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Atlas

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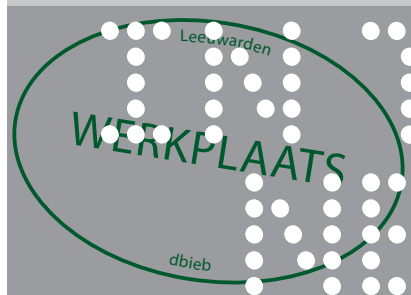
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ATLAS

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.

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The Atlas

Joran Kuijper

The following tables show the mapping of the fifteen visited makerspaces. All drawings have been done by Joran Kuijper. The tables move from large to small (scale), typically addressing:

- the scale of the urban area (position and general societal key-data);
- the scale of the hosting (library) building with makerspace's position, along with information about makerspace orientation and floor-space ratio;
- the scale of the makerspace itself, including data on programs / tools, size, and the available square meters per person (capacity);
- the visual dimension of the visited situation, including position in the urban context, the hosting building and the makerspace interiors.

The position of the library in the urban context is shown by the city plan including relevant landmarks as for instance the train station, where possible. The hosting (library) building and the makerspace are represented by comparable isometric drawings. The visual dimension is illustrated by photographs taken at the time of the visits. Each makerspace has been associated to a color in order to render it distinguishable. Color-association has further no other meaning. A summary table of the spatial configurations of (library) buildings and makerspaces conclude the Atlas. The information sources for the mapping have been: A) direct observations and measurements during the visit; and B) materials like building (floor)plans / sections supplied by the makerspace / library staff, if available.

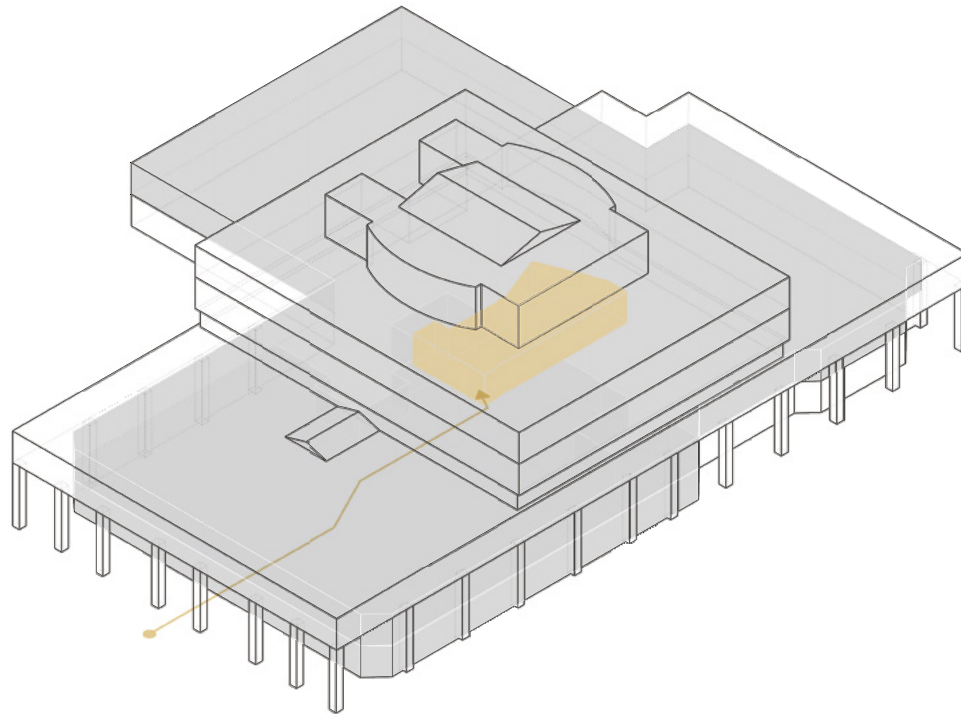
Tilburg	Bibliotheek Tilburg	Digilab	44
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Steenwijk	Bibliotheek Steenwijk	KennisLab	80
's-Gravenzande	Bibliotheek 's-Gravenzande	BiebLab	84
Amsterdam Reigersbos	OBA Reigersbos	Maakplaats 021	88
Amsterdam Sloterveer	OBA Sloterveer	Maakplaats 021	92
Amsterdam Waterlandplein	OBA Waterlandplein	Maakplaats 021	96
Tiel	Bibliotheek Tiel	Medialab Tiel	100
Spatial Configurations Summary Tables			104



Tilburg

The library is part of a larger office building of the municipality but has its own entrance. In 2019 the library will move close to the train station, as part of the 'spoor-zone' urban project.

population CBS, 2018	21.552		
area CBS, 2018	119,15km ²		
population per km² CBS, 2017	1824		
annual household income CBS, 2014	€ 30.200		
education level CBS, 2011	<div> <div>low educated</div> <div>middle educated</div> <div>highly educated</div> </div>		
	35%	38%	27%
background CBS, 2017	<div> <div>migration background</div> <div>Dutch background</div> </div>		
	26%	74%	
labor sectors CBS, 2016	<div> <div>industry and energy</div> <div>commercial service</div> <div>non-commercial service</div> </div>		
	12%	59%	30%

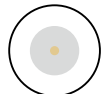


Bibliotheek Tilburg

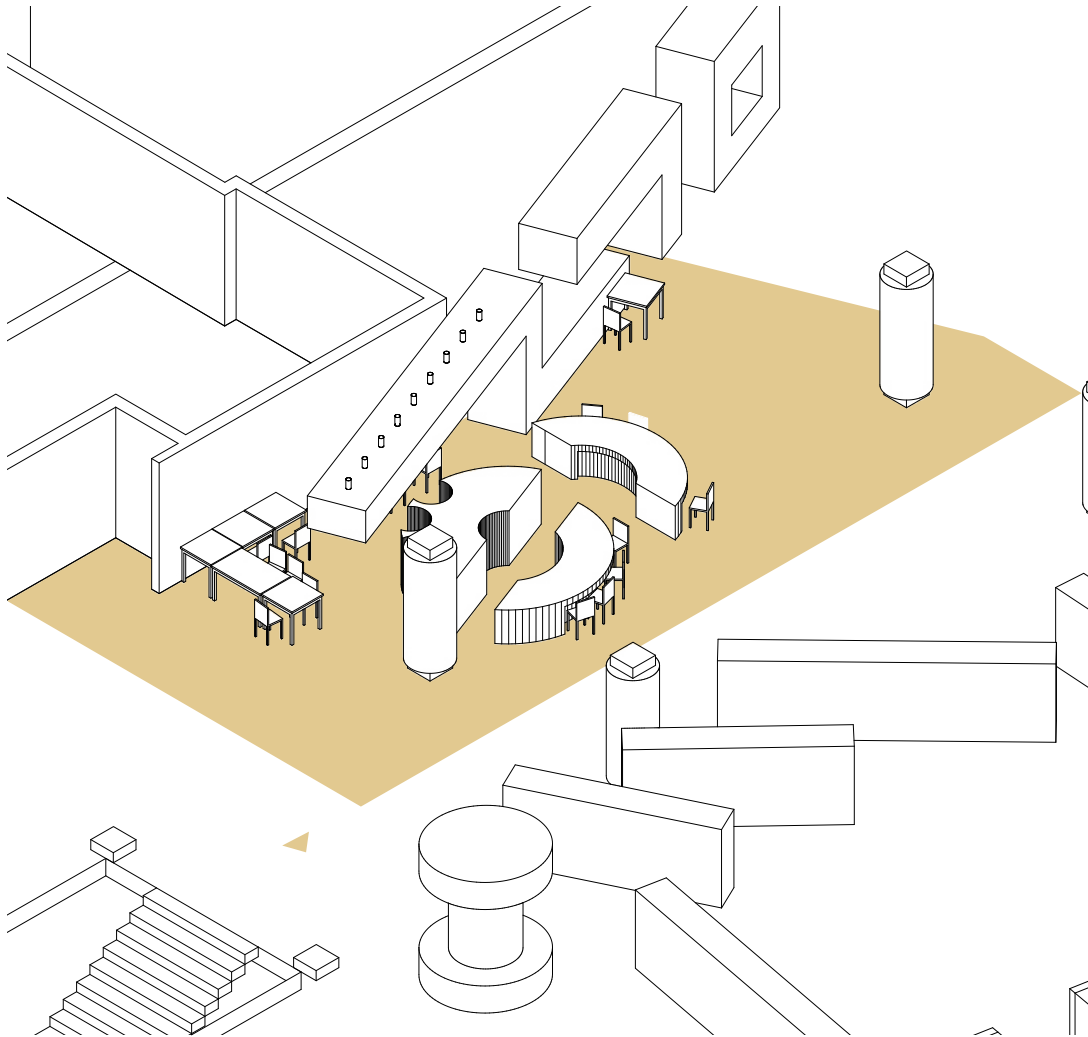
The makerspace is on the first floor as an open space between the collections. It is in the library often seen by visitors as the information desk and it is the only visited makerspace offering knowledge about open source software and cryptocurrencies.

scale	M
space	open plan
arts and crafts	
twenty-first century skills	
floor area	<div> <div></div> <div> 15.038 m² 4.451 m² 152 m² </div> </div>

● building
 ● library
 ● makerspace



15.038 m²
 4.451 m²
 152 m²



Digilab

The makerspace has its own VR-Lab, but because of the makerspace's open configuration, this takes space from the collections. The (young) users produce quite some noise while using the VR possibilities.

workplaces

12

floor area



● makerspace
○ floor area per person

152 m²
12,7 m²

facilities

cooking and food	●	graphic design	●
creative writing	●	game design	●
virtual reality	●	robotics	●
jewelry	●	3d drawing	●
textiles	●	3d scanning	●
music	●	3d printing	●
art	●	coding dojo	●
audio	●	vinyl cutting	●
video	●	2d laser cutting	●
materials	●	Lego	●
		handicrafts	●

building



library



makerspace





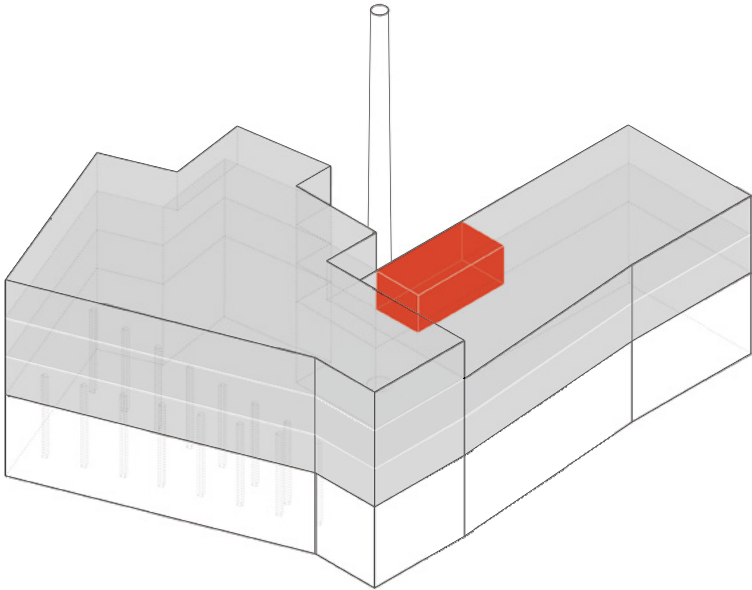
Veenendaal


The library is located in the Cultuurfabriek, a cultural center with a local historical association, art loan, the city’s museum and a local culture foundation.

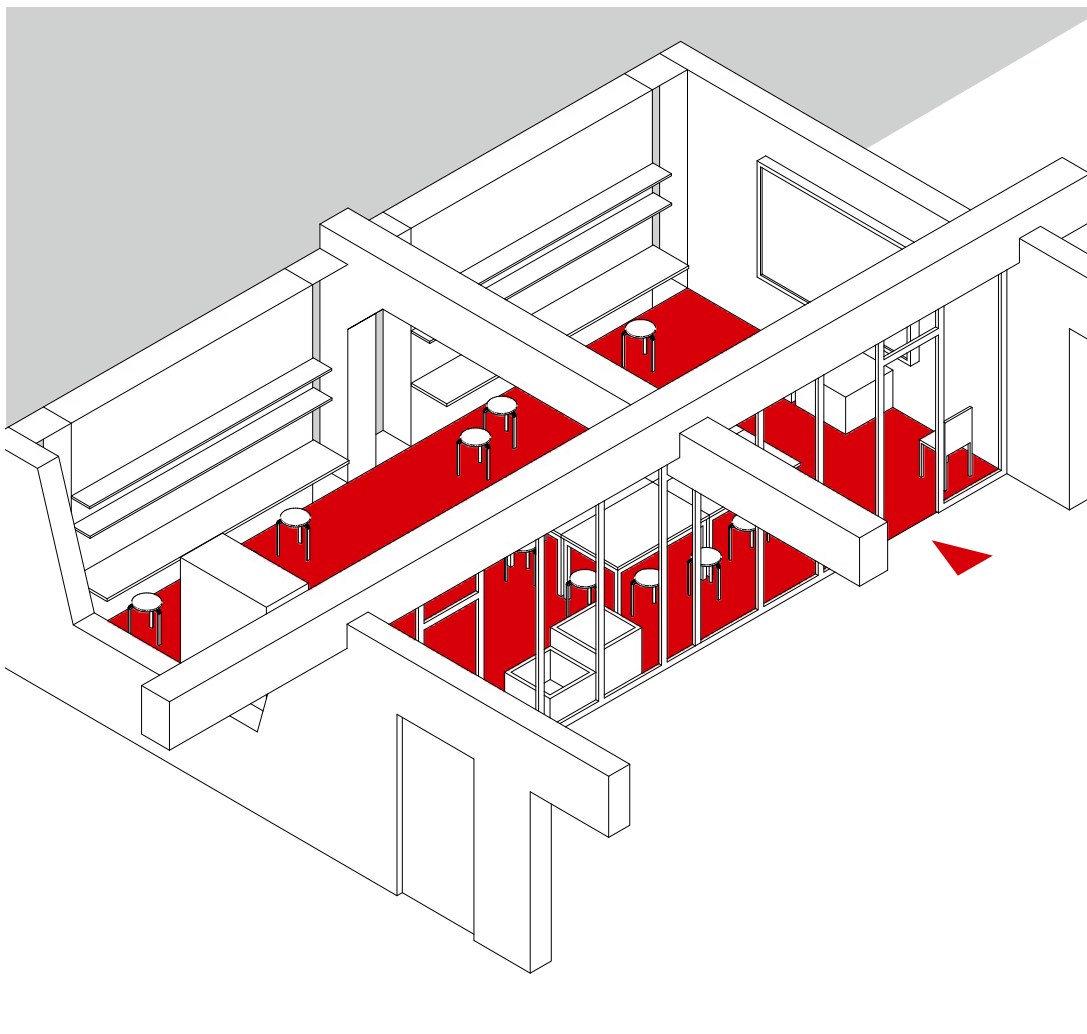
population	64.918
CBS, 2018	
area	19,72 km²
CBS, 2018	
population per km²	3.299
CBS, 2017	
annual household income	€ 31.000
CBS, 2014	
education level	<div><div></div><div></div><div></div></div>
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
background	<div><div></div><div></div></div>
CBS, 2017	
● migration background	
● Dutch background	
labor sectors	<div><div></div><div></div><div></div></div>
CBS, 2016	
● industry and energy	
● commercial service	
● non-commercial service	

Cultuurfabriek Veenendaal

The first and the second floor of the building is the library. It contains special reading spaces for children and tutor rooms for (external) educational purposes. The makerspace is located in a former silent room wherein a glass front is placed.



scale	M
space	enclosed
arts and crafts	●
twenty-first century skills	●
floor area	
	<div><div>○ building</div><div>● library</div><div>● makerspace</div></div> <div><div>3.760 m²</div><div>2.706 m²</div><div>42 m²</div></div>



FabLab Veenendaal

For a relatively small space lots of equipment is available. Tough, because of its location there is not much of a run-up. Nevertheless the makerspace is recognizable as such because of this transparency.

workplaces

15

floor area



● makerspace
○ floor area per person

42 m²
2,8 m²

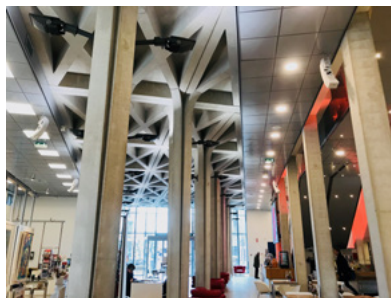
facilities

cooking and food	●	graphic design	
creative writing		game design	
virtual reality		robotics	
jewelry		3d drawing	●
textiles		3d scanning	
music		3d printing	●
art	●	coding dojo	●
audio		vinyl cutting	
video		2d laser cutting	●
materials	●	Lego	
		handicrafts	●

building



library



makerspace





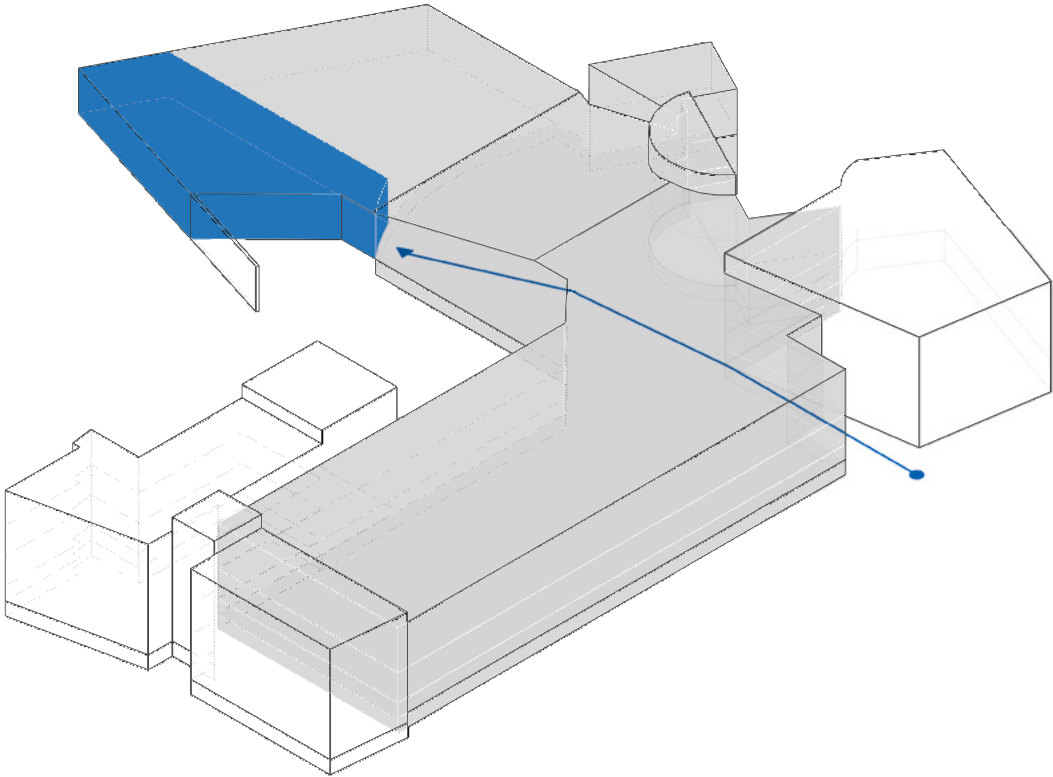
Breda


Together with a theatre, a music and art school the library is part of a cultural center. The vast collection is spread over two open space floor deepened wings on one level.

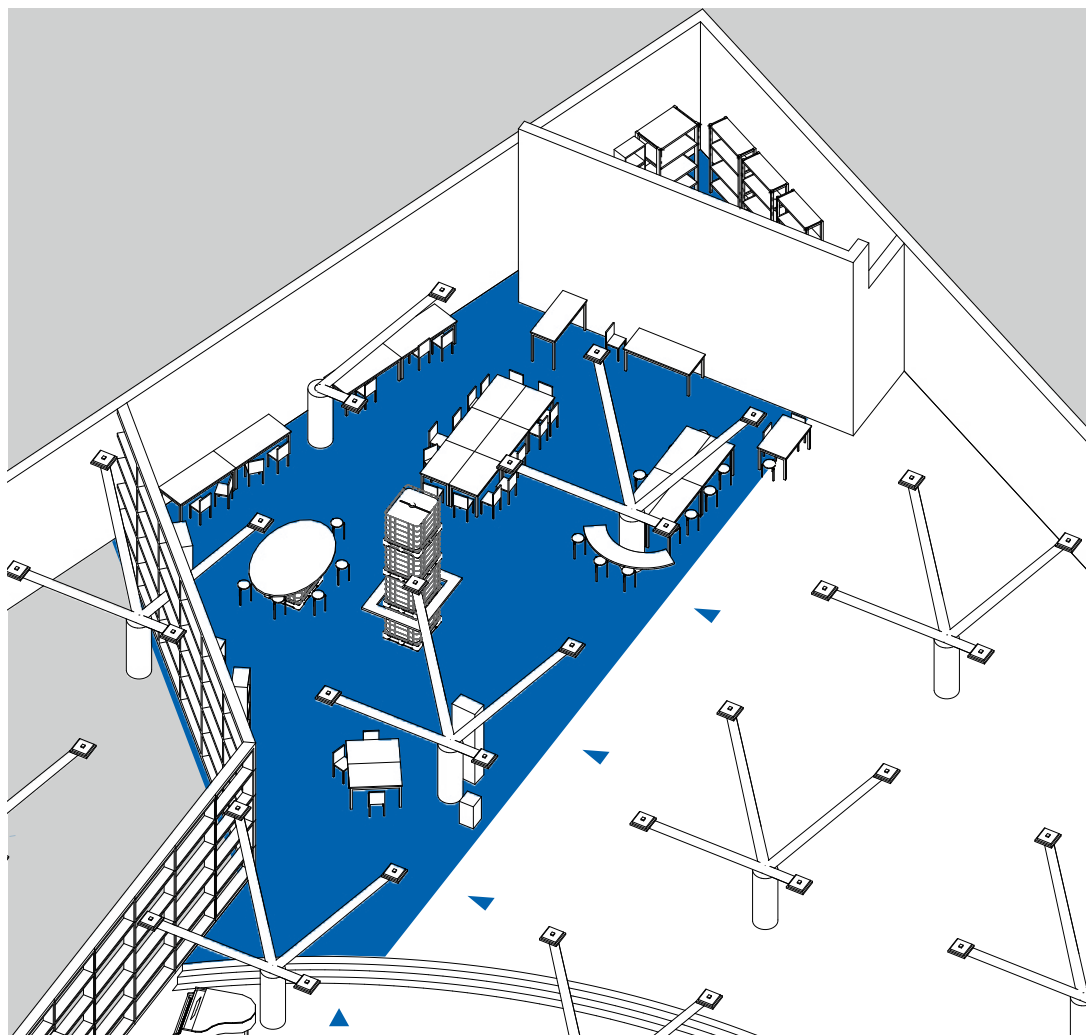
population	183.448
CBS, 2018	
area	128,68 km²
CBS, 2018	
population per km²	1.447
CBS, 2017	
annual household income	€ 34.600
CBS, 2014	
education level	
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
30% 37% 32%	
background	
CBS, 2017	
● migration background	
● Dutch background	
23% 77%	
labor sectors	
CBS, 2016	
● industry and energy	
● commercial service	
● non-commercial service	
10% 56% 33%	

Bibliotheek Nieuwe Veste

The floor of the library is marked with colored tape pointing out the direction to the makerspace which is located as an open space between de collections. Natural light from the indoor enters the library quite well because of the large glass front.



scale	L
space	open plan
arts and crafts	●
twenty-first century skills	●
floor area	
	<div><div>○ building</div><div>● library</div><div>● makerspace</div></div> <div><div>6.979 m²</div><div>2.514 m²</div><div>261 m²</div></div>



Makersbase

A hired artist created the furniture from reused material accommodating a fresh and 'young' look. Music and video is played during the opening hours. A large lockable storage space is available and is needed because of the makerspace's open configuration.

workplaces

40

floor area



● makerspace

○ floor area per person

261 m²

6,5 m²

facilities

cooking and food
creative writing
virtual reality
jewellery
textiles
music
art
audio
video
materials

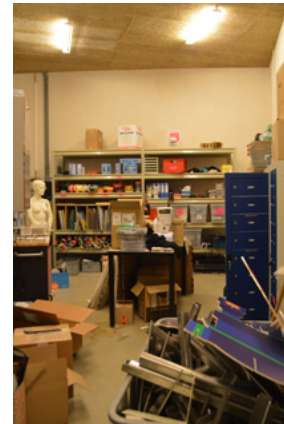
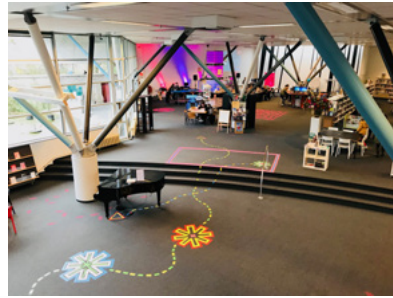
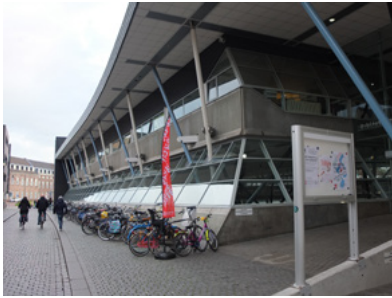
graphic design
game design
robotics
3d drawing
3d scanning
3d printing
coding dojo
vinyl cutting
2d laser cutting
Lego
handicrafts

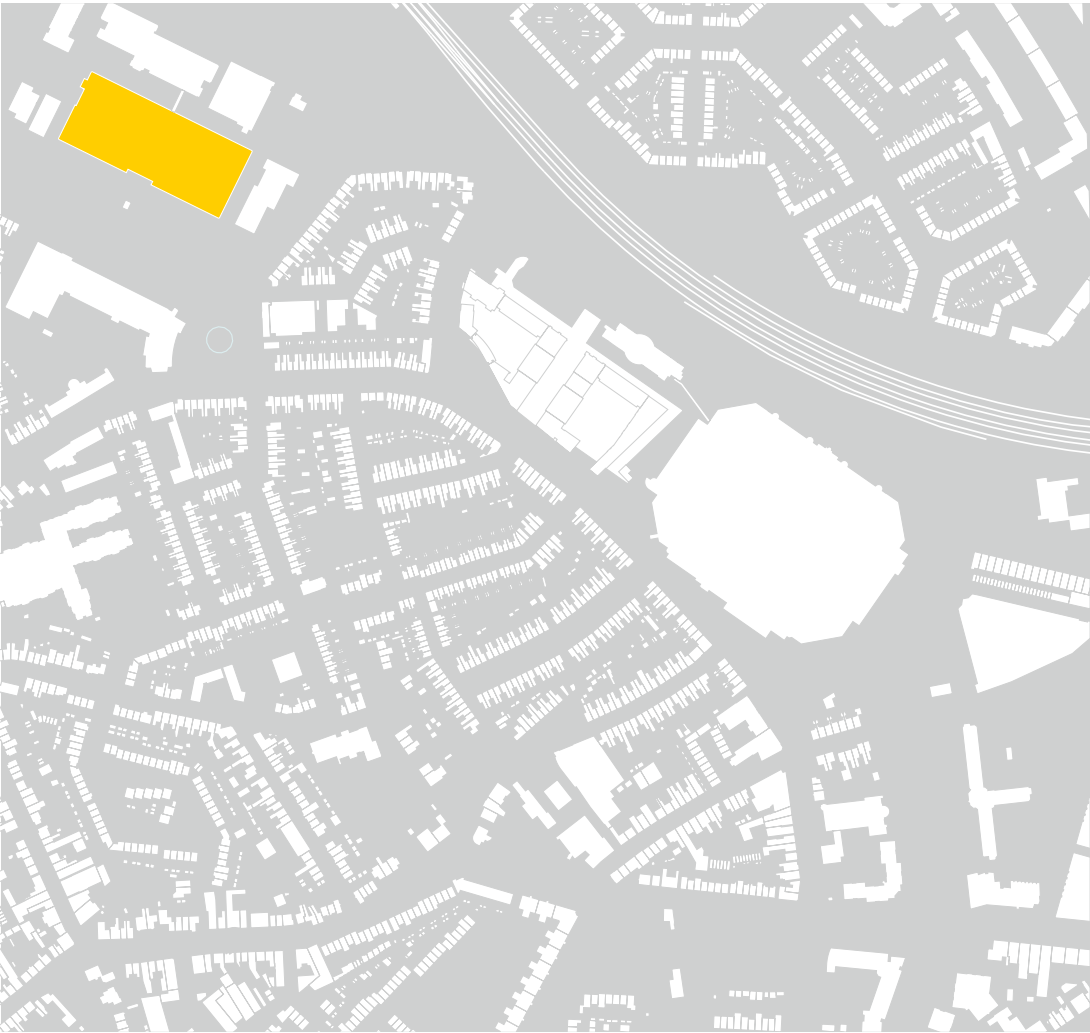


building

library

makerspace





Eindhoven

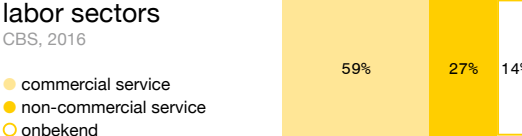
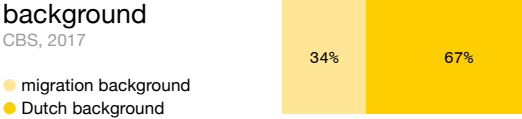
The makerspace is located in the Microlab, a creative industry building in an industrial area, far from the main location of Eindhoven's public library in the city center.

population 229.126
CBS, 2018

area 88,92 km²
CBS, 2018

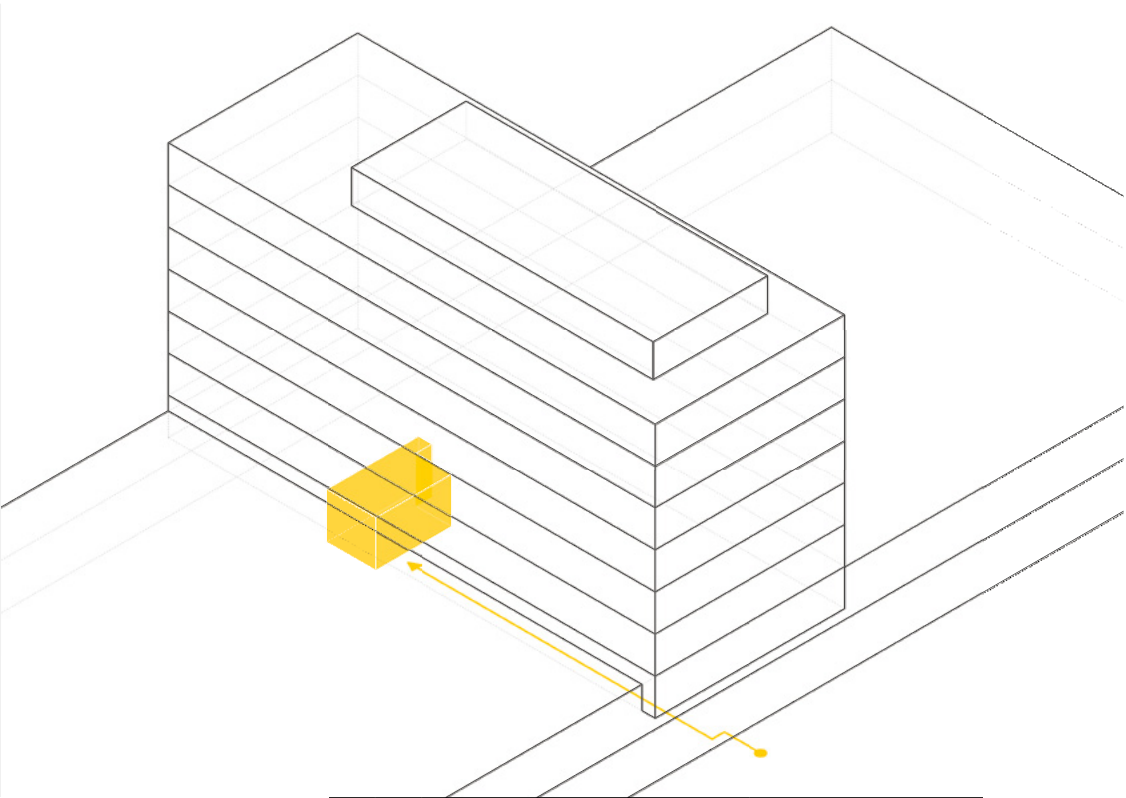
population per km² 2.587
CBS, 2017

annual household income € 21.800
CBS, 2014



Bibliotheek Eindhoven

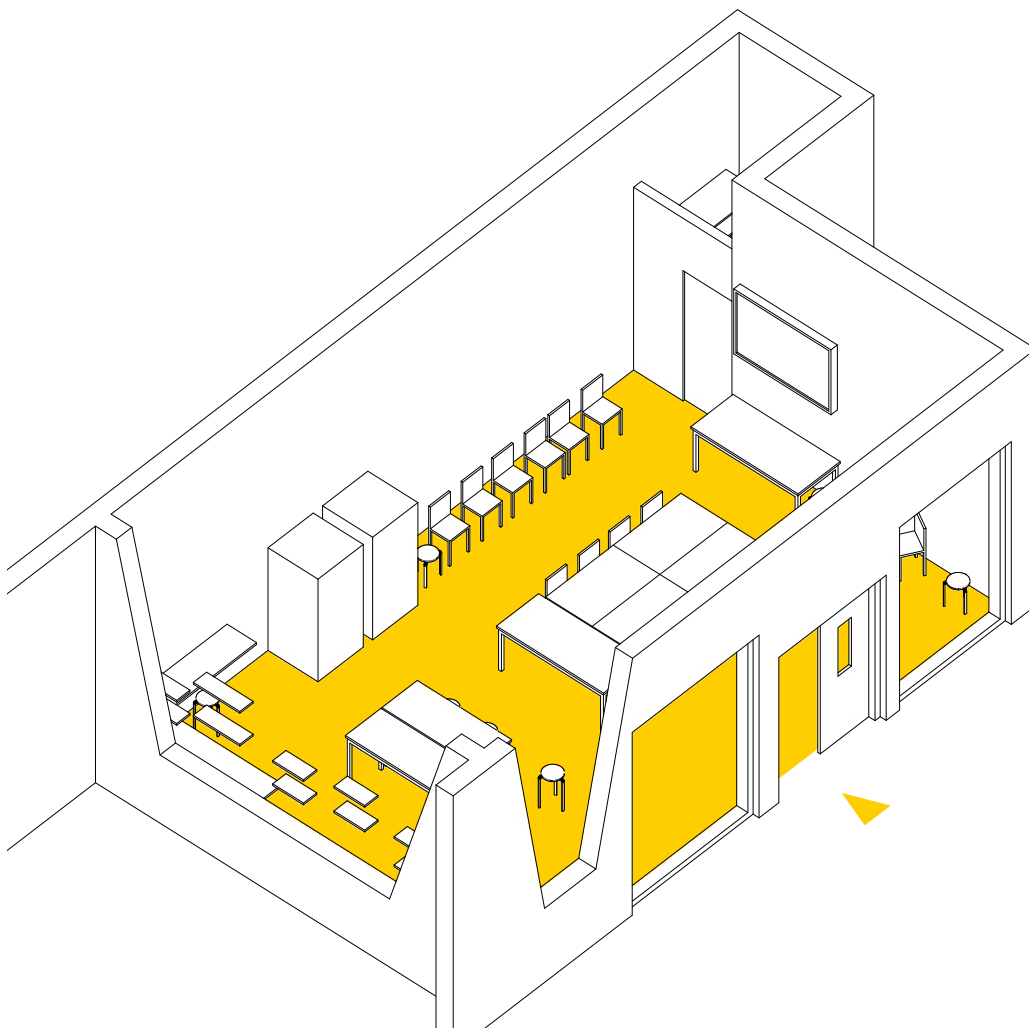
The room has no connection with the surrounding urban space and is only visible in the specific corridor of the building it is located in. Besides of one textual sign there is no recognizable connection with the (public) library.



scale	M
space	enclosed
arts and crafts	●
twenty-first century skills	●
floor area	<div><div></div><div>31.590 m² not applicable</div><div>65 m²</div></div>
<div><div>○ building</div><div>● library</div><div>● makerspace</div></div>	

Microlab Strijp-S, Techniekbieb

The makerspace is a well lit, plain space equipped for both handicraft and digital purposes. A small lockable storage space is available. There is competition with a commercial makerspace close-by.



workplaces

20

floor area



● makerspace
○ floor area per person

65 m²
3,3 m²

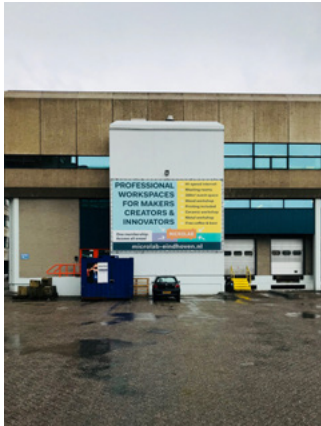
facilities

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



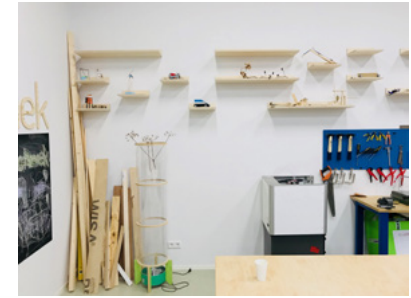
building

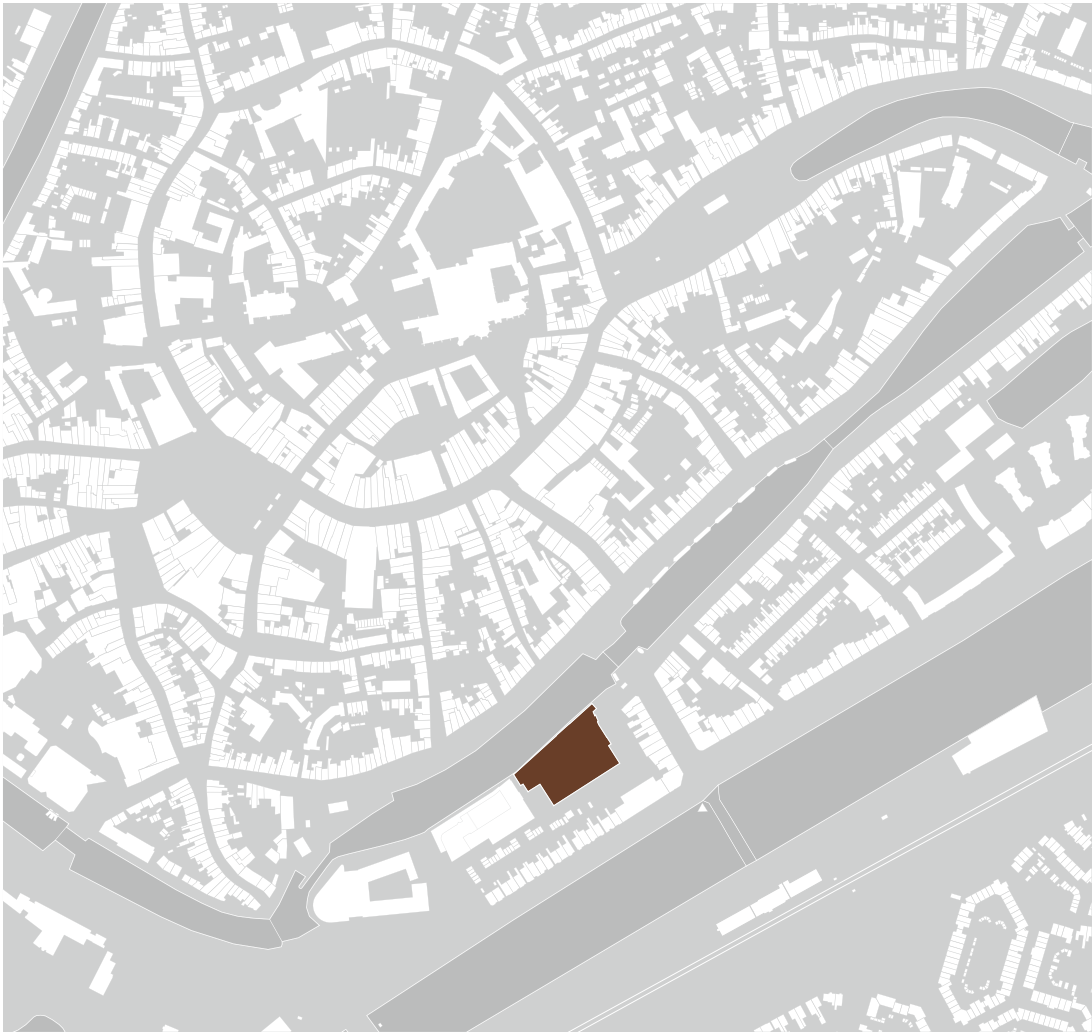


building (interior)



makerspace





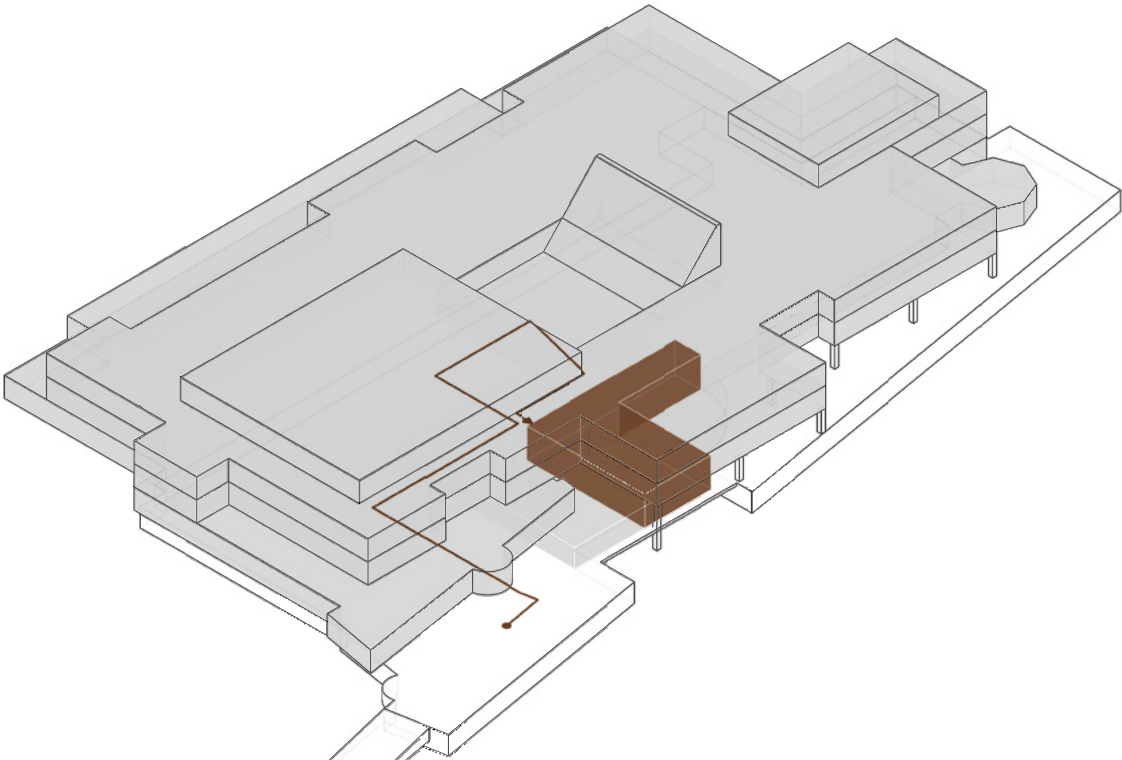
Middelburg

The library buildings hosts a planning office and an auditorium and is located on a waterfront with good views on the belt of the old city center.

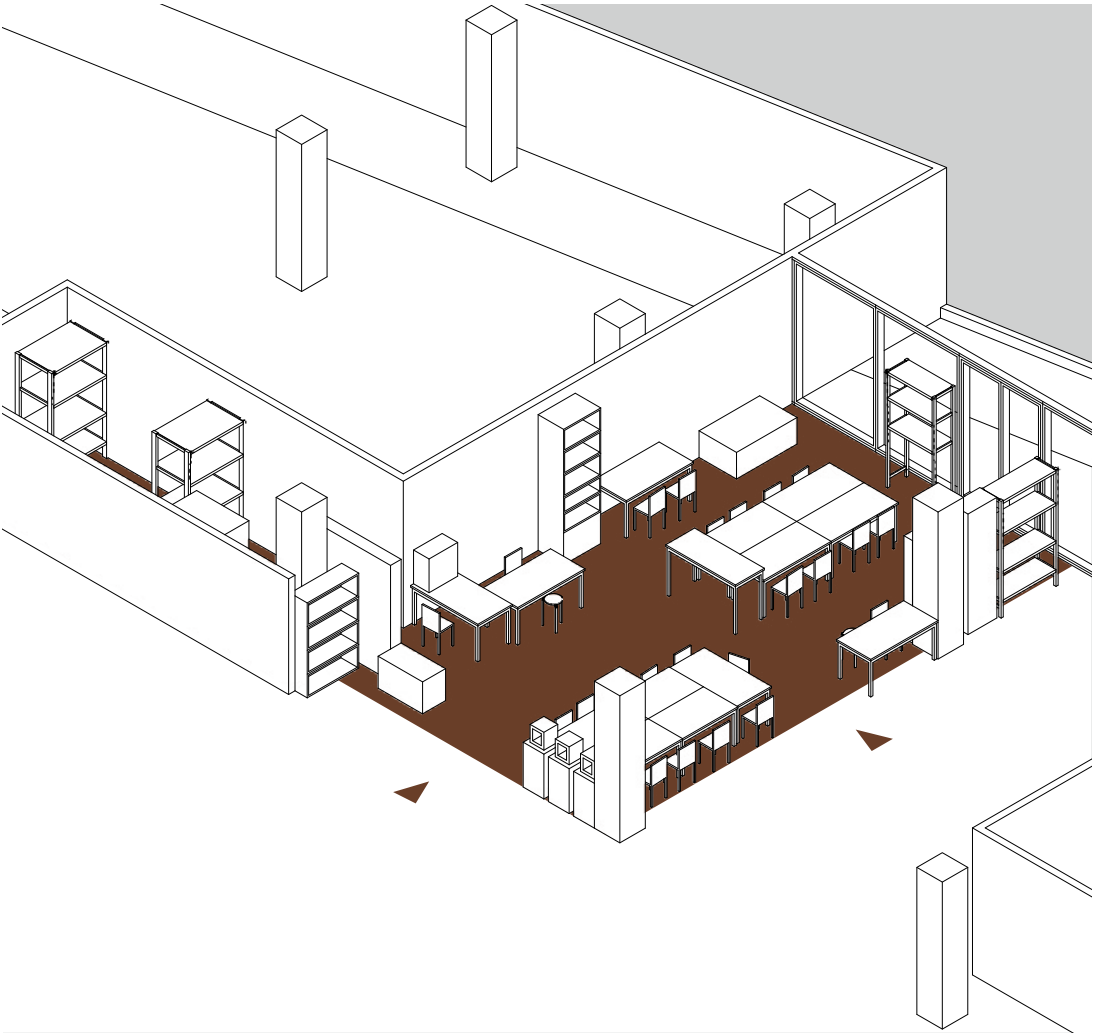
population	48.303
CBS, 2018	
area	53,04 km²
CBS, 2018	
population per km²	991
CBS, 2017	
annual household income	€ 31.000
CBS, 2014	
education level	<div><div></div><div></div><div></div></div>
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
background	<div><div></div><div></div></div>
CBS, 2017	
● migration background	
● Dutch background	
labor sectors	<div><div></div><div></div><div></div><div></div></div>
CBS, 2016	
● agriculture, forestry and fishing	
● industry and energy	
● commercial service	
● non-commercial service	

ZB Middelburg

The makerspace is located in the basement which is on the same floor as the auditorium. This seems a quite isolated location, but it offers a quiet space to work. Because of the open space configuration the makerspace is recognizable as such.



scale	M
space	open plan
arts and crafts	●
twenty-first century skills	●
floor area	<div><div></div><div></div><div></div></div> <div><div>8.011 m²</div><div>5.632 m²</div><div>98 m²</div></div>
<div><div>○ building</div><div>● library</div><div>● makerspace</div></div>	



Fablab Zeeland

From the other side of the water one could not recognize this part of the basement as a makerspace. There is a lockable storage room which is in need because of the open configuration.

workplaces 25

floor area



● makerspace
○ floor area per person

98 m²
3,9 m²

facilities

cooking and food	●	graphic design	●
creative writing	●	game design	●
virtual reality	●	robotics	●
jewelery	●	3d drawing	●
textiles	●	3d scanning	●
music	●	3d printing	●
art	●	coding dojo	●
audio	●	vinyl cutting	●
video	●	2d laser cutting	●
materials	●	Lego	●
		handicrafts	●

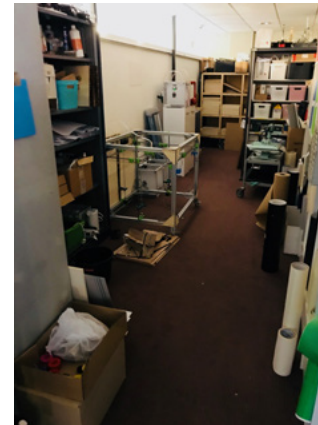
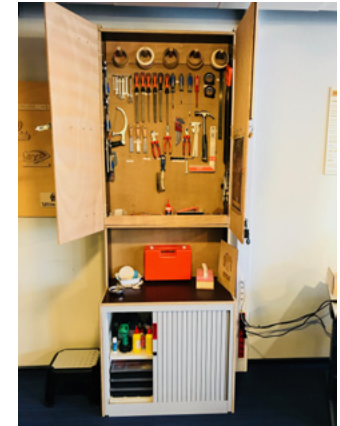
building

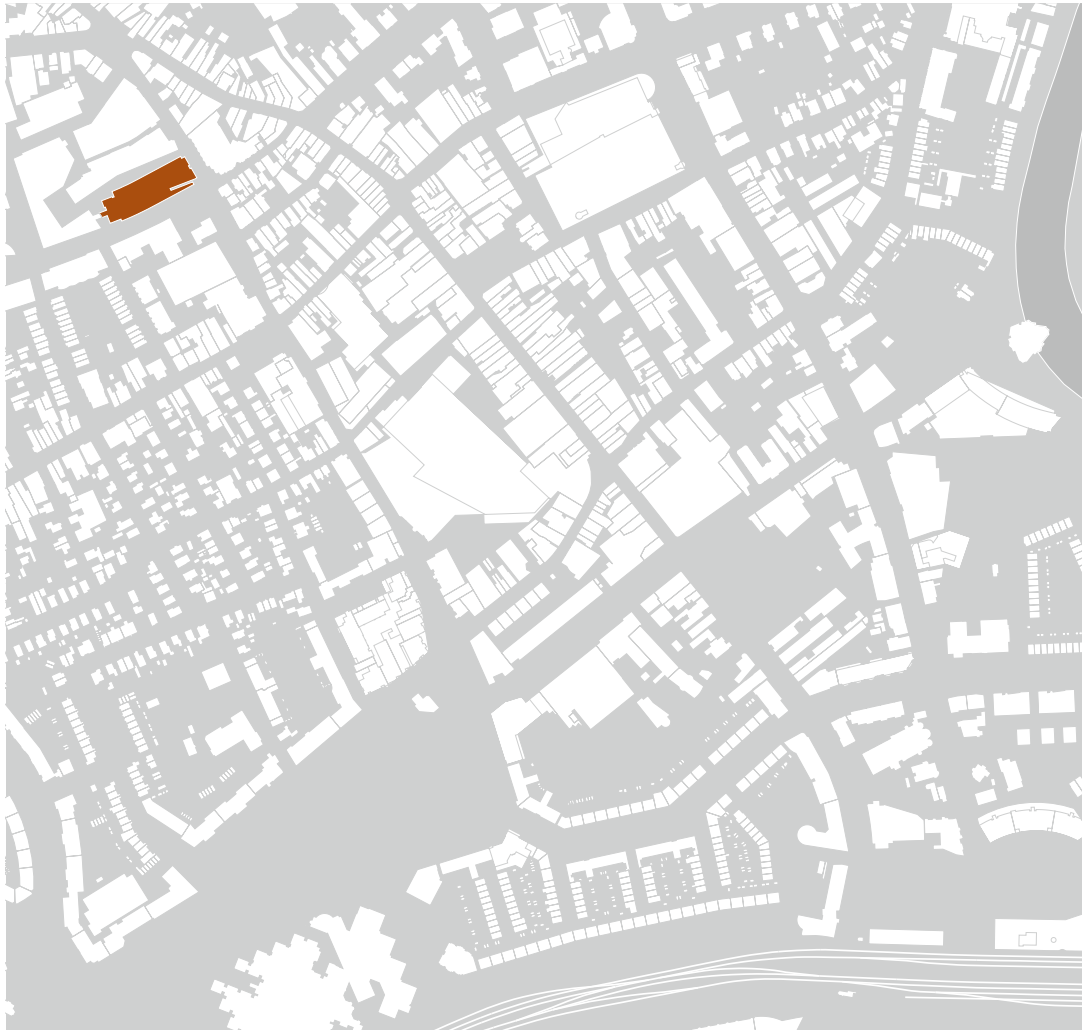


library



makerspace





Apeldoorn

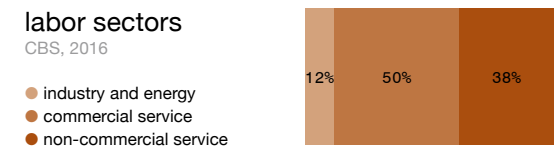
The two different buildings from two different decades form a multicultural center with a museum, archive and library.

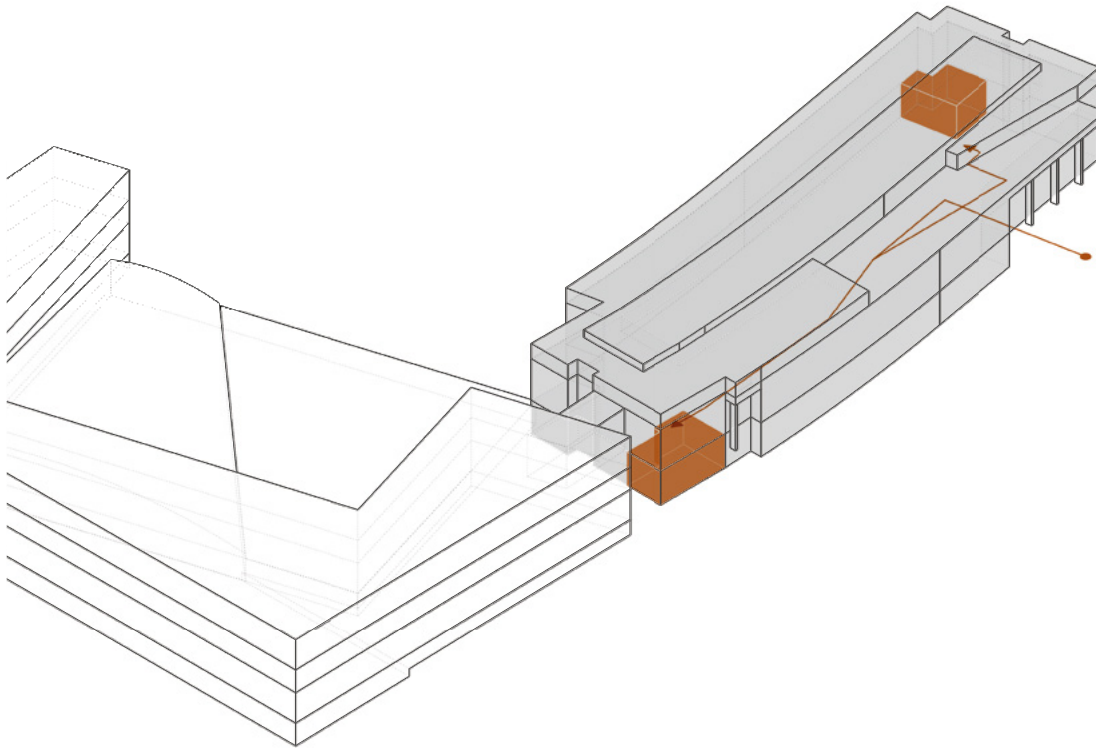
population 161.156
CBS, 2018

area 351,15 km²
CBS, 2018

population per km² 471
CBS, 2017


annual household income € 31.900
CBS, 2014





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	
	○ 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



● makerspace
○ floor area per person

94 m²
4,7 m²

facilities

cooking and food	●	graphic design	●
creative writing	●	game design	●
virtual reality	●	robotics	●
jewellery	●	3d drawing	●
textiles	●	3d scanning	●
music	●	3d printing	●
art	●	coding dojo	●
audio	●	vinyl cutting	●
video	●	2d laser cutting	●
materials	●	Lego	●
		handicrafts	●

building

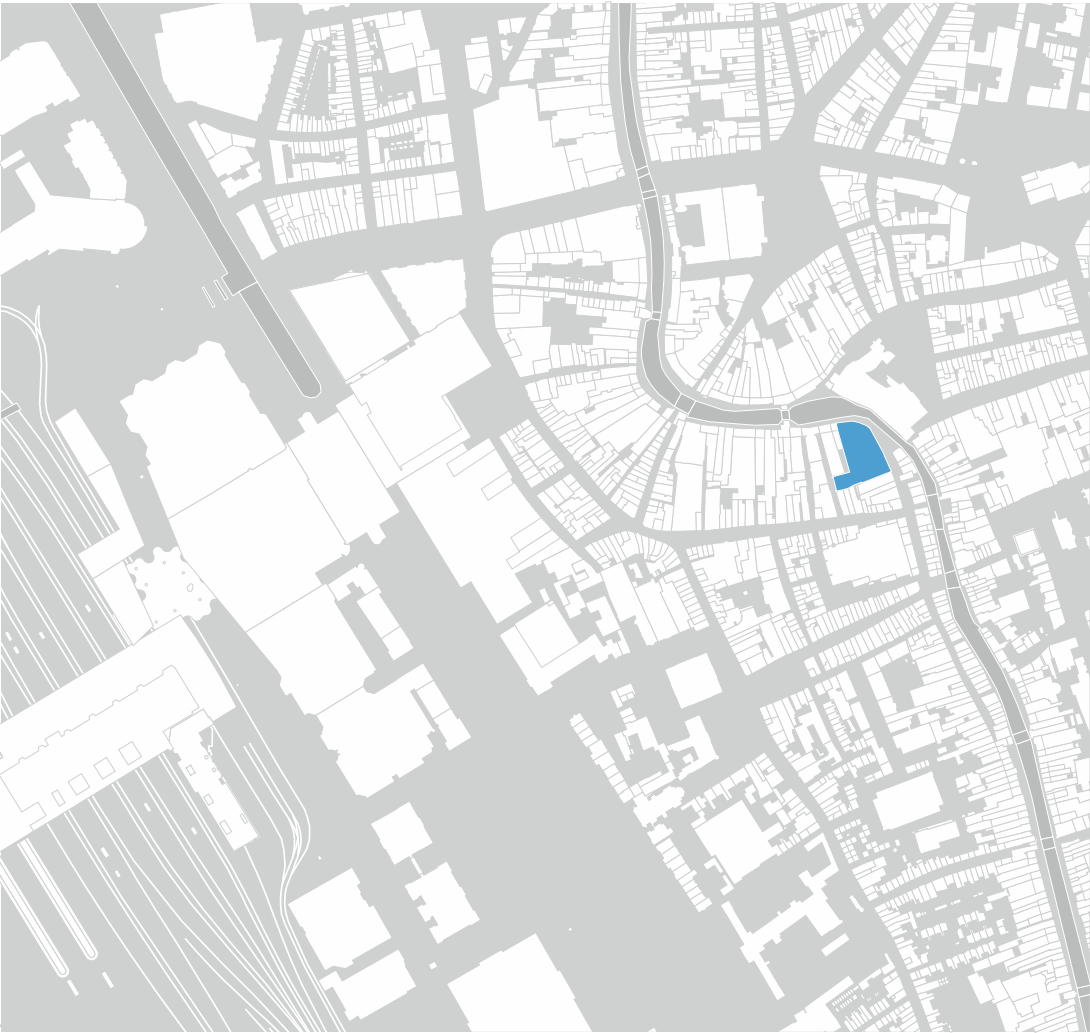


library



makerspace

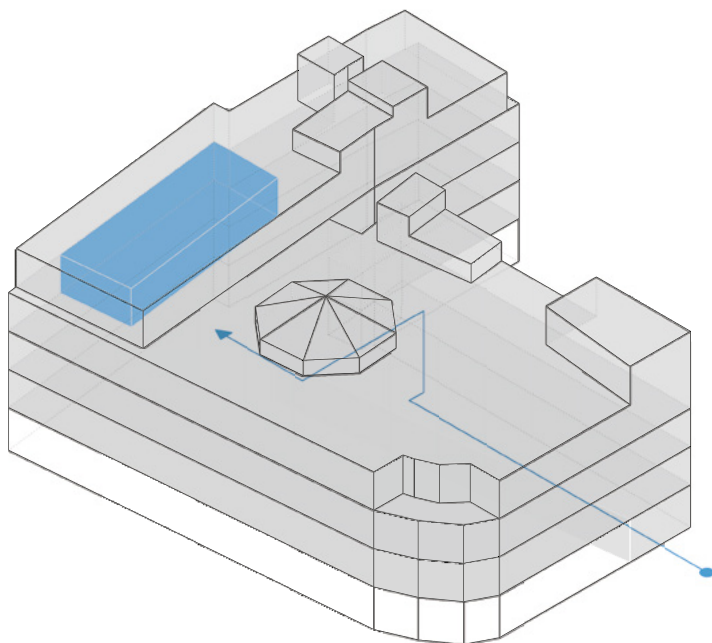




Utrecht


The reasonably old-fashioned furnished library (typical 80s Dutch renovation architecture) in Utrecht is in transition and will soon move to Neude, in the former monumental brick post office building.

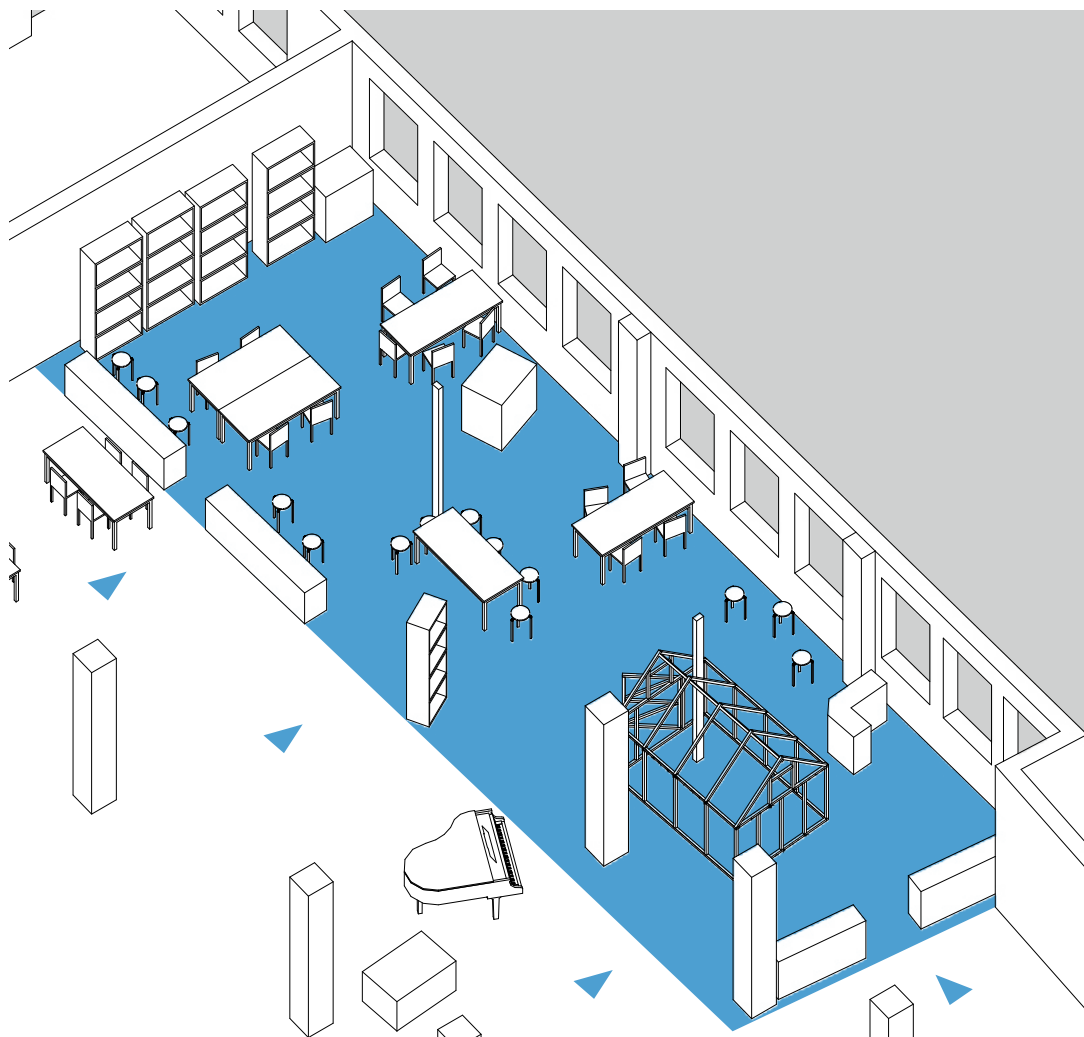
population	347.483
CBS, 2018	
area	99,21 km²
CBS, 2018	
population per km²	2.644
CBS, 2017	
annual household income	€ 36.600
CBS, 2014	
education level	
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
<div><div>27%</div><div>27%</div><div>46%</div></div>	
background	
CBS, 2017	
● migration background	
● Dutch background	
<div><div>34%</div><div>66%</div></div>	
labor sectors	
CBS, 2016	
● commercial service	
● non-commercial service	
● onbekend	
<div><div>54%</div><div>40%</div><div>6%</div></div>	



Centrale Bibliotheek

The makerspace is located on the top floor in a not strongly defined corner. The library shares the building with a large bookshop on the ground floor. Both functions have their own entrance.

scale	M
space	open plan
arts and crafts	●
twenty-first century skills	●
floor area	
	<div> ○ building </div> <div> ● library </div> <div> ● makerspace </div>
	<div>6.310 m²</div> <div>4.451 m²</div> <div>130 m²</div>



Laboratorium

The space is delimited by painted wooden cabinets and there is a greenhouse in the space that also serves as storage for some equipment when the makerspace is closed. There are large metal storage cupboards at the side in which the creations of visitors can be stored.

workplaces

15

floor area



● makerspace
○ floor area per person

130 m²
8,7 m²

facilities

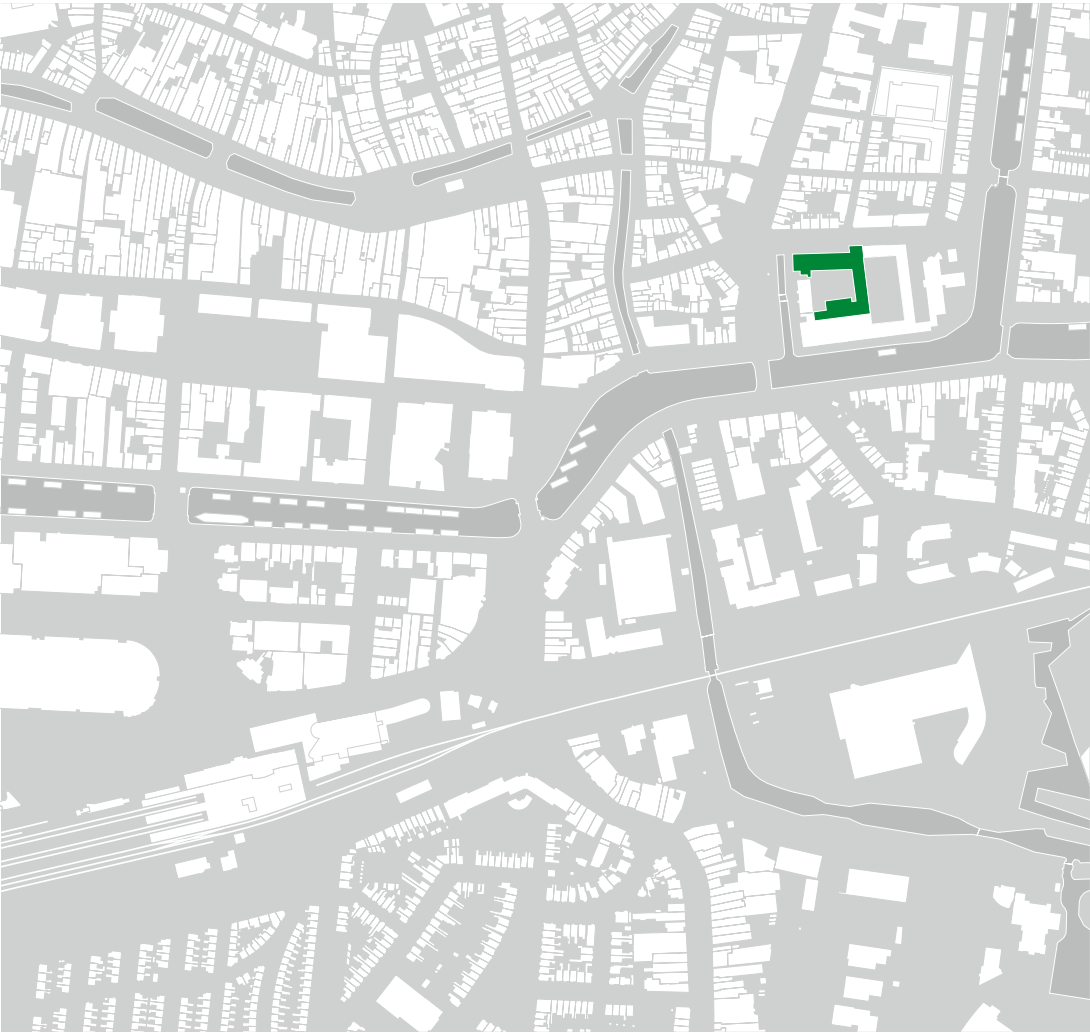
cooking and food	graphic design	
creative writing	game design	
virtual reality	robotics	●
jewellery	3d drawing	●
textiles	3d scanning	
music	3d printing	●
art	coding dojo	●
audio	vinyl cutting	●
video	2d laser cutting	
materials	Lego	
	handicrafts	●

building

library

makerspace





Leeuwarden

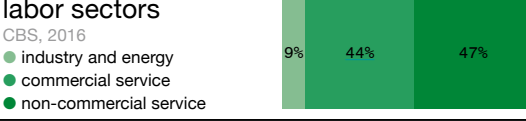
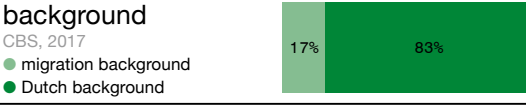
dbieb in Leeuwarden is part of a creative complex that used to serve as a penitentiary and shares the building with other creative companies like a bookbinding service and game design studios.

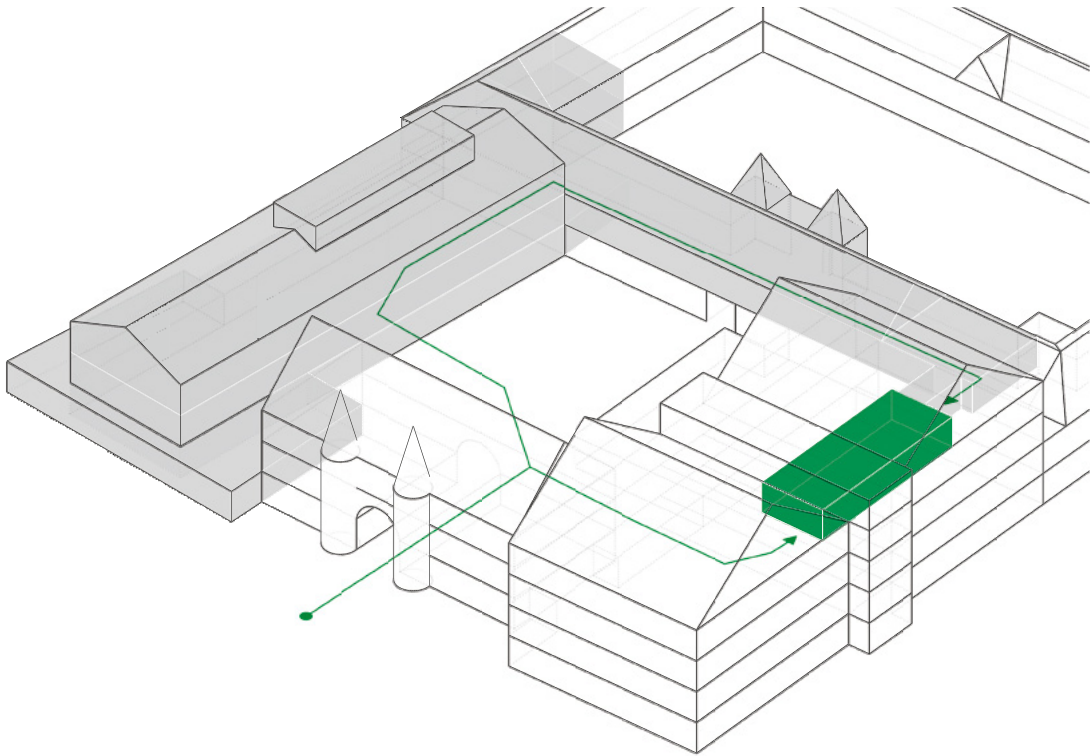
population	122.415
CBS, 2018	

area	170,23 km²
CBS, 2018	

population per km²	704
CBS, 2017	


annual household income	€ 29.400
CBS, 2014	



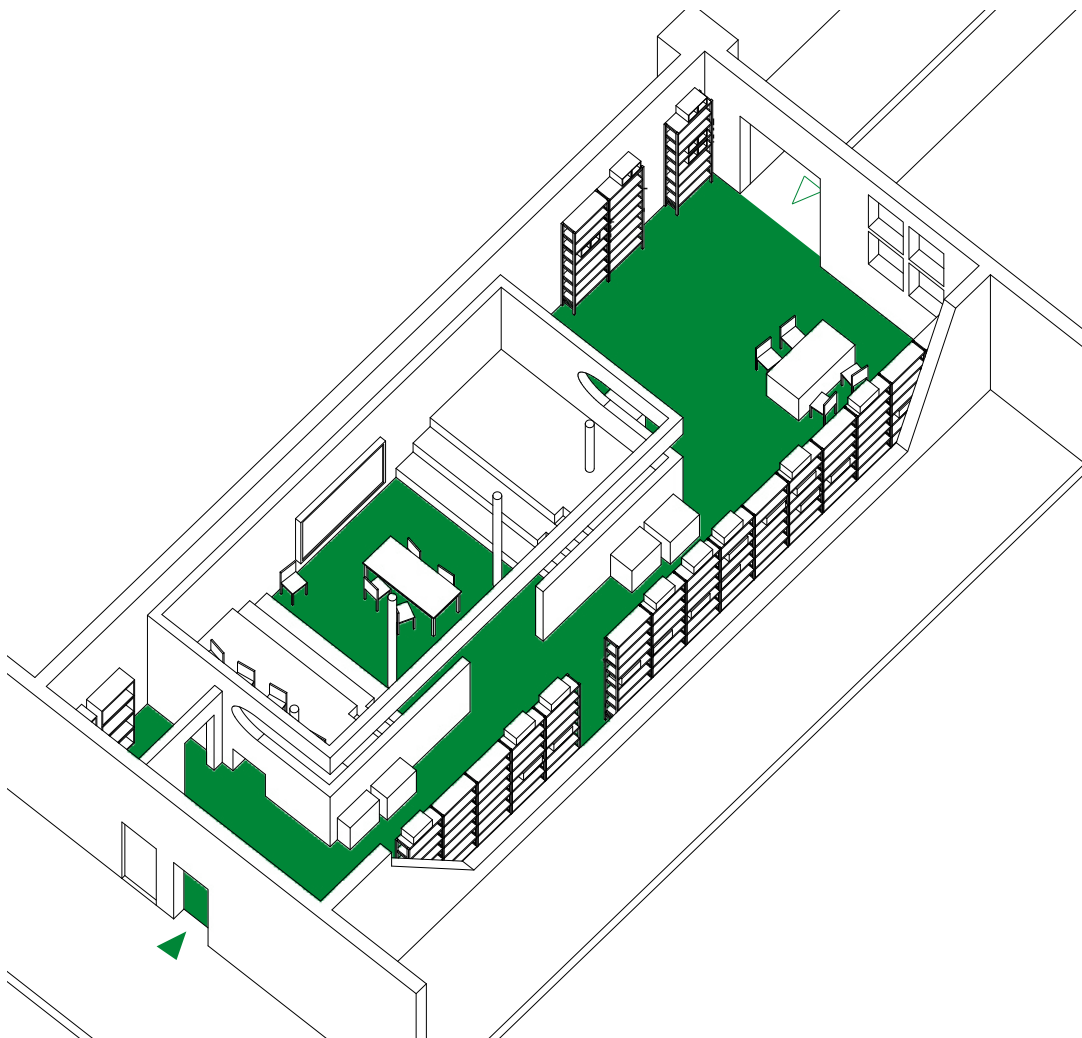


dbieb

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	
	19.031 m ²
	3.513 m ²
	139 m ²

- building
- library
- makerspace



Werkplaats

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	●	graphic design	●
creative writing	●	game design	●
virtual reality	●	robotics	●
jewellery	●	3d drawing	●
textiles	●	3d scanning	●
music	●	3d printing	●
art	●	coding dojo	●
audio	?	vinyl cutting	●
video	●	2d laser cutting	●
materials	●	Lego	●
		handicrafts	●

building



library



makerspace

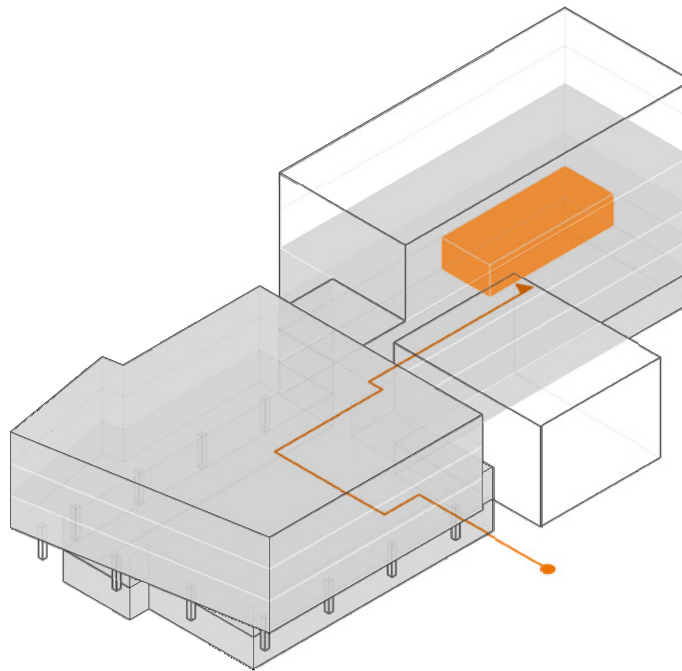




Zwolle


This library has been in 2018 awarded as ‘best library in the Netherlands’. It is an old office building that has been stripped and converted into a cultural living room in Zwolle.

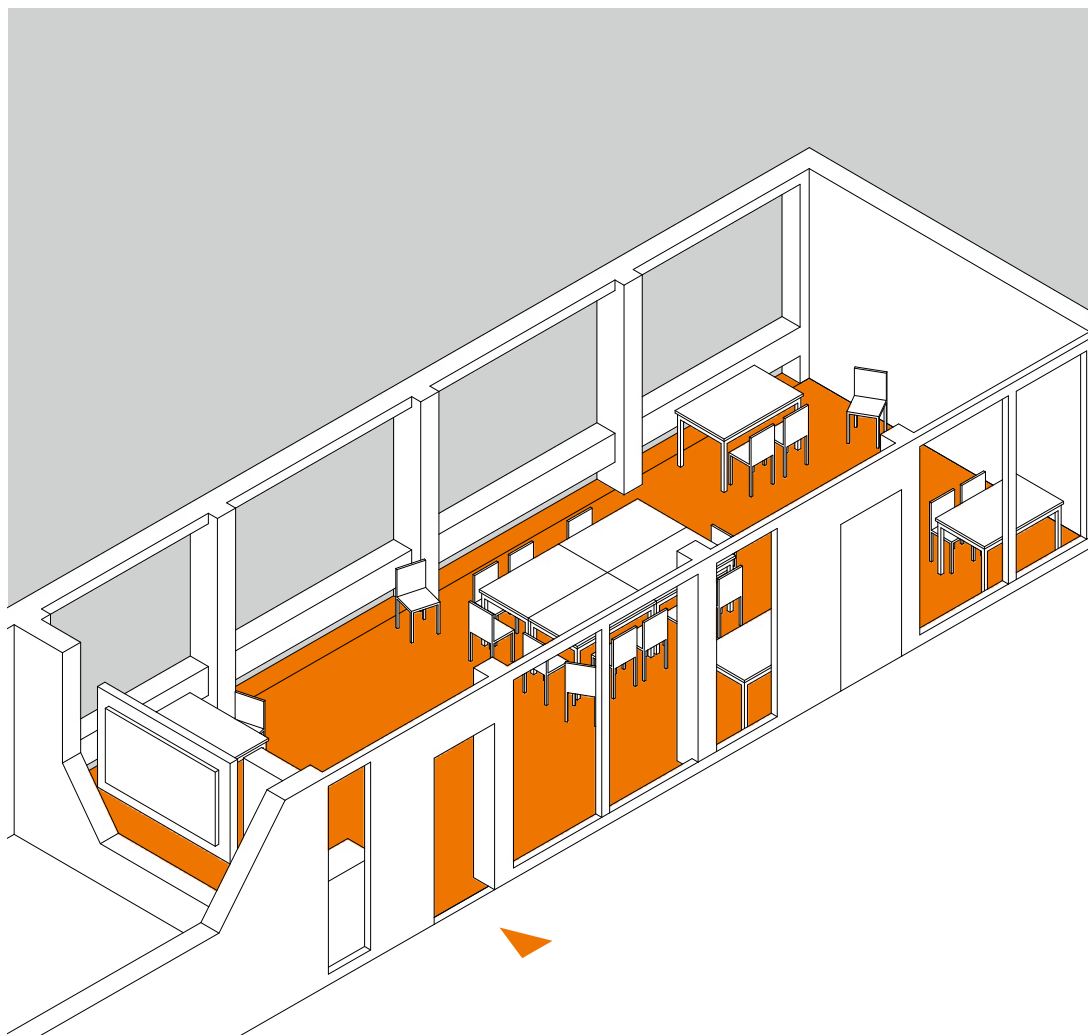
population	126.116
CBS, 2018	
area	119,36 km²
CBS, 2018	
population per km²	1.128
CBS, 2017	
annual household income	€ 32.200
CBS, 2014	
education level	
CBS, 2011	
low educated	27%
middle educated	40%
highly educated	33%
background	
CBS, 2017	
migration background	16%
Dutch background	84%
labor sectors	
CBS, 2016	
industry and energy	9%
commercial service	50%
non-commercial service	40%



Stadkamer Centrum

The makerspace location in the library is not ideal. The originally chosen space had to make room for the machines to return books. It is a makerspace of medium size with no fixed program. There is plenty of daylight. It is located in a corridor among several similar spaces.

scale	M
space	enclosed
arts and crafts	
twenty-first century skills	●
floor area	
	○ building 6.003 m ² ● library 4.645 m ² ● makerspace 70 m ²



Medialab

The lab contains only a large screen, VR possibilities and some 3D printers and focuses on digital skills. The approach of using the makerspace is *quid pro quo*. Use is only possible and allowed if you give something back to the Stadkamer, for example in the form of a workshop.

workplaces

15

floor area



● makerspace
○ floor area per person

70 m²
4,7 m²

facilities

cooking and food	●	graphic design	
creative writing	●	game design	
virtual reality		robotics	
jewellery		3d drawing	
textiles	●	3d scanning	
music	●	3d printing	●
art	●	coding dojo	●
audio	●	vinyl cutting	
video		2d laser cutting	
materials		Lego	
		handicrafts	

building



library



makerspace

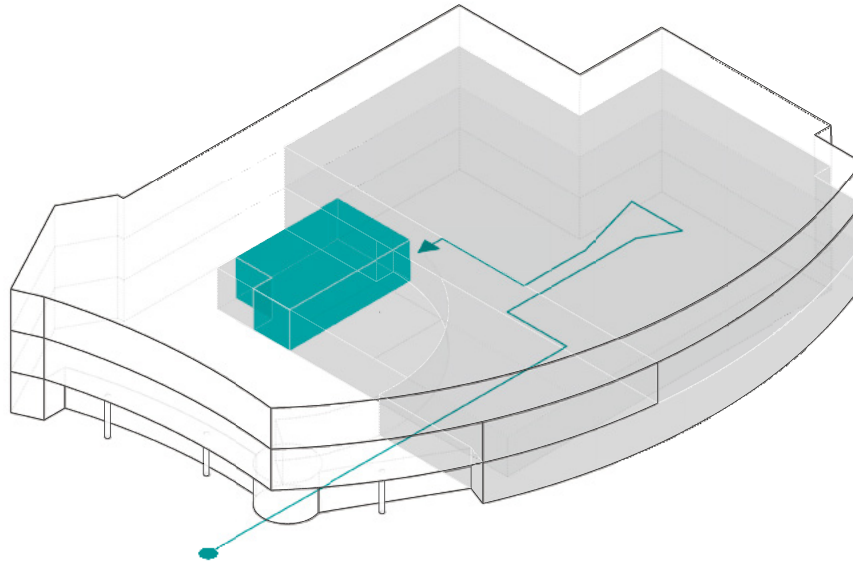




Steenwijk


The library of Steenwijk is a small library that serves small villages in the region. Every Saturday morning the makerspace has an open walk-in.

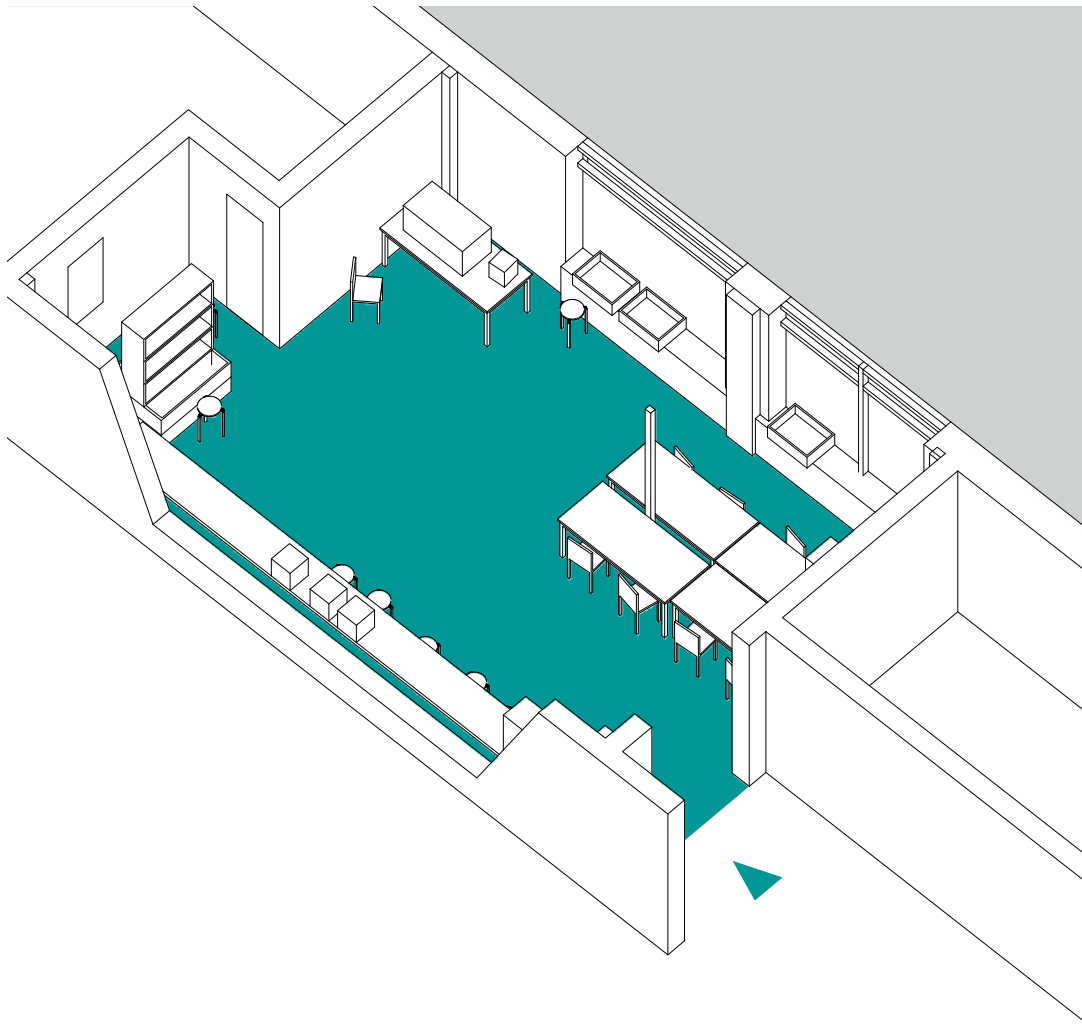
population	43.768
CBS, 2018	
area	321,59 km²
CBS, 2018	
population per km²	150
CBS, 2017	
annual household income	€ 28.400
CBS, 2014	
education level	
CBS, 2011	
● low educated	39%
● middle educated	44%
● highly educated	17%
background	
CBS, 2017	
● migration background	8%
● Dutch background	92%
labor sectors	
CBS, 2016	
● agriculture, forestry and fishing	2%
● industry and energy	25%
● commercial service	41%
● non-commercial service	33%



Bibliotheek Steenwijk

Because the library shares the same building with a bank, extra security is needed. The location of the makerspace is in the cellar where the windows are blinded by order of the bank. It is not easy to find it.

scale	M
space	enclosed
arts and crafts	
twenty-first century skills	●
floor area	
	○ building 3.113 m ² ● library 1.913 m ² ● makerspace 58 m ²



KenniLab

The standard collection of equipment is available. Besides of the open walk-ins programs are set up to receive groups. The employees are very passionate about the activities because of their personal affinity and are very much willing to help and think along with the visitors.

workplaces

10

floor area



● makerspace
● floor area per person

58 m²
5,8 m²

facilities

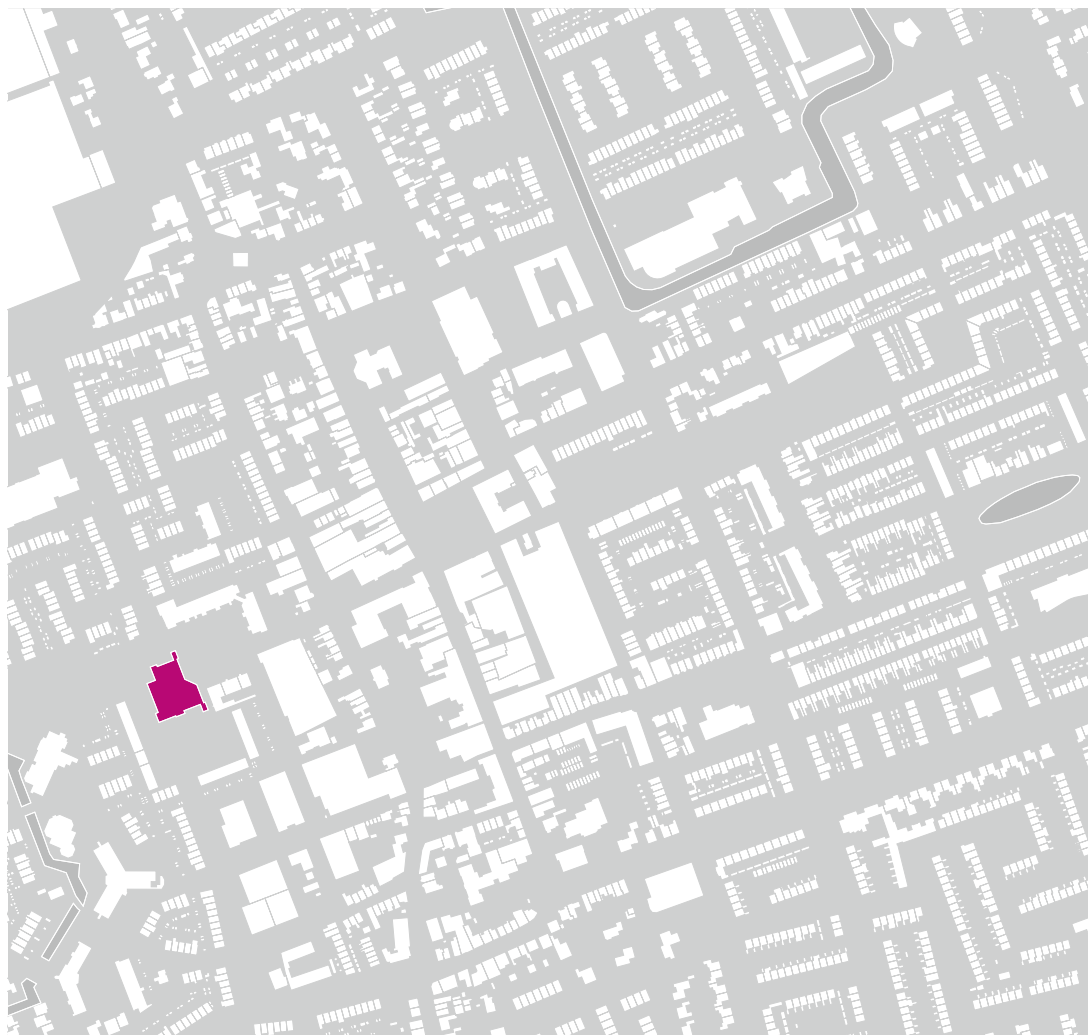
cooking and food	graphic design	
creative writing	game design	
virtual reality	robotics	●
jewellery	3d drawing	
textiles	3d scanning	●
music	3d printing	●
art	coding dojo	●
audio	vinyl cutting	
video	2d laser cutting	●
materials	Lego	
	handicrafts	●

building

library

makerspace





's-Gravenzande

The transparent walls (window frames with windows) were already present in a corner as a former art loan of the library. This lockable space is easy to find.

population 107.492

CBS, 2018

area 90,74 km²

CBS, 2018

population per km² 1.300

CBS, 2017

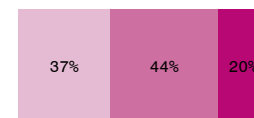
annual household income € 31.200

CBS, 2014

education level

CBS, 2011

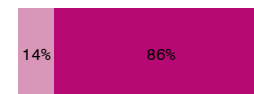
- low educated
- middle educated
- highly educated



background

CBS, 2017

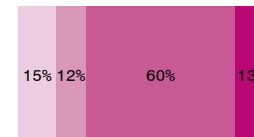
- migration background
- Dutch background

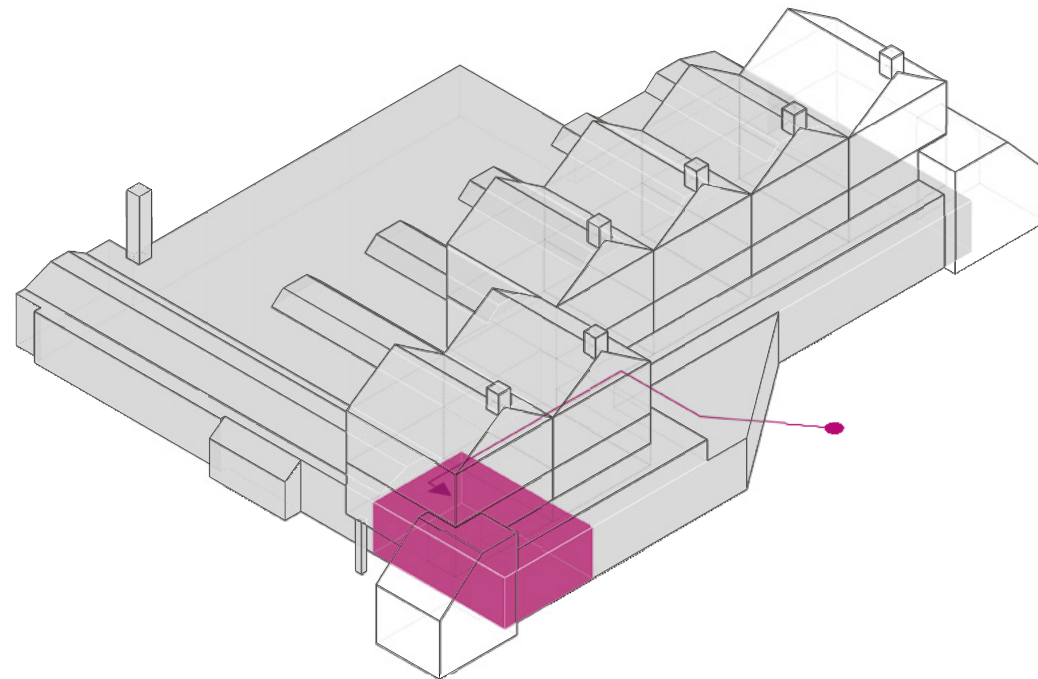


labor sectors

CBS, 2016


- agriculture, forestry and fishing
- industry and energy
- commercial service
- non-commercial service

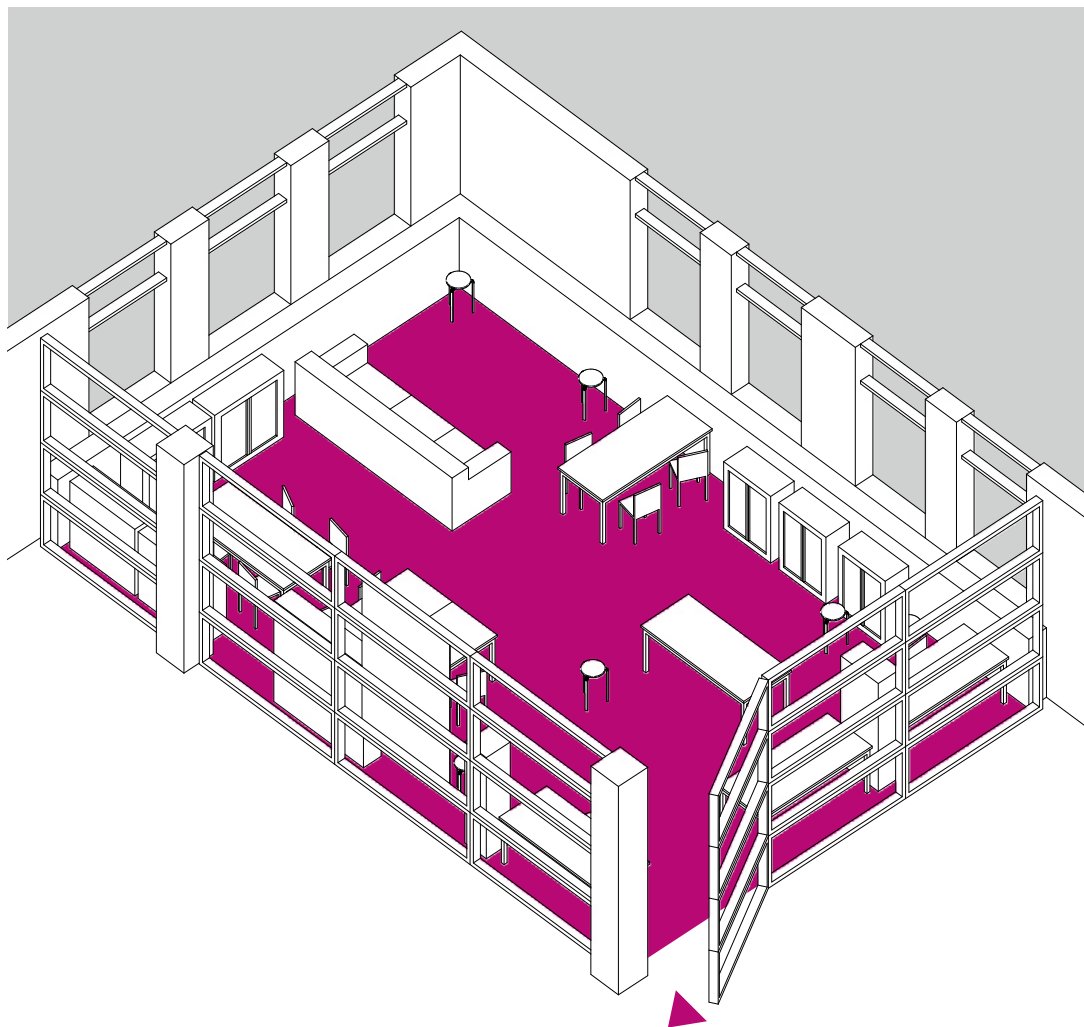




Bibliotheek Gravenzande

The room adjoins a reading café that many elderly people use. These often experience the noise produced by the children as a nuisance. An adjacent back space, beyond the reading room, is often involved in activities that do not require direct fixed equipment.

scale	S
space	enclosed
arts and crafts	
twenty-first century skills	●
floor area	
	○ building 3.113 m ² ● library 1.447 m ² ● makerspace 75 m ²



BiebLab

This maker place focuses on digital skills with a large part 3D printing. There is a VR corner available, and a couch to give a living room feeling. The makerspace is primary school focused.

workplaces

15

floor area



● makerspace
○ floor area per person

75 m²
5,0 m²

facilities

cooking and food	●	graphic design	●
creative writing	●	game design	●
virtual reality	●	robotics	●
jewelry	●	3d drawing	●
textiles	●	3d scanning	●
music	●	3d printing	●
art	●	coding dojo	●
audio	●	vinyl cutting	●
video	●	2d laser cutting	●
materials	●	Lego	●
		handicrafts	●

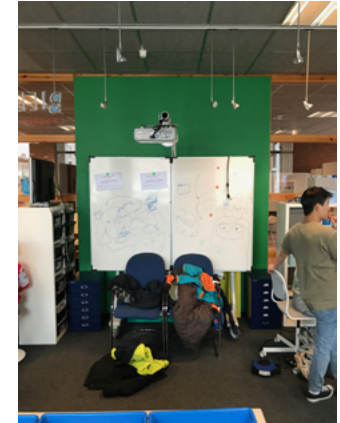
building



library



makerspace

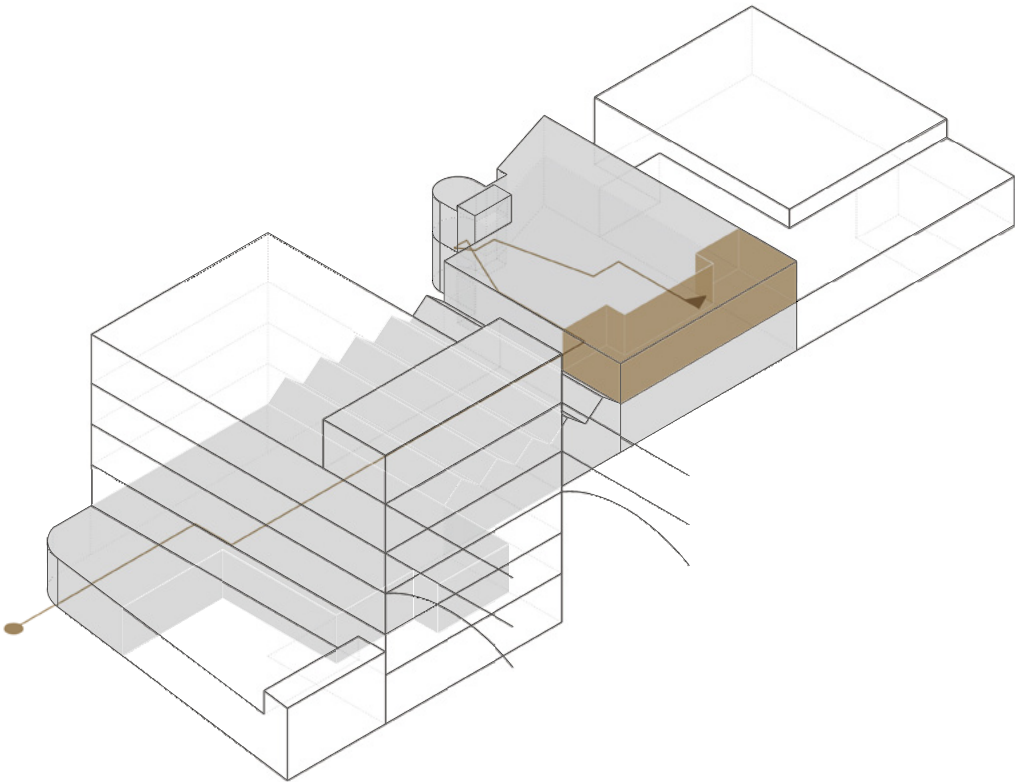




Amsterdam


Amsterdam is undergoing major developments. A substantial investment has been made by the City of Amsterdam to create makerspaces at most of its library locations.

population	854.047
CBS, 2018	
area	219,49 km²
CBS, 2018	
population per km²	5.111
CBS, 2017	
annual household income	€ 35.800
CBS, 2014	
education level	
CBS, 2011	
● low educated	29%
● middle educated	31%
● highly educated	40%
background	
CBS, 2017	
● migration background	53%
● Dutch background	48%
labor sectors	
CBS, 2016	
● industry and energy	5%
● commercial service	66%
● non-commercial service	29%

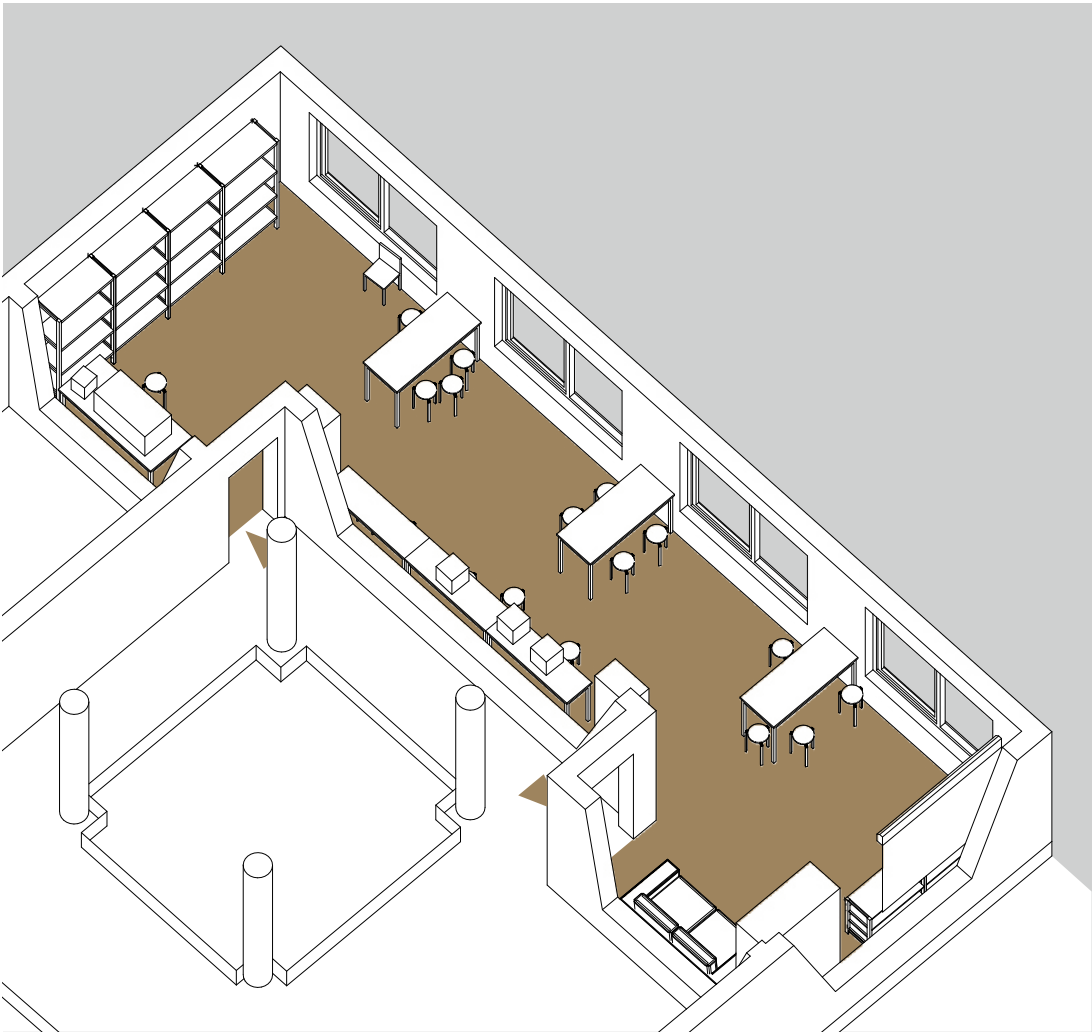


OBA Reigersbos

The Reigersbos location is part of a bigger office building attached to the Amsterdam metro system. The library has its own entrance. The makerspace is located far in the back, on the first floor close to an atrium.


scale	L
space	enclosed
arts and crafts	●
twenty-first century skills	●
floor area	
	3.162 m ²
	1.052 m ²
	59 m ²

- O building
- library
- makerspace



Maakplaats 021

This makerspace is rather small but well equipped. All Amsterdam makerspaces have a standard set of equipment and enough storage space in open cabinets.

workplaces		10
floor area		
● makerspace		59 m ²
○ floor area per person		5,9 m ²
facilities		
cooking and food	●	graphic design
creative writing	●	game design
virtual reality	●	robotics
jewellery	●	3d drawing
textiles	●	3d scanning
music	●	3d printing
art	●	coding dojo
audio	●	vinyl cutting
video	●	2d laser cutting
materials	●	Lego
		handicrafts

building



library



makerspace

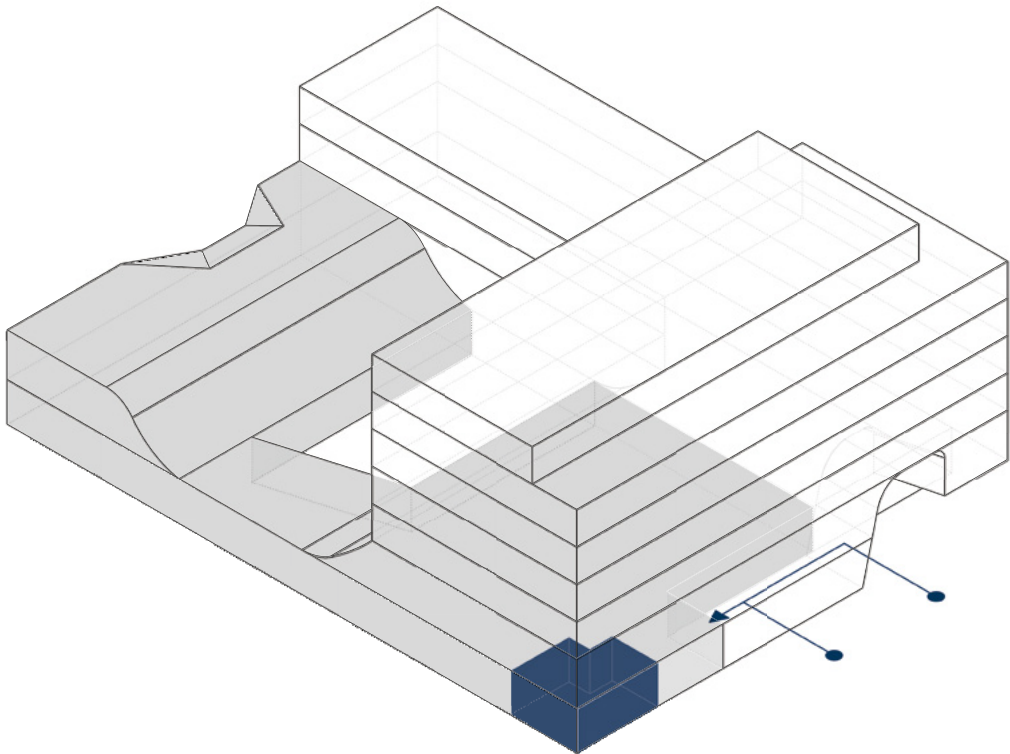




Amsterdam


The Slotermeer location is part of a social multi-functional building. The library has two entrances, one main entrance and one through the adjacent cafe. The Amsterdam makerspaces have their own branding.

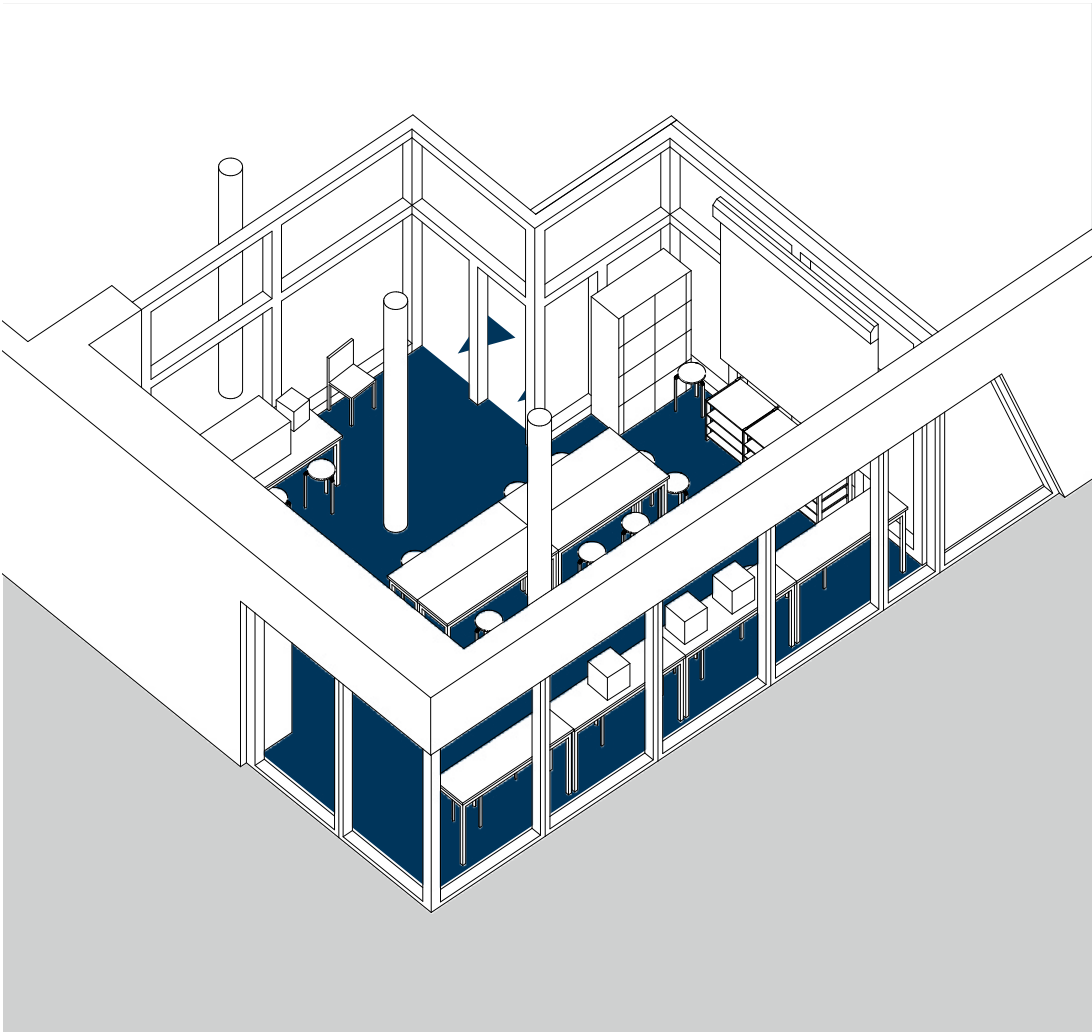
population	854.047
CBS, 2018	
area	219,49 km²
CBS, 2018	
population per km²	5.111
CBS, 2017	
annual household income	€ 35.800
CBS, 2014	
education level	<div><div></div><div></div><div></div></div>
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
background	<div><div></div><div></div></div>
CBS, 2017	
● migration background	
● Dutch background	
labor sectors	<div><div></div><div></div><div></div></div>
CBS, 2016	
● industry and energy	
● commercial service	
● non-commercial service	



OBA Slotermeer


The library spans out all to the back on the ground floor. Some offices are in the back on the first floor. The corner visible from the street was initially designed for the reading cafe.

scale	L
space	enclosed
arts and crafts	●
twenty-first century skills	●
floor area	
	<div><div>○ building</div><div>● library</div><div>● makerspace</div></div> <div><div>8.009 m²</div><div>1.135 m²</div><div>42 m²</div></div>



Maakplaats 021

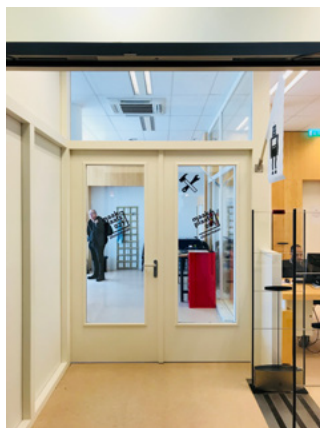
This reading cafe was transformed into the makerspace. The visible connection to the urban surrounding is very important in attracting new visitors. The products made are shown in the window.

workplaces		15
floor area		
● makerspace		42 m ²
○ floor area per person		2,8 m ²
facilities		
cooking and food		graphic design ●
creative writing		game design ●
virtual reality		robotics ●
jewelery ●		3d drawing
textiles ●		3d scanning ●
music		3d printing ●
art		coding dojo ●
audio		vinyl cutting ●
video ●		2d laser cutting ●
materials ●		Lego
		handicrafts ●

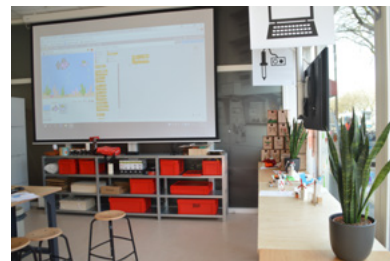
building



library



makerspace

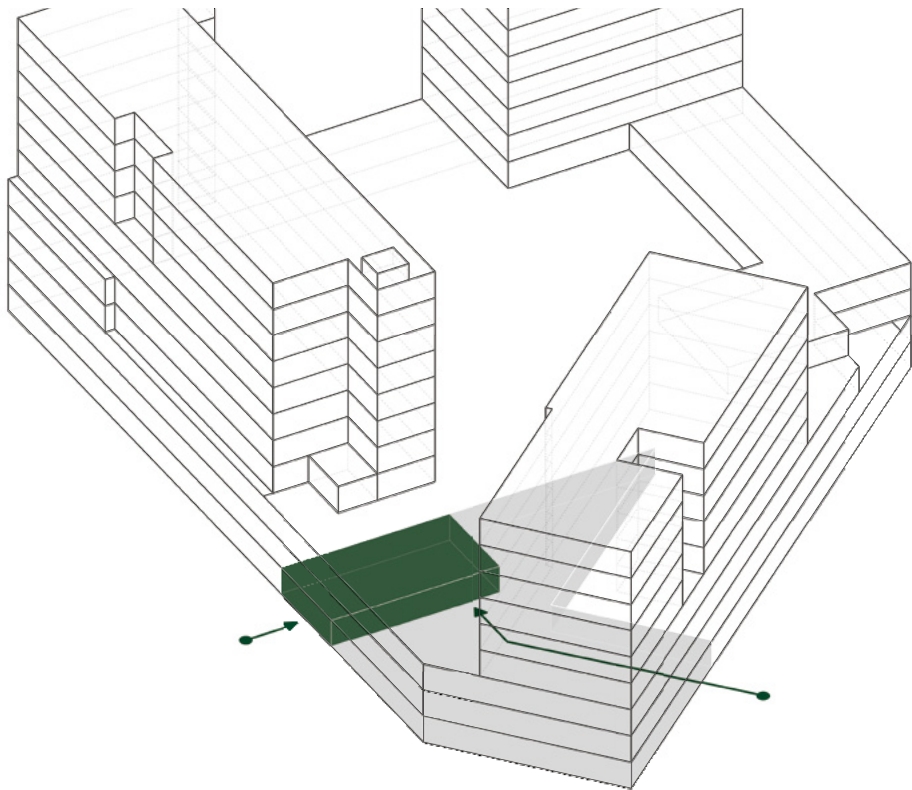




Amsterdam


This large hybrid building contains housing, shops and social functions also hosts the library at the ground floor. An additional shop space is hired for the makerspace.

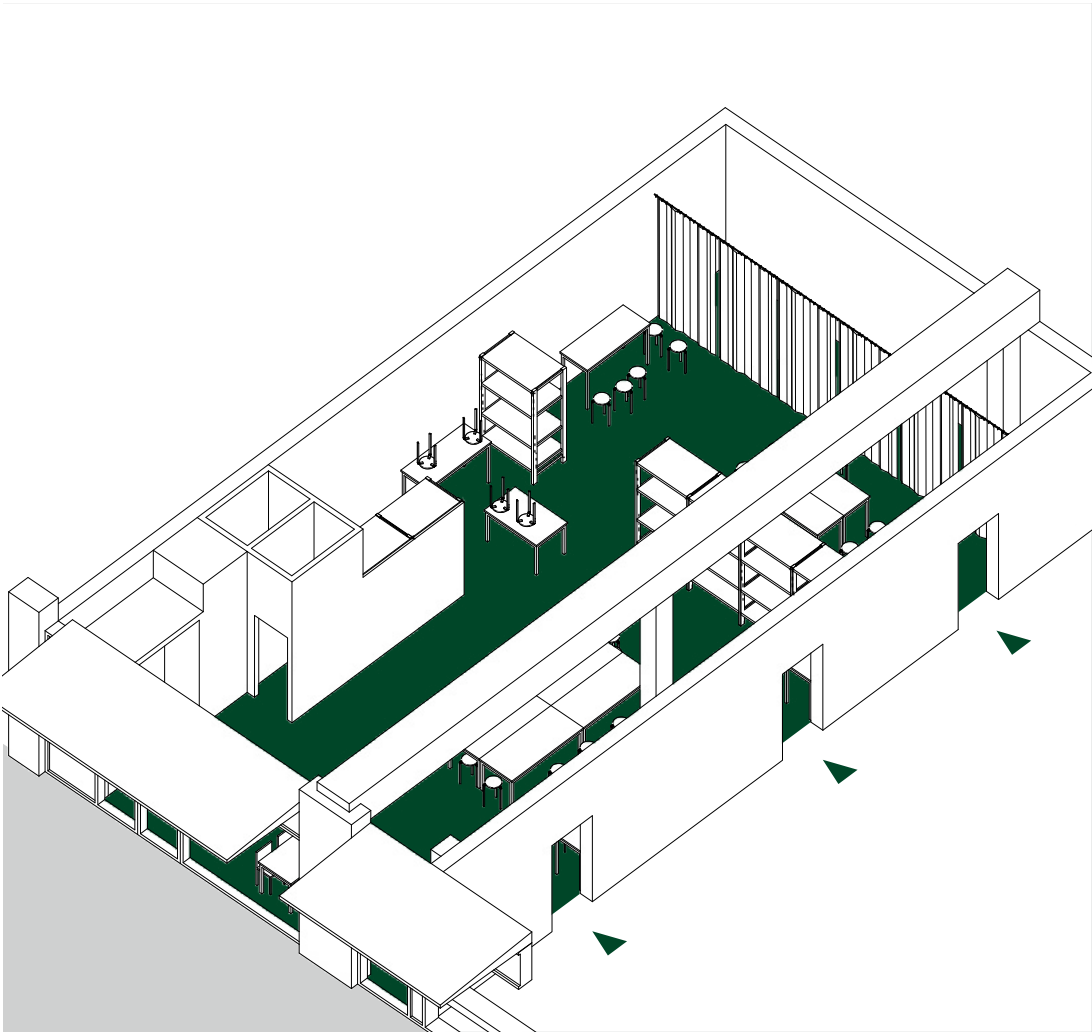
population	854.047
CBS, 2018	
area	219,49 km²
CBS, 2018	
population per km²	5.111
CBS, 2017	
annual household income	€ 35.800
CBS, 2014	
education level	
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
29% 31% 40%	
background	
CBS, 2017	
● migration background	
● Dutch background	
53% 48%	
labor sectors	
CBS, 2016	
● agriculture, forestry and fishing	
● industry and energy	
● commercial service	
● non-commercial service	
5% 66% 29%	



OBA Waterlandplein

The library and the makerpace are connected by three doors. The makerpace has its own entrance from the street and is therefore unique in this atlas of makerspaces.

scale	L
space	enclosed
arts and crafts	●
twenty-first century skills	●
floor area	
	<div><div>○ building</div><div>● library</div><div>● makerspace</div></div> <div><div>32.950 m²</div><div>950 m²</div><div>174 m²</div></div>



Maakplaats 021

This makerspace is one of the few spaces that offers working with textiles, along with other 'digital' possibilities.

workplaces 30

floor area



● makerspace 174 m²
○ floor area per person 5,8 m²

facilities

cooking and food		graphic design	●
creative writing		game design	
virtual reality		robotics	●
jewellery	●	3d drawing	
textiles	●	3d scanning	●
music		3d printing	●
art		coding dojo	●
audio		vinyl cutting	
video	●	2d laser cutting	●
materials	●	Lego	
		handicrafts	●

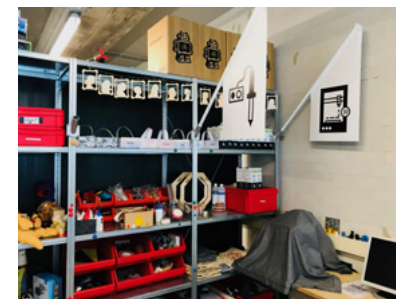
building



library



makerspace

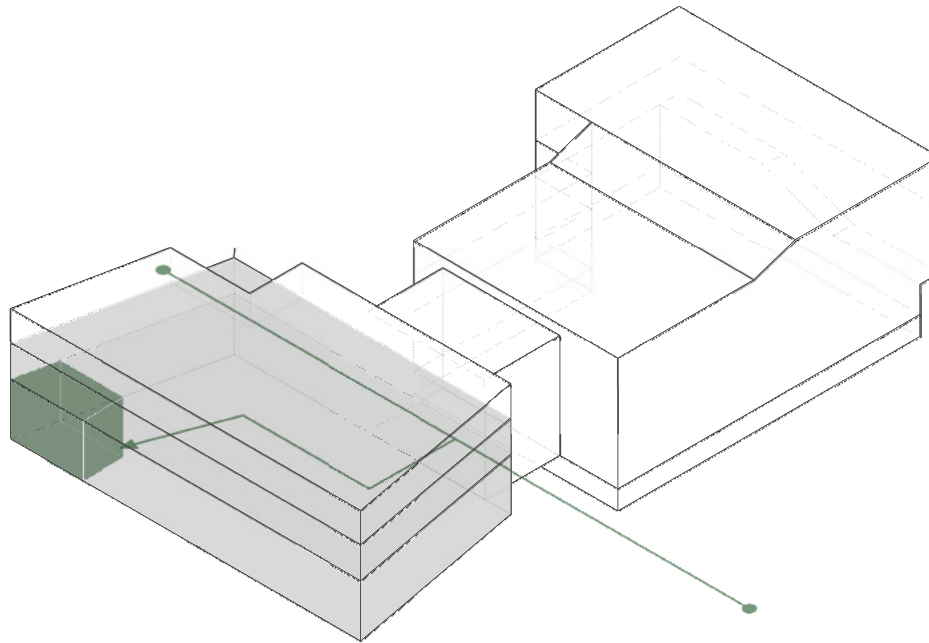




Tiel


The brand new cultural building *Zindert*, houses cultural institutes, a theatre and the Tiel public library with the makerspace *Medialab*. The Medialab focuses mainly on digital skills.

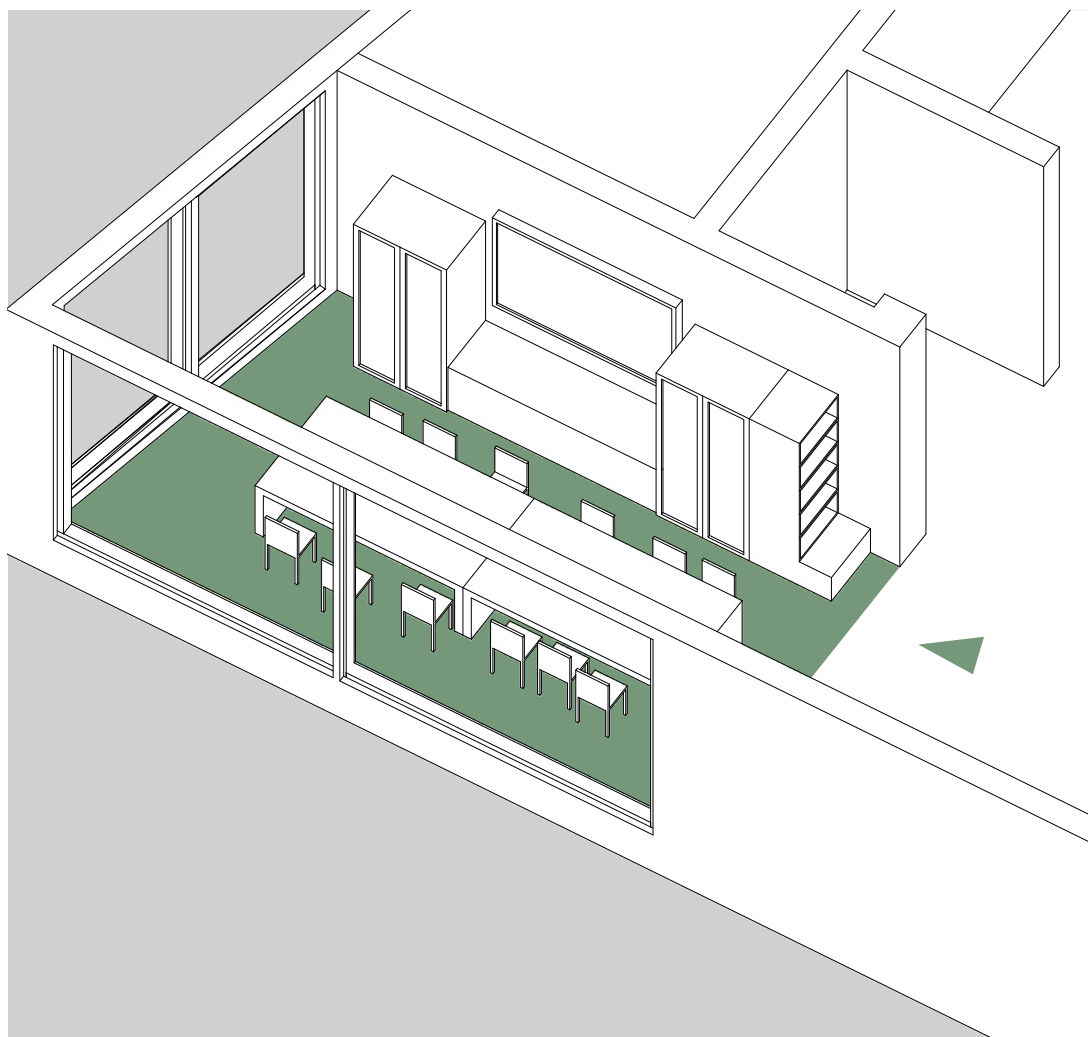
population	41.465
CBS, 2018	
area	35,51 km²
CBS, 2018	
population per km²	1.262
CBS, 2017	
annual household income	€ 30.700
CBS, 2014	
education level	
CBS, 2011	
● low educated	
● middle educated	
● highly educated	
40%41%18%	
background	
CBS, 2017	
● migration background	
● Dutch background	
25%75%	
labor sectors	
CBS, 2016	
● agriculture, forestry and fishing	
● industry and energy	
● commercial service	
● non-commercial service	
1%12%52%35%	



Bibliotheek Tiel

The Medialab is well located within the library on the ground floor and is also clearly visible from the outside. If there are many children present, the noise is very high. Therefore, the youth section is on the ground floor and most adult books are on the first floor.

scale	S
space	open plan
arts and crafts	
twenty-first century skills	●
floor area	
	O building 5.087 m ² ● library 1.534 m ² ● makerspace 37 m ²



Medialab Tiel

The space is open, not very large and not suitable for other activities than those mentioned above. The Medialab is very popular and attracts many curious and visitors due to its visibility from the street. When the Medialab is closed, everything is stored in the cabinets (see-through with bars, so that those interested can see what has been made).

workplaces

12

floor area



● makerspace
○ floor area per person

37 m²
3,1 m²

facilities

cooking and food		graphic design	
creative writing	●	game design	
virtual reality		robotics	●
jewelry		3d drawing	●
textiles	●	3d scanning	
music		3d printing	●
art	●	coding dojo	●
audio		vinyl cutting	
video		2d laser cutting	
materials	●	Lego	●
		handicrafts	

building

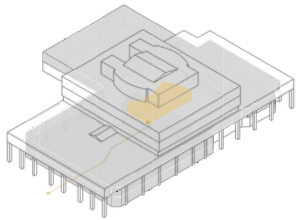
library

makerspace

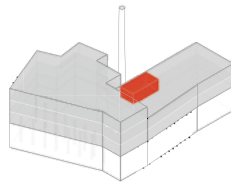


Building configurations

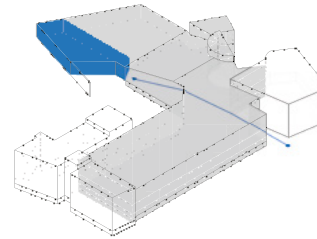
Tilburg



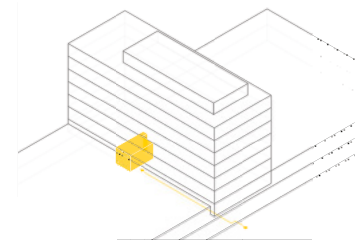
Veenendaal



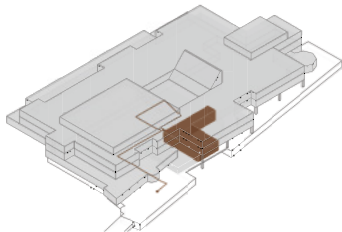
Breda



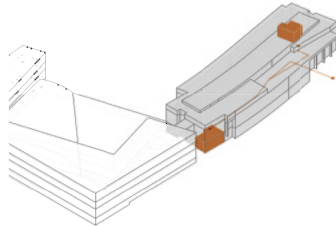
Eindhoven



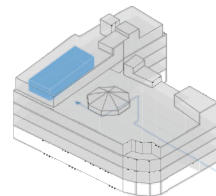
Middelburg



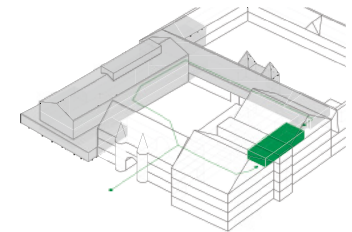
Apeldoorn



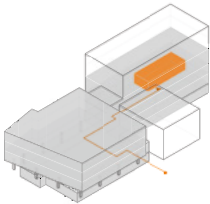
Utrecht



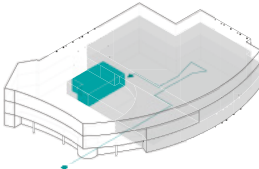
Leeuwarden



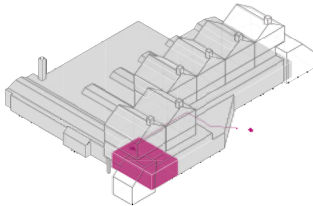
Zwolle



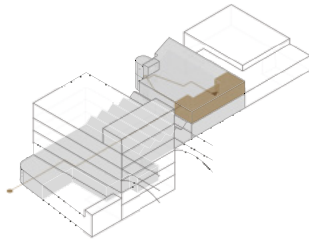
Steenwijk



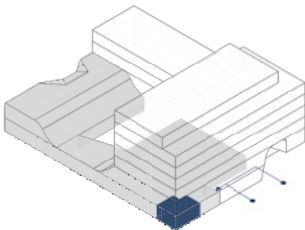
's-Gravenzande



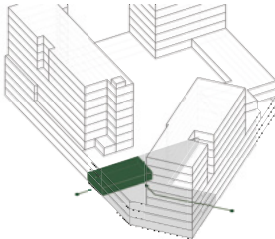
Amsterdam Reigersbos



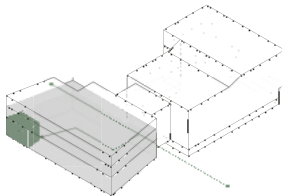
Amsterdam Slotermeer



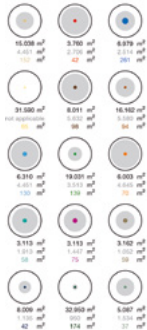
Amsterdam Waterlandplein



Tiel

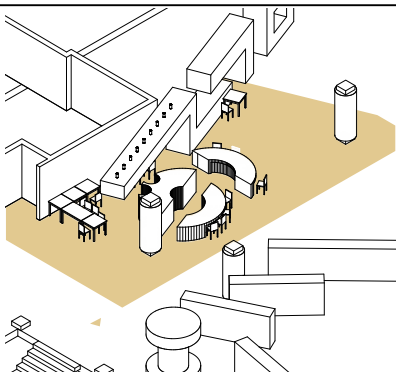


Surfaces Comparison

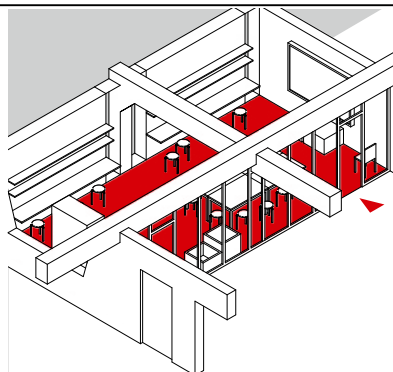


Makerspaces configurations

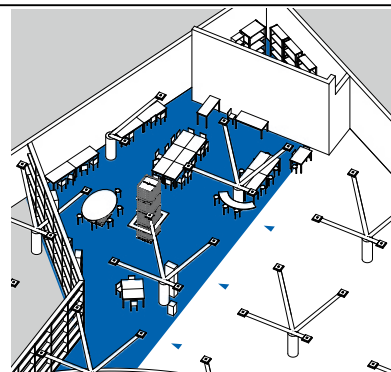
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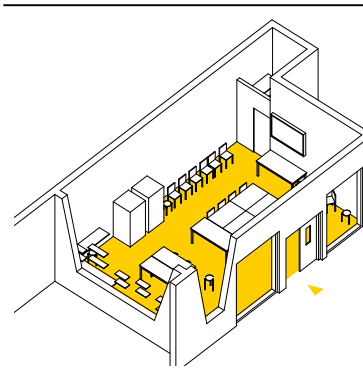
Veenendaal



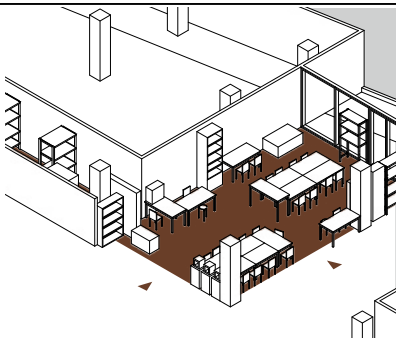
Breda



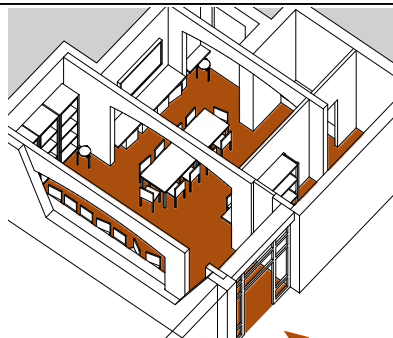
Eindhoven



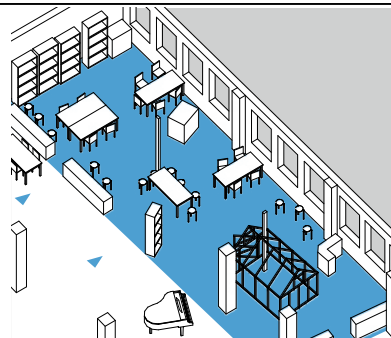
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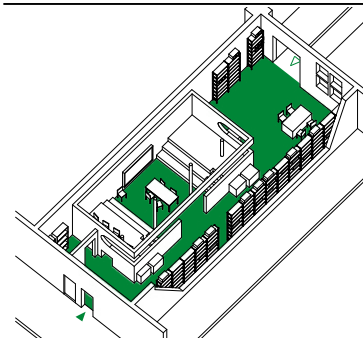
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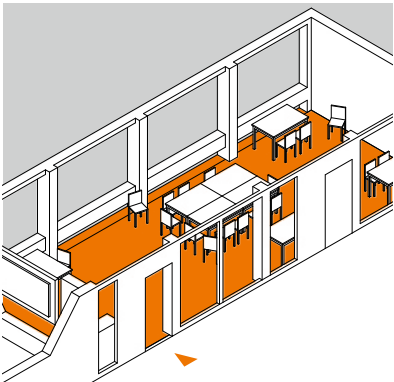
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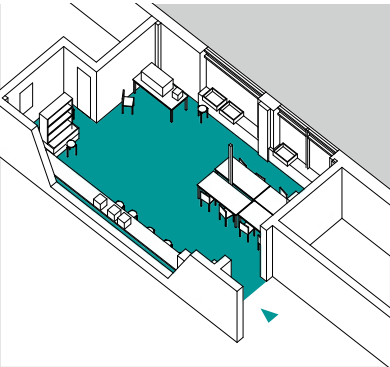
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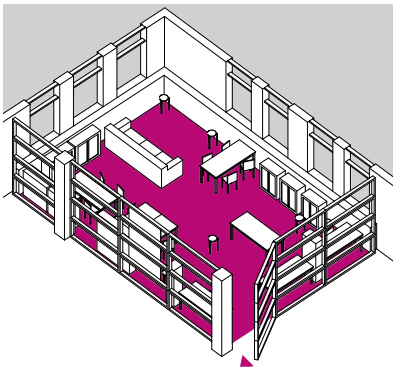
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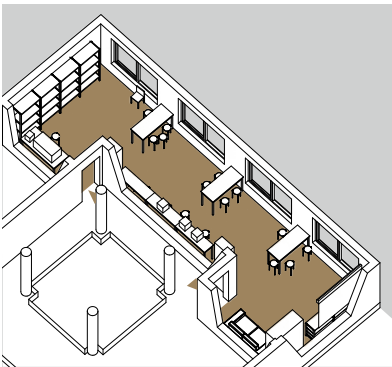
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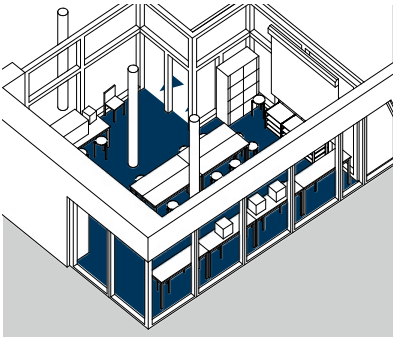
's-Gravenzande



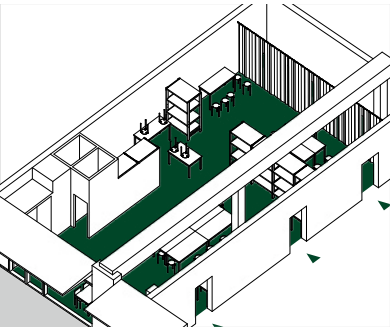
Amsterdam Reigersbos



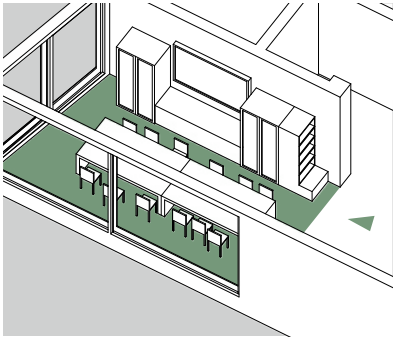
Amsterdam Slotermeer



Amsterdam Waterlandplein



Tiel



Surfaces Per Person

