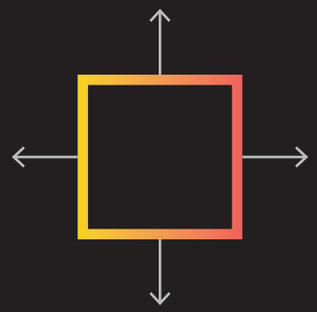


navigating knowledge in an age of informational abundance

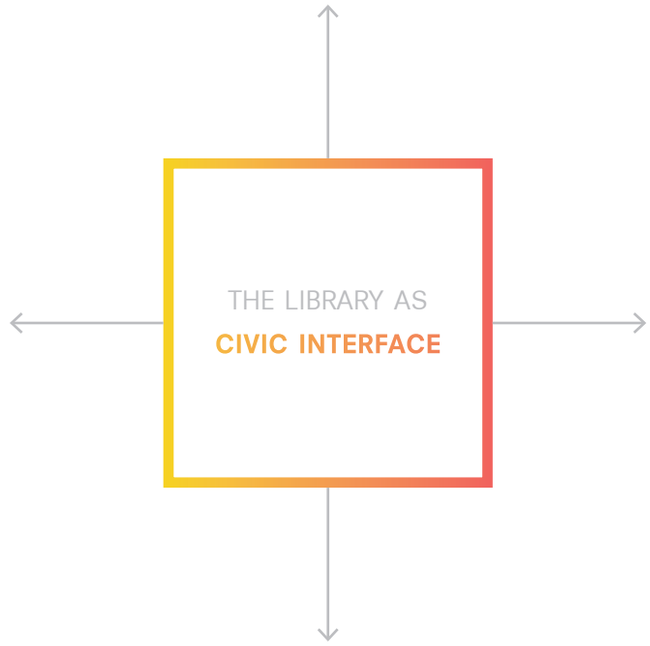


THE LIBRARY AS **CIVIC INTERFACE**

Roman Weber

CP
11

TU Delft



navigating knowledge in an age of informational abundance

23 june 2026
Fall semester

Complex Projects
MSc Architecture, Urbanism and Building Sciences
Bodies and Building Milan
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This graduation project began with a simple question: what will the role of the library be when information is available everywhere?

While libraries have historically been places of storage, access and social gathering, contemporary society faces a different challenge. Information is abundant, but understanding it is not self-evident. Knowledge is dispersed across websites, institutions, digital platforms and private collections, making it increasingly difficult to navigate.

Over the course of this graduation project, this question developed into an investigation of the *library as an interface* between people and increasingly complex knowledge systems. The resulting proposal explores how architecture can support not only storage of- and access to information, but also actively mediate the interaction between people and knowledge.

This booklet documents that process, from research and conceptual development to the final architectural proposal.

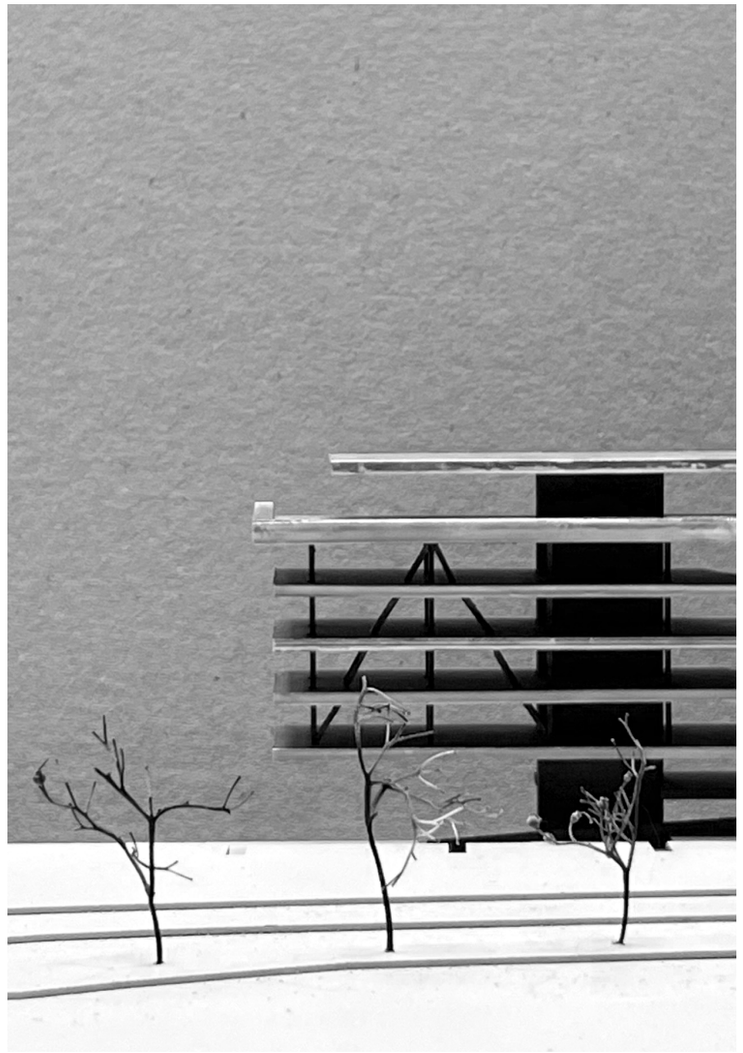


Figure 1: Physical Model

CONTENTS

01 INTRO 11

1.1 Problem Statement
1.2 Relevance
1.3 Objective
1.4 Research Question & Scope

02 APPROACH 23

2.1 Research methods
2.2 Theoretical Framework

03 RESEARCH 33

3.1 Typology
3.2 Clients
3.3 Site
3.4 Program

04 CONCEPT 75

4.1 Exercises
4.2 Concept Design

05 DESIGN 83

5.1 Site Integration
5.2 Building
5.3 Construction

06 CONCLUSION 123

6.1 Conclusion
6.2 Reflection

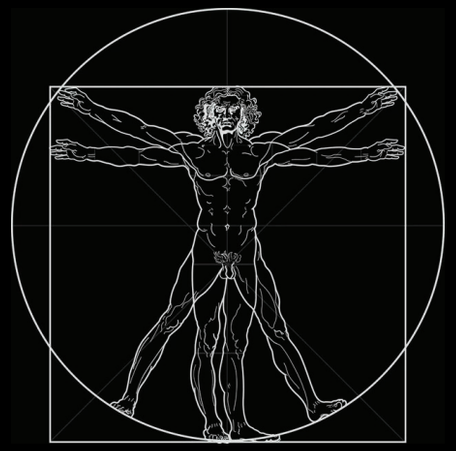
07 BIBLIOGRAPHY 129

7.1 Literature
7.2 List of Figures

Bodies and Building Studio

The project was conducted within the Bodies and Building graduation studio part of the Complex Projects chair of the Technical University of Delft, department of architecture. This studio explores the relationship between architecture and its users, focusing on how architectural design engages with the human body, perception, and scale. Within this context, the project investigates how architecture can structure and support different modes of interaction between people and knowledge. Through the lens of 'flows' this relationship was evaluated/ researched/analysed

The assignment was to design a one-off building within the urban context of Milan. The project responds to this by proposing a library as a civic infrastructure for navigating knowledge in an age of informational abundance, translating processes of knowledge formation into architecture.



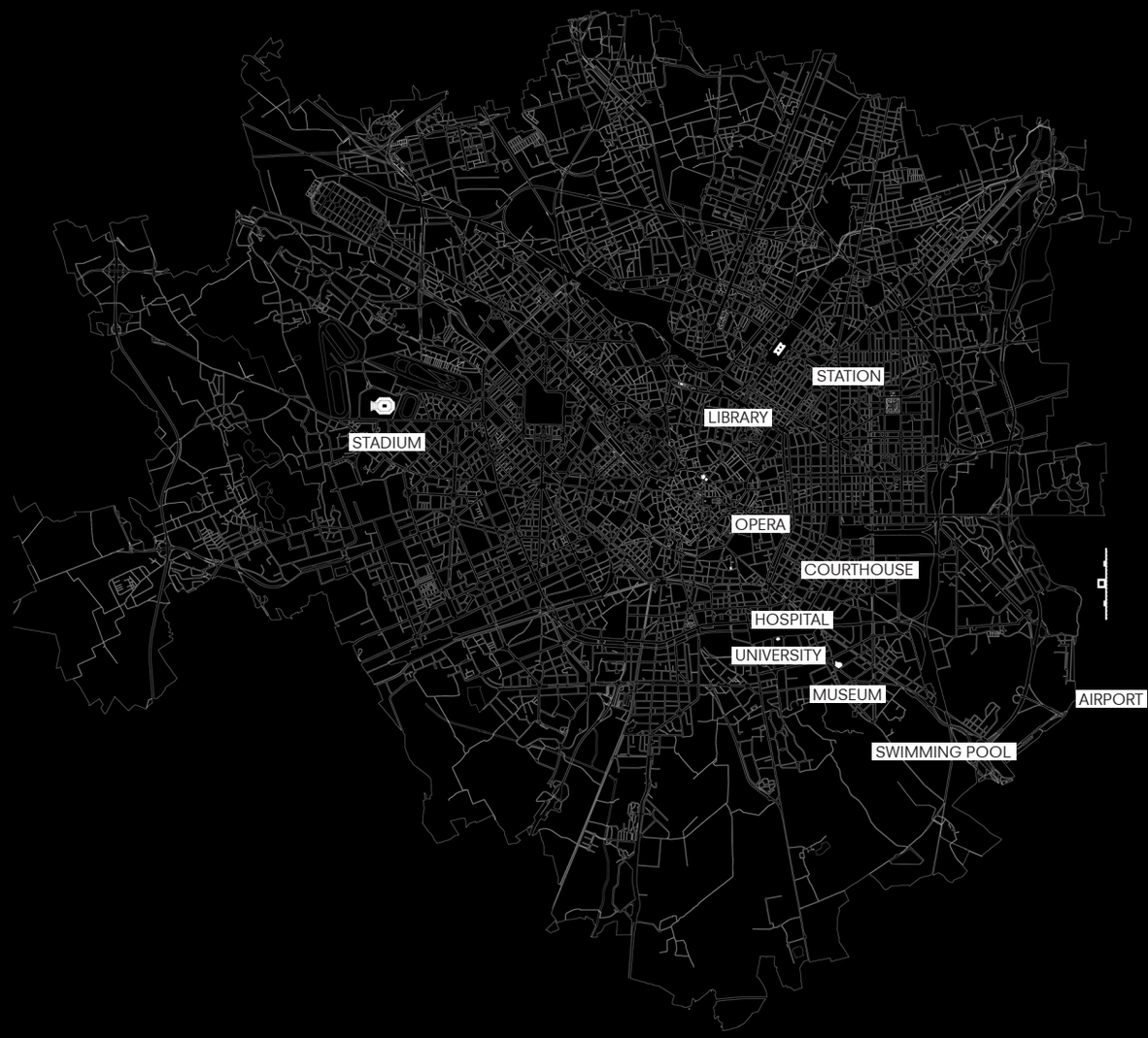


Figure 2 (l): Vitruvius Man
Figure 3 (r): Bodies and Buildings projects in Milan

INTRODUCTION

01

For centuries information was scarce, and access to it was tightly controlled by 'gatekeeping' institutions such as religious authorities, governments, universities, and private patrons. Managing libraries, archives, books and education meant controlling information flow and interpretation. Knowledge was therefore inseparable from power. (Burke, 2000)

Information, from scarcity to abundance

Over the past decades, the production and circulation of information have increased at an unprecedented scale. The digitisation of the late twentieth century, the rise of the internet and the World Wide Web at the end of the last century, and more recently the public availability of large language models driven by artificial intelligence have fundamentally transformed how information is produced, accessed, and shared.
In combination with the rapid growth of online platforms and social media, access to information has become increasingly immediate.

The absolute volume, speed, and simultaneity of information flows have led to what is commonly described as *informational abundance*. As Bawden and Robinson (2009) note, information abundance occurs when information, despite being potentially useful, becomes an obstruction rather than a support for understanding.
Rather than enabling knowledge formation, abundance can obscure meaning and undermine the ability to distinguish relevance, credibility, and context.

For the first time in history the problem is not the scarcity of information, but a *crisis of navigation* exactly because of its abundance.

Figure 4: The new Dark Age



Access and restriction: a structural paradox

Informational abundance coincides with a paradoxical development: while access to information appears increasingly open, it is delivered through a limited number of platforms, such as web browsers, social media and digital platforms, resulting in a “homogenisation of access” (Bawden & Robinson, 2009).

Hess and Ostrom (2007) describe this parallel and contradictory trend where there is an unprecedented access to information through digital networks, and simultanuously, growing restrictions on access through intellectual property legislation, patenting, licensing, pricing and paywalling.
As a result, access to information is no longer primarily constrained by its physical quantity, but by the institutional, legal, and technical frameworks that control its collection, organisation, circulation, and use.

Meaningful access to structured, preserved, and reusable knowledge is therefore becoming more restricted. Data and information are treated as profitable commodities rather than shared public goods (Hermeto, J. R., 2021).

This condition reveals that the contemporary challenge is not simply one of individual access to data and information, but one of access to knowledge as a shared public resource.

Figure 5: The new Dark Age (own edit)

The library as civic infrastructure

Historically, libraries have operated at the intersection of preservation and access, mediating between the storage of knowledge and its use. In the contemporary knowledge landscape, this mediating role becomes both more complex and more urgent.
Access to information is no longer the primary constraint. What is at stake is the capacity to navigate, validate, and understand an overwhelming and opaque information environment in which the processes that form knowledge are increasingly hidden within privatised and algorithmic infrastructures.

> The library's relevance therefore shifts. It is no longer primarily a container of information. Its civic function lies in making the conditions under which information becomes understood knowledge (spatially) legible and accessible.

As Mattern (2014) argues, libraries should be understood as permanent infrastructures in which spatial, technological, intellectual, and social systems intersect and mutually reinforce one another. Their value lies not in providing access alone, but in structuring meaningful engagement, supporting interpretation and dialogue, and maintaining continuity between past and present knowledge practices. (In an age of informational abundance, this is precisely what other (digital?) knowledge infrastructures fail to provide.)

In Milan, this failure is structural. The city hosts a dense network of private cultural institutions such as foundations, universities, archives, and research centres. Each possessing carefully curated collections but regulating access through institutional preservation, ticketed events, and membership structures. Public knowledge infrastructure such as libraries, by contrast, consists primarily of small, decentralised municipal libraries with modest collections and limited reach. In the absence of a central public knowledge institution, access is fragmented, temporally bounded, and unevenly distributed.

> The contemporary challenge is therefore not the absence of knowledge in Milan, but the absence of a civic institution capable of mediating it.

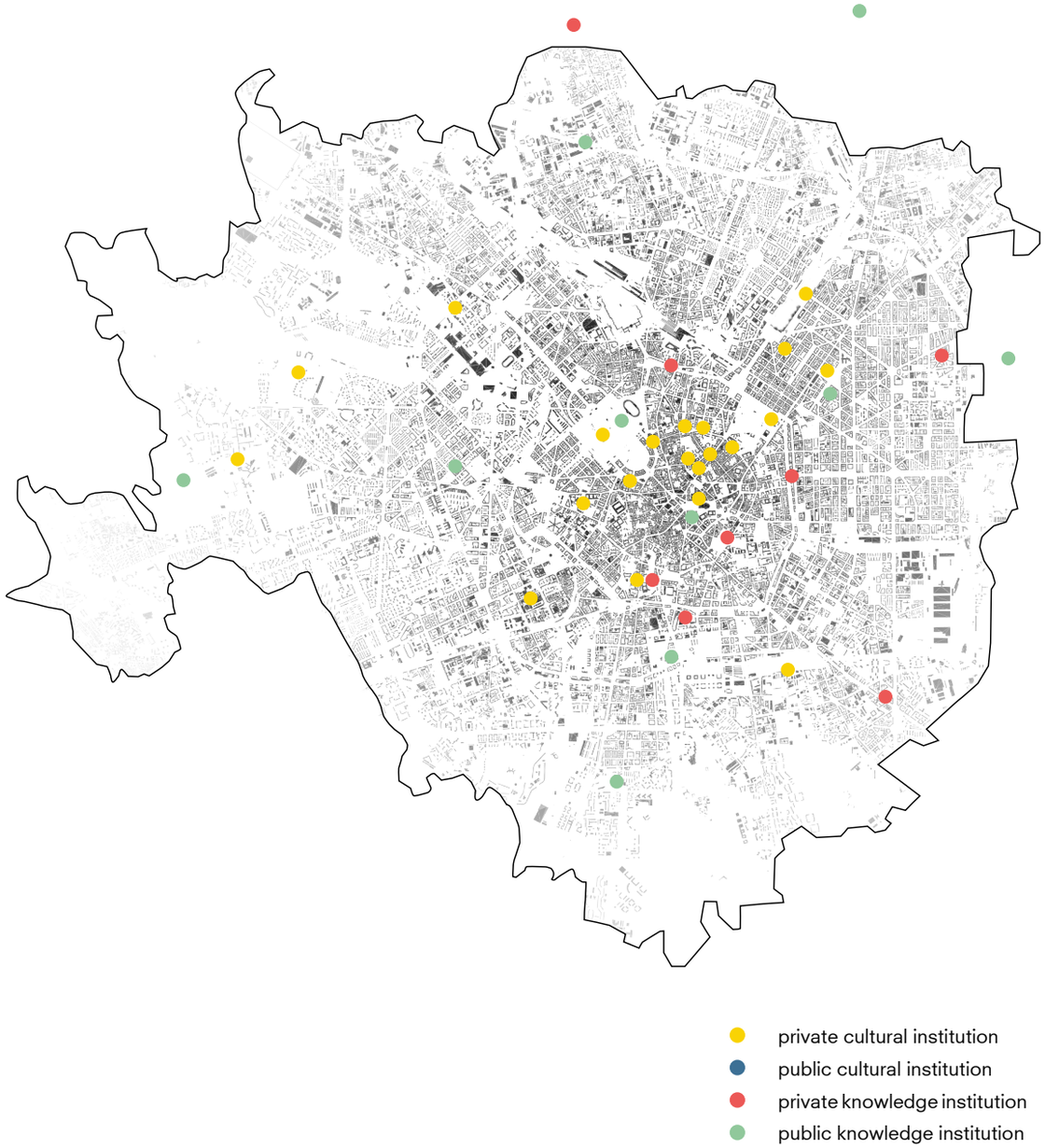
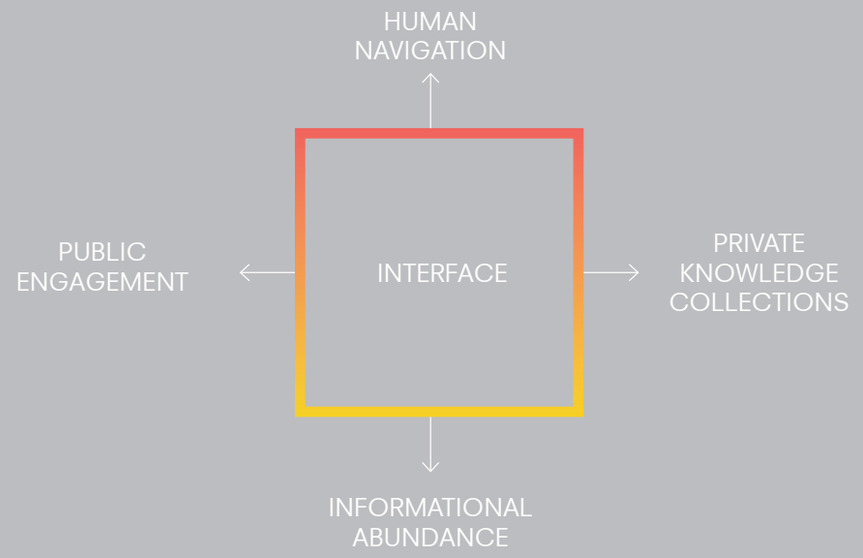


Figure 6: Institutions in Milan (own work)



> How can a contemporary library in Milan be designed as a ***civic interface*** for ***navigating*** knowledge in an age of *informational abundance*?

Objective and scope

This project proposes a contemporary library at Porta Volta, Milan, designed as a civic interface for navigating knowledge in an age of informational abundance.

It does not aim to solve informational abundance as a whole, nor to make the private collections fully public. Instead, it responds to Milan's fragmented knowledge landscape by mediating between public engagement and private knowledge collections, making specialised knowledge more accessible without dissolving its institutional autonomy.

At the same time, the project addresses a second challenge: the growing distance between human understanding and increasingly complex knowledge systems.

The project therefore takes a position on what a library must do today. Not only provide access to knowledge, but act as a civic infrastructure that supports its production, validation, interpretation, and public exchange. Through a sequence of spatial interfaces, the building mediates between people and knowledge systems, and between public engagement with private collections in the specific context of Milan.



Figure 7: Ambition Collage (own work)

APPROACH

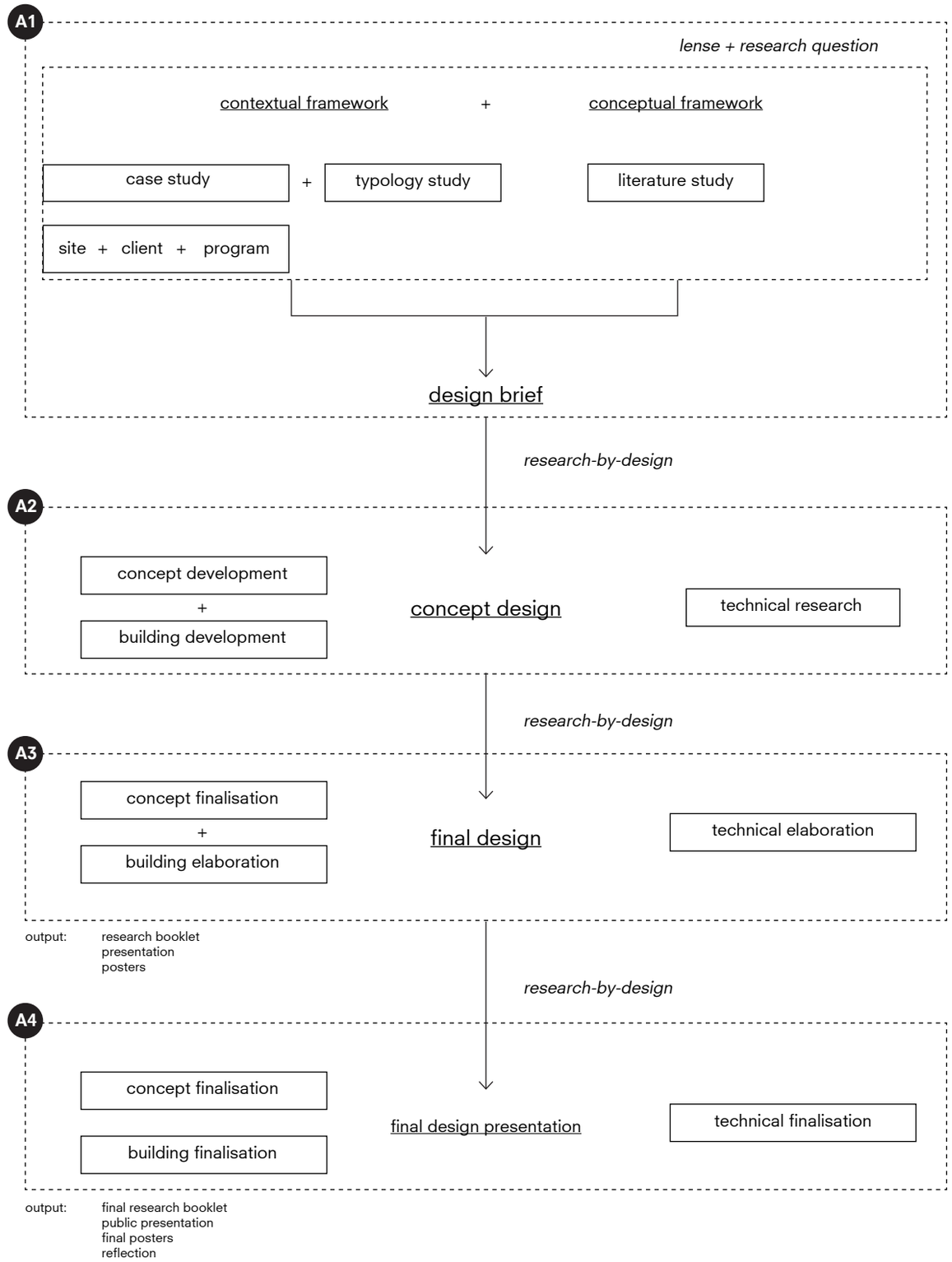
02

Methods

The research is structured around two parallel research frameworks. The first is a conceptual framework, established through a literature review addressing informational abundance, the privatisation of knowledge, and the role of libraries as civic infrastructures. The second is a contextual framework, developed through a case study of the Porta Volta development in Milan.

This project departs from a speculative premise: the existing buildings by Herzog & de Meuron are treated as unrealised, and an alternative proposal is developed for the same clients, site, and institutional context. Together these frameworks are consolidated into a design brief.

The design phase then moves through concept development, design development, and technical elaboration, progressively translating the research findings into architecture.

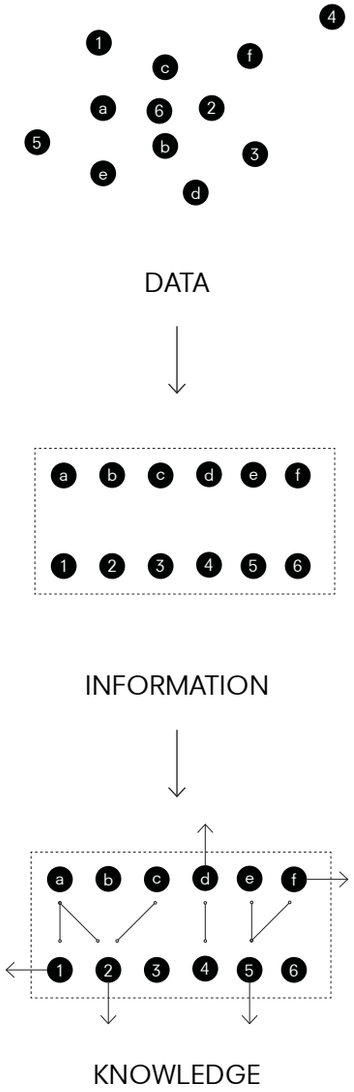


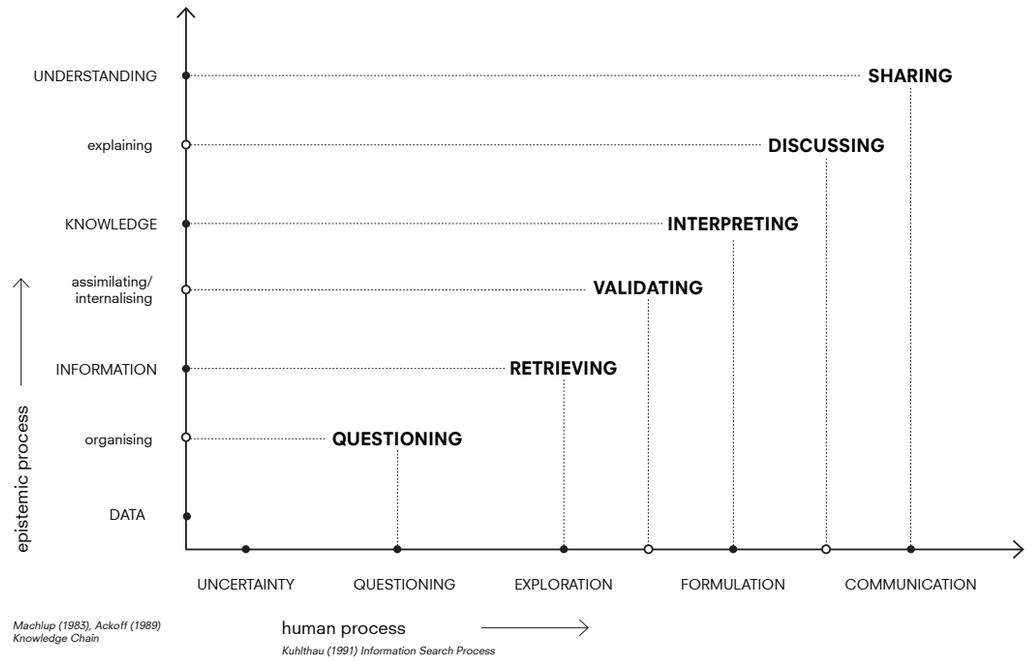
What is knowledge?

To understand what such an institution must do, it is necessary to distinguish between data, information, and knowledge as different types.
Machlup (1983) defines *data* as raw, unprocessed elements; *information* as data organised and placed in context; and *knowledge* as the assimilation of information through understanding and use.
Ackoff (1989) extends this sequence by introducing a fourth level: *understanding*. Where knowledge answers how (by conveying instructions and procedures) understanding answers why. It is the capacity not merely to apply knowledge, but to explain the relationships that make it meaningful.

Knowledge as active human process

This transformation does not occur automatically. It unfolds over time through human intervention, and it is shaped at every stage by uncertainty. Kuhlthau's Information Search Process (1991) describes how individuals construct understanding through a sequence of stages, beginning with *uncertainty* and *questioning*, followed by *exploration* and *formulation*, and finally leading to the *communication* of knowledge.





Knowledge as spatial sequence

Read together, these theoretical frameworks describe knowledge as both an epistemic sequence and an active human process.
What they share is a common structure: knowledge formation moves through distinct operations, each different from the last, each requiring different conditions to succeed.

This project translates that process into architecture.

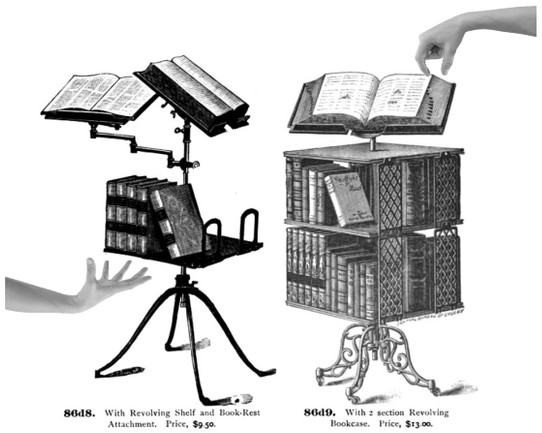
Figure 8 (l): visualisation of the 'knowledge chain'
Figure 9 (r): visualisation of knowledge thresholds

Intermezzo:
The role of curation

As data and information circulate at unprecedented scales, their transformation into knowledge is neither automatic nor neutral. It requires processes of selection, organisation, verification, and contextualisation: curation. Apart from determining what is preserved, curation also determines how information is accessed, how relationships between sources are established, and how legitimacy is produced over time. (bron curation?)

As seen in the table on the right, the processes behind curation remain largely hidden in contemporary digital infrastructures. Algorithmic curation operates at global scale without exposing its origins, criteria or structure.

Making curation visible is therefore a civic act. Making it spatial is an architectural one.



	Google	ChatGPT	Faculty of Architecture Library
quantity	... architecture in Milan ca. **129.000.000 results** (0,28s)	... architecture in Milan **1 response**	... architecture in Milan **137 results** **134 printed books** **3 magazines**
curation method	**Algorithm based curation** Selection based on relevance, quality, context and personalisation non-human curation	**Statisticly predicted curation** Recognising patterns in training data, prediction based on prompt, prior context. non-human curation	**Human curation** Selection based on relevance in relation to current collection. human curation
sourcing	**Indexed (...) sources** Data is drawn from training model, has no real-time access to the internet. (Database from september 2021)	**Pre-provided database** Data is drawn from training model, has no real-time access to the internet. (Database from september 2021)	**Addition is curated based on current collection** Data is drawn from training model, has no real-time access to the internet.

Figure 11: visualisation of curation

Conclusion | Knowledge as spatial thresholds

Knowledge formation is organised around five spatial thresholds: *questioning, retrieving, validating, interpreting,* and *sharing*. Each threshold corresponds to both an epistemic operation and can be translated into a distinct physical condition within the building.

By spatialising this knowledge process, acts of curation can become visible.

Q Questioning

marks the recognition of a gap in knowledge that triggers the visitor to start their enquiry.

R Retrieving

organizes the retrieval of information. Can be both physical and digital.

V Validating

makes visible the assessment of reliability and origin. This can also be through contact with an expert.

I Interpreting

provides the spatial conditions for reflection and the formation of personal understanding.

S Sharing

returns understanding to the public domain, stimulates for discussion and dissemination.

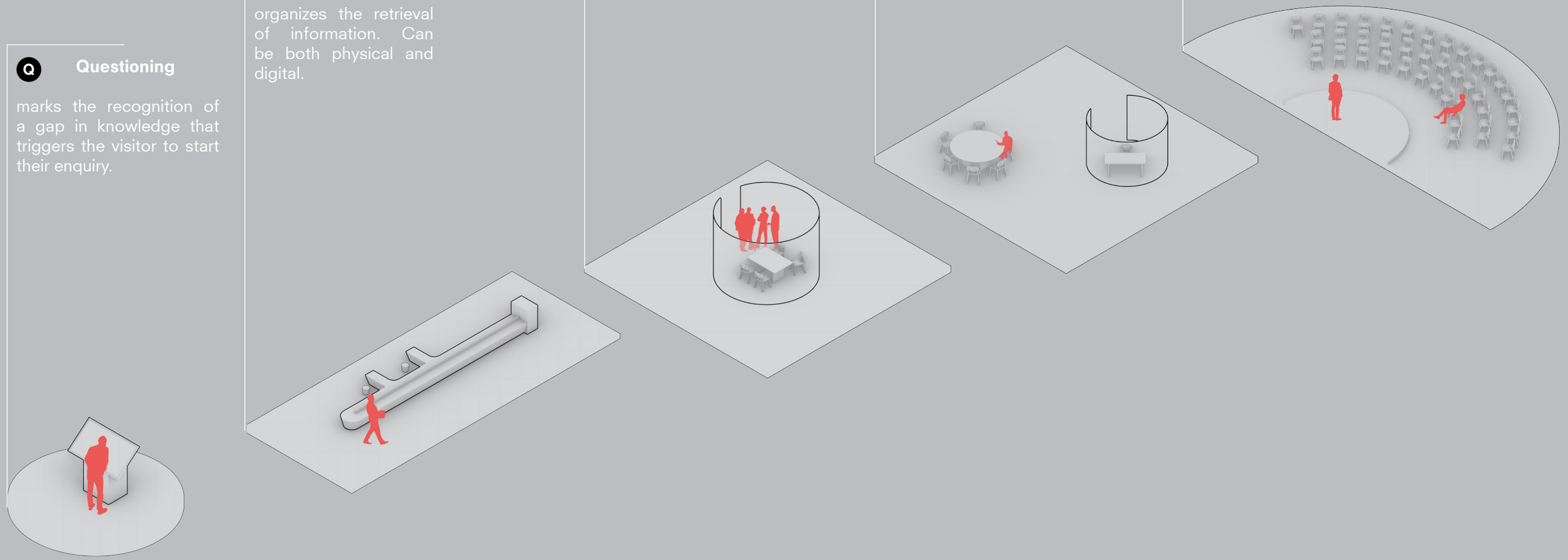


Figure 10: visualisation of the knowledge thresholds

RESEARCH

03

3.1

TYPOLOGY

Figure 12: Reading Room of the British Museum

This chapter will provide a brief overview of the library typology, to establish a starting point for the proposal of the library as interface.

The evolving library

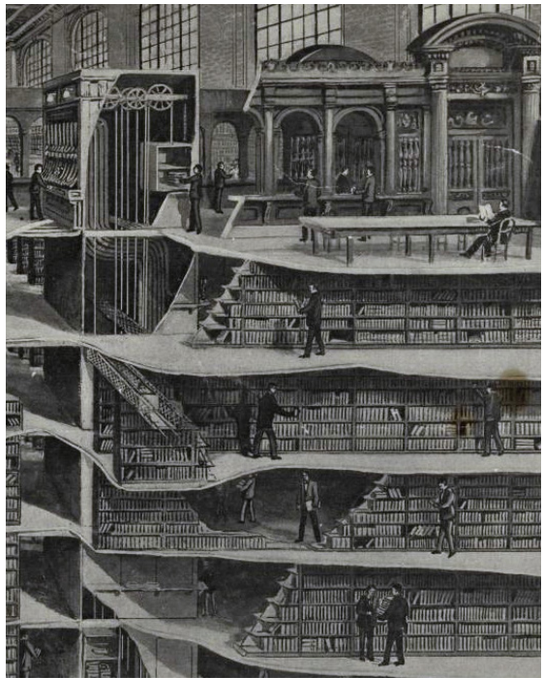
For centuries, the library has provided space for the storage, retrieval, and exchange of knowledge.

Rather than being a fixed typology, the library can be understood as a succession of dominant logics, each driven by developments in information technology and (or) broader societal changes, and each reshaping the relationship between preservation, access, and use of knowledge.



Library as container

In its earliest form, the library was a tool for preservation. Collections were small, access to these collections was restricted.



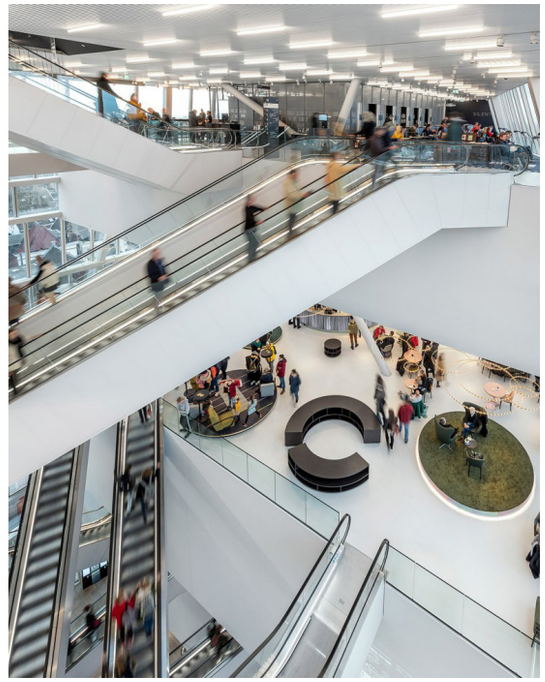
Library as public institution

The Enlightenment transformed this logic. Libraries emerged as public institutions, based on the idea that access to knowledge was a civic right. The spatial emphasis shifted from preservation to accessibility.



Library as hybrid platform

The late twentieth century introduced a third logic. Driven by digitisation, libraries were reimagining themselves to remain relevant in a society moving away from physical knowledge. New hybrid libraries emerged that responded to this condition by facilitating both physical and digital ways of interacting with knowledge.



Library as community space

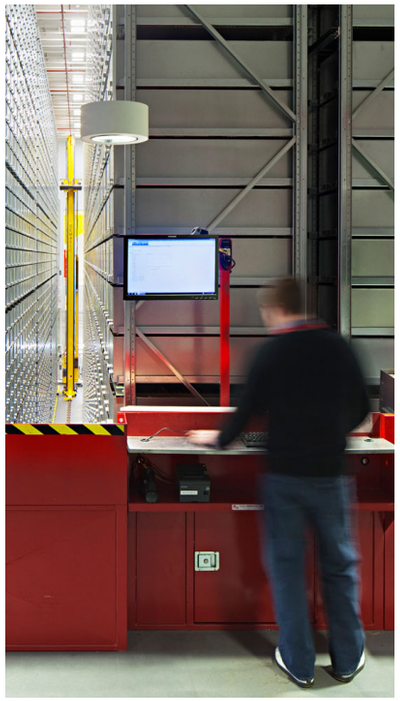
Most recently, a fourth logic has emerged in which the social function of the library becomes more important than the collection. The library as community centre or ‘living room’ prioritises social program and civic presence.

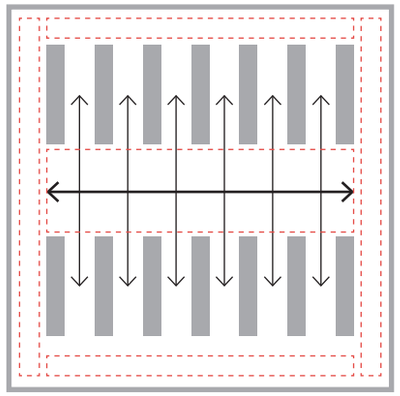
Figure 13: visualisation of the ancient library of Alexandria
Figure 14: sectional drawing of the New York library
Figure 15: Bibliothéque Nationale de France
Figure 16: Forum Groningen

The automated bookshelve

The bookshelf has long defined the spatial organisation of the library. By organising the storage of the books in a central automated archive, the floorplate becomes free of the bookshelve and can be designed for intentional program. Also because of the central deposit retrieval point, access to the collection becomes more easy to navigate.

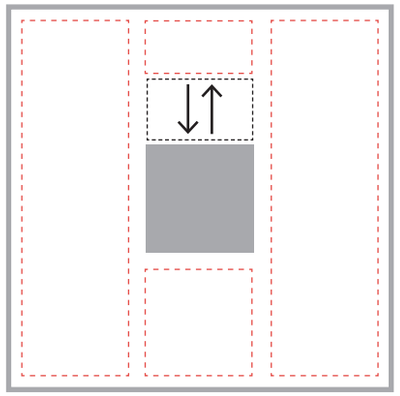
An additional benefit is that the interior climate of the archive can be controlled, increasing the preservational qualities. Especially for rare and vulnerable items such as the items in the Feltrinelli collection.





traditional library

+ books are approachable
- can be difficult to navigate
- limits floor plan



library with automated deposit retrieval

+ increase navigability (central retrieval)
+ increase preservation conditions
+ free up floor plan for specific program

Shelving system for the deposit and retrieval of books. After reference of The Joe and Rika Mansueto Library by Jahn Studio.

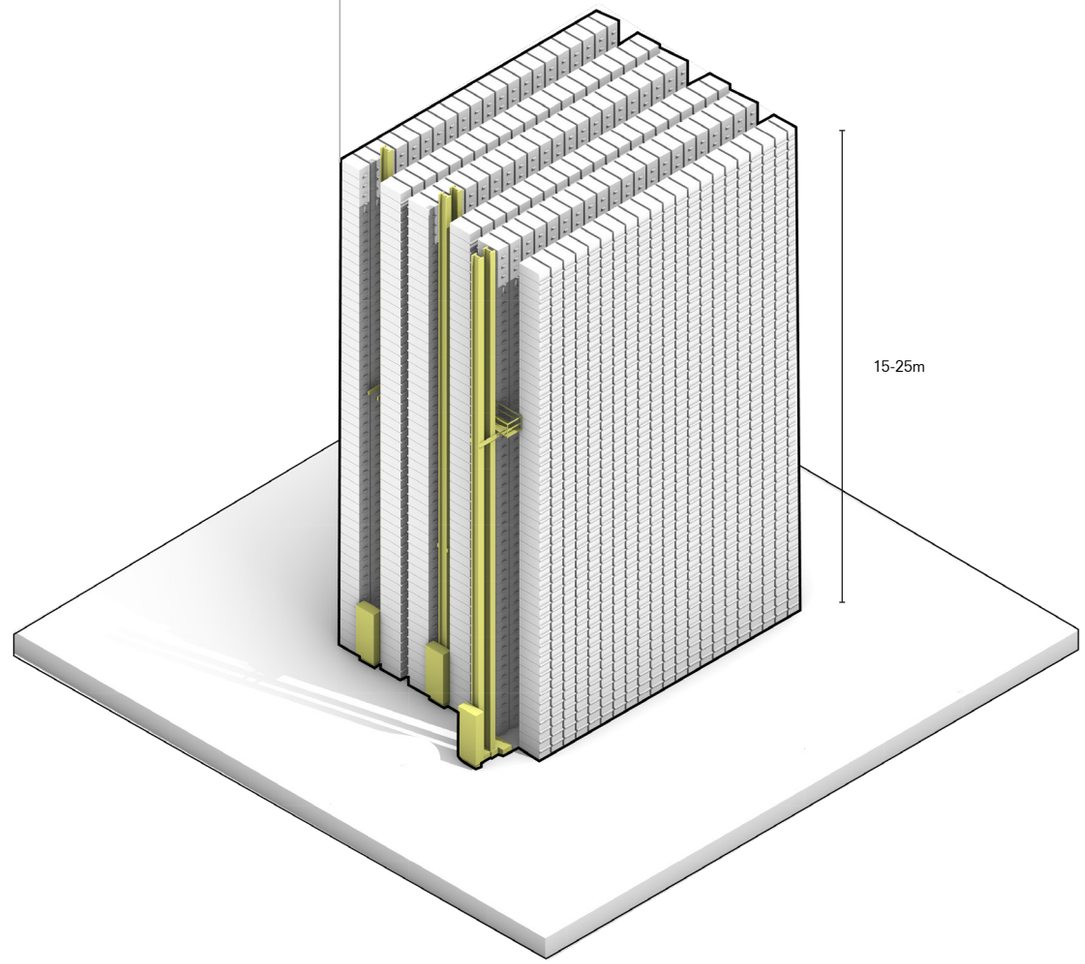


Figure 15: Deposit Retrieval System James B. Hunt Jr. Library

Library system

Classification systems such as the Dewey Decimal System and the Library of Congress organise knowledge through fixed categories. These categories are translated into shelves, aisles and rooms, shaping the spatial organisation of the library.

This project proposes a question-based catalogue system. Rather than starting from a predefined category or shelf location, the system begins with the visitor's question. It connects physical collections, digital archives and relevant experts, generating a network of possible knowledge sources rather than a single predefined path.

Dewey Decimal system

000 – Art
010 - Architecture
001 - Architecture in Europe
001.1 - Architecture in Milan
...

100 – Philosophy

200 - History

- difficult to expand
- hierarchical system
- fixed categories

Library of Congress system

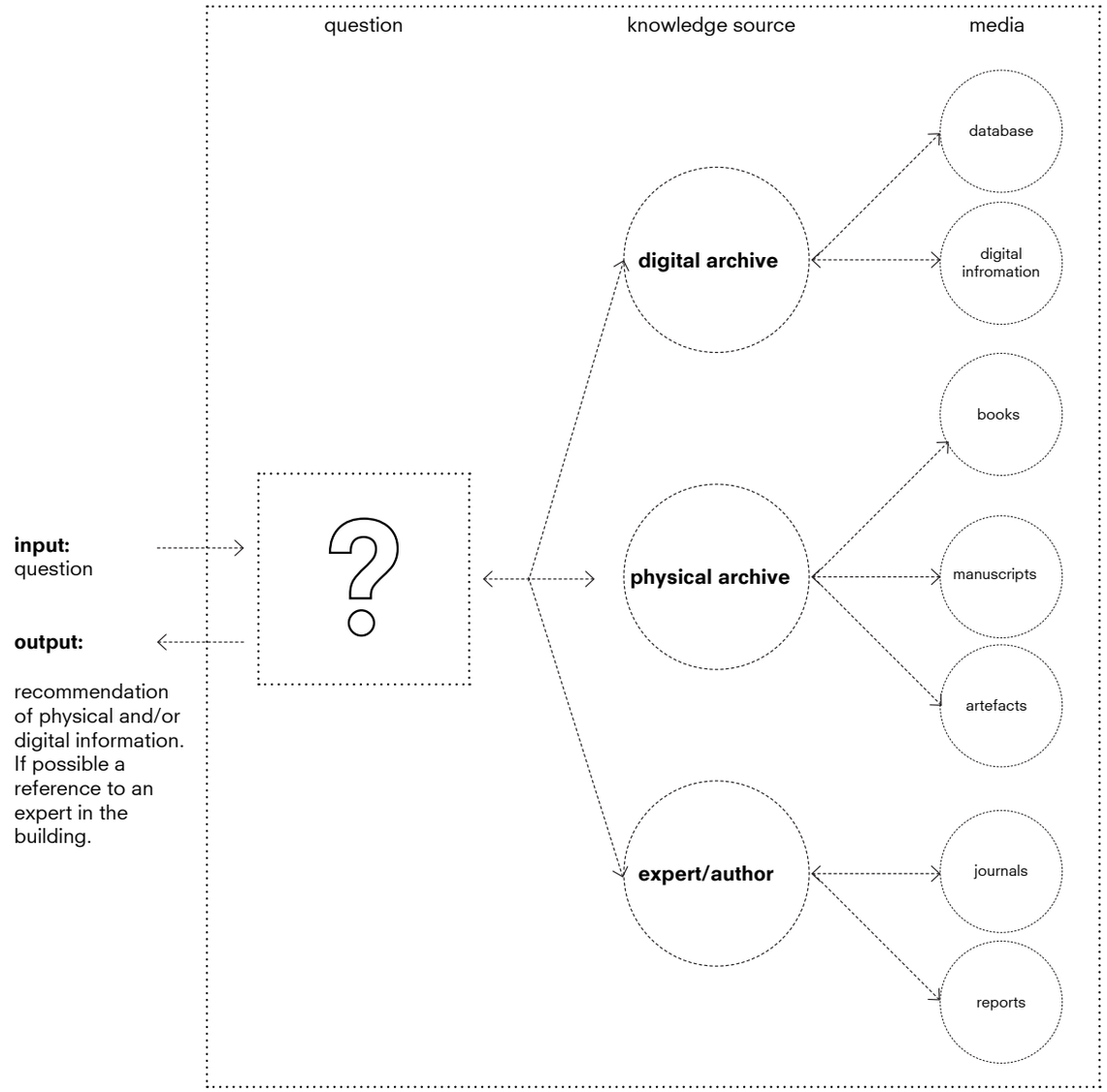
A – Art
A.100 - Architecture
A.010 - Architecture in Europe
A.001 - Architecture in Milan
A.001.1 - Libraries in Milan
...

B - Philosophy

C - History

+ more easy to expand
- hierarchical system
- fixed categories

Question based system



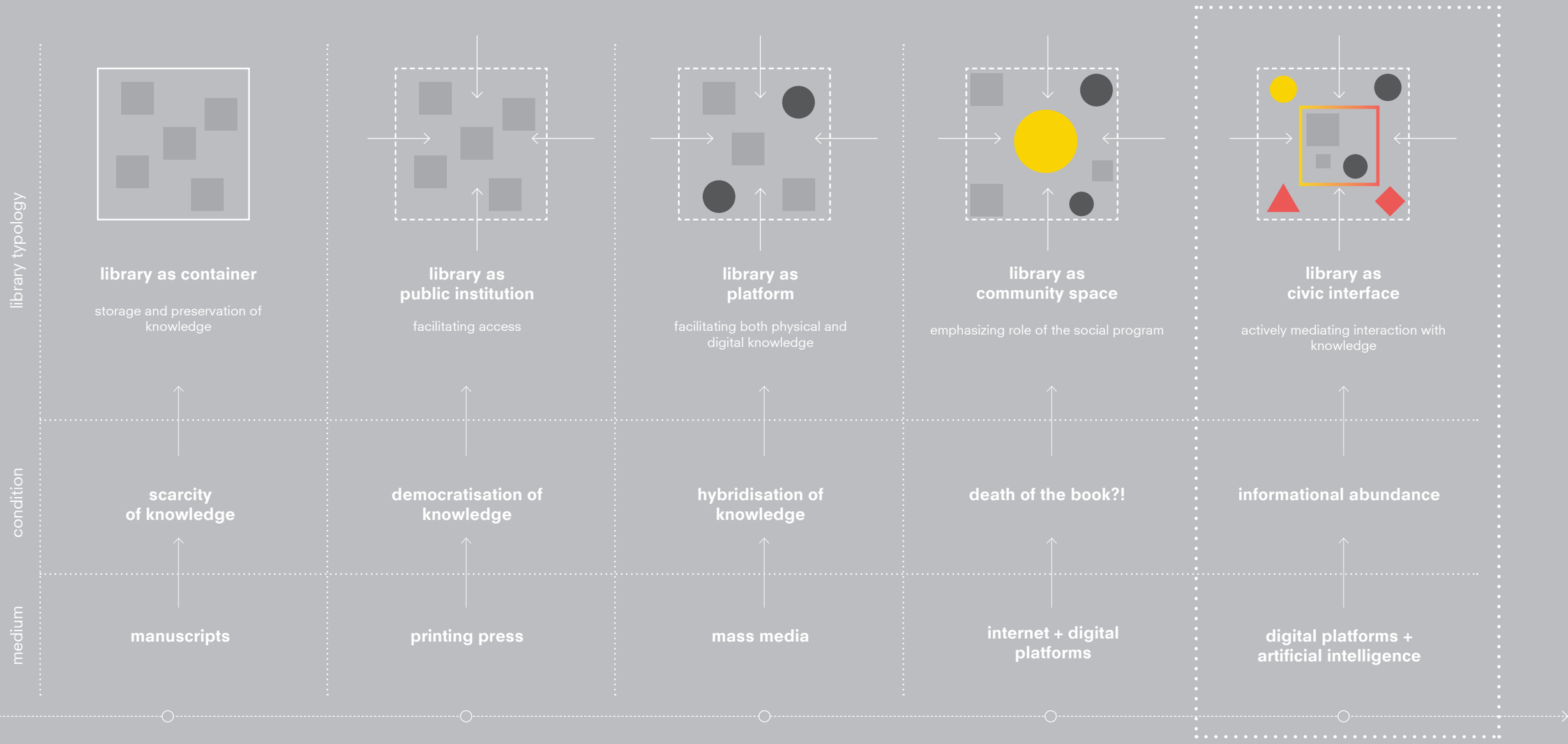
+ easy to expand
+ non-hierarchical system
+ no fixed categories
+ connects collection, expert and digital media

Conclusion | The library as interface

The contemporary library can no longer be understood primarily as a repository of information. The library as interface actively mediates interaction with knowledge. It combines preservation, access, public exchange and interpretation.

By concentrating storage within a central knowledge core, the public floorplate is freed for intentional spaces where knowledge can be navigated, produced and shared.

A question based cataloguing system combines physical knowledge such as books and artefacts with digital knowledge. Aditionally it connects the visitor with a relevant expert, creating a knowledge network.



3.2

CLIENTS



Figure 16: Giangiacomo Feltrinelli

At the scale of the city, Milan positions Porta Volta as a centre for knowledge, innovation, and cultural production. In practice, however, this ambition is fragmented across individual institutions.

Stakeholders

The Porta Volta development brings together three institutions: Fondazione Feltrinelli, Microsoft Italy, and the Museo Nazionale della Resistenza. Each of these operates within the field of knowledge, but from a different position.

NAZIONALE DELLA RESISTENZA

remembrance, interpretation and public communication

The museum preserves and communicates the history of Italy's liberation and post-war period through exhibitions, education and public engagement. It contributes to collective memory and the public understanding of democratic values.

Microsoft

innovation and knowledge production

Microsoft combines its role as a corporate headquarters with a public-facing ambition centred on technology, innovation and collaboration. Through research, training and partnerships, it contributes to contemporary knowledge production.

Gruppo Feltrinelli

knowledge preservation, production and exchange

The foundation houses the Feltrinelli collection and combines archival preservation with research, public debate and cultural programming. It aims to function as a public platform for critical reflection on contemporary societal challenges.

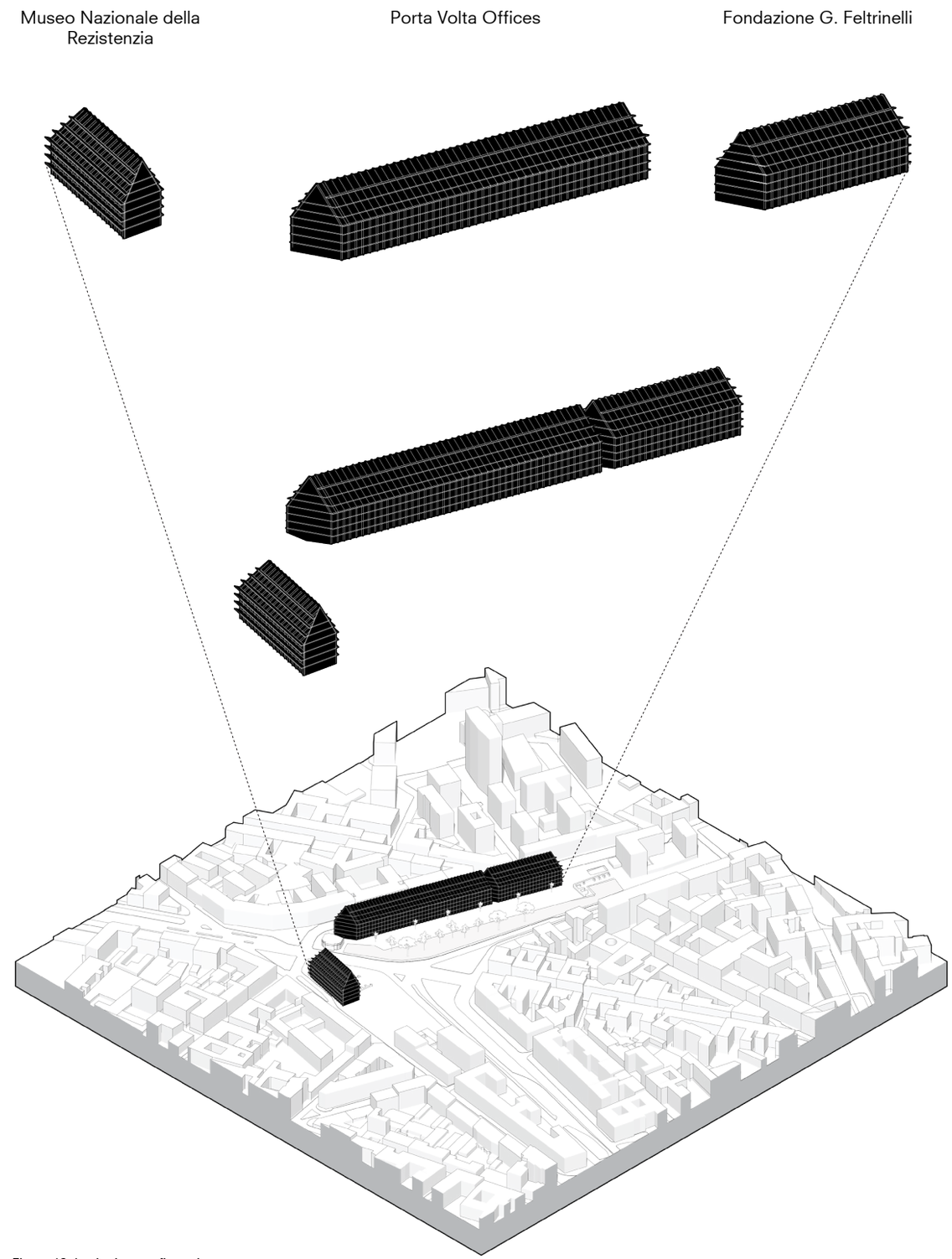
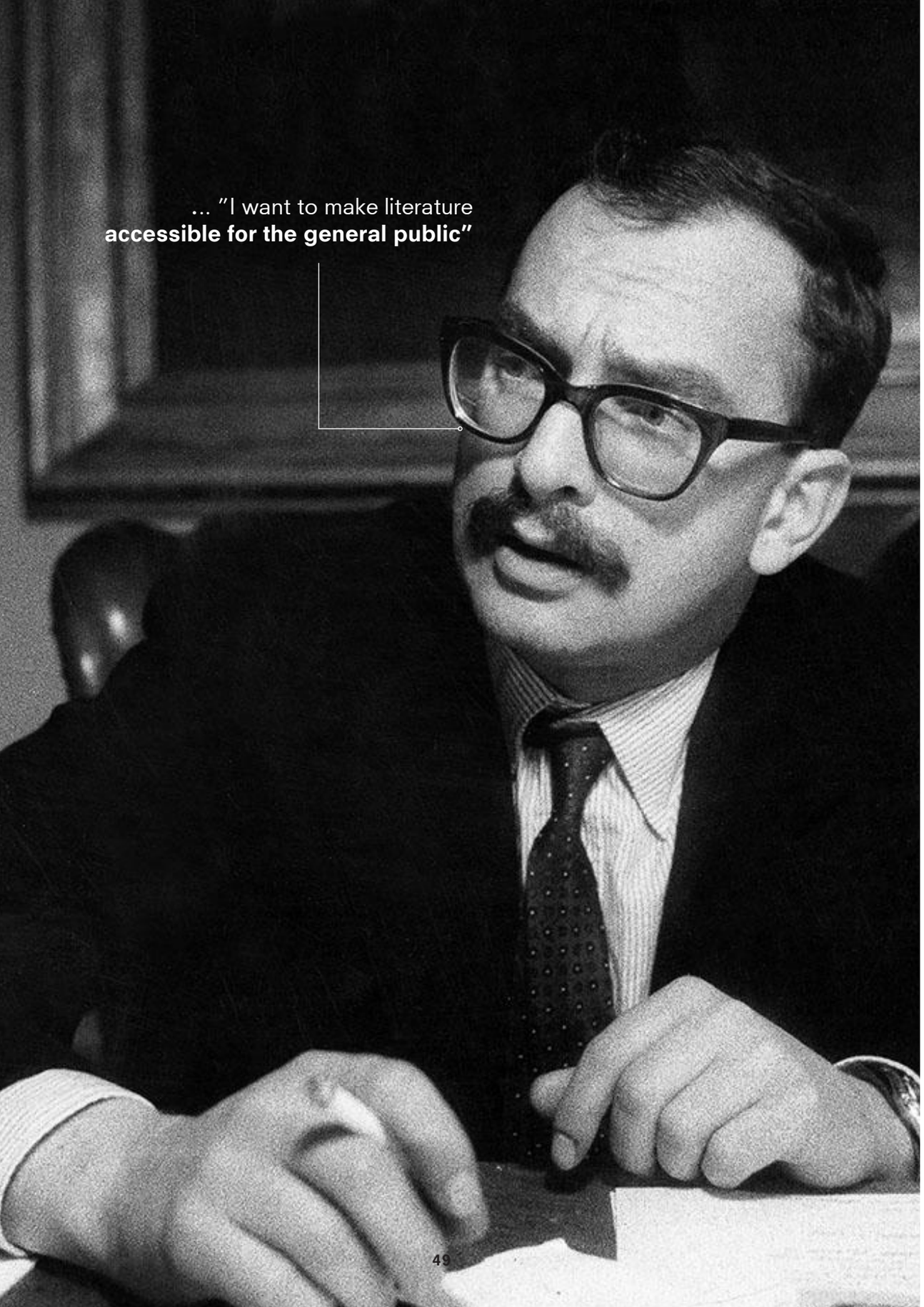


Figure 19: Institution configuration



Intermezzo: Giangiacomo Feltrinelli

Giangiacomo Feltrinelli was an Italian publisher and political activist.
He believed in the emancipatory power of knowledge. That by making “literature accessible for the general public” society would improve. (Fondazione G. Feltrinelli, 2026)

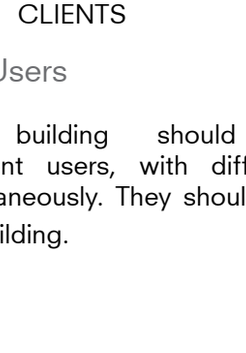
The current building was designed for the foundation’s mission to function as an ‘inclusive platform for dialogue and inclusion’, and includes next to its archival functions, more public oriented program.

Figure 17: Giangiacomo Feltrinelli Portrait

End Users

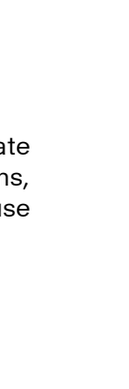
The building should accommodate different users, with different intentions, simultaneously. They should be able to use the building.

Wanderer



Encounters knowledge through exposure, curiosity and discovery.

Visitor with a question



Navigates the system purposefully in search of specific information.

Specialist

Produces, validates and extends knowledge within the system.

Conclusion | Three instututions in a shared knowledge infrastructure

Together, these institutions represent different stages within the knowledge cycle: production, preservation and dissemination. While they are physically adjacent, they largely operate as separate systems.

The project therefore treats them not as individual clients, but as components of a broader knowledge ecosystem. The proposed library acts as an interface between these institutions, mediating between specialised knowledge and public engagement, and through this creates new opportunities for knowledge production and exchange.



shared knowledge infrastructure

3.3

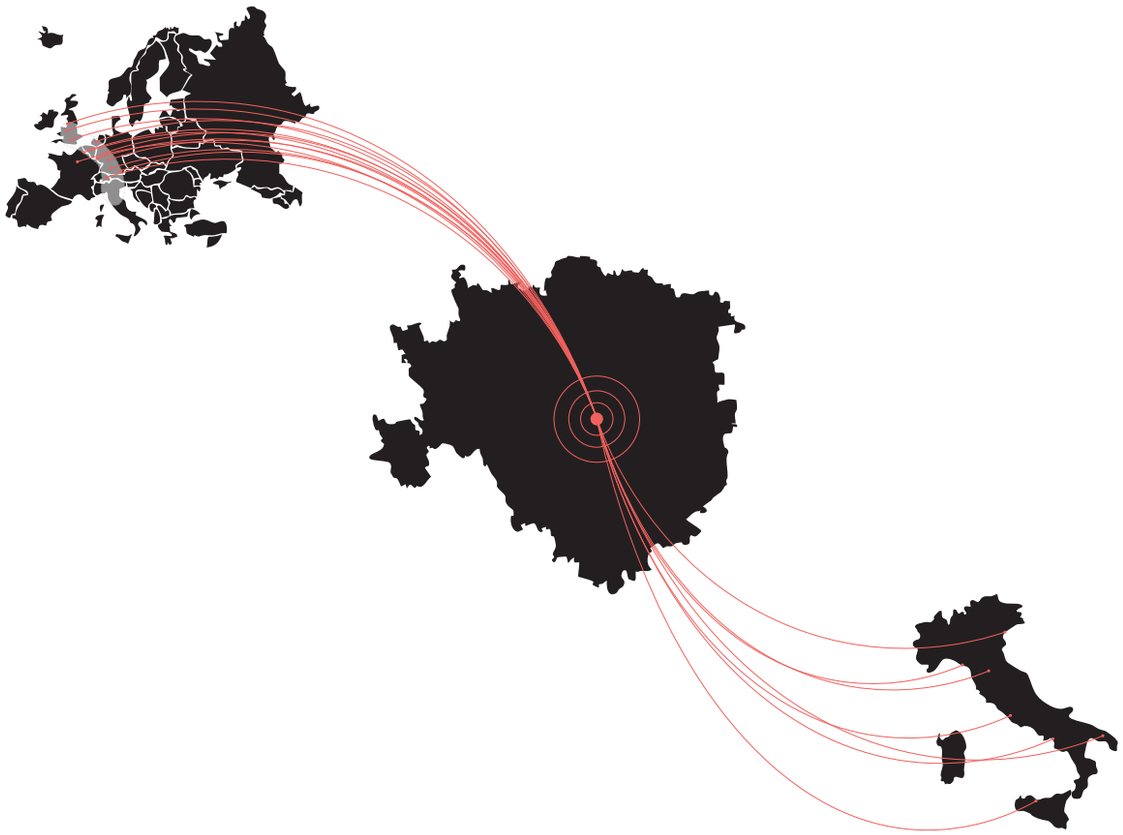
SITE



This chapter analyses the conditions of the site at Porta Volta in Milan. From this analysis site ambitions will be formulated that inform the design.

XXL | Milan as Cultural gateway

Milan is situated in the Po Valley in northern Italy and functions as one of the primary metropolitan junctions (nodes) of Southern Europe. Positioned within the so-called *"Blue Banana"* corridor, the city forms part of a dense network of economic, cultural, and infrastructural connections linking Northern Italy to Western and Central Europe. Making it a natural crossroads for the exchange of goods and ideas.





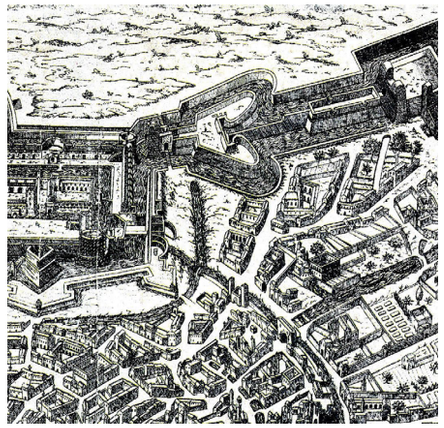
Mura Romana (200 BC cent.)
Mura Medeviale (12th cent.)
Mura Spagnola (Spa (16th cent.)

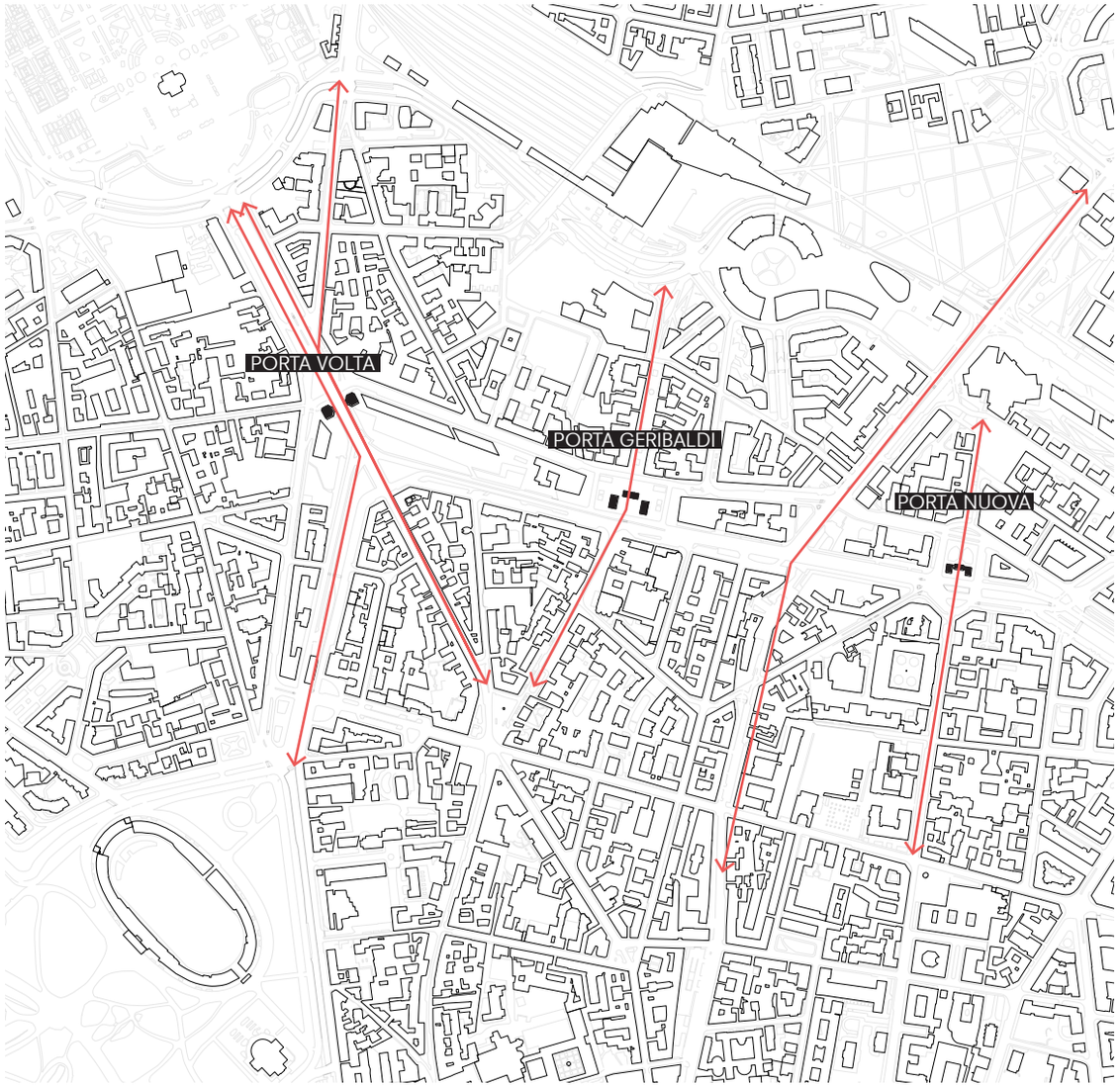
XL | Milan, city of thresholds

The urban structure of Milan is historically defined by successive systems of historic city walls and gates. From the Roman fortifications (ca. 49 a C) ,to the medieval wall (ca. 1156) to the sixteenth-century Spanish walls (ca. 1556), the city developed through stepped periods of expansion.

L | Porta Volta as gateway

Porta Volta is one of these historic thresholds. Although the walls themselves have largely disappeared, their imprint remains legible in the urban fabric today. It being an opening in the surrounding dense city fabric. Today Porta Volta is an urban gateway, connecting the city center to the north of Milan.





L | Accessibility

The site is strategically positioned between major transport infrastructures, including Milano Centrale, Porta Garibaldi and the inner ring road. This accessibility results in specific flows of people through the site.

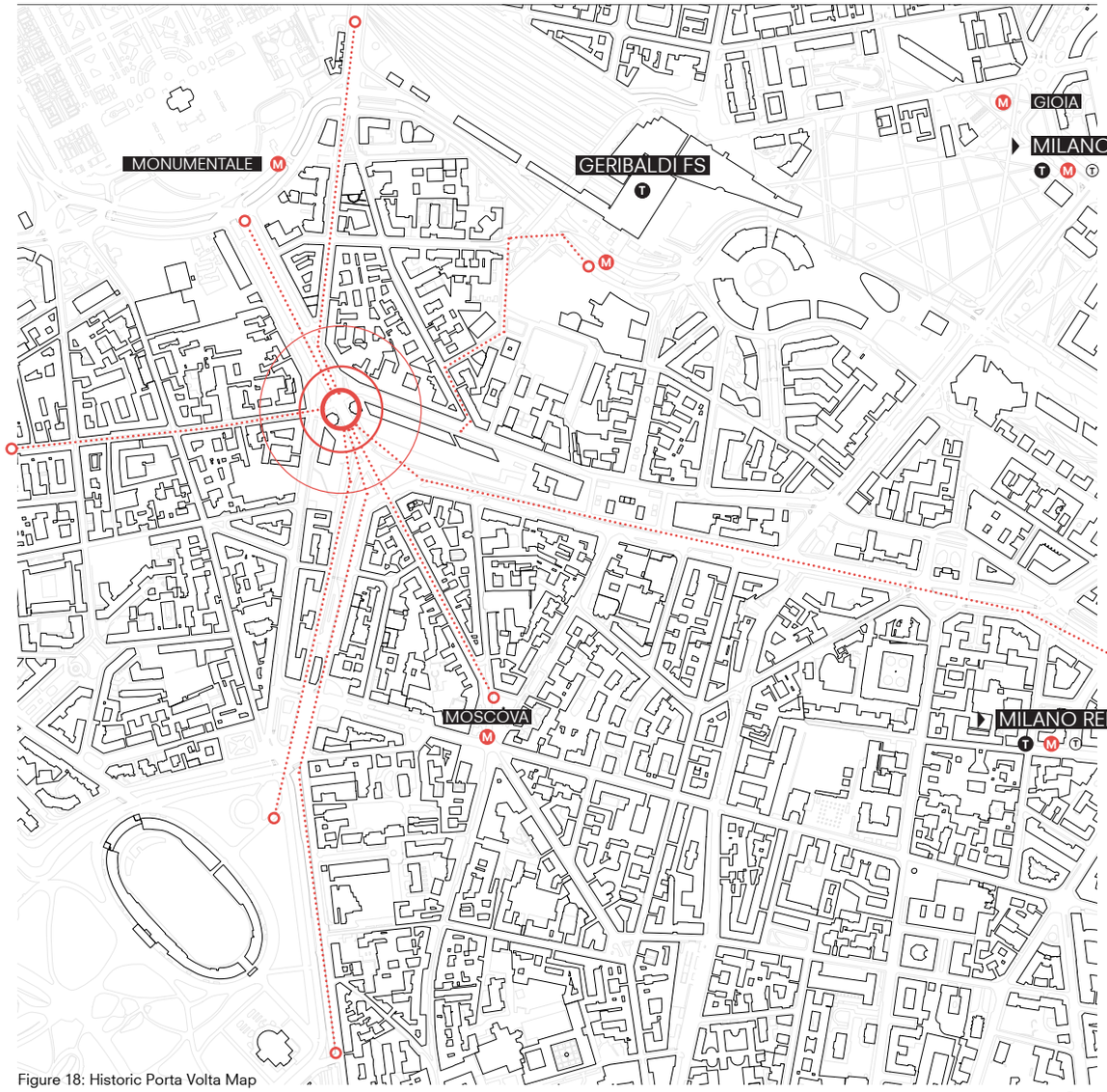


Figure 18: Historic Porta Volta Map



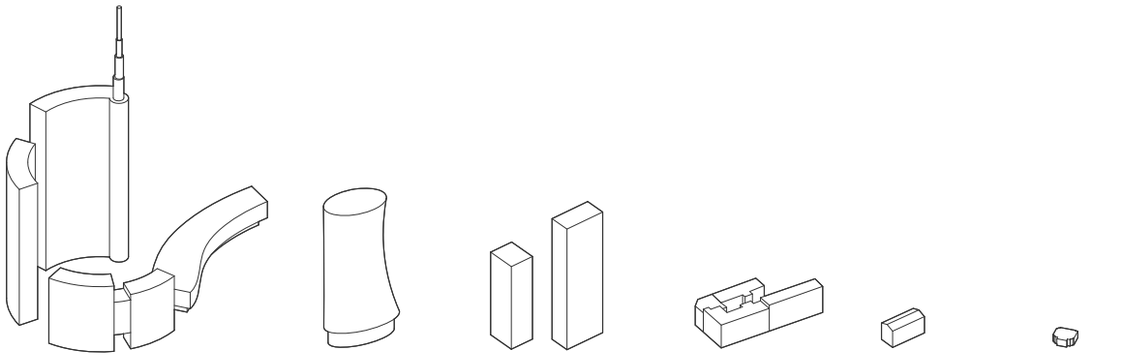
M | Green connections

The site sits between important fragmented green spaces, namely the Parco Sempione to the south, the Biblioteca degli Alberi Milano to the north. The site could play an important role in connecting these fragmented green spaces.

M | Transition of scales

Porta Volta occupies an interesting position between the dense grain of the historic centre and the larger scale developments of Porta Nuova. The site mediates between these contrasting urban morphologies.

Porta Nuova — Porto Giribaldi — Porta Volta



XXL

Unicredit Tower

type commercial
height 214m

XL

Unipol Tower

type governmental
height 125m

L

Bosco Verticale

type residential
height 125m

M

Typical Block

type residential (mixed)
height 20-25m

S

Typical Block

type residential
height 12m

XS

Porta Volta

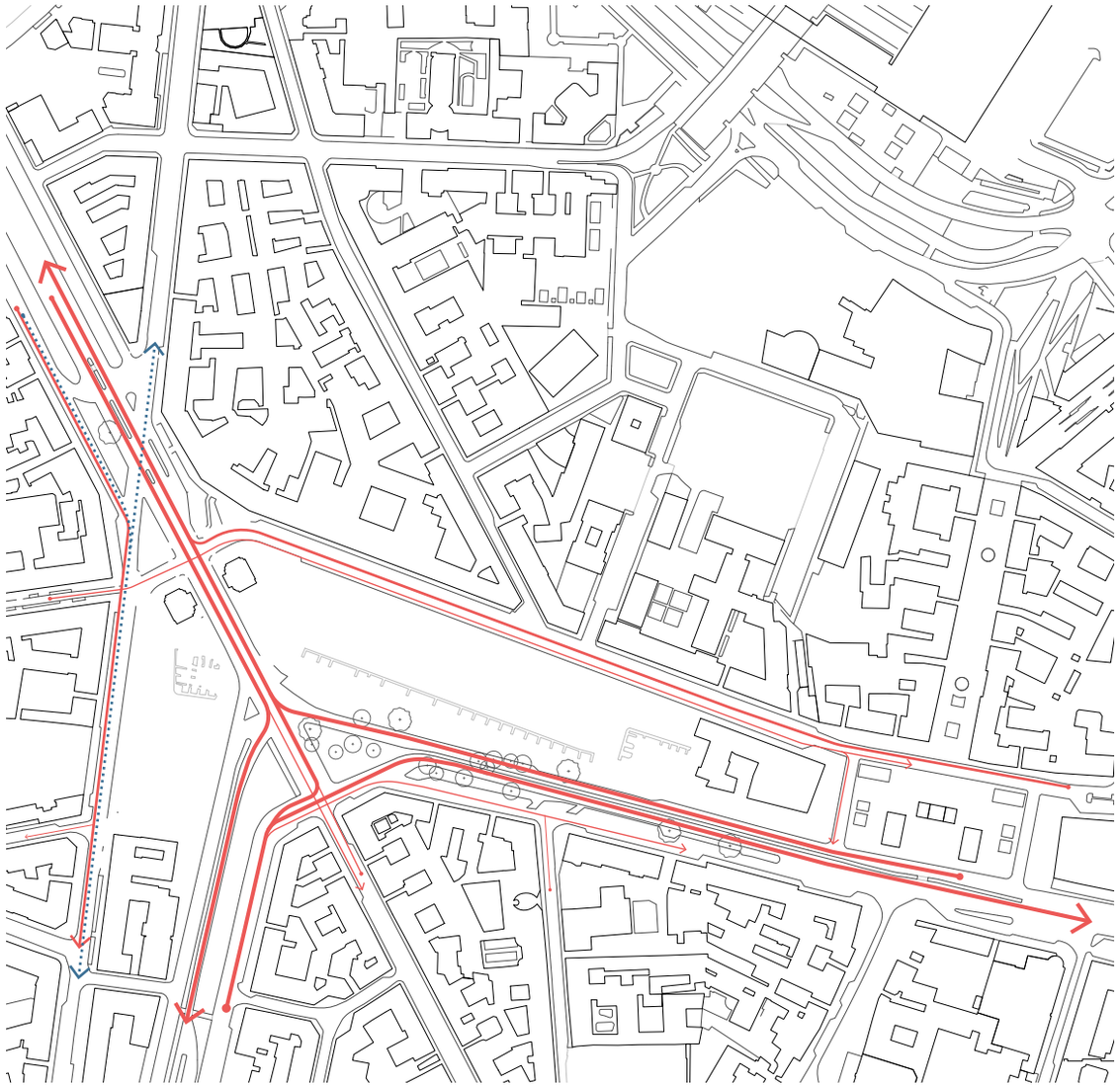
type civic
height 5,5m

M | Traffic flows

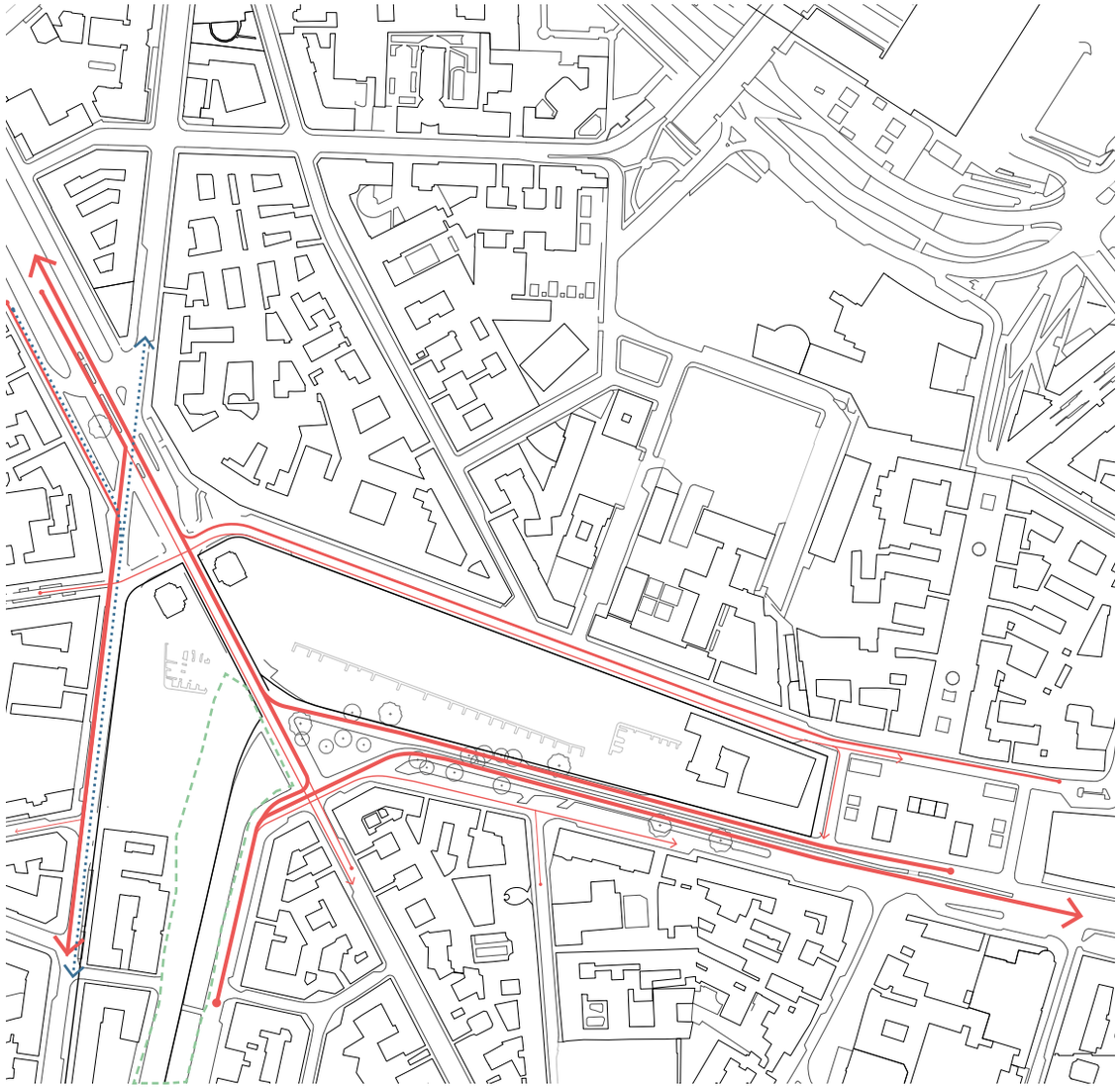
The existing traffic infrastructure around the site creates barriers between the surrounding urban areas and limits pedestrian movement across the site. Several traffic routes overlap, resulting in redundant road capacity.

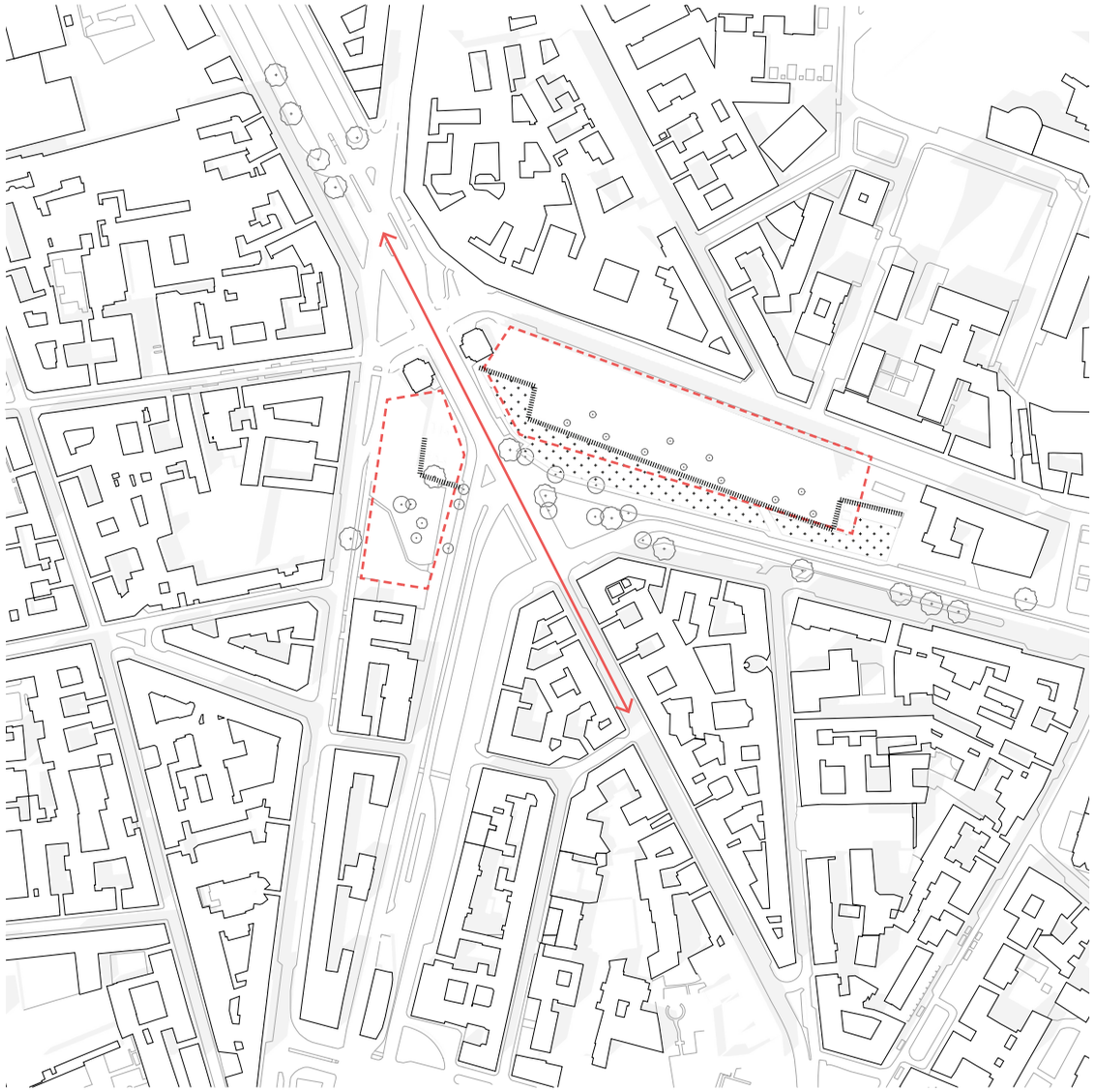
The proposed traffic strategy reduces Via Alessandro Volta to a single lane and redirects southbound traffic towards Viale Montello. This frees up space for a continuous public park, reconnecting the site to Parco Sempione and improving pedestrian accessibility.

Existing traffic flows



Proposed traffic flows





S | Fragmented Plots

The site is devided in two plots by the Via Alessandro Volta. Additionally, it is surrounded by busy ring roads, the Viale Francesco Crispi and the Ciale Pasubio. This weakens pedestrian flows and limits interaction between neighbouring institutions.

XS | Remains of the Spanish Wall

Archaeological investigations on the site have revealed substantial remains of the Spanish bastion of Porta Comasina. (Museo Nazionale della Resistenza, 2026) These remains reveal an intersting historical layer that has currently mostly burried underground and invisible in the urban landscape.

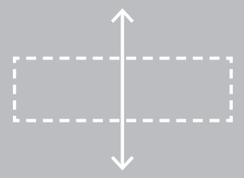
On the right an image of the elevated walkways, from the 19th century, that used the Spanish Walls as elevated walkways, providing panorama views.



Figure 19: Elevated walkways on Spanish Walls

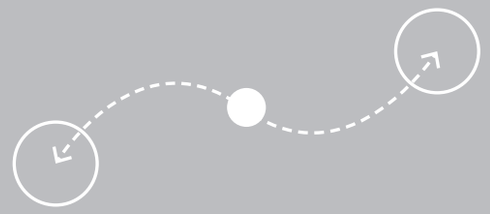
Conclusion | Site Ambitions

1. (L)
retain gateway contition



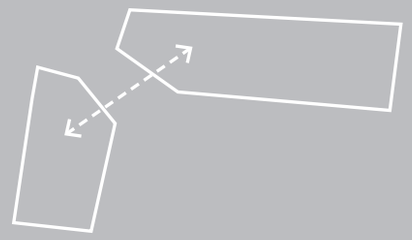
retaining the urban gateway function, an opening in the city fabric

2. (M)
connect green spaces



connecting fragmented green spaces from the Parco Sempione to the Biblioteca degli Alberi Milano

3. (S)
connect fragmented plots



reconnecting fragmented plots, devided by Via Allessandro Volta

4. (XS)
reveal hidden layers in the landscape



reveiling the elements from the Spanish wall, reveiling a historic layer in the landscape.

3.4

PROGRAM

Figure 20: Feltrinelli Archive

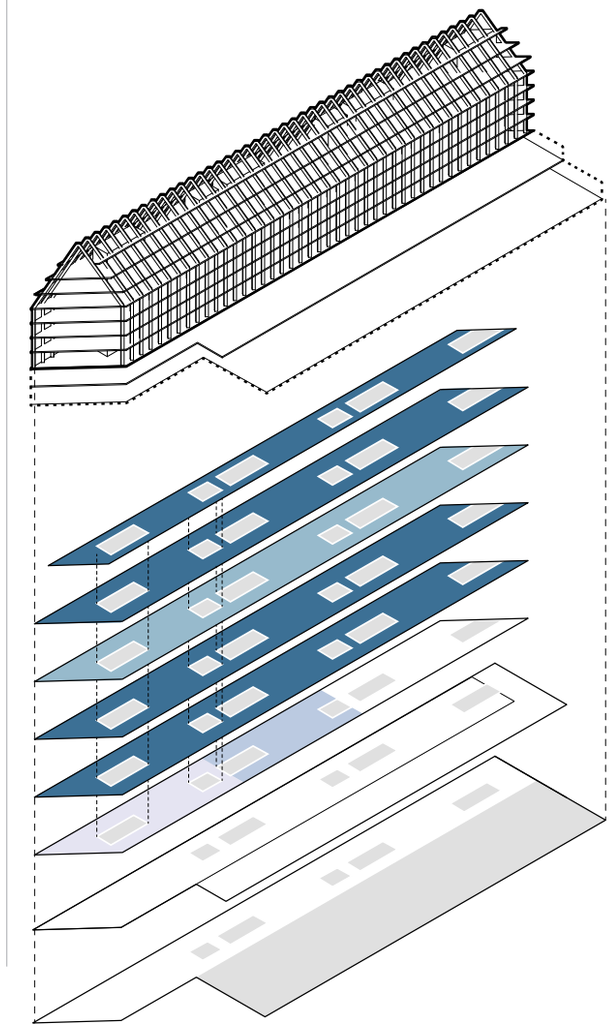
This chapter analyses the programmatic configuration of the existing Porta Volta development, and proposes a new program configuration based on the programmatic relationship to knowledge.

Existing Program

The current development consists of three separate institutions, each housed in their own building organised around their own program, functions and users.
This is a logical configuration, but from the perspective of knowledge exchange this could be improved.
Each building has its own support spaces, circulation systems and specialised functions, resulting in limited interaction between institutions and limited public access to knowledge production processes.

Porta Volta Offices

GFA: 15.370m²

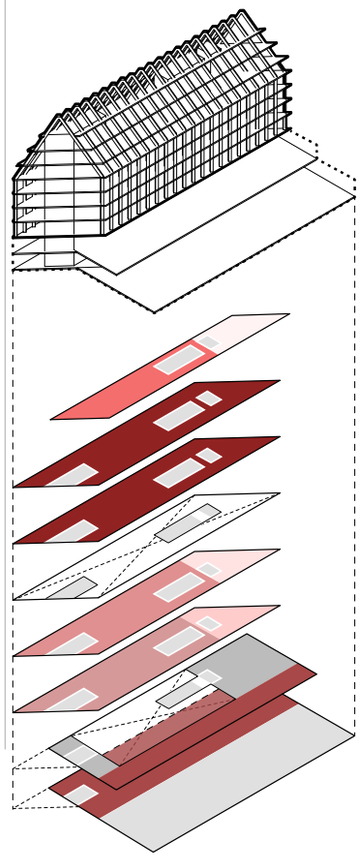




Microsoft Showroom	3%	490m²
Unifor Showroom	3%	460m²
Lobby / Reception	3%	390m²
Offices Gruppo Cassa C.	9%	1.330m²
Video / Training Room	10%	1.550m²
Offices Microsoft	31%	4.820m²
Circulation	7%	1.080m
Parking	12%	1.870m²
Service	22%	3.380m²

Fondazione G. Feltrinelli

GFA: 5950m²

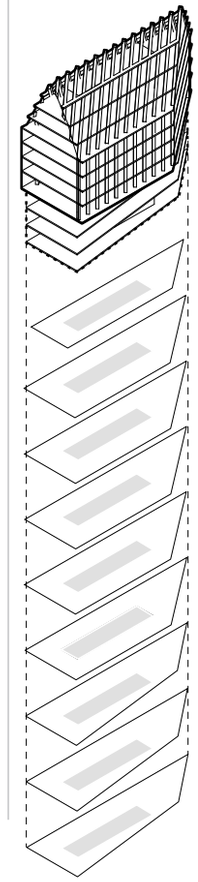




Auditorium	1%	80m²
Foyer	4%	240m²
Lobby	4%	240m²
Reading Room	5%	290m²
Multifunctional Space	6%	360m²
Bookstore/Café	8%	470m²
Archive	13%	770m²
Offices / Research	20%	1.210m²
Service	5%	450m²
Circulation	10%	600m²
Parking	22%	1.320m²

Museo Nazionale della Rezistenzia

GFA: 5390m²

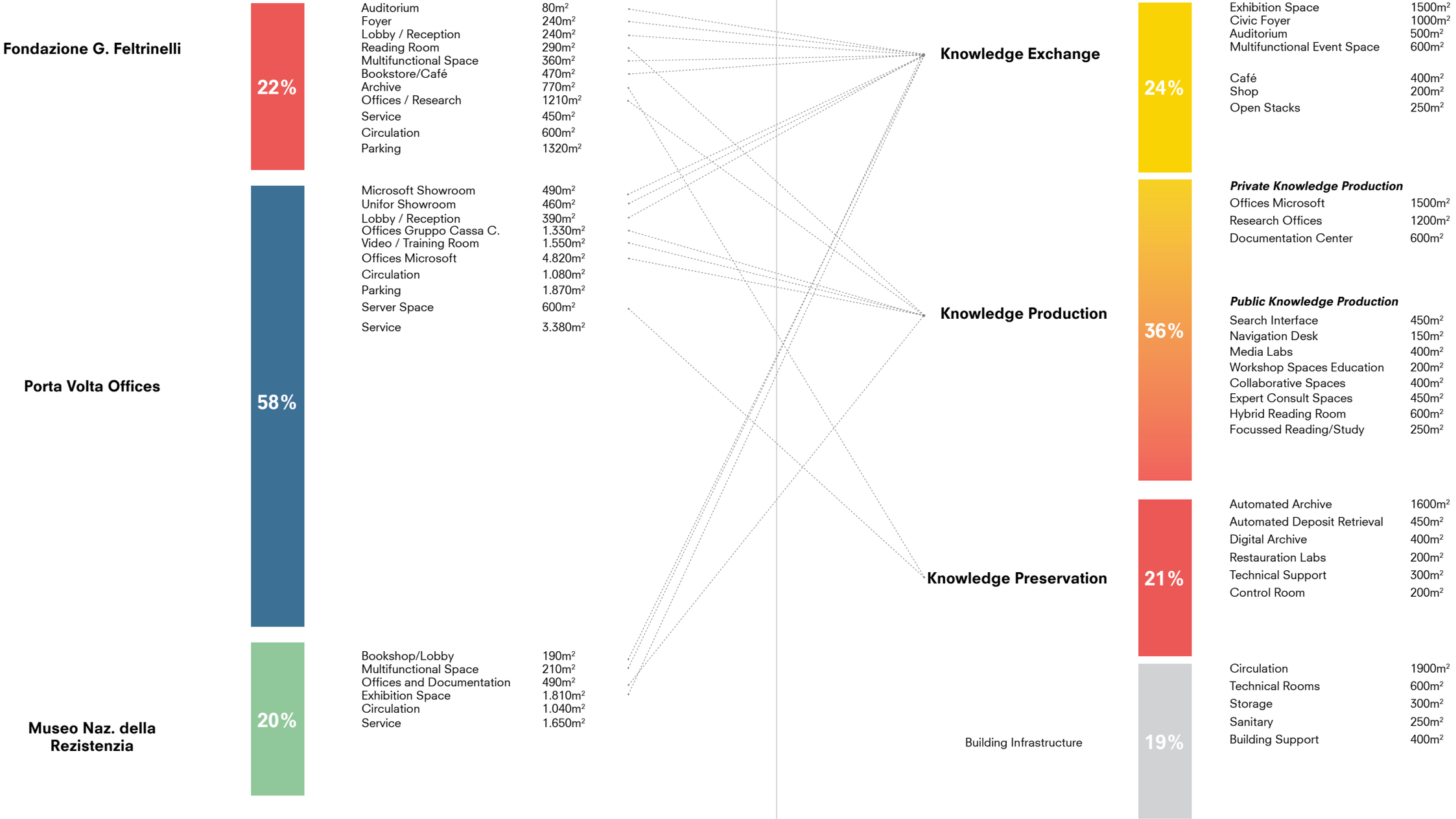




Bookshop/Lobby	4%	210m²
Multifunctional Space	4%	190m²
Offices and Documentation	9%	490m²
Exhibition Space	34%	1.810m
Circulation	19%	1.040m²
Service	31%	1.650m²

Proposed Program

The project does not reproduce the complete program of the existing institutions. It condenses, extracts and reorganises the functions directly involved in the production, preservation and exchange of knowledge. Resulting in a single compact civic infrastructure.



Conclusion | Shared compact civic infrastructure

The project does not reproduce the complete program of the existing institutions. It condenses, extracts and reorganises the functions directly involved in the production, preservation and exchange of knowledge. Resulting in a single compact civic infrastructure.

existing program organisation

26.710m²

Fondaz. Feltrinelli

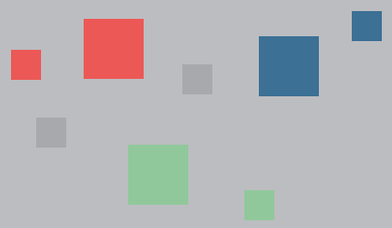
Porta Volta Offices

Museo Nazionale della Rezistenza

three separate institutional buildings

organised based on relationship to knowledge

programmatic extraction



proposed program organisation

18.000m²



Knowledge Exchange

Knowledge Production

Knowledge Preservation

one compact, shared civic infrastructure

CONCEPT

04

Following the establishment of the design brief, the 3 × 3 exercise was introduced as a method to translate the theoretical and programmatic research into physical concepts and spatial strategies.

3 x 3 Exercise

This exercise functioned as a comparative framework in which each proposal could be evaluated against recurring criteria of site, program, and concept. By placing the physical models within the site model, their spatial consequences could be tested in relation to the specific conditions of Porta Volta.
Rather than searching for a single formal solution immediately, the exercise aimed to generate a wide variety of spatial and organisational approaches.
From these studies, three recurring categories could be identified:

Linear Approach
A linear organisational system following the geometry and movement of the site.

Object Approach
A compact civic object operating as an autonomous landmark within the site.

Landscape Approach
A spatially continuous system in which architecture and landscape become merged.



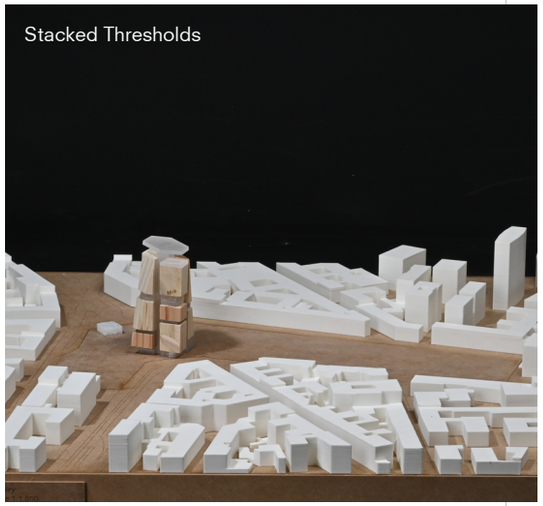
3 x 1 Exercise

The second phase converged these categories into three more developed conceptual models.

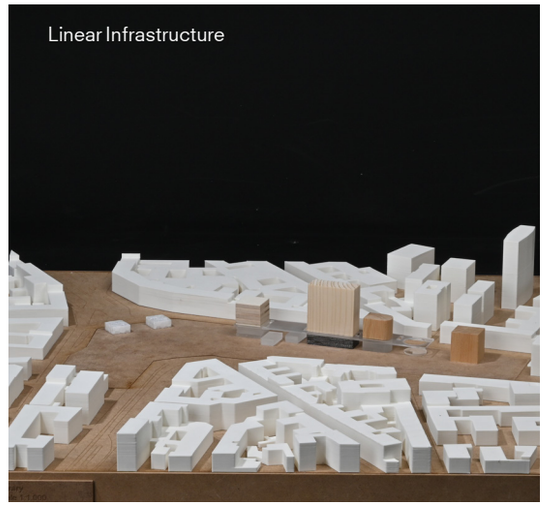
Stacked Thresholds
This model vertically stacked the program in order to minimise the footprint and create interesting stacked thresholds. While the model produced interesting vertical thresholds, its capacity for civic exchange was limited.

Circular Vitrine
This model focused on maximising civic interaction and public visibility. Programmatic elements were organised as distinct volumes captured within a circular vitrine. The proposal established strong civic presence and spatial interaction, but remained relatively autonomous from the surrounding urban fabric.

Linear Infrastructure
This model aligns with the existing urban structure and the traces of the Spanish Wall. Organised as a continuous infrastructural system, it connects different programmatic elements through a linear civic plinth, increasing spatial legibility and public accessibility. The proposal established strong relationships with the site, the landscape, and the surrounding public space through large facade surfaces for exchange and interaction.





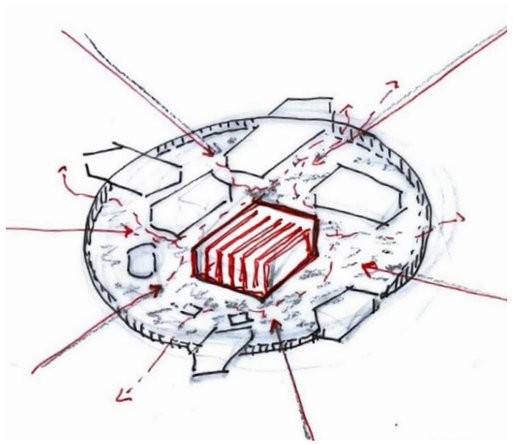


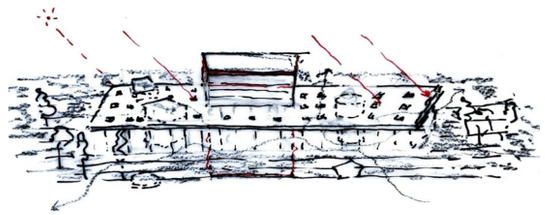




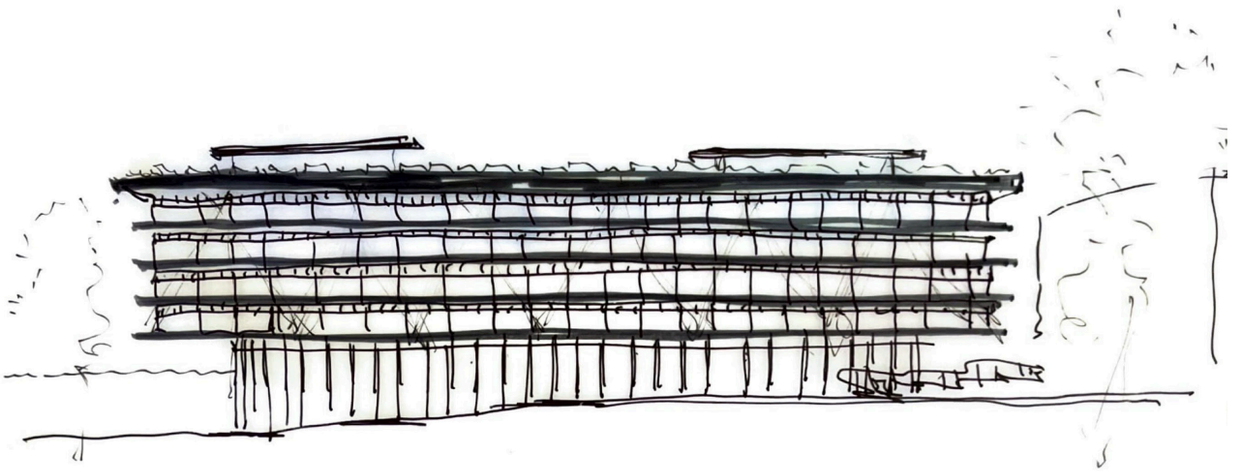








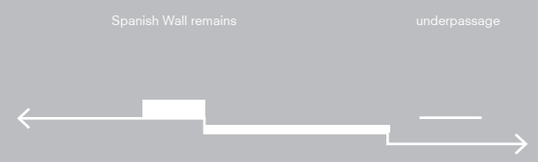
Concept Sketch



Conclusion | Final Concept

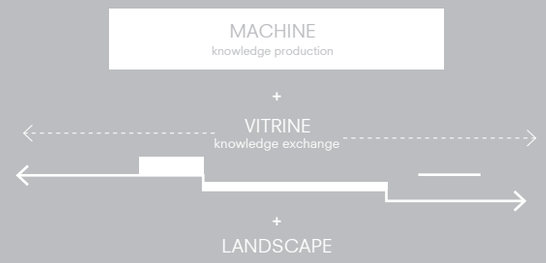
The final concepts combines elements from each variant into a single architectural system consisting of three elements: the landscape, the civic vitrine, and the knowledge engine.

The project is organised as a linear building positioned parallel to the remains of the Spanish Wall and aligned with the surrounding urban fabric. Hovering above a descending landscape that connects both plots.



1. Connecting Landscape

A gradually descending landscape connects the fragmented plots into a continuous public space, revealing the archaeological layers of the site while creating an underpassing underneath Via Alessandro Volta.



2. Three architectural elements

The building consists of three architectural elements: the machine for knowledge production, the vitrine where knowledge exchange happens and the landscape connecting the building to Milan.

DESIGN

05

This chapter will elaborate on the final design proposal.

Spatialising the knowledge process

The building is designed as a spatialization of the knowledge process. The two architectural elements, the vitrine and machine, each contain different spatial thresholds where people interact with knowledge.

Q Questioning

Questioning begins before entering the building. A first glimpse into the vitrine sparks curiosity and invites exploration. Public exhibitions, events and encounters expose visitors to new ideas and perspectives. As visitors move deeper into the building, questioning becomes increasingly focused. At the interface level, visitors can formulate a concrete question and interact with the library system. The system identifies relevant books, documents, objects and experts.

R Retrieving

The engine room marks the visitor's first encounter with the machine. Requested material is *retrieved* directly from the deposit retrieval terminal. The usually hidden logistics of storage, selection and retrieval become visible, revealing the infrastructure that supports access to knowledge.

V Validating

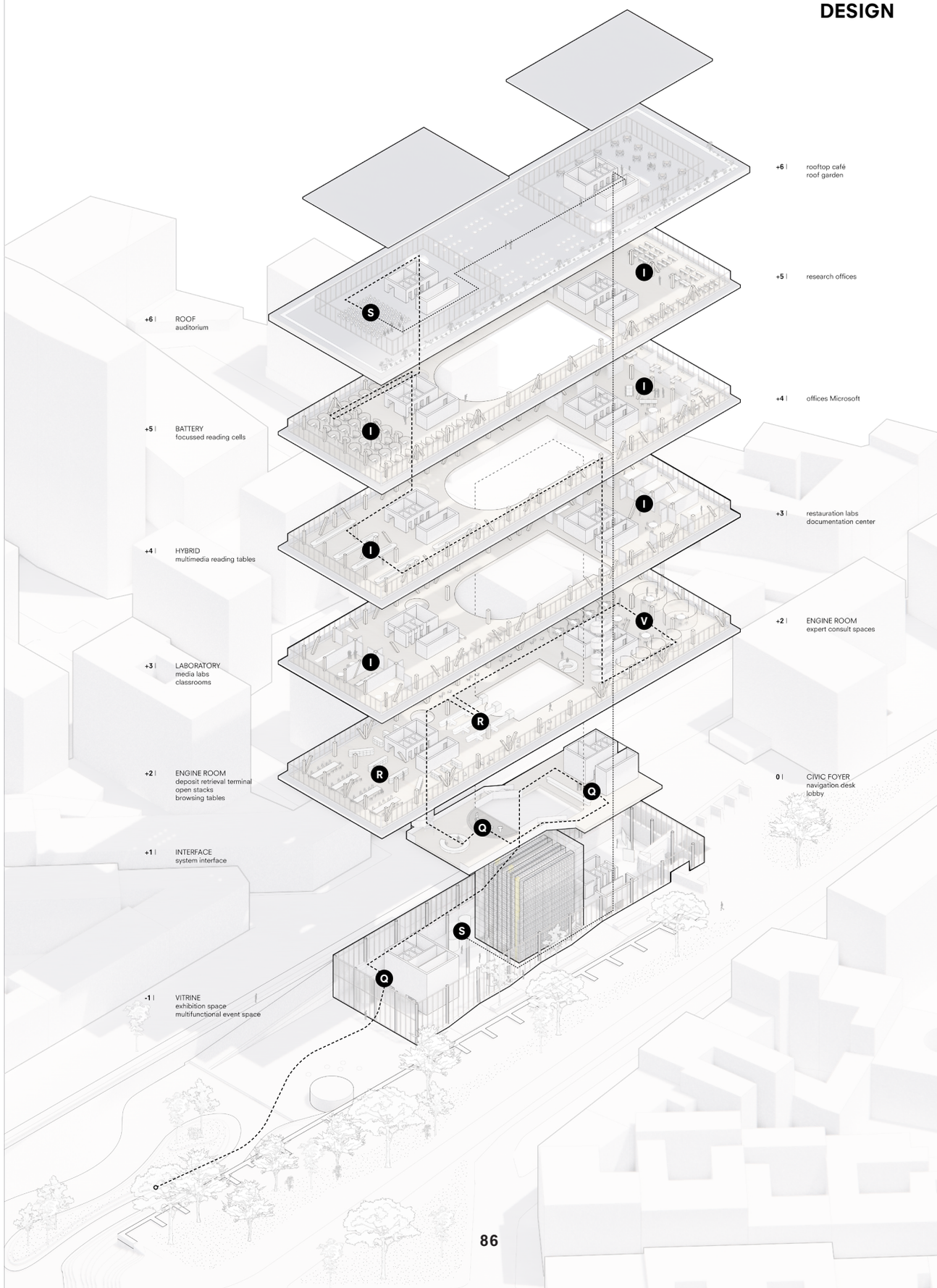
Consultation rooms provide spaces where visitors can meet specialists, compare sources and *validate* information. Questions can be refined, challenged and positioned within a broader context.

I Interpreting

Interpretation takes place within a variety of intentional spaces. Collective media labs and classrooms support collaboration and experimentation, while the hybrid reading room accommodates both physical and digital research. For focused individual study, the battery offers quieter and more concentrated spaces. As visitors move upward, the building gradually becomes more individual and calm.

S Sharing

The roof houses the auditorium where produced knowledge can be *shared*. Additionally, produced knowledge can be showcased in the public exhibition space in the vitrine. This way returning the knowledge back to the public, and completing the knowledge process as a cicle.



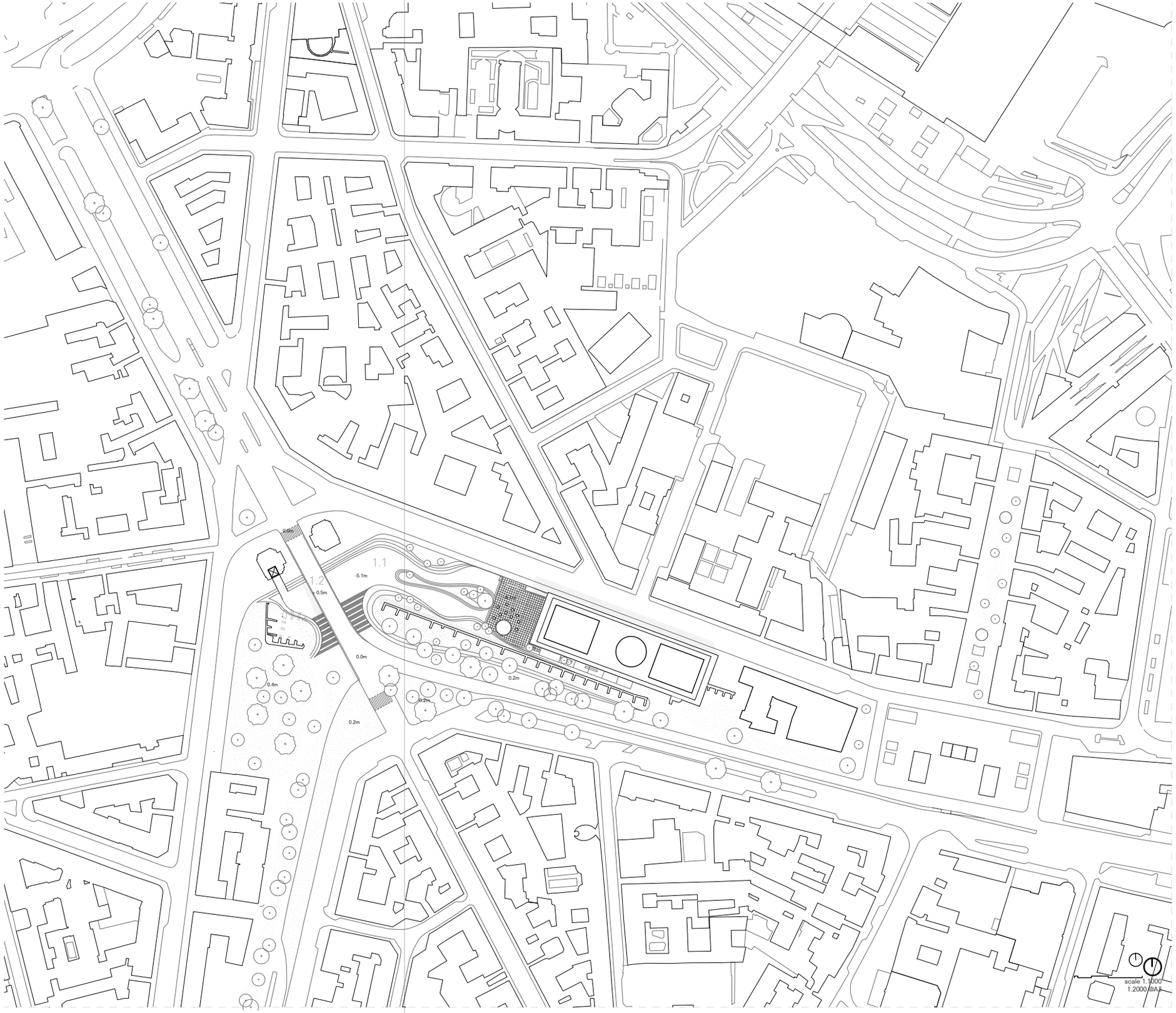
Site Masterplan

A new excavated park is proposed, that slowly descends to -5.1m, providing enough space for the Via Allessandro Volta to pass above.

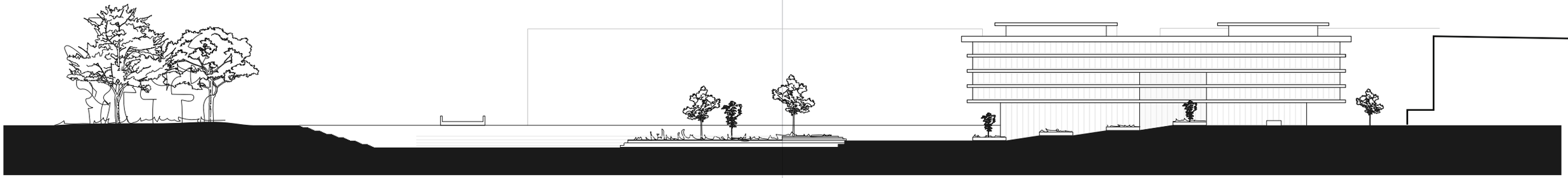
The park consists of borders with varying heights and taluds on the sides, that soften the edge towards the street. The descent slowly reveals segments of the Spanish Wall.

On the two long facades of the building slopes take pedestrians into the sunken park.

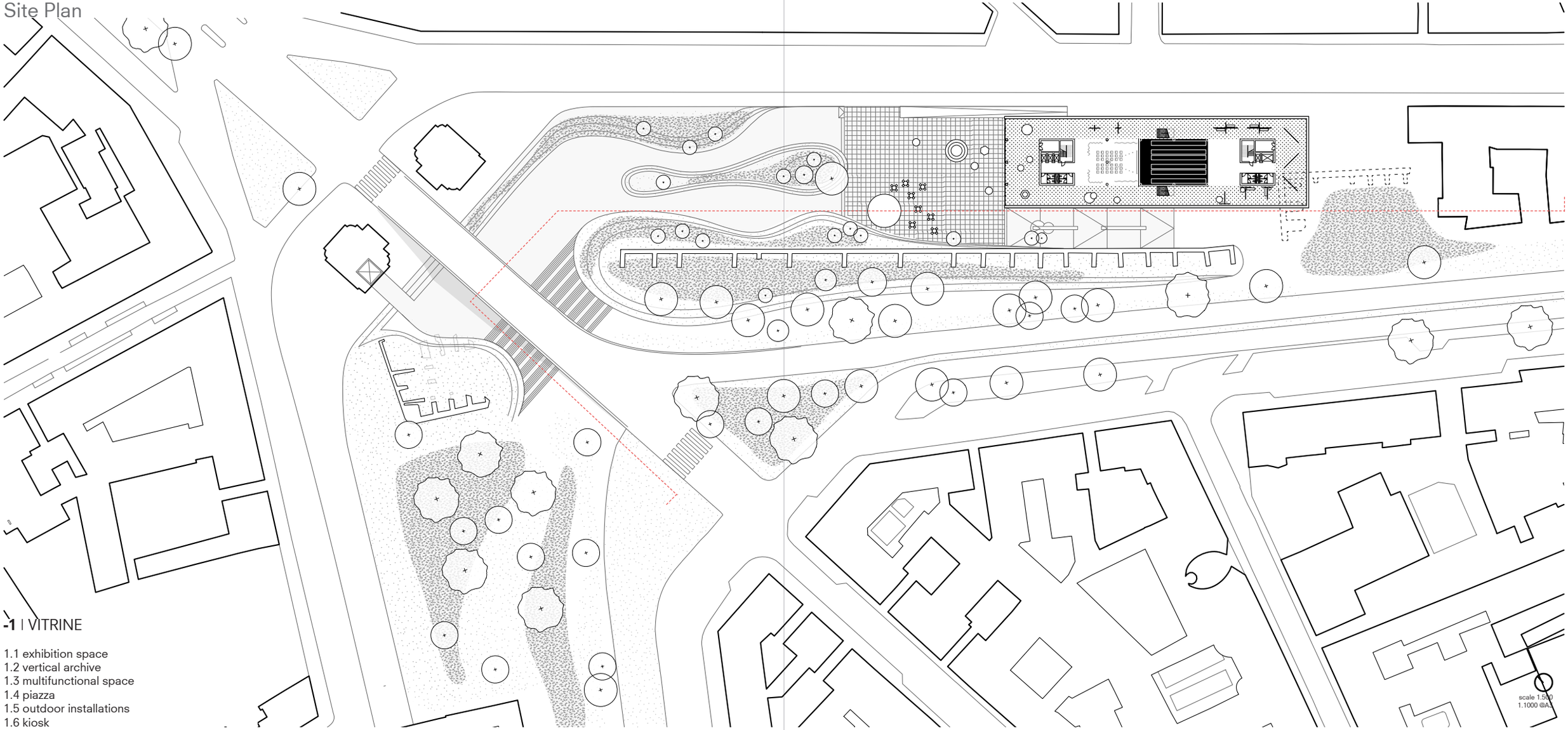
1.1 proposed excavated park
1.2 underpassage
1.3 piazza
1.4 kiosk
1.5 Spanish wall
1.6 Bastioni
1.7 public elevator



Section Site



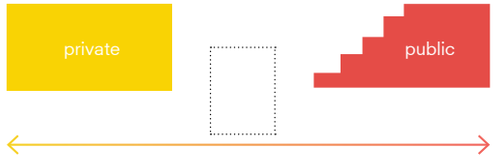
Site Plan



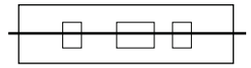
Arriving from the park

Perspective Section Longitudal

The building is organised around a central automated archive that preserves the collection while remaining visible throughout the project. Surrounding this archive is an atrium that ensures visibility and separates the public from the private program.

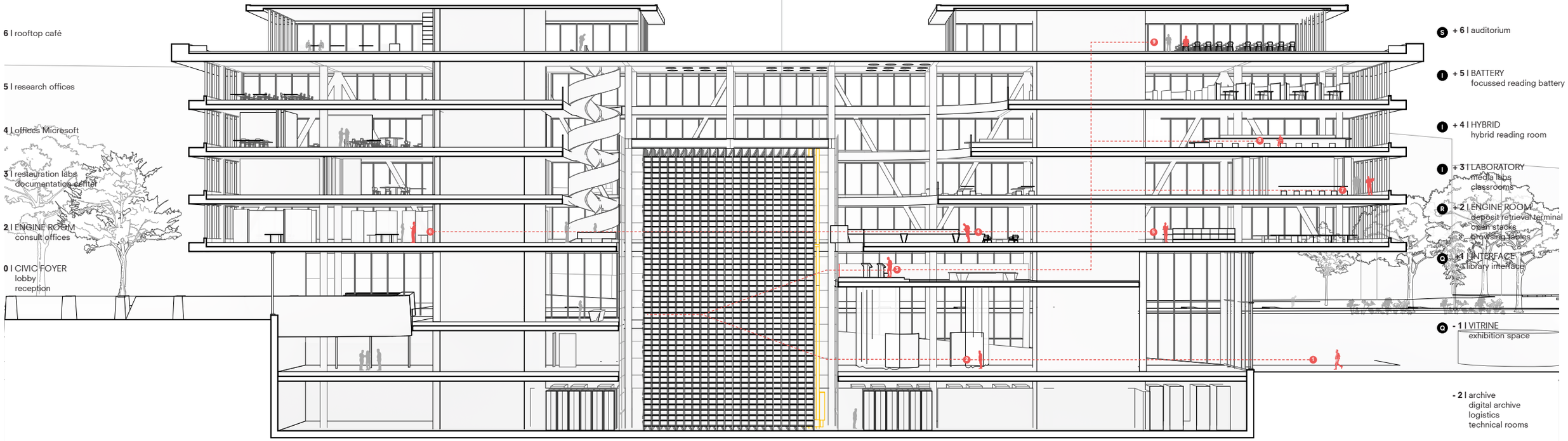


Timeline



Giacco is doing a research project on the 19th century labour movement

1	9.00	enters building from the park
2	9.05	checking out the new exhibition
3	10.00	asks the library interface for relevant material
4	10.15	his books are ready for pickup at the deposit retrieval terminal
5	10.20	he has a quick browse through the material before his meeting.
6	10.45	his meeting with expert Francesca, from the Fondazione Feltrinelli
7	11.45	groupwork with fellow students in media lab
	12.30	lunch break
8	13.30	continue working in the hybrid reading room
9	16.00	public debate
	17.30	leaves the building



GROUND FLOOR | VITRINE

1.1 vertical archive
1.2 civic foyer
1.3 navigation desk

+1 | INTERFACE

1.1 archive interface
1.2 search desk

95

96

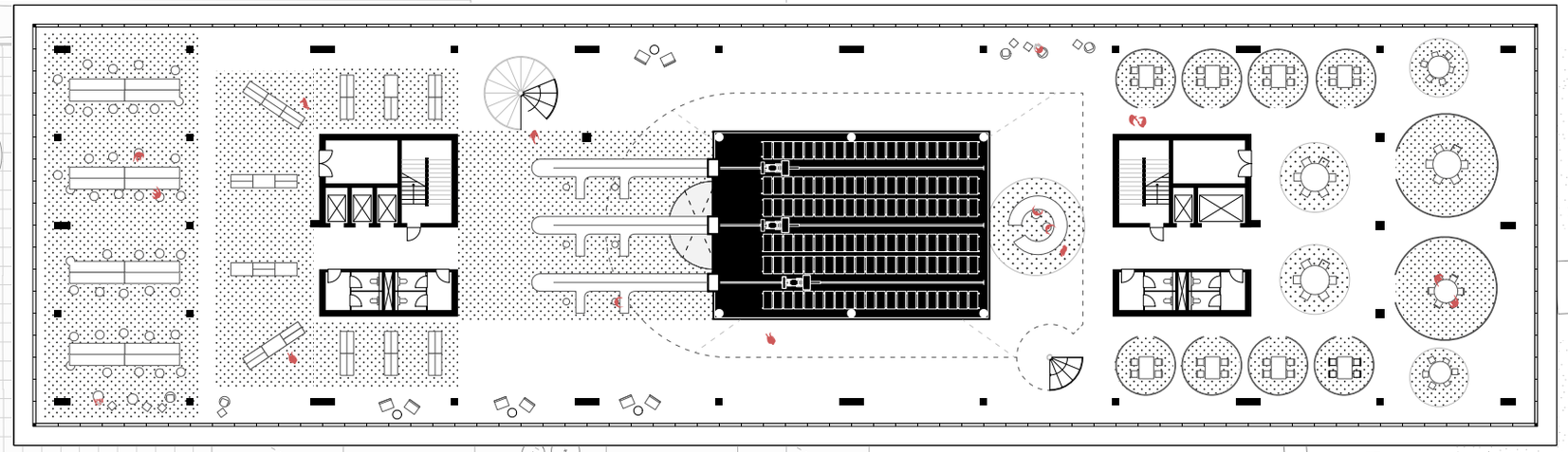
scale 1.200
1.400 @A3
0 1 5 10

R **retrieval**
browsing tables

R **retrieval**
open stacks

R **retrieval**
deposit retrieval terminal

V **validation**
expert consult spaces



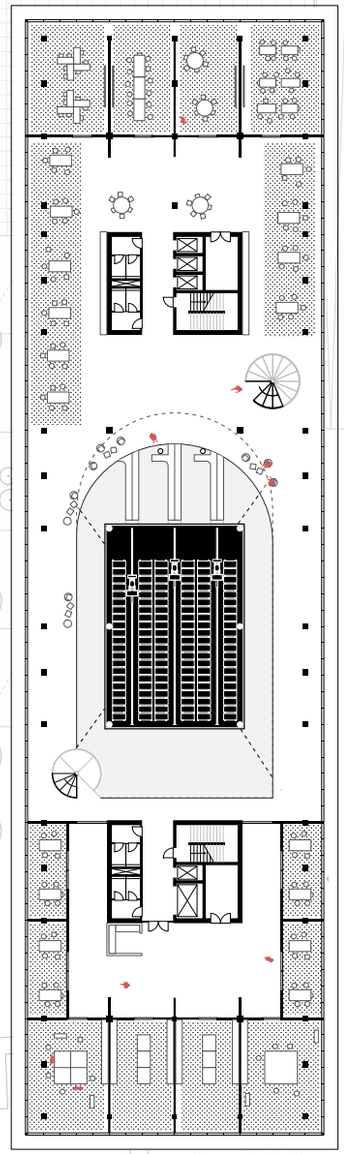
+2 | MACHINE | ENGINE ROOM

2.1 deposit retrieval terminal
2.2 open stacks
2.3 expert consult spaces
2.4 browsing spaces
2.5 collaborative spaces
2.6 reception offices

scale 1.200
1.400 @A3
0 1 5 10

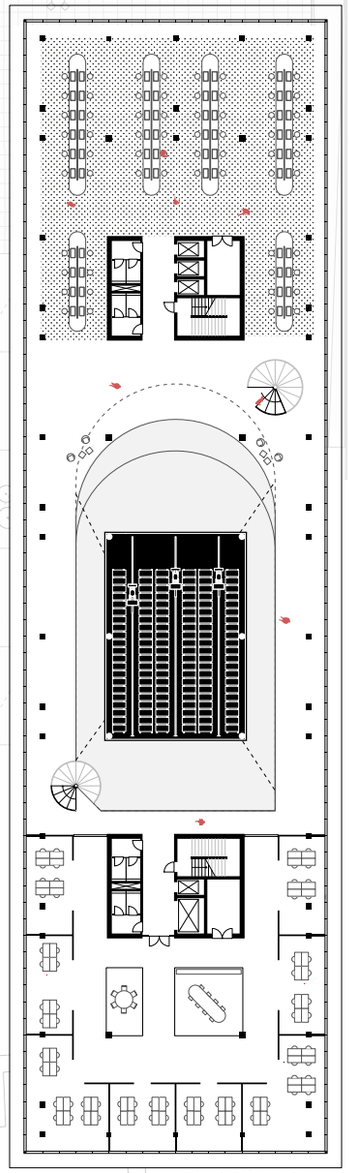
Deposit Retrieval Terminal





+ 3 | MACHINE | LABORATORY

3.1 media labs
3.2 collaborative spaces
3.3 restauration labs
3.4 documentation center

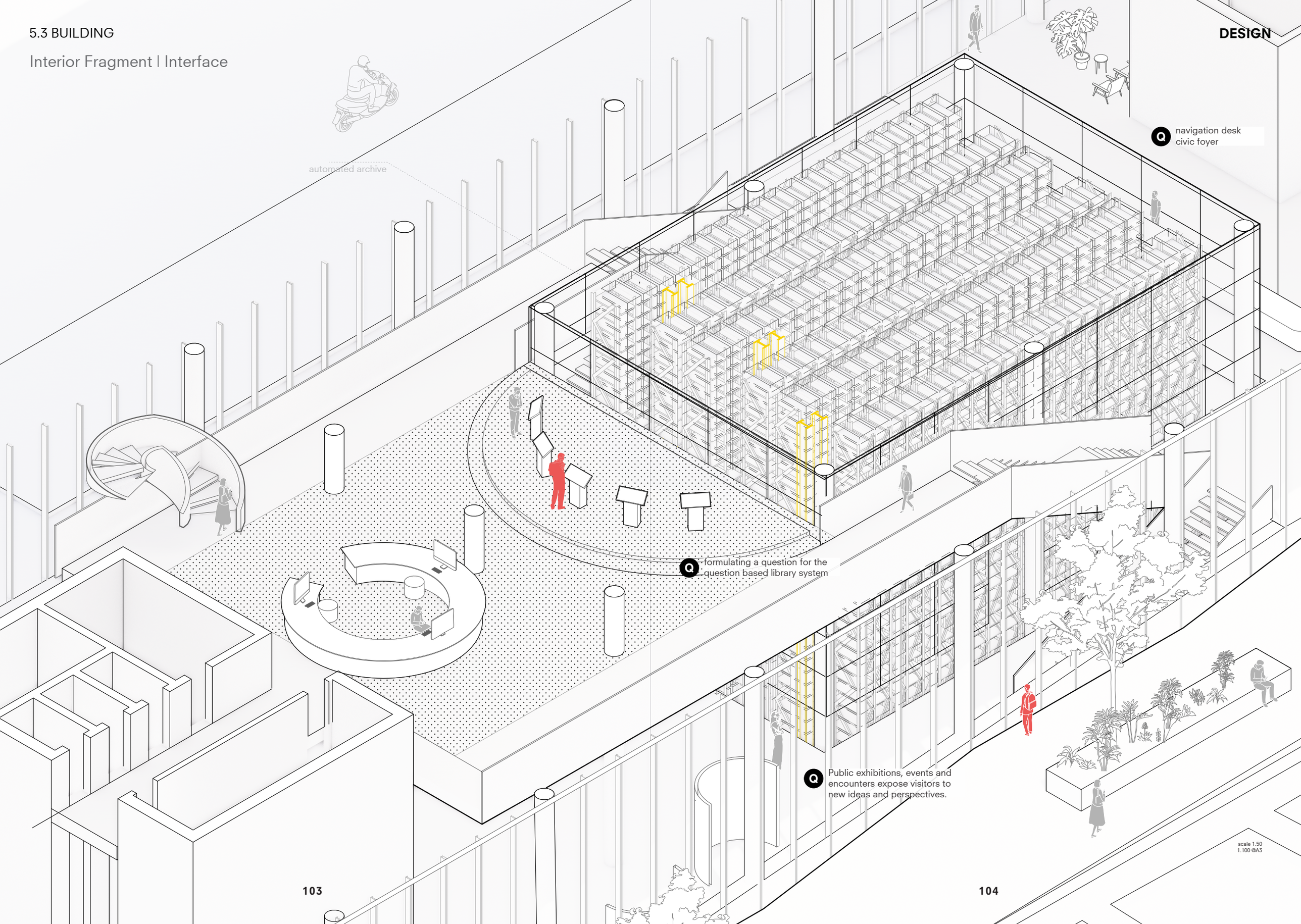


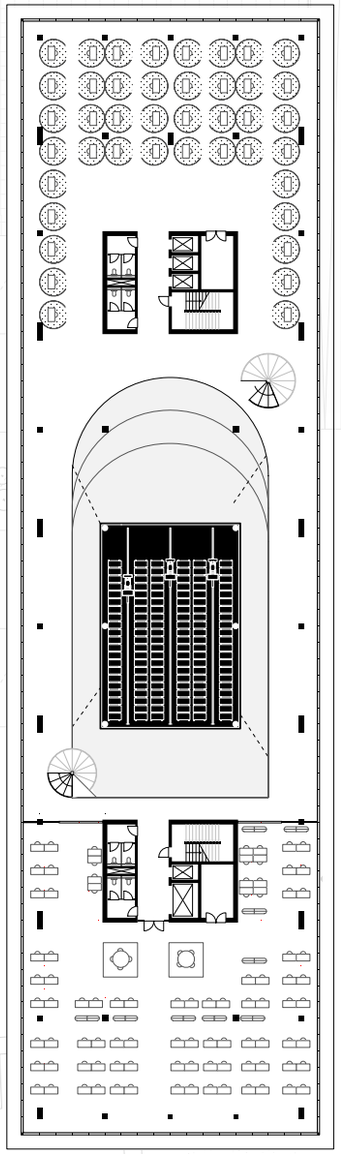
+4 | MACHINE | HYBRID READING ROOM

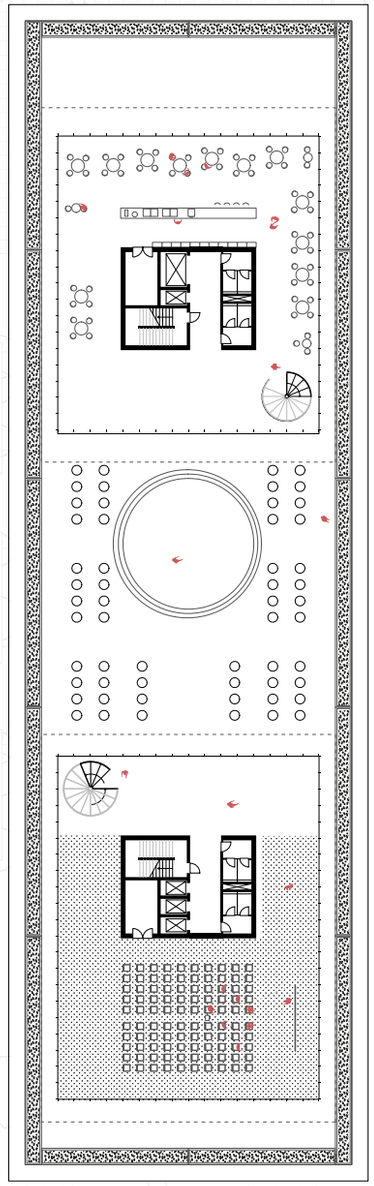
4.1 hybrid reading spaces
4.2 research offices
4.3 meeting spaces

scale 1.200
1.400 @A3
0 1 5 10

Interior Fragment | Interface







+ 5 | MACHINE | BATTERY

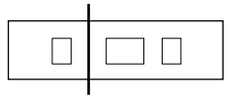
5.1 focussed reading spaces
5.2 offices

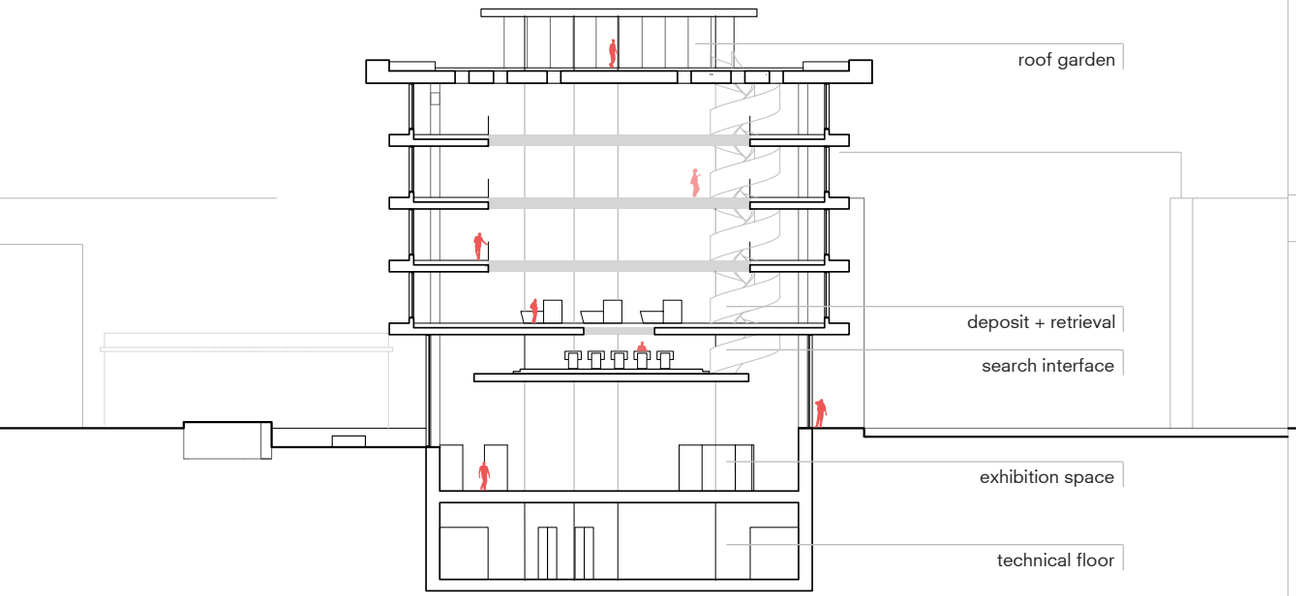
ROOF

R.1 auditorium
R.2 rooftop café
R.3 rooftop garden

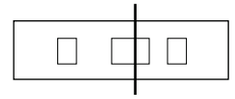
scale 1.200
1.400 @A3
0 1 5 10

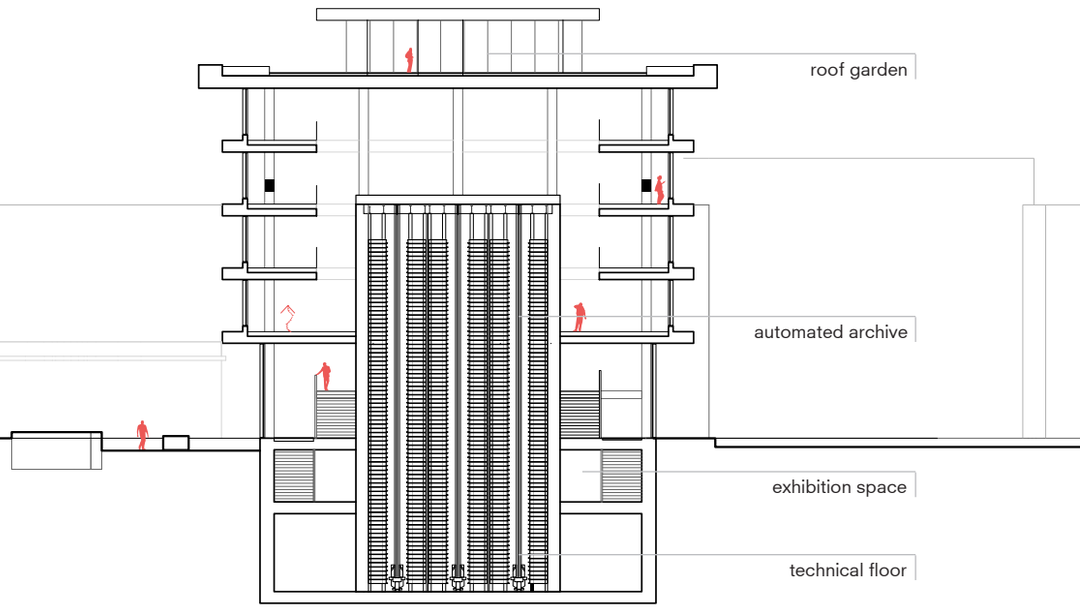
Transversal Section A





Transversal Section B





scale 1.200
1.400 @A3

Interior Fragment | Engine Room

quick browsing

automated archive

V meeting with expert, validating and contextualising the material

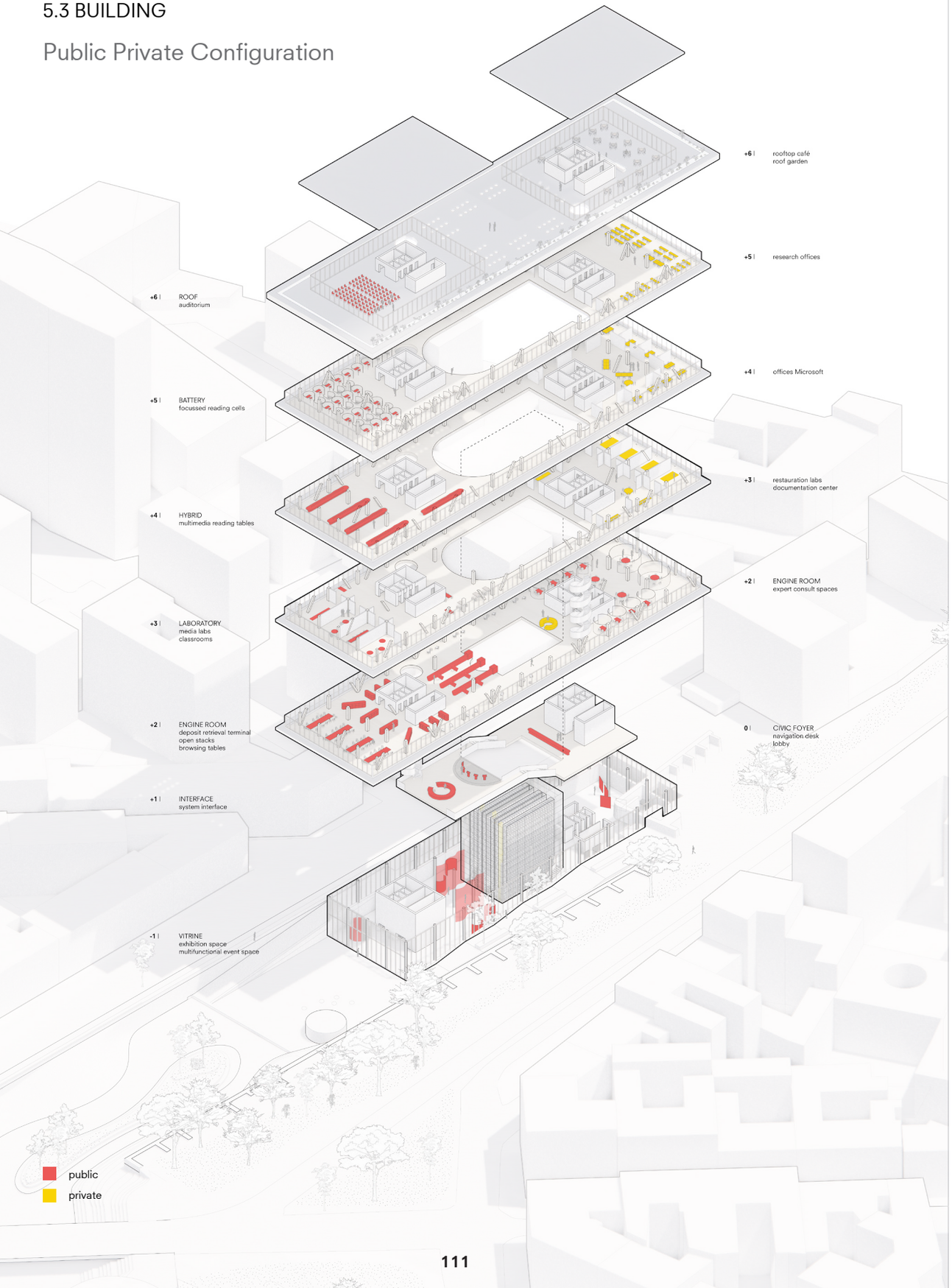
R pickup the material at the deposit retrieval terminal

R quick browse through the material

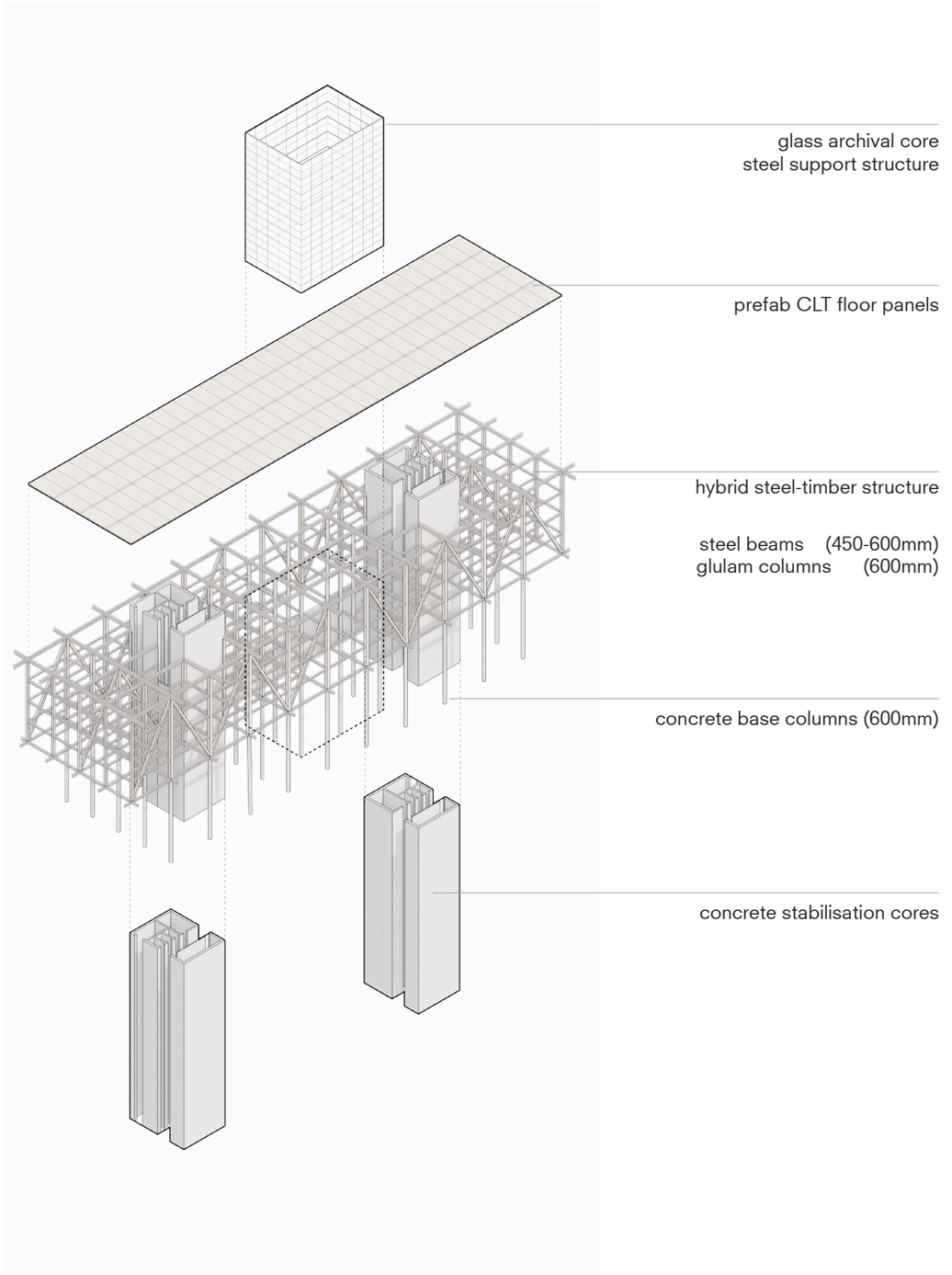
reception desk

scale 1:50
1:150 @A3

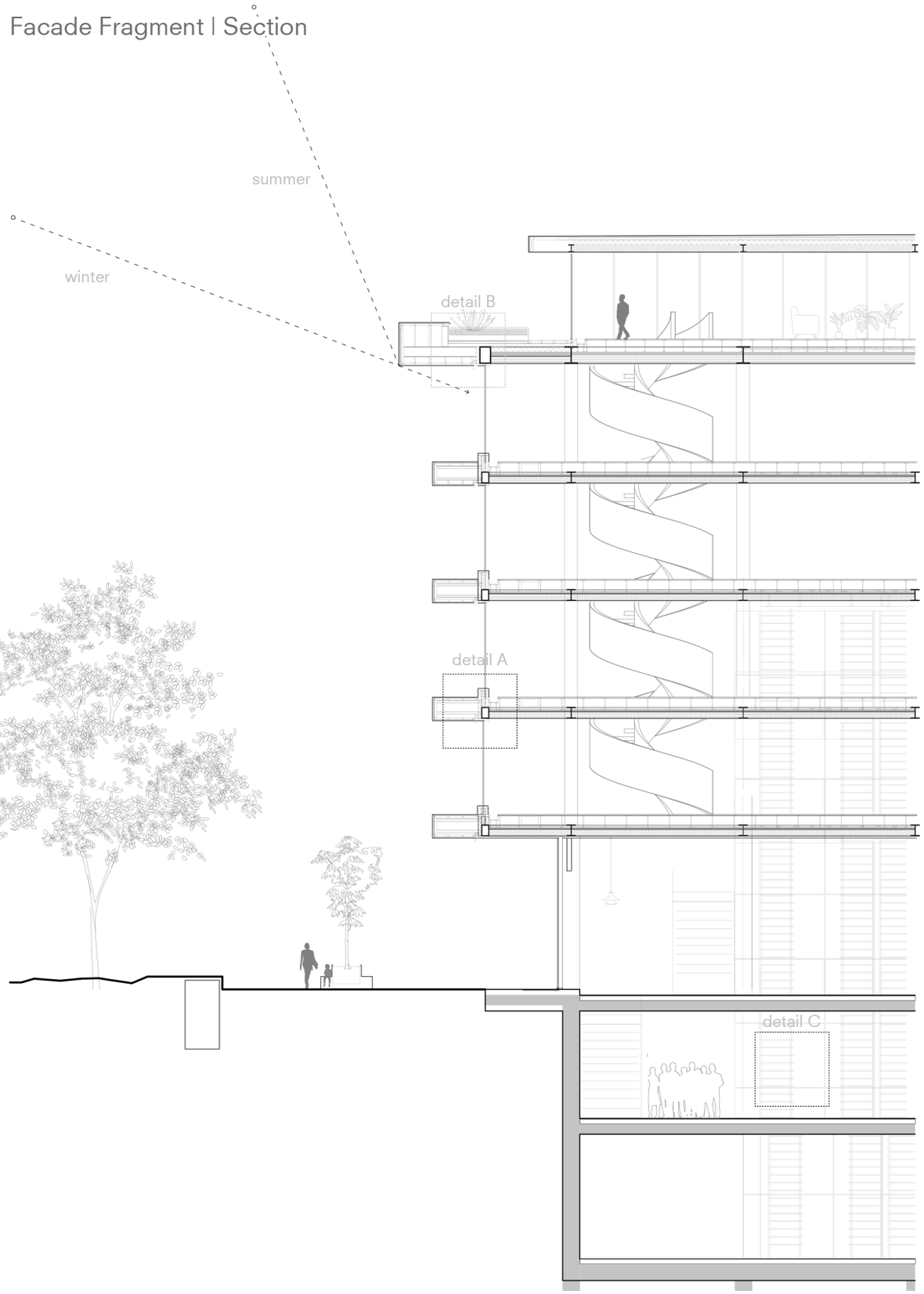
Public Private Configuration



Construction Axonometric



Facade Fragment | Section

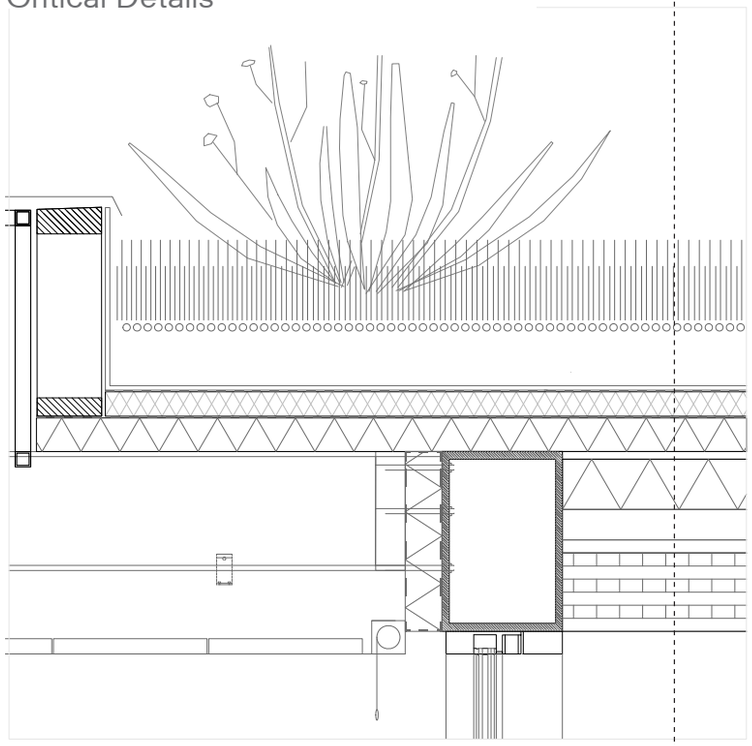


Facade Fragment | Elevation



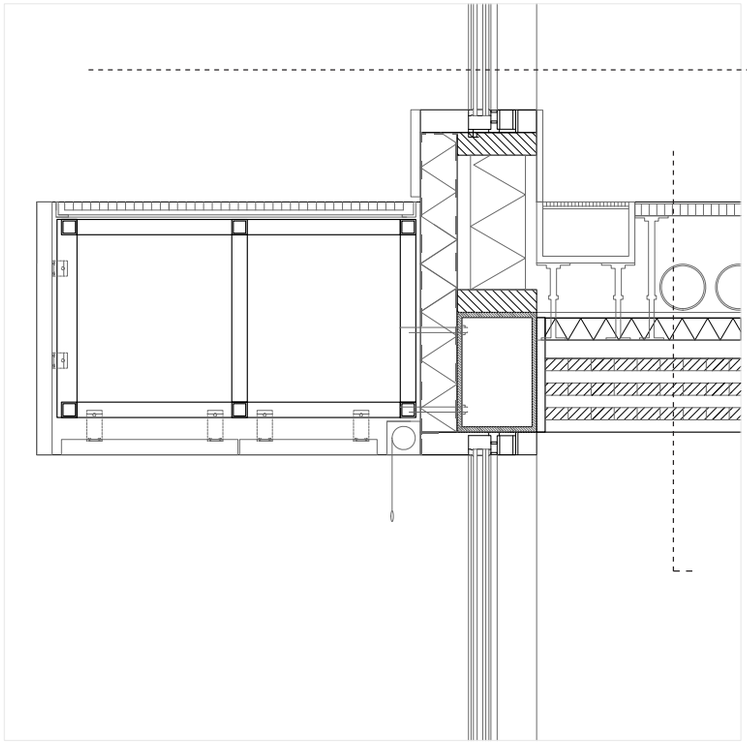
scale 1.20
1.50 @A3

Critical Details



Roof

vegetation layer	600 mm
substrate layer	
water resistant foil	
drainage	
PUR thermal insulation	2 x 110mm
vapor barrier	
concrete slab	50mm
prefab CLT-panel	350mm

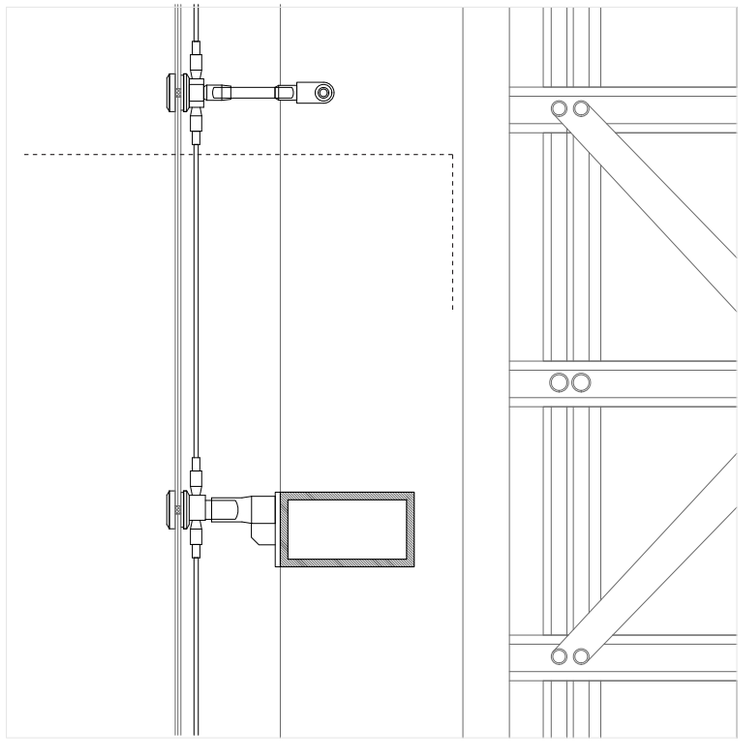


Facade

aluminum anodized facade panel	50mm
insulation glazing with sun/ thermal protection coating in aluminium frame;	
toughened glass	12 mm
cavity	18 mm
laminated safety glass	2× 10 mm

Floor

raised floor (integrated installations)	300mm
insulatation layer for sound absorption	
concrete slab	50mm
Prefab CLT panel	300mm



Archive Core

stainless-steel point fixing	Ø 125 mm
stainless-steel cylinder	Ø 35 mm
stainless-steel tension rod	Ø 14 mm
stainless-steel fixing piece	
steel tube beam	200x400mm
concrete column	600mm

scale 1.5
1.10 @A3

Leaving the building towards city center

CONCLUSION

06

The library as interface

The proposed library reconsiders the role of the library within Milan's contemporary knowledge landscape. In a context where information has become increasingly abundant, fragmented and difficult to navigate, the value of the library shifts beyond storage and access. Rather than functioning primarily as a repository of information, the library becomes an active mediator between people and complex knowledge systems.

Situated at Porta Volta, the project establishes a shared knowledge infrastructure between Fondazione Giangiacomo Feltrinelli, Microsoft Italy and the Museo Nazionale della Resistenza. While these institutions each contribute to the production, preservation and dissemination of knowledge, they currently operate largely independently. The proposal maintains their autonomy while creating a public framework through which their knowledge resources become collectively accessible. In doing so, the project positions the library as an interface between private knowledge collections and public engagement.

Spatialising the knowledge process

The building translates the process of knowledge into space, and therefore into architecture. Through a sequence of spatial thresholds, visitors move from questioning towards retrieval, validation, interpretation and ultimately the sharing of knowledge.

Rather than simply providing access to information, the library reveals how knowledge is produced, curated, organised and preserved.

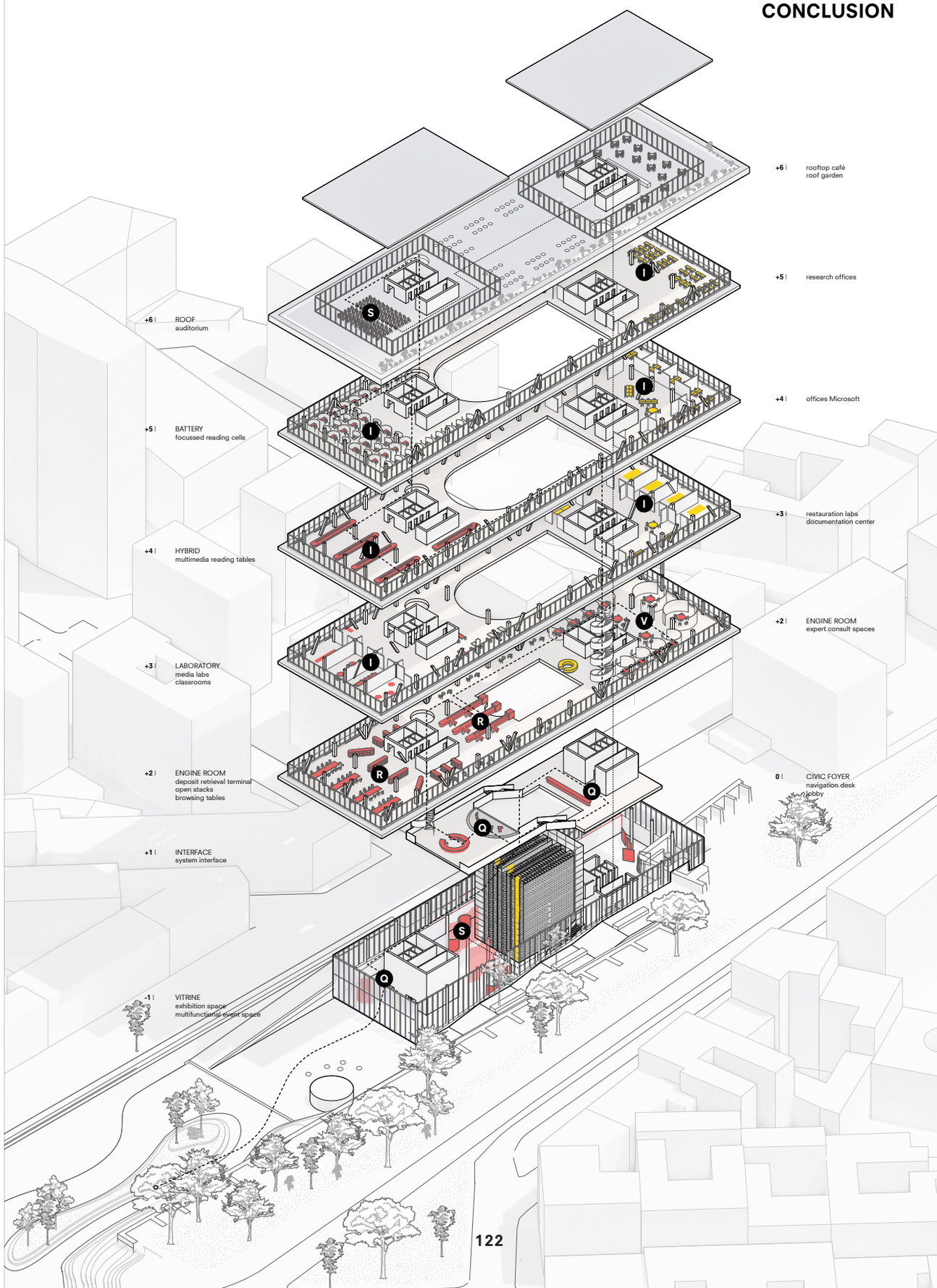
Each floor accommodates a different mode of engagement with knowledge. Open and flexible floor plates support a range of intentional environments, from collective learning and discussion to focused research and individual study. As visitors move through the building, spaces gradually transition from public and exploratory to concentrated and reflective.

Knowledge Machine + Vitrine

The project is organised around three complementary processes: exchange, production and preservation.

The *Civic Vitrine* accommodates public forms of knowledge exchange through exhibitions, events and informal encounters.
The *Machine* houses spaces dedicated to knowledge production, including reading rooms, research environments, workplaces and collaborative learning spaces. At the centre of the building, an automated archive preserves the collection while remaining continuously visible through the surrounding atrium.

Together, the Machine and the Vitrine establish a new relationship between the public and the collection. Knowledge is no longer hidden within storage or confined to restricted institutions, but made visible, accessible and open for collective interpretation. The library therefore becomes not only a building for retrieving knowledge, but an infrastructure for navigating, producing and sharing it.



Connecting theory and architecture

Looking back, the concept of the library as interface helped me connect two main issues identified during the research: the (global) issue of informational abundance and the (local) condition of Milan's fragmented and privatised knowledge landscape. The concept of the interface became the connection between these two conditions. As the interface is a widely used architectural concept and therefore risks becoming generic, the specific problem of Milan's knowledge landscape helped to give the project specificity and grounded it in the local context of Milan.

The project is as a conceptual exploration of a possible future role of the library rather than a proposal for a conventional public library. The library as urban living room is a common model today and, while valuable for many public libraries, the specific clients introduced a different tension that called for another approach. The existing institutions all have public-facing ambitions, but at the same time want to contain their private collections (research -, institutional - and commercial knowledge) that cannot simply be made fully public. 'Just' designing a generic public library would have dissolved this tension. Instead, the project investigates how this condition can become spatial through thresholds, interfaces and controlled forms of visibility and access.

Starting from this conceptual position, one of the main challenges was finding an architectural configuration capable of translating that idea into space, into architecture. By approaching knowledge not as a static object but as an active human process helped for me to transform the abstract concept of knowledge into architecture. Thinking about how people discover, question, retrieve, validate and interpret knowledge led to the development of the project's spatial sequence and organisational structure.

The typological research showed that the library is not fixed, but has continuously evolved alongside society's relationship with knowledge. From repository to public institution, from platform to community space, the library continues to adapt. This project proposes another possible step in that evolution: the library as a civic knowledge infrastructure, where storage, retrieval, interpretation and public exchange are brought together within a single spatial infrastructure.

Thesis as conceptual exploration

The proposal is intentionally ambitious. An automated archive and shared civic knowledge infrastructure would require significant financial, technical and institutional commitment. In practice, such a project would depend on strong collaboration between the participating institutions and their (not very likely) willingness to share parts of their knowledge resources with a broader public.
However, as knowledge becomes increasingly privatized, the question of how private knowledge can become publicly accessible becomes more and more relevant. This project definitely does not propose to have the final solution, but should be understood as a conceptual exploration of that condition. By exposing parts of the processes through which knowledge is collected, curated and accessed, it investigates how architecture might contribute to making otherwise invisible knowledge systems more visible and publicly engaging.



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07

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List of Figures:

Figure 1: Final Model

Figure 2 (l): Vitruvius Man
Complex Projects. (n.d.). Vitruvius man [Course image]. Dropbox.

Figure 3 (r): Bodies and Buildings projects in Milan

Figure 4: The new Dark Age
Case, G. (2025, April 28). A new dark age? Quillette. https://quillette.com/2025/04/28/a-new-dark-age-technology-social-media-musk-bezos-zuckerberg/

Figure 5: The new Dark Age (own edit)

Figure 6: Institutions in Milan (own work)

Figure 7: Ambition Collage (own work)

Figure 8: visualisation of the 'knowledge chain' (own work)

Figure 9: visualisation of knowledge thresholds (own work)

Figure 10: visualisation of the knowledge thresholds

Figure 11: visualisation of curation (own work)

Figure 12: Reading Room of the British Museum
brandstaetter images. (1934, May 2). Bibliothek British Museum [Photograph]. Getty Images. https://www.gettyimages.com/detail/news-photo/the-library-of-the-british-museum-and-the-reading-room-news-photo/167530190

Figure 13: visualisation of the ancient library of Alexandria
Von Corven, O. (19th century). The Great Library of Alexandria [Artistic rendering]. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Ancientlibraryalex.jpg

Figure 14: Forum Groningen
Pintos, P. (2019, December 15). Forum Groningen multifunctional building / NL Architects. ArchDaily. https://www.archdaily.com/930102/forum-groningen-multifunctional-building-nl-architects

Figure 15: Deposit Retrieval System James B. Hunt Jr. Library
Artforum. (n.d.). Snøhetta's James B. Hunt Jr. Library. Artforum. https://www.artforum.com/columns/snohettas-james-b-hunt-jr-library-218835/

Figure 16: Giangiacomo Feltrinelli
PICRYL. (n.d.). Giangiacomo Feltrinelli e Sibilla Melega, manifestazione guevarista [Photograph]. PICRYL. https://picryl.com/media/giangiacomo-feltrinelli-e-sibilla-melega-manifestazione-guevarista-49ac29

Figure 17: Giangiacomo Feltrinelli Portrait
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Figure 18: Historic Porta Volta Map
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Figure 19: Elevated walkways on Spanish walls
Vecchia Milano. (2010, September 23). I bastioni di Porta Volta. Vecchia Milano. https://vecchiamilano.wordpress.com/2010/09/23/i-bastioni-di-porta-volta/

Figure 20: Feltrinelli Archive
La Repubblica Milano. (2018, August 30). Milano, dalle periferie al centro: Fondazione Feltrinelli Pasubio [Photograph]. La Repubblica. https://milano.repubblica.it/cronaca/2018/08/30/foto/milano_dalle_periferie_al_centro_fondazione_feltrinelli_pasubio-205238917/1/