The Atlas: Introduction

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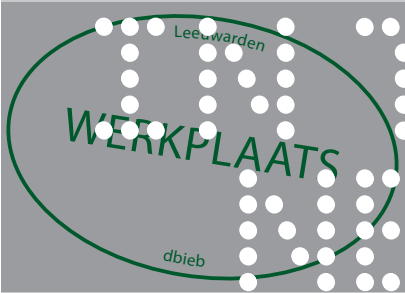To cite this publication, please use the final published version (if applicable).
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ATLAS
MAKERSPACES
IN PUBLIC
LIBRARIES
IN THE
NETHERLANDS

Atlas: Makerspaces in Public Libraries in The Netherlands   dr. Olindo Caso   ir. Joran Kuijper

ATLAS

MAKERSPACES IN PUBLIC LIBRARIES IN THE NETHERLANDS

Colophon

This publication makes part of the research project *Performative Spaces in Dutch Public Libraries. Stepping Stones of Inclusive Innovation* made possible by a grant of the NWO KIEM program Creative Industries CLICKNL. The National Library of The Netherlands actively collaborated with the TU Delft in this investigation.

Creatieve industrie - Kennis Innovatie Mapping (KIEM)

Koninklijke Bibliotheek

TUDelft Department of Architecture
BK Bouwkunde

Table of Contents

The Atlas: Introduction

dr. Olindo Caso; ir. Joran Kuijper

The first ten years of this century Dutch public libraries moved their focus from *collections* to *connections*. Currently, libraries are stepping towards invention: by integrating traditional knowledge-consumption and opportunities for knowledge-production they potentially become inclusive laboratories of innovation and agencies for a participated *knowledge society*. Libraries offer workspaces, tools and tutoring enabling their users to make, discover, co-create, collaborate and share. These so-called Performative Spaces facilitate and support both *innovation* (technology oriented) and *creation* (arts and crafts oriented) bringing FabLabs, makerspaces[1] and other opportunities at the reach of all citizens; and allowing libraries to keep pace with societal developments.

Yet, little knowledge is available on the implications of this performative turn in Dutch libraries. How many performative spaces exist in Dutch libraries, and what do they offer? How do they are managed? Which tools, staff and expertise are present? What relationships exist between the library's performative initiative and the context of reference? What problems do they face? In particular, the spatial conditions related to the integration of makerspaces in the context of the Dutch public library are a neglect. What size, form and articulation do they have? Are the makerspaces designed or empirically constructed?

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1   The terms 'makerspace' and 'performative space' will be used as synonymous to indicate in general all different types of places in which the (digital or physical) 'making' is the main scope – unless when specifically addressing a particular type (e.g.: FabLab). Also read footnote 7 at pag. 16, previous chapter.

The department of
Architecture at the TUD
Faculty of ABE, and the
National Library of The
Netherlands have been
partners in this research
project.

TUDelft Department of Architecture
BK Bouwkunde

KB
Koninklijke Bibliotheek

Do they hold any relationship with the city space? Are them a visible, well-integrated service in library? And what about aspects like noise, dust, privacy? Better spatial insights (design, programs, activities, equipment, experiences) could significantly improve public libraries' potentialities as meaningful actors of societal innovation. Space (and its design) is he fundamental link between programs and activities.

This work aims to gather information about the state-of-the-art in Dutch public libraries when the performative space is introduced, focusing on the spatial characteristics of this introduction. For doing this, the research group at the 'Faculty of Architecture and the Built Environment' (ABE) of the 'Delft University of Technology' (TUD) initiated a collaboration with the 'National Library of The Netherlands' (KB) by proposing the project *Performative Spaces in Dutch Public Libraries. Stepping stones of inclusive innovation* that received a grant from the national NWO KIEM program.[2] This project is part of the ABE research program 'Architecture and the City' and matches the priority interest of KB towards a socially embedded, innovative library system in the Netherlands.

N**W**O
Creatieve industrie - Kennis Innovatie
Mapping (KIEM)

KIEM is a funding program
offered by the NWO, see
footnote 2.

Relevance

The reach of the Dutch public library system is considerable, counting upon 3.8 million subscribers (CBS 2017) and covering the entire Dutch territory through almost 1,000 branches enabling an average distance of 1.8 km to a library. The performative turn in public library therefore represents a crucial opportunity to (re-)establish sustainable connections between inclusiveness and innovation, in this responding to the challenge of

2   Visit: https://www.nwo.nl/en/funding/our-funding-instruments/gw/creative-industry/creative-industry---knowledge-innovation-mapping-kiem/creative-industry---knowledge-innovation-mapping-kiem.html
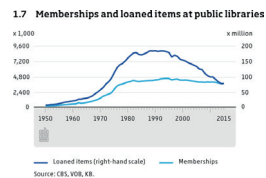
1.7   **Memberships and loaned items at public libraries**

Loaned items (right-hand scale) — Memberships
Source: CBS, VOB, KB.

favouring an inclusive and innovative society in the Netherlands. In particular, the perform-
ative library has the potential to stimulate the active participation of citizens into an inclu-
sive smart knowledge society and a (creative) knowledge economy. The spatial/design
aspects of the performative library will be relevant for a successful development of these
processes.

Because of the reach of the public library system, the performative library has the
potential of being an efficient mean for broadening participatory, self-directed innovative
behaviour across citizens and communities in the Netherlands, maximizing the impact of
digital literacy programs and improving social resiliency. At this end the research gives
evidence to the relevance for users of the spatial aspects of libraries' performative spaces.
Notably, considering that about 61% of Dutch under-18s holds a subscription to the
library (CBS 2017), the potentiality of the library's performative turn for the future genera-
tions is self-evident in turn asking for future-oriented (design) concepts that supports the
development of incubators and creative labs for innovation in library context. This per-
formative library could be designed as an experimental, playful laboratory where flexibility,
interactivity, engagement and supportiveness are the key principles.

Central to this work is the transforming business-case of the public library from
lending institute into social platform at the heart of the community, in this contributing
to the ongoing processes of business transformation by public institutes. Accordingly,
libraries develop and position themselves as facilitators of information exchange, where
knowledge is gained but also created and shared – therefore requiring the innovation of
services, programs and strategies.

Research on space

The type of research and the methodology needed for dealing with spatial aspects in context greatly depends on the knowledge domain of the specific academic-scientific field the research is embedded in, and on its goals. For instance, social scientists can understand space not as a neutral factor but as 'relational space', connecting the social and the spatial in the field of study of Spatial Sociology (e.g. Fuller & Low 2017). Examples are the studies on the social meaning of urban space (Low 2013) or, from a Cultural Anthropology viewpoint, the classical theory of Hall (1966) on proxemics. Spatial Economics, Environment-Behaviour Studies, Politics of Space are as well interested in spatial research from own disciplinary perspective, as many other disciplines also do.

This investigation is geared onto the knowledge domain of architecture and spatial design. In this domain research focuses on the characters of the physical space, its history and generative processes, its construction, materiality and a wide array of relationships with the cultural, socio-economic or political contexts through a large set of (hybrid) research and design techniques (Jong & Voordt eds. 2002). In the last decennia, a consistent body of knowledge emerged that consider design education and design research as specific scientific domains (e.g. Cross 1982; Lawson 2006) aiming to the investigation of future spatial configurations (thus 'not yet existing'). Here the distinction between possible, desirable and probable futures (Jong 1992) establishes a framework of priorities for positioning 'Research by Design' as operative research methodology (e.g. Walsche & Komossa eds. 2016). Rather than the inductive or deductive reasoning, research by design adopts the abductive approach (inference to the best explanation) in defining and

E.T. Hall's proxemics. *Image, https://laofutze. wordpress.com*
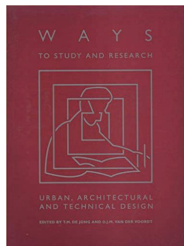
Architecture and the Built Environment as scientific field at the TU Delft: *Ways to Study and Research. Jong & Voordt (2002).*
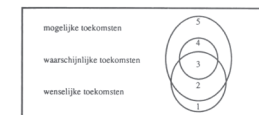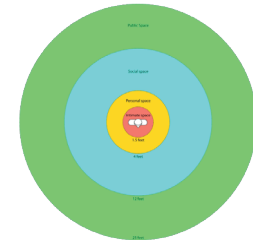
Relationships among possible, probable and desirable futures. *Jong (1992).*

questioning plausible futures (Santaella 1997; Dorst 2010; Hougaard 2015). Beside the innovative, somehow risky and future-oriented research by design, however, there exist consolidated methods for spatial research that investigates existing spatial contexts with a variety of (analytical) lenses, like the historical or the typo-morphological research does.

In spatial research, mapping is a reliable method for collecting and comparing information in a nearly-objective way. Mapping makes it possible to describe the reality according to a set of chosen criteria and to render this information visible to others for interpretations (anatomy). Advancements in information and communication technologies make mapping also suitable for layering many different types of information and to read them on different media. The base of mapping lays in observation and measuring, to be integrated by other information sources and interviews, resulting in a set of (comparable) drawings and data at different scales.

This work adopts mapping as a strategy to build the hard-core information base on which to further elaborate through critical considerations and plausible speculations about the future of the performative library.

Methodology

The investigation consisted of three distinct phases: A) survey; B) site-visits and mapping; C) critical considerations and challenges. During the investigation the research group has met several times in interdisciplinary validation meetings with KB. This included coordination and information exchange with a parent research project conducted by the Hogeschool Rotterdam (HR), as well in collaboration with KB, that focused on makerspace's contribution to programs for 21st century skills.
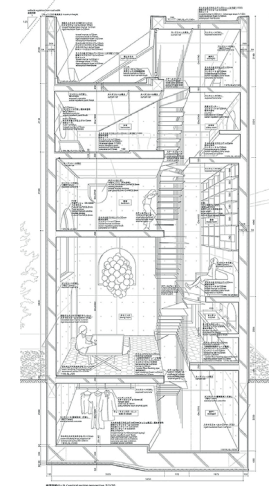
The investigation started by gathering information on the situation in public libraries in the Netherlands. At this end a survey was hold to enlighten diffusion and characters of makerspaces. The survey conducted by the KB (2018) collected information on a variety of aspects of library makerspaces. Questions inquiring the spatial / physical aspects of makerspaces were agreed beforehand with the ABE TUD research group. On the base of the response and of the gathered information, the selection was made of the following fifteen public libraries as representative of the typical (spatial) conditions in public libraries.

● Amsterdam Reigersbos

● Amsterdam Slotermeer

● Amsterdam Waterlandplein

● Apeldoorn

● Breda

● Eindhoven

● 's-Gravenzande

● Leeuwarden

● Middelburg

● Steenwijk

● Tiel

● Tilburg

● Utrecht

● Veenendaal

● Zwolle

Each visited makerspace is associated to a color.

In doing this, the main criteria were:

● Geographical spreading in Netherlands (not only the large cities)

● Size of the makerspace (S, M, L);

● Open of closed configuration (behind a door or not);

● Digital oriented or crafts oriented (innovation vs. creation);

● New or existing (refurbished) space in the library;

● Willingness to participate in a second stage of the investigation (site visit and interview).

**Geographical spreading
of visited locations across
the Netherlands.**

● Leeuwarden

● Steenwijk

● Zwolle

■ Amsterdam

●■ Apeldoorn

●■ Utrecht

● 's-Gravenzande   ● Veenendaal

● Tiel

Breda ●■   ● Tilburg

●■ Middelburg

●■ Eindhoven

■ arts and crafts
● twenty-first century skills

digital makerspace | crafts makerspace

open space in library

enclosed space in library

open space in library

enclosed space in library

S ≤ 30m²

M = 30–70m²

L ≥ 70m²

■ New space in library building

● Modification in library building

digital makerspace | crafts makerspace

Summary graphic of the selection criteria: Digital / Crafts; Open / Closed; Size (S, M, L); New or After Modification

Three levels of data in the Atlas: city; building; makerspace.

The selected libraries were contacted for preparing the site visits. Before a test-visit was conducted at the DigiLab of the Tilburg Library to sharpen and experiment the modalities for visiting and mapping. Tilburg was therefore added as the 15th case study.

The visit consisted of observation of makerspaces in operation, taking of photographs and sketches, notes on available equipment and spatial structures, interview with staff about origins, actual conditions, programs and ambitions. The staff also delivered drawings of the makerspace and of the library when possible. The site visits were concentrated in the most short possible time for avoiding seasonal conditioning. They took place within six weeks in March–May 2018.

In the subsequent phase, the gathered information were elaborated graphically in comparable drawings (style, isometry and scale) consisting of three levels of data: the urban position; the library building; the makerspace. This information forms together the core of the Atlas of Performative Spaces in Dutch Public Library. This is an open collection of experiences that can be possibly extended to include other (future) experiences, and that is neutral in nature as it objectively reports the observed / measured data.

In the final part of the research, the mapping informed a comparative analysis of the observed experiences to enlighten generic and specific spatial characters of makerspaces in the context of the Dutch public library. This chapter has a raising speculative content. Indeed, a rather factual comparative analysis is followed by interpretations, critical discussion and considerations suggested by the observed conditions, and projected against available (comparable) information and disciplinary (spatial) knowledge. Finally, a set of challenges on the future of the makerspace in library context is proposed moving from an ABE TUD internal brainstorm informed by the made observations and considerations.
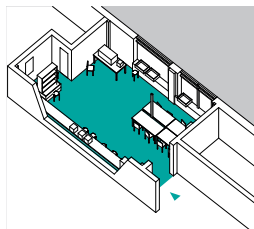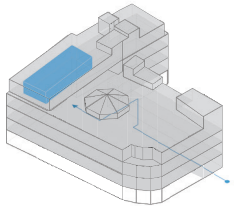
These challenges have a speculative nature and originate from an abductive reasoning. Altogether, this part can be considered as an agenda for spatial / design research on the future of makerspace in library context.

The preliminary results were shared with an expert's panel representative of the library and makerspace community in the Netherlands, including scientists, librarians, managers and designers. This happened in a workshop at the ABE TUD in which the challenges and the results from the research were discussed. The Expert's Panel consisted of:

● Reda van der Putten (Bibliotheek Eemland, regio Amersfoort) ;
● Peter Troxler (Hogeschool Rotterdam);
● Eva Visser (Hogeschool Rotterdam);
● Mirjam Albers (Cubiss);
● Ingrid de Jong (Cubiss);
● Carola Oortwijn (Rijnbrink);
● Emma Bijl (Rijnbrink);
● Jeroen de Boer (Bibliotheekservice Friesland);

● Aan Koostra (Bibliotheekservice Friesland);
● Jantien Borsboom (Digilab Bibliotheek MB);
● Elvira Caneda Cabrera (Bibliotheek-Informatiesector);
● Fedele Canosa (architect Mecanoo);
● Marianne Hermans (KB);
● Olindo Caso (TU Delft);
● Joran Kuijper (TU Delft).

Expert's Panel workshop at **ABE TUD.** *Kuijper.*

Targets

This investigation gathers a set of data and spatial information on the phenomenon of makerspaces in public libraries and make them available to the public. It is the first of its kind in the Netherlands. It addresses public libraries in the first place, by enlightening the present state-of-the-art in the spatial aspects related to the introduction of performative spaces in library context and the possibility of future developments. In the second place, the research addresses designers entrusted with the task of re-envisioning the 'next' public library at the brinks of on-going transformations. For them, the research aims to clarify and present the specificity and diversity of conditions when the library transforms itself from place of information consumption (collections oriented) to place of information production (making oriented). The full understanding of this transaction is a crucial chal-lenge for the design of the contemporary public library. Finally, the research addresses the academic community of researchers and students which are concerned with the under-standing and redefinition of the library as public realm and as pro-active urban agent. In this context this work adds to the body of knowledge by contributing empirical data and speculative vision on possible (desirable?) futures.

Disclaimer

A number of modification took place since our visits in Februari - April 2018. New Tilburg library at LocHal is now open; the makerspace at Middelburg library is moving to Vlissingen; Steenwijk and Apeldoorn are relocating in the same building; and more. The investigation necessarily picks a moment in time, yet the learned lessons remain valid.

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GILAB

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BIEBLAB

Bibliotheek 's-Gravenzande

MICROLAB STRIP-S
TECHNIEKBIEB

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Eindhoven

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