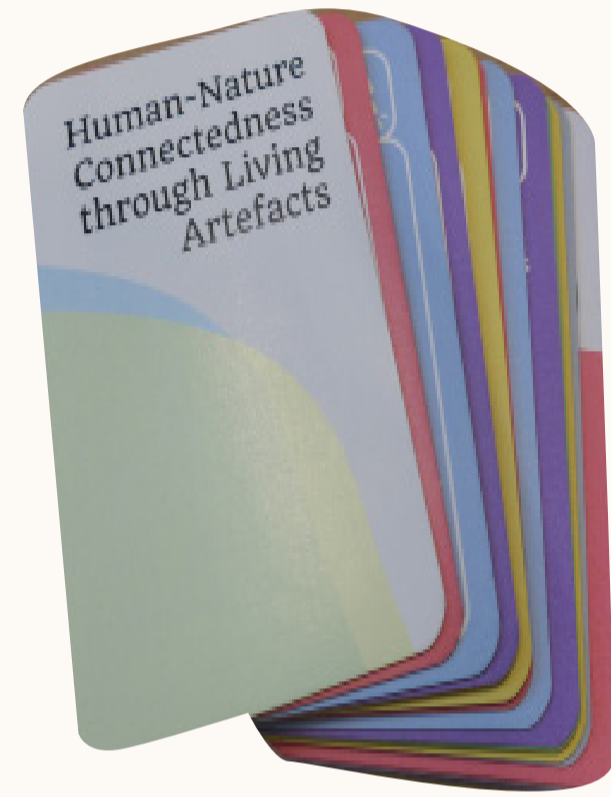
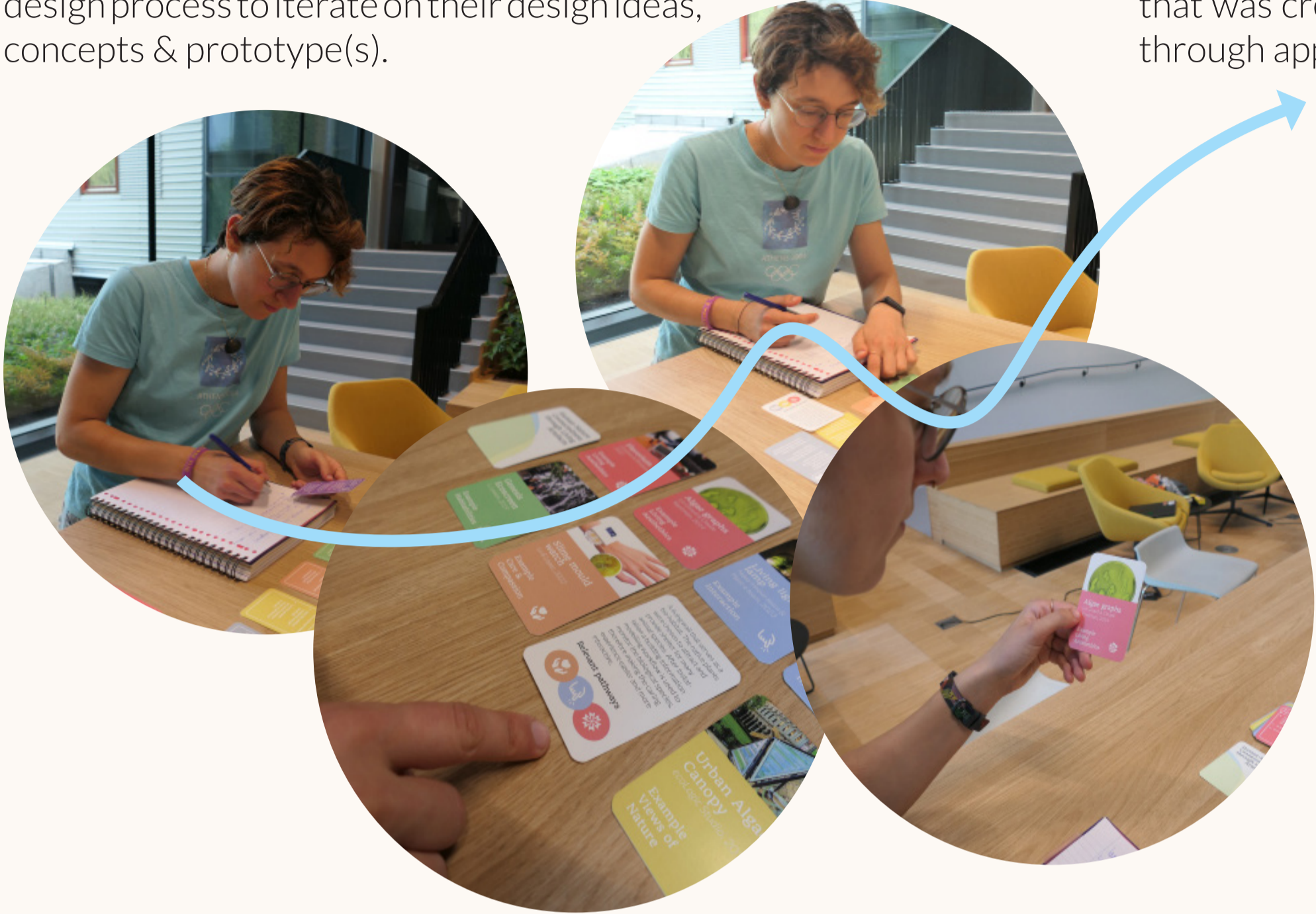


Design Guidelines for Human-Nature Connectedness through Living Artefacts

A card set of 28 cards that functions as guidelines for 'living artefact'-designers to create artefacts that increase the users feeling of connectedness with nature. Helping the designers to create a high user acceptance of the artefact/service and ultimately contribute to sustainable transformations in our society.



Designers can use the cards throughout their design process to iterate on their design ideas, concepts & prototype(s).



One (of three) concept designs that was created for Urban Reef through applying the guidelines.

My Very Own Reef

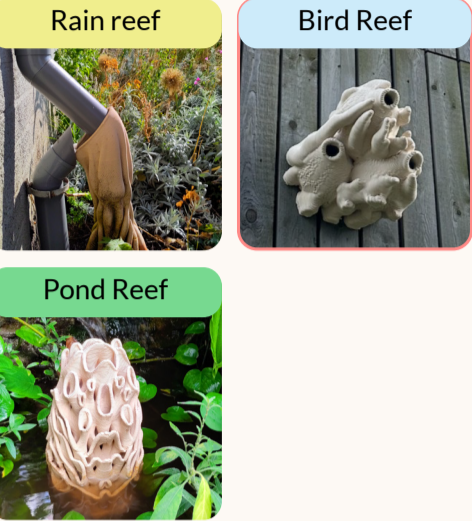
Put in wishes for personalisation

Maximum Size (w x d x h)

Biodiversity Impact ☒ Medium ☐ Low ☐ High

Added Personal Function ☒ Cooling ☐ Shading ☐ Collect Rainwater

Choose a type of reef



Adapt reef to garden with VR



Guidelines applied

Care & Compassion



Affective Response



A1. Living Aesthetics

- Does the artefact contain natural characteristics (shapes & colors etc)?
- Is it an artistic artefact?
- Is it a wearable object?

B1. Interactions

- Is there space for interaction?
- Is it part of the urban landscape?
- Can humans engage with the artefact in an artistic way?

C1. Affective Response

- Is there possibility for people to create an emotional attachment to it?
- Can the artefact be shared by loved ones or a community?
- Does the artefact help create a space that represents a natural environment?

D1. Habitabilities

- Are humans important to create a suitable habitat for the artefact?
- Are there multiple species interacting with each other?
- Does the artefact have a large effect on the local eco-system?

A2. Living Aesthetics

- Does the artefact look like it is alive and living?
- How does the artifact change and evolve over time?
- How is the livingness expressed in the physical attributes to see (feel, smell, hear or taste)?

B2. Interactions

- How can you invite the user to interact with the living species?
- How can you make sure that people mindfully pay attention to the interaction through multiple senses?

C2. Affective Response

- How can you bring the user(s) attention towards the positive emotions that they feel due to the natural species?
- What are motivations to buy, or interact with the artefact?
- How can you create an emotional bond between the artefact and user?

D2. Habitabilities

- What role do the different species and users have in maintaining a functioning first habitat (within the artefact)?
- What is needed around the artefact to help create a good habitat for the aimed at species and how can the user(s) play a role in this?

Examples of Living Artefacts



Examples:

There are 14 example cards (2 for each pathway) included for inspiration.

E1. Care & Compassion

- Does the artefact require care from humans to stay alive?
- Does the artefact support local (urban) wild life?
- Can the artefact elicit a feeling of compassion?

F1. Views of Nature

- Is it a cultural artefact?
- Does the artefact symbolize a larger meaning?
- Can the artefact be used in common rituals, traditions or routines?

G1. Ecological Knowledge

- Does the level of pre-existing knowledge about ecology affect the use of the artefact?
- Can the user(s) learn something about ecology through the use of the artefact?
- Can the artefact play a role in education?

Part 1:

If the answer is yes to one or more questions, then you can apply the pathway. It is recommended to choose two to three pathways.

E2. Care & Compassion

- Can the artefact offer a reciprocal relationship with humans?
- How can the artefact elicit empathy and/or compassion (eg. anthropomorphising)?
- How can you make the caretaking fun, easy and/or leave room for experimentation?

F2. Views of Nature

- Can the artefact change peoples view of nature; from an anthropocentric view to a non-anthropocentric interdependence view?
- Can the artefact make humans think of the larger meaning that nature has in their life and in society?

G2. Ecological Knowledge

- What ecological knowledge does the user have and which knowledge will be thought through using the artefact?
- What is important for user(s) to become aware about nature through the use of the artefact?

Part 2:

Select the pathways chosen in Part 1. Use the guiding questions to create and adapt your design(s).



Airbubble
ecoLogic Studio, 2021

Example Interaction

A playground using micro-algae & technology to clean the air and mask urban noises. The purifying process is powered by solar energy and children's playfulness. Kids interact by jumping on four water foot pumps positioned on the ground while balancing on the bouncy bubbles and the internal rope system.

Relevant pathways

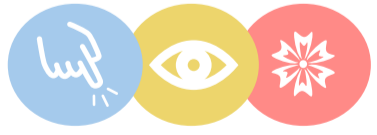


Living light lamp
Nova Innova team & Plant-e team, 2023

Example Interaction

A lamp which harvests its energy through the photo-synthetic process of the plant. The light will be activated by softly touching the plant. The available amount of energy depends on the well-being of the plant. The light created by touch will suggest further interaction.

Relevant pathways



Dawn Verkerk
Nature Connectedness through Living Artefacts:
A case study for Urban reef
7th of June 2023
MSc Thesis Integrated Product Design

Committee
Company
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Rebecca Price
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