

## **Unfixing the Studio**

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## Unfixing the studio

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## Unfixing the studio

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**Abstract:** *The studio remains a central idea in art and design education as a persistent physical and conceptual entity also notable for a lack of objective definition. The studio is complex, changeable, and tacit, meaning traditional modes of definition or inquiry are not always suited to furthering our understanding and recent work is starting to demonstrate the benefits of blending disciplinary-oriented and academic methods to achieve this. The paper aims to build on this and observes that there are inherently visual components to many research methodologies, all of which start with an academic justification before proceeding to some visual and spatial activity. Underlying such processes is a thought process of 'fixing and unfixing' that can be uniquely supported by disciplinary methods. The question explored is whether starting with visual and spatial methods can lead to, or inform, academic perspectives in design education and to what extent might one inform the other. In response, the authors engaged in a series of academic, pedagogic and practice activities and dialogues that explored this question and a condensed account of the process is offered. The paper ends with descriptions of three processes, each presented as a visual and thinking method that allows readers to explore ways of knowing of studio for themselves.*

**Keywords:** *design studio; studio education; visual research; research methods; visual methods*



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## Preface

The starting point for the work in this paper is that studio is a particularly difficult entity to describe or define. Indeed, the design studio has no single, formal definition (Jones, 2021) and some authors argue there cannot be a full and complete definition. This view, shared by many authors in studio education (Brandt et al., 2013; Cennamo, 2016; Jones, 2021), captures something absolutely central to the paper: this is not just about the ‘bits’ of studio, its complexity and ambiguity, or its fluidity and emergent properties. It is about how all of that holds together, acting as something both coherent and incomplete *at the same time*. A central challenge and aim of the paper, then, is to try to hold on to the essence or whole of studio whilst at the same time pinning it down in certain ways so we can discuss it, bearing in mind that “...in the studio nobody can apply any fixed knowledge.” (Hennion & Farías, 2016)

Studio brings into view a set of learned practices so complex that they can only be meaningfully operated when they have been internalised – whereby we don’t think about them – we think with them (Shulman 2005). The challenge we set ourselves in this visual paper is examine what has been internalised – to think with studio while thinking about studio. Given this challenge, the question explored is whether starting with visual and spatial methods can lead to, or inform, academic perspectives of studio and, in particular, offer an approach to knowledge that considers the whole and the parts in relation to one another in some useful way.

## Intention

What we hope to do with this paper, and the intention behind the process we went through is to explore studio without reducing its complexity and reality. To achieve this, we use visual methods to act as a medium and mode of thinking that is both real (a mark, image, drawing) as well as imagined (a narrative, interpretation, idea). Our basic process is one of dialogue and critical reflection around a series of visual activities, either creating, or responding to, some visual artefact relating to studio. As this progresses, our individual and collective understandings of the studio as well as how we were beginning to understand it develops.

What emerged were certain patterns of visual/spatial thinking that we feel others may find useful to explore further. Each of these explorations explore specifics but also hold onto the complexity, uncertainty, and ambiguity of the whole that is studio.

This is not an easy thing to do and this is where we need your help as a reader.

## Role of the reader

It’s impossible to transfer a complete conception of something because we each hold our own ‘versions’ of ideas. One person’s idea of studio will inevitably differ from another’s, and this is simply the outcome of varying subjectivities as individuals; our ‘multiple readings of reality’ (Charmaz, 2000). How we overcome this is through interactive and responsive mechanisms such as dialogue and feedback, where we continually present and re-present ideas until we are satisfied that there is some acceptable level of understanding (or an agreed failure).

Our starting position is that we are trying hard not to *transfer* an idea from us to you: that this is not a transaction of that sort. Instead, we hope the conception will be (re)created by the reader through engaging with the material. This is a process very similar to the ‘transfer’ of tacit knowledge in studio, where the student creates their own knowledge alongside an expert, peers, or a community. This constructivist paradigm tries to avoid ‘knowledge’ as a transaction and instead as something that is active and emergent between student and expert.

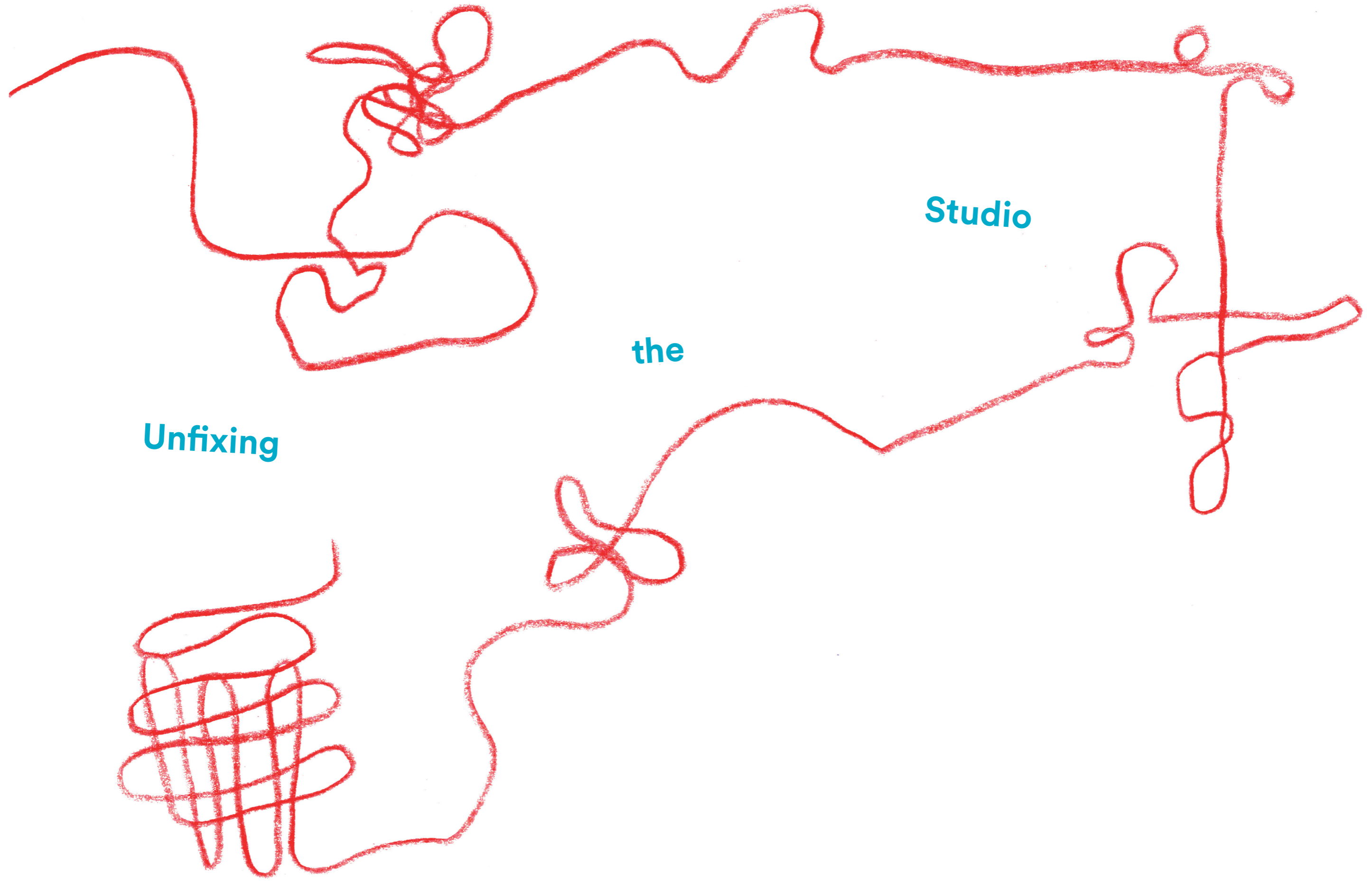
This is what we hope might be achieved between you, the reader, and the material presented. And we recognise that, for some, this is not of interest or even a recognisable knowledge paradigm. What you will not find in this paper is a literature review, a detailed method description, or any results. In many ways, what is presented here is anathema to traditional and normative knowledge. But that does not mean that the work is not situated in the literature or that it lacks method - it is simply that these are presented in other ways than might be normally expected.

The role of the reader, then, is to complete the narrative begun by the visual materials and illustration. If this appeals to you then we would suggest you look through the material and focus on the final six pages, where three different approaches to thinking about studio are given, along with visual material to prompt such thinking. It is this material, rather than the theory, ideas, or arguments, that is really the core offering of this visual paper.

We hope you do engage in this way and especially that you get something from the process.

## **Unfixing the studio**

If you want to know a bit more about the ideas behind the images, there is a short page-by-page narrative text in the Appendix.



Unfixing

the

Studio

We wanted to better understand the design studio and what becomes clear, very quickly, is that there is no single, objective definition.

This is studio

and this

and this

and this

and this

and this

and this

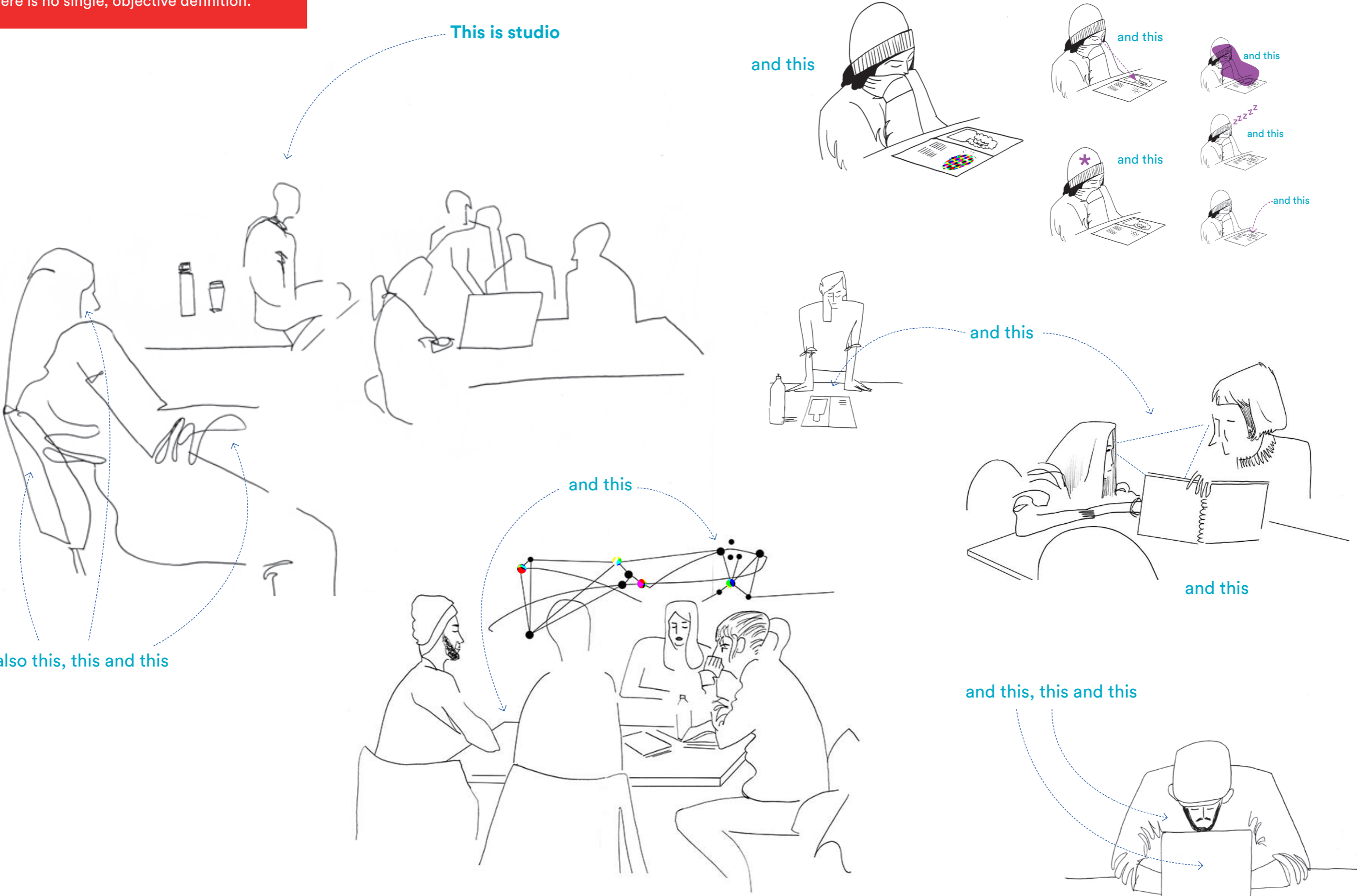
and this

and this

and this

and this, this and this

But also this, this and this



One way to do this is to explore what people say about studio: how they describe it, what metaphors and conceptions they use to convey its complexity.

# STUDIO AS

**Apparatus for Enrolment**  
(Mewburn, 2012)

**Ecology**  
(Brandt, 2012)

**Place and Culture**  
(Ostwald & Williams, 2008)

**Studio as Intersection**  
(Jones et al, 2022)

**Bounded vessel**  
(Farías and Wilkie, 2016)

**Everything and Nothing**  
(Leah Armstrong, 2015)

**Place, method, curriculum**  
(Wallis, Williams & Ostwald, 2017)

**Studio as String bag**  
(Jones et al, 2022)

**Class, space, and pedagogy**  
(Cennamo and Brandt, 2012)

**Four Learning Constructs of the Studio**  
(Schön, 1987)

**Sticky Curriculum**  
(Orr and Shreeve, 2018)

**Virtual World**  
(Schön, 1987)

**Coherent system**  
(Shaffer, 2007)

**Frustrating and important**  
(Lyon, 2011)

**Studio as Bridge**  
(Brandt et al, 2013)

**Completely Incomplete**  
(Armtsrong, 2017)

**Habitus**  
(Gray, 2013)

**Connected production of things**  
(Hennion, 2016)

One way to do this is to explore what people say about studio: how they describe it, what metaphors and conceptions they use to convey its complexity.

# STUDIO AS

## Apparatus for Enrolment

(Mewburn 2012, p.377)

“The ANT [Actor-Network Theory] analysis I have started to perform portrays the design studio as an elaborate and flexible apparatus for enrolling students into the architecture profession (a relatively stabilized actor-network) from which various kinds of learning can emerge (or not).”

## Bounded vessel (for practices)

(Fariás and Wilkie, 2016)

“In all cases, though, the studio designates a more-or-less contained and bounded space shaped by, and shaping, distributed creation processes.”

## Class, space, and pedagogy

(Cennamo and Brandt, 2012)

“Studio ... is simultaneously, a class, a space, and a pedagogical method of instruction.”

## Coherent system

(Shaffer, 2007)

“...the studio as a ‘coherent system’ where surface structures, pedagogical activities, and epistemology interact to create a unique and immersive learning environment.”

## Completely Incomplete

(Armstrong 2017, p.122)

“Like art and design itself, the studio is inevitably an unfinished project. It is a site on which disciplines are reinvented in theory and practice.”

## Connected production of things

(Hennion, 2016)

“Connected production of things - quite a good way of defining studio work, no?”

## Ecology

(Brandt, 2012)

The ecology metaphor is sometimes used to convey the complexity of the studio in terms of it operating as a context within which actors and objects interact in a range of interdependent ways, similar to biological ecology. Brandt (2012) refers to the studio as an ecology to reflect its complexity and “to view the ecology of the studio holistically”

## Everything and Nothing

(Armstrong, 2015)

“... the studio is simultaneously taken to mean everything and nothing ... people talk a lot about the studio here and how important it is, but it is often not very clear exactly what they are talking about.”

## Four Learning Constructs of the Studio

(Schön, 1987)

Schon identifies four interacting constructs of the studio as a physical space, a programme of activity, a mode of teaching and learning and a culture.

## Frustrating and important

(Lyon, 2011)

Describes the difficulty in trying to ‘fix’ something that is as complex and changeable as the studio.

## Habitus

(Gray, 2013)

The theory of habitus, developed by Bourdieu (cf., Bourdieu, 1977; 1984; 1990), considers the structures that make a cultural context coherent, such as the complexity of a setting such as the studio. Bourdieu introduced the concepts of fields and doxa to explore habitus: fields describe the differing social contexts in which we experience life. Doxa refers to beliefs, attitudes, and values that indicate what norms are appropriate or prioritised in a particular field. Habitus has been applied directly to studies of and in, the studio (cf. Gray, 2013, 2016; and Mewburn, 2009).

## Place and Culture

(Ostwald & Williams, 2008)

“Crudely put, studio discourse can be broken into two distinct, but overlapping approaches: concrete and concept ... This refers to the physical space of the studio as an “architectural type’ ... and on the other hand, studio as a discipline or an approach to learning” (Armstrong 2017, p.123)

## Place, method, curriculum

(Wallis, Williams & Ostwald, 2017)

Interviewing architectural academics the three main themes of studio: teaching methods, physical place and curriculum.

## Sticky Curriculum

(Orr and Shreeve, 2018, p.7)

“It is messy and uncertain, values stick to it in ways that are difficult to see; it has elasticity, being both sticky and stretchy; it is embodied and enacted – it sticks to the person; and it is troublesome and challenging”

## Studio as Bridge

(Brandt et al, 2013)

“The instructors in our study, however, argued that their studios were neither embedded in a community of practice (situated in the professional realm), nor a mock replica of profession design work (i.e., a practice field). Instead, we came to see the studio as a unique, sheltered “practice community” (Barab and Duffy 2000, p. 33) that serves as a bridge between academic and professional communities... The challenge for instructors is to develop a studio whereby there is adequate overlap between the academic and professional for the studio to exist as a practice community, bridging these two communities.”

## Studio as Intersection

(Jones et al, 2022)

We are beginning to think about studio as a busy intersection based on Rosaldo’s (1993, p.17) observation of a culture that is “a place where a number of distinct social processes intersect. The crossroads provide a space for distinct trajectories to traverse, rather than containing them in a complete encapsulated form”

## Studio as String bag

(Jones et al, 2022)

“Studio is made up of lots of awkwardly shaped things that are impossible to hold simultaneously. So, we thought about the studio as a string bag because bags both hold things and are shaped by the very things they hold. A string bag is a network, a meshwork, a porous bag where things can stick out (connecting externally), and things can enter through different points.”

## Virtual World

(Schon 1987, pp.170–171)

“A practicum is ... a virtual world. It seeks to represent essential features of a practice to be learned while enabling students to experiment at low risk, vary the pace and focus of the work, and go back to do things over when it seems useful to do so. A practicum may fail because its striving for realism overloads the students with practical constraints or because ... it leaves out too many important features of the real world. In order to be credible and legitimate, a practicum must become a world with its own culture ... [o]therwise, it may be overwhelmed by the academic and professional cultures that surround it.”

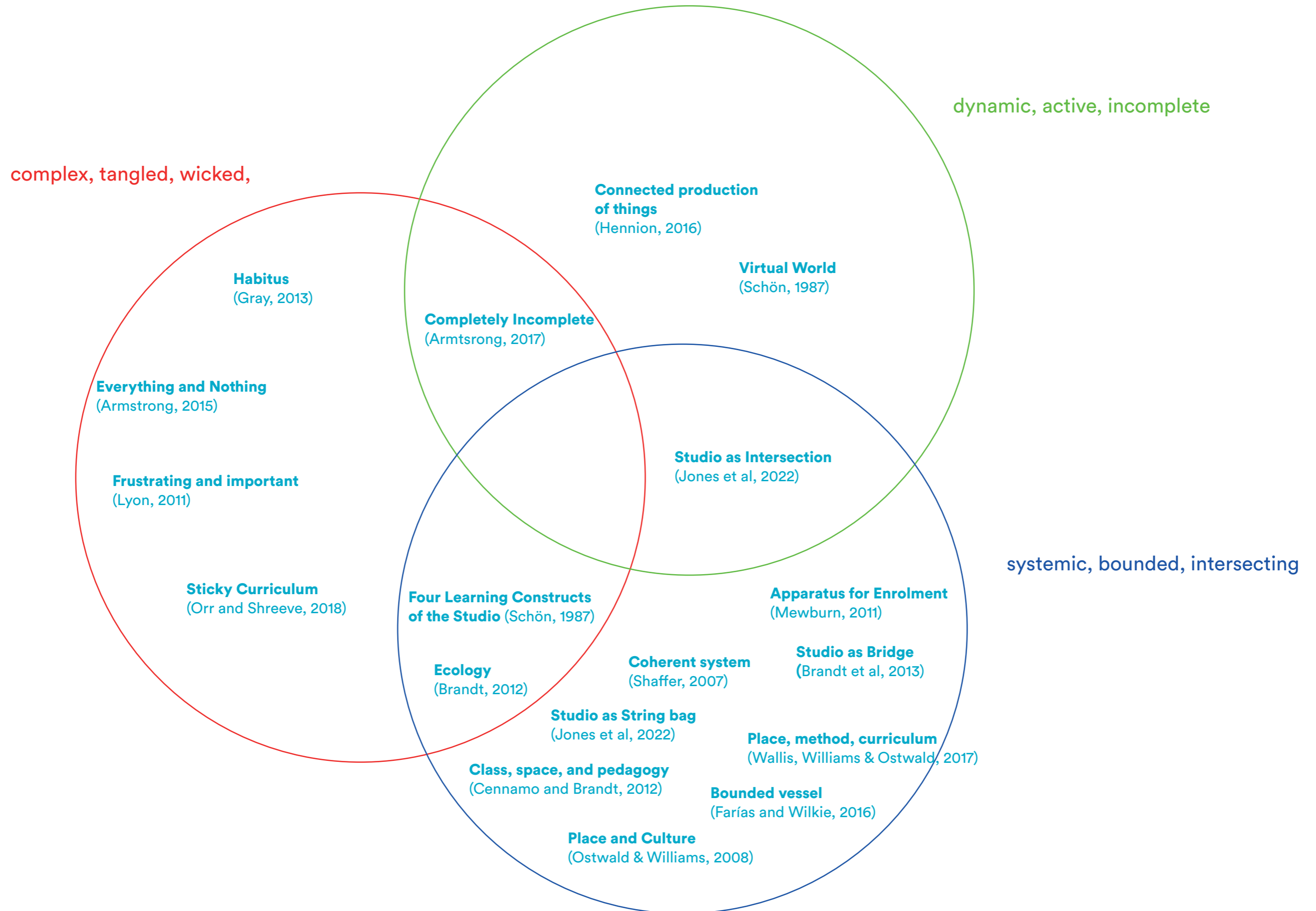
We could, for example, organise studio as nouns  
—what it is, things we can describe.

# STUDIO AS

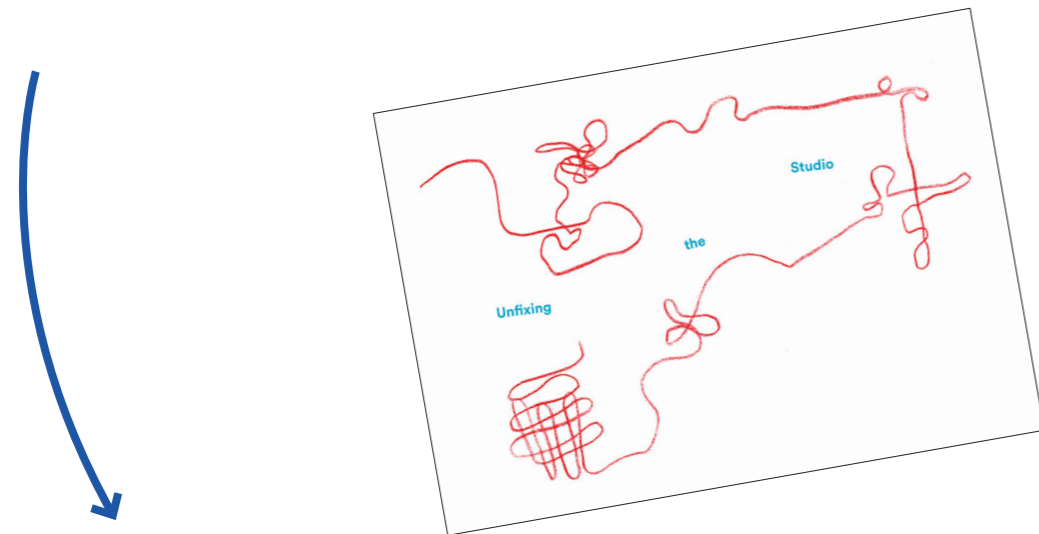
Construct	Paradox	Metaphor	System	Theory
<b>Four Learning Constructs of the Studio</b> (Schön, 1987)	<b>Completely Incomplete</b> (Armtsrong, 2017)	<b>Bounded vessel</b> (Fárias and Wilkie, 2016)	<b>Coherent system</b> (Shaffer, 2007)	<b>Apparatus for Enrolment</b> (Mewburn, 2011)
<b>Place and Culture</b> (Ostwald & Williams, 2008)	<b>Everything and Nothing</b> (Armstrong, 2016)	<b>Studio as Bridge</b> (Brandt et al, 2013)	<b>Connected production of things</b> (Hennion, 2016)	<b>Habitus</b> (Gray, 2013)
<b>Place, method, curriculum</b> (Wallis, Williams & Ostwald, 2017)	<b>Frustrating and important</b> (Lyon, 2011)	<b>Studio as Intersection</b> (Jones et al, 2022)	<b>Ecology</b> (Brandt, 2012)	<b>Virtual World</b> (Schön, 1987)
<b>Class, space, and pedagogy</b> (Cennamo and Brandt, 2012)		<b>Studio as string bag</b> (Jones et al, 2022)	<b>Sticky Curriculum</b> (Orr and Shreeve, 2018)	

Or we could reorganise studio as adjectives  
—descriptors, things it does; what it feels like ...

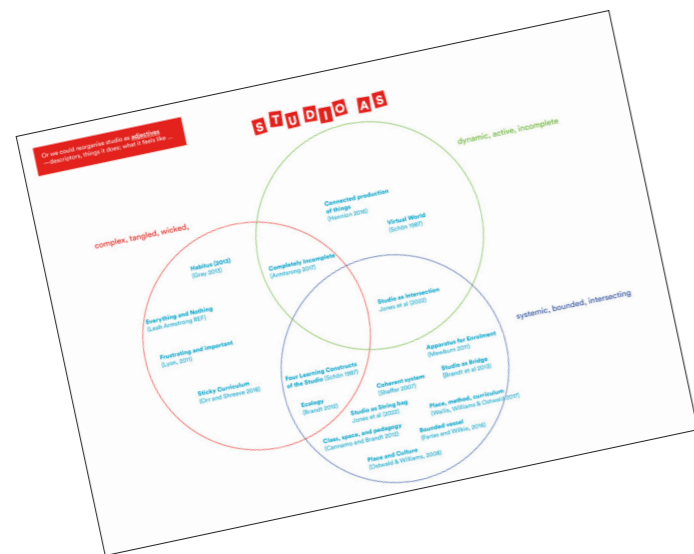
# STUDIO AS



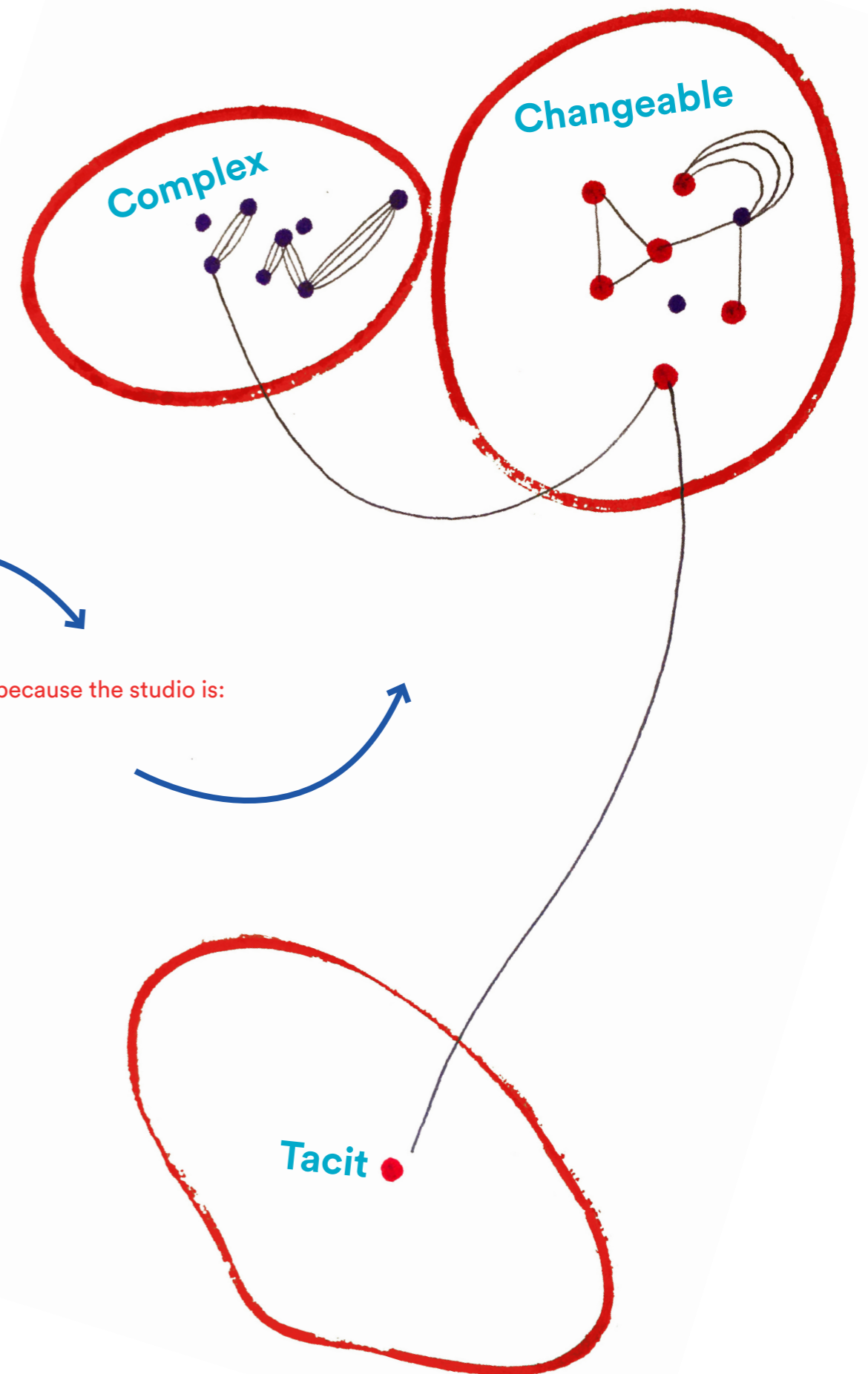
The truth is, we could **organise** what we know about the studio in many different ways. But no method of organising or describing the studio is *complete or perfect* ...



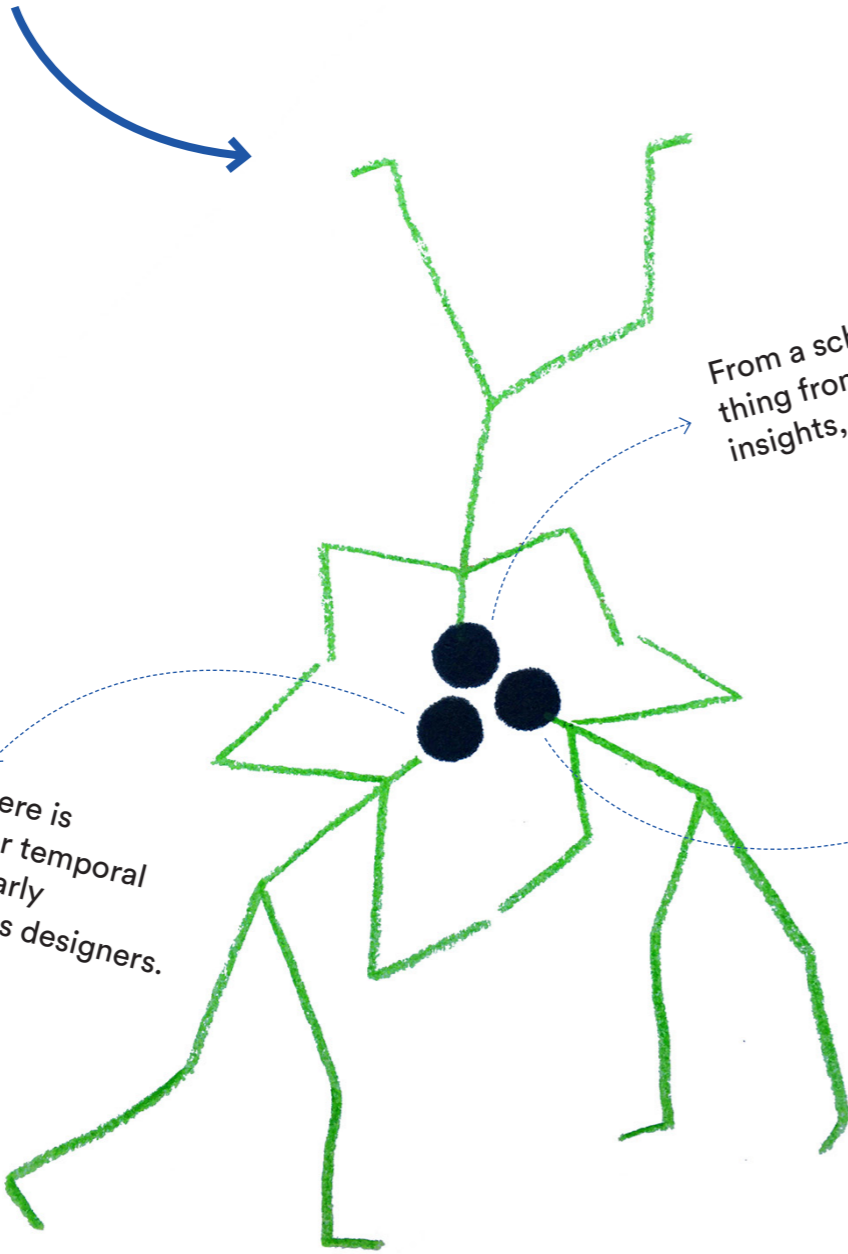
... something is always **left out** or doesn't quite fit ...



... because the studio is:



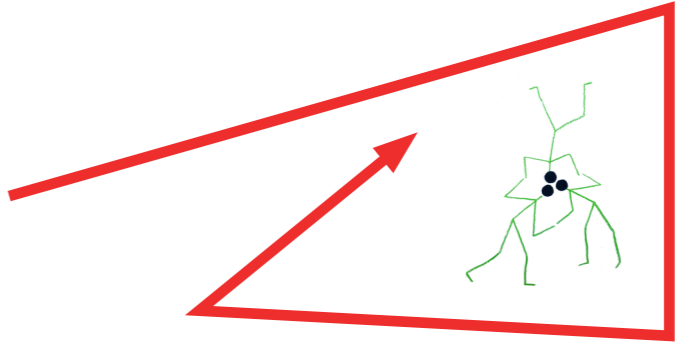
What we found useful, as a team of practitioners, educators, and scholars, was the **processes** and **methods** themselves—the things that led us to new seeing and thinking.



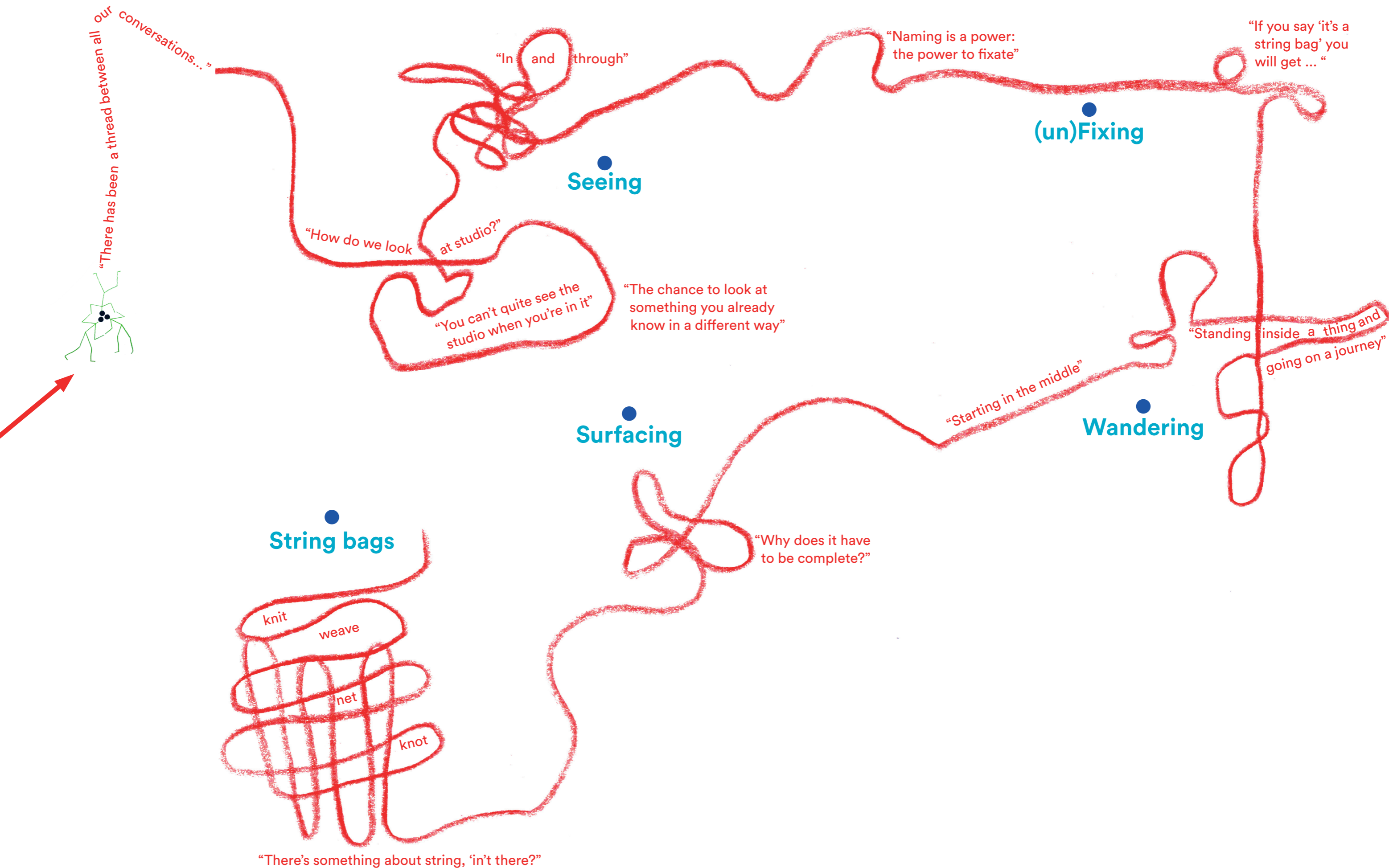
From a practitioner's perspective, there is something inherently visual, spatial or temporal about how we explore complex scholarly questions and these feel very natural as designers.

From a scholar's perspective, seeing a familiar thing from a different perspective leads to new insights, or reframes of existing ones.

From an educator's perspective, different methods are useful in different ways, depending on what you want to do with them.

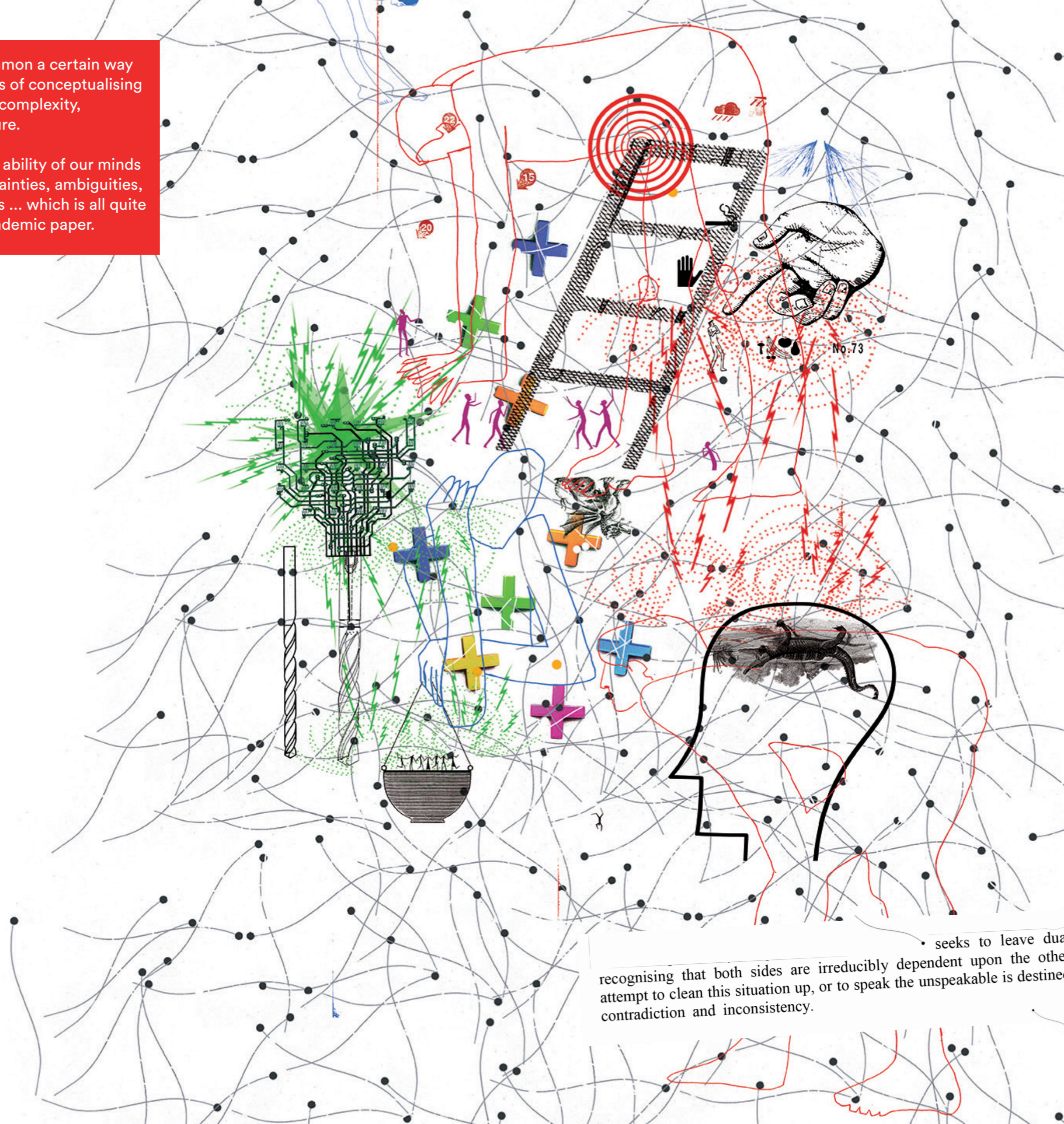


So, we set up a group to explore visual design methods of inquiring about the studio, and that took us on a journey ...



These methods all have in common a certain way of thinking about studio—ways of conceptualising studio that try to preserve the complexity, changeability and its tacit nature.

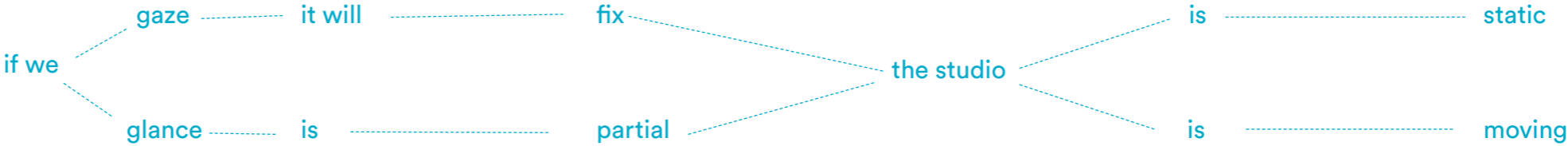
These methods depend on the ability of our minds to hold contradictions, uncertainties, ambiguities, impossibilities, and imaginaries ... which is all quite hard to communicate in an academic paper.



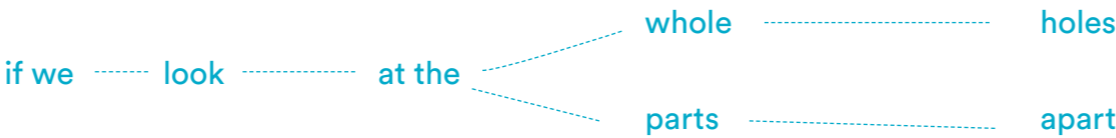
• seeks to leave duality in-tension, recognising that both sides are irreducibly dependent upon the other and that any attempt to clean this situation up, or to speak the unspeakable is destined to flounder on contradiction and inconsistency.

How can we see the studio as both a bounded entity and a continuous and fuzzy process?

how we look



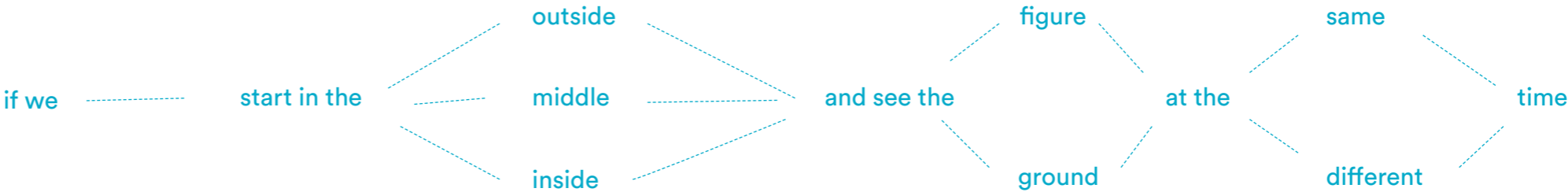
where we look



how we speak



where we stand



How do we involve you, dear reader, in co-creating conceptions of the studio?

how you look

where you look

Here's a few methods we tried, and an invitation to try them

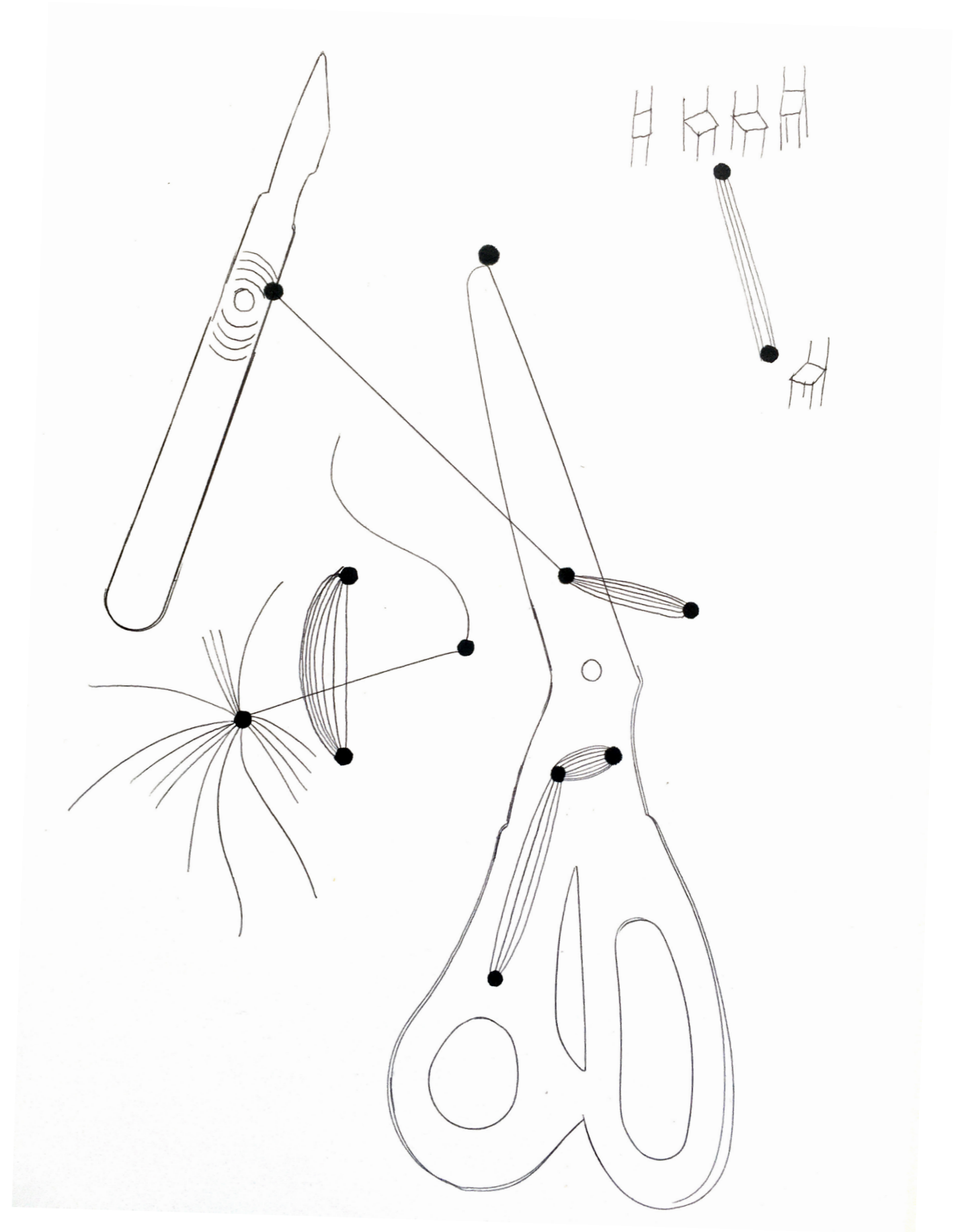
Fixing and Unfixing

Re/De/Un/focusing

Metaphor Making

how you speak

where you stand



## Fixing and Unfixing

Fixing and Unfixing is a useful conceptual metaphor for both research and teaching:

In research it allows us to start with a known fixed starting point and explore the unknown or unfixed (e.g. using the 'Marxist method' of Starting in the Middle (Lave and Wenger, 1991))

In education it allows us a structure around which we can rely on emergent and constructivist modes of learning and teaching (e.g. in Active Teaching, where the studio time is fixed but the learning that takes place is unfixed)

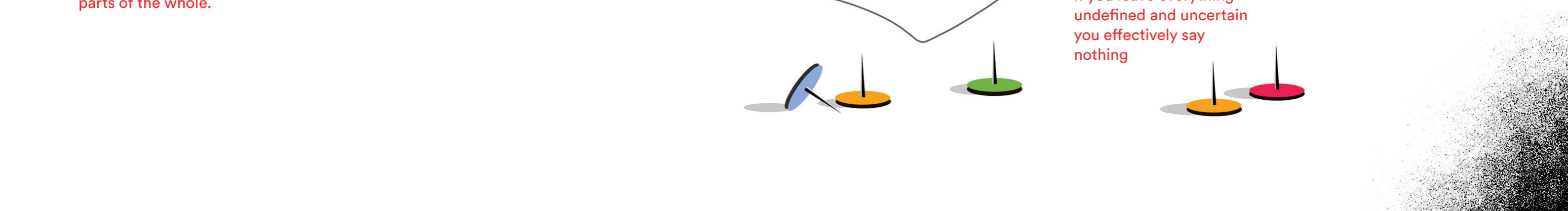
Law and Mol compare this situation of mutual definition and interdependence to the artwork of Maurits Escher in which the figure and the ground are completely interdependent. One cannot be seen without the other and yet, like many optical illusions, it is impossible to see both at the same time:  
(Land, 2001, p.415)

### Fixing

If you define too much you can be very certain about only very small parts of the whole.

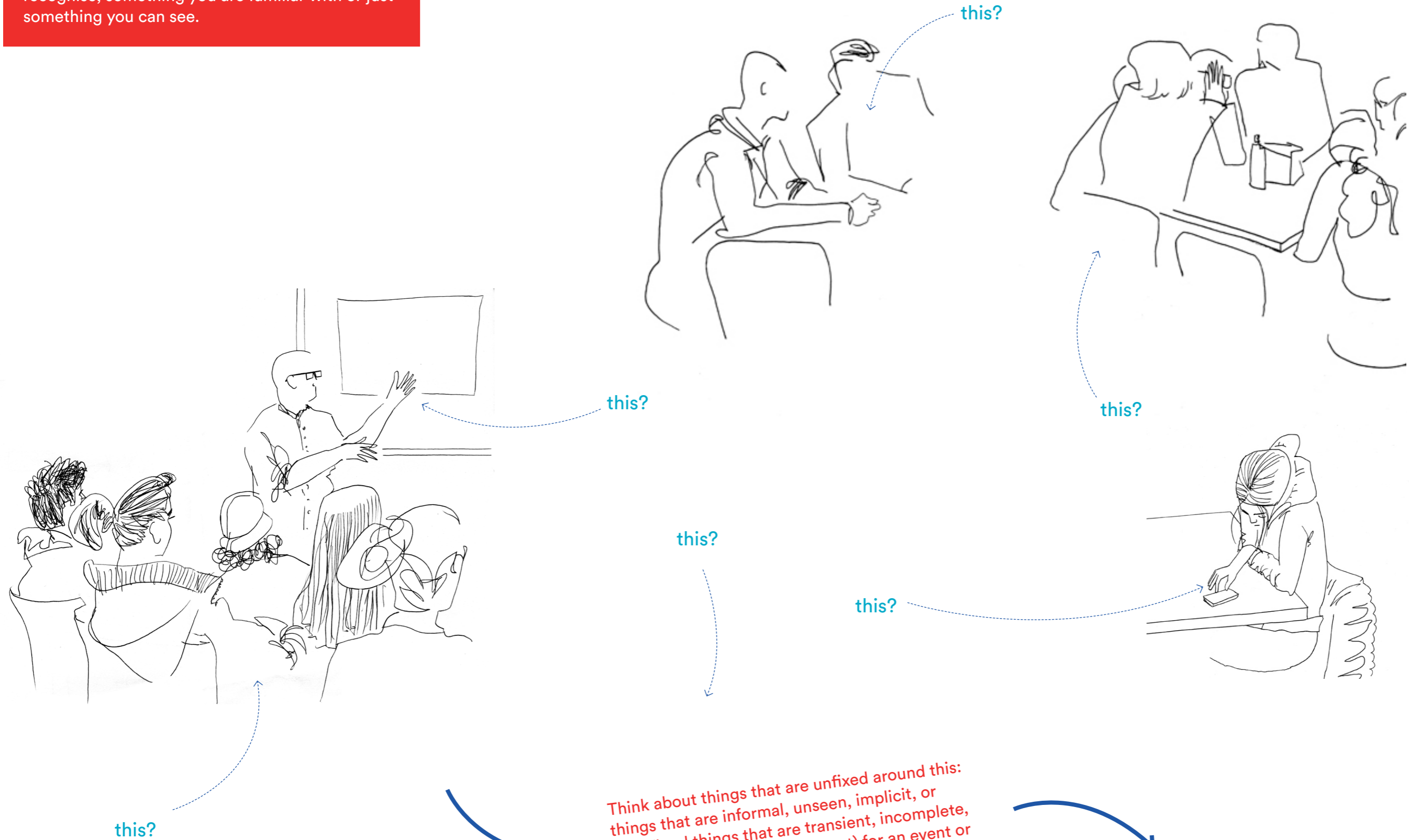
### Unfixing

If you leave everything undefined and uncertain you effectively say nothing



### Fixing and Unfixing

Find a fixing point. This could be: something you recognise, something you are familiar with or just something you can see.



Think about things that are unfixed around this:  
things that are informal, unseen, implicit, or  
undefined things that are transient, incomplete,  
or in-progress (deliberate or not) for an event or  
activity, things that cannot be fixed (predicted,  
planned, or scheduled) beforehand.

What are the things that have to be unfixed for  
your studio to work?

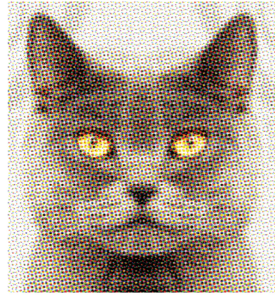
### Re/De/Un/focusing

You know how when you say a word too many times it starts to sound unfamiliar and strange? That's a kind of cognitive de-focusing. Looking at something so familiar until it starts to appear unfamiliar can reveal other useful things: patterns, structures, experiences.

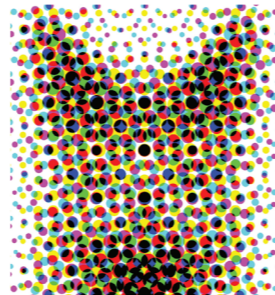
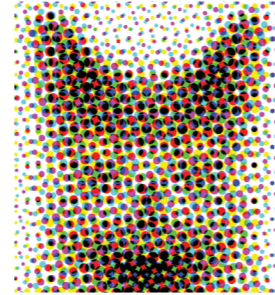
In research, this approach is foundational to many heuristic and linguistic methods, such as grounded constructivist approaches (Charmaz, 2000), Grounded Theory (Corbin and Strauss, 2015); and Thematic Analysis (Braun and Clarke, 2006).



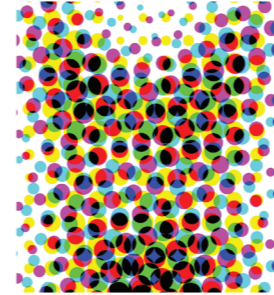
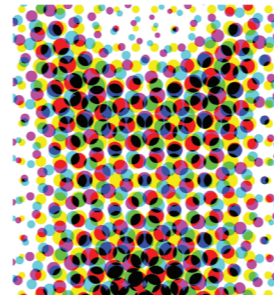
all cat



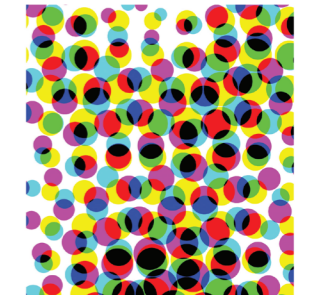
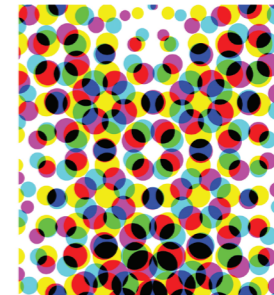
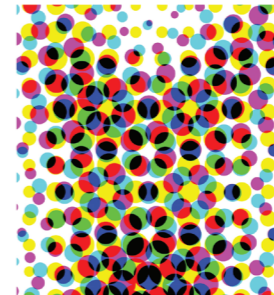
cat or dots



cat and dots



dots or cat



all dots

In education, encouraging students to re-focus away from what is known and explore the boundaries of their knowledge is behind play, risk taking and failure as learning mechanisms in the studio.

### Re/De/Un/focusing

Focus on an aspect of your studio. Look at something you recognise, something you are familiar with ...

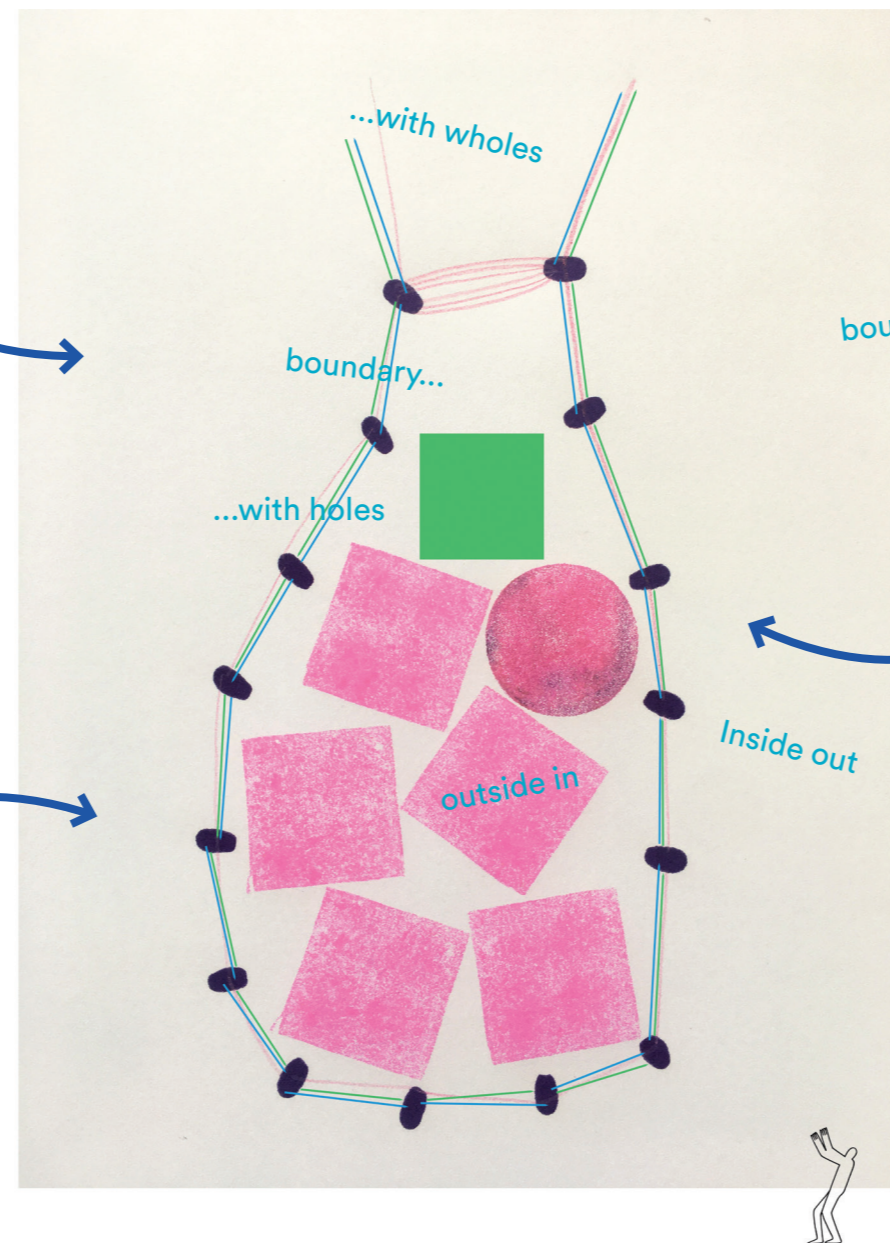
Unfocus by thinking about the bits that make up the whole: things, people, actions, conditions, qualities, etc. The big picture your chosen aspect contributes to: experience, learning, personal change goal, etc. What are some of the unfocused elements in your studio?

## Metaphor Making

Metaphors allow us to apply concepts across different cognitive domains and some of the most important metaphors are embodied ones, such as the *container metaphor* (Lakoff and Johnson, 1980; 1999).

In education, it allows us to question our implicit practices and assumptions—our Hidden Curriculum (Snyder, 1973)—as well as help orient students as contributors to the uncertainties of the subject.

In research, we use the container metaphor regularly (often without realising it) because it allows us to explore aspects of the studio by considering their position: *out* or *in*; *central* or *eccentric*; *interior* or *anterior*. The act of judging spatiality becomes an act of scholarship.



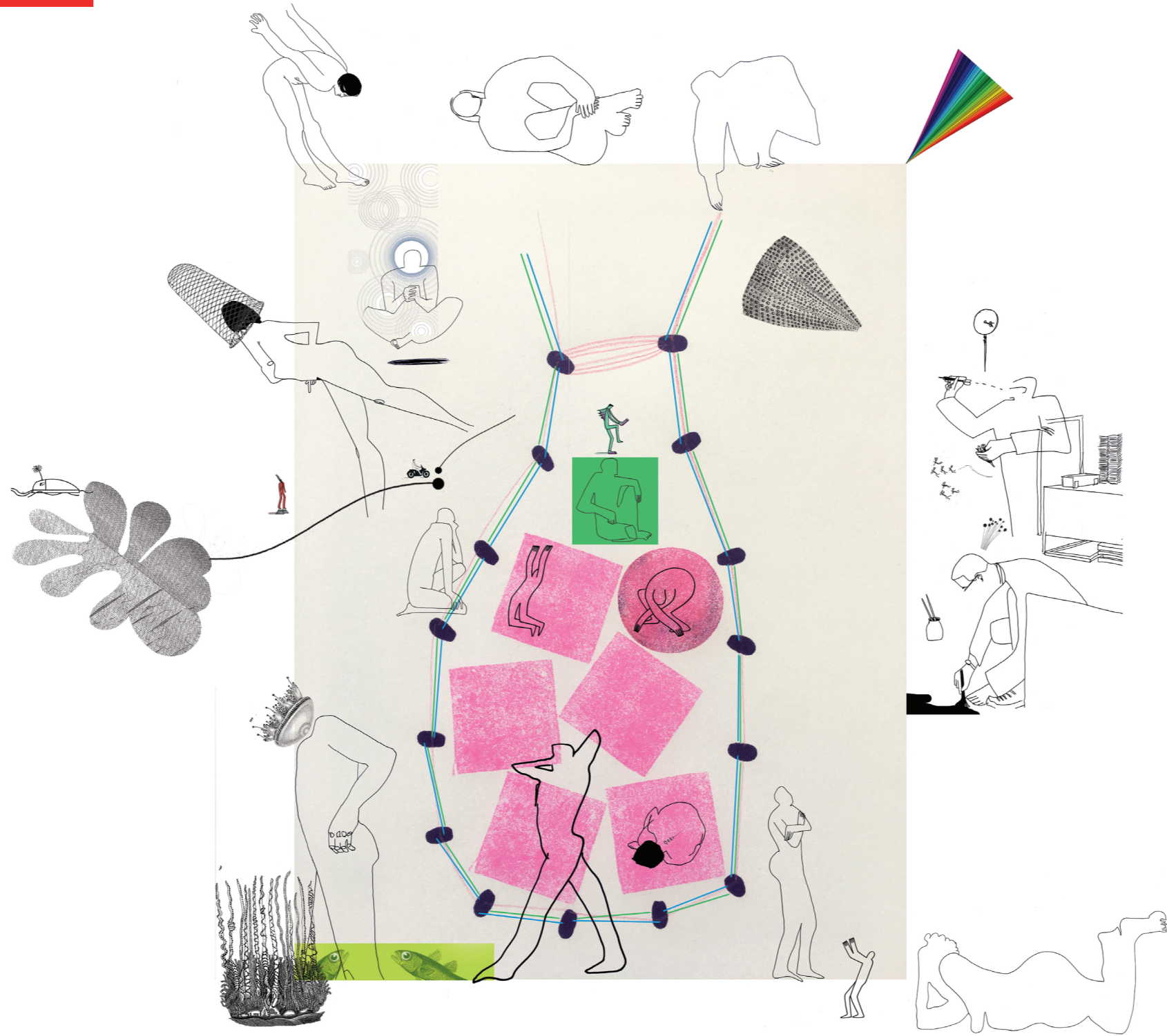
boundary...

Studio as a string bag. The bag shapes and is shaped by its contents. Perhaps the bag is slung over the shoulder of larger forces, and as it moves, it reconfigures the relations of the things it is carrying, and they, in turn, re-shape the bag itself. What defines the studio is as much about what it is not, how the inside affects the outside and vice versa. Bags collect, contain, hide, smuggle, sustain and carry. You can see through the holes and catch a glimpse of the contents of a string bag; things can be half in and half out and passed through. The studio is a world for building worlds. The studio is shaped and shaping.

boundary..

## Metaphor Making

Create your own studio metaphor by trying:  
a container metaphor—what boundary/vessel  
best describes your studio? or a personification  
metaphor—what does your studio 'do':  
Transforms? Inspires?



## Conclusion

As introduced at the start of this paper, the complexities of studio offers particular challenges when it comes to understanding them as a participant in those same complexities. In design practice, holding contradictions, paradoxes, complexities, or uncertainties is a necessary part of the creative design process and, as practitioners, many educators apply these same approaches to interactions and activity in studio. This very often relies on tacit knowledge, embedded approaches, and knowledge structures gained from design experience, making it particularly challenging to make these visible.

And yet it is precisely this 'work' that is a key part of being both a practitioner and educator: that it is critical to not only think *with* these such complexities but to also think *about* them (Shulman, 2005). We suggest that such thinking should be part of the practice (or even craft) of being a design educator: it is neither purely a design nor educator's practice, but some hybrid of both.

We offer examples of approaches we have taken to make use of visual methods to aid such thinking. We hope that you found some of the prompts and starting points useful in your own construction of a conception of studio. We hope it may have offered a slightly different way to think about studio, an alternative process of going about that thinking, or even just some prompts to make explicit and visible some aspects of studio that might have been hidden, or implicit, in your own practice.

## Appendix 1: Parallel Narrative

The following text offers a short page-by-page narrative to accompany the images presented. This text is not an explanation of the visual material but a narrative to help encourage interaction. It should be read only in conjunction with the images.

### Image 1

We wanted to better understand the design studio and what becomes clear, very quickly, is that there is no single, objective definition.

Studio is not only the physical space used by designers. It also comprises, or depends on, : people, things, interactions, surfaces, moments, serendipity, atmosphere, networks, identities, symbols, logistics, structures, etc. This is a particular form of socio-complex that is a necessary condition of studio and one that is particular difficult to study.

### Images 2 and 3

One way to do this is to explore what people say about studio: how they describe it, what metaphors and conceptions they use to convey its complexity.

One very common method used in literature to convey studio as a complex is to use heuristics ideas: conceptual gestalts, metaphors, rich concept words, borrowed (or created) structures, and so on. One way to organise these is to simply lay them out and pick which ones speak to you. Have a look at this page: which of these connect with you as a reader? As a student in studio? As a studio educator? As a studio researcher?

Even the type of heuristic or construct you prefer can say something about how you think about studio, and even shape that thinking itself. Columns are a visual as well as categorical means of ordering and arranging things.

### Image 4

We could, for example, organise studio as nouns —what it is, things we can describe.

Understandings of studio can be constructed using names and doing so changes what we are knowing, hence the things themselves we are trying to know:

“Naming is an activity that requires power – the power to fixate – and has inevitable consequences – the fixation of an identity always happens according to one prevailing ideology” (Lopez-Pineiro 2019:19)

### Image 5

Or we could reorganise studio as adjectives —descriptors, things it does; what it feels like ...

Understandings of studio can be constructed using experiences and relations, and these also change the realities being described - our personal and collective subjectivities are more than just differences of opinion:

“From this point of view it is inaccurate and misleading to say that different people have different "attitudes" concerning the same "thing." For the "thing" simply is not the same for different people whether the "thing" is a football game, a presidential candidate, Communism, or spinach.” (Hastorf & Cantril, 1954)

### Image 6

The truth is, we could organise what we know about the studio in many different ways. But no method of organising or describing the studio is complete or perfect ...

Simply put, any structure we ‘find’ automatically becomes a part of the knowledge itself, inseparable from it, just as Kant’s structures of thinking become inseparable from the knowledge itself (Kant, 2007). Again, this is not to argue that it is impossible or useless to engage in such effort; it is simply to state there is a consequence to doing so.

### Image 7

What we found useful, as a team of practitioners, educators, and scholars, was the processes and methods themselves—the things that led us to new seeing and thinking.

This is quite challenging to convey in either writing or images simply because it is time-based and depends on the experience of knowing as well as any explicit symbols of that knowledge. This is the 'turn' that led us to depending on the reader to complete the narrative, arguing that it is only through experiencing these ideas that can allow them to be conceptualised. Arguably, this is what happens in a 'traditional' written paper, albeit the visualisation of conception takes place from a very different starting point.

### Image 8

On reflection, we were able to give words to some of the ways we went about exploring studio, all presented as ideas, heuristics, and uncertainties, not definitions:

As a group we went through a number of different approaches to thinking about and discussing studio. Some of these started to become clearer than others, given names through phrases or words. Some of these became things to avoid or react against (how do we unfix an idea?); yet others became ways of starting something (starting in the middle); and some became conceptual metaphors themselves, often reflecting the journeys we see students take in studio as they develop expertise and design identities.

Note: none of these are presented as methods and all may be fundamentally flawed as exercises of knowledge. But what they offer are alternative ways to think about how what we experience and what we know relate to one another;

### Image 9

These methods all have in common a certain way of thinking about studio—ways of conceptualising studio that try to preserve the complexity, changeability and its tacit nature.

These methods depend on the ability of our minds to hold contradictions, uncertainties, ambiguities, impossibilities, and imaginaries ... which is all quite hard to communicate in an academic paper.

One critical idea that began to emerge is that the type of thinking required is of a particular form, possibly a set of specific cognitive processes or even states. For example,

**Contradiction** - we are able to hold contradictions in our minds: to believe one thing and say another; to deny evidence that might exist in favour of a preferred belief.

**Ambiguity** - we can be truly excellent at holding ambiguity in our minds, where something is uncertain in a specific way: ill defined, but know; out of focus, but visible.

**Uncertainty** - we are able to tolerate uncertainty, indeed, some people prefer uncertain states of mind and being over certainty and explicitness.

**Impossibilities** - we are able to imagine the impossible, to dream we can fly, or to insist on trying something that simply does not work in the knowledge that yet another interesting thing might come from the process.

**Optimism** - we are able to pretend the future can be better and, in this, the entire unsustainability of humanity arises...

All of these are forms of cognition that are usually anathema to rational, positivist, or traditional academic scholarly or knowledge traditions. In contrast, they are very often highly valued in creative disciplinary traditions, very often without explicitly relating to them.

What is far less well understood is any intermediate position between what are often presented as polar opposites. We tend to organise and sort according to being creative or not; liking logic or not; being comfortable with uncertainty or not. And these binaries rob us of our most incredible cognitive abilities - to be able to hold any and all of these mind states when needed in order to achieve something.

### Image 10

How can we see the studio as both a bounded entity and a continuous and fuzzy process?

This was the central question to our explorations of studio and one that led us to using illustration and visual methods in order to try to maintain the types of thinking introduced in the previous page.

### **Image 11**

How do we involve you, dear reader, in co-creating conceptions of the studio?

But more than just trying this for ourselves, we wanted to expand the question to consider whether it might be possible for others to do this and find it useful too. The question then becomes the one posed on this page: how to involve the reader.

### **Images 12 - 17**

The remaining pages present three methods we made use of and that came out of subsequent reflections and dialogue. Each is presented with a loose description of what we feel are some attributes or elements in that method. They are then followed by an offer to give them a try for yourself using the visual materials

## References

- Armstrong, L. (2017). [Review of the book *Studio Studies: Operations, Topologies and Displacements* Edited by Ignacio Farías and Alex Wilkie West 86th: A Journal of Decorative Arts, Design History, and Material Culture Volume 24, Number 1 pp122–127
- Armstrong, L. (2015). 'Studio as Pedagogy', Glasgow School of Art.
- Brandt, C. B., Cennamo, K., Douglas, S., Vernon, M., McGrath, M., & Reimer, Y. (2013). A theoretical framework for the studio as a learning environment. *International Journal of Technology and Design Education*, 23(2), 329–348. <https://doi.org/10.1007/s10798-011-9181-5>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cennamo, K., & Brandt, C. (2012). The 'right kind of telling': Knowledge building in the academic design studio. *Educational Technology Research and Development*, 60(5), 839–858. <https://doi.org/10.1007/s11423-012-9254-5>
- Charmaz, K. (2000). Grounded Theory: Objectivist and Constructivist Methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed.). Sage.
- Corbin, J., & Strauss, A. (2015). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (4th ed.). Sage Publications Ltd. <http://uk.sagepub.com/en-gb/eur/basics-of-qualitative-research/book235578>
- Coyne, R. (1997). Creativity as commonplace. *Design Studies*, 18(2), 135–141. [https://doi.org/10.1016/S0142-694X\(97\)85456-7](https://doi.org/10.1016/S0142-694X(97)85456-7)
- Gray, C. M. (2013). Informal peer critique and the negotiation of habitus in a design studio. *Art, Design & Communication in Higher Education*, 12(2), 195–209. [https://doi.org/10.1386/adch.12.2.195\\_1](https://doi.org/10.1386/adch.12.2.195_1)
- Hastorf, A. H., & Cantril, H. (1954). Case reports. They saw a game: A case study. *The Journal of Abnormal and Social Psychology*, 49(1), 129–134.
- Hennion, A., & Farías, I. (2016). For a Sociology of Maquettes—An interview with Antoine Hennion. In A. Farías & A. Wilkie (Eds.), *Studio Studies: Operations, Topologies & Displacements* (1st ed., pp. 73–88). Routledge.
- Jones, D. (2017). Narrative Realities and Optimal Entropy. *Proceedings of the IS4SI 2017 Summit DIGITALISATION FOR A SUSTAINABLE SOCIETY*, 1, 51. <https://doi.org/10.3390/IS4SI-2017-03992>
- Jones, D., Corazzo, J., Boling, E., Brown, J. B., Gray, C. M., Lotz, N., & Marshalsey, L. (2022, March 19). Futures of Design Education – Meetup 14: Studio Properties. <https://www.youtube.com/watch?v=mlytXfg0dKY>
- Jones, D., Lotz, N., & Holden, G. (2021). A longitudinal study of Virtual Design Studio (VDS) use in STEM distance design education. *International Journal of Technology and Design Education*, 31(4), 839–865. <https://doi.org/10.1007/s10798-020-09576-z>
- Kant, I. (2007). *Critique of Pure Reason* (Rev Ed edition). Penguin Classics.
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. University of Chicago Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. Basic Books.
- Land, C. (2001) 'Exploring the (Expanded) Realm of Organisation: Celebrations of a Cooperian Revolution' in *Ephemera: critical dialogues on organisation Vol1* (4) pp.404–422
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation* (1st ed.). Cambridge University Press.
- Law, J., & Singleton, V. (2005). Object Lessons. *Organization*, 12(3), 331–355. <https://doi.org/10.1177/1350508405051270>
- Law, J., & Mol, A. M. (1998). 'Metrics and Fluids' In *Organized Worlds. Explorations in technology and organisation with Robert Cooper* (pp. 20–38). Routledge.
- Lyon, P. (2011). *Design Education—Learning, Teaching and Researching through Design* (1st ed.). Gower Publishing Ltd.
- Mewburn, I. (2011). Lost in translation: Reconsidering reflective practice and design studio pedagogy. *Arts and Humanities in Higher Education*, 11(4), 363–379. <https://doi.org/10.1177/1474022210393912>
- Nelson, H. G., & Stolterman, E. (2014). *The Design Way: Intentional Change in an Unpredictable World* (second edition). MIT Press.
- Orr, S., & Shreeve, A. (2018). *Art and design pedagogy in higher education: Knowledge, values and ambiguity in the creative curriculum*. Routledge, Taylor & Francis Group.
- Ostwald, M., & Williams, A. (2008). *Understanding Architectural Education In Australasia. Volume 2: Results and Recommendations*.
- Rosaldo, Renato. (1993). *Culture & truth : the remaking of social analysis : with a new introduction*. Boston :Beacon Press,
- Schön, D. A. (1987). *Educating the Reflective Practitioner* (First). John Wiley and Sons.

- Shaffer, D. W. (2007). Learning in Design. In R. A. Lesh, J. J. Kaput, & E. Hamilton (Eds.), *Foundations for the future in mathematics education* (pp. 99–126). Lawrence Erlbaum Associates.
- Shulman, L. S. (2005). Signature pedagogies in the professions. *Daedalus*, 134(3), 52–59. <https://doi.org/10.1162/0011526054622015>
- Snyder, B. (1973). *Hidden Curriculum*. MIT Press.
- Wang, D., & Ilhan, A. O. (2009). Holding Creativity Together: A Sociological Theory of the Design Professions. *Design Issues*, 25(1), 5–22.
- Wallis, L., Williams, A., & Ostwald, M. J. (2017). Studio models in a changing higher education landscape, *Australian Art Education*, 38(1), 122–139
- Wilkie, A., & Michael, M. (2016). The Design Studio as a Centre of Synthesis. In A. Wilkie & I. Farías (Eds.), *Studio Studies: Operations, Topologies & Displacements* (1st ed., pp. 91–104). Routledge.

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