DATA MUNICIPALITY
AMSTERDAM

Dermot Horgan

Thesis Book

CP

Msc Architecture Urbanism and Building Science
Complex Projects Graduation
2017/18

DATA MUNICIPALITY

‘Do not think that you can build it, as though it were a public construction project.
You cannot. It is an act of nature and
it grows itself through our
collective actions.’

CONTENT

DATA MUNICIPALITY

Dermot Horgan

The central goal of the project was, initially, to understand the existing role of DATA within our current society; how we use data, how we store data, what we know or do not understand about this highly prominent resource.

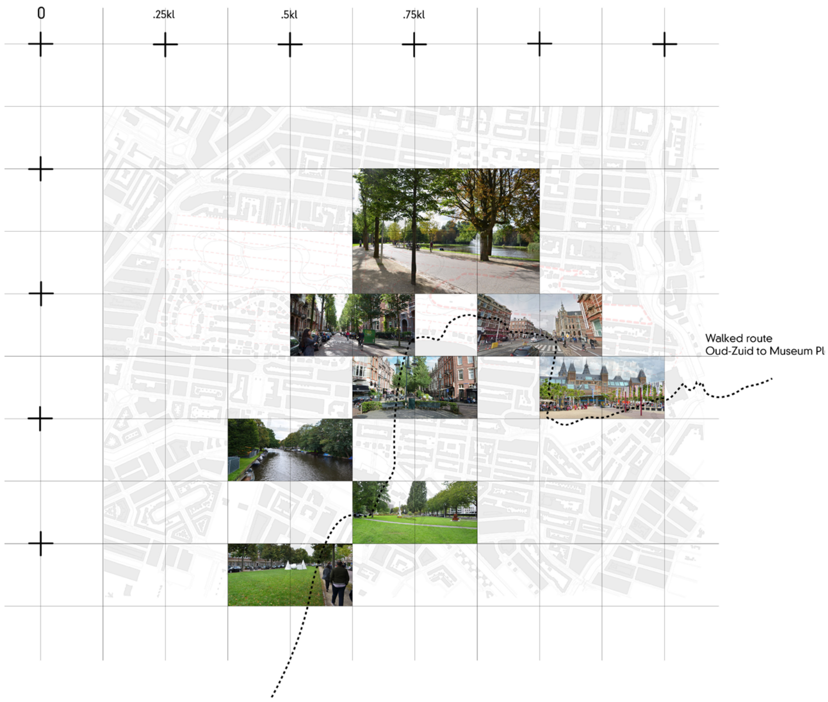
With this understanding gained in the initial research period it was then possible to attempt to consider how this prominent aspect of our 21st century lives might be used, housed and better understood in the future, considering how one might integrate something considered to be so far removed from the architectural realm into an architecture for the people of Amsterdam in 2050. The projects thus acts in many ways as a polemic against the existing data storage trends:

The culmination of this research and architectural consideration manifested in two major moves, one societal and one architectural.

Socially I predict and move against mass anonymous data storage to a decentralised and highly, socially integrated system of storage, access and governance through a re-organisation of existing ownership of data, democratically placing the person back in control of where their data is stored and to whom they allow access to. The integration of data + urban context was also important in this democratic shift, I would hope that the once 'removed' topic of data storage could become part of ones daily journey within the Oud-Zuid.

Architecturally; I predict this decentralisation to manifest in the creation of a series of spaces from the more practical spaces of the Bank of Data (storage), University space (research) and Data Library (access) to the more symbolic space of the Data temple in which we can predict an 'end' to ones data post-mortem. These spaces together could be considered to be the future element of out local municipal architecture further attempting to humanise what we now see as a very un-human activity.

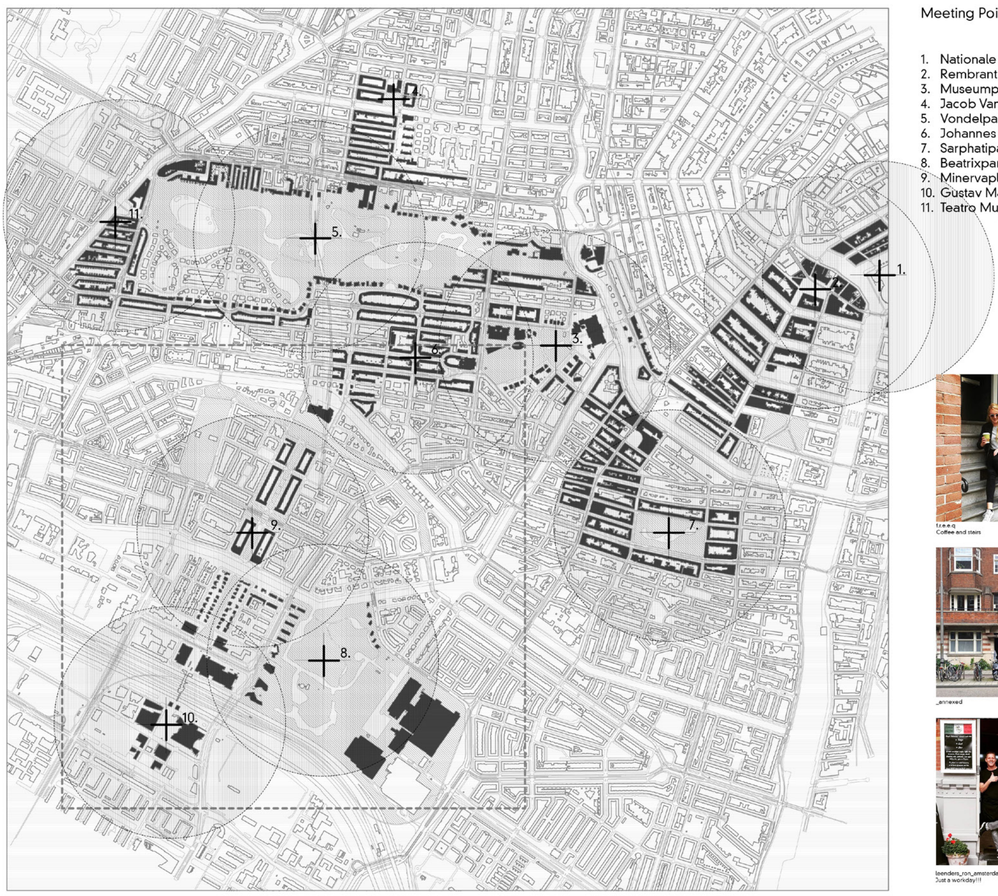

blokker



Initial Site impressions:

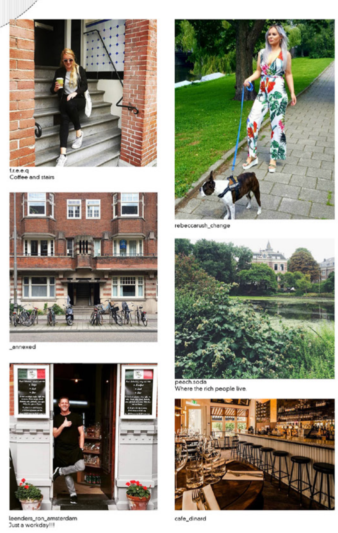
The initial site of Amsterdam represented a series of highly connected axial routes with an intended material continuation from inner city to periphoral areas.

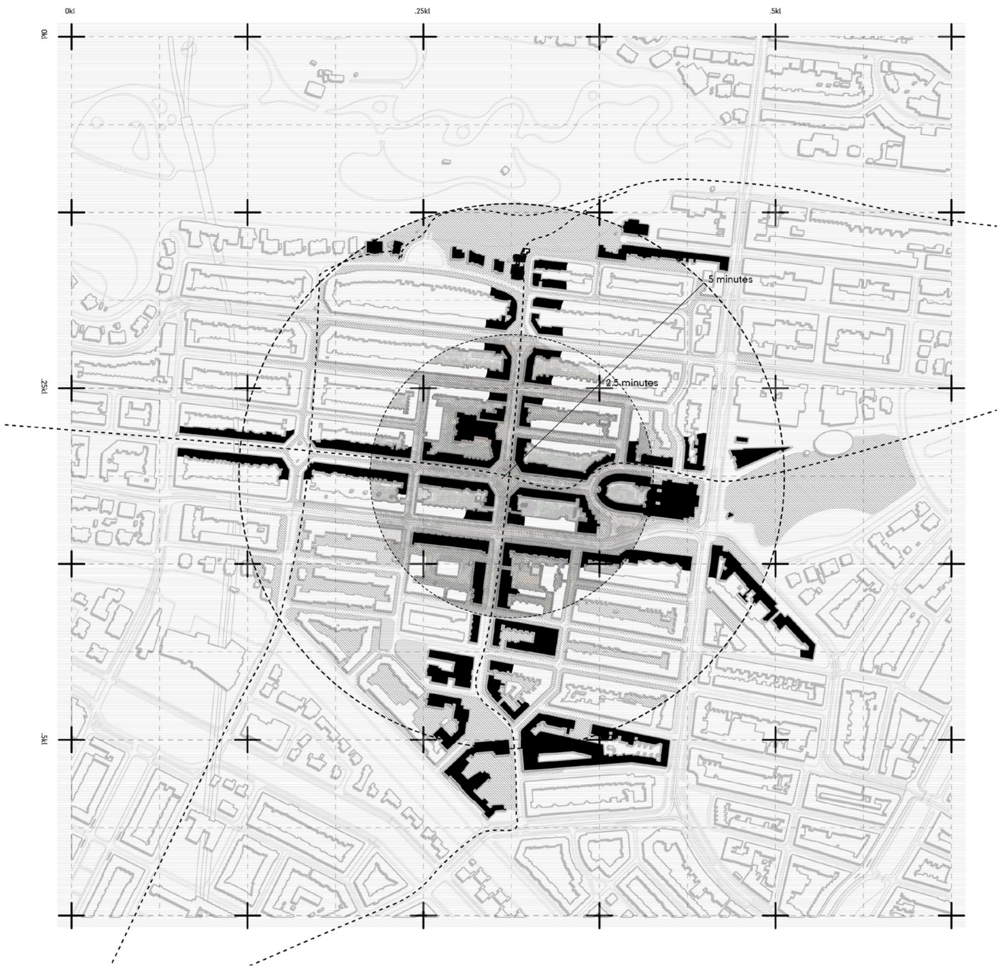
Landmark buildings orientate central connective routes across the city.

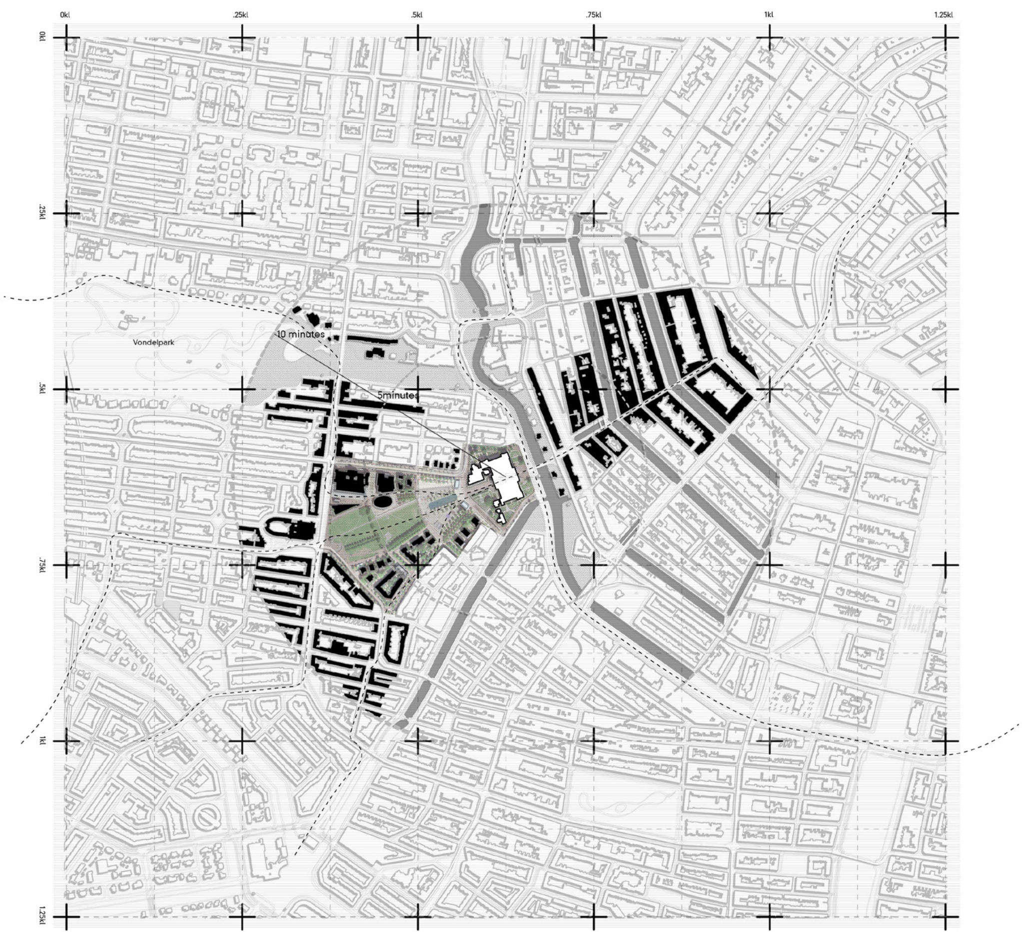


Meeting Points

1. Nationale Opera & Ballet
2. RembrantPlein
3. Museumplein
4. Jacob Van Lennepkade
5. Vondelpark
6. Johannes Verhulststraat
7. Sarphatipark
8. Beatrixpark
9. Minervaplein
10. Gustav Mahlerplein
11. Teatro Munganga



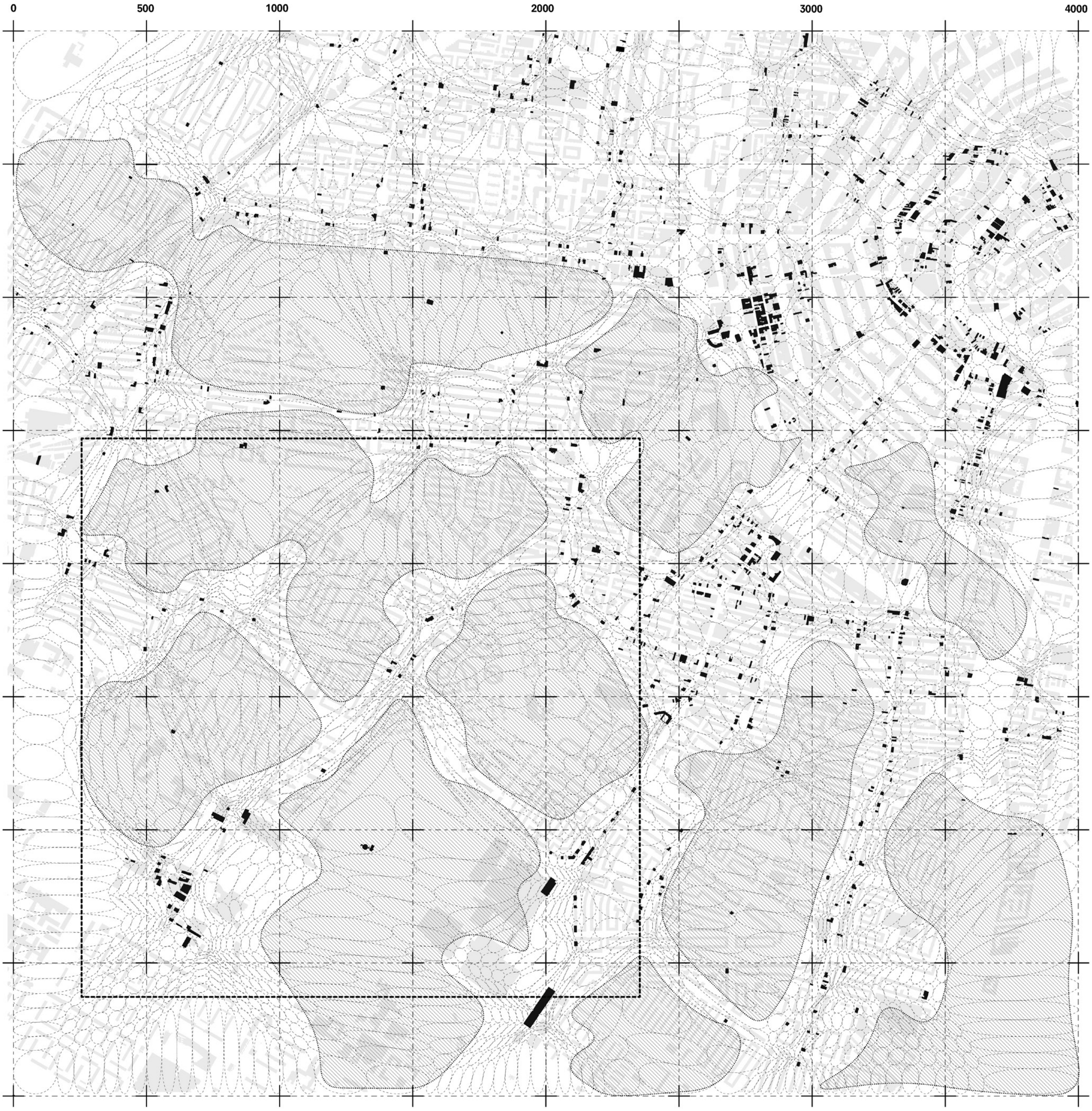

0kl
.25kl
.5kl
5 minutes
2.5 minutes


0kl
.25kl
.5kl
.75kl
1kl
1.25kl
Vondelpark
10 minutes
5minutes


Fietsenstalling
Singel


Amsterdam Zuid
M
HEMA
RITUALS...


THE BODY SHOP
TOPWATCH
TOPWATCH

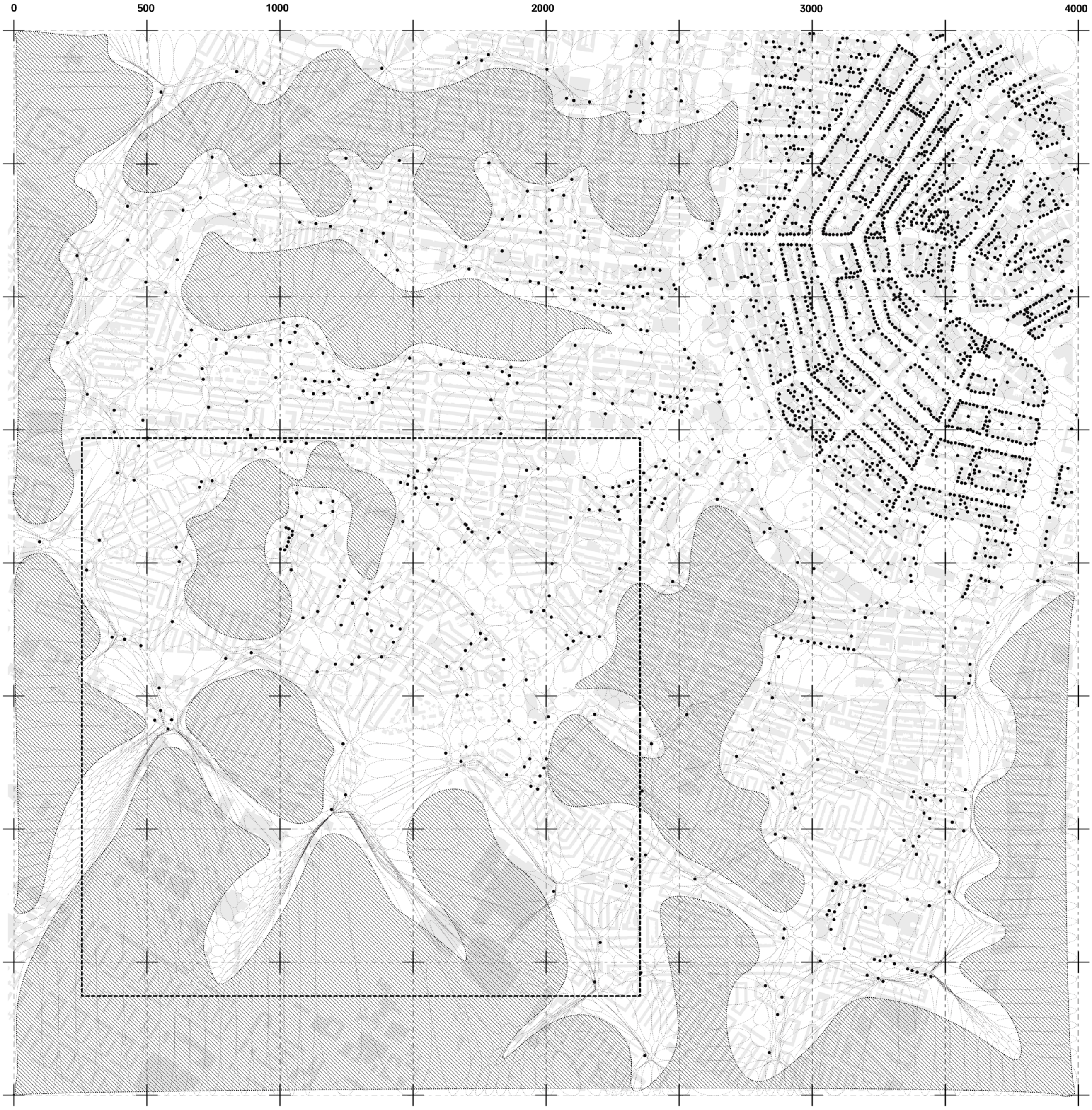


Connective and Disconnective spaces

Restaurants and Cafe's form the first mapping, there is a clear relation between social spaces and the activity of eating or drinking amongst friends or simply a gathering of strangers within the public realm.

'Social activities can be developed around either necessary or optional activities and are conditional on the presence of others: people in the same space, passing each other or looking at each other in connection with other activities'[(1)]

(1) J. Gehl, B Svarre , 'How to study public life', Washington, DC: Island Press, 2013,Pg.17

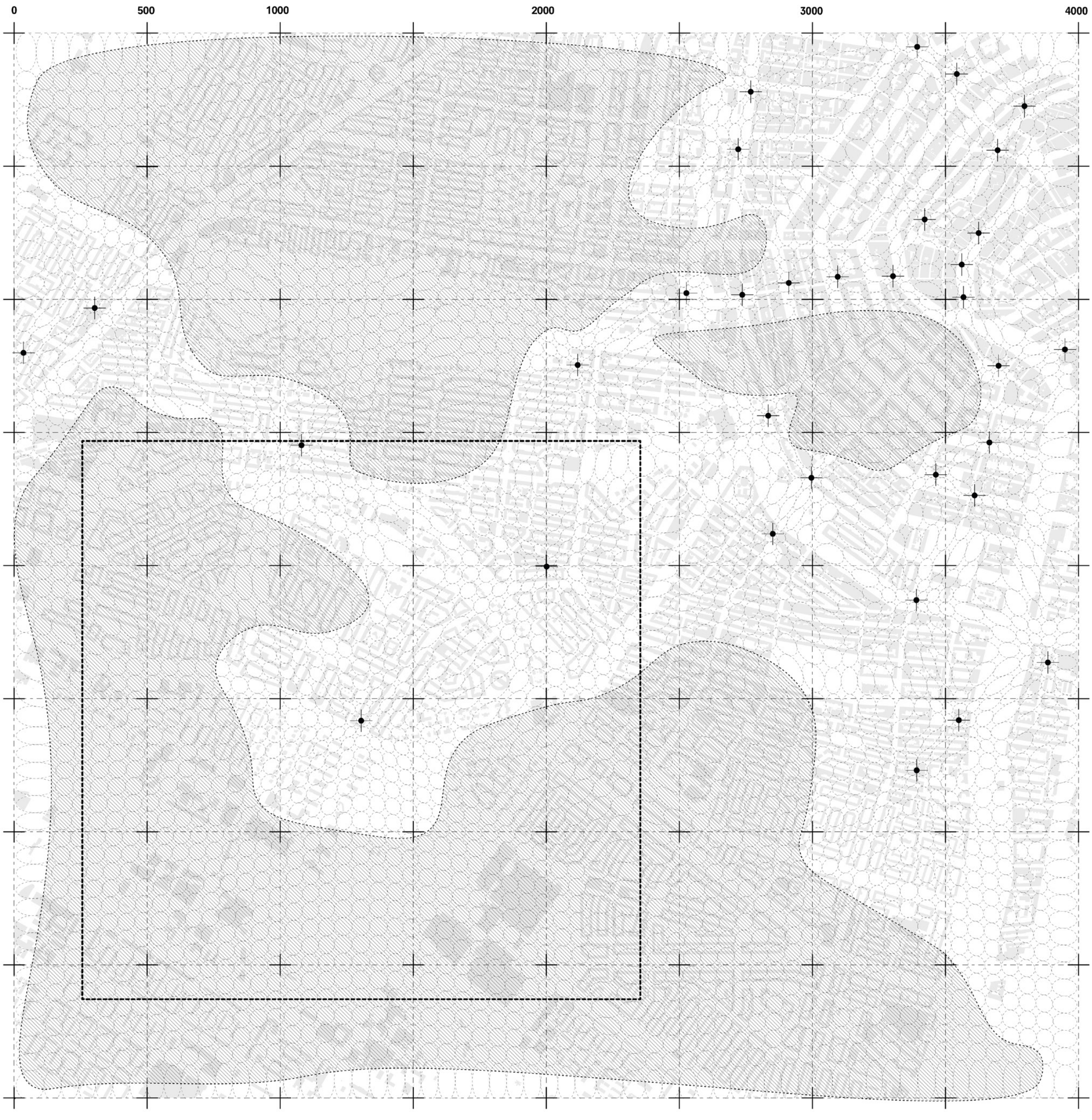


Connective and Disconnective spaces

Each Local and National monument within the confines of the site.

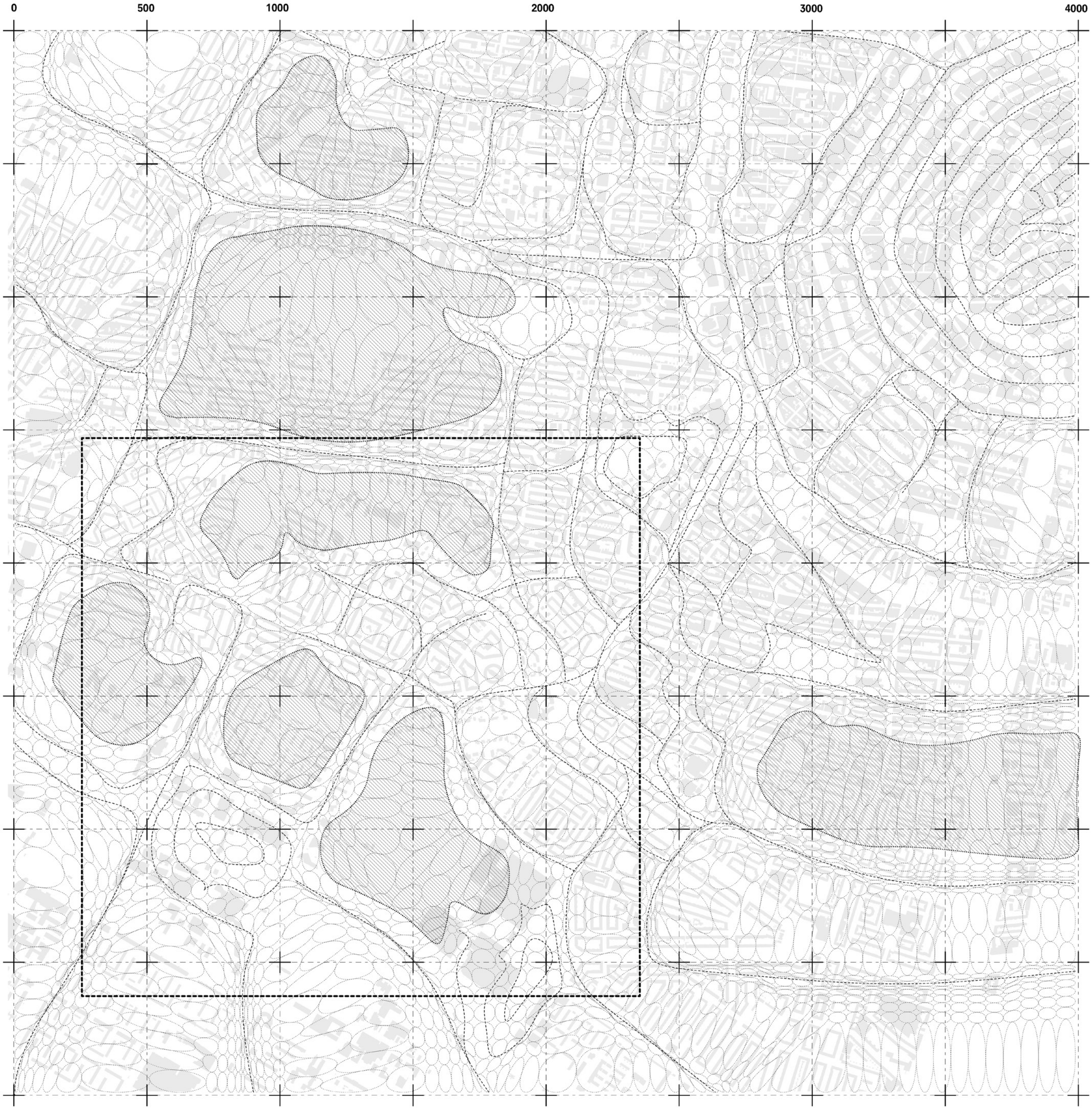
'For the monument,. It is only conceivable or imaginable site of collective (social) life. It controls people, yes, but does so to bring them together, beauty and monumentality go hand in hand…… monuments embody a sense of transcendence a sense of being elsewhere' (2)

(2) H Lefebvre, Urban Revolution Now: in Social Research and Architecture Ashgate Publishing Ltd, Minnesota, 2003.



Connective and Disconnective spaces

300 Google Beacon's placed around Amsterdam as a pilot scheme to encourage developers to create app's for the city that help to guide or inform the occupants in the public realm; can provide us with the nodes in the city that are considered to be the most relevant to the developers of the future and their target audience; us.



Connective and Disconnective spaces

The standardised translation of the data collected into a series of intensity mappings enabled a methodology of layering in order to identify connective or [dis] connective space. Nodes found at the most dense points of layering could be considered to form 'meeting points' in the voids of our site, and thus encourages minor sites of investigation within the larger framework of the city scale. Using historical images to identify traces of the sites palimpsest allows for us to consider the meeting points past before speculating on its future.

MEETING POINTS

1. Rembrant Park
2. Van Lennepbuurt
3. Raadhuisstraat
4. Dam Square
5. South-West Vondelpark entrance
6. EmmaPlein
7. Cornelis Schuytplein
8. Pieter Cornelisz Hooftstraat
9. Leidseplein
10. Spui
11. Vereniging Vrienden van De Nationale Opera
12. Rembrantplein
13. Rijkmuseum entrance
14. Museumplain
15. Cornelis Schuytstraat
16. Hygiëaplein
17. Raphaëlplein
18. Adama van Scheltemaplein
19. Apollolaan
20. Sarphatipark
21. Roman-Catholic Cemetery Buitenveldert
22. Minervalaan
23. North-West Entrance to Beatrixpark
24. Diamantbuurt
25. Station Oud-Zuid Platform
26. Gustav Mahlerplein
27. Europaplein
28. Victorieplein
29. Amsterdam RAI Station

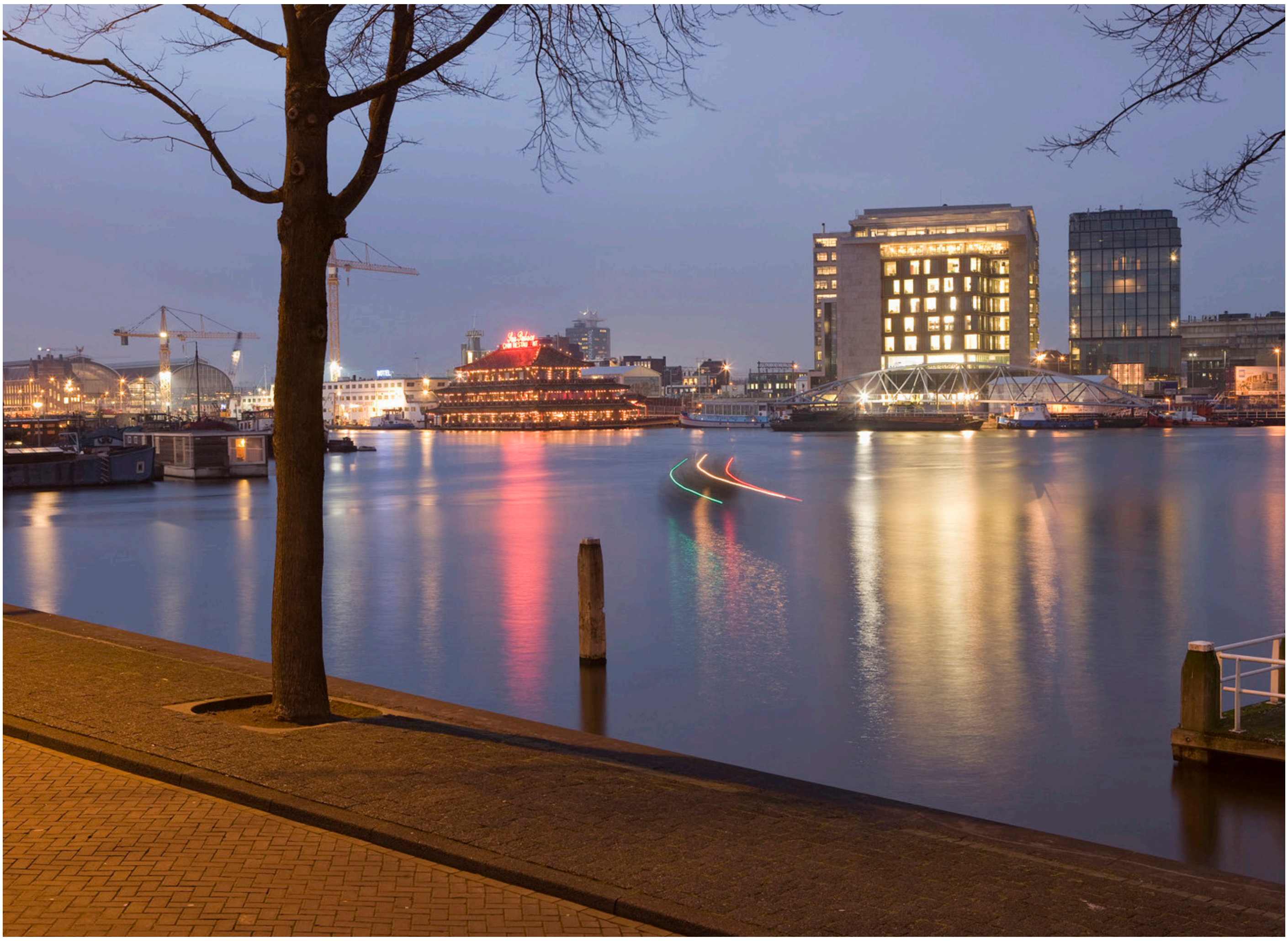
VOIDS

BUILDINGS, PARKS, SQUARES AND MEETING POINTS

INITIAL INTEREST IN DATA

It's been 26 years since Tim Berners-Lee invented the 'online' resource of the World Wide Web (WWW), entirely changing the way in which we store and access the information that in the 21st century effects every aspect of our everyday lives.

Until 1990, in Amsterdam the idea of having an information resource other than the physical spaces of the city library or archive would have been unimaginable, yet in a period of one generation the contents of these physical spaces is quickly becoming a digital resource with the physical copy simple being stored within the libraries of our city. For example a benchmarking exercise in the book 'Library Statistics for the Twenty-First Century World' compared five of the largest libraries of the Netherlands finding that in one library alone the percentage of digital journal access grew 142% between 2005/06. This jump coincides exactly with the greater access to internet that occurred in the Netherlands between 2005-2011, giving the Netherlands the highest percentage of households with access to internet connection in Europe. (Home Internet access rate highest in the Netherlands, Centraal Bureau voor Statisiek) A library can act as an example of the changing typo-requirements of our age, in many ways automation (or our data landscape) is creating the great disappearing act of our era; the address book, a map, keys, a newspaper, airline tickets, travel agents, highstreet shops.... perhaps even our physical banks are under treat. Yet, Steve Denning; director of the Scrum Alliance, suggests that this is the first time we place the power in the hands of the consumer. Finally we have both the choice and the information about these choices when it comes to online decision making. Customer feedback is driving opinion and this 'self-organisation' is leading to positive hierarchical changes in our cities, we are the generation moving towards a horizontal and no longer vertical society.



1946
The Electronic Numerical Integrator and Computer (ENIAC) was built in 1946 for the U.S. Army to store artillery firing codes

1960
The first transistorized computer (TRADIC), as opposed to vacuum-tube based systems, was developed in 1954, but serious commercial systems did not arrive until the 1960

1964
The CDC 6600, built by Control Data Corporation, is remembered as the first supercomputer and the modern ancestor of supercomputing data centers today. The system was designed by Seymour Cray for the Lawrence Radiation Laboratory, had a clock speed of 100 nanoseconds

1970
Sungard established the first disaster recovery business (then known as un Information Systems) in the U.S. The idea helped the company grow to more than 17,000 employees

1973
Data storage begins to shrink.
The Alto, developed by and used at the famed Xerox Palo Alto Research Center (PARC) was first to use a graphical UI, and came with a 3-button mouse.

1990
The microcomputer industry was entering its boom time and saw desktop PCs move into the old mainframe room Combined with inexpensive networking equipment that became available, the client-server computing mod was born, alongside with th emergence of the idea of colocation and external data centers.

KEY MOMENT
Initial Planning of the Zuida ABN AMRO
Looking back to the early 1990s, ABN AMRO was instrumental in the development of Zuidas. It a started with the bank's decision to establish its ne headquarters near Amsterdam Zuid station an Schiphol Airport rather tha opting to become part of t Doever redevelopment project proposed by the Ci of Amsterdam

"The impact of this migration to the Cloud is huge, and the business world doesn't always appreciate what's involved.....It tends to focus on privacy and security issues because we understand these better, but we also need to consider the availability and reliability of these systems, not only for safety-critical services in case of disaster, but also for the services we use in our daily lives, such as banking."
(Prof. Lago, AMS business magazine, Pg.102)

2007
The modular data center, often deployed in the form of containers that house complete computer infrastructures. One of the best known systems was the Sun Blackbox, which delivered its modular data center with 280 servers in a 20-foot shipping containers to any location worldwide. These data centers may not have been visually pleasing, but Sun claimed at the time that their cost was only 1 percent of the cost of a data center in a traditional building.

2010
SaaS Software as a service
Despite unexpected and early entries from companies such as Amazon in the cloud provider business, as well as several infrastructure companies with a substantial size, large Internet companies with huge subscriber bases lead in the design of distributed cloud data centers. For example, Google is currently believed to operate 17 data centers in the U.S. and 16 more across the globe. The company is estimated to run close to 2 million servers in those data centers at this time.

2017
Data monetization
The considerable quantity of data collected (BIG DATA) can be harnessed posatively in order for companies to create user centric content that ensures a user is not send unwanted adverts etc.

This collective data can now be bought by large companised in order to change/ control audience behavior. For example Cambridge Analytica was employed by the Trump Campaign to ensure that those profiled by the company to be on the border of either party would be targeted with specific user orientated advertising based on their personality.

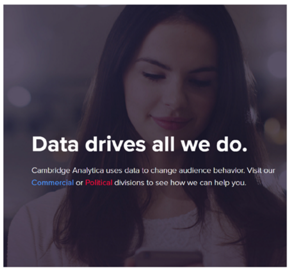
Ie.
Demographic,
Age,
Gender,
Income,
Religion etc.

2050
Data Control?
Cambridge Analytica claim that future data will be 'nenanced',

'a husband and wife in the same house could recieve different advertising based on their TV watching data' Mr. Alexander Ni

Data is being targeted at persuading the public at every decision leaving virtually all decision decided for us before we have realised there is a problem there to resolve.

?



KEY MOMENT
The decision to take control of our data, out awareness of data's influence on our lives and the impact of our ability to make decision is ours to claim back.

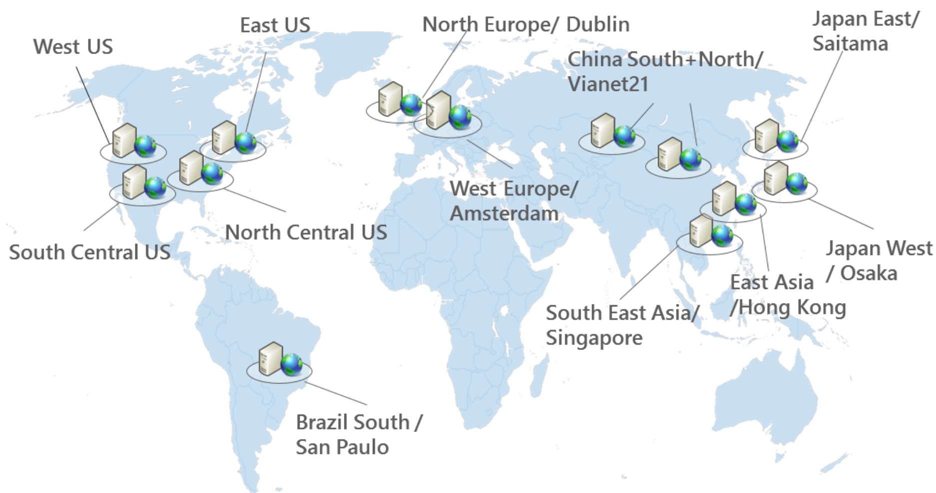
If our future decisions are predicted for us throught the analysis of big data, should there be a space for objectivity in our future cities?

Is it time for us to claim back our ability to make our own decisions..... before we no longer have objective decision making?

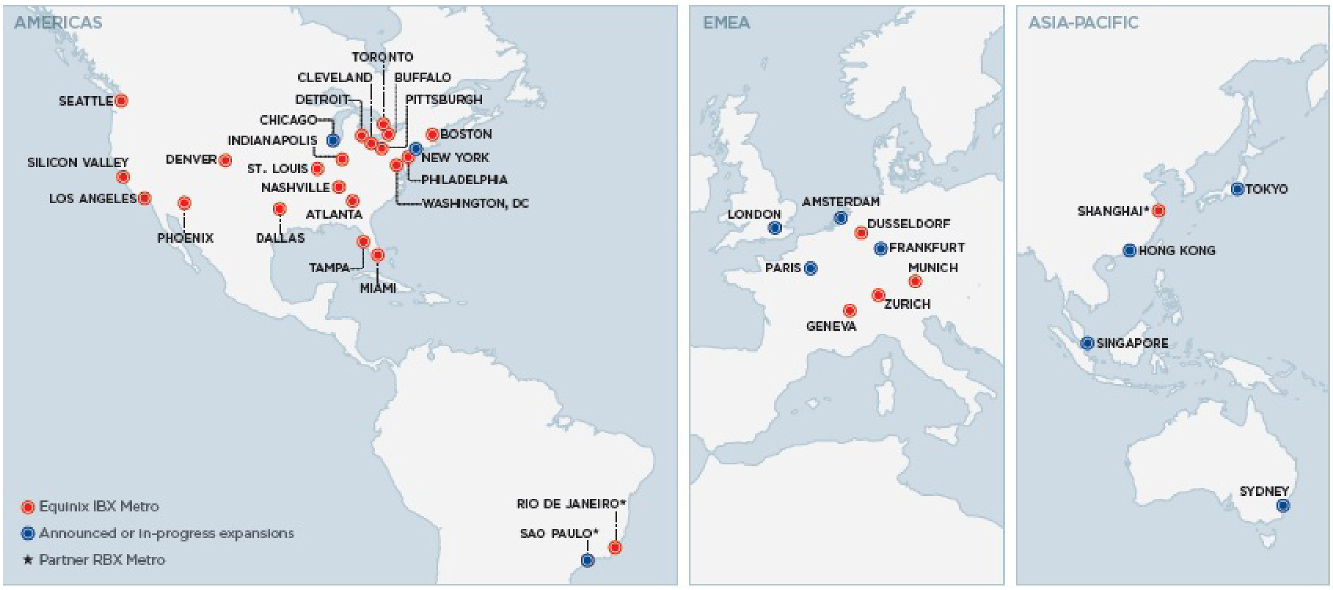
WHAT IF?

What if we didn't accept that our data is stored in huge warehouses outside of our cities? What alternatives do we have to the generally accepted centralised data centers?
If we were to have 'pools' of data centers, in which the storage of data becomes an integrated part of our cities, critical data would remain part of the state's domain but private and personal data could remain part of this community resource, which we could both choose to sell like any other resource or retain as private; all the time we too could benefit from the energy produced within these spaces.

Microsoft Azure : 13 datacenter locations, including China



29 CDN nodes: Atlanta, Miami, NY, Washington DC, Chicago, Dallas, Los Angeles, San Jose, Seattle, Copenhagen, Helsinki, *Stockholm, Vienna,* Warsaw, *Amsterdam,* Frankfurt, *Milan, London, Madrid, Paris, Batam, Hong Kong, Jakarta, Kaohsiung, Singapore, Melbourne, Sydney, Tokyo, Osaka*



CASE STUDY
CAMBRIDGE ANALYTICA

When we talk about persuasive data and the use of BIG data, an immediate example of the commercialization of data would be Cambridge Analytica, a company founded in 2013 as a data mining and analysis company focusing the analysis of social data as a method of creating targeted advertising.

This method of analysing social data in order to profile individuals who in turn can be targeted with user specific advertising. This advertising has been recently used by the Trump campaign in order to target a profiled audience to vote in their favor.

The same tactic is rumored to have been employed in the recent Brexit campaign with the Leave.EU's communications director Andy Wigmore saying:

"Because using artificial intelligence, as we did, tells you all sorts of things about that individual and how to convince them with what sort of advert. And you knew there would also be other people in their network who liked what they liked, so you could spread. And then you follow them. The computer never stops learning and it never stops monitoring."

When we look at Amsterdam and the future of the Netherlands in Europe, we could speculate on the extreme scenario (perhaps not quite unimaginable) of The Netherlands as an independent state. How then is Data that was once part of the collective European society re-privatised? Well, if we take Britain as the current example.... the reality is that it essentially isn't. The British government are implementing a 'General Data Protection Regulation (GDPR)' which is attempting to mirror the Swiss model: Switzerland accesses the EU single market via a regularly updated bilateral agreement. Its data protection laws mirror the EU Data Protection Directive and so have been recognised as 'adequate' by the European Commission. So in order for Britain to continue to process EU citizens data it must entirely meet the EU's 'adequacy' requirements for data protection.

It's thus fair to say that in any scenario with Amsterdam playing a key role in commercial Europe it's connection to Europe will always remain tied through its collection and storage of Data. Data and how we continue to process it remains the fundamental and intangible connector between Amsterdam and the European Union.

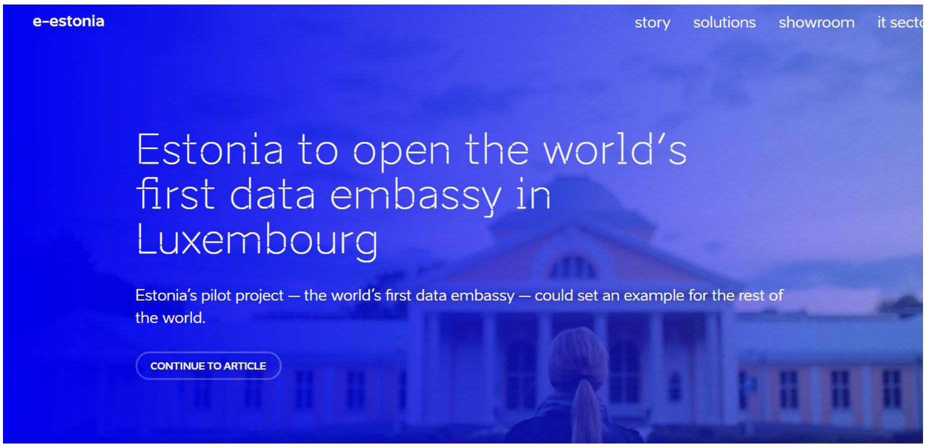
EQUINIX INVESTS $113M IN NEW DATA CENTER AT AMSTERDAM SCIENCE PARK

13 July 2016 | created by Equinix

Equinix, Inc. , the global interconnection and data center company, announced that it will build a new International Business Exchange™ (IBX®) in Amsterdam at its existing campus at the Amsterdam Science Park. The newest data center, called AM4, will support growing demand for Platform Equinix™ in Amsterdam, one of the most network-dense locations globally. Equinix also announced it is now offering direct connectivity to AWS in Amsterdam.

Amsterdam has long been a key digital gateway, as businesses can reach 80 percent of Europe within 50 milliseconds, making this an ideal market for enterprises to locate their IT infrastructure to maximize performance. Already operating two significant Amsterdam data center campuses, Equinix will add capacity to meet growing demand for hybrid cloud, interconnection and connectivity to business ecosystems across a number of vertical markets and internet exchanges.

Amsterdam is the choice for large corporations to store their data because of:
Central european location,
low tax rates,
Proximity to educated work-force
Advanced infrastructural capa-bility



EXAMPLE

Data and physical architecture estonia data embassy

The state also wants to maintain the full control and jurisdiction of their data and systems

"The Luxembourg site will store the copies of the most critical and confi-dential data,"

The 'physical' embassies are our sovereign territory under the Vienna Convention. Now we want to bring the same concept to the cyber world and data centres

Politics

Catalonia plots digital government in exile in bid for independence

As Spain threatens to suspend the region's autonomy, Catalan activists are making plans to take their government online

By STEPHEN ARMSTRONG

Monday 9 October 2017

Credit David Ramos/Getty Images

Catalan activists are preparing to create a digital government-in-exile if Spanish prime minister Mariano Rajoy follows through on his threat to suspend the region's autonomy in a bid to prevent it declaring independence.

"If the Spanish government does restrict Catalan autonomy – especially if it bans Catalan political parties – we will probably have a clandestine government," says Simona Levi, founder of digital rights non-profit platform Xnet. "The internet would be an important part of that."

Although details of the plan are unclear Thomas Harrington, professor of Hispanic studies at Trinity College in Hartford, Connecticut, suggests "a country in the east of Europe which had itself gone through the process of declaring its independence from the former Soviet Union not all that long ago," – believed to mean

CATALONIA

DATA GOVERNMENT?

BREXIT

STUCK TOGETHER BY DATA?

ico.
Information Commissioner's Office

The UK's independent authority set up to uphold information rights in the public interest, promoting openness by public bodies and data privacy for individuals.

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For organisations / Data protection reform /

Overview of the General Data Protection Regulation (GDPR)

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- Key areas to consider
- Individuals' rights
  - The right to be informed
  - The right of access
  - The right to rectification
  - The right to erasure
  - The right to restrict processing
  - The right to data portability
  - The right to object
  - Rights related to automated decision making and profiling

Introduction

This overview highlights the key themes of the General Data Protection Regulation (GDPR) to help organisations understand the new legal framework in the EU. It explains the similarities with the existing UK Data Protection Act 1998 (DPA), and describes some of the new and different requirements. It is for those who have day-to-day responsibility for data protection.

This is a living document and we are working to expand it in key areas. It includes links to relevant sections of the GDPR itself, to other ICO guidance and to guidance produced by the EU's Article 29 Working Party. The Working Party includes representatives of the data protection authorities from each EU member state, and the ICO is the UK's representative.

The GDPR will apply in the UK from 25 May 2018. The government has confirmed that the UK's decision to leave the EU will not affect the commencement of the GDPR.

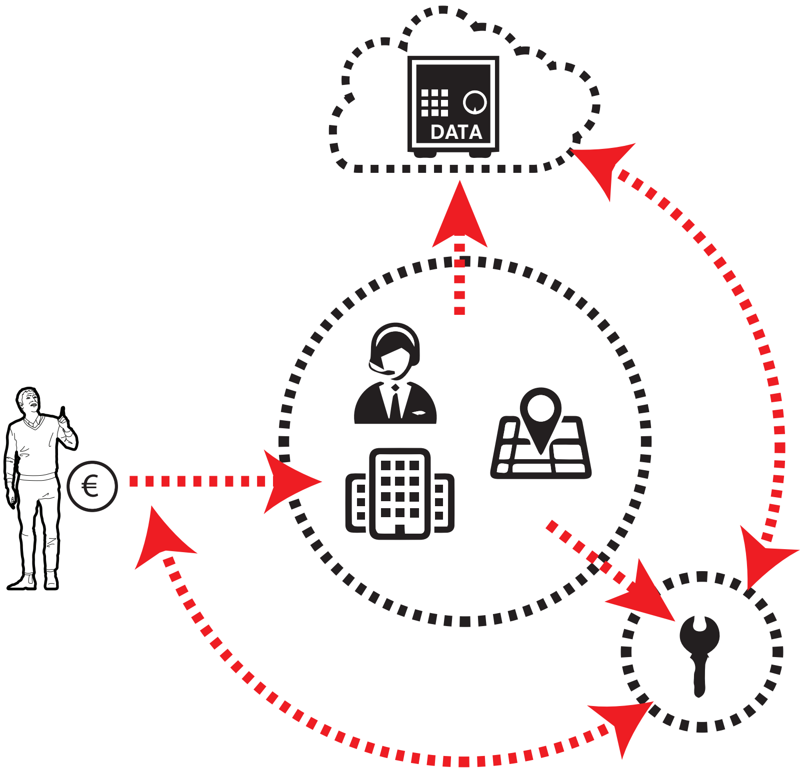
The ICO is committed to assisting businesses and public bodies to prepare to meet the requirements of the GDPR ahead of May 2018 and beyond. We acknowledge that there may still be questions about how the GDPR would apply in the UK on leaving the EU, but this should not distract from the important task of compliance with the GDPR.

With so many businesses and services operating across borders, international consistency around data protection laws and rights is crucial both to businesses and organisations, and to individuals. The ICO's role has always involved working

CONTROL

The control in relation to data access currently lies with the corporations and not the individual at hand.

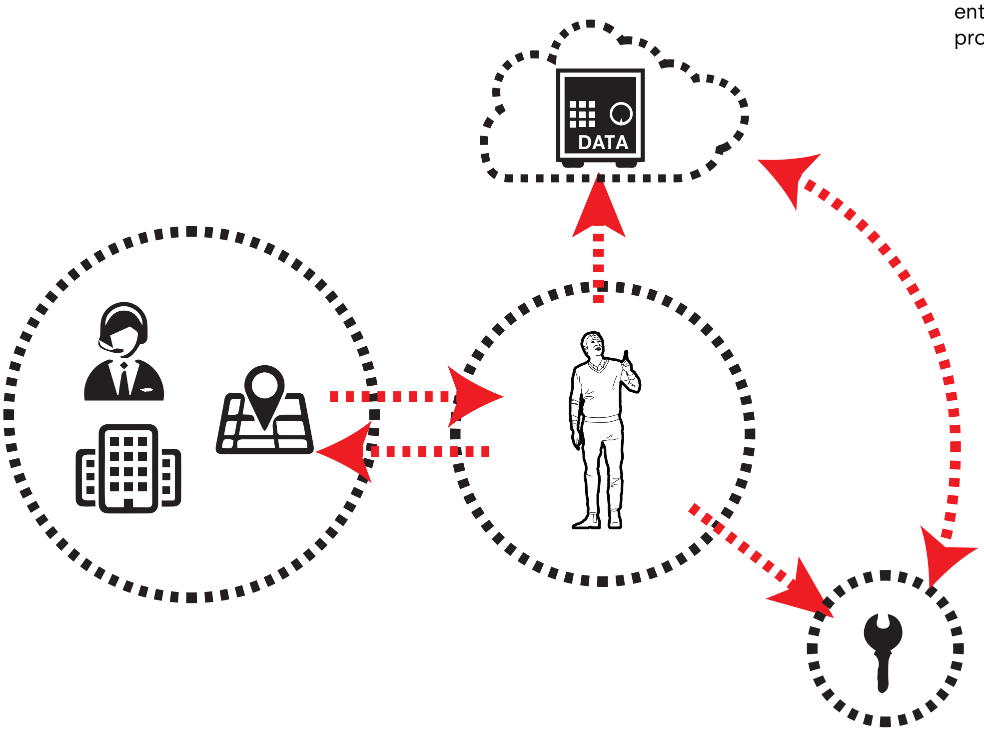
The control in the sense of ownership currently exists on the wrong side.



2018

CONTROL

A re-organisation of the existing data control, placing the individual at the center of their data control would entirely change the way we see, approach, regard and secure data.



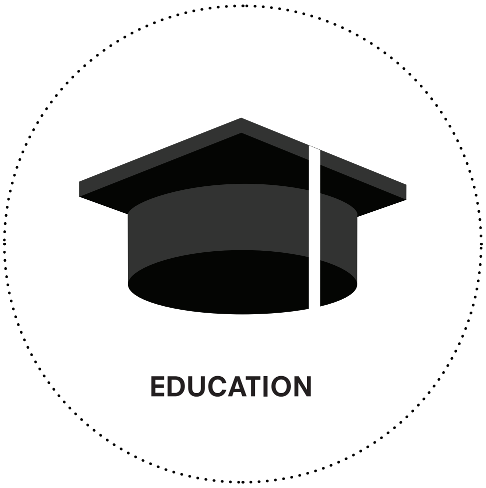
2050

P2 RESEARCH QUESTION

Through the restructuring of our existing data network, rejecting the current trajectory of mass data storage, how might we express this new shift in control from private to public through an architecture for the Amsterdam of 2050.

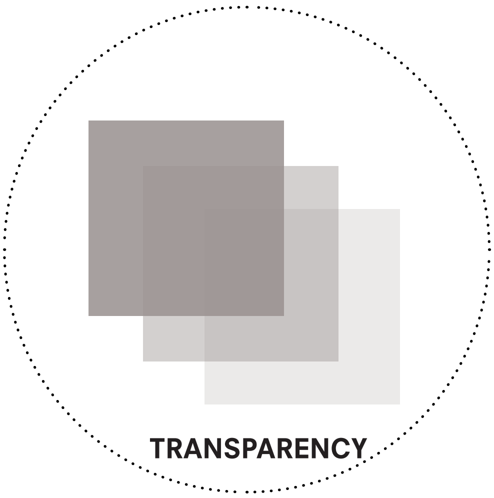
all data must become public.....

data must become an open source resource in the 21st century, non-personal data must no longer be for the few but for the many.



we must learn the value of our data....

as data becomes the resource of the 21st
century we must be made aware of just how valuable our information really is.



democratic transparency

data should become a transparent aspect of our daily lives expressed through an architecture

A FUTURE IN THE CLOUD[S]

As Amsterdam moves towards a 'smart' future we need to act now to inform exactly what that future entails and how exactly we as occupants of the city would like our data to be used not to profile us for private gain but rather the to extract the positive potentials of our data.

Amsterdam is in the unique position of being able to decide now how it would like to proceed with its data future. With the never ending dialogue that is currently being had on the topic of 'personalised' and 'smart' data and all of its benifits, it seems as though we've lost sight of our privacy as being a great privilege in the twentieth century. With BIG data persuading everything from our political decisions to the way in which we earn and spend money in the city of Amsterdam, it seems were content with all of this information being stored in huge warehouses outside of our cities as long as we continue to see the benefits.

Yet it seems, before we know it, we will be left in a world where we no longer individually need to make major decisions as our decisions will have been decided based on our profiled population. It is for us to decide if we are happy with this vision of the future or if we rebel and attempt to regain control of our data in an attempt to consider the posative use that our data (banking, e-commerce, health, political, security etc.) could have on our neighborhoods and lifestyle looking towards 2050.

Without consideration for the future of our data we could find ourselves constantly feeding information into the cloud, as long as the cloud meets current European 'adequacy' requirements, which in turn controls our every decision, are we left as slaves to the cloud?

**THE GREAT DISAPPEARING ACT
OF THE 21ST CENTURY**

UP IN THE CLOUD[S]

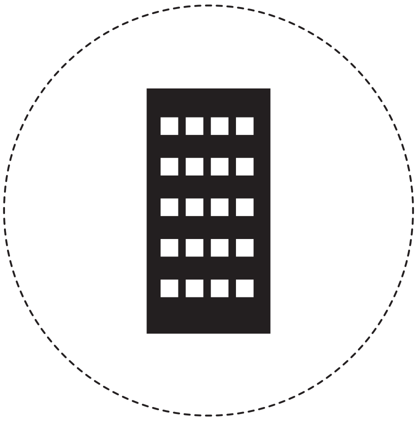
In many ways automation (or our data landscape) is creating the great disappearing act of our era; the address book, a map, keys, a newspaper, airline tickets, travel agents, highstreet shops.... perhaps even our physical banks are under treat. Yet, Steve Denning; director of the Scrum Alliance, suggests that this is the first time we place the power in the hands of the consumer. Finally we have both the choice and the information about these choices when it comes to online decision making. Customer feedback is driving opinion and this 'self-organisation' is leading to positive hierarchical changes in our cities, we are the generation moving towards a horizontal and no longer vertical society.





15% of Europeans are now part of the **Mobile workforce**

Online shopping accounts for **11% of all non-food revenue** in the Netherlands in 2015, from 4% in 2009.



9M square meters of estimated reduction in commercial floor space by 2025.


INTERNE
SEARCHE
SLEEP
DATA

DATA AS A RESOURCE

UP IN THE CLOUD[S]

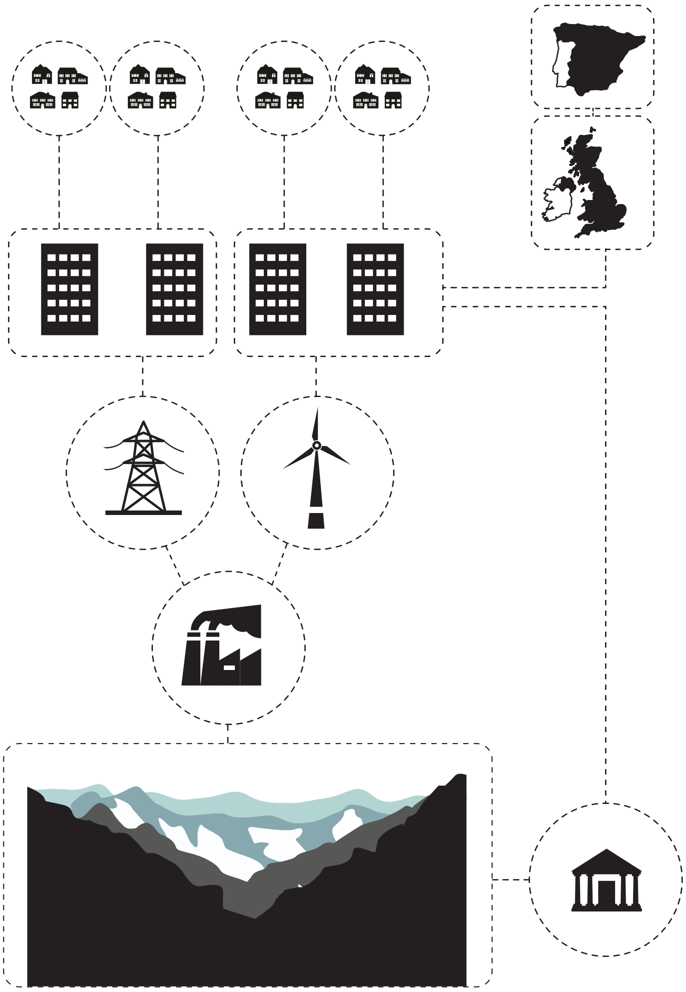
Currently the Dutch state is consolidating their data storage from 64 facilities to 4 major data hubs at 'Rijswijk, Groningen, Amsterdam and Apeldoorn' https://data-economy.com/telehouse-now-offering-verisign-ddos-protection-services/. These spaces are in turn operated by Hewlett Packard Netherlands and HOMIJ Technical Systems; essentially the reverse of how the government dealt with its energy resource through immediately outsourcing the resource of state data to private companies.

If we consider the potentials of this resource in the hands of analytical companies, the vast knowledge that could be gained about each individual's income, health, living conditions, political history, purchase history etc. could have a huge influence on the way in which both companies and the state make major decisions.

Perhaps it is time for an independent body such as the Authority for Consumers and Markets (ACM) who are responsible for approving all tariffs and for ensuring that prices charged to consumers are reasonable, to consider higher levels of transparency in data storage and use at both the state and private levels.
We dont have to travel far from the Oud-Zuid site to witness exactly this monetization

of what we consider 'personal data' as a resource. As stated in the ABN AMRO 2017 conditions 'Processing data includes, amongst others, collecting, storing and using it' Personal data is certainly no longer 'personal' it is as much a tangible resource as any natural resource except in this case the state is less capable of managing what is a global scale resource. To quote ABN:
'The exchange of data may mean that data enter other countries where personal data are less well-protected than in the Netherlands'

If we are not accepting of a world in which our energy resource is entirely monopolised then why do we accept living in a world where our personal information as a resource is so easily gathered, exchanged and monetised? Perhaps its time for us to get a grip on the value of our data and begin to see it as a very physical resource for 2050.



‘RESOURCE ‘UNBUNDLING”

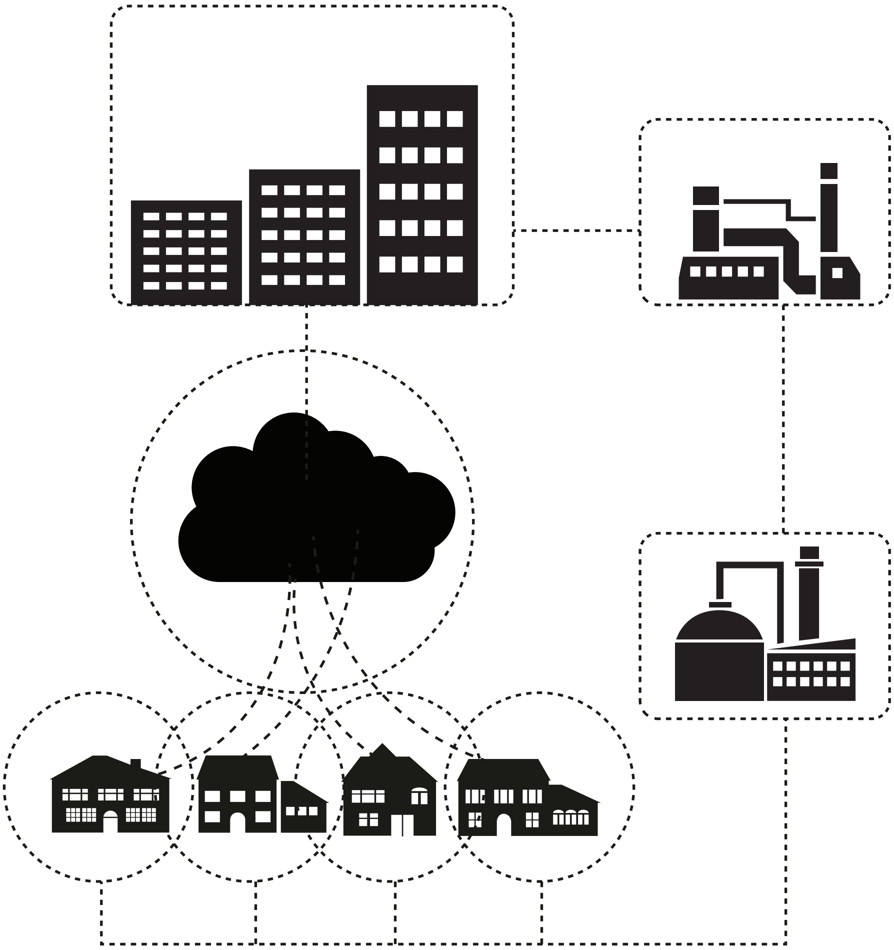
Electricity act 1998

Network and supplier as seperate entities

Regulated so that fairness in cost is controlled and the end user benifits from a fair system.

Yet 50% of many distributors are still owned by the state..... [GasTerra] who also own the land that energy is harvested from.

60% of energy from outside of the NL. Who’s distributors are entirely state owned.... [Essent, Nuon, and E.ON Benelux]

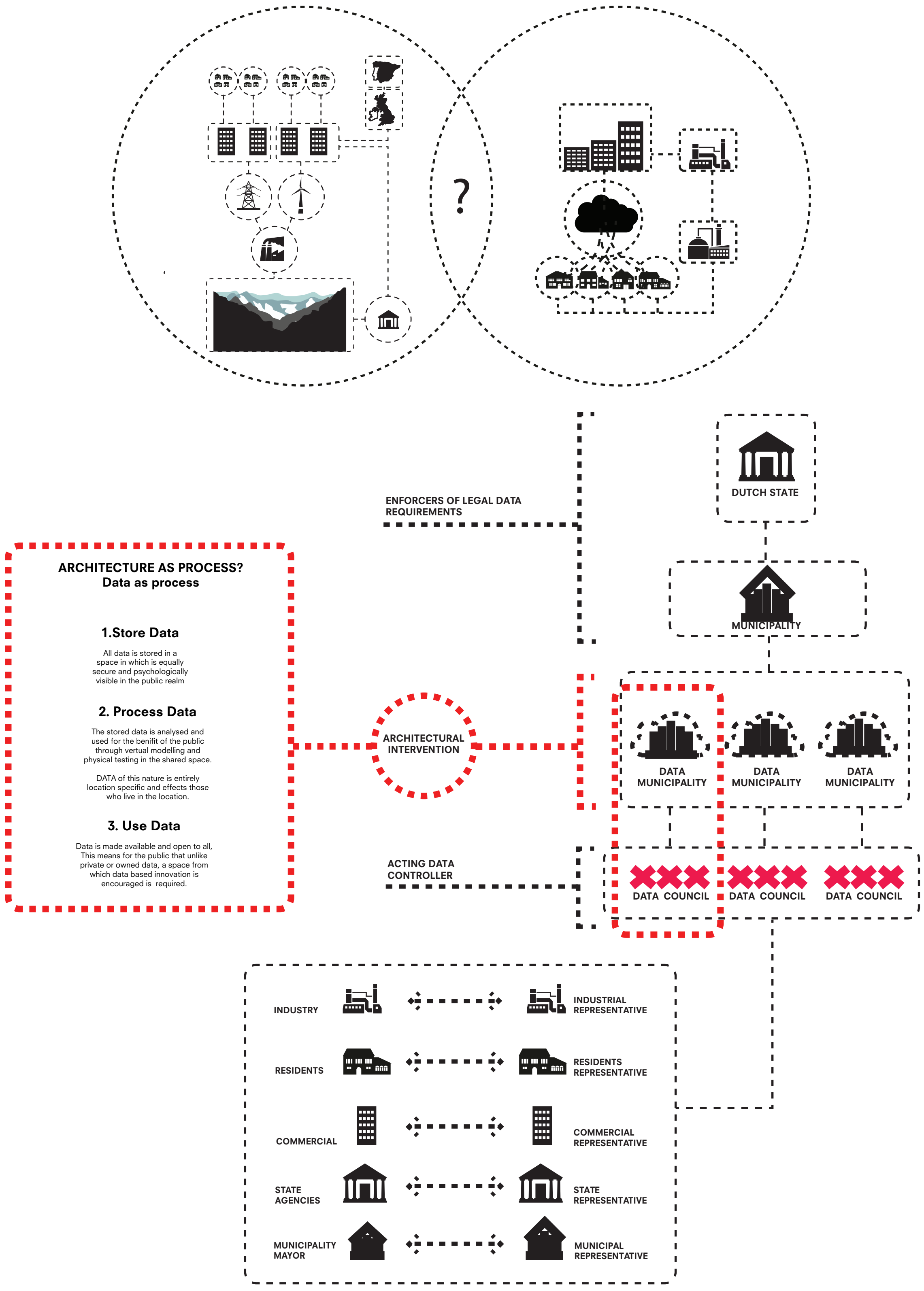


EXISTING
DATA STRUCTURE

Currently all data (commercial private and public) are contained through companies and outsourced data service providers across the Netherlands and across the world. DATA is essentially fed to the 'cloud', this in turn has a physical space in a data server at one of the many secure locations run by companies such as microsoft, netflix of intel etc.

DATA can then be purchased as a [de]personalised resource by large analytical companies who will use the (or mine) the data for statistical probabilities from which to target audiences for the marketing or persuasive purposes.

This targeted audience in turn is persuaded into making decisions that will then influence the type of data they subsequently feed into the 'cloud'.



Final Organisational system:

With reference to the system of governing water in the Netherlands, I have chosen to introduce a new 'data council' to oversee the data municipality and act on both behalf of the end user and state representative.

Spaces within the data municipality allow for the interaction with the representatives of the council in order to ensure that ones data is correctly stores and processed.

CLIENT

Finally the public will be both the client and the user of the Open-source data.

DATA MUNICIPALITY

Non-for-profit organisation Ownes one area of this new network and collaborate with the other series of network contributors.

The overall network contributes to the collective open data resource.All data relative to the public realm of the Oud-Zuid will be required to be stored in this municipal space.

FINANCE

The state will provide the funding for such a institution or series of 'networks'.

The finance of such an institution will ensure the continued commitment to the democratic values of the Netherlands.

The funding of which would be considered the funding of a non-for-profit organisation.With for-profit organisations; data monopolisation would lead to companies looking to quash innovation while with open-source data availability an emphasis on encouraging data-based innovation will occur.

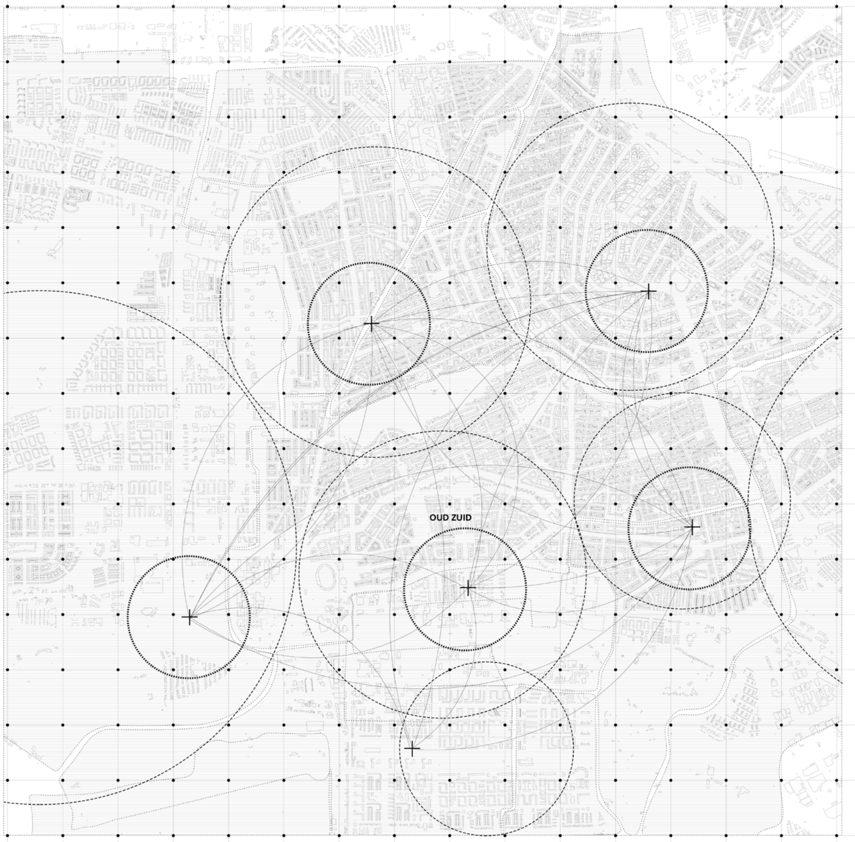
REGULATION

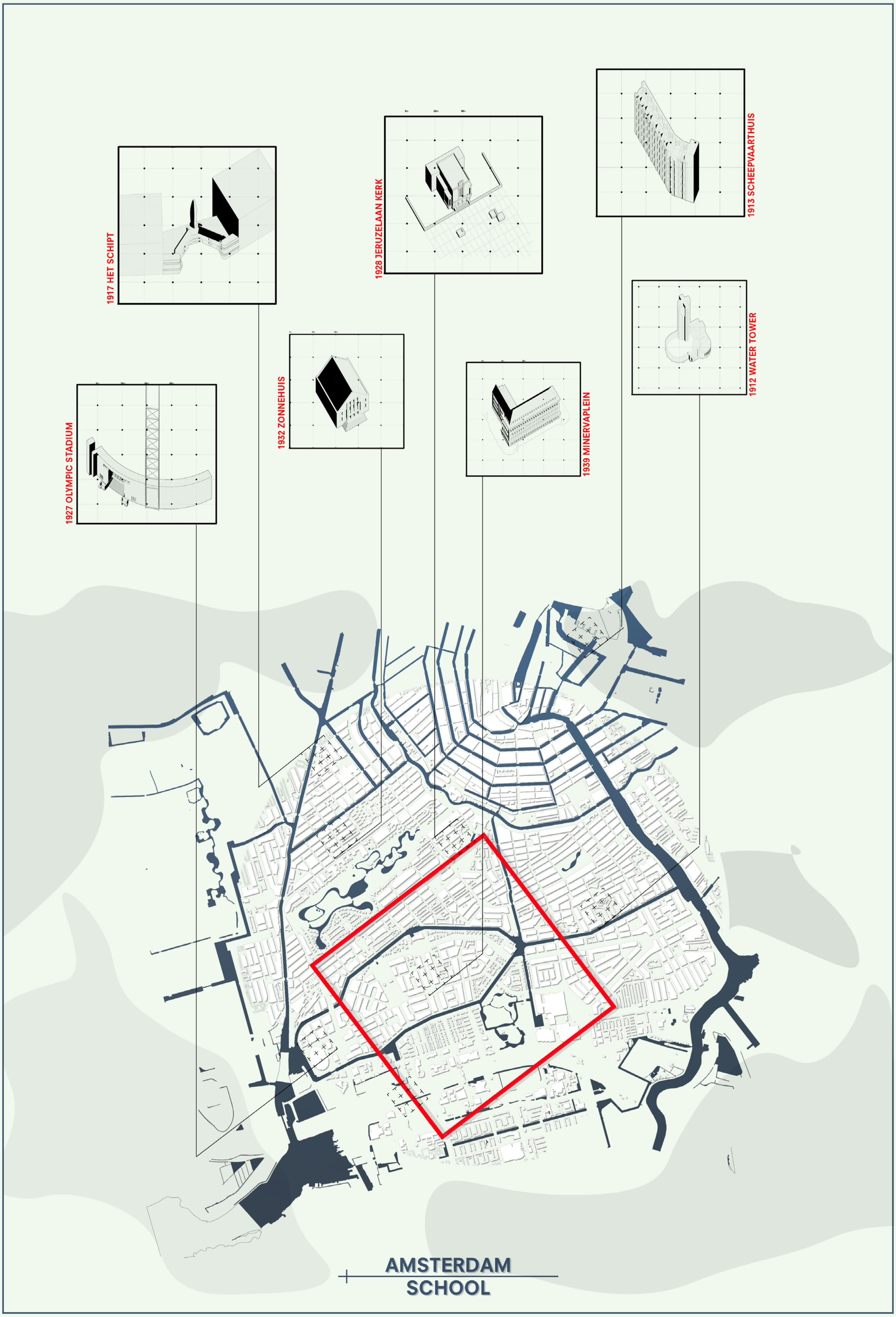
ALL collectors of data relating to the public realm and those within the public realm (commercial/ public) will be required to save their data to the Munisipal data archive.It is the states responsibility to ensure the privacy of the individual while the collective power of this data is for the benifit of everyone and not select corporations.

This is in the benefit of the Public for the creation of a more efficient and higher quality of all public services.

It is for the benefit of the State for the encouragement of innovation and the continued committment to democratic values.

It is for the benefit of the commercial sector as it encourages a transparent commercial environment in which companies are more aware of their competition and the need to change or alter in order to stay current and competitive.





1917 HET SCHIPT
1928 JERUZELAAN KERK
1913 SCHEEPVAARTHUIS
1932 ZONNEHUIS
1912 WATER TOWER
1927 OLYMPIC STADIUM
1939 MINERVAPLEIN
AMSTERDAM
SCHOOL

Oud-Zuid
The Architecture of Power.
Typological enclosure

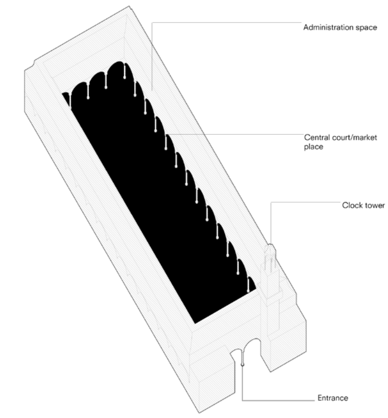
Whilst researching the Minervaplein complex it became more and more apparent that the dominance of the 'style' became more of a driving force than the architectural typology. In many cases the interior plan of the type suffers relative to prevalence of the exterior condition.

The strict relation between architecture and enclosure exists because of the accuracy and strength of vision of the overall masterplan and architecture of HP Berlage in 1915. It is only with this reading of the plan does one understand the importance of studying the type's of enclosure and the approach of the architects in keeping with the overall Berlage masterplan.

The aim of the Amsterdam school movement was to provide a better quality of life, particularly in relation to housing, but also the amenities relating to the general improvement of the lives of the cities inhabitants. Much like that of the 20th century I intend to consider a new expression of 'data' in the form of physical architecture, and therefore the ability to afford public power through the availability of data.

The slogan of the Amsterdam school movement was 'power that can' representing the power that architecture can have in the changing condition of the future city.

To better understand the Enclosure of space or type I have created a series of comparative axonometric drawings looking at the typologies of the Amsterdam school style, as a method of understanding the key features of the enclosure in relation to the type but also in the broader context of architecture as power; identifying Function, structure, power and its relation to Data.



A space for physical sale of **commities**

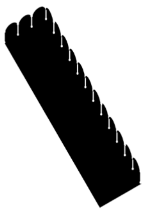
A space for the exchange of **Education** and to attain informaion on the future of securities from trading 'experts'

A space for the transfer of peer **knowledge**

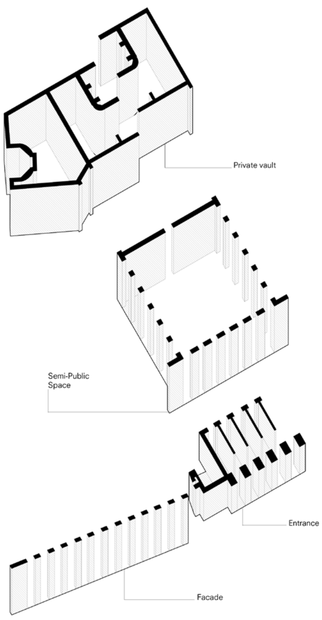
A phsycial architecture which interacted with the **water** below as a form of bridge or dam.

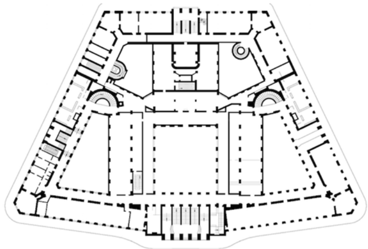
Periforal administrative functions

Inverse of the existing Bank type.



THE AMSTERDAM EXCHANGE
1611





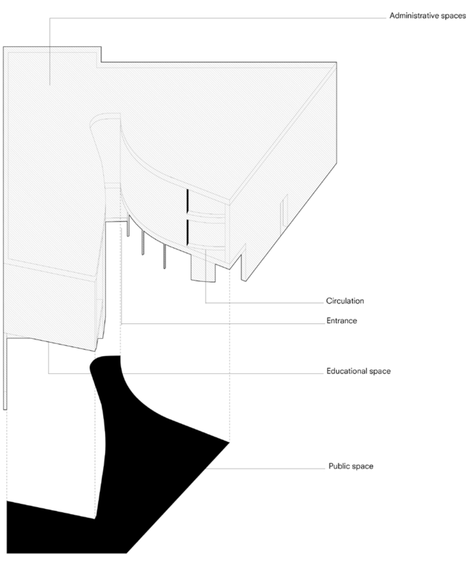
POSTAL SAVINGS BANK 1896

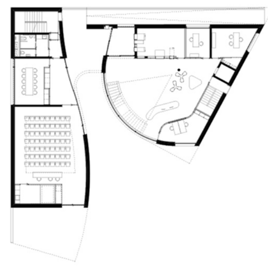
A bank as a series of layered spaces of varying privacy and publicness

A facade to the street cretes a sense of private enclosure
The regularity of the close grid informs privacy

The central space becomes a semi-public area of the bank
here people are invited to wait amongst otthers in a public setting

The layers of privacy lead to the enclosure of the vault, here cantral to the banks existance is the most private and secure zone of the building.





RAIFFEISEN BANK SWITZERLAND 2017

Private bank of the 21st century

Emphasis on the public space relating to banking

Two sides to the structure: public bank and private administration

Educational space for lectures both private and public

Ground form designed to create 'invitation' to explore the typology.

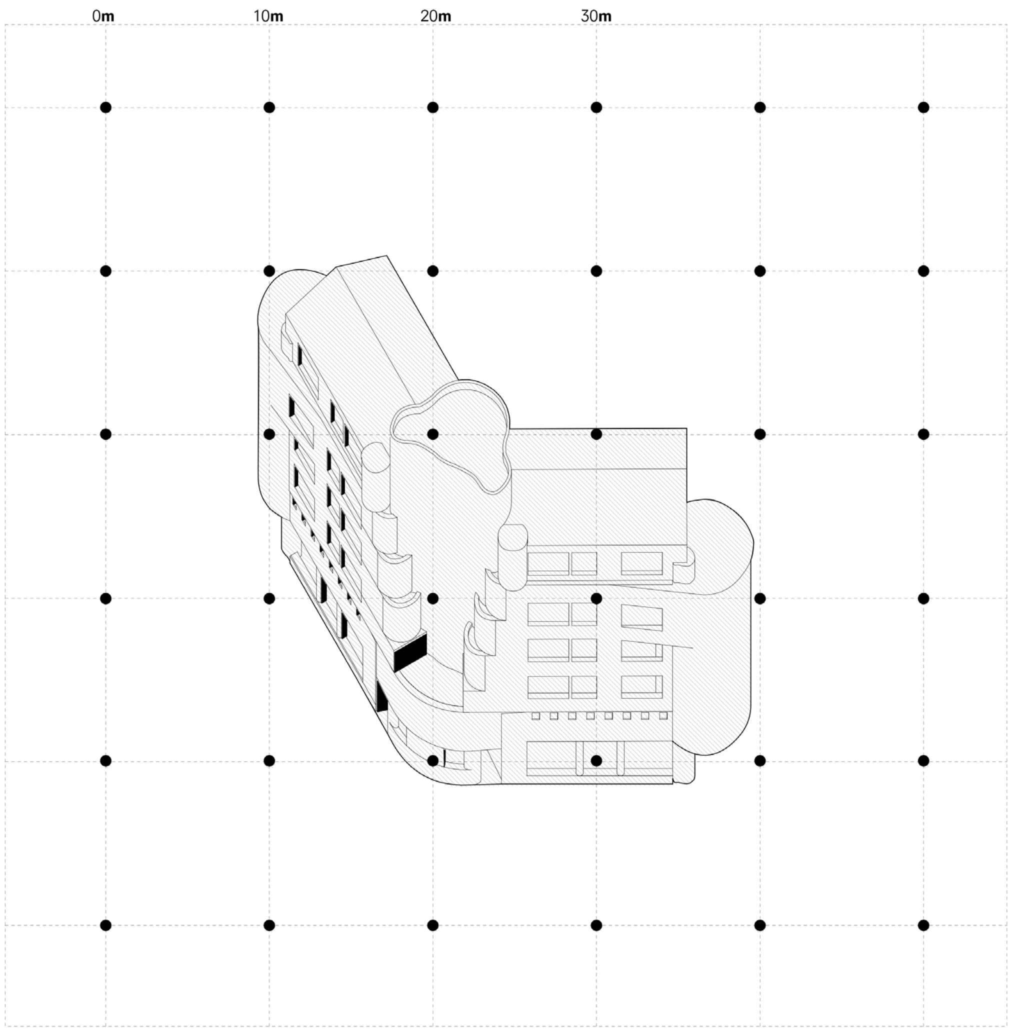
EXISTING TYPOLOGIES OF RESOURCE

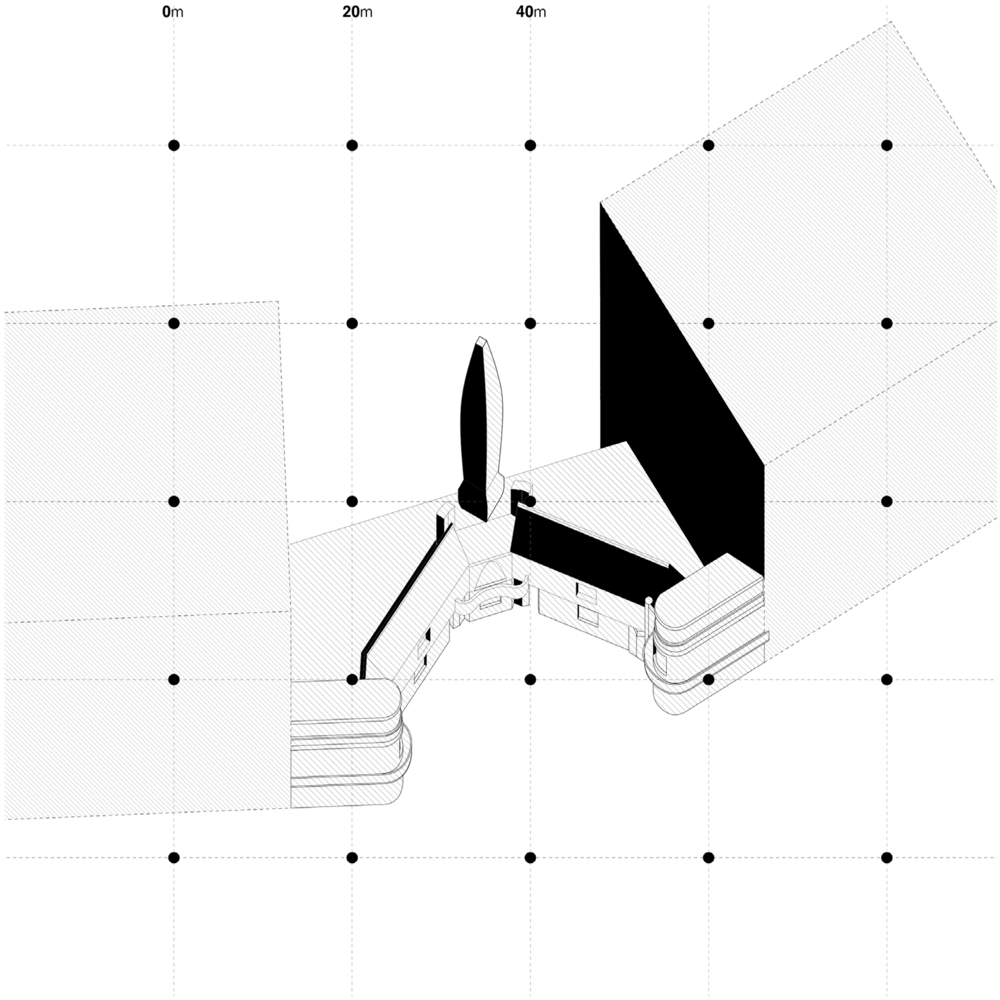
If we accept that DATA is the future resource of 2050 then it was important to study and re-draw the existing and historical typologies of resource such as banks or exchange buildings in order to understand the changing face of this typology.

The Amsterdam Exchange presented a space that contained both the exchange of physical goods but also the exchange of knowledge in a central forum type space in the city.

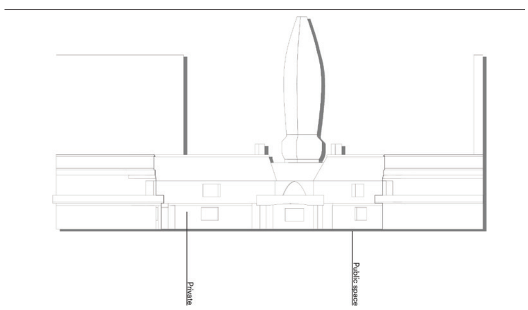
The Vienna bank by Wagner looked to explore a staging of public, semi public and private in the physical storage of money and peoples personal belongings.

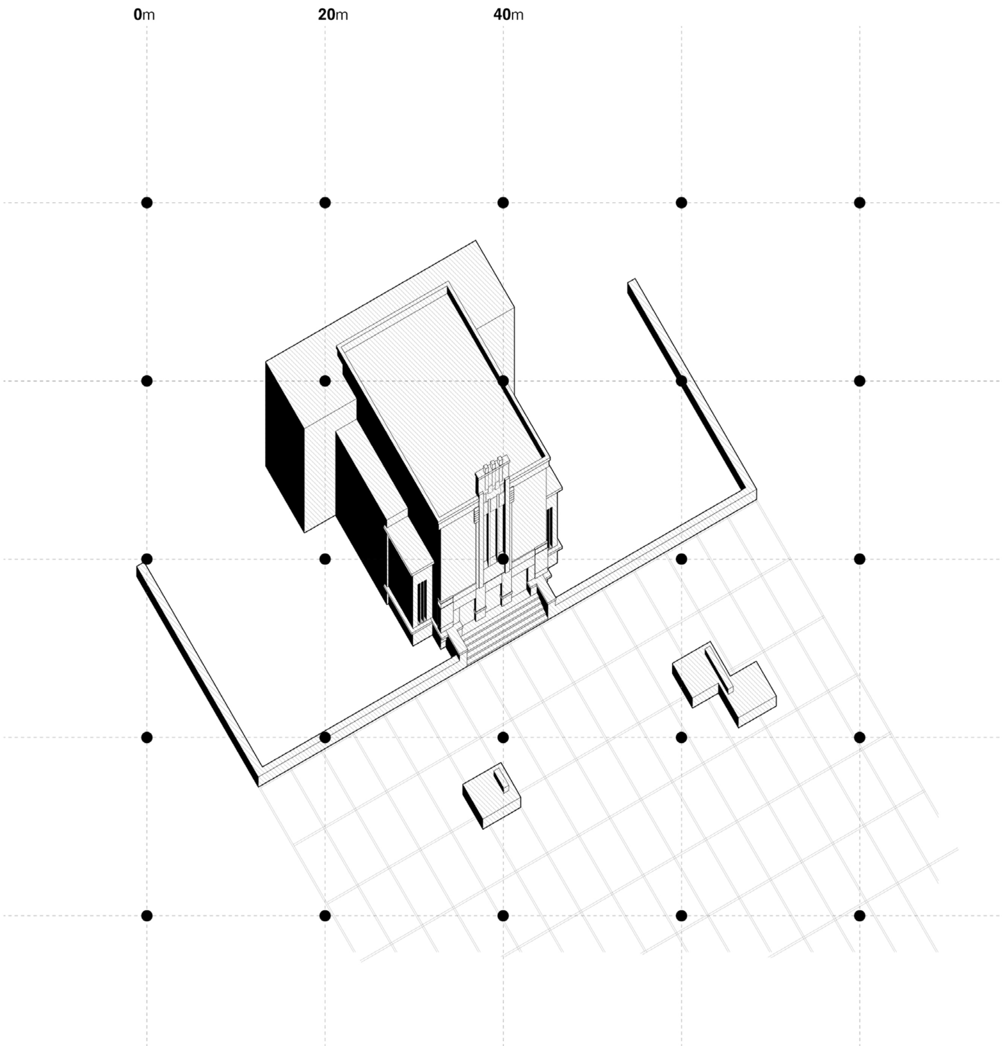
While the Raiffessen bank from 2017 in Switzerland represents the typology in the 21st century. A series of public, semi-public and private spaces, with no physical or tangible resources on-site only digital access to ones bank account and the prevision of services at the building. The emphasis on public space is very important at this location and within the project.


0m
10m
20m
30m



Function:	Social Housing/ post office.
Structure:	Social housing block, Meeting hall and Post office for worker commnuity.
Power:	Representative of Economic power of the government to create high quality social housing for workers communities.
Representative Data:	Individual private data and civil servant data

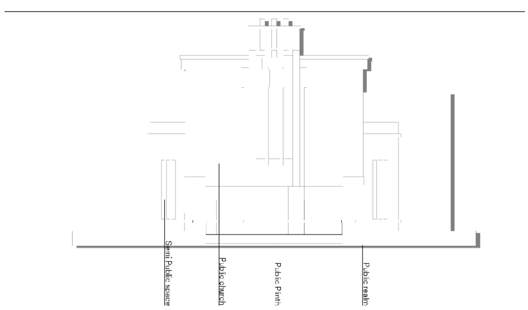


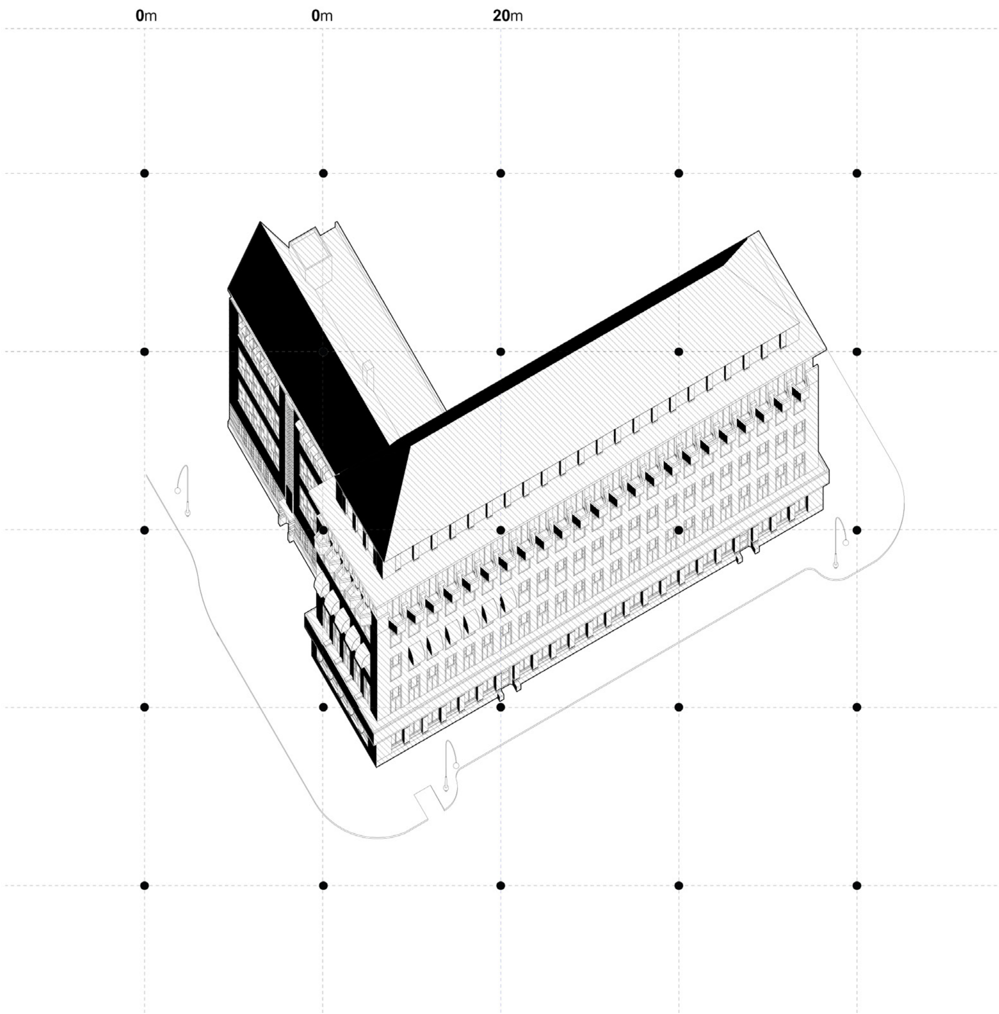


Function: Church/ congregation space
Structure: Fully public church, public civic space for congregation
Semi Public administration spaces surrounding the central public church space.

Power: Representative of religious power, but also the democratic power of the state in the prevision of public freedoms.

Representative Data: Public data, pupulation data, religious data.

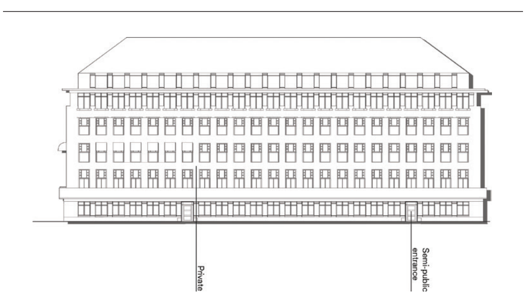


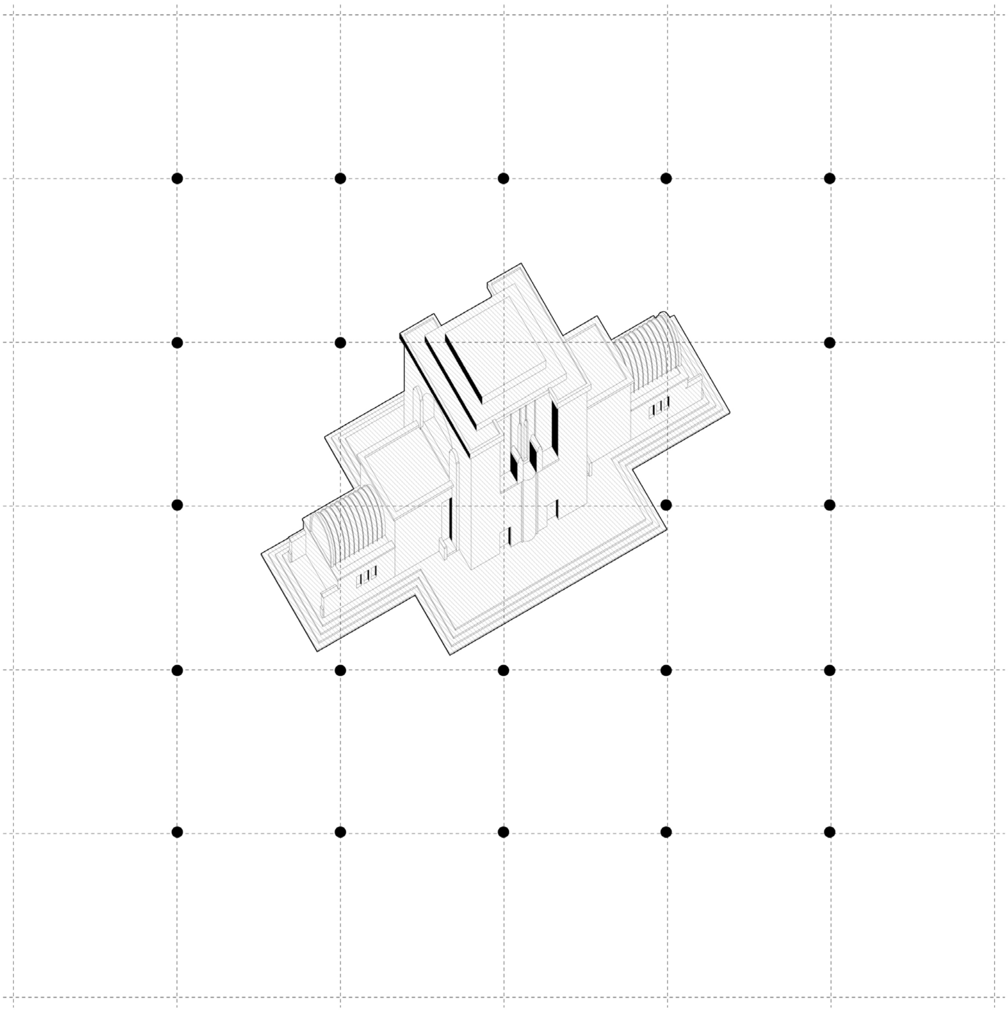


Function: Middle income social housing
Structure: Semi-private entrance spaces, fully private apartments
public green space between blocks along the axes.

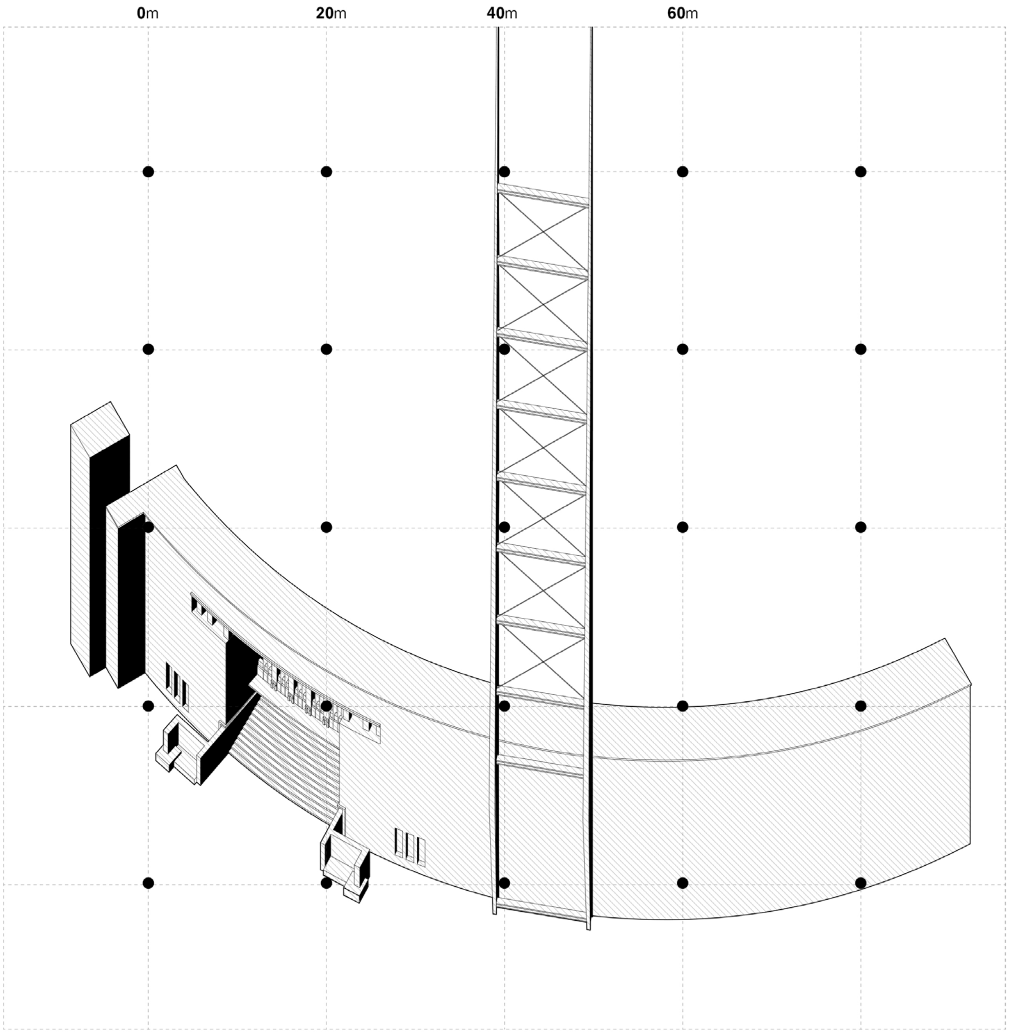
Power: Representative of economic power and the affordance of
high quality housing and public green space.

Representative
Data: Private individual data,
cencus and population data.

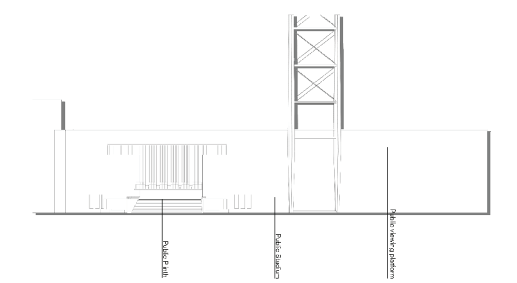


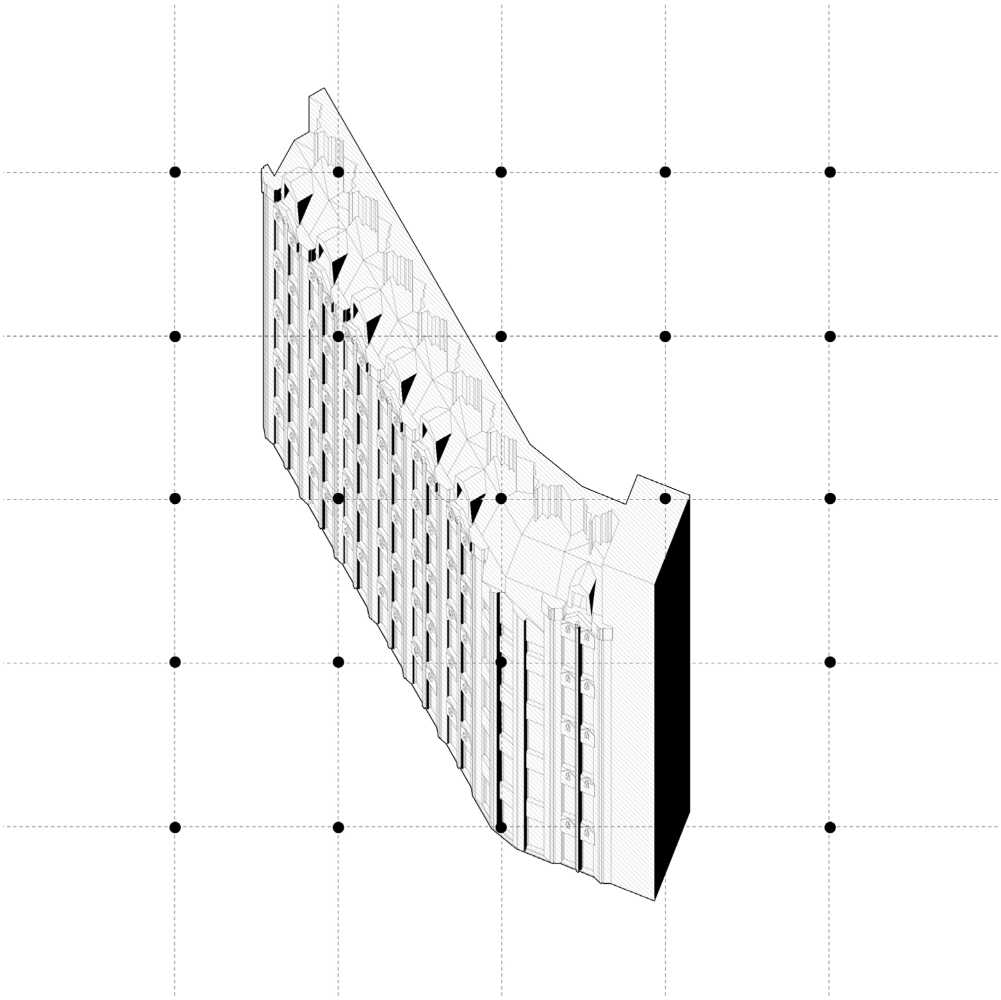


Function:	Chapel
Structure:	A series of Entirely public land, Semi-Public Central chapel, Private wing spaces A public plinth to denote assention to a semi-public space
Power:	Represetative of religious power and the relation between the state and church power.
Representative Data:	Death/ census statistics

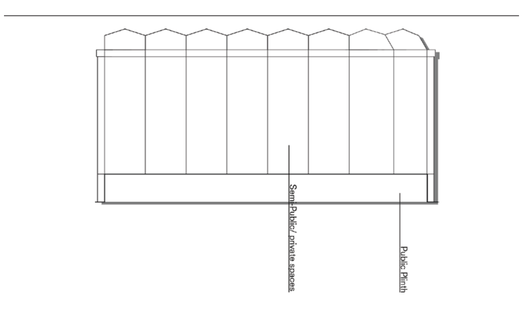


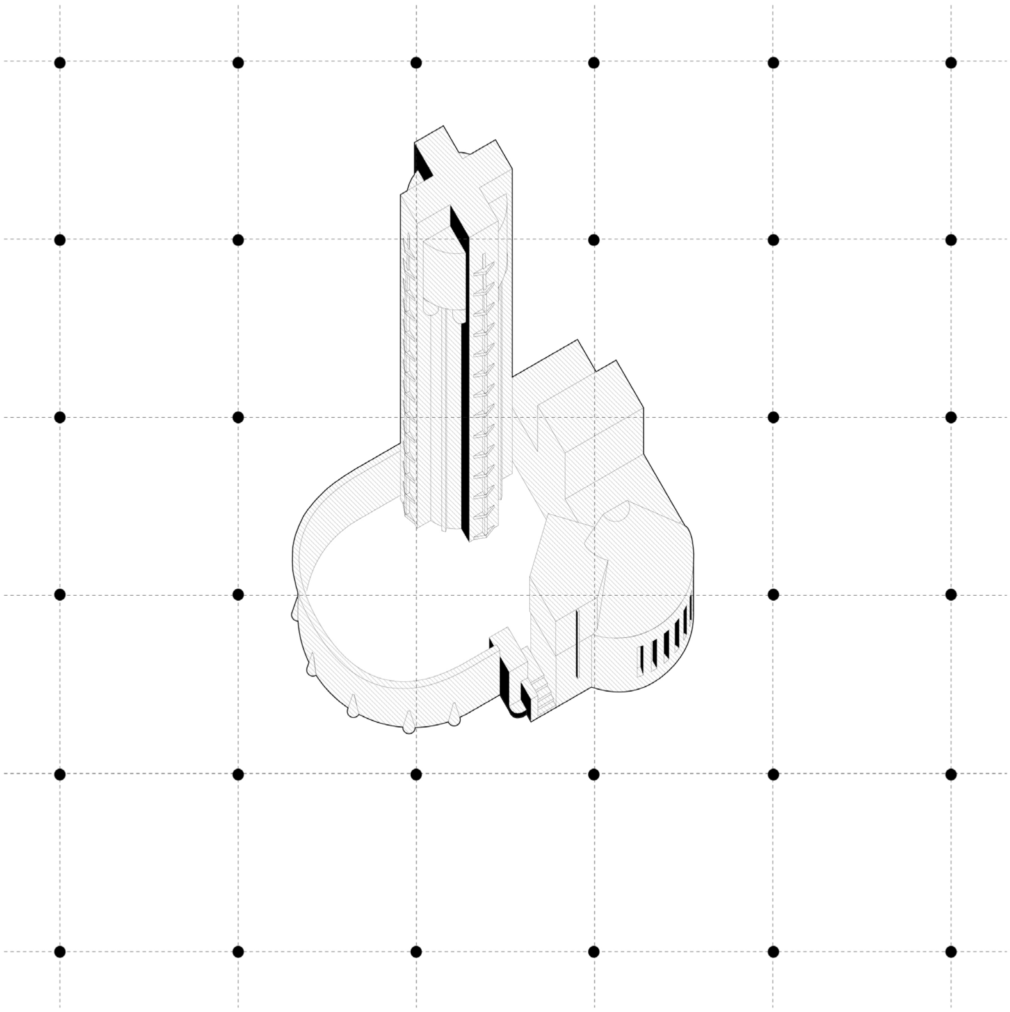
Function:	Olympic Stadium
Structure:	Fully public recreational space provided by the state for the benefit of the general public but also as an indicator of power in the public realm.
Power:	Representative of Economic power of the government to host the olympics and also the affordance of public recreational space.
Representative Data:	Recreational data, public amenities and public space.



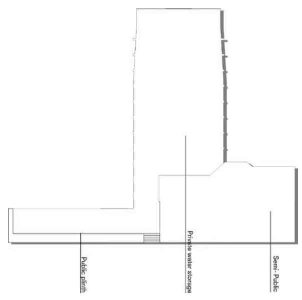


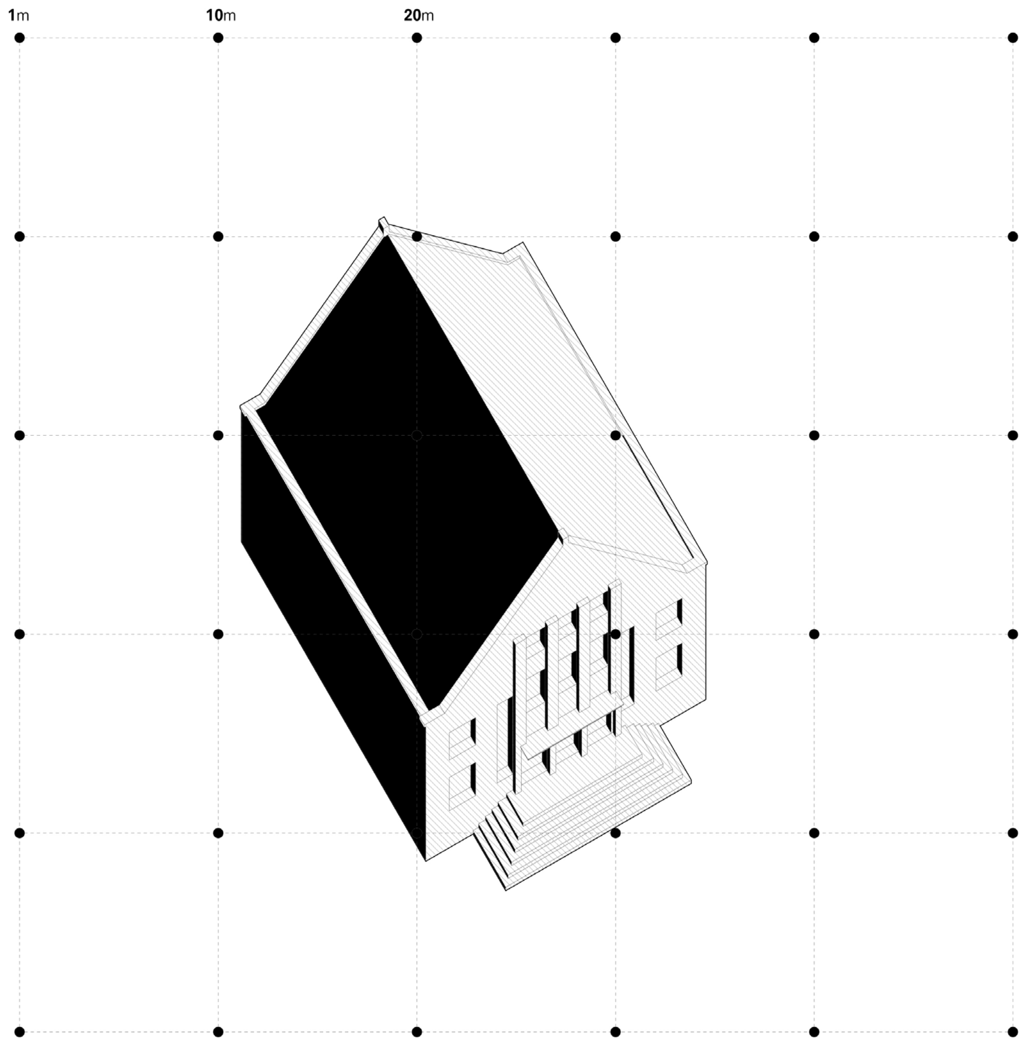
Function:	Maratime commercial center (1913)/ Hotel (2007)
Structure:	Formerly a series of private merchant office spaces, Ground floor Public plinth Aesthetically representative of maratime power
Power:	Represetative of shipping power and Global trade Shipping trade and merchant power in Amsterdam
Representative Data:	Global maratime trade, physical global resources





Function:	Water-Tower
Structure:	A public resource (water) stored in a private space, surrounded by the administratative spaces part of a public complex and public plinth
Power:	Represetative of state power and economic staus of being able to afford all citizens clean drinking water.
Representative Data:	Water as physical data (private secure data)

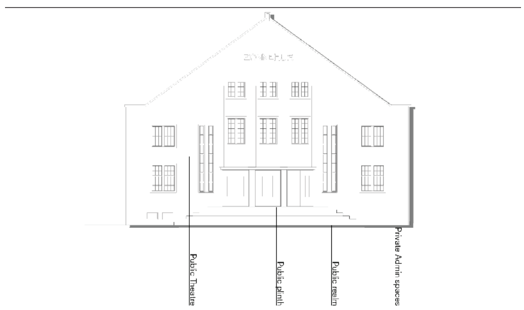




Function: Multi-functional community space
Structure: Public auditorium, private office space, semi-public work shops

Power: Representative of a working class resource space, a space for public amenity and the prevision of space for the improved quality of life of working class citizens.

Representative Data: Collective public amenity data
Space for the sharing of infromation and collective dialogue.



Typological enclosure

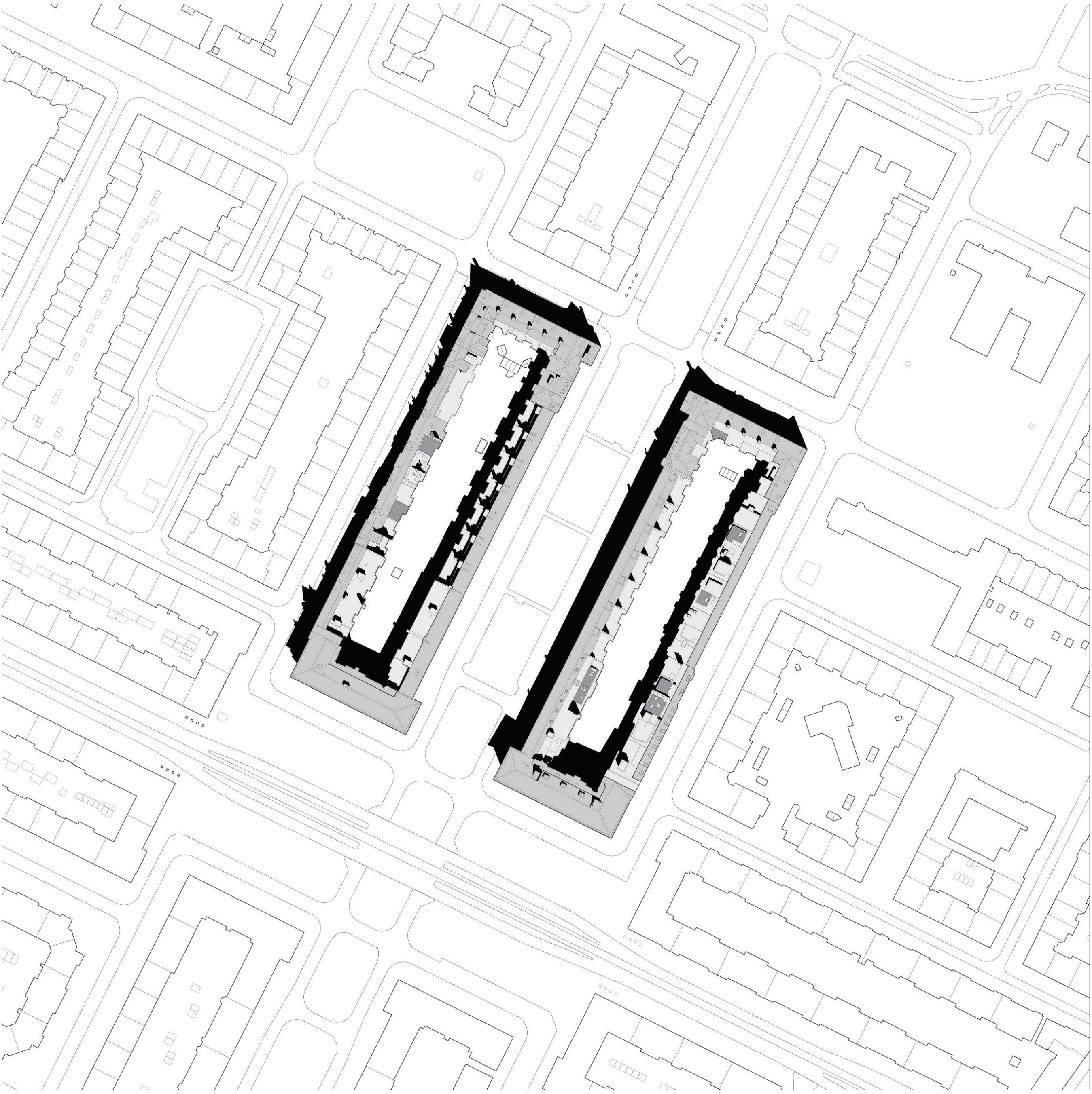
Each chosen enclosure type is [re]presentative of the affordance of power through the creation of Architecture [as movement], to what extent does the architecture afford accessibility in relation power and how can this previous typological example of the affordance of power be used as a precedent for the future affordance of a new type of power? The types selected [particularly in relation to competitions of the Amsterdam School] can be seen as the state looking to give something of democratic power to the inhabitants of the city of Amsterdam. Even with elements of control like the Watertower, a space for the public is considered around this very private resource tower.

The Olympic stadium competition shows the most powerful representation of both the power of the state but also the power of a democratic city to provide such a space for recreation within the city of Amsterdam. The building itself then distinguishes its own levels of publicness through the creation of a stepped plinth to denote a special public space, unlike that of the earlier het Schip who's entrance space creates a public plinth that is directly on the level of the street distinguishing the space as both public and for everyone but representative of the role of social power; the power of the working people.

As opposed to the Jeruzelan Kerk where public space is distinctly equal to that of the architectural intervention while the church itself still retains the public plinth in order to distinguish a special public architectural space.

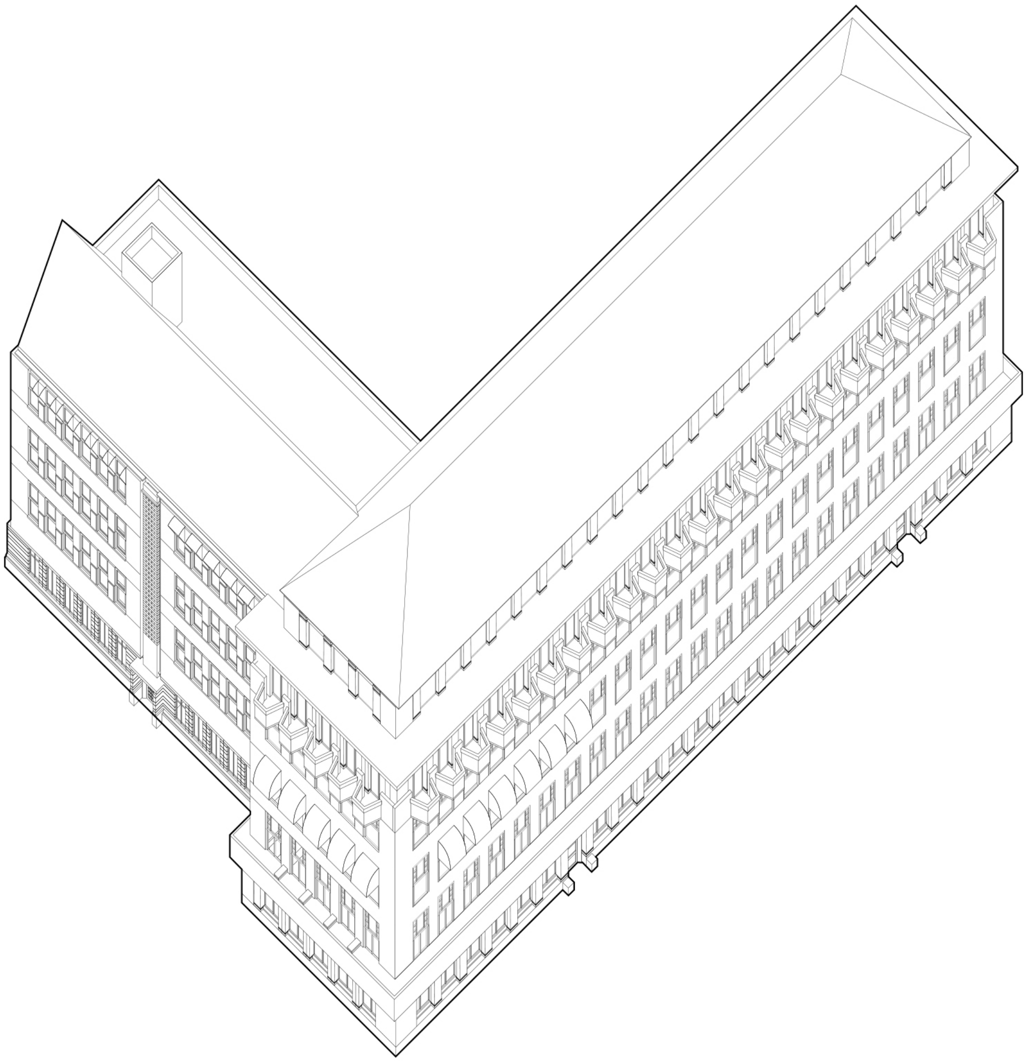
The Block:

Building 'blocks' or complexes built around the time of the Minervaplein were considered by the author Maristella Casciato to represent the 'hayday of the Amsterdam school', while she places criticism on the Blaauw building as representing 'the severity stripped of the effervescence of previous years'.



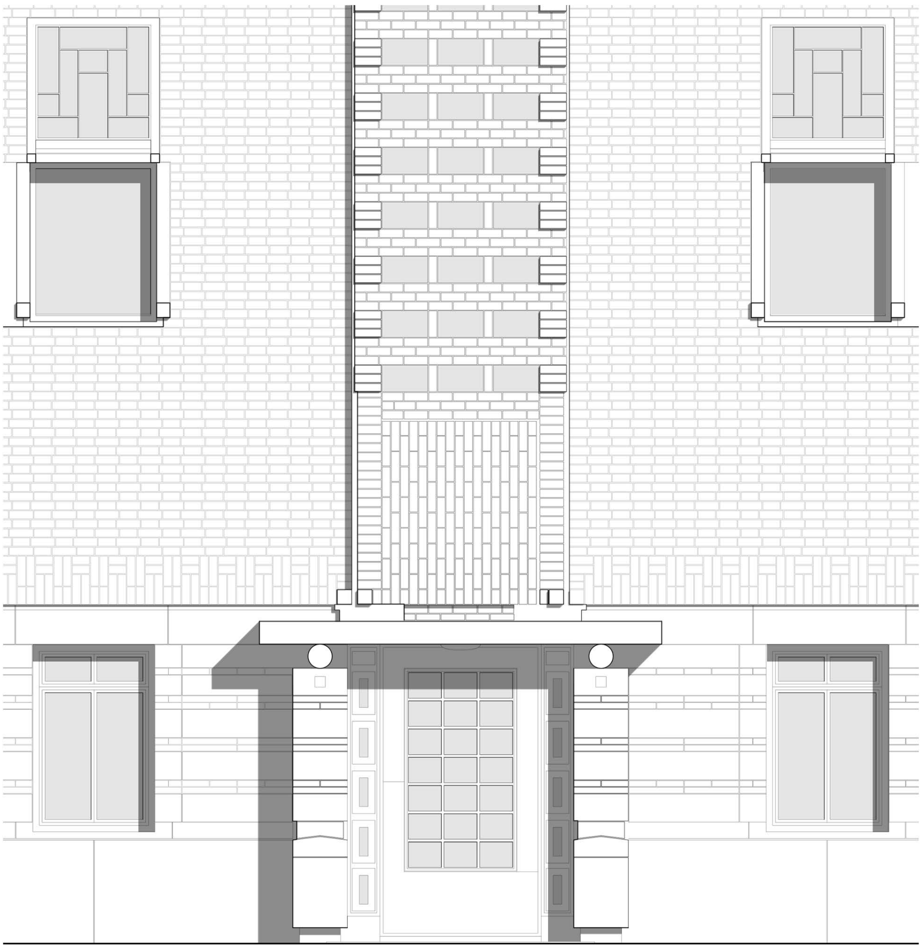
Expression:

Subtle expression of the Amsterdam style, appropriate to the scale of the social housing block was important to the overall aesthetic of this powerful movement.



Mechanism

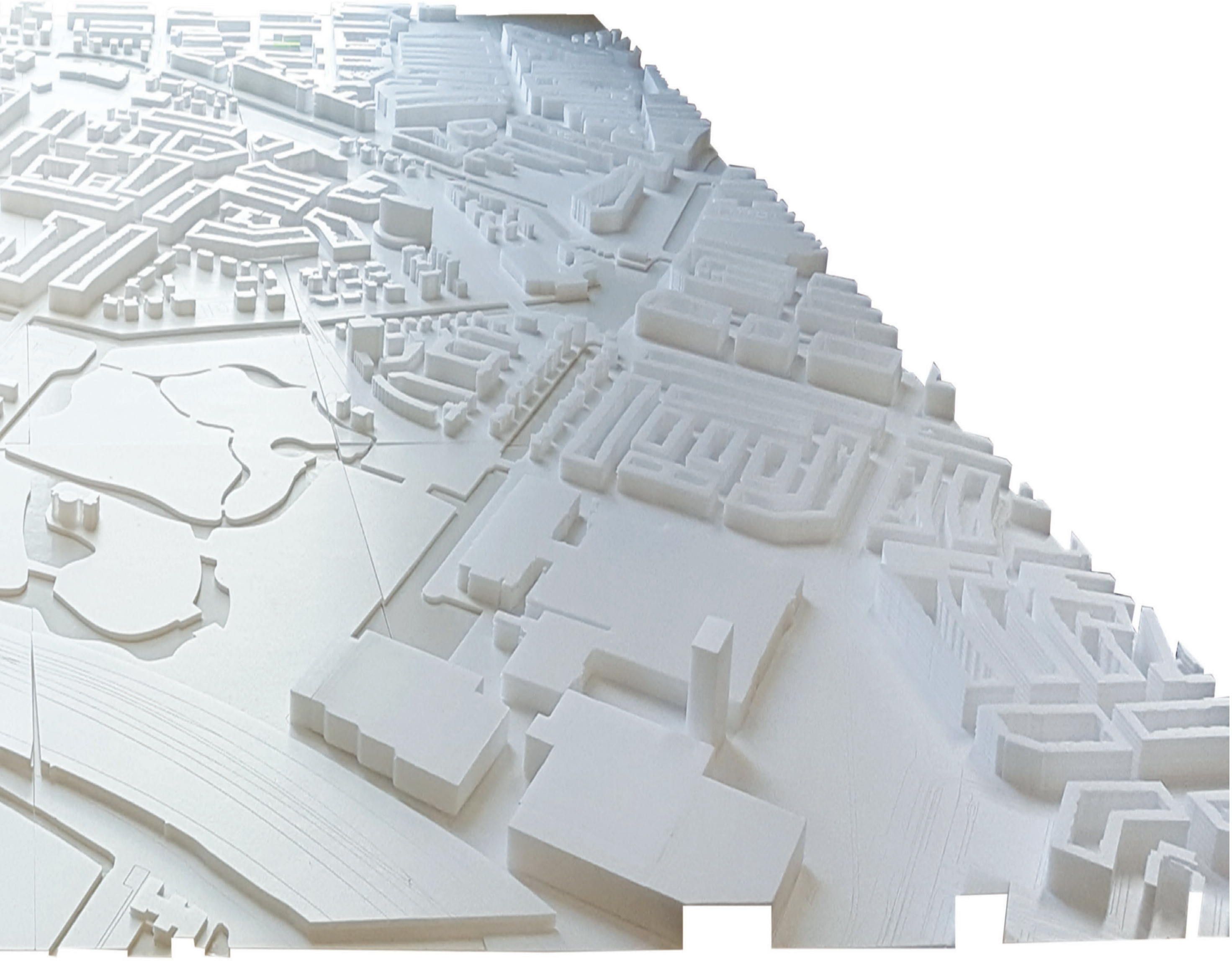
The Minervaplein also can be read in the context of increased mechanisation of the construction process. Wim de Wit notes that 'he was unable to disguise the fact that his blocks were actually accumulations of identical dwellings', generally the acknowledged tone was that this building block was not a positive addition to the movement.



Decoration

Decorative stone work presents an attempt to individualise this social building block, the use of motif and ornament was generally presented as an integration within the built architecture of the earlier Amsterdam school work while here we see a last attempt to fight against rational standardisation.

OUD-



ZUID


hurks
15
Our LOVE is
here to *stay*
Not for a *YEAR*
But ever
and a *day*
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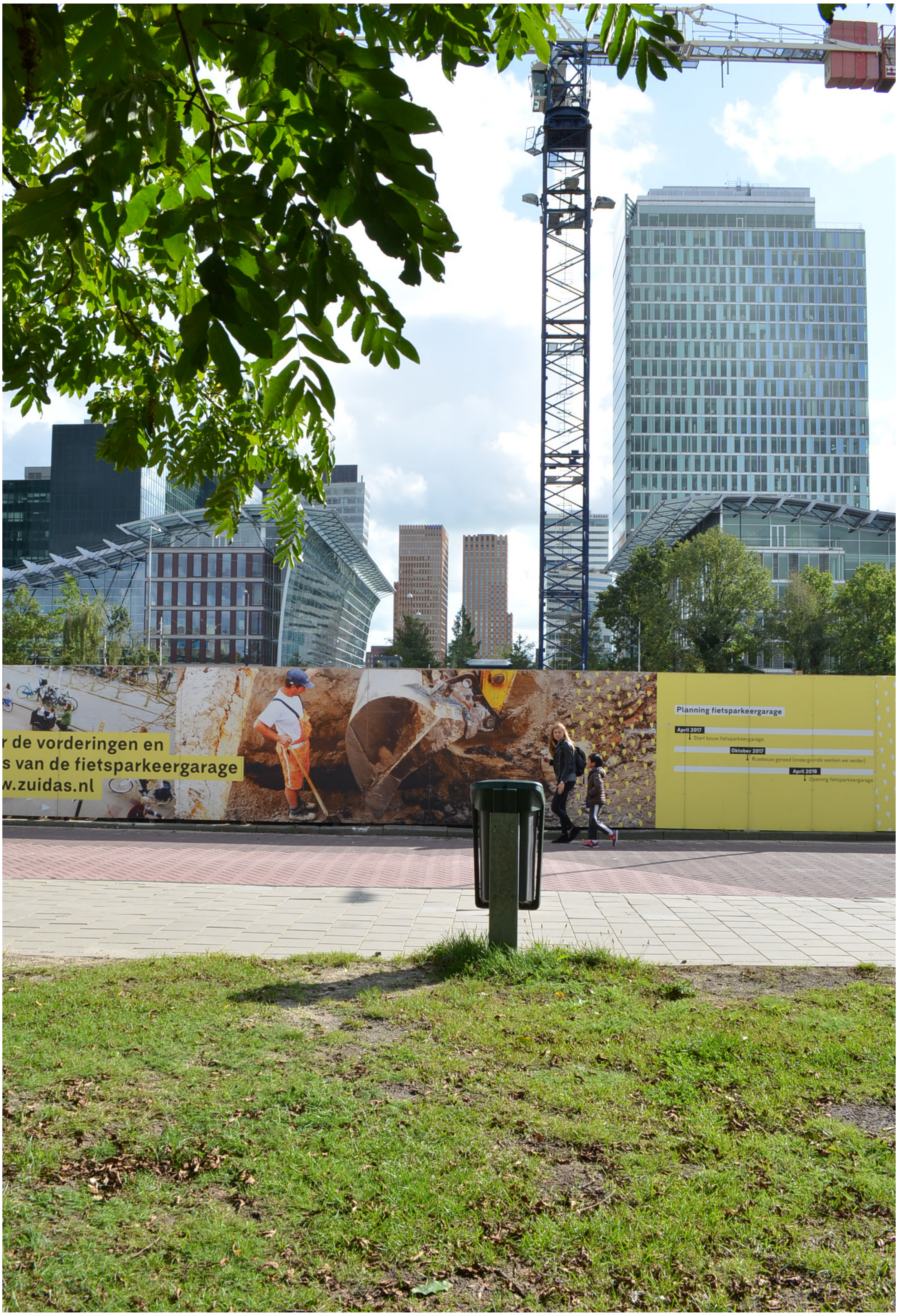
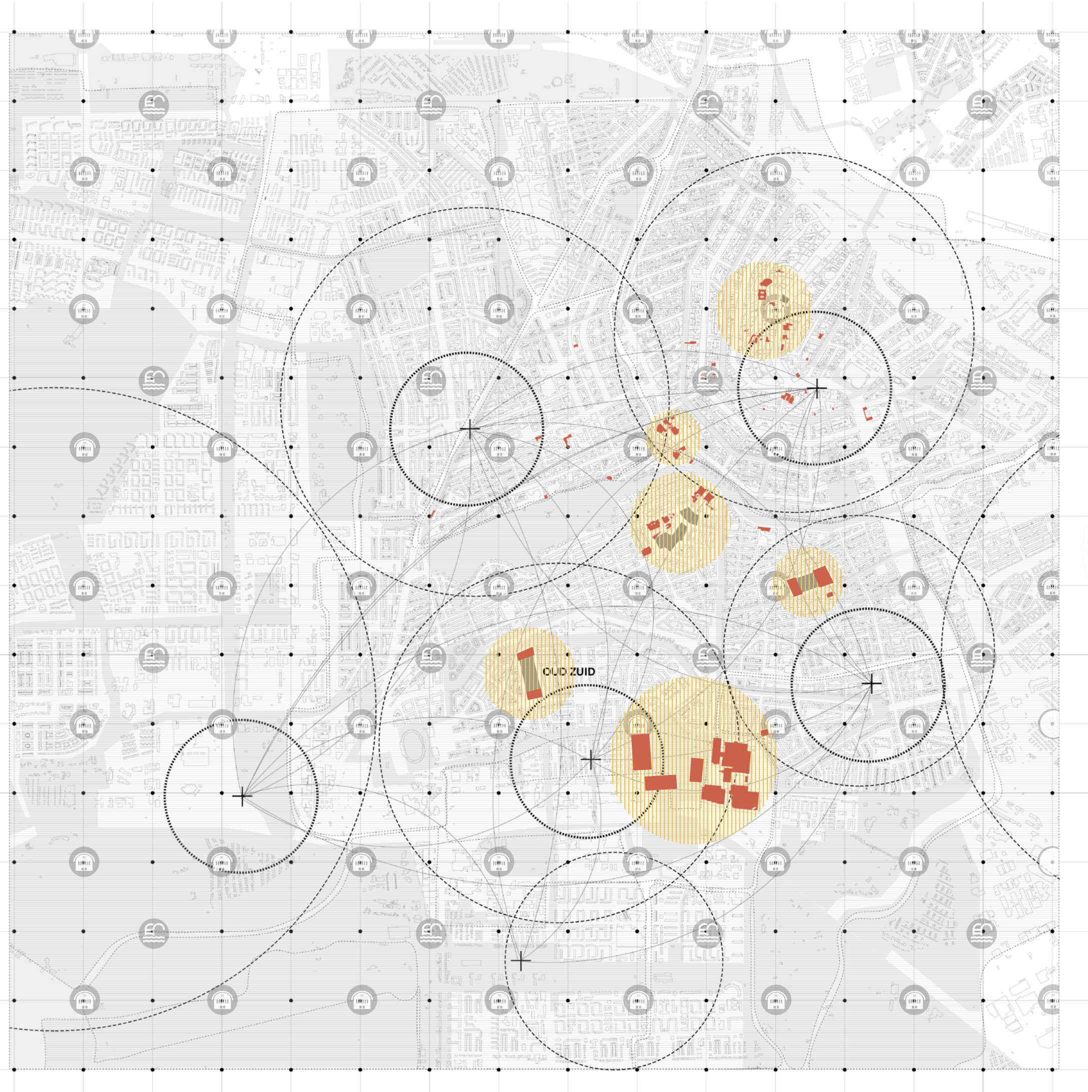

r de vorderingen en
s van de fietsparkeergarage
w.zuidas.nl
Planning fietsparkeergarage
April 2017
Start bouw fietsparkeergarage
Oktober 2017
Ruwbouw gereed (ondergronds werken we verder)
April 2018
Opening fietsparkeergarage


CORNELIS SCHUYTSTRAAT
14773


JOE
48



In Amsterdam 2050:

- All recreational facilities will be entirely part of the public realm and thus truly accessible to all.

- The quantity and quality of recreational facilities will ensure all residents have the opportunity to improve on their health in the Amsterdam of 2050.

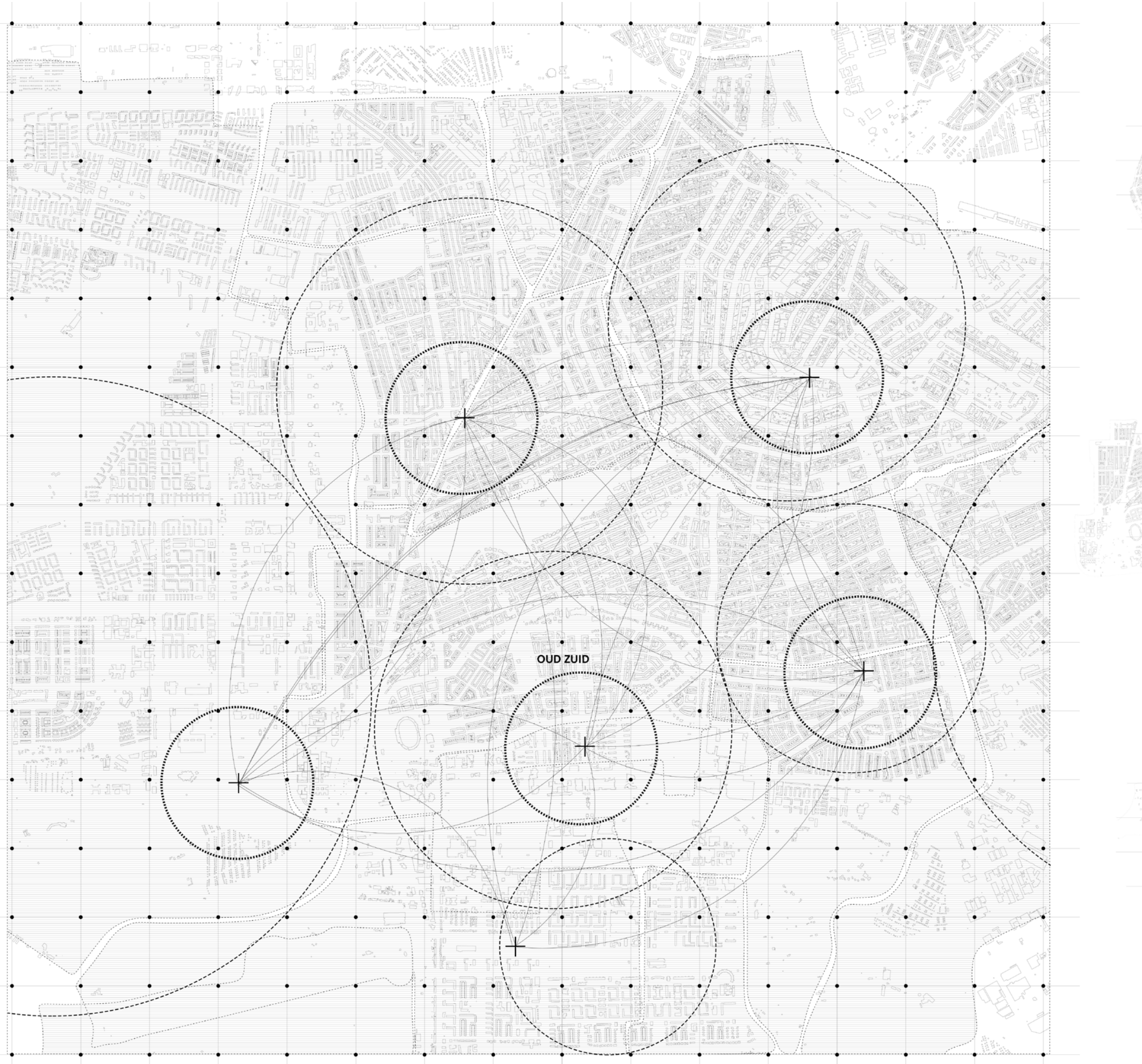
- Cultural and recreational (sport) facilities will be further integrated within our daily lives and not seen as a separate activity but rather part of our typical social agenda.

- Cultural amenities will find themselves fully integrated within our daily routine, no longer will museums or cultural amenities feel as separate or special elements of architecture.

- Localised Data will ensure the smooth running of all local public services in the future.

- Everyone will benefit from Data of the public realm, residents can rely of Data to improve the efficiency of their daily activities.

- No longer will ALL Data be stored away from the cities in separate 'centers' but rather a new paradigm of truly 'public' Data as the new Public space will occur.



Key Points:

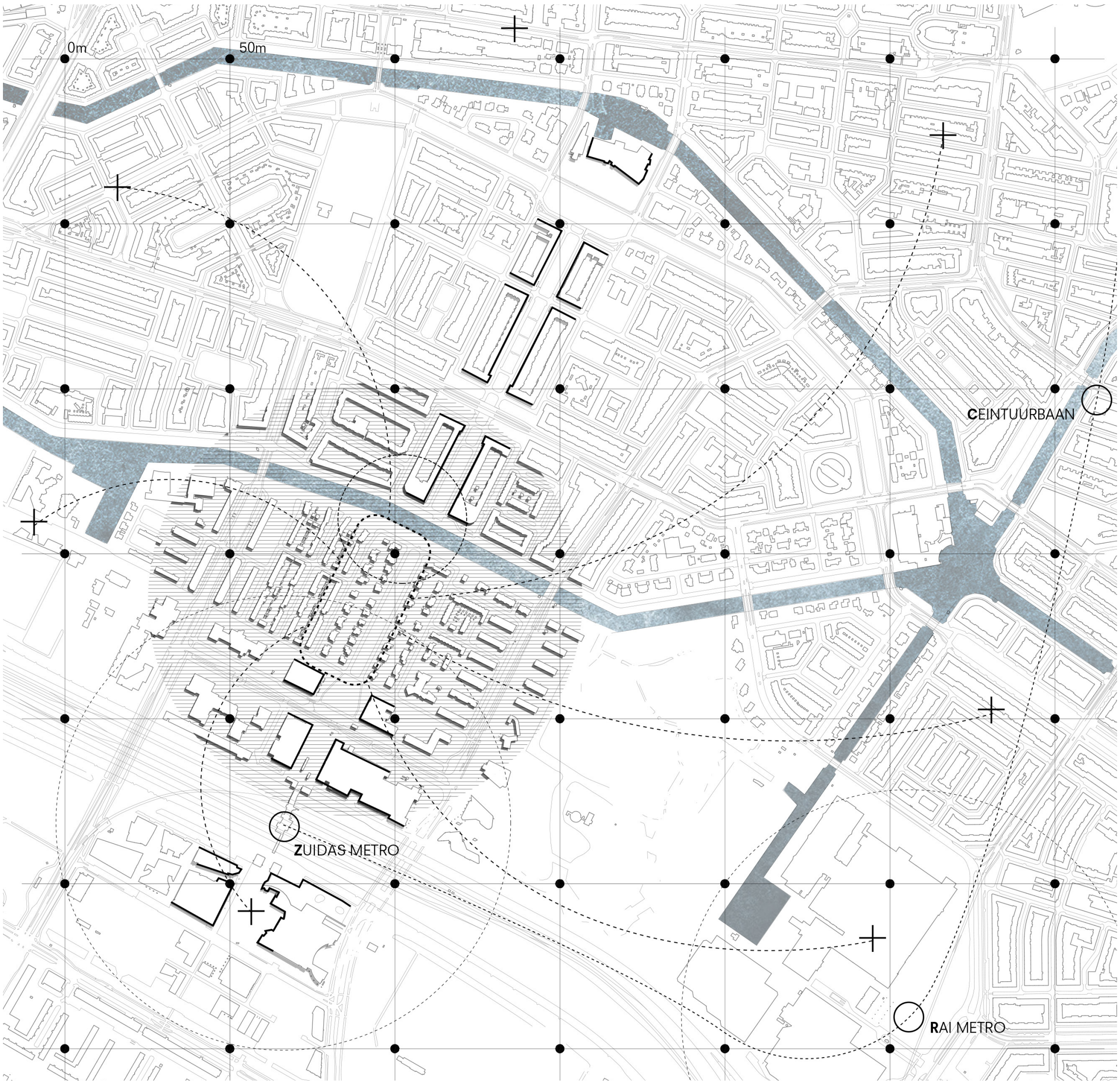
Localised storage of Public DATA will see the formation of new municipal data areas within our urban context.

Municipal data centers will concerns a series of Private, shared and open-source data types relating to the municipal area.

Each municipal area is connected to one another but in the case of a problem or critical issue the entire city would not be affected but just that specific area. In

ways this creates a system of localised security within the new urban data context.

This new typology arises from the re-structuring of public data storage. All data concerning the public or the public realm will have to be saved to these local data municipal buildings.



Open source public data

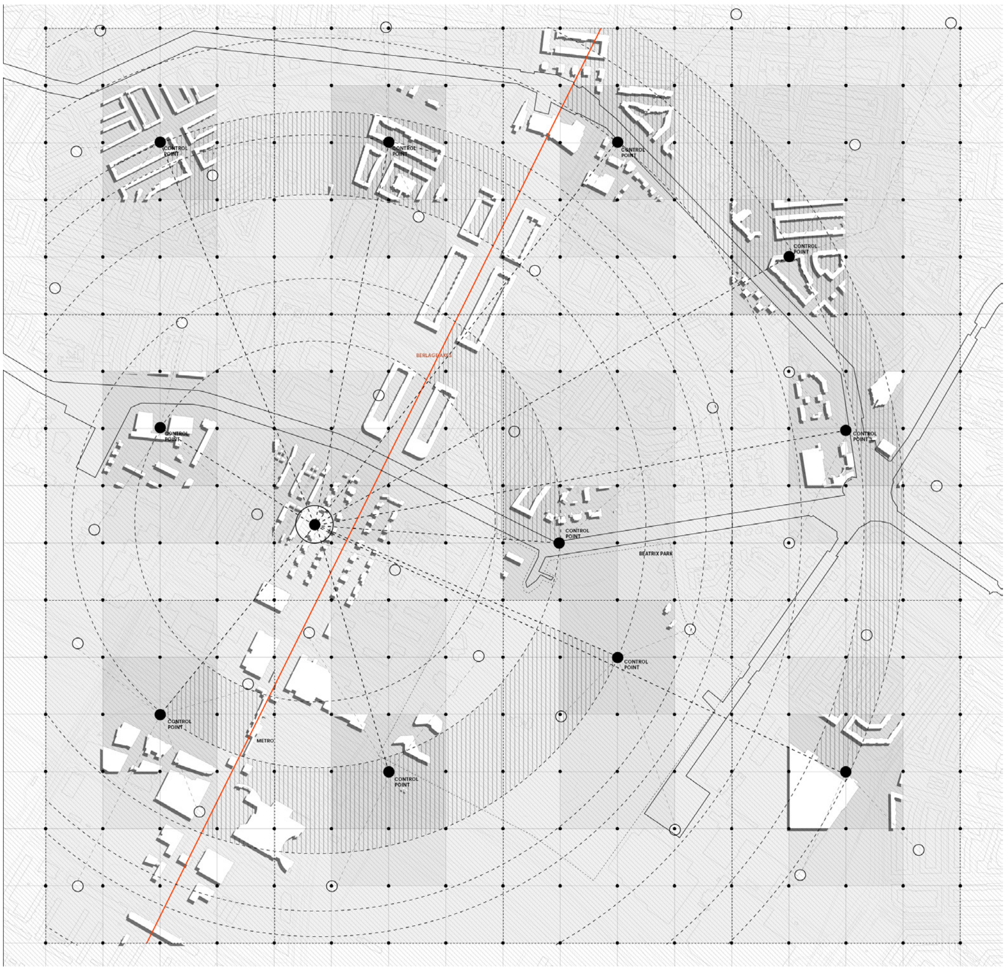
will be collected by beacon points in the landscape that are fed back to the municipality for analysis and research.

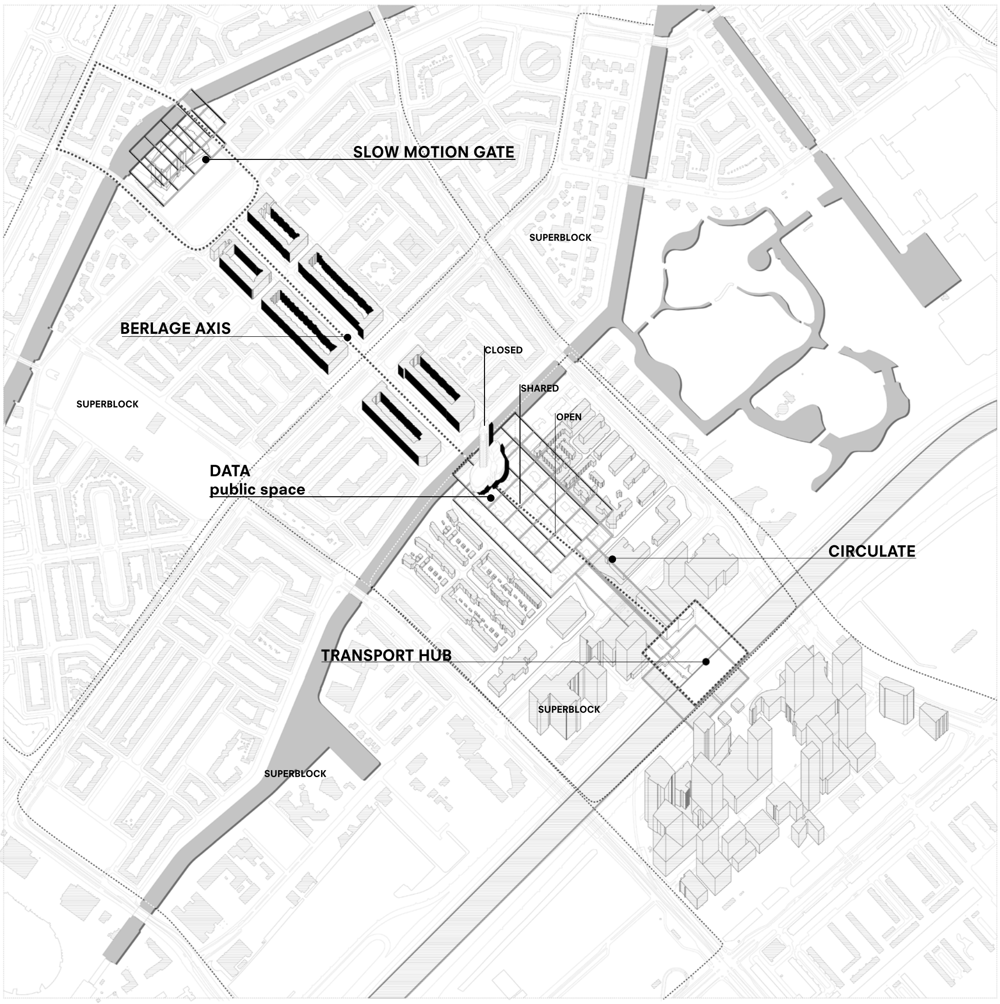
Data including: Weather, traffic, maps, bicycle, pedestrian, commerce, cultural, population, health and social media data all concern the public realm.

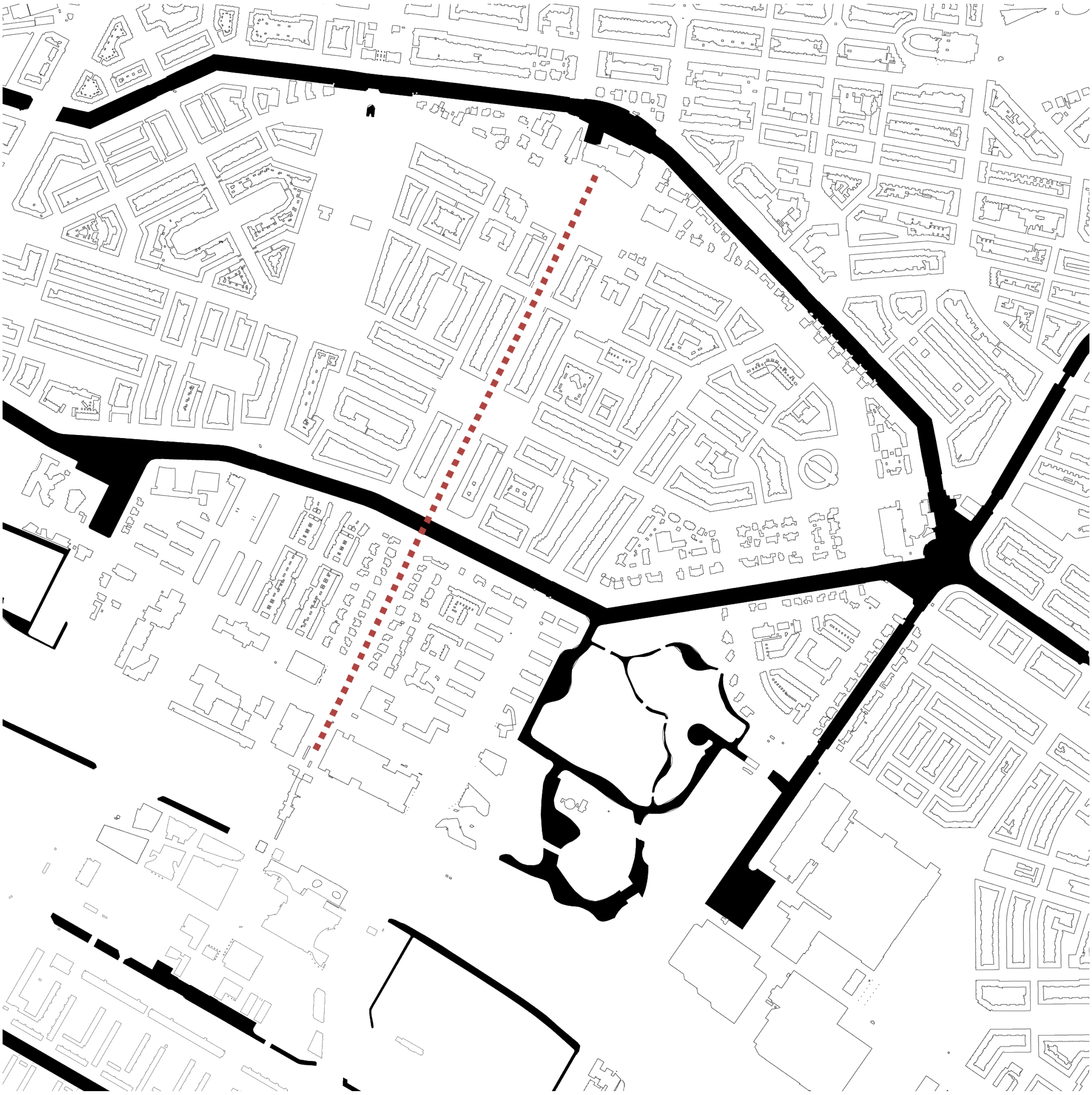
This can be analysed and used in turn to create more efficient and safe local environments through digital and physical intervention.

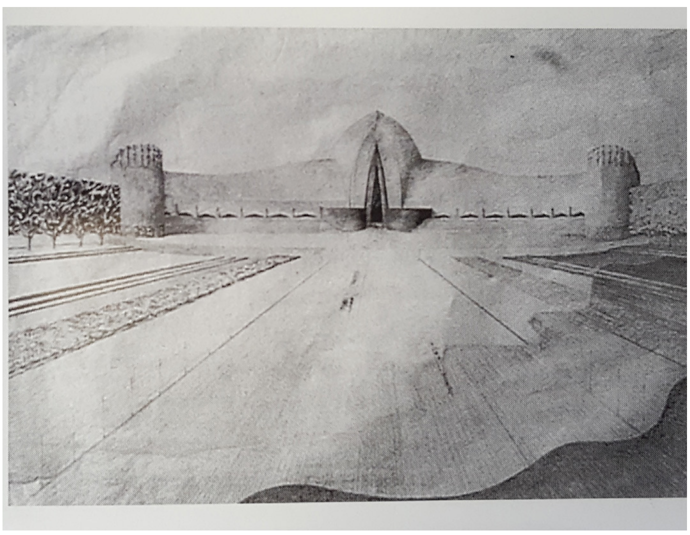
The proximity to the Zuidas, which will act as the new gateway to the city of Amsterdam, places this Data municipality as a major collector of mobility data and thus will have a high level of integration with new modes of transportation.

Much like energy, the control between state and private data will ensure better control and management of for the benefit of all end users.



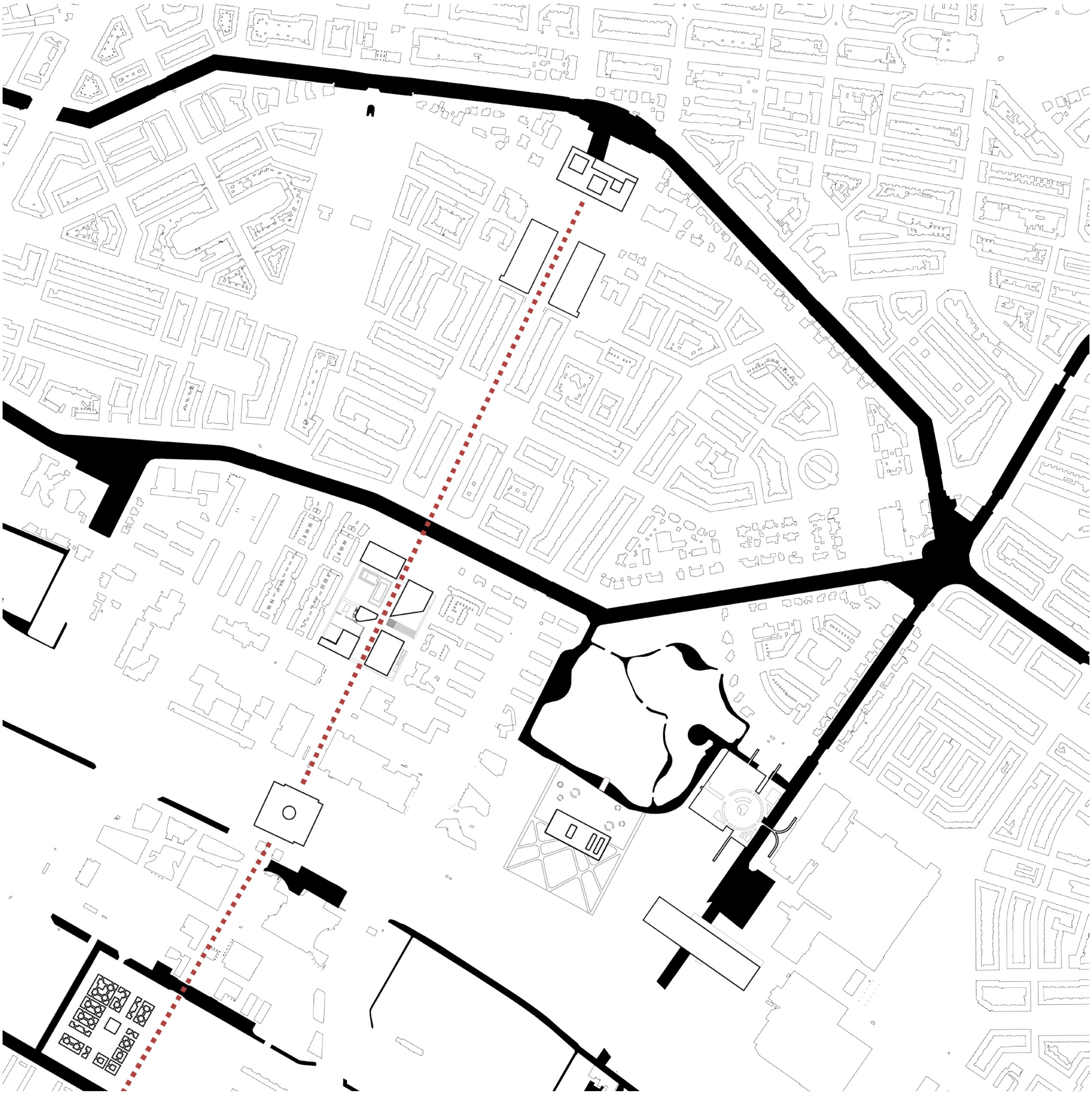

SLOW MOTION GATE
SUPERBLOCK
BERLAGE AXIS
CLOSED
SHARED
OPEN
SUPERBLOCK
DATA
public space
CIRCULATE
TRANSPORT HUB
SUPERBLOCK
SUPERBLOCK





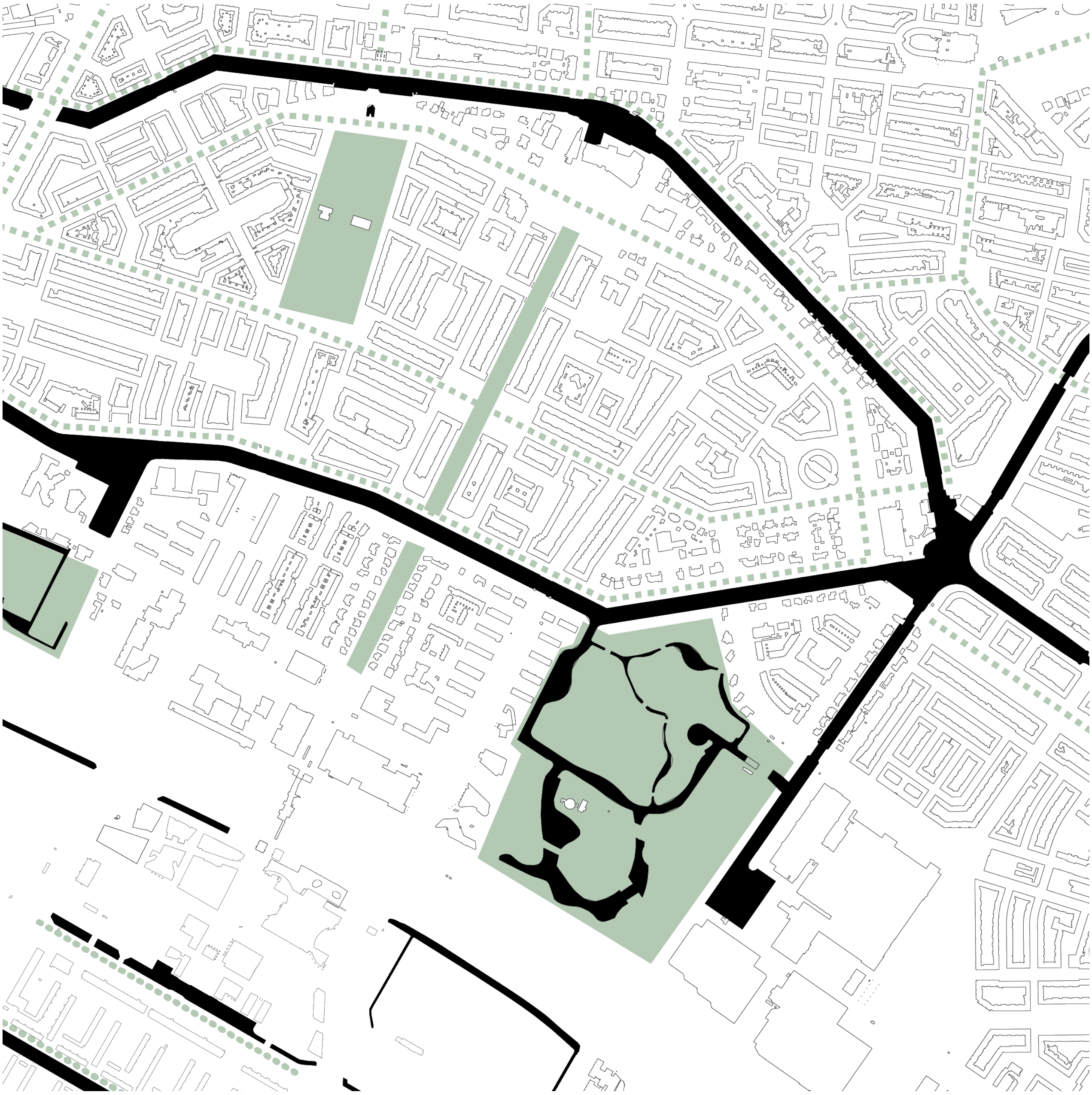
Existing Axis

The Existing berlage axis was designed to connect a proposed Theatre and Train station for the ‘zuid’at either ends of the Plan Zuid area. The Theatre subsequently became a hotel and the train station became disconnected through the lack of significant infrastructure at the time thus leaving the axis with a lack of purpose.



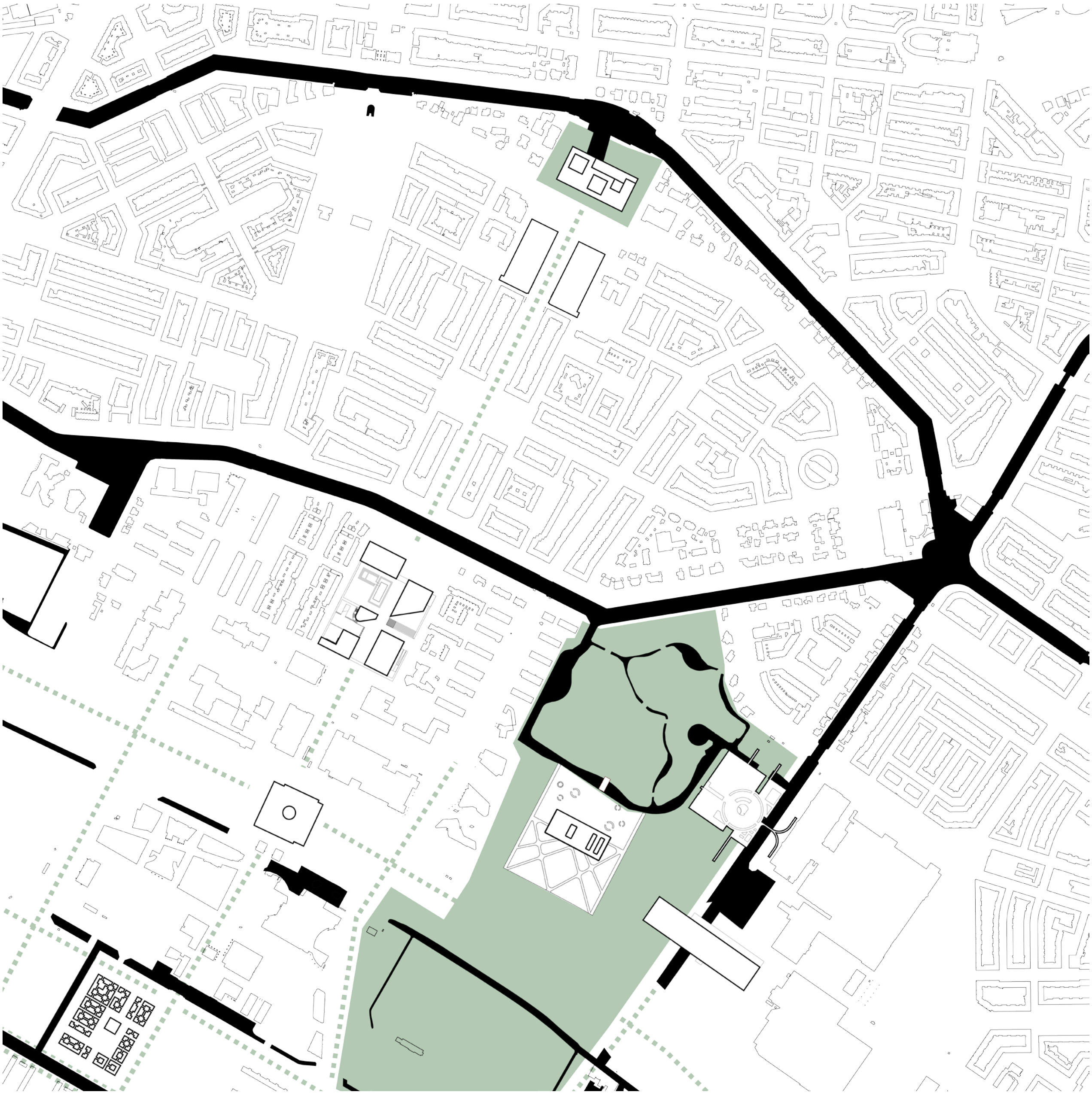
Group Axis

The lengthening of the axis to include the social housing spaces of the Zuidas will enable a far more diverse array of architectural planning/purpose along the axis rather than the existing middle class housing and commercial use.



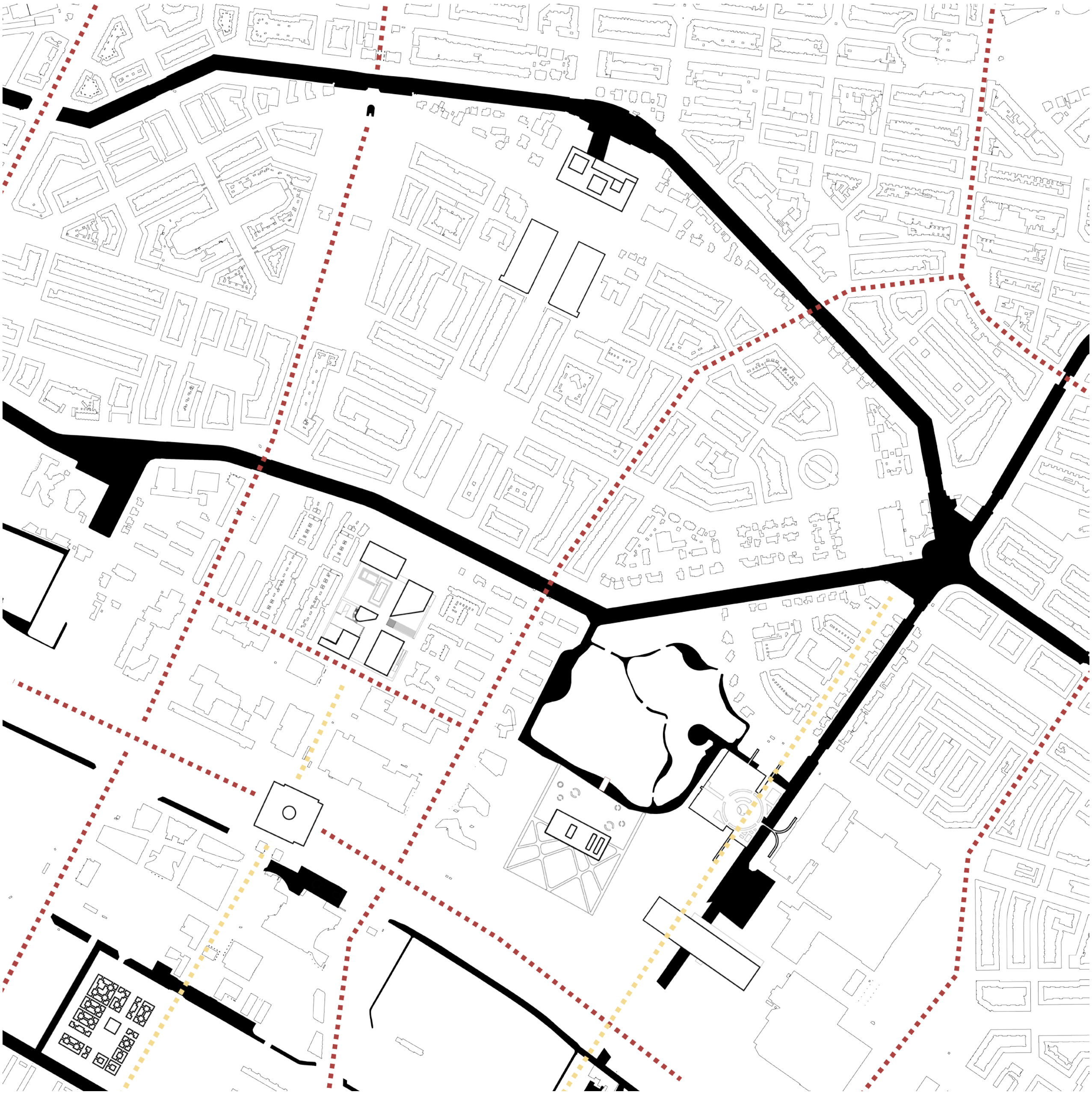
Existing Green Space

The existing green spaces create pockets of dis-connected recreational space, we propose an alteration to this dis-connection in the creation of a far more active and involved city occupant.



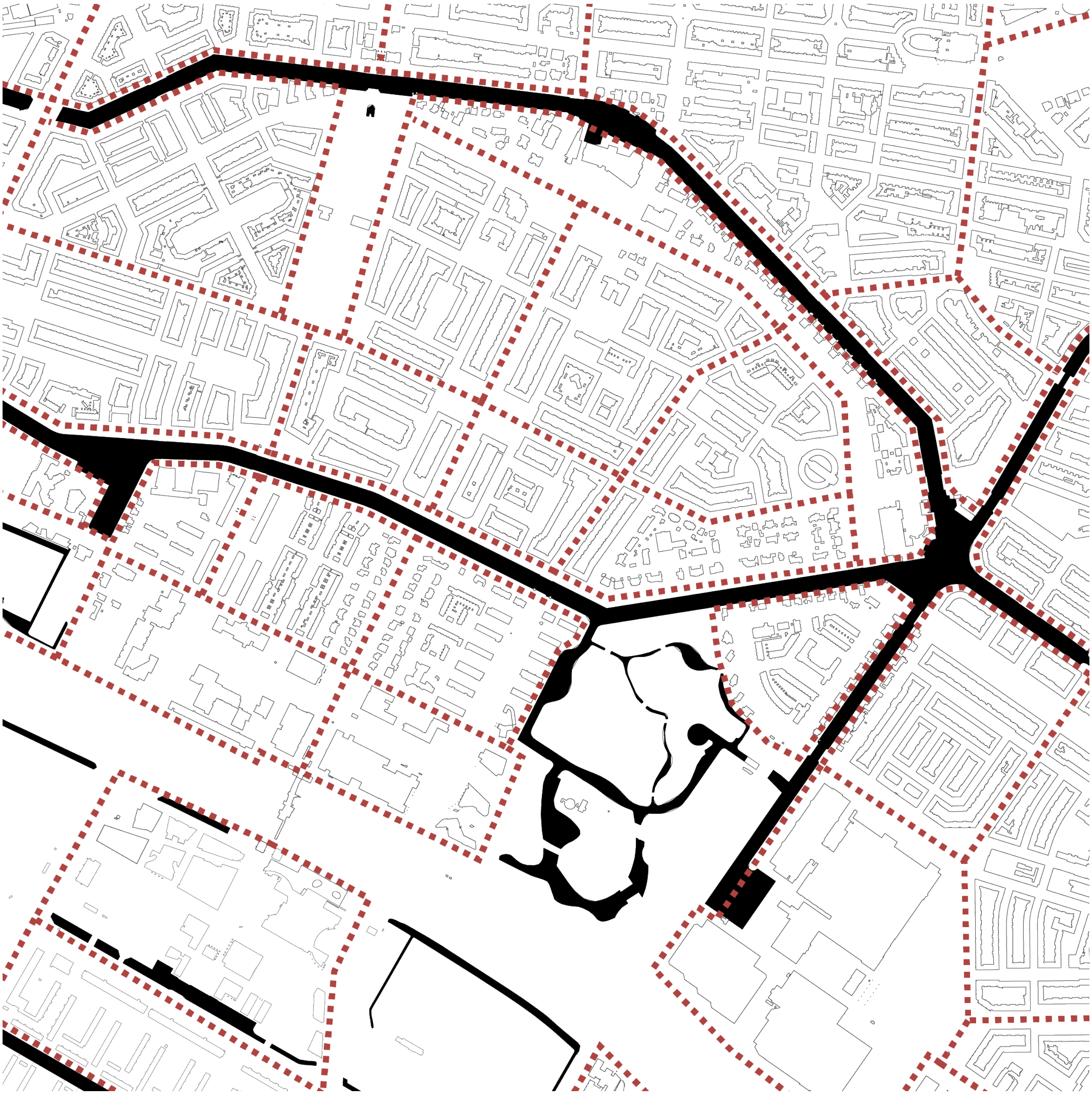
Green spaces

Through the introduction of the superblock, we foresee a far more densely planted interior space. The re-purposing of these spaces to become more pedestrian friendly should also see a much more active participation in relation to green space use.
With the placement of the highway under the ground; the Zuid should see an expansion of the existing park to connect across to the proposed new train station.



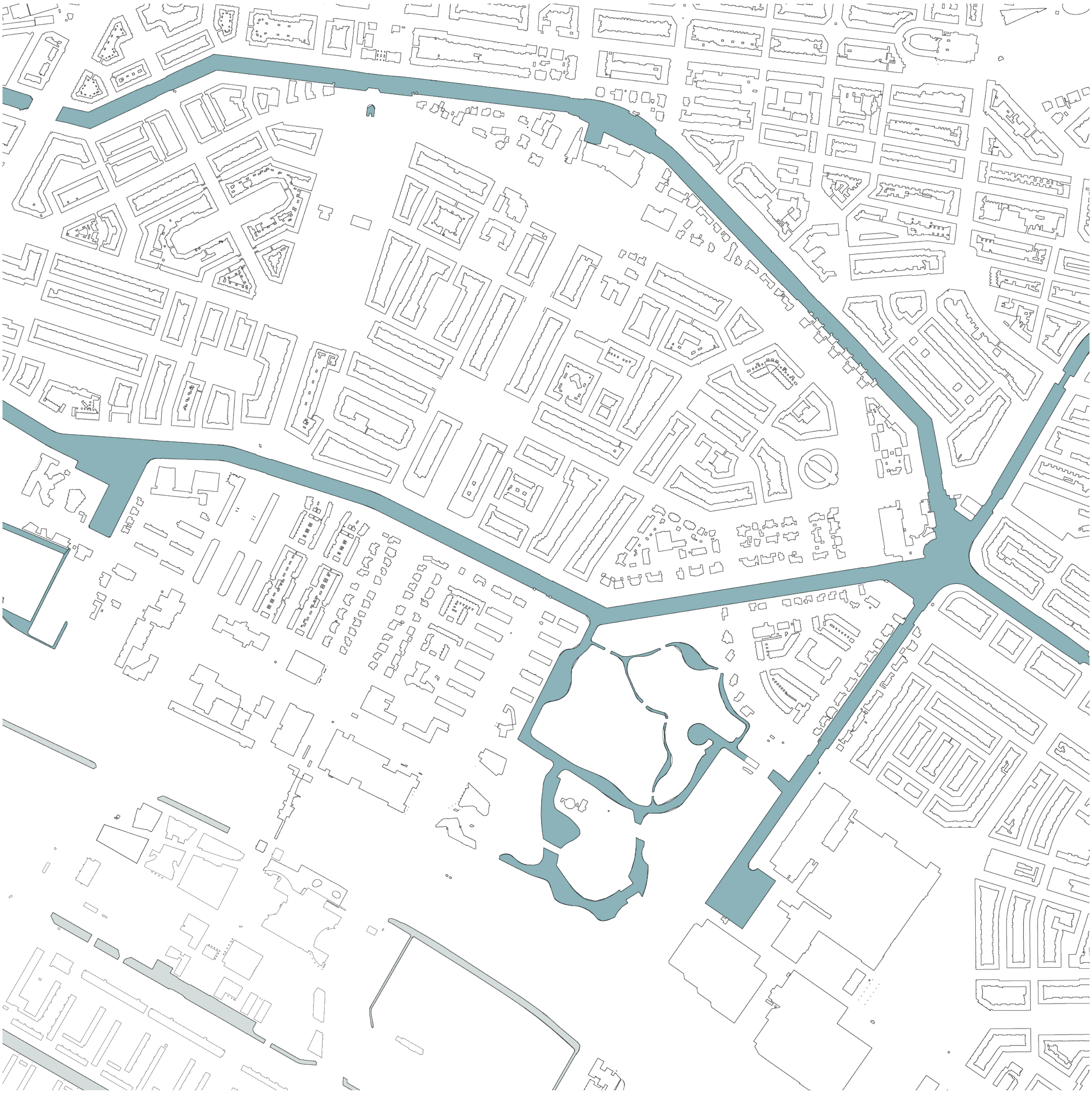
Transport

Cycling routes and a new introduction of a POD service partially underground in the area of the Zuidas and re-surfacing at the Minervaplein will enable a far stronger physical connection to the center of the city. Strengthening the connection and purpose of the Zuid as a new 'gate way' to Amsterdam.



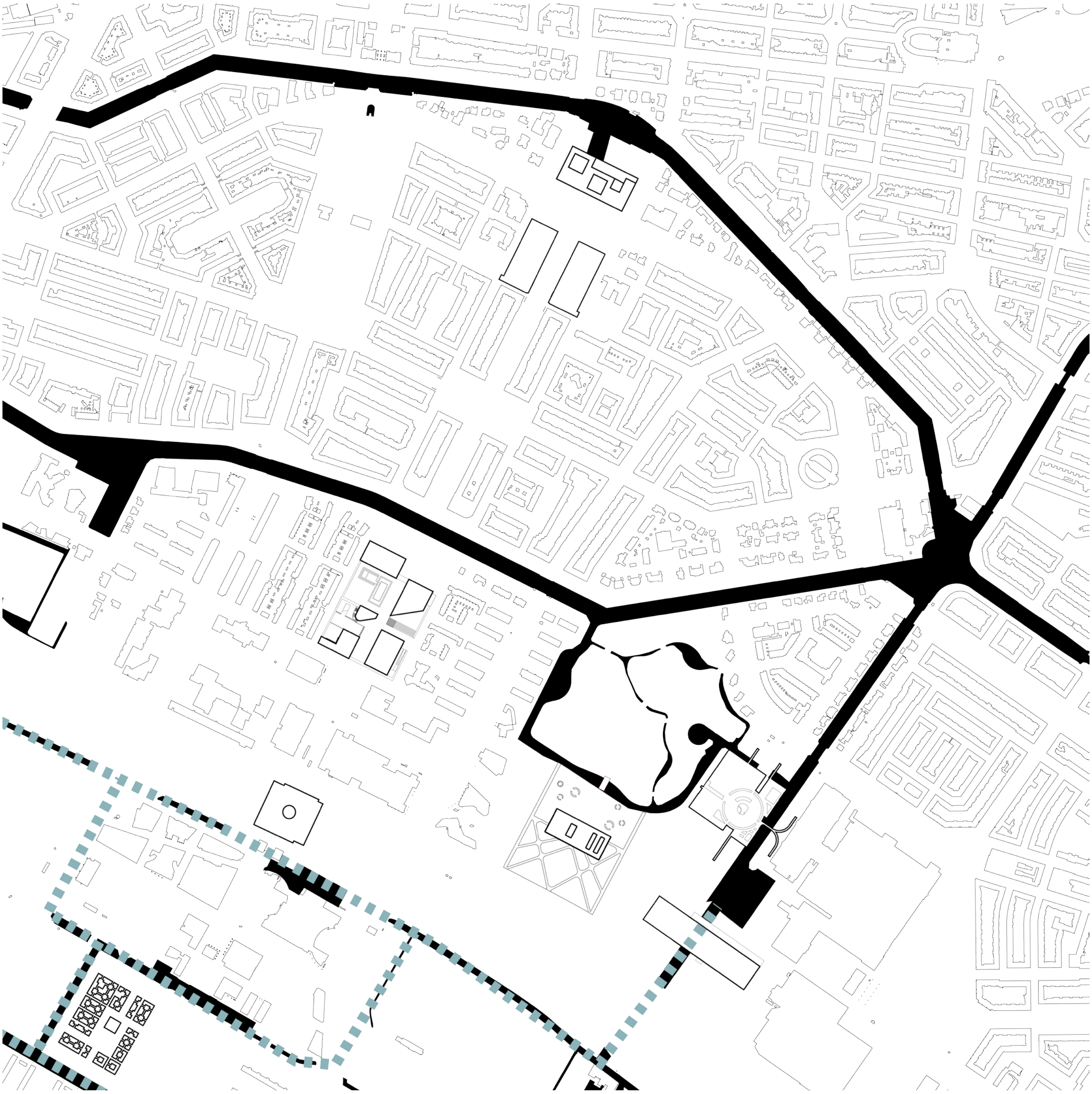
Super Blocks

The group proposes a series of Super-blocks on which the car is the main mode of transport while the internal spaces becomes a series of 'shared'surface zones for the who cycle, live (park) and pedestrians.



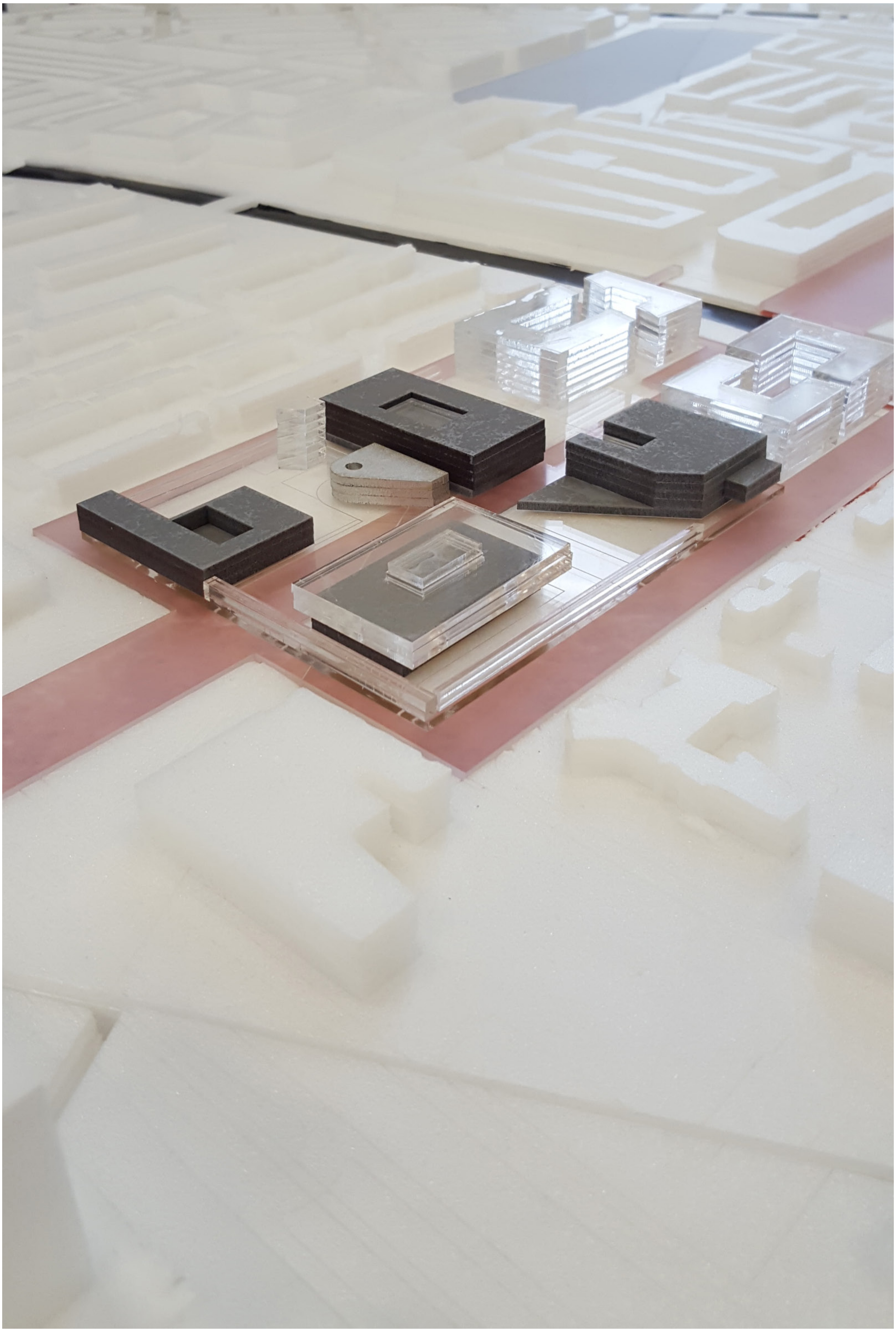
Waterways

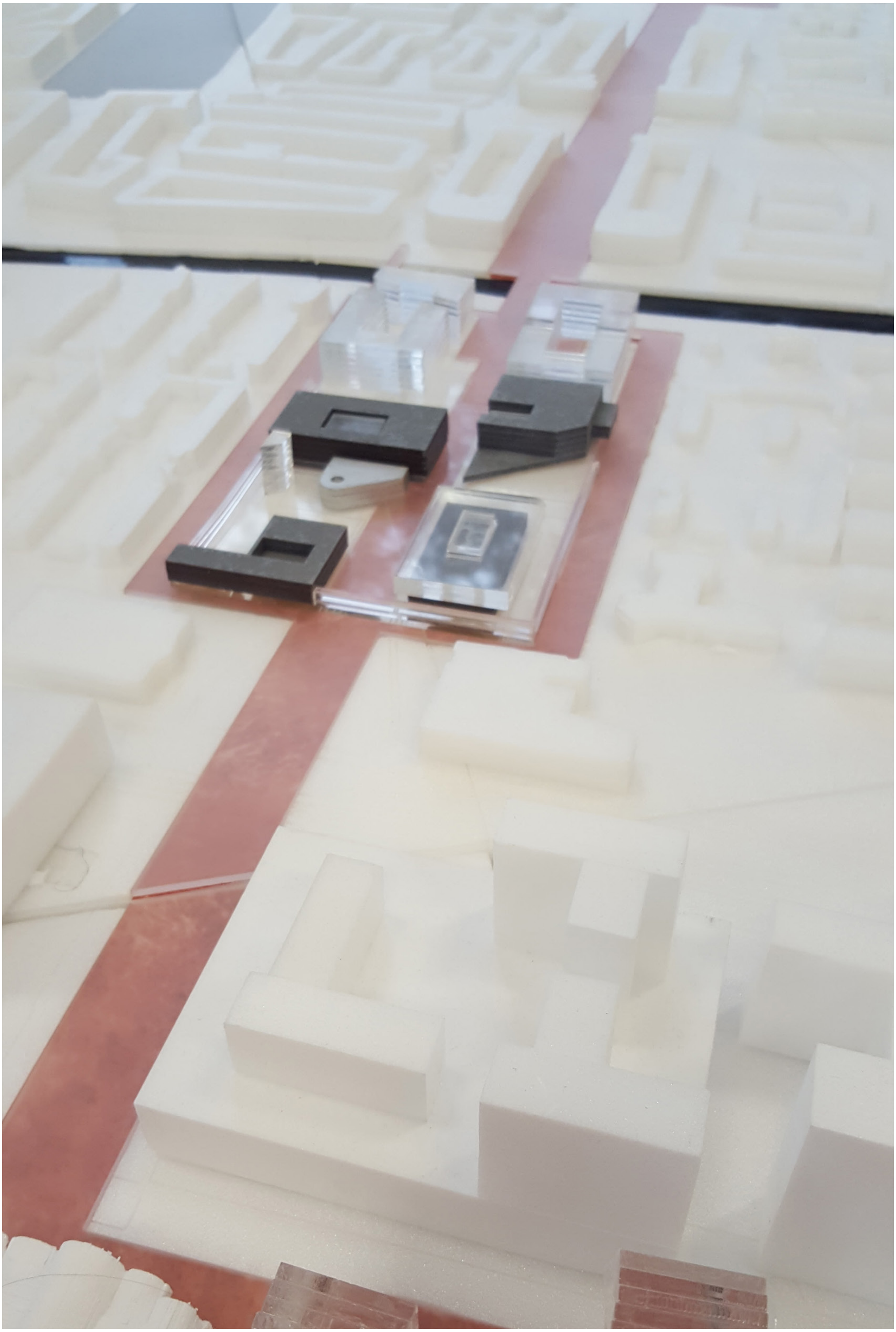
The existing water-ways and canals end at the line of the Zuidas, this physical barrier creates a block or dis-connect between the occupants behind the zuidas and the canals of the city center.

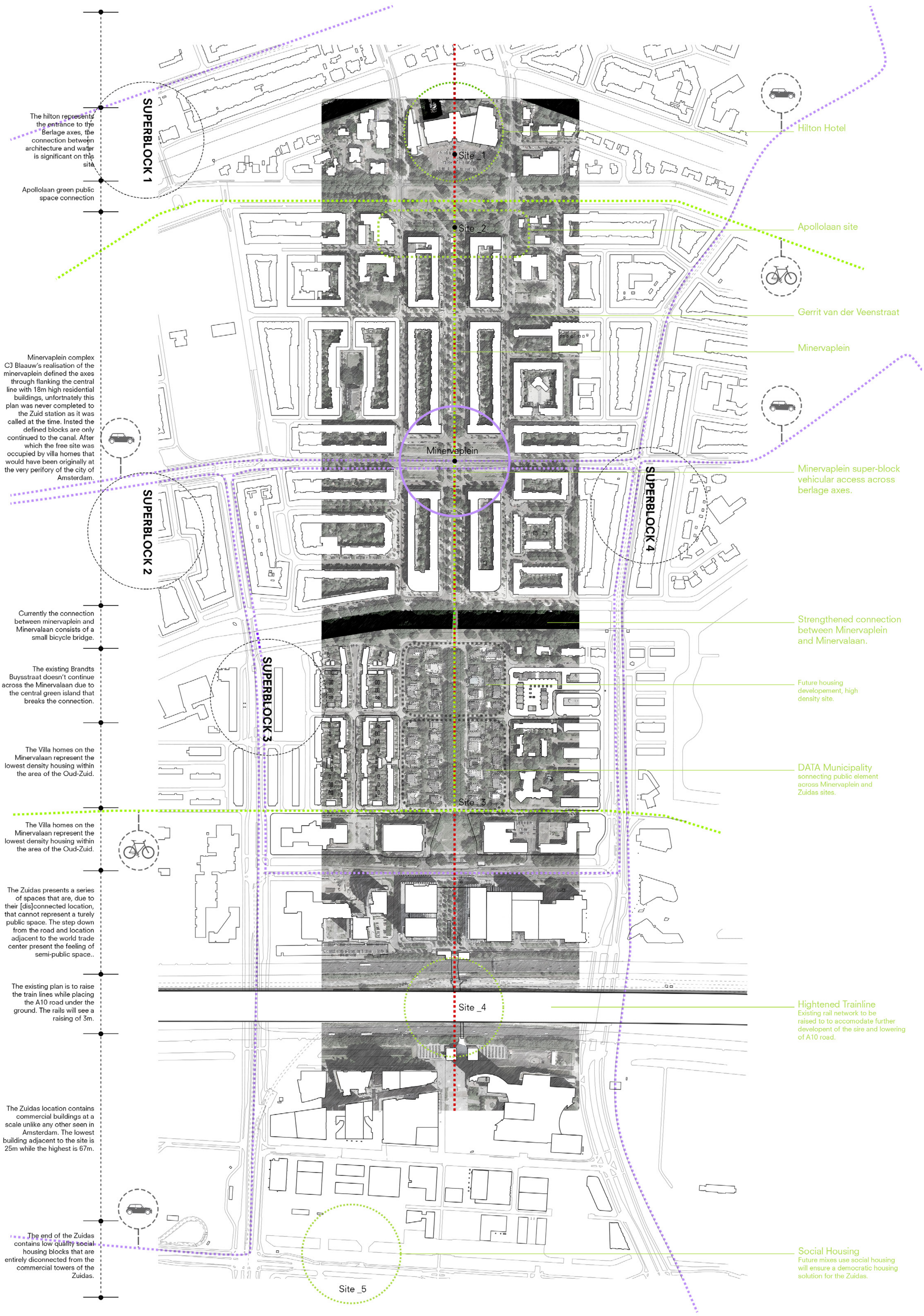


Proposed Waterways

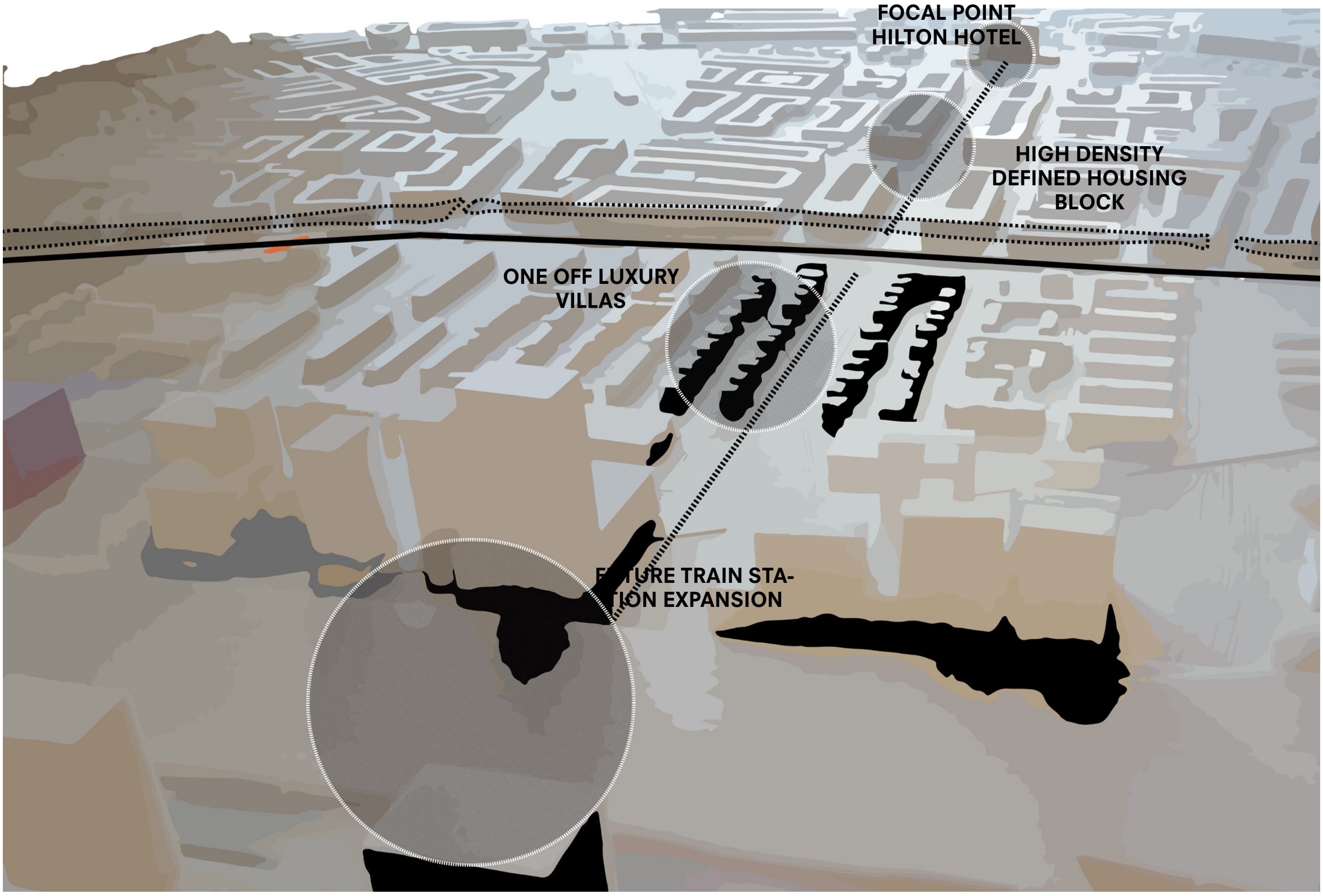
With the new green spaces extended the waterways and canals of the city can now reach to connect with the new social housing projects of the Zuidas, creating a physical connection and water access to the canals of the city center.

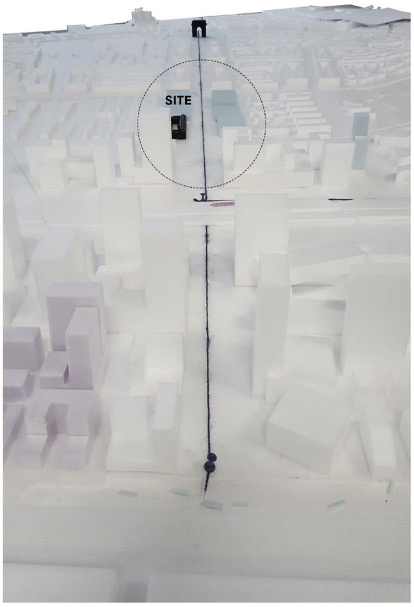




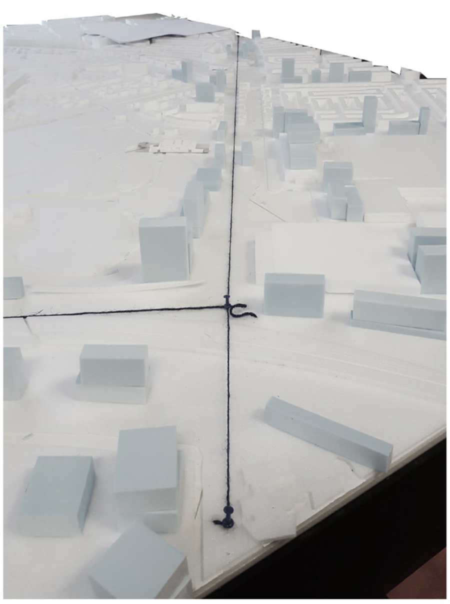


The hilton represents the entrance to the Berlage axes, the connection between architecture and water is significant on this site.
Apollolaan green public space connection
SUPERBLOCK 1
Minervaplein complex CJ Blaauw's realisation of the minervaplein defined the axes through flanking the central line with 18m high residential buildings, unfortunately this plan was never completed to the Zuid station as it was called at the time. Insted the defined blocks are only continued to the canal. After which the free site was occupied by villa homes that would have been originally at the very perifory of the city of Amsterdam.
SUPERBLOCK 2
Currently the connection between minervaplein and Minervalaan consists of a small bicycle bridge.
The existing Brandts Buysstraat doesn't continue across the Minervalaan due to the central green island that breaks the connection.
SUPERBLOCK 3
The Villa homes on the Minervalaan represent the lowest density housing within the area of the Oud-Zuid.
The Villa homes on the Minervalaan represent the lowest density housing within the area of the Oud-Zuid.
The Zuidas presents a series of spaces that are, due to their [dis]connected location, that cannot represent a turely public space. The step down from the road and location adjacent to the world trade center present the feeling of semi-public space..
The existing plan is to raise the train lines while placing the A10 road under the ground. The rails will see a raising of 3m.
The Zuidas location contains commercial buildings at a scale unlike any other seen in Amsterdam. The lowest building adjacent to the site is 25m while the highest is 67m.
The end of the Zuidas contains low quality social housing blocks that are entirely disconnected from the commercial towers of the Zuidas.
Site _1
Site _2
Minervaplein
Site _3
Site _4
Site _5
SUPERBLOCK 4
Hilton Hotel
Apollolaan site
Gerrit van der Veenstraat
Minervaplein
Minervaplein super-block vehicular access across berlage axes.
Strengthened connection between Minervaplein and Minervalaan.
Future housing developement, high density site.
DATA Municipality
sonnecting public element across Minervaplein and Zuidas sites.
Hightened Trainline
Existing rail network to be raised to to accomodate further developent of the sire and lowering of A10 road.
Social Housing
Future mixes use social housing will ensure a democratic housing solution for the Zuidas.

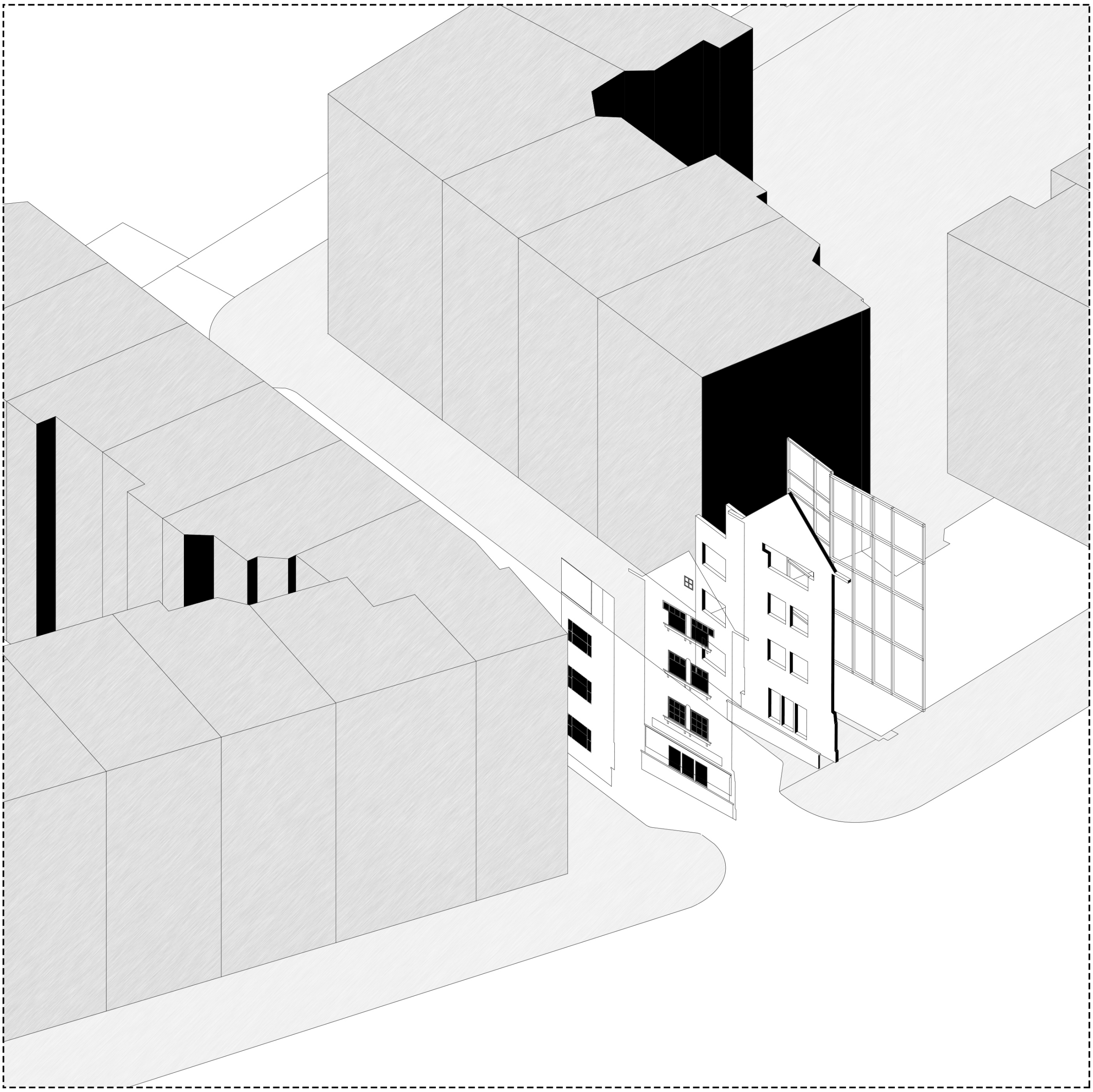




BERLAGE AXES

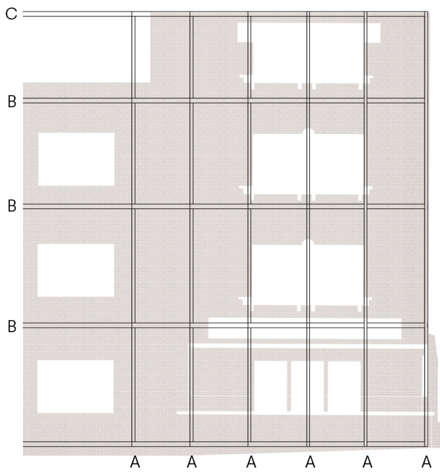


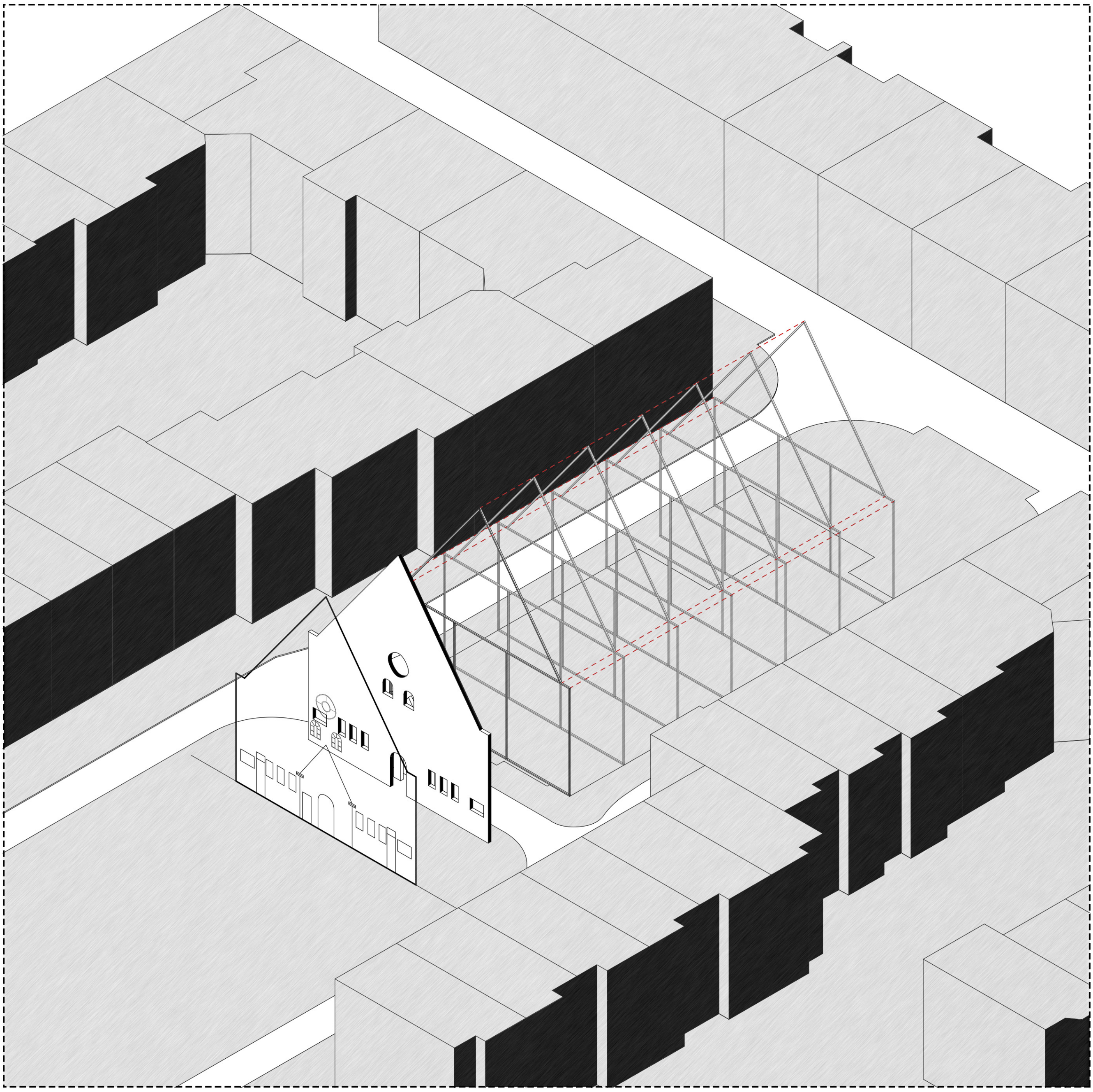
NEW OUD-ZUID AXES

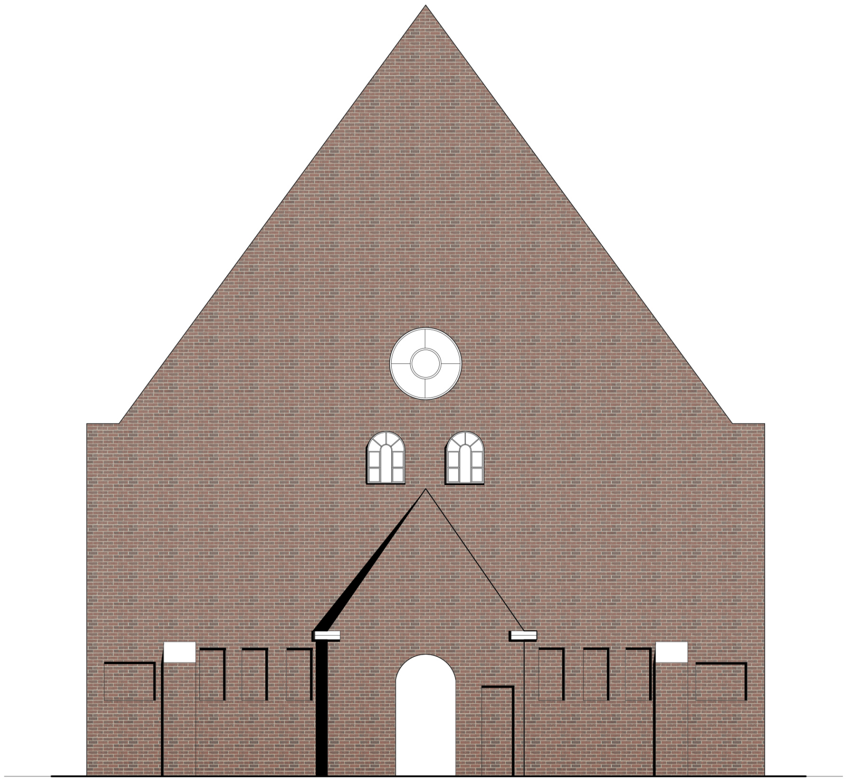


CONTEXT OF ENCLOSURE - HOTEL
Public Structure
Previously Social housing

+ Vertical Structure
+ Close Grid Structure
+ Re-perposed structure
+ Corner-block condition
+ Brick material
+ SandStone base
+ Slate roof
+ Repetitive horizontal grid
+ Repetitive vertical grid.

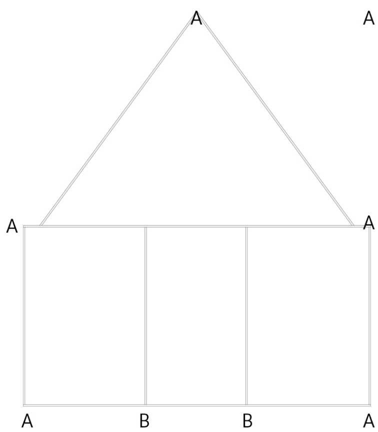


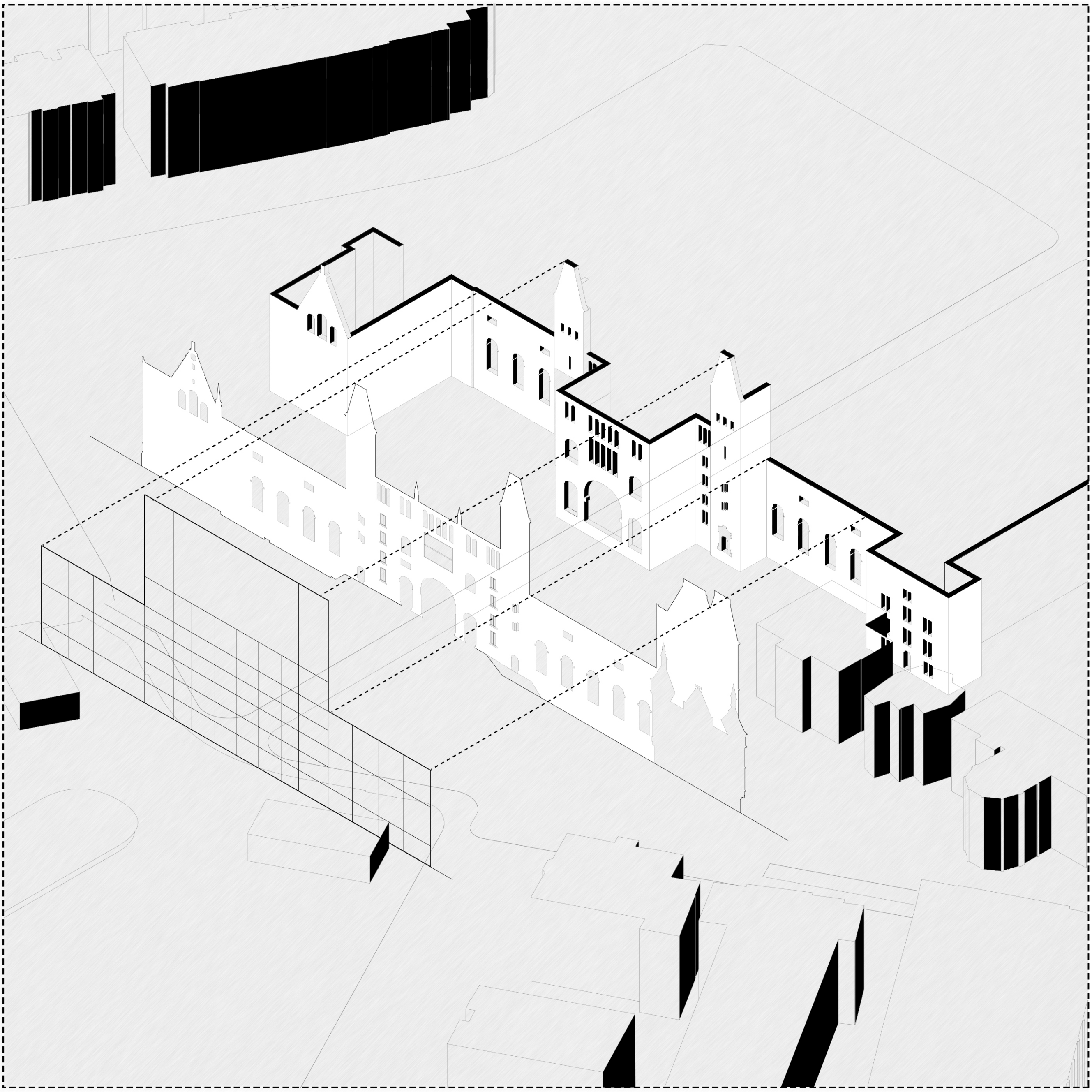


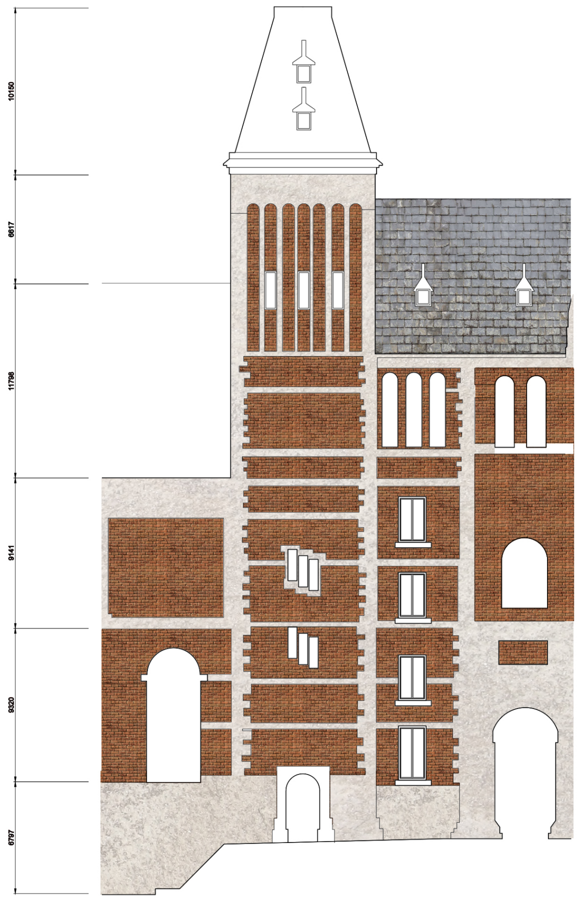


CONTEXT OF ENCLOSURE - RAPHAELKERK
Private Structure
Previously Public Structure [church]

+ Vertical Structure
+ Open Grid Structure
+ Re-perposed structure
+ Stand-alone condition
+ Brick material
+ Brick surrounds
+ Slate roof
+ High pitch roof
+ Repetitive vertical grid.

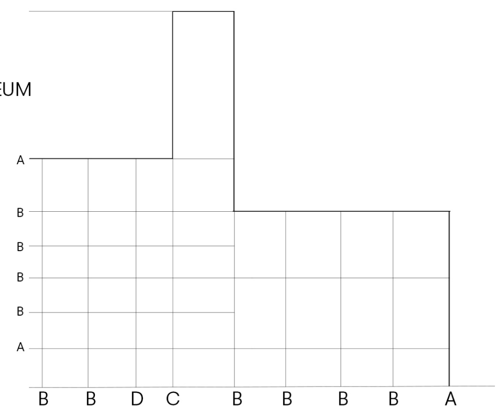


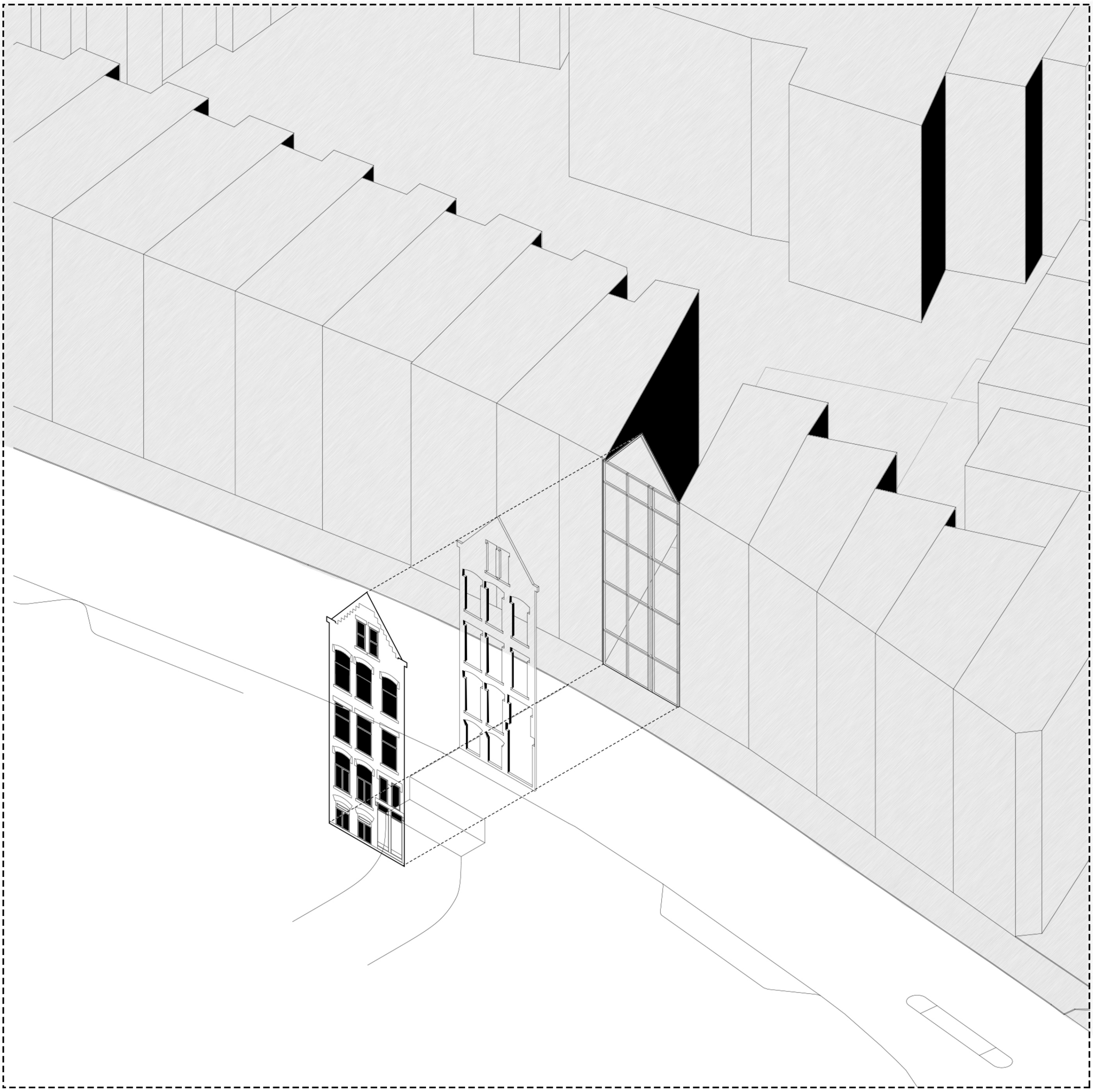


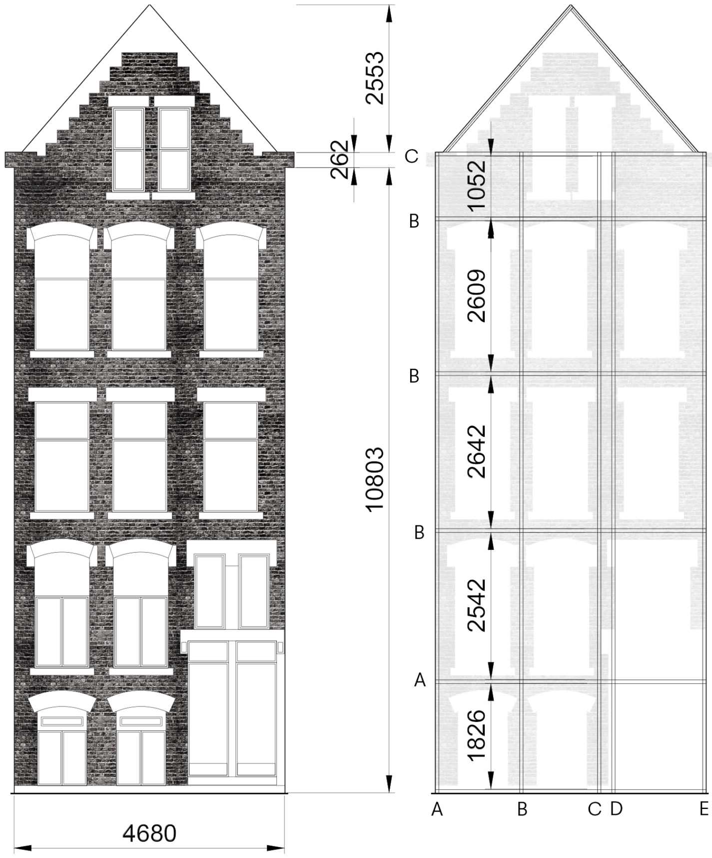


CONTEXT OF ENCLOSURE - RIJKSMUSEUM
Public building - flexible structure

+ Horizontal Structure
+ Open Grid Structure
+ Expansion of the Grid at Entrance
+ Three entrances through the building
+ Brick material
+ SandStone capping and surrounds
+ Slate roof
+ Repetitive vertical grid
+ Repetitive horizontal grid.

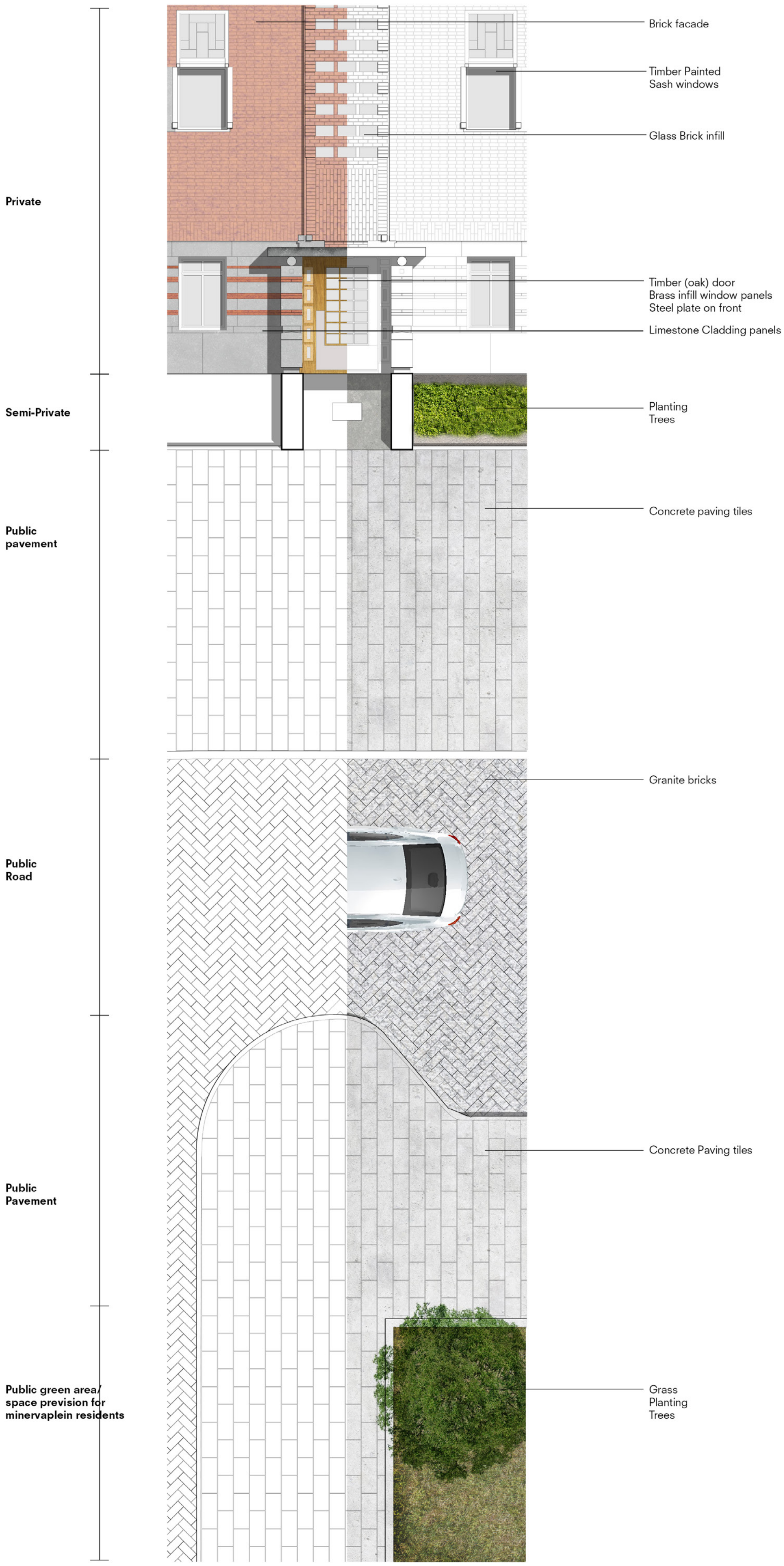


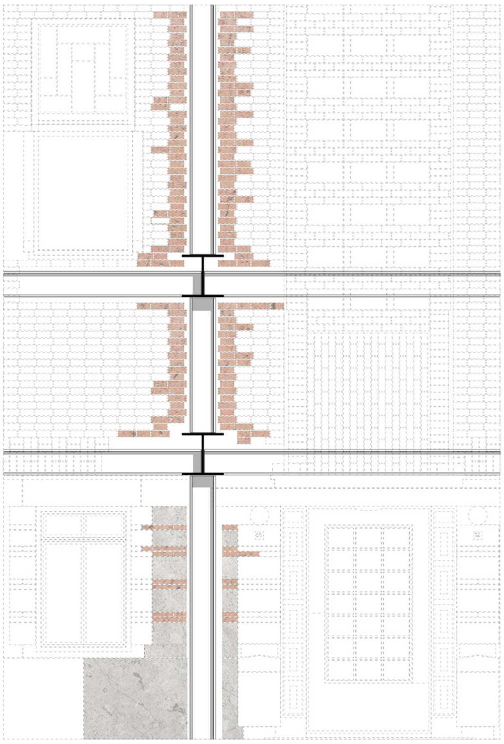


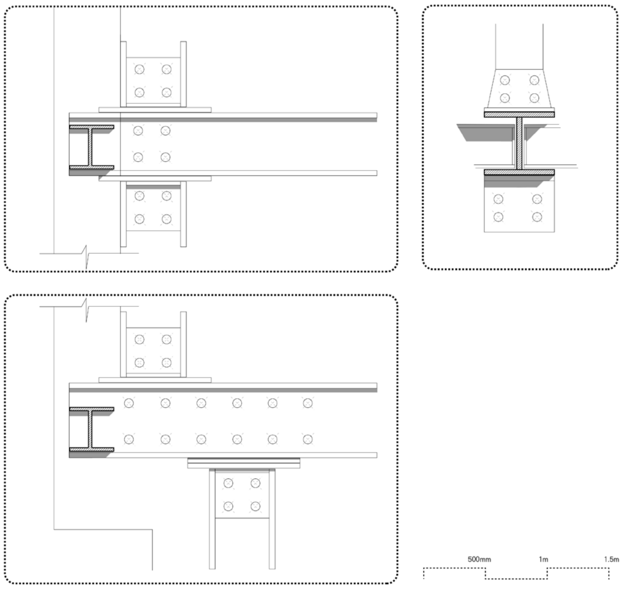


CONTEXT OF ENCLOSURE - RESIDENTIAL
Private structure - flexible structure

+ Vertical Structure
+ Close Grid Structure
+ Compresion of the Grid at Entrance
+ Two Entrances for one dwelling
+ Brick material
+ SandStone base
+ Slate roof
+ Un-repetitive horizontal grid
+ Repetitive vertical grid.


Private
Semi-Private
Public
pavement
Public
Road
Public
Pavement
Public green area/
space prevision for
minervaplein residents
Brick facade
Timber Painted
Sash windows
Glass Brick infill
Timber (oak) door
Brass infill window panels
Steel plate on front
Limestone Cladding panels
Planting
Trees
Concrete paving tiles
Granite bricks
Concrete Paving tiles
Grass
Planting
Trees





Contextual materials:

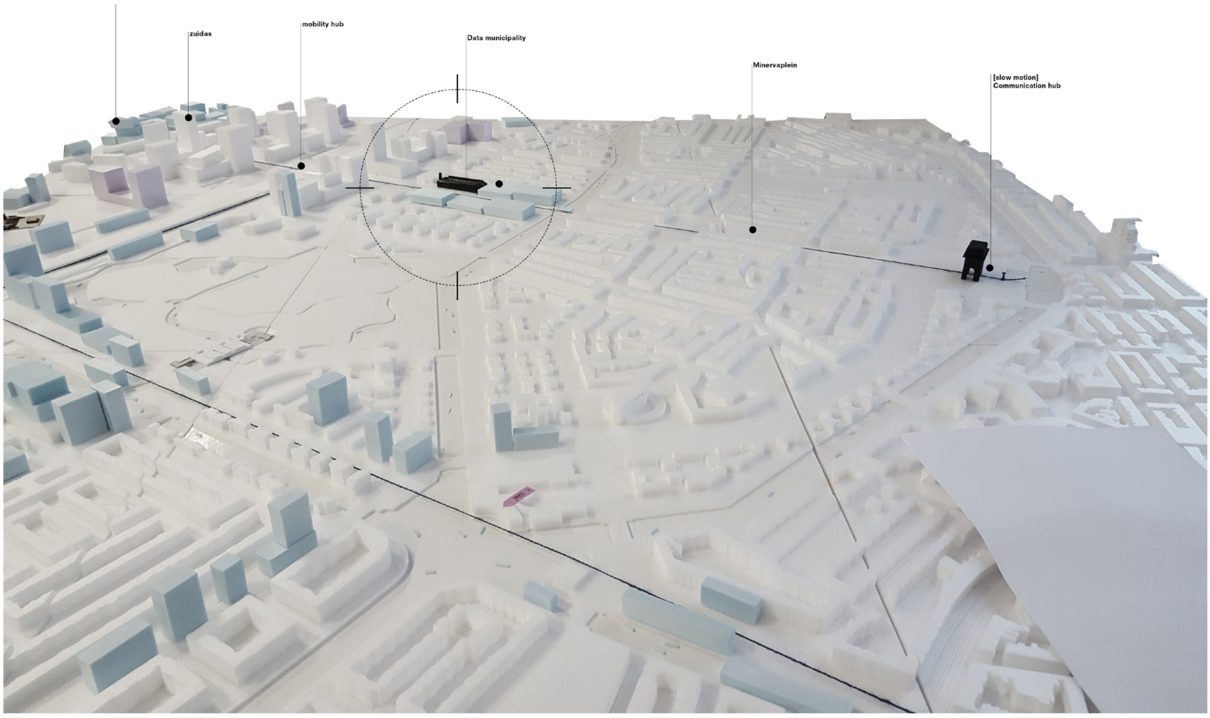
As with all Amsterdam School buildings the emphasis on the craft aspect of the building was always at the center of the discussion. In studying the materiality and its relation to the era of 'hand' crafted architecture, it became apparent, through the details, that in fact this building is a steel structure simply clad in brick with the use of standardized construction methods and elements.

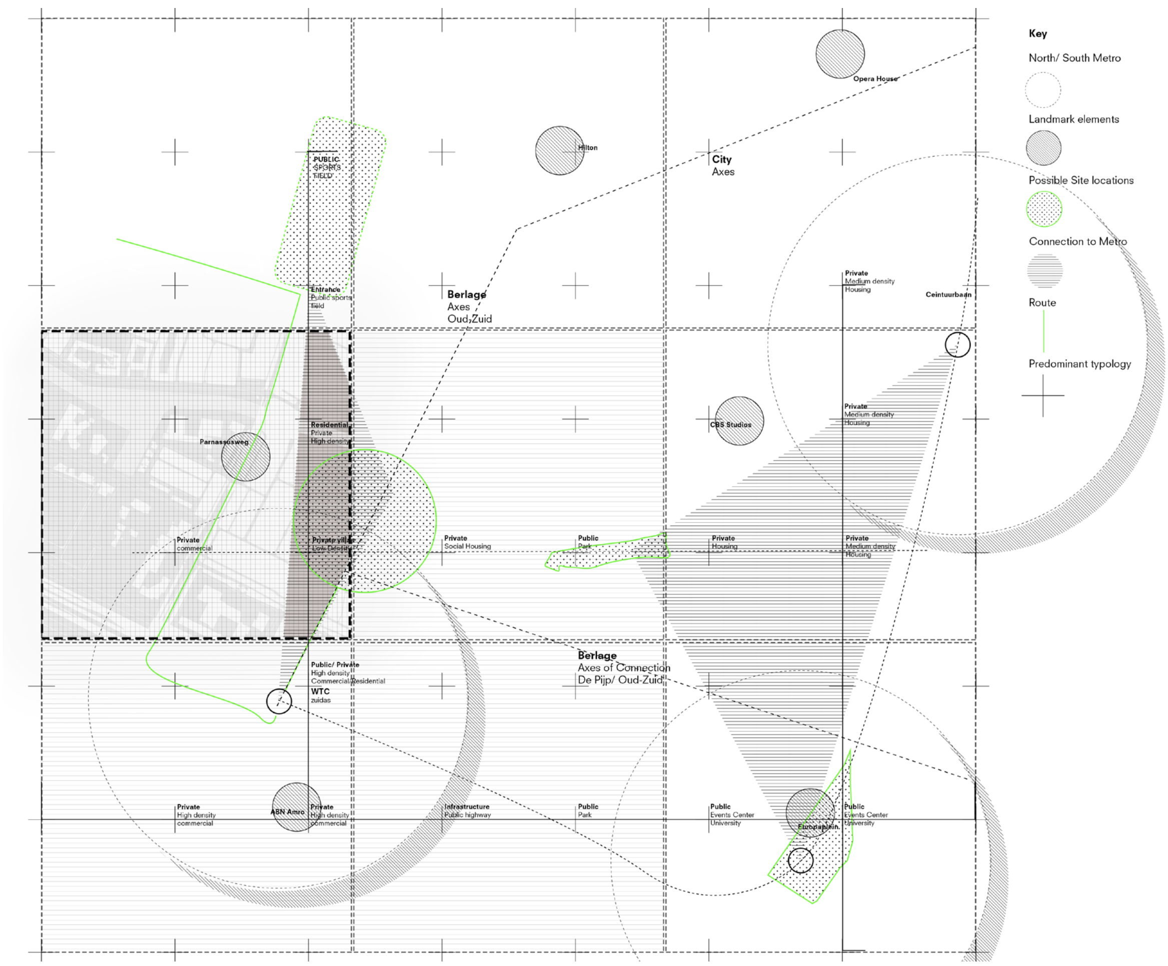
Thus it made sense that most books written on the Amsterdam school era that made reference to the Minervaplein suggested that it does not represent a successful vision of the Amsterdam school.

'Severity stripped of the effervescence of previous years'. The words used by Maristella Casciato in her description of what the Minervaplein added to the language of the Amsterdam school at the time.

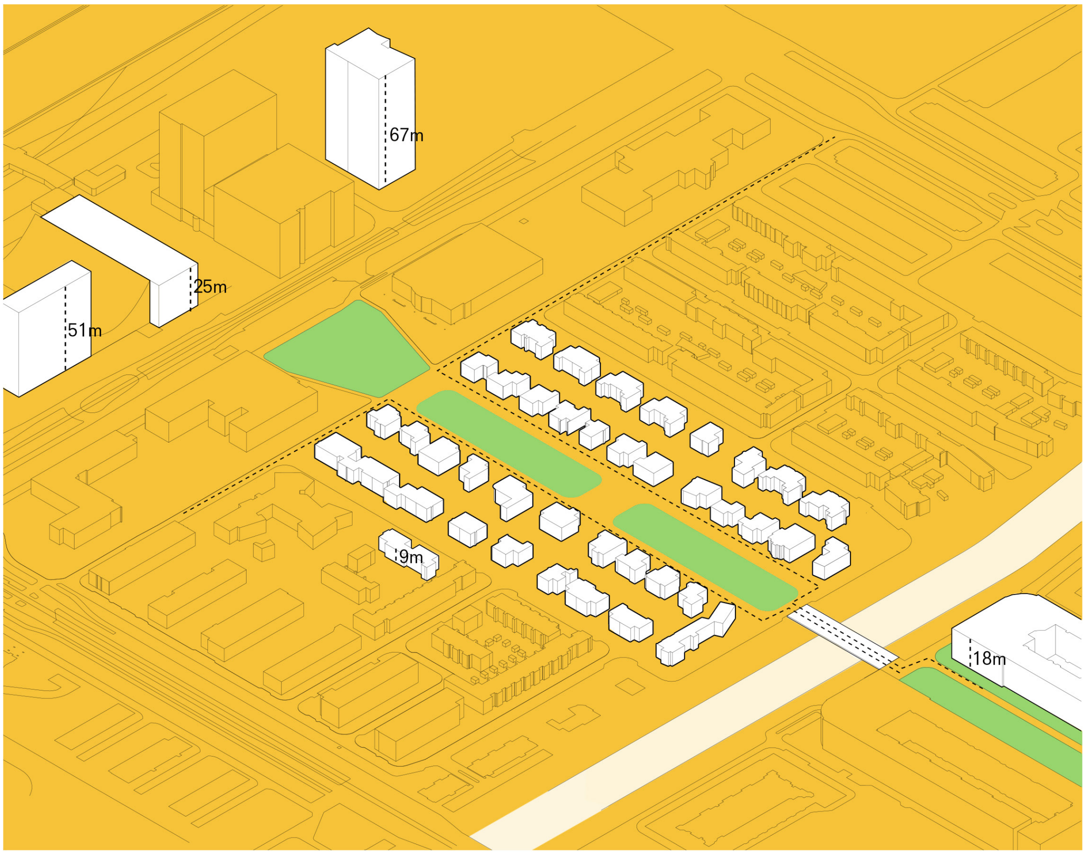
In fact, it could be suggested that the modernist buildings of the Zuidas represent a far more honest architectural language in the expression of structure, materiality and public[ness]. Top place the building in its context at its time of design in 1929, this was the same year i which Le Corbusier constructed the Villa Savoye in Paris and Mies Van Der Rohe constructed the Barcelona Pavillion.

The Minervaplein [structurally] corresponds to the thinking of this era, yet its material cladding attempts to hide or disguise this fact. Thus I would suggest that the building represents a dishonest architecture, attempting to fit into its context and relation to the 'old Amsterdam' ideals. Unfortunately this expression has led to the building not being highly regarded in its architectural quality.


zuidas
mobility hub
Data municipality
Minervaplein
[slow motion]
Communication hub

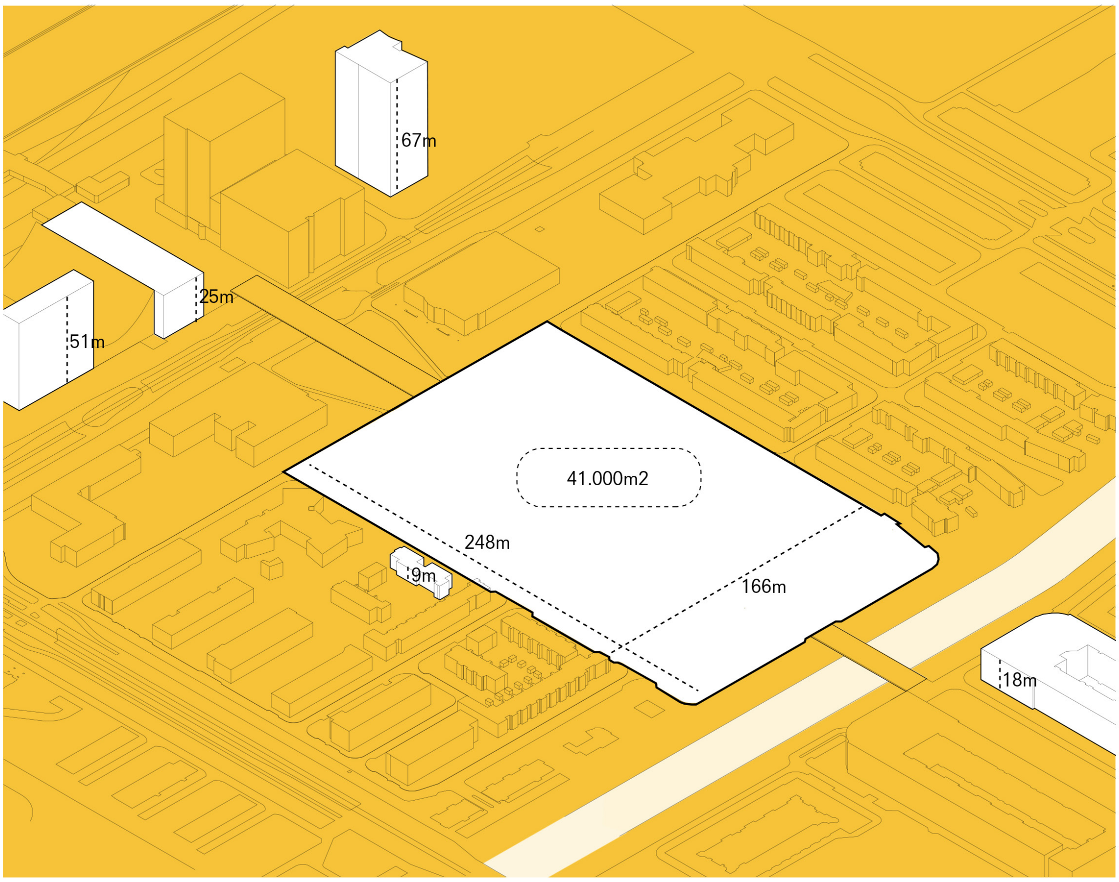

Key
North/ South Metro
Landmark elements
Possible Site locations
Connection to Metro
Route
Predominant typology
Opera House
Hilton
City
Axes
Berlage
Axes
Oud Zuid
Ceintuurbaan
CBS Studios
Parnassusweg
Berlage
Axes of Connection
De Pijp/ Oud-Zuid
WTC
zuidas
ABN Amro
Private
Medium density
Housing
Private
Social Housing
Public
Park
Private
Housing
Private
commercial
Public/ Private
High density
Commercial/ Residential
Private
High density
commercial
Infrastructure
Public highway
Public
Events Center
University


VAN WIJNEN

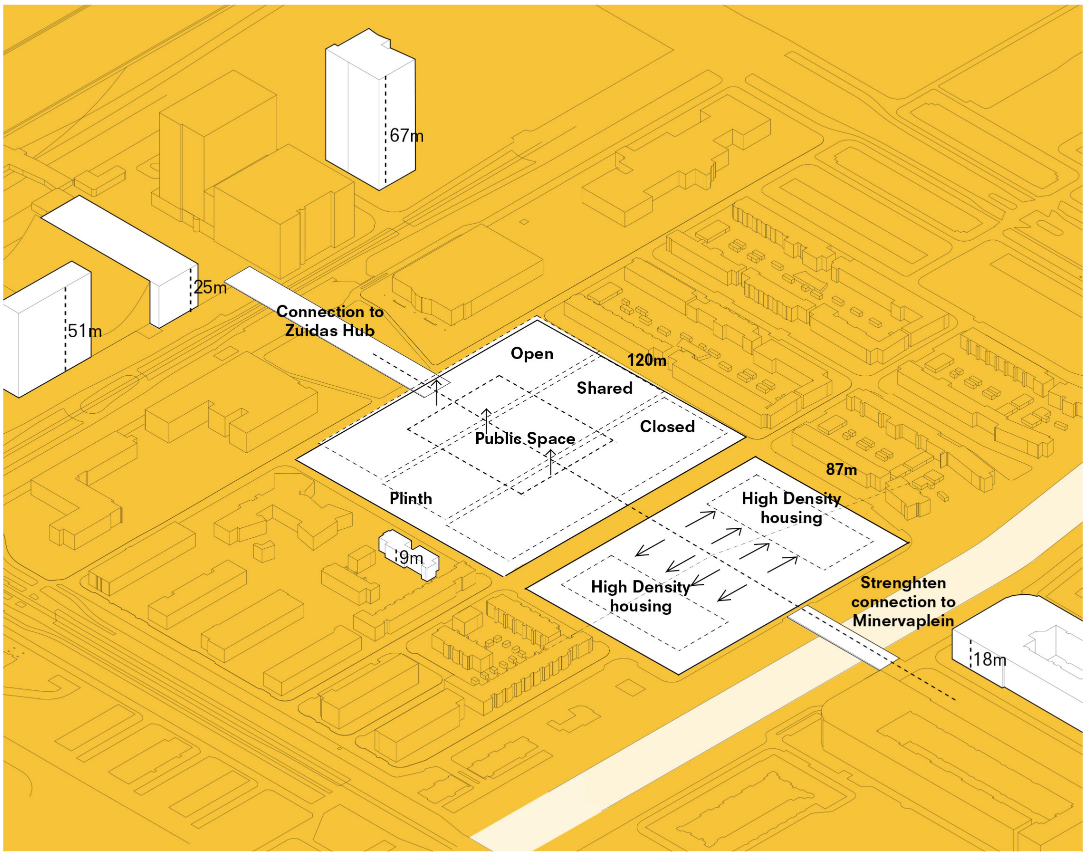
Existing:

The existing site consists of a series of low density villa dwellings, these spaces exist on account of the site [pre-Zuidas] being placed at the very edge of fringes of the city of Amsterdam on construction. The site, thus, represents the failings of the Minervaplein if we are to consider the original masterplan of a series of high density spaces along the route connecting the Hilton hotel to the Zuid station. At the site the strong axial connection is at its weakest, representing the failed attempt to inform a series of Axes within the Oud-Zuid.



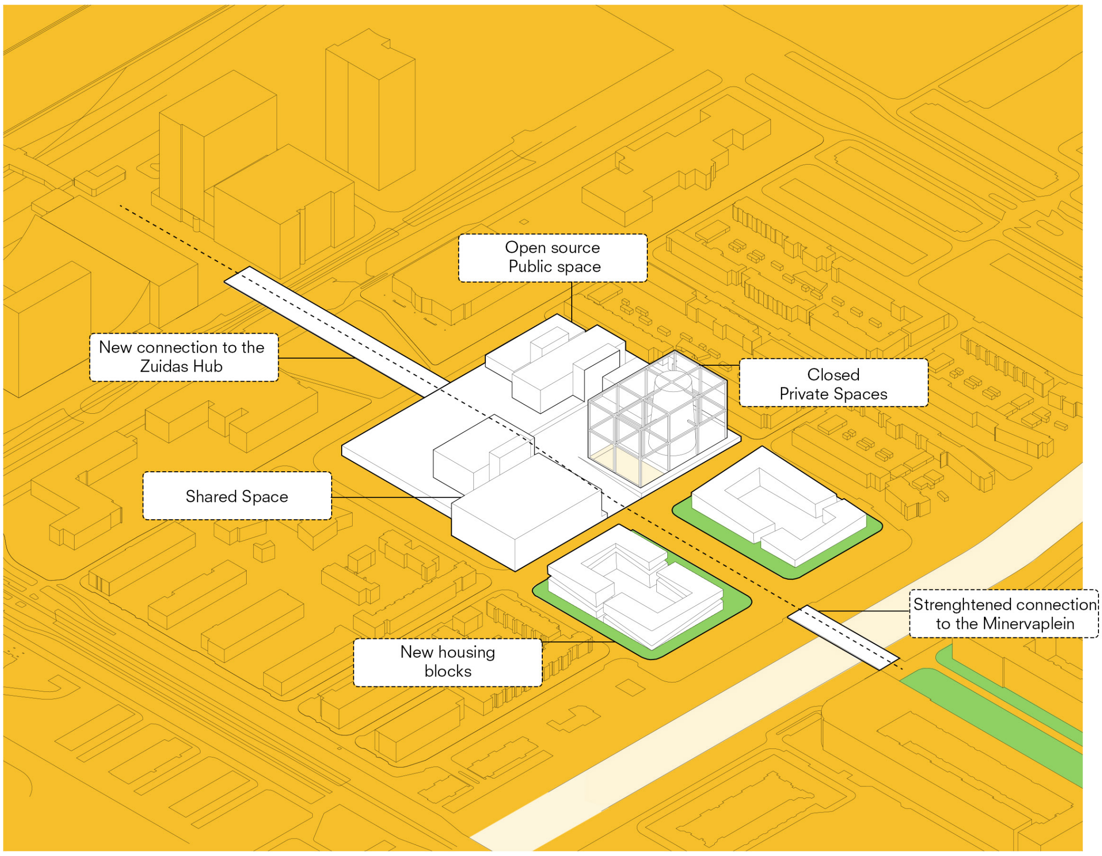
Site:

The context hints at clues towards what might become an appropriate scale for a project across the site. The berlage axes itself consists of blocks no hight than 18m while the Zuidas's smallest block is at the height of 25m. The plot consists of a 41,000m2 area.



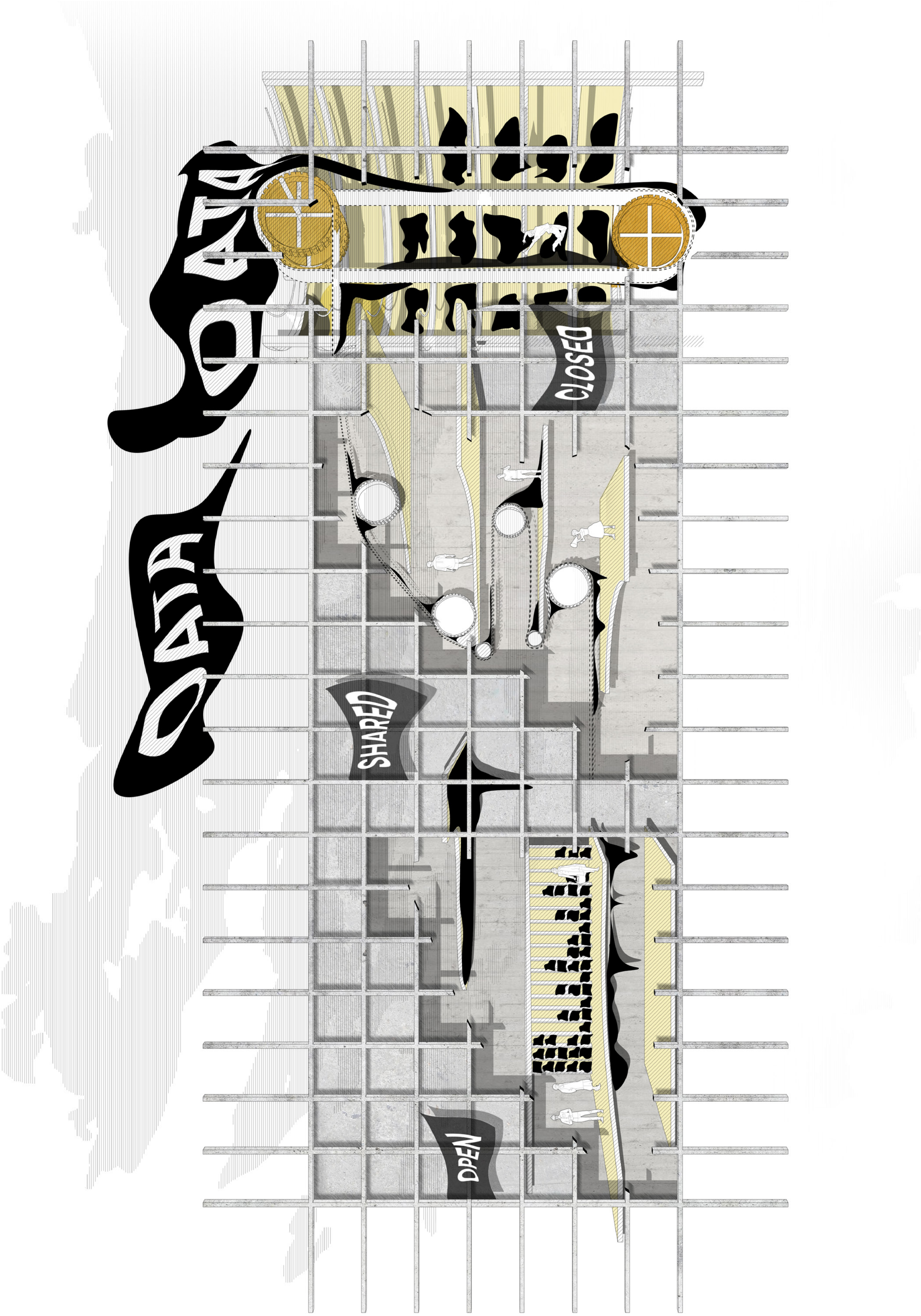
Masterplanning:

In order to strengthen the connection from the existing Minervaplein to the site (Minervalaan) a continuation of the high density housing block to accommodated the removed villa structures and create more high density housing is proposed. The data municipality can then occupy the primary space for connecting the Zuidas and Oud-Zuid. From material studies; it makes more sense to create a central line of axes rather than the two that currently exist to accommodate the car, that we plan in time to zone out of the area.



Masterplanning detailed:

The site of the Data municipality can then allow for the creation of defined 'open', 'closed' and 'shared' spaces across a connective plinth, while the public and private spaces will become contained, the shared spaces could occupy a series of locations or sit as connective elements between the private and public spaces.


CLOSED
SHARED
OPEN

ARCHITECTURE AS PROCESS?
Data as process

1.Store Data

All data is stored in a
space in which is equally
secure and psychologically
visible in the public realm

2. Process Data

The stored data is an-
alysed and used for
the benifit of the public
through vertual modelling
and
physical testing in the
shared space.

DATA of this nature is
entirely
location specific and ef-
fects those who live in the
location.

3. Use Data

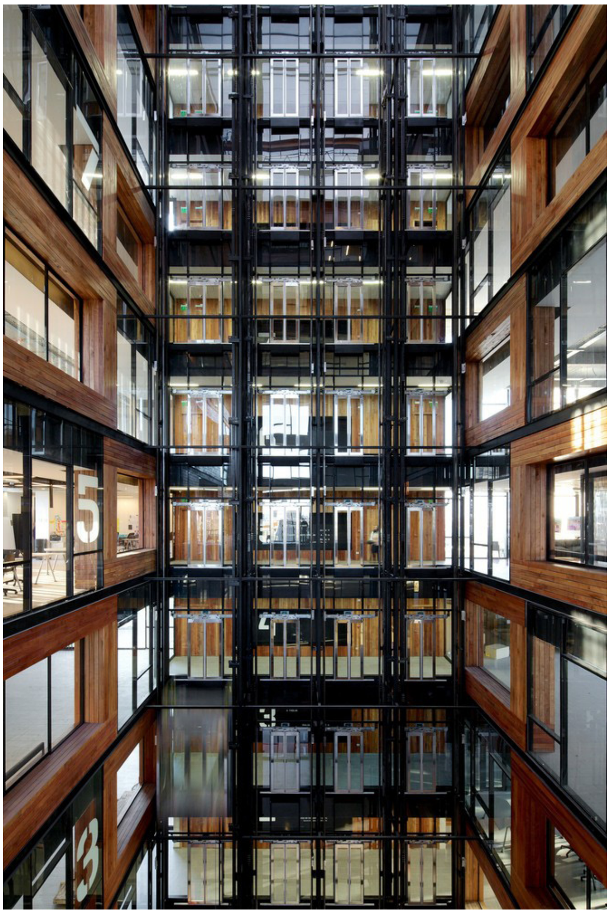
Data is made available and
open to all, This means for
the public that unlike private
or owned data, a space from
which data based innovation
is
encouraged is required.

PROGRAMME
CLOSED
SHARED
OPEN-SOURCE

STORE LEARN INNOVATE

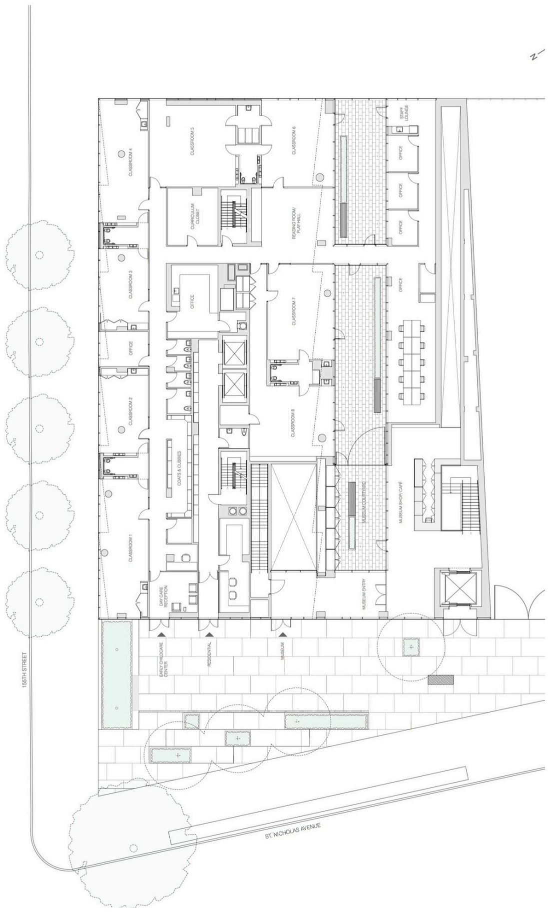
UC Innovation Center

"We thought that the biggest threat to an innovation centre is obsolescence; functional and stylistic obsolescence," said the architect, "in that sense the response to the context was nothing but the rigorous use of common sense."



The idea Store

'The idea is to seduce people inside by removing all obstacles and visual barriers, so the exterior is entirely transparent. In the Chrisp Street context, its shelves stacked with Pot Noodles and cheap T-shirts, Adjaye's building, with its automatic doors, escalator, zigzag strip- lights wriggling like bacillus under a microscope, and its specially designed furniture, offers a more generous way of doing things'



University Beconni Milan

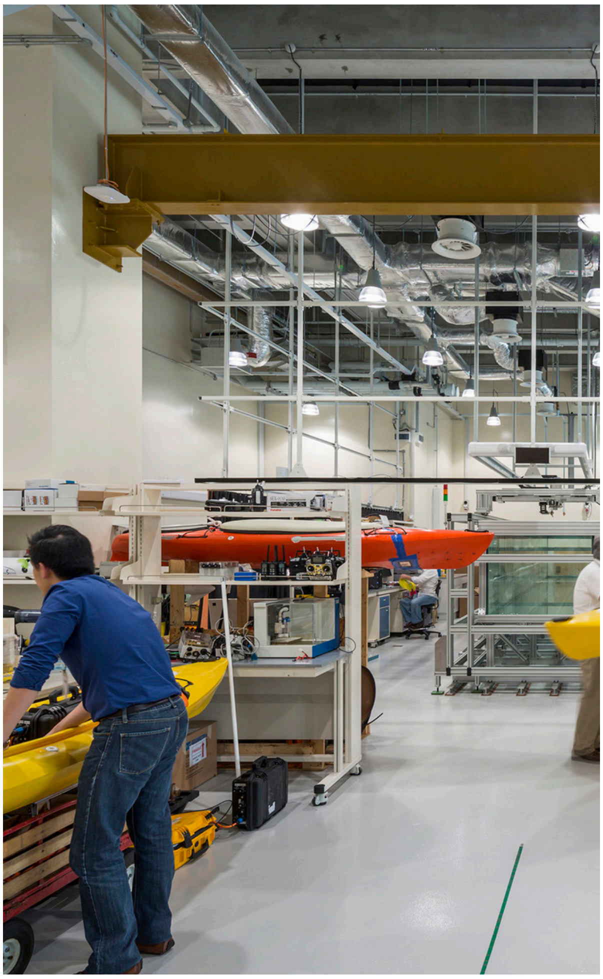
‘A Piece of City

We saw this brief as an opportunity for the Luigi Bocconi University to make a space at the scale of the city. To this end we have built at the scale of the site,80m x160m. Inside, our building is thought of as a large market hall or place of exchange. The Building’s hall acts as a filter between the city and the university’

CREATE
SINGAPORE

Perkins + Will

The design pioneers the use of advanced environmental sustainability and energy-efficient technologies, surpassing current flexibility and performance benchmarks for scientific research facilities in the tropics.



INNOVATIONS AND TECHNOLOGIES CENTER
Tbilisi, Georgia

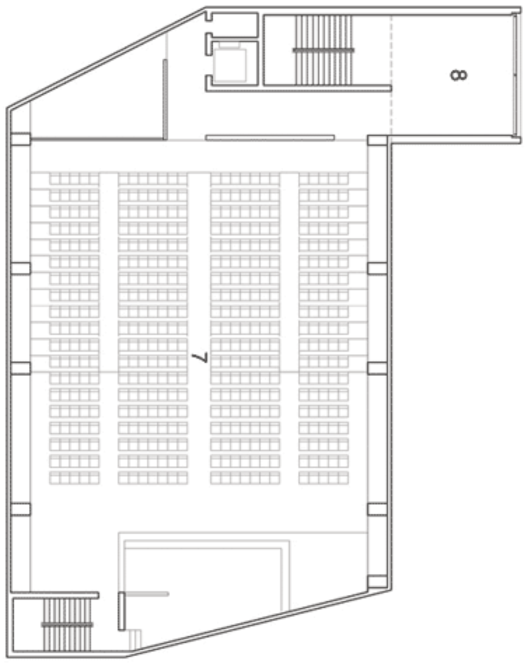
Artstudio

The concept of the design aims at informing people about influence of up-to-date gadgets and technologies over people's daily life throughout the world and especially in the region.

CONCRETE CHURCH

Nameless Architects

‘It evokes a feeling, not of a city already completed, but a building on a new landscape somewhere between nature and artificiality, or between creation and extinction’



EDUCATE/ ROUTE
ADMINISTRATION
Porto

Alvero Siza

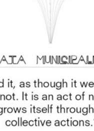
Layers of public/ private and semi-private space entirely related to the idea of route and connection

FREE SPACE

INNOVATION

Richard Rogers Partnership

exhibition/ public space/ internal route
innovation space



DATA MUNICIPALITY

'Do not think that you can build it, as though it were a public construction project.
You cannot. It is an act of nature and
it grows itself through our
collective actions.'

DATA MUNICIPALITY

Dermot Horgan

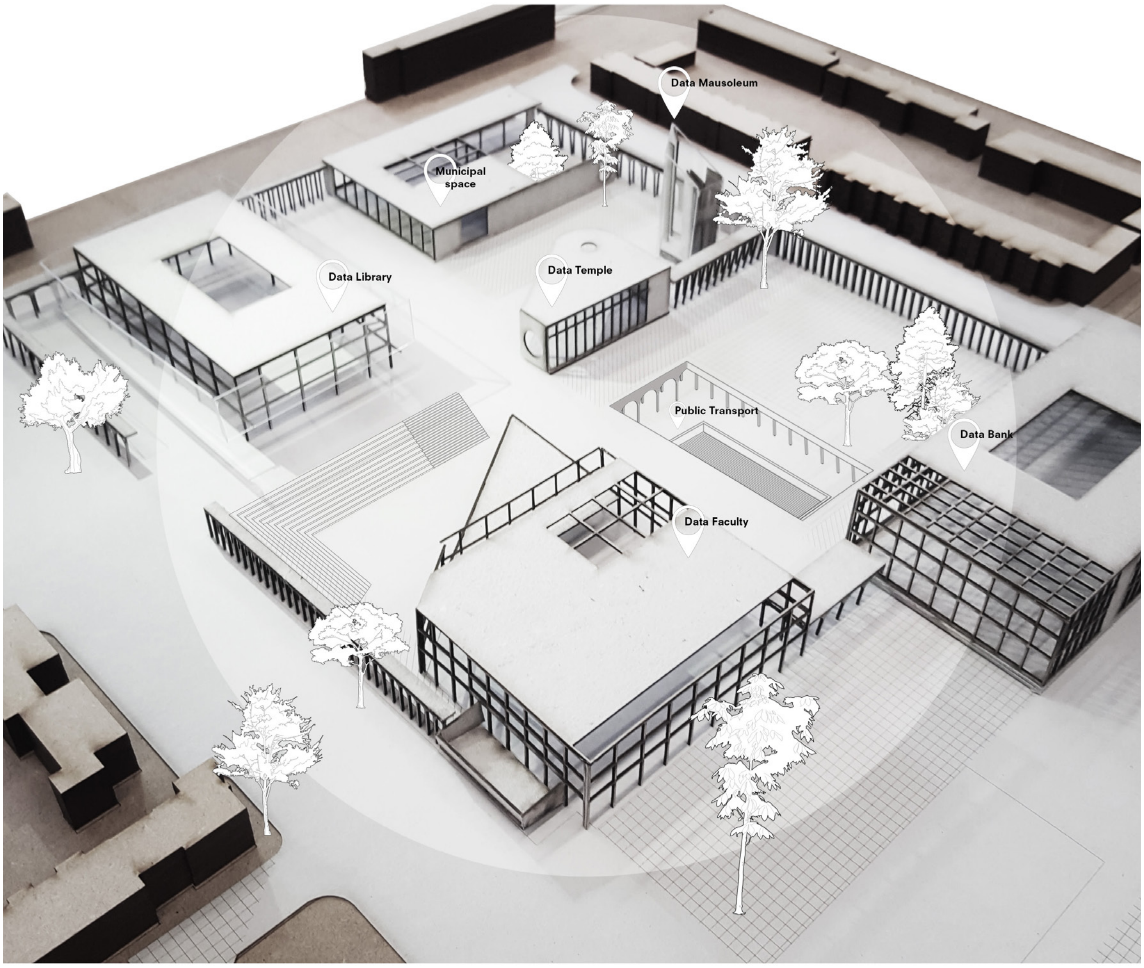
The central goal of the project was, initially, to understand the existing role of DATA within our current society; how we use data, how we store data, what we know or do not understand about this highly prominent resource.

With this understanding gained in the initial research period it was then possible to attempt to consider how this prominent aspect of our 21st century lives might be used, housed and better understood in the future, considering how one might integrate something considered to be so far removed from the architectural realm into an architecture for the people of Amsterdam in 2050. The projects thus acts in many ways as a polemic against the existing data storage trends:

The culmination of this research and architectural consideration manifested in two major moves, one societal and one architectural.

Socially I predict and move against mass anonymous data storage to a decentralised and highly, socially integrated system of storage, access and governance through a re-organisation of existing ownership of data, democratically placing the person back in control of where their data is stored and to whom they allow access to. The integration of data + urban context was also important in this democratic shift, I would hope that the once 'removed' topic of data storage could become part of ones daily journey within the Oud-Zuid.

Architecturally; I predict this decentralisation to manifest in the creation of a series of spaces from the more practical spaces of the Bank of Data (storage), University space (research) and Data Library (access) to the more symbolic space of the Data temple in which we can predict an 'end' to ones data post-mortem. These spaces together could be considered to be the future element of out local municipal architecture further attempting to humanise what we now see as a very un-human activity.



DATA Municipality

The architecture of data acts to facilitate the storage, research and use of public and private data, foreseeing a future in which data concerning the public domain is entirely accessible and never owned or sold by any one person or company. The data bank acts to create a secure space for all personal data transactions while the data library ensures that all public data is entirely accessible to the public.
It was important that an architecture for this new data network found its place naturally within the highly defined site of Amsterdam's Oud-Zuid area.
In order for this to occur a grid was formed directly relating to the existing contextual conditions and from this a series of architectural relations can be found within the design that are Spaces within the data municipality allow for the interaction with the representatives of the council in order to ensure that ones data is correctly stores and processed.

COURTYARD CITY

a concext of courtyard spaces define the immidiate context
these spaces define that which is most impermeable to the ingress
of the public.

Constructed Landscapes:

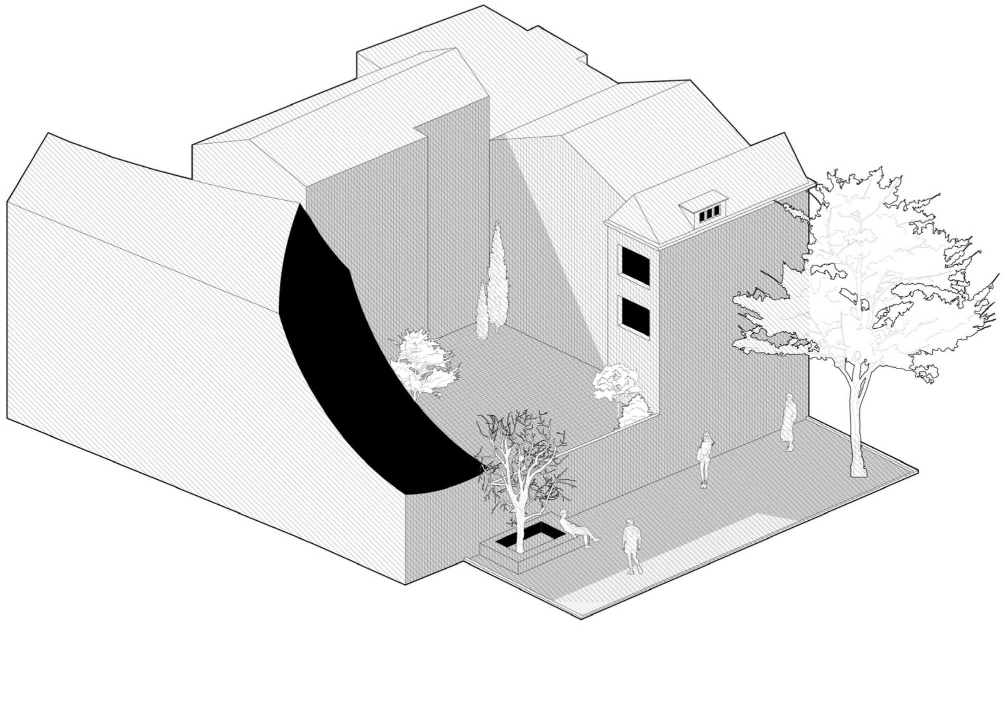
Through a series of investigations into the underlying contextual arrangement I found that through the lack of existing terrain the city's architecture depends on the creation of çonstructed architectural landscapes to form spaces of urbanity and private/ public recreational spaces.

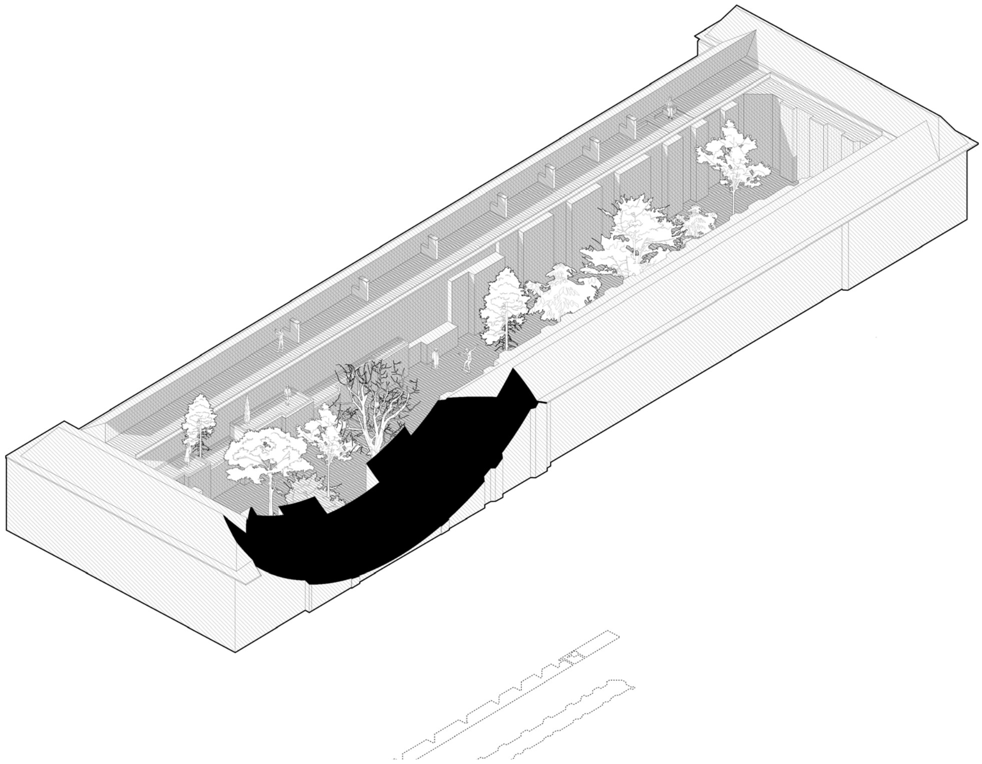
This meaning that the existing or planned green space remains largely unused in the residential spaces of the Minervaplein/ Minervalaan.

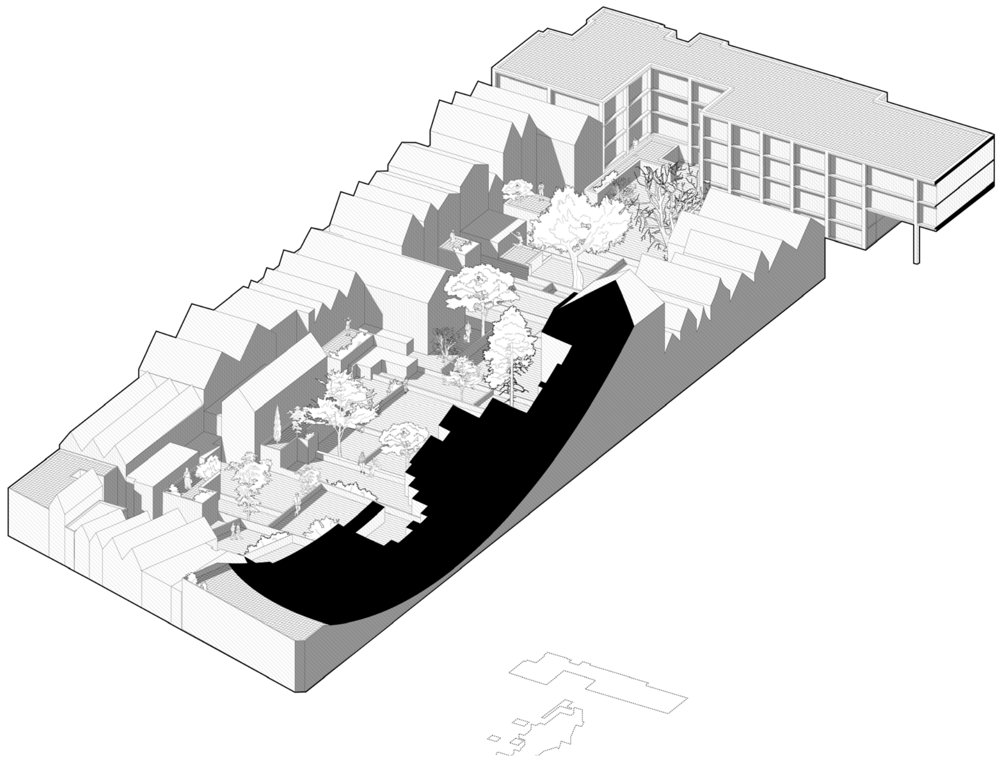
This also seems to have been effected by the existing section that occurs in the street profile. The car or vehicular street seperates green space and architecture. This is explored in the following drawings:

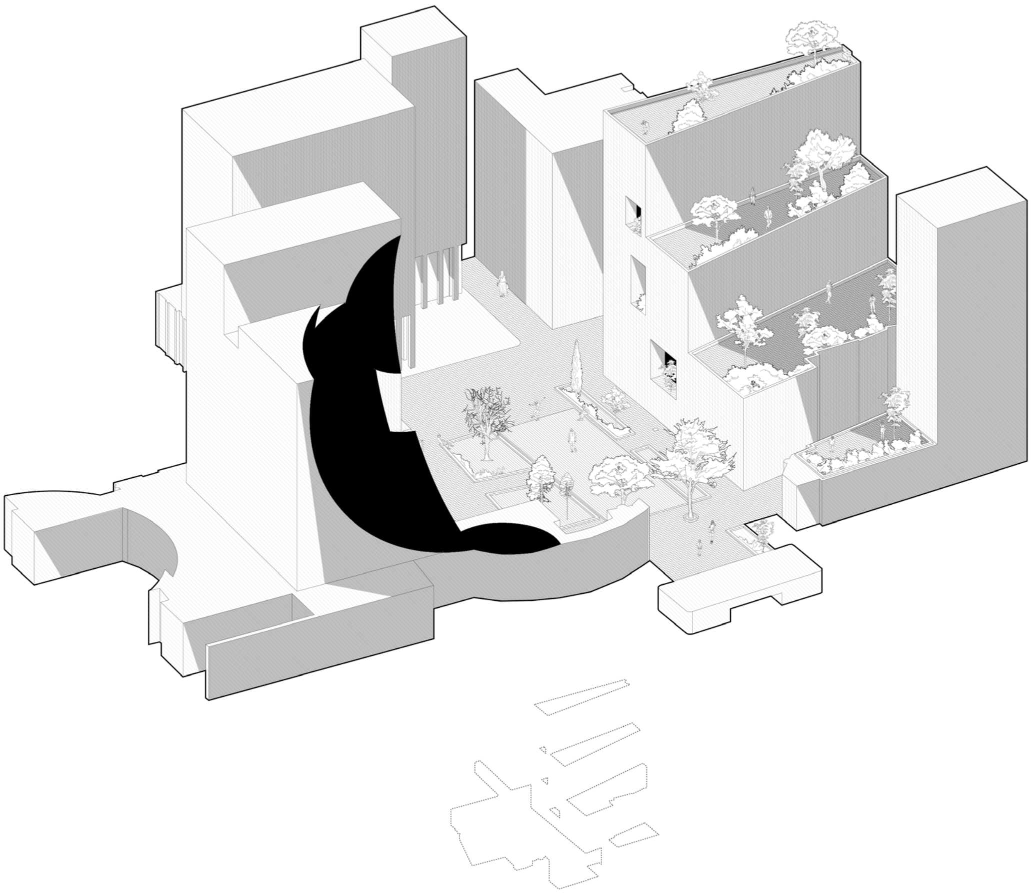
COURTYARD AXES

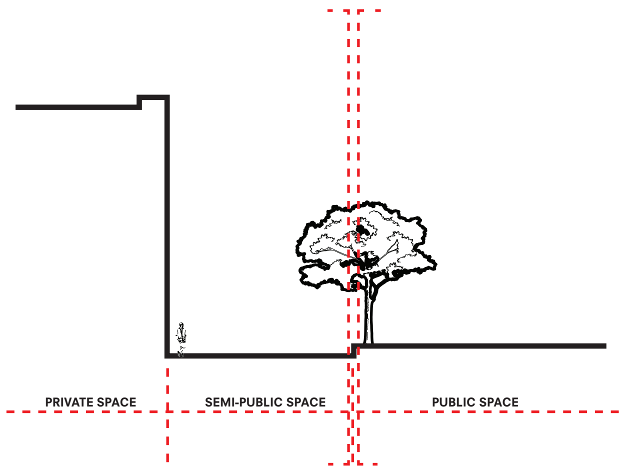
An axes of courtyard blocks define the journey
through our the city, varying levels of ingress invite
or exclude those who walk through the city

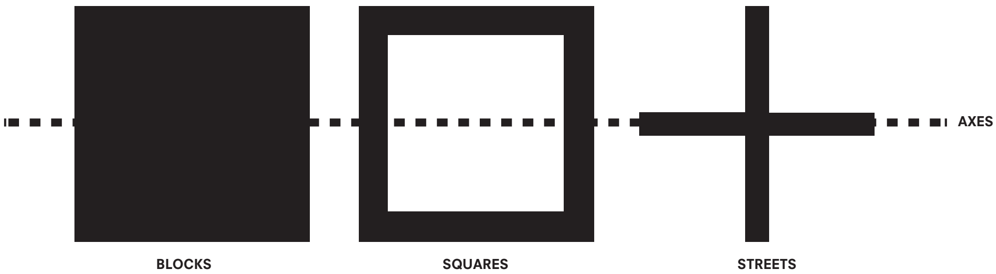






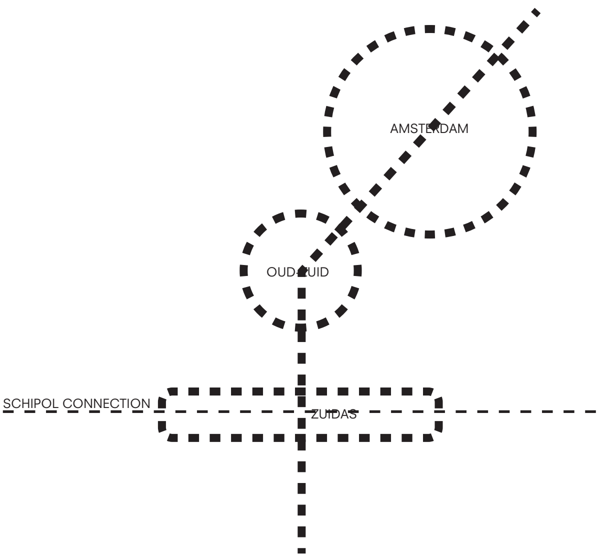



PRIVATE SPACE
SEMI-PUBLIC SPACE
PUBLIC SPACE



Blocks/ squares/ streets

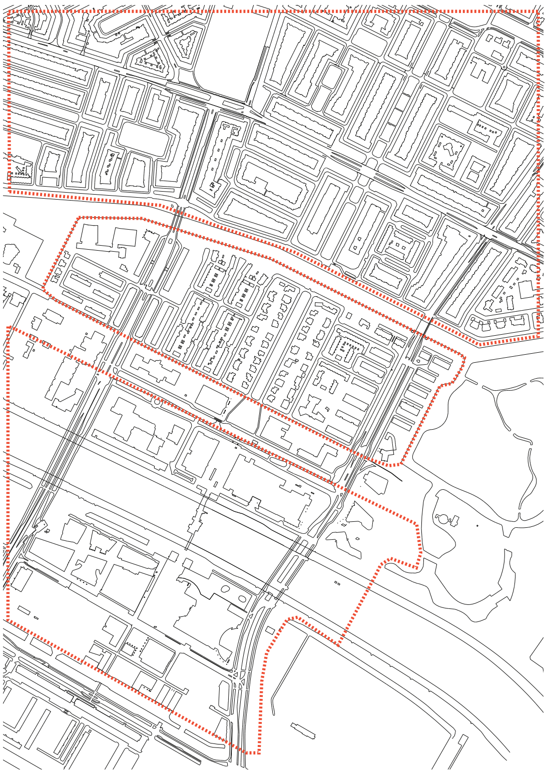
For me, publicness and the societal dimension of our works as architects drove the concept of re-organising our Data network to a more democratic and transparent framework, the translation of this into an architecture required a series of test models, as I found within the context of the Berlage plan three major driving elements; the block, the square and the axis. I then explored the context in method of identifying the weakest point or the point in which these underlying elements are least identifiable. In my case this came about at the intersection of the Minervaplein and the Zuidas at an area called the Minervalaan. It was clear that this transitional site was in no way ‘completed’ as it was planned to be, in fact the site creates a border condition that seems less likely to connect the two very dissonant locations but rather to act to strengthen the disconnect.
The site acts to work against the initial ideologies of a connective axis of the Berlage plan. Thus the creation of a series of models addressing the connective possibilities of the site were created. The Data municipality has the ability to integrate within the context of both worlds of the adjacent residential and commercial contexts, acting as much as a new local resource, a global data point and a point of a new national data grid. This means that the site not only acts physically to connect and naturally transition between two seemingly dissonant contexts, in doing so breaking down an existing series of borders, but also to created a connection back to central Amsterdam and the wider if not global context in 2050.



GATE-WAY TO AMSTERDAM

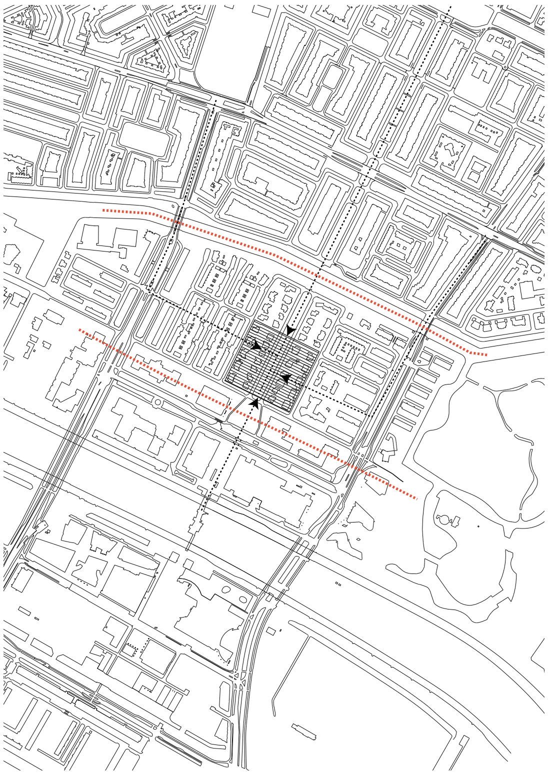
WE CAN NO LONGDER CONSIDER THE BERLAGE PLAN TO BE AN ISLAND OF ITSELF. WE MUST CONSIDER IT AS MUCH PART OF THE ZUIDAS AS PART OF CENTRAL AMSTERDAM

BLOCKS//**SQUARES**//**STREETS//**DATA



Dis-connect

The current site acts as an Island



Reconnect

The site should act as a space of re-connection between the sites of Zuidas, Minervalaan + Minervaplein

Site + Method

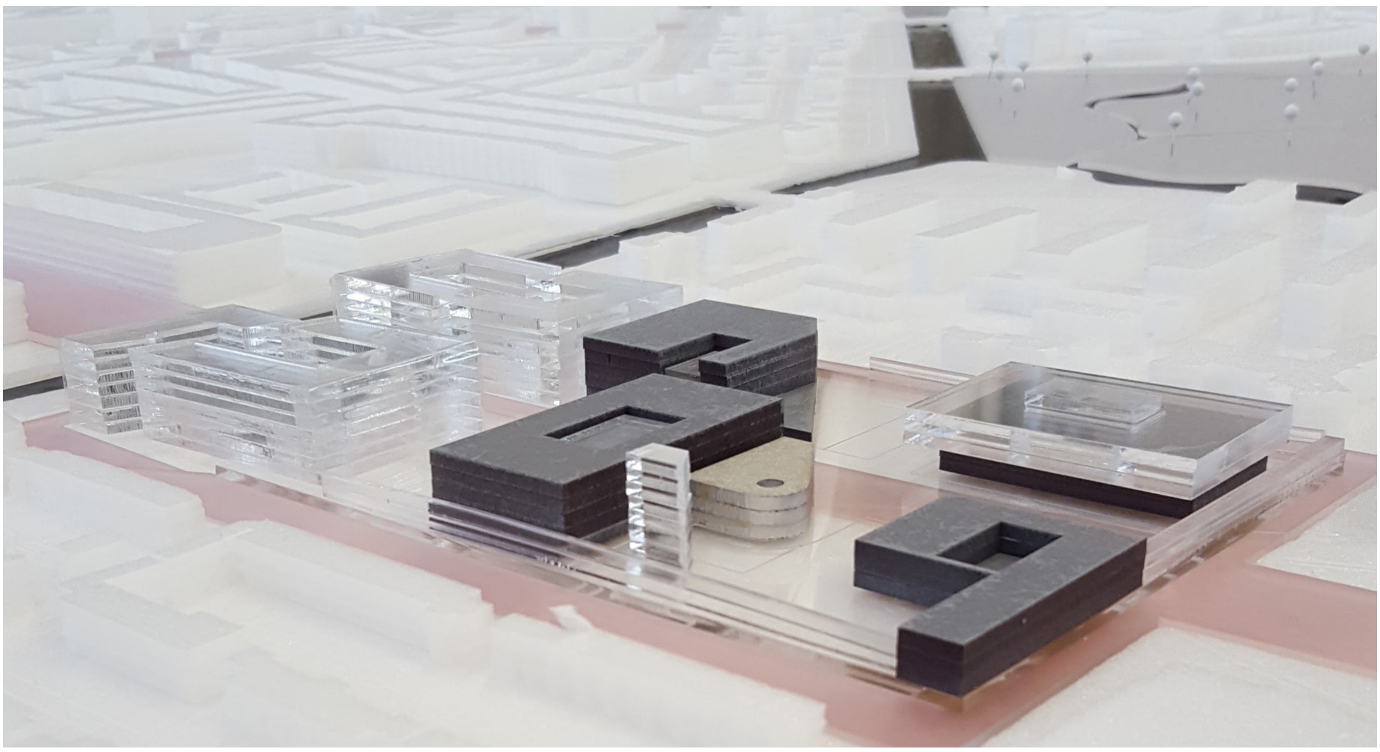
My personal method of exploration through model and sketch informed the implementation of a new axis entirely devoted to connective force of Data. This physical demarcation informs a carving to occur across the site both physically and metaphorically aligning elements of the site back to the initial starting point of the city. It could be assumed all Data municipalities within the city would have such a line in the physical connection of site and origin point.

DATA Axis

The introduction of a new Data Axis connecting back to the city enables a new 'line' holding together a series of data municipal spaces.

Alignment

The new axis comes from the connecting line of the canal aligned with the center of the city of Amsterdam.



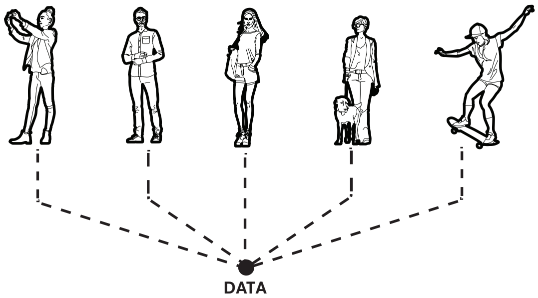
Social Context and Thesis

The challenge and opportunity of the topic of Data as a thesis project is that something

Fortunately the project has ,mostly by chance, occured at a time in which major shifts are constantly happening to tackle the issue of Data storage and primarily security in relation to data. Society is becoming aware that their information is not in fact 'their' information but rather something they agree on a daily basis to give away the right to and in turn for others to benifit financially from something that they have very little access to, say, control over. Data and the storage of data is enormously topical in the world today particularly as the European laws (General data protection regulation (gdpr)) dictate that by 2018 all state information must be stored as a soft copy and all hard-copy data destroyed.
The fact that all our information must be stored as a digital entity and no longer a tangible resource places all our information into data centers that we the public know very little about both physically and from a security point of view. We are at the mercy of the state to ensure the security of our information.

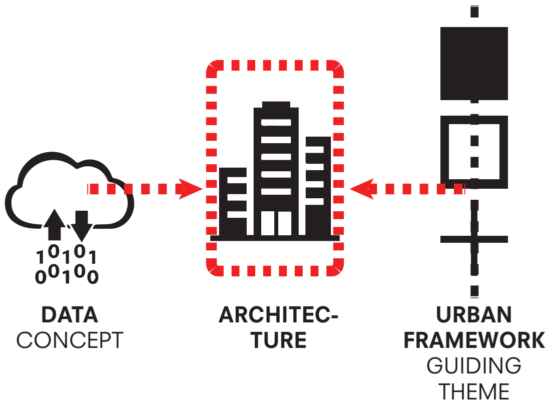
In the P2 stage of the research I made a comparative timeline of where data might lead if we do not considered a re-structuring of it now, suggesting that large companies such as Cambridge Analytica can continue to buy or 'mine' our data from storage companies such as google as a method of selling advertising and user specific marketing. Unexpectedly in March of this year the story of how Cambridge Analytica used private facebook information to market in the Trump presidential campaign. The backlash from this information being made public is a testament to two things; how little we know about our information and just what a large reaction we as a society have when we do find out.
For my thesis project: A re-consideration of this data structure and the physical space as a public/shared/private space at the local scale of the municipality would form the democratic action of 'taking back' control over ones personal data and thus strengthen our status as a democratic state.

The action of making available all public data or data relevant to the public realm from a societal aspect; could inform an entirely new innovative movement as people have the knowledge and access to vast amounts of information. No longer could industry quash innovation for profitable gain but rather the act of innovation and commercial transparency could strengthen our entire democratic society whilst simultaneously informing a new and transparent immaterial data landscape.
It is more important than ever that our profession acts to be part of the movement to deal with Data and not to assume its role in our daily lives, society and profession.

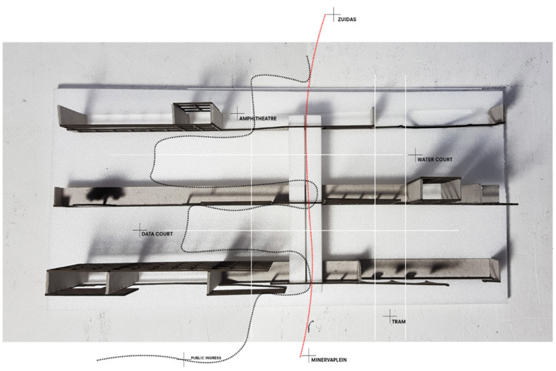


IN 2050 THE STRONGEST CONNECTION WE WILL HAVE WITH ONE ANOTHER IS THE DATA WE PRODUCE AND SHARE.

Data as the guiding Theme of the Thesis

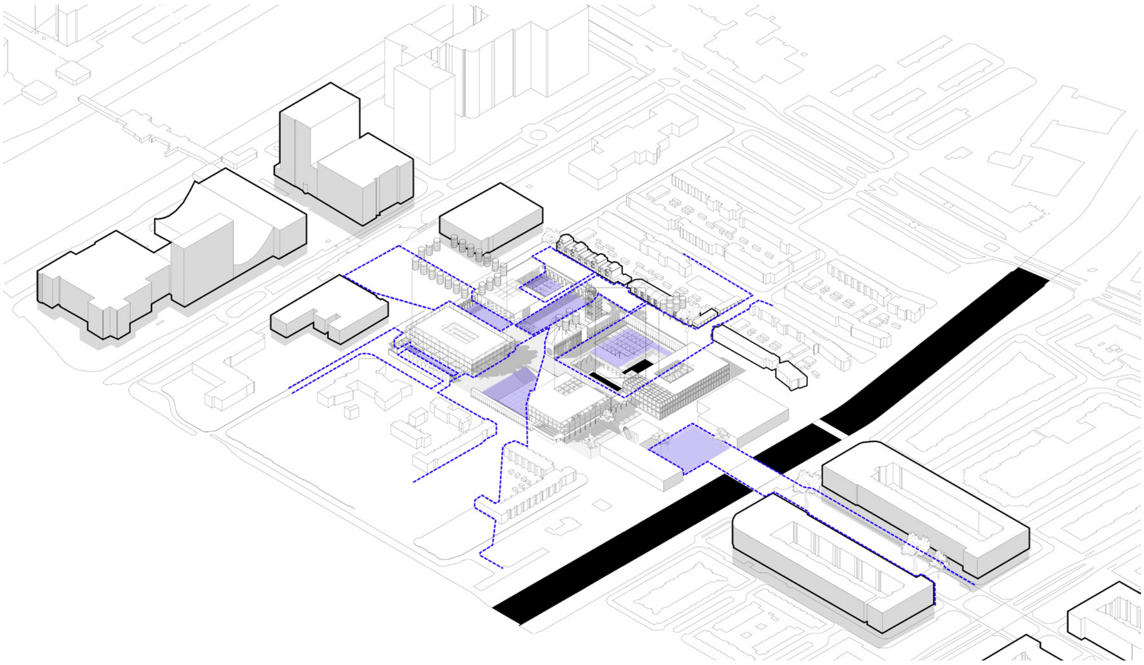


Elements to form an architecture mixture of Urban frame work researched through the context of Amsterdam and 2050 Data predictions.



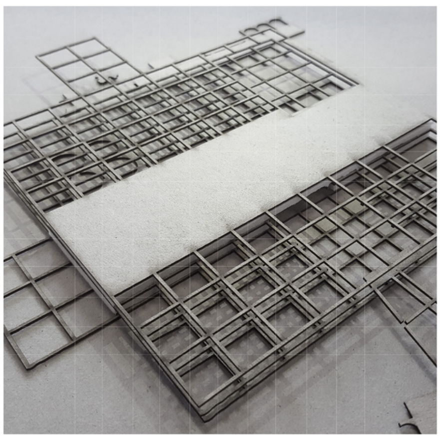
SECTIONAL CONCEPT MODEL
//SPATIAL EXPLORATION

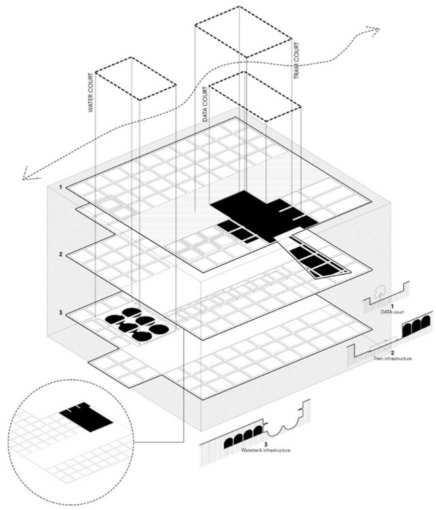
Rearrangement of the existing structure of Blocks/ Squares and Streets to form only shared spac-es in the future.



Constructed landscapes

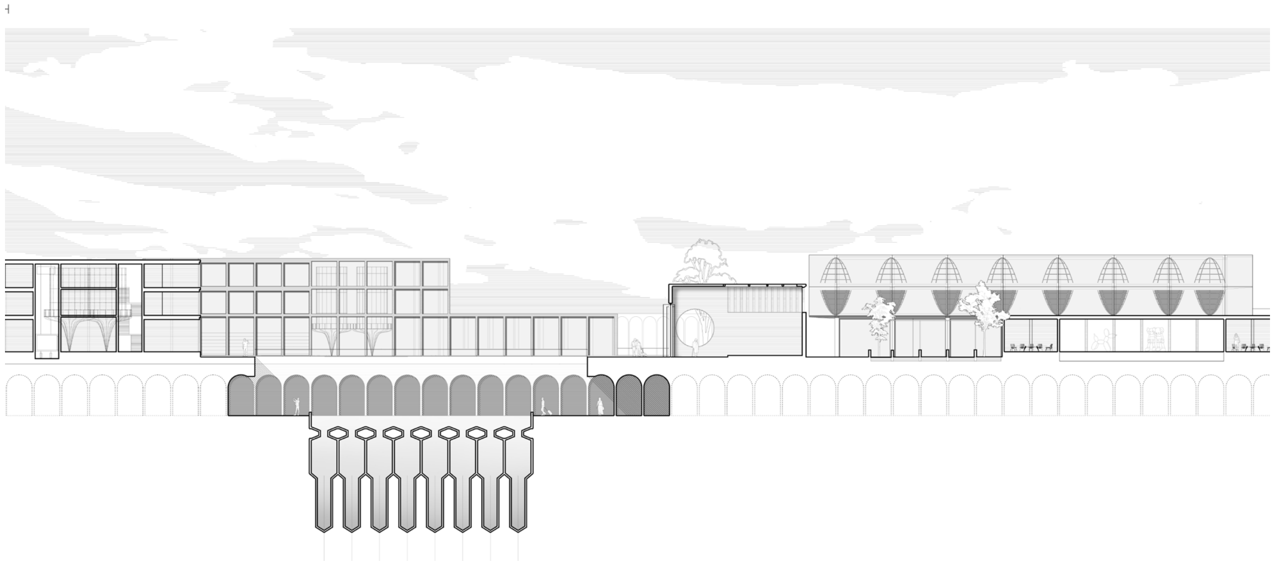
theme should help to form usable public spaces within the site.





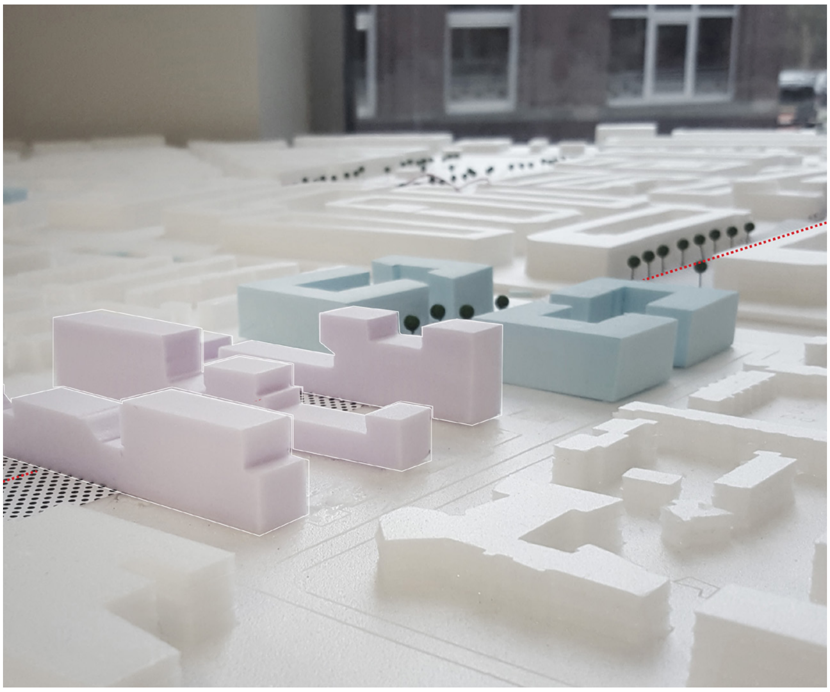
Ground Condition

Exploiting the ground condition to contain the services related to data, public spaces and transport ensures the theme of constructed landscapes finds itself within the project.



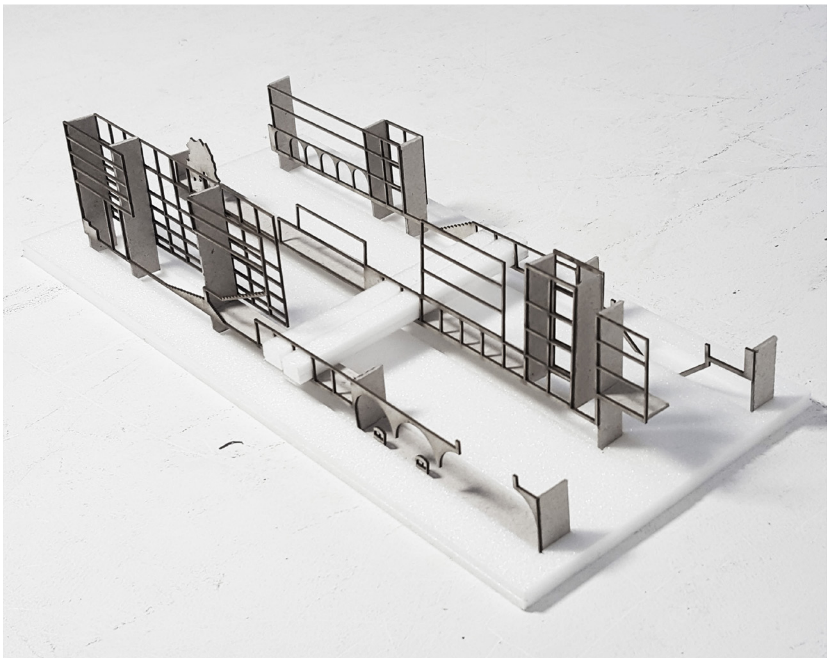
Visual Conncetion

A strong visual connection to Data is important to the project, how we connect visually to something that is in essence “ours” is important to the democratic responsibilities of the project.



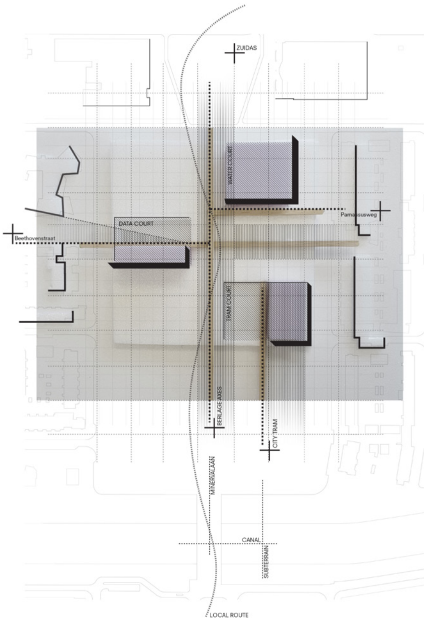
Massing

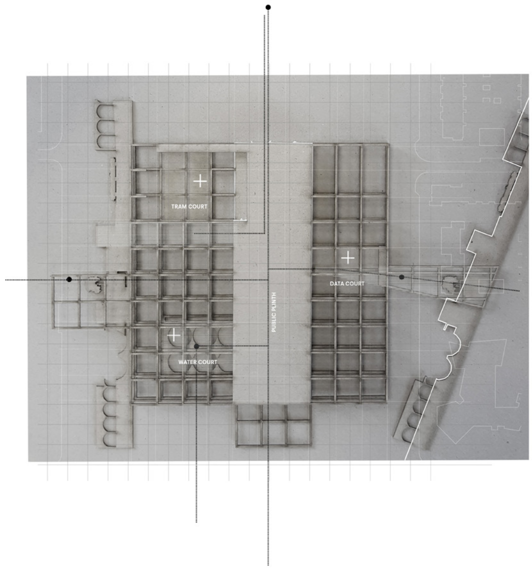
Massing models and models for spacial sequencing. Massing models helped to inform a strategy of inter-related spaces and architecture[s] within the block.



Design Exploration through models:

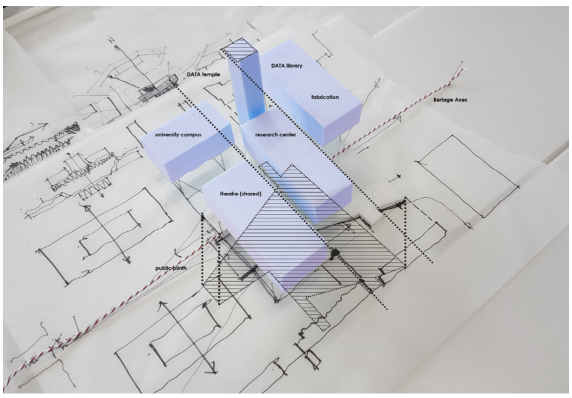
Models and the act of making influences the design process in relation to structure, form, site composition and material.

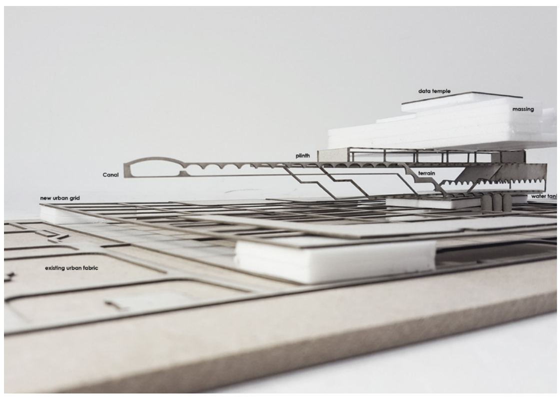




Circulation

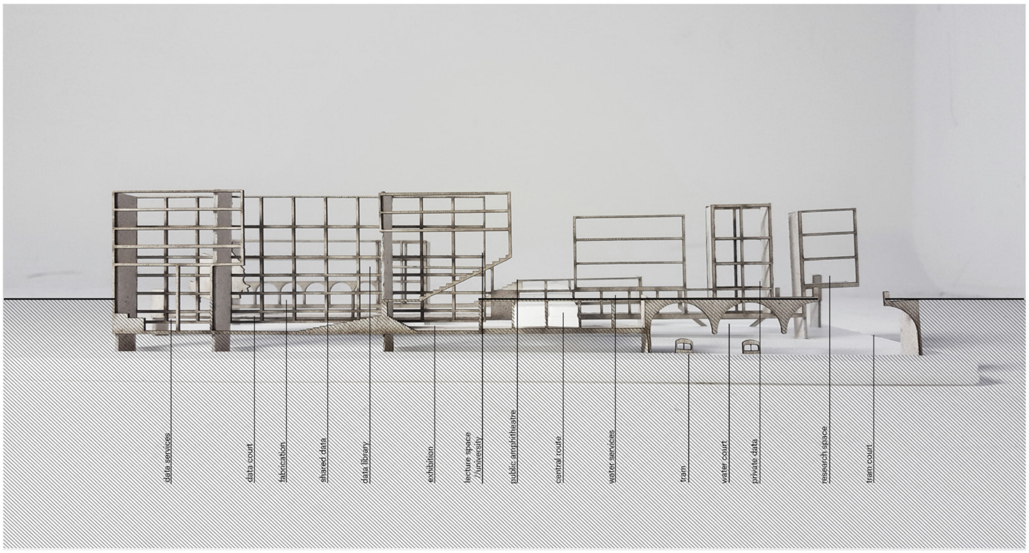
Circulation within the site and built architecture should mirror that of the underlying group urban strategy of vertical axis connecting through the site north south and 'local' connections east west through the site. This in turn relates to the wrapping of an arcade around the building



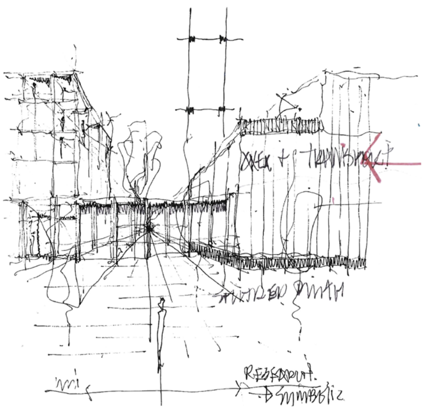


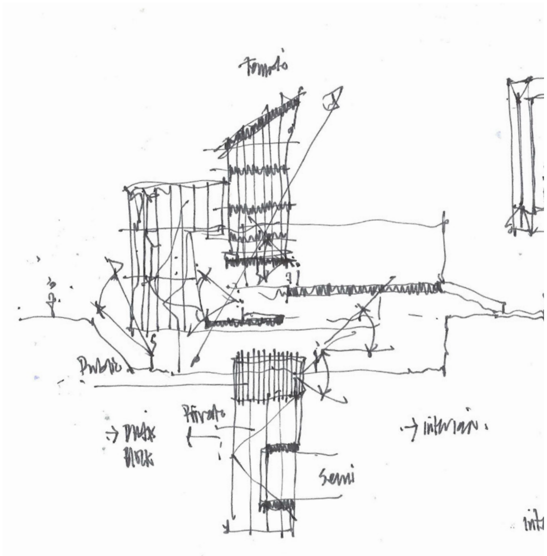
Layering

Models and massing models informed a methodology of exploiting the ground condition for the housing of services and shared public space.
Also this ensures a relation to the existing group strategy of a new public transport (pods) system under the site along the axis of the Minervaplein.



SECTIONAL EXPLORATION
CONCEPT ELEMENTS





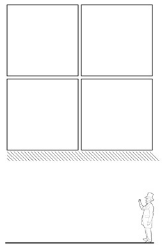
Facades

The Oud-Zuid presents a very strong exiting urban grid, thus it was important to both relation the architecture to the existing grid while representing the internal condition of the data held within the design. A series of .5, 1 and .25 units of the existing grid are used to re-present the differing typologies of data held within the design, thus private, shared and public is presented within the facade as much as the program.

DATA Library

The square profile signifies a Democratic facade inside which data is visable and accessible to all.

The occupant is invited to move under and with the element of data storage in the knowledge that this is truely accessible to the public.

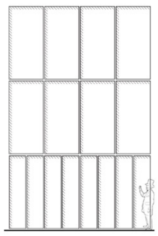


Research Center

The facade of the research center mirrors that of the 'protected' nature of the data contained within the center.

The upper floors contain a .5 grid division while the ground floor contains a .25 grid division signifying the 'grounding' of data or the cloud into both architecture and the local context.

The perforations with the facade coincide with the level of public-ness of the interior program.

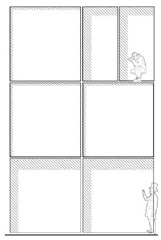


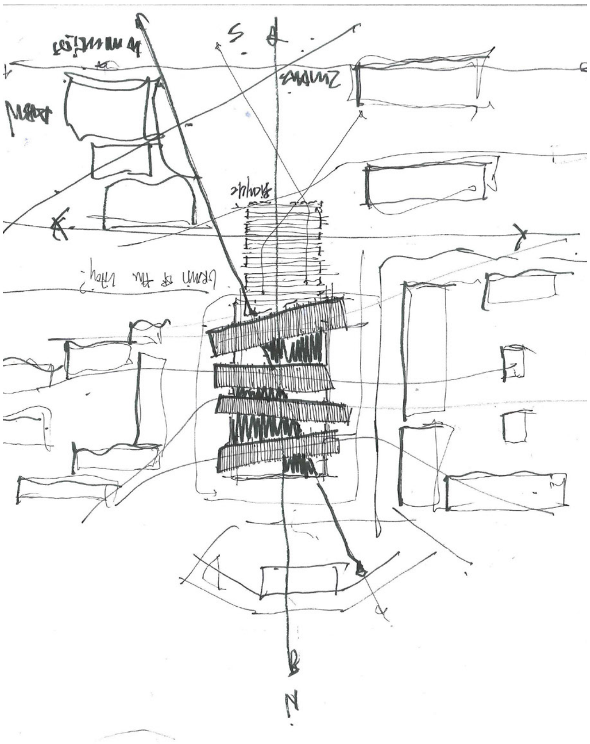
DATA University Faculty

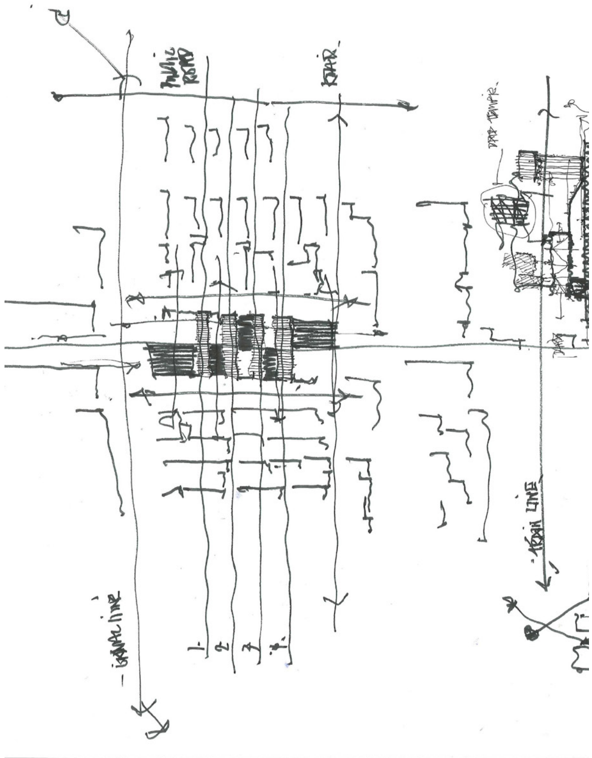
The facade mediates between 'open' and 'closed' in an attempt to inform a stared typology of facade.

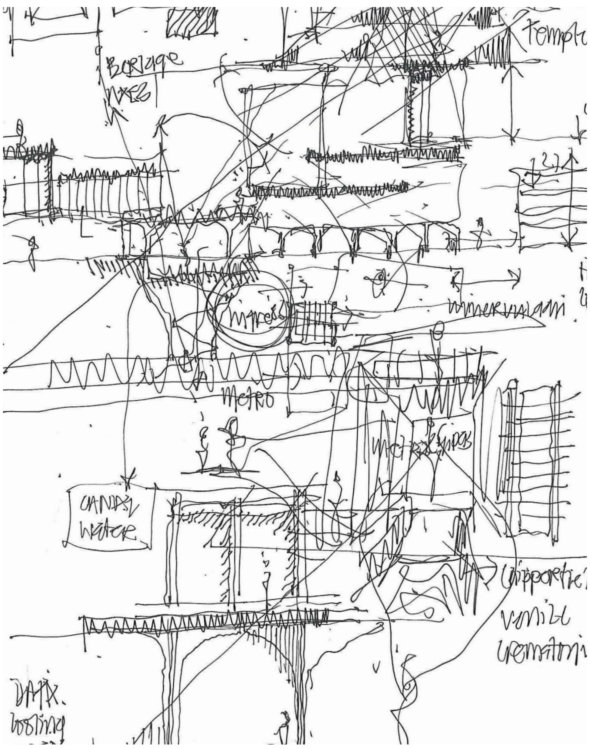
The facade opens to the street on the ground floor allowing public access while on the top floor openings are created in an attempt to both suggest accessibility of the building but also to accommodate the internal requirement for breakout space within the university.

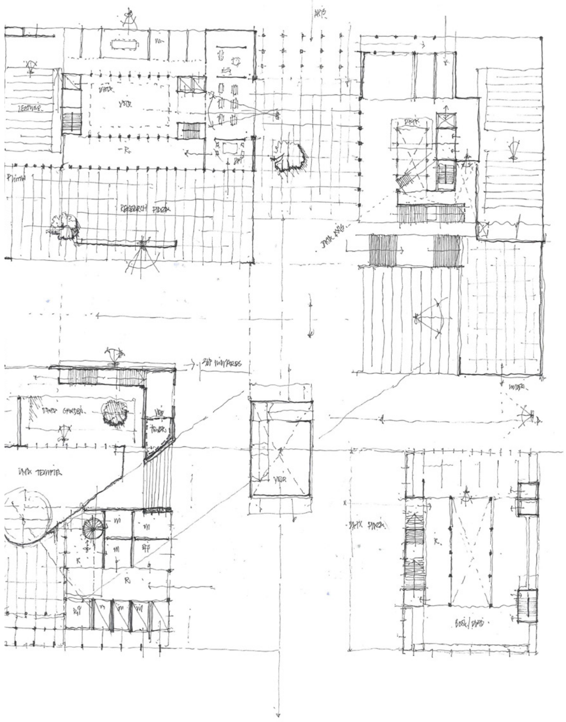
As the space is shared between the public and those who will be part of the university the facade should attempt to suggest a variation of public and private function.









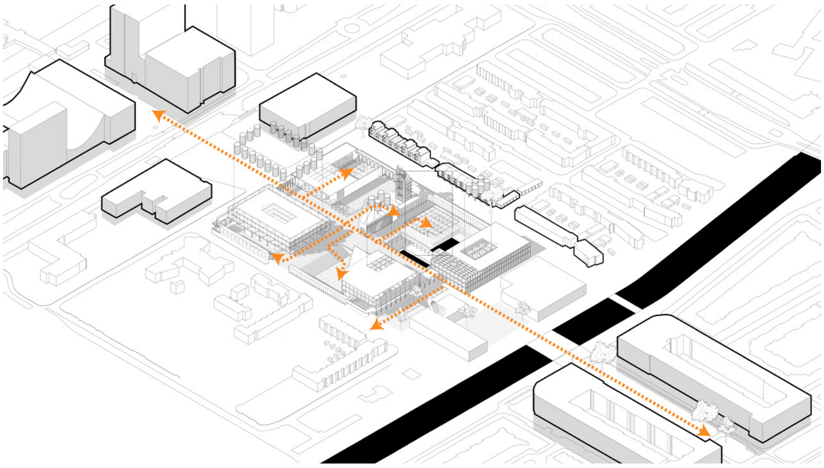


Sketching:

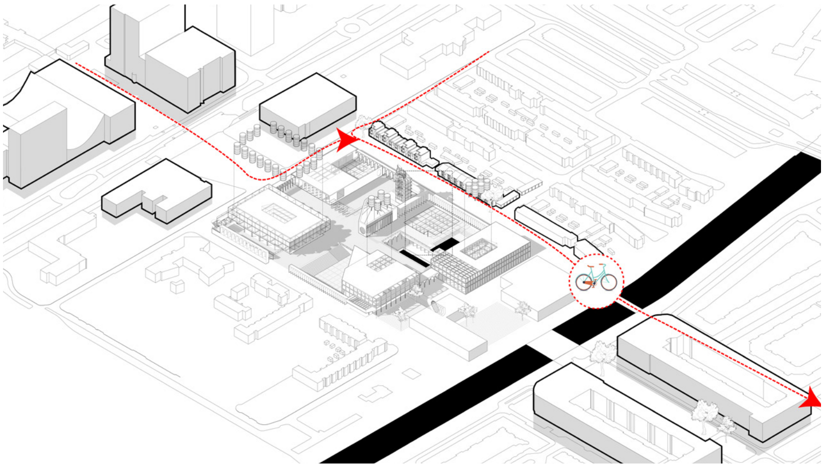
The act of sketching informed all the process of plan design. Before any plans were taken into the computer, I chose to work through hand sketching as a quick and mostly accurate method of spacial design.

Functional requirements of Site + Architecture

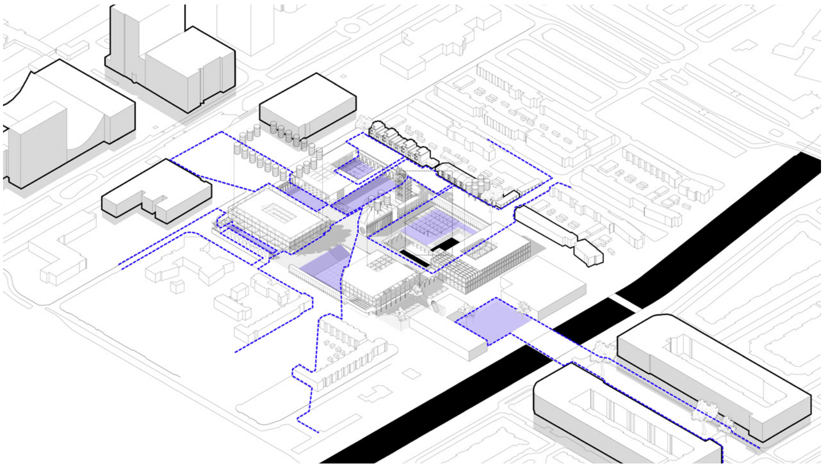
The site hosts a series of relations in terms of its end user. Those who live in the context, those who have never been to the site before and those who pass through th site but do not hold any direct relation to the site or architecture.



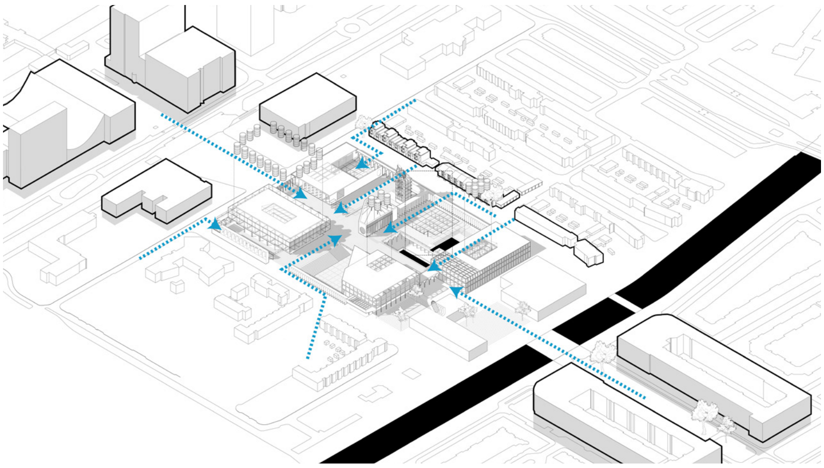
Tourist



Cyclist



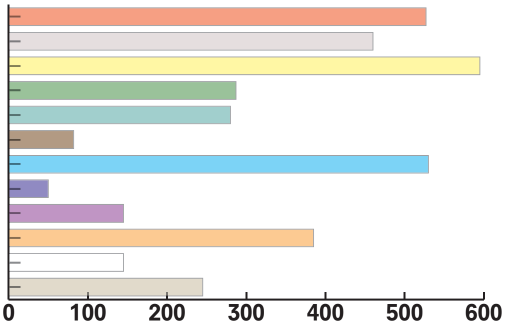
Public space



Local user

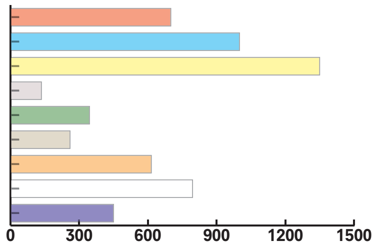
DATA BANK 3731m2

Lecture space	527m2
Meeting space	460m2
Core/ Atrium	595m2
Circulation	287m2
Public banking area	280m2
W/c	82m2
Canteen/ break out	530m2
Service space	50m2
Private offices	145m2
Research labs	385m2
DATA labs	145m2
Hot desking spaces	245m2



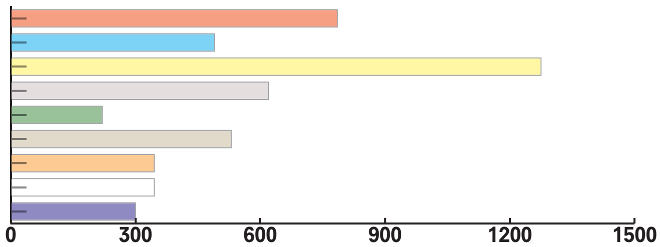
DATA Faculty 5650m2

Informal lectuer space/exhibition/ breakout	700m2
Public theatre	1000m2
Core/ atrium	1350m2
meeting spaces	135m2
Entrance/ circulation	345m2
Informal study space	260m2
Formal reading space	615m2
Teaching space	795m2
Canteen/ informal study space	450m2



DATA Library 5015m2

Fabrication space	785m2
External space	490m2
Core/ Atrium void	1275m2
Public reading rooms	620m2
Entrance	220m2
Computer space	630m2
Private meeting space	350m2
Informal reading space	345m2
Cafe	300m2



Final programmatic floor spaces

The three main spaces of the Data bank, Data Faculty and Data Library all contain a series of public and semi-public, private spaces, but share a common atrium space containing the Liquid data containers that is the largest space within each building.

DATA

1. Library Parabolic Data container
2. University Verical data containers
3. Bank Vertical data container

Roof Scape

1. Library Atrium
2. Data structure
3. University data atrium
4. External space to University
5. Bank data Atrium
6. Bank external space
7. Penicle point of Data Mausoleum

Second Floor

Data Bank:
1. Covered External space/ roof terrace
2. Data Storage
3. Hot desk research space
4. Private meeting/ lecture space
5. lift core
6. Wc
7. Private Data bank offices

University:
8. Meeting space/ university canteen
9. Lecture space
10. Lift Core
11. Data Storage
12. Private offices
13. External garden
14. Reading space.

Library:
15. Data Storage
16. Computer space
17. lift/ stair core
18. Private study space
19. Break out space
20. Reading space
21. Public Cafe space
22. Atrium
23. Central Stair

Library:
24. Data mausoleum

First Floor

Data Bank:
1. Dara Storage
2. Data Labs
3. Hot desk research space
4. Private meeting/ lecture space
5. lift core
6. Wc
7. Break out kitchen space
8. Research labs/ computer labs

University:
9. Meeting space
10. Lecture space
11. Lift Core
12. Data Storage
13. Teaching/ lecture space
14. External space
15. Reading space.

Library:
16. Data Storage
17. Computer space
18. lift/ stair core
19. Private study space
20. Break out space
21. Reading space
22. Souther Exit
23. Atrium
24. Central Stair

25. Mausoleum

Ground Floor

Data Bank:
1. Data bank
2. Data atrium
3. Reception
4. Research lecture space
5. Meeting spaces
6. Kitchen
7. Wc
8. Lift/Stair core

University:
9. Public/ university Lecture space
10. Reading space
11. Meeting/ university offices
12. Staircore
13. Wc
14. Lift
15. Stair to basement
16. Void

Library:
17. Reading spaces
18. breakout space
19. public reading room
20. study space
21. access to first floor
22. wc
23. lifts
24. stair core
25. Fabrication space in Basement

Data Temple:
26. Central worship space

27. Mausoleum

Municipal meeting space:
28. Exhibition space
29. W/c
30. Municipal meeting garden
31. Meeting spaces

Ground Floor

Arcade:
1. Eastern (data axis) Arcade
2. Southern Arcade
3. Northern Entrance facade
4. Western (local) arcade.

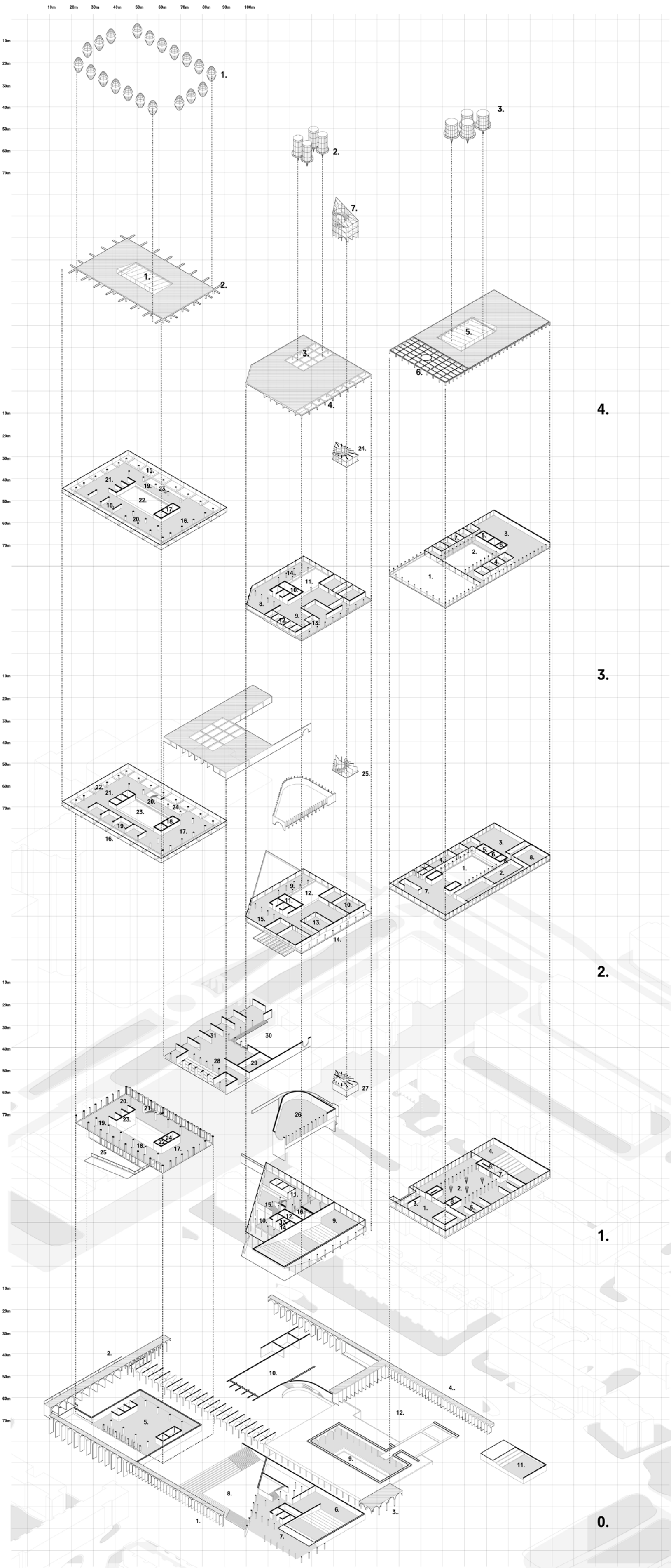
Library:
5. Fabrication spaces

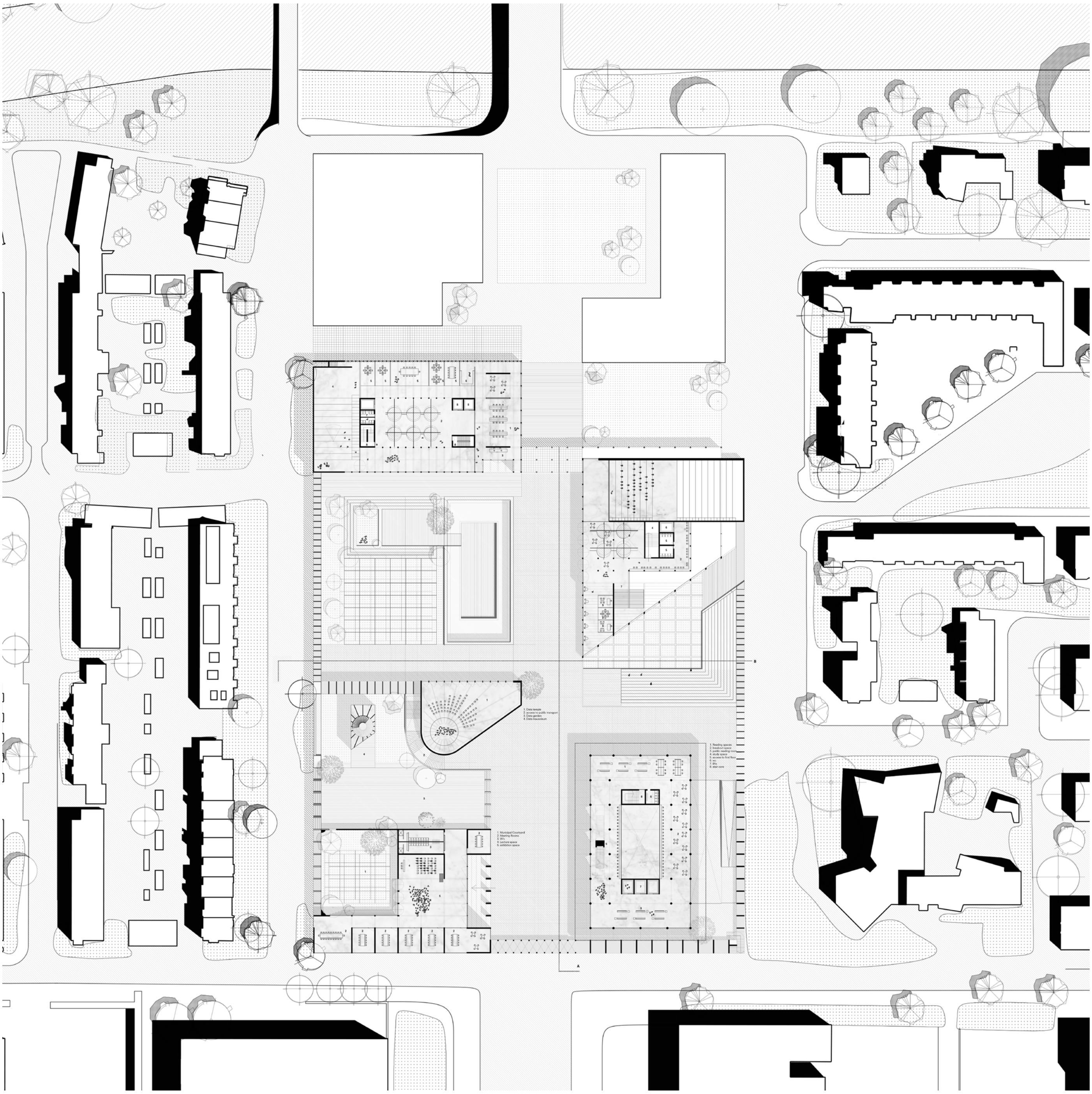
University:
6. Public lecture space
7. Break out spaces
8. Amphitheatre

PODS:
9. Public transport link

Data Temple:
10. Temple Garden

Data Bank:
11. Public lecture space
12. Market square

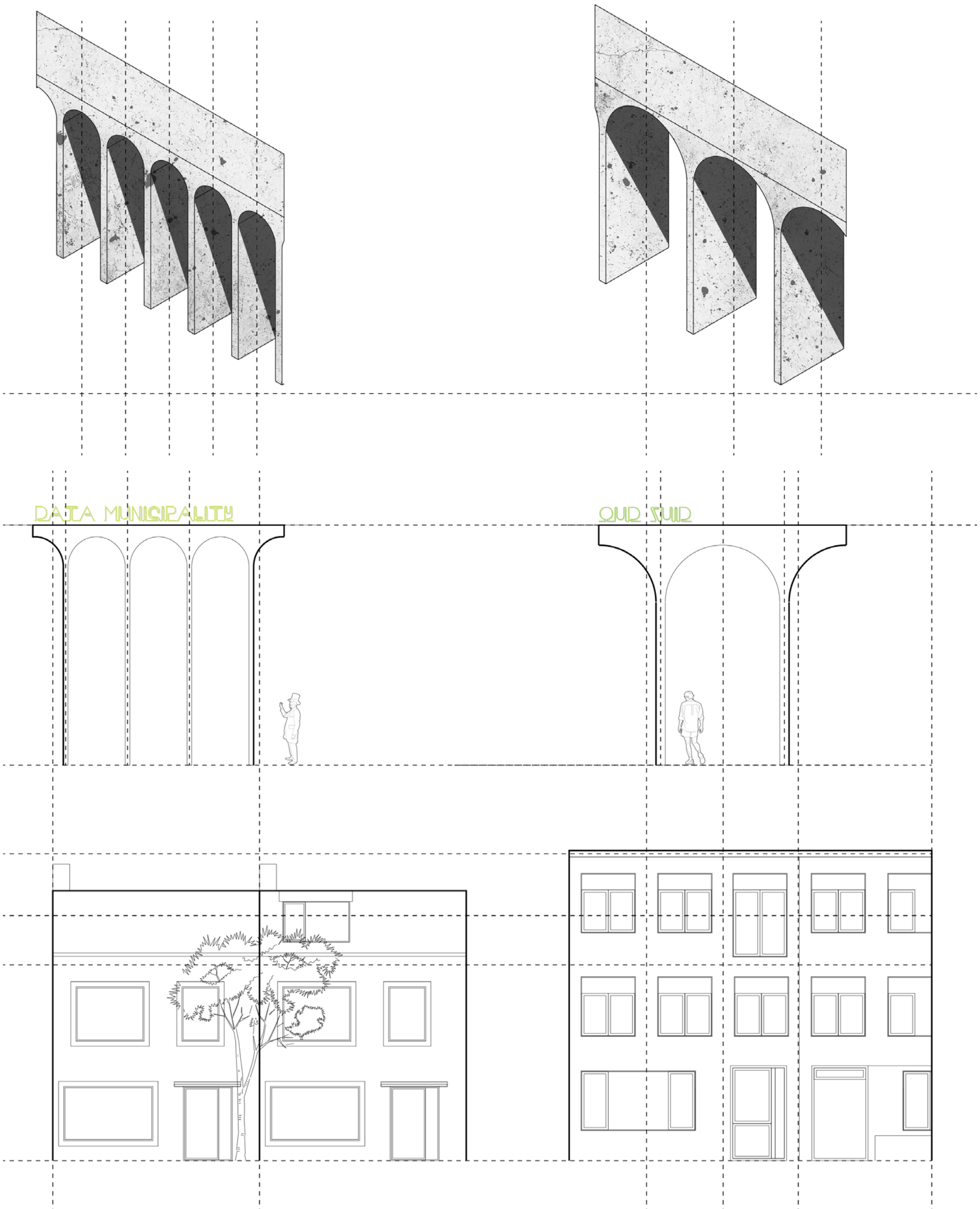




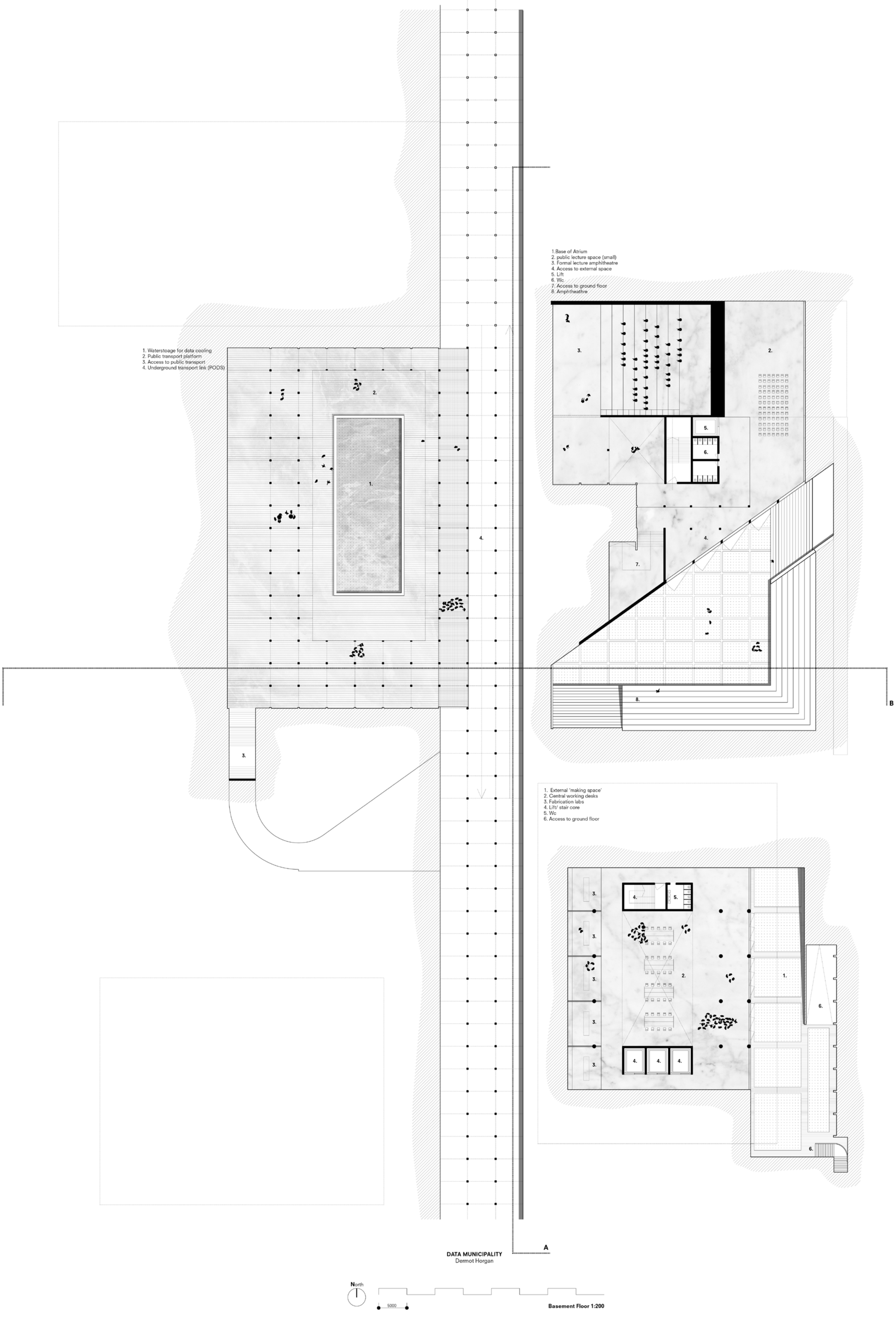
Integration into the existing context

The re-organisation of the Blocks, squares and streets required one more element to 'hold' these elements together as one cohesive unit.

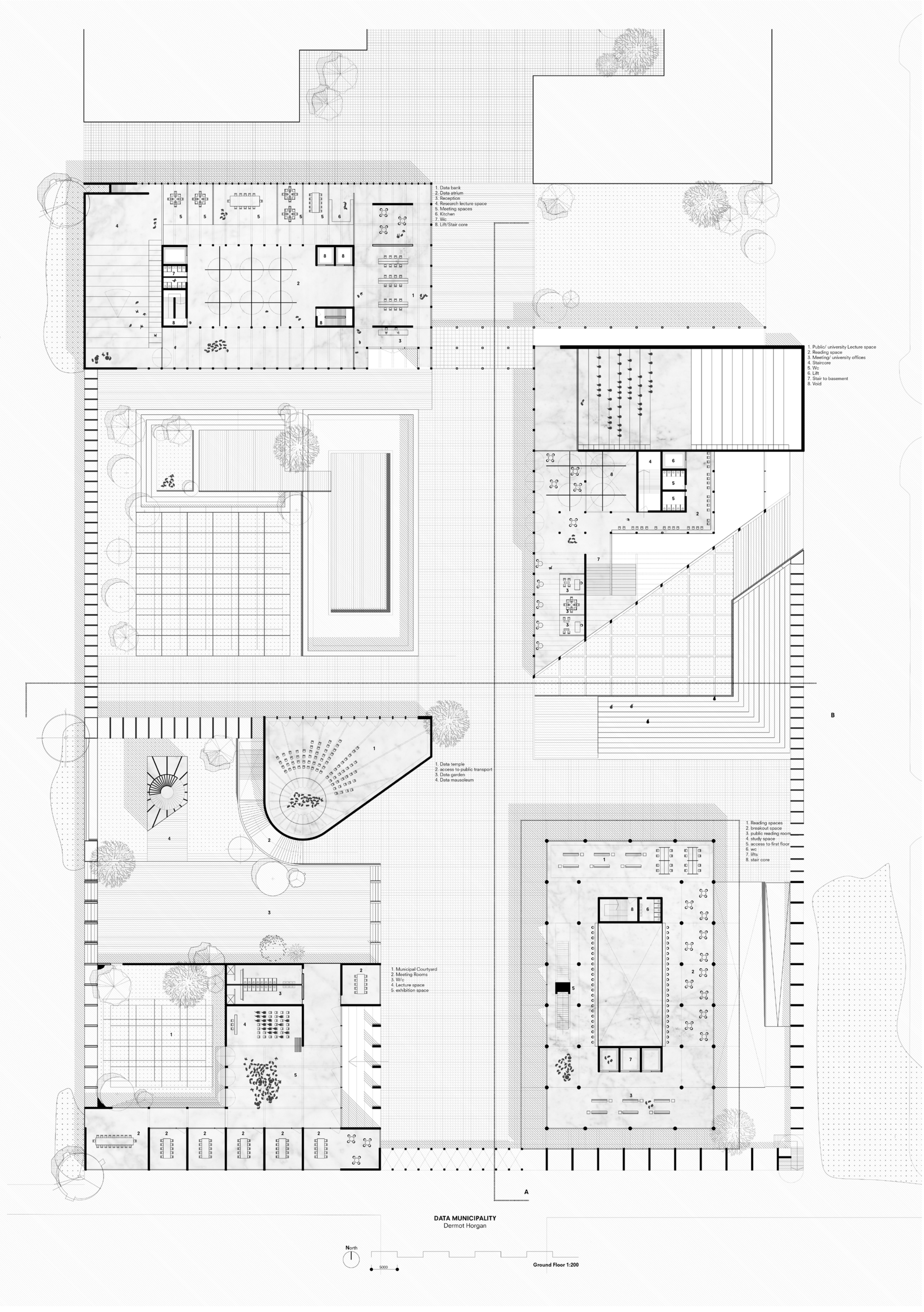
This came in the form of a unitised arcade, wrapping the existing site and enabling the ingress of the occupant while maintaining the line of the plot as distinct from the per-dominantly residential context.



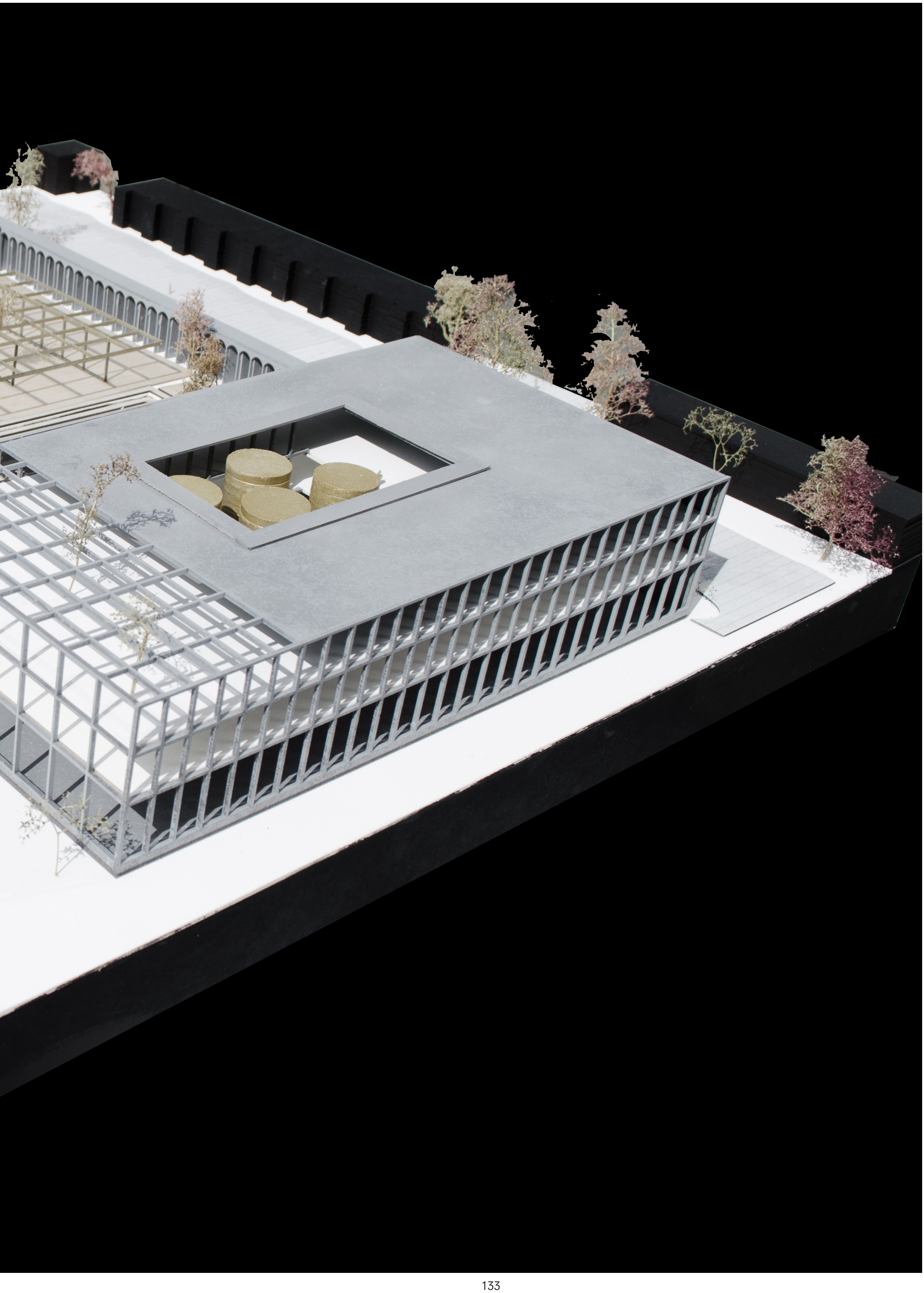
Arcade // context



Basement Level



Ground Floor

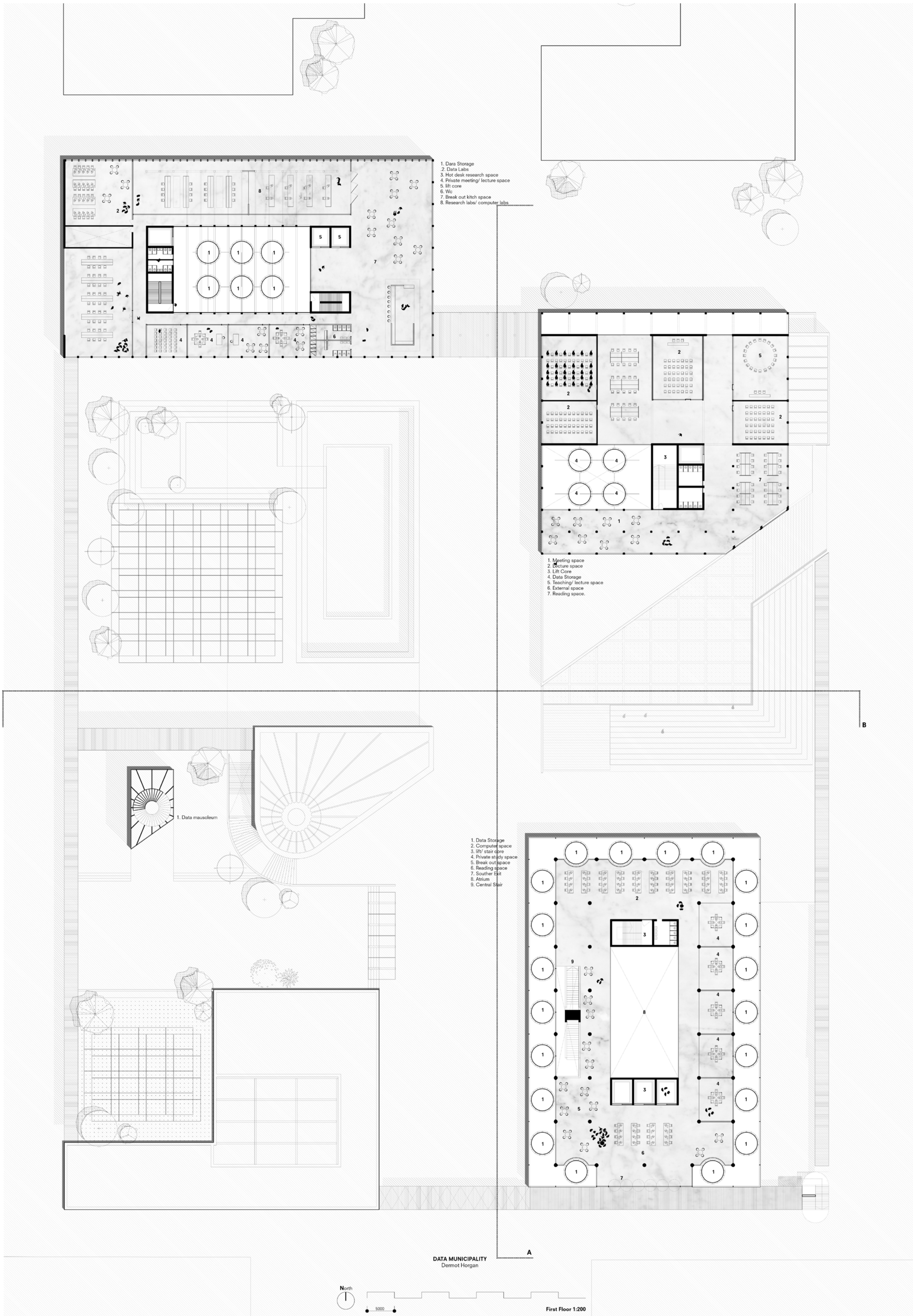


DATA MUNICIPALITY

‘A dead person, obviously, can’t do this – he or she can’t tell Google or Apple to delete the trail of GPS data which, in theory, could allow a third party to know intimate, private details about how they spent their time when they were alive ’

DATA MUNICIPALITY

'We're seeing now how that data can be used not just to invade our privacy, but to manipulate how we think '


1. Dara Storage
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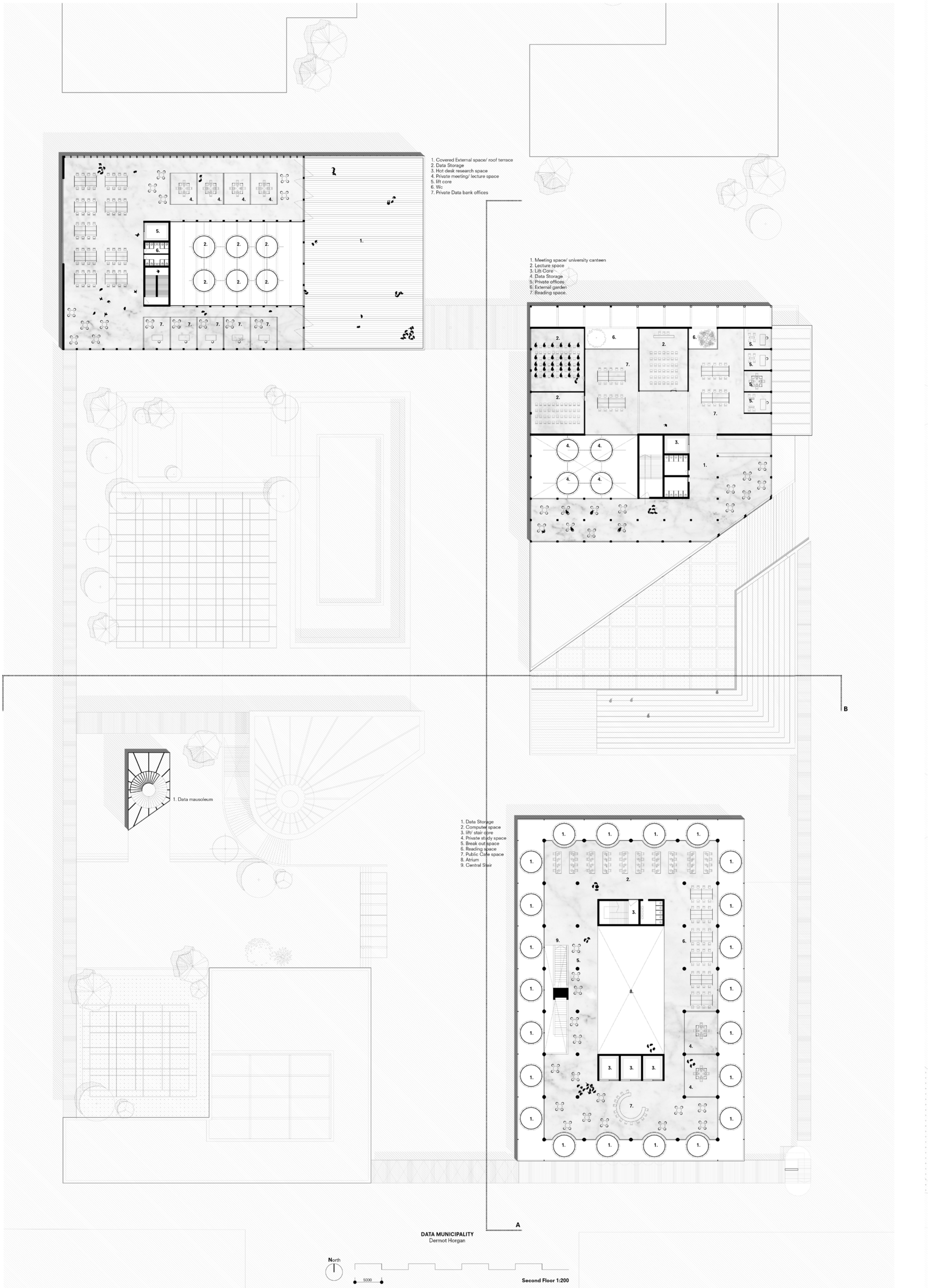
2. Lecture space
3. Lift Core
4. Data Storage
5. Teaching/ lecture space
6. External space
7. Reading space.
1. Data mausoleum
1. Data Storage
2. Computer space
3. lift/ stair core
4. Private study space
5. Break out space
6. Reading space
7. Souther Exit
8. Atrium
9. Central Stair
B
A
DATA MUNICIPALITY
Dermot Horgan
North
5000
First Floor 1:200

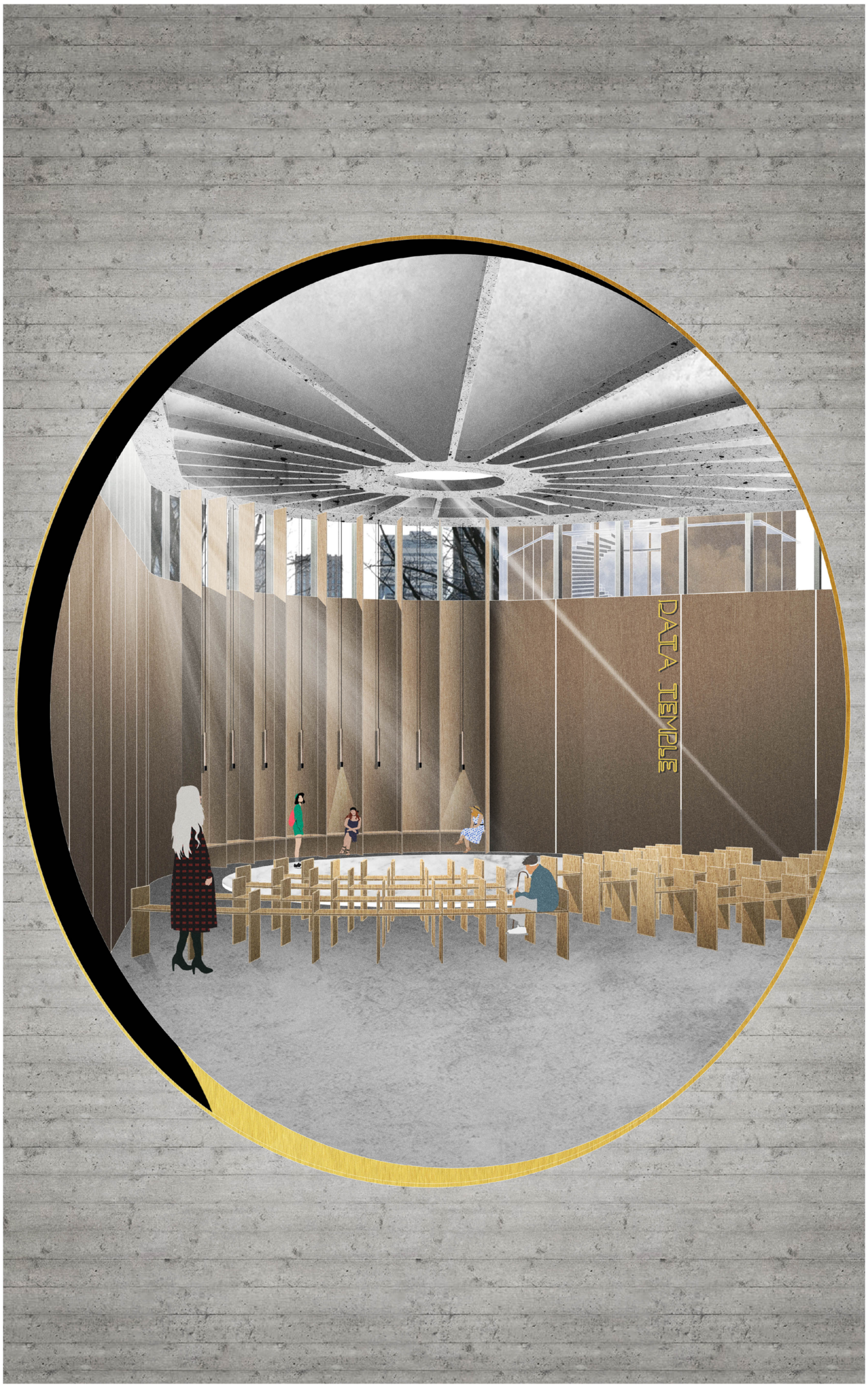
First Floor



Second Floor

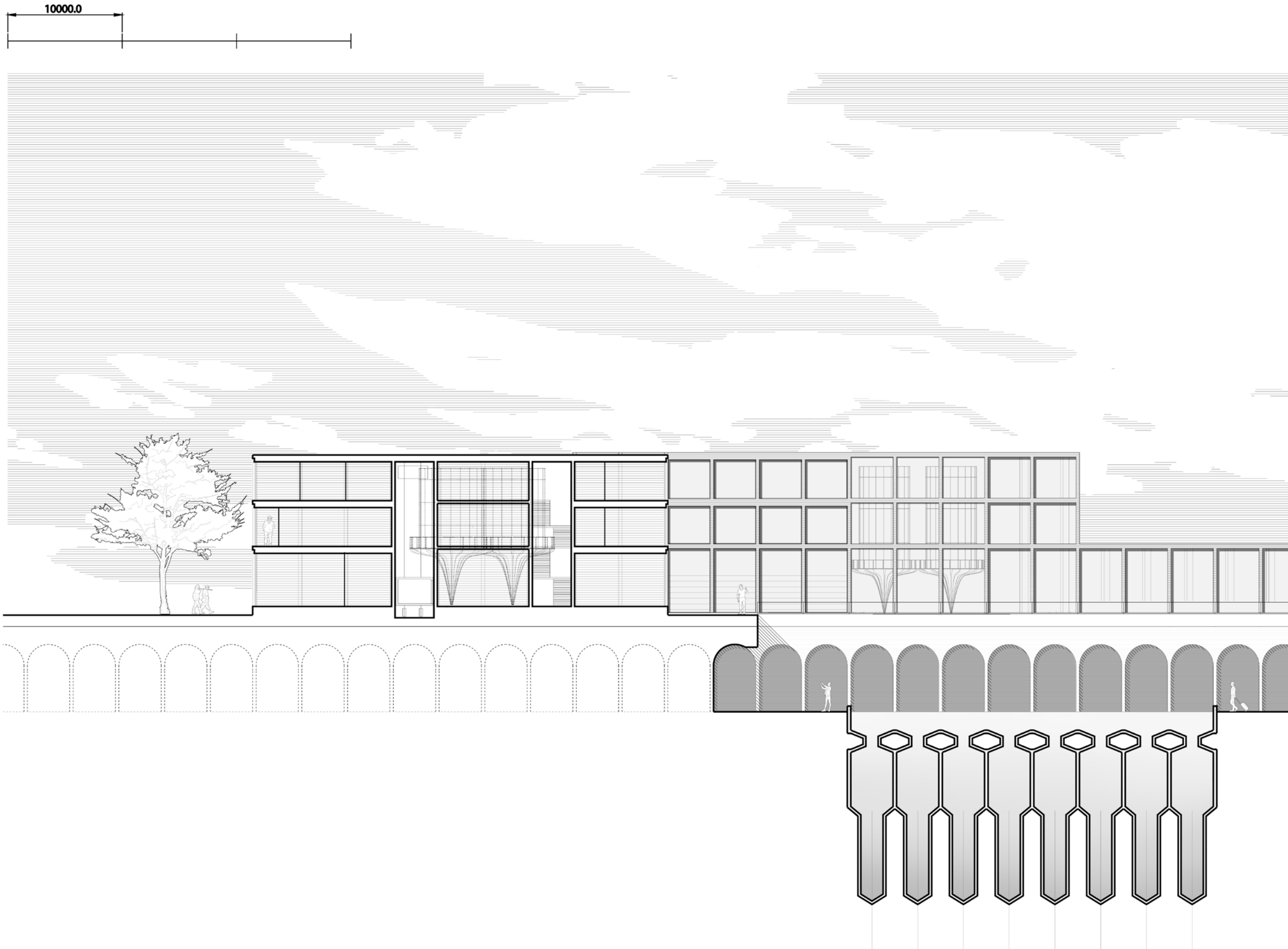
DATA MUNICIPALITY

'As data is increasingly recognized as the distinctive asset in our digital age, more and more organisations are aspiring to capitalize on this new gold'



DATA MUNICIPALITY

'Dataists say that anything that's not shared is wasted, and that we cannot find meaning within us.
Supposedly the solution is to send our experiences into the system
and have it tell us what we should do next'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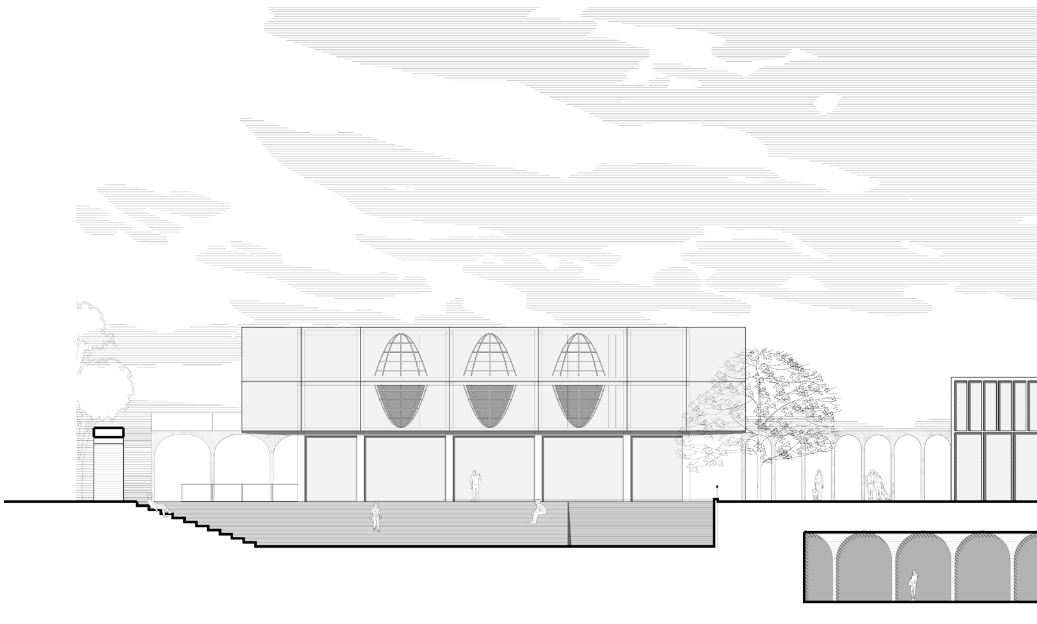
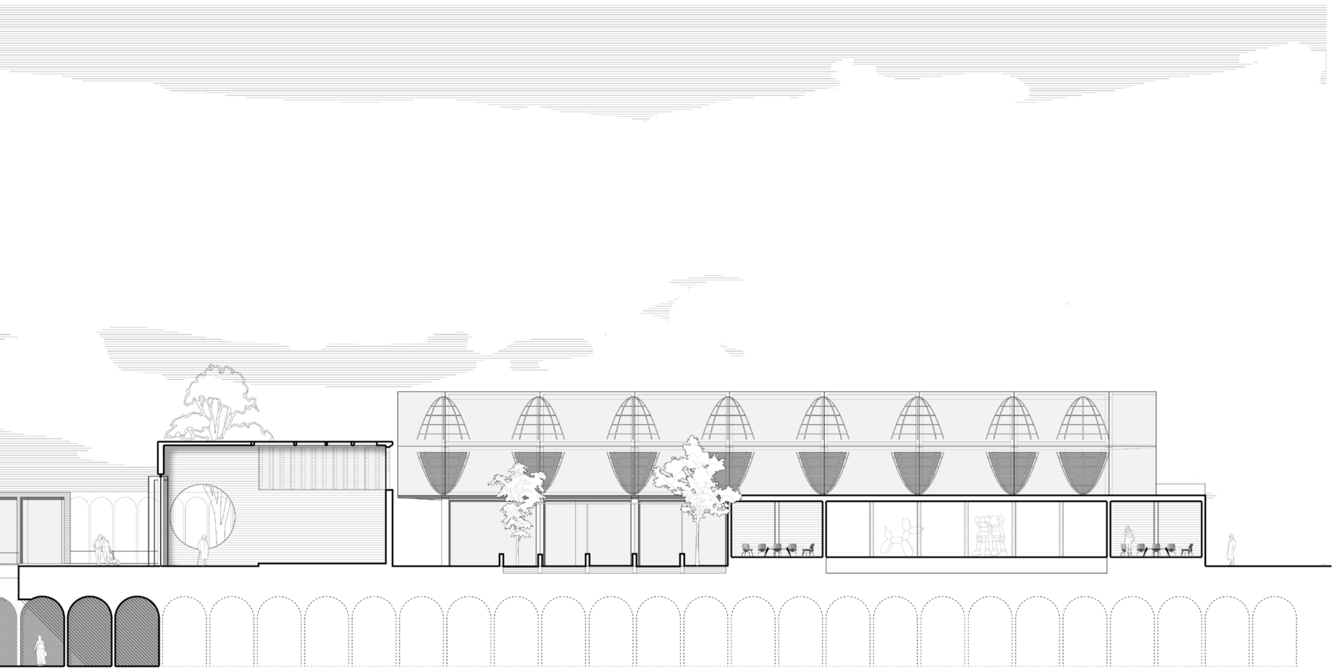
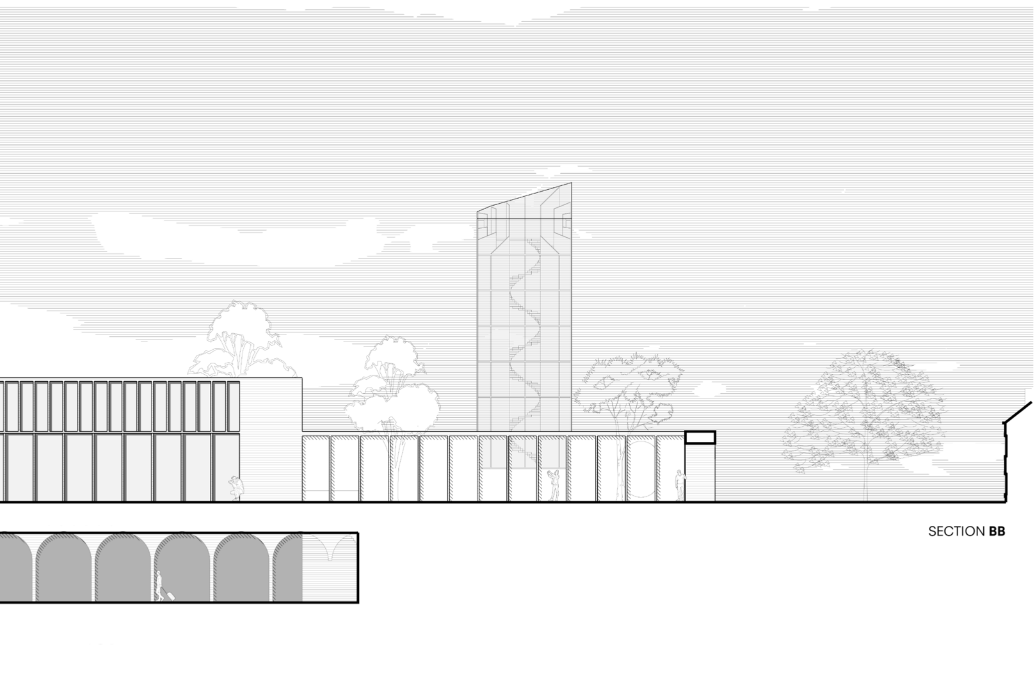
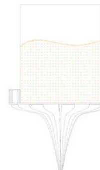




SECTION **AA**



SECTION **BB**

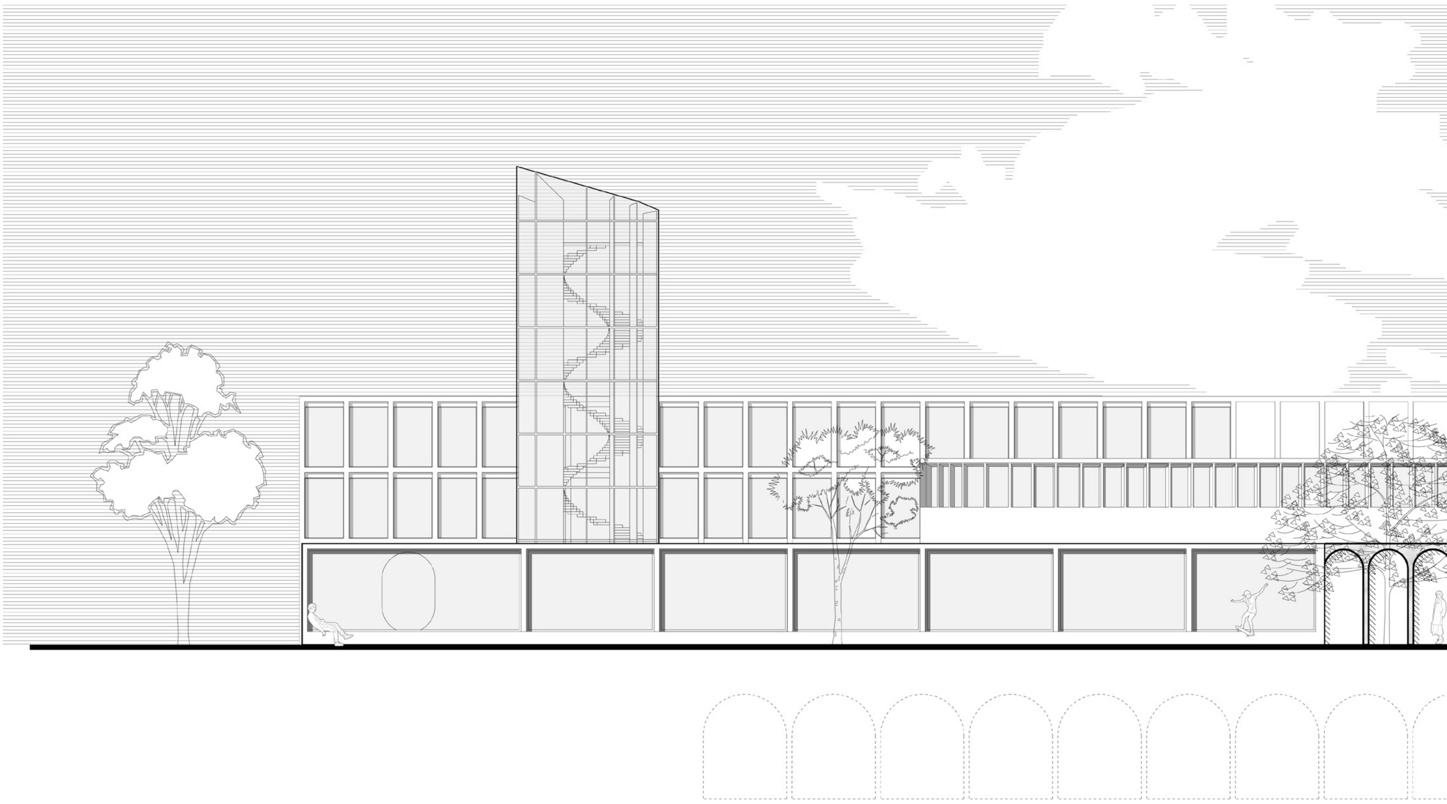


DATA MUNICIPA

‘The details are still taking shape, but future tra
be connected, data-driven and

ALITY

ansportation systems will certainly
highly automated'

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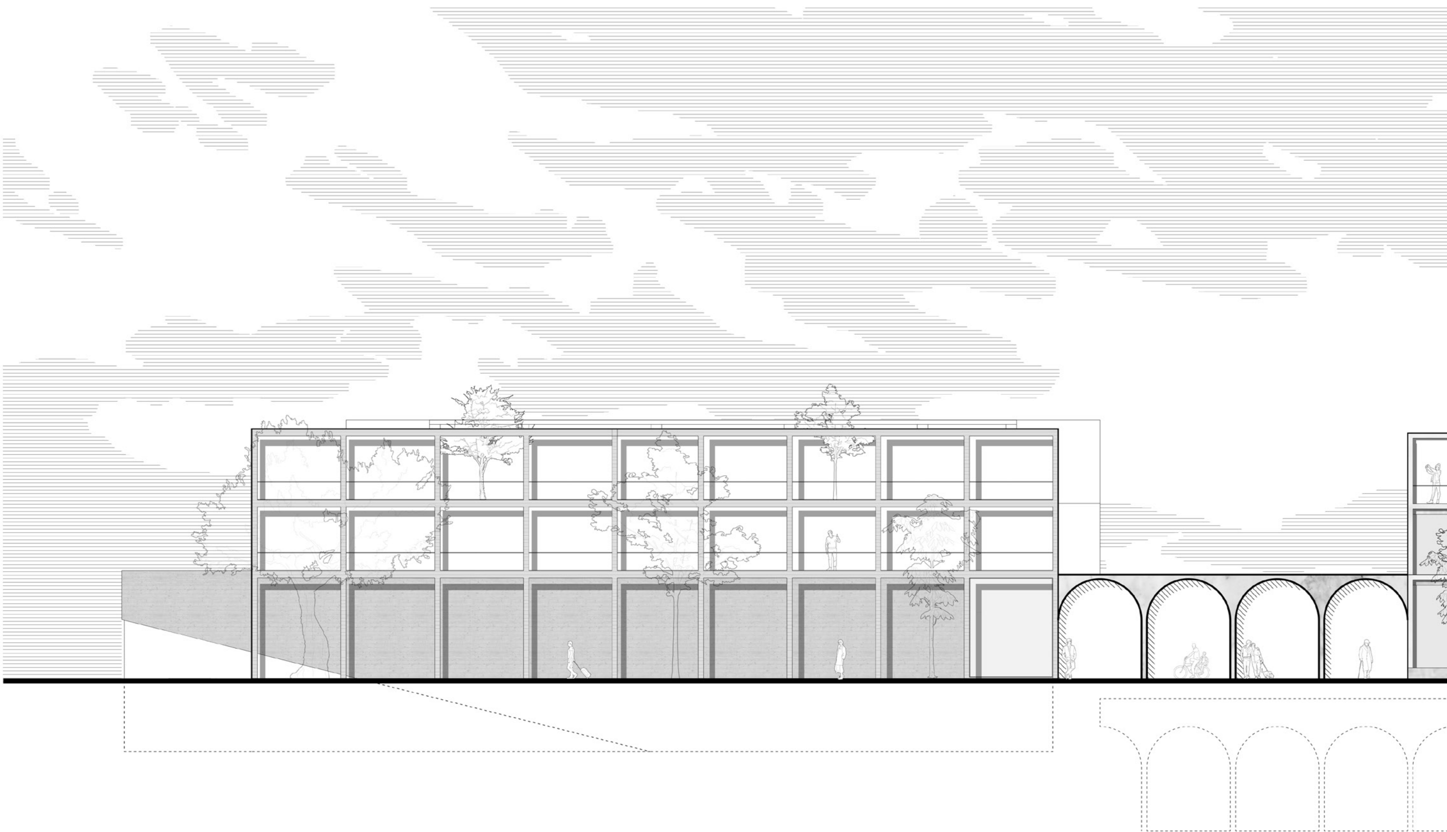
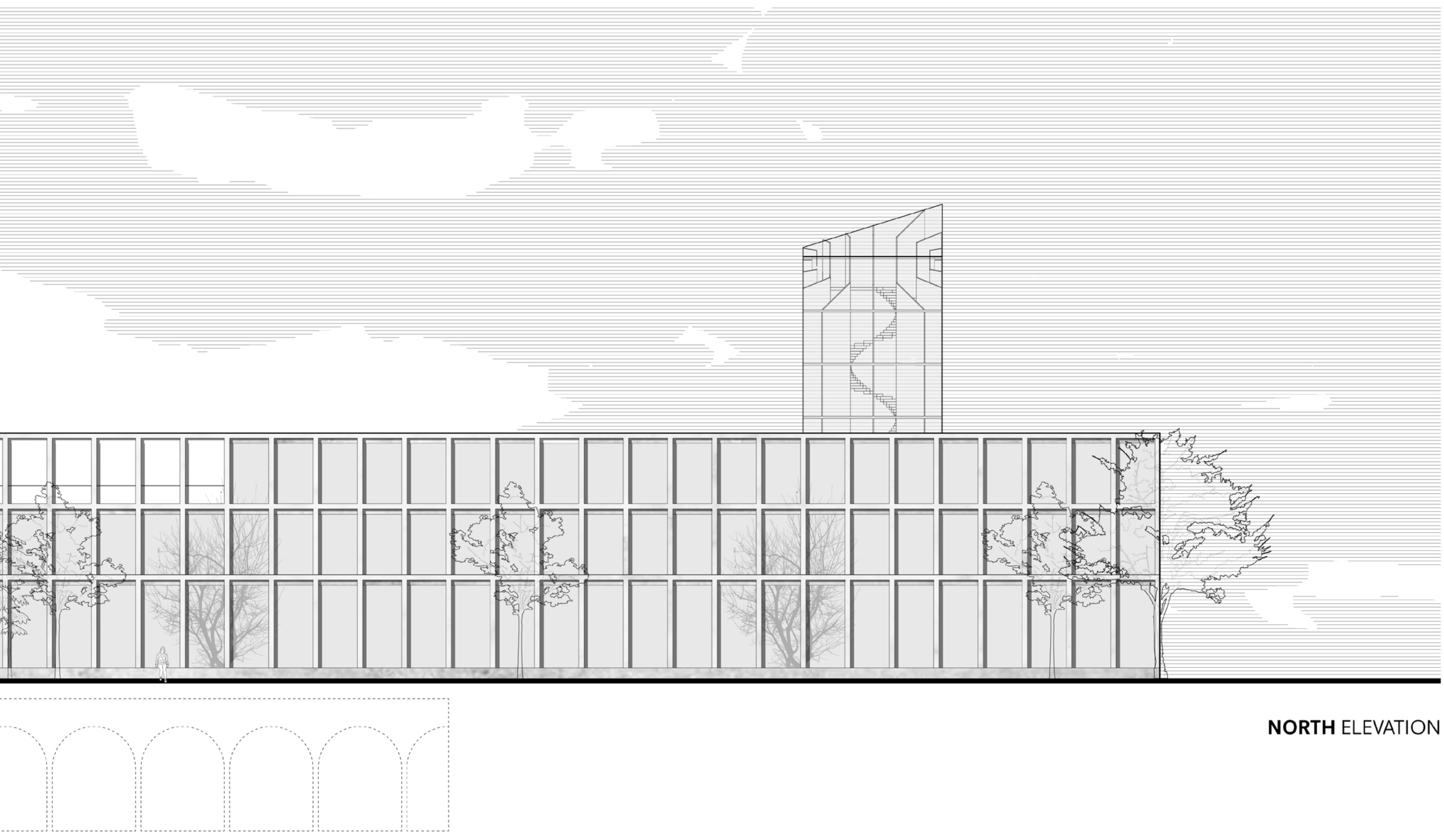


SOUTH ELEVATION



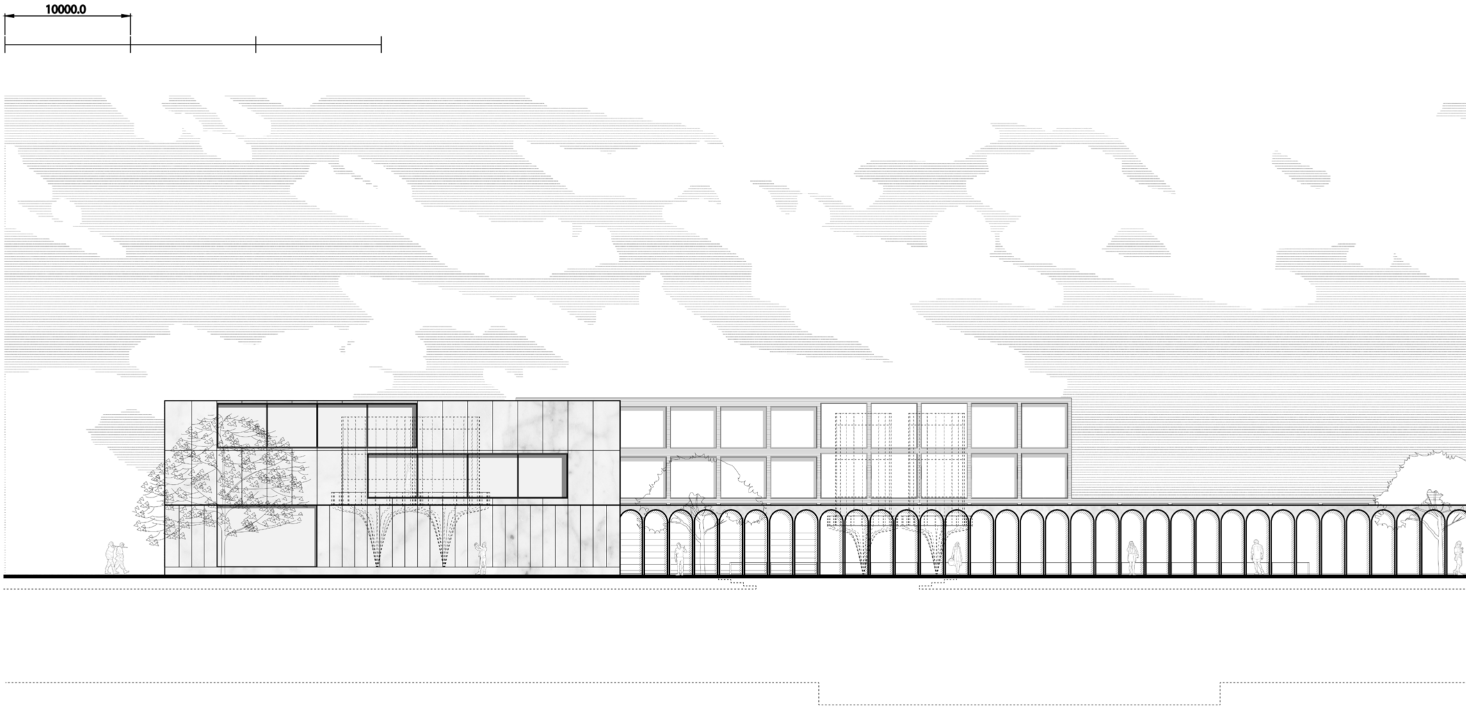
NORTH ELEVATION

DATA MU

'the hope remains intact that a day wi
to store 1TB or more of data in ju

NICIPALITY

ll come when a liquid storage medium
st a tablespoon will be available.'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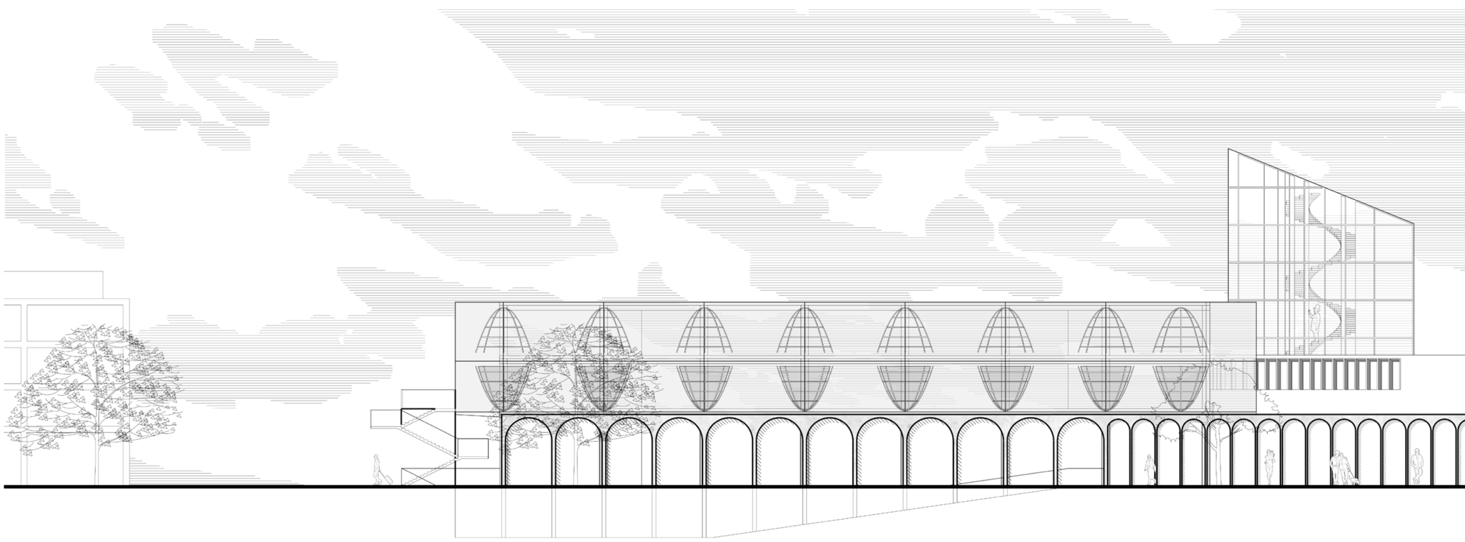
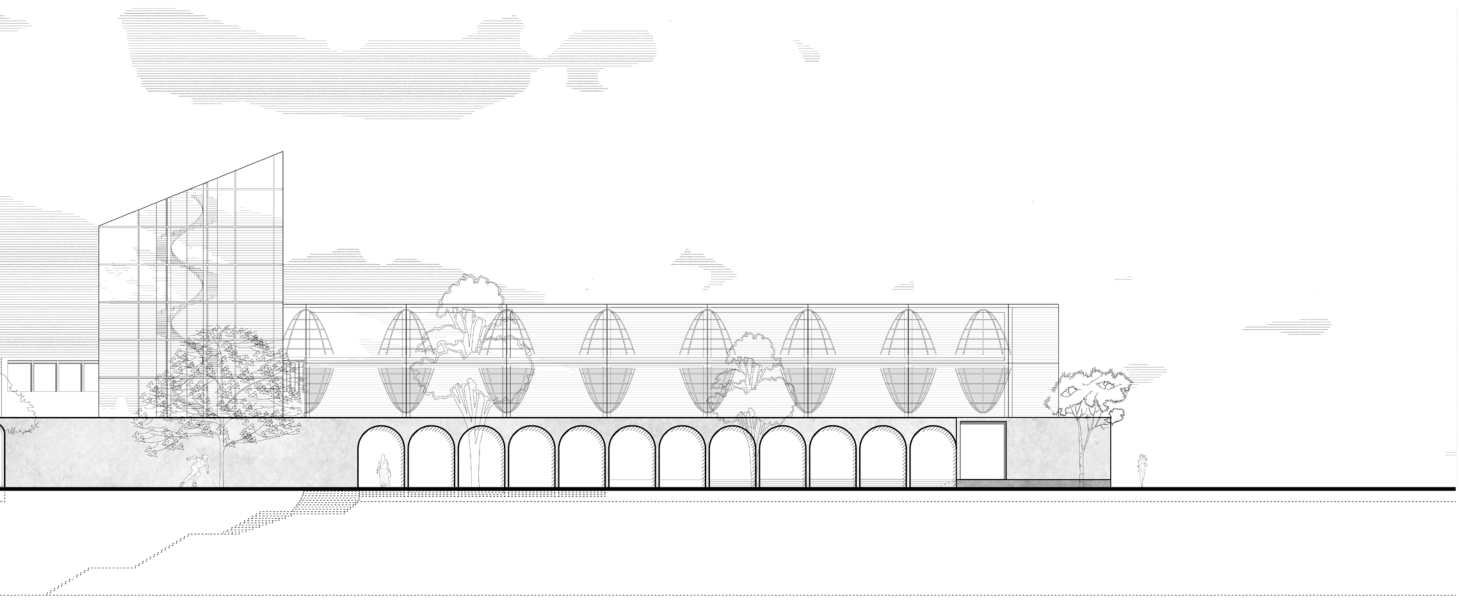
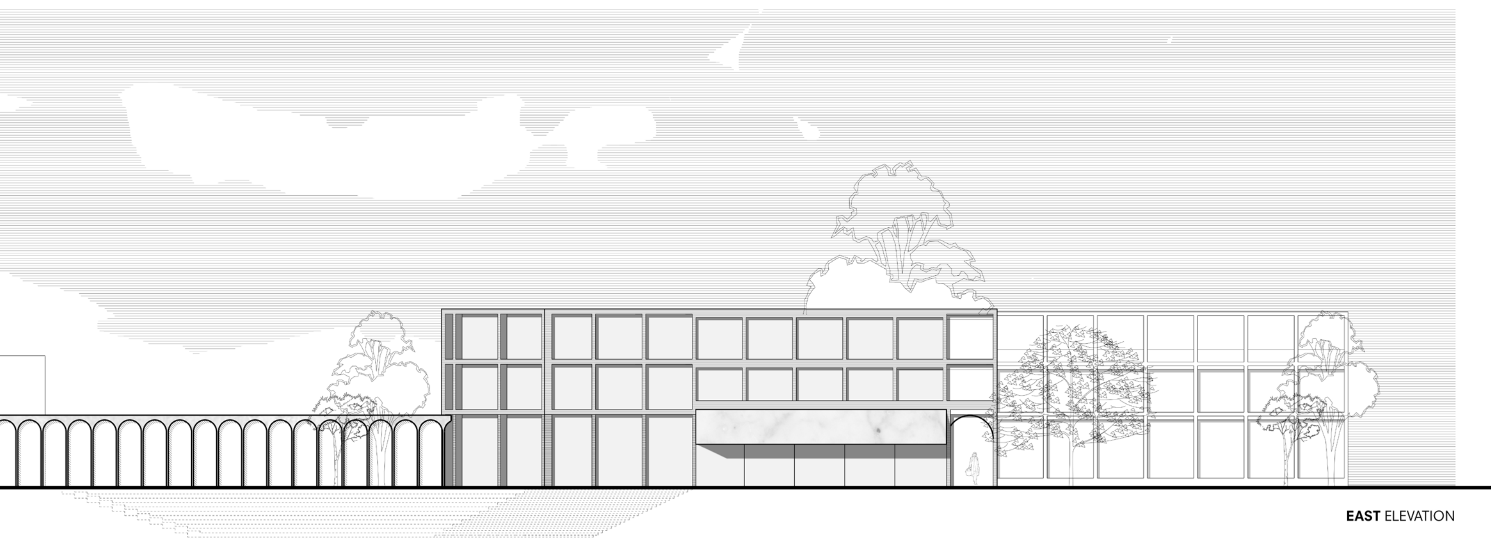




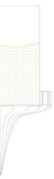
WEST ELEVATION



EAST ELEVATION

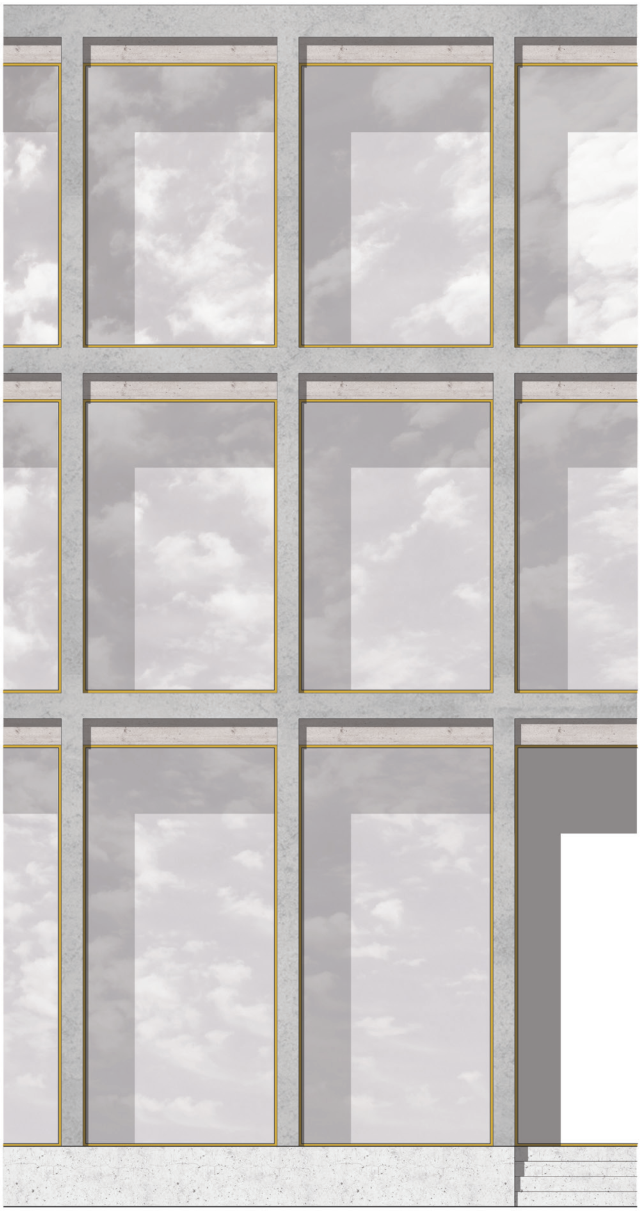
DATA MU

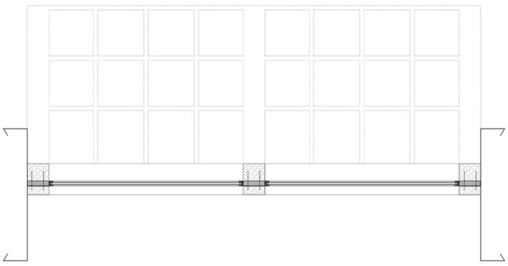
'We live in a time where most of the problems we're facing – including soci
solve on our own. We need to collaborate with others.... M
so that we can learn from our peers

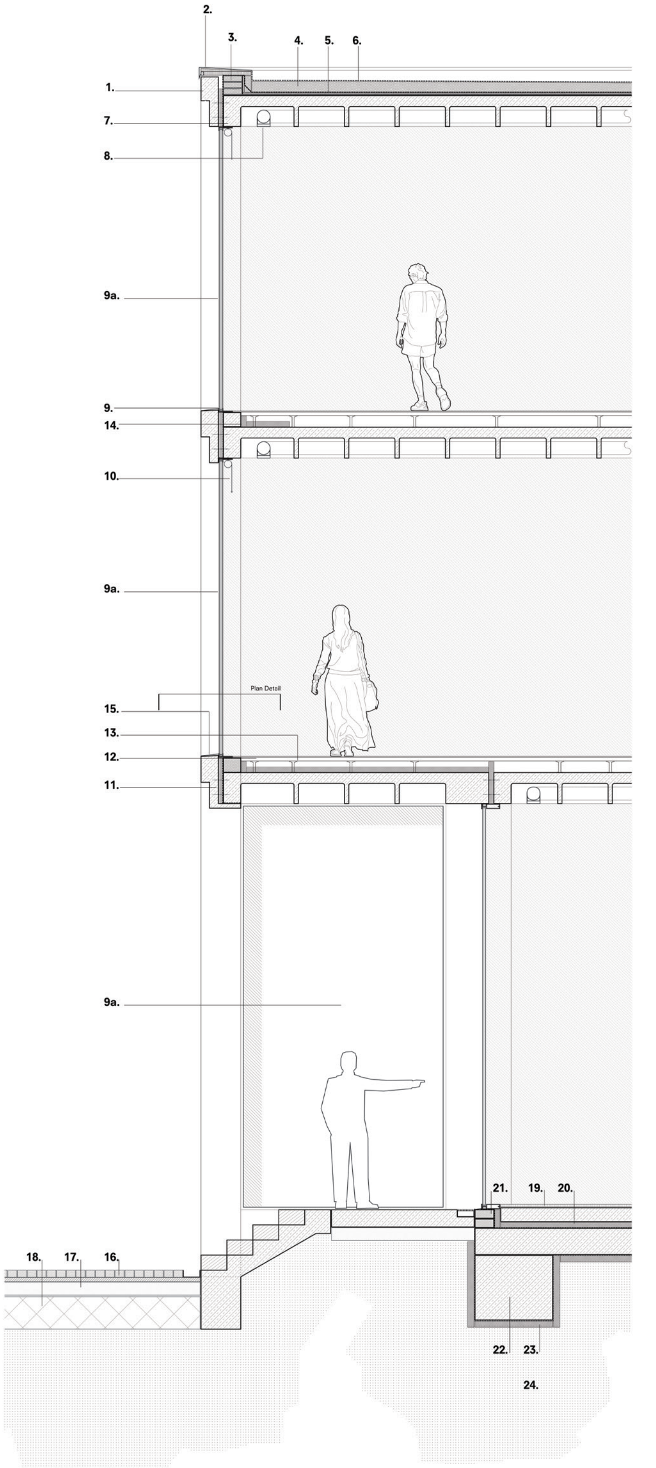


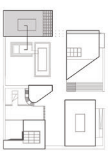
NICIPALITY

etal, technological, mobility, growth and climate – as a city are too large to
eaning we are sharing our knowledge as much as possible,
, and can collaborate on solutions.'









1. Acid etched precast concrete outer leaf 200 x 575mm
   Insulation attached to pre-cast concrete 75mm insulation
   damp proof barrier to insulation layer
   Decomo architectural precast concrete
2. Aluminium parapet capping
3. Foam glass perinsul SL insulating block
4. 150mm extruded polystyrene insulation board
5. Water/ damp proof course
6. non-woven polyester fleece 130-140 g/m2

7. Insitu concrete waffle slab
   500mm depth
   Spanning 2.5m grid
8. HVAC intake unit (drawing air from data atrium)

9. Double glazing unit
   2 x 8mm glazzing layer

9a. Glass type:
   Glass: SageGlass electrocromatic glazing for occupant comfort

   Steel casement window frame finished to architects specification
10. Internal blind fixed to window unit
11. External leaf tied back to internal structure

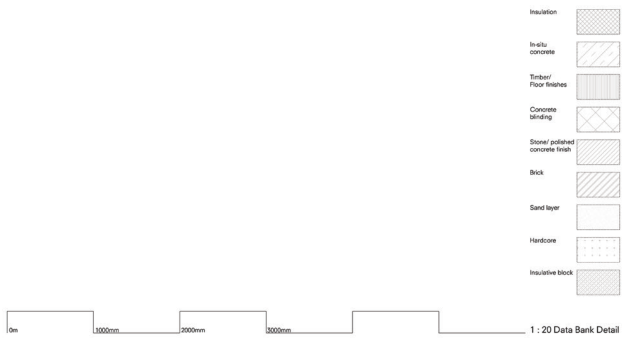
12. Raised floor finish
13. Adjustable floor pedestals
14. Insulation at edges to ensure cold bridge
15. Aluminium screen for water run-off

16. Lime stone blocks ,External paving 85mm x 85mm
    Exposed aggregate finish
17. Sand layer 150mm
18. Concrete blinding layer 375mm

Ground floor build up:

19. Polished concrete finish to Data bank floor 30mm
    Concrete floor slab 160mm

20. 75mm insulation board (Kingspan insulation board)
21. Insulated block (foamglass perinsul SL insulting block 100 x 215mm)
22. Concrete foundation to engineers specification
23. Insulation to foundation 100mm
24. Concrete pile construction to Engineers specidication



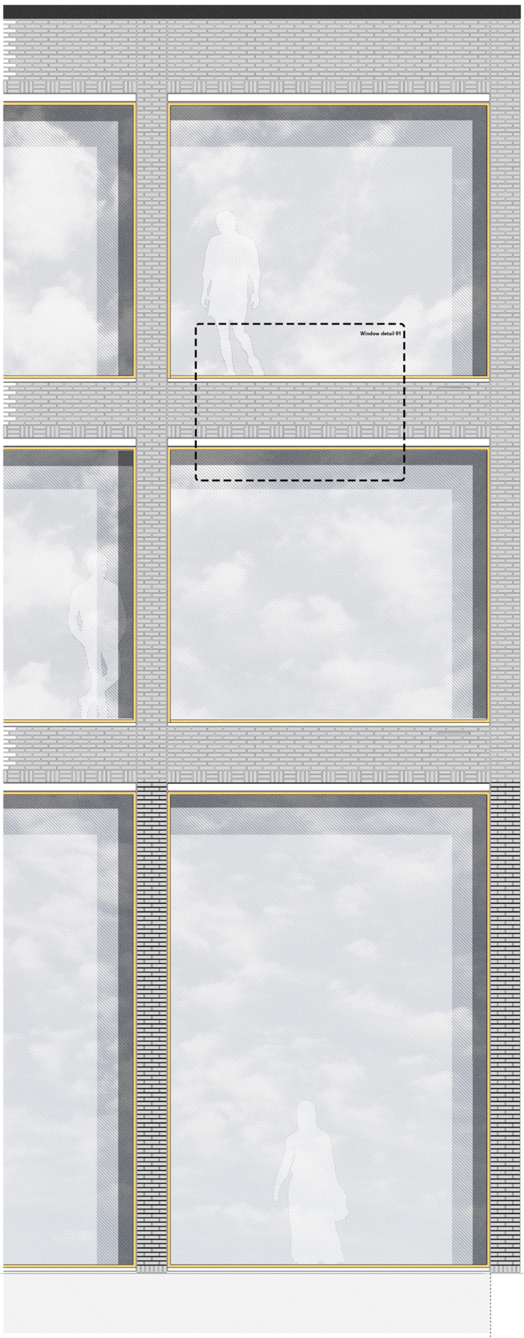
1 : 20 Data Bank Detail

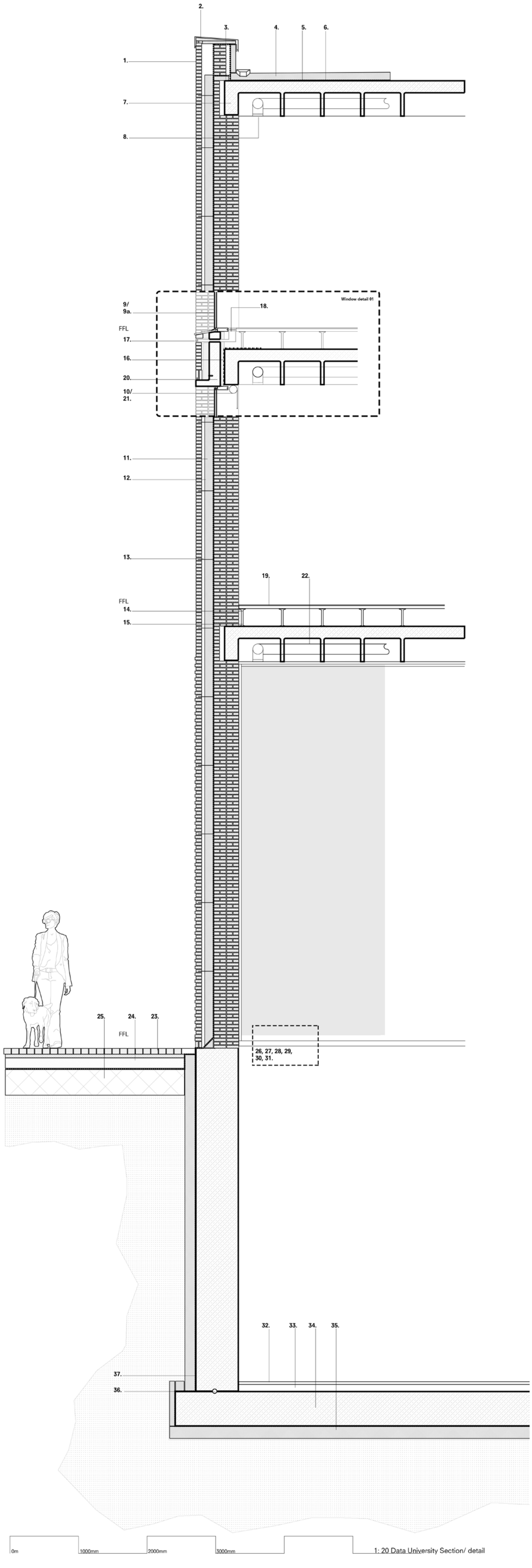
Climate + Structure:

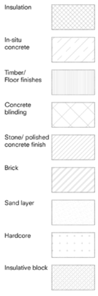
Climatically the project aims to look at how we might cool liquid state data in an environmentally conscious manor. The potential use of the canal adjacent to the project makes it possible to contain water under the building and then pump this water through the coils within the data containers and then in a method of circularity, re-use this warm water in other local projects through the containment of this resource within a local aquifer.

As the space containing data is kept as a constant temperature, all the rooms related to the central atrium can thus use this resource in the winter to remain warm while in the summer this space remains as a separate contained space while the cool air is taken from outside (and cooled further if required through a heat exchange system) to keep the internal work spaces at a constant temperature.

The separation of the blocks means that the issue of over shadowing remains minimal within the project. From concept stage the relation to the context as a 'transitional space' was sought to also drive the underlying technological theme. Thus: the buildings transition in construction methodology. Structural brick into a pre-cast concrete system of the library building. Thus the occupant and passer-by transitions materially as much as physically along the site.







1. Clay brick standard dimesion 65 x 100mm External and internal structural layer to engineers specifications
   Powder gray colour
   Stretcher bond
2. Aluminium parapet capping
   25mm plywood backing
   Tapered insulation board to underneath of plywood.
3. Foam glass perinsul SL insulating block
4. 150mm extruded polystyrene insulation board
5. Water/ damp proof course
   Kessel Water drain for roof water run-off.
6. non-woven polyester fleece 130-140 g/m2
   to underneath of polystyerene insulation.
7. Insitu concrete waffle slab
   520mm depth
   Spanning 4m spans resting on structural brick leaf
8. HVAC intake unit (drawing air from data atrium)
9. Double glazing unit
   Aluminium screen: window frame finished to architects specification and RAL.
   2 x 8mm glazzing layer

9a. Glass type:
   Glass: SageGlass electrocromatic glazing for occupant comfort

10. Internal blind steel fixing
11. External leaf tied back to internal structure

12. Kingspan 120mm insulation board
13. Aluminium tie backs
14. Raised floor finish
15. Adjustable floor pedestals
16. Insulation at edges to ensure cold bridge
17. Aluminium screen for water run-off

18. Air intake
    Heat exchanger to climate consultant's specification
    Attached to municipal cooling capasity system

19. Raised floor tray
    Adjustable floor pedestals
20. Precast Concrete lintel 780 x 160mm
    Acid etching finish to architects specification
    Insulation to back 50mm

21. Internal blind for occupant comfort
22. Exposed finsh to waffle slab ceiling

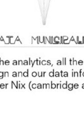
23. Lime stone blocks ,External paving 85mm x 85mm
    Exposed aggregate finish
24. Sand layer 150mm
25. Concrete blinding layer 375mm

Ground floor build up:

26. Polished concrete finish to University building 30mm
    Concrete floor slab 160mm
27. 75mm insulation board (Kingspan insulation board)
28. Insulated block (foamglass perinsul SL insulting block 100 x 215mm)
29. Concrete foundation to engineers specification
30. Insulation to foundation 100mm
31. Concrete pile construction to Engineers specidication

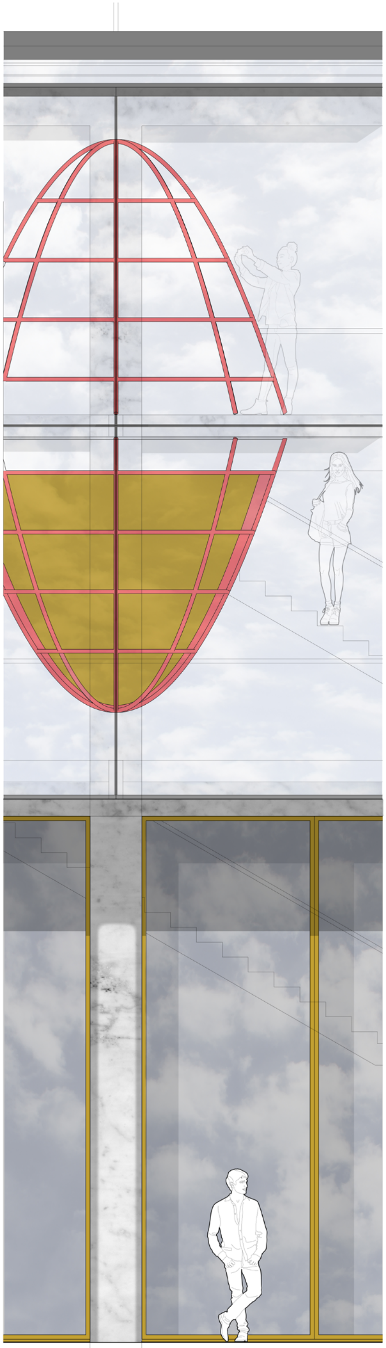
Basment Ground Buildi up:

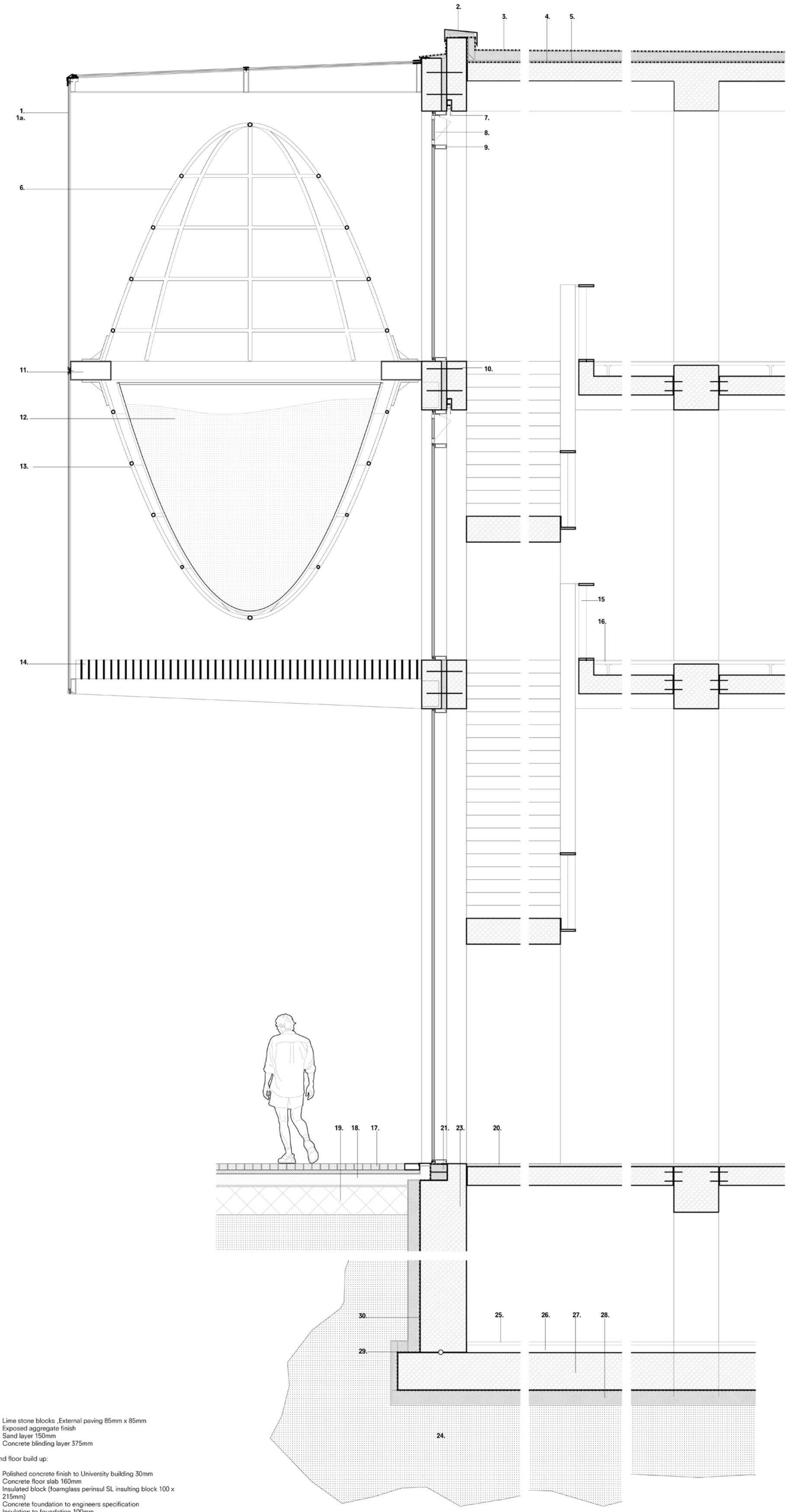
32. Polished concrete floor finish to basement 30mm
33. Concrete screed 100mm
    Incorporating underfloor heating pipes to engineers specificaiton
34. Concrete foundation pad 500mm
35. Foundation wrapped with polystyerene insulation 175mm
36. Expanable seal to basement wall and foundation
    insuting water tightness
37. Damp proof course.

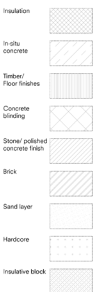


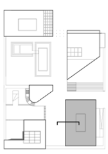
DATA MUNICIPALITY

'We did all the research, all the data, all the analytics, all the targeting, we ran all the digital campaign, the television campaign and our data informed all the strategy.'
Alexander Nix (cambridge analytica)









1. Double glazing unit
   Aluminium screen: window frame finished to architects specification and RAL.
   2 x 8mm glazzing layer
1a. Glass type:
   Glass: SageGlass electrocromatic glazing for occupant comfort
2. Aluminium parapet capping
   25mm plywood backing
   Tapered insulation board to underneath of plywood.
3. Foam glass perinsul SL insulating block
4. 150mm extruded polystyrene insulation board
5. Water/ damp proof course
   Kessel Water drain for roof water run-off.
   non-woven polyester fleece 130-140 g/m2
   to underneath of polystyerene insulation.
6. Expandable steel data container
   Stainless steel hollow tube
   Ral 3024
7. Internal blind steel fixing
8. Internal double glazing unit
   Openable window for human comfort
9. Double glazing unit
   Aluminium screen: window frame finished to architects specification and RAL.
   2 x 8mm glazzing layer
10. Precast contruction to engineers specification
   Steel tie connection
   Insulation:
   Kingspan 120mm insulation board
11. Steel box structural support to glazing unit
   and Data containers
12. Liquid state DATA.
13. Hollow steel tubing used to cool liquid data in connectio with
   on-site water containers and municipal cooling capasity.
14. Steel fin construction for data container maintainance
15. Steel balustrade
   10mm thickness
16. Raised floor finish
   Adjustable floor pedestals
   Insulation at edges to ensure cold bridge
17. Lime stone blocks ,External paving 85mm x 85mm
   Exposed aggregate finish
18. Sand layer 150mm
19. Concrete blinding layer 375mm

Ground floor build up:

20. Polished concrete finish to University building 30mm
   Concrete floor slab 160mm
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27. Concrete foundation pad 500mm
28. Foundation wrapped with polystyerene insulation 175mm
29. Expanable seal to basement wall and foundation
   insuting water tightness
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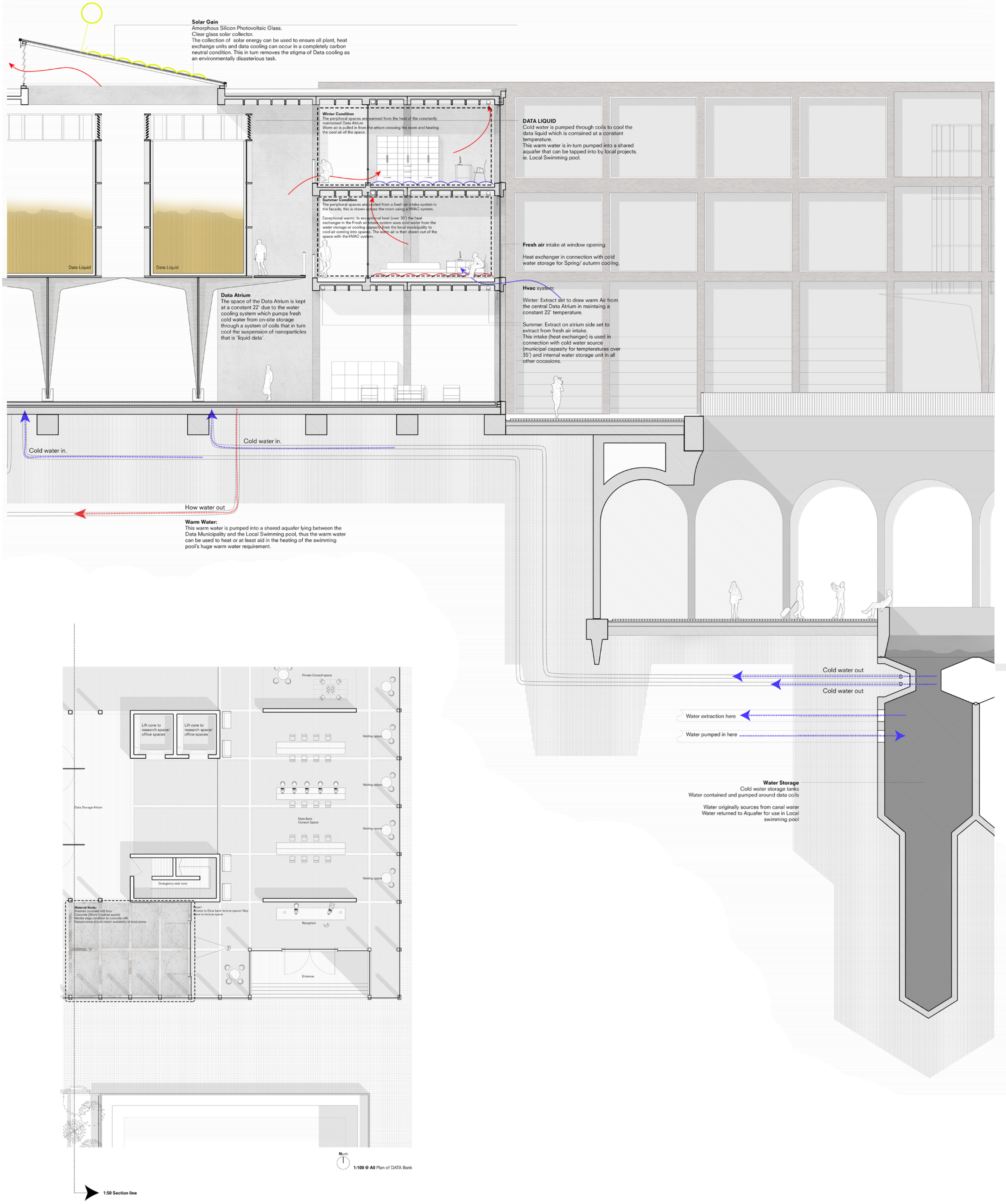
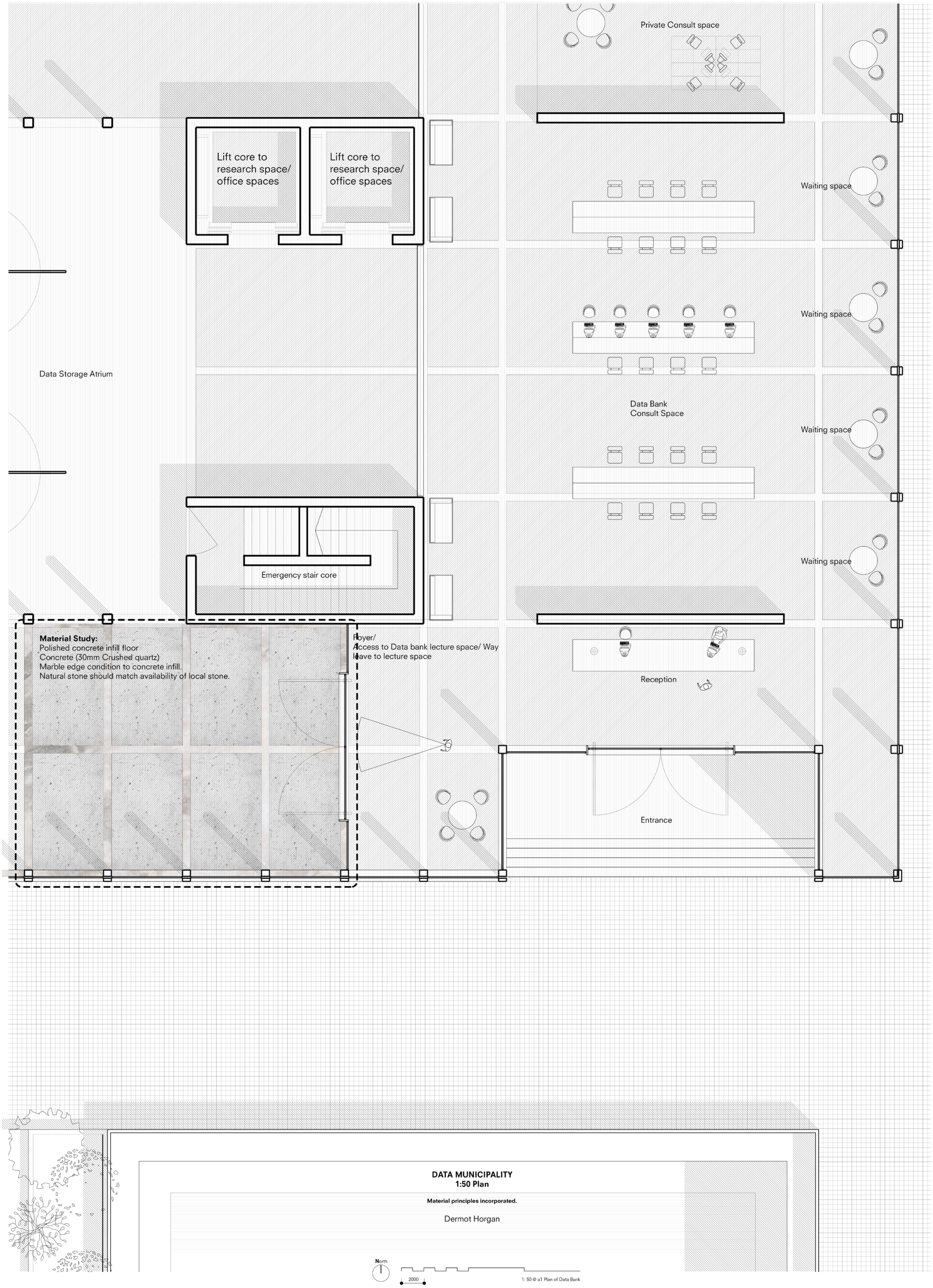
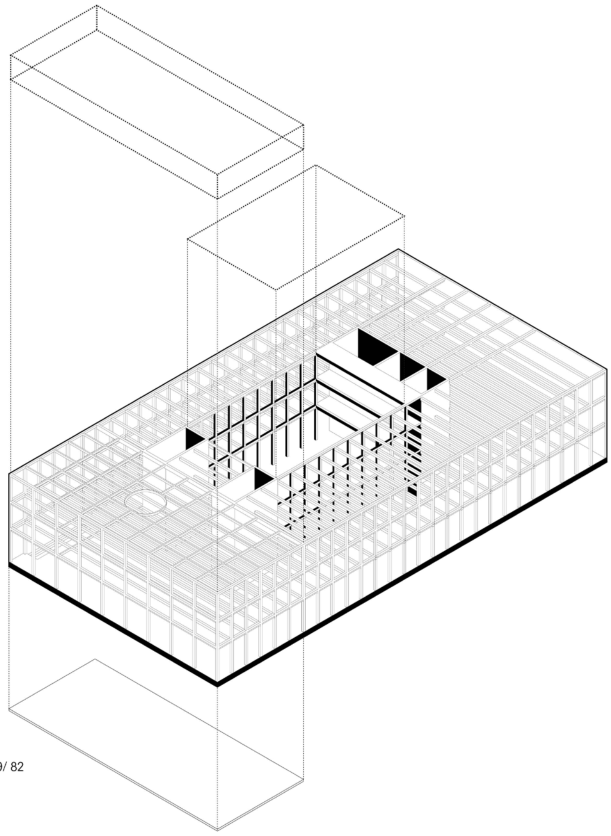
1:20 @ A0 Data library section + Elevation



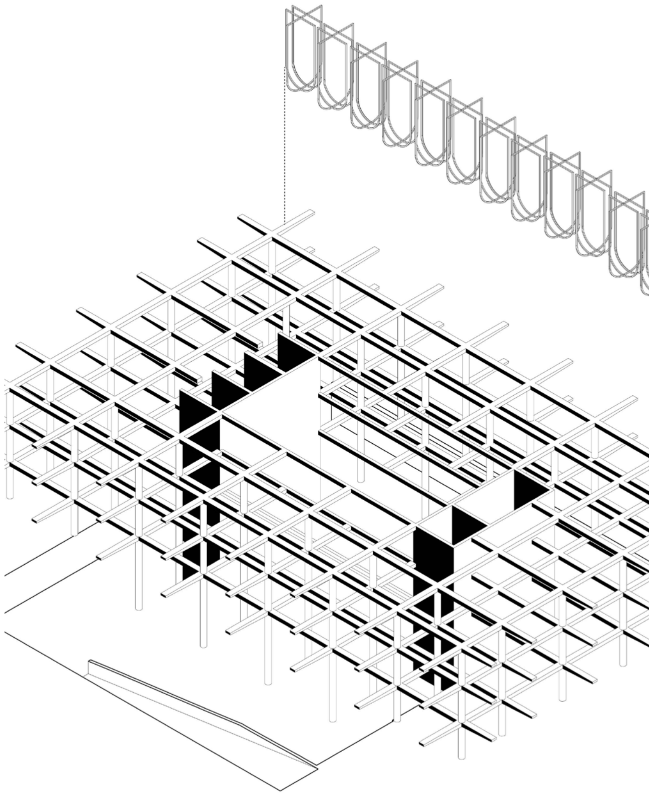
DATA MUNICIPALITY
1:50 Section/ Climate principles/ Material principles

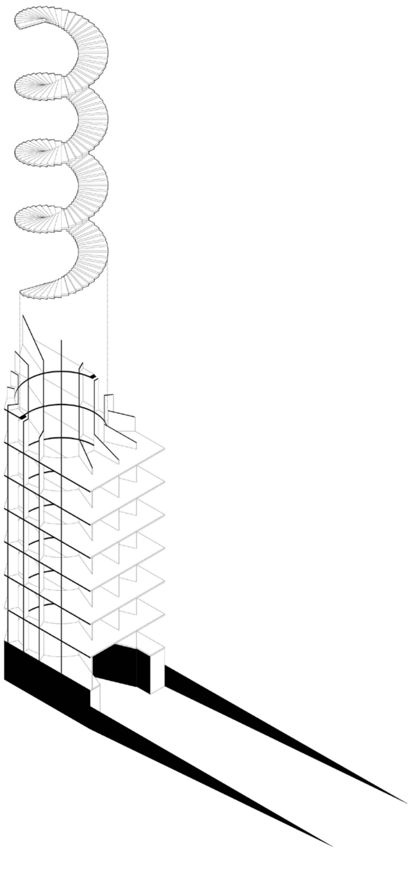
Dermot Horgan

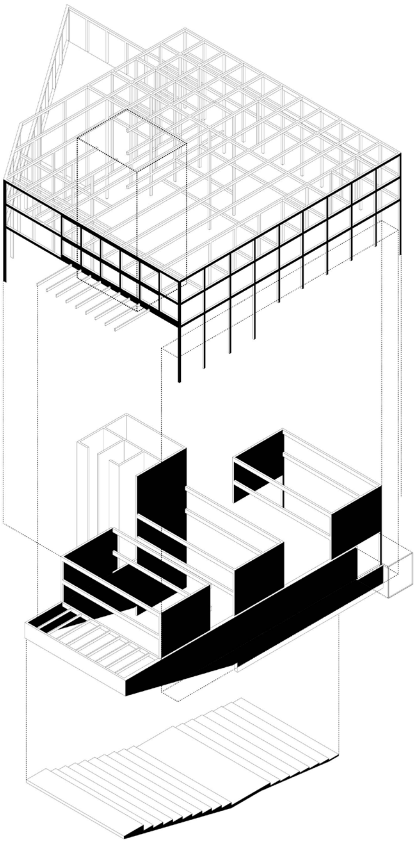

Private Consult space
Lift core to research space/ office spaces
Lift core to research space/ office spaces
Waiting space
Waiting space
Data Storage Atrium
Data Bank Consult Space
Waiting space
Waiting space
Emergency stair core
Material Study:
Polished concrete infill floor
Concrete (30mm Crushed quartz)
Marble edge condition to concrete infill.
Natural stone should match availability of local stone.
Foyer/
Access to Data bank lecture space/ Way leave to lecture space
Reception
Entrance
DATA MUNICIPALITY
1:50 Plan
Material principles incorporated.
Dermot Horgan
North
2000
1: 50 @ a1 Plan of Data Bank



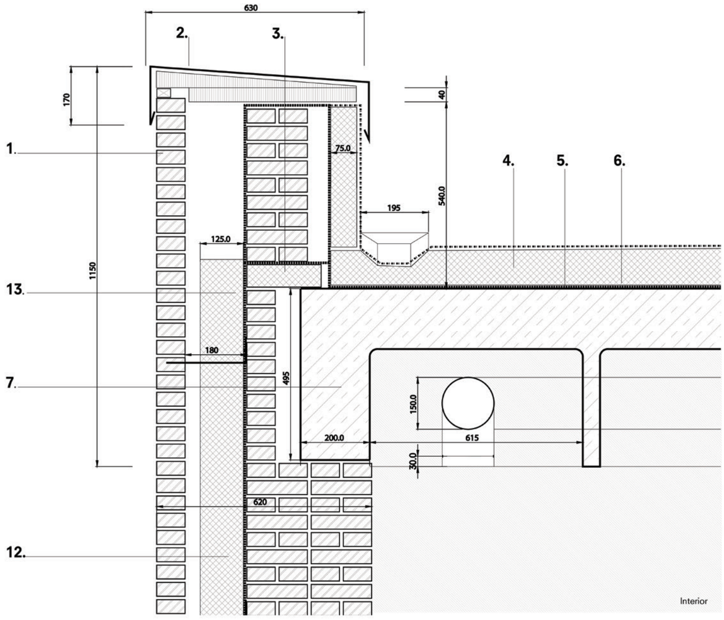
69/ 82







Structure



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Powder gray colour
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Tapered insulation board to underneath of plywood.
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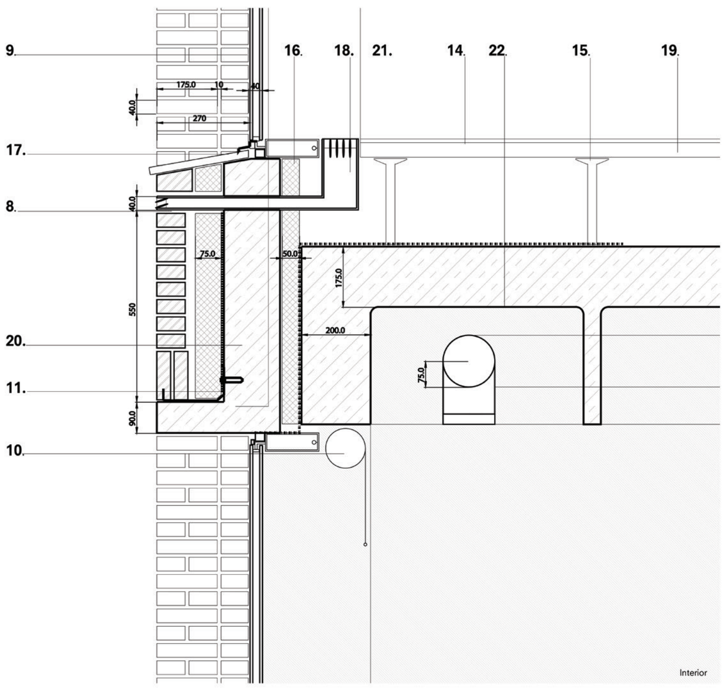
7. Insitu concrete waffle slab
520mm depth
Spanning 4m spans resting on structural brick leaf



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9. Double glazing unit
Aluminium screen: window frame finished to architects specification and RAL.
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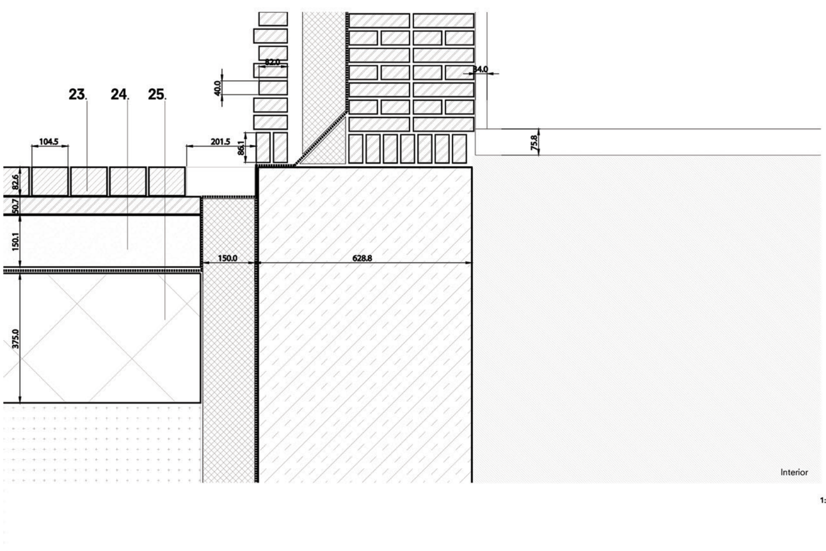

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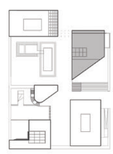
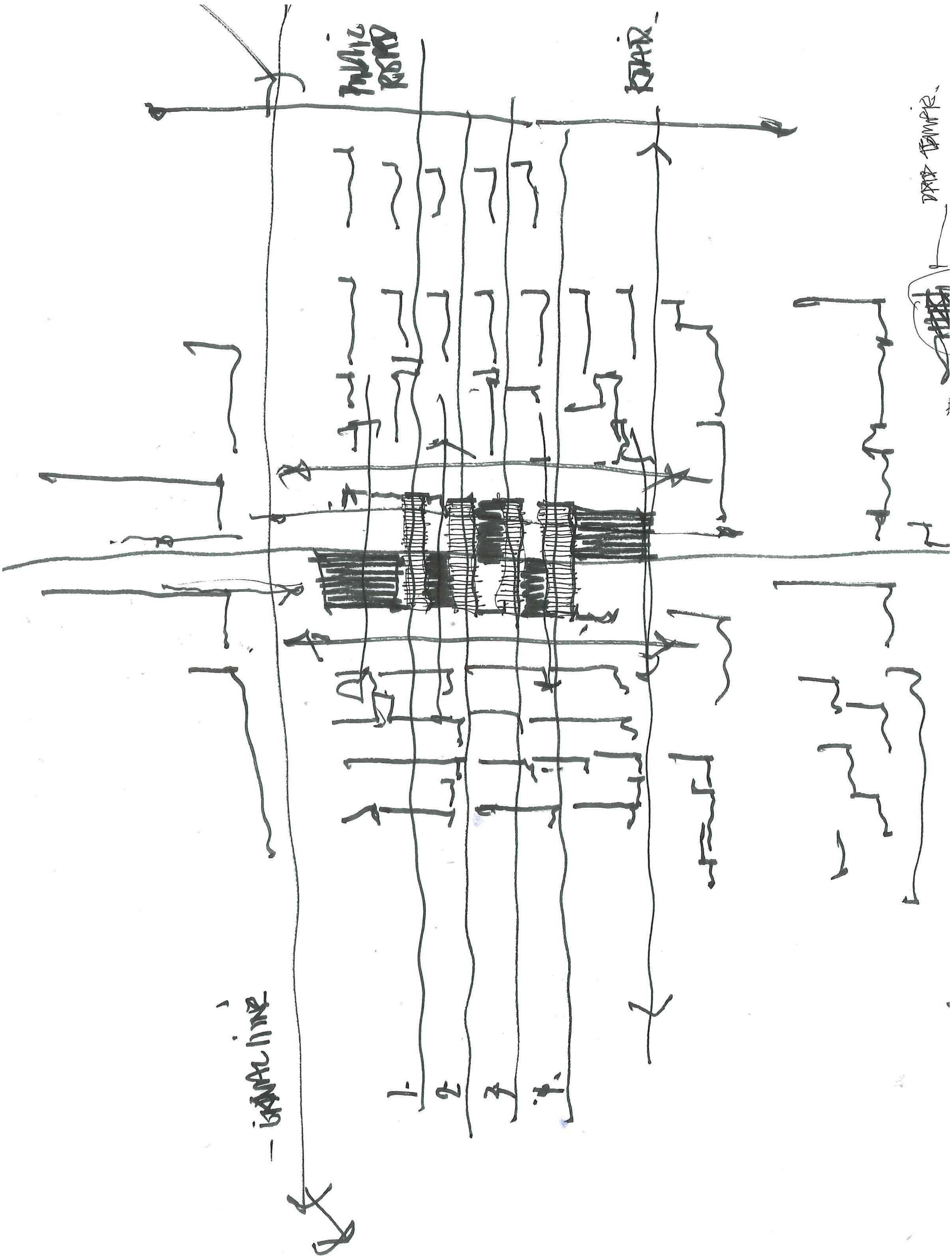
30. Insulation to foundation 100mm
31. Concrete pile construction to Engineers specidication

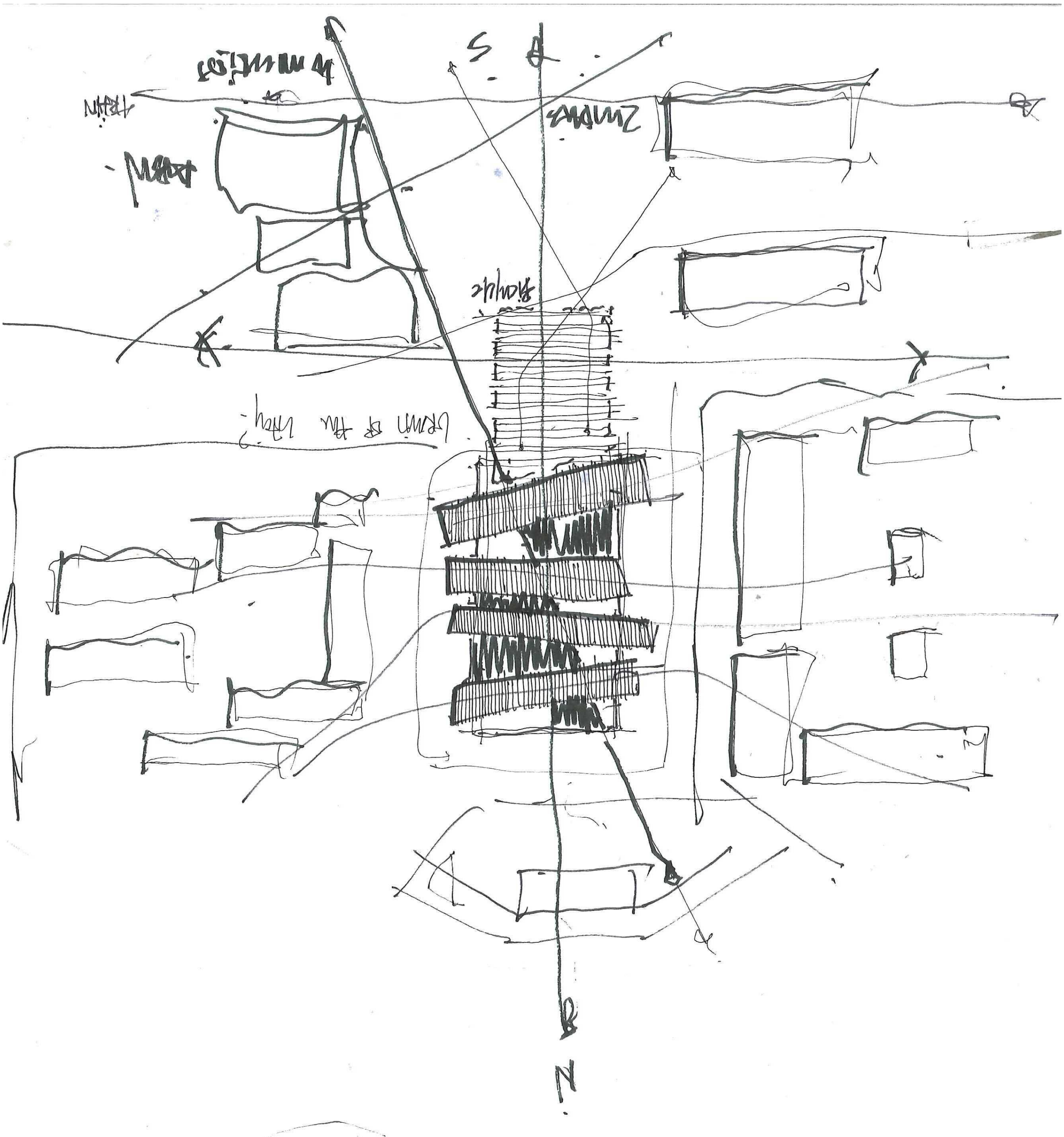
DATA MUNICIPALITY
Dermot Horgan

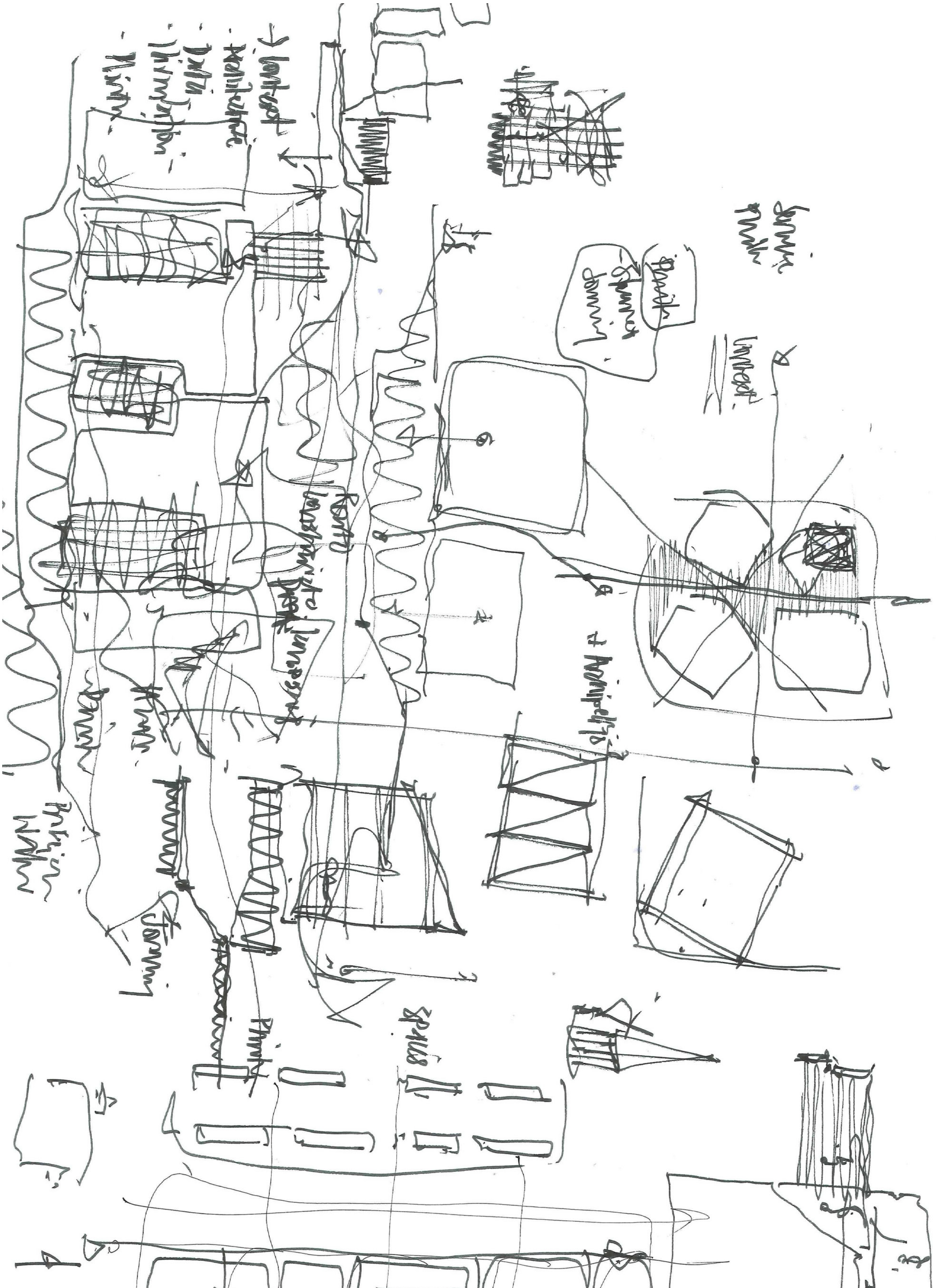
Insulation
In-situ concrete
Timber/ Floor finishes
Concrete blinding
Stone/ polished concrete finish
Brick
Sand layer
Hardcore
Insulative block

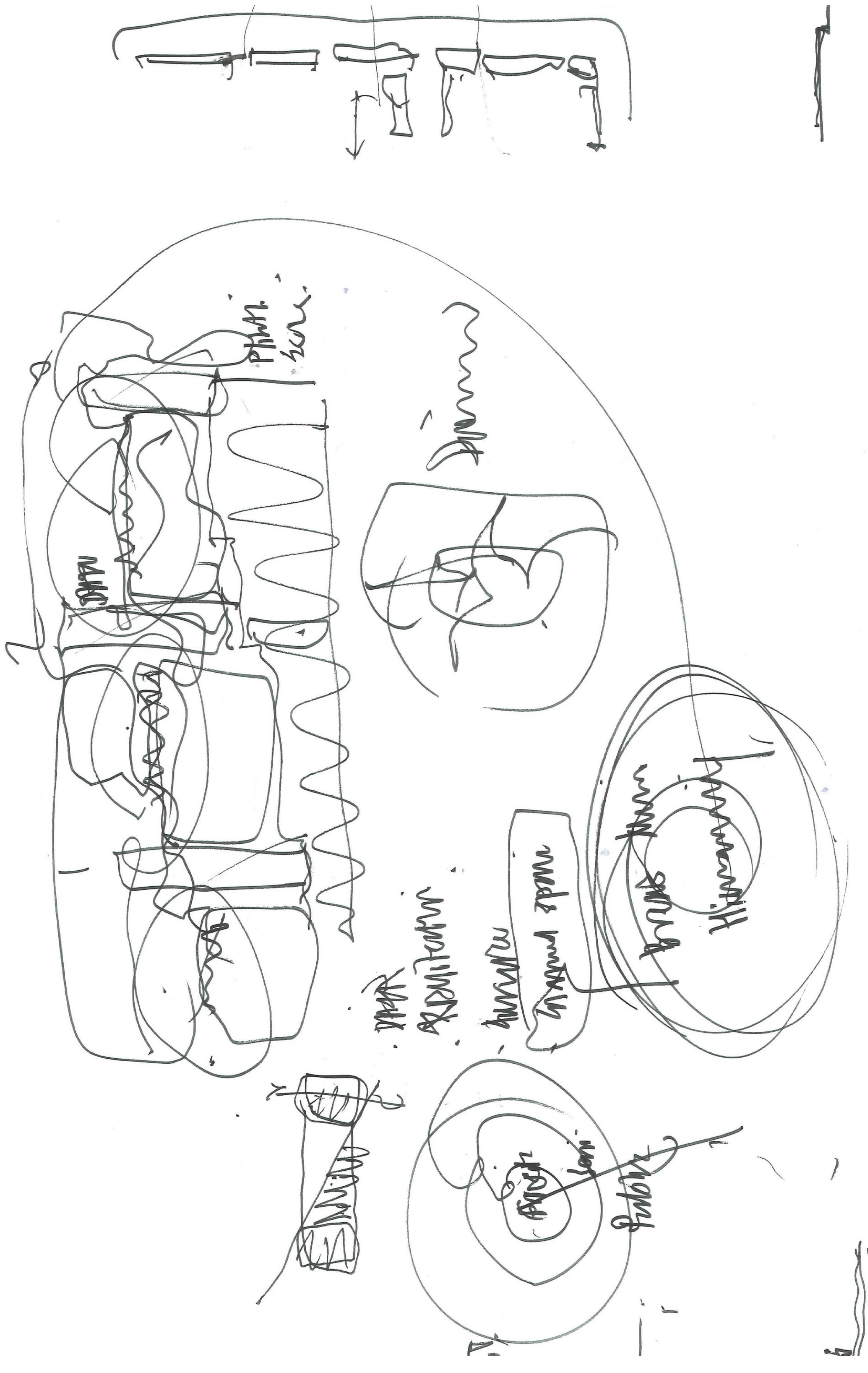


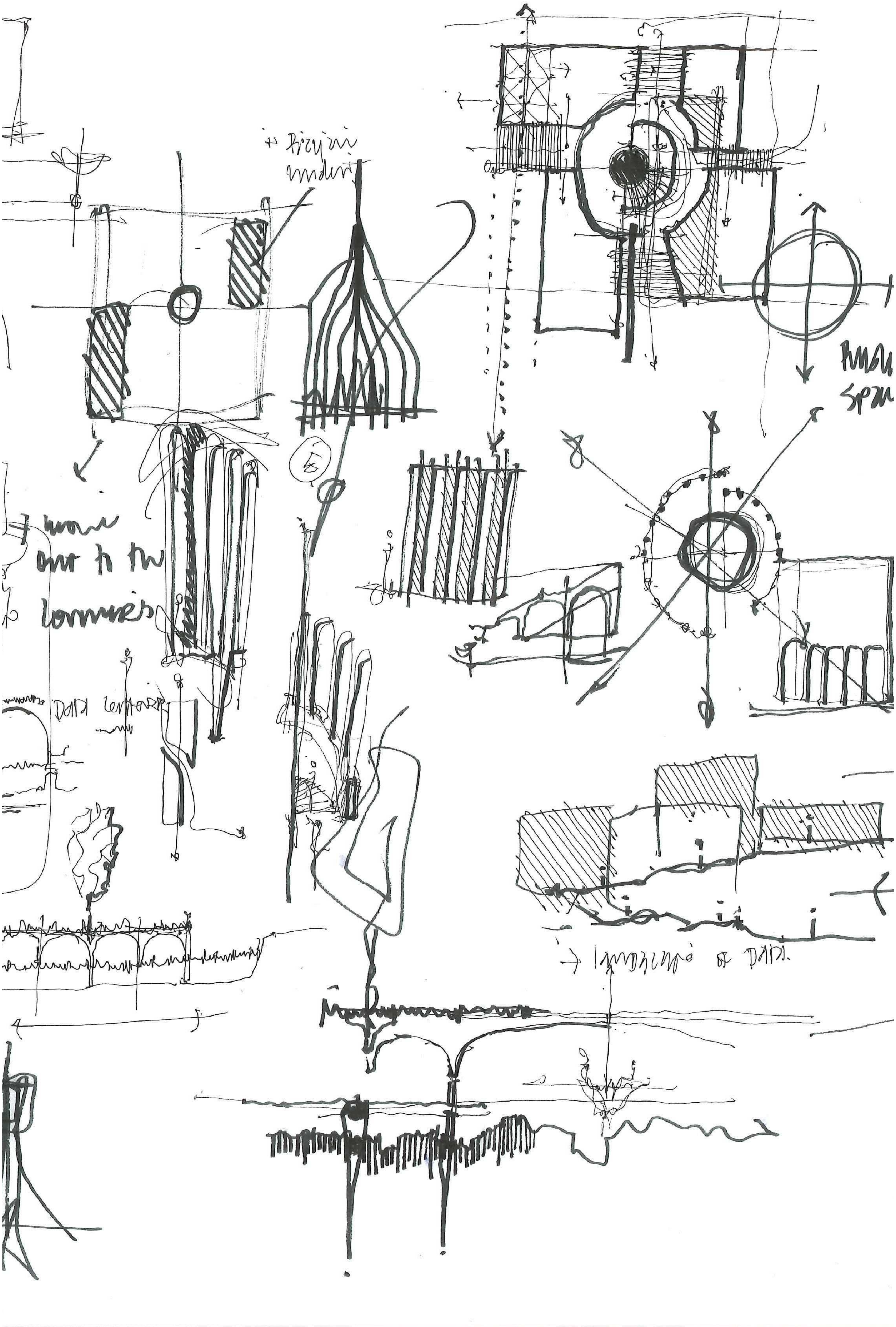
1: 5 Details of Data University Building 0mm 200mm 400mm

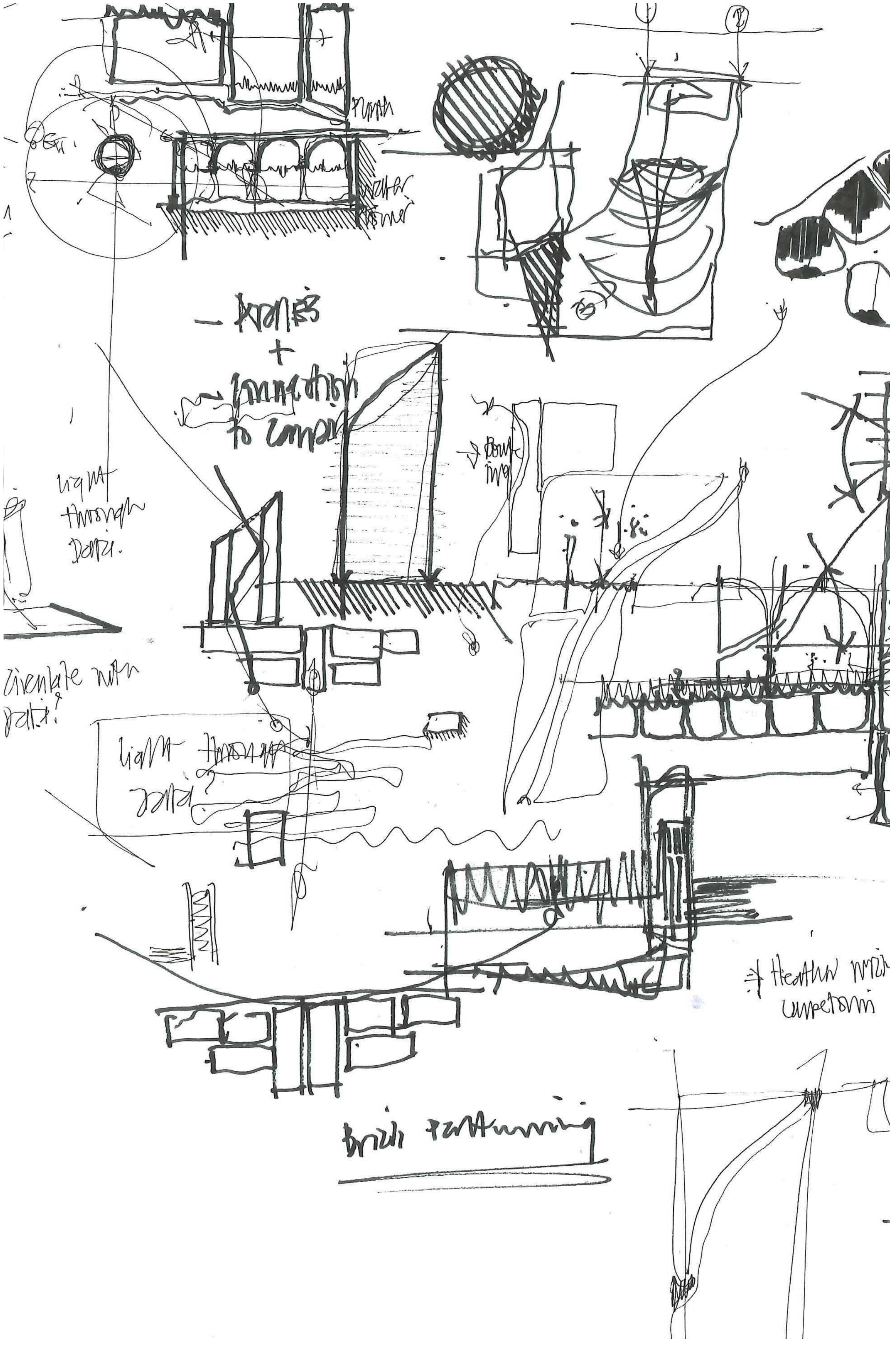


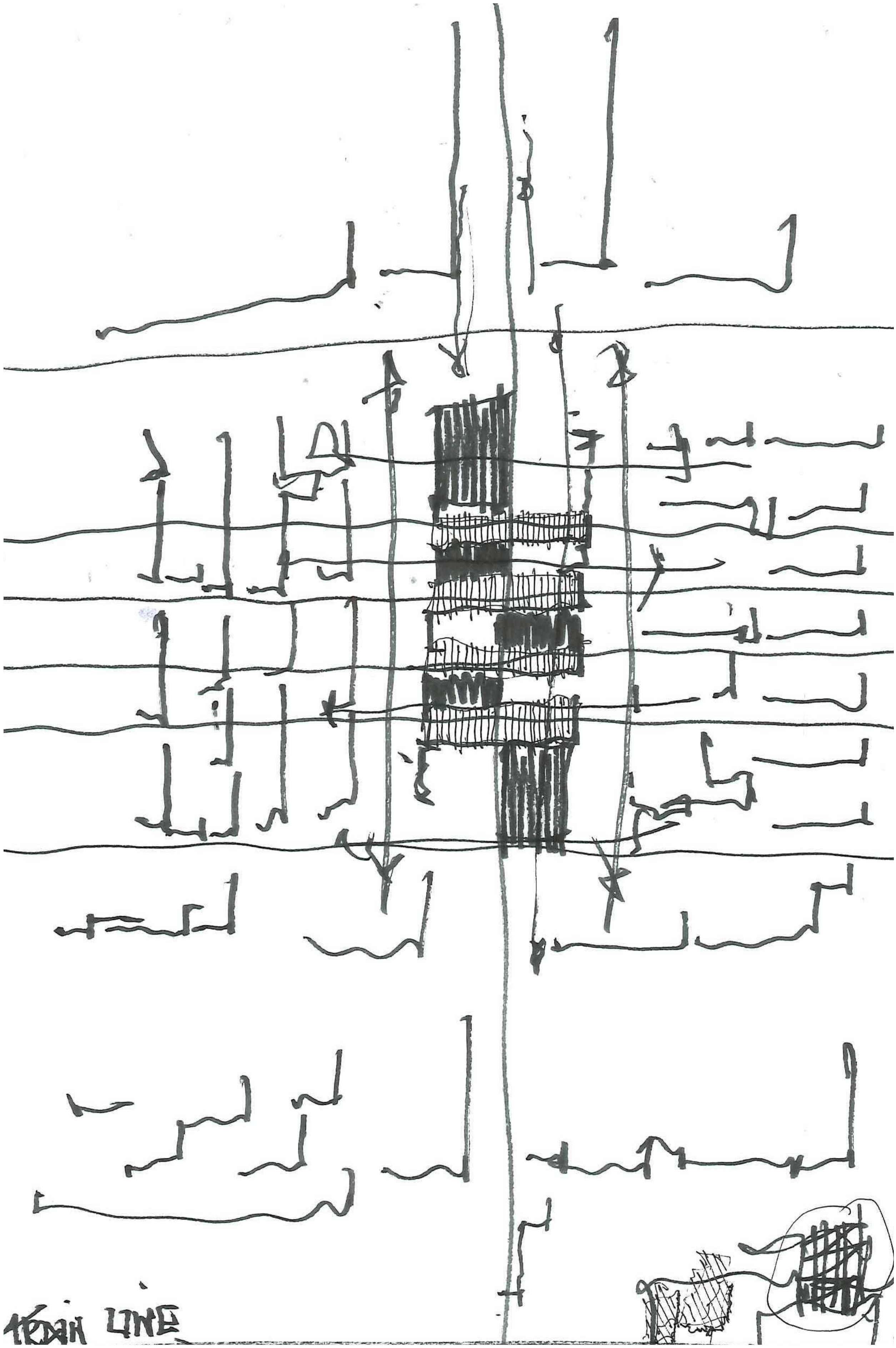




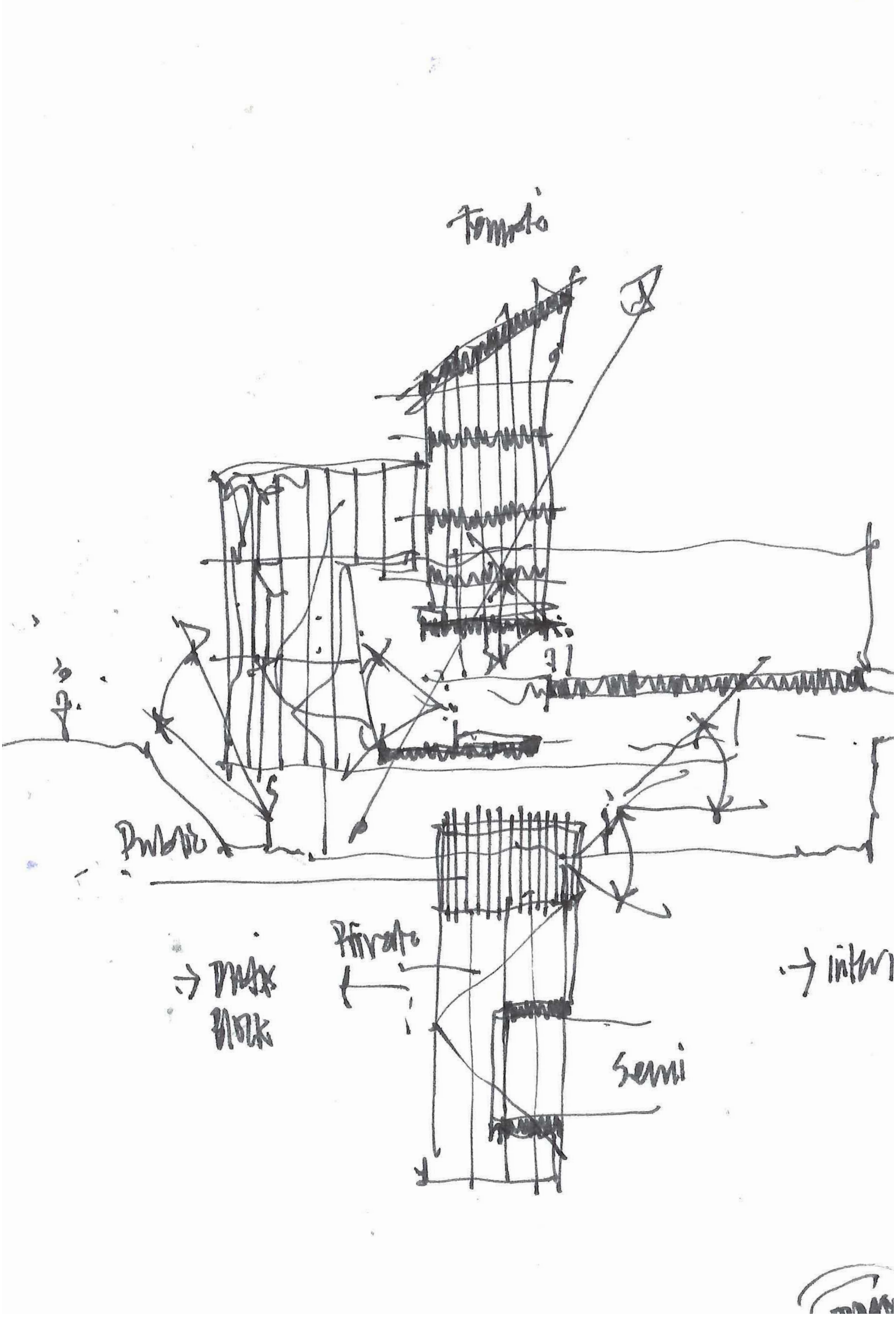


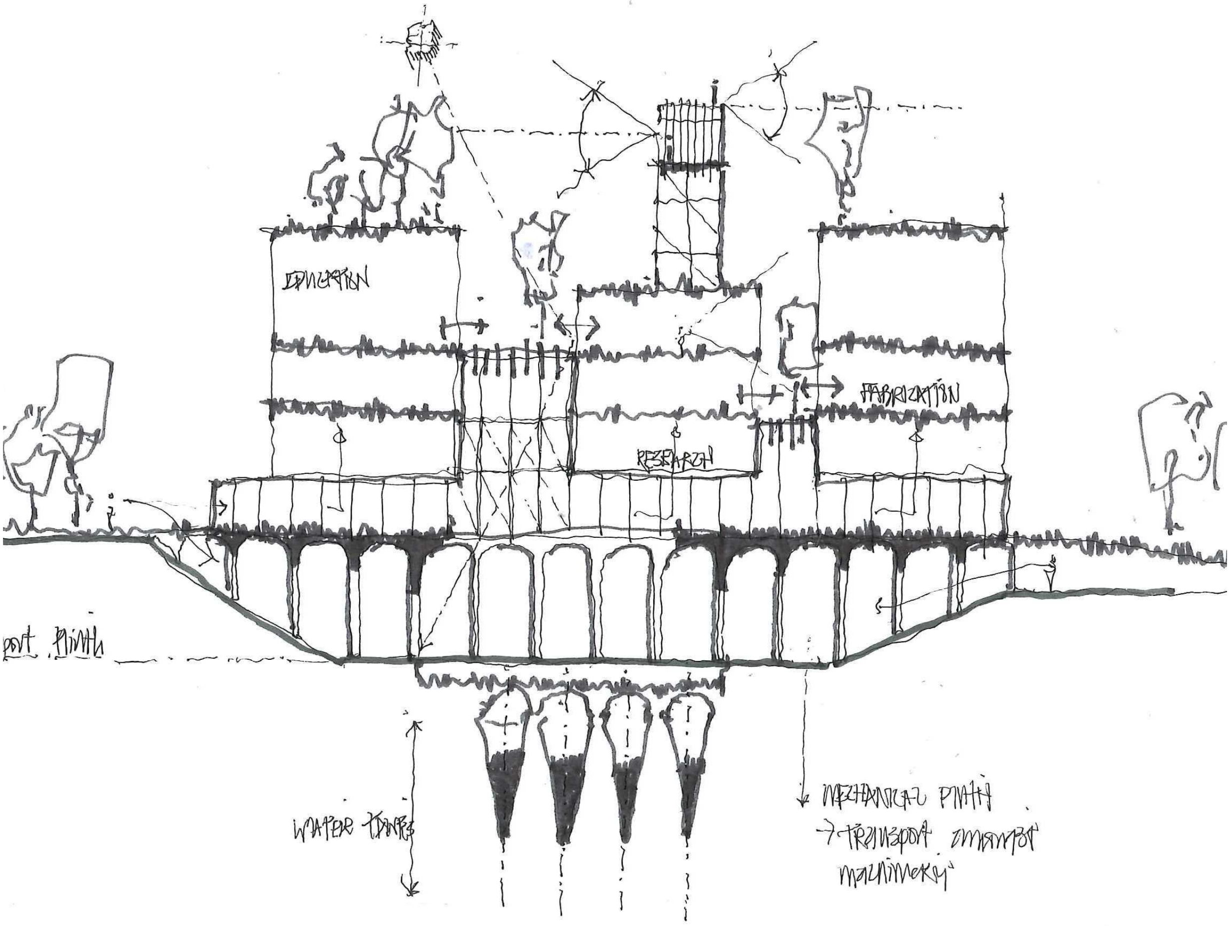


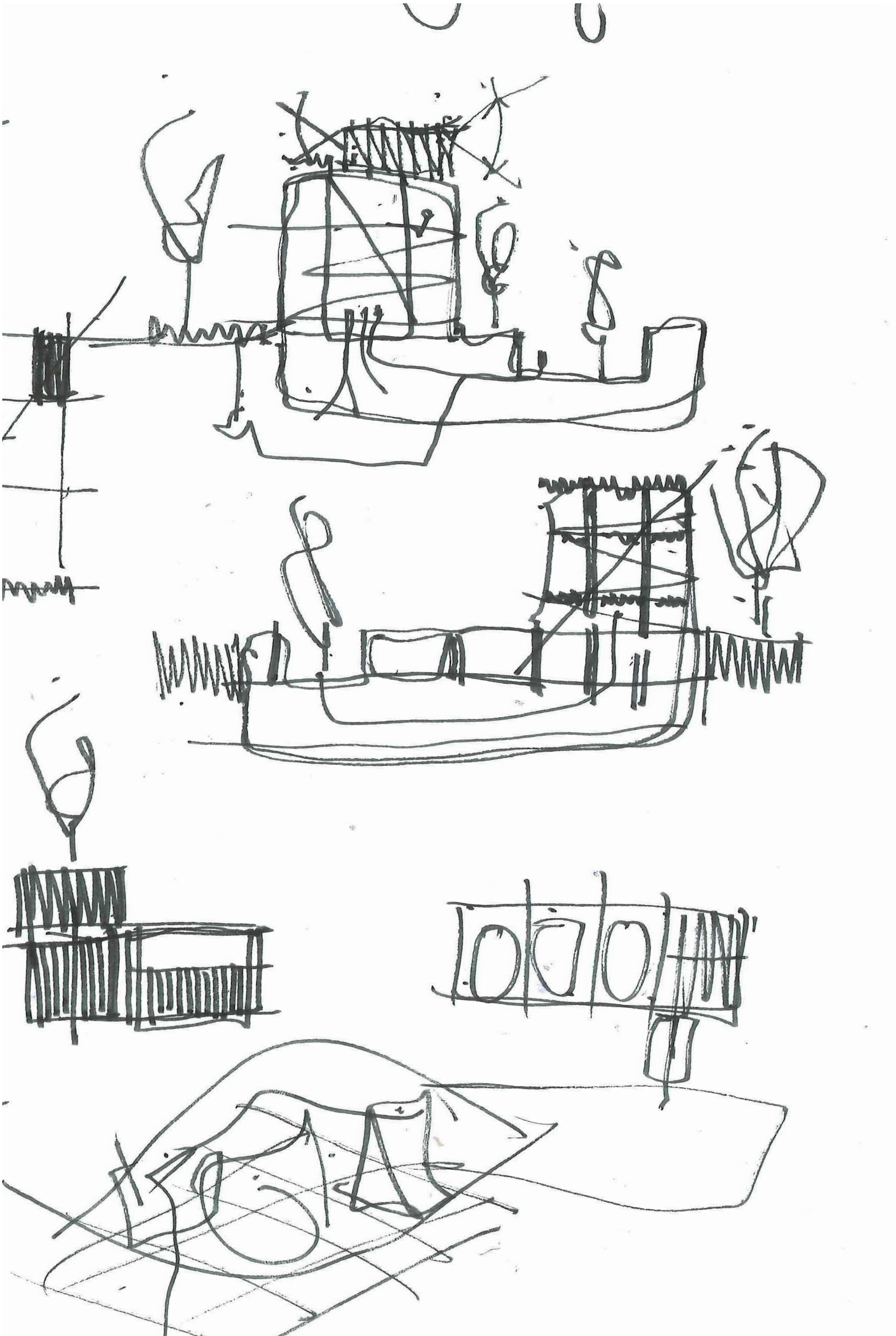


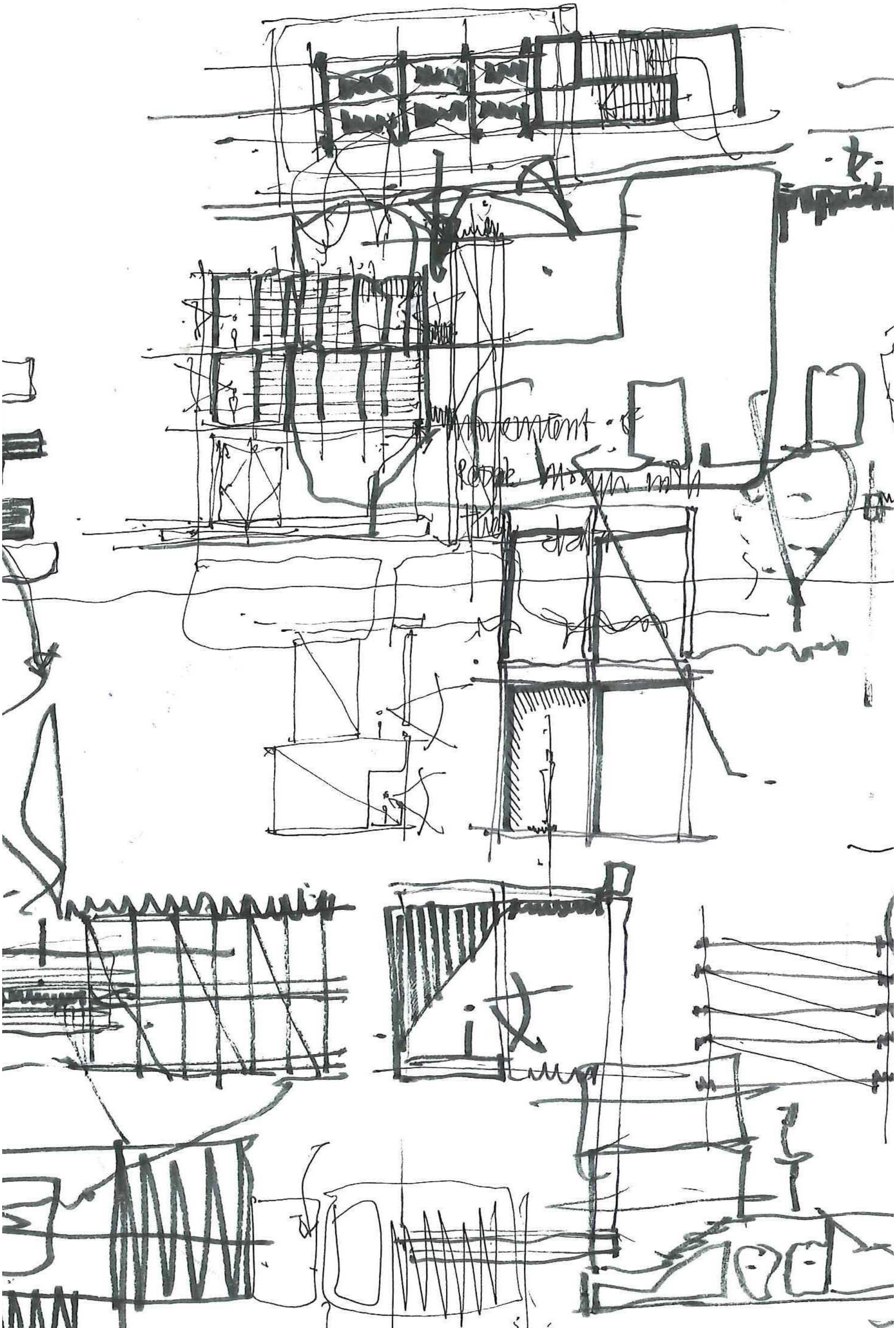


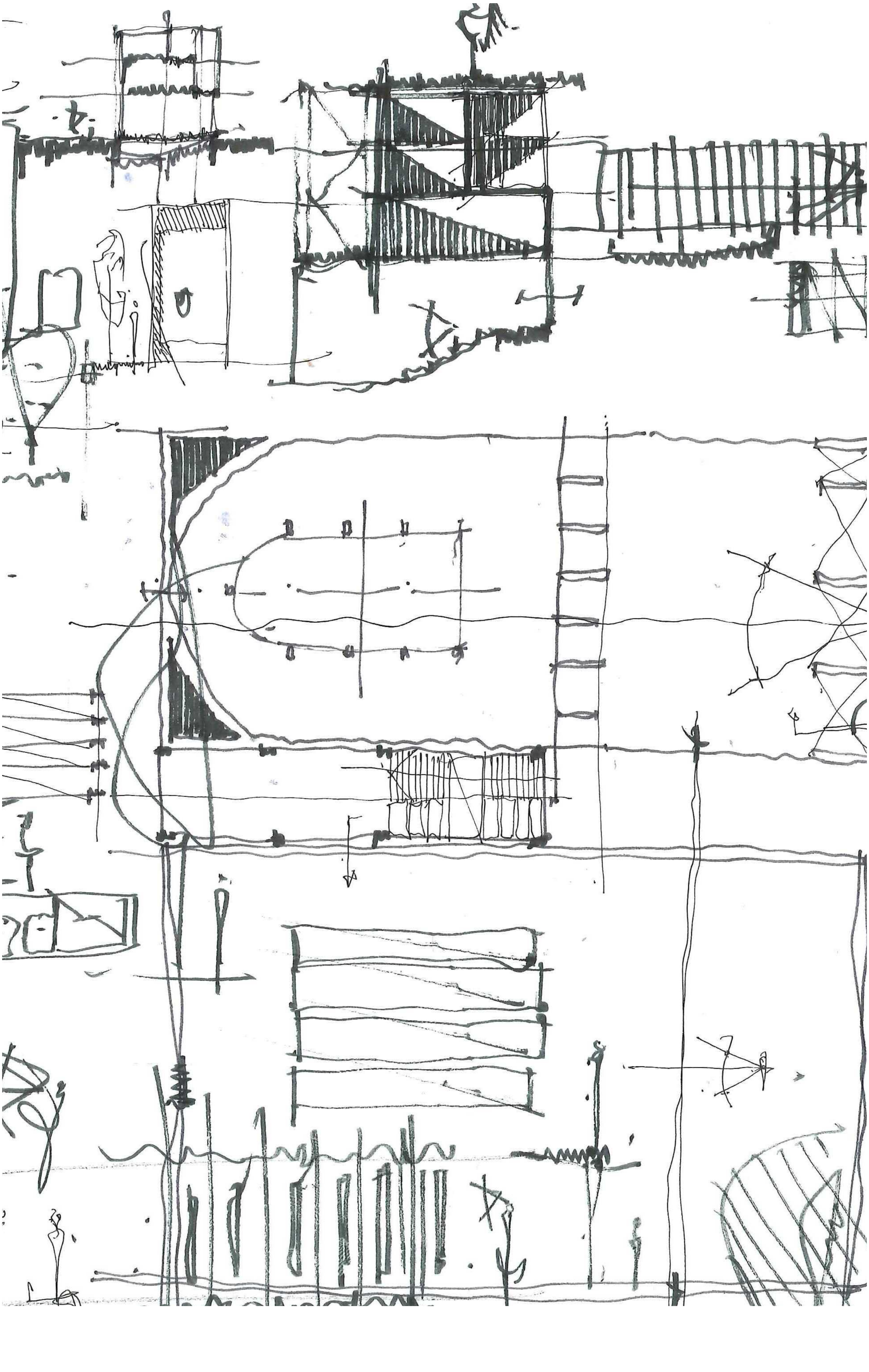
TRAIN LINE

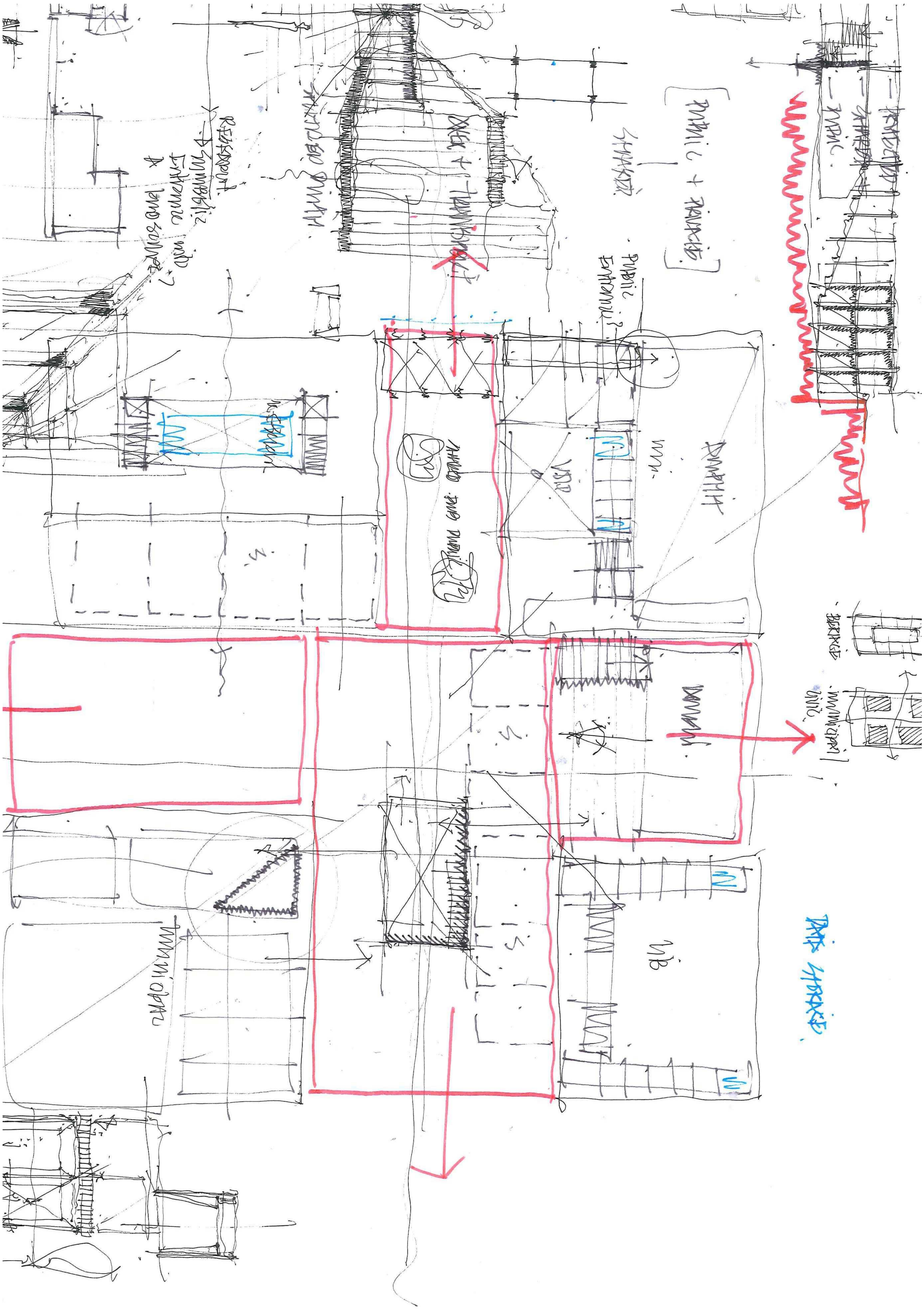

Public
Private
Semi

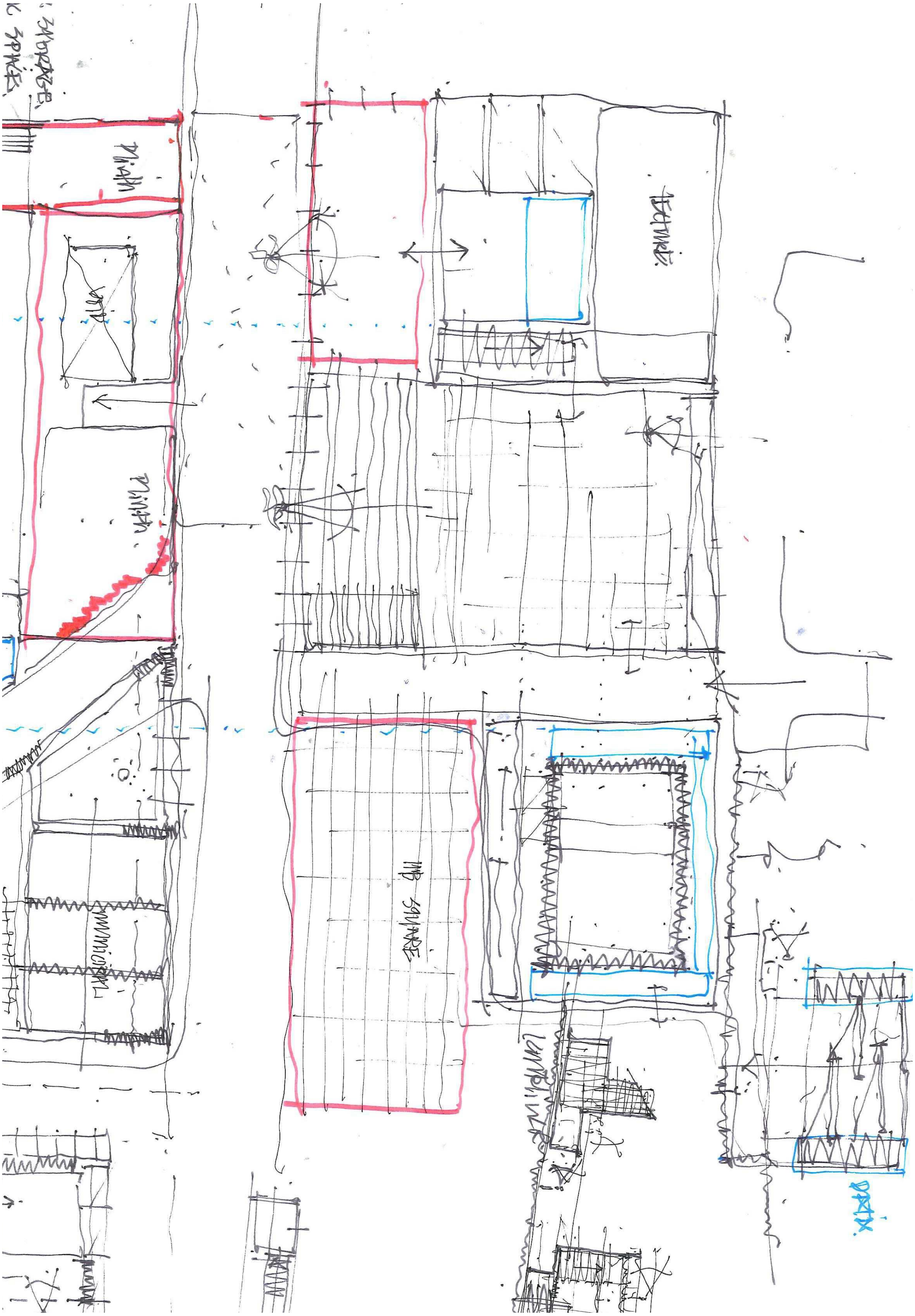

EDUCATION
FABRICATION
RESEARCH
Plinth
WATER TANKS
MECHANICAL PLINTH
→ transport
machinery

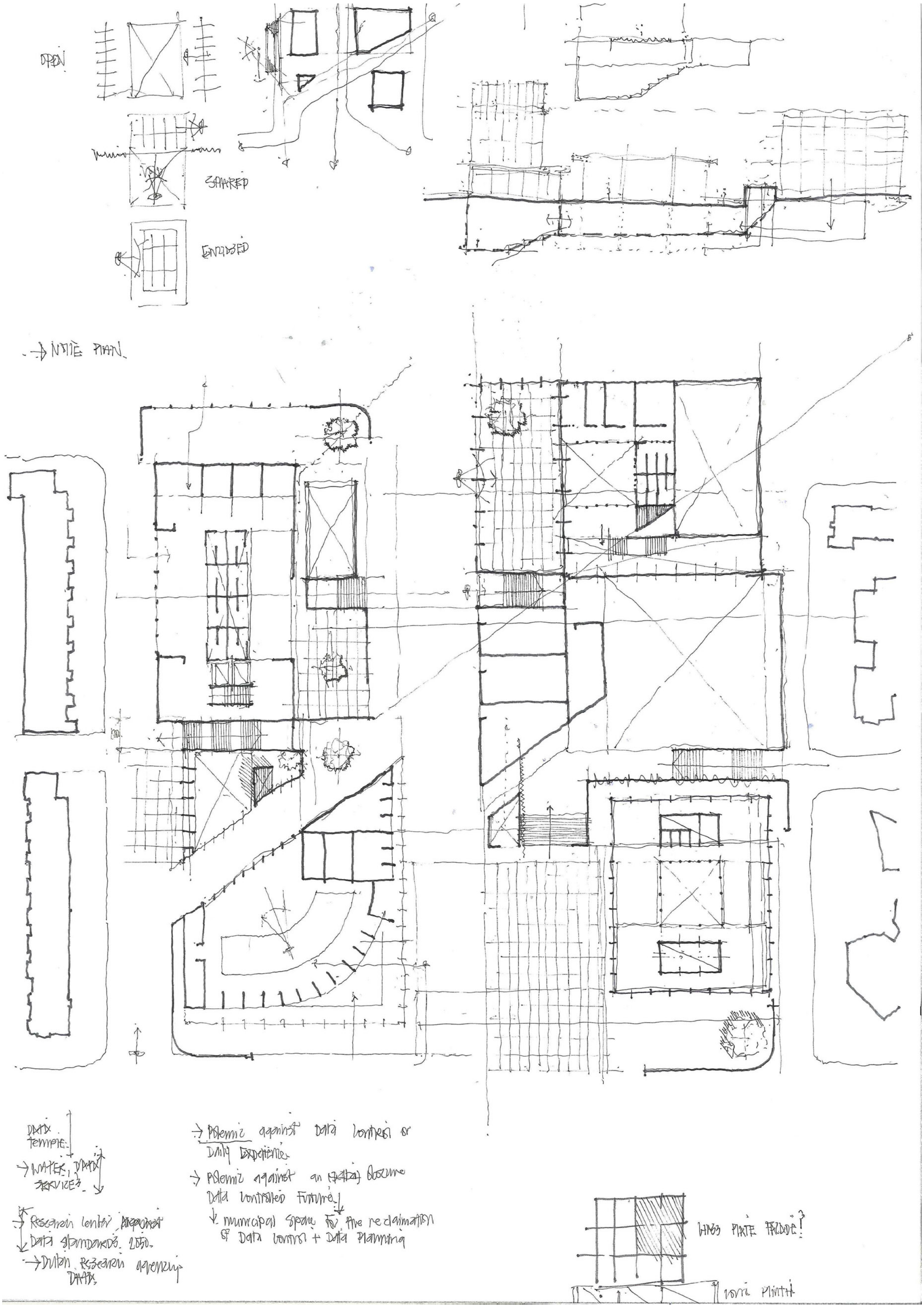



Movement of

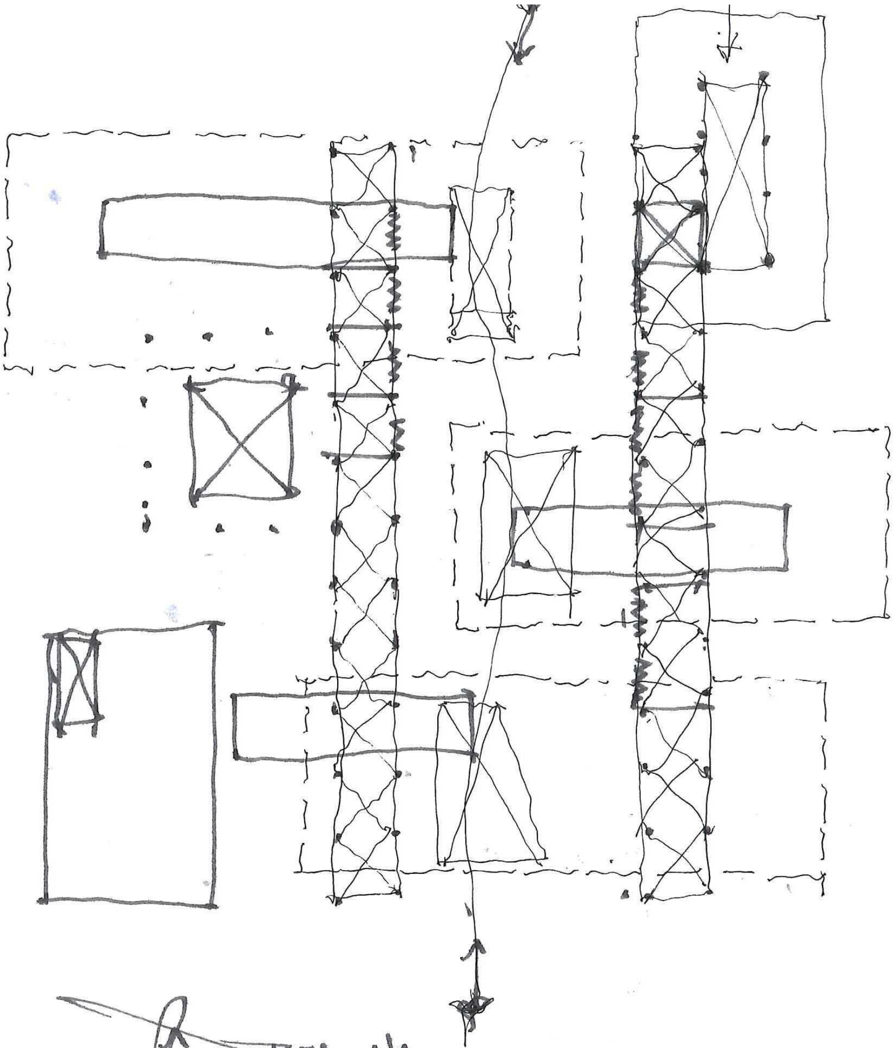


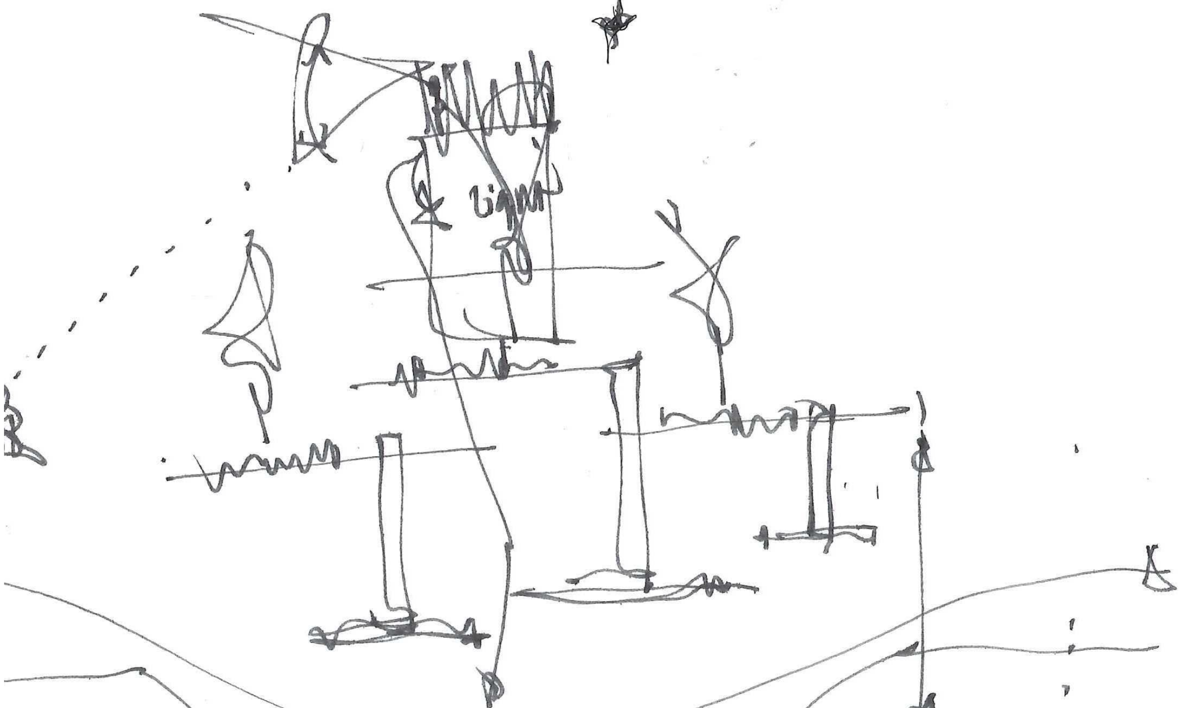




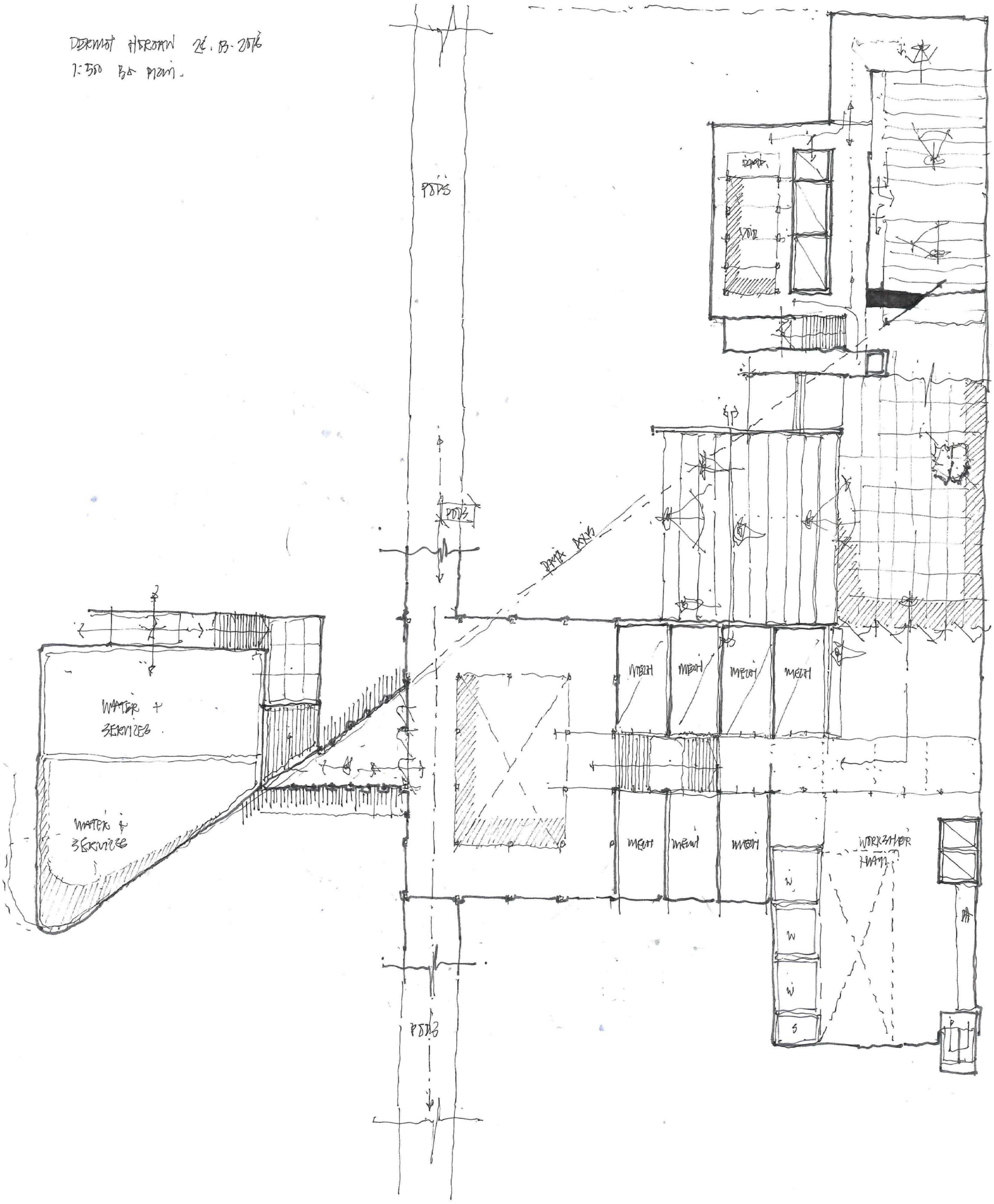


OPEN
SHARED
ENCLOSED
Polemic against Data Control or Daily Experience
Polemic against an obscure Data Controlled Future
municipal space for the reclamation of Data Control + Data Planning
Research Center
Data Standards 2050
Urban Research Agency

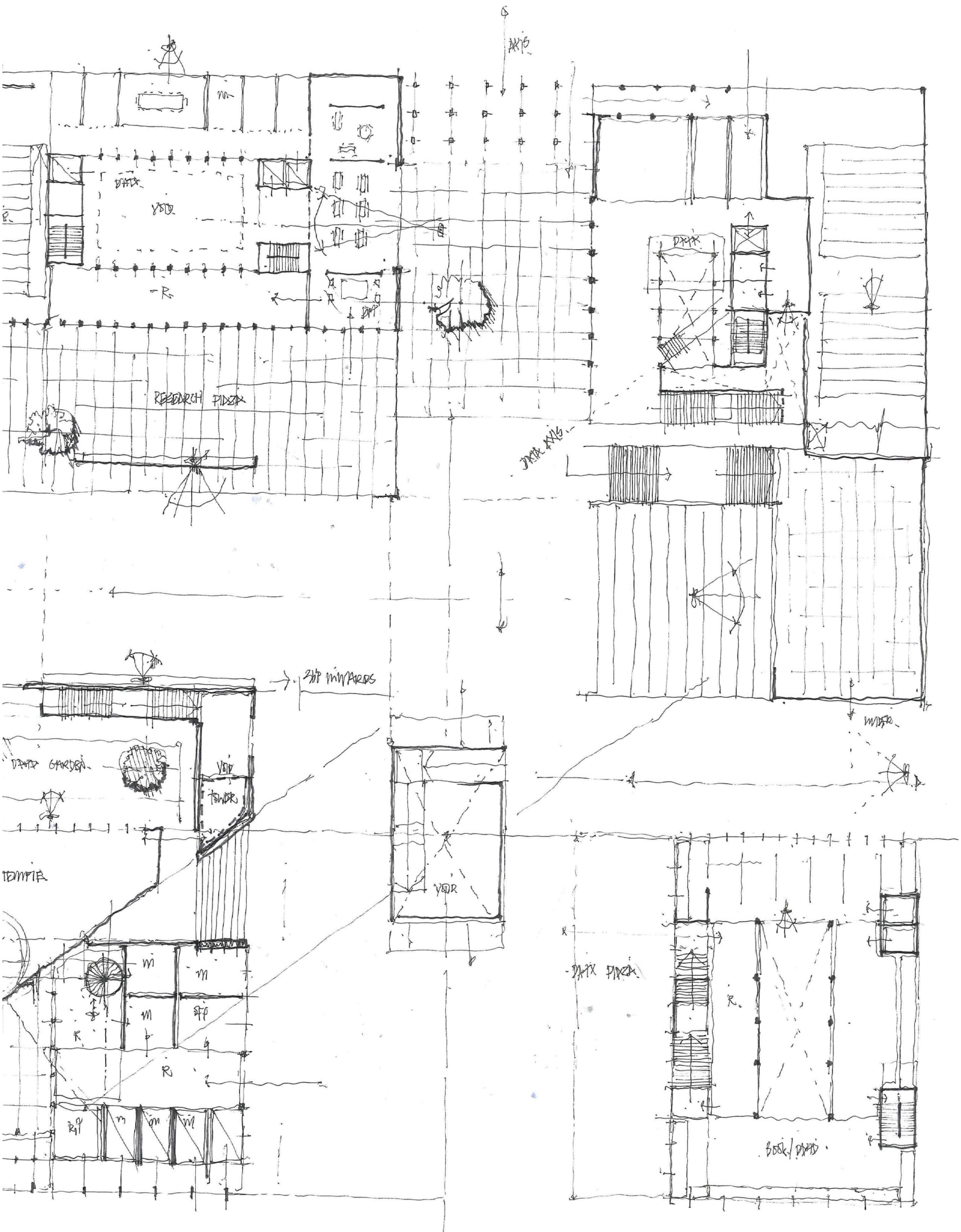


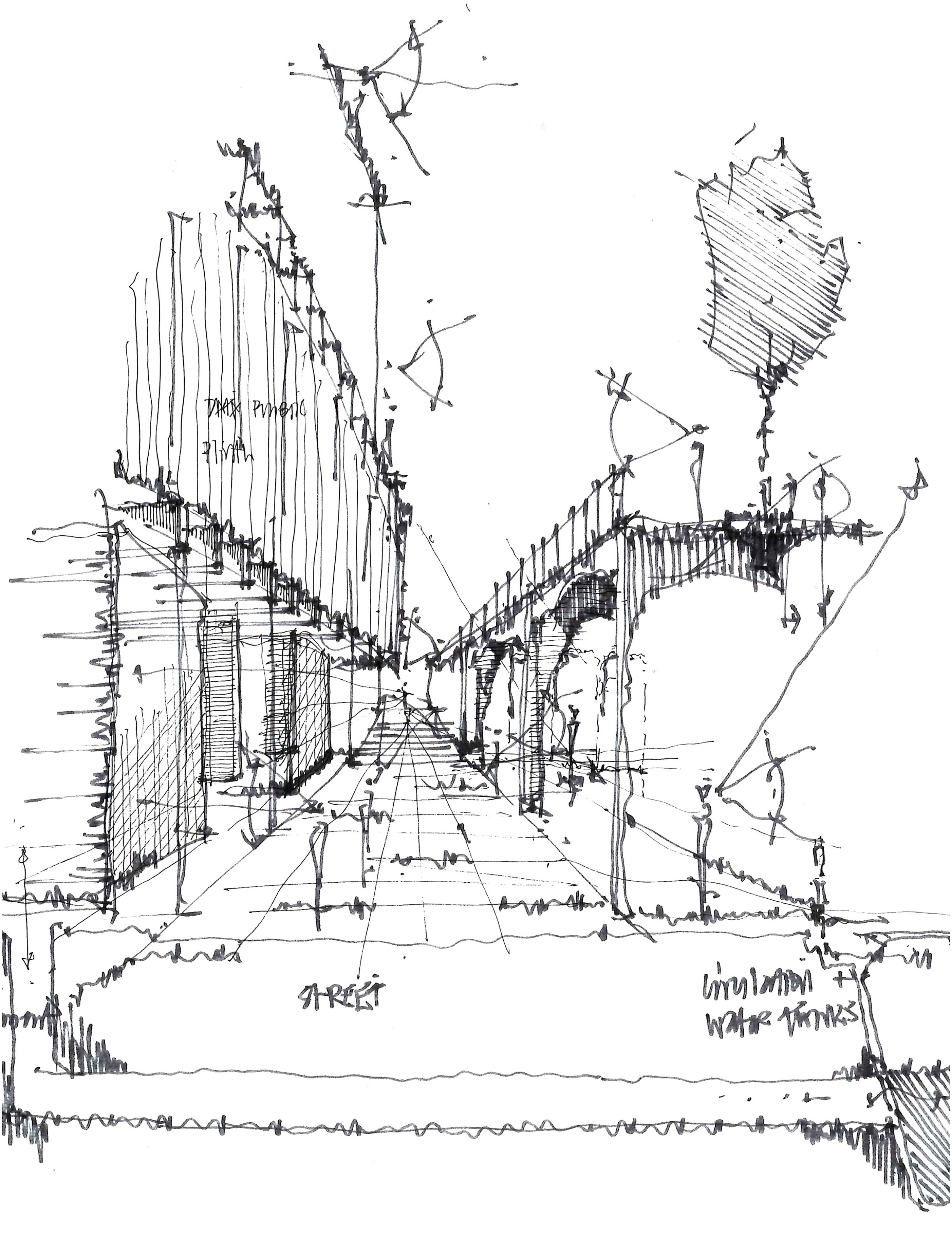

light

DERMOT HERON 26.03.2016
1:500 B5 PLAN.



1:500 28.03.2016 DERMOT HORGAN




DARK PURBECK
PLINTH
STREET
Circulation +
water tanks

Conclusions + Ethics

In conclusion my thesis acts in this way to react and 'home' the series of ever changing conditions of Data. The research gathered has all connected to form a narrative that appears to miss the societal aspect or public consideration of Data storage. The project attempts to answer the initial questions of
How we store data in the future,
How we use data in the future,
Who has access to data in the future and
What role it plays in our lives.

Through speculating on how we might make all public data open source and using an architecture to house this process of storage, research and dissemination I truly believe that this project acts in an ethical manor to consider the public as the most important user and creator of Data; giving back control in a democratic manor to those who inform the creation of Data.

The Architecture of this project also acts in this manor, materially the project attempts to connect and sit within a very 'defined' or almost complete or existing context.
Proportion: The Data Municipality acts to connect two differing scales, that of the residential and commercial border condition, through a consideration of both existing grid configurations. The spaces of the project vary in scale from modest to tall dependent on the function and location on the site. Acting to visually and metaphorically connect tho dissonant contexts.

Materially: the consideration for material was incredibly important and I believe that this may be the key consideration for many future projects in a context that could be considered to be 'bordering' two seemingly dissonant conditions. I believe the consideration for a transitional material connection allows for a seamless connect between the Minervaplein and Zuidas. The project is designed technically in a way that the brick, concrete and glass buildings are acting in a way to present their true material to the occupant, where materials appear it can be certain that it is acting structurally and in an honest manor. Through researching the archive of the local context it became apparent that for economic reasons the buildings of the context were constructed in steel but clad in brick while it was never the intension for this to occur in the initial plan.
As the primary consideration of the Data Municipality is to inform a contextually linked democratic space it is important that it presents itself in an architecturally honest manor also.

I believe the relevance of such a project to our society, to architectural practice and the academic realm could be very important in the creation of an active dialogue on the direction in which our future takes in relation to the storage and use of our Data. The state has began to realise the important of this human connection to information in the introduction of regulations such as the GDPR but I believe projects such as the Data Municipality that can speculate on a far more drastic and democratic approach to Data storage and use are more important now than ever, before we commit to a particular route from which we cannot return.

Research Methodology

Dermot Horgan
Student_4619676
AR3A160_Research Methods 2017.

Typology and qualitative [re]presentation, a critical analysis of static typological research in the era of hybrid visual analysis.
Film documentation as a future cross-epistemological tool.

Content 2800 words approx.

In the process of architectural design the initial research phase continues to be the most broad interdisciplinary connection to the 'everyday' or 'generic', regardless of setting; academic or practice based the initial phase of any architectural venture provides the strongest anthropological tie. Without this initial grounding we would lose our ability to 'place' or contextualise our physical and even theoretical architecture. The research methods course has provided a forum for personal critical reflection on the embodied qualities of this highly subjective research process.
Personally; the realisation of the importance qualitative research plays in the production of my own architectural research placed emphasis on my focus towards the visual praxis of research. How we choose our sources, how we define what is relevant or irrelevant, from experience, in the TU Delft can in many cases be prescribed to us through the chair we choose to take, the research methods course places emphasis on just how prescriptive some of the chairs of architecture really are, and the need for this practice to be reconsidered or at least critiqued in the hope for a more individualist approach to research. When we look at the approach of Interiors, Buildings & Cities in relation to the approach of Complex Projects we can clearly see two very distinct research approaches; that of the phenomenal and the Typological. Sadly it seems that to approach research within these chairs from an alternative ideology is not considered to be entirely appropriate, perhaps the relation to approach lies in the scale of the end result, Typology finding itself at the appropriate scale of the city, while a phenomenal approach touches on the personal or modest scale.
Traditionally the translation of architecture from the intangible to the physical takes place within a visually epistemic realm, our current architectural practice tends to place the human at the center of its concern, public-ness and the societal dimension being the central concern of architects since the era of modernism. The shift from ornamentation to the stylistic language of modernism coincided with a strong visual recording of this shift. The visual realm is the space in which we as architects can transcend and bridge the disconnect between our profession and the general public. Photography and the visual recording of 'things' create a tie between our very specific realm and the concern of the everyday. Thus it is clear why our profession presently concerns itself with recording through visual episteme. Dona Schwartz suggest that with photography that there are two main areas of connection to visual sociology 'still photographs as a methodological tool in social research, and the use of photographs as a means of presenting social research'[1]

It seems, though, that photography as a research tool in the recording of type could now be considered a practice of the past; could film or cinematography be the future method for research that no longer simply captures static analysis but rather documents and animates research from which we can take alternative (perhaps 'hybrid') research approached from this initial recording?

My studio research question asks 'How we can create an architecture that places the potentials and control of open source and private data back in the hands of the public', the creation of such an architecture requires a strong contextual understanding in the potential placing of an 'appropriate' architectural intervention, particularly when it concerns a new or future typology. Visually understanding existing typological enclosure in the seeking out of a new type becomes an initial research aim.

Thus, I would propose that the complex projects studio's research method finds itself placing too much emphasis on the analysis and collection of 'hard data' at the initial stages of the research phase, perhaps the studio requires a stronger emphasis on the epistemological tool of visual recording in an attempt at better understanding the socio-spatial context rather than a purely typological pursuit.
Thus I would question how we might introduce a new methodology of recording 'type' in its broadest understanding and move away from the currently static methodologies.

The chair of Complex projects opens the 2017/18 syllabus with the Moneo' quote 'Typology is a device that links the past with the future' (2). The collection of analysis of existing data, physical or digital, specific to sites within Amsterdam is placed at the center of this methodology. The collection and analysis of existing data in relation to typology and the study of type is for me too limiting a practice if we are to truly distill the essence of cities in the 21st century. Thus in my personal research, alongside the more 'dry' collection of typological information (maps, drawings and drawn information), I believe that typology and cultural anthropology are entirely linked in that people always exist in particular types of space due to the way in which that culture developed. My research methodology focuses on the ways in which we as architects can record and [re]present this inextricable link. Walter Benjamin writes

'Not for nothing have Atget's photographs been likened to those of the scene of a crime. But is not every square inch of our cities the scene of a crime? Every passer-by a culprit? Is it not the task of the photographer descendant of the augurs and haruspices - to reveal guilt and point out the guilty in his pictures?' (3)

We can interpret Benjamin's point as being that photographs as a representational tool can host much more than only aesthetic research matter but, in this case, both legal and aesthetic matter, photography as a research method in a personal thesis can also do exactly this, to capture both the socio-spatial and typological aspects of our build environment at the beginning of the research phase.
In many ways my personal research method could be viewed as a forensic practice, the initial attempt to gather pertinent information falls under a heuristic representation, yet, what I seek out in the capturing of place and site is the more anthropological and social dimensions of research. How we use spaces, how we exist in spaces, how we move through and interact in spaces can hold the key to better understanding that very space's existence and the typologies that enclose these interactions. This capturing of moments as a research method then allows for a better understanding of the 'problems' we could find within the typological enclosure. A recording of the visually apparent as a method of enquiry

Caroline Veot refers to the activity of making and viewing as an intellectual act in the work of Hans Van Der Laan, being present and the recording of that presence informs my thesis research and helps to later categorise the initial research into a problem/ solution with the occupant of the context at the center of the research method.
'Looking and making as an intellectual activity'(4)

Van der Laan himself writes of this subjective methodology as an almost instinctive [re]presentative 'context led' heuristic. In many ways this relates back to the initial typological episteme of the studio in the sense that one is enabled to extract 'a repeating pattern' (5) whilst simultaneously a recording of the contextual idiosyncrasies occurs within my own photographic contextual recordings.
'Our intellect depends on the sense impressions we receive from the visible and natural objects around us, so it is here that I would seek the explanation for our "ad similitudinem naturalium" when it comes to art. Because we have a soul and a body, our intellect, which receives its light from the divine intellect, is necessarily "informed" by the making of things' (6)

Wendy Ornelas notes that 'type is necessary as a remembering device for architecture. Its record is the history and the collective human memory of architecture'(7), the recording of memory as a research method is, for me, a visual exercise as the construct of memory and place are of one nature, typology in that sense needs to be visually recorded in order to construct its identity.

The focus of my reviewed literature was on the use of photography as the recording device for memory and place; qualitative typological research as it could be referred to. Also I hope to look to more recent praxeological forms of visual analysis from current practices use of recording as research and academic forms of visual recording such as Grafton Architects or Lilian Chee. It was equally important to contextualise the approach of the studio as something to compare or contrast with thus a reading of the writings of Moneo in 'oppositions' was necessary. The trouble with sourcing materials that focus on modern architectural photography tends to be that architectural photography is generally considered a post-production tool for [re]presentation. While in my seeking out of literature I have hoped to look at photography as a research or socio-representative tool within the realm of visual ethnography.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Quatremere de Quincy attempted to define type as:
'... in its literal, original meaning from the Greek, meant 'impression' or 'figure' (7)

While if we look to the modern interpretation of type in relation to the complex projects studio, its clear the emphasis of the studio's research methodology relies more on Durand's 'comparative' research methodology; Durand speaks of the classification of the elements that the architect in turn has the task of combining into an architecture.(8) Much in this linier way of thinking the studio's research methodology looks to ensure student work in relation to mapping site or dialectic interpretation of the sites as research tools are all carried out as a comparative exercise in relation to one another.
Yet, as pointed out by Moneo, even Durand himself later only refers to typology under the word 'genre' which we could see as a sign of the restrictive nature of typological research methodologies.(9)

As mentioned previously the tendency to consider photography as a post-construction tool is all too well documented. But it was interesting to consider the first attempts to place emphasis on the lack of visually represented research in the writings of Jon Wagner (1979) in his book Images of Information
He notes the lack of visual research in relation to context, the everyday and the ordinary, he emphasises that this is something that should be corrected through visual heuristics.

'there are too few visual studies of people acting in natural settings. We simply have not seen enough of what people do and the physical contexts in which it is done. In the second place, we know too little about how people themselves see the settings and their activities'(10)

'The Functionalist's critique had no need for historical precedents' (11)
Modern interpretation of proto-type recorded type as being devoid of memory, something that could exist in any context, luckily practices are looking to quash this thinking of architecture without place.

Within my thesis the method of research employed to gain initial site impressions or 'memory' is predominantly a visual recording of context and not a Rossi[an] urbanistic approach, Cities are an inherently complex series of interrelating elements thus; the research methodology employed to understand these beings should employ a cross-epistemological approach. Typological/ phenomenological/ anthropological.

If we look to consider the methods in which architects research or record these complex conditions; we find an emphasis on the qualitative act of recording through photography as the most accessible tool of the 21st century architect/ student.

Photography acts as a highly subjective tool of visual ethnography for researching site, context and socio-spatial information. The act of recording visually establishes a strong subjective research foundation for the later act of design methodology. To truly gain an impression of the socio-contextual conditions I have found the act of photography very helpful for recording/ researching the qualitative aspects of type. Byers (1964) points out that as opposed to artistic photography, the act of recording a subject accurately places this subject of the recording as the initial 'source' of research (12).

Photography as a tool of qualitative research tends to produce polysemic material (13), meaning it can be interpreted in many ways, I believe that within my thesis (and the chair) the production of subjective material in relation to type can lead to a more balanced research methodology introducing this cross disciplinary anthropological link to the predominant typological research emphasis.

In more recent times there has been an interest in the topic of 'photographic typology', particularly note-worthy is was the 2011 TATE retrospective of Bernd and Hilla Becher in which their research methodology focuses on the recording of water towers over time through photography as the visual [re]presenter. The tate noted:

'This sets it apart from all other image media; photography can do this better than anything else. And the more precisely it depicts objects the stronger its magical effect on the observer' (14)

In this line of considering new thinking in the field of cross-disciplinary research methodology, a 2015 lecture by Lilian Chee entitled 'making 03-FLATS, Architecture, domesticity and film' (15) really inspired a new way of thinking about my own methodology, In speaking of her film documentary she notes that most research on domesticity generally tends to exist at the macro-scale and 'focus on typology, statistics, policy and urban planning' (16) while she sees the role of film as an multi-perspectival epistemological prop. In relation to my own research methodology I believe that this act of filming provides the future of scholarly practice in the alternative recording of typology as a non-static praxeological form of visual analysis.

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h

Tom Avermaete's lecture on the systems of architectural knowledge notes the complimentary nature of differing architectural epistemes, the idea that they should not exist as mutually exclusive is particularly important within my own research methodology. In the footnotes of Avermaete's typological literature he refers to the work of Vidler in 'The Third Typology' an ontological piece where he suggests the idea of the city as itself as a typology and not a series of elements but rather fragments of the city that are entirely linked to society, time and place. (17) It is this exact condition of typology that I believe requires a new methodology of recording, through film documentation; where the city and its parts can be visually recorded while simultaneously capturing the temporal nature of this third typology.

In the recording of the city [areas of the site in Amsterdam] through film it is also possible to capture the inherent material composition of the context. Eireen Schreurs's discussion on the 'art academic method' which looks at a methodology of anthropologically researching through making, the object and the person linked in an almost instinctive research process. The act of filming could be viewed as a similar hands-on approach or interpretative act of researching the typology and anthropology of the city.

In Filip Geerts' lecture 'Things, Territories and Disciplines' he spoke of the act of 'speculative historication', researching through speculative historic analysis as a scientific process, personally I believe this act can only lead to in-accurate methods of research. A methodology of recording through film should act as a counter-speculative approach but also ensures that in future research can rely on more tangible source material and not quasi-scientific conclusions.

Lillian Chee speaks of the abilities of film and cinematographic research as being a forensic tool of the architect that enabled her to draw attention to what would, through traditional research methodologies, be lost. 'highlighted rather than normalise the specificities of the site was necessary in order to see and think beyond the limited categories, methods and [re]presentations which have obscured a more layered understanding' (18)
The chair of complex projects is aiming to speculate on the future of cities in 2050, and as cities become ever more multi-layered complex urban environments we must adapt our research methodologies as such to better record and [re]present these multi-perspectival conditions. Especially in the era where everything is already being visually recorded (cctv, phones etc.), surely we should consider the act of film recording as a powerful tool to incite a process of thinking. 'Type' cannot continue to be considered a static episteme but rather as something inextricably linked to the ontology of our cities.

In the field of current praxeological research methodologies; many architects are using film as a tool of post-construction [re]presentation of their architecture, most recently Grafton architects screened a film-documentary at the RIBA international prize (19), following four occupants of their new building in a method of documenting the different categories of occupant from Professor to student to common worker. If we could imagine how this practice of recording could be employed not as a retrospective act but rather as a research methodological tool at the beginning of the project perhaps we could witness the formation of an entirely new set of praxeological positions.

an extreme example we could note the work of the late American architect Dorothy Pelzer, who conducted field research on nine south-eastern Asian countries through the creation of thirty one thousand photographs and six crates of related notes with the intention of creating a book called ‘houses are people’ (20) The ability for others to now truly understand what would inevitably become lost, through the act of photography in Pelzer’s case, ensures a better ability of future or current researchers to rely on photographic material as a typological source, whilst if in the future ; researchers could reply on the film recorded material of our era, a far wider typo-anthropological scope of understanding could be gained from this material.

In conclusion I believe that typological research methodologies, particularly within the chair of Complex Projects, need to adapt a broader understanding of research methodology as not being a static or hard data based exercise. Rather we need to emphasise that to research ‘type’ should also look to a broader socio-understanding of the related context. Particularly in relation to my own research question, a static methodology of research is far too limiting while I seek out the creation of a non-existing typology such as an architectural space for interaction with data.
We have the ability to alter the generally accepted scholarly praxis of typological research and I believe that film with the emphasis on the content as source, just as Byers noted that the act of photography can place the subject as the initial source, documentation through film has the added ability to create a non-static [re]presentation of subject and context.

Endnotes:

(1) D. Schwartz, 'Visual ethnography: using photography in qualitative research, Qualitative Sociology', 12.(2), Summer, Pg. 119-54

(2) Extract from Complex Projects Syllabus 2017/18, TU Delft Department of Architecture, Pg. 3

(3) Benjamin, Walter, "A Small History of Photography" in One-Way Street and Other Writings, Edmund Jephcott & Kingsley Shorter, trans. (London: New Left Books, 1979),p. 256 (all further references will be to this edition). Originally published in three parts as "Kleine Geschichte der Photographie" in Die literarische Welt between September and October, 1931.

(4) Voet, Caroline: Between the Lines and its Margins. Spatial Systematics in the work of Dom Hans van der Laan (1904-1991). (Dissertation) KU Leuven, Arenberg doctoral school of science, engineering & technology, 2013.

(5) Lucas, Ray: Research methods for Architecture. Laurence King publishing, 2016. Pg.12

(6) Van der Laan to Professor Granpré Molière, September 19, 1946, Oosterhout, 2 (copy in VDLA).

(7) Quatremere de Quincy's republished article on "Type;' with an introduction by Anthony Vidler in Oppositions 8, Spring 1977, p.99.

(8) Durand, J N L. 'Precis de lecons d'architecture XIII, Paris (1805)

(9) Moneo, Rafael. 'On typology' in 'Oppositions', The institute for architecture and urban studies, no.13 Summer (1978), The MIT press. Pg.11

(10) Wagner, Jon. 'Images of information: still photography in the social sciences', Sage Publications, (1979), Pg. 286.

(11) Ornelas, Wendy. 'Type, memory and meaningful form', Oz: Vol. 12. Pg. 19

(12) Byers, Paul. "Still Photography in the Systematic Recording and Analysis of Behavioral Data." Human Organization 23, no. 1 (1964): 78-84

(13) D. Schwartz, 'Visual ethnography: using photography in qualitative research, Qualitative Sociology', 12.(2), Summer, Pg. 120

(14) Bernd Becher and Hilla Becher, Water Towers: 1972–2009, Tate.org.uk, http://www.tate.org.uk/art/artworks/bernd-becher-and-hilla-becher-water-towers-p81238 accessed on November 13th 2017.

(15) Chee, Lillian, 'Making 03–FLATS: architecture, domesticity and film', (2015) , accessed on 19th November 2017, available at http://www.theberlage.nl/events/details/2015_02_20_making_03_flats_architecture_domesticity_and_ffil

(16) Ibid.

(17) Vidler, Anthony. 'The Third Typology', in 'Oppositions, selected readings from a journal for ideas and criticism in architecture
1973- 1984', Journal for Architectural Knowledge No. 08 (Sept. 2014) Pg.13.

(18) Chee, Lillian, 'Making 03–FLATS: architecture, domesticity and film', (2015) , accessed on 19th November 2017, available a http://www.theberlage.nl/events/details/2015_02_20_making_03_flats_architecture_domesticity_and_ffil

(19) Grafton Architects, 'RIBA International Prize Winner's Lecture 2016 with Grafton Architects and Richard Rogers', Youtube.com, accessed on 19th November 2017. https://www.youtube.com/watch?v=On_9s-rZoCY

(20) Roesler, Sascha. Visualization, Embodiment, Translation: Remarks on Ethnographic Representation in Architecture, Candide. Journal for Architectural Knowledge No. 08 (Sept. 2014), Pg. 16-17.

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Images:

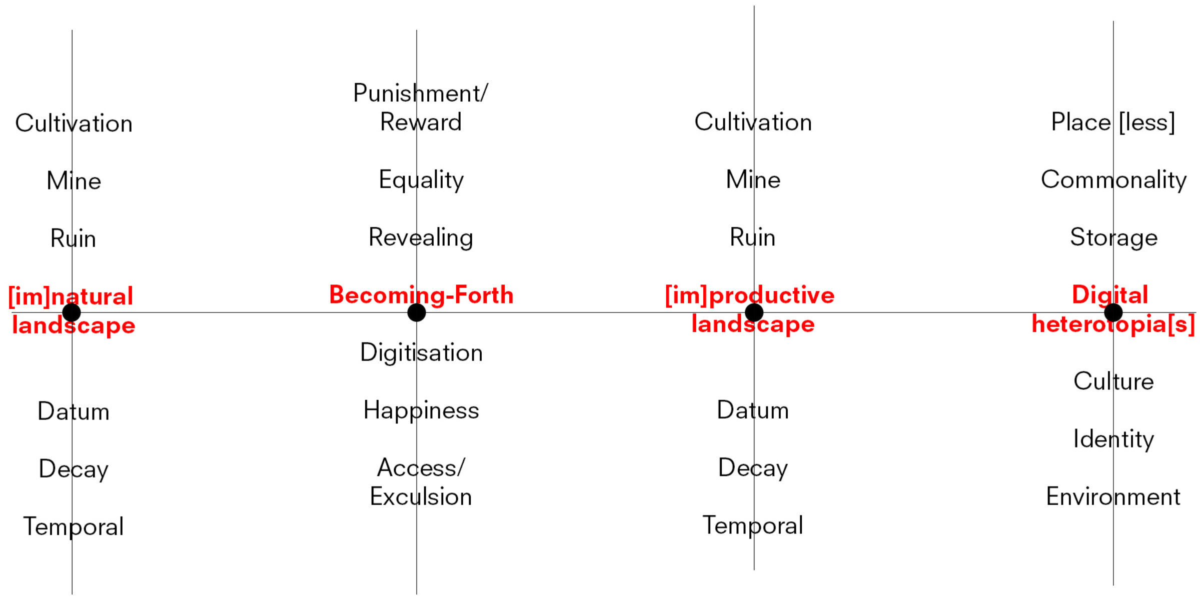
ia Johannes Verhulststraat, Personal Image taken on site at the Oud-Zuid, 2017.
ib Zuidas, ibid
ic Minervaplein, ibid
id Stadionweg, ibid
ie Breitnerstraat ibid
if Fred. Roeskestraat, ibid
ig Lilian Chee, ‘Making 03 FLATS’, 2015,
https://collegerama.tudelft.nl/Mediasite/Play/118770f49cee4e04b78c1f1781054d261d?catalog=28f303fe-4168-4bbe-9d90-20799ddf5ca9&playFrom=637334&autoStart=true
ih Erik Ku, 1997,’12 stories, a feature film’, from ‘Making 03 FLATS’ lecture; Lilian Chee
https://collegerama.tudelft.nl/Mediasite/Play/118770f49cee4e04b78c1f1781054d261d?catalog=28f303fe-4168-4bbe-9d90-20799ddf5ca9&playFrom=637334&autoStart=true.

[Im]material Data

Defining immateriality in the
formation of a new [im]natural landscape.

Dermot Horgan
4619676
For the attention of: Alberto Altés

New Urban Questions or Minor Infractions
Architecture Theory Chair
AR3AT060



Content:

Dermot Horgan
New Urban Questions or Minor Infractions

TU Delft_ Chair of Architectural Theory

Abstract:

In A Altes' lecture on 'Delay and care; towards a responsible worlding action' Altes speaks of our relation to situated objects and the very physical or material act of making or as he categorises 'Situation'(1) the direct interaction with situations to create [in]traventions. This concept of care in relation to the material world triggered, for me, a consideration to my own thesis topic of data and how the concept of material actions such as 'making' as he describes might apply to the immaterial(2); how can we understand our landscape when objects are no longer entirely physical or material, while the object itself is part of our technical culture and thus as much a 'technical object' as any physical object, with its very own morpho-typological history but also its own altering meaning.

In ways our architectural landscape has become entirely reactionary or analogous to the ever changing digital(3) landscape, this era is producing an ever more temporal architecture in reaction to an ever more [im]material data-scape. (4)

Data could then be considered to be a 'socio-material [technical] object' (6) an object with two entirely differing sides; the information itself with its own history and 'social life' (6) and as an object with a very material reliance on the physical world; a location, a power source, a hardware and a material waste (e-waste) to control these interacting elements.

Data and the storage of this information is thus creating an entirely new natural landscape, a landscape in which our exiting definitions that related to the natural or [un]natural world may no longer exist. Here I would like to explore the possible new meaning(s) of our landscape when it no longer has an entirely physical presence but also an intangible or [im]material existence. Data, as it becomes the most prominent 'unseen' element of our landscape with the material aspects out of site and view, will change how we view what architecture is and what it can be seen to encompass. With this in mind I have chosen to look at how our understanding of existing architectural elements might be [re]viewed in relation to;

i. Where we exist? (Landscape),
ii. How we exist? (Happiness),
iii. How we might exist? (Control),
iv. How can a digital space exist? (Culture)

In my own complex projects graduation thesis I have considered the restructuring of our data network in an attempt to de-centralise an ever centralising system of information storage. I would hope through this short piece to better understand the ways in which data and the immaterial nature of this network are altering how we see and make architecture.

(1) Altes, Alberto, 'Delay & Care: Toward Responsible Worlding Action'', Lecture, TU Delft, Delft, Thursday 14th December 2017.
(2)**[Im]material:**
Buchli, Vicotor. 'the archaeology of the immaterial', Routelage, New York, (2016), Pg. 1
'when we consider the immaterial we must consider the way attachments are made in the material world- and how these attachments are implicated in producing things'
How I choose to view the immaterial is that of the in-between ground, all that is immaterial must be grounded in some form of material, in the case of DATA what is immaterial knowledge finds itself grounded in a material infrastructure, but for the purpose of this piece I find the idea of immateriality as the 'attachment' between these two material conditions; that of the entirely material landscape in which we live and that of the material infrastructure responsible for storing data, what lies between these two conditions for me could be considered to be representative of the *immaterial.*
(3) Digital immateriality', a concept proposed by Paul M. Leonardi, who looks at the definition of **materiality** by Orlikowski (2007) Pg.1439, who considers the material to be *'stuff'* that is tangible and part of a tactile experience, Orlikowski also suggests that this tangibility is not necessarily an element of materiality as technology[as hardware] itself is considered to have 'matter' while the information itself is intangible thus an oxymoron.
"because most information technologies are software rather than solid physical objects, it may seem odd to say that information technologies have 'material properties' (Barley, Stephen R. (1990): 61-103)
Thus in my interpretation and for the purpose of this article, I wish to consider the idea of [im]materiality as the digital objects [or information datum] void of matter that relate to material consequences in the tangible [material] world.
(4) Hill, Jonathan, 'The ruins of the immaterial', Journal for architecture and related arts; Interstices no. 14 'Immaterial Materialities', (2013).
(5) Lupton, Deborah. 'Digital sociology', Routelage, London + New York. (2015) Pg.27
(6)Ibid.

Chapter_1

Nature
Data as new **[im]Natural Landscape**

[**Intro**: As we consider 'where we exist' the idea of landscape or a digital landscape is very important to understand, we must realise the temporal nature of our landscape in the twenty-first century. I will attempt to explore the temporal nature of such an immaterial landscape; from where it once was to where it might find itself.]

Nature can be looked at from two separate interpretations, our nature in relation to one another; our commonality or our shared values as human beings, it was only in the eighteenth century that the interpretation of nature in relation to landscape was accepted as a human interpretation or [re]presentation. *'In each of these meanings, "landscape" acknowledges a human intervention, indicating why the prefix "natural" is applied to a landscape that is seemingly unaffected by humanity'* (1) It seems in the 21st century this notion of a natural landscape is an impossible construct, even if physically untouched by humans; our digital culture of exploration and want to explore our environment has led us to map these spaces and take them from the unknown or traditionally 'natural' to the immaterially exploited and digitally available.

The cultivation of the raw material of 'nature' to inform landscape is particularly interesting when we look at the original meaning of data; from Latin, plural of datum. (2) Essentially it is these individual pieces of information that constitute the raw material of human activity(3). Data is the resource, much like oil or coal, knowledge now takes the place of this material resource and informs a new immaterial landscape that we as humans have already began to 'mine' in an attempt to profit from.

Hill notes that the Eighteenth century English design represented *'a hybrid of architecture and landscape, nature and culture, which was understood to represent growth as well as **decay**, potential as well as loss, the future as well as the past'*(3) An acknowledgement of the temporal nature of landscape and culture was incredible important in the eighteenth century, nothing was static or set in place; things decay and in doing so represent the temporal nature of their existence but also [re]presented the future as having taken its place.
In the twenty first century we have re-interpreted this idea of the 'ruin'. In the hyper-temporal world of data storage, things are said to 'decay' if not constantly updated to form part of new technology.

'Digital data, therefore, may be said to 'decay' if left too long, and lost and forgotten if they are not migrated to new technological formats' (4)

We find ourselves in a world where the origins of our 'nature', interpreted as our shared values or commonality, becomes something temporal or immaterial in the 'cloud', the democratic 'thing' that we now share is our unique dependence on temporal data. Knowledge as a resource can be seen as the most democratic affordance we as a society have. Technology has afforded the ability to communicate this information or resource amongst one another but we rarely consider this as a highly material action. The immaterial implications and their material infrastructure are of one nature; with us as the controller and creator. For the first time we have to acknowledge that we exist in an [im]natural landscape. Our nature is immaterially bound (*the growing automatization of human tasks in relation to machinery and equipment with which they are performed* (5)) and it's only through human intervention thus far that this landscape is possible.

Yet the very definition of this [im]natural element in relation to our landscape means we are looking toward a future in which the eighteenth century interpretation; that landscape requires a physical 'human intervention' will no longer have relevance. Our landscape will thus be formed by the immaterial, and with the original interpretation that for a landscape to be 'natural' it is seemingly unaffected by humanity; with algorithmic actions this physical affect is essentially removed leaving us in the in-between space of the immaterial and natural landscape, leaving me to assume a role of a new [im]natural landscape of the twentieth century.

Perhaps in this [im]natural landscape, architecture might find a new digital context or even more temporal nature. Architecture may no longer only be considered to be successful in a material existence but rather a successful project might exist only in the immaterial instance only related to the physical landscape through its data[s] material storage.

(1)Hill, Jonathan, 'The ruins of the immaterial', Journal for architecture and related arts; Interstices no. 14 'Immaterial Materialities', (2013).pg. 83
(2)Data definition, https://en.oxforddictionaries.com/definition/data, (2017)
Cuesta, Hector + Kumar, Dr. Sampath, 'Practical Data Analysis', Packt Publishing, Pg.12
(3) Hill, Jonathan, 'The ruins of the immaterial', Journal for architecture and related arts; Interstices no. 14 'Immaterial Materialities', (2013). Pg. 84
(4)Lupton, Deborah. 'Digital sociology', Routelage, London + New York. (2015) Pg.27
(5)Heidegger, Martint. The Question Concerning Technology, Garland Science, (1977), pg.4.

Chapter_2

Happiness
The **Nature of Happiness** as an immaterial data construct.

[**Intro:** a digital landscape will thus bring about a more intertwined existence of material and immaterial knowledge and objects, here I would like to explore how might a society react to this changing landscape; through the fundamental societal construct of happiness]

In 1776 Jeremy Bentham suggested in '*A Fragment on Government'* two major ideas; firstly that happiness was something that was measurable and secondly that as a measurable construct that happiness in its majority was entirely linked to the moral code of our society.

'fundamental axiom, it is the greatest happiness of the greatest number that is the measure of right and wrong.[(1)]

He goes on to argue that those measurable element[s] are pain and pleasure [(2)] and that we as humans are governed under these measurable elements; these writings were to apply at the time to both the public and private realm and in relation to the state pain and pleasure could be looked at from the point of view of punishment and reward but this was pointed out by David Lyons that Bentham's theory was applicable not at the universal scale but rather at the local or parochial scale; *'not . . .everyone is taken into account, but only those within one's community'.*[(3)]

For me, the idea of happiness as being a measurable commodity that could in ways be provided by the [or a] state for select groups of people is an idea that can no longer exist, as the fundamental elements and services of our daily lives migrate to the cloud and lose their earthly tangibility nothing can exist for the 'few' but rather our happiness [be it for the greater numbers] becomes a universal trait. When we start to shift the availability of information from a vertical to horizontal hierarchy our society begins to acknowledge a greater sense of equality. As far back as 1793 Condorcet had predicted that equality was a trait that would transform the nature of society.

'.. the idea of equality, a power that was destined to conquer on the strength of the fact that it was just and right, a power that could not be re- strain.' [(4)]

Equality in relation to data and the availability of digital/ data knowledge fundamentally changes the way in which we can look at immateriality, through the equal availability of data technology makes something that was once availability to one community and makes it universally available. So paradoxically while we view technology as something with which we 'lose' or view the disappearance of the physical, technology and the digitalisation of information informs the appearance and emphasis [on] of the immaterial aspects of information.

Martin Heidegger noted in 1977 before the idea of mass data storage was ever a consideration, of how technology, contrary to the generally accepted paradigm, acts not to replace or hide our material existence but rather is a tool of what he refers to as 'bringing-forth', the act of technology revealing things to us, almost in a democratic act, technology ie. The Data server, acts not to take away but to enable us to access and be part of a much larger societal shift in the opening up of our data landscape. Whilst the technology of the time was entirely different the theory remains essentially the same; technology brings us together through what we cannot see and yet is so inextricably part of our twenty first century lives.

'What has the essence of technology to do with revealing? The answer: everything. For every bringing-forth is grounded in revealing. Bringing-forth, indeed, gathers within itself the four modes of

occasioning…. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth'.[(5)]

Haraway suggest that we are *becoming-with*[(6)] material matter, that we are always in an unstable state of becoming-with the things that are around us in a very materially beneficial manor.
'becoming, in this co-evolutionary dance is always 'becoming-with – in a contact zone where the outcome, where who is in the world, is at stake'[(7)]
How might this mutually beneficial becoming-with then occur in an immaterial landscape?
Perhaps the material and immaterial implications of data can, in fact, work in a mutually beneficial manor in an act of '**becoming-forth'**, both simultaneously data acts in a technical way to reveal itself to us, through technology, while we re-act in a material capacity in the use of this immaterial information; to '*become-with'* it.

Thus; [im]materiality in relation to data may in-fact be the new measure of our societal happiness; how much availability to [bringing], and how much of this information we can use to inform our lives [becoming] could take the role of 'punishment and reward' and replace this construct with 'access and exclusion'. Those who can and cannot benefit from our immaterial data landscape, this in turn could manifest in a consequence of *access* to architecture, a stronger societal access to architecture in its material and immaterial state, as built interventions and information about existing and future developments for all to access.

(1) J. H. Burns and H. L. A. Hart , A Comment on the Commentaries and A Fragment on Government, in 'The Collected Works of Jeremy Bentham' , London, (1977), p. 393.

(2) Rosen,F; Dinwiddy,J,R; Burns, J,H, 'Collected works of Jeremy Bentham', Oxford, (1977), pg.11-12.
*'**Nature** has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. They govern us in all we do, in all we say, in all we think: every effort we can make to throw off our subjection, will serve but to demonstrate and confirm it . . . The principle of utility recognises this subjection . . .'*

(3) Lyons, David. 'In the Interest of the Governed: A Study of Bentham's Philosophy of Utility and Law', Clarendon Press, Oxford, (1973), Pg,24.

(4) "The Post-Industrial Society: The Crisis of Rationality." Bulletin of the American Academy of Arts and Sciences 21, no. 2 (1967): 5-15

(5) Heidegger, Martin. 'The Question Concerning Technology', Gartland Science, (1977), pp 3–35
From a much larger lineage of thinking, Heidegger questions where the origins of the word technology lay:
'This prospect strikes us as strange. Indeed, it should do so, should do so as persistently as possible and with so much urgency that we will finally take seriously the simple question of what the name "technology" means. The word stems from the Greek. Technikon means that which belongs to techne'

(6) Donna Haraway 'When species meet', University of Minnesota Press, 2008, Pg.244.
Haraway considers in this case the mutual benefits of having dogs and humans interacting in cities while this can be applicable to many situations where people and 'things' can become-with one another in a mutually beneficial manor.

(7) Ibid

Chapter_3

Immaterial data: power in a landscape of **Control**
Truth and production.

[**Intro:** in a society where we are ever more involved and aware of our digital landscape I wish to explore how such a society might control or react to this new power, considering also how the profession of architecture might place itself within this digital landscape]

'Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, "get" technology "spiritually in hand." We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control.' (1)

Heidegger's predictions of control and technology could be viewed in the twenty first century to have reached exactly the point of this 'slip' from human control. It seems, though, that this slip is more apparent in the unpredictable move from technology as a material object to technology as an immaterial process. We exist, currently, in the space between these two zones, the space of transition between the material and immaterial object. Our everyday scenarios are becoming increasingly less tangible and with this our architectural production can only exist to mirror the same in-between space. But in ways the idea of architecture existing as a material + immaterial thing, a series of data, mirrors the 1450 thinking of Alberti who considered the characteristics of architecture to be something that existed not as an entirely material construct but rather a immaterial ideology of the mind.

'the lineamento (lineaments) of architecture, which "are derived from the mind." He argues that the lineaments inherently precede any discussion of materia (material)' (2)

In this thinking; architecture was always formed from an immaterial action. It was only through technology that we have, primarily through instrument, placed a material emphasis on the action of architectural production at the concept stage, whilst now the method of storage for this information is the primary material instrument at the early stage of any project. Technology has in this way taken on the role of controlling many aspects of our cultural landscape. What might happen then when we are to shift our vast architectural knowledge/ data into truly available state for all?

Marco Diani suggests that the relation between architectural production and the idea of the natural or perceived natural has always been an 'un-natural' act, perhaps then as our interpretation of the natural or un-natural slip into the [or migrate in this case] towards an digital existence we might find a more 'honest' or true democratic immaterial landscape.
'It is to the happening of revealing, i.e., of truth, that freedom stands in the closest and most intimate kinship. All revealing belongs within a harboring and a concealing'
Perhaps then the post-industrial [im]material society represents a truly honest [im]natural landscape. We tend to look look towards the negative aspects of the unknown future while perhaps the availability of knowledge as data could in-fact strengthen our existing understanding of a democratic society. With this we could find a strengthened role of the architect in finding a place for architecture that represents a new intangible nature.

'Hyperrealistic in its imitation of nature or what is perceived as nature, design has always been made out of unnatural' (3)
Might we then find ourselves in a future in which architectural production is more closely tied to politics than ever before.

In a similar way to Heidegger's writing on the revealing nature of technology, Foucault suggests that the concept of power acts in a way to 'produce' a domain of objects that in fact reveal a truth. In this way an immaterial data landscape acts as an [im]productive landscape:

'We must cease once and for all to describe the effects of power in negative terms: it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals'. In fact power produces; it produces reality; it produces domains of objects and rituals of truth. The individual and the knowledge that may be gained of him belong to this production' (4)

Foucault's suggestion that power is a productive trait rather than a repressive state is particularly relevant when we look to a future scenario in which the growing availability of intangible data is seen no longer as a privilege but rather a democratic right. If digital knowledge is to be considered a democratic right then we enable the formation of two typologies of immaterial landscape; the productive and the post-capitalist.

In its most extreme reality, a post-capitalist society, formed by an entirely immaterial or digital landscape would exist of knowledge and service workers controlling and being controlled by the vast amounts of publically available information. Architecture as a discipline in this case transcends both acts of service and knowledge work. Architecture for the post-capitalist society would drastically alter the nature of the discipline to an architecture where the consideration is not on the production but rather on the question of architecture itself. The discipline would find itself in a predominantly immaterial existence; Felipe Lanuza Rilling suggests this line of thinking and immaterial condition *'opens up opportunities for alternative interpretations and modes of occupancy'* (5) Perhaps then the practice of architecture finds itself in a place where it can entirely re-define itself as a much more open or honest producer and controller of [im]material knowledge.

(1) Heidegger, Martin. 'The Question Concerning Technology', Gartland Science, (1977), pp 3–35.
Heidegger suggests that we should look for the 'true' in technology and only by the true might we arrive at the essence or the 'correct'.
'the correct instrumental definition of technology still does not show us technology's essence. In order that we may arrive at this, or at least come close to it, we must seek the true by way of the correct'

(2) Leon Battista Alberti, On the Art of Building in Ten Books, Joseph Rykwert, Neil Leach, and Robert Tavemor, trans. (Cambridge: MIT Press, 1988), pp. 422-23.
In:
Dods, George. 'The incredible lightness of buildings', Journal of Architectural Education (1984-), Vol. 62, No. 2, Immateriality inArchitecture (Nov., 2008), pg, 3.

(3) Diani, Marco. 'Immateriality takes command', Design Issues, Vol. 4, No. 1/2, Designing the Immaterial Society
The MIT Press, (1988), Pg, 8.

(4) Smart, Barry. 'Michel Foucault, critical assessments', Routledge, (2002), Pg.194.

(5) Rilling, Felipe Lanuza, 'Journal for architecture and related arts; Interstices no. 14 'Immaterial Materialities', (2013). Pg. 111.

Chapter_4

The three place[s] of data: **our digital heterotopia[s]**
storage + the place of culture

[**Intro:** In a more theoretical concept; the concept of digital space fascinates me, a place that exists '*in the cloud'* yet also this information DOES have a real place; a network, an infrastructure and system of connectivity. Here I am interested in exploring how 'places' without an entirely *physical* place have been explored in the past, Foucault's *heterotopia* provides a truly considered example of this concept, before the idea of a digital landscape was ever a consideration]

'I am interested in certain ones that have the curious property of being in relation with all the other sites, but in such a way as to suspect, neutralize, or invent the set of relations that they happen to designate, mirror, or reflect. These spaces, as it were, which are linked with all the others' (1)

Foucault describes how he is interested in two typologies of space, those that are of no real space, the utopia as he refers to it, and that of the heterotopia, a space that exists to mirror our tangible existence in a way that it [re]presents our place in an intangible manor yet a space that does/ could exist in reality. His example of this is that of a mirror, a surface that [re]presents our real place yet a place in itself that does not exist; but could and does. The differentiation being that a utopian mirror might [re]present that which could never exist in a real place. The heterotopia is said to be capable of allowing for the existence of juxtaposed spaces [or places], all linked in their connective commonality.

Foucault describes six principles of his heterotopia[n] place: (2)

i. A place for those whose behaviour is considered to be deviant or outside of the accepted norms
ii. The heterotopia can act in a way that is functions in accordance to the cultural needs in which it exists
iii. The heterotopia can juxtapose several spaces that are considered to be incompatible.
iv. The connection to time in a temporal or definite state constitutes a heterotopia
v. The heterotopia represents a space which we are either required to enter or a space we must submit to 'rights or purifications'
vi. The heterotopia can exist to have a function between other extreme or contrasting functions.

In the twenty first century if we are to contemplate these principles; it's almost uncanny how Foucault could have described our digital or data place without ever having known of its existence. Our digital heterotopia represents a space, the most connective **place[less]** space in our current existence. Whilst yet we absolutely conform to the rules of this digital space, we are either required to exist in this place; through the digitisation of our state information or we submit to the rules of this digital place in order to become part of it, sacrificing our data to the intangible mastery of the cloud. The previous topics of Nature, Happiness and Control are all seemingly disconnected elements that can find their commonality within the place of a digital heterotopia. This digital place goes much further in its ambition, it's now has the ability to not only mirror but to re-define how we present things and objects. This place[less] space has begun to take what is physical from tangible world and make this entirely part of a digital place; yet the storage of these objects within this digital place have very tangible actions. In its simplest example; we have the ability to arrive at the airport without any physical ticket yet our entire journey ahead has been organised in a place[less] digital space. All the data relative to us, where we will go and what we will do in this physical place is all simultaneously present in a digital heterotopia as me move through the physical space of the airport, whilst still in relation to physical space of data storage. Our digital heterotopia differs from Foucault's definition in that it has three places: The place we tangibly exist, the place[less] and storage element – a place for that of the place and place[less].

For the first time in society we have to face the immediacy of this new digital place, how we identify with a space or place in the past has been incredibly important to the creation of our culture. Fortier notes that it is the commonality of history, experience and culture of a group, that which belongs to that group, and their attachment to a place, is what locates *culture.* (3) This Is certainly applicable to religious groups for example, their culture has traditionally depended on a set of beliefs in history and common experience in the creation of a religious culture. Thus we must pose the question of how we might address culture without place. Place[less] culture; is no longer national but global. Culture historically could be viewed as identity that separated *us* from *them,* whilst a digital culture removes this classification through the commonality of place[less]ness.

Derek Robbins notes that *'all those objects on which cultural value has been bestowed lie perpetually dormant waiting to be revived'* (4) We can look at our intangible digital belongings as the objects that allow for us to possibly forge a culture for this digital heterotopia. It is our set of collective digital belongings that allow for the creation of a digital heterotopia[n] environment; we are no longer bound by the static environment of physical objects but rather we are free to explore a place[less] digital environment in which the objects that Robbins refers to as 'dormant waiting to be revived' no longer require a physical place in order to affect the creation of identity and culture. Perhaps then us as designers and architects might find a new methodology of designing with our digital belongings and data as context, rather than looking to physical matter as a device of anchoring a project.

(1) Foucault,Michel, 'of other spaces: utopias and hetrotopias', Architecture/ Movement/ continuite, (1984), Pg, 3.
Foucault attempts to consider a place for a 'real' utopia, a place that connects all places: yet simultaneously it is both real and unreal in its existence. He attempts to describe this in the form of a mirror in which he can both exist in a real place and be mirrored in a virtual place that does exist but simultaneously does not exist as it is in fact a surface.

(2) Foucault,Michel, 'of other spaces: utopias and hetrotopias', Architecture/ Movement/ continuite, (1984), Pg,4-9

(3) Fortier, Anne-Marie, 'Re-membering places and the performance of belonging[s]', In Vikki Bell Ed, *Performativity and belonging,* London, (1999),, Pg.42.
Fortier quotes 'observes, "*is both that which is created as a common history, experience or culture of a group - a group's belongings - and about how the imagined community is attached to places - the location of culture'.*

(4) Robbins, Derek. 'Bourdieu and culture', London (2000), Pg,35.

(5) (3+4) References found in:
Leach, Neil. Belonging: Towards a theory of Identification with Place, Perspecta, Vol.33, Mining Autonomy, (2002), Pg, 126-133.

Chapter_5

Conclusion

[**Intro:** What does this mean for architecture/ architects]

George Paul notes in relation to the act of writing versus the act of digital documentation that this '*exist by virtue of a mere succession of the differentiation of 1s and 0s, distinguished by electricity flowing in machine systems. In writing today we deal in pure information objects, unfettered by matter. They can be whisked or shaken or rearranged in an instant'* (1)

This, for me, is a very important; the realisation that architecture might find itself in the digital future: free from physical constraints. It too can be whisked, shaken and rearranged within an instance through the medium of technology, the material instrument. Our digital landscape provides a new place for this architecture. We as future designers need to be aware of just how complex this material and immaterial network truly is, if we are to continue to produce responsible, relevant and considered architecture for the twenty-first century society.

The term *architecture* itself needs to shift and alter in its meaning, we need to see architecture as an opportunity to encompass the material act of making just as much as a process of using digital and [im]material knowledge. In many ways architecture can no longer be seen purely as a profession but rather a practice of mediating between material and [im]material consequences. We as architects have the responsibility to understand the complex flows of our digital landscape, how they affect our material interventions, our storage of information, how we control this landscape and the temporal nature such a digital landscape brings with it.

(1) Paul, George. 'Foundations of digital evidence', American Bar Association, Washington, (2009), Pg.9.

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[5.] *A comment on the commentaries and a fragment on government in*:
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[16.] Altes, Alberto, 'Delay & Care: Toward Responsible Worlding Action'', Lecture, TU Delft, Delft, Thursday 14th December 2017.

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[18.] R. Barley, Stephen. Administrative Science Quarterly, Vol. 35, No.1, Special Issue: Technology, Organizations, and Innovation (1990).

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