

Science of the Project:

Session 1

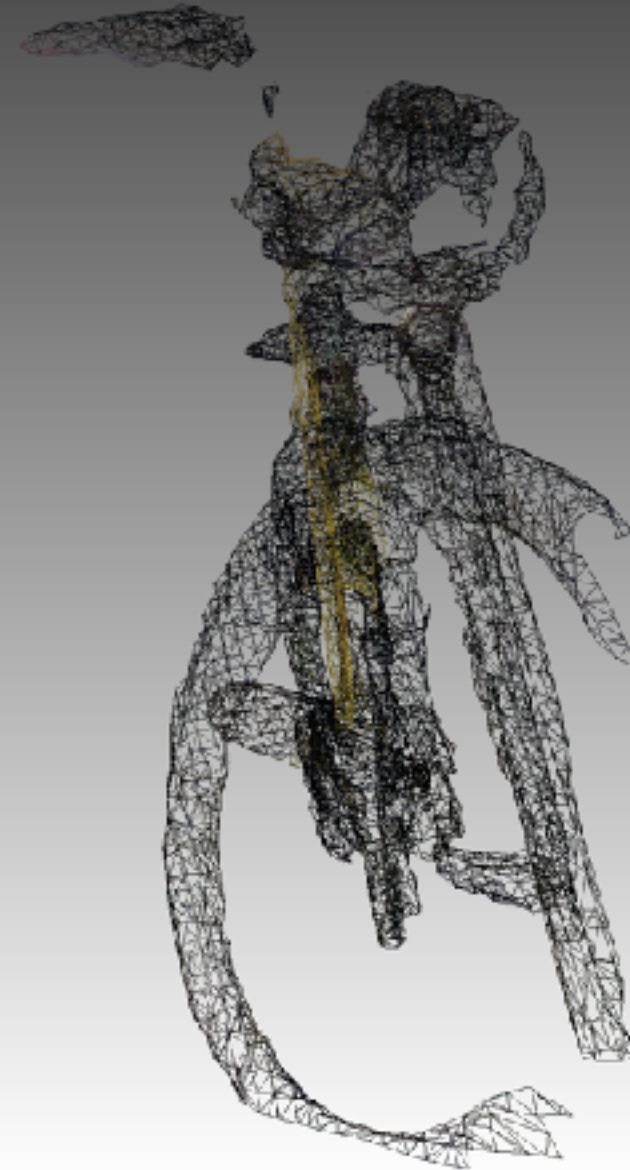
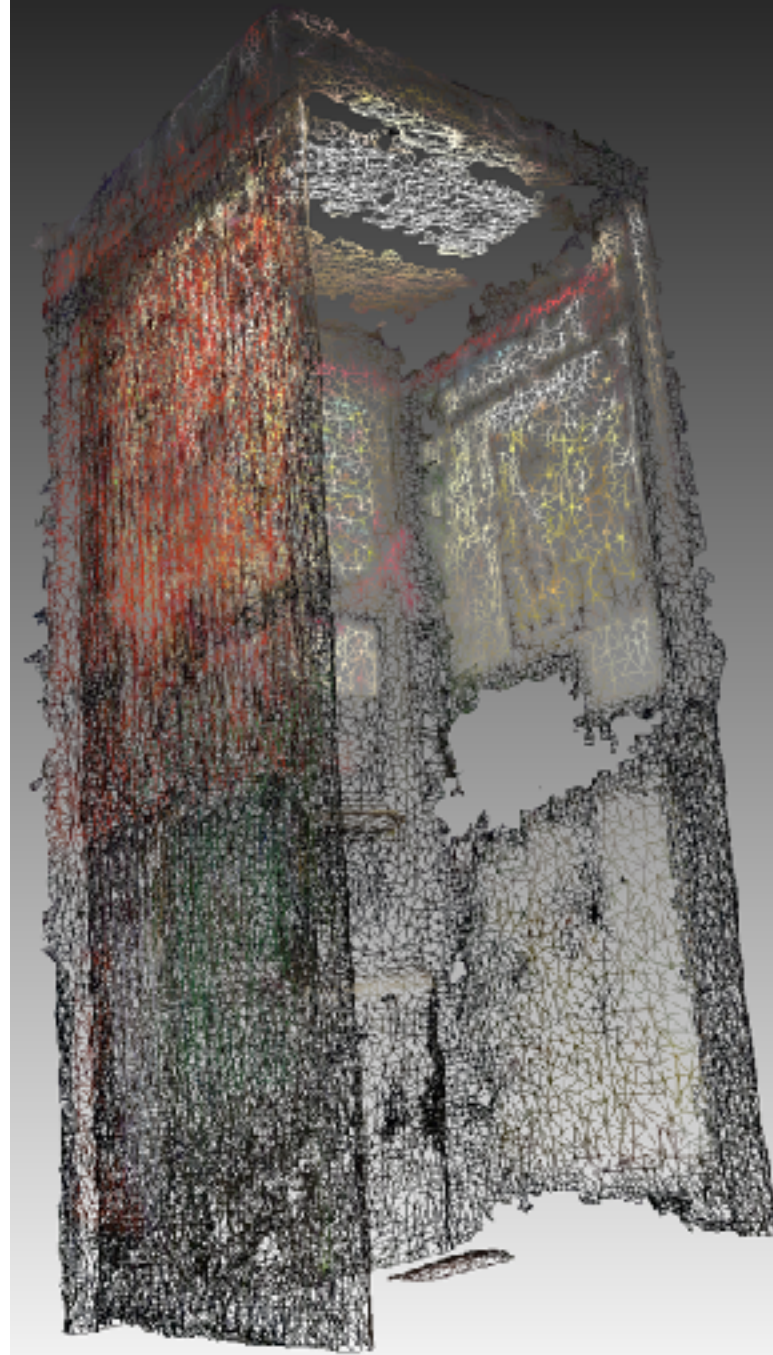
What is a scientific contribution?
What is 'Research through Design'?

Introductions

Daniel Buzzo PhD
Creative Technologies Lab
University of the West of England
Bristol, UK

daniel.buzzo@uwe.ac.uk
www.buzzo.com
@danb_zzo





Introduction to the module

- overview of module,
- learning goals,
- assignment info.

Assignment

- 200 hours
- Written report as conference research paper
- Documentary video as supporting communication

This assignment leads toward understanding of

- Methods of Design research Communication
- The Research context for our doctoral study
- Common Standards of peer reviewed research in design
- Making evidenced, structured contributions to design knowledge

Tasks and exercises

- Choose an area of the everyday, your everyday, as an area of study using design probe methods
- Use techniques of observational research and ethnography to investigate activity
- Frame the investigation against a broad goal of research and discovery of areas associated with environmental impact

**You are researching and observing at this stage. DO
NOT try and design a solution.**

Merely try to gain *insights* into a situation

**This is more difficult
than it sounds**

- The common instinct is to see solutions. To be a 'designer' and to solve 'problems'
- With this exercise we are trying to understand **context** and find **opportunities**.
- If we *were* to go forward we would then look at the opportunities we had discovered and investigate designs for the contexts or opportunities we had found in our observations.

try to avoid....

- Low hanging fruit
- The wrong problems
- Solutionism
- Saviourism
- Pathological altruism*
- Cultural tourism
- Grand schemes.

<https://interaction19.ixda.org/program/keynote--liz-jackson/>

- This is the beginning of grounding our design work in research, grounding it in evidence.

at the beginning...

What is a scientific contribution?
Establishing knowledge?
Peer review in design

'the criterion of the scientific status of a theory is its falsifiability, or refutability, or testability'

Popper 1963

- Anti-solutionism and Rittel and Weber and the wicked problem.
- Design as research and Design as a generative process.

The Wicked Problem

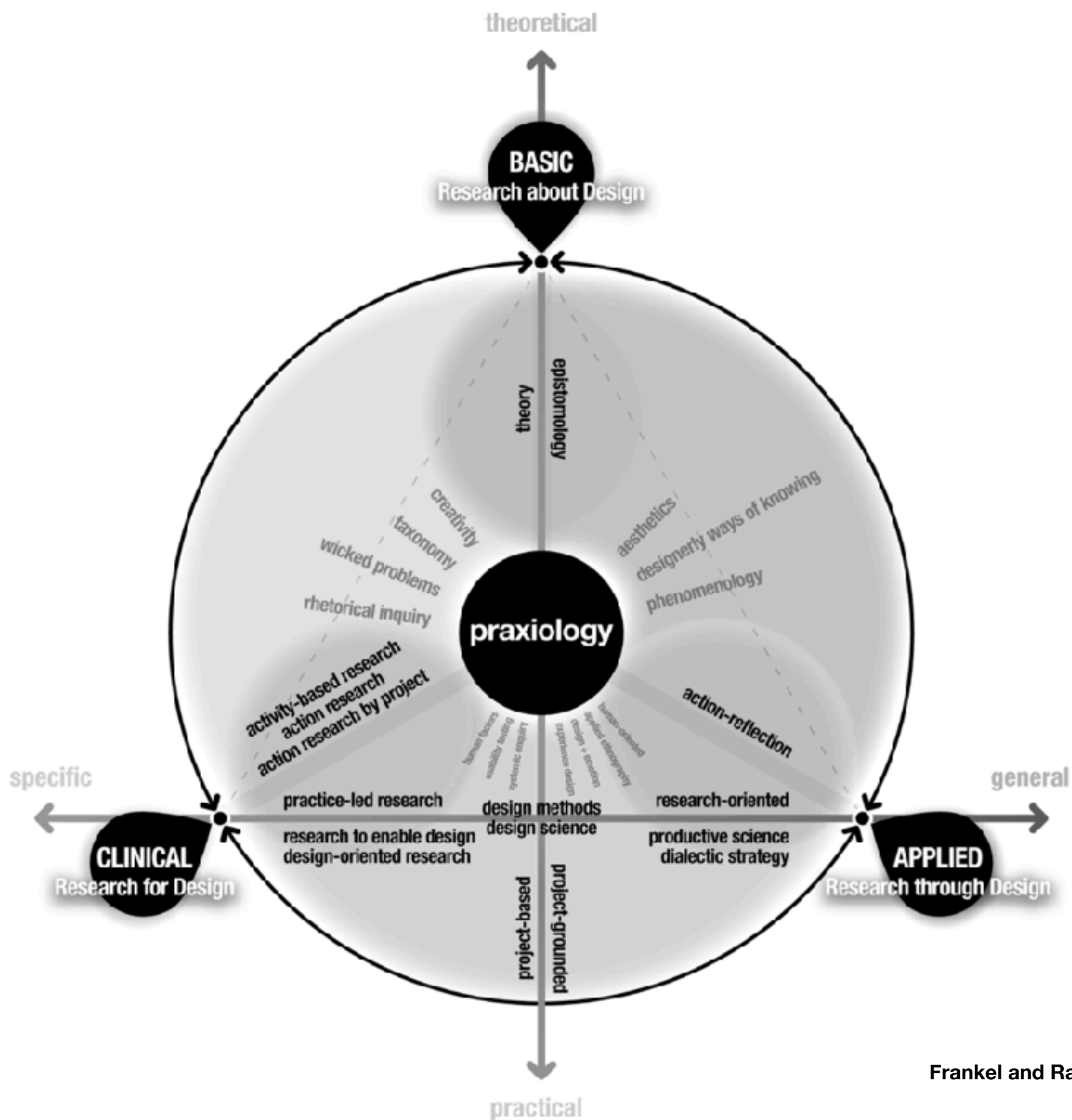
“A wicked problem is a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. It refers to an idea or problem that can not be fixed, where there is no single solution to the problem. The use of the term "wicked" here has come to denote resistance to resolution, rather than evil.

[1] Another definition is "a problem whose social complexity means that it has no determinable stopping point".Moreover, because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems.”

What is research through design?



Sir Christopher Frayling Part 1 & 2
Research Through Design
<https://vimeo.com/129776561>



Why Design Theory is Unfalsifiable

‘Research through design is clearly unscientific if Popper's [24] criterion of falsifiability is accepted. Theories are too vague, and practice is usually intended to confirm theories, not falsify them. To be sure, Popper's account is widely criticised both in Philosophy of Science and by practicing scientists. Still, it holds a potentially unflattering mirror up to the theories produced as a part of research through design. If confirmation cannot be used as proof, how do we validate them? Rather than seeing difficulties in validation as a problem for design theory, I would suggest this reveals two important characteristics of the conceptual work produced in association with research through design.’

Gaver2012

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Gaver says:

a) Theory Underspecifies Design

“Design often addresses *wicked problems* which are complex enough that no correct solutions exist *a priori* and for which formulating the situation is integral to addressing it...In short, theory by necessity under-specifies design activities.”

b) Design Is Generative

“Design, and research through design, is *generative*. Rather than making statements about *what is*, design is concerned with creating *what might be*, and moreover, in Zimmerman et al.’s formulation, on making the '*right thing*'. “

Discussion

Candy - Practice based research (2006)

Candy - TL:DR

If a creative artefact is the basis of the contribution to knowledge, the research is practice-based.

If the research leads primarily to new understandings about practice, it is practice-led.

Where are you in all this?

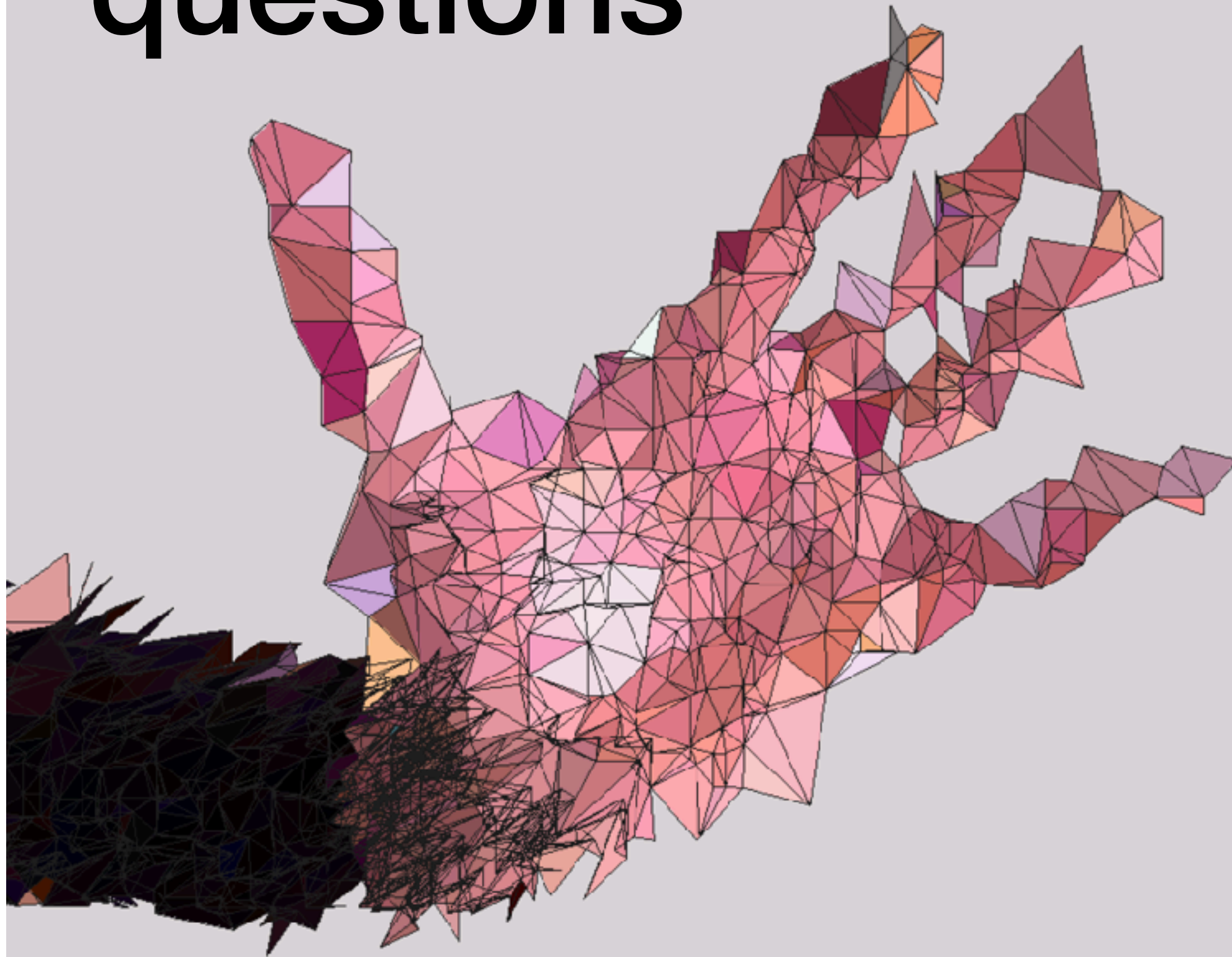
- small group discussion: establish students context as practitioners / designers/ researchers / artists
- what do you think are valid *other* positions?
- what is your position?

conclusion

For next time

- Read Frankel and Racine, Frayling
- Bring own example of design research to discuss in next session

questions



references

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