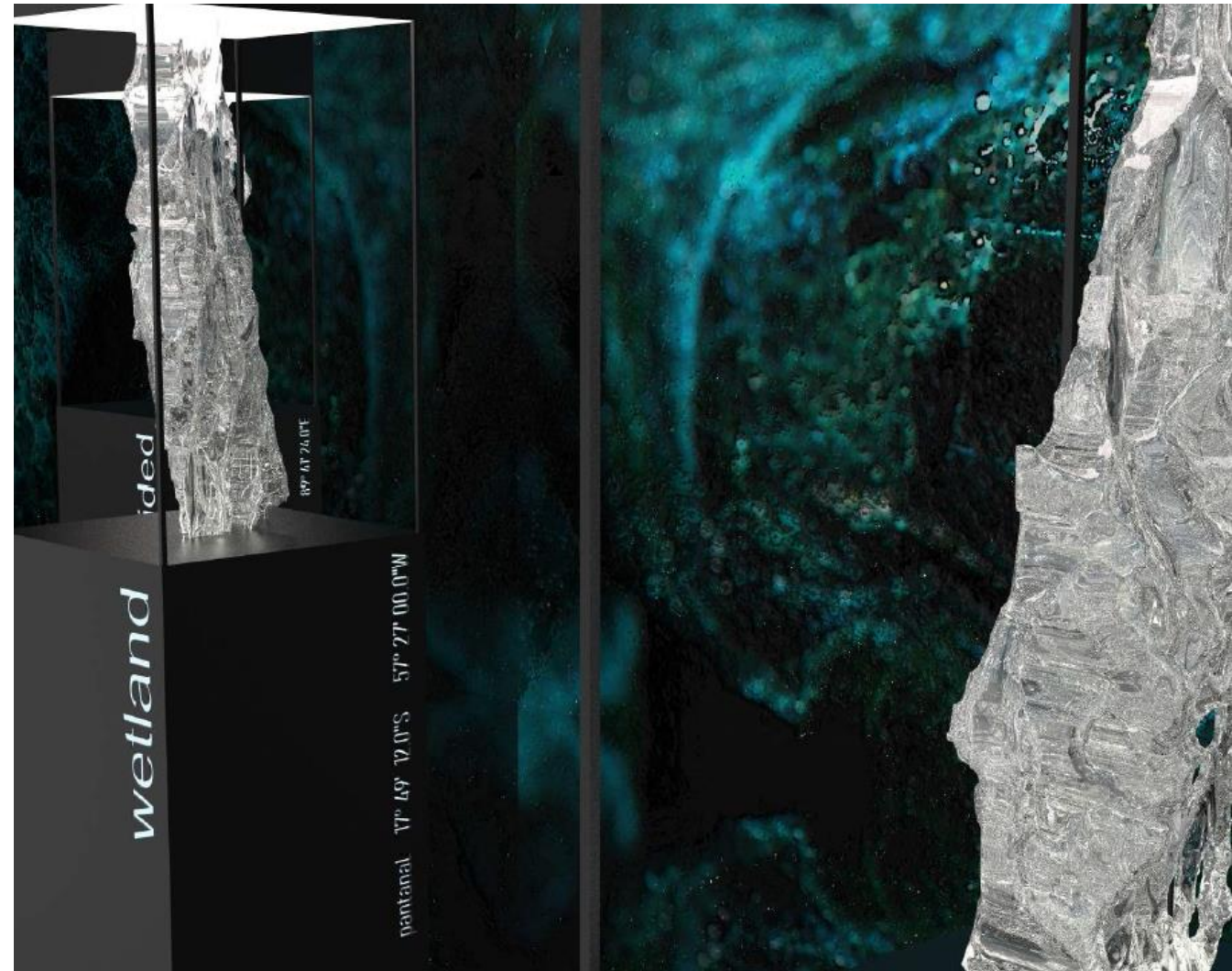


- Marina Wainer & Sam Nester, with Lucía Iglésias Blanco & Isabelle Hupont
- Forests, communities, sound, fog & AI
- Natura2000 sites

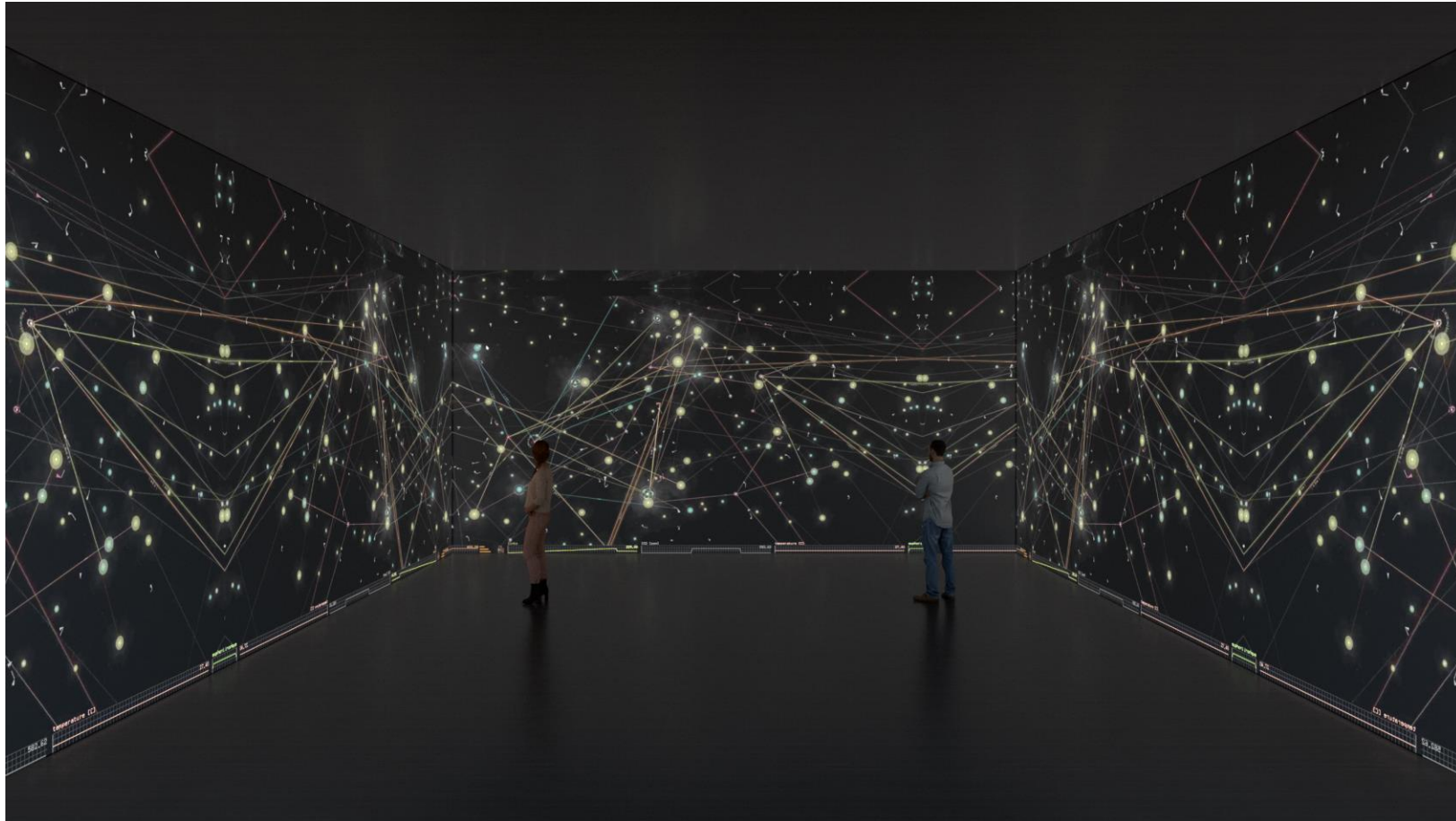


Specter(al)s of Nature

- Ingrid Mayrhofer-Hufnagl with Alan Belward, Elahe Rajabiani, Maciej Krzysztofowicz, Lorenzo de Simone & Malgorzata Wrobel
- 3D prints of river courses & video
- Based on the [Global Surface Water Explorer](#)



Anthos



- Giovanni Randazzo, Yiannis Kranidiotis & Sam Nester
- Immersive room
- Pollinators and Complexity

Ocean Connection

- Kristin Bergaust with Guillermo Garcia & Evangelos Vouvoulakis
- Lagrangian Descriptors describing ocean currents
- Effects of climate change on biodiversity & ocean currents



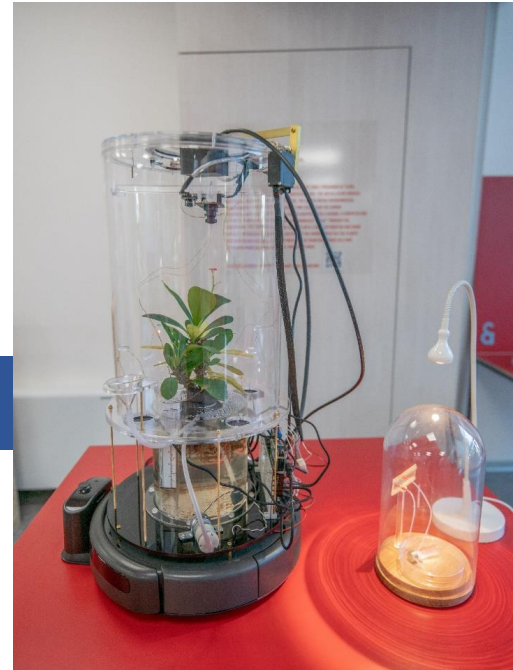
Results 1. Art as a tool for inspiring new research



Sonification of biological stress



Participatory projects engaging citizens and collecting data



Non-invasive nano sensors for plants

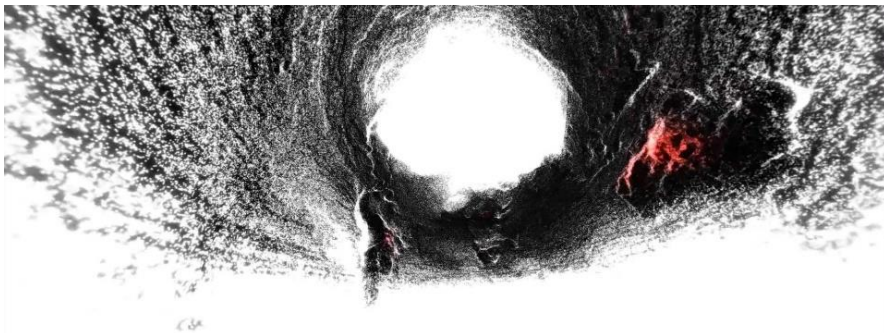
Results 2. Communicating science



Didactic yet successful visualisations

Gripping play discussing contemporary science + Ethics

RADIO ANKENST



Effective metaphors (climate becoming hostile)

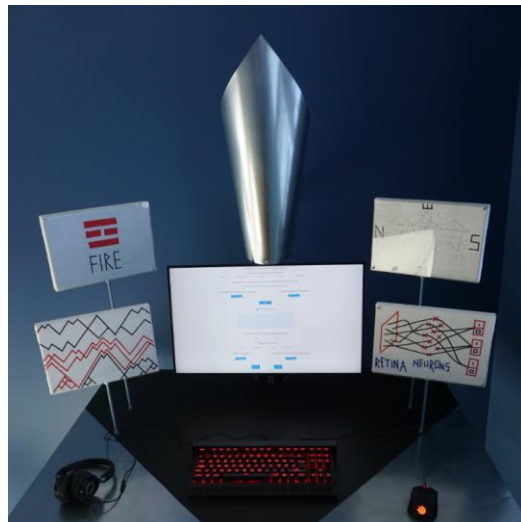
Results 3. Reflecting on our science in a societal context



Original & effective narratives

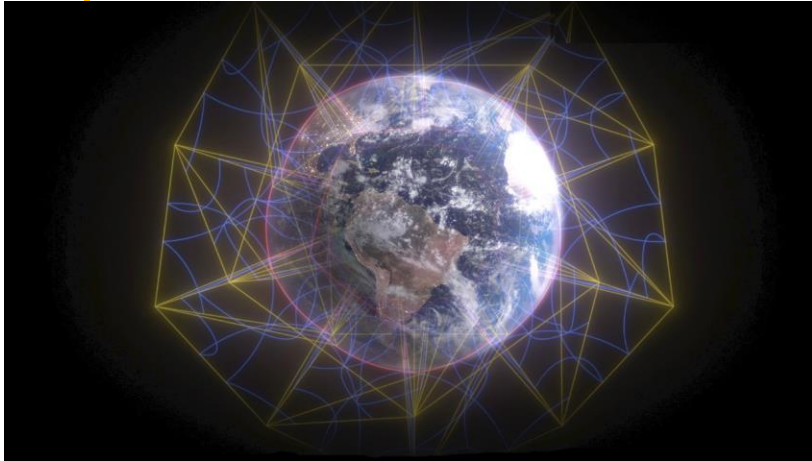


Confronting societal prejudices



Playful demonstration of AI functioning

Results 4 *Democracy of Disciplines* (flat, cross-silo...)



Institutional collaboration (LHRS Stuttgart)

Create community



Happenings as 'Public' or 'Participatory Art'



Je navigue, depuis trente ans, dans ces eaux. Elles sont à peu près désertes, oubliées, comme interdites.

Deux cultures se juxtaposent, deux groupes, deux collectivités parlent deux familles de langues. Ceux qui furent formés aux sciences dès leur enfance ont coutume d'exclure de leur pensée, de leur vie, de leurs actions communes, ce qui peut ressembler à l'histoire et aux arts, aux œuvres de langues, aux œuvres de temps. Instruits incultes, ils sont formés à oublier les hommes, leurs rapports, leurs douleurs, la mortalité. Ceux qui furent formés aux lettres dès leur enfance sont jetés dans ce qu'on est convenu de nommer les sciences humaines, où ils perdent à jamais le monde : œuvres sans arbre ni mer, sans nuage ni terre, sauf dans les rêves ou les dictionnaires. Cultivés ignorants, ils se consacrent aux chamailleries sans objet, ils n'ont jamais connu que des enjeux, des fétiches ou des marchandises. Je crains que ces deux groupes ne se livrent combat que pour des possessions depuis longtemps raflées par un troisième, parasite, ignorant et inculte à la fois, qui les ordonne et qui les administre, qui jouit de leur division et qui la nourrit!

PASSAGE DU NORD-OUEST

I have been sailing these waters for thirty years. They are almost deserted, forgotten, as if forbidden.

Two cultures are juxtaposed, two groups, two communities speak two different languages. Those who were trained in science from their youth are accustomed to exclude from their thought, from their life, from their common actions what may resemble history and the arts, works of language, works of time. Uncultivated men of learning, they are trained to forget men, their relationships, their sorrows, their mortality. Those who were trained in literature from their youth are thrown into what we agreed to call the human sciences, where they lose the world forever: works without trees or sea, without cloud or earth, except in dreams or dictionaries. Cultivated ignoramuses, they devote themselves to the squabbles without object, they have never known but stakes, fetishes or merchandise. I am afraid that these two groups are fighting for possessions long since swept away by a third, a parasite, ignorant and uncultivated at the same time, who gives them orders and who administers them, who enjoys their division and nourishes it!

Michel Serres, Hermes V - Le passage du nord-ouest, Paris, 1980, p. 17 (own translation)



Thank you!

Elle Marja Eira, "Ealat", film, 2021
Ealat (or Good pasture) is a story about living and surviving in Sámi reindeer husbandry in strange time.
Screened at the JRC SciArt Summer School (Ispra, IT) on the topic of "NaturArchy: Towards a Natural Contract"

NaturArchy @

NaturArchy exhibition opens on **24 May 2024** at

iMAL, Arts Centre for Digital Cultures and Technologies,

Rue des charbonnages 31 1080 Bruxelles

Caterina Benincasa, curator:

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<https://science-art-society.ec.europa.eu>



Claus Lam Yong Schöning, *Politics in Disguise*, Resonances IV NaturArchy project, 2023

Resonances and Other Works



Silicon Synapse – AJ Burns w/ Th Benoist, V. Charisi, N Dewandre ea – R III, 2019



Rebecca Ballestra, *Conversation on Time*, 2019 – in collaboration with Nikolaos Stilianakis, (JRC)



Gata (Gate) – I Ogenstedt, Denmark, 2019



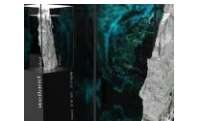
Breathe - Siobhan MacDonald, vulcano eruption projected on customised prism, R III, 2019



Dominika Sobolewska, *RGB*, 2012



 M Wainer & S Nester, *Synocene*, in production, R IV, 2024



I Hofmayr-Hufnagl, *Specter(al)s of Nature*, in production, R IV, 2024



Oscillum – M Pizzolante w/ P Beck – R II, 2017

Resonances and Other Works ctd



horaica – A Honda w/ D Rembges & D Valsesia – R III, 2019



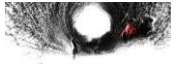
DataWe – A Väljamäe & A Mokhded w/ D Mair, B Delipetrev & M Craglia – R III, 2019



The Water We Eat – D Vanham & L Feyen – R II, 2017



Radio Frankenstein – Marcus Zohner & Company w/ N Dewandre & P Rosa – R II, 2017



Resonances Space(s) – A Peterhänsel w/ D Tirelli, J Thielen-Del Pozo & A Petroliagkis, R III, 2019



The Grand Social & Scientific Experiment – L Montanini w/ D Ghio – R II, 2017



Portrait of the AI as Oracle – P Wiersbinski w/ B Delipetrev – R III, 2019



Gaia 5.0 – R Quehenberger w/ R van Dingenen, M Petroliagkis ea – R III, 2019



Weather Prediction by Numerical Process – L Autogena & J Portway w/ M Petroliagkis, J Thielen-Del Pozo ea. – R III, 2019



Politics in Disguise – Claus Lam Yong Schöning, in production – R IV, 2024