

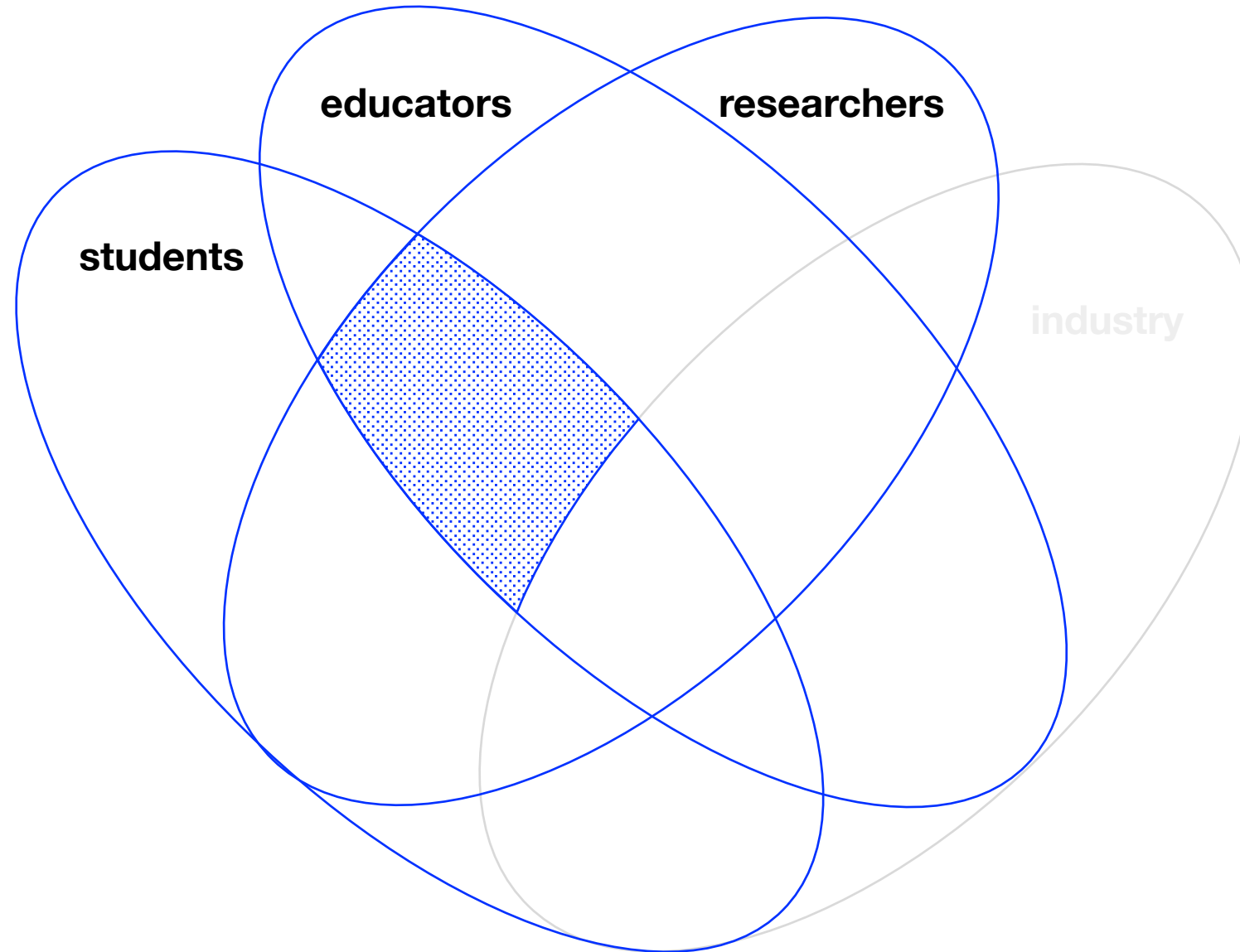


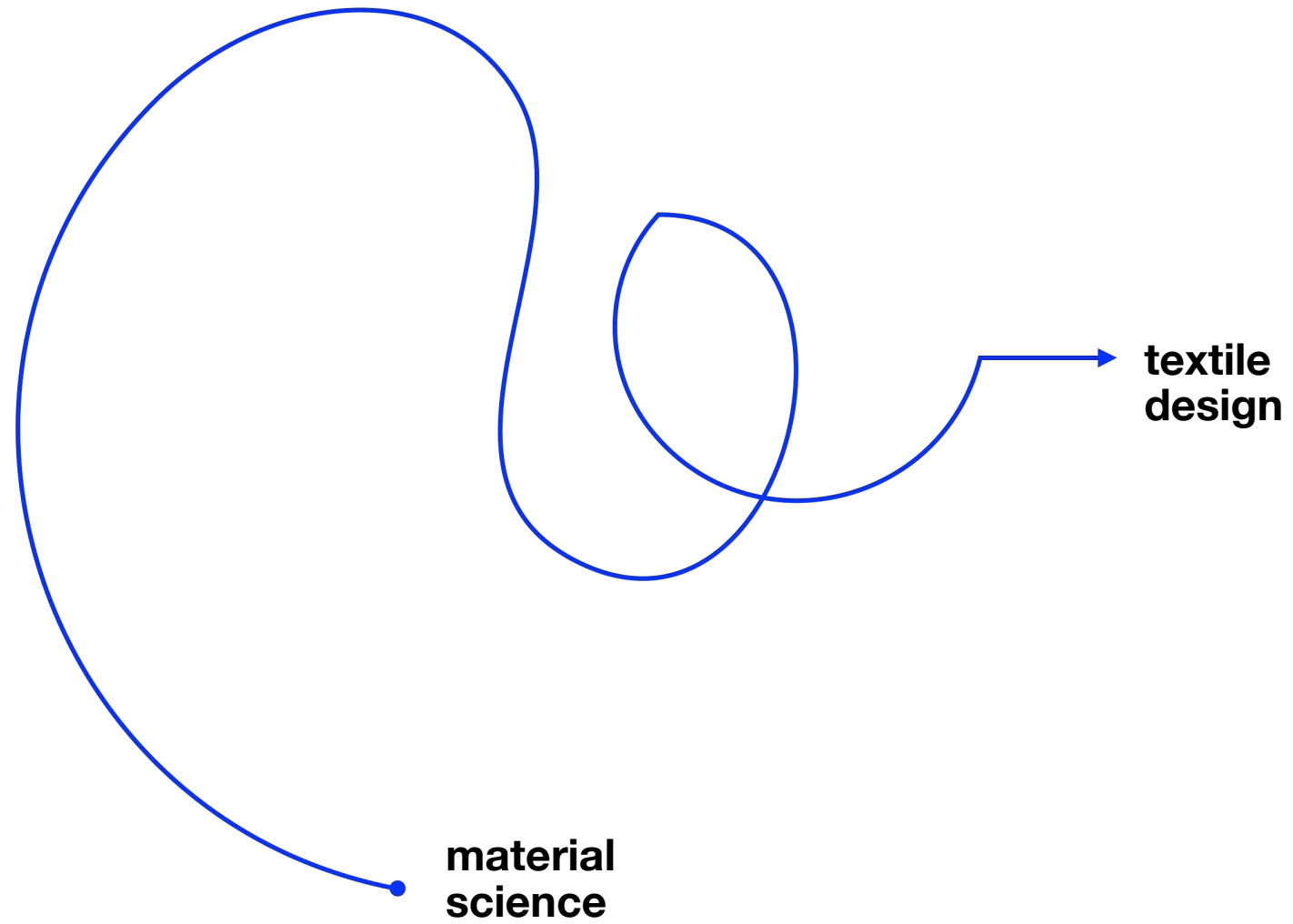
Creating translational knowledge

The role of visual communication design and
prototyping methods in the research process

The background features a series of overlapping, light blue circles and arrows. The circles are of varying sizes and are positioned in a way that they appear to be interconnected. The arrows are also light blue and point in various directions, some following the curves of the circles, suggesting a dynamic and interconnected process.

Project context





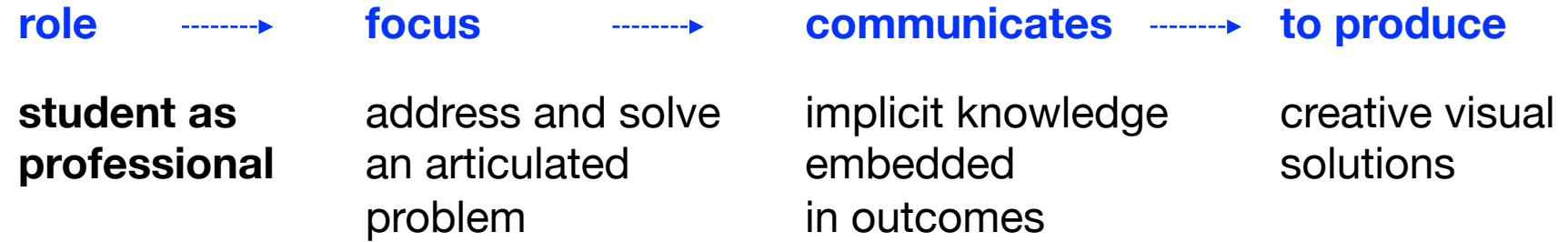
research



dissemination

visual
communication

student as 'professional'





**The design mode of experts
who use their specific knowledge
and tools to conceive and develop
original products, services,
and communicative artifacts**

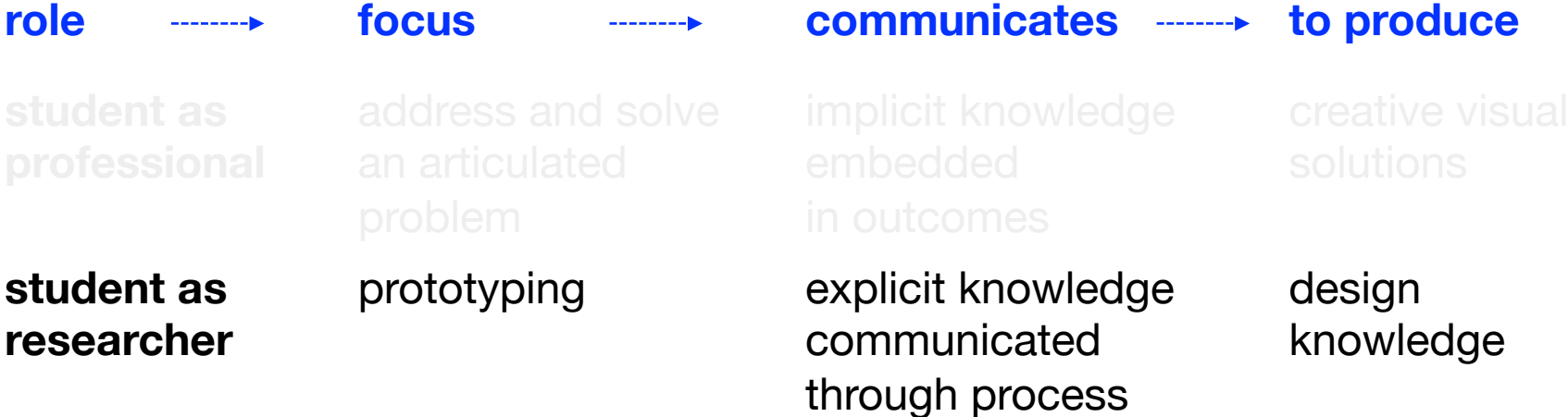


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Innovations in contexts, methods and applications of design are calling for a new kind of designer, or at least an expanded capacity to undertake research with increasing sophistication

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student as 'researcher'



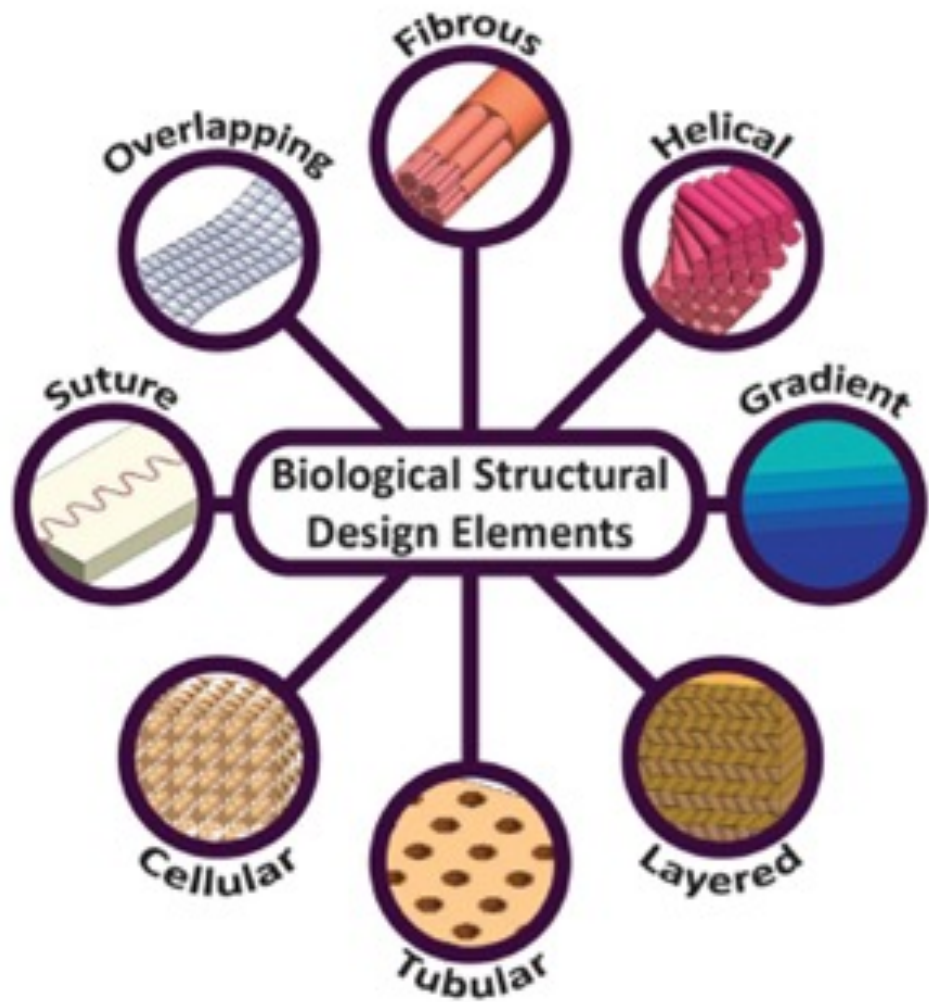
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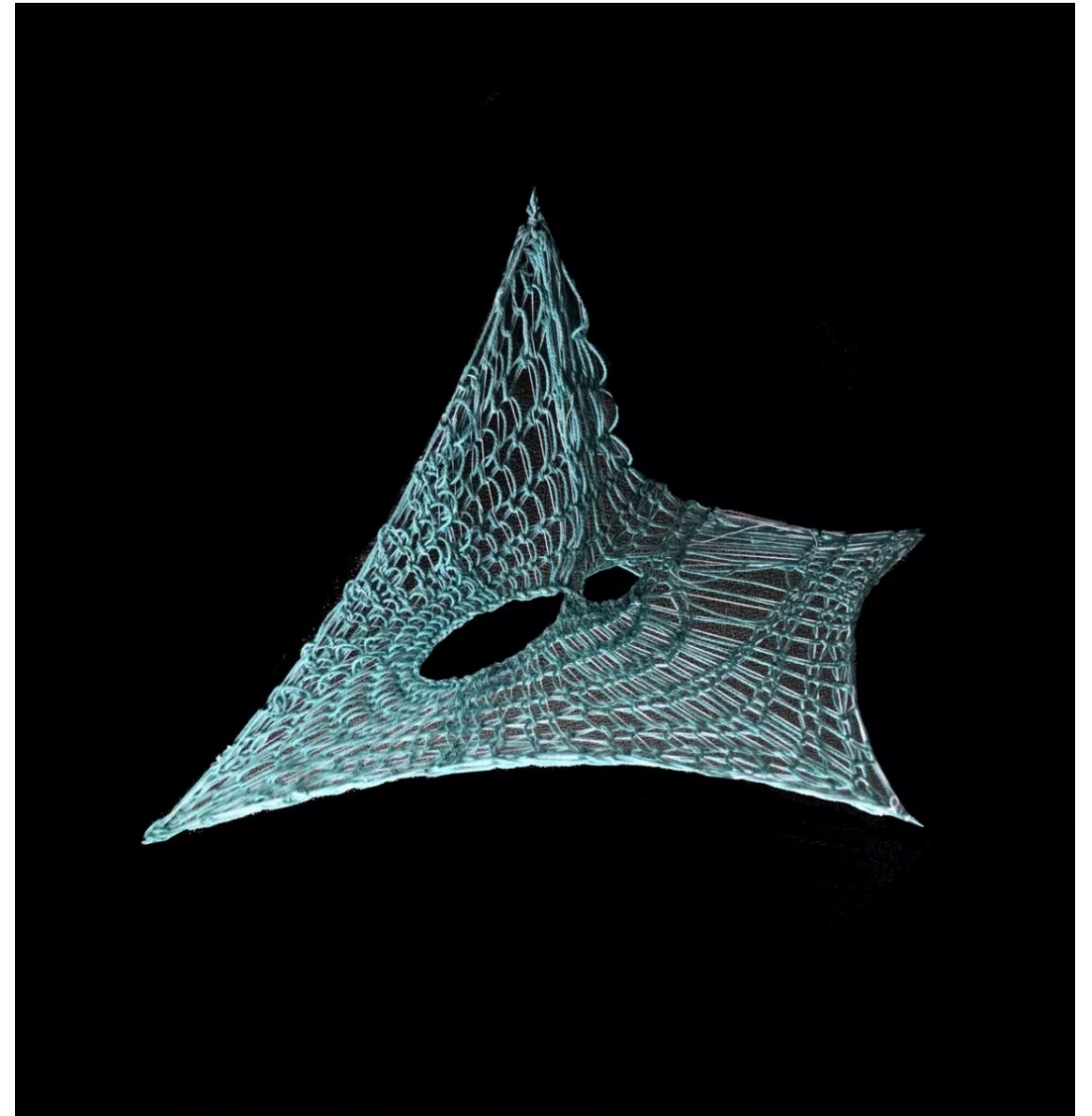
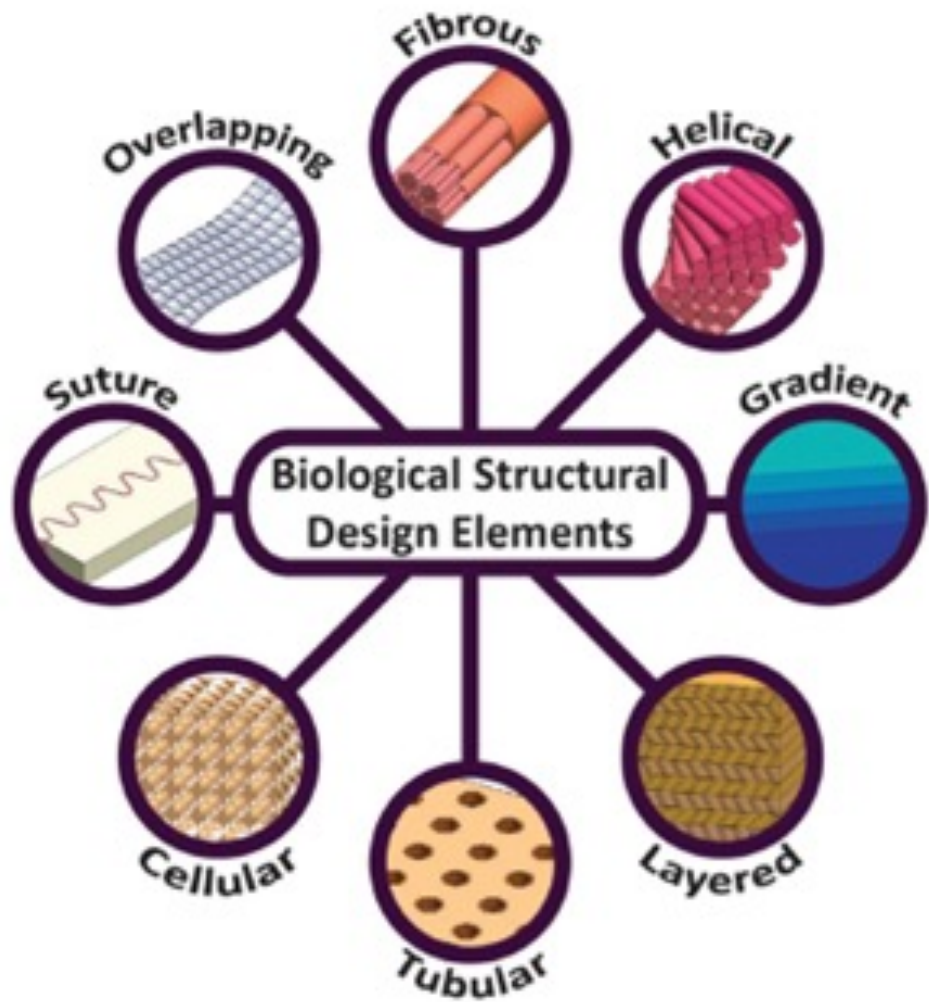
How can the practical knowledge of visual communication contribute to our understanding of how images generate meaning?

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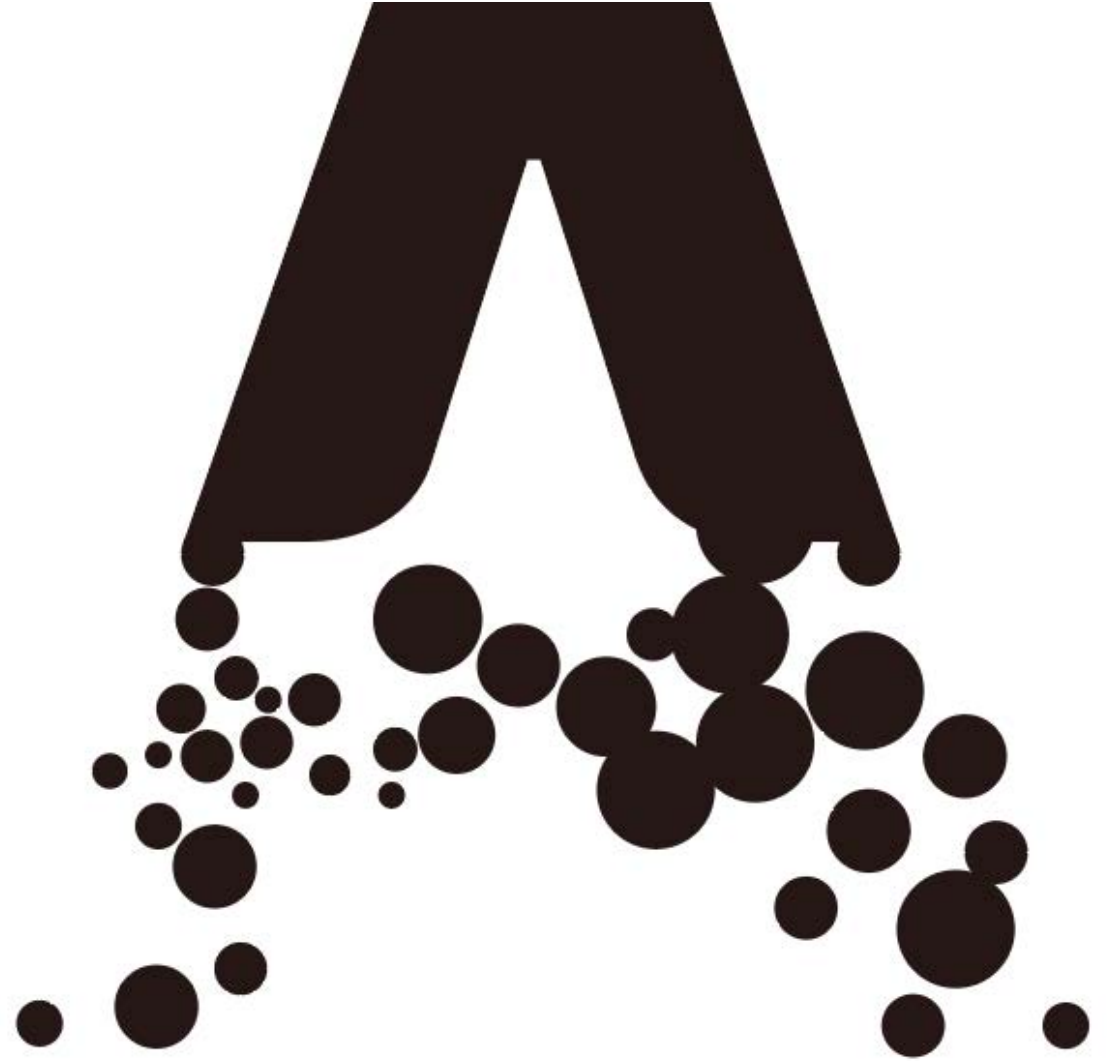
Bio-inspired textiles



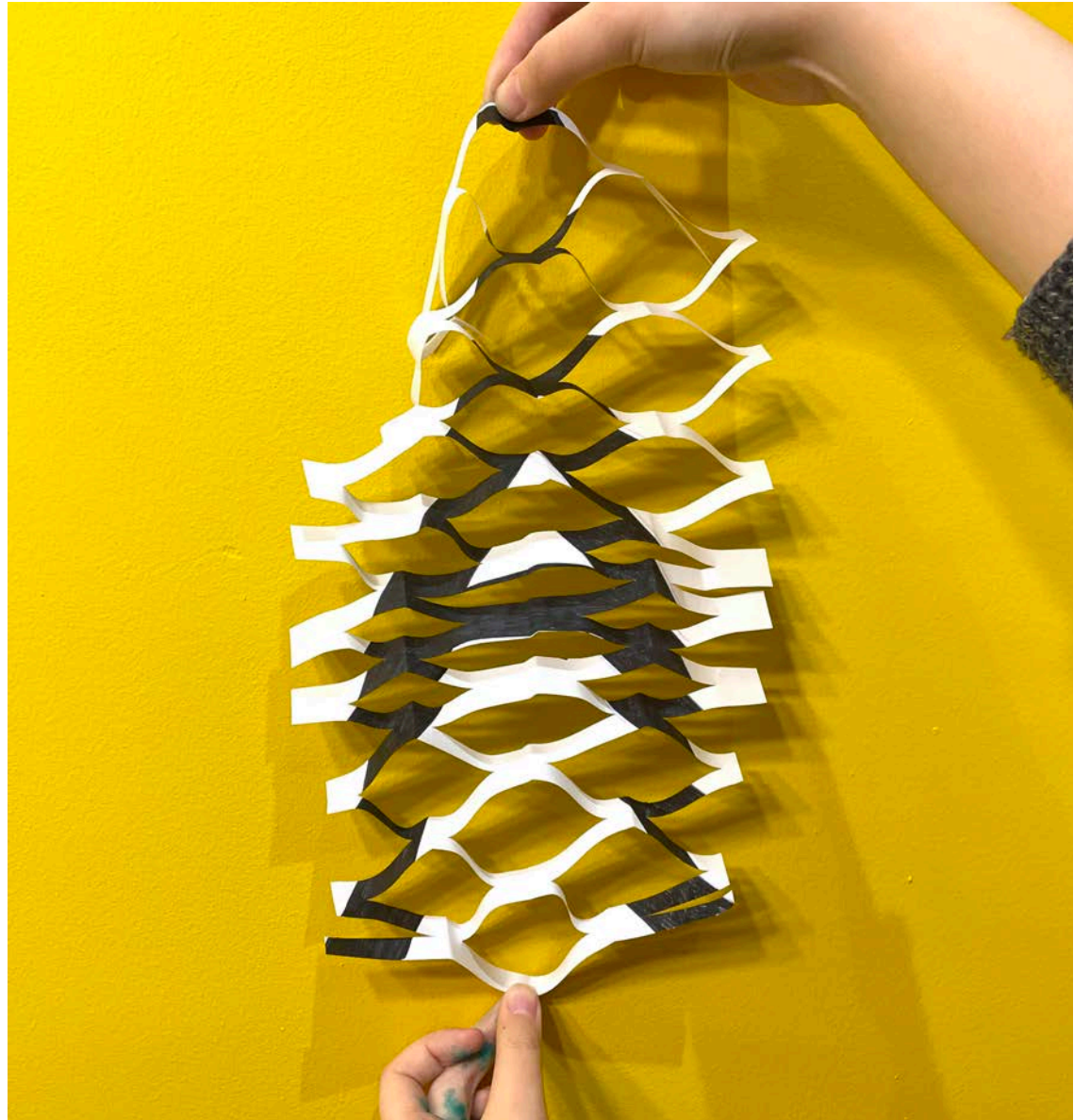




Methods







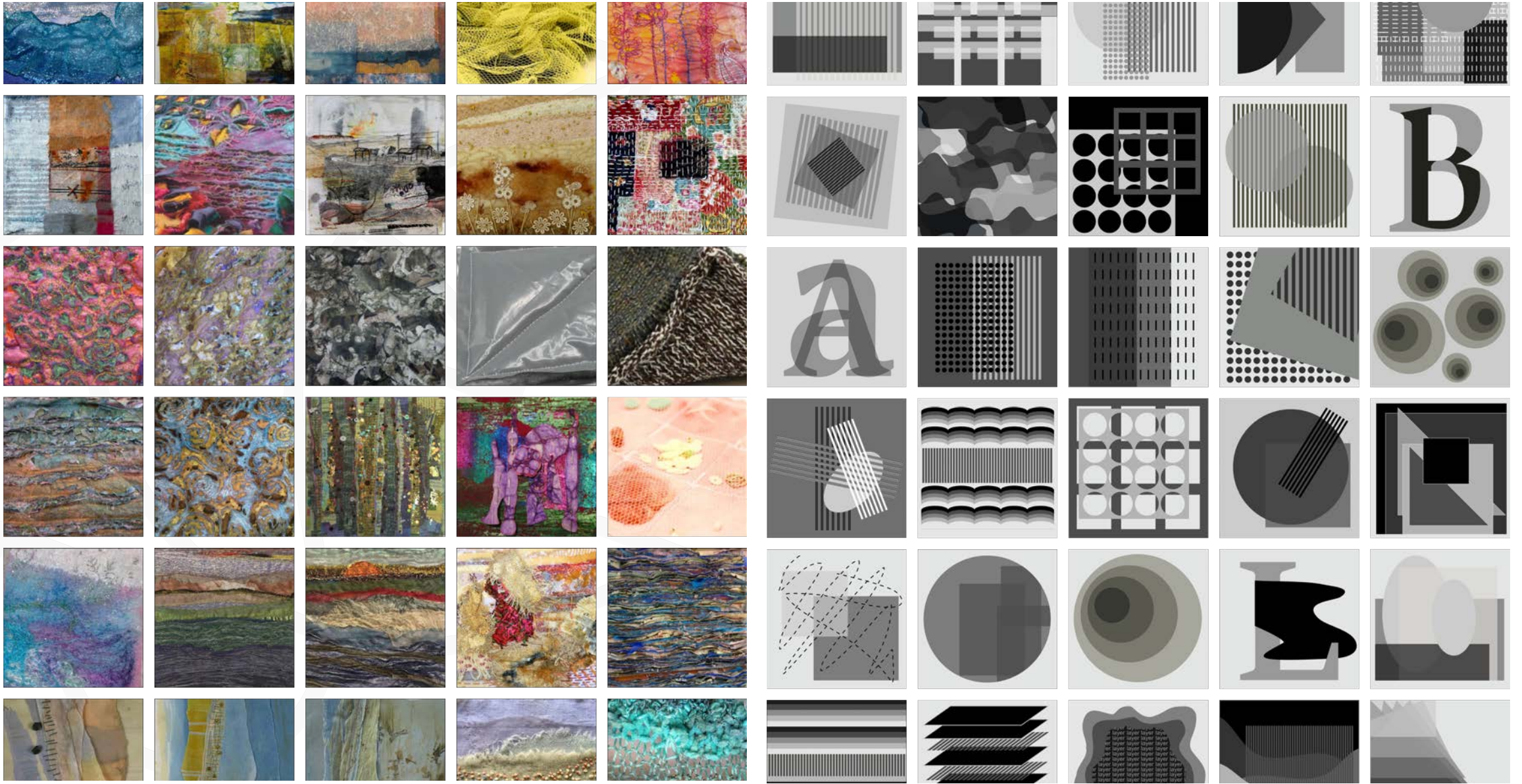


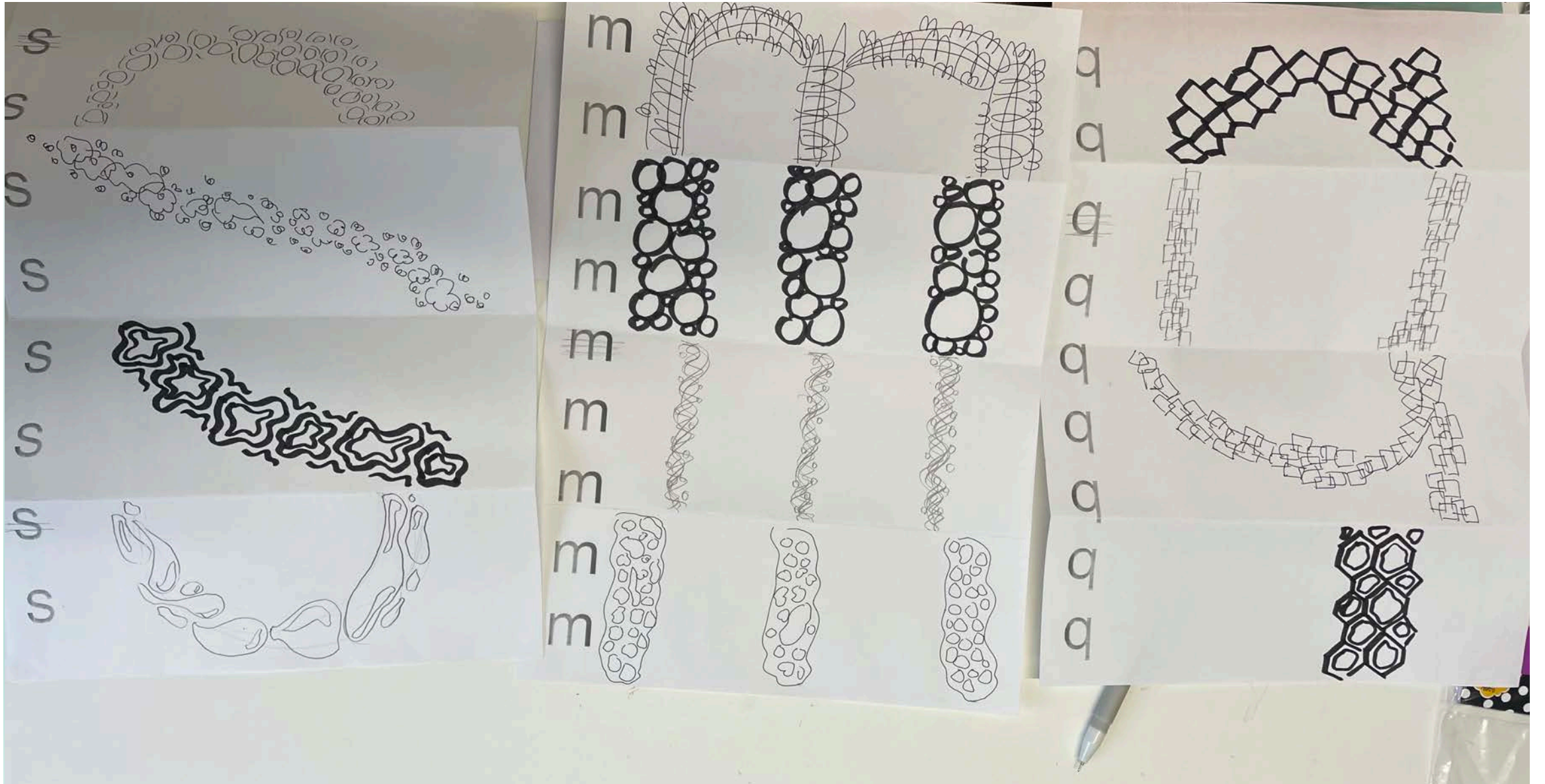
Case study

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Biology can teach us how layers combine materials in different ways for specific jobs

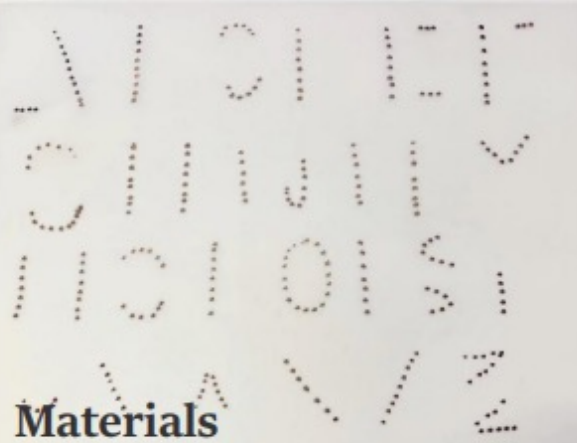
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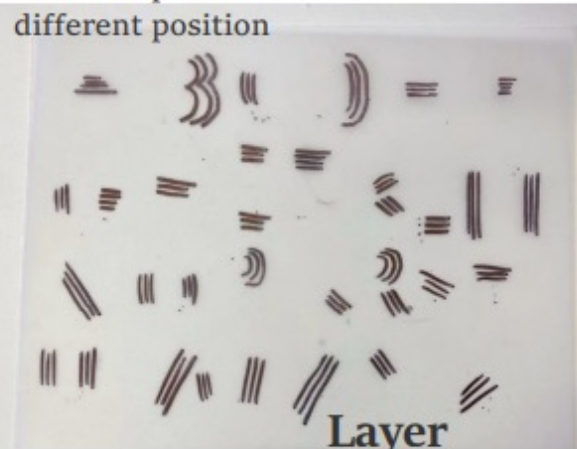
Cc Cc Cc Ff Ff Ff Ii Ii Ii
dD dD dD Gg Gg Gg Kk Kk Kk
Mm Mm Mm Nn Nn Nn Oo Oo Oo
Qq Qq Qq Rr Rr Rr Ss Ss Ss
Tt Tt Tt Uu Uu Uu Vv Vv Vv
Ww Ww Ww

Ii Ii Ii
Jj Jj Jj
Kk Kk Kk
Ll Ll Ll
Mm Mm Mm
Nn Nn Nn
Oo Oo Oo
Pp Pp Pp
Qq Qq Qq
Rr Rr Rr
Ss Ss Ss
Tt Tt Tt
Uu Uu Uu
Vv Vv Vv
Ww Ww Ww



Materials

different patterns
different position

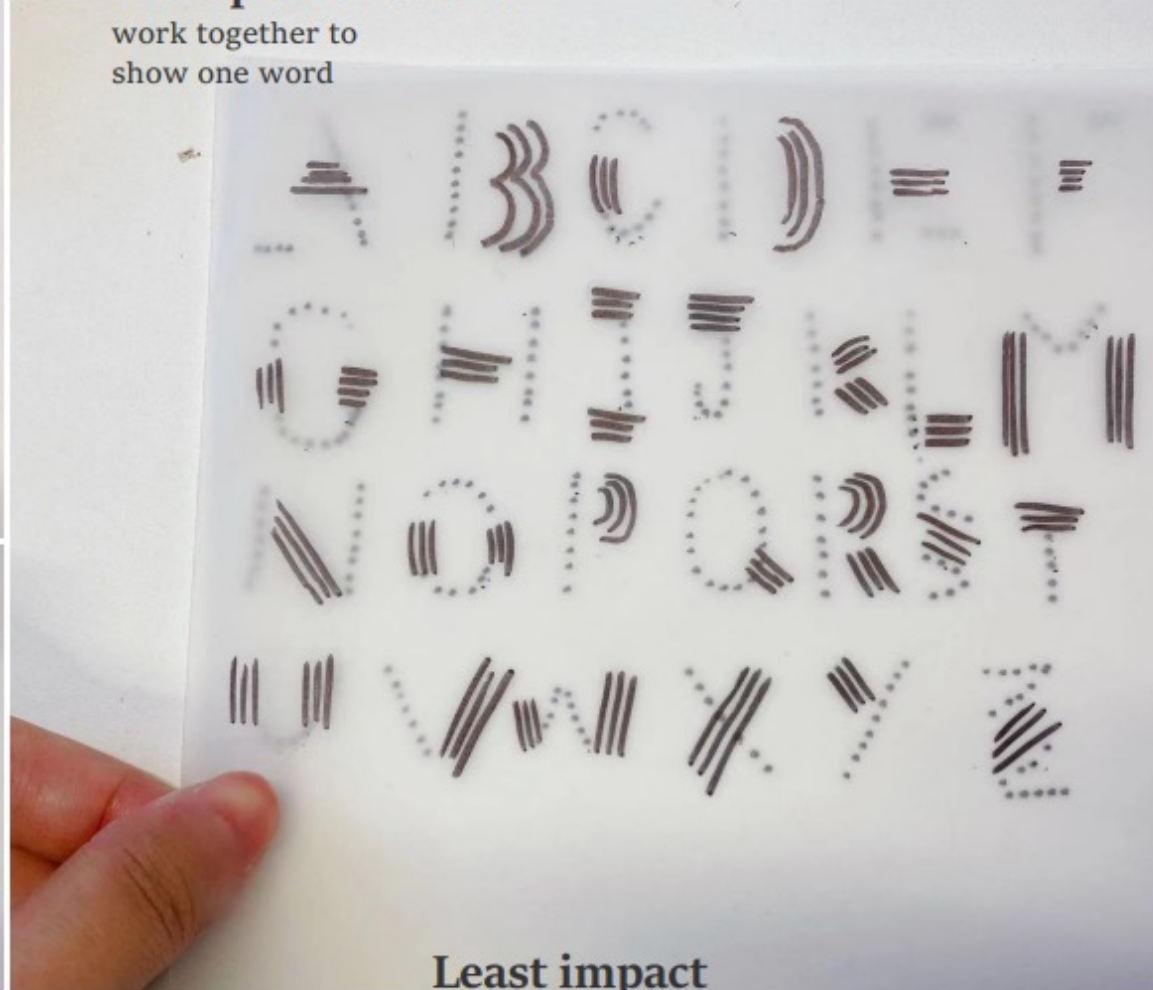


Layer

Turn the strokes
into many layers

Multiple functions

work together to
show one word



Least impact

Each layer does not show the full letters

This is a scheme that we constantly develop based on the question we are expressing.

We use different patterns to represent different materials and functions. This is different from gradients.

In addition, different strokes are written on different layers of paper to reflect the meaning of layers.

And each layer on its own is not a full letter, but when stacked together they reveal the full letter. We think this represents the idea of multiple functions and least impact.



AA

U

Q

D

W

A B C D E F G H I J
K L M N O P Q R S
T U V W X Y Z

design knowledge / researchers

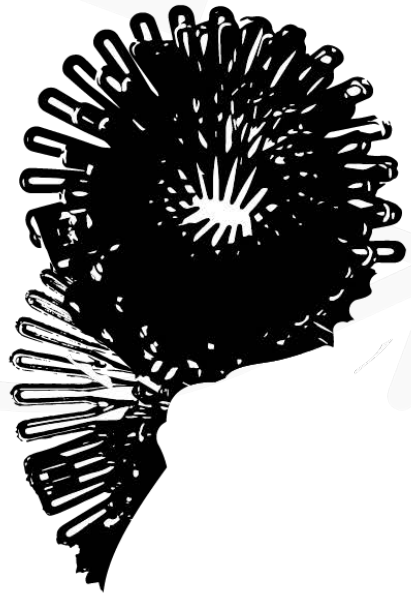
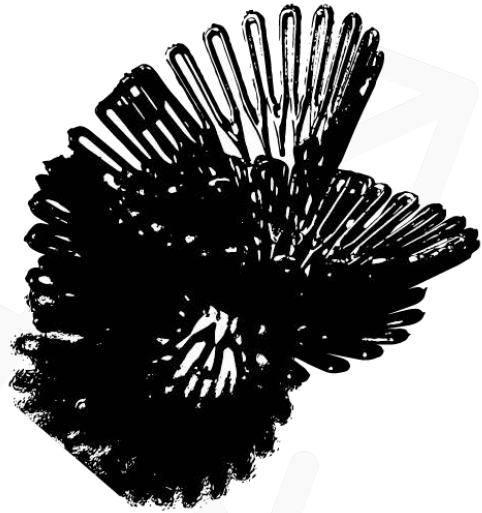
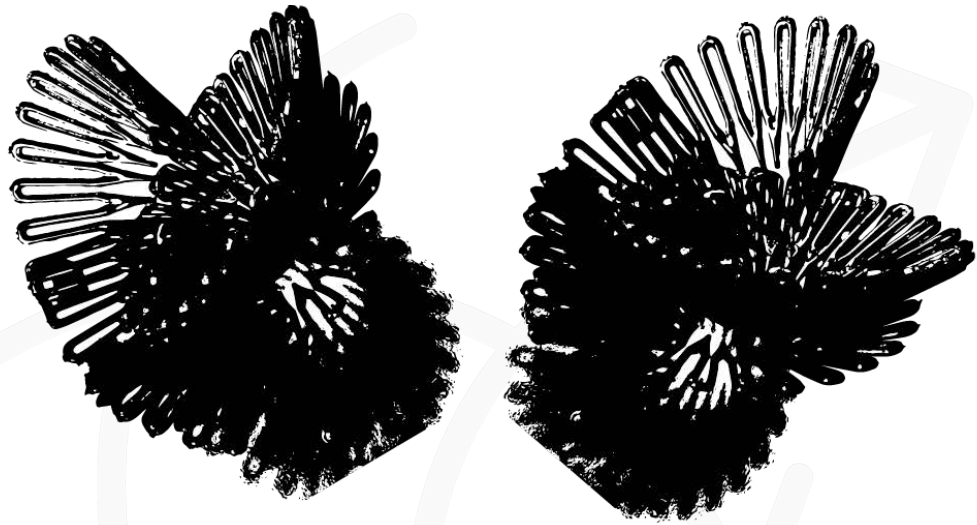
- **Clarity** over the key messages needed to translate the biological structures from the material science field for designers.
- **New perspectives** from non-textile designers that highlighted areas of confusion within the BIT framework
- **What is important** for discipline-specific communication



Discussion

design knowledge / students

- Better technical understanding of the research



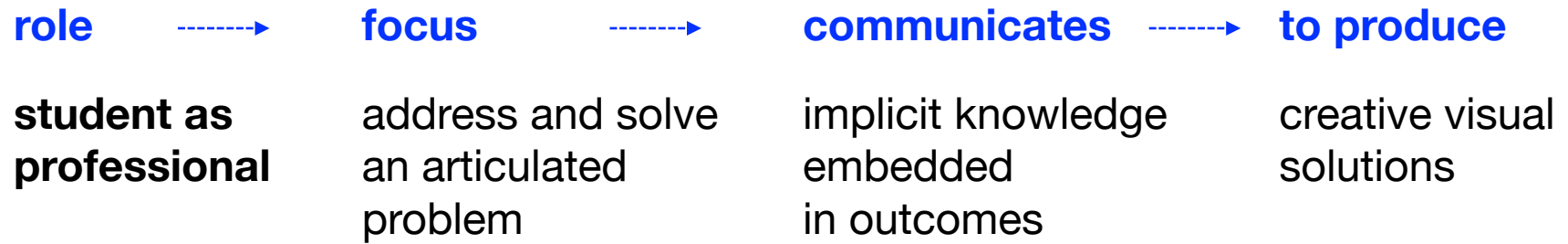
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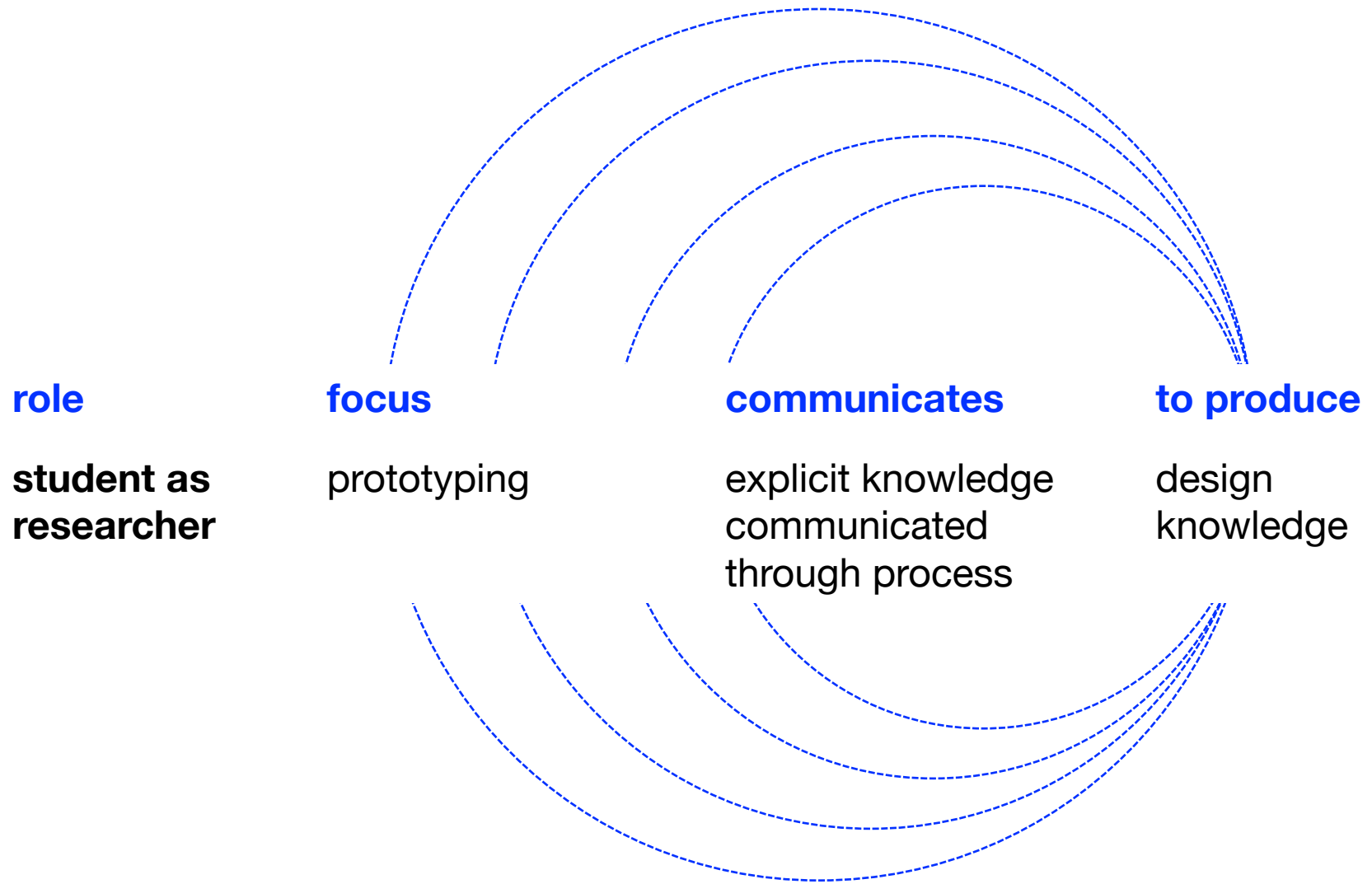
I had a vague understanding of the structure of a layer, but I now have a better understanding of what exactly it is

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design knowledge / students

- Better technical understanding of the research
- Improved knowledge about how to design the communication within a research context





design knowledge / students

- Better technical understanding of the research
- Improved knowledge about how to design the communication within research context.
- Clearer understanding of benefits of using prototyping to develop communication design within a complex research project.

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The methods we used and why they are effective have provided a framework for how to approach a complex project

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We have to consider a way of designing that takes shape as design research: an activity capable of producing knowledge useful to those who design. That is, design knowledge





Laura Knight

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Associate Researcher: Centre for Circular Design

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