Eindhoven University of Technology

MASTER

Between two worlds

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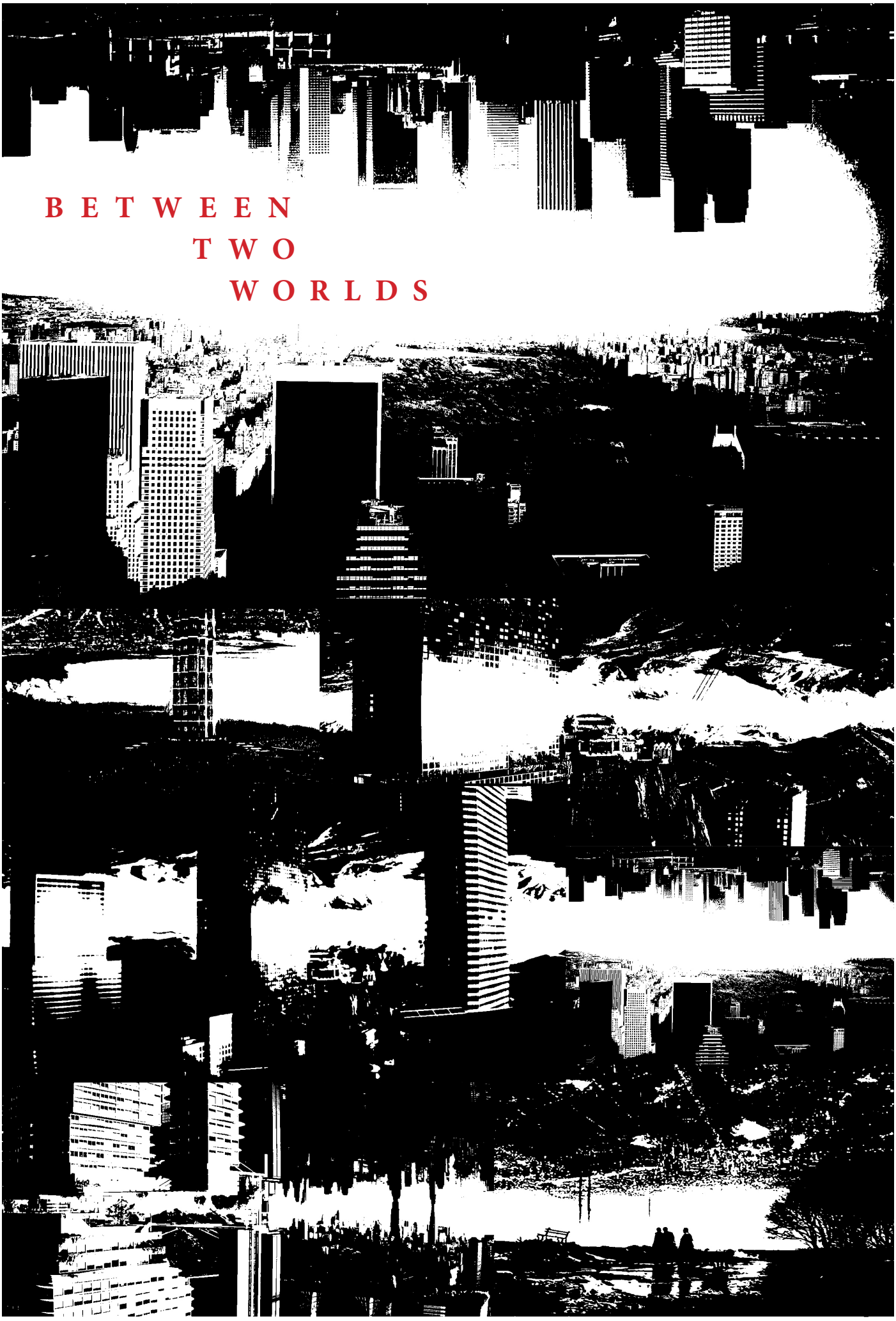
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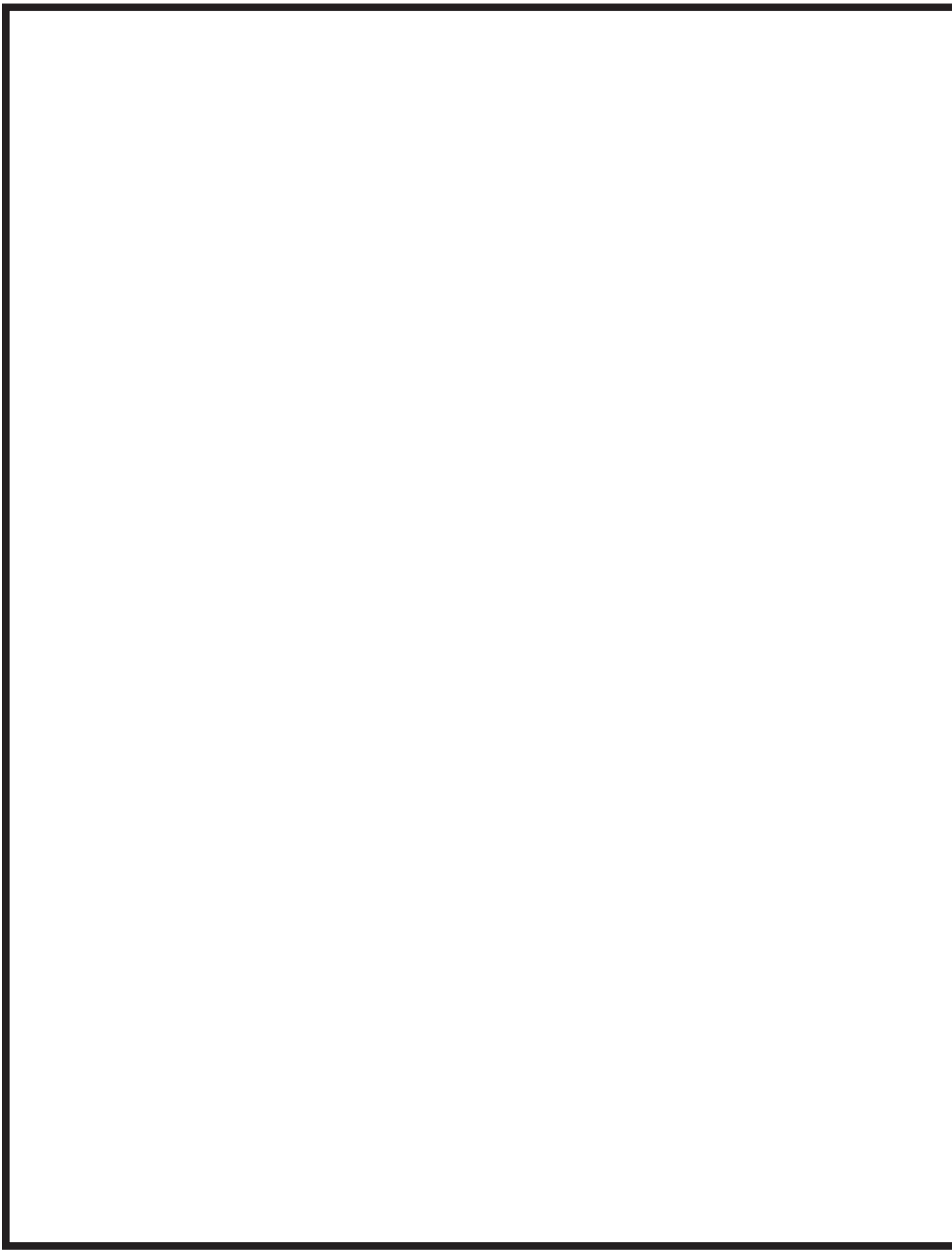

Between Two Worlds
Hagar El Frargy - 1341111

Graduation Studio: Intermediate size
(Eindhoven, 2021)

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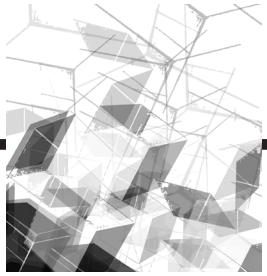
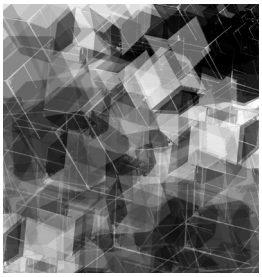
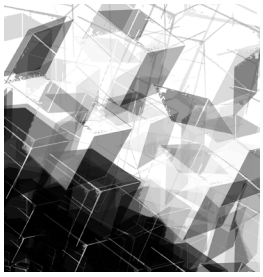
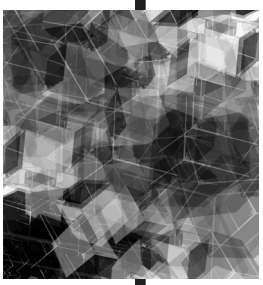


"Personal and social-network communication is supported by digital technology. This means that social and media networks are shaping the prime mode of organization and most important structures of modern society."
-Dijk, J. V. A. G. M. ,The Network Society





"The Internet is no longer a free realm, but neither has it fulfilled the Orwellian prophecy. It is a contested terrain, where the new, fundamental battle for freedom in the Information Age is being fought."
-Castells, M. ,The Internet Galaxy



Preface

This project thesis has two main components where the first theoretical part investigation has lead to the normative position within the architectural discourse. The normative position is seen as the mediate gate between the physical and virtual world. This has formed the second component which is the resolution of a building design forming a demonstration of the objectives outlined in this normative position. The selection of the site is based on its characteristics which give the opportunity to establish these objectives.
A dialog exists between the resource which is presented by the user interface and the congestion of the back-end. This has played a major role in the second component aiming to make people become more aware of their unawareness of lack of privacy.

The primary aim of this dissertation is to question the complex relation between the physical and virtual world and its effect on us in different fields where the social aspect is playing the major role. This thesis and associated project explore and present ways in which architecture is used as a reflection tool of the virtual world, giving the opportunity of becoming more aware of this unstoppable merging world. Architecture can be read as the built form that houses the digital world's interface as well as the back-end of that world.

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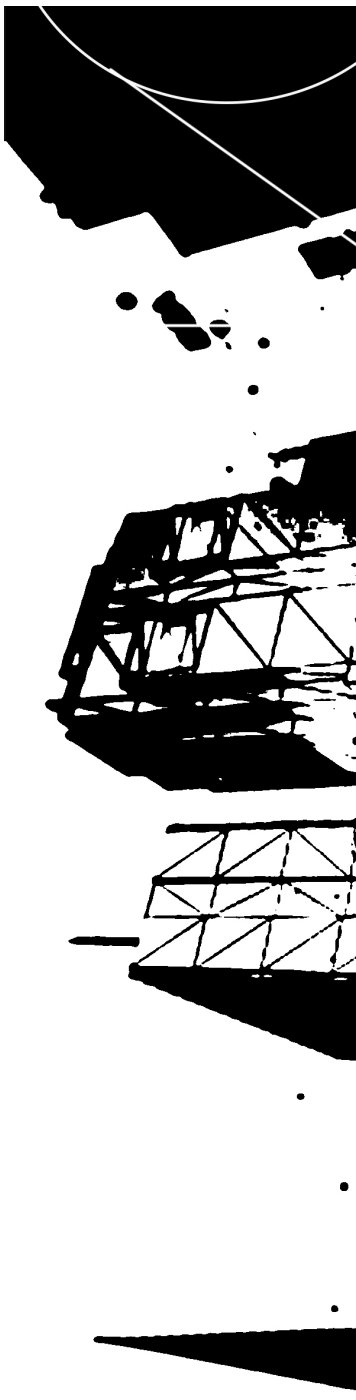
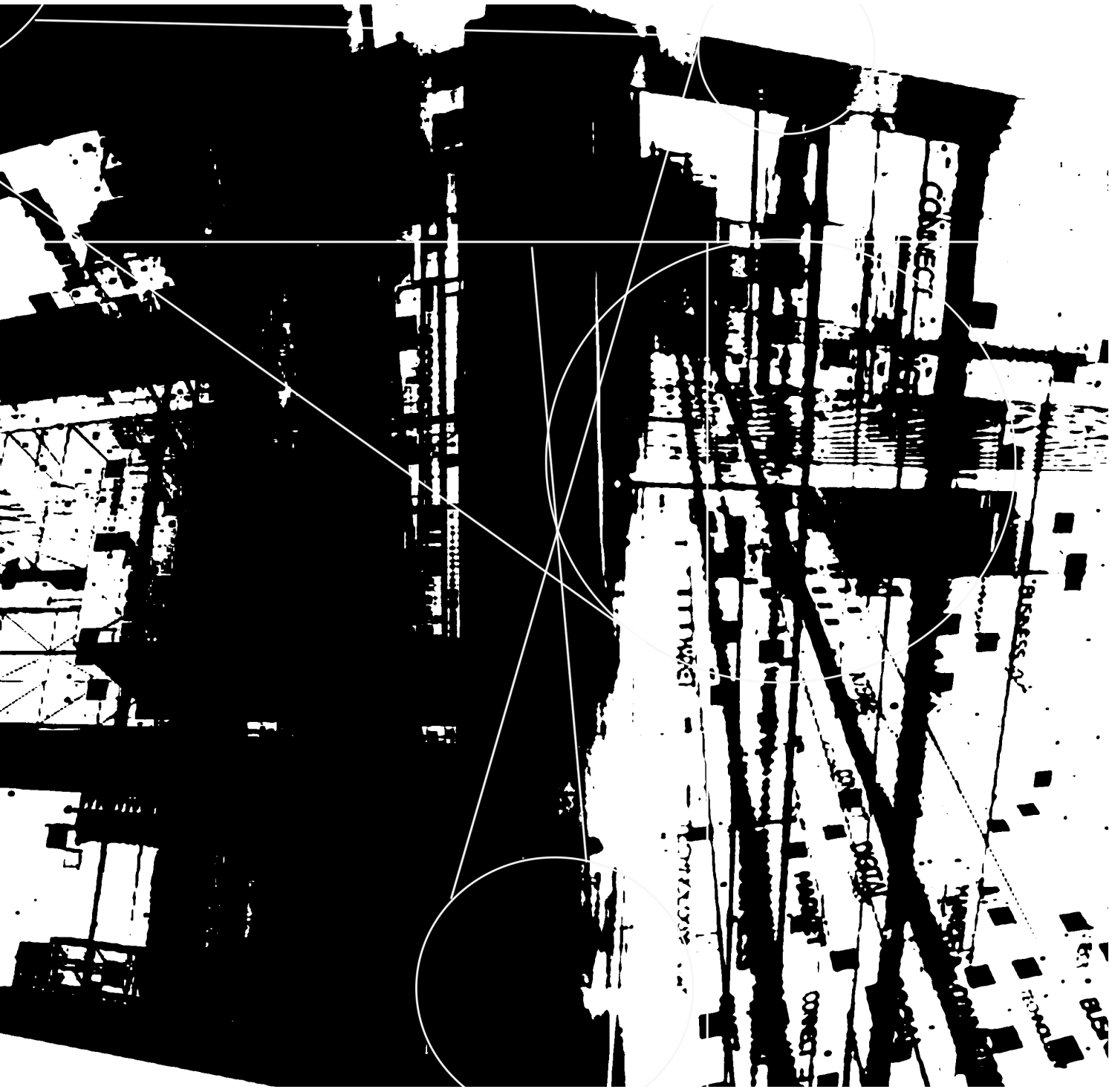
Introduction

The relationship between humans and technology has been reshaped over the millennia where modern technology has become the driving force of our daily lives. It has become too hard to remember how the world was before this revolution, It is even harder to imagine a world without modern technology. Although this integration lost its essence, modern technology is still developing in the sight of dominating every aspect of human life. As a result of this integration, the boundaries between the physical and virtual world have become blurred where we as humans are still overwhelmed by this rapid development accompanied by the lack of knowledge regarding our own source of information.
The effect of data on how we approach privacy and the influence of digitization on the human consciousness is the normative position taken to reach the dialog with architecture. Architecture has played an intermediate role reflecting the mysterious virtual world into the physical spatial world.

Throughout my project thesis, the theoretical part has formed the body which is expanded into the architectural scale. This theoretical part has been created throughout different steps taken. Literature readings, timeline illustrations, real context observations, and taken interviews have shaped the group research ending with a question web open for further investigation. The next step taken is the preliminary individual position where one of the questions has formed the main research point. wherein the concept of spatial experience is established.
To reach its implications on visitors experience deep exploration has taken place where three scales are chosen; The macro-scale where it begins from the bigger perspective of the project location, zooming in on the meso-scale which explains the building design process and how it lands in the physical world. Lastly, the micro-level presenting the materialization and detailing of the building giving the project the sense of reality. The three levels are presented using different tools; Collages, illustrations, drawings, details, and models.



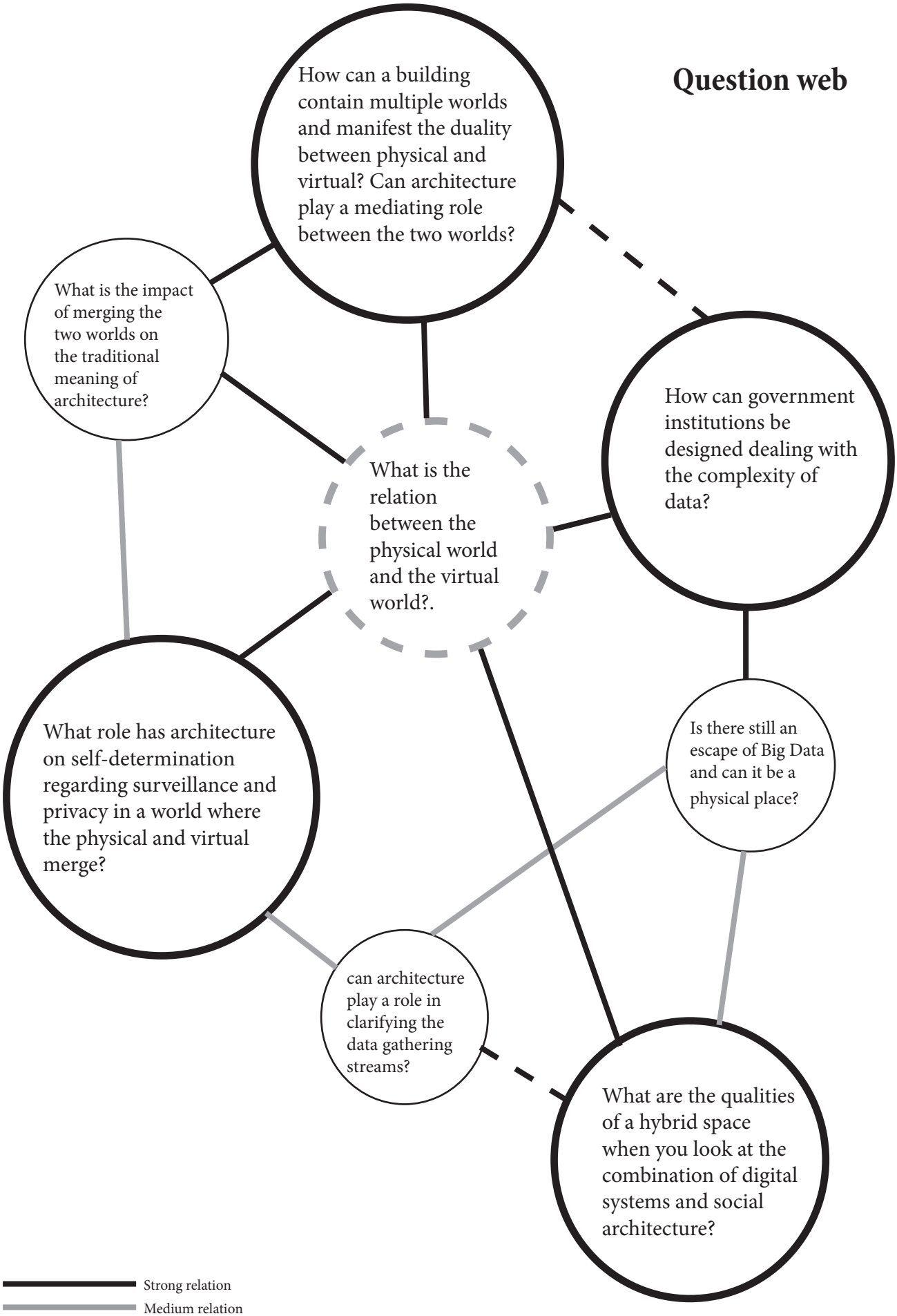

CONNECT

Group research

Beginning with this research, The major question was what influence data has on our society which was reshaped after reading different literature topics, putting our own interpretation into these readings, and drawing some conclusions out of it, to result in questions raised regarding the position of each aspect in this research.
Those questions presented a deeper insight into the different topics beginning with the Macro level questioning the relation between technology and humans and the relation between technology and system. Followed by more specified questions concerning the influence of digital surveillance on the design of public space, the effects of Data Imperialism on the physical city, whether the hybrid spaces represent the merging of the physical and the virtual world.

Regarding architecture, this question web presents the outcome of the different research aspects putting the relationship between the physical and the virtual world as a central point. This root is branched into four individual perspectives questioning the possibility of architecture playing a mediating role between the two worlds, The role of architecture on self-determination regarding surveillance and privacy, the qualities a hybrid space can deliver when merging digital system and social architecture, and finally how a governmental institution can be designed dealing with the complexity of data.

Question web



preliminary individual investigation

Taking the question web as a starting point for the preliminary individual investigation made the central question of the relation between the physical and virtual world become my driving force. The effect of this relation on us humans has become the essence of this project.

A search through literature has taken place where there was a hierarchical order beginning from a more general perspective to form a solid foundation concerning the relationship between humans and technology(Heidegger, 1977) digging deeper into the relationship between humans and systems (Manokha,2018). This rose up the idea of lack of privacy we have reached in the last decade (Floridi,2014) presenting a sequence of events. As a result of this theoretical research two essays have been formulated in this thesis where the project design is partly a reflection of these essays.

Moreover, It is not always possible to express ideas in words, this is why throughout this project different ideas and imaginary visuals have been translated into various collages. These collages illustrate my imagination of how different relationships are established forming the base of the expanded architectural project scale.

The relation between the physical and virtual world

This collage presents the timelapse sequence of the relation between the physical and virtual worlds. beginning from the top part where the two worlds were separated. Going down, new connections has been created while at the down part, it is visible that the connections have become stronger and stronger until it has become part of our nature.

Essay I
New utopian thinking regarding the modern social network

All concepts evolve over time but the social media evolved far more quickly than any other without any warning affecting the whole social life. The rise of the social network is life-changing as it has rapidly evolved to become a second skin for young people.[1] This change has a great impact on the society where it either is part of the mitigation of the social norms or, in contrary, is part of immortalization of them. The base of social network sites entangle how a community can be conceptualized. This framework will be discussed in this essay, Beginning with the origins of the social network, followed by Manuel Castells' frame of The Internet and its effect on society with a deeper insight on Big Data in relation to the modern society by Hal R. Varian. Ending with a reflection on our current time, where the whole social structure has changed due to the outbreak of Coronavirus (COVID-19) and how all these ideas raise the new concept of a cybertopia that can be the future of architecture.

The origins and rapid evolution of the social network

The evolution of the network society has gone through many changes. Early social network sites were designed as profile-centric where they were constructed around a set of profiles that represent individuals in the system. The salience of this aspect has shifted "from a self-presentational message created by the individual to a portrait of an individual as an expression of action, a node in a series of groups, and a repository of self-andother-provided data".[2] Today's social network is used to structure relationships for virtual communities, delineates who has control over which content, and works as a filter by which users can browse profiles and find friends with common interests. These connections are attributed in sociology as a personal social network that varies in importance and value. Social network still has its essence which is reframed in a different image as explained by Nicole B. Ellison[3] and Danah M. Boyd: "Social network sites have evolved, but their foundational activities—sharing content with a bounded group of users—are fundamentally the same. The significance of profiles in the user experience has declined, but profiles as spaces for self-presentation and content distribution are still the anchor of social network sites. Friends lists are still the core organizing principle, but have gone from being a way of knitting together profiles to becoming the "social graph" backbone".[4,5]

The impact of internet on the society

Manuel Castells (b. 1942-) is a sociologist associated with research on the information society and communication who has given us a new understanding of the role of communication systems in shaping society.[6] The first transformational dimension introduced by Castell is the growth of a Me-centered society. This presents a shift towards the reconstruction of social relationships.

---

[1] Castells, M., Gelernter, D., Vázquez, J., Morozov, E., & Hyppönen, M. (2014). Change: 19 Key Essays on How Internet Is Changing our Lives. Rivas-Vaciamadrid, Spain: Turner.
[2] Ellison, N. B., & Boyd, D. M. (2013). Sociality Through Social Network Sites. Oxford Handbooks Online. 8
[3] Karl E Weick Collegiate professor in the School of Information at the University of Michigan. She is best known for her research in the fields of computer-mediated communication, social media, and social networking sites.
[4] Is a technology and social media scholar. She is a Partner Researcher at Microsoft Research, the founder and president of Data & Society Research Institute, and a Visiting Professor at New York University.
[5] Ellison, N. B., & Boyd, D. M. (2013). Sociality Through Social Network Sites. Oxford Handbooks Online.
[6] Howard, P. (2013). Manuel Castells. Oxford Bibliographies Online Datasets. https://doi.org/10.1093/obo/9780199756841-0143

Individuation is the key process in constituting subjects (individual or collective), networking is the organizational form constructed by these subjects. This new organizational form gave everyone who had access an individual power. At first, the power was always with the ones who had control over the source of information, influencing the shape of social norms of the powerless which created a big gap between the two. The Internet has decreased this gap like no other event throughout history ever has.

A study done by Michael Willmott was presented in Castells' essay *The Impact of the Internet on Society: A Global Perspective*[7] ,where it is claimed that this individuation raises people's feelings of security, personal freedom and influences positive feelings. This argument raised some doubts; whether this is really the situation or are people unaware of the control/surveillance practiced over them? The impact of technology on the feeling of control over humans has changed through time; In the past the main way of control was the social control where there was direct contact between a person and another. Whereas, in modern society, this social control has declined depending more on technology system control which is based on the relation between a person and a machine.

The second notion presented by Castell was the rise of mass self-communication, how the communicating power of the Internet is being distributed in all realms of social life, like mobile communication, digital media, and a variety of tools of social software whose language is digital, and whose senders are globally distributed and globally interactive. This allows the unlimited diversity and the largely autonomous origin of most of the communication flows that construct, and reconstruct every second the global and local production of meaning in the public mind.[8] In the social network, the crucial battle is the battle over people's mind, because the way they think regulates and determines the norms and values on which societies are constructed. Societies exist by constructing a public space which is not only a space of communication but also a contested field, expressing the new historical stage in which a new form of society is given birth. This brings us to Castell's main argument; a new form of capitalism has emerged which is driven by the hypothesis of a new society: "*A new society emerges when and if a structural transformation can be observed in the relationships of production, in the relationships of power, and in the relationships of experience*".[9] This new society is the society we are living in and it is changing rapidly into a newer society.

The influence of Big Data on society

In this new society, the decrease in computers and communication prices made it possible to be in the middle of virtually every transaction. This is the society of Big Data. Big Data caused a revolution which Hal R. Varian[10] discusses in his essay (Beyond Big Data).[11] He presents the new opportunities and directions Big Data gave us, where taking full advantage of the potential of these new directions will require developing knowledge in what to do with the massive available amounts of data. In order to construe these directions more accurately,

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[7] Castells, M., Gelernter, D., Vázquez, J., Morozov, E., & Hyppönen, M. (2014). Change: 19 Key Essays on How Internet Is Changing our Lives. Rivas-Vaciamadrid, Spain: Turner.
[8] Castells, M. (2007). Communication, Power and Counter-power in the Network Society. International Journal of Communication , 1. Retrieved from https://ijoc.org/index.php/ijoc/article/view/46
[9] Castells, M. (2010). End of Millennium (2nd ed., Vol. 3). Hoboken, NJ, United States: Wiley.
[10] Chief Economist at Google who is concerned with the economics of information technology.Since 2002 he has been involved in many aspects of the company, including auction design, econometric analysis, finance, corporate strategy, and public policy.
[11] Varian, H. R. (2014). Beyond Big Data. Business Economics, 49(1), 27–31. https://doi.org/10.1057/be.2014.1

Varian formulates them in four different aspects. Beginning with Data extraction and Analysis, he states the problem of having very interesting data without good expertise where a combination of tools, data, techniques and expertise will provide an efficient system. Continuing with the second aspect of Personalization and customization, he considers sharing private information as a key answer to a more personalized digital system. This brings us to the third notion of Experiments; by running experiments it is possible not only to understand causality but also the correlations between data and results.Ending with the forth notion that refers to the possibility of monitoring contracts in new ways, which made it possible to control more aspects and make new services possible such as AirBnB and Uber. All the aforementioned possibilities that Big Data gave us regarding the societal transformation has a strong relation to the aspect of time where in the past,a peak transformation would have taken place over a 100 year timespan, now, it would happen during a short 5 year period and perhaps in th future, there will be a peak every year or even every month which will have a great impact on the whole social life structure.

The society of today

In the offline world, the physical world preserves multiple social relationships. These relations can vary from the weakest to the strongest network, which are visible in many different frameworks like family, work, school or sport. This physical relation is very hard to reach in a virtual world where the intimateness is much less than the reality.

Currently, Social structure is highly affected by the Coronavirus (COVID-19) -which broke out in winter 2020- on both; the physical and the virtual aspect. We are now witnessing one of the most important breakpoints in history. For the time being,the social life in the physical world has lost its identity due to social distancing where the network society became the platform for almost all kinds of activities like holding meetings, contacting family, or even having a party. To grasp a feeling on this new phenomena, an observation was done. Taking a walk through the eastern side of Amsterdam where I have lived since born, it was undeniable that the whole life structure has changed. The busy streets became almost empty, the social meeting spaces became hollow and people became isolated from each other. The city became a place without a soul, a space with a lost dimension.

The relation between the two worlds in Architecture

As technology evolves, the physical and virtual world are merging together becoming one, making the cyber future unquestionable. Referring to the interview with Martin Pot,[12] he mentioned the Utopian concept in his personal blog where he explained more about his idea about the relation between utopia and architecture: “With regard to architecture, Utopias are timeless. More than 100 years ago, utopian projects have been designed, formulated as a response to progressive development from a level of dissatisfaction with the current situation at the time for various reasons.” In the opinion of Martin Pot, we are obliged to think differently and to intervene our lives in a more utopian way. The concept of a hybrid futuristic world can be traced back to the ideas of Buckminster Fuller[13] and his design for the Dymaxion House.[14] This house was a display for a revolutionary design presenting an innovative and influential idea.

[12] An interior architecture,since 2015 he got more involved in the technology field, IoT and the built environment,working on research in the field of Data and Architecture.
[13] An American architect, systems theorist, author, designer, inventor, and futurist.Fuller published more than 30 books, coining or popularizing terms such as “Spaceship Earth”, “Dymaxion” (house, car, map…), ephemeralization, synergetic, and “tensegrity”.
[14] Merin, G. (2019, February 9). AD Classics: The Dymaxion House / Buckminster Fuller. Retrieved from http://www.archdaily.com/401528/ad-classics-the-dymaxion-house-buckminster-fuller/

Fuller introduced many new concepts at that time (1928) that were a breakthrough architecture such as flexibility and sustainability. His ideas could be compared to the idea of a cybertopia today. The word "Cybertopia" is a combination of the word Cyber and the word Utopia[16] which illustrates a space where the physical and the virtual worlds merge allowing a new context for the human society. This context illustrates a new community where there is no limited reality and can be perfect. A case study of this imaginary space is the project of Egor Orlov; a student who had a strong statement assuring that the physical world is on the edge of a great technological breakthrough reforming the way architects conceive space – closing the gap between physical and digital. According to Orlov, "technological development gives these worlds an opportunity to blend more naturally, transforming cyberspace into a component of the city, enabling a new environment for human life."[17] In his project ,he tries to "Rethink the future" of Urban centers. Where in the plan, all components of an urban center will be present but redesigned to fit new uses for present features. This concept made me wonder if a cybertopia would be the lost dimension of the city presenting the future of architecture?

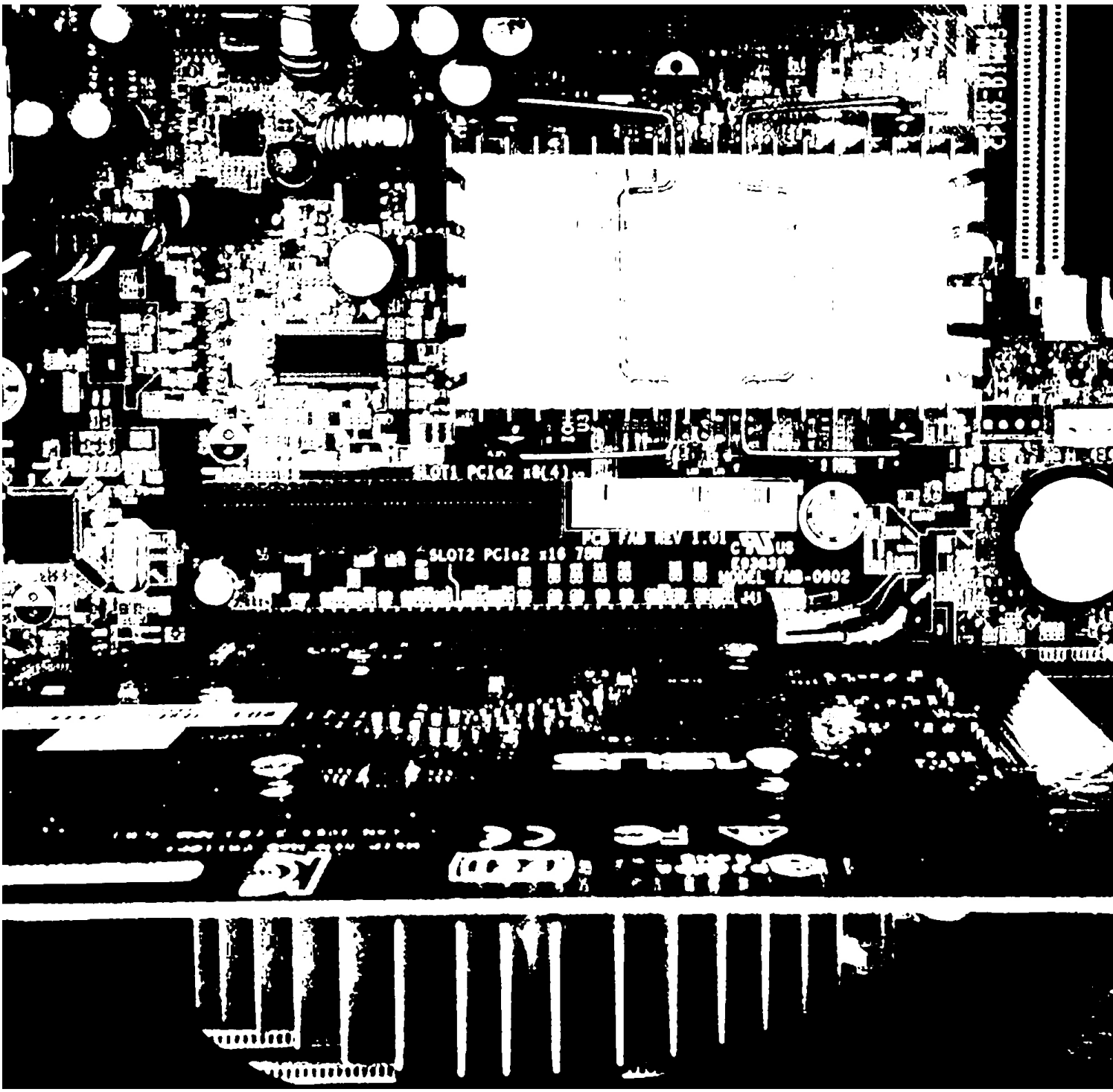
Conclusion

In conclusion, The rise of the network society has affected the world dramatically. It has introduced a whole new world, a virtual world where social connections can be found. These connections have created a virtual community with a unique social structure. The impact of this new social structure has many different aspects where the society became more powerful. It has constructed the mass self-communication society which has the possibility of endless diversity and the largely autonomous origin production of meaning in the public mind. All these possibilities and their involvement through time resulted in a new society where Big Data is the main engine. Big Data has provided this society with new opportunities for further development which is changing rapidly. Considering the time we are living in now this social structure has been remodeled into a space where the physical and social worlds are blending together. Living in the time of the Coronavirus gave the chance to explore the division between the physical and the virtual world more clearly. Although this is a difficult situation, it gave us a new insight on how a world would look like with less physical interaction and more absorption into the virtual world which gave a feeling of a lost dimension. In this society the gap between the two worlds is getting to its minimum where the lost dimension can be found in a cybertopia. Regarding architecture and technology, cybertopia shapes a new society where everything is possible - moving, deleting, copying, pasting, etc - of the newly designed society space. Finally this idea brings us to the main question whether this new concept will be presenting one of the future scenarios where architecture plays a mediating role between the two worlds?

[15] Relating to or characteristic of the culture of computers, information technology, and virtual reality.
[16] An imagined place or state of things in which everything is perfect.
[17] MacLeod, F. (2014, December 7). Cybertopia: The Digital Future of Analog Architectural Space. Retrieved from https://www.archdaily.com/575874/cybertopia-the-digital-future-of-analog-architectural-space

Technology as our second nature

This collage is structured from down to top; beginning with the idea of nature as the primary source of human development going up to the more organized urban morphology. This organization has been going alongside with nature until the moment where modern technology has overpowered this relation and technology has become our second nature.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Analysis

During the preliminary investigation, case study analysis has taken place, where the relation between digital transparency and physical transparency has become more clear. Today individuals' trust is however negatively affected by a lack of transparency, particularly in a big data environment. Individuals are indeed not always aware of the exact nature of the processing activities and of the logic of algorithms and the decision-making process behind big data analytics. This challenge is even more important considering citizens' limited knowledge about big data analytics, particularly the possibility to combine individuals' personal data with other accessible data, allowing them to make more accurate and broader decisions or predictions[1]. In physical transparency, it is a correlation where individuals are aware of being watched from the inside as from the outside, unlike digital transparency where this relation is vague and undefined.

1-*Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.*

Case studies

In this analysis, the ratio between the two themes -physical and digital transparency- will be further investigated in order to get a better understanding of how architecture can use different elements to present both digital and physical transparency. To show the strong contrast only two colors are chosen which makes it strongly visible.

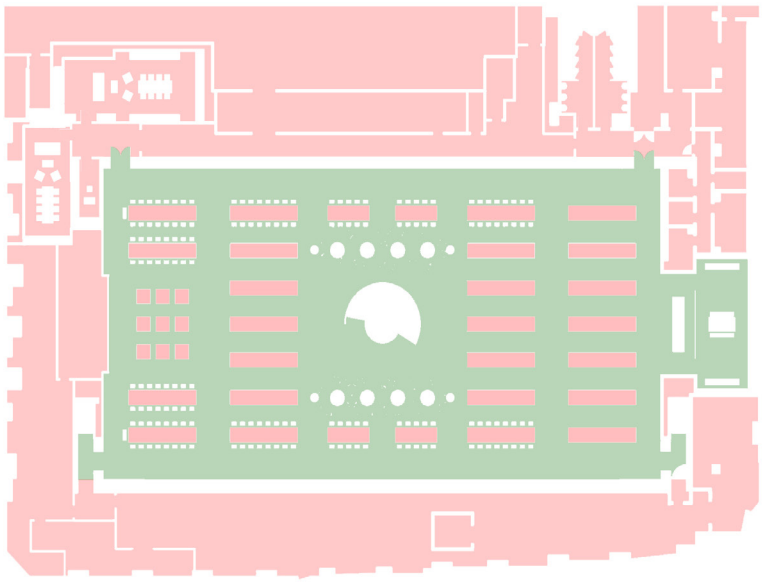
The first project is chosen to get a deeper understanding of whether the physical transparency used in the building especially the entrance reflects the digital transparency in this building or not. The second project presents a closed box which makes it more difficult to expect what the relation between physical and digital transparency is.
Due to this difficulty, the analysis has been made on the exterior of the buildings as well as the interior.

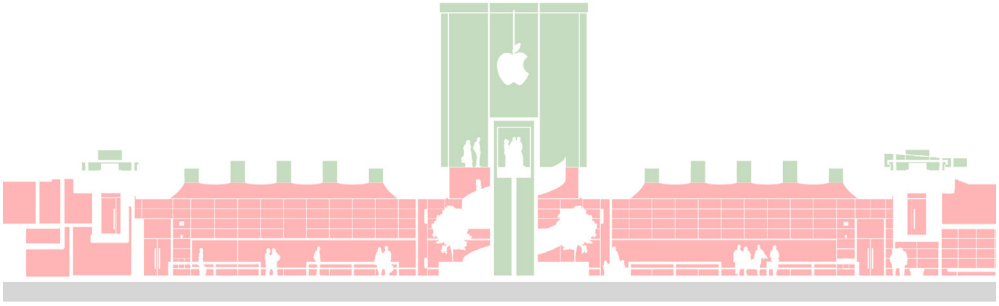
Apple store (Newyork)

"At the center of the plaza is the distinctive glass cube, signifying the hub of activity and drawing life into the store below. Visitors descend under the light-flooded glass cube, down a new circular lift and spectacular stainless-steel staircase. Each element from the elevator drum to the stair treads is made with mirrored stainless steel, reflecting the sights and energy from the surrounding area. The carefully chosen materials completely dematerialize the form and the infinite reflections of light and the skyline create an exciting and stimulating experience"[1].

1-Pintos, P. (2020, July 29). Apple Store Fifth Avenue / Foster + Partners. Retrieved from https://www.archdaily.com/925305/apple-store-fifth-avenue-foster-plus-partners

Plan & section





Interior

Digital Transparency

Physical Transparency

Cyber center

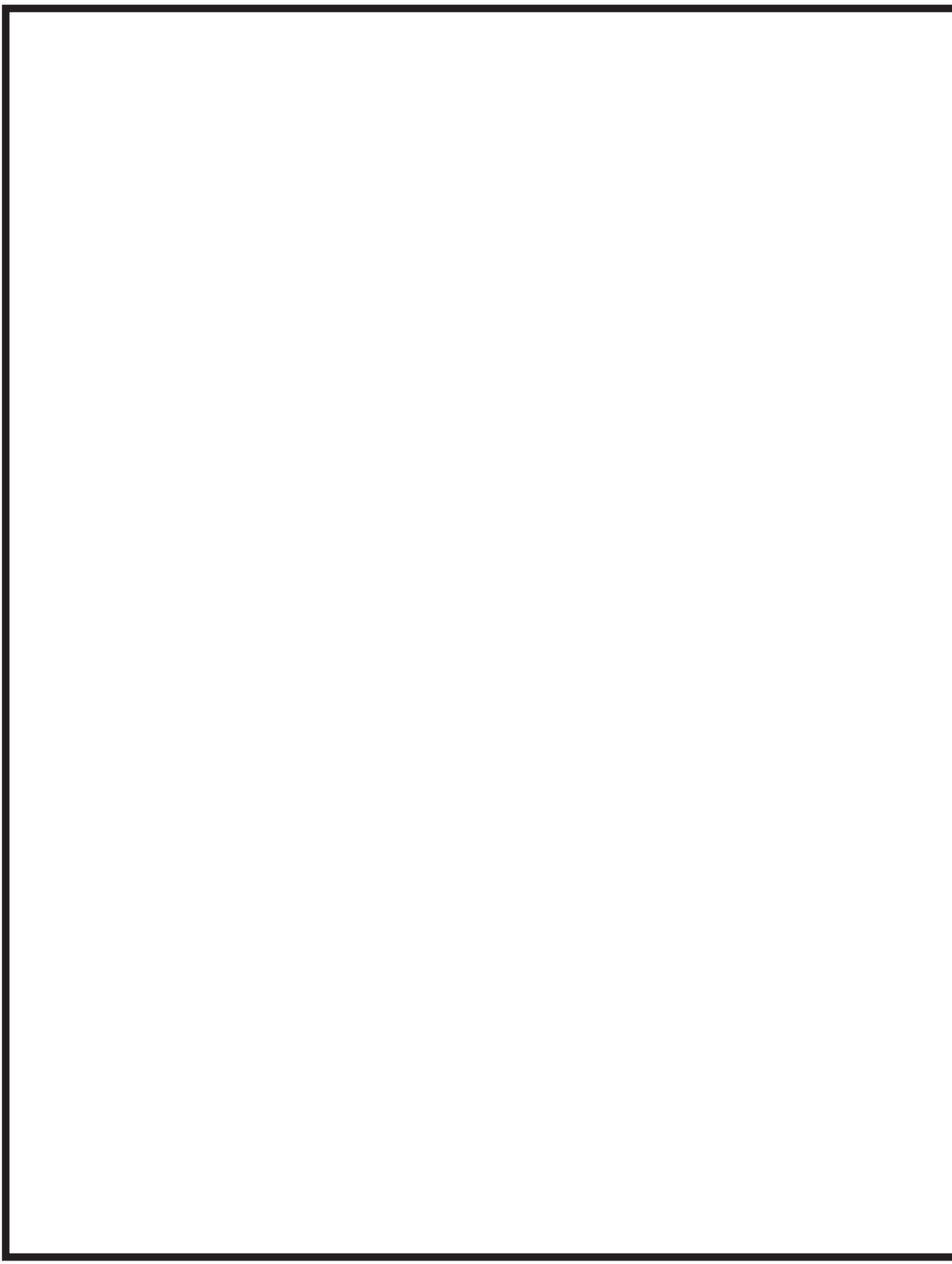
"It is a simple and overwhelming piece where computer classrooms, workshops and offices are placed. It creates a singular view, focal point in this district area. The flat roof is offered as a terrace to hold events and as river viewing point, retrieving this way, the occupied free space, to be used differently by neighbours"[1].

1- Rosenberg, A. (2019, October 24). Macarena Cybercentre / Mediomundo. Retrieved from https://www.archdaily.com/110721/macarena-cybercentre-mediomundo

Plans & section

Digital Transparency

Physical Transparency



Findings

From the previous case studies, it is clear that digital transparency is not reflected in physical transparency.
The first case study analysis made it clear that the glass box presenting a clear view of physical transparency does not have any reflection of the inside; it is a box where all kind of information is gathered about the visitors without being aware of it. This presents a massive lack of digital transparency where in this relation, the user is mostly unaware of the informational control that is being enforced over them.

For the second case study analysis, It is obvious that the red color which demonstrates digital transparency is dominating the exterior of the building. Taking steps towards the inside the green color is taking more space as the physical transparency is becoming more clear. This represents the idea of being aware of how taking a step closer towards this box is akin to stepping closer to losing more personal information.

This analysis gave a better understanding of how the relation between physical and digital transparency can be constructed to have both a strong reflection on each other.

Time
Time

Technology
Transparency
echnology

Essay II
Between hope and anxiety

Technology has been evolving rapidly affecting every aspect of human life making the cyber future unquestionable. This information technology revolution poses some challenging questions such as whether we will be able to reap their benefits whilst avoiding their consequences? What is the best way to enforce, coordinate, and determine the best technological transformation? Are these new technologies going to paralyze us, or will they inhibit and constrain our physical and conceptual spaces?. These questions declare the existence of a gap between the physical world and the rapidly evolving digital world. We are on the edge of a great technological breakthrough reforming the relation between humans and technology. However, the effects of this relationship on our physical world regarding architecture have been one of the less investigated issues. Therefore this project aims to: 1-identify and explain some of the deep technological forces affecting our lives where individual's privacy plays the main role. 2-Find the intersection between these forces and architecture.

New understanding of privacy

Technology presents the door to the future which is transforming the physical world into a computing platform. It is creating and framing our intellectual and physical realities, transforming our self-understanding, reshaping how we relate to the different surroundings, and improving how we interpret the world profoundly, and relentlessly[1]. According to Manuell Castell: Any process of major technological change generates its own mythology[2] which produces and modifies the endless process of interaction between technological production and information use. The societal understanding of what privacy enfolds is bound exclusively to the characteristics of the new communities we are living in. In today's world the traditional conceptualization is not enough to provide individuals with satisfying knowledge of digital privacy. This new platform has completly changed the way our information is stored, used and most importantly shared.

The only societies threatened informationally are the societies that live hyperhistorically. " Only those who live by the digit may die by the digit "[3] as states by Floridi[4], this shift made us live in a society where the infosphere has become the main answer to the question: what type of environment are we building for ourselves and for the future generations?. Infosphere is a neologism that Floridi coined years ago on the basis of "biosphere", a term which refers to the livable regions on our planet. It denotes the whole informational environment constituted by all informational entities which are comparable to cyberspace regarding informational structure connections. Our generation is becoming more and more dependent on technology for every kind of functioning and production. Automatic modernity still depends on humans however, it is possible to perceive an entirely existing and growing automated system independent of human cooperation.

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[1] Floridi, L. (2014). The Fourth Revolution. Oxford, United Kingdom: Oxford University Press.
[2] Castells, M., Gelernter, D., Vázquez, J., Morozov, E., & Hyppönen, M. (2014). Change: 19 Key Essays on How Internet Is Changing our Lives. Rivas-Vaciamadrid, Spain: Turner
[3] Floridi, L. (2014). The Fourth Revolution. Oxford, United Kingdom: Oxford University Press.
[4] Professor of Philosophy and Ethics of Information and Director of the Digital Ethics Lab

Illustrative reflection

As a reflection to this relation, a set of collages are presented that aim at translating the said relation. The first illustrates the historical evolution of the relation between the digital and the physical world beginning with two separate worlds with unseen connections, going down introducing the new links between them getting stronger and stronger until it becomes a part of our daily life.Taking a deeper insight into this general image leads to the next collage where it becames clear that this relation made technology become our second nature. The clarification derived from these collages left one question unanswered: are we as users of this technology aware of the side effects it has on us?.

The effect of technology relation to its surroundings

"One of the most obvious features that characterizes any technology is its in-betweenness"[5].This statement is presented by Floridi in the Space chapter where he begins to discuss the different ways technology relates to its surroundings. He makes a distinction between three relations: Firstly, the first-order relationship where technology works in between humans and nature like an umbrella, it is a first-order technology between the user and the prompter. Secondly, the relation where technology no longer relates humans with nature but with another type of technology. This is a second-order technology, an example of this relation is a screwdriver where it is used in between the user and the screw which is in itself a different kind of technology.Lastly, the sweeping leap, where technology is in between technology and technology, this means that humans will merely have control over these technologies and will only be relying on them. All the aforementioned relations position technology in the center of everyday's life activity. The amount of data is increasing incredibly and the value of the network is evolving almost vertically, nevertheless, the speed of our physical and conceptual communication (space & time) are very behind where technology and data networking still does not transcend the Spatio-temporal anchors that have always controlled our physical life. This life was introduced by Castell's main argument that is; a new form of capitalism which is driven by the hypothesis of a new society: "A new society emerges when and if a structural transformation can be observed in the relationships of production, in the relationships of power, and in the relationships of experience"[6] . In this new society, digital transparency has become almost unreachable due to the decrease in privacy and enforced surveillance. Today individuals' trust is however negatively affected by the lack of clarity, particularly in a big data environment. Individuals are not always aware of the exact nature of the processing activities, who has control on which content, the logic of algorithms, and the decision-making process behind big data analytics[7]. This imbalance in knowledge creates an asymmetrical relation confirming the fact that individuals are used as sources of information.This relation can clearly be understood by the state of Zuboff, "The real psychological truth is this: If you've got nothing to hide, you are nothing."[8].

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[5] Floridi, L. (2014). The Fourth Revolution. Oxford, United Kingdom: Oxford University Press.
[6] Castells, M. (2010). End of Millennium (2nd ed., Vol. 3). Hoboken, NJ, United States: Wiley.
[7] Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.
[8] Zuboff, S. (2019). The Age of Surveillance Capitalism. London, UK: PublicAffairs.

Assumptions leading to the privacy issue

On the contrary, living offline, inscribing, and enveloping the physical world preserves different relationships with many information sources. These relations can vary from the weakest to the strongest network which reflects honesty and truth. An imaginary example of this is introduced by Floridi where he assumes that the walls and furniture of a specific ward become all transparent, this will dramatically affect the ontological systems of these people. Followed by the imagination of these inhabitants to become mind-readers and telepathists which will make any type of informational privacy -like Bentham's Panopticon[9]- impossible[10]. Ending with the assumption where the inhabitants become blind with the same transparent walls and furniture, this will not affect the ontological systems of these people as they are not aware of these transparent walls around them, but it would completely change the information privacy and accessibility. The third assumption reflects the era we are living in now which made it almost impossible to control our own source of information creating a feeling of anxiety not only for ourselves but also for future generations.

Intersection between architecture and the privacy issue

Through the last years, we have become habituated to defining our life as a combination between human agents and digital environments forming new virtual communities. Hope is presented through these virtual communities which are modifying our world as well as creating new possibilities and developing informational interpretations of our lives. The digital world is overflowing with the offline world and the threshold is becoming less visible making the individual's digital awareness almost unreachable. The dialog between this threshold and architecture appears at this point, where architecture plays a mediating role, presenting digital transparency through a spatial experience giving the feeling of both hope and anxiety; Hope of getting closer to the unknown truth and Anxiety of not being able to reach the full truth nor a part of it.

Annotating the digital world into the physical world reflects the spatial concept of in-betweenness which is clearly defined in the concept of heterotopia. The concept of heterotopia marks a major change in the way of defining different spaces. Foucault[11] Defines a heterotopia as a space that disturbs the ordinariness of the common everyday places 'other place'. It is suggested and utilized to deconstruct spatiality and linearity (time) as theological binary concepts[12], which can be translated in the architectural language to a labyrinth. Moving through a labyrinth strongly affects the whole circulation and the feeling of time it can have both a linearity and non-linearity aspect, it can get you to places where the time stands still and other places where the time is moving in continuity, which can be determined by the positions of the user in spaces that are richly related with each other. Features such as concealing, revealing, hiding and unfolding change immediately and unexpectedly but sometimes they happen together simultaneously[13]. It performs an extreme of how architecture transforms spatial closeness by the arrangement of boundaries and connections.

The concept of the labyrinth is not only about the rich intersections and narrowness of circulation system components but also relationships, positionings, and scattering of a variety of spaces. The labyrinth allows both creating private (individual) and public (common) spaces with its flexibility of open and closed conditions of connectivity and visibility.

[9] Manokha, Ivan. 2018. Surveillance, Panopticism, and Self-Discipline in the Digital Age. Surveillance &Society 16(2): 219-237

[10] Floridi, L. (2006). Informational privacy and its ontological interpretation. ACM SIGCAS Computers and Society, 36(3), 37–40. https://doi.org/10.1145/1195716.1195720

[11] French philosopher, historian of ideas, writer, political activist, and literary critic. Foucault's theories primarily address the relationship between power and knowledge, and how they are used as a form of social control through societal institutions.

[12] van Wyk, T. (2014, 4 september). Church as heterotopia | van Wyk | HTS Teologiese Studies / Theological Studies. Geraadpleegd op 21 november 2019, van https://hts.org.za/index.php/hts/article/view/2684/4789

[13] yazar, G. (2019, 2 april). Labyrinth Concept in Architecture. Geraadpleegd op 21 november 2019, van https://yazargokcenur.wordpress.com/2019/01/17/labyrinth-concept-in-architecture/#:%7E:targetText=Features%20such%20as%20encapsulating%2C%20concealing,or%20even%20extension%20of%20space

While the individual rooms can be distanced from the intersection points of circulation and their visual relationships are cut, common areas can be located at the points where many intersections are overlapped to create a feeling of disorientation reflecting the difficulty of finding the save way to take while using technology.

The architectural dimension

The complication of this topic and more specifically the difficulty of reaching the discourse with architecture has been a driving force to think and intervene differently. Using physical/virtual space simultaneously to implement conditions that are a sum of human and non-human relations is one of the used methods, where analogy reflects the virtual world into our physical space through architecture. Architecture resembles the gate between the two worlds providing some insights into that mysterious world. A journey is illustrated towards more knowledge where individuals write their own script presenting the infinite possibilities of privacy perception. This insight is compromised by moving from the large-scale to the smaller scale beginning with a general perspective about the use of technology and ending with an informational reflection on each step taken towards the unknown truth.

The unknown truth through architecture

This collage presents architecture as the gate to the unknown giving the feeling of light at the end of the tunnel, raising up the question of whether we will be able to reach the truth or will we keep on sinking in this undefined world.

The Intersection

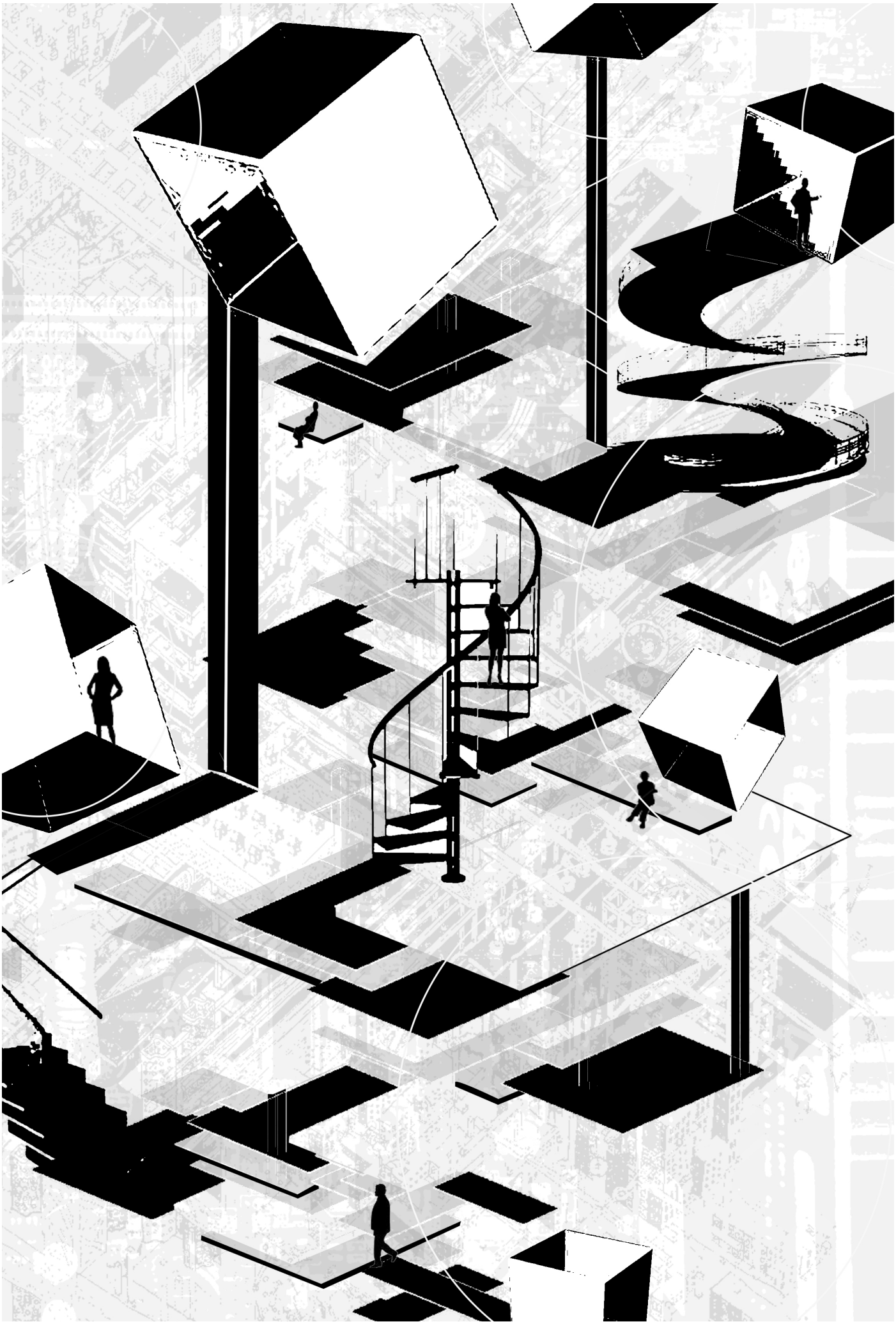
Architecture

Project hypothesis

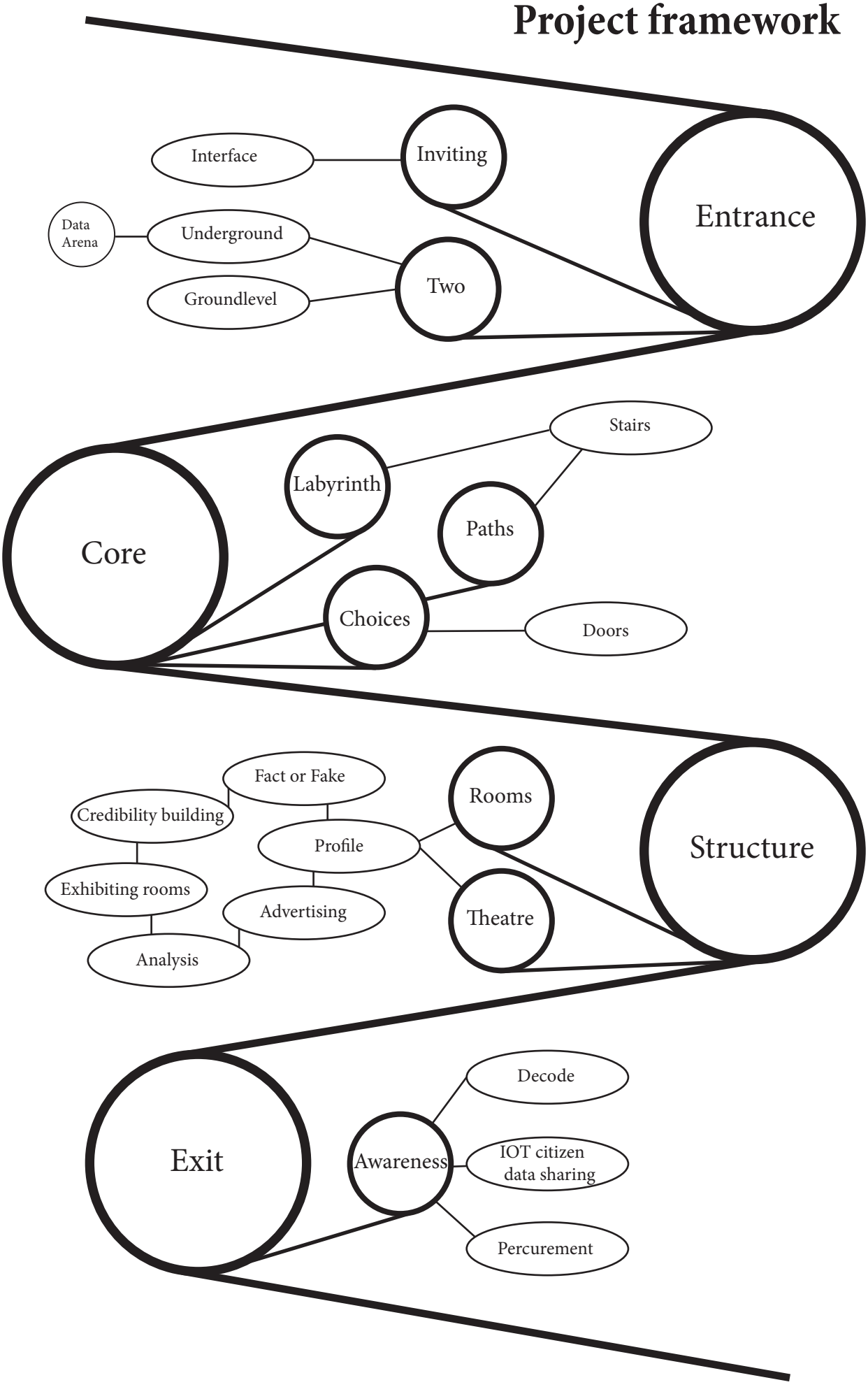
What if we can see what is behind the black screens ?....

The boundaries between the digital and the physical world have become blurred where the digital development has overpowered us making us unconscious of what is happening around us and how our information is being used and controlled. Therefore, in this project, the aim is to make people more aware of information control and privacy in a data-driven society.

Architecture will make the digital world come alive by reflecting what to expect and how that mysterious world works through the physical spatial experience. Creating a new level of awareness can make us dig and grab some guidelines through this educational building. This mid-scale will take the visitors through an adventure presented by the spatial experience.



Project framework



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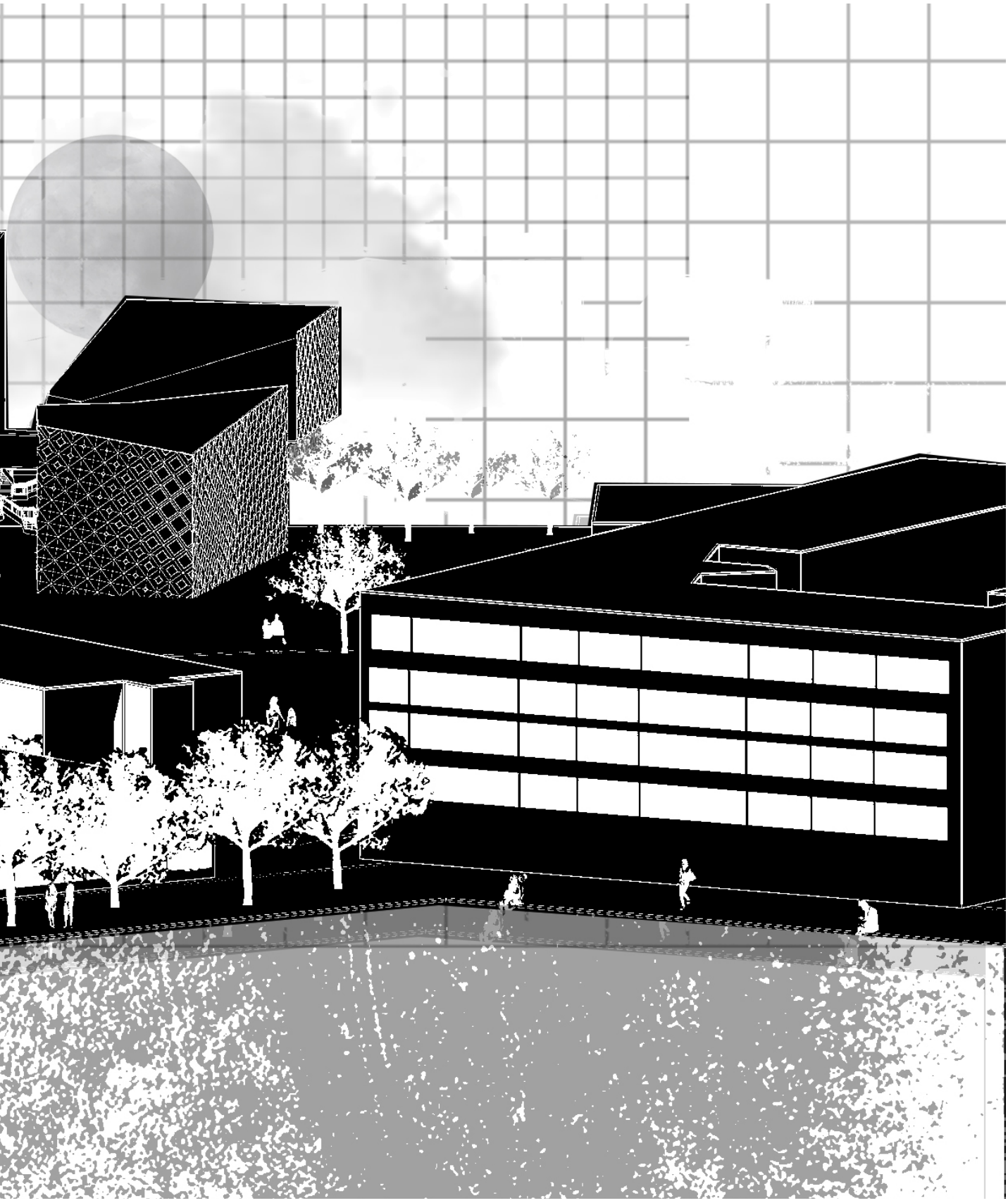
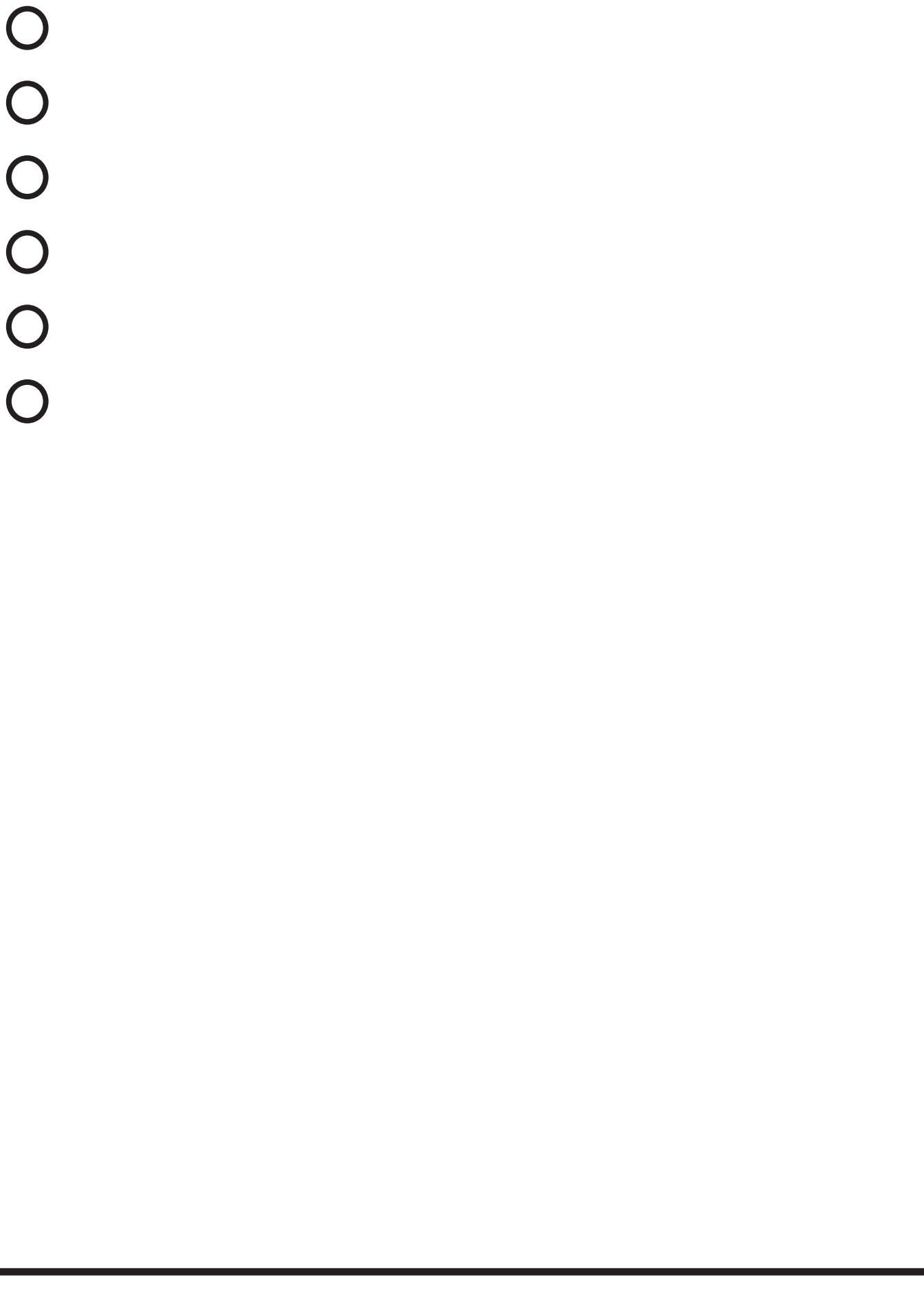




Macro level

Project Location

Marineterrein Amsterdam

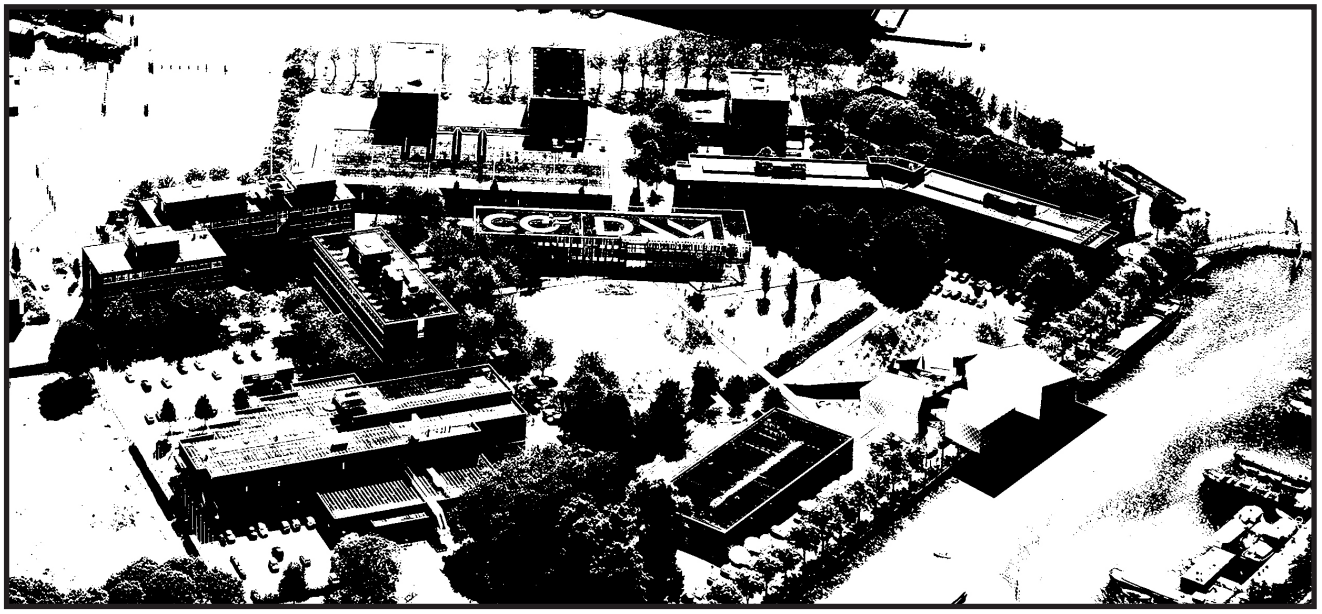


Image 1

Location frame

In this project, the social aspect is one of the most important aspects as the visitors will be both the actors in this theatre and the audience therefore this location is chosen. The Marineterrein is becoming a new city quarter which plays a role as a living lab in a flexible area that provides many possibilities to develop tests and research, in a real-life urban context.

Social aspect

The social aspect plays an important role in this project where the visitors will be the actors.

Living lab

An integrated system of amenities, including an infrastructural backbone, such as power, data, and water, makes setting-up the test areas relatively easy. We strive to make testing and experimenting 'plug-and-play', in a flexible area that provides many possibilities to develop tests and research, in a real-life urban context.

City Center

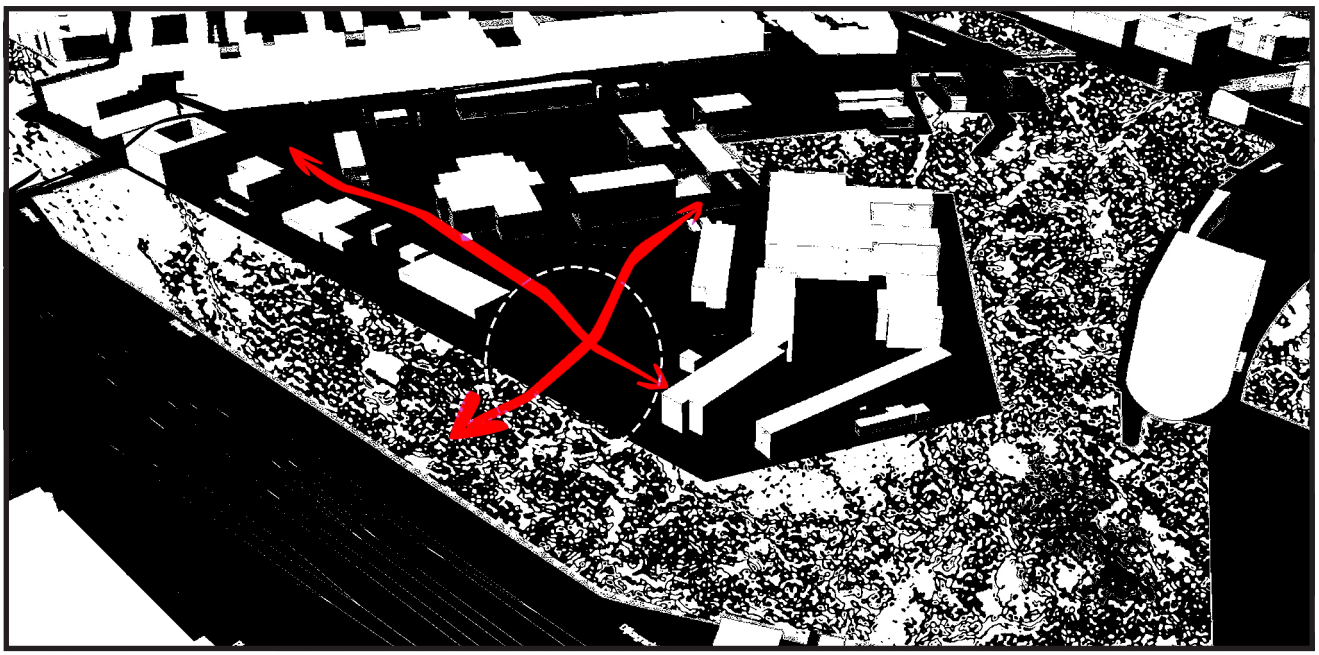
The Marineterrein is an area with a beautiful location and a rich history. Step by step it changes from a closed military area to a more open, new city quarter. With more compact barracks space will be freed up to develop the Marineterrein into a new part of the city where people can learn, live, work, play sports and recreate.

AMS

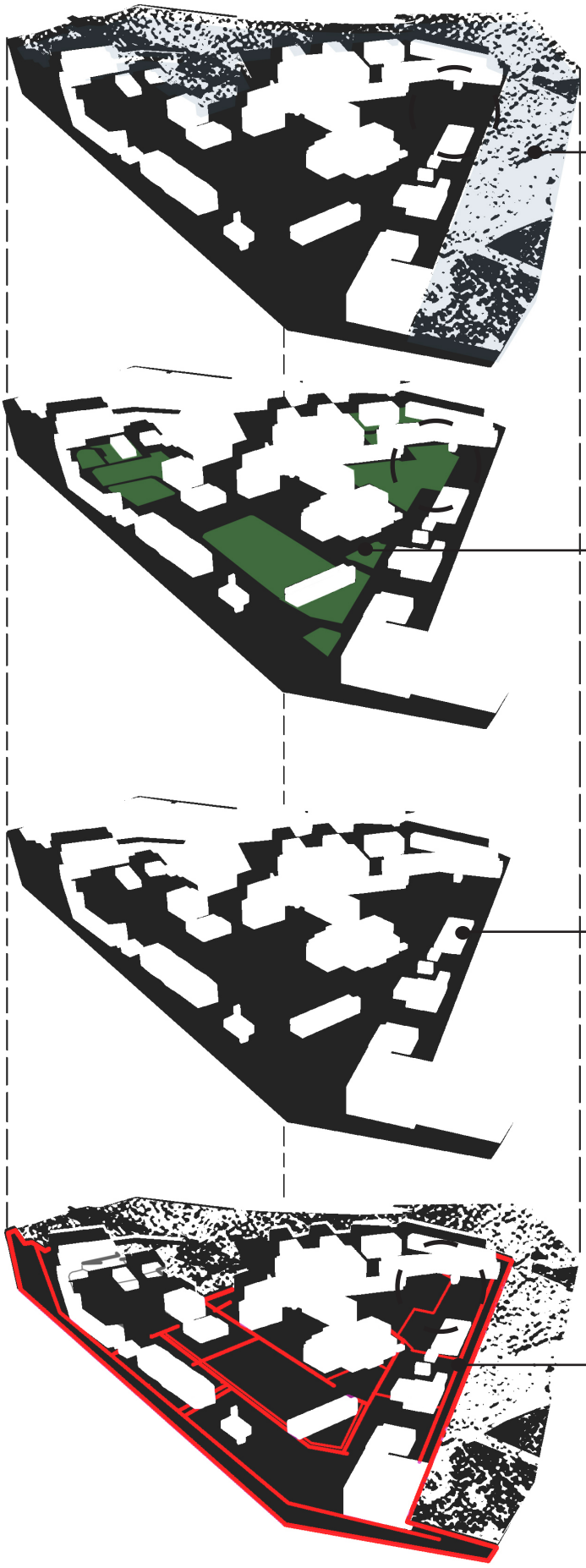
Their mission is to develop a deep understanding of the city – sense the city – to design solutions for its challenges, and integrate these into the city of Amsterdam. We do this through three main activities: education, research & valorization, and data.

Site concept

The virtual world has merged into our lives as our second nature, and so will be this project by being integrated into nature. The building is located on the waterside. The two main lines -entrance and view towards water- are splitting the building into 4 different fomrs connected by a labyrinth staircase fuctioning as a guidiline between them. The buildings are shaped to give the feeling of insurance of what to be expected next which created different moments of orientation and disorientation.



Different layers



Water boundaries

The water layer is one of the most important layers as it is a strong representation of nature in this area.

Green areas

The green areas are divided into different plots in that area where the project location is one of the richest.

Buildings

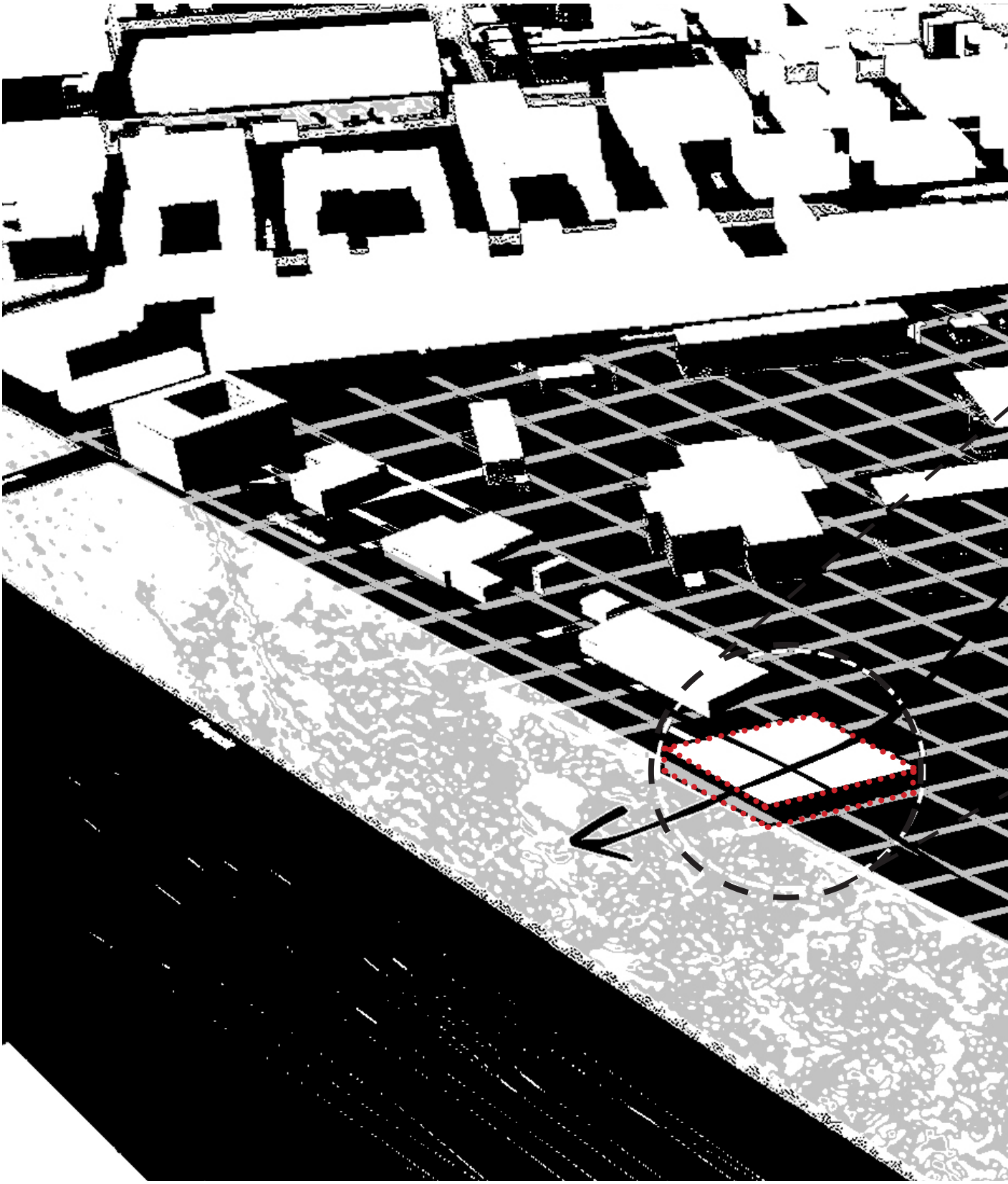
The buildings in the area vary from 1-5 story high buildings which have different functions like offices and educational building.

Main roads

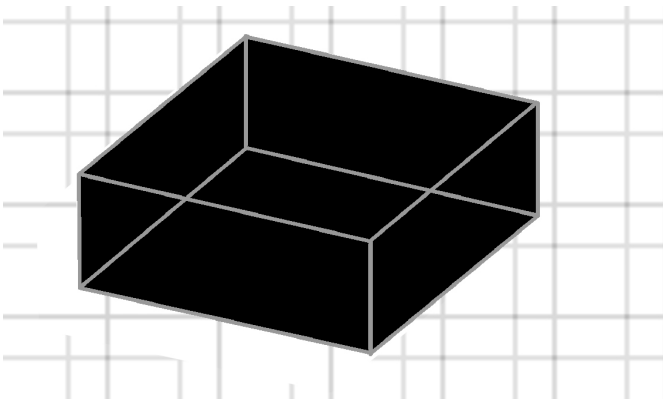
One main road crosses the location edge branched into sub-roads reaching the building spot.

Grid system

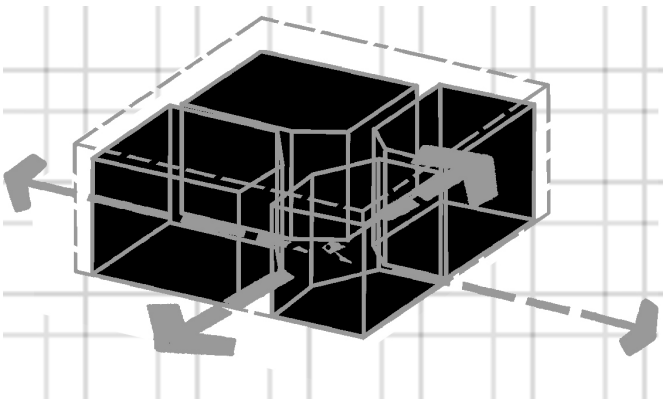
Due to the location outlines two main perpendicular grids are illustrated in order to shape the form of the single box. A third grid has taken place connecting the two main grids diagonally rotating the box to be seen from all directions around the building site.



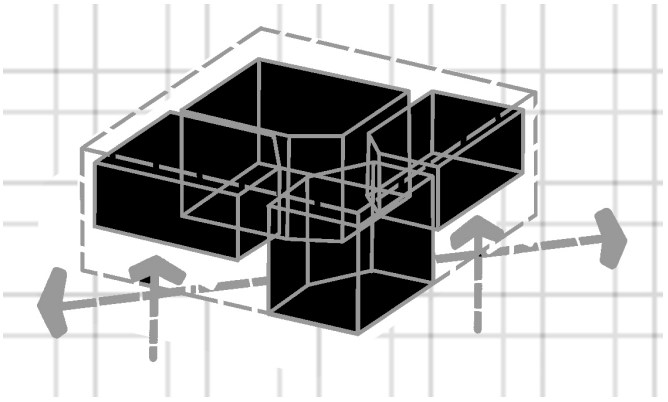
Concept Diagram



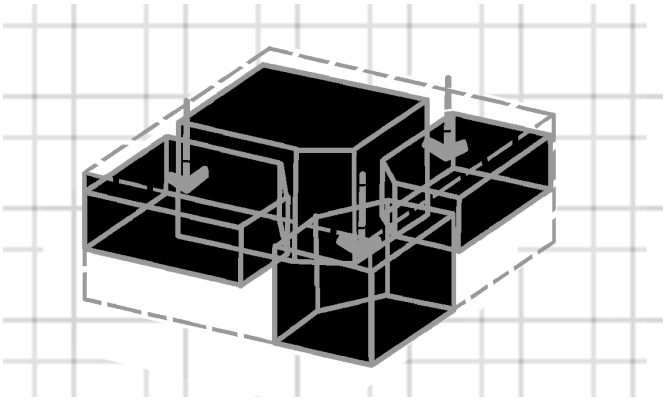
The mass is a closed box taken from the site grid lines illustrating a metaphor of the world behind the screens.



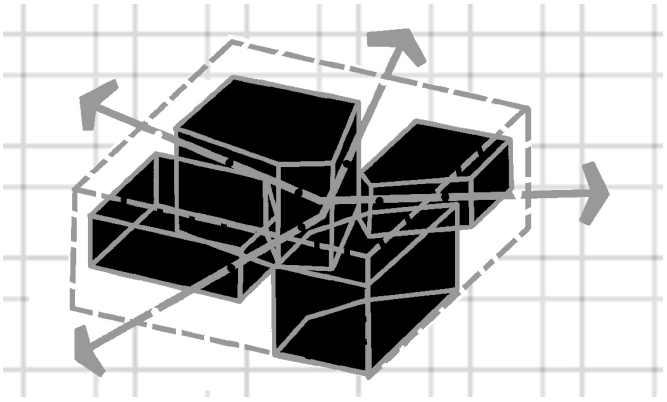
Two main lines have split the single mass into four parts. The first line assembles the relation to water and the second line resembles the main entrance.



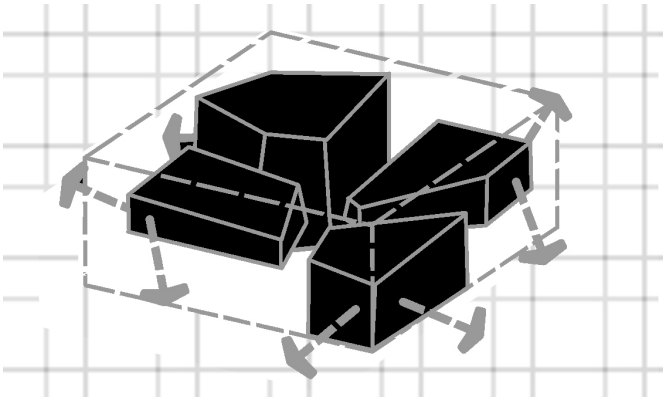
Two diagonal parts are lifted to keep the direct relation to the water both visually and physically.



Three parts are lowered in order to reach its functionality and give the fourth part a bigger sight.



The two guiding lines are shifted deforming the masses, giving the feeling of disorientation both from the exterior as well as the interior.

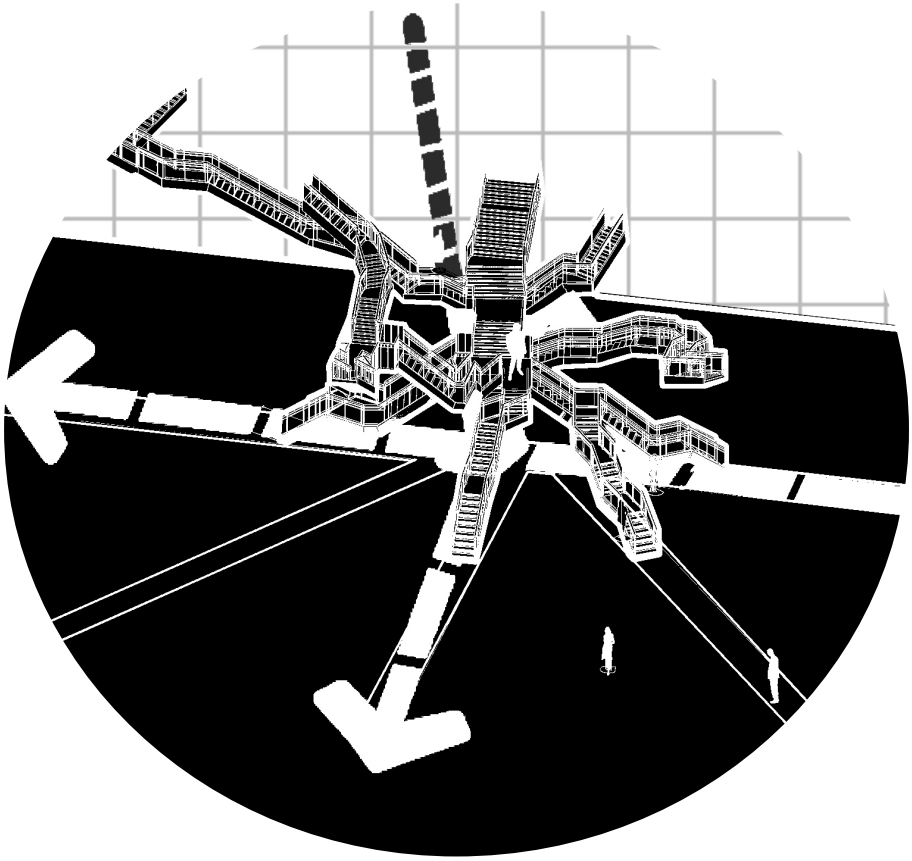


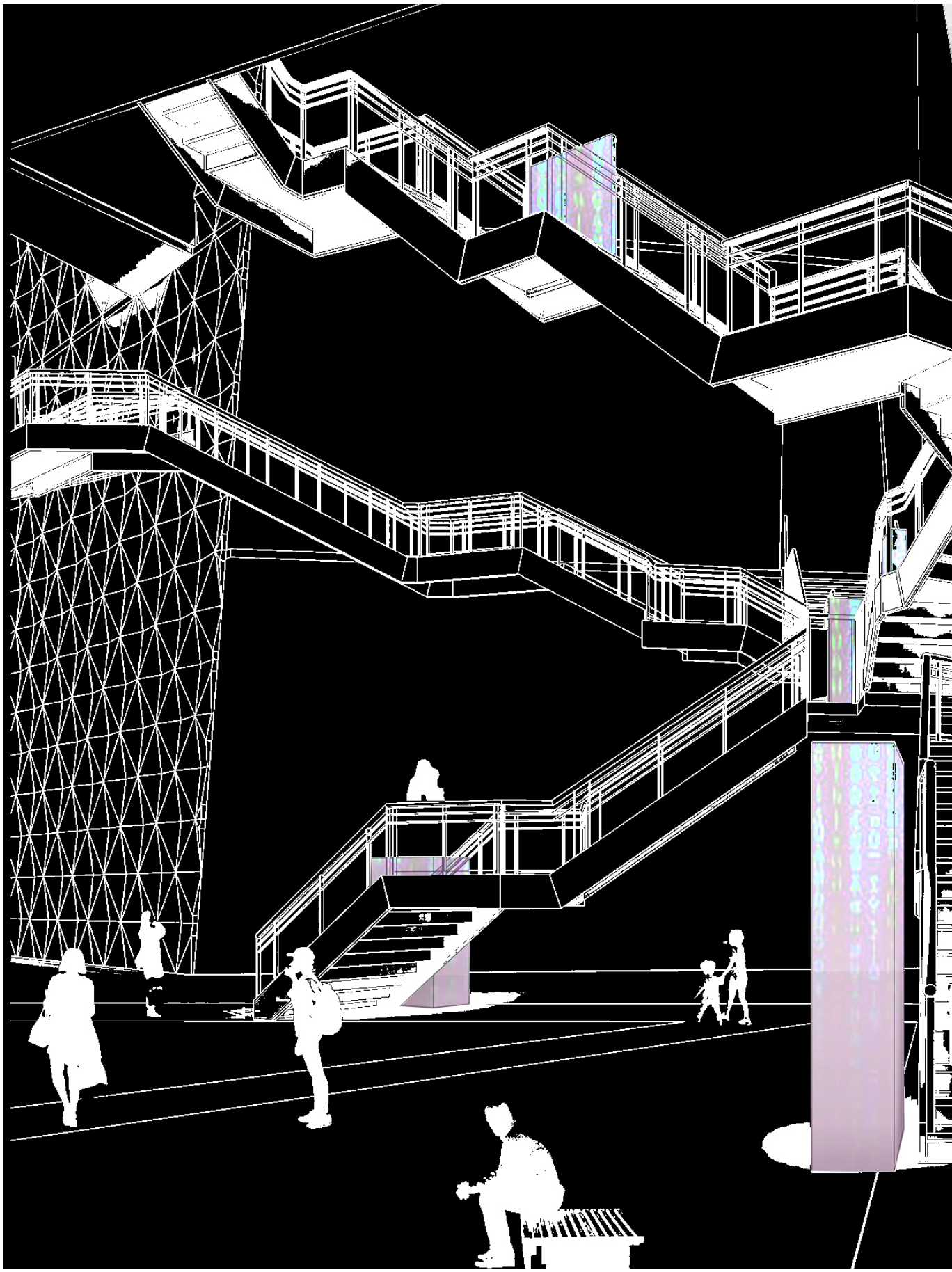
The whole mass creates a direct relation to the outside where nature becomes part of it.

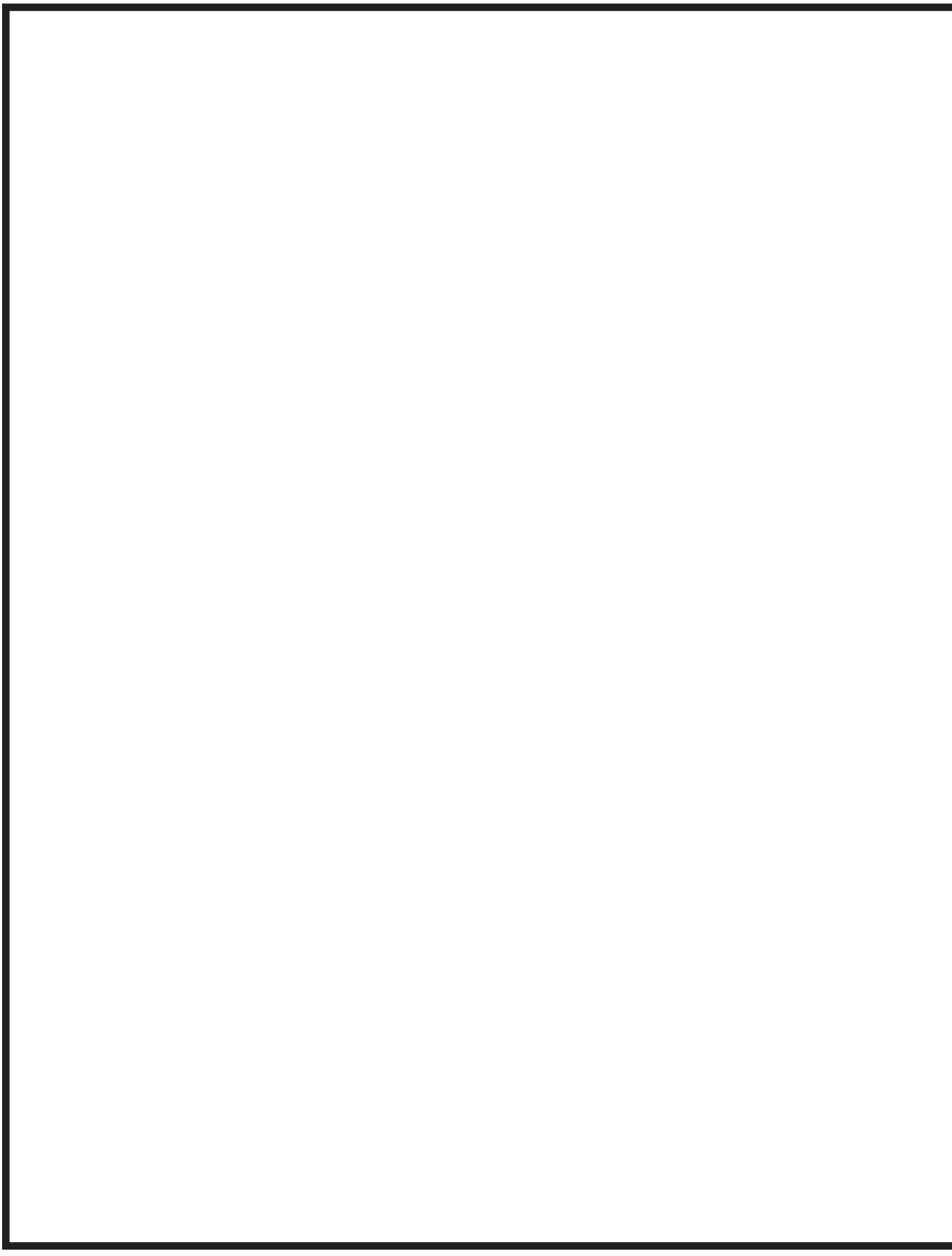
The Core

The core presents the visual reflection of a complicated irregular network of paths in which it is difficult to find one's way, losing the sense of space reflecting our position in the overwhelming digital world.

This confusing arrangement will be illustrating the mysterious installation of the virtual information flow giving the feeling of both hope and anxiety throughout the spatial experience.



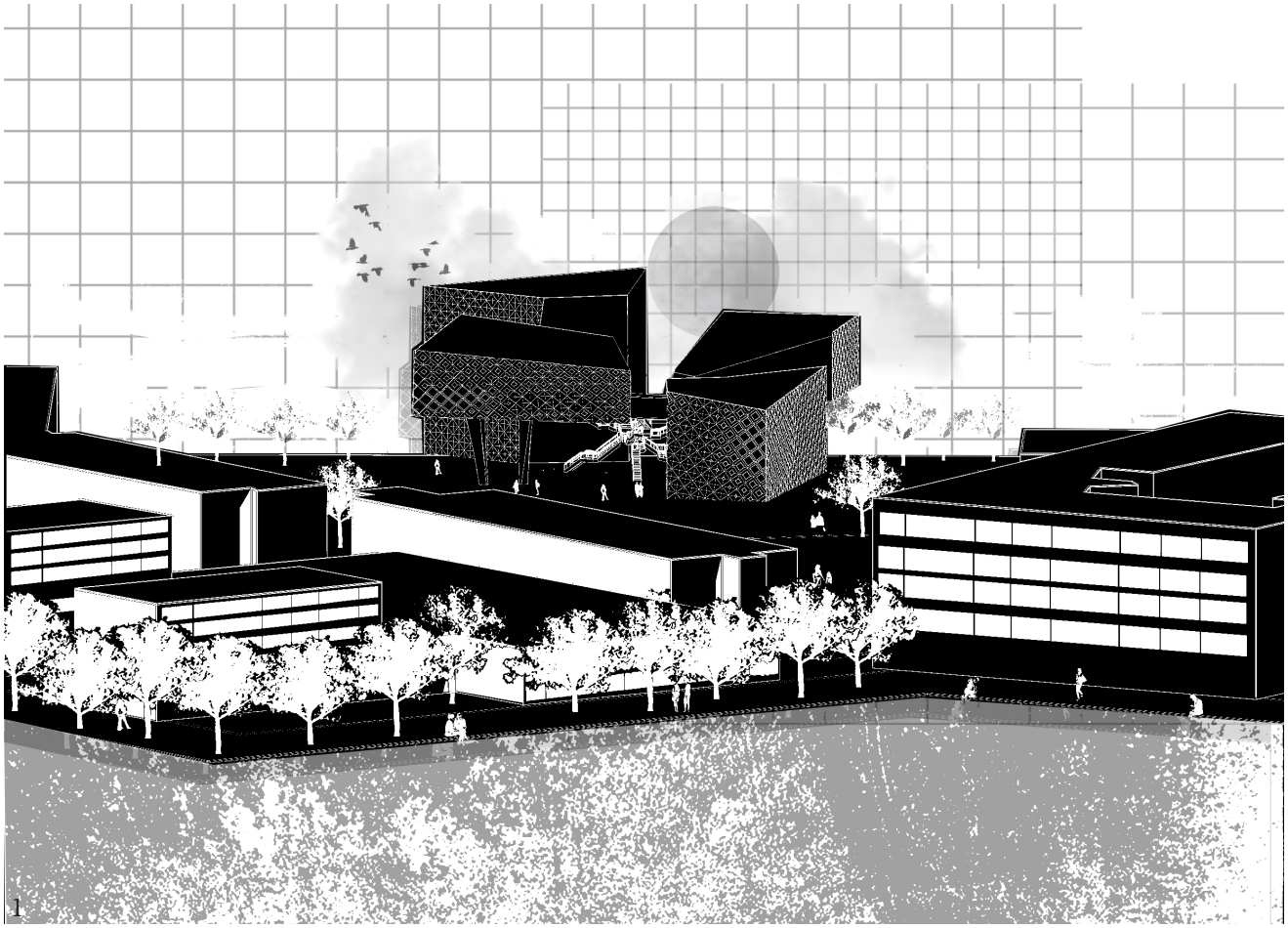




The large scope scene

Beginning the adventure from the large scope where the building can be seen from far as one whole element using the same elevation material. getting closer to the building it begins to get a bit confusing; the paths are split into different directions where some go to the core of the building and some have closed ends. In the case of the closed-end, the choice will be to reach a different path through the green area around the building.

The core of the building is reached and the feeling of insurance is getting higher, there are different entrances branched into multiple paths. This is where the first choice has to be made!.



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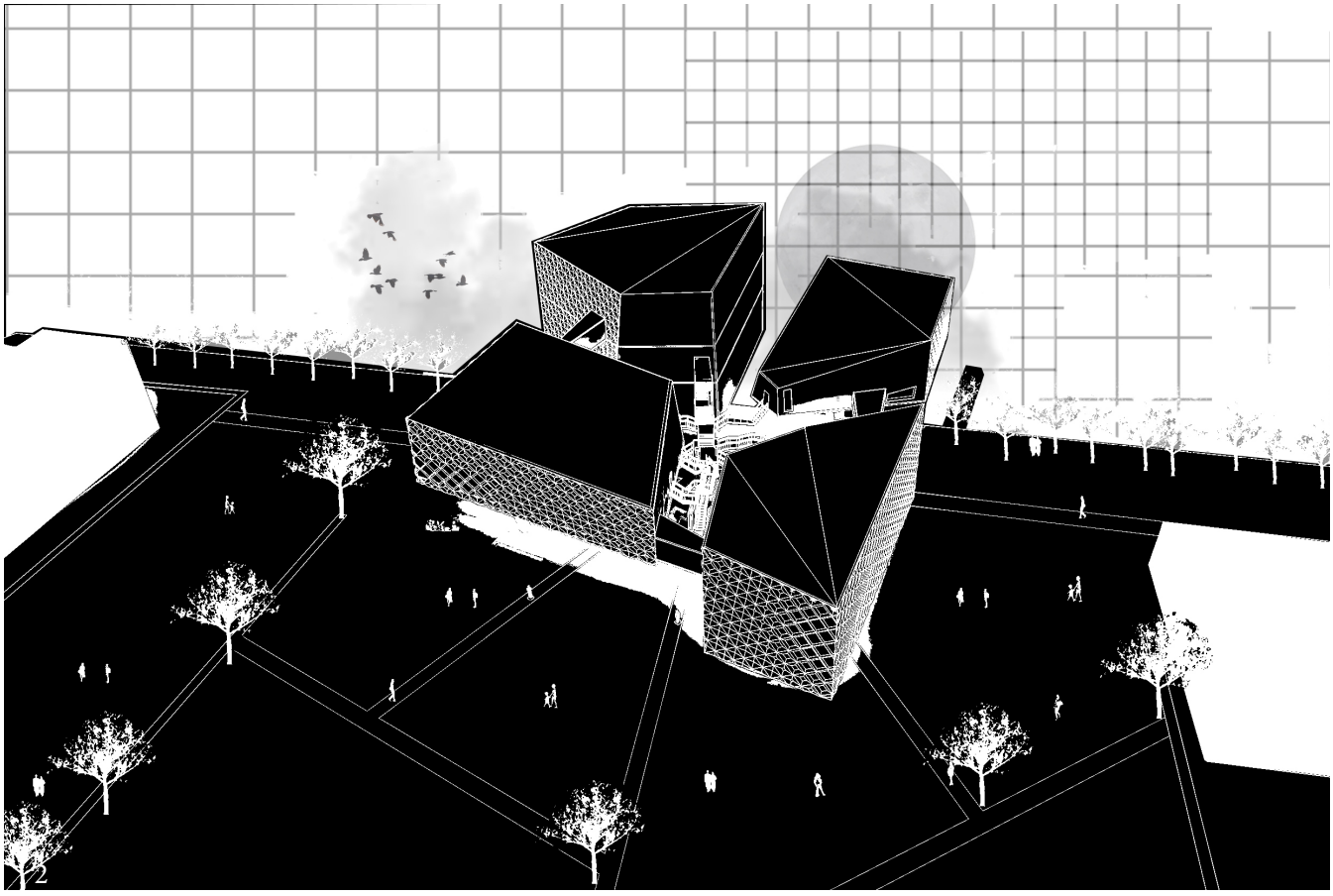

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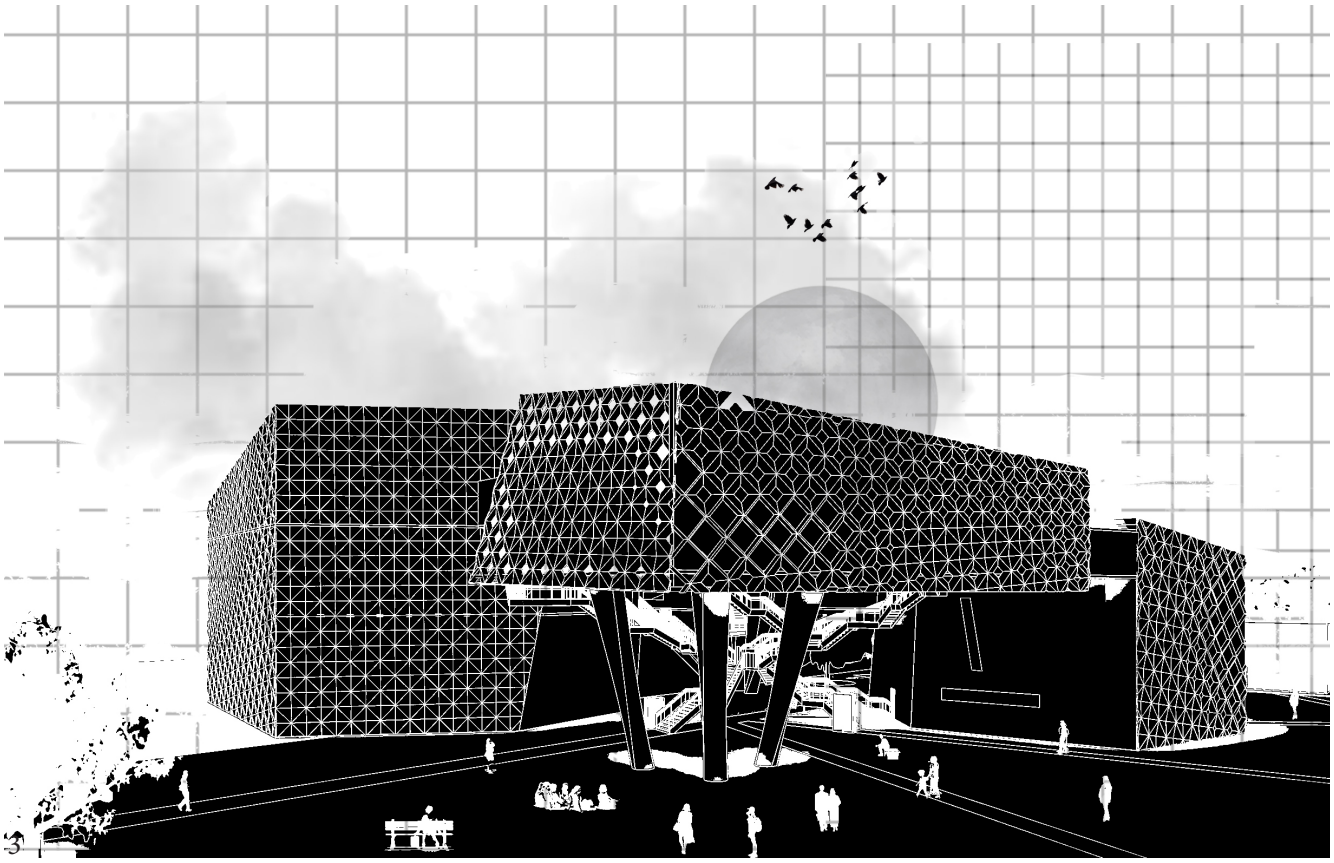

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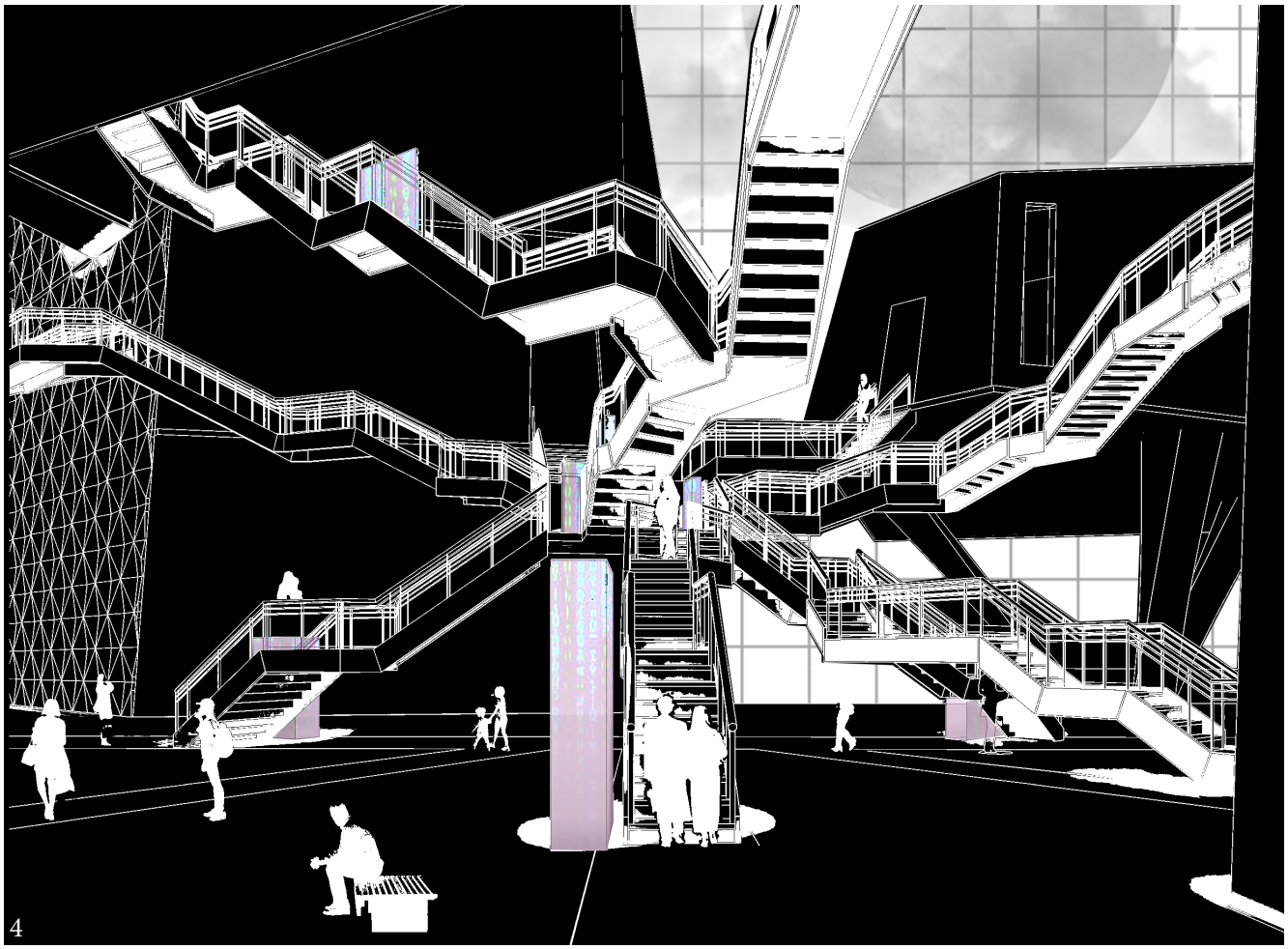

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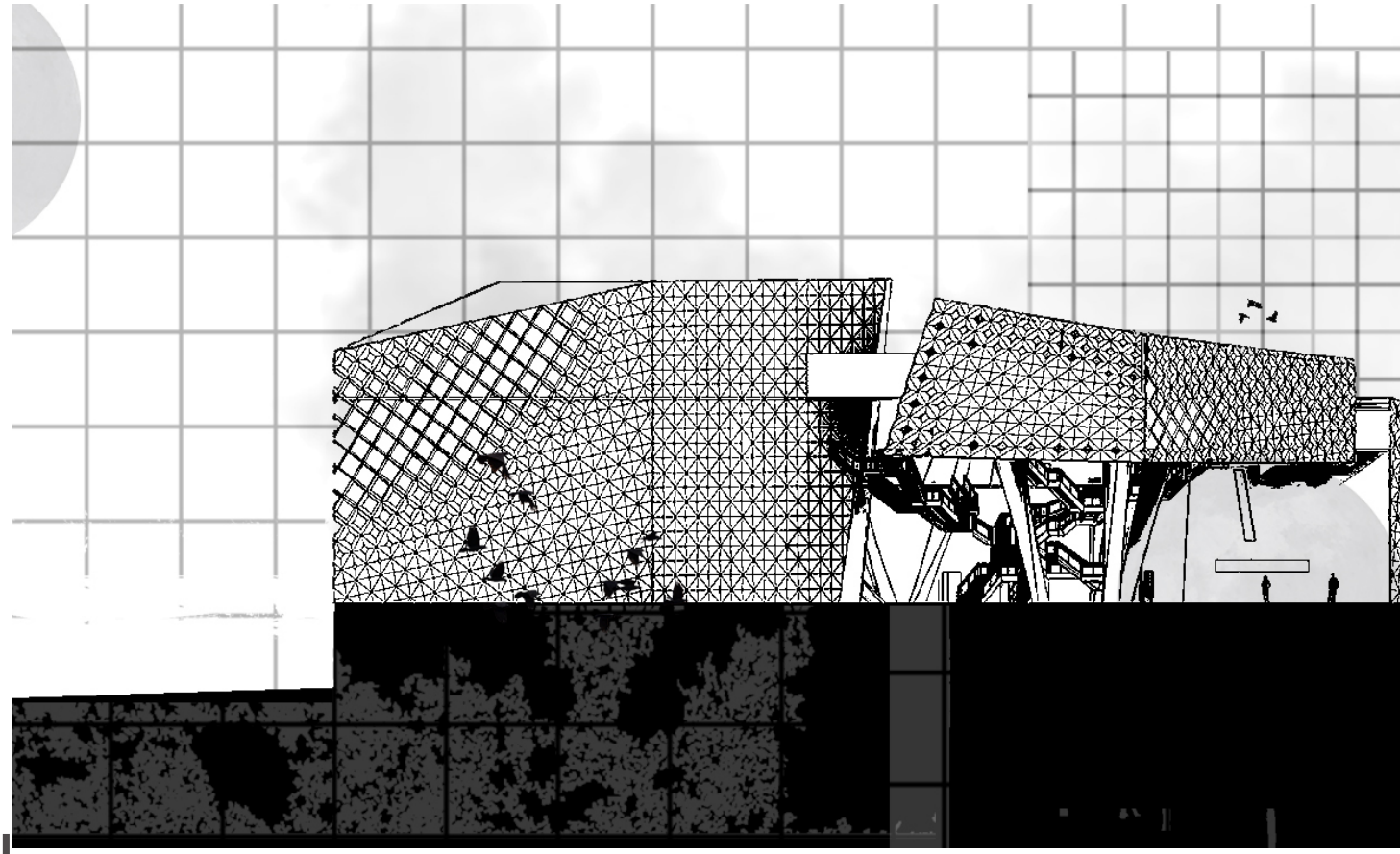
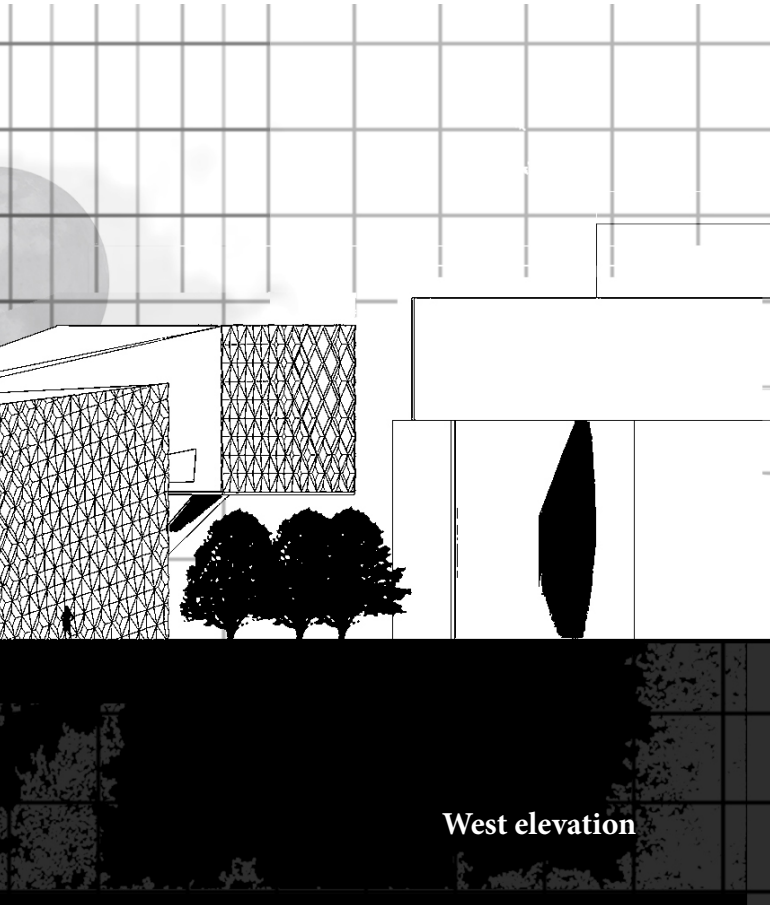
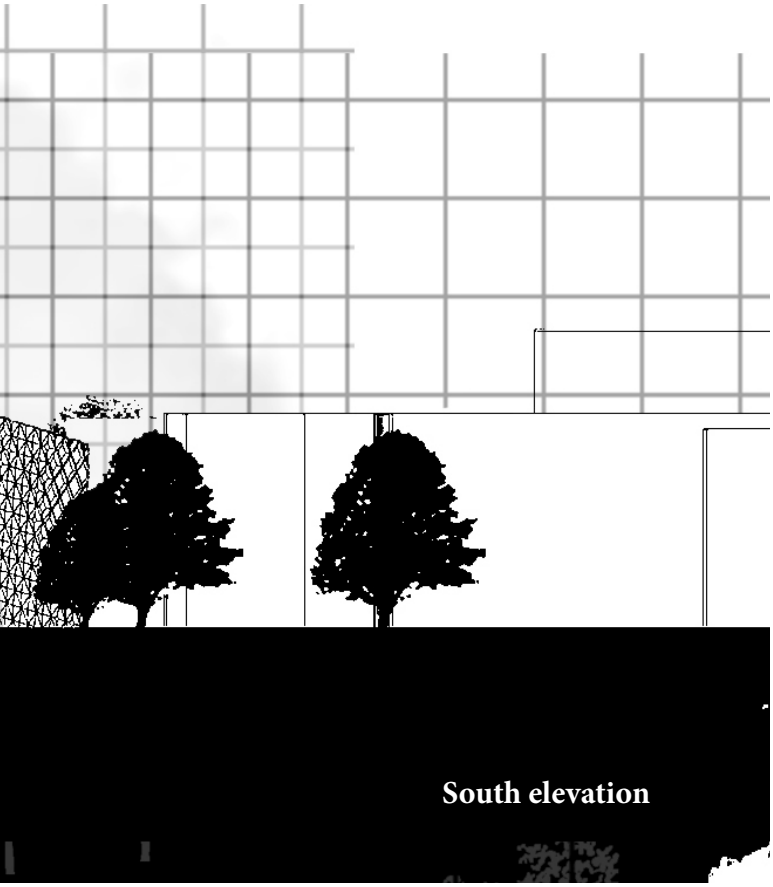
Elevations





West elevation



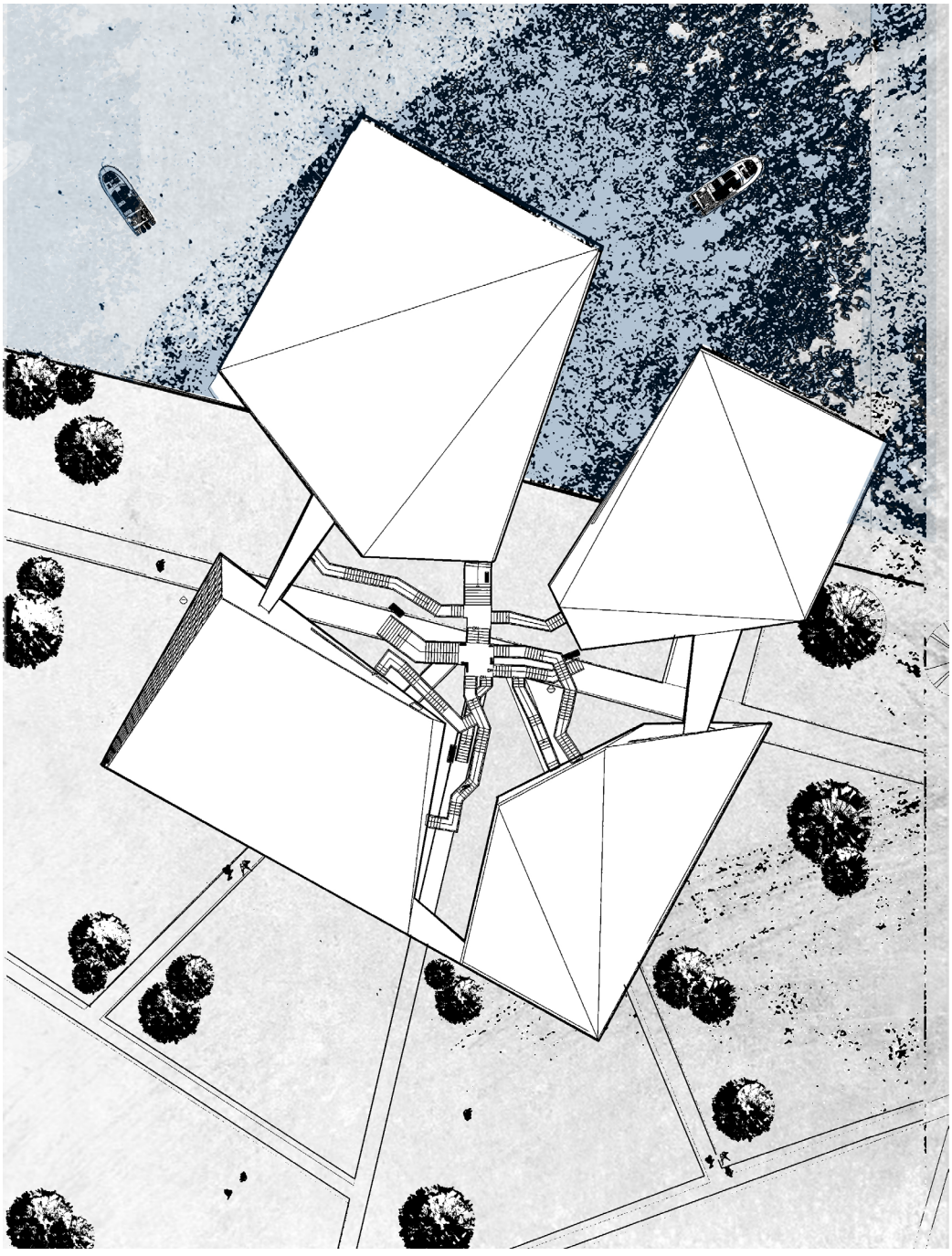
South elevation

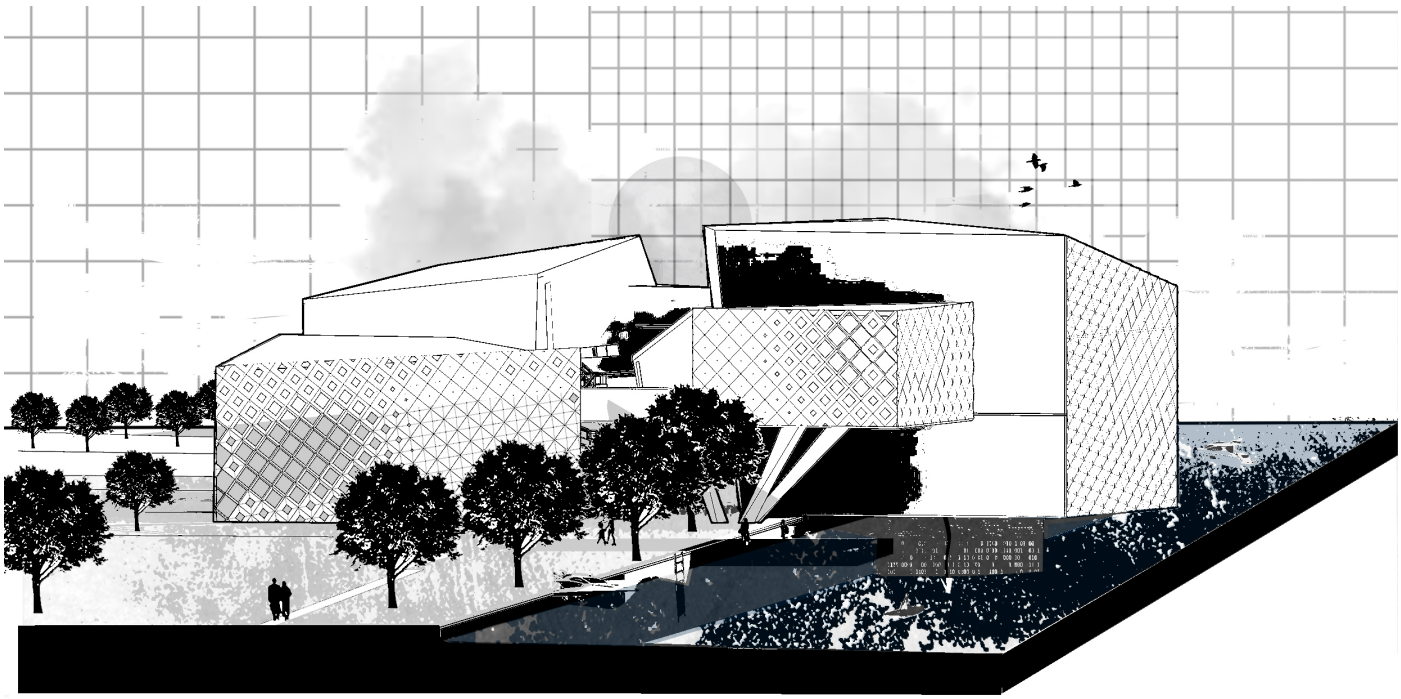
The outer core of the facade is made up of a -glass fiber reinforced concrete- white skin with repetitive geometrical pattern enveloping the exterior. Cut-out openings allow light and shadows to play through, creating a harmonious scene from different perspectives connecting the outside with the inside.

The inner core of the facade is made up of exposed architectural concrete to create a contrast with the outer core. The two upper diagonal volumes create a sense of flight emphasized by the continuous graphic pattern.

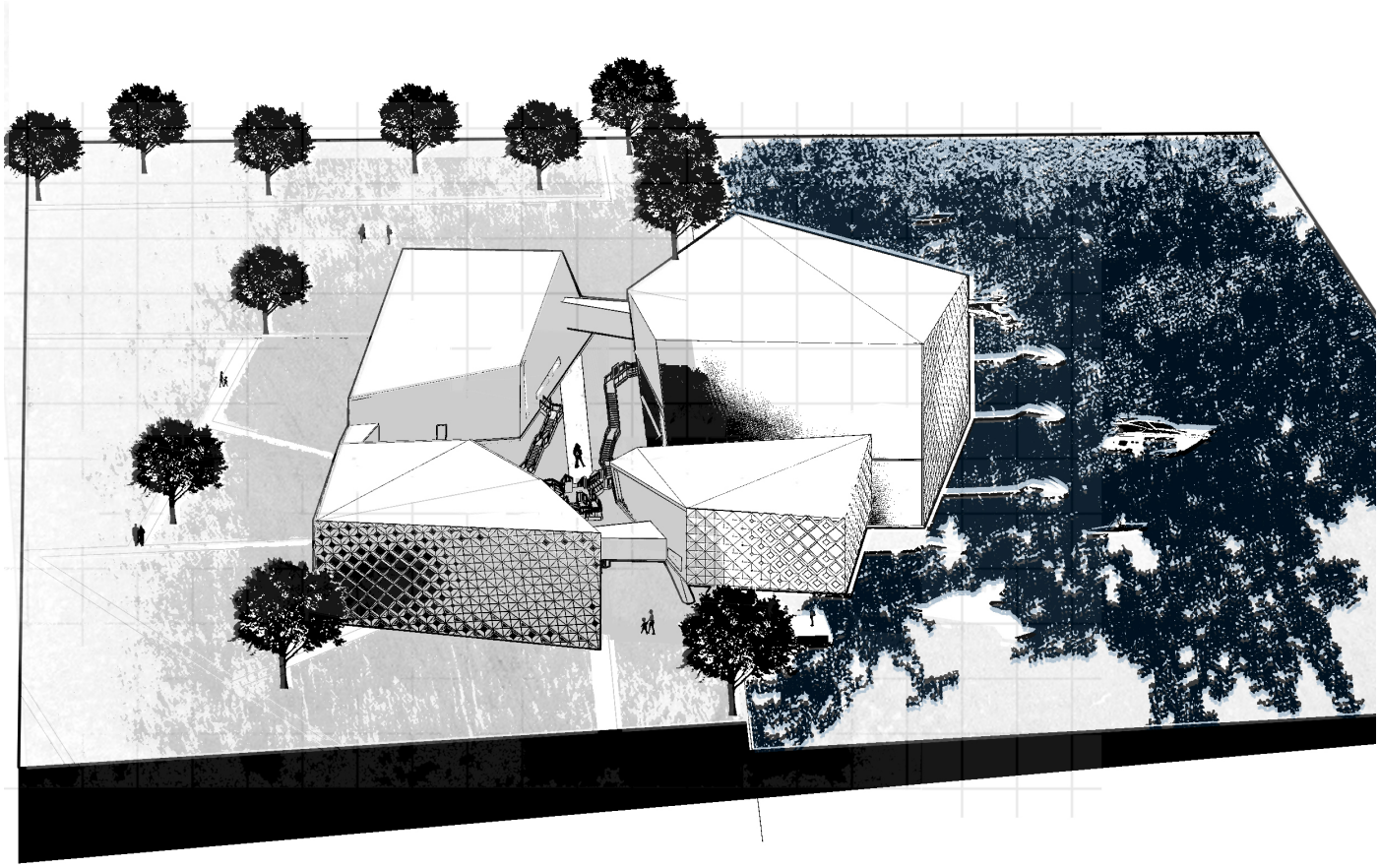
Relation to water

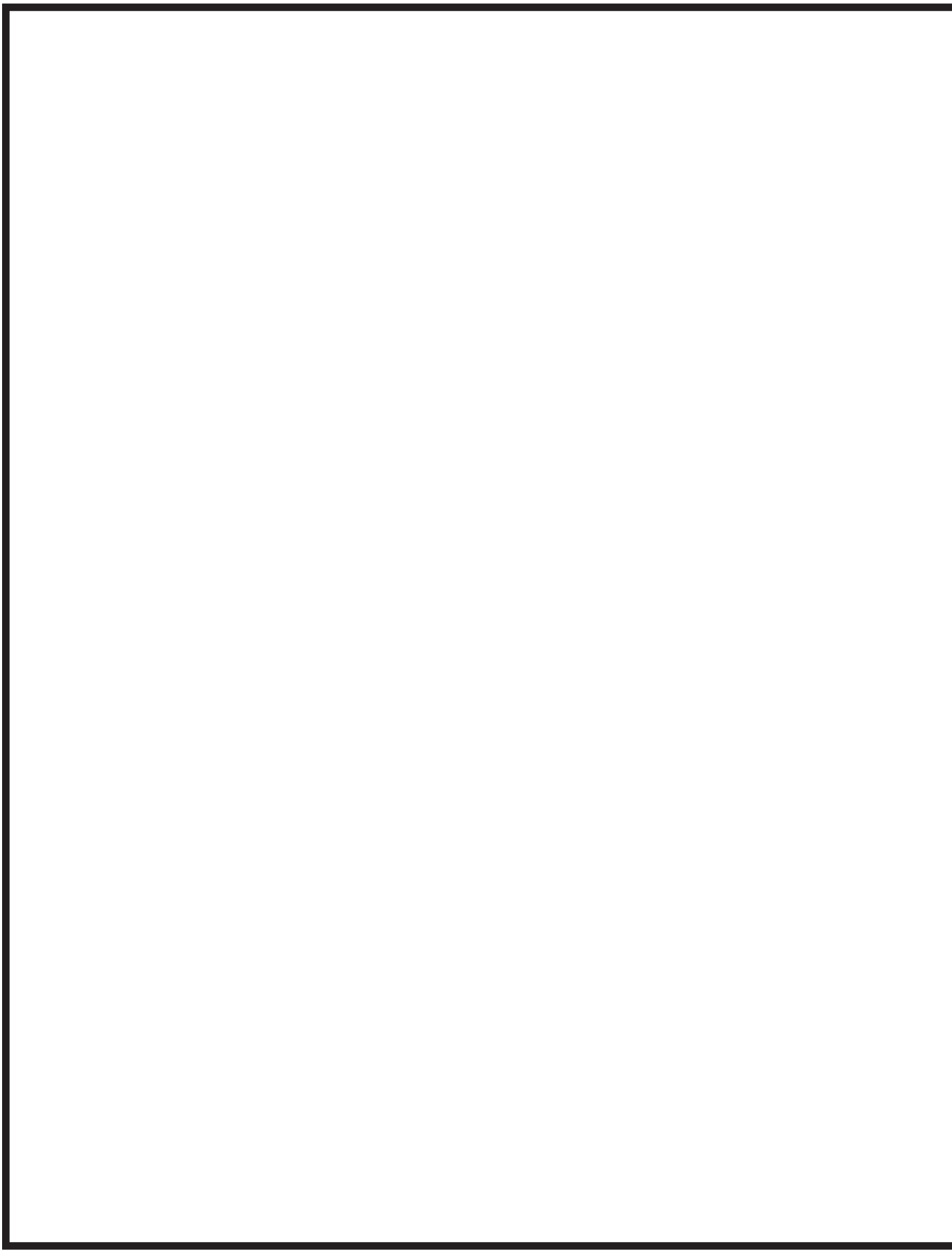
The waterside is one picturesque natural landscape that gives inspiration for the biggest part of the building. This part rises out of the water appearing to float on it. A glass floor provides unobstructed views of the water and the server positioned under it. The reflection of water and its motion of the waves enforce the spatial quality of the interior of the building.





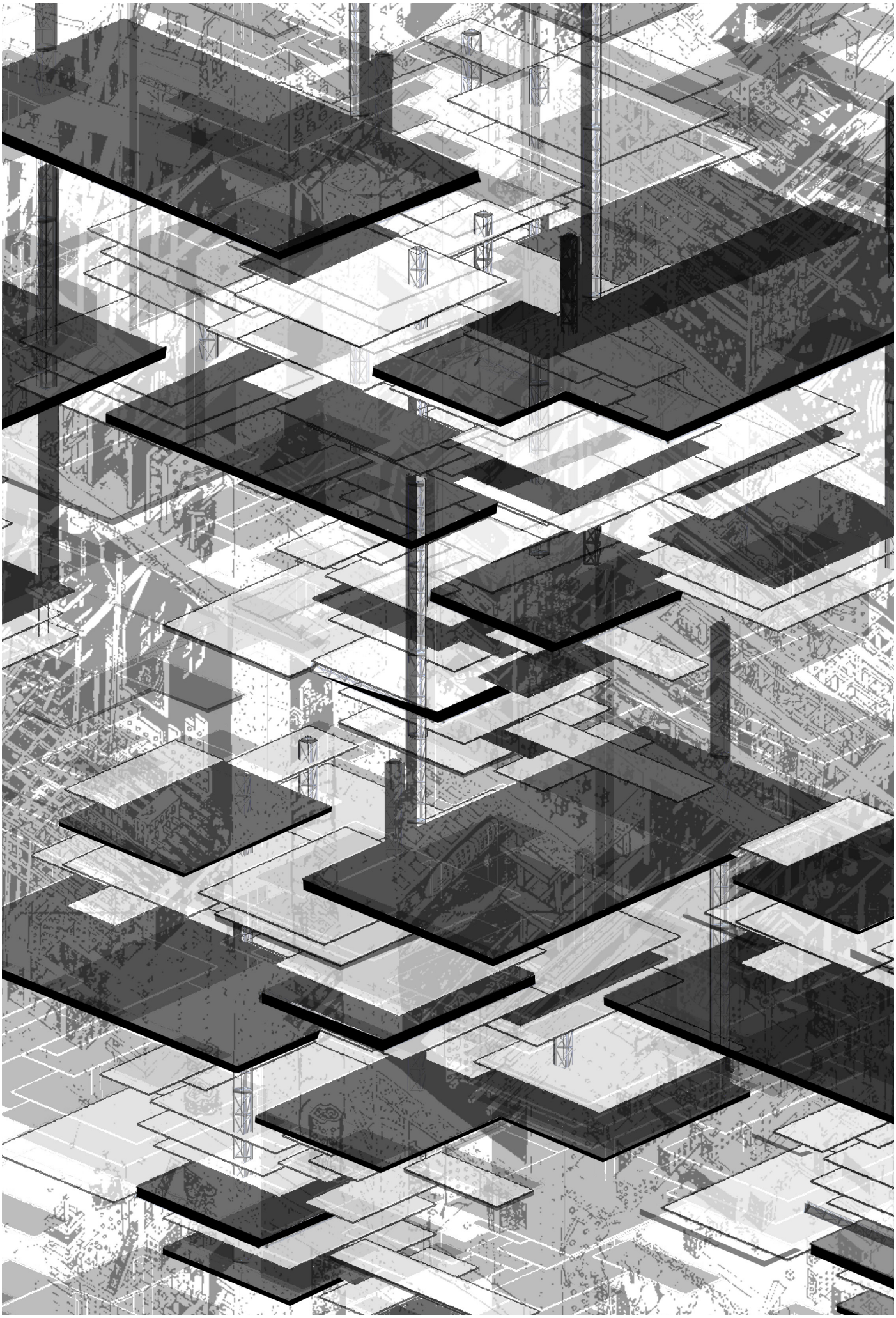
The server underwater is seen from the waterside creating a direct relation between the users of the waterside (boatdrivers) and the building.





Meso level

Building design



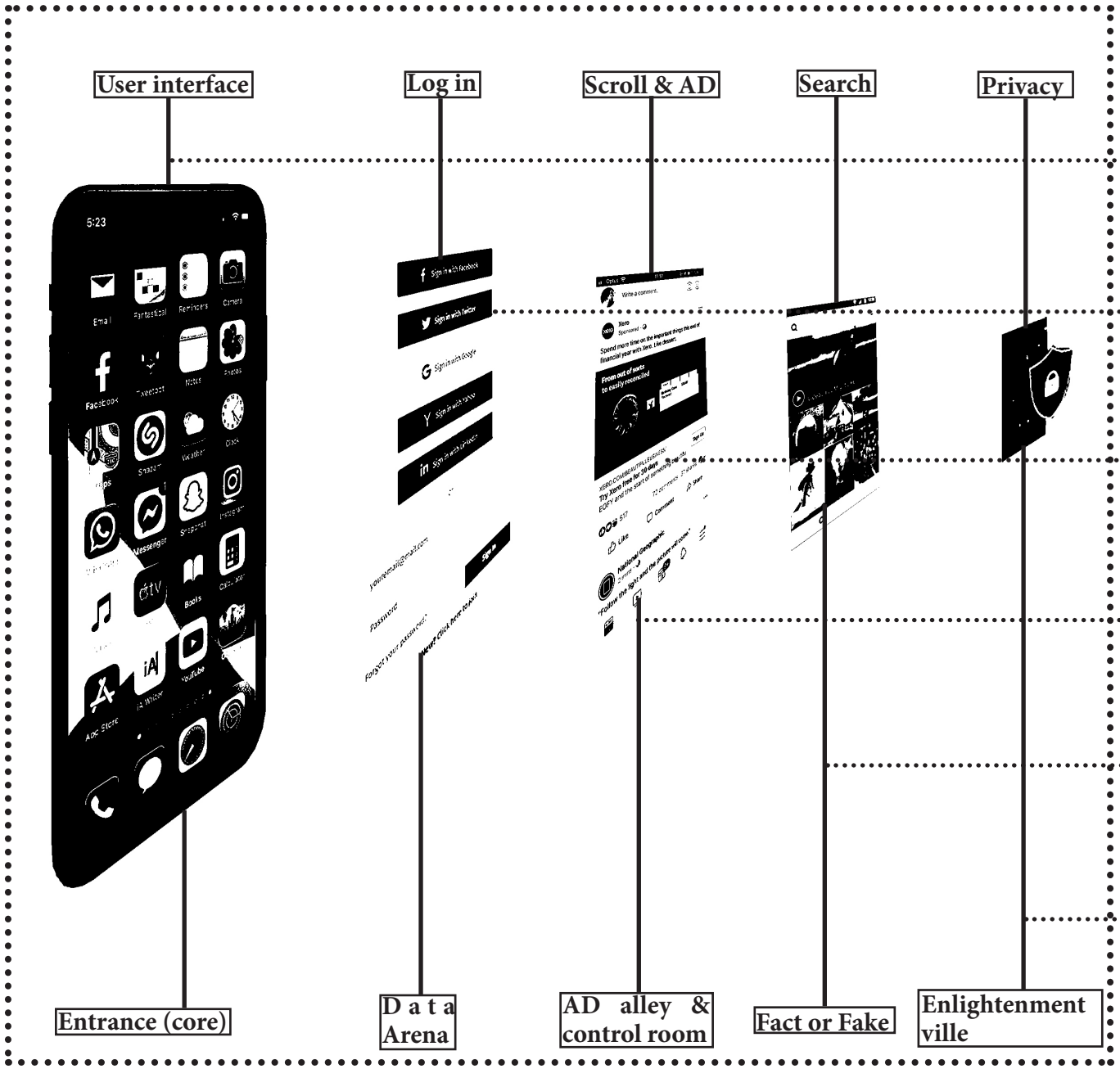
The Theatre

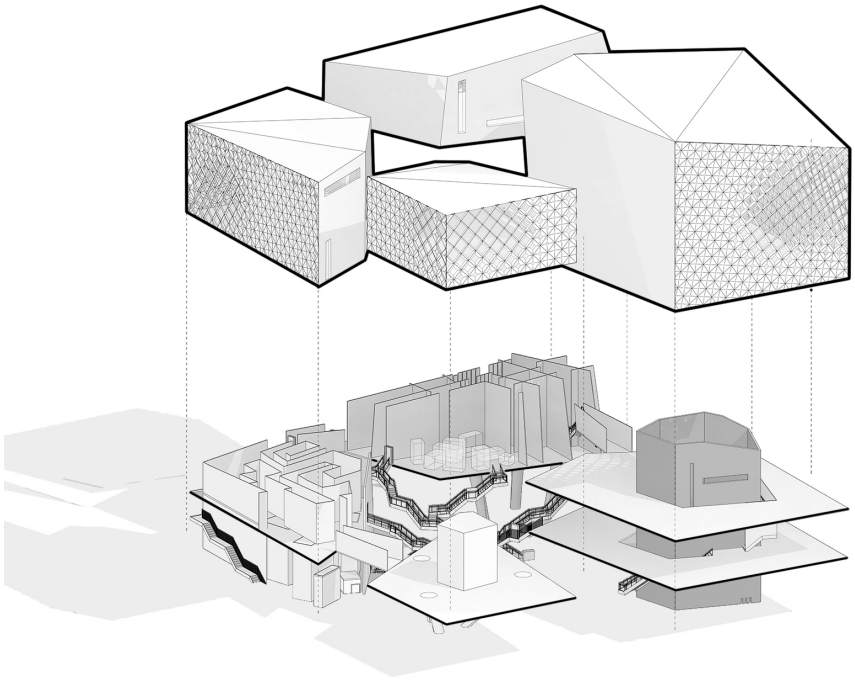
Going from the large-scale to the mid-scale is challenging creating the intermediate link between them. The building program is the link made on the basis of our everyday use of different digital applications. This building is considered to be a therapy machine where it contains both legible and illegible spatial qualities. The legible part is the place where the awareness is taken to another level, while the illegible part opens a new platform for discussion presented by the collages. Both parts reinforce each other blending more and more throughout the design process.

The different building parts are presented and illustrated in the meso-level where every scene lands on a concrete foundation. The idea of the theatre is being exposed in this chapter where it uses live performers. This theatre will have different presented scripts where the performers (visitors in this case) will be choosing their own script

The Analogy

The use of different applications has become a basic part of our daily life, where our information is being controlled by the unseen. Throughout the steps taken while surfing these applications, an analogy has been made. Each step is reflected in a spatial experience (building part) where they can form a sequential order or be informed in each space separately.
This analogy forms the solid foundation for the different building parts, where each has its own characteristics exposed.





Different building parts

Labyrinth/Core

The main spatial experience will be examined through this complicated labyrinthic stair structure.

Data arena

The information flow of our data will be exposed in the staging area (what is behind the screens)

Ad alley

The Ad alley will expose the feeling of being watched and having all kinds of advertisements around in an intimate space.

Control room

A preview is given in this room of who and what can have control over your personal information.

Fact or Fake

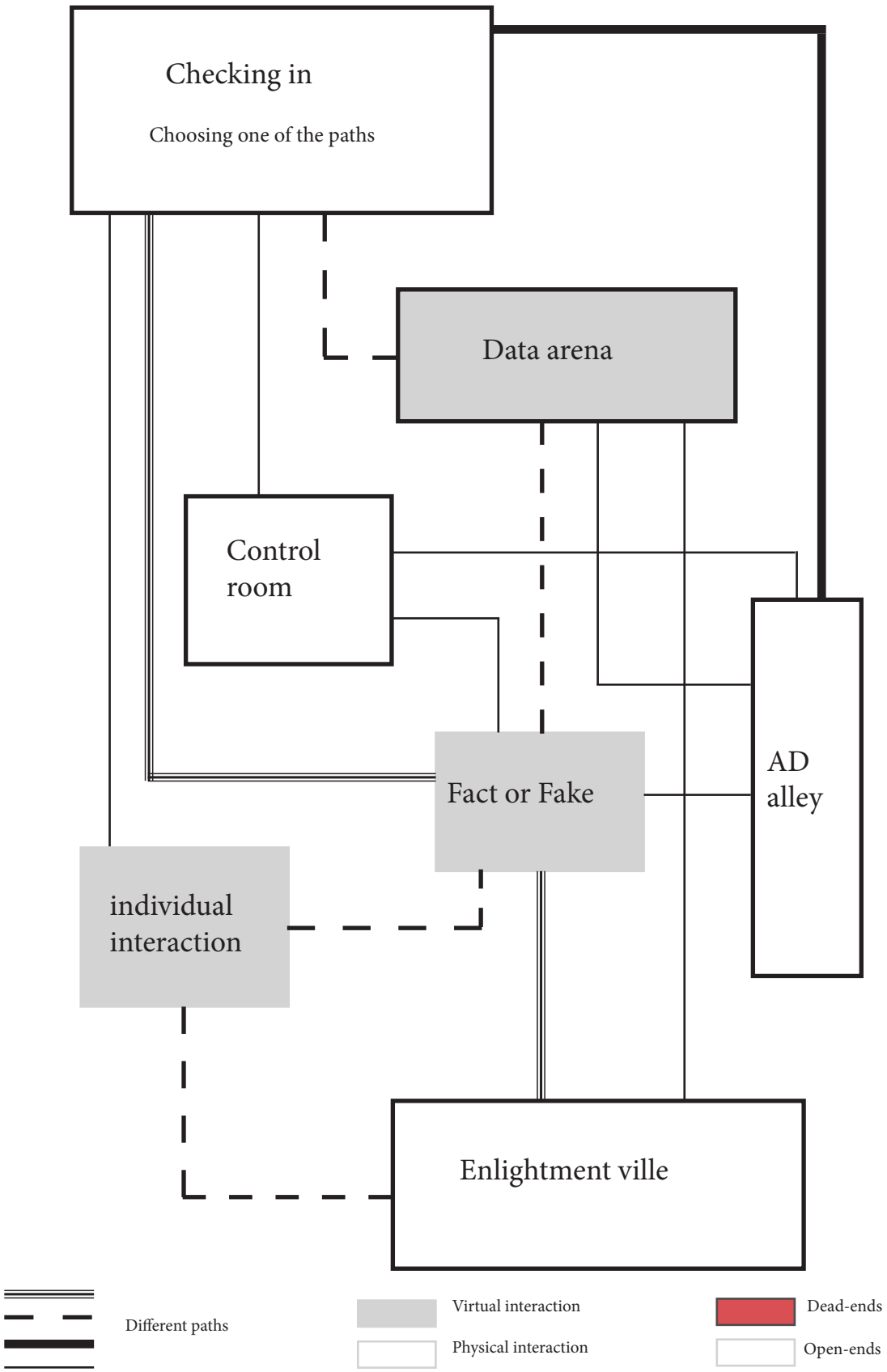
This is an interactive stage where you become more aware of your own unawareness of this digital world around us.

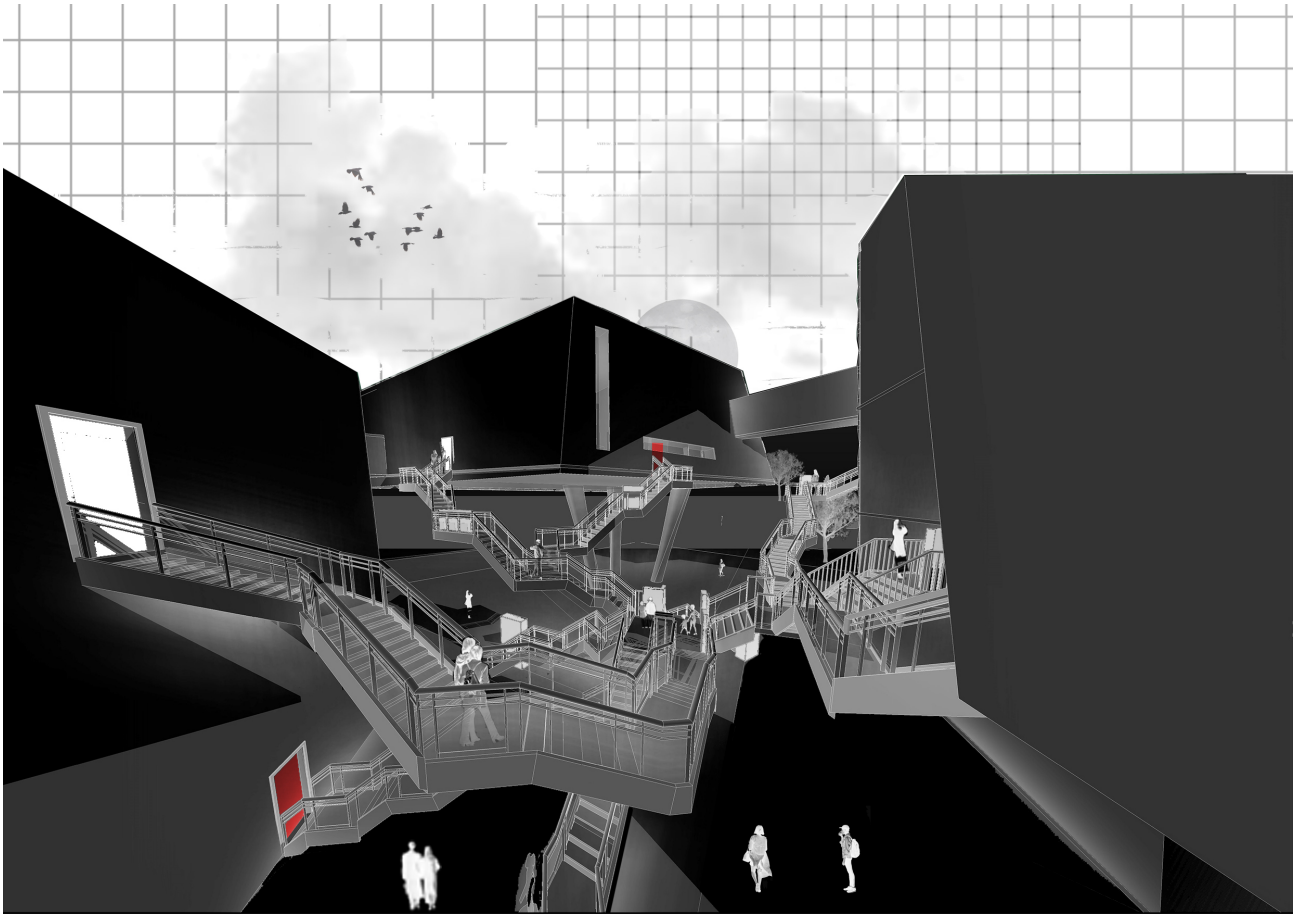
Enlightenment ville

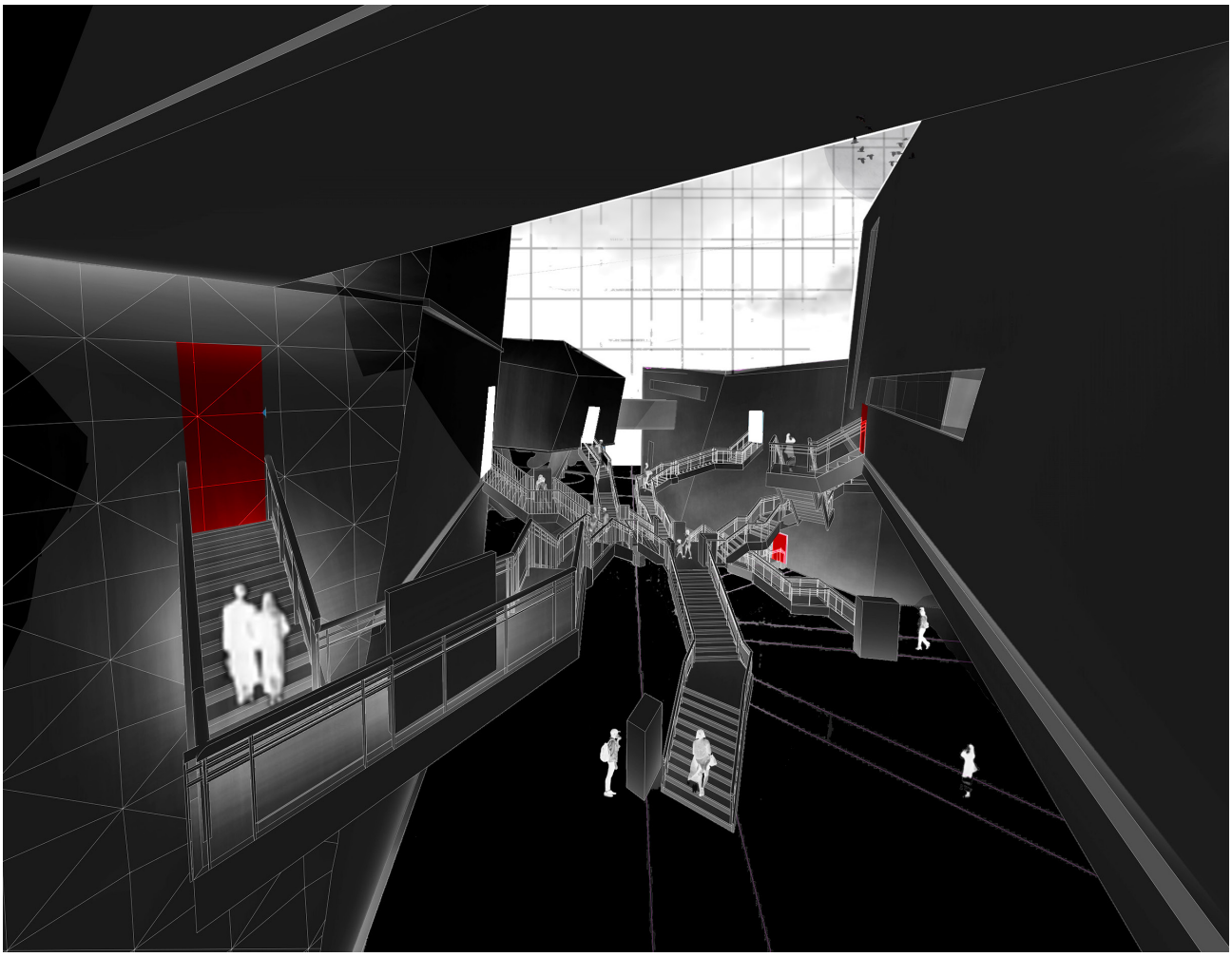
This is the exit where you get more educated about how to have control over your own information and be more aware of what and how to use these developing technologies safely.

Scenarios

Different scenarios are presented in this project where each path demonstrates various relations between the four buildings. These buildings can present a coherent story but can also be separated as individual experiences. The labyrinth presents the entrance in this project where it begins with three entrances and has two ends; either the path takes the visitor to one building part or the visitor faces a dead end.



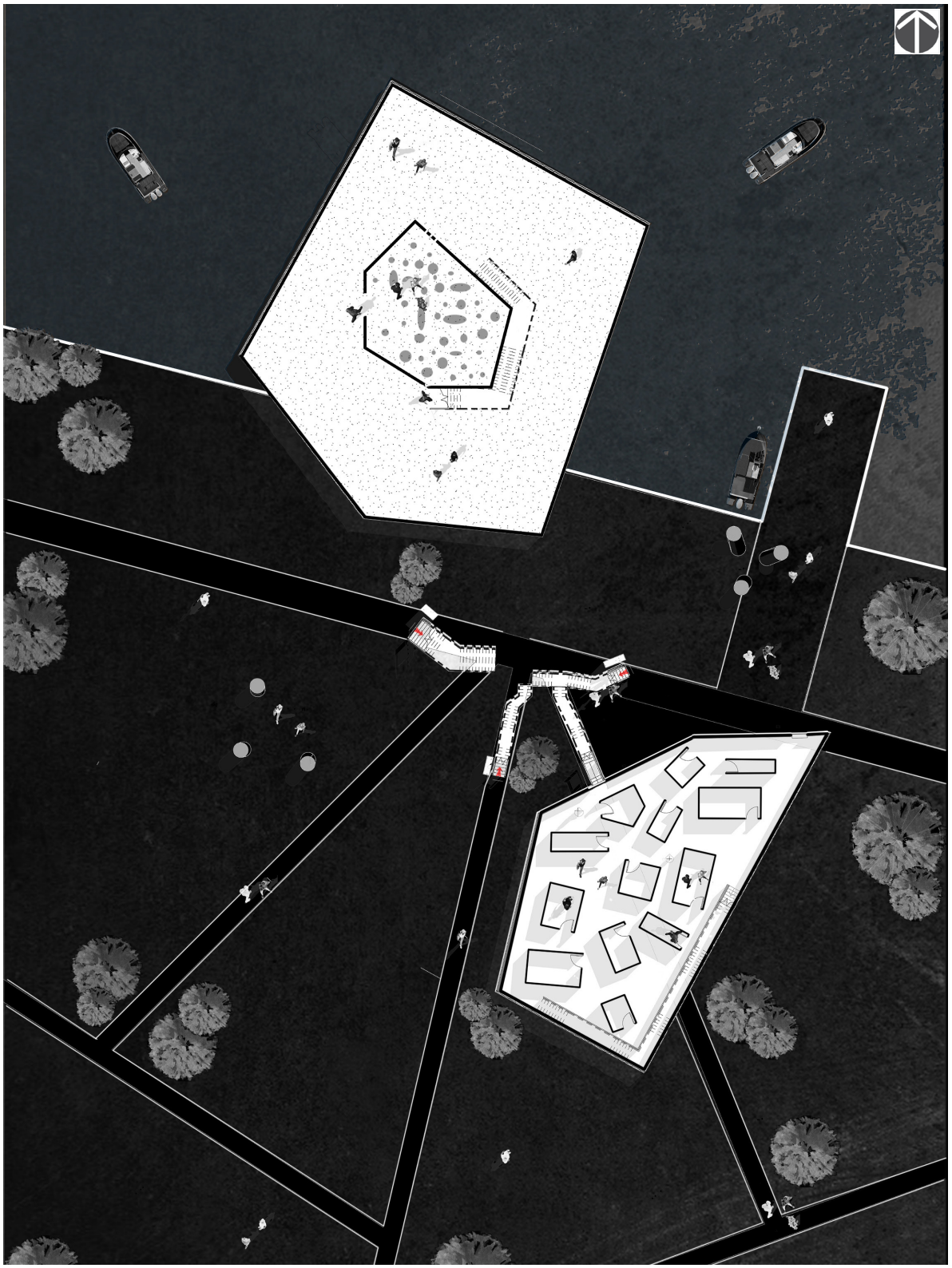




Plans

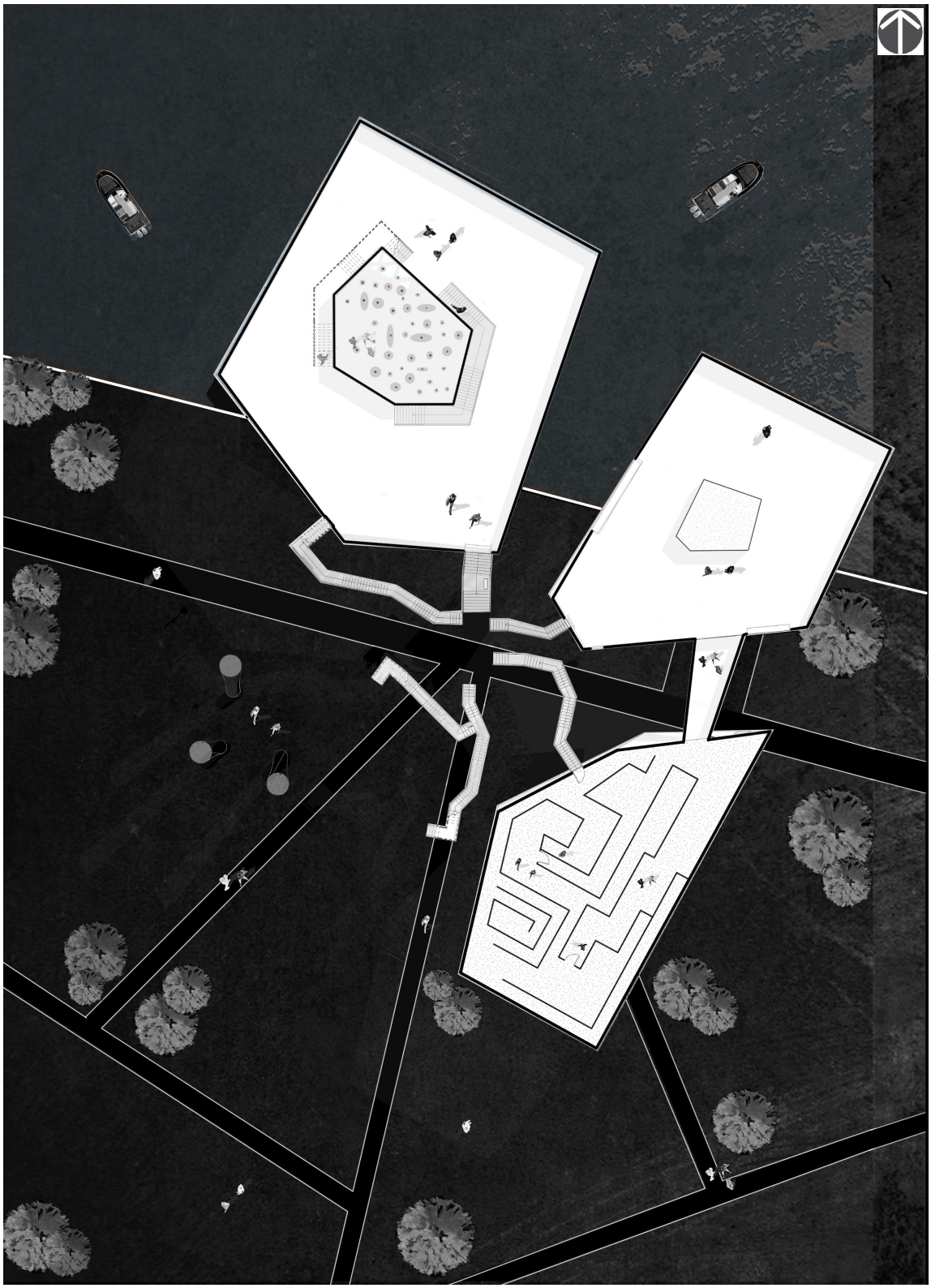
Level 1

The ground level illustrates three different entrances to this building. Two buildings are visible at this level; 1-the Data Arena with its entrance to the core,2- the Fact or Fake building's first layer wherein each box virtual interaction takes place.



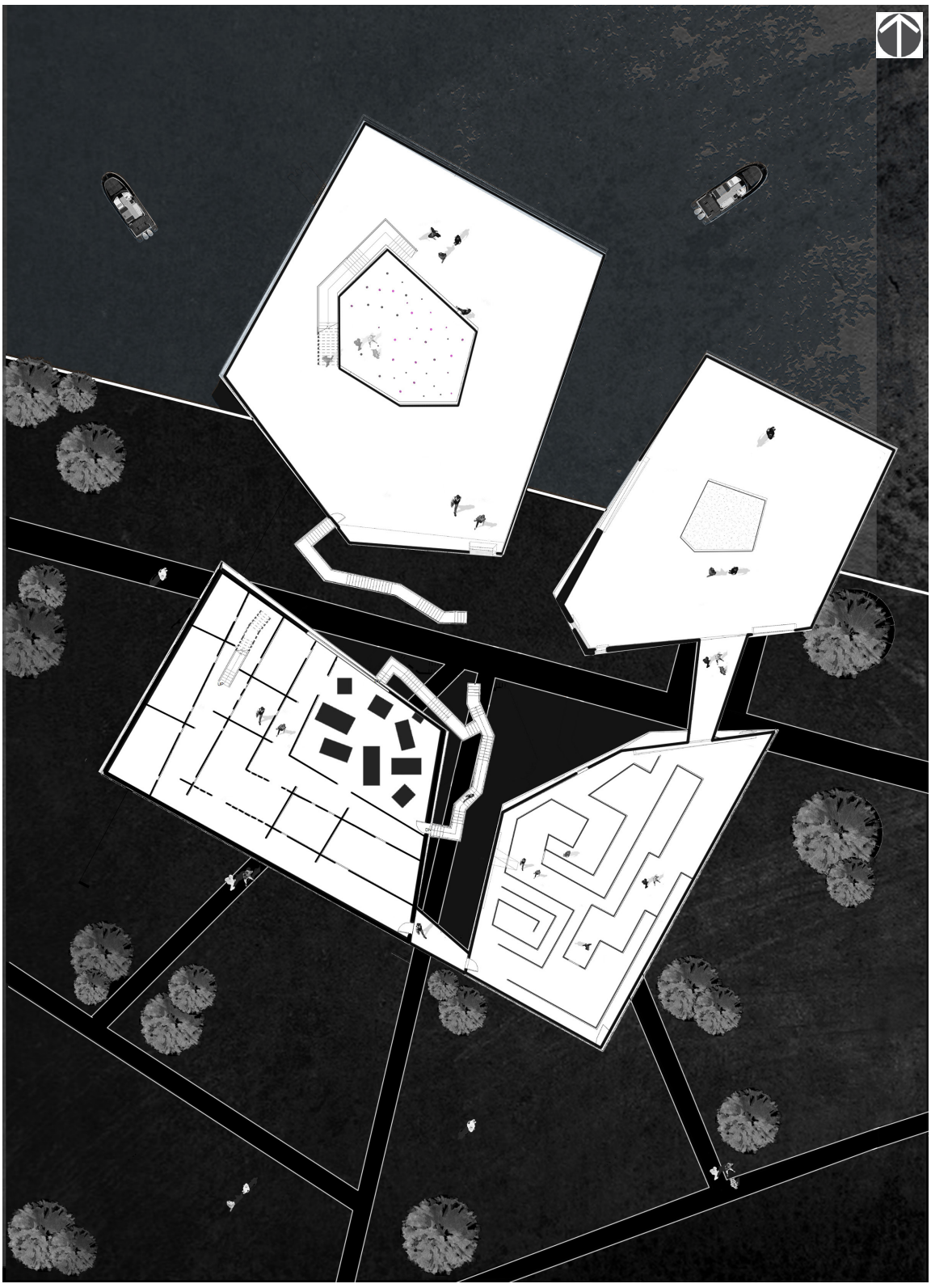
Level 2

One level higher the Enlightenment ville is introduced to stand on three pillars overviewing the waterside. This building part has a direct connection with the second layer of the Fact or Fake building presenting the information knowledge labyrinth. The stairs around the core in the data arena are still going up taking visitors from one level to the other.



Level 3

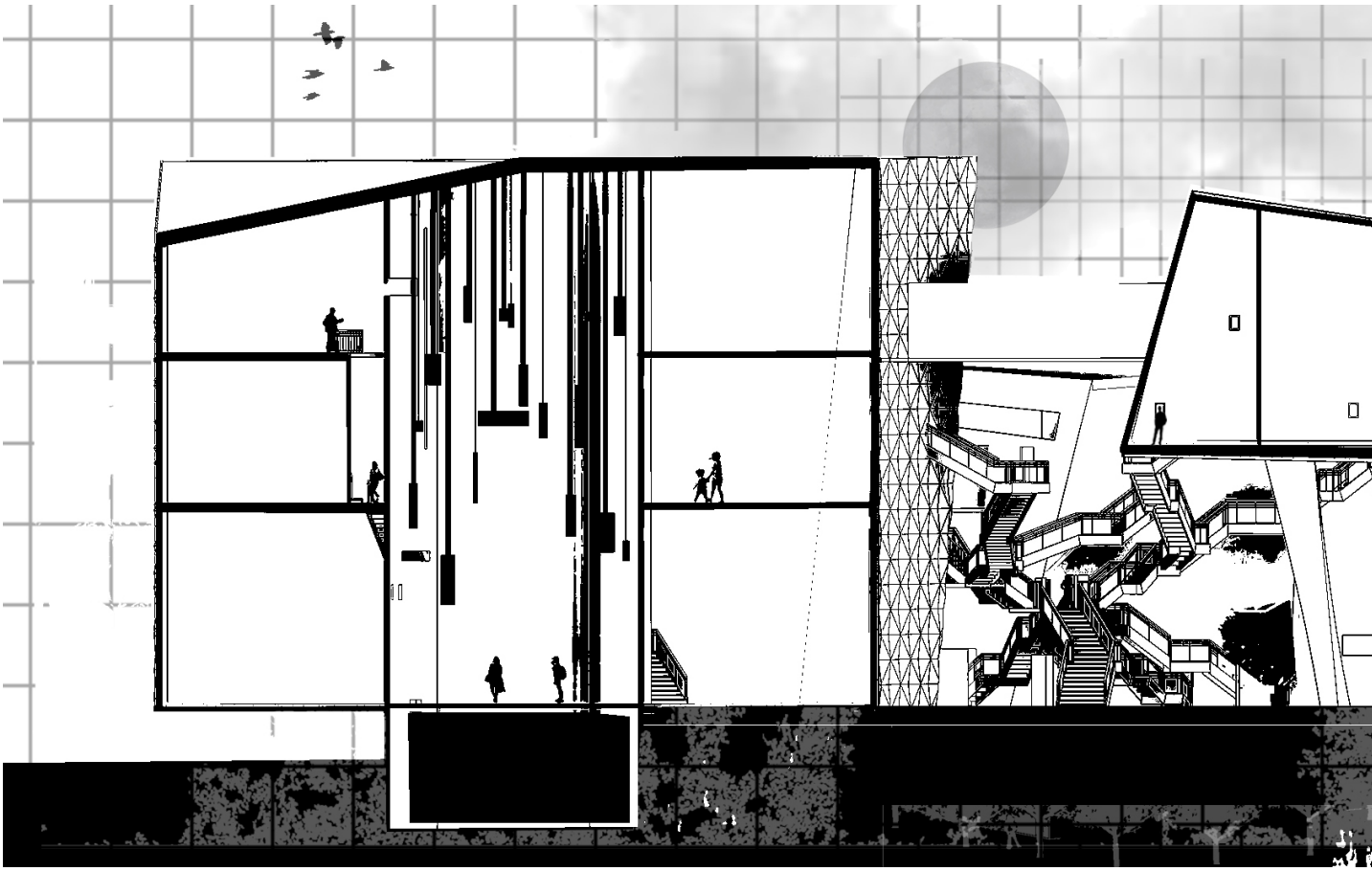
At this level all four buildings became visible. the AD Alley is connected to the upper layer of the Fact or Fake building part through the small tunnel. The outer stairs are getting more branched having some open ends and other dead ends.



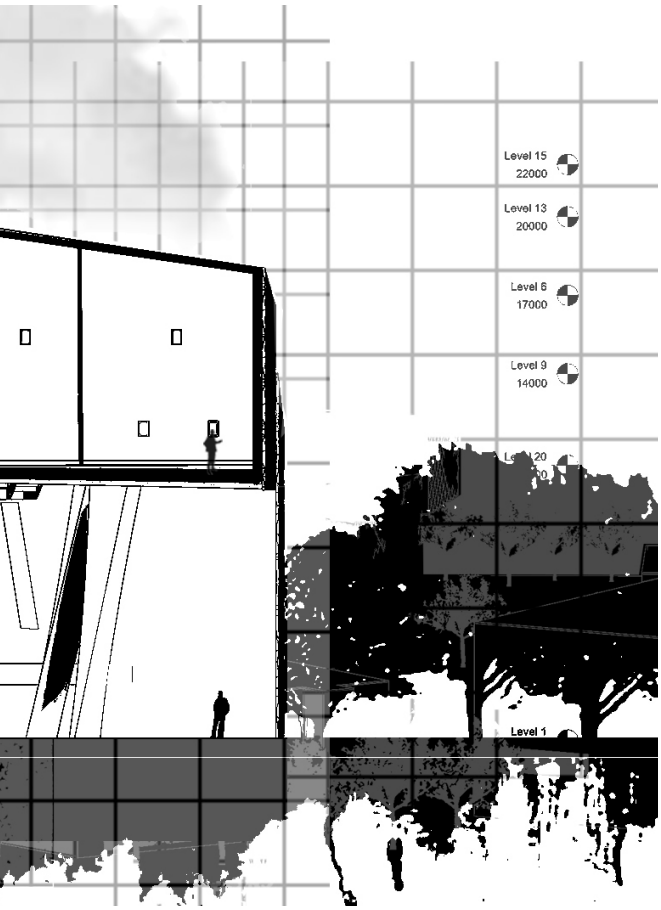
Level 4

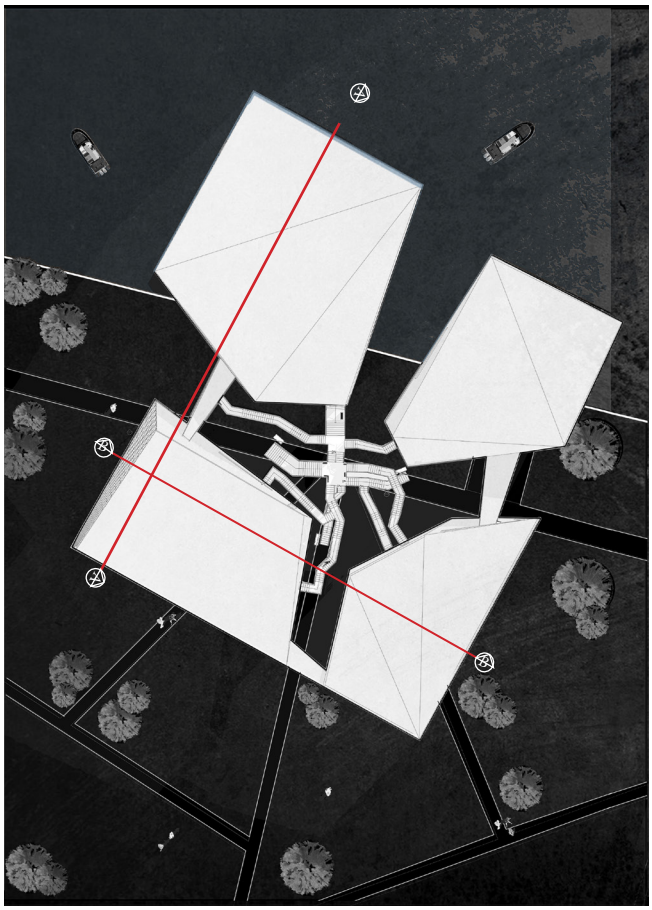
The site view shows the strong relation the building has with the waterside. The labyrinthic stairs are going from and to all buildings presenting various choices. The four buildings are linked with each other either with the stairs for where three of them are also linked with the narrow tunnels.

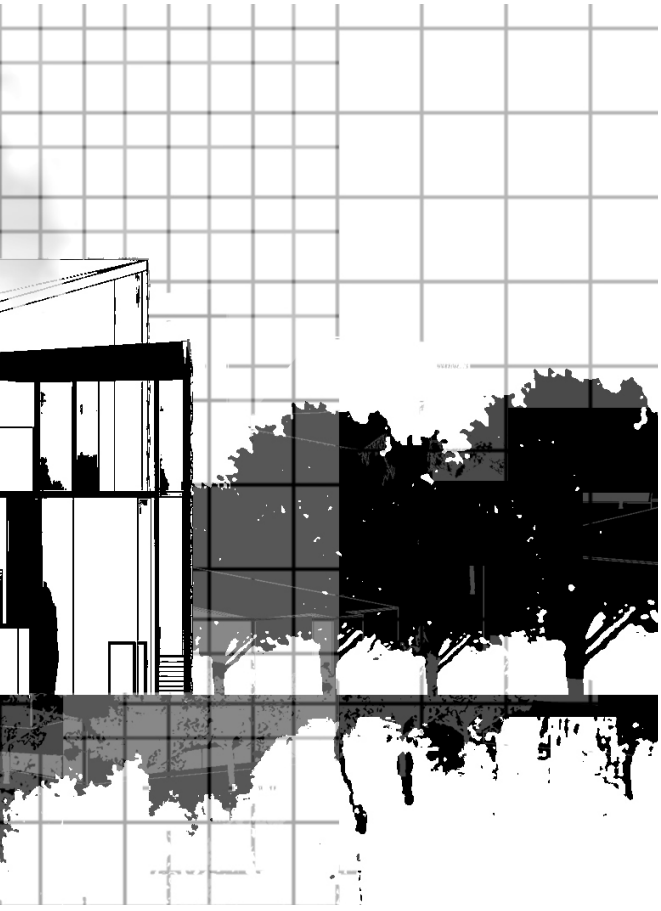
Sections



Section B-B

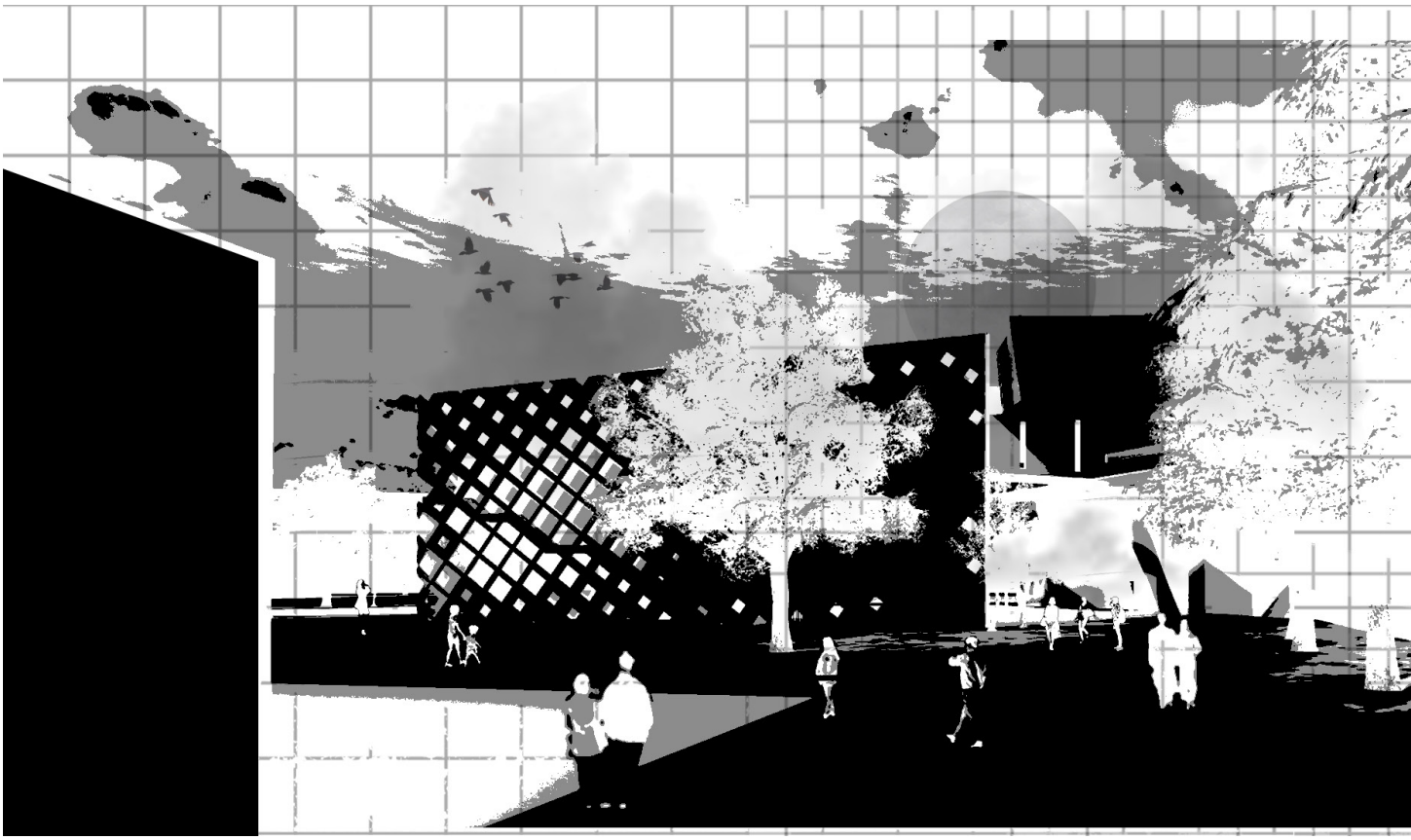




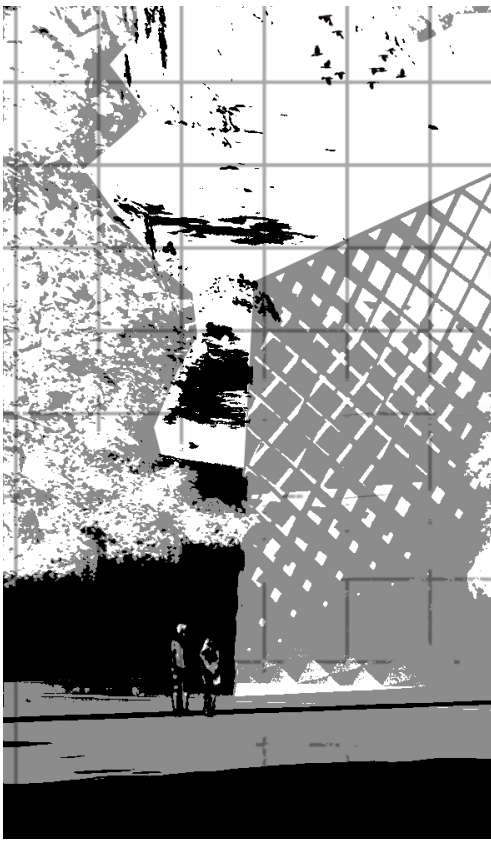


Section line A-A cuts through the Data Arena and the Ad Alley building. The tunnel presents the direct connection between these two buildings making the transition more explicit.
The Data Arena is a high building with the core inside which is only accessible on the ground floor. Continuing to the AD Alley building which is cut at the BIG BROTHER room where two of them are accessible but the third one is not. The third room gives an indication of not being able to find the whole truth.

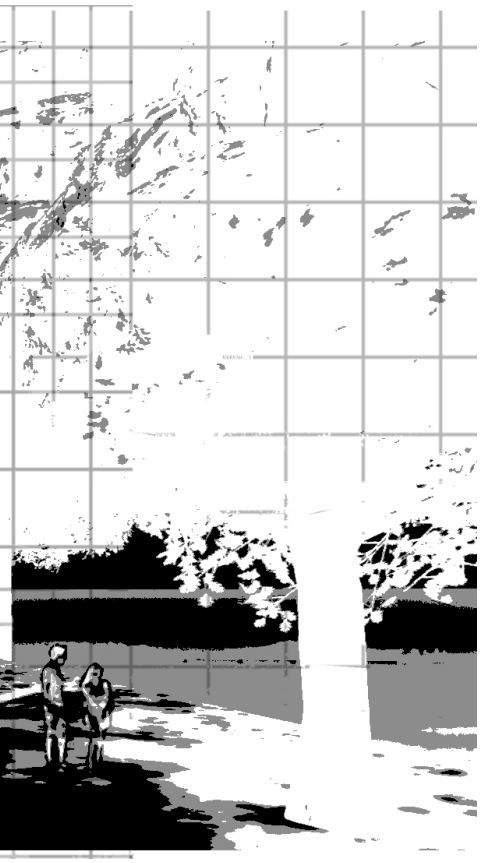
Section line B-B is cutting through two buildings showing the different levels, where the AD Alley is higher than the second level of the Fact or Fake building. Going from one building to the other experiencing the level difference gives the feeling of disorientation.



Relation to

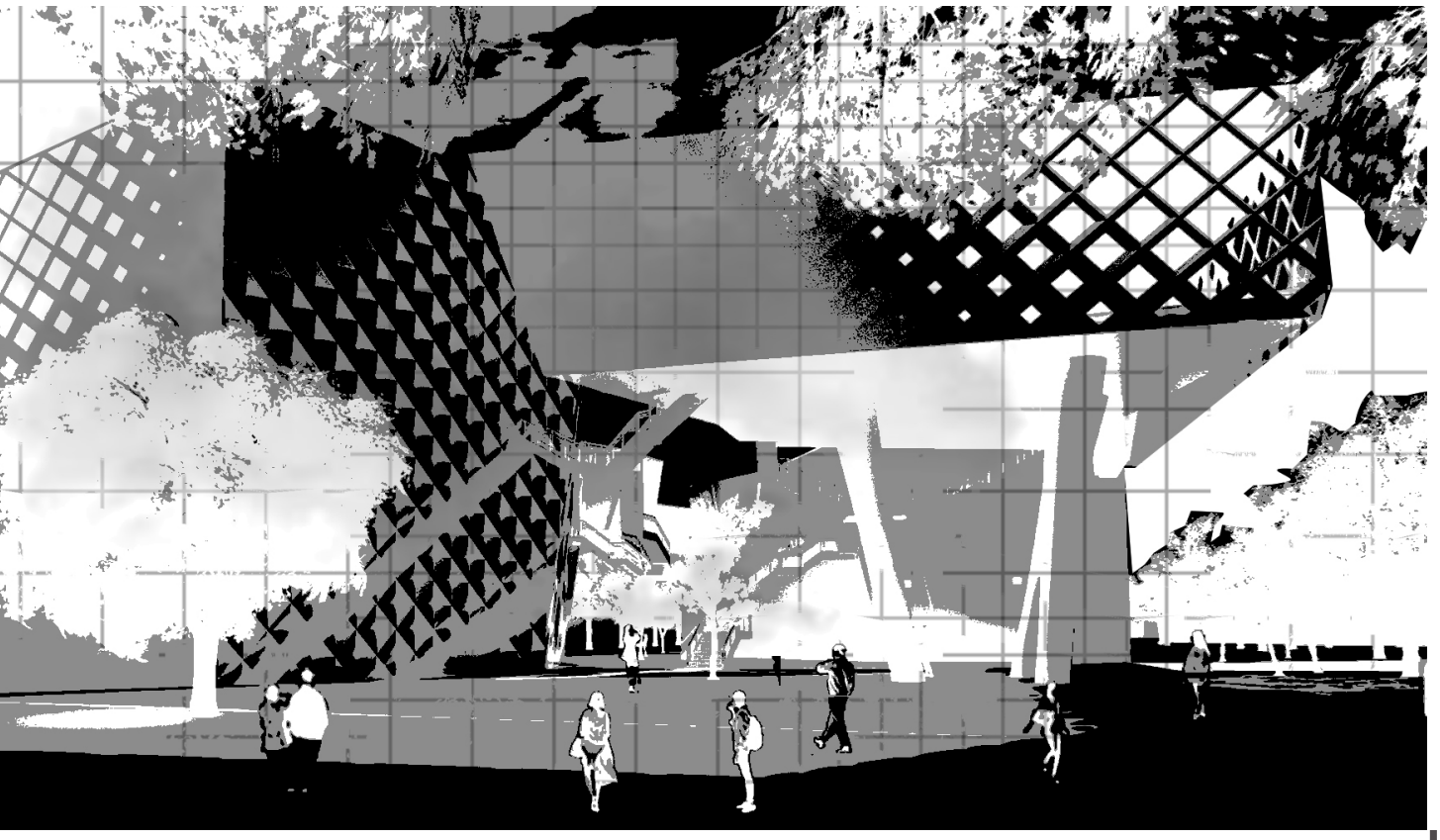


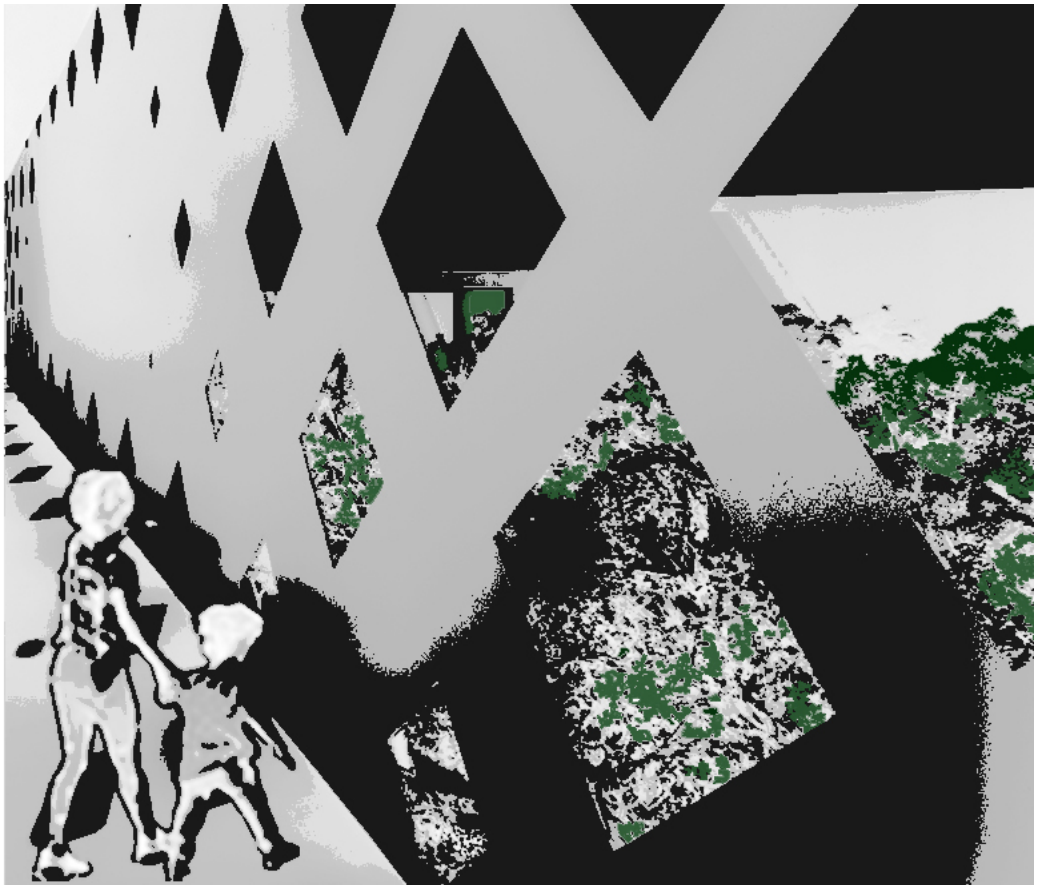
The virtual world has become integrated into each and every aspect of our daily life. This integration is implemented in the design concept of the building, where the building skin allows the creation of direct contact with nature. Taking a look at the inside makes this relation very clear.
There are two main connections to the nature: 1-the water side making a comprehensible link with two buildings, creating a direct sightline. 2-The green area around the building which is experienced from the exterior of the building as well as the interior of each building.

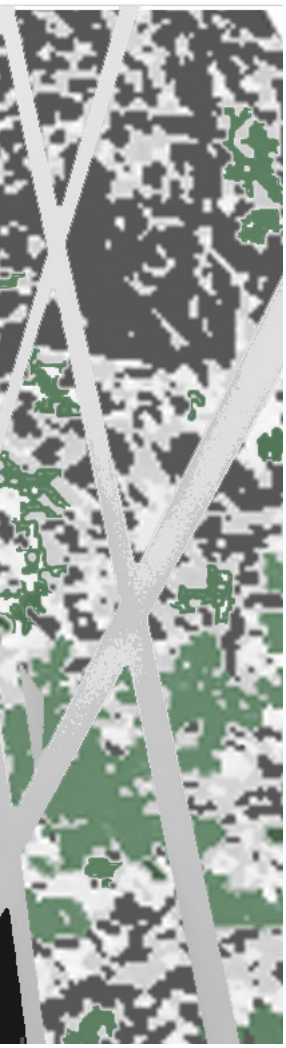


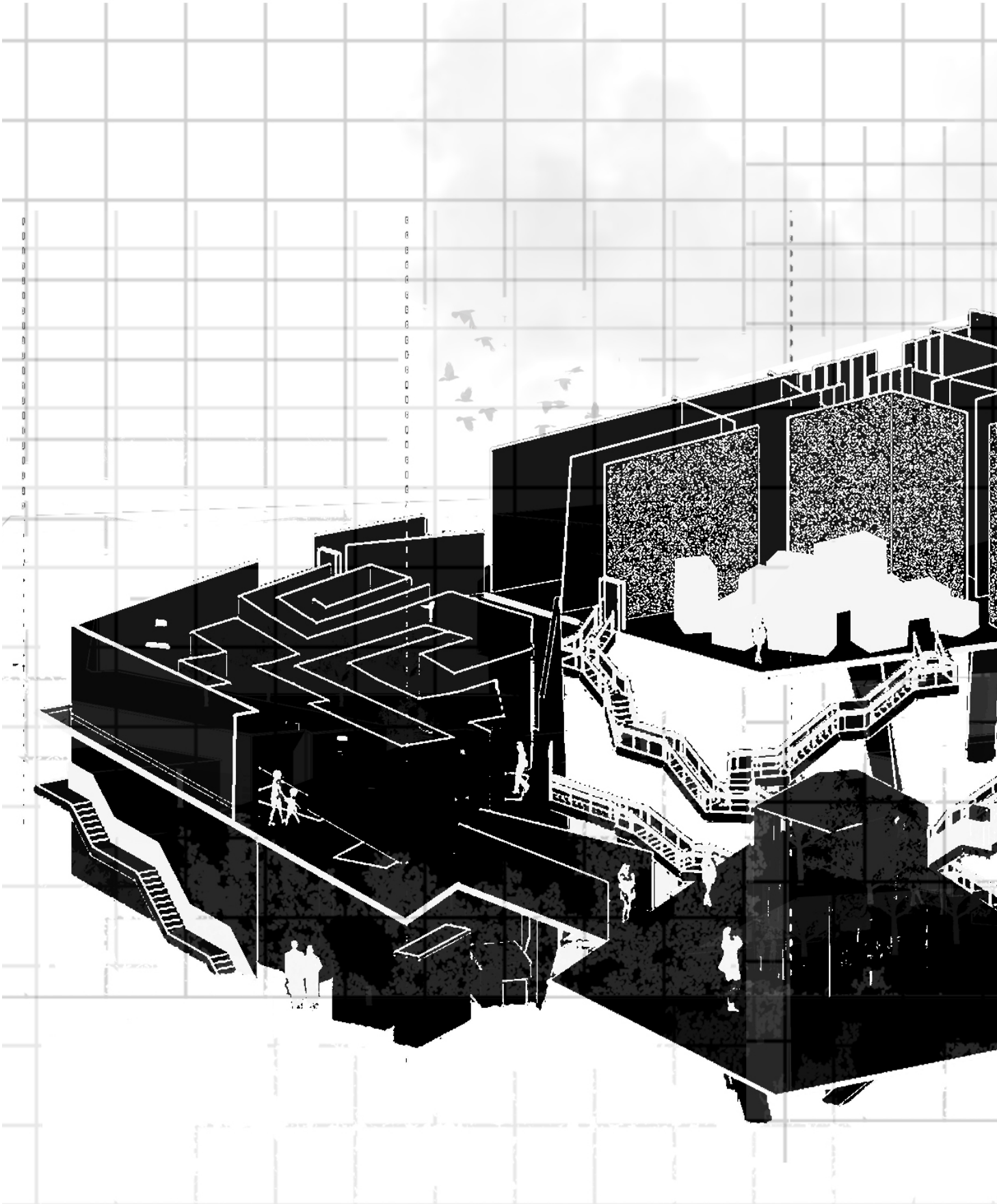
The building's configuration on site has made the building entrance visible from all sides. As the main entrance line -to the site- is taken in the design concept to be one of the main guiding lines, it exposes a strong relationship between the building and nature around it. The view from the outside to the inside gives a curious feeling only being able to see the small skin cuts from the outside. A new plaza has been born by the core of the building creating a strong platform for discussion.

the outside

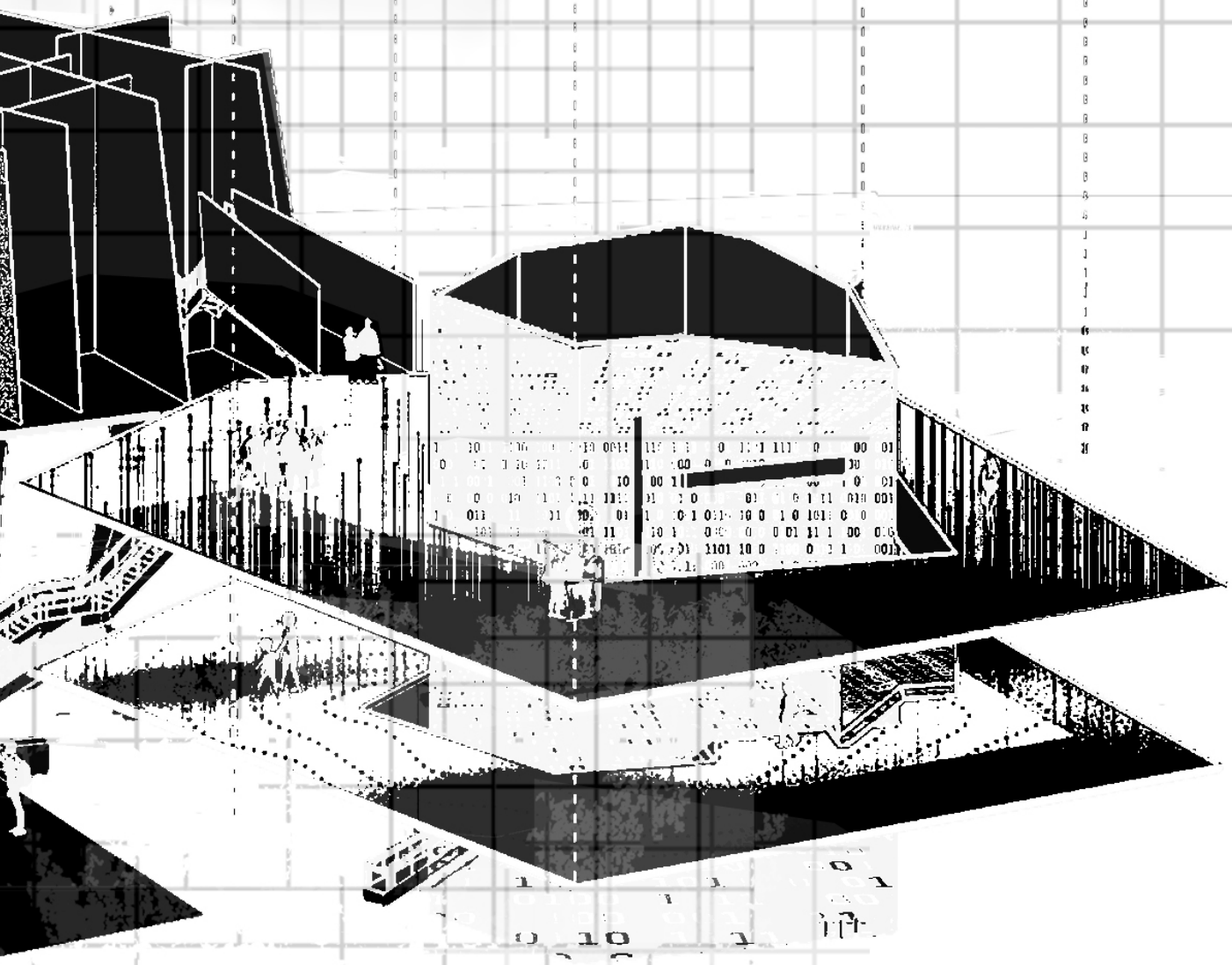








This building offers the visitors the opportunity to experience the digital world from a different perspective. Each is uniquely written by the visitor/actor. The connections between the buildings create a secure sphere exposing the interior as well as the exterior. These connections can be experienced in two different ways: 1-the intimate dark tunnels hiding the next step behind making the visitor more curious. 2- the labyrinthic stair core is holding the four building parts together.



Deconstruction of buildings

How !

W h y ?

1-Data Arena

Why

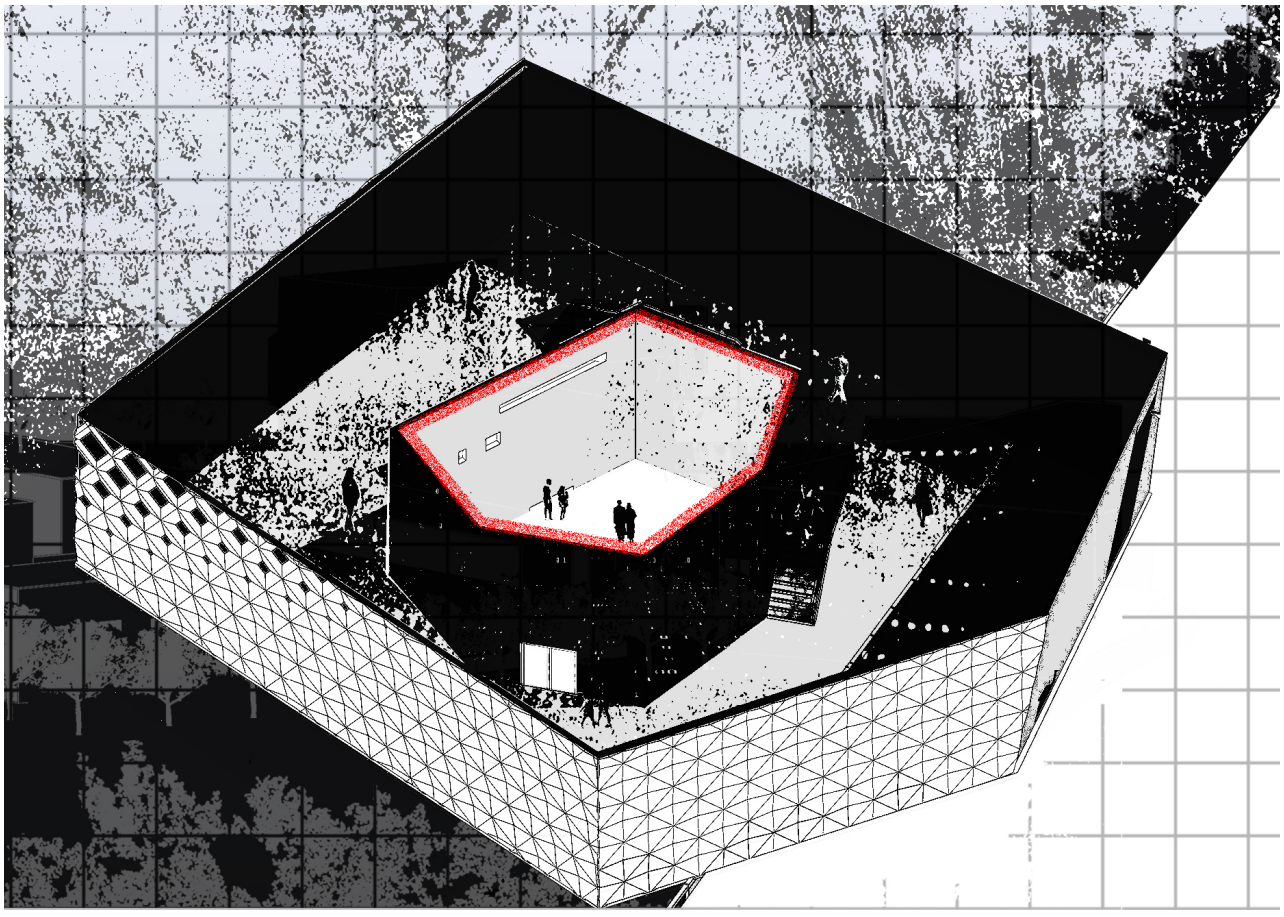
The point of departure of this building is unpacking the data invisibilities and presenting how small we are in the data world. People share their stories, make videos, retweet quotes, and do many other things all in the online world. All of this has created a large invisible database leaving some traces behind for us to analyze and produce a different vision of visibilities and invisibilities. Within this conceptual framework this building introduces a reflective experience of the data flow where a new layer of an intermediary between the visible and invisible data will be introduced.

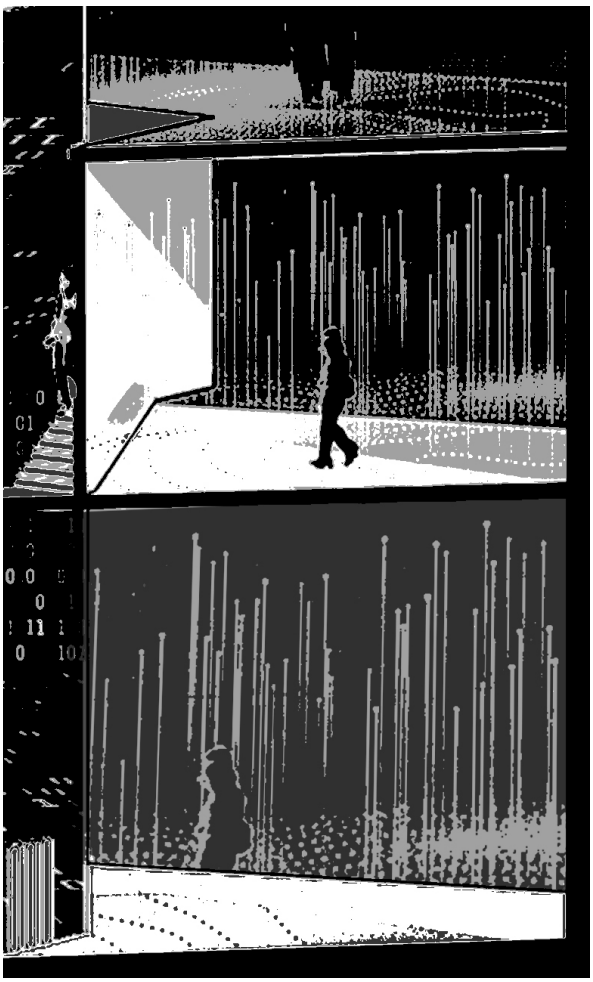
How

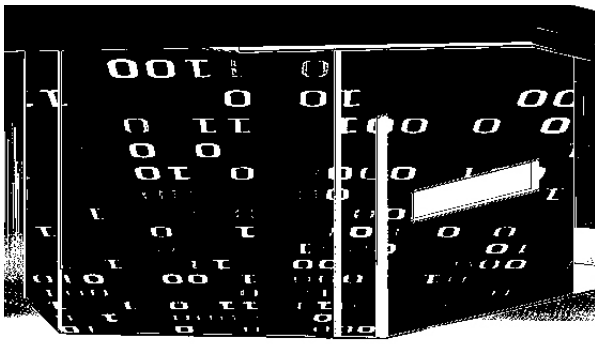
The data world is presented by the three-story high building, each story is seven meters high reflecting the unbalanced proportion between us humans and that big world. The red inside core is demonstrating a deeper layer of the outer part introduced by the hanging information leds. The core has one access point from the ground floor and can be seen from the other levels from different openings.

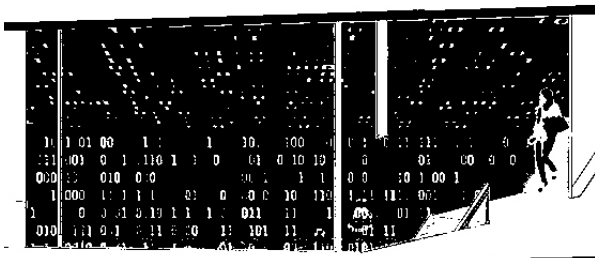
Possible scenario/s

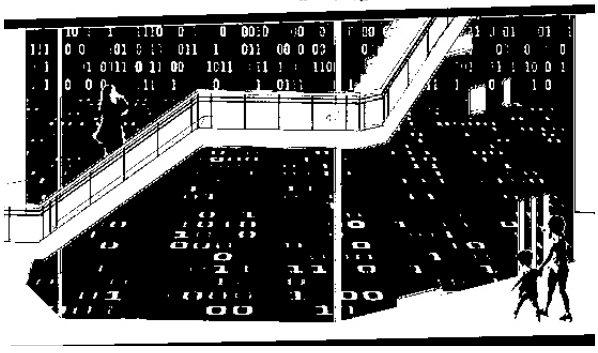
The building can be accessed to the core stairs until finding the second level door or from the AD Alley-connecting tunnel. Entering the second level, the core is visible with some openings and here a choice had to be taken. Either take the stairs to the ground floor where the entrance to the core is located or take the stairs to the upper floor where the tunnel door will lead to the AD Alley building.

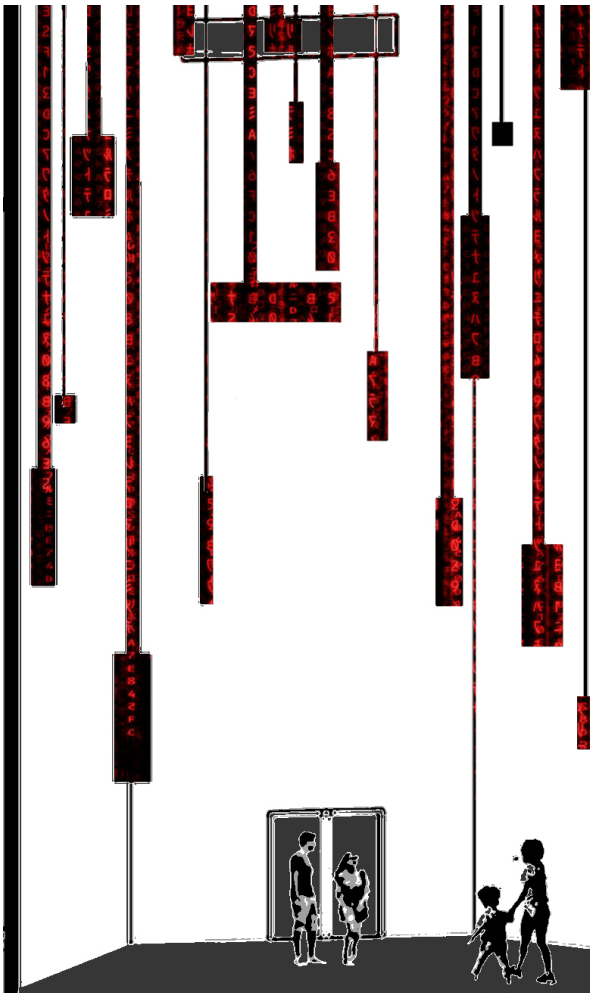


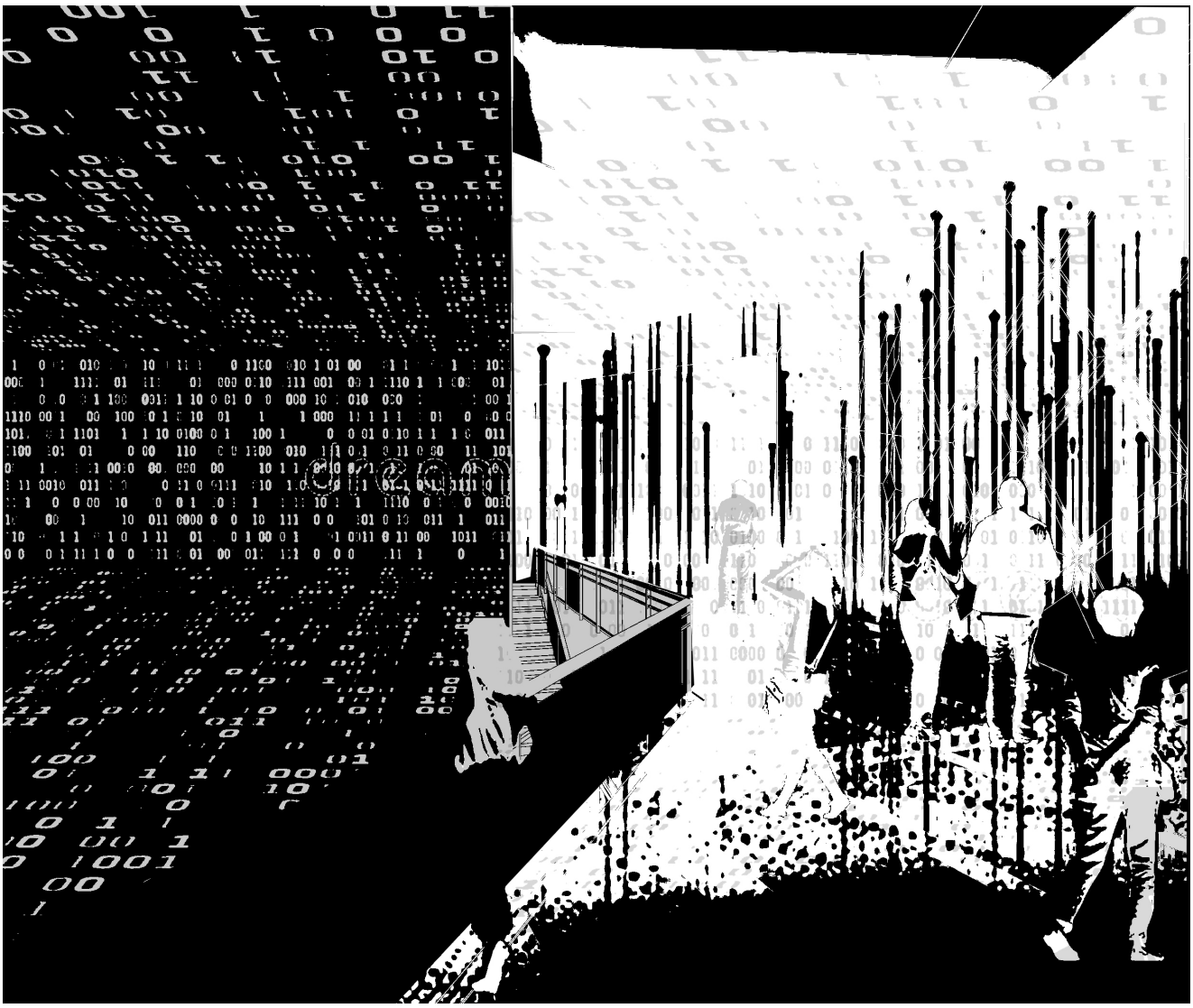


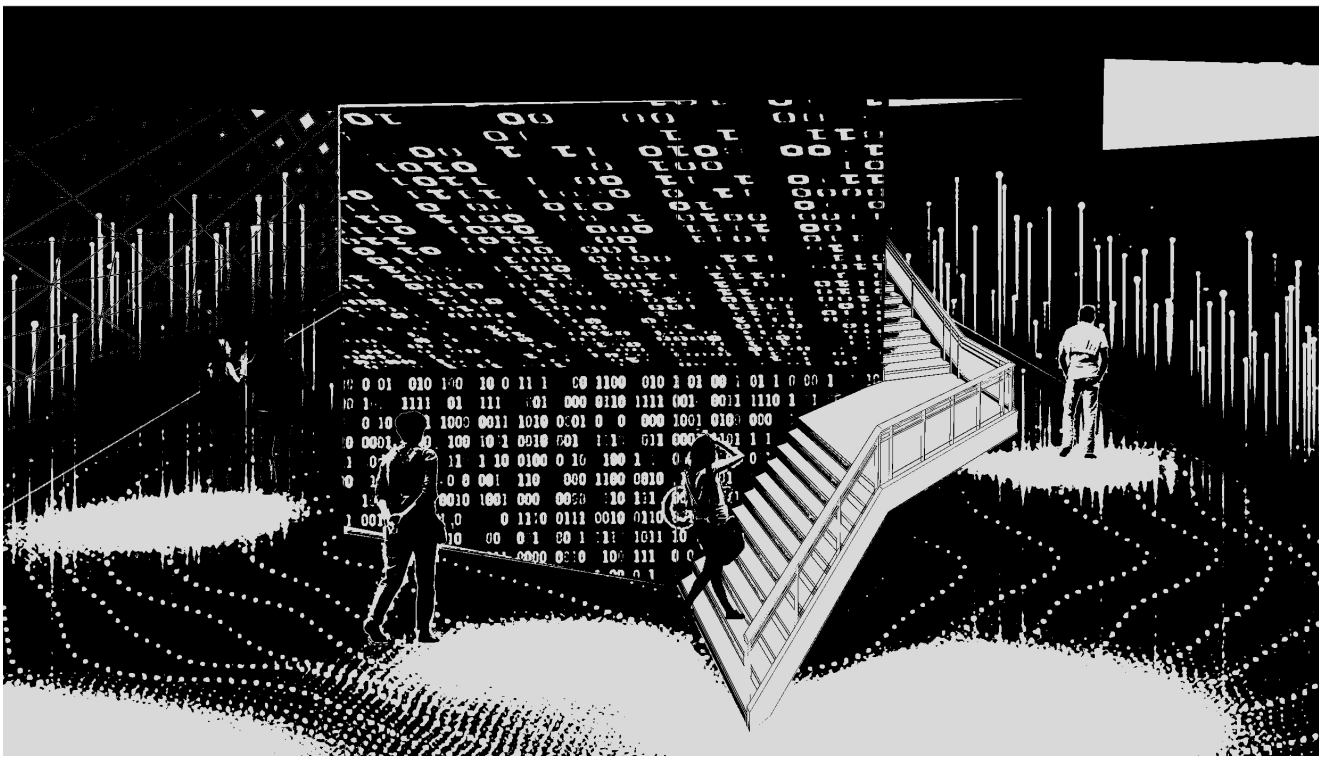












2-AD alley & Control room

Why

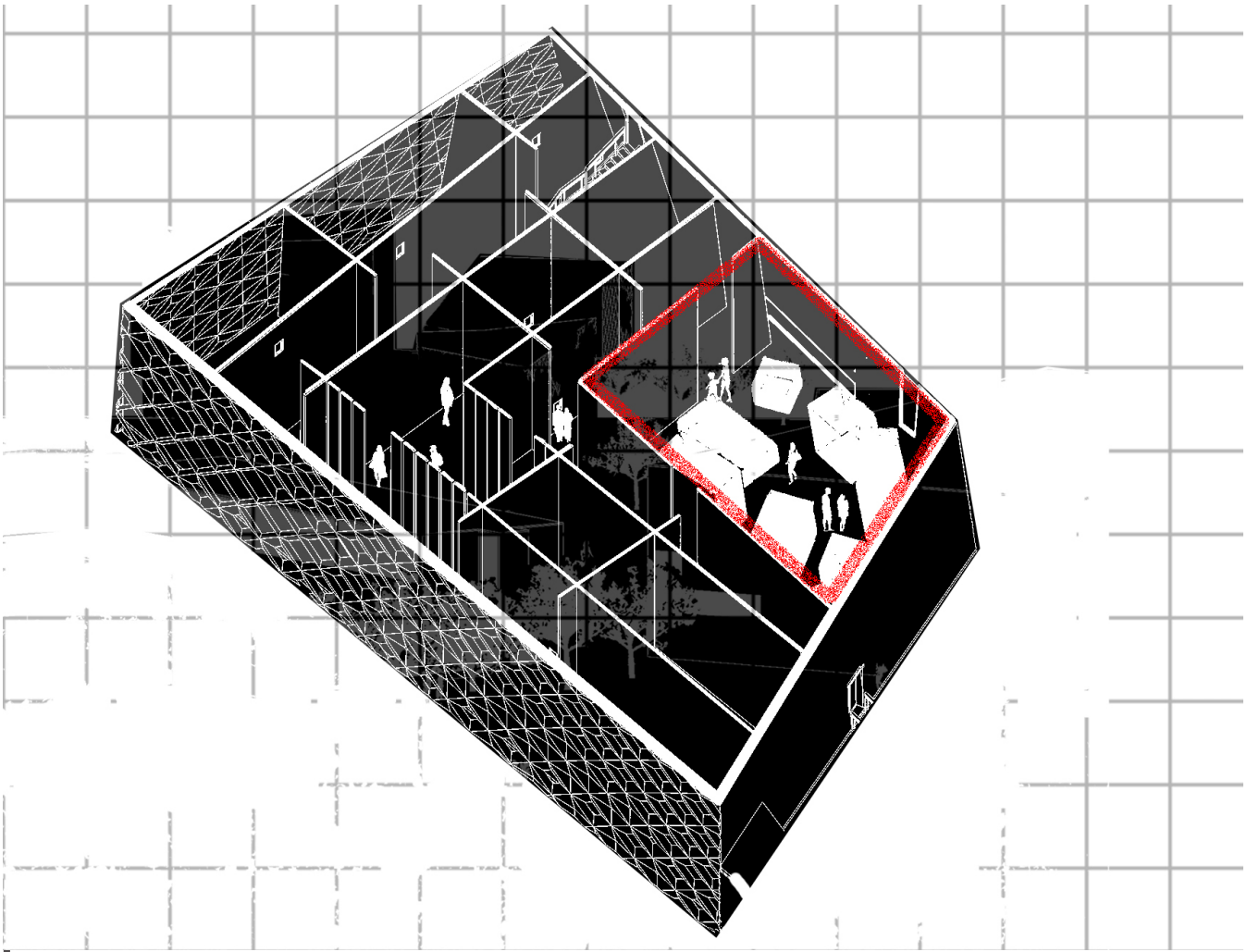
The data flow contains large amounts of private data about individuals' characteristics and interests, these amounts of data are collected by other parties. These specified data collections are used to create target advertisements which declares the invasion of personal privacy. an average user may value and enjoy these target advertisements without being aware of this invasion.

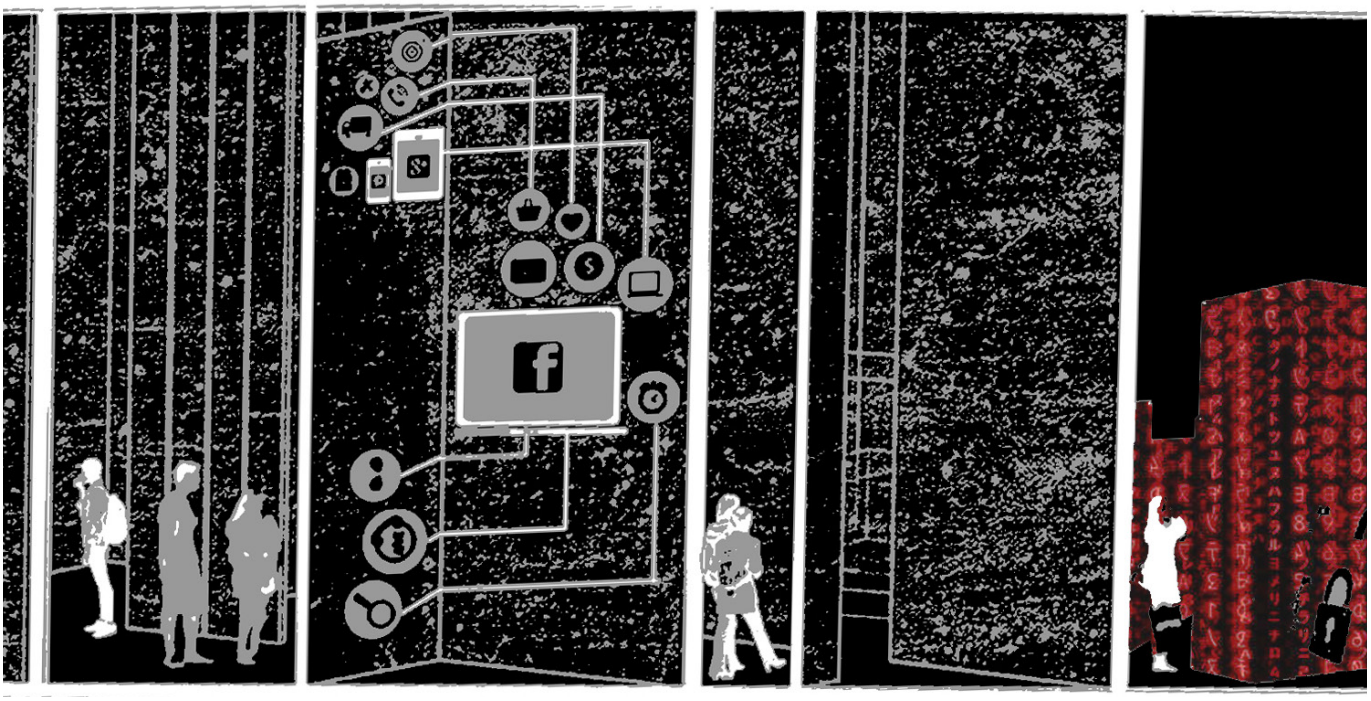
How

The AD Alley presents narrow halls with high ceilings reflecting the small chance it leaves to be freely surfing the internet. Some rooms are open for people to go in and watch other visitors giving the feeling of the BIG BROTHER watching. The red highlighted room is the control room where visitors get more informed about how these targeted advertisements are processed using their personal information.

Possible scenario/s

From the labyrinthic stairs, the control room in the AD Alley building will be reached directly. The Ad alley hallways can be entered from the connecting tunnels between the data arena building or the Fact or Fake building. These two paths used to enter the building lead to two different experiences, where the first one will see the secrets of the watching BIG BROTHER directly while the other will be following an intimate hallway ending or with the control room or the tunnel.





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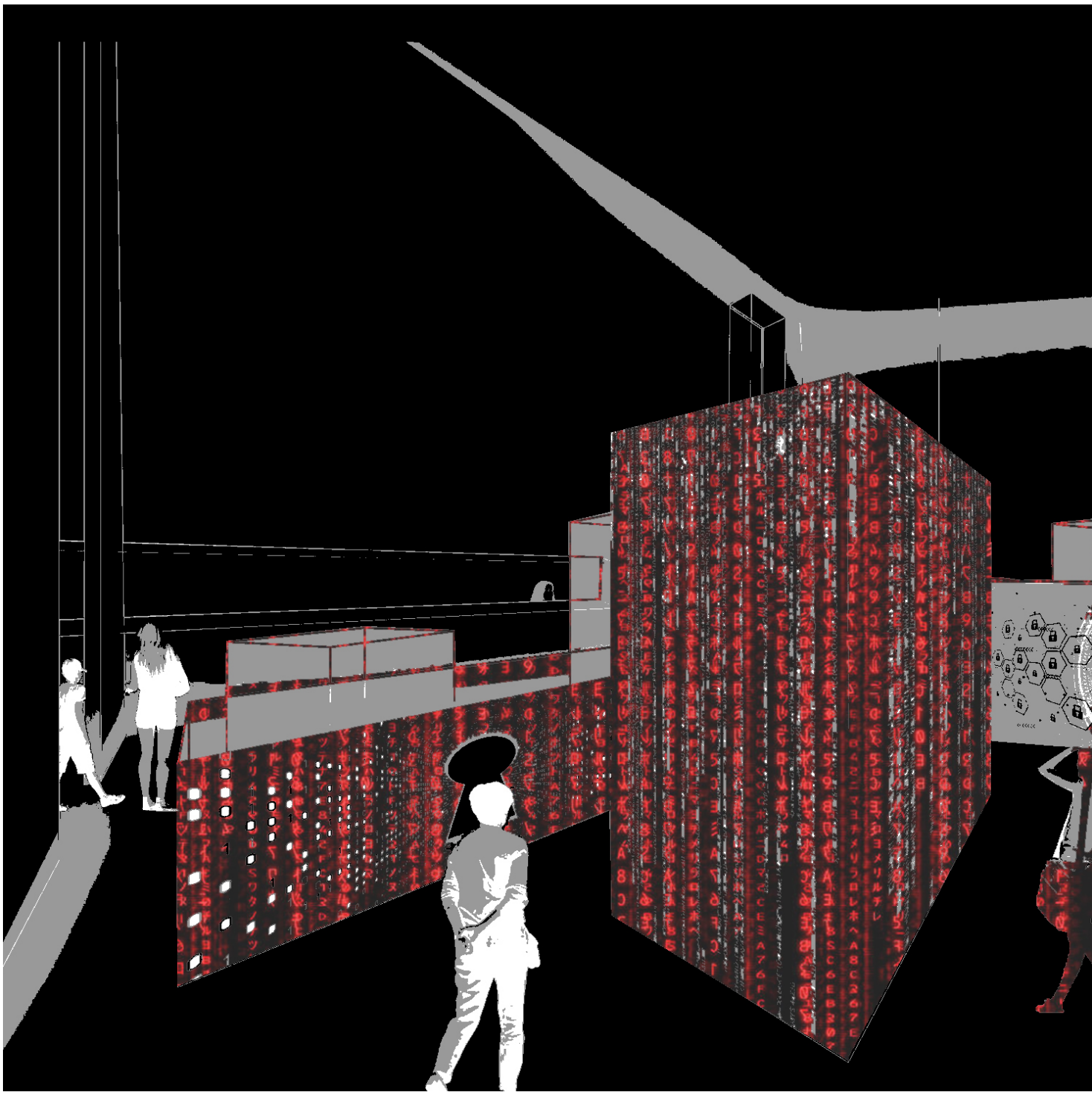
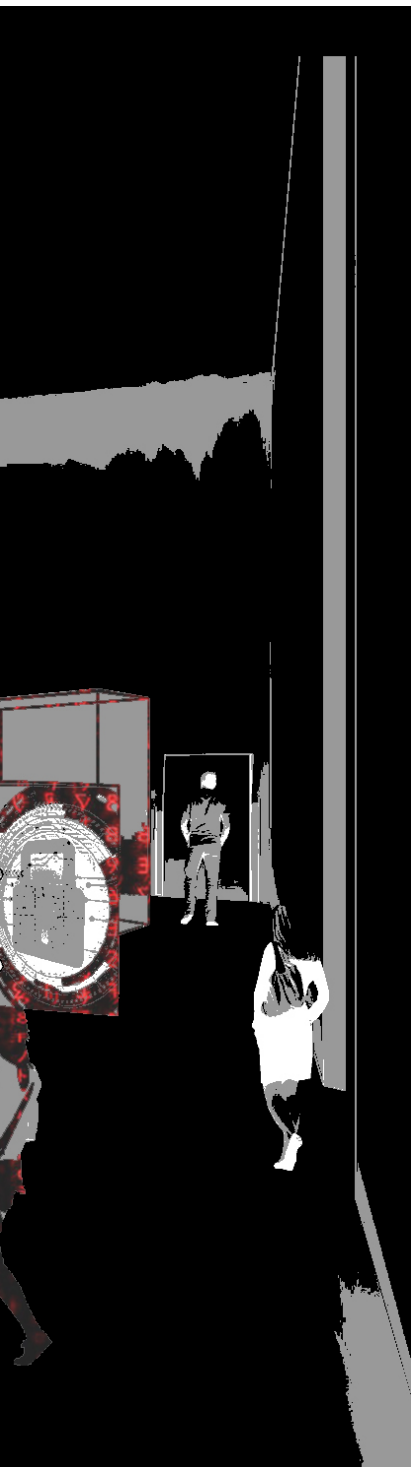




3-Fact or Fake

Why

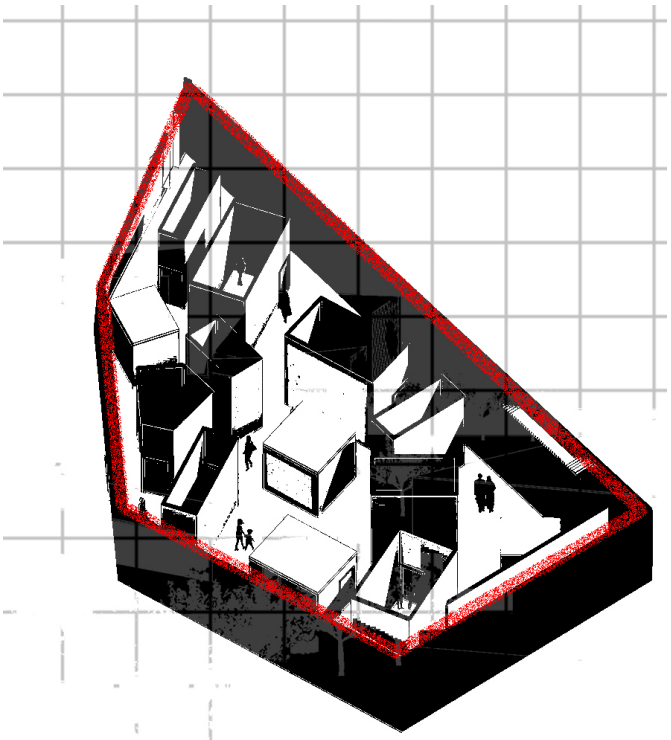
Although internet users express their concerns about revealing personal data, there is a knowledge gap between the users and privacy literacy. this gap needs to be lowered to the minimum whereas the users gain more awareness and the ability to protect their own data. Due to the different levels of knowledge reached by internet users the amount of information will be provided.

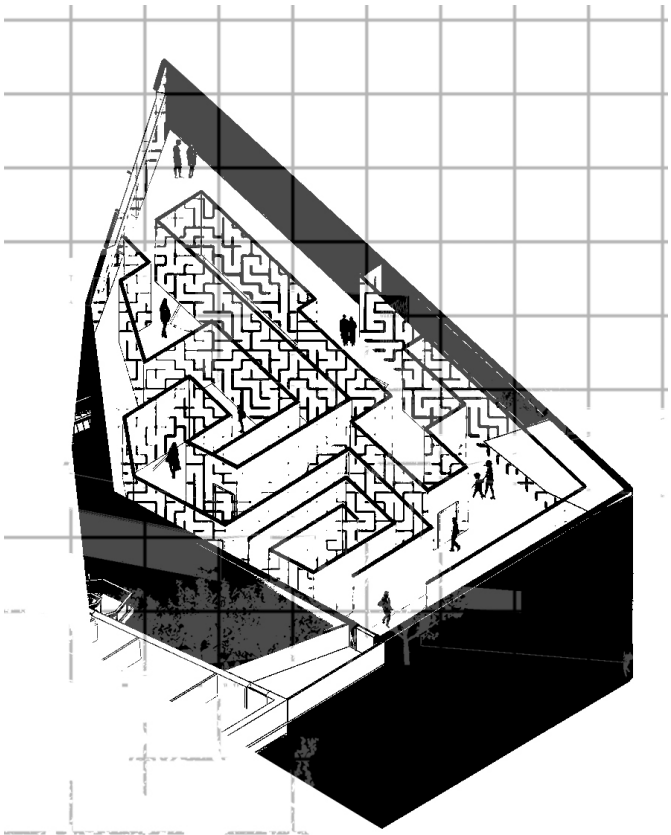
How

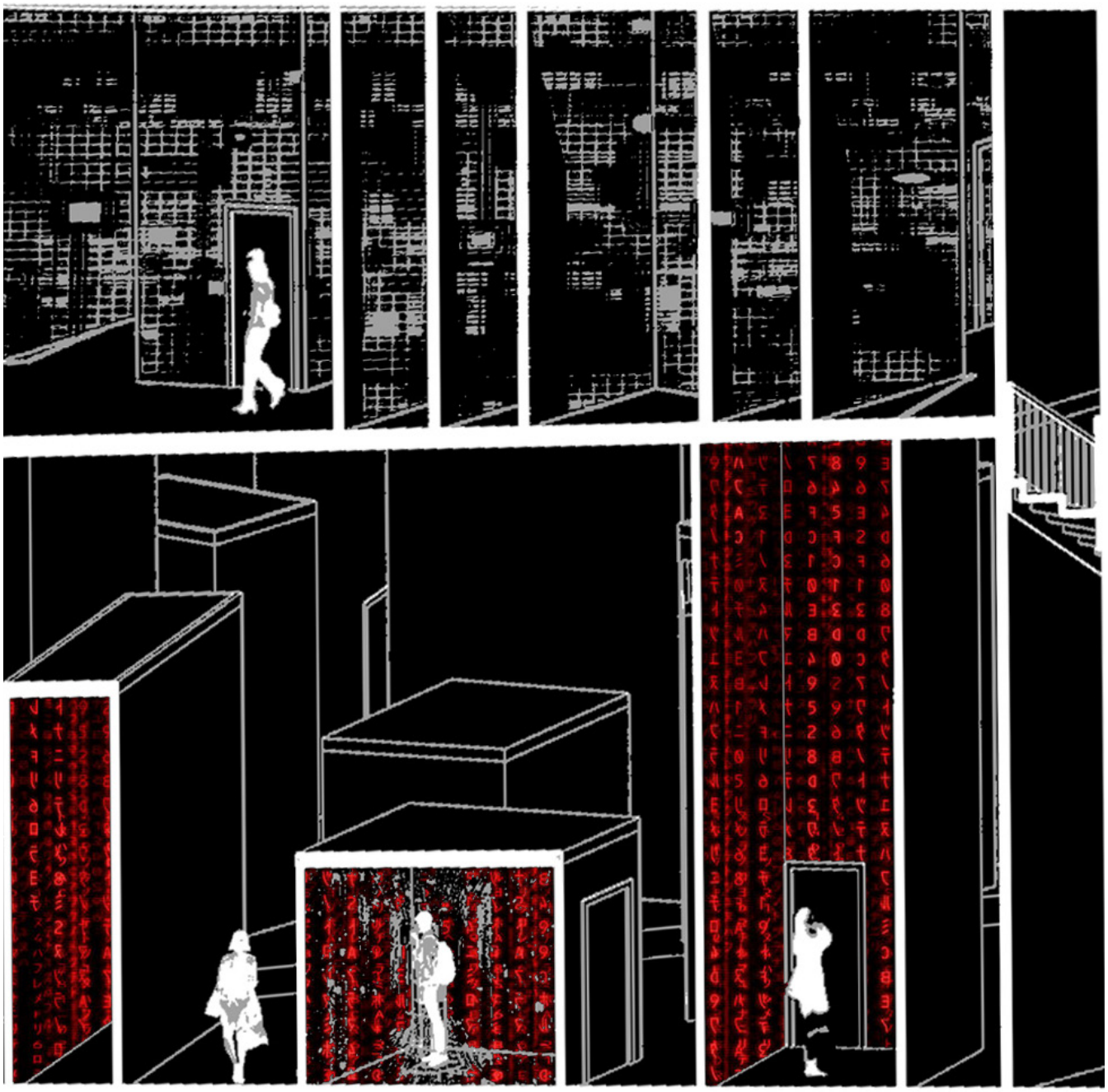
This interactive building is separated into two different levels. The upper level presents the labyrinthic path where the accessibility to the other side is dependant on the amount of knowledge; the more questions are answered> the more doors will open> the quicker the other side will be reached.
The red bounded ground level provides individual interaction filling in the knowledge gap. On this level, different cubes can be entered gaining more information using various methods.

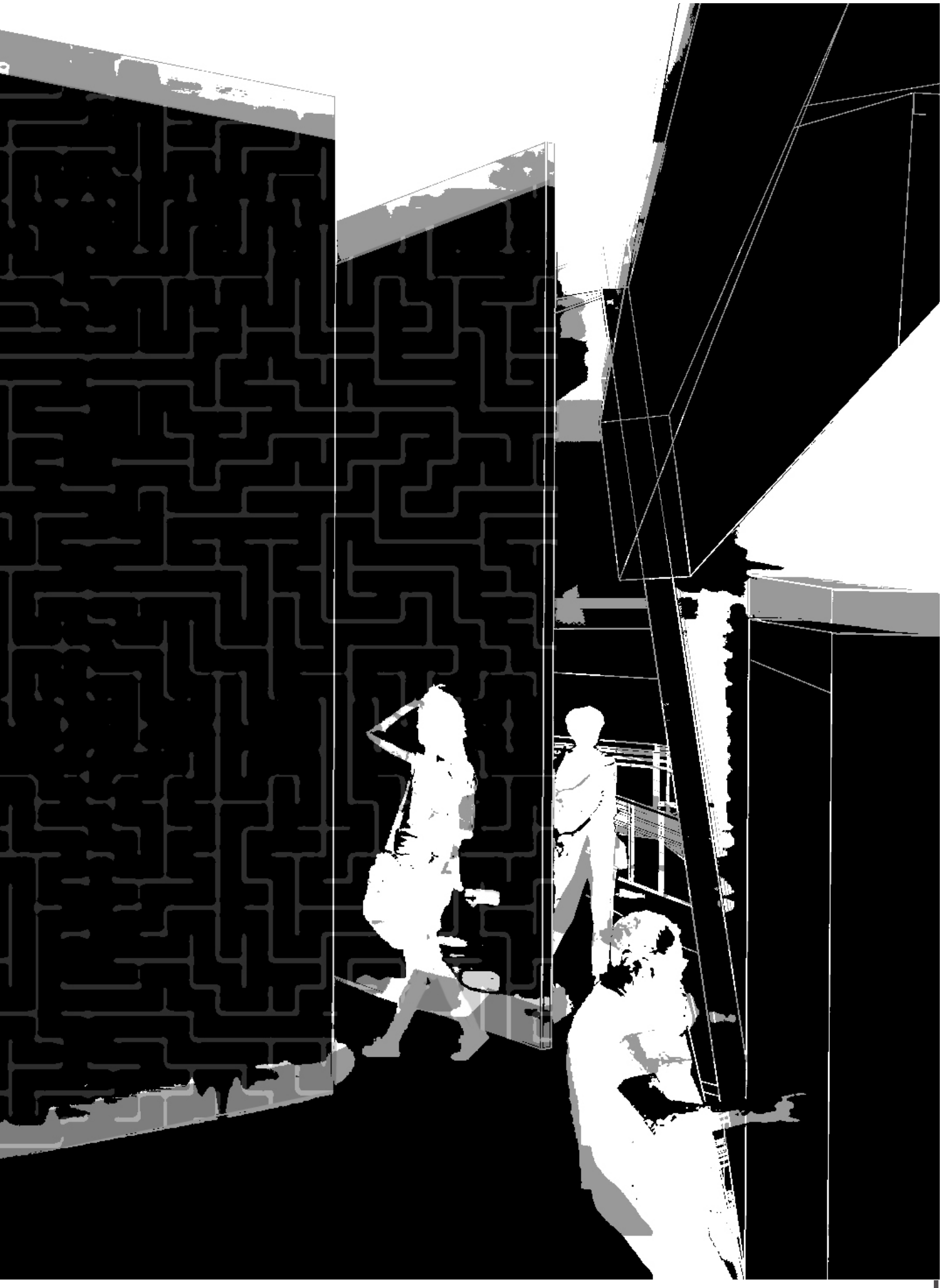
Possible scenario/s

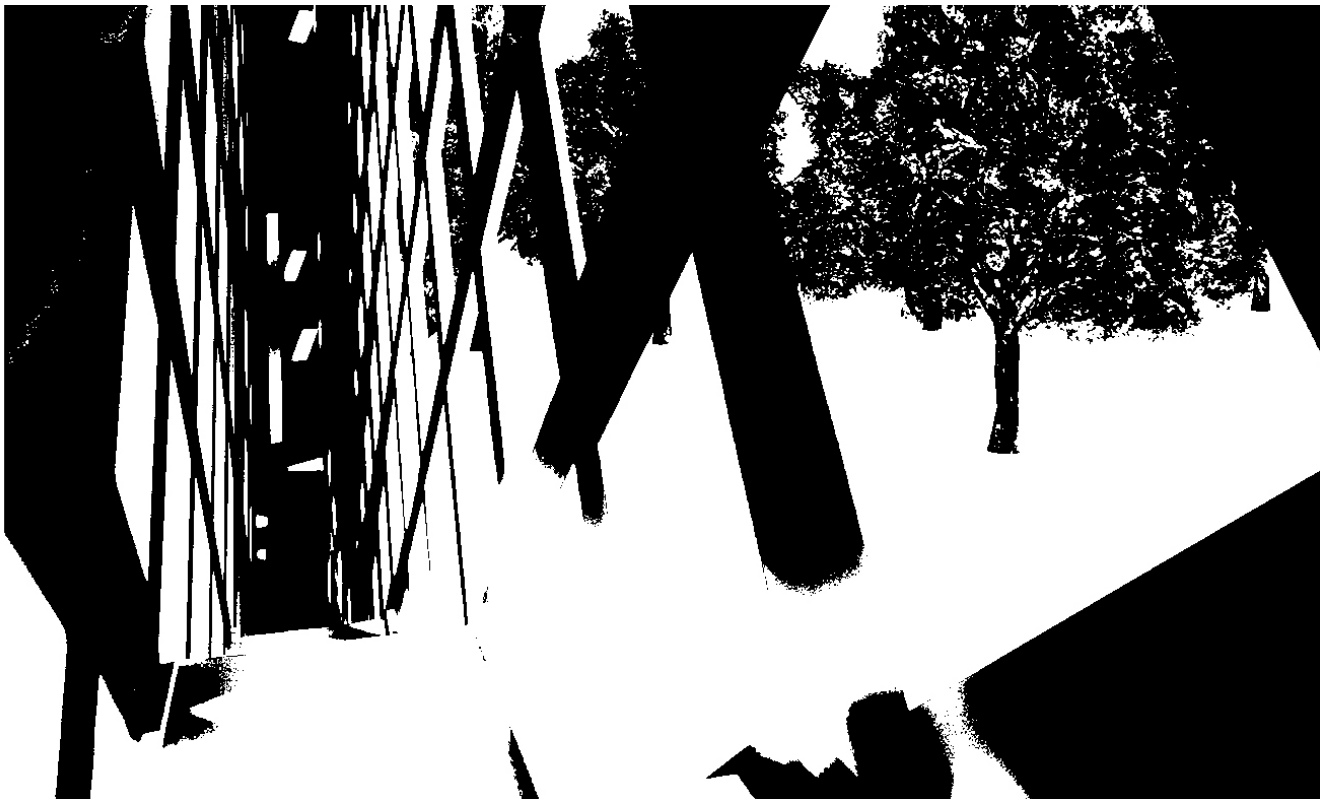
This building is holding two very different experiences that enforce each other. Entering the second level where the labyrinth plan takes place will reveal how much knowledge one has. This part will define whether you will go to the ground level or not. The ground level provides the answers to the knowledge gap allowing the visitor the chance to reach the next tunnel going to the Enlightenment ville.











4-Enlightenment ville

Why

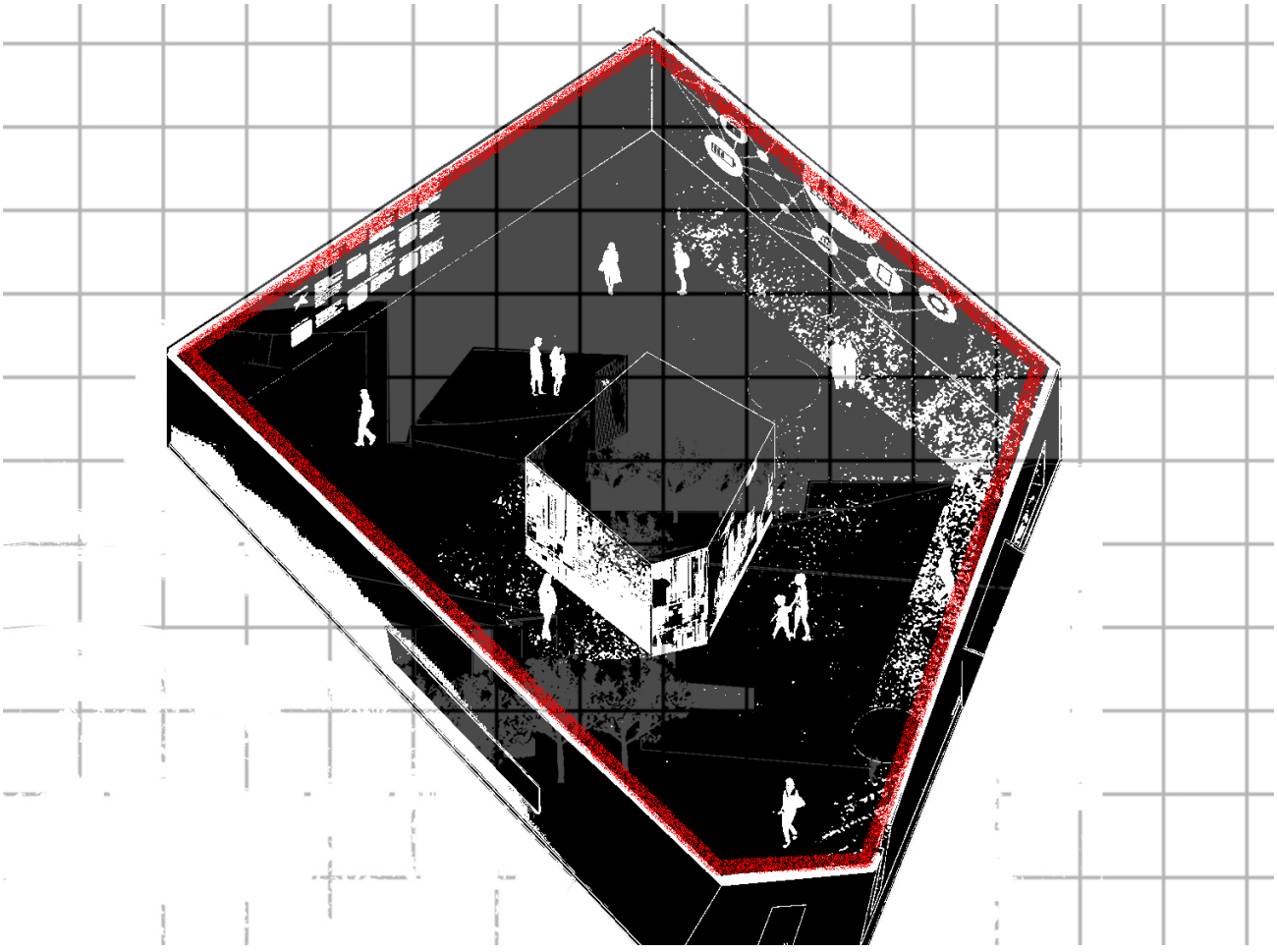
The complex issue of personal data privacy covers a wide range of actions; the way data is created, collected, stored, and shared. Although this issue is one of the most discussed matters nowadays, not much is done to prevent this violation. Users have to be enlightened about all kinds of personal data control enforced on them getting the chance to choose whether to share their data or not.

How

The Enlightenment ville is an oriented space where only a core pillar is offset from the walls. This is the light at the end of the tunnel providing concrete methods to protect our own data, giving the feeling of hope of finding part of the truth but yet having a feeling of anxiety not being able to find the whole truth.

Possible scenario/s

The Enlightenment ville is reachable from the connecting tunnel with the fact or fake building. The visitor has come to the moment of truth where the interactive installation gives the awareness boost.



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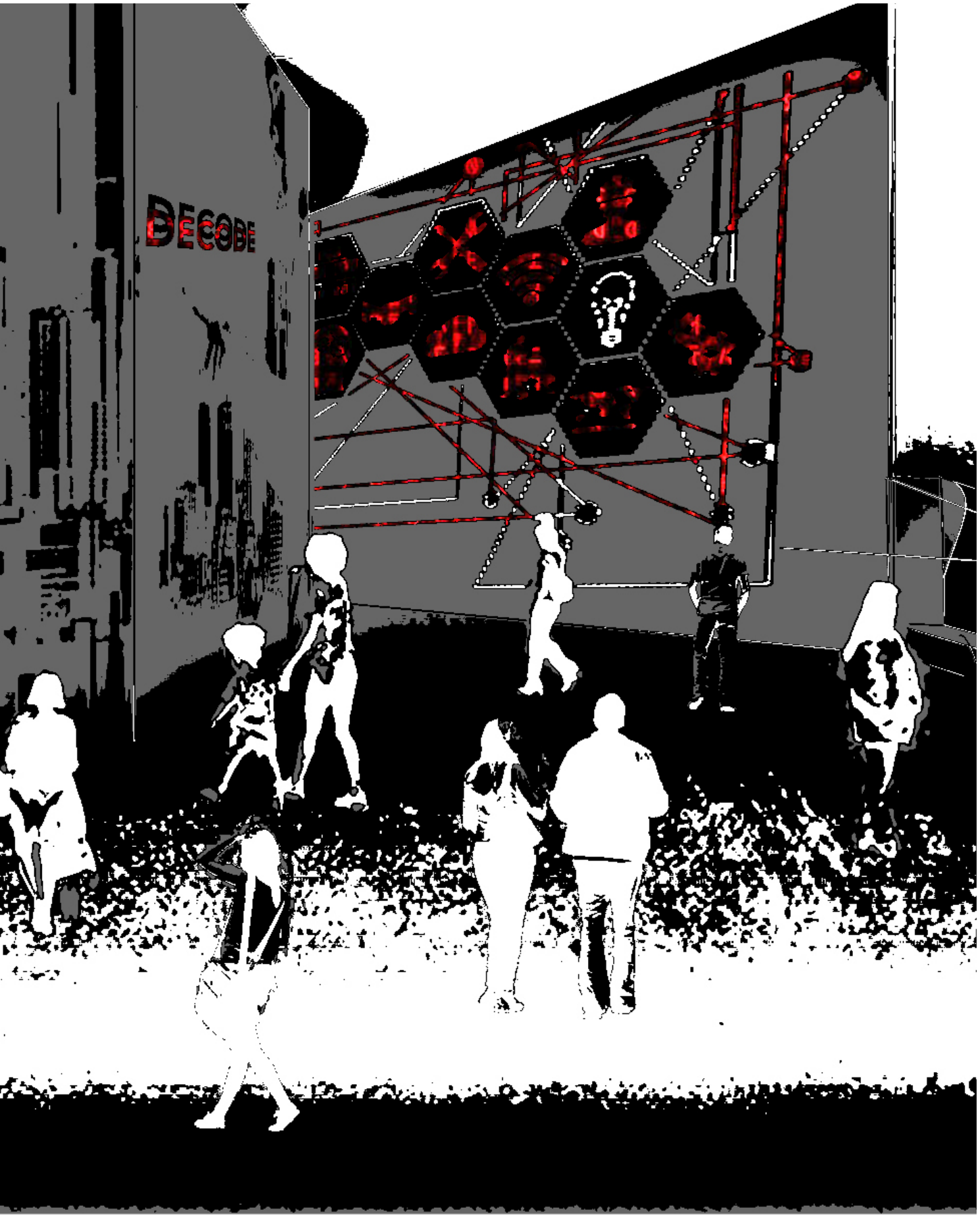
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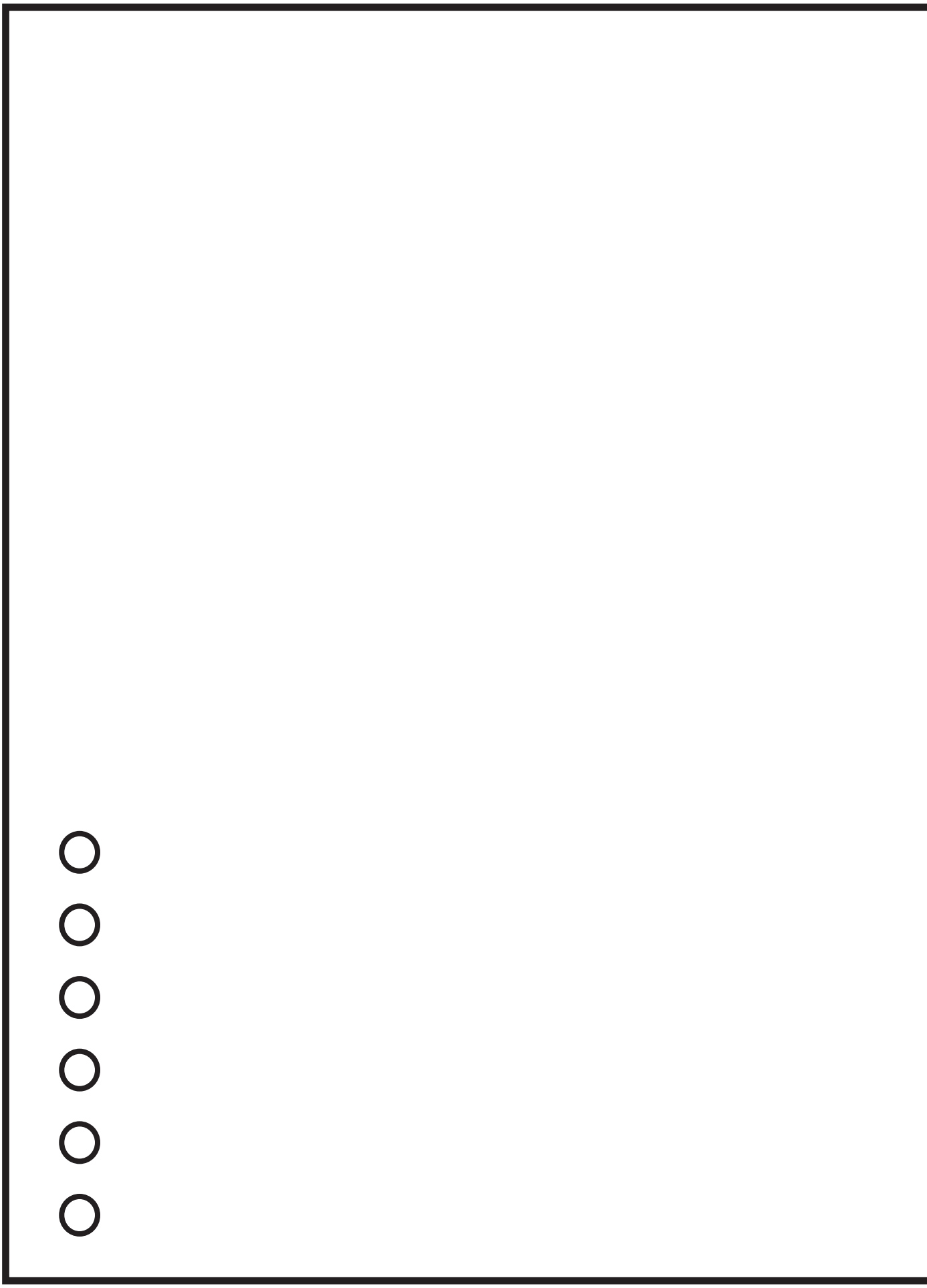
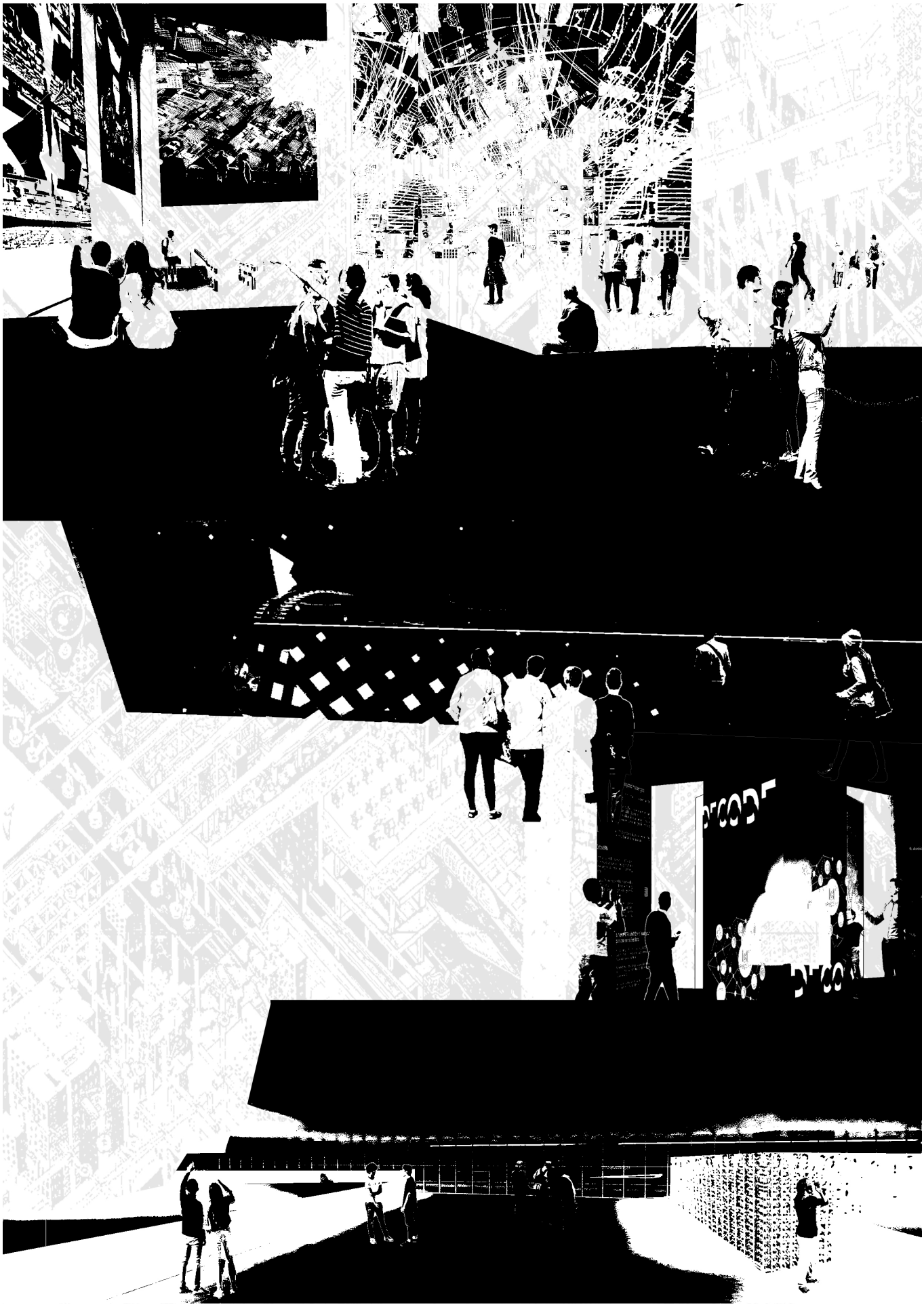


Micro level

Materialization & Detailing

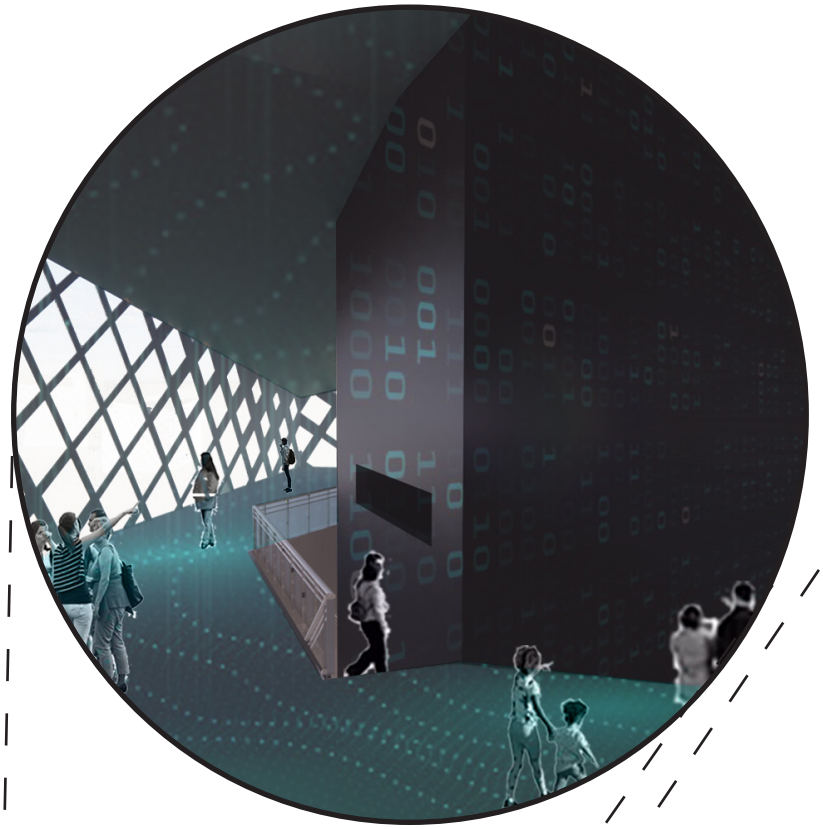


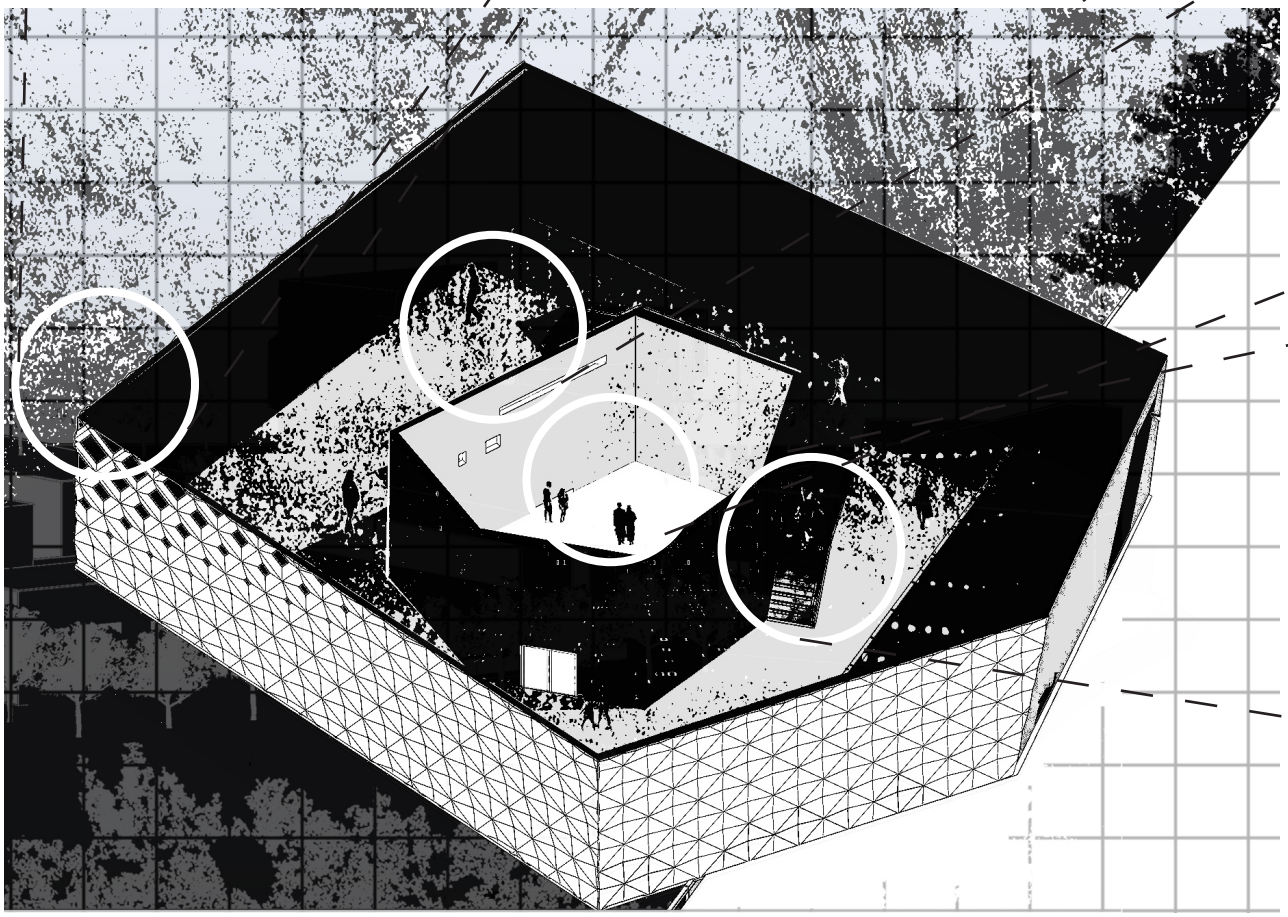
Data Arena

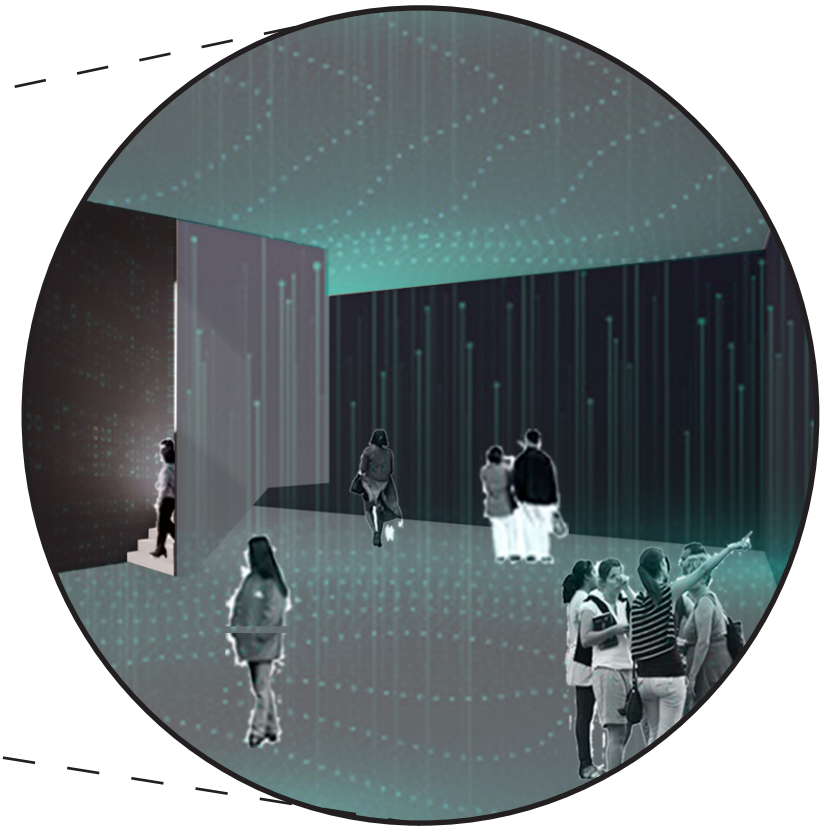
The outer skin of this building is an active element whether it is open or closed. Interactive screens allow the visitors to explore, research, contemplate or play.
This building, it is not about the material used for the construction phase as it is about the process to create the flying data atmosphere. This space is created from a plane concrete construction which gives straight and sharp lines enveloping the interactive screen installations. This place gives the opportunity for a continual redefinition of digital and physical interaction.
As shown in the realistic picture, the interior is all based on the interactive installation where the stairs are the exposed element working as a guide in this mysterious space. The interaction with outer space is allowed on the third floor reflecting the relation between the virtual and the physical world.
The core is partly visible from all levels through the different shaped windows, having a direct relation with the hanging elements can be experienced by entering the core from the ground floor. The hanging elements express the reality behind this data storm they have sensed.

PERSONAL DATA DOES NOT DESERV
JARON LANIER
WHO OWNS THE FU
SHOSHANA ZUBOFF
IF YOU HAVE NOTHING TO HIDE, YOU ARE NOTHING
THE AGE OF SURVEILLANCE CAPITALISM

IF YOU HA
THE





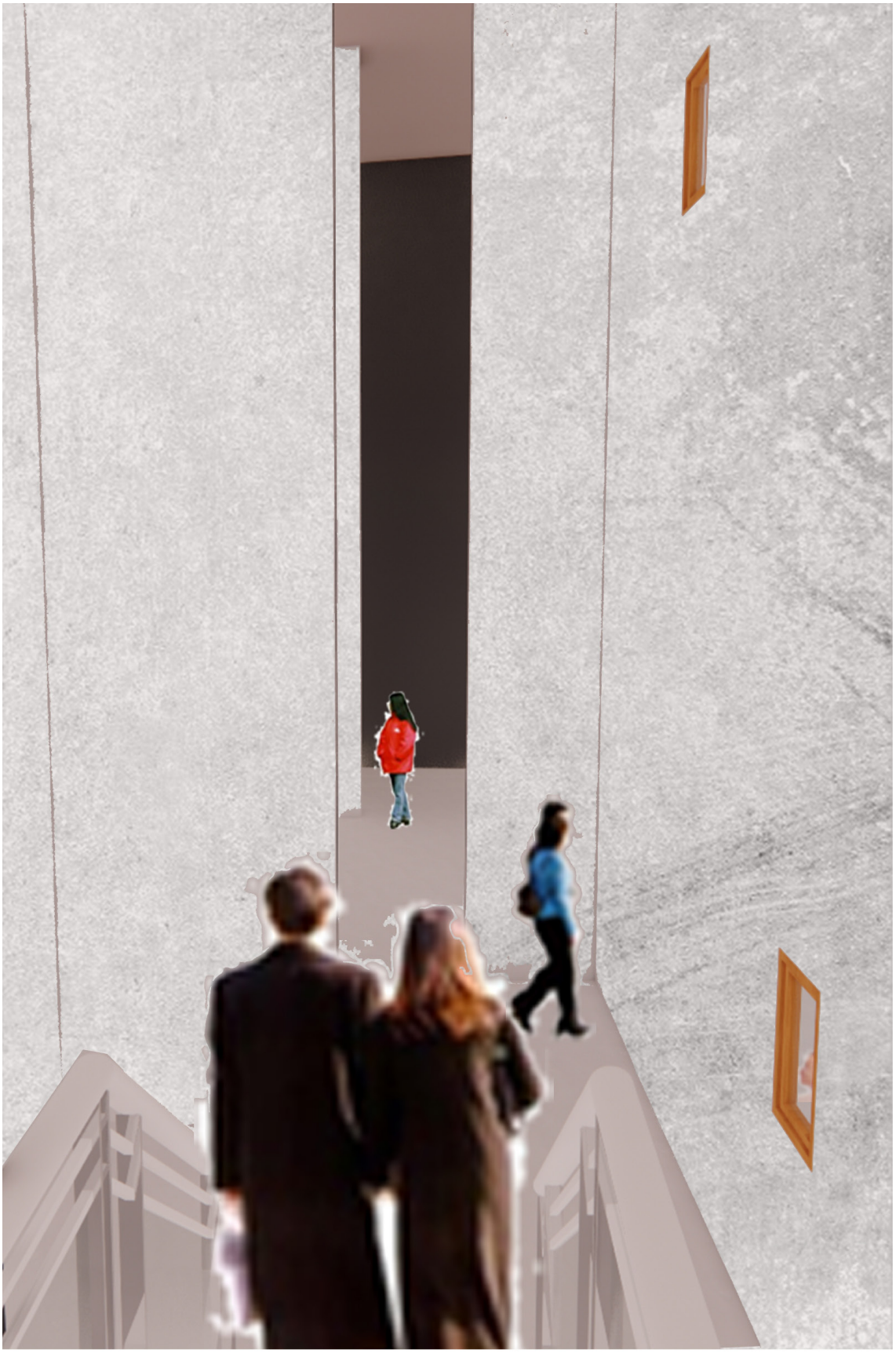


AD Alley

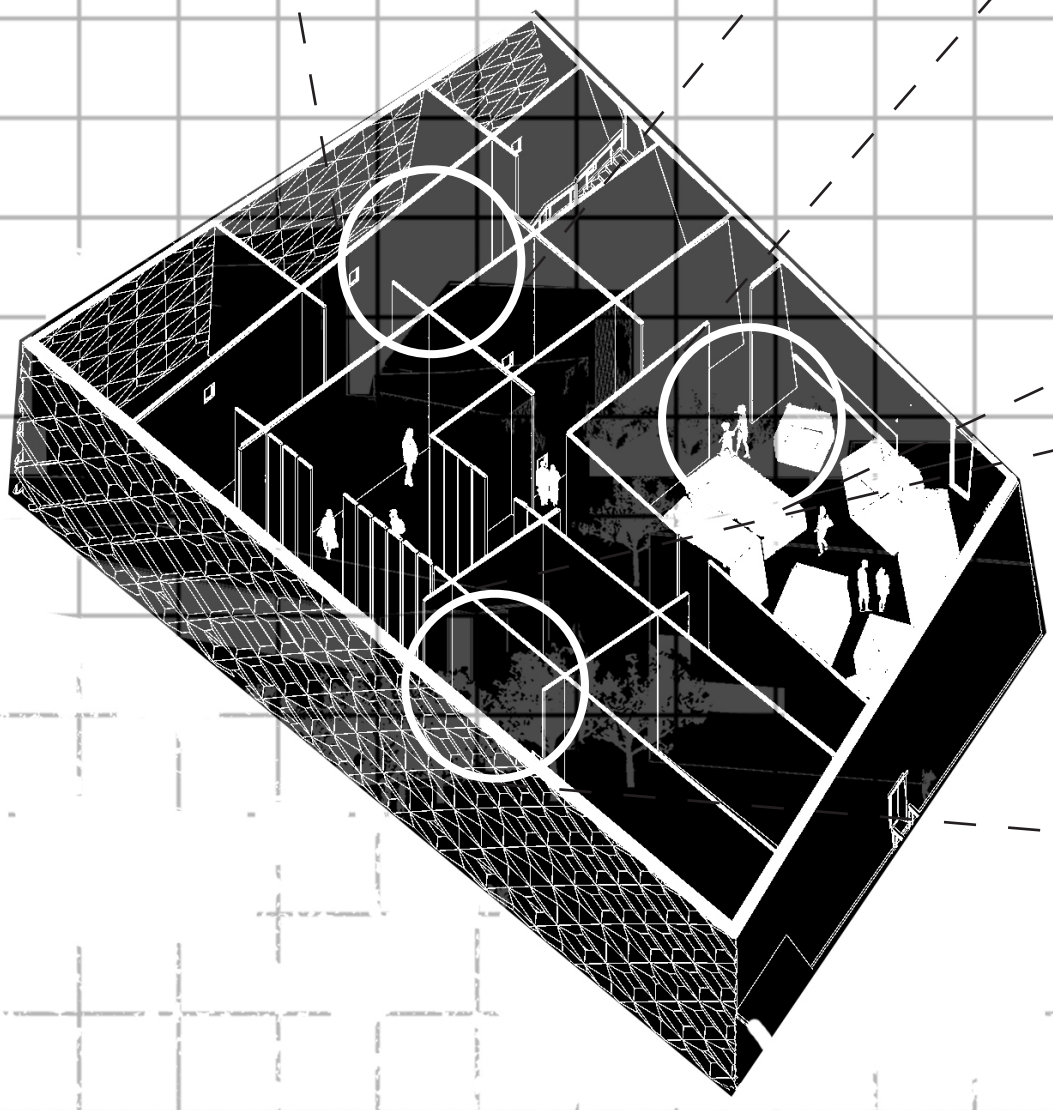
The building has clear material contrast where the control room reflects the hidden structure of the Advertisement Hallways. these hallway divisions gives the visitors the opportunity to act two ways: 1-the users who are being watched while walking in the intimate hallway with high ceilings. 2-the BIG BROTHER who is watching the walking visitors through the windows in the open rooms.

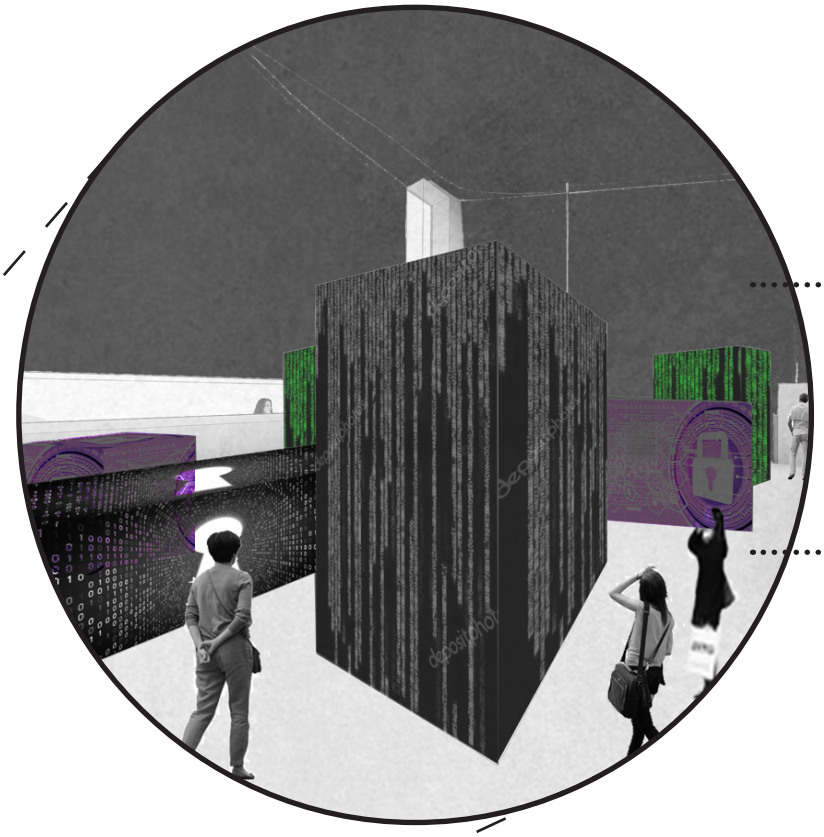
Smooth white concrete is used through the alleys giving the reflection of the liquidity of the advertisements while surfing the internet. On the contrary, the control room is presenting the hidden layer of this building which has a dark harsh concrete texture allowing the space to expose its real effect on an individual's privacy.

As shown in the zoomed-in pictures the alleys are the interactive space where many advertisement examples are attracting the visitors, whilst, the control room is the space to discover the secrets and receive hidden

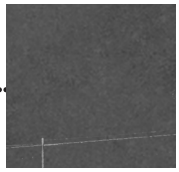


Smooth light grey concrete

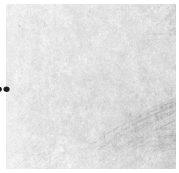




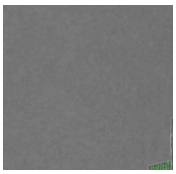
Material palette



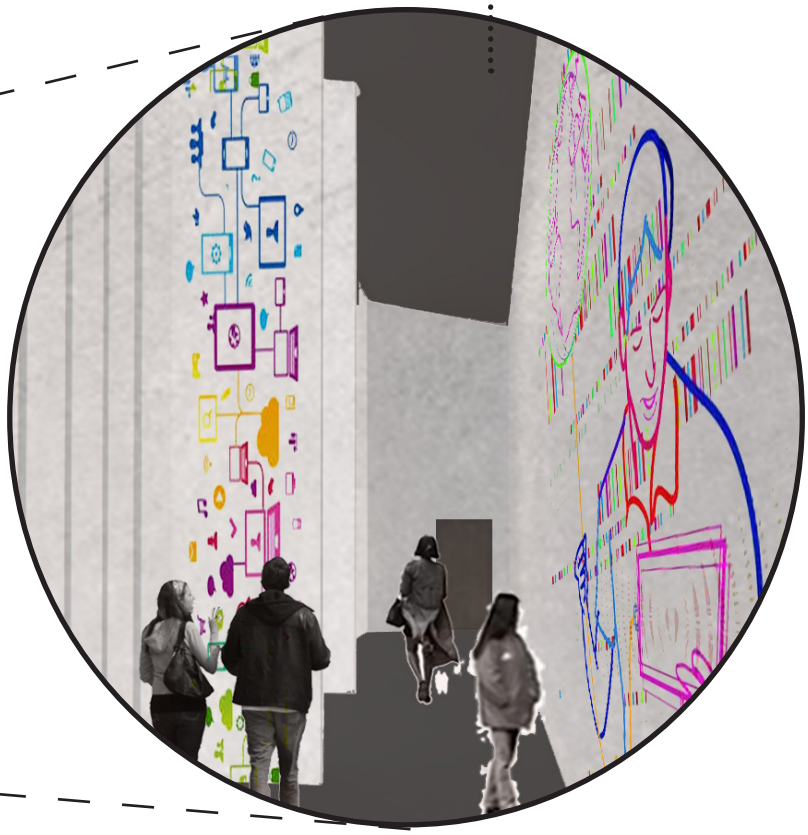
Harsh dark grey concrete



Harsh light grey concrete



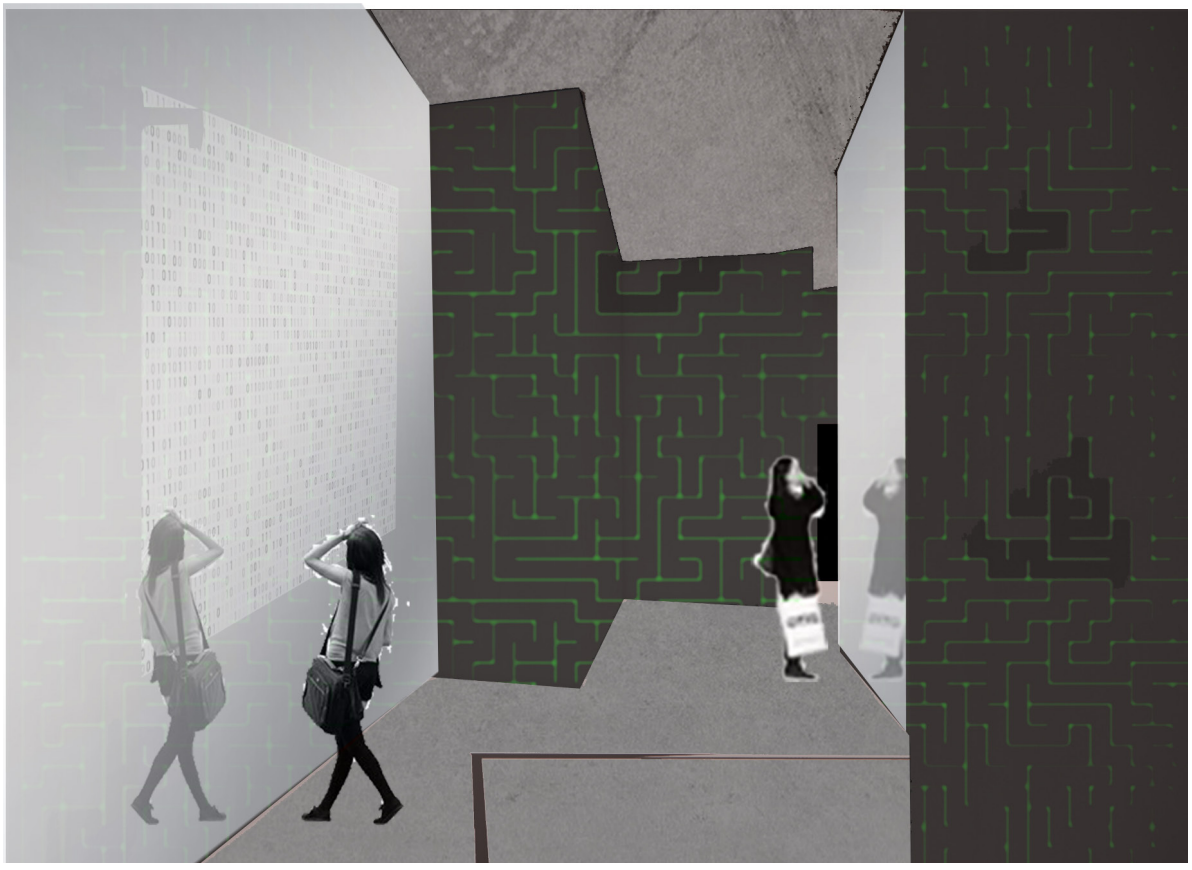
Smooth dark grey concrete

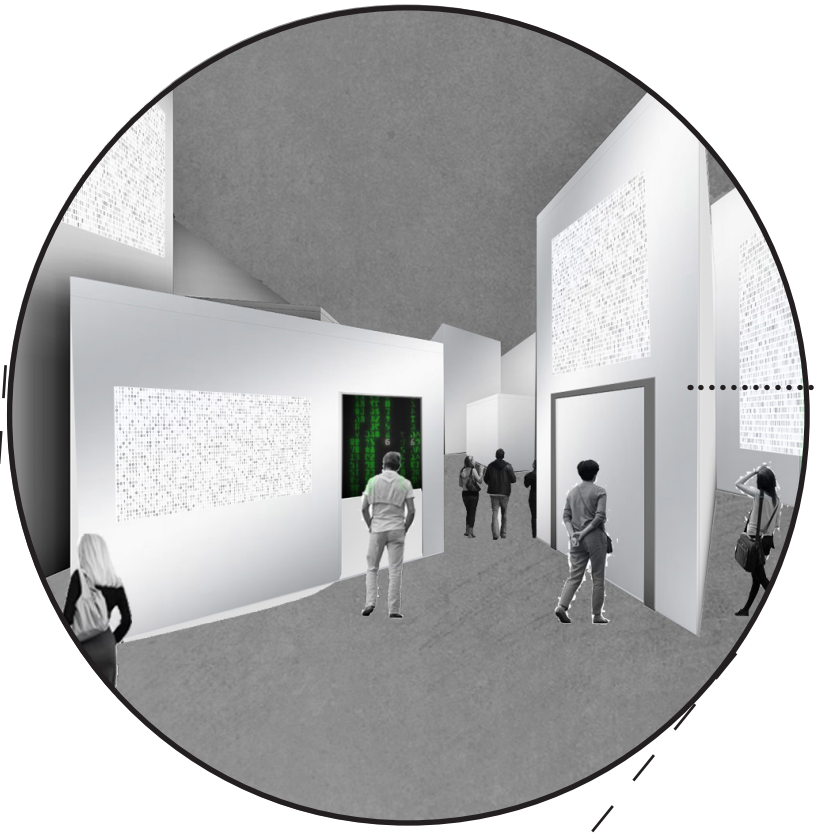


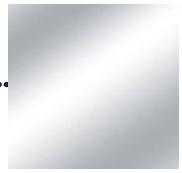
Fact or Fake

Through the process of surfing the internet, many windows are constantly opened where the facts can not be distinguished from the fakes. It is even harder to recognize whether our knowledge about the digital world is a truth or a lie. This building replicates this complicated relation providing some answers to this dellima. Materialization has been the main guidance throughout this building design.

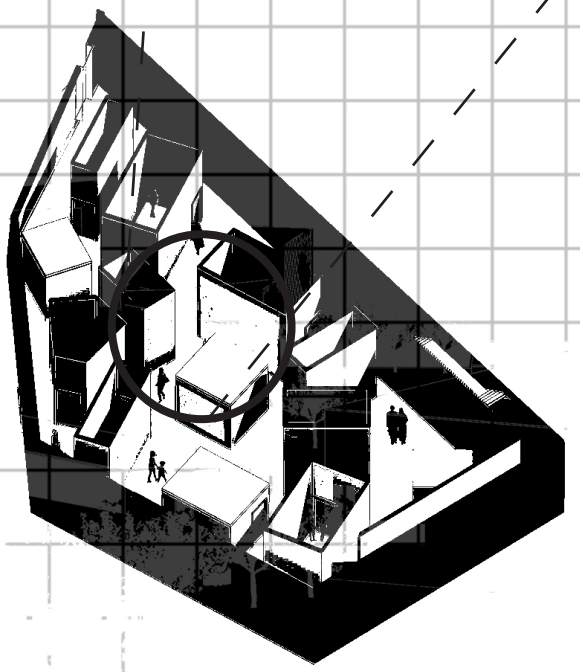
Not all internet users have the same level of knowledge. This essential point is reflected in the building using mirrors as the main material. The more insight a visitor has about the digital world the sharper the mirror's reflection gets, where a labyrinthic digital screen is used to define the different knowledge levels. The ground level is an installation of different non-reflecting mirror boxes, giving the grasp of the different facts and fakes.
The smooth concrete stair is the unifying element throughout the whole project to still give a feeling of orientation.

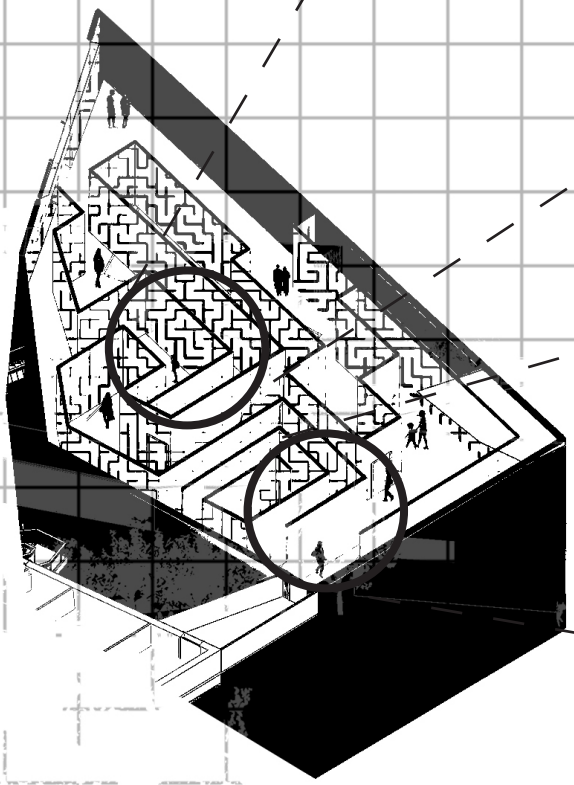




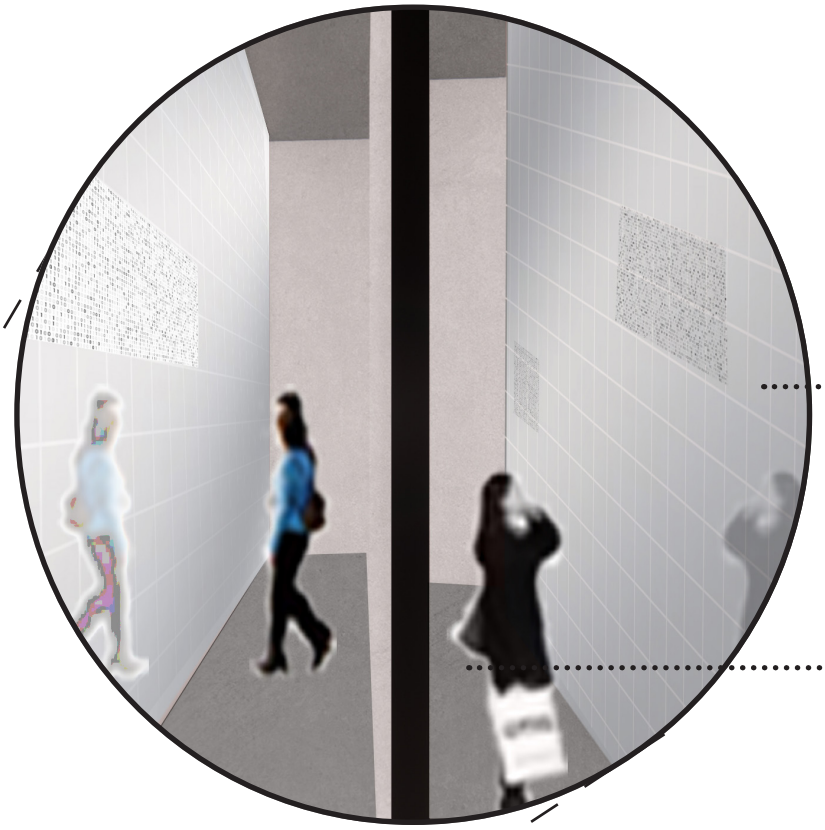


Non reflecting Mirror

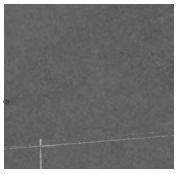




Material palette



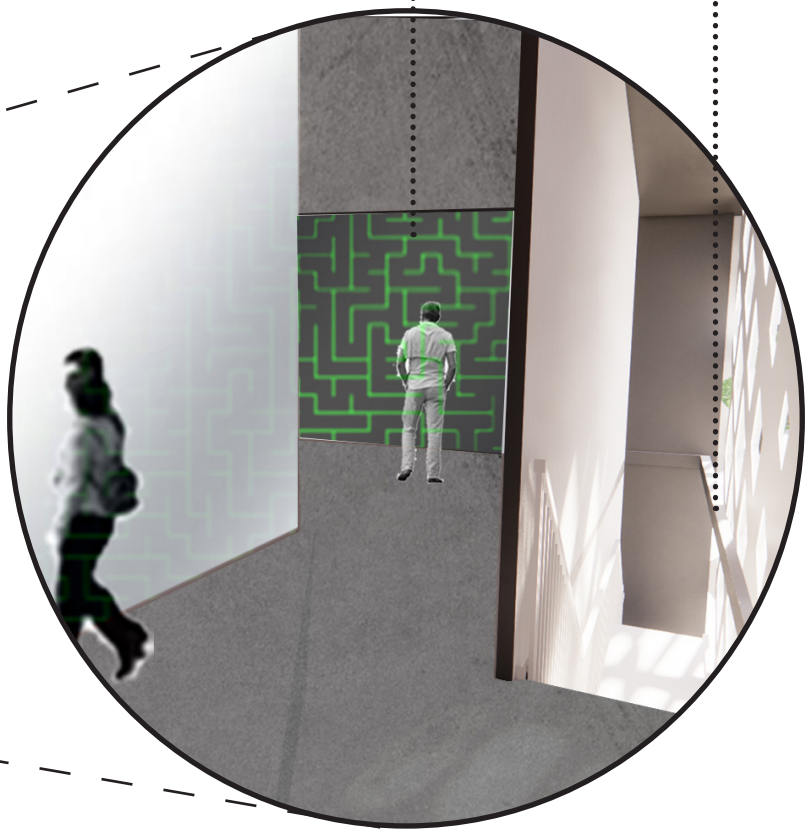
Mirror



smooth dark grey concrete

Labyrinth digital screen

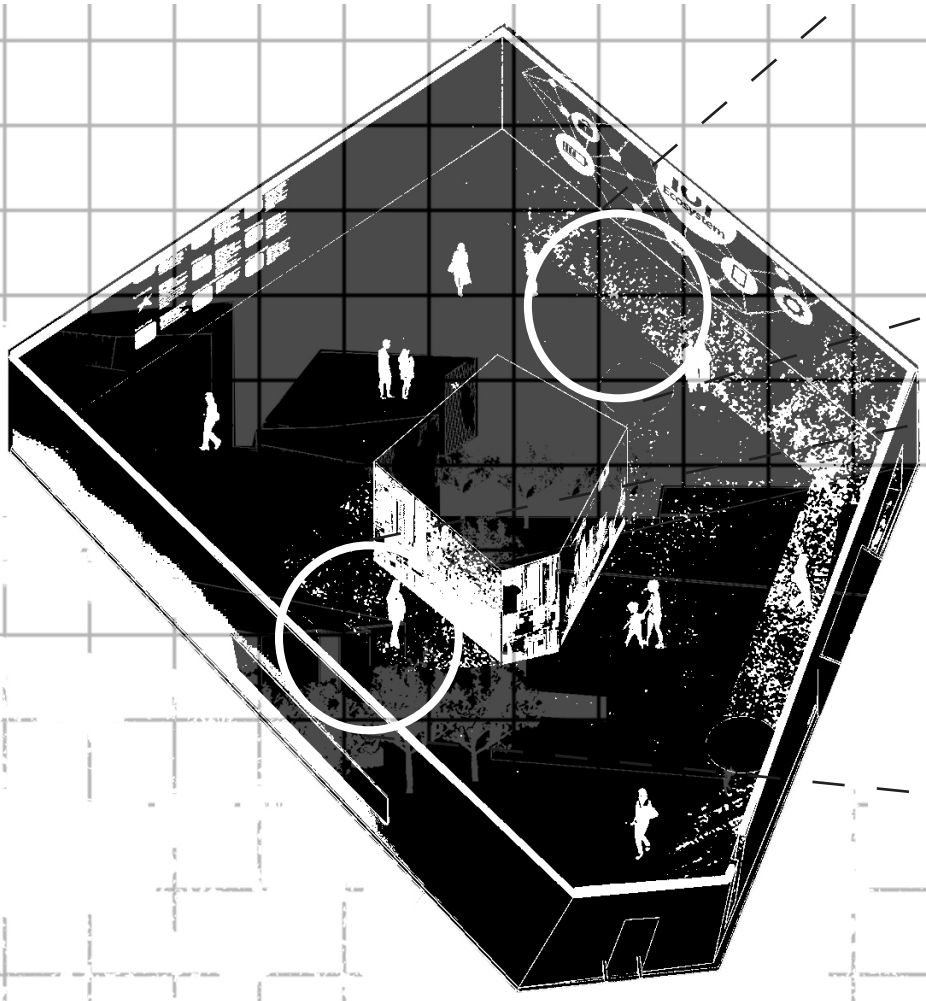
Light beige smooth concrete



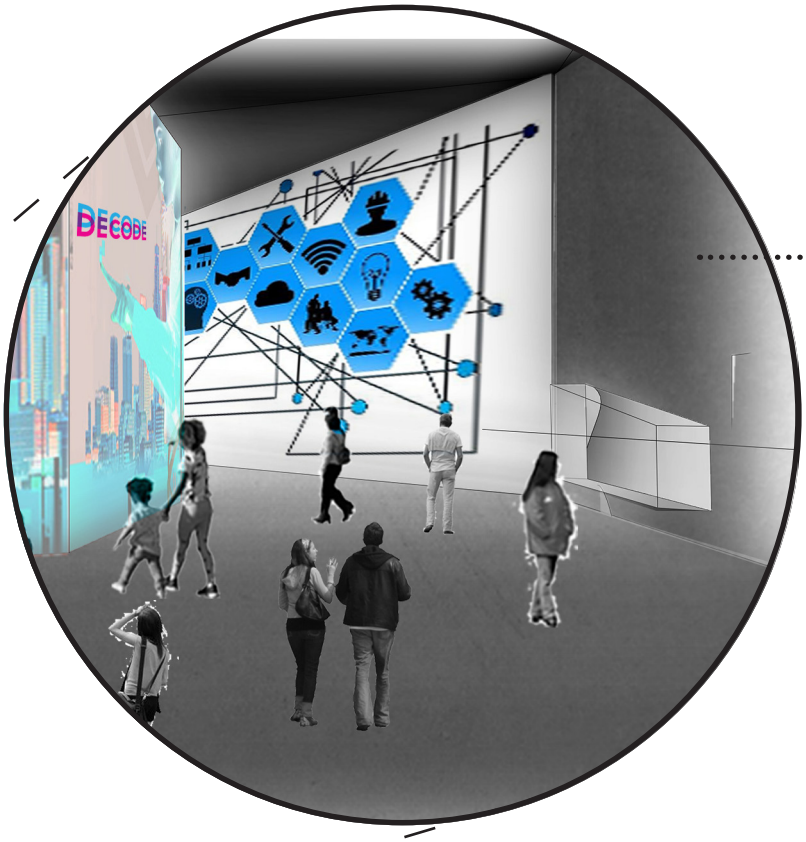
Enlightenment Ville

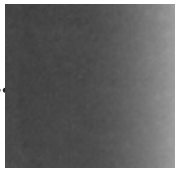
This building is an open floor with a huge pillar in the middle allowing visitors to reflect their experience and behavioral change towards their virtual privacy. This spatial experience is reached through merging the physical and virtual using only one material. Dark harsh concrete is the material used in this building to annotate the difficulty of reaching this point of personal privacy in the digital world.

Going from the small tunnel to the large building gives a feeling of hope. This wide scope creates a large public display where each and everyone is capable of experiencing privacy from different perspectives reshaping this complicated relation.

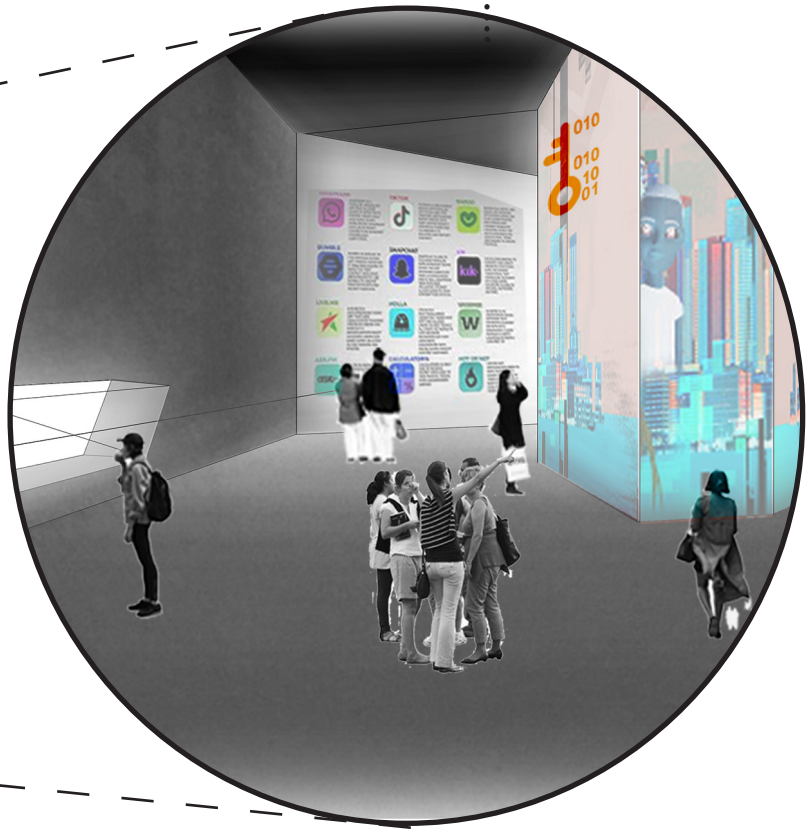


Material palette



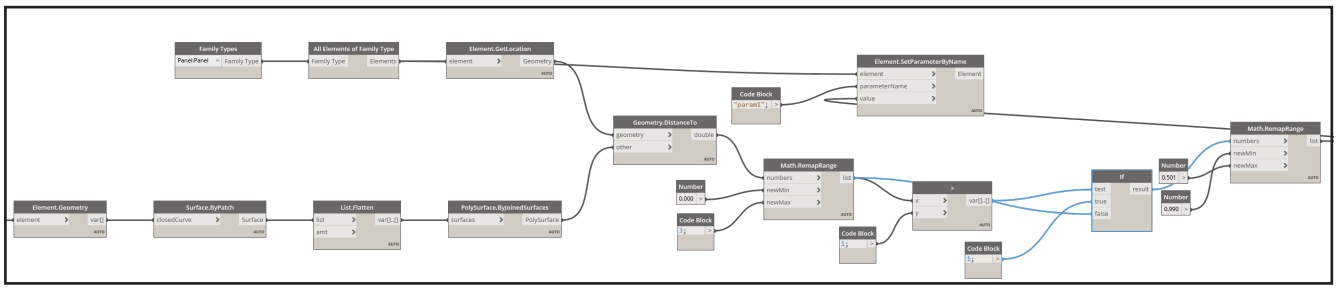


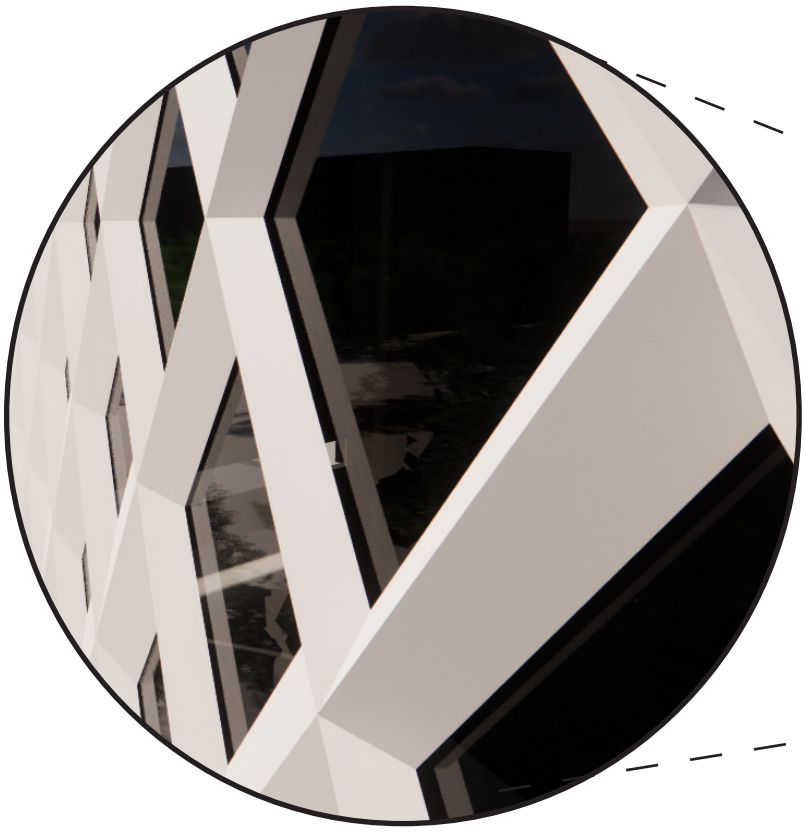
Harsh dark
grey concrete



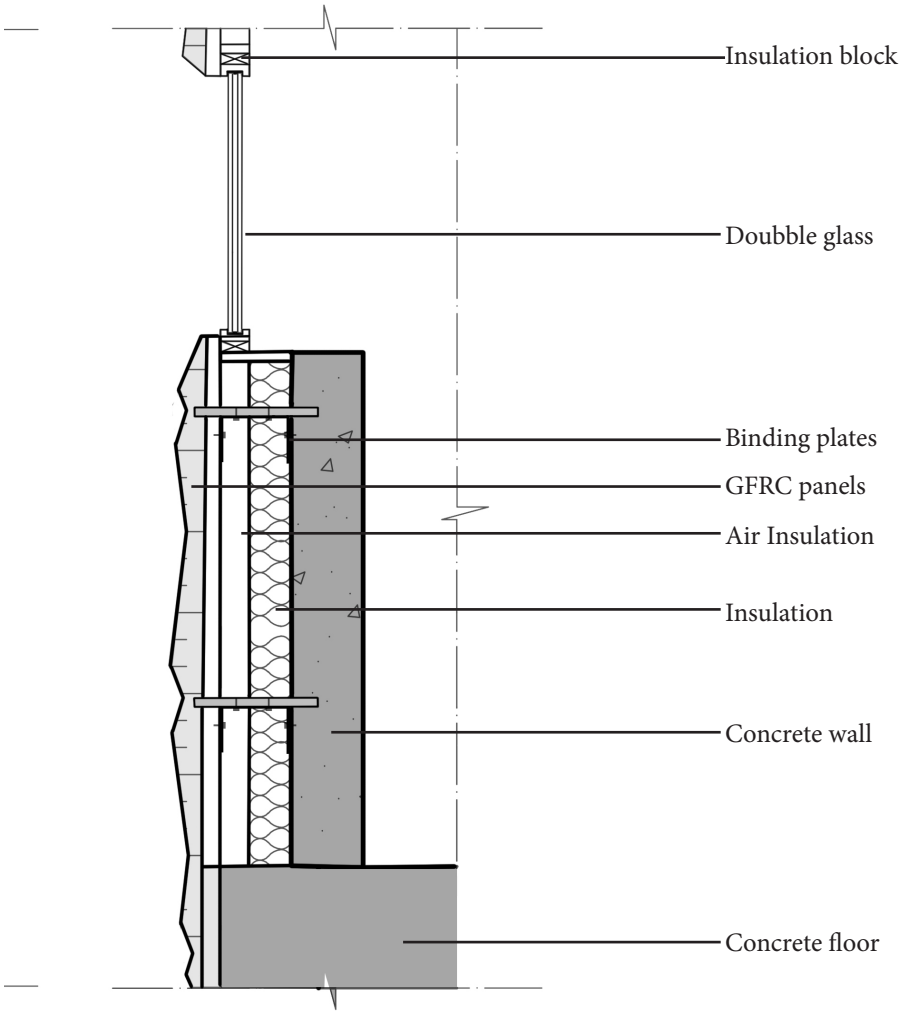
D e t a i l i n g

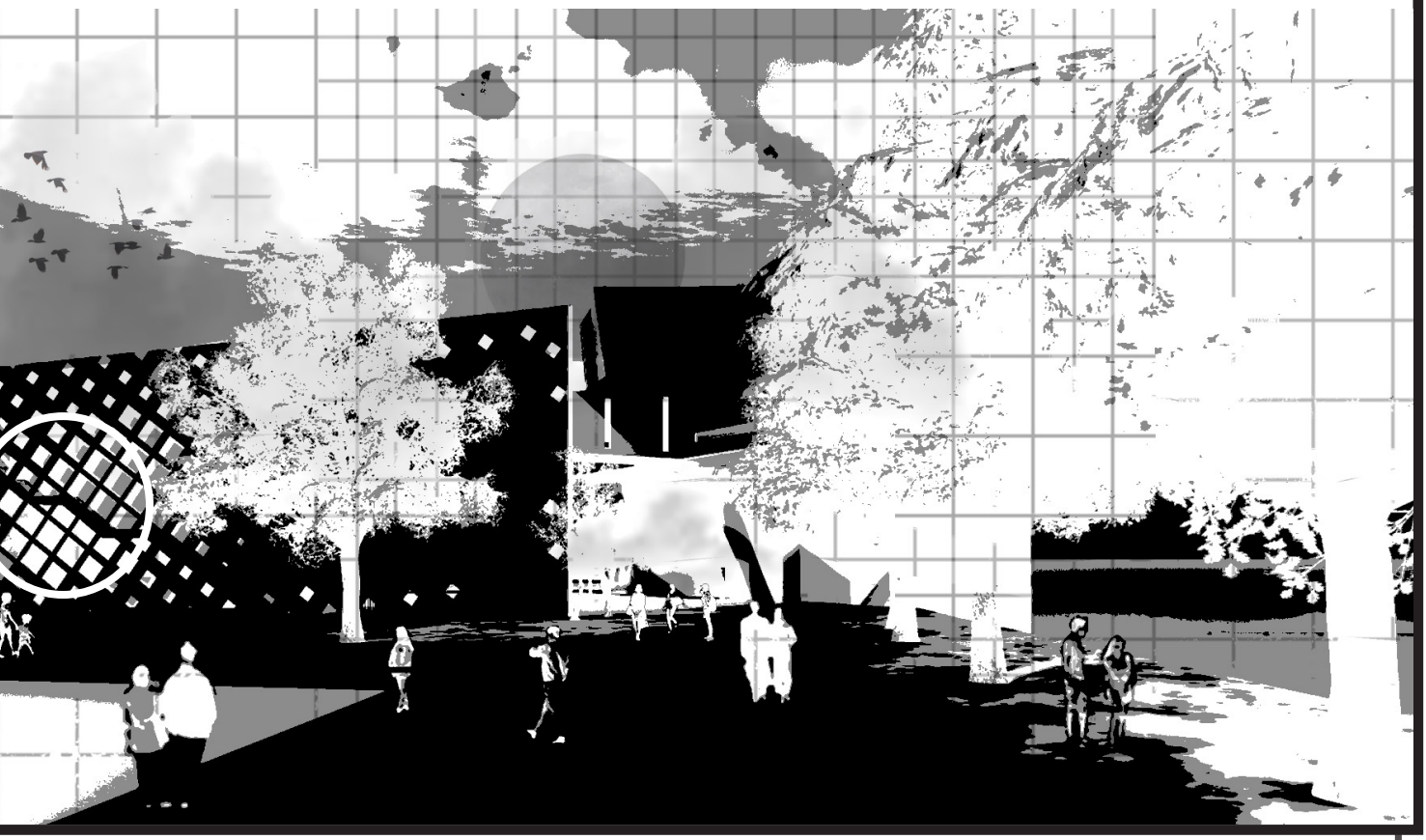
The combination of the geometrical performance of the entering light against the diagonal surfaces gives a gentle sense of depth making the connection between the inside and outside gradually liquifying in each other.
To make these shapes possible a code is made with a parametric plugin where different algorithms were used.



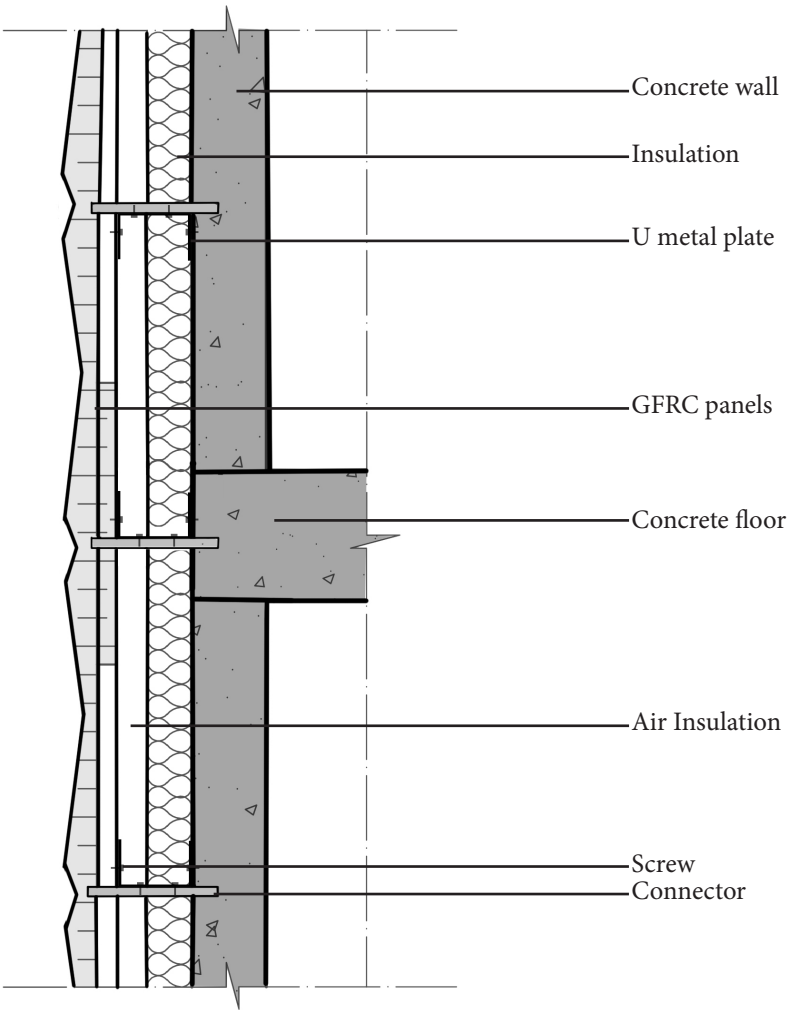


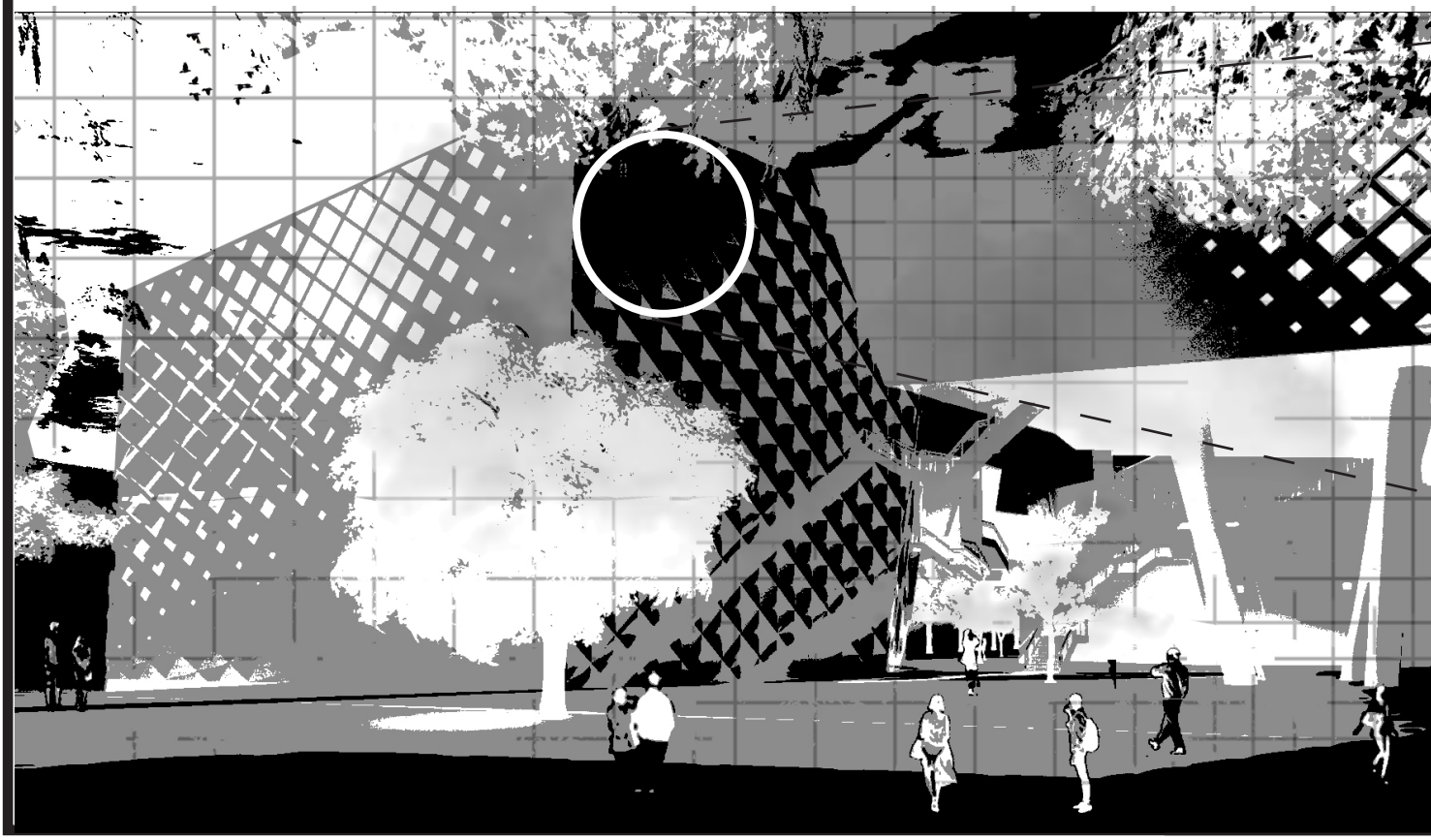
GFRC wall section





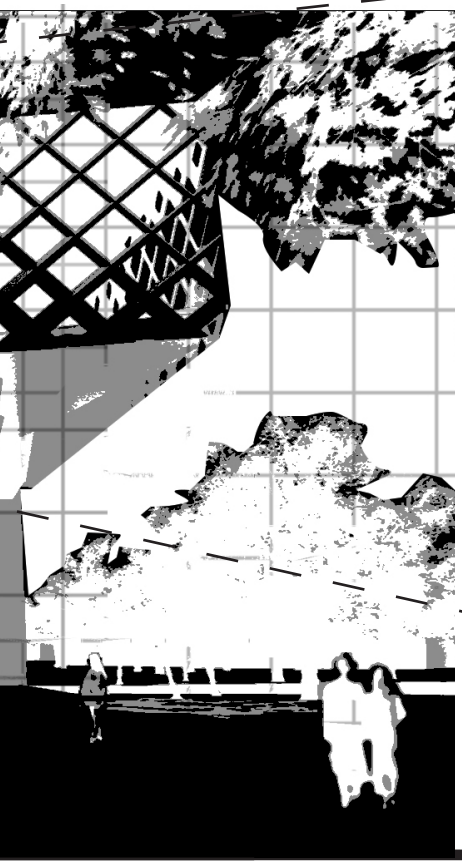
GFRC wall section

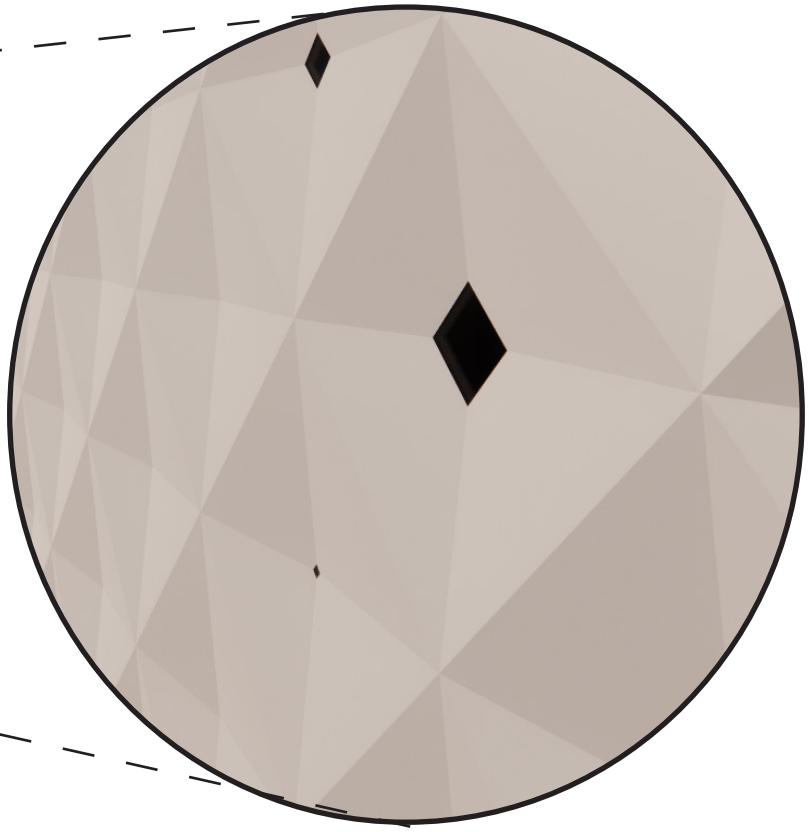


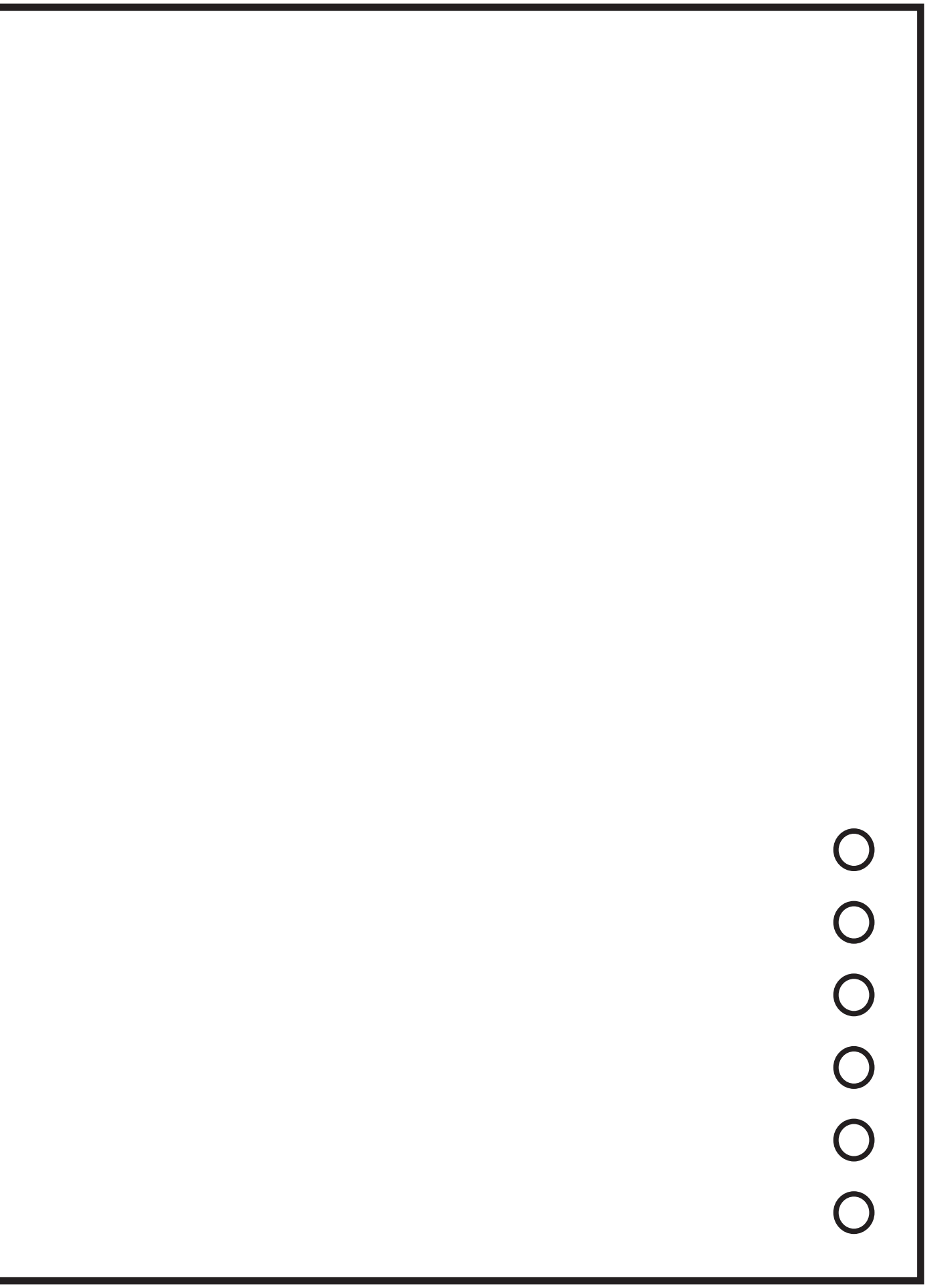


D e t a i l i n g

The meeting of materials with the precision in detailing has given this project a monastic language. The outer skin of the building can give for a moment a sense of looking at a two-dimensional form but getting a closer look at the detail it appears that it is a 3-dimensional panel.
The use of concrete and gfrc (Glass fiber reinforced concrete is a type of fiber-reinforced concrete) is to standout how the material brutality has also experienced some technological developments that allow not only thin cross-sections but also plastic forms to be realized.



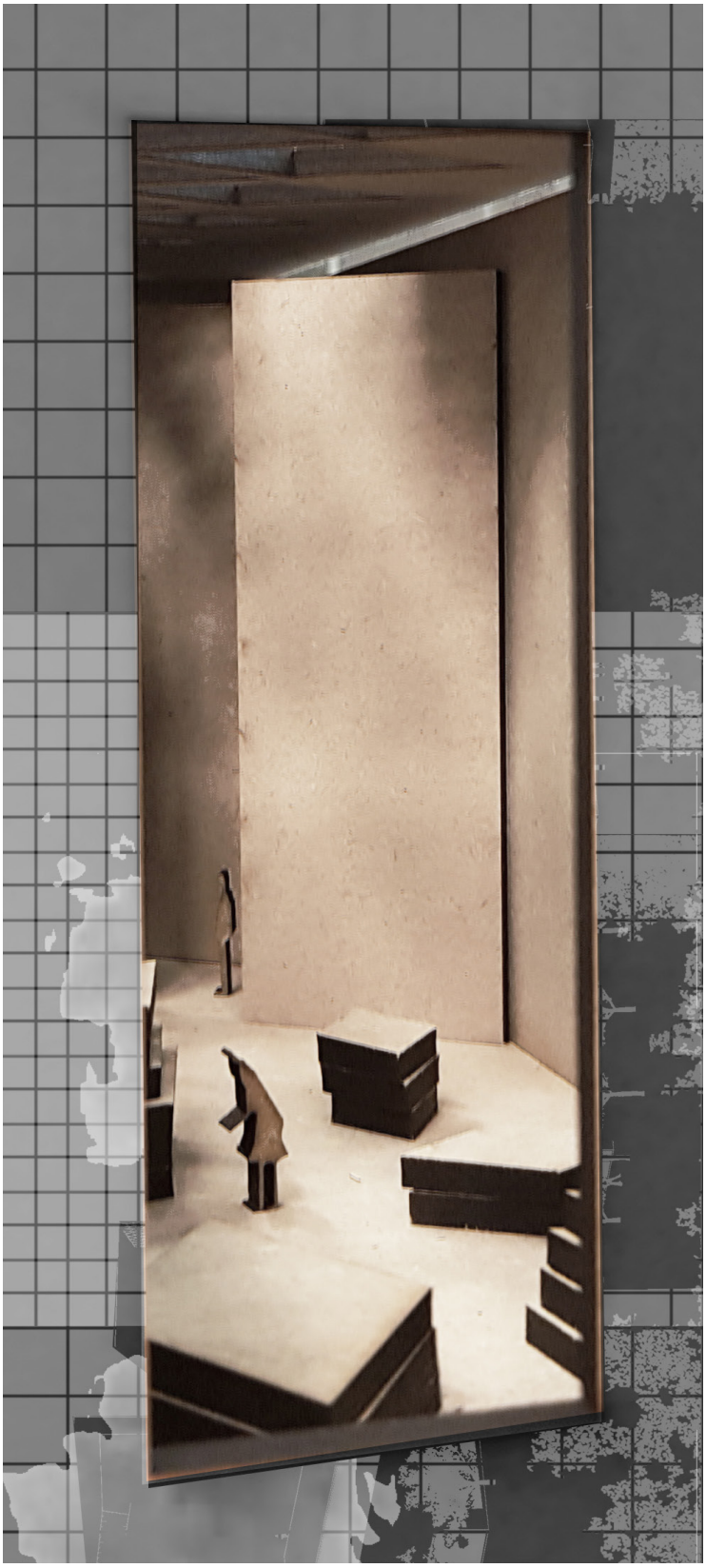


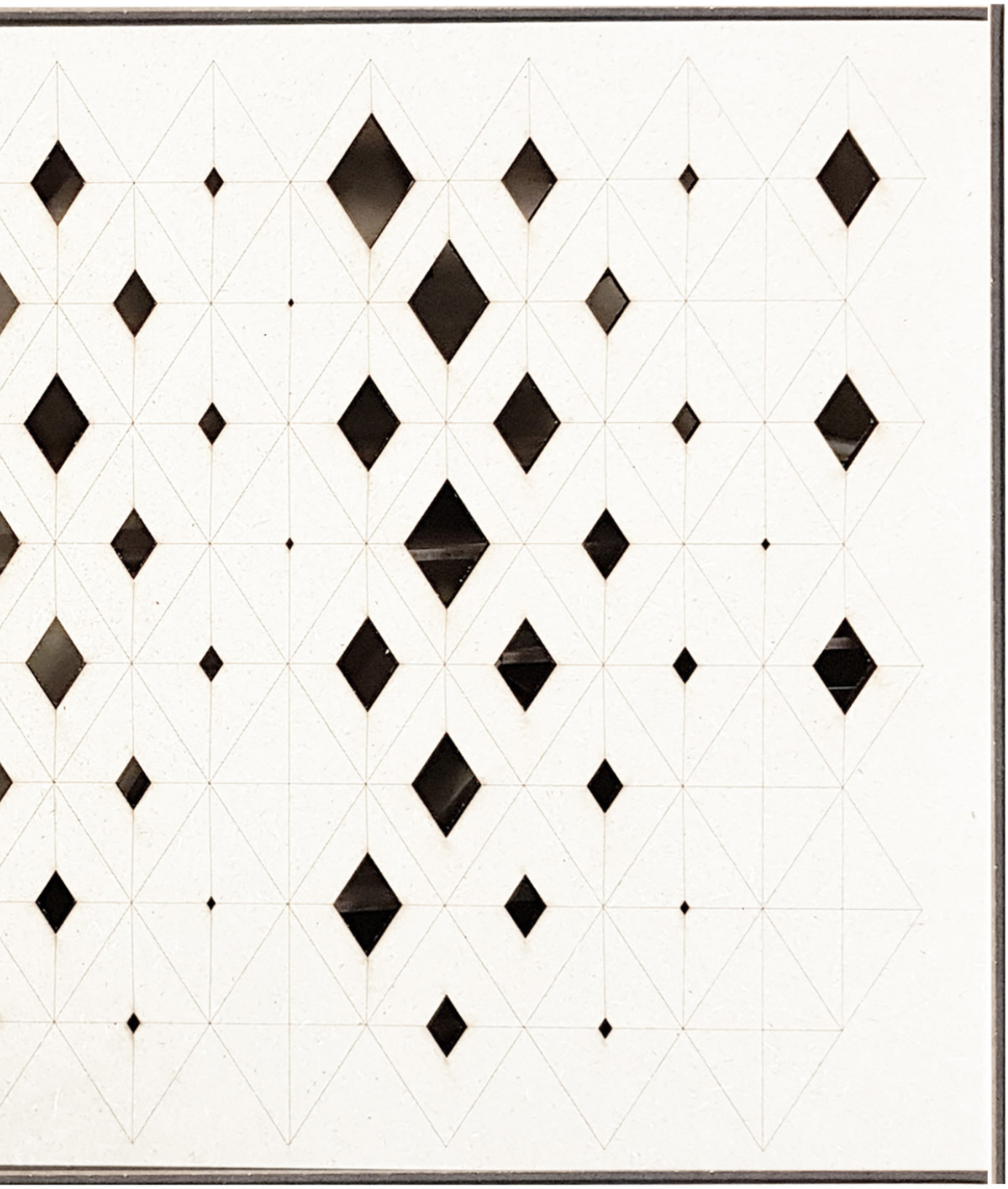


One scenario One collage

Creating a fusion between building illustrations and maquette format, communicates and explores the project in a wider perspective. The model format is designed as an adventurous, exciting thrill, forming a collage. This collage features four different areas where each represents a building part forming one whole scenario.
In order to create this scenario, a Showbox is designed to express a visionary of the spatial experience using one material. Covering the box, a perforated roof is used inspired by the project facade skin. This skin has reflected light and shadow into the collage making a coherent scene of it.

A look through the window





The flow of four spaces in one scenario

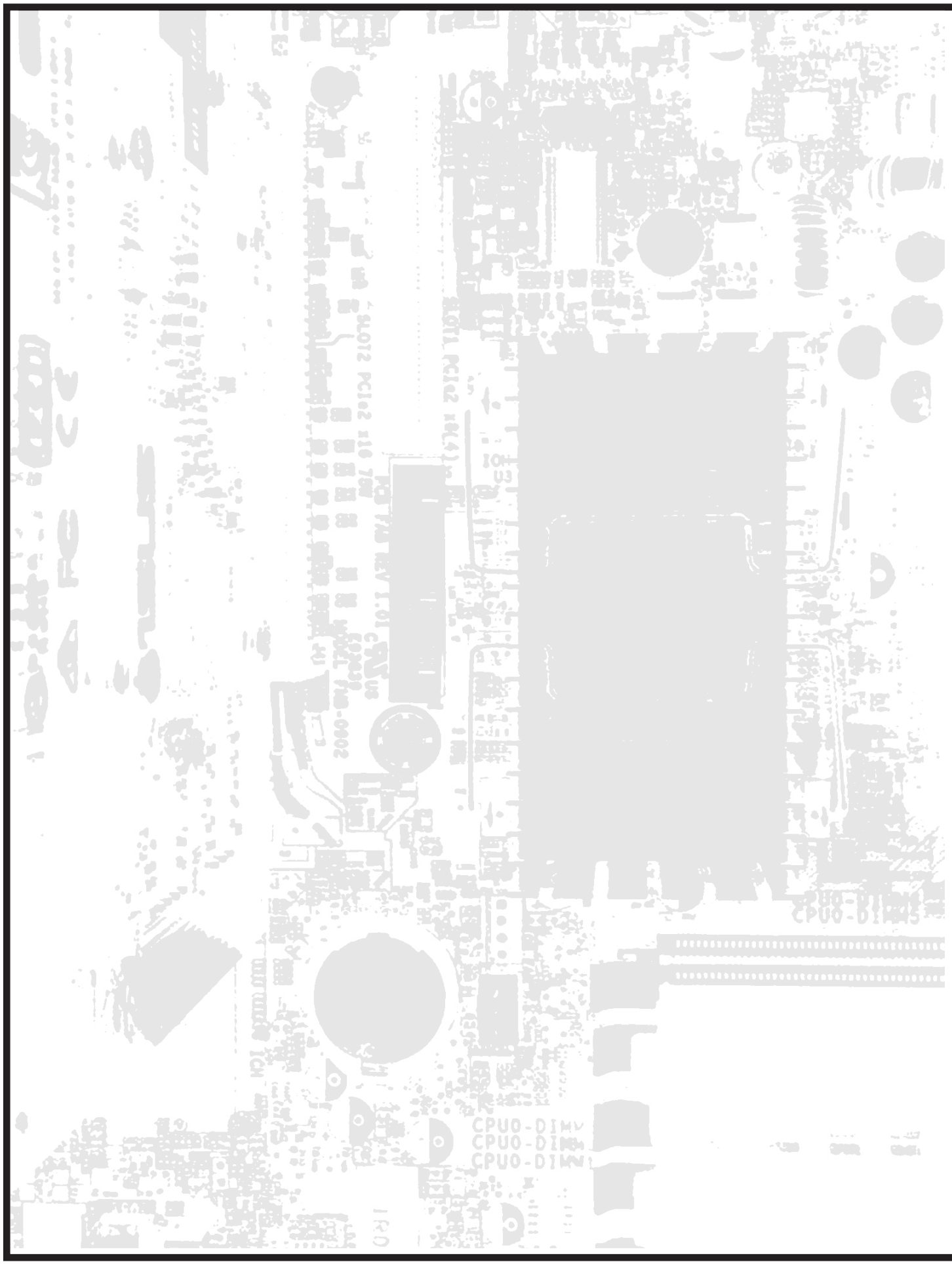
Exploring the Data Arena core

Entering the miror labyrinth

Going through the control room

Arriving at the Enlightenment Ville

Closure


CPU0-DIMV
CPU0-DIM
CPU0-DIMM

Conclusion

This project is constructed in two main phases presenting a coherent framework where the aim is to reconstruct the concept of privacy into a touchable idea through a spatial experience.

The first phase presents the theoretical part where all the imaginary ideas and manifestations were concluded trying to define the relation between the physical and virtual world. The boundaries between the two worlds are getting more and more blurred over time making technology our second nature. Technology is the main engine, for now and for any futuristic evolution, this fact raises the question of whether we humans are able to cope with this rapidly evolving relation or are we still missing a lot of the hidden world? The answer to this has been giving in the second essay -Between hope and anxiety- where it has proven that there is a clear knowledge gap regarding the dilemmas of contemporary privacy issues.
In our time, the lack of digital privacy is among major controversial topics In this new society, where digital transparency has become almost unreachable due to the decrease in privacy and enforced surveillance. Today individuals' trust is however negatively affected by the lack of clarity, particularly in a data-driven society. Individuals are not always aware of the exact nature of the processing activities, who has control on which content, the logic of algorithms, and the decision-making process behind big data analytics[1]. This made it almost impossible to control our own source of information. Hope and anxiety are two feelings which accompanied the awareness of all these facts, starting an abstractive thought of fetching the hidden layers of this world making it accessible to every technology user.

What if we can feel what is behind the black screens? this question has raised as a reflection of the first phase becoming the driving force for the second phase of this project. Finding the intersection point between this theme and architecture is the answer to this question; making humans become more aware through a unique spatial experiment where architectural spaces incorporate extended reality to enhance the design using part-physical, part-virtual nature. This idea has started as an experimental thought which is next aggregated into a building program. This building program shaped the project framework making the first phase land on concrete anchors.
Architecture plays the mediating role between the two worlds creating a gate where the hidden secrets of the digital world are reflected into our physical world. A three design stage embrace this project, moving from the large-scale where the building illustrates a coherent picture with nature to the mid-scale facing the labyrinthic stair core giving the feeling of anxiety through the building parts where the knowledge gap gets narrowed down to its lowest using the spatial reflective part in each building. Ending with the small-scale investigating the materialization of the four building parts from both the interior and the exterior, as well as detailing the outer skin of the building.
In conclusion, This project highlighted the idea that new technological development has changed the ways privacy is achieved through time, which is reflected through architecture making the concept of privacy get closer to its explicit. Taking privacy from the back-end to the exposed interface.

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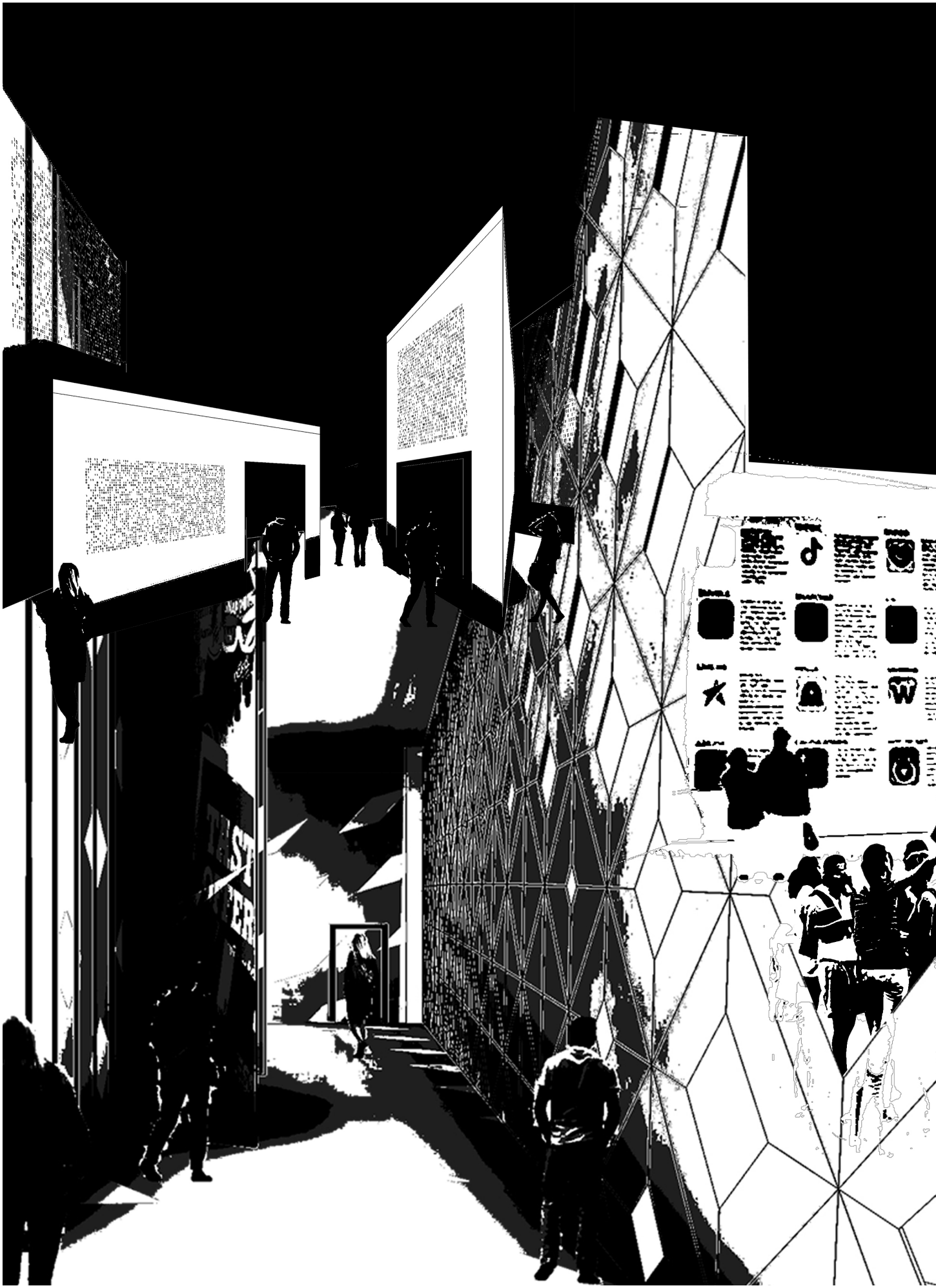
[1] Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.



Sources

Reference .....

References list:

Essay I

- Castells, M., Gelernter, D., Vázquez, J., Morozov, E., & Hyppönen, M. (2014). Change: 19 Key Essays on How Internet Is Changing our Lives. Rivas-Vaciamadrid, Spain: Turner.

- Ellison, N. B., & Boyd, D. M. (2013). Sociality Through Social Network Sites. Oxford Handbooks Online.

- Karl E Weick Collegiate professor in the School of Information at the University of Michigan. She is best known for her research in the fields of computer-mediated communication, social media, and social networking sites.

- Howard, P. (2013). Manuel Castells. Oxford Bibliographies Online Datasets. https://doi.org/10.1093/obo/9780199756841-0143.

- Castells, M. (2007). Communication, Power and Counter-power in the Network Society. International Journal of Communication , 1. Retrieved from https://ijoc.org/index.php/ijoc/article/view/46.

- Castells, M. (2010). End of Millennium (2nd ed., Vol. 3). Hoboken, NJ, United States: Wiley.

- Varian, H. R. (2014). Beyond Big Data. Business Economics, 49(1), 27–31. https://doi.org/10.1057/be.2014.1.

- Merin, G. (2019, February 9). AD Classics: The Dymaxion House / Buckminster Fuller. Retrieved from http://www.archdaily.com/401528/ad-classics-the-dymaxion-house-buckminster-fuller.

- MacLeod, F. (2014, December 7). Cybertopia: The Digital Future of Analog Architectural Space. Retrieved from https://www.archdaily.com/575874/cybertopia-the-digital-future-of-analog-architectural-space.

Analysis

- Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.

- Pintos, P. (2020, July 29). Apple Store Fifth Avenue / Foster + Partners. Retrieved from https://www.archdaily.com/925305/apple-store-fifth-avenue-foster-plus-partners.

- Rosenberg, A. (2019, October 24). Macarena Cybercentre / Mediomundo. Retrieved from https://www.archdaily.com/110721/macarena-cybercentre-mediomundo.

Essay II

- Floridi, L. (2014). The Fourth Revolution. Oxford, United Kingdom: Oxford University Press.

- Castells, M., Gelernter, D., Vázquez, J., Morozov, E., & Hyppönen, M. (2014). Change: 19 Key Essays on How Internet Is Changing our Lives. Rivas-Vaciamadrid, Spain: Turner.

- Castells, M. (2010). End of Millennium (2nd ed., Vol. 3). Hoboken, NJ, United States: Wiley.

- Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.

- Manokha, Ivan. 2018. Surveillance, Panopticism, and Self-Discipline in the Digital Age. Surveillance &Society 16(2): 219-237.

- Floridi, L. (2006). Informational privacy and its ontological interpretation. ACM SIGCAS Computers and Society, 36(3), 37–40. https://doi.org/10.1145/1195716.1195720.

- van Wyk, T. (2014, 4 september). Church as heterotopia | van Wyk | HTS Teologiese Studies / Theological Studies. Geraadpleegd op 21 november 2019, van https://hts.org.za/index.php/hts/article/view/2684/4789.

- yazar, G. (2019, 2 april). Labyrinth Concept in Architecture. Geraadpleegd op 21 november 2019, van https://yazargokcenur.wordpress.com/2019/01/17/labyrinth-concept-in-architecture/#:%7E:targetText=Features%20such%20as%20encapsulating%2C%20concealing,or%20even%20extension%20of%20space.

- Bridle, J. (2019, February 2). The Age of Surveillance Capitalism by Shoshana Zuboff review – we are the pawns. Retrieved from https://www.theguardian.com/books/2019/feb/02/age-of-surveillance-capitalism-shoshana-zuboff-review.

- Zuboff, S. (2019). The Age of Surveillance Capitalism. London, UK: PublicAffairs.

Image I

- Original picture from 360 graden ARCAM: Marineterrein | ARCAM. (n.d.). Retrieved from https://www.arcam.nl/360-graden-arcam-marineterrein/

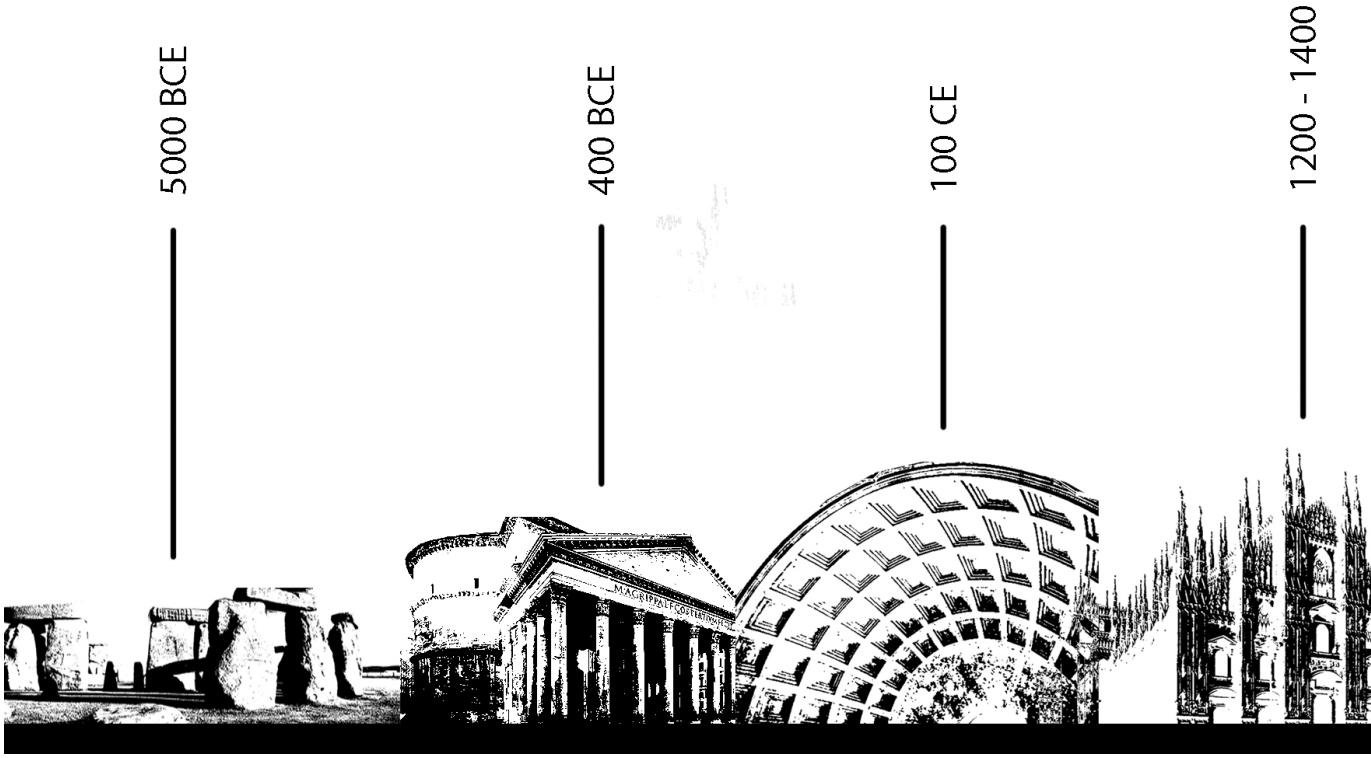
Conclusion

- Debussche, J., César, Jasmien , & Thirot, M. (2019, April). Big Data & Issues & Opportunities: Transparency, Consent, Control and Personal Data Ownership.

Appendix

Timeline

(evolution over time regarding architecture and technology)

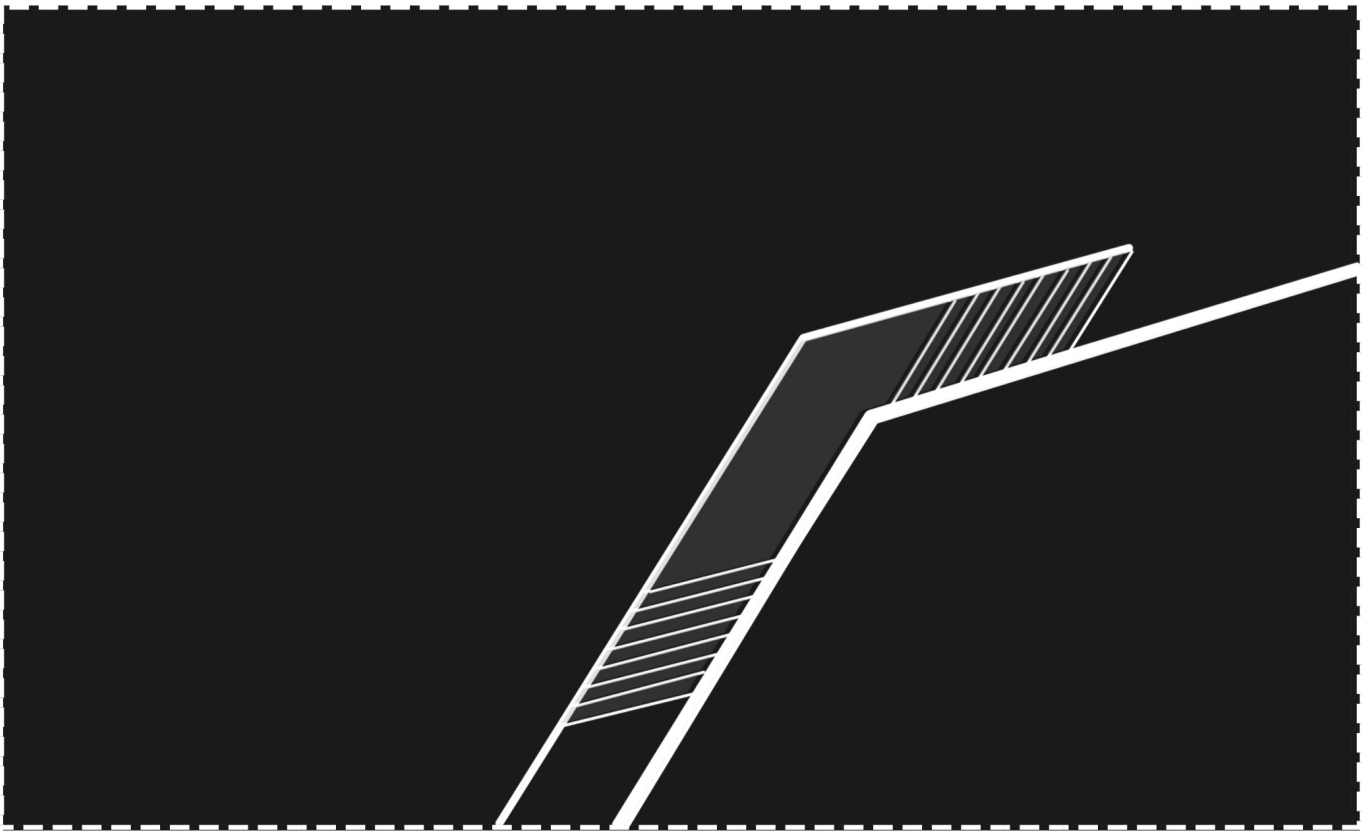


1991
1993
2001
2003
2004
2005
2007
2009
2011
2020
MOSAIC

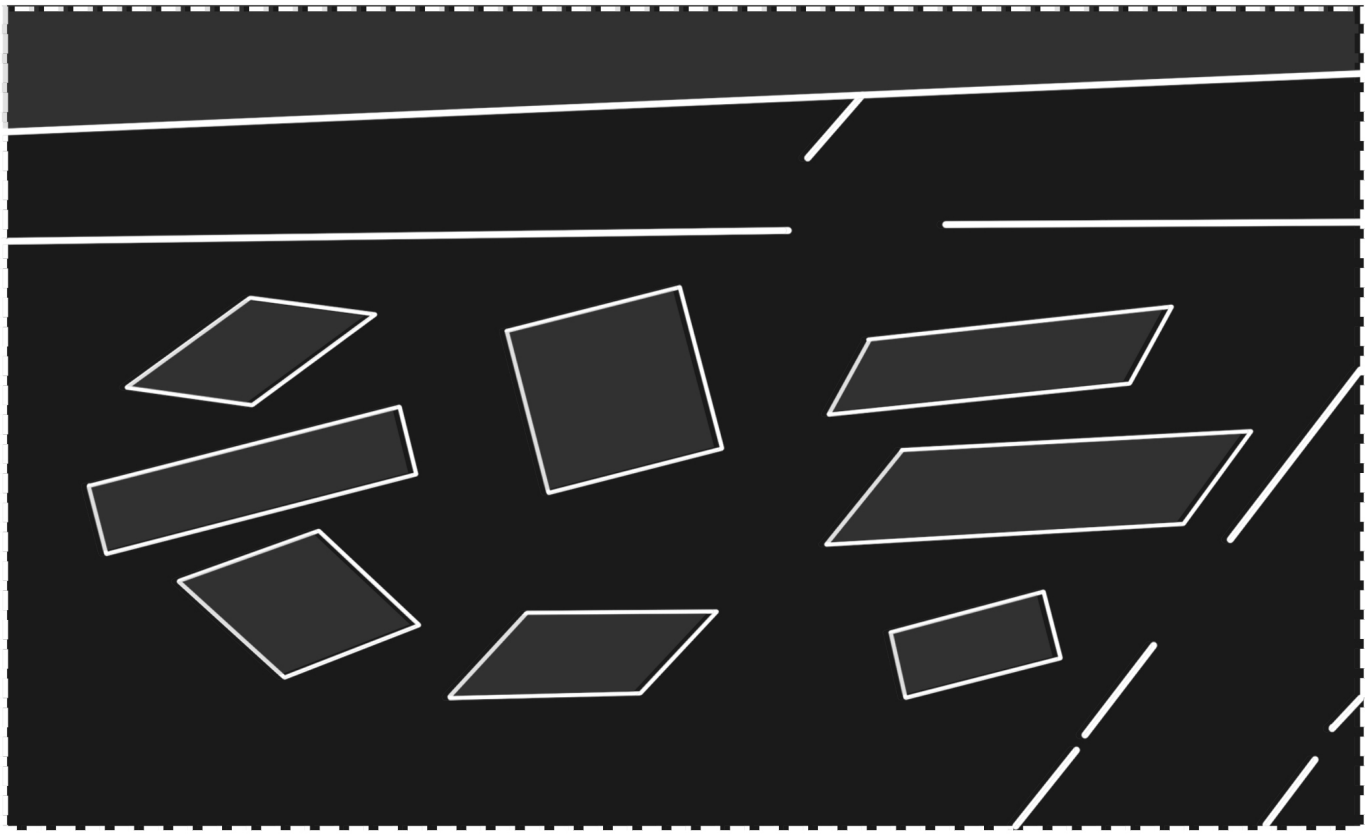
1600 - 1700
2000
2020

Model Parts

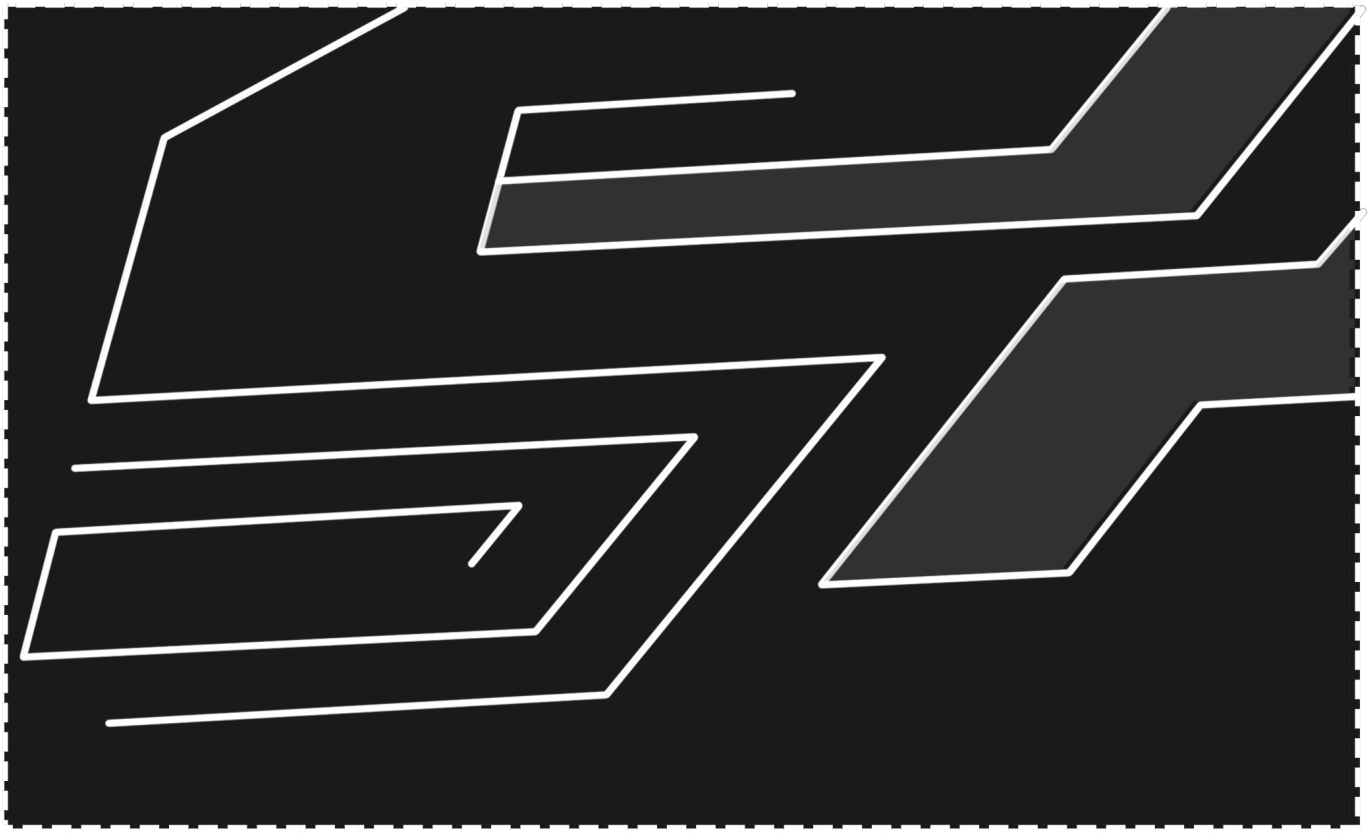
(A part of each building is used, constructing one scenario)



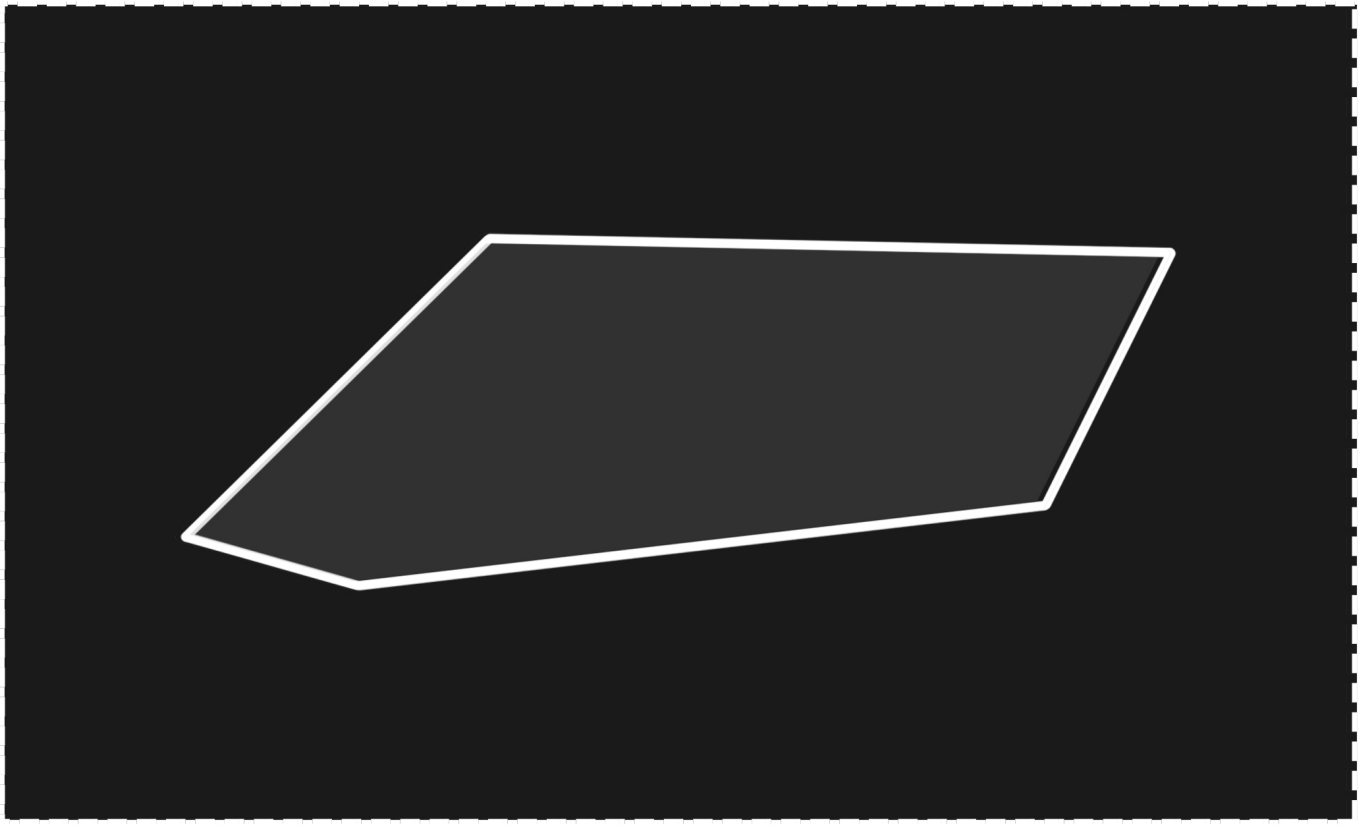
Data Arena



AD Alley

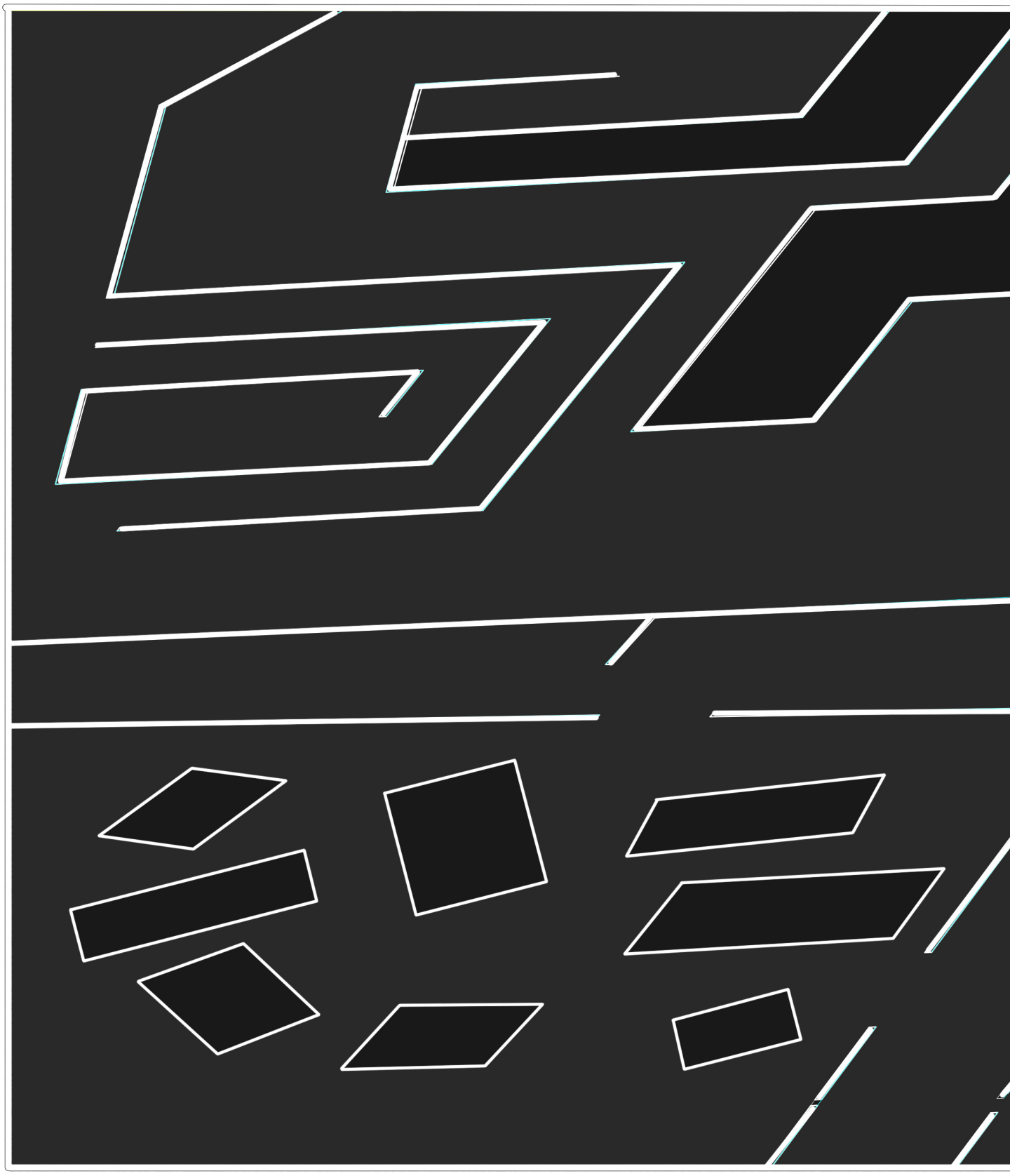


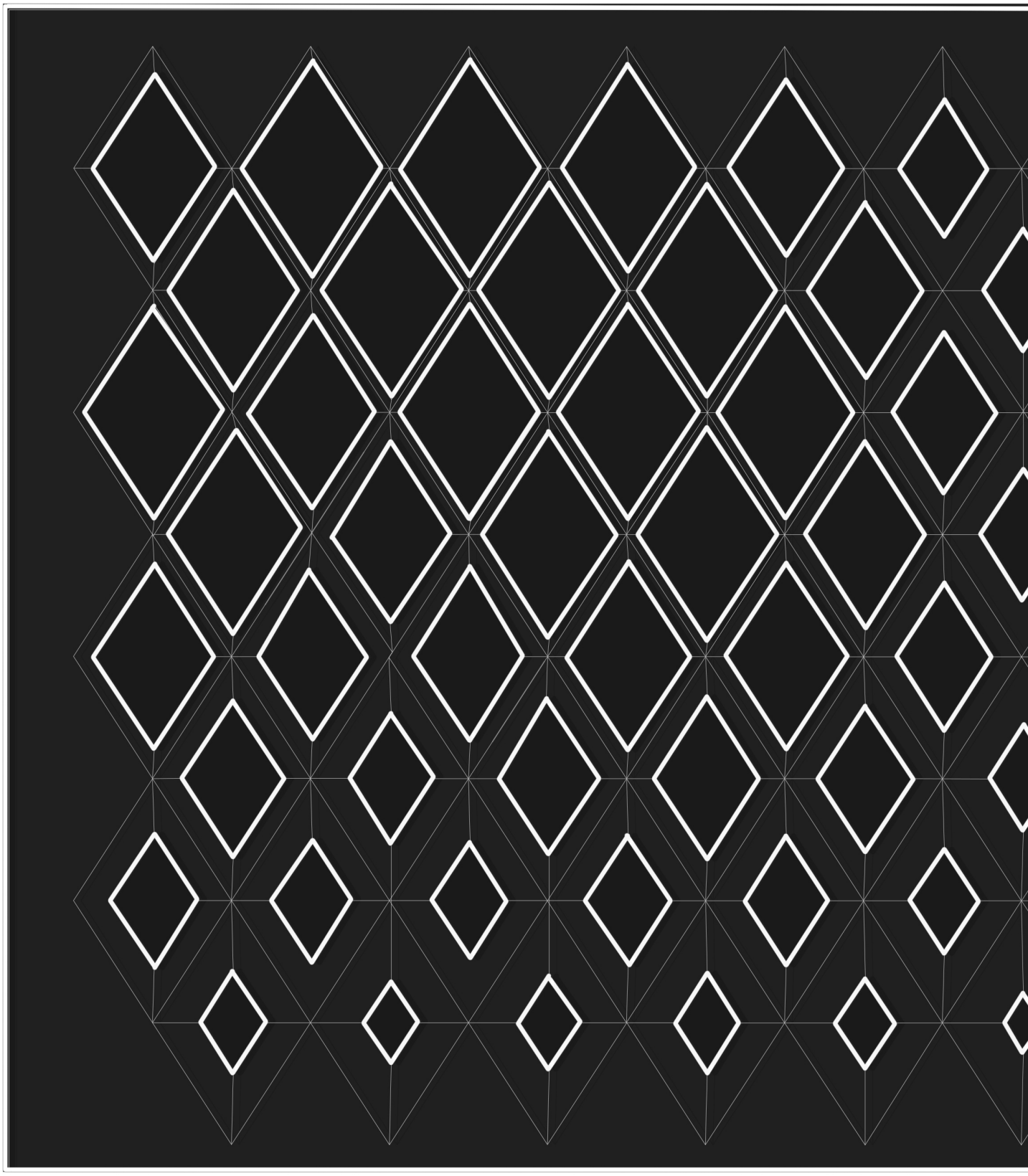
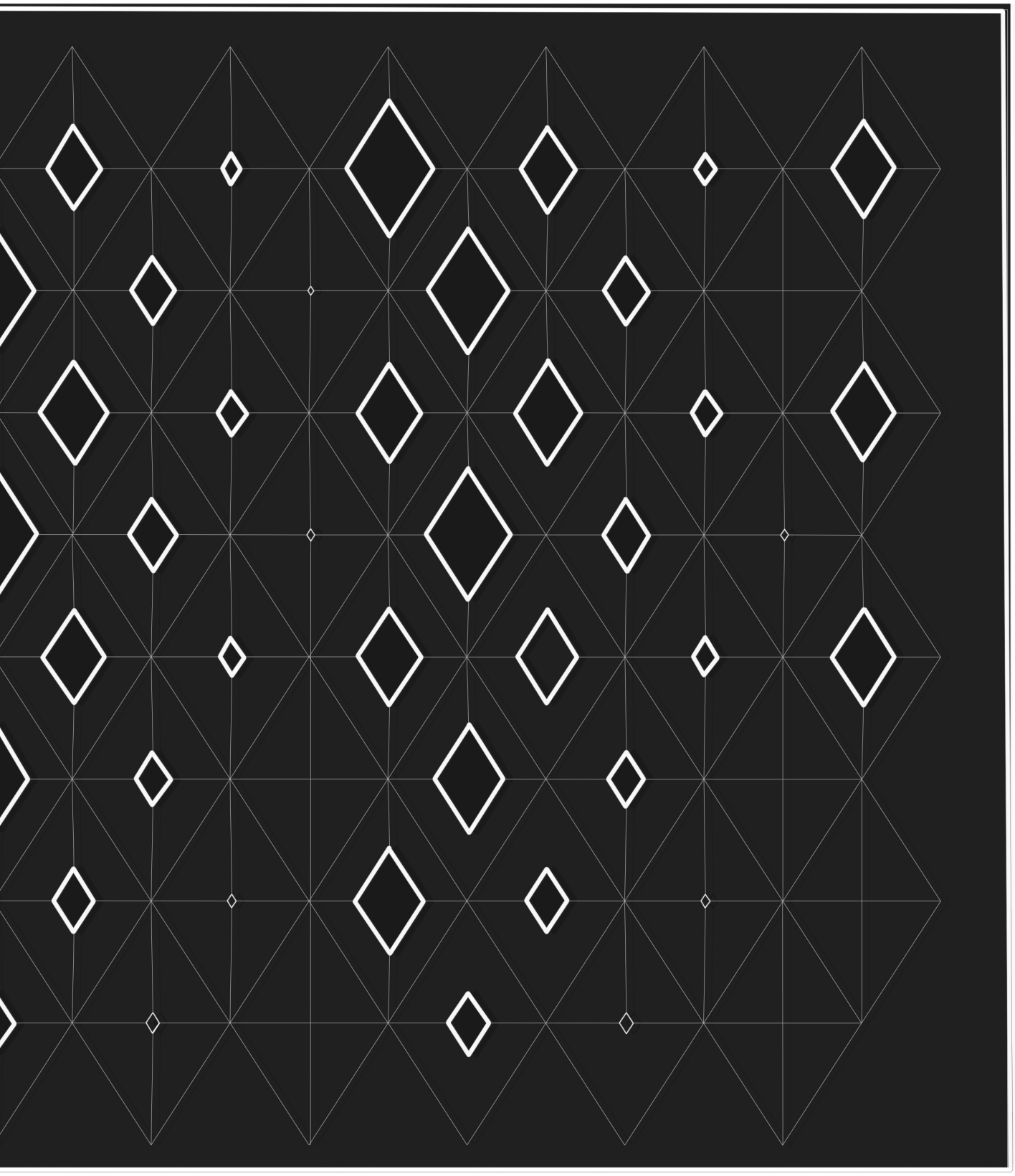
Fact or Fake



Enlightenment Ville

Model Collage



Model Roof Design

(The model roof is designed using the facade skin shape letting light into the box)