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PRACTICES

Public libraries and “Making.” Experiences in the Netherlands

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ABSTRACT

The public library holds a key position in the present geography of the urban public realm, as it emphasizes the centrality of self-directed culture in contemporary society by mirroring the processes of individual empowerment underpinned by technological changes. It transforms the public space in a place of collective action and individual participation, contributing to forming the urban commons in the contemporary splintered society. At present, visiting a library is an urban public act of collective participation / inclusion. The crucial condition for this is the paradigmatic transition from a passive knowledge-consumption model to an active knowledge-production model—by which libraries increasingly position “making” at the intersection of public culture and public realm, bringing performative spaces and creative opportunities within the public sphere of all citizens. How do library buildings accommodate these public relationships, and in how far are they successful in doing it? The article proposes a theoretical underpinning framework for the development of the public library in the context of the contemporary socio-cultural conditions in order to position recent experiences in the Netherlands. The aim is to enlighten the current relationships between urban commons, making culture, and the architecture of the public library with an eye on future developments.

KEYWORDS

Public Library; Makerspace; Third Place; Public Interiors; Cultural Infrastructure; Hybrid Building.

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During the last 10 years cultural typologies are increasingly changing from passive containers of information and (art) exposing devices to active centers of social engagement and co-creation, where "making" becomes the preferred *modus operandi* in the relationships between individuals and society. This is what seems to emerge by considering the developments in the Netherlands, in particular when referring to the public library.

1.

The resurgence of the library as a physical building¹ has much to do with the rediscovering of culture as a maker of public space and collective urban life,² an approach that has acquired prominence in city (re)development since the Eighties.³ The role of the architectural design in conferring a specific quality to urban places coincides in the case of the library with the re-envisioning of the cultural idea of community, even more so when this is animated by micro-cultures and individual agents. Mattern⁴ proposed the metaphor of "social infrastructure" as a fitting reference for understanding this contemporary library, at the same time emphasizing its contextual embedment in society.

Following the rise of the new making culture,⁵ public libraries started to host different types of performative spaces⁶ in order to offer work-spaces, tools and tutoring that enable their users to make, discover, co-create, collaborate and share. Jochumsen⁷ described these performative spaces and their growing diffusion in the Danish library landscape: "in a public library, the concept 'performative space' is used to describe spaces in which the library's users are inspired to create new artistic expressions or are given the ability to design, create and produce various

1. Casper Hvenegaard Rasmussen and Henrik Jochumsen, "The Fall and Rise of the Physical Library" (17th BOBCATSSS Symposium Porto, Porto, 2009), <http://eprints.rclis.org/12925/1/40.pdf>.

2. Dorte Skot-Hansen, Casper Hvenegaard Rasmussen, and Henrik Jochumsen, "The Role of Public Libraries in Culture-led Urban Regeneration," *New Library World* 114, no. 1/2 (January 1, 2013): 7–19, <<https://doi.org/10.1108/03074801311291929>>. Tim Abrahams, "What Culture Is to a City," *Architectural Review* 239, no. 1427 (January 2016): 3–11.

3. Steven Miles and Ronan Paddison, "Introduction: The Rise and Rise of Culture-Led Urban Regeneration," *Urban Studies* 42, no. 5–6 (July 2, 2016): 833–839, <<https://doi.org/10.1080/00420980500107508>>. Jonathan Vickery, "The emergence of culture-led regeneration: a policy concept and its discontents," vol. Research Papers n. 9 (Coventry: University of Warwick. Centre for Cultural Policy Studies, 2007), http://wrap.warwick.ac.uk/36991/1/WRAP_Vickery_ccps_paper9.pdf.

4. Shannon Mattern, "Library as Infrastructure," *Places Journal*, June 9, 2014, <https://doi.org/10.22269/140609>.

5. Chris Anderson, *Makers: The New Industrial Revolution* (New York: Random House, 2012). Mark Hatch, *Maker Movement Manifesto Rules for Innovation in the New World of Crafters, Hackers, and Tinkerers* (New York: McGraw-Hill, 2013).

6. Theresa Willingham and Jeroen de Boer, *Makerspaces in Libraries*, Library Technology Essentials 4 (Lanham, Maryland: Rowman & Littlefield, 2015). Olindo Caso, "The New Public Library as Supportive Environment for the Contemporary Homo Faber," in Olindo Caso and Joran A. Kuijper, *ATLAS. Makerspaces in Public Libraries in The Netherlands* (Delft: TU Delft Open, 2019).

7. Henrik Jochumsen, Dorte Skot-Hansen, and Casper Hvenegaard Rasmussen, "Towards Culture 3.0—Performative Space in the Public Library," *International Journal of Cultural Policy* 23, no. 4 (July 4, 2017): 512–24, <https://doi.org/10.1080/10286632.2015.1043291>.

kinds of products or cultural artefacts in interaction with other users and professionals.”⁸ In the performative space it is possible to distinguish among creation space and innovation space.”The creation space represents performative spaces in libraries where artistic tools [...] are provided for the users. Here the users can also get know-how on staging events and how to present their products. The innovation space represents performative spaces in the form of various types of so-called makerspaces and hackerspaces, in which IT technology is the central hub.”⁹

The trend towards the performative-oriented public library was already remarkable in the United States, often a precursor of developments in other parts of the (western) world. Already in 2011 the American Libraries Association proposed development scenarios for American libraries among which the creation library was a relevant strategic option.¹⁰ At that time the development of groups of makers, both craftsmens and digital (hackers), was already a growing phenomenon. The concurrency of digital technologies and fabrication possibilities gave rise at the MIT Boston to the concept of FabLab¹¹ which rapidly extended world-wide. The first FabLab at a public library was opened at the Fayetteville (NY) library in 2012,¹² followed by Westport Public Library in Connecticut.¹³ Nowadays the offer of makerspaces in American public and academic libraries is a standard feature.¹⁴

2.

Making is growingly embedded also in the cultural offer of Nordic libraries and kulturhus, and libraries in the United Kingdom recently started to do the same.¹⁵ In the Netherlands, the diffusion of performative spaces in the context of the public library takes place within library concepts that promote social encounter, discovery and the public sphere, where (literacy in) digitalization and new media increasingly occupies a relevant position.¹⁶ In doing this, the public library presents itself in the community as an

8 Ibid., 6.

9 Ibid.

10 Roger Eli Levien, *Confronting the Future: Strategic Visions for the 21st Century Public Library* (Washington, D.C.: ALA Office for Information Technology Policy, 2011).

11 Neil Gershenfeld, “How to Make Almost Anything: The Digital Fabrication Revolution,” *Foreign Affairs* 91, no. 6 (2012): 42–57.

12 However this FabLab was not inspired by the MIT’s concept (Fabrication Laboratory), but it was a “Fabulous Laboratory” developed by Lauren Britton. See: Willingham and Boer, *Makerspaces in Libraries*.

13 Ibid.

14 Ibid.

15 See: <https://www.gov.uk/government/publications/libraries-and-makerspaces/libraries-and-makerspaces>

16 Caso, “The New Public Library.”

elective "third space"¹⁷ by supplying a comfortable, safe environment for all citizens in order to relax, learn or meet with others, as well beyond of the library's primary cultural scope. Visiting a library is no longer a functional action solely directed towards a specific goal, but it becomes an urban public act of collective participation and inclusion. For this the urban public space extends into the library public interiors providing the city with a stage for (local) urban narratives. The transition is low-threshold, it forms a public continuous that includes the library cafés and the tribune¹⁸ and that is structured by a sequence of informally furnished sitting places, bay areas, niches, workshop rooms, interactive screens, study islands. Examples can be found in Arnhem and Delft, among others.

The Rozet in Arnhem¹⁹ [Figs. 1a - 1b] is designed as extension of urban public ground into the cultural hub (including among others the library and art school), in the form of a gently climbing street wrapping the cultural program and offering collective opportunities to seat, meet, and participate in urban life. The climbing street (a stepped tribune) is also used for events, expositions or as a showcase; it is a spatial connector among the internal cultural programs. Rozet is by itself a connector in the city, relinking the historical center and the post-war reconstruction of the river area.²⁰ The cultural center OPEN in Delft is the result of the merging of the DOK library and the VAK, an extracurricular art school. It is conceived as a "village" of workshops connected by an informal landscape of study places, seats, niche areas that offers popular gathering places to the local community. The hosting building is the same of the former library,²¹ but after a small expansion that makes it possible to access it from different streets, as a public passage. The central, large staircase turns into a tribune when hosting events [Figs. 2a - 2b].

The raise of performative spaces in Dutch libraries²² can be placed in the light of the cultural transition from consumption to production, when active participation becomes part of the hybrid public space. By helping a widespread, democratic diffusion of 21st century skills (technology, creativity, self-sufficiency, entrepreneurship) and by rendering them part

17 Ray Oldenburg, *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts and How They Get You Through the Day*, 1st edition (New York: Paragon House, 1989). Aat Vos, 3RD 4 ALL. *How to Create a Relevant Public Space* (Rotterdam: nai010 Publishers, 2017).

18 Depending on scale and specific situation, yet a tribune is today a standard presence in public libraries.

19 Rozet has been designed by Neutelings Riedijk Architects.

20 Zsafia Bene, Olindo Caso, and Marian Koren, "Le Centre Culturel Rozet Aux Pays-Bas, Un Exemple Réussi de Bibliothèque Intégrée," in *Un Monde de Bibliothèques*, ed. Julien Roche (Paris: Electre/Édition du Cercle de la Librairie, 2019), 163-169.

21 DOK has been designed by Dok Architects (the hosting building) and Aat Vos (library interiors). The offices also collaborated in OPEN, which has seen a strong participation from the involved cultural agents.

22 "Makerplaatsen in Openbare Bibliotheken: Onderzoeksresultaten BOP-Enquete Makerplaatsen" (Den Haag: Nationale bibliotheek van Nederland, 2018), https://www.kb.nl/sites/default/files/docs/rapportage_makerplaatsen_2018_def_0.pdf.



FIG. 1A Cultural Center Rozet, Arnhem. Interior. Image: Olindo Caso.



FIG. 1B Cultural Center Rozet, Arnhem. Interior. Image: Olindo Caso.

of their public interiors, factually libraries attempt to position making at the intersection of public culture and public realm, for they bring fablabs, makerspaces²³ and other creative opportunities within the public sphere

23 The terminology used to indicate makerspaces is varied as it might refer to different typologies. For an overview see: Guy Cavalcanti, "Is It a Hackerspace, Makerspace, TechShop, or FabLab? | Make:," Make: DIY Projects and Ideas for Makers, May 22, 2013, <https://makezine.com/2013/05/22/the-difference-between-hackerspaces-makerspaces-techshops-and-fablabs/>.



FIG. 2A OPEN, Delft. Interior. Image: Olindo Caso..



FIG. 2B OPEN, Delft. Interior. Image: Olindo Caso.

of all citizens in turn keeping pace with societal developments. This connection between the third space character of the public interiors of Dutch libraries and the diffusion of making culture is a new step in the redefinition of the features of the contemporary public space, and an evolution in public library design. The new public library of Tilburg²⁴ is remarkable in this sense as it brings making at the center of the library experience. It is located in a cultural heritage building, a former train workshop shed (the LocHal, locomotives shed) in the railway area whose obsolete industrial setting is currently being re-developed into a new urban area. The new library is a main trigger in the operation. The library is designed to be a laboratory for inspiration, learning and innovation. In addition to workshop rooms, a number of "labs" populate the building as the library program has been re-envisioned according to a "making" modality: "DigiLab," "GameLab," "FutureLab," "FoodLab," "LearningLab," "TimeLab," "DialogueLab," "WordLab," altogether shaping the *makerij* (literally: the place of making). In the library, flexible wooden elements can be used to construct a personal meeting place or a personal niche, connecting themes as individualization, customization, spatial identification, inclusion of micro-cultures / counter-cultures to the library: in once the bottom-up construction of socio-spatial commons around the culture of making [Figs. 3a - 3b].



FIG. 3A Interiors of the LocHal, Tilburg. Image: Mecanoo Architects

24 The LocHal has been inaugurated in January 2019. The building design is by Civic Architects, Braaksma & Roos, and Inside Outside/Petra Blaisse. The interior design is by Mecanoo Architects. The LocHal hosts the Public Library, Seats2meet (an enterprise offering meeting and work facilities), and KunstLoc Brabant, a center for art and culture.

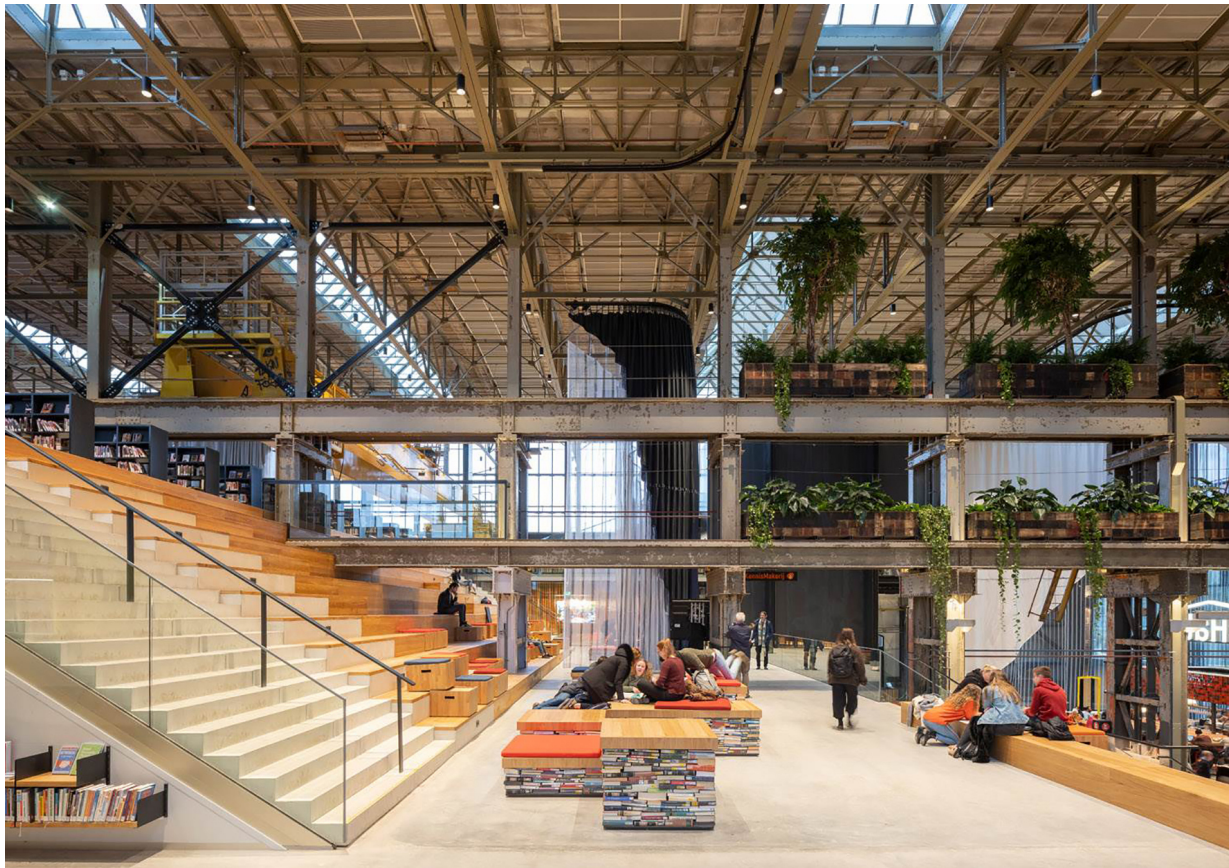


FIG. 3B Interiors of the LocHal, Tilburg. Image: Mecanoo Architects

3.

The LocHal shows the potential of library environments in connecting community and culture through the design of a public place. However, this kind of extensive operations are possible when supported by a shared ambitious urban program that provides adequate investments.²⁵ The average libraries need to realize the link between making, culture and community/public realm by adaptations, initiating makerspaces within the boundaries of their ordinary physical and financial rooms. How does the public library in the Netherlands realize the connections between making culture and public realm? What physical characters of making are mostly diffused in Dutch public libraries? For this, an empirical mapping²⁶ has recently shed light on the spatial characteristics of the development of makerspaces in the context of the public library in the Netherlands. The mapping reported the position of the makerspace in the library/building of reference; the spatial typology of the makerspace, its equipment and target; the relationships of the makerspaces with the library program and

25 The role of LocHal as urban trigger for the development of the railway area in part explains the ambitions and the investments. This is a similar situation as in other public library enterprises, like OBA Central at Amsterdam.

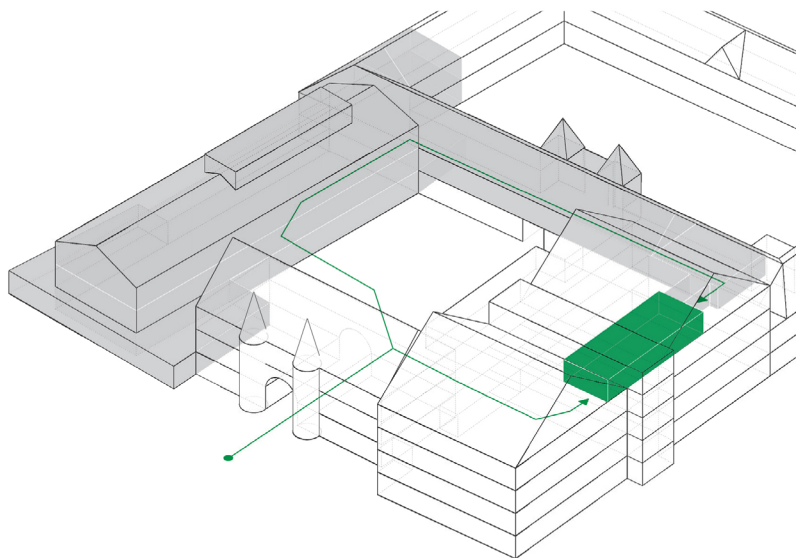
26 Olindo Caso and Joran A. Kuijper, *Atlas: Makerspaces in Public Libraries in The Netherlands* (Delft: TU Delft Open, 2019), <http://resolver.tudelft.nl/uuid:9a5b9b6b-0e0e-408a-8cba-d0b22b7c302e>.

with the outside public space; quantity data as to size and workplaces.
This information is represented by means of isometric drawings and data
[Figs. 4a - 4b].

Leeuwarden

dbieb

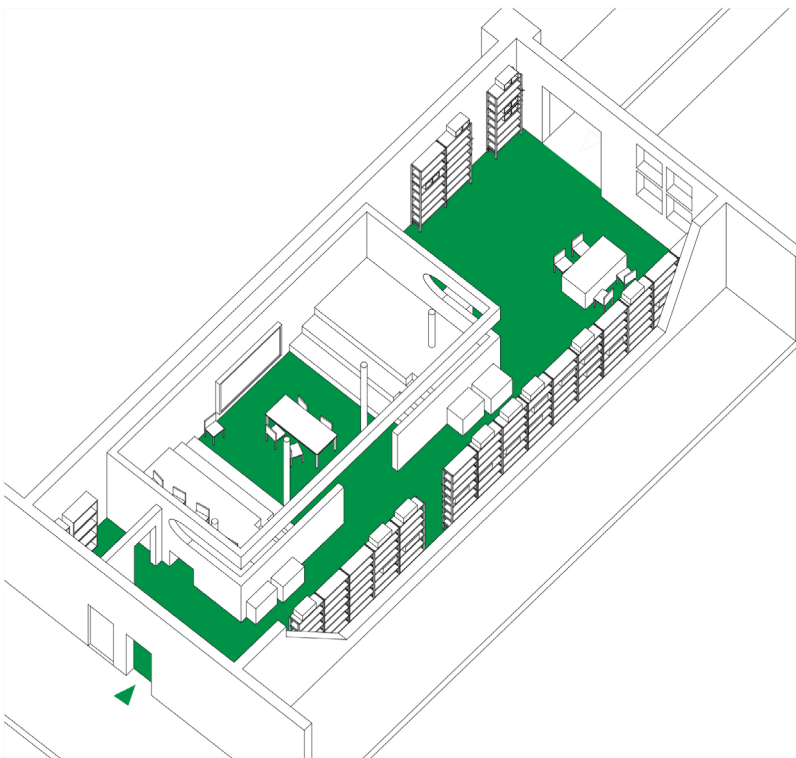
Werksplaats



dbieb

The spatial layout is based on a linear route through the library part whereof the maker-space is located at the end. It makes extensive use of educational Lego. Ready-made projects are arranged through a collaboration with a local Lego dealer.

scale	L
space	enclosed
arts and crafts	
twenty-first century skills	●
floor area	
○ building ● library ● makerspace 19.031 m² 3.513 m² 139 m²	



Werksplaats

The maker's site makes extensive use of educational Lego as a means of transmission. Ready-made educational projects are arranged through a collaboration with a local Lego dealer. The green furniture piece can serve as a green screen and stage for Lego designed educational *robobattles*.

workplaces	15
floor area	
● makerspace ○ floor area per person 139 m² 9,3 m²	
facilities	
cooking and food	●
creative writing	●
virtual reality	●
jewelry	●
textiles	●
music	●
art	●
audio	?
video	●
materials	●
graphic design	●
game design	●
robotics	●
3d drawing	●
3d scanning	●
3d printing	●
coding dojo	●
vinyl cutting	●
2d laser cutting	●
Lego	●
handicrafts	●

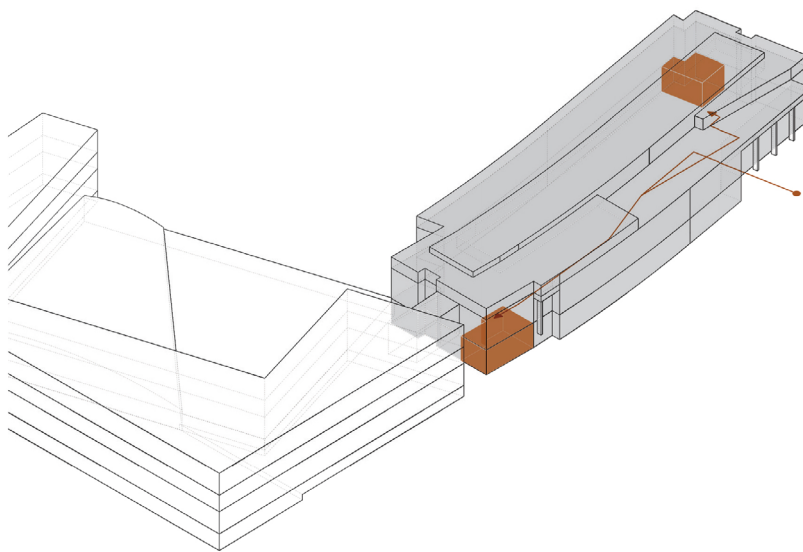
FIG. 4A

Mapping makerspaces in public libraries. The "dbieb" in Leeuwarden. Source: Caso and Kuijper, *ATLAS*. Image by Joran Kuijper.

Apeldoorn

CODA Bibliotheek

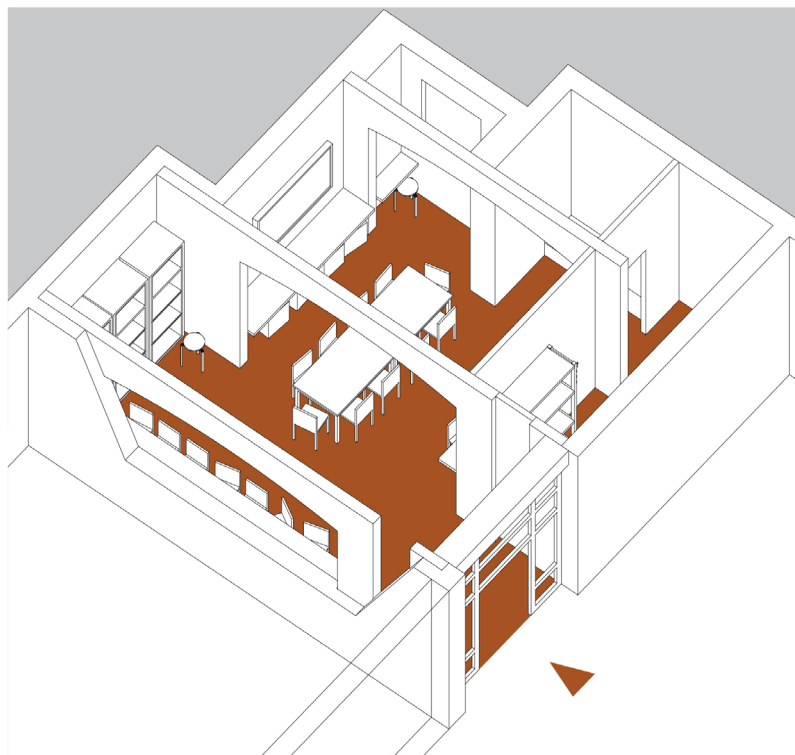
CODA FabLab + CODA VRLab



CODA Apeldoorn

One of the two connected buildings hosts the library and the archive. The makerspace and the VR Lab are in the basement and have no visual connection with the urban space. They are adjacent to the children's books and gaming area.

scale	L						
space	enclosed						
arts and crafts							
twenty-first century skills							
floor area							
	<table><tr><td>○ building</td><td>16,162 m²</td></tr><tr><td>● library</td><td>5,580 m²</td></tr><tr><td>● makerspace</td><td>94 m²</td></tr></table>	○ building	16,162 m ²	● library	5,580 m ²	● makerspace	94 m ²
○ building	16,162 m ²						
● library	5,580 m ²						
● makerspace	94 m ²						



CODA FabLab + CODA VRLab

The makerspace and the VR Lab are in different rooms far located from each other. The glass front and the large doors of the makerspace invite visitors to have a look. There is a lockable storage room available despite of the closed configuration.

workplaces	20				
floor area					
	<table><tr><td>● makerspace</td><td>94 m²</td></tr><tr><td>○ floor area per person</td><td>4,7 m²</td></tr></table>	● makerspace	94 m ²	○ floor area per person	4,7 m ²
● makerspace	94 m ²				
○ floor area per person	4,7 m ²				
facilities					
cooking and food					
creative writing					
virtual reality	●				
jewellery	●				
textiles	●				
music	●				
art	●				
audio	●				
video	●				
materials	●				
graphic design	●				
game design	●				
robotics	●				
3d drawing	●				
3d scanning	●				
3d printing	●				
coding dojo	●				
vinyl cutting	●				
2d laser cutting	●				
Lego	●				
handicrafts	●				

FIG. 4B Mapping makerspaces in public libraries. The CODA FabLab in Apeldoorn. Source: Caso and Kuijper, *ATLAS*. Image by Joran Kuijper.

The choice of the spatial typology adopted for the makerspaces is interesting for considering the relationships between making and the public realm of the library. At this end, both open or closed makerspace configurations are adopted, with the former being more integrated in the overall public library environment than the latter, that use to hold stronger relationships with functional library areas as workshops, meeting rooms, auditorium.²⁷

27 Olindo Caso, "Spatial Characters of Fifteen Library Makerspaces in the Netherlands," in Olindo Caso and Joran A. Kuijper, *ATLAS. Makerspaces in Public Libraries in The Netherlands* (Delft: TU Delft Open, 2019).

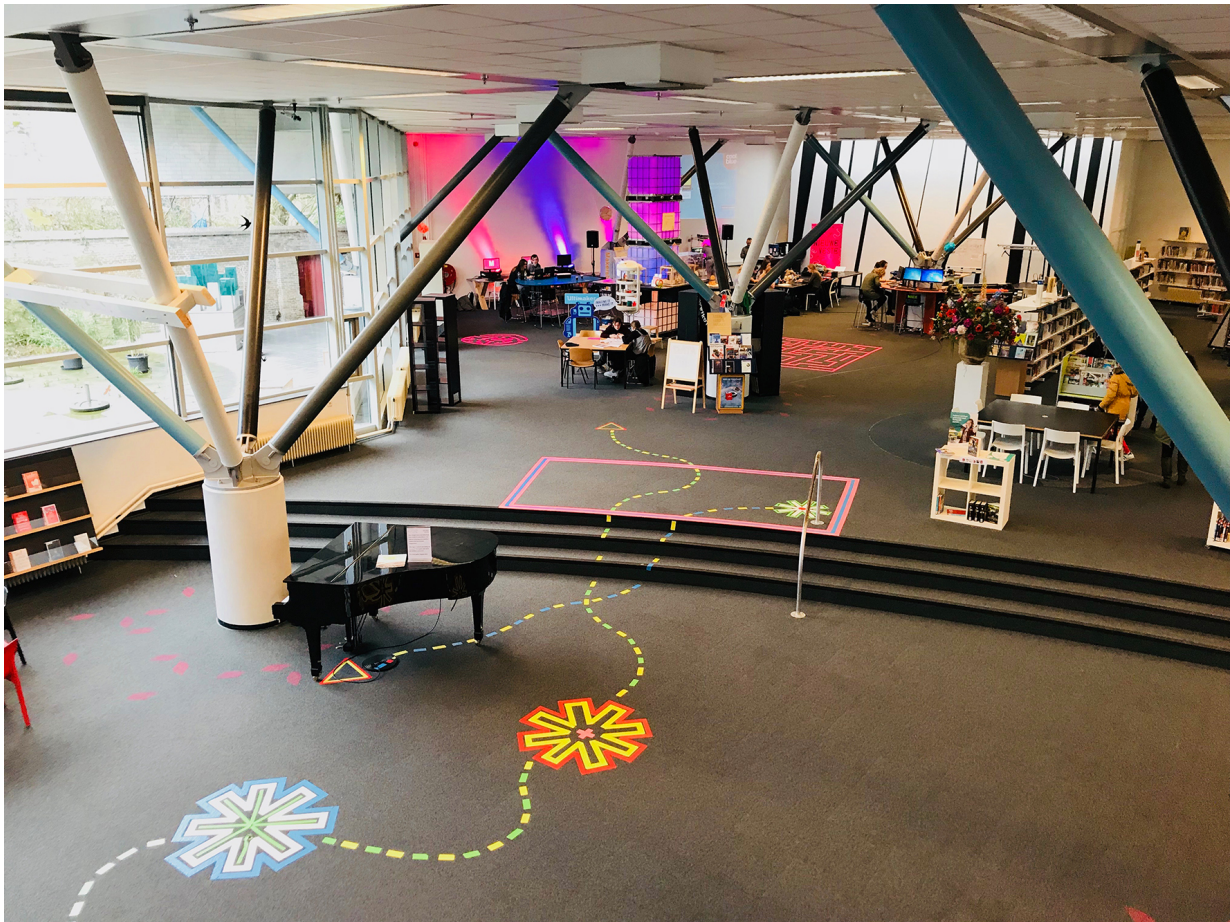


FIG. 5 Interior view of Breda library makerspace. Image: Joran Kuijper.

Both types show pros and cons, the choice depending on the context of the specific library. An open configuration favors the involvement of the overall visitor on occasional base (passers-by), mingle with the library spaces and cross-fertilize with the other functions—in this being more directly part of the public interior of the library. An example can be found in the library of Breda,²⁸ where the makerspace has variable boundaries towards the surrounding programs and is well-visible and integrated in the building [Fig. 5].

However, an open configuration could also produce more spatial conflicts and it requires more handlings for storage and preparations. A closed configuration has instead stronger boundaries (more or less transparent) and is more rigid in use, as being a space (room) specifically dedicated to the makerspace. This is an advantage for the making activities and the spatial clarity, with little conflicts and a safe storage of equipment. In the case of the Cultuurfabriek²⁹ at Veenendaal, the FabLab dedicated space is located behind a full-transparent wall that allows for the visibility of activities from the library [Fig. 6]. However, a closed configuration could result in a “lost space” in times of not-operation and is not directly part of the public experience of the library interior. In both cases the relationships between

28 Designed by Herman Hertzberger.

29 Designed by Jos van Eldonk.



FIG. 6 Makerspace at the Cultuurfabriek, Veenendaal. Image: Joran Kuijper.

making and library assume a concrete evidence by the strong presence in the overall cultural programming promoted by the hosting building.

The diffusion of library makerspaces and the confidence for the future of making in the context of the public library shows that the potentialities for developing connections between public culture and public realm through the diffusion of an active participatory attitude of making can be as well realized in ordinary library settings, for they support the renewed public desire and expectation regarding the library offer. However, a number of key-issues presently condition the realization of the desired connections.³⁰

The approach to realize a makerspace in an existing Dutch public library is necessarily pragmatic, by which opportunistic strategies must be employed. This means that strong relationships with the public core of the library have a lower priority than the functional aspects, due to space and budget constraints, consequently not always allowing the makerspace/making to fully participate of the public realm. The opportunistic strategy also touches the relationships with the external public space, when the makerspace is hardly visible from the urban space in this constraining the potential of using the makerspace as a public showcase. Furthermore the most makerspaces have a very neutral setting, they are predictable

30 Caso, "Spatial Characters of Fifteen Library Makerspaces in the Netherlands."

and functionally oriented with little contextual specifications. This is also a consequence of the necessary pragmatism for initiating a makerspace in the public library. Finally, the anchoring of the makerspace program in the overall library cultural program is not yet as strong as it could be to exploit the many opportunities as the most libraries are organized in cultural islands.

In the Dutch public library, the transition from consumption to production and towards a shared culture of active participation is in progress, and so is the materialization of the related commons through design. When the socio-spatial trends towards individual empowerment and active cultural participation are recognized as collective common ground, five major challenges can be identified along the path towards future library configurations.³¹

- Libraries will need to work on a further embedment of making in their cultural offer, by realizing a stronger integration and developing better opportunities for remixing cultural options. For this, non-competitive relationships between the makerspace-related spatial requirement and the fruition of the overall library are needed. This could result in different priorities in library (interior) design, in which visibility and showcase effect will need to be carefully considered.
- Libraries will need to improve the relationships between their specific making offers and the local contextual identity (programs but also space/place). The offered making experiences should better adhere to the specific socio-spatial characters and assets of the place they are embedded in. Specificity in place is a tool for the generation of value in context and it is a mean to build community identity.
- Because of the goals that are primary connected to the cultural image of the library institution, making programs tend to prioritize learning and digital literacy in fact giving "fun" and "amusement" a back seats. The risk is of generating a "compulsory" image of making in the context of the public library, which is hardly to be connected to a bottom-up construction of commons.
- Libraries are key nodes in the contemporary cultural infrastructures of cities, for this being centers of diffusion of creativity and innovation. The public library should be better aware of this fundamental role and it should aim to materialize it in their design, taking into account the hybrid nature of contemporary infrastructure, physical-virtual reality, and public space.

31 Ibid., 139–151.

- As making becomes the cultural mainstream, its implications cannot be limited to certain selected areas (fabrication) of confined in a room (an average makerspace) but they should more deeply inform the relationships between people and activities, people and spaces / places, and people among each other. The LocHal provides an example of a next generation public libraries in which making is taken as a common value and a shared culture. What will be the next steps?

Dr. Olindo Caso, architect, achieved his Ph.D. at the Delft University of Technology defending a dissertation on the impact of ICT applications in spatial design. Olindo is part of "Complex Projects" Group (Department of Architecture TU Delft) and coordinates the research group "Architecture and the City." Olindo is engaged in master education and research activities, where Urban Architecture and Hybrid Buildings are guiding themes. Specific interests relate to the architecture of cultural infrastructures and of mobility infrastructure. Among his publications: *Architettura contemporanea: Olanda* (Milan: Motta, 2009) and *ATLAS. Makerspaces in Public Libraries in the Netherlands* (Delft: TU Open, 2019).

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