

MATERIALITY AGENCY OF OBJECTS

[Put meaning making and craft at the heart of the learning space where access and use is open.

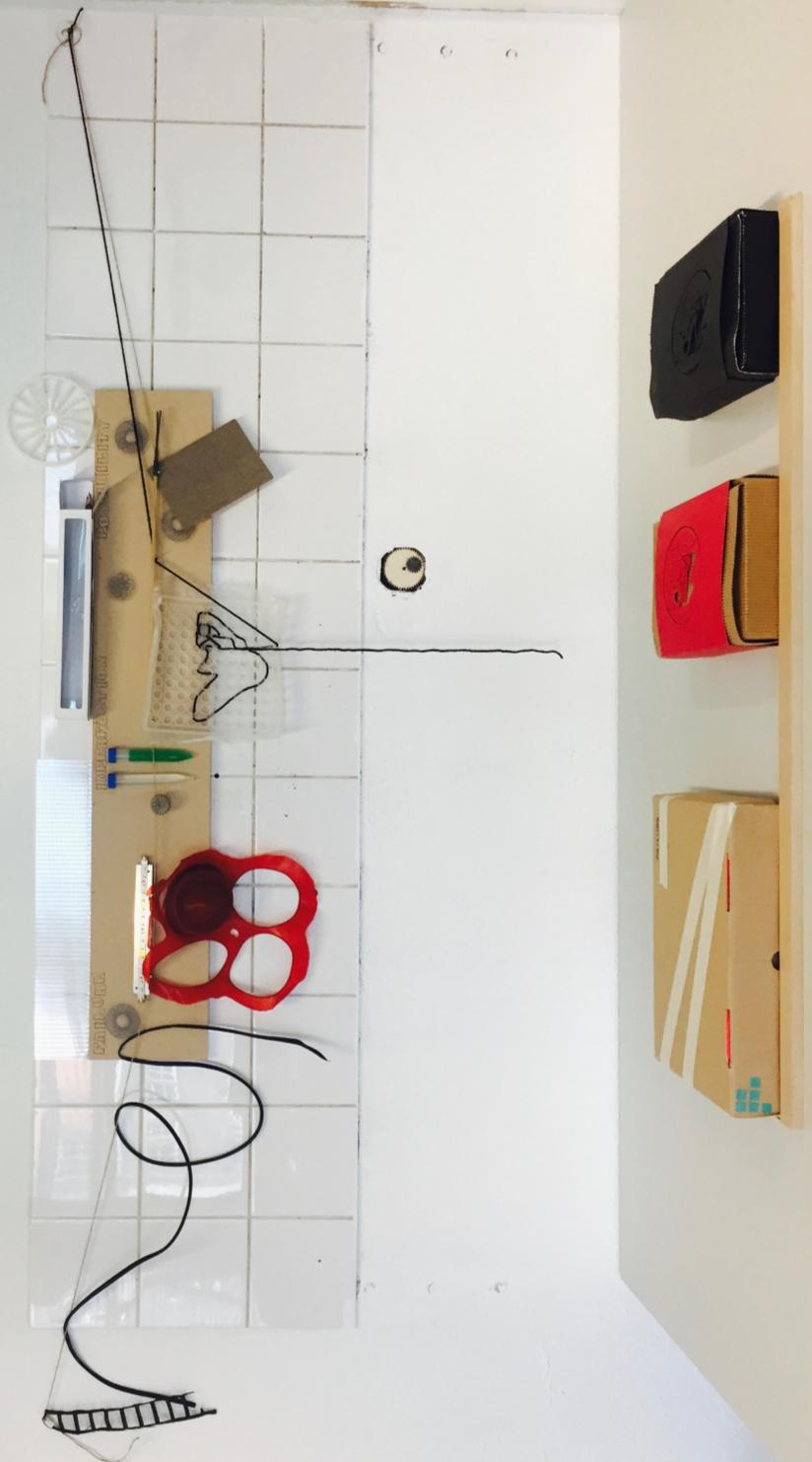
Create personalised possibility kits with random, tinkerable, artefacts to curate assemblages of objects of inquiry.

Combine seemingly random things and ideas together.]

{see also interdisciplinarity}

Connecting and experiencing different perspectives creates more relevant and authentic inquiry where explorations lead to understanding ones position within abstract, complex systems and networks. Here we adopt an interdisciplinary stance to mixed media, multimodal inquiry.

Material inquiries create a backdrop for reflection of emerging tools and technologies providing a framework for discussion which hints at the concept of conviviality termed by Ivan Illich - The potential of an open, networked society where citizens are empowered to have greater control over the tools and technologies they use through community centred interaction.



Possibility Kit

The idea of a kit was coupled with methodologies which would enable educators to collaborate together and break down the invisible barriers between subject specialists within staff rooms in school settings. The kit being a talking point which could also serve as a professional learning tool.

Research through making led to serendipitous discoveries and ventures into programming using both [Turtle Art](#) and [Processing](#) to explore the Lissajous curve and spirograph style drawings.

The journey sought to create elements for the kit utilising 2D and 3D fabrication tools. Many of the artefacts from the kits were fabricated digitally, raising questions regarding material agency.

With designs drawn in Inkscape, a laser cutter was used to engrave and cut a spirograph prototype and Lissajous Curve lithograph. The 3D printer was utilised to print elements designed in TinkerCad such as buttons, enclosures. Discarded objects also became objects within the kit.

These interactions build on the diverse personal competencies of students with open possibilities for greater personal and collective agency.

The dialogue between learner, perspectives, modes and media offers insights into maker education that move beyond just making stuff. It questions how educators are encouraged to have the freedom to experiment or tinker with different approaches to learning, having the agency to challenge accepted norms and systems within the settings they work. Embedded within such practices is a suggestion of a form of micro-activism which seeks to enact change through awareness raising and direct action.

POSSIBILITY KITS

An exploration of figurative language through experimentation with ways of thinking and sorting materials for possibility kits.

Exploring simile through materials resonated with the idea of emotions and crystals (see Crystalline vignette: Interlude on Critical Art of Inquiry) - The affective choices and attached emotions came purely from connecting with artefacts. I had imagined a different outcome, where individuals started to build collections of things around a particular emotion however responding to the direction of inquires, I gave space for the children to develop each simile, such as:

**'sad like a bottle of poison',
'dripping sadness like crying tears'
'sad like a tear in a jar'.**

I further experimented with the idea of sorting things in different ways to building meaning.

Students responses to the question:

How do materials connect with our feelings?

Some materials give us feelings like if you see something that looks like a ghost you get scared.

We can create things to express our feelings.

To get you thinking about interconnections.

You touch and feel the material used to make what you touch.

Maybe because some of them make us feel happy or sad some of them scared or even angry.

Because when we build, it expresses our feeling.

To see what the tools make us feel.

Some materials can feel different.

Maybe gives us feeling that isn't normal.



The class decided on three emotions to guide an experiment, namely happy, sad, excited- I added an open one. Some restrictions in choice hopefully provided a framework around sorting collections. Here an inquiry with materials permitted a dialogue between inquirer and object, a form of material literacy whereby the object acts as a conduit, speaking to allow one to reveal aspects of ones-self through making. These assemblages with mixed media multimodal exploration allowed one to embody the concept of figurative language.

This inquiry staged learning experiences with mixed media materials for open exploration. The materials were the provocation for open-ended inquiry guided with an inquiry question. Learners grappled with ideas through constructing things together. This approach upturns the 'gradual release of responsibility' model of learning which is common across many classrooms. In this model the whole class is introduced to the learner outcomes, learning content is explained and modelled, from which learners are given time to explore and practice the intended learning. By flipping this approach, learners have greater agency to build their own understanding of the materials, indeed the 'thinking' with materials is given a priority as suggested by Papert.

#agency

#digital

#inquiry

#multimodal

#open

The approach suggested here challenges many educators as they are conditioned to using this gradual release model which requires learning objectives to be stated, learners to be often seated, quiet and responsive while the 'teacher' provides instruction.

The responses to the materials of the possibility kit were natural, revealing uncovered, deeper conceptual understandings.

THE FLUXKIT

The concept of the possibility kit is not new. The idea of the 'Fluxkit' by George Maciunas, produced under the Fluxus label encompassed the range of forms from graphical scores for events, interactive boxes and games to journals and films.

Fluxus was an international, interdisciplinary community of artists, composers, designers and poets during the 1960s and 1970s who through engaging in experimental art performances emphasised the artistic process over the finished product. In collaboration with other Fluxus members, Maciunas assembled and designed objects or would find 'readymades' for each kit. As with the possibility kits detailed above Fluxkits were often multisensory and Maciunas referred to them as 'miniature Fluxus Museums'.

The conceptual precursors to Fluxkits can be traced back to the collective Dada activities and the famous Surrealist collaborative poetry game, *Exquisite Corpse (cadavre exquis)*.

"Engagement with the contents of a Fluxkit would be left to the performer's discretion, thus allowing any performer to interpret and complete the work." (From the Exhibition *Revisions—Zen for Film*, 2016)

In this way, the Fluxus kit as with the possibility kit could be viewed as a black box waiting to be uncovered. Conceptual understandings revealed through (mis) association which also questions some of the prepackaged curriculum and materials which exist in education discussed earlier in this work.

The initial idea for a kit was provided by *Der Falsche documenta Katalog* (The False documenta Catalog): a cushion made by Annemarie Burckhardt that masquerades as the DOCUMENTA IX catalog of 1992. In response to a legal order from documenta lawyers, she then deconstructed it into a do-it-yourself kit.

The idea of multi-use fabricated object disguised as an diy kit - a form of multimodal activism.

A disruptive kit - seeking imperfection

Interpretation of the possibility kit in this research project, seeking to look beyond just making stuff, suggests experimentation and iteration, which are common traits in design practice and science labs.

What if schools were seen as experimenting labs or communities- where value of failure and mistakes through experimentation became the currency of school?

What if traditional subject barriers opened up to interdisciplinarity?

What if the school staffroom became a lab of ideas and provocations?

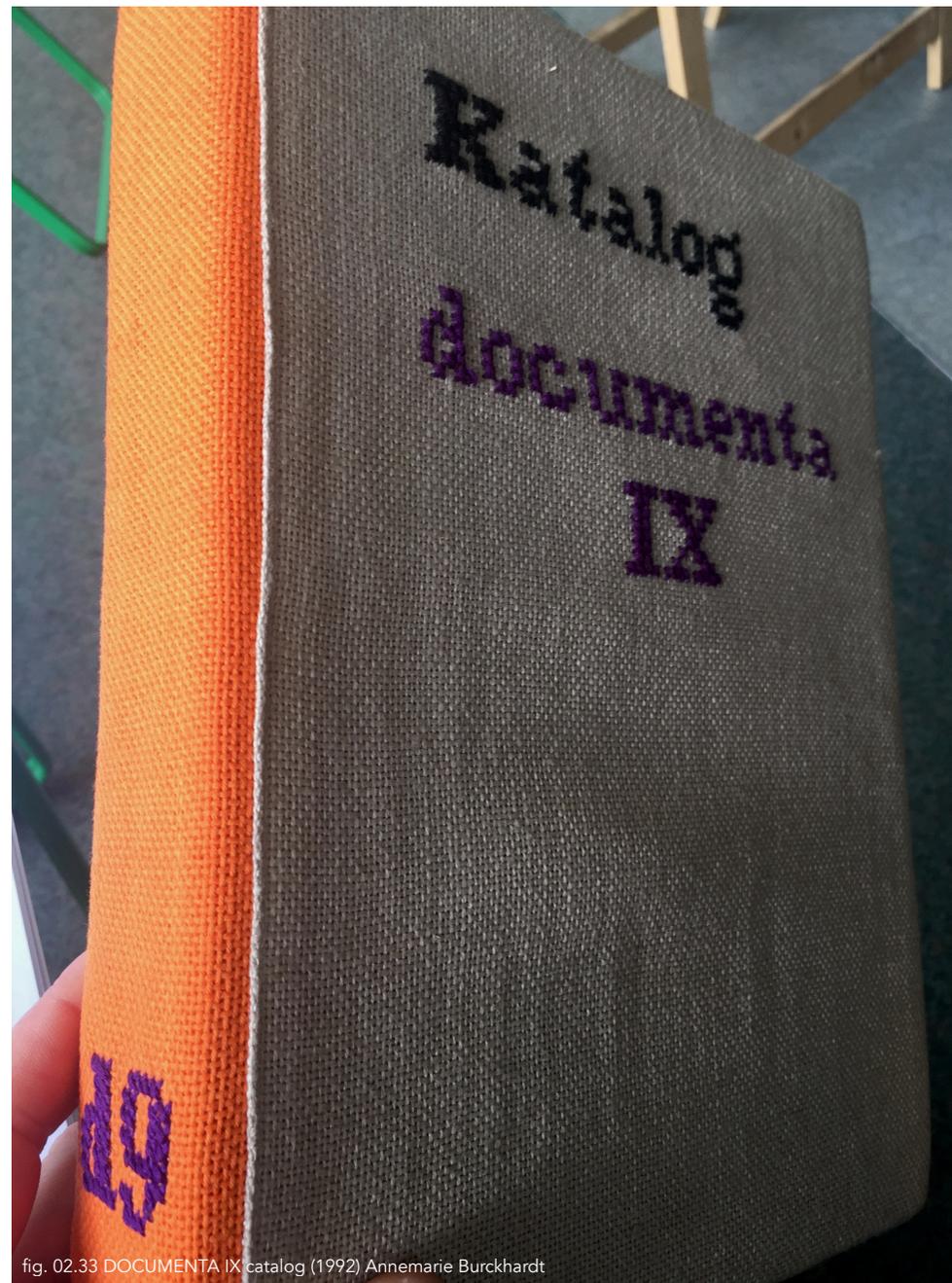


fig. 02.33 DOCUMENTA IX catalog (1992) Annemarie Burckhardt



fig. 02.34 Material Inquiry into complex concepts (i)

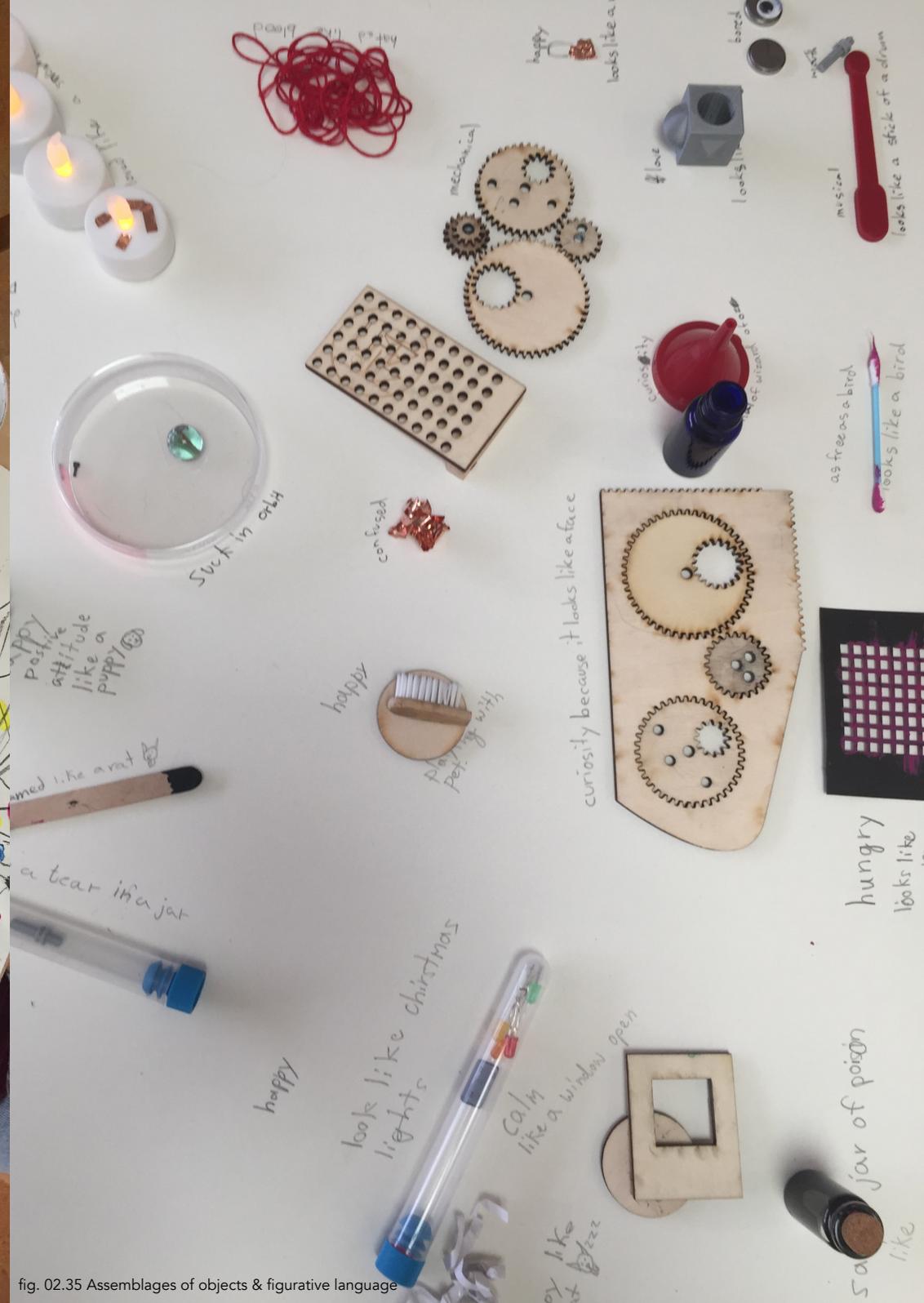


fig. 02.35 Assemblages of objects & figurative language



fig. 02.36 Interpreting material inquiry

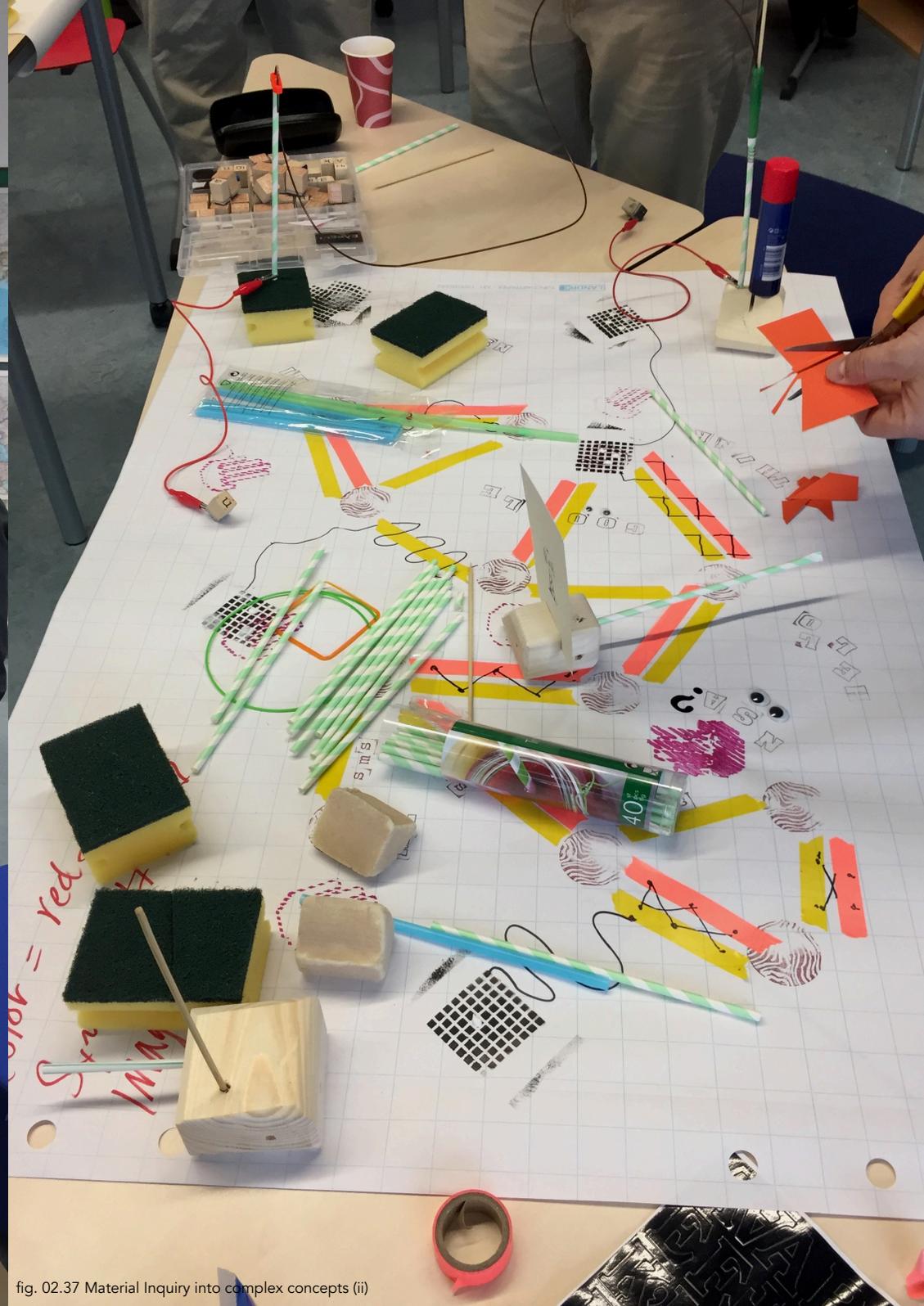


fig. 02.37 Material Inquiry into complex concepts (ii)