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Makerlabs: Makerspaces in Libraries as Modern Spaces of Urban Belonging

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FRAMEWORKS OF DESIGN–DRIVEN RESEARCH

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MAKERLABS
MAKERSPACES IN LIBRARIES AS MODERN SPACES OF URBAN BELONGING

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In the context of changing reference points that characterizes contemporary late modernity, public buildings are demanded to adapt to transforming cultural values. Buildings, static long-lasting structures, must satisfy changing purposes, programs, and users. One example of this shift are libraries which are undergoing transformations both as an institution and as a built object. Since digital resources are broadly accessible through digital means, libraries are shifting from *knowledge consumption* to *knowledge creation* spaces. The concept of "making" appears as one upcoming approach to explore contemporary literacy in libraries.

The project *Makerlabs: Makerspaces in libraries* shows how designing public buildings as unfinished *publicity thresholds* makes space for cultural

values' creation and transformation. In this study, theories on public buildings, liquidity, thresholds, and values ground the framework informing design propositions tested with spatial interventions. Design Driven Methodologies are used as a discursive communication medium between theory and practice, concepts, and approaches, as a generative and reflective tool.

ON SITUATED ACKNOWLEDGEMENT

Showing how to increase the socio-cultural effect of public buildings on the public sphere in and around them can be formulated theoretically but can only be proven by intervening in the physical world. Design-driven methodologies help to turn the theoretical hypotheses into design premises to be tested in a real location. It can be the means to bridge the gap between theory and practice. In this project design will be the guiding thread connecting the three layers of action: researching, designing and experimenting.

Design, and specifically public design, is a practice materially and procedurally situated. On the one hand, it is always placed in time and space both as a process and as a product. On the other hand, it is the "product of bodily, social, environmental, and cultural interactions" of the involved agents including the designer[1]. To use design as a research methodology, special attention is to be paid to the tacit knowledge, design assumptions and the building's agency within the urban ecology to avoid biased naïf simplifications. Where is the

1   Langdridge, Darren (2014), "Situatedness.", In T. Teo (Ed.), Encyclopedia of Critical Psychology, New York, NY, Springer New York, 1757.

building situated in time and space? What are the evident and hidden actors? Who am I? What do I see that others do not? What do others see that I do not? What are my assumptions? Considering these apparent limitations is the way of defining the research's boundary conditions and scientific accuracy. One cannot erase the complexity of reality but acknowledging it turns the focus towards the relevant aspects contributing to the body of knowledge.

PUBLIC THRESHOLDS

Public Buildings are public space condensations traditionally conceptualized in binary perspectives: public-private, indoor-outdoor, accessible-restricted. Nevertheless, the complexity of social, political and economic structures deems such definition dated. Public Buildings are dynamic thresholds that change with the flow of publicity where a threshold is "a point [...] above which something is true or will take place and below which it is not or will not"[2]. Therefore public buildings are thresholds defined by the point – or *limen* – at which individuals enter *public life* to undertake collective action in a momentary *foam* that later disintegrates again into individual bubbles[3] (Fig. 1).

Since public space is produced socially by a class and power conflict, public buildings also embody the *self-augmentation* tension of engaging in a collective[4] (Fig. 2). This tension is not static

2   Merriam-Webster.com (2021), "Threshold" in: Merrian Webster Online Dictionary. https://www.merriam-webster.com/dictionary/threshold.
3   Palese, Emma (2013), "Zygmunt Bauman. Individual and Society in the Liquid Modernity." in: SpringerPlus 2, no. , 2–5, https://doi.org/10.1186/2193-1801-2-191
4   Lefebvre, Henri (1991), "The Production of Space", Malden, MA: Blackwell. https://doi.org/10.4324/9781315565125-7
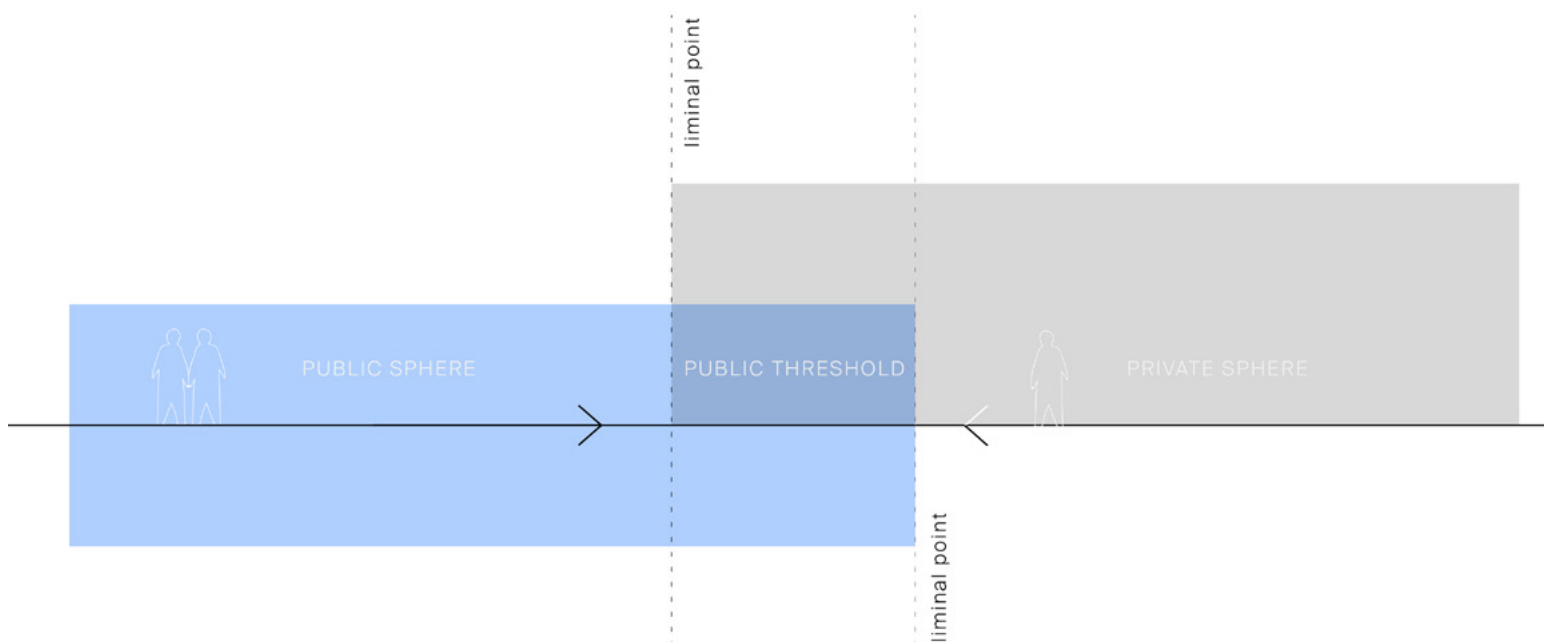
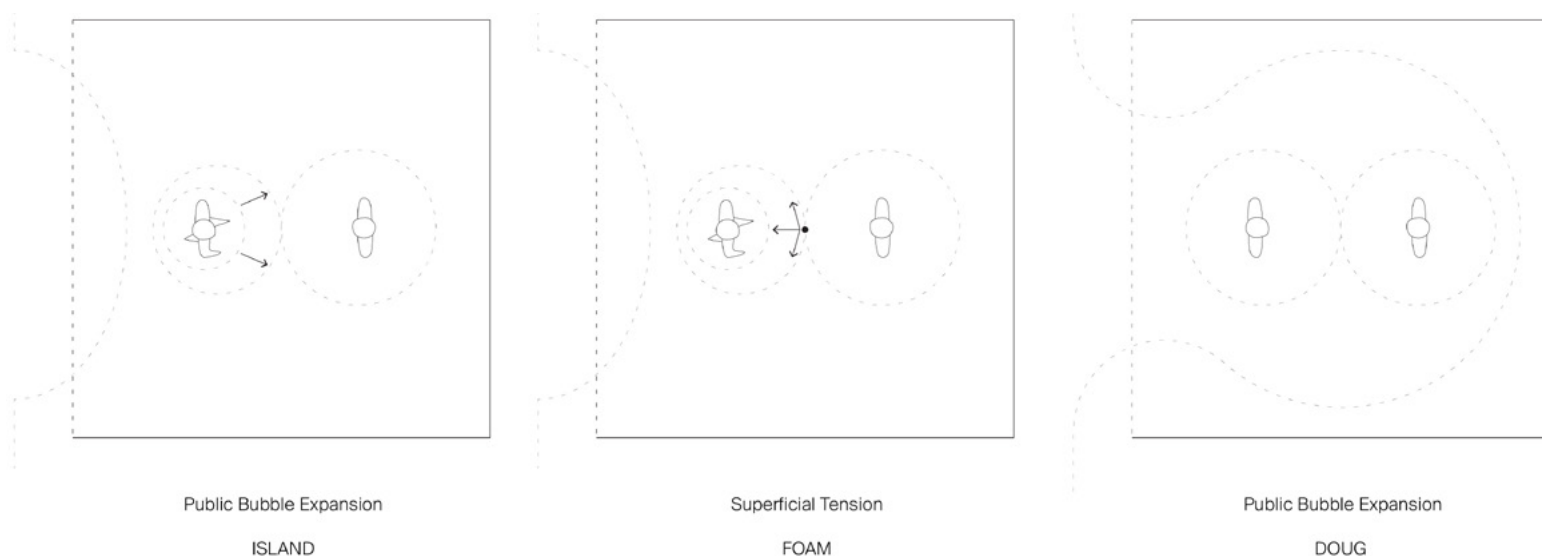FIGURE 1. Public Thresholds: liminality and changing transitions

but changes according to the *public condition*. Individuals of different backgrounds come together to collectively act, whether watching a theatre play or debating the future of their neighbourhood. During that time-period, they re-define their shared cultural values of beauty, identity, belonging or democracy. If designed considering their role in the public sphere, public buildings can be a powerful tool to strengthen cultural values by providing a *common space* for civic connections and social interaction.

Cultural public buildings – those related to collective and common human practices such as libraries, museums or cultural centres – are the paradigm of cultural value creation. They exist to host the birth and proliferation of cultural practices that through interaction and conflict eventually become cultural values. Buildings last decades while cultural values transform at the speed of

society. Therefore, conceiving public building as *unfinished thresholds* could make room for the creation and transformation of cultural values.

In recent *late modernity*, architectural practice's success was defined by the amount and impact of its cultural building's designs. Buildings were designed as global and interchangeable representations of modernity: Museums in China that could have been libraries in the US or Theatres in Switzerland that could become Casinos in Thailand. Cultural buildings became consumer products shaping local, national, and global identities. Nevertheless, the lack of connection with their immediate visible and invisible agents and ecologies limited their effect on the public sphere to eminently economic value (regeneration, gentrification, touristification). To avoid undesired effects and ensure positive impact on the public sphere, public buildings must incorporate *collective knowledge* into a building that is an *open-ended process* instead of a *finished object.* Public buildings as agents of the public sphere keep the

FIGURE 2. Engaging in public life in public buildings

Public Bubble Expansion

ISLAND

Superficial Tension

FOAM

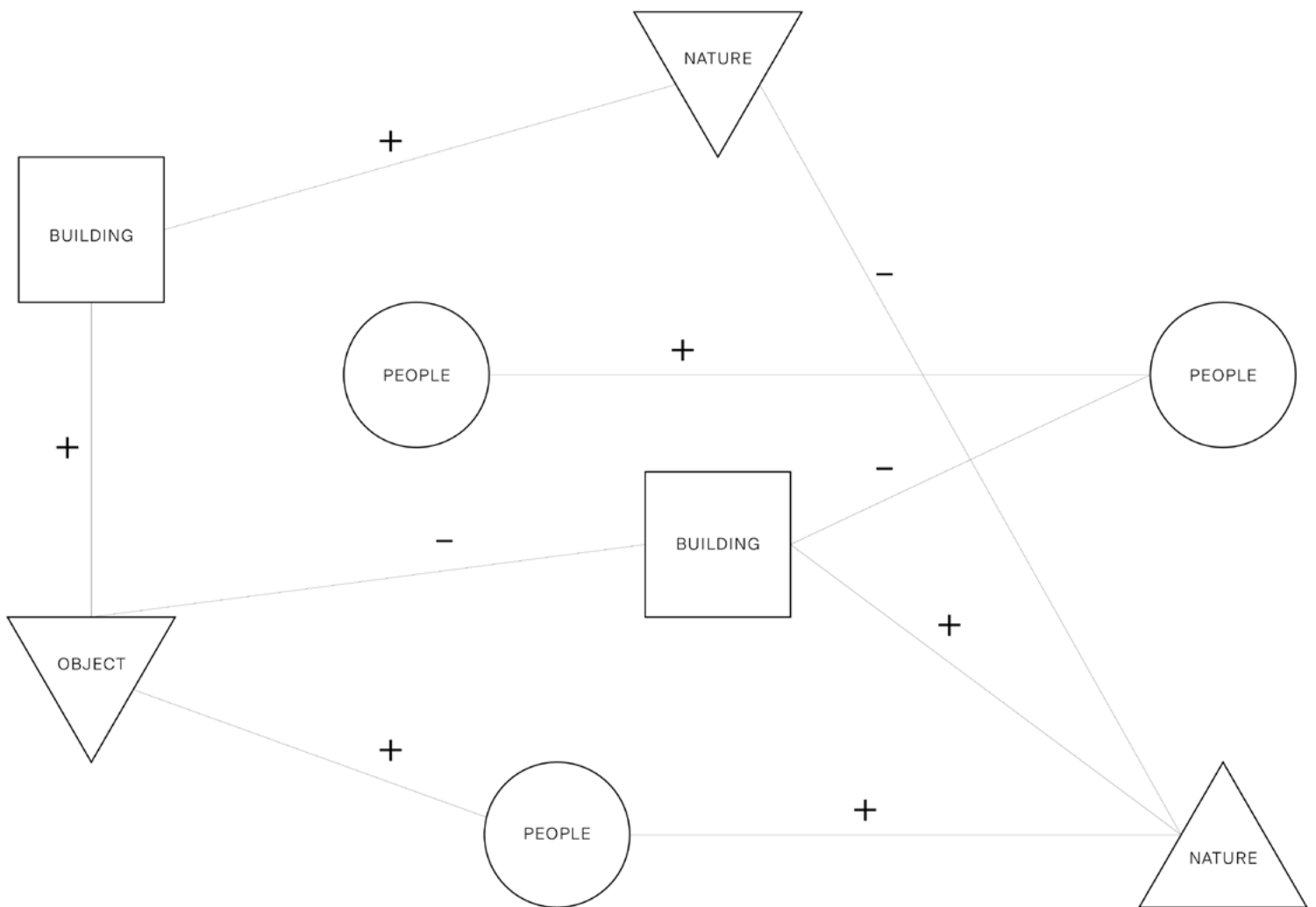Public Bubble Expansion

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FIGURE 3. Ecology mapping: public buildings as agents in a complex urban ecology

purpose of facilitating through technical solutions the union of individuals to form a collective through a common activity while embracing their conflictive nature as spatial agents of a *complex urban ecology* (Fig. 3). Cultural public buildings combine collective interest into affordances and possibilities that host civic relationships.

As cultural public buildings, libraries are a representation of a specific civilization and demonstrate the values and aspirations of their immediate and extensive community. In late modernity, not only are external reference points fluid but there is also a continuous process of "self-actualization" or "life politics" as Anthony Giddens articulates it. Individuals "who using their own

resources try to change the course of their own life"[5]. From a time when our life was defined by solid references (religion, profession, family) we shifted towards a situation where the definition of the self is completely dependent on the individual's capability to continuously improve oneself. In this context of liquifying institutions and reflexive exploration of the self is where Makerspaces as community spaces emerge as a space for belonging to counteract alienating modern existence.

MAKERLABS: EXPERIMENTING WITH MAKERSPACES IN LIBRARIES

Democratization of knowledge has turned citizens into *prosumers*: producers and consumers. These terms not only refer to an economic exchange but also to a change of roles in cultural institutions. *Prosumerism* has turned cultural institutions – from which also libraries – into *performative spaces*[6]. In these spaces, users are expected to engage with the available tools in co-creation. Makerspaces in libraries are a great example of performative spaces because of their critical role in repurposing spaces for literacy. Whether focused on creativity or innovation, makerspaces in libraries share the goal of enlarging literacy beyond books.

The challenge of transforming libraries' civic role is one of programmatic and spatial magnitude. On the one hand, new functions demand different activities, themes and ways of doing. On the other, giving new meanings to traditional building

5   Bauman, Zygmunt (2012), "Liquid Modernity Revisited", Lecture. Aarhus Universitet, https://vimeo.com/41344113

6   Jochumsen, Henrik/ Skot-Hansen, Dorte/ Hvenegaard Rasmussen, Casper (2017), "Towards Culture 3.0 – Performative Space in the Public Library", International Journal of Cultural Policy 23, no. 4, 524, https://doi.org/10.1080/10286632.2015.1043291
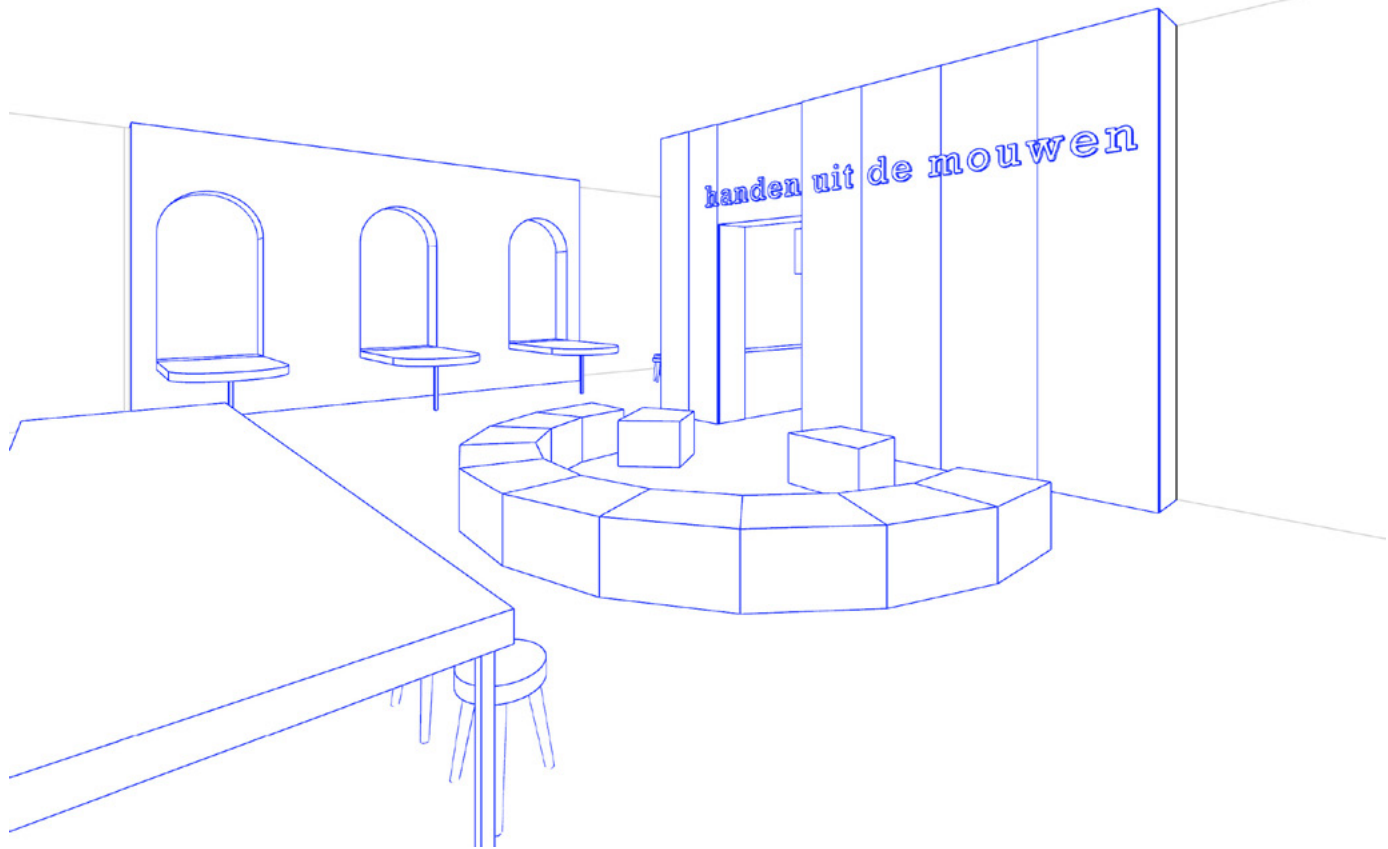
FIGURE 4. MAKERLAB: Proposal for a spatial intervention

functions requires original design concepts and methods. The objective of the Makerlabs project is to demonstrate how a design intervention in an existing public library can activate the building's agency in the public sphere, motivate use and human interaction and therefore produce cultural value dynamics in and around the makerspace.

The Makerlab project is a two-year collaboration between the Royal Library of the Netherlands, Delft University of Technology, Hogeschool Rotterdam and 4 pilot libraries per year cycle. The project departs from a co-creation process with library representatives, users and *making* experts clarifying the themes and cultural values of each makerspace. Later the PhD candidate translates the received input into a design blueprint where the functions and spatial gestures are presented. In that phase, Industrial Design students take over the given blueprint to design products or experiences that enhance the designed value-spatial framework. The last phase of this design experiment is to integrate the transdisciplinary
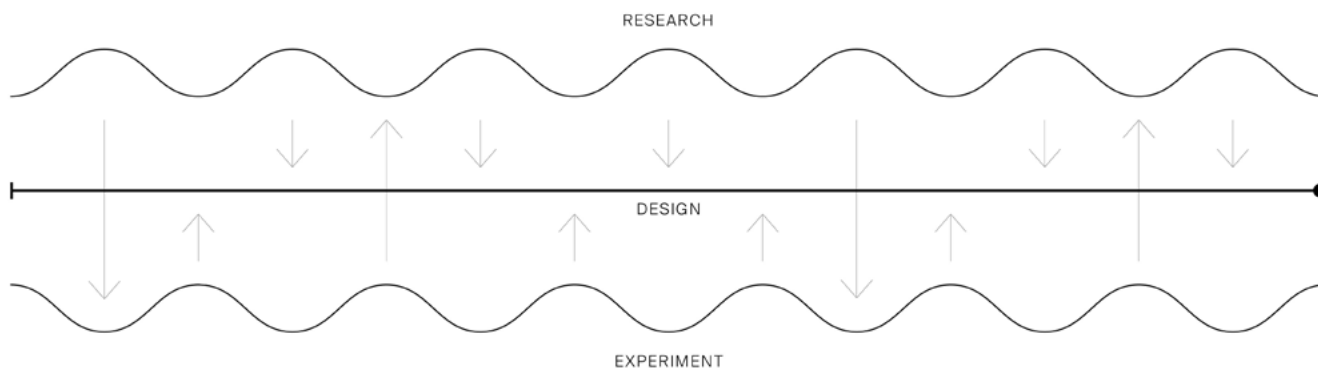
RESEARCH

DESIGN

EXPERIMENT

FIGURE 5. Research Synergy: non-linear design driven research

research findings on *makerspaces'* program, space and objects into a spatial intervention to be built in the library (Fig. 4).

As the first case study of this Design Driven Doctorate, the project serves to prove a discursive methodology where there is a continuous back and forth between theory and practice, thinking and doing, words and drawings. Instead of following a linear approach, the research is designed to develop literature review and design premises simultaneously to maximise their synergy (Fig. 5). For example, designing the indoor-outdoor connection of the makerspace will bring the focus to what are the conditions of spatial publicity. Inversely, reading about Spinoza's contributions to architecture leads to discovering designs such as the Fun Palace. The experiments will consist of a three-step testing process: designing, executing and reflecting on the intervention. Ultimately, the Makerlabs experiments will prove by design how the agency of a public building in the public sphere can be activated.