Engendering eco-connectedness in design practice through diffractive engagement in place.

Clyde Doyle PhD

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Institute of Art, Design + Technology Dún Laoghaire

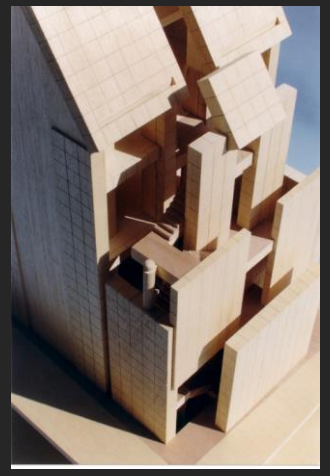
Film EU Doctoral Summer Seminar - 2023

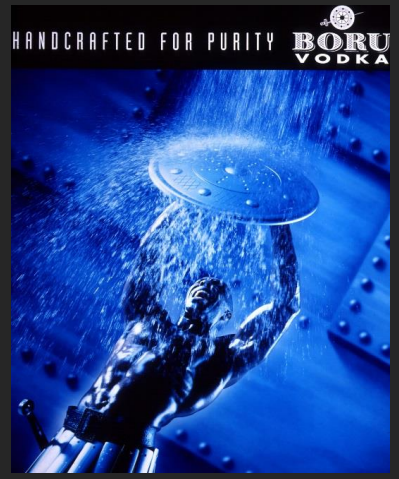
- Introduction
- Rationale
- Theoretical Framework
- Methodology + Design approach
- Sensory Mapping Tool + Tests 2022/23
- Insights
- Timeline/Next Steps

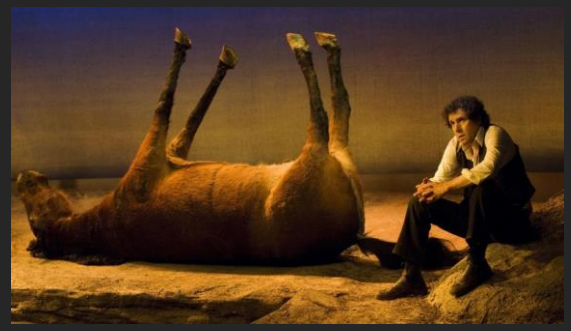
Public Design Lab.

Institute of Art, Design + Technology Dún Laoghaire

MA Design for Change

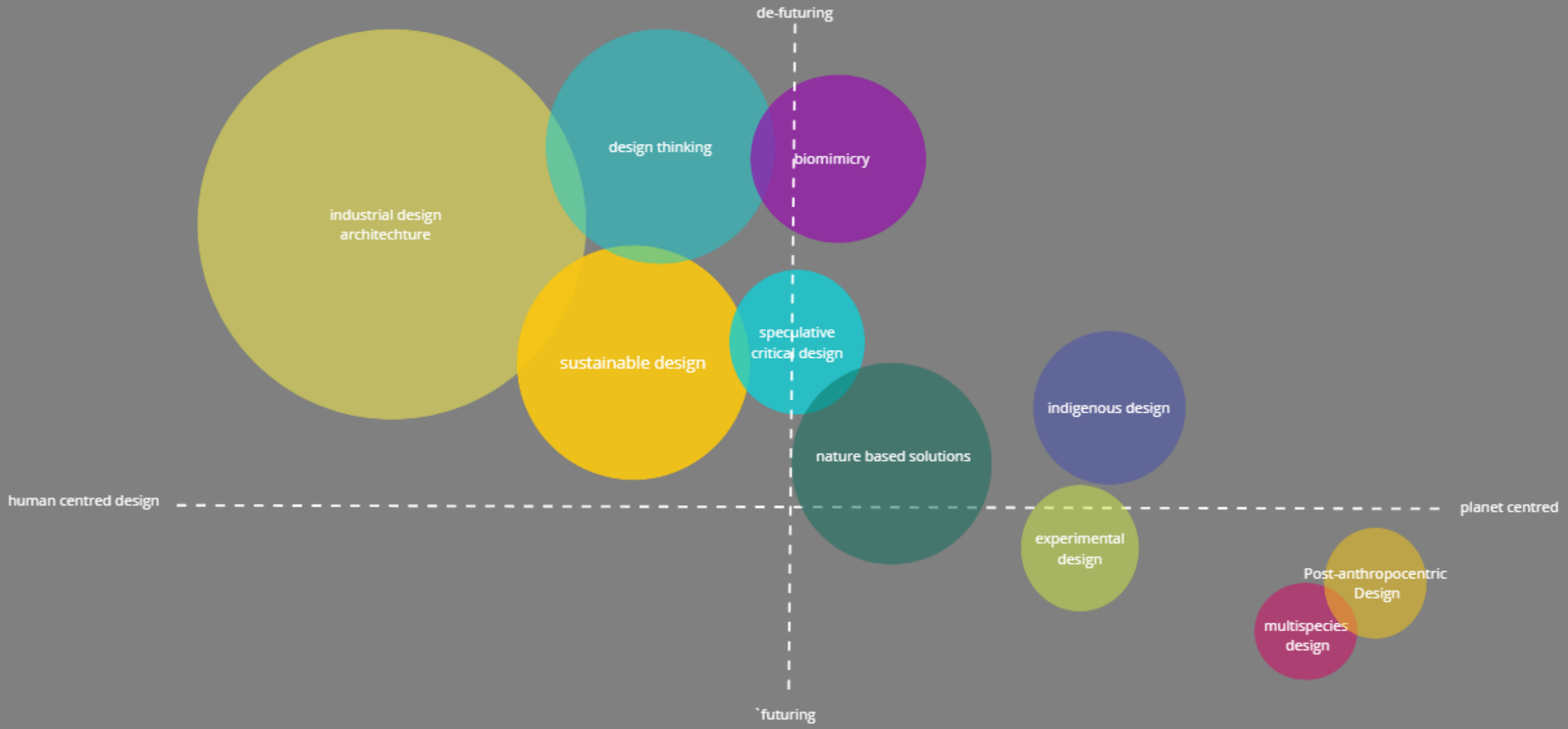



HANDCRAFTED FOR PURITY
BORU
VODKA



WHAT AM I DOING?

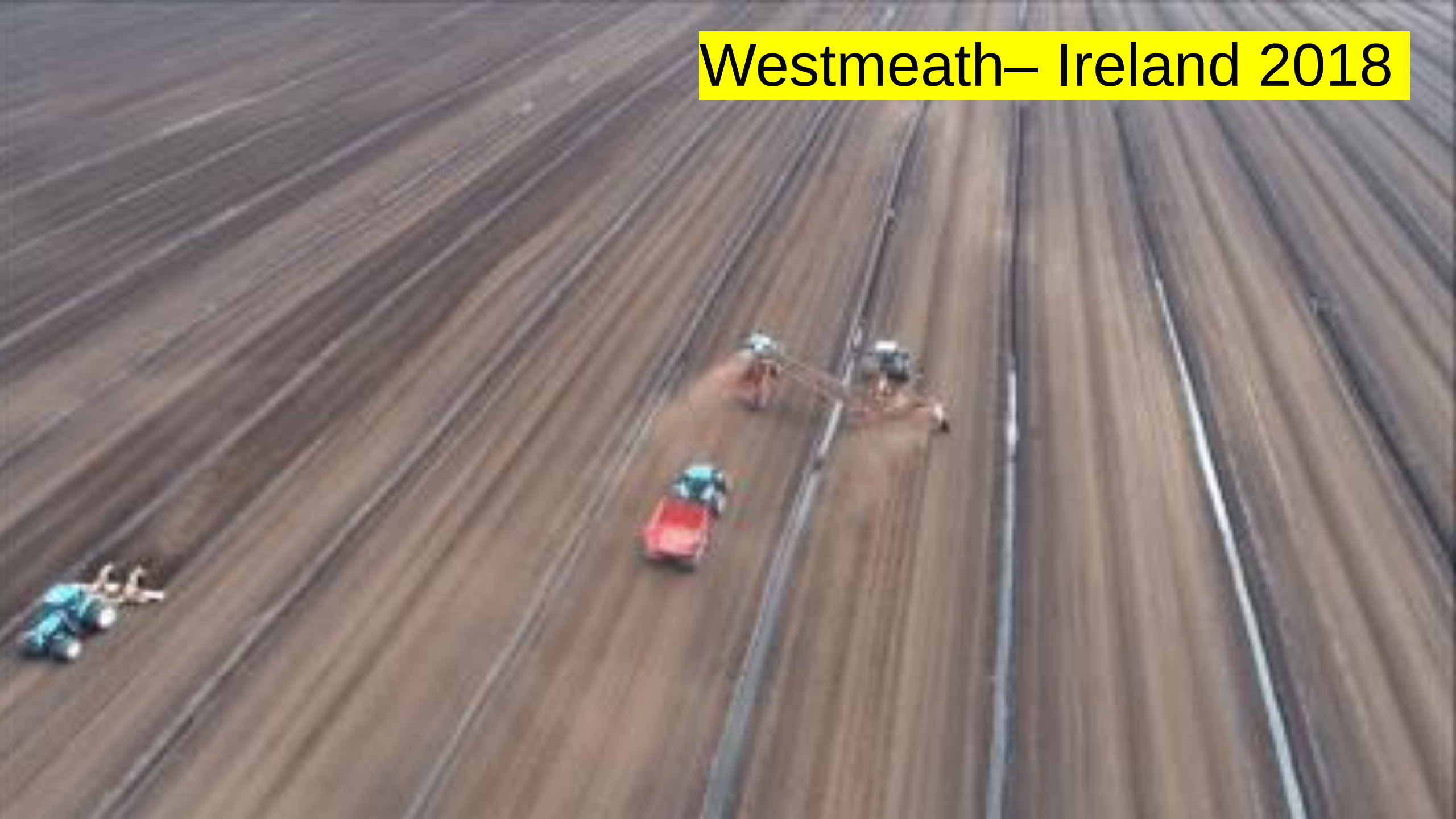
- Design PhD
- **NCAD**
- Part-time
- Research through practice
- Year 4 of 5 (or maybe 6?)
- Ecological Design - Post-anthropocentric design



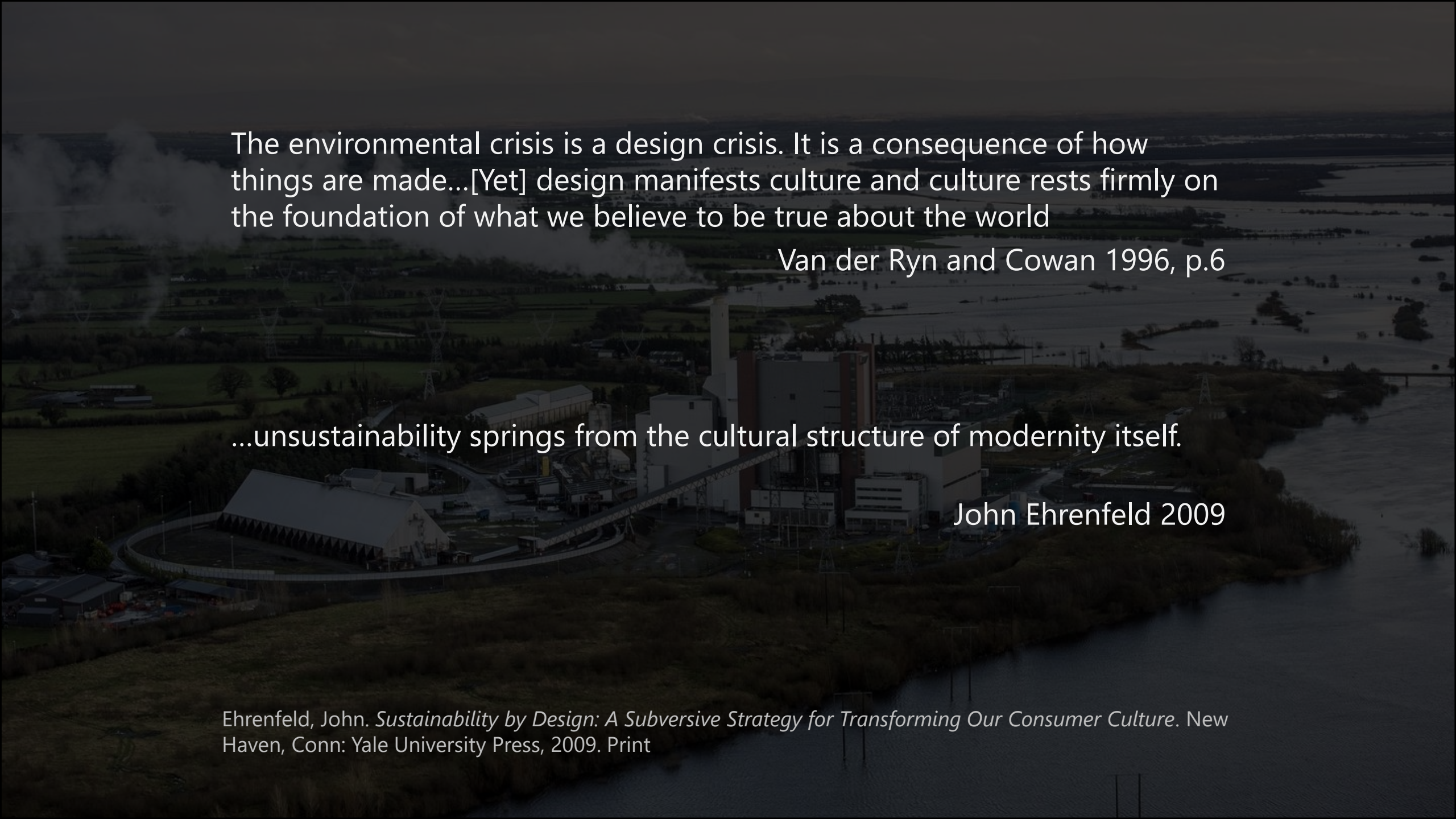
unresolved map of design paradigms - clyde doyle 2022

RATIONALE

Amazon forest 2019
Nova Bandeirantes · August 19, 2019 · 11:47 AM
planet.


Westmeath– Ireland 2018

Offaly, Ireland 2023



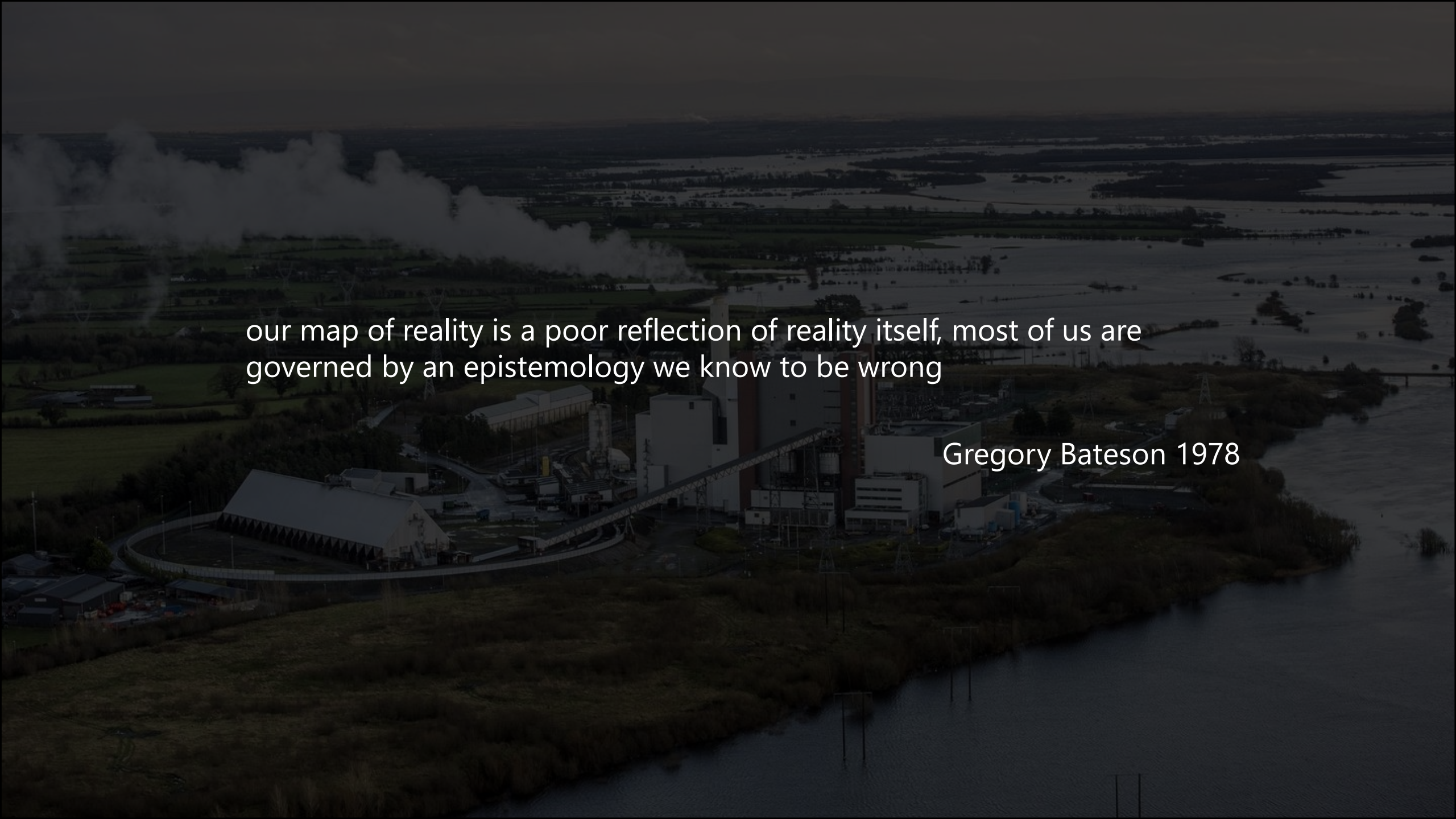
The environmental crisis is a design crisis. It is a consequence of how things are made…[Yet] design manifests culture and culture rests firmly on the foundation of what we believe to be true about the world

Van der Ryn and Cowan 1996, p.6

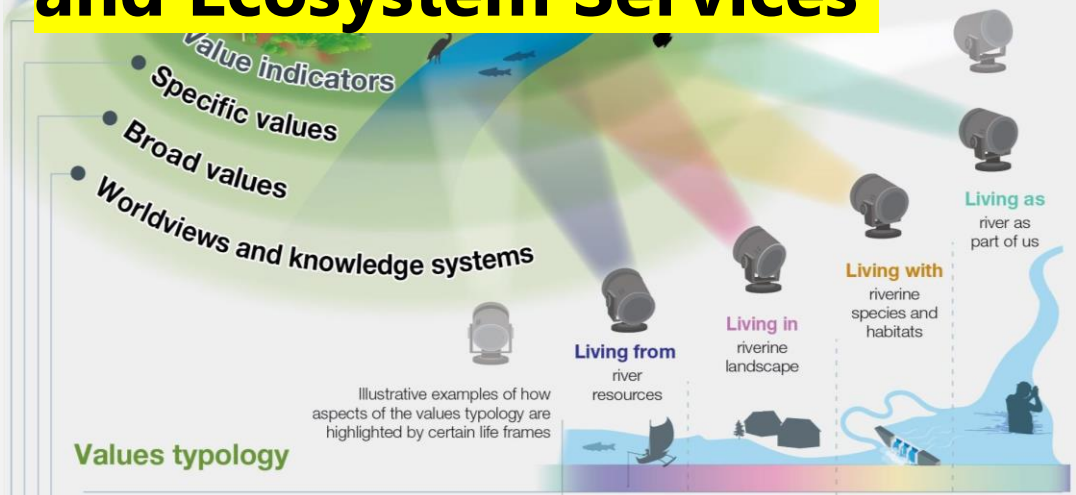
…unsustainability springs from the cultural structure of modernity itself.

John Ehrenfeld 2009

Ehrenfeld, John. *Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture*. New Haven, Conn: Yale University Press, 2009. Print


our map of reality is a poor reflection of reality itself, most of us are governed by an epistemology we know to be wrong
Gregory Bateson 1978

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services



Values typology

Worldviews	**Ways through which people conceive and interact with the world**	Anthropocentric	Anthropocentric	Bio/ecocentric	Pluricentric Cosmocentric
Knowledge systems	**Bodies of knowledge, practices and beliefs** Academic, indigenous, local				
Broad values	**Guiding principles and life goals**	Prosperity, Livelihood	Belonging, Health	Stewardship, Responsibility	Oneness, Harmony with nature
Specific values	**Judgements regarding the importance of nature in particular situations**				
	Instrumental: means to an end, nature as a resource/asset, satisfaction of needs and preferences, usefulness for people	Commercial fishery stock	Health benefits of recreation on the river	River as fish habitat	
	Intrinsic: agency of other-than-humans, inherent worth of biodiversity as ends in-and-of themselves		Intrinsic value of heritage fish	The right of fish to exist	Fish as co-inhabitants
	Relational: importance of desirable, meaningful, and often reciprocal human relationships	Cultural meanings of fishing	Sense of place of a fishing community	Respect for fish life cycles	Fish as part of kinship or clan relationships
Value indicators	**Quantitative measures and qualitative descriptors**				
	Biophysical	Tonnes of fish	Physiological effects of being in nature	Number of fish species	Nutrition of fish
	Monetary	Market price of fish harvest	Willingness to pay for recreation	Existence value	
	Socio-cultural	Gender-specific participation in fishing	Ratings of special places	Legal standing of biodiversity	References to personhood of fish

ADVANCE UNEDITED VERSION

Summary for policymakers of the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (assessment of the diverse values and valuation of nature)

-ADVANCE UNEDITED VERSION-

8 July 2022

Authors[1]

Unai Pascual (Spain/Switzerland), Patricia Balvanera (Mexico), Michael Christie (United Kingdom of Great Britain and Northern Ireland), Brigitte Baptiste (Colombia), David González-Jiménez (IPBES), Christopher B. Anderson (Argentina, United States of America/Argentina), Simone Athayde (Brazil/United States of America), David N. Barton (Norway), Rebecca Chaplin-Kramer (United States of America), Sander Jacobs (Belgium), Eszter Kelemen (Hungary), Ritesh Kumar (India/Wetlands International), Elena Lazos (Mexico), Adrian Martin (United Kingdom of Great Britain and Northern Ireland), Tuyeni H. Mwampamba (Tanzania/Mexico), Barbara Nakangu (Uganda), Patrick O'Farrell (South Africa), Christopher M. Raymond (Australia, The Netherlands/Sweden, Finland), Suneetha M. Subramanian (India/UNU-IAS), Mette Termansen (Denmark), Meine van Noordwijk (The Netherlands/Indonesia), Arild Vatn (Norway).

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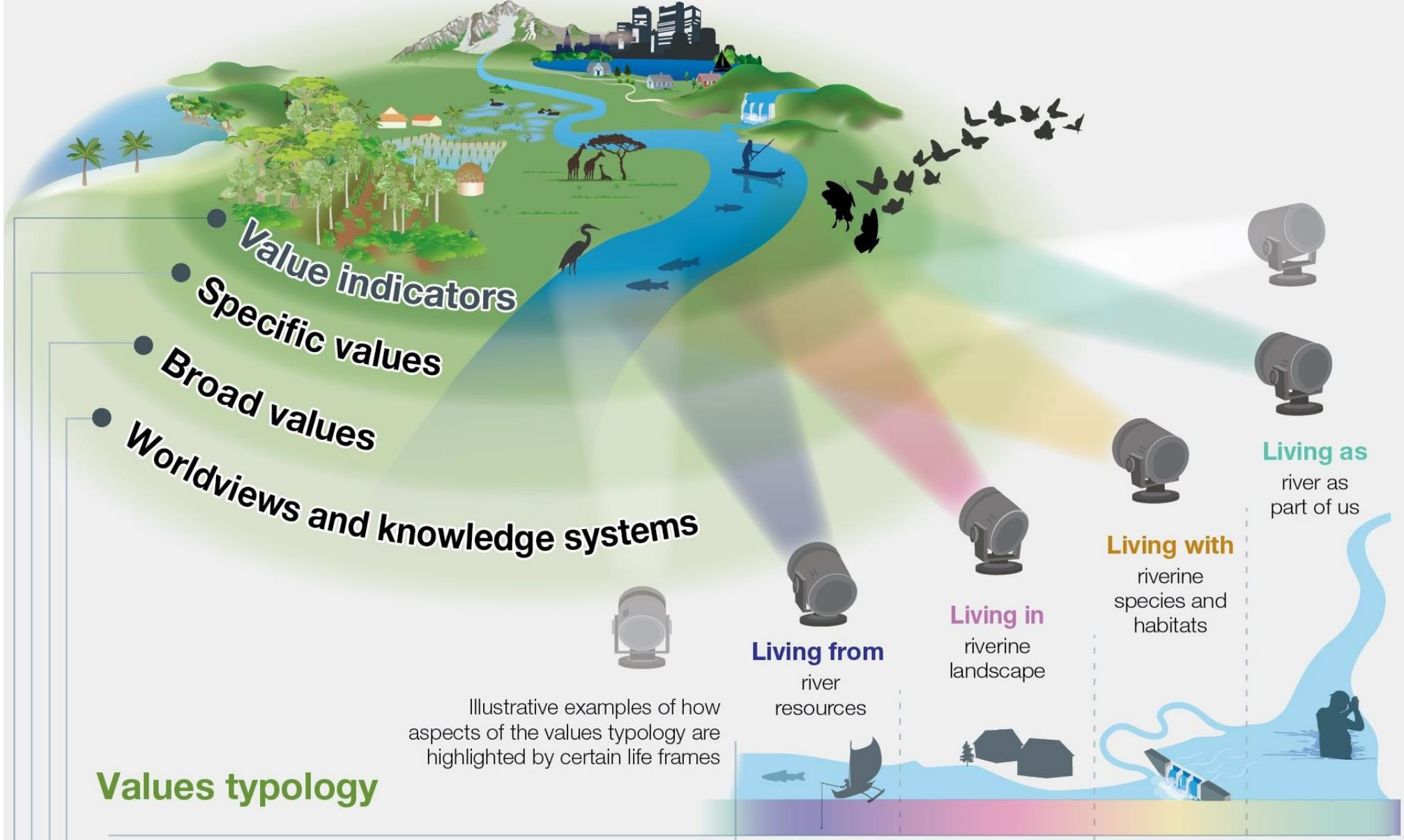
Disclaimer

The designations employed and the presentation of material on the maps used in the present report do not imply the expression of any opinion whatsoever on the part of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. These maps have been prepared for the sole purpose of facilitating the assessment of the broad biogeographical areas.

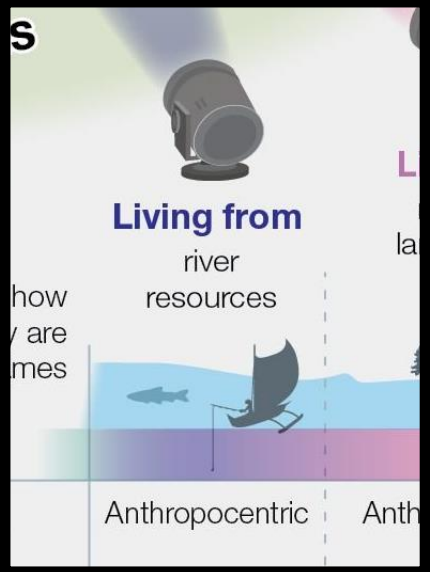


Illustrative examples of how aspects of the values typology are highlighted by certain life frames

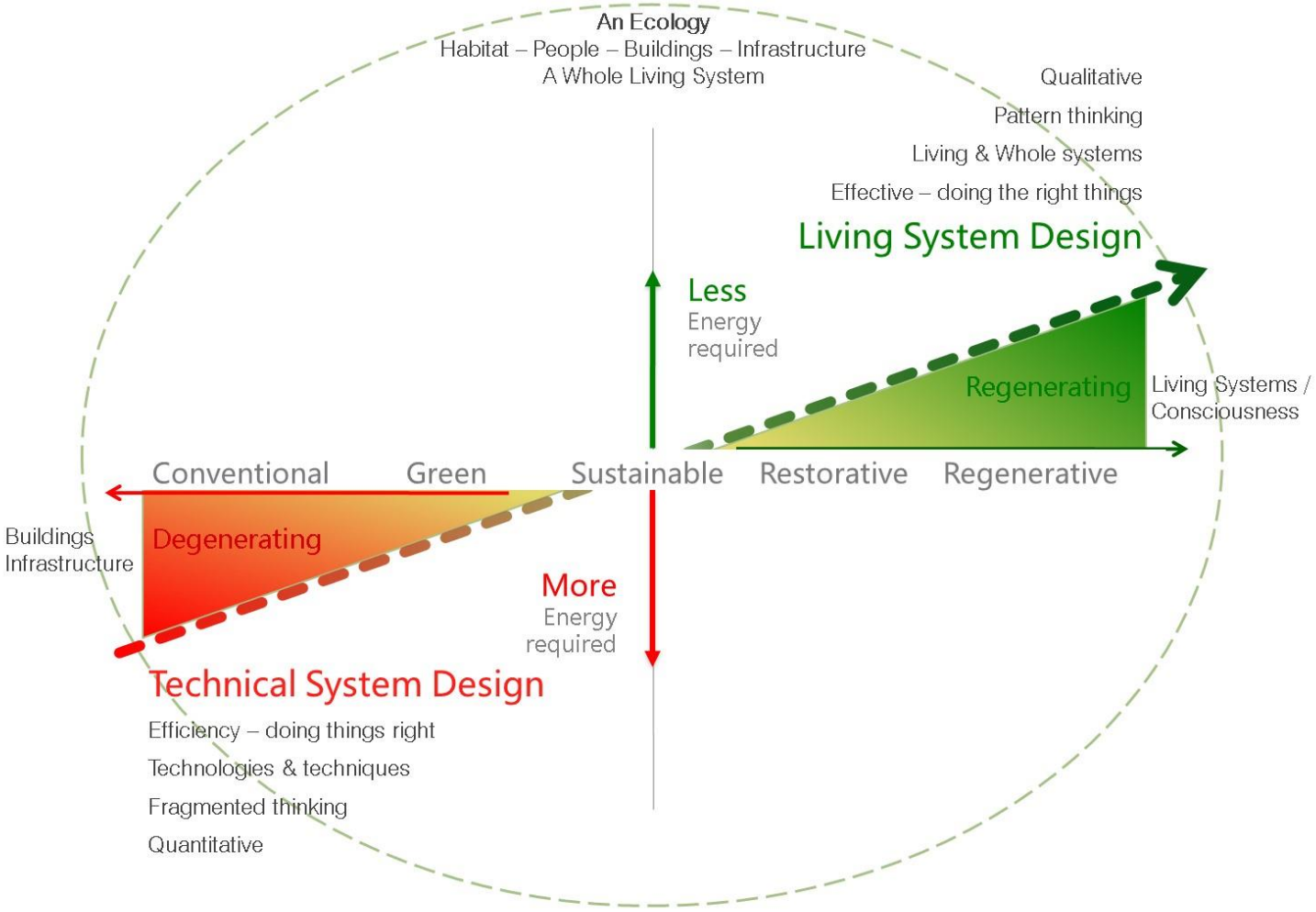
Values typology

Worldviews	**Ways through which people conceive and interact with the world**	Anthropocentric	Anthropocentric	Bio/ecocentric	Pluricentric
Knowledge systems	**Bodies of knowledge, practices and beliefs** Academic, indigenous, local			Cosmocentric	

WE ARE HERE



What Design is Trying to Do…



https://biomimicry.org/learning-nature-designing-nature-regenerative-cultures-create-conditions-conducive-life/

...and why it's not working

Our present anthropocentric desires, expressed in imperialist language, submit our planet to neo colonizing attitudes, anthropocentric values, welfare abuses of non-humans, industrial exploitation and highly impartial interpretations of events.

Having upheld this worldview for the last 300 years, we must now ask how we can repurpose the tools of modernity against the terrors of Progress to make visible the other worlds it has ignored and damaged

Tsing et all, 2017

Hughes, Rolf, and Rachel Armstrong. *The Art of Experiment: Post-pandemic Knowledge Practices for 21st Century Architecture and Design*. , 2021. Print.

Epistemological Error

…a way of knowing that is a legacy of the western philosophical tradition. It determines that we generally do not perceive systemic interconnections and are thereby unable to deal with complexity presented by the converging ecological social and economic crises

Joanna Boehnert (2018, pg 68)

Boehnert, Joanna. Design, Ecology, Politics: Towards the Ecocene. 2018. Bloomsbury, London.

https://edition.cnn.com/style/article/green-buildings-world-sustainable-design/index.html

Epistemological Fallacies

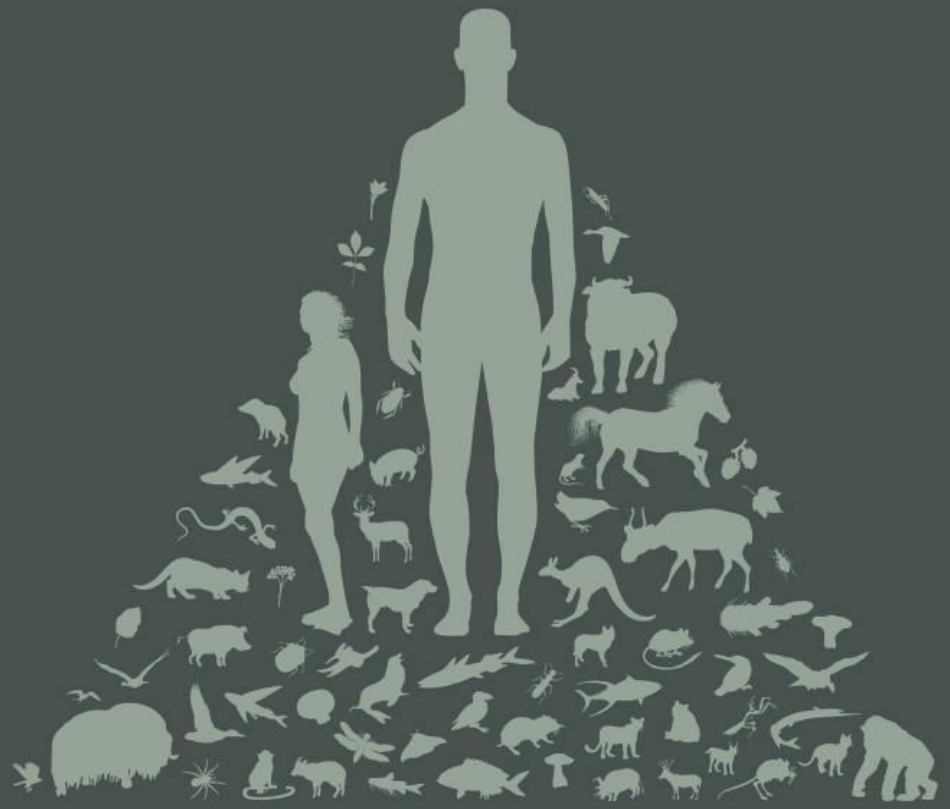
1. That mind and nature are independent of each other
2. That humans are separate from the rest of the natural world
3. That this separation creates a natural and necessary competition
4. That humans must strive to dominate each other and non-human nature
5. That instrumental approaches to knowledge can describe an objective truth, and
6. That the nonhuman natural world has no agency of its own

Boehnert, Joanna. Design, Ecology, Politics: Towards the Ecocene. 2018. Bloomsbury, London.

(the ecological crisis') …are just different facets of one single crisis, which is largely a crisis of perception

David Orr 2004

What do we need?



Anthropocentric

Biocentric
Ecocentric
Lifecentric
Planetcentric

Ecological Epistemologies and Ontologies

Ecological epistemologies are under girthed by the awareness of ecological embeddedness and the subsequent revision of knowledge systems to reflect this awareness.

Ecological ontology refers to our actual constitutive embeddedness within and as part of larger ecological systems.

Ethico-onto-epistem-ology

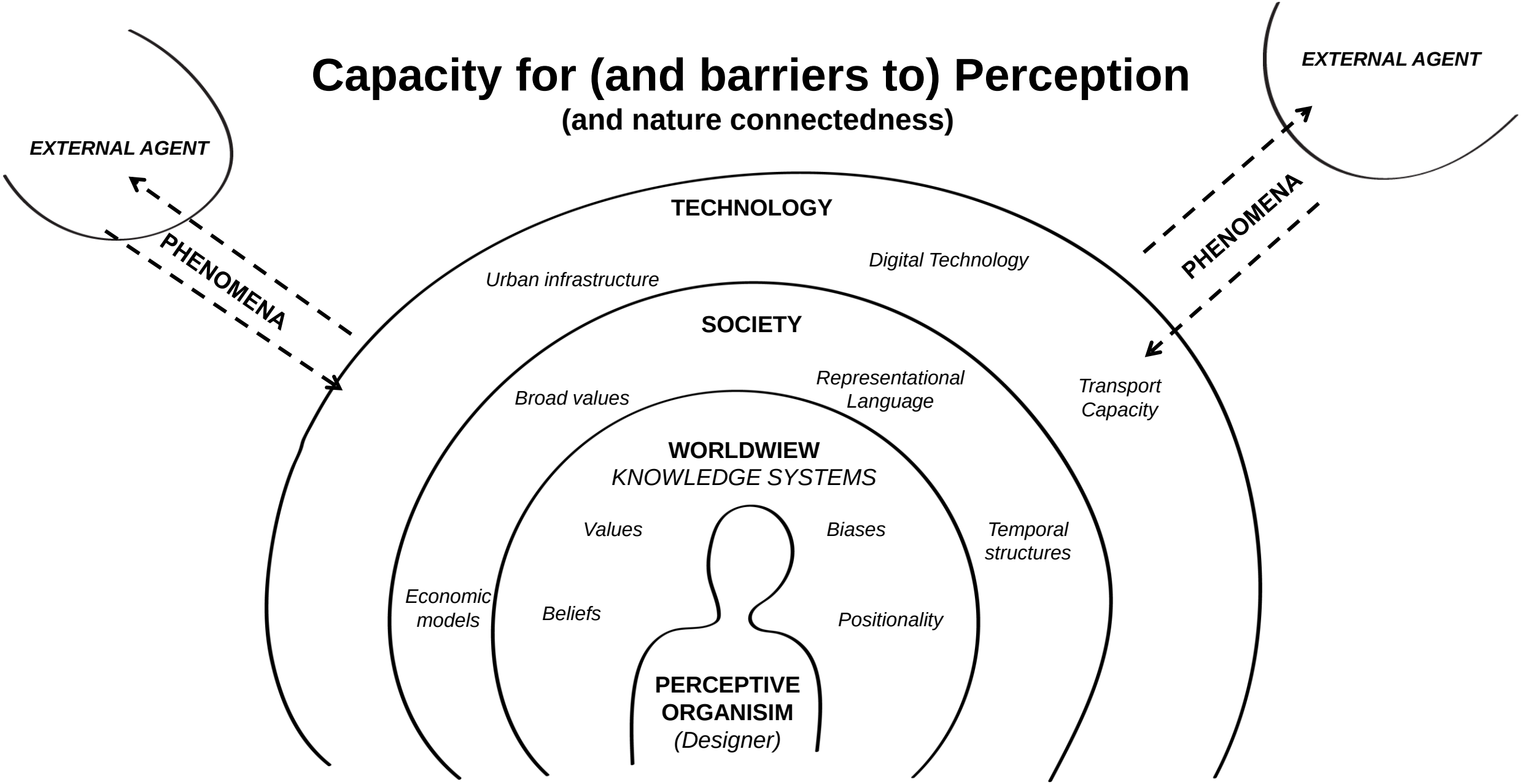
knowing is a material practice of engagement as part of the world in it's differential becoming

Boehnert, Joanna. Design, Ecology, Politics: Towards the Ecocene. 2018. Bloomsbury, London.

Barad, Karen. *Meeting the Universe Halfway : Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, 2007

Capacity for (and barriers to) Perception

(and nature connectedness)



Clyde Doyle 2023

…a new tool set of knowledge instruments that enable people to make the world livable again through negotiated partnerships with non-human agents

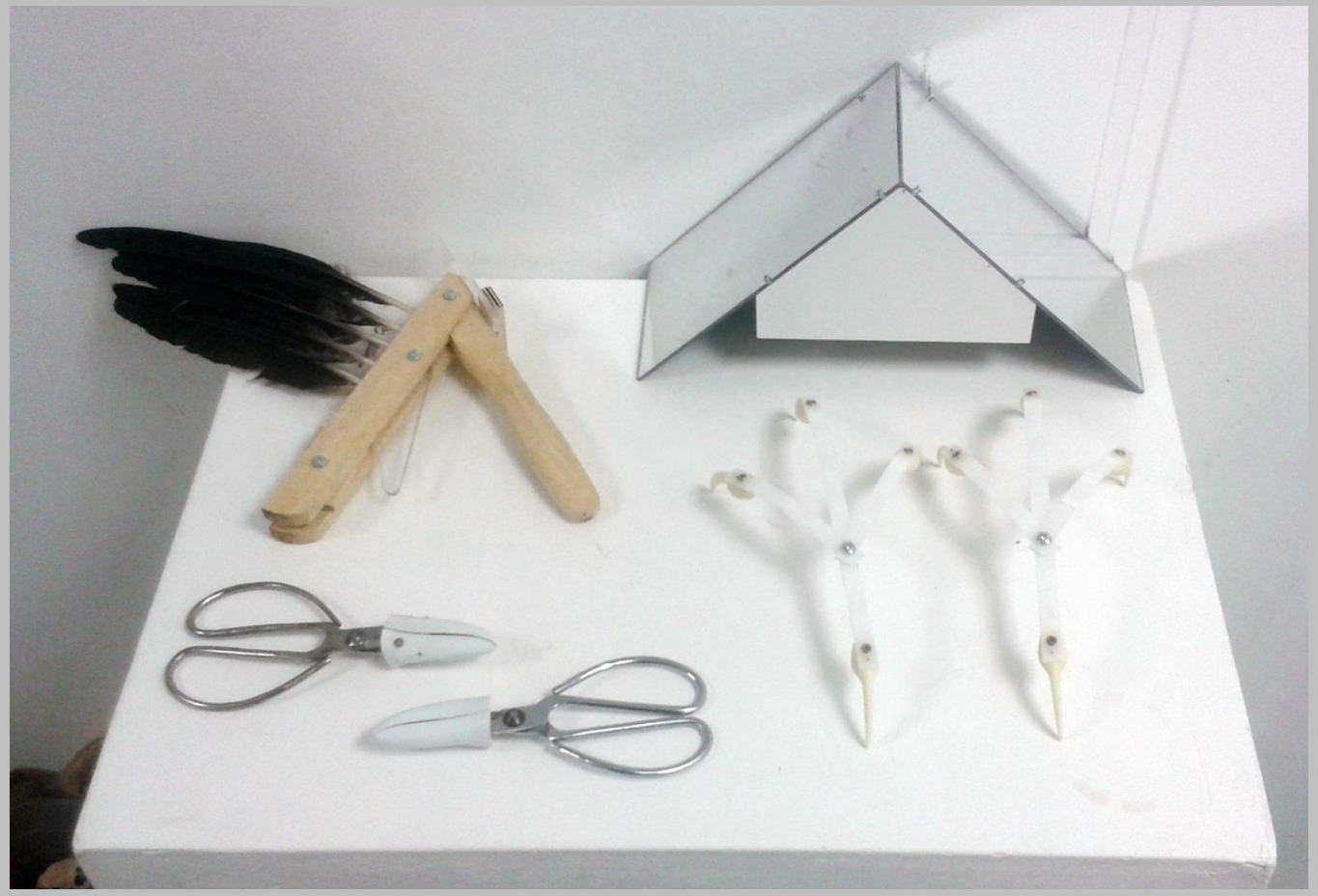
Huges and Armstrong

…to create the conditions for new thoughts

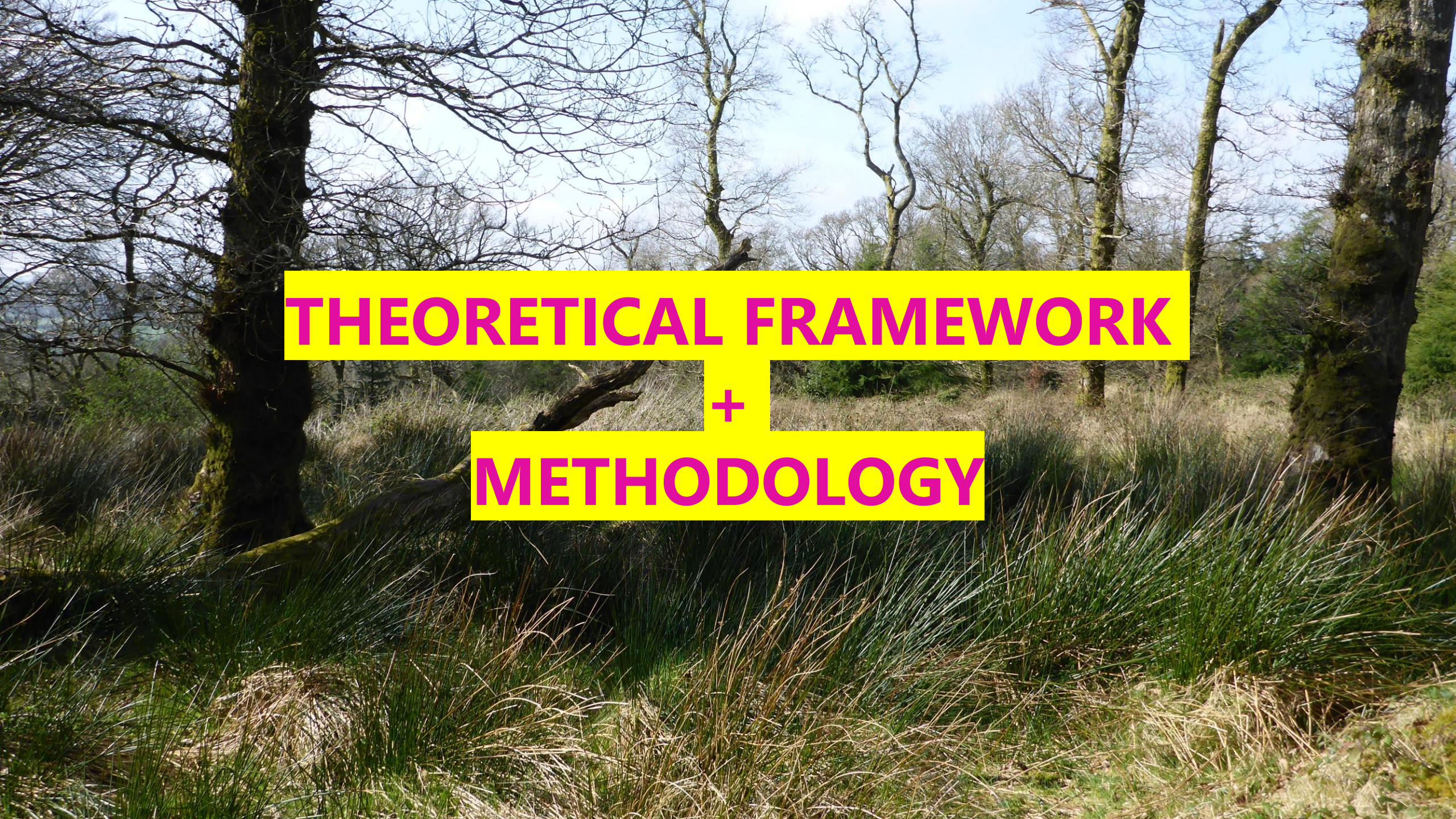
Marilyn Strathern

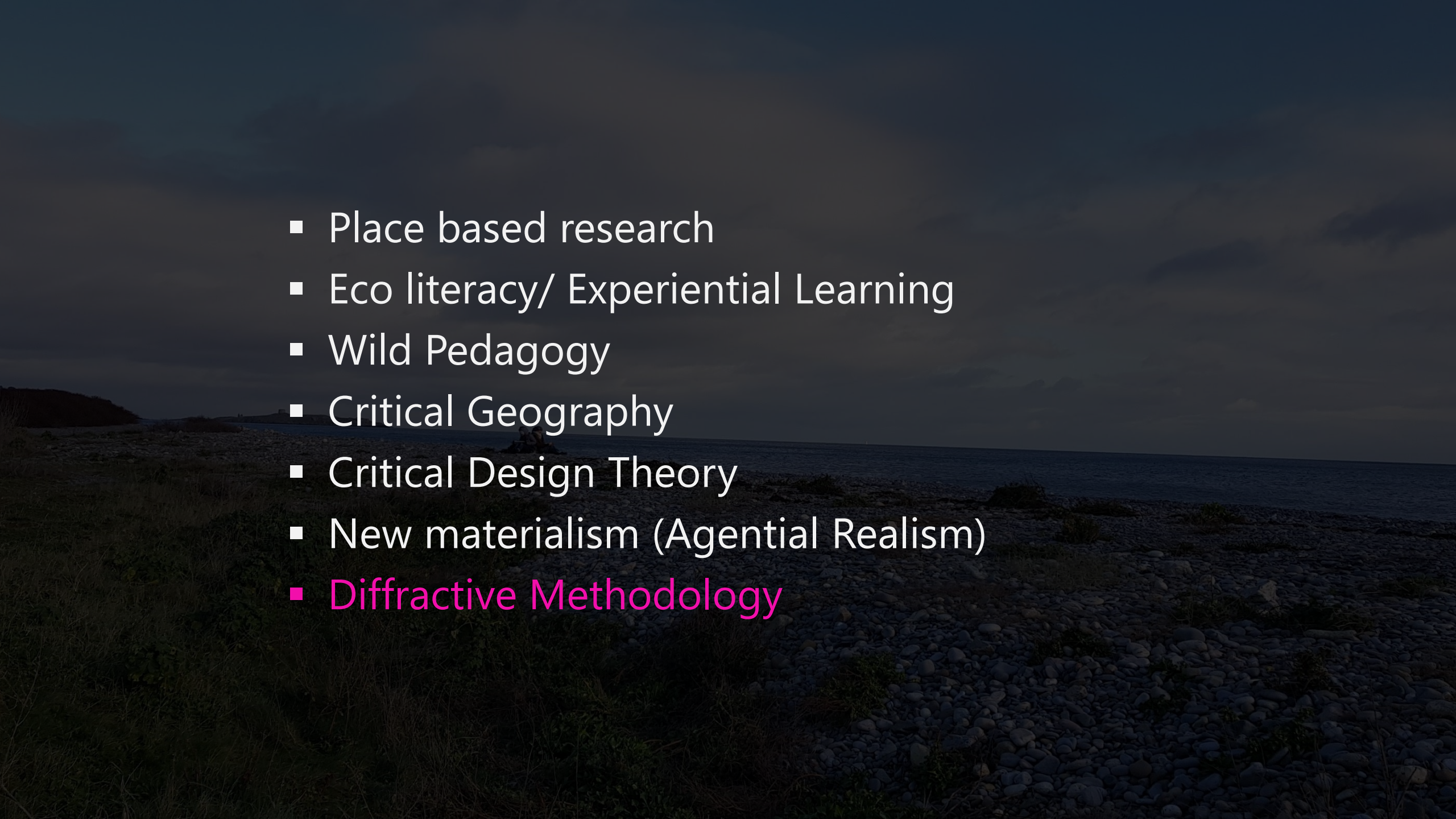
Hughes, Rolf, and Rachel Armstrong. *The Art of Experiment: Post-pandemic Knowledge Practices for 21st Century Architecture and Design.* , 2021. Print.

Kohn, Eduardo. *How Forests Think: Toward an Anthropology Beyond the Human.* , 2015. Print.



Preceptor Tools - Clyde Doyle - 2015


THEORETICAL FRAMEWORK
+
METHODOLOGY



- Place based research
- Eco literacy/ Experiential Learning
- Wild Pedagogy
- Critical Geography
- Critical Design Theory
- New materialism (Agential Realism)
- Diffractive Methodology

Agential Realism

Reality is composed not of things in-themselves or things-behind-phenomena but of *things-in-phenomena*

...the entanglements of bodies is not an interaction of pre-existing entities but the formation of phenomena and subjectivities, this is the process of intra-action.

Intra-action

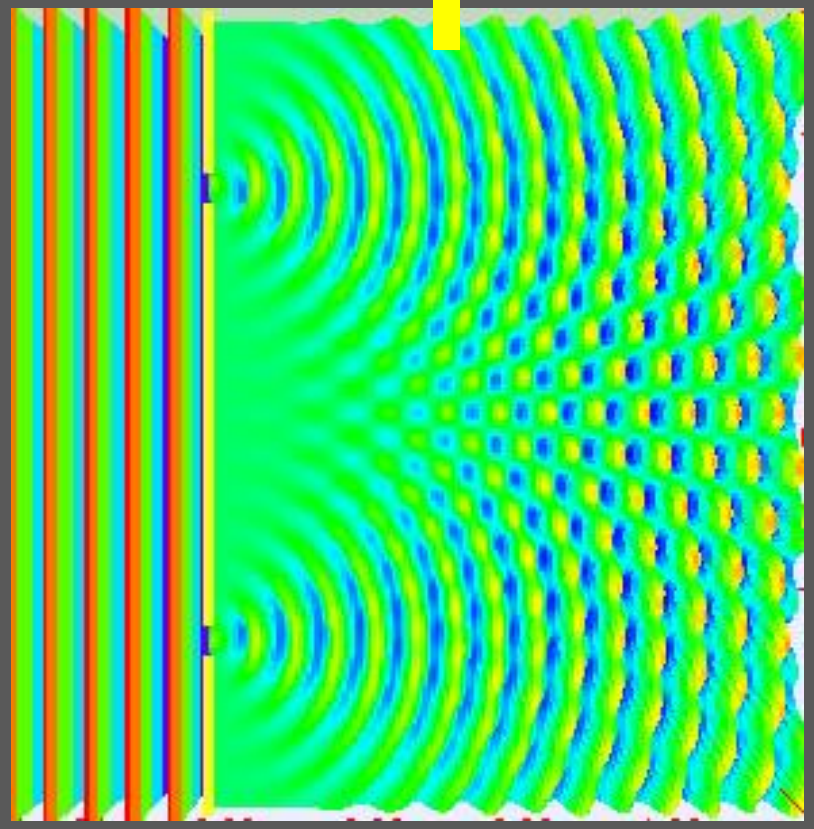
"..."intra-action" signifies the mutual constitution of entangled agencies. That is, in contrast to the usual "interaction," which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action. " (pg.33)

Barad, Karen. Meeting the University Halfway: Quantum Physics and the Entanglement of Matter and Meaning. Durham: Duke University Press, 2007. Print.

Diffraction is a mapping of interference, not of replication, reflection, or reproduction.

Barad, Karen. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs*, vol. 28, no. 3, 2003, pp. 801–31, https://doi.org/10.1086/345321. Accessed 8 May 2022.

Diffraction



Double slit experiment

Diffractive Methodology

"Crucially, agency is a matter of intra-acting; it is an enactment, not something that someone or something has. Agency is doing/being in its intra-activity."

Intra-action understands agency as not an inherent property of an individual or human to be exercised, but as a dynamism of forces in which all designated 'things' are constantly exchanging and diffracting, influencing, and working inseparably.

Barad, Karen. *Meeting the Universe Halfway : Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, 2007

Diffractive Methodology

Diffraction	Reflection
differences emerge within phenomena agential separability real material differences but without absolute separation	**inside/ outside** absolute separation no difference interior/exterior
diffraction/difference pattern intra-acting entangled states of nature cultures	**words mirror things** social / natural binary nature / culture binary
about making a difference in the world about taking responsibility for the fact that our practices matter; the world is materialized differently through different practices (contingent ontology)	**about representations** about finding accurate representations about the gaze from afar

Barad, Karen. *Meeting the Universe Halfway : Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, 2007

Barad on Language

Language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn: it seems that at every turn lately every "thing"—even materiality— is turned into a matter of language or some other form of cultural representation.

A performative understanding of discursive practices challenges the representationalist belief in the power of words to represent pre-existing things.

Barad, Karen. *Meeting the Universe Halfway : Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, 2007

THIS INFORMS MY ***DESIGN STANCE***

PERFORMATIVE (*non-representational*)

NON-VERBAL

RELATIONAL

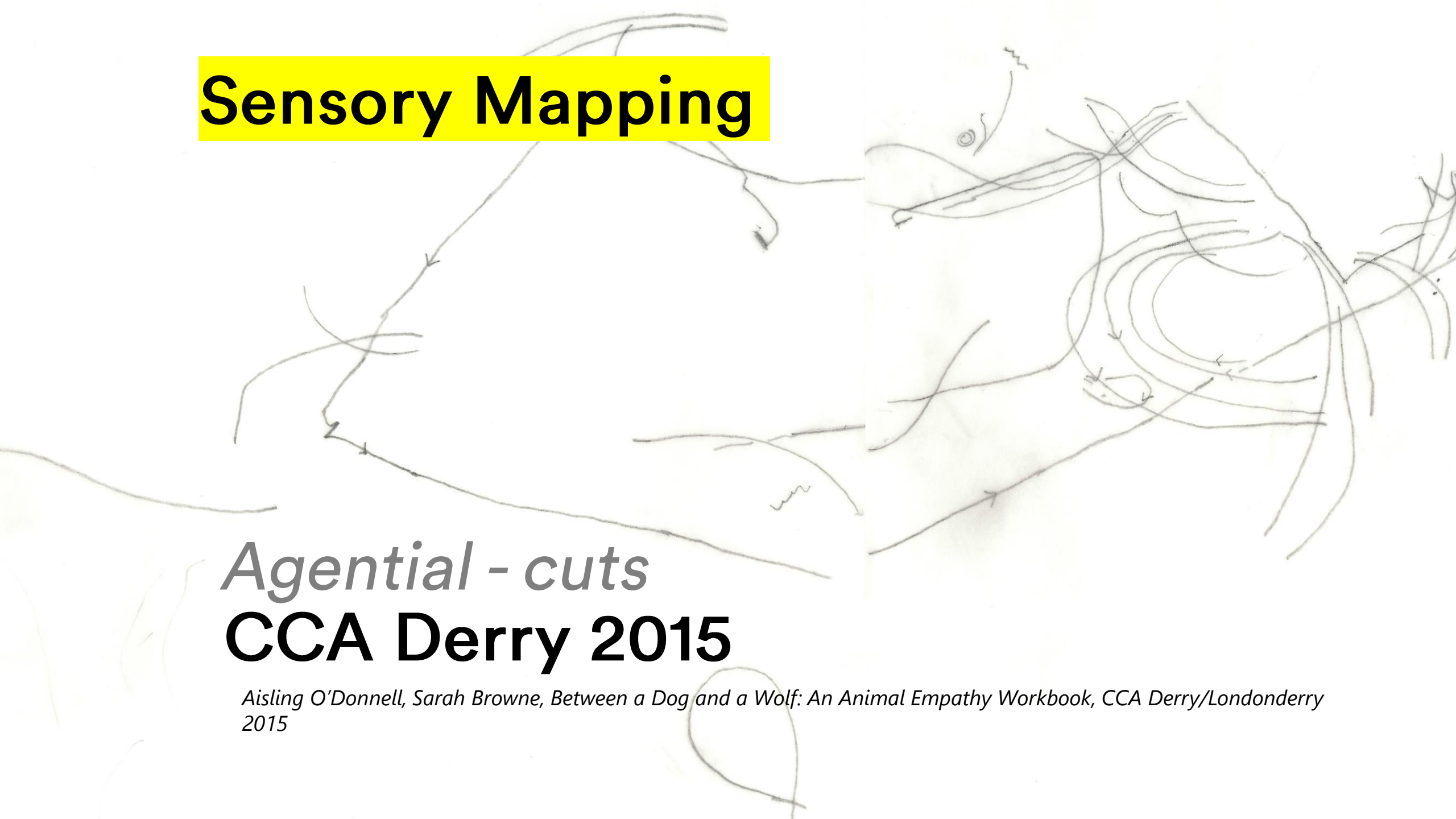
EMBODIED

BIOREGIONAL

ETHIC-ONTO-EPISTEM-LOGICAL

Workshops 2022

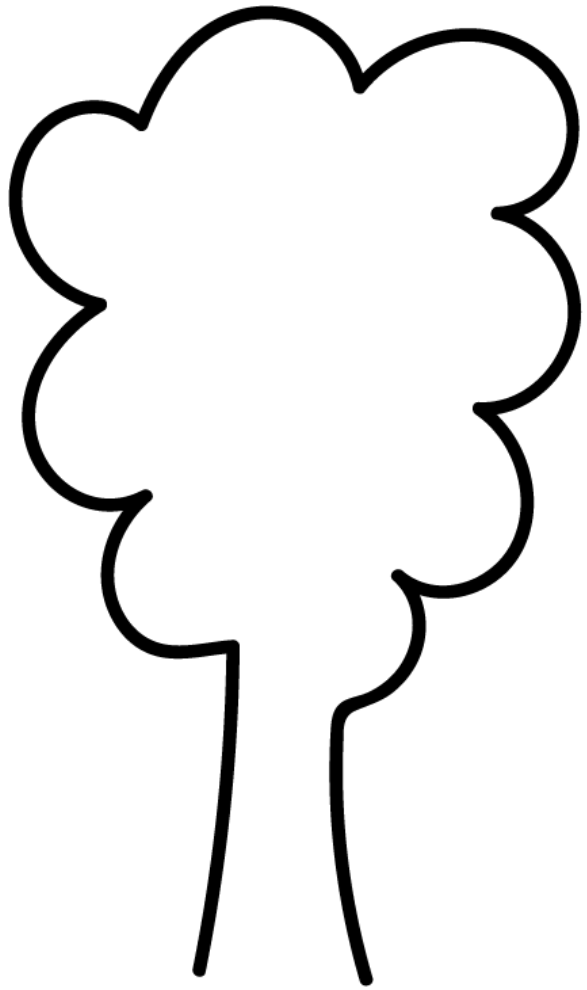
Sensory Mapping

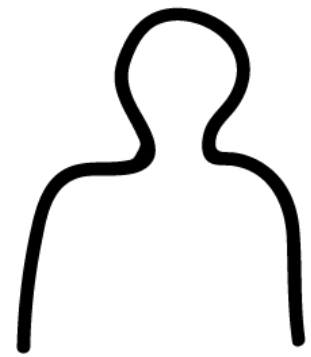


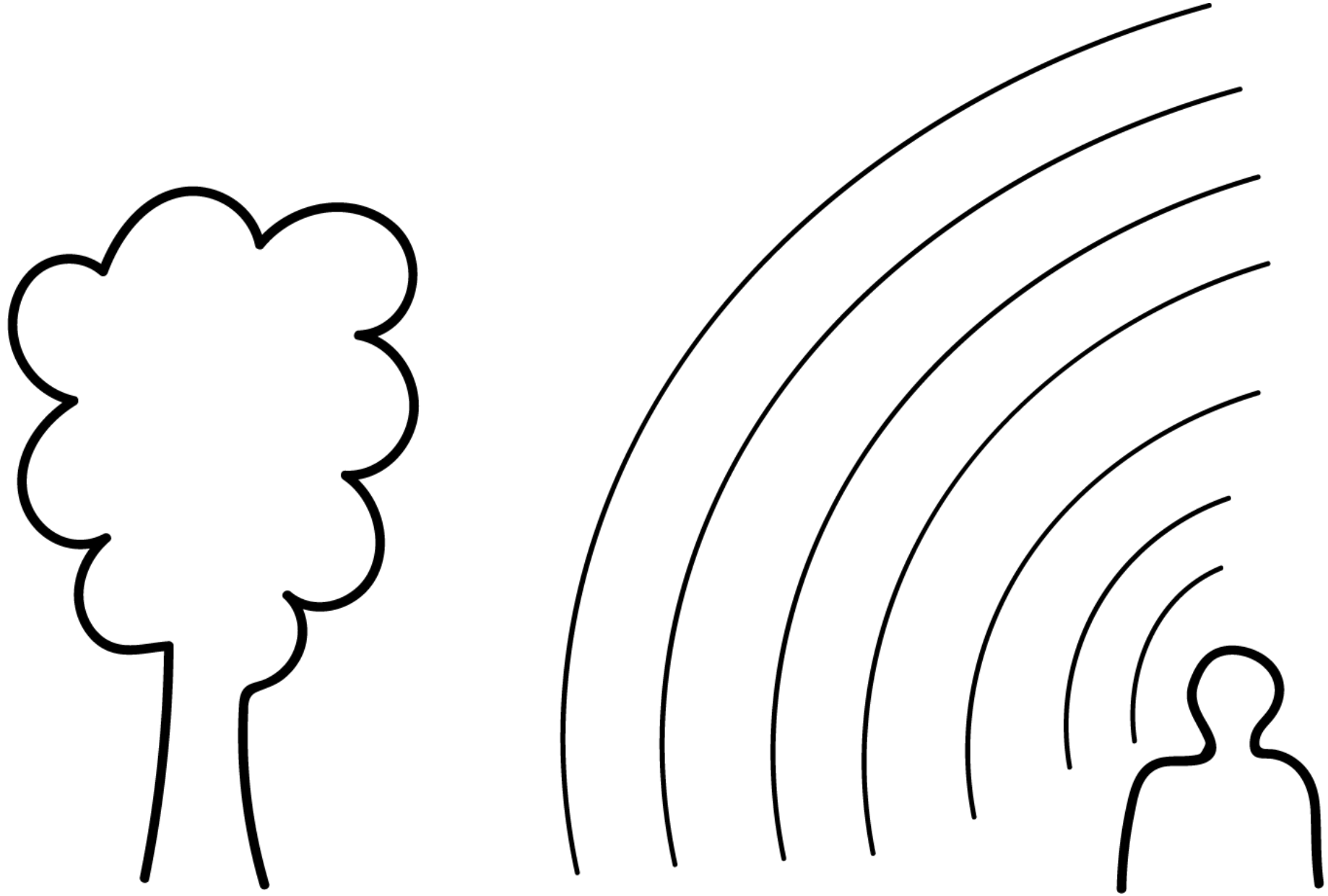
Agential - cuts

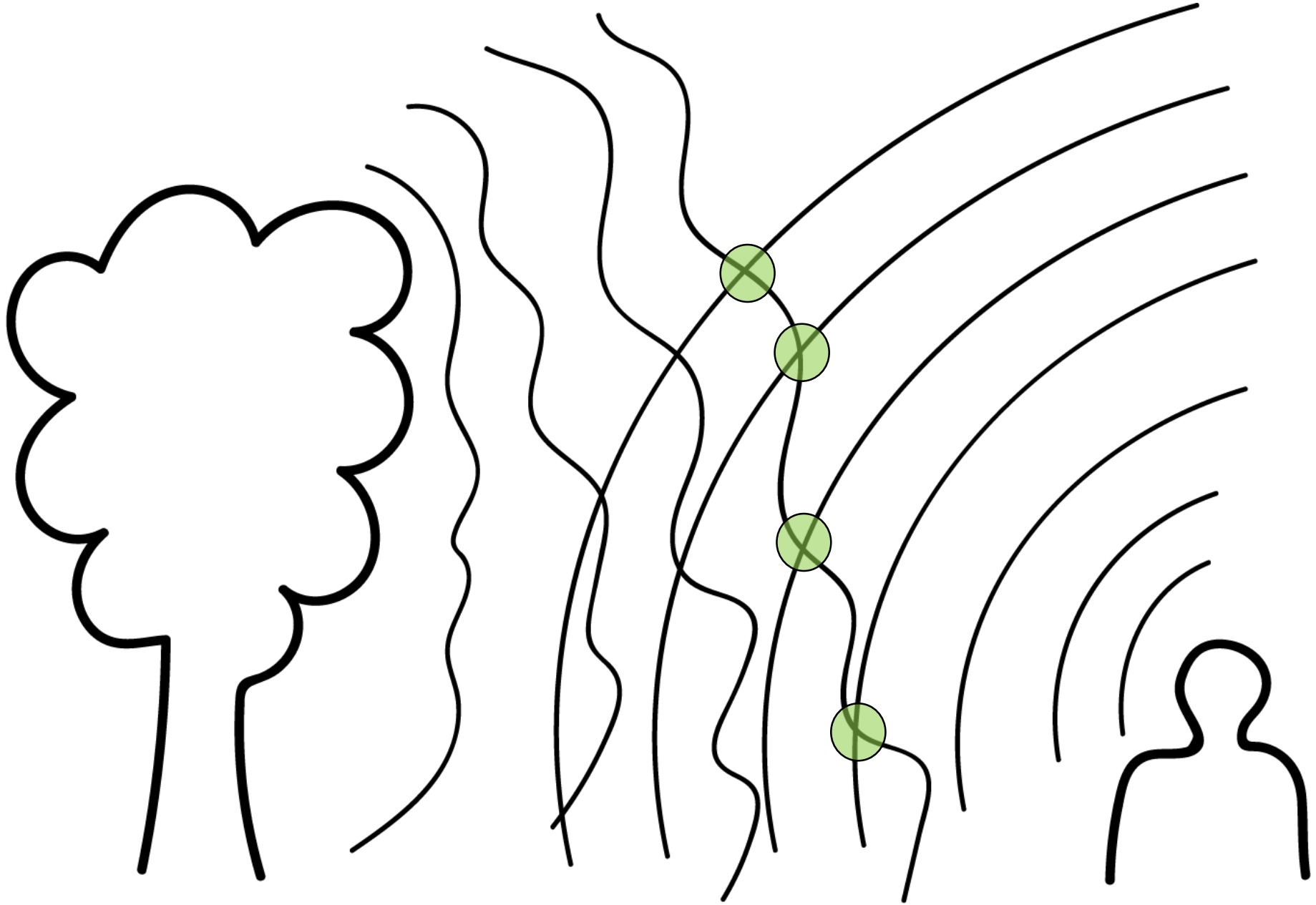
CCA Derry 2015

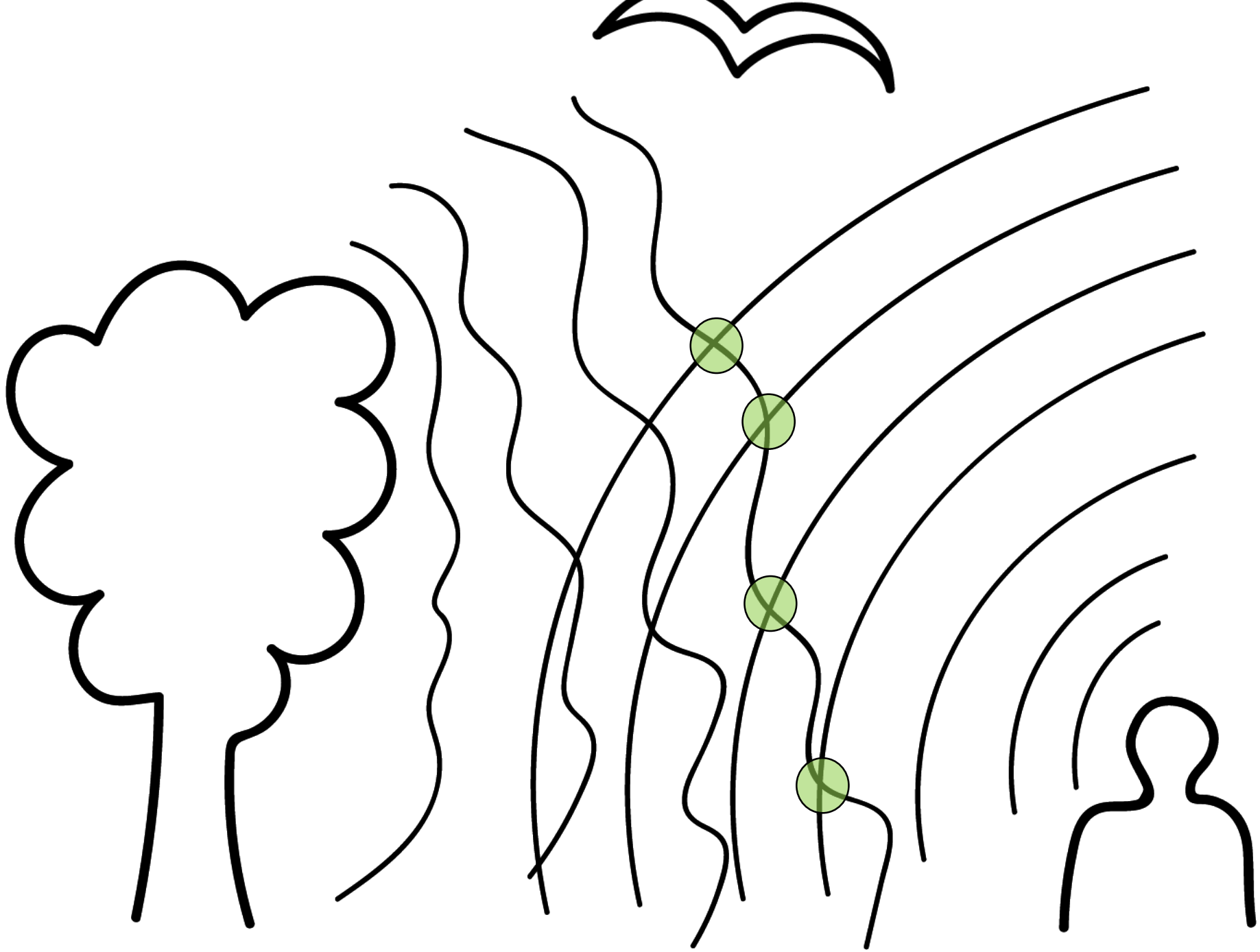
Aisling O'Donnell, Sarah Browne, Between a Dog and a Wolf: An Animal Empathy Workbook, CCA Derry/Londonderry 2015

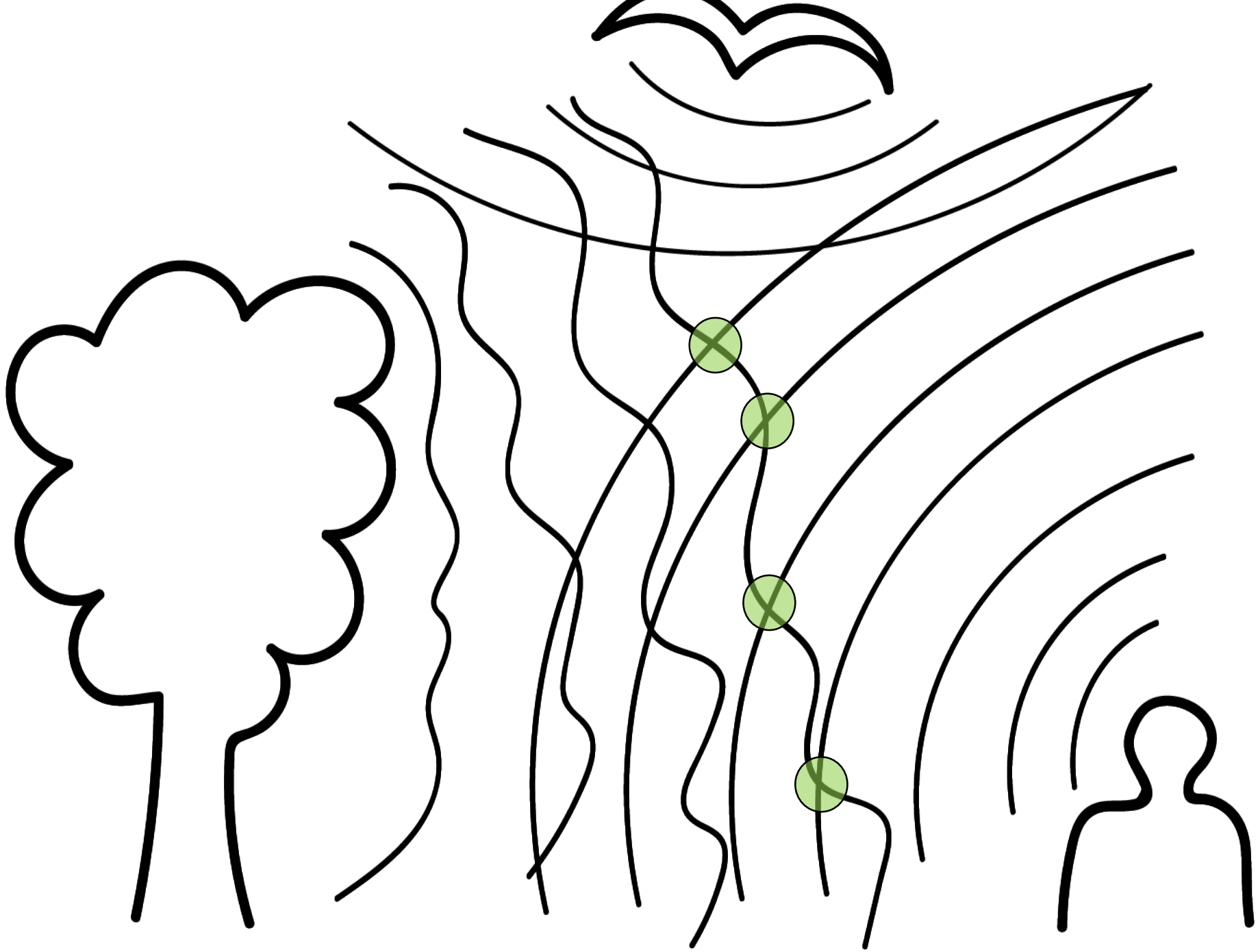


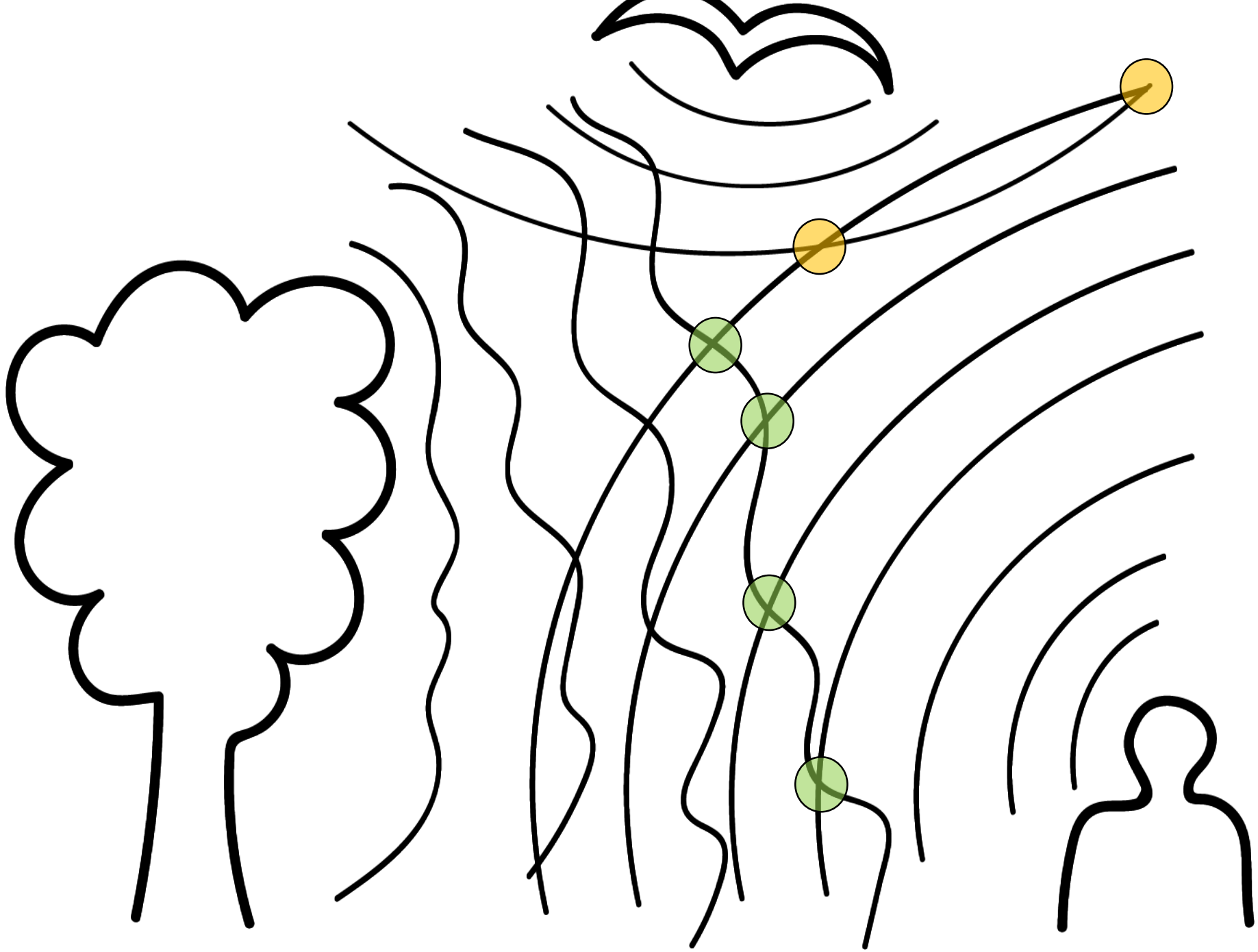


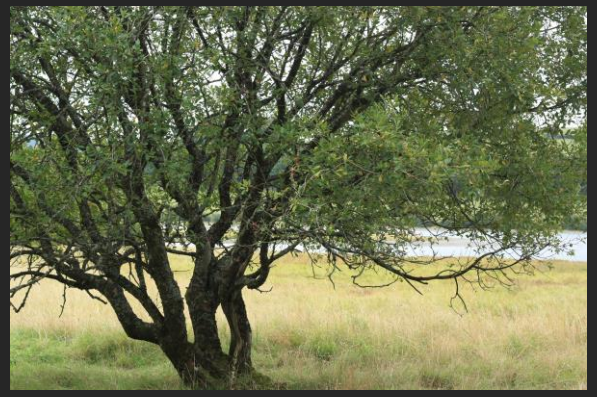










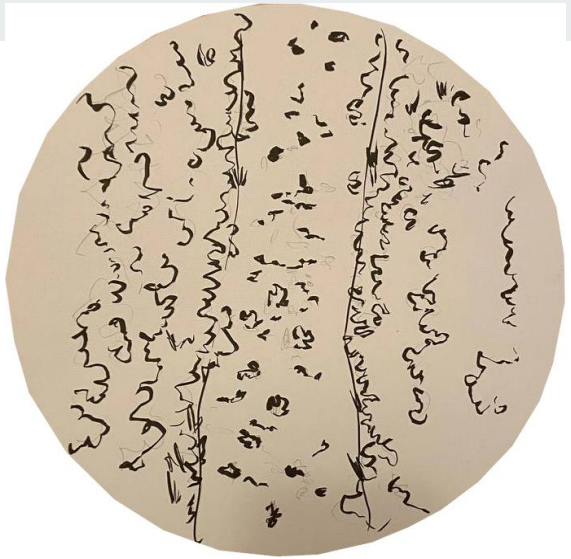


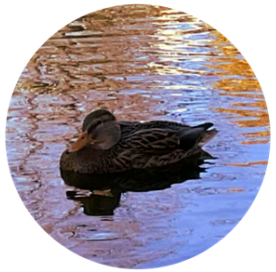
Map of You – initial design and testing 2022

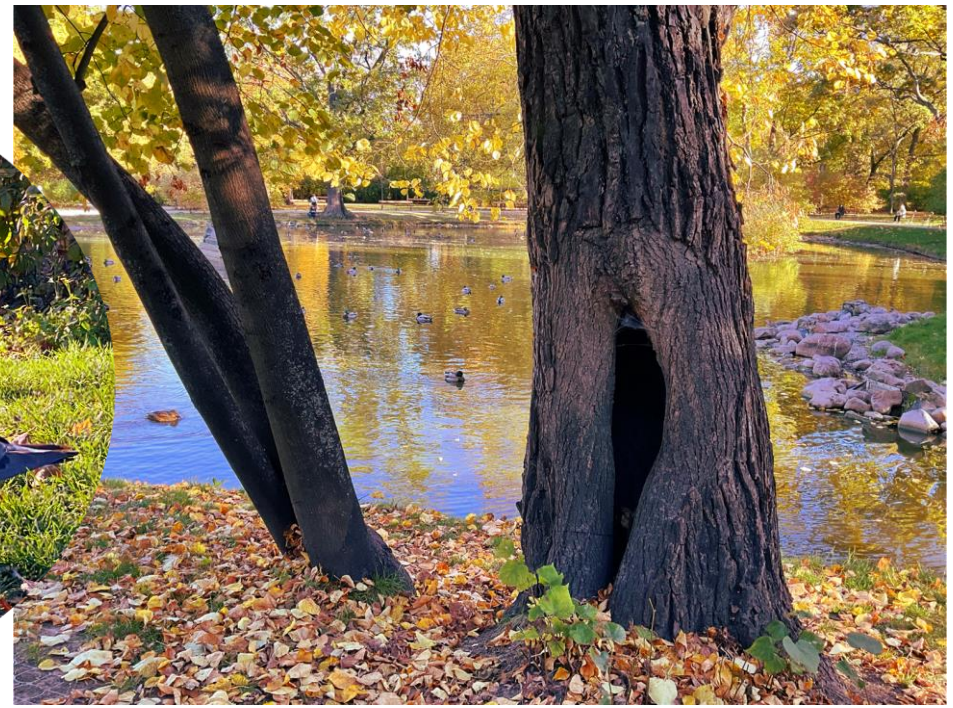
- Identify a place
- Record and map
- Identify *phenomena*
- Create “legend” (visual language) of your senses
- Re-map space using this non-verbal language
- …

Warsaw – Oct 2022
Polish-Japanese Academy of Information Technology
Polish-Japanese Academy of Information Technology
Muzeum Powstania Warszawskiego
Zajezdnia Tramwajów Warszawskich Wola
CZYSTE
Stacja Muzeum
Radisson Blu Sobieski
Polsko-Japońska Akademia Technik...
Dworzec Centralny w Warszawie
Złote Tarasy
TK Maxx
Filharmonia Na
WARSAW
UKI UK
ŚRÓDMIEŚC
POŁUDNIOW
WARSAW
Politechnika Warszawska
FILTRY
OLD OCHOTA
Park Pięciu Sióstr
Wawelska
Koszykowa
Kolejowa
Marcina Kasprzaka
Ignacego Prądzyńskiego
al. Jerozolimskie
al. Niepodległości
Tysiąclecia
Świętokrzyska
Płocka
Szczęśliwicka
629
631
634
717

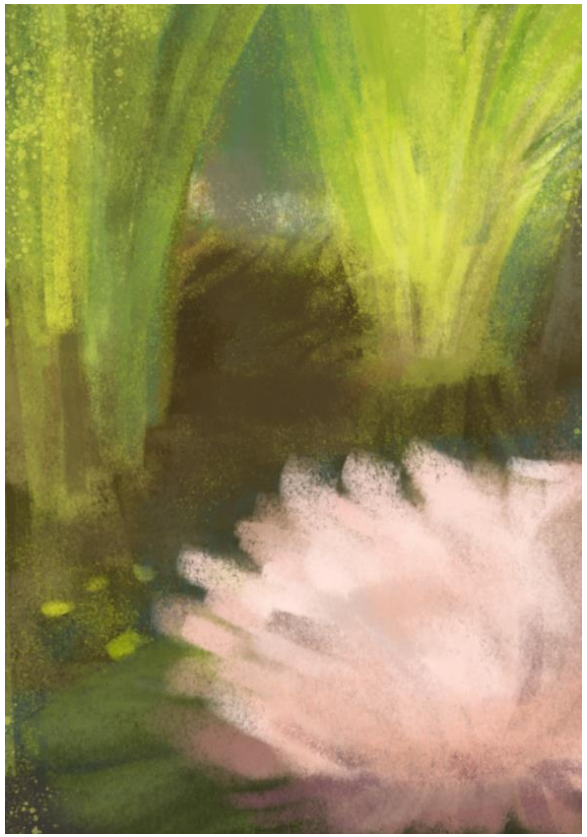
Place based research



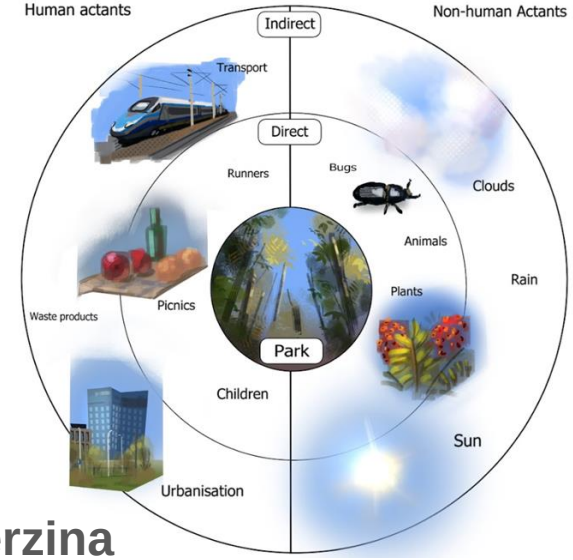




Initial Mapping

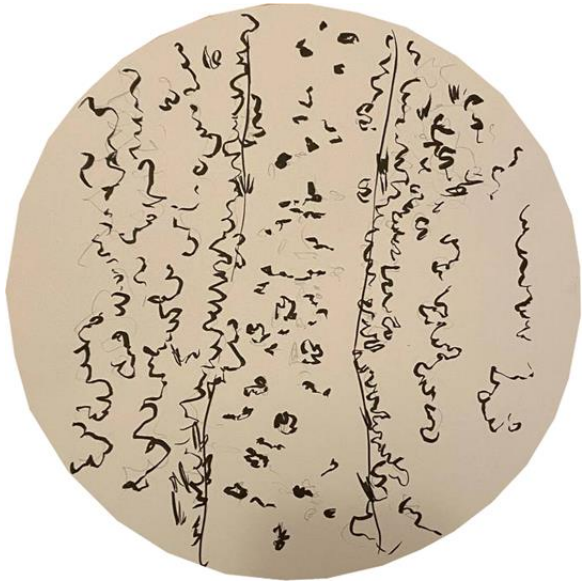


Debora Zebrowska



Alina Kaverzina

Namir Strzelecki



Legend – new visual /sensory language

Sasha Shevshuk

Namir Strzelecki

Anna Pertsova

Alina Kaverzina

Re-mapping

Anastasia Mashkina

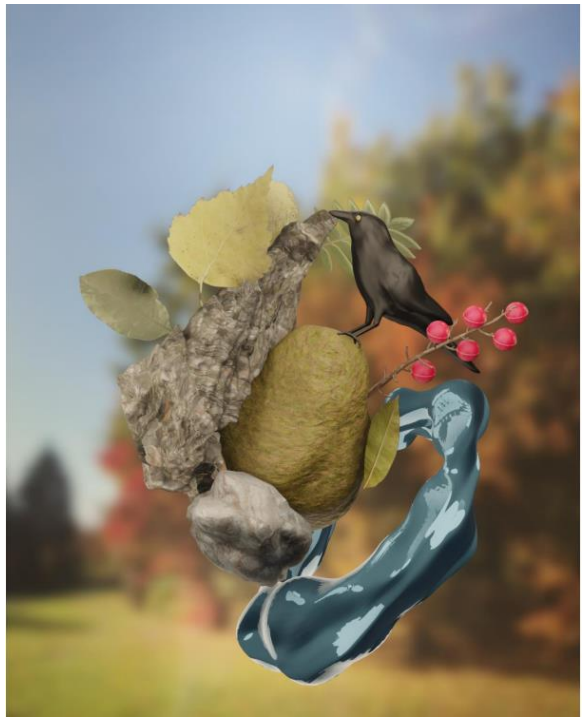
Kristina Maskalan

Namir Strzelecki

Viktor Bolgka

Sasha Shevshuk

Outcomes



Insights

- Structure was critical – but required more flexibility
- The extended period contributed to more successful engagement in place
- Creating the legend was a challenge
- Outcomes were more meaningful

Brno– Nov 2022

Masarykova univerzita

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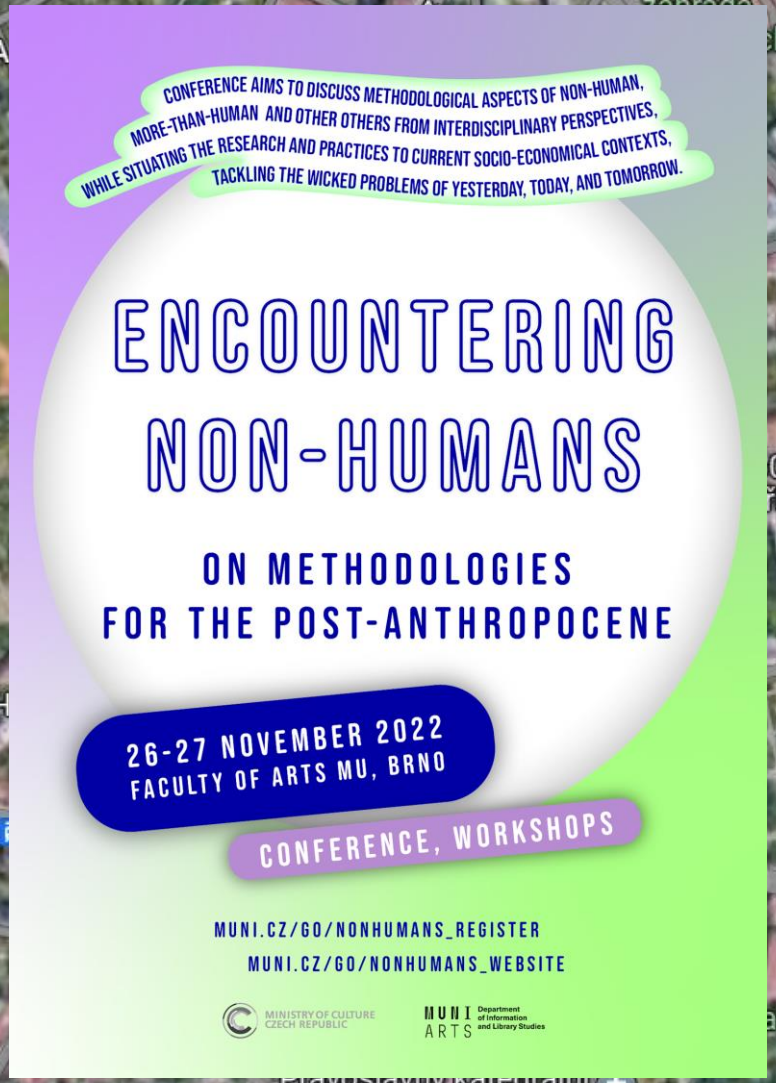
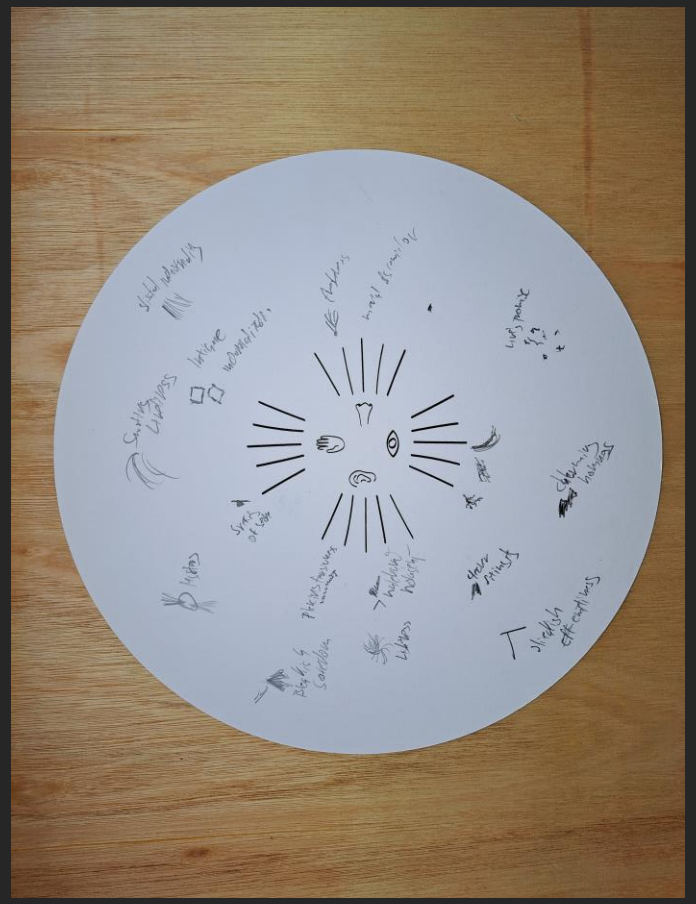
Polish-Japanese Academy of Information Technology

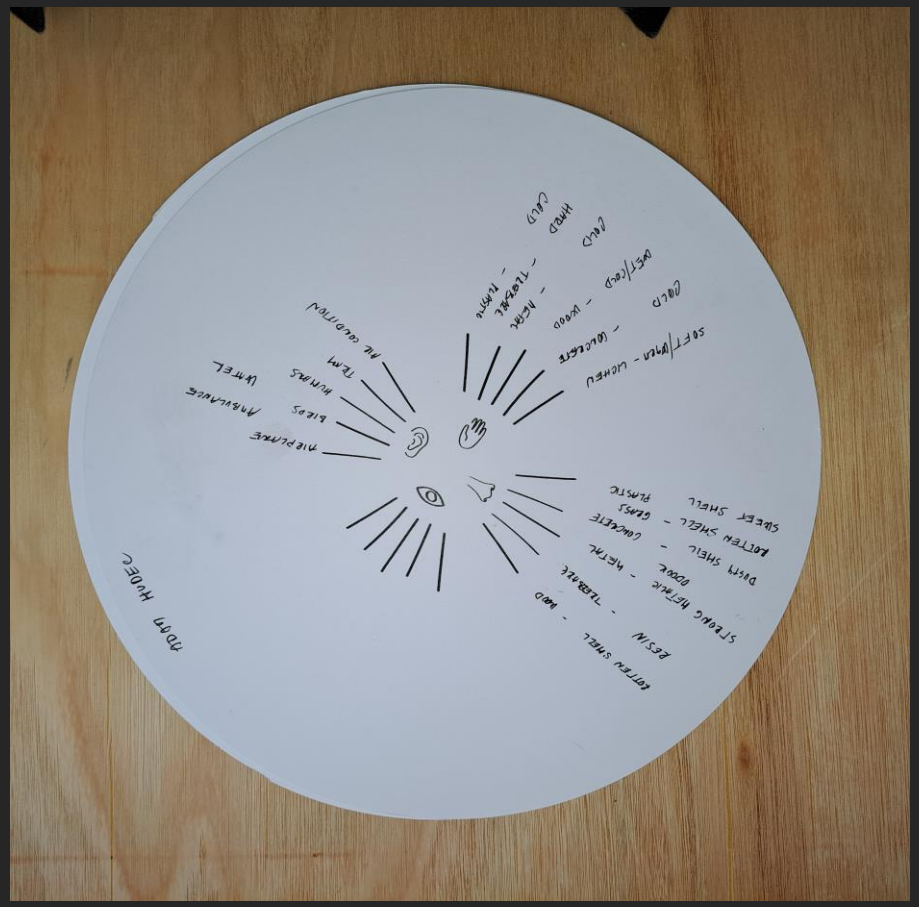


Diffractive Mapping Workshop

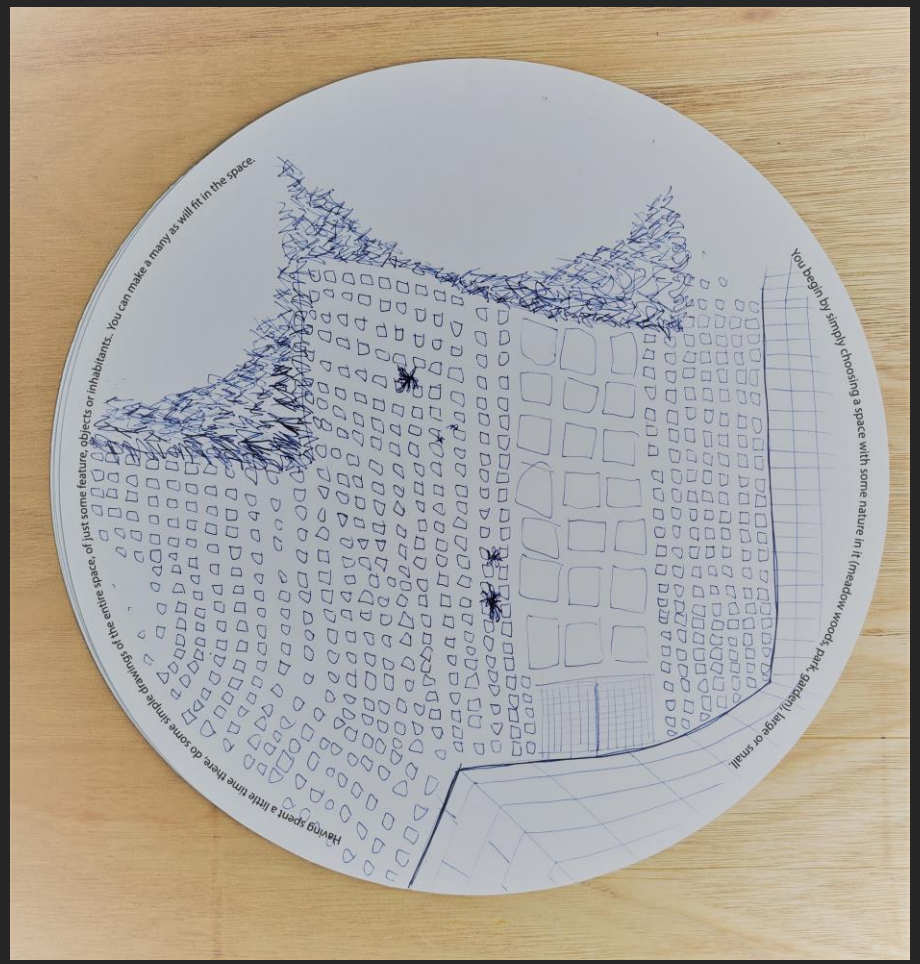
- iterate on tool and process
- test with peers (non-students)
- Focus on outcomes for it's own sake

Map of You Brno 2022 - Legends





Map of You Brno 2022 – Mapping and Remapping



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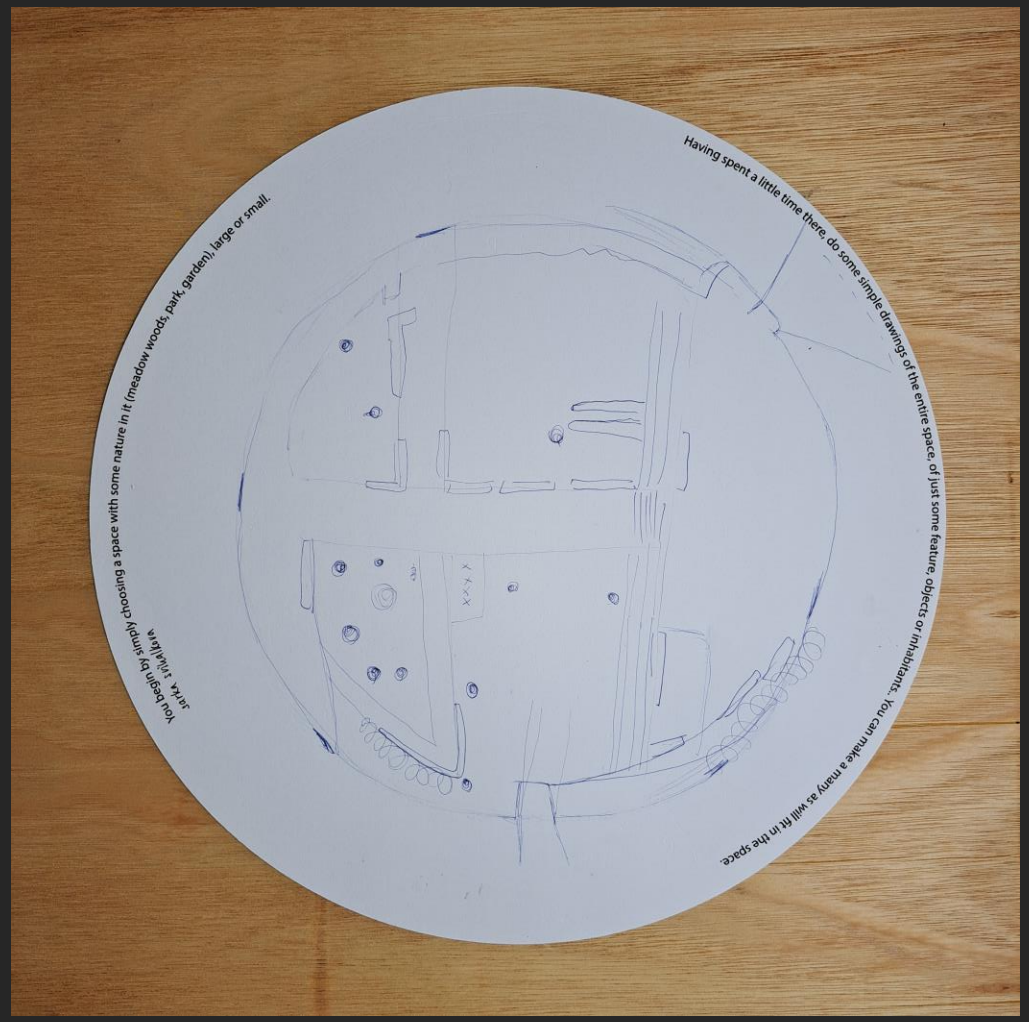
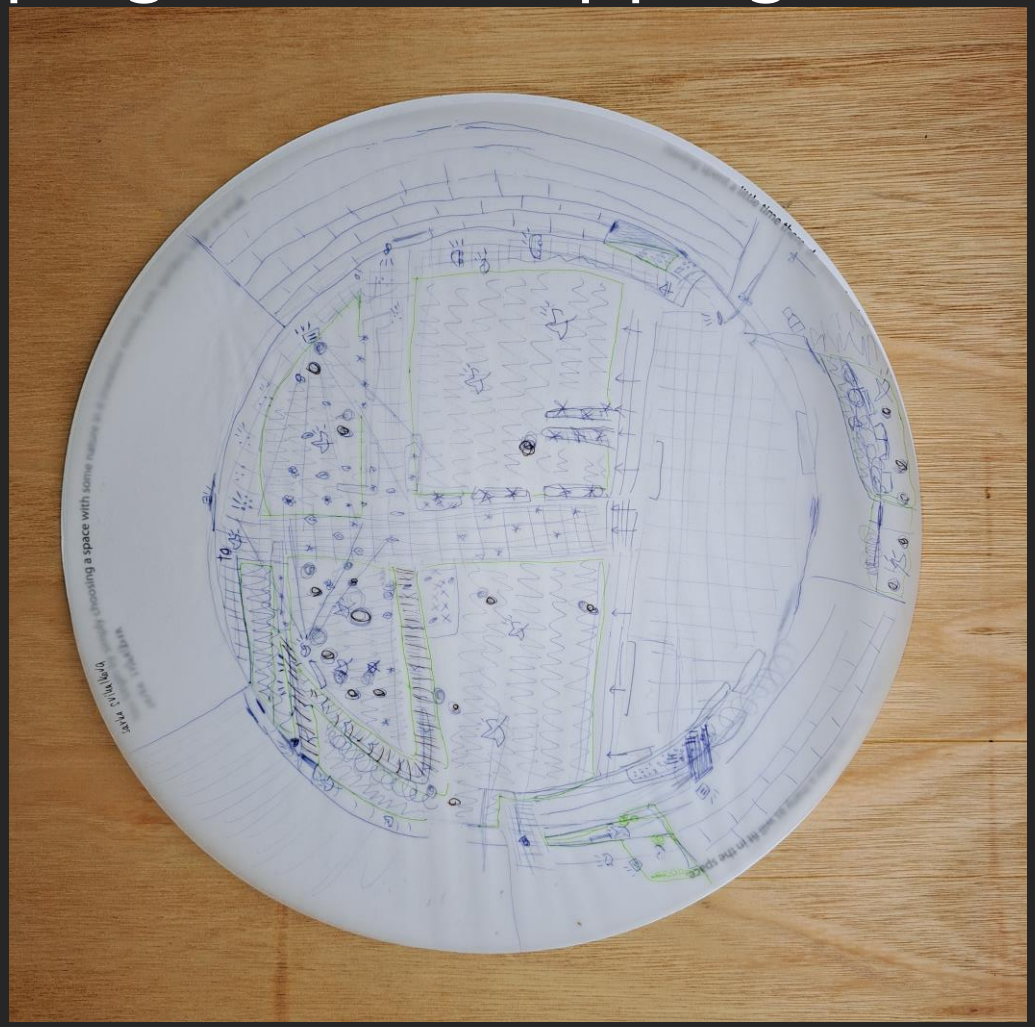
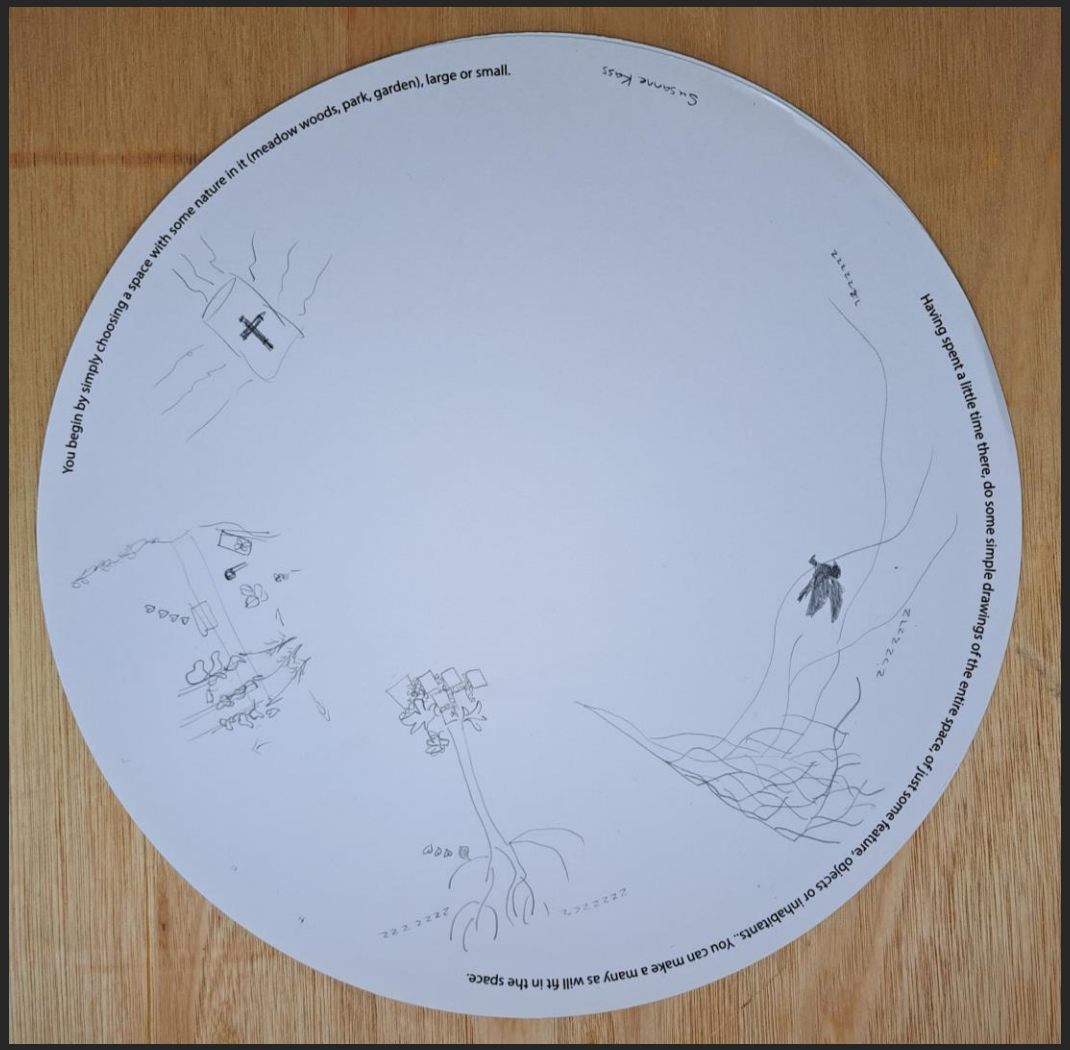
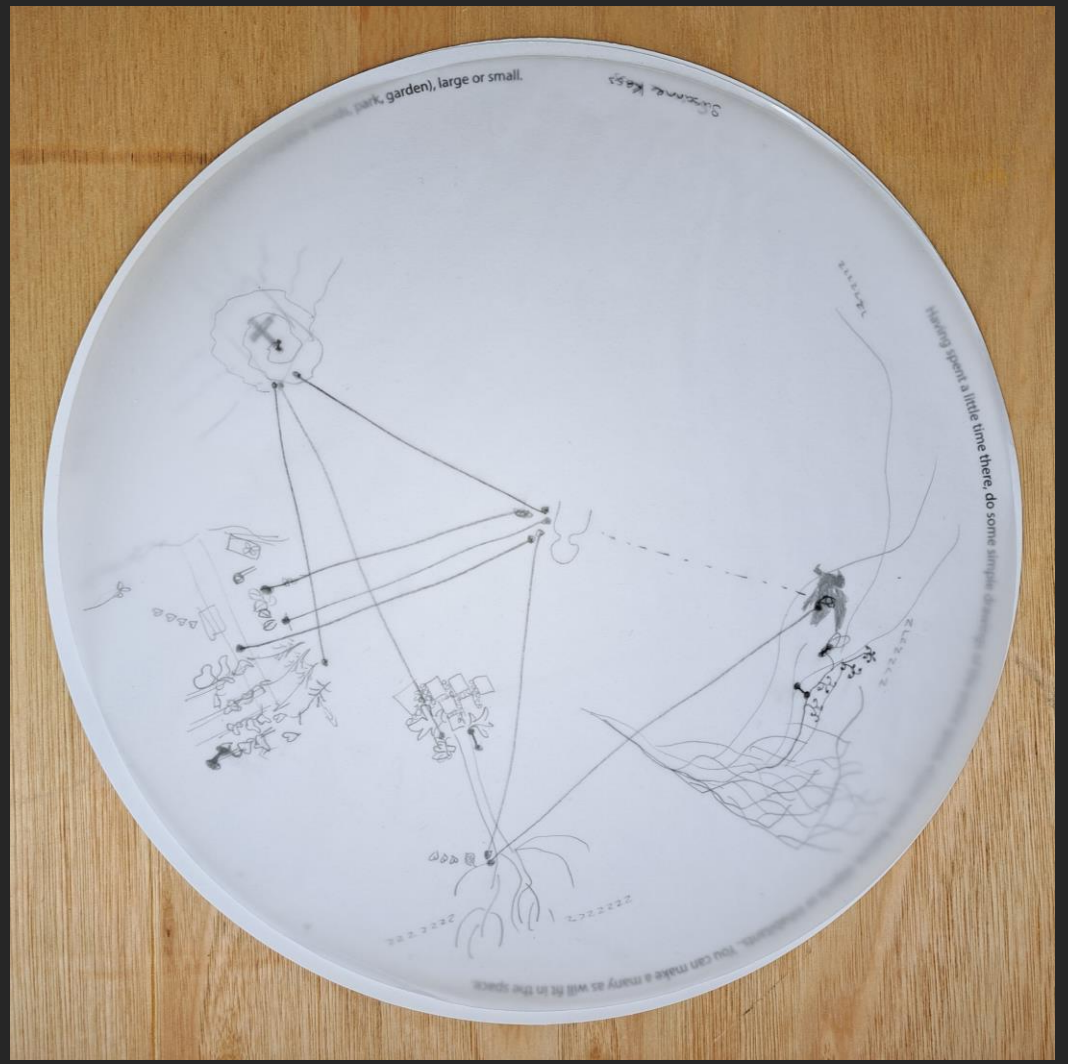




Map of You Brno 2022 – Mapping and Remapping



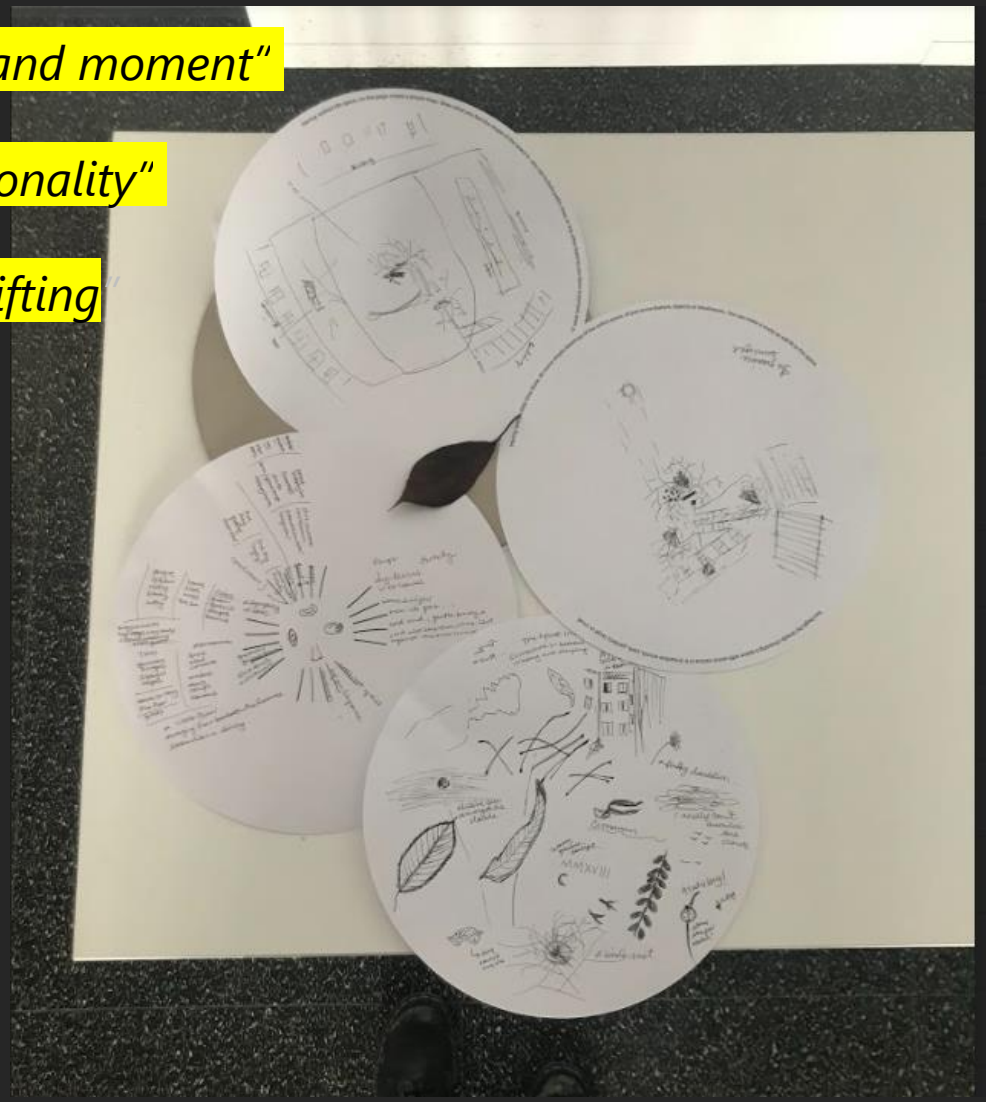


Survey Feedback

"It helped me attune to other beings around me in a given place and moment"

"movement is an important part of perception of space and relationality"

"While I felt connected to my world in that temporal scale was shifting



Summer 23

- Rewrite literature review
- Final workshop iteration and test (Design West – Inisheer, Galway)
- Develop (actually return to) material engagements in place

THANK YOU
QUESTIONS?