



# A Civic Framework for Urban Knowledge Production and Participation

*'Ministry of Urban Living Conditions'*



**Design, Data, Society Graduation Studio: Radical Institutions**

**Supervisors:** dr. Angela Rout, ir. Marija Mateljan

*Architecture Track, Department of the Built Environment, Delft University of Technology, the Netherlands*

Denis Badmaev

[6250807]



## ABSTRACT

This graduation project investigates how architecture can mediate between governance, urban knowledge production, and civic participation through the design of a new Ministry of Urban Living Conditions in Athens. The project responds to the gap between changing urban conditions and the institutional processes through which they are observed, interpreted, and acted upon. In Athens, recurring cycles of construction growth, decline, vacancy, reuse, and renewal have produced spatial challenges that require forms of governance capable of continuous adaptation and public engagement.

The proposed ministry is conceived not only as an administrative body, but as an open civic framework in which public authorities, professionals, researchers, students, civic organisations, and citizens participate in the production and exchange of urban knowledge. At its centre is the Urban Forum, containing the Athens Urban Model Hall and a movable 1:500 model of the metro-

politan region. Around this civic core, the Urban Laboratory, Urban Academy, and Urban Commons support research, fabrication, education, professional exchange, and public collaboration.

The design is organised through a fractal spatial logic that combines institutional coherence with local autonomy. A stable structural framework, continuous hovering roof, and system of courtyards unify the distributed clusters while allowing changing patterns of occupation over time. Adaptability is therefore embedded not through physical transformation of the building, but through the shifting relationship between users, programmes, and urban development cycles. The project demonstrates how institutional architecture can move beyond closed administration and become a civic platform for continuous learning, participation, and the collective shaping of urban futures.



## TABLE OF CONTENTS

<b>TABLE OF CONTENTS</b>	
<b>1. Introduction</b>	<b>4</b>
1.1 Problem statement	
1.2 Research Question	
1.3 Objective and Motivation	
1.4 Scope	
<b>2. Approach</b>	<b>7</b>
2.1 Methods	
2.2 Theoretical Framework	
<b>3. Results</b>	<b>9</b>
3.1 Drawing Set	
3.2 From Research to Design Principles	
3.3 Development of the Spatial Concept	
3.4 Final Architectural Proposal	
<b>4. Conclusion and Discussion</b>	<b>45</b>
4.1 Conclusion	
4.2 Discussion / Implications and Recommendations	
4.3 Reflection	
<b>5. Bibliography</b>	<b>48</b>
<b>6. Appendix</b>	<b>50</b>
6.1 Historical development of institutions in Athens	
6.2 Precedent Analysis results	
6.3 Site Analysis	



Figure 1. AI-assisted render from internal courtyard



# 1. INTRODUCTION

1.1 Problem statement

1.2 Research Question

1.3 Objective and Motivation

1.4 Scope

## PROBLEM STATEMENT

Urban living conditions, including environmental comfort, accessibility, public space quality, building performance, and everyday spatial experience, are increasingly recognised as critical determinants of citizens' well-being. These conditions are not static; they evolve in relation to broader economic, social, and construction cycles that periodically intensify or slow down urban development<sup>1</sup>. While planning decisions, regulations, and investments shape these conditions, the institutional processes through which urban environments are observed, interpreted, and governed often remain temporally and spatially disconnected from these changing dynamics. As a result, a persistent gap emerges between how urban conditions are experienced in daily life and how they are translated into decisions, and action within public institutions.

In Athens, this condition is particularly pronounced. The city operates through recurring cycles of construction growth, decline, vacancy, reuse, and renewal, leaving behind underused building stock, incomplete developments, and uneven public space performance, especially within the inner urban fabric<sup>2</sup>. During periods of reduced activity, institutional structures often lack the capacity to respond effectively to emerging spatial challenges, as they are primarily configured for stable administrative operation rather than cyclical adaptation. Despite the availability of spatial data, expert knowledge, professional expertise, and civic experience, these forms of knowledge often remain fragmented across separate actors and institutions<sup>3</sup>.

Existing ministerial buildings are typically conceived as fixed administrative environments, optimised for stability, control, and internal efficiency. They rarely function as open platforms where citizens, architects, researchers, students, civic organisations, and public authorities can collectively produce, test, and discuss urban knowledge. Consequently, the relationship between governance, research, and civic participation remains rigid, reducing the ability of institutions to address complex and shifting urban realities. The public is often positioned as an audience of governmental decisions rather than as an active contributor to the processes through which urban futures are imagined and developed.

This graduation project addresses this problem by exploring how architecture can support a governmental institution capable of mediating between governance, urban knowledge production, and civic participation. It proposes a new Ministry of Urban Living Conditions in Athens, conceived not only as an administrative body but as an open civic framework in which public actors become part of the operational capacity of the institution. The central aim is to design an architectural structure that maintains institutional continuity while allowing changing patterns of occupation, collaboration, learning, fabrication, and public engagement. In this report, urban knowledge refers to the collection, production, interpretation, and communication of information about the city used to guide its future development. In this way, the project investigates how a ministry can remain stable as an institution while becoming spatially and programmatically responsive to the evolving conditions of the city.

## RESEARCH QUESTION

Given the described problem statement, the research question can be stated as follows: *How can architecture mediate between governance, urban knowledge production, and civic participation while enabling a governmental institution to adapt to cyclical changes in urban development?*

## OBJECTIVE AND MOTIVATION

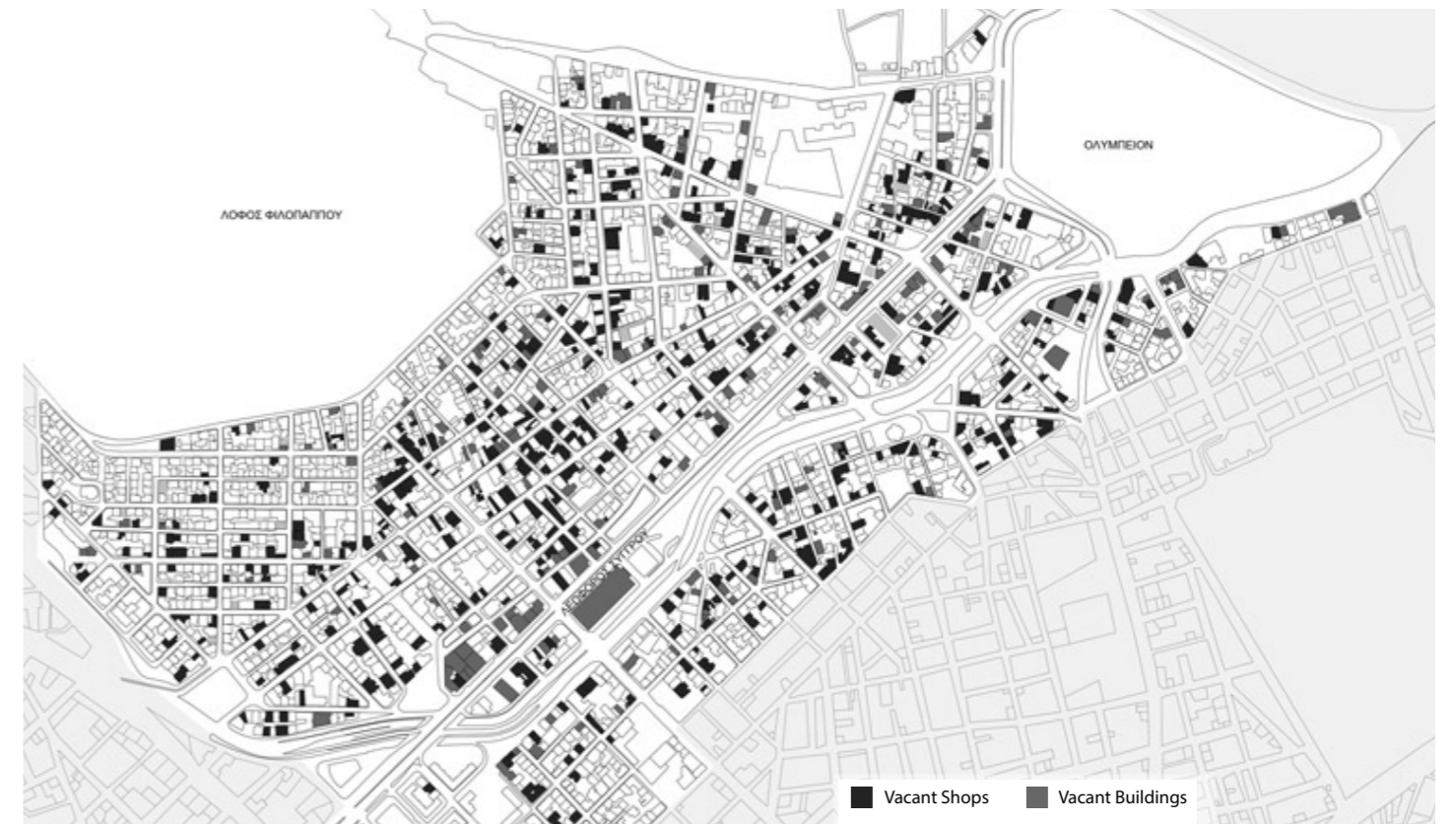


Figure 2. Vacant shops and buildings in Koukaki/Fix districts<sup>2</sup>

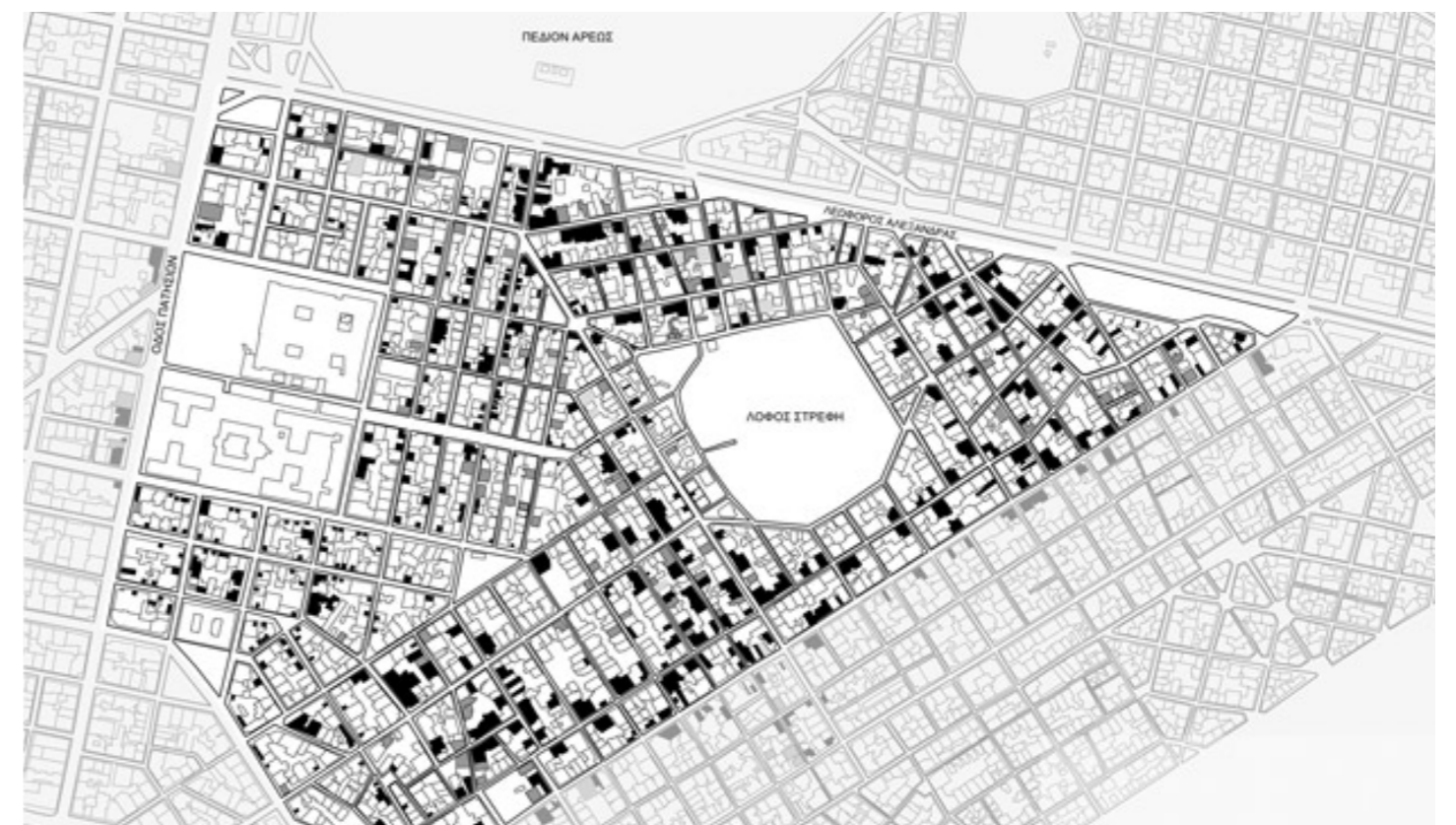


Figure 3 Vacant shops and buildings in Exarchia district<sup>2</sup>

<sup>1</sup> Author's analysis based on ELSTAT building activity data for Athens, 1970–2025; see Appendix, Figure 38.

<sup>2</sup> Thomas Maloutas and Giannis Souliotis, "Vacant Shops," *Athens Social Atlas*, December 2016, accessed December 14, 2025, <https://www.athenssocialatlas.gr/en/article/vacant-shops/>.

<sup>3</sup> Protagon Team, "Τι μπορούμε να κάνουμε για τα άδεια και εγκαταλελειμμένα κτίρια της Αθήνας," *Protagon*, published March 4, 2018, accessed January 5, 2026, <https://www.protagon.gr/themata/ti-boroume-na-kanoume-gia-ta-adeia-egkataleimmena-ktiria-tis-athinas-44341575681/>.



The described conditions highlight the need for an institution capable of addressing urban living conditions not only through regulation, but through the continuous production, interpretation, and communication of urban knowledge. Operating at a metropolitan scale, such an institution can establish shared standards, monitor changes in development activity, and support more coordinated responses to periods of growth, decline, vacancy, and renewal. Within this framework, the institution functions not only as a governing body, but as an active mediator between public authorities, experts, professionals, and citizens.

A ministry has traditionally been understood as a stable administrative organisation structured around fixed hierarchies, predefined roles, and limited public access. However, in the context of cyclical urban development, such an institution must become more open, adaptive, and participatory. Its role is not only to produce decisions, but also to make the processes behind those decisions visible, discussable, and accessible. The radical proposition of this project is therefore that the ministry is not defined only by its official employees, but also by the citizens, architects, researchers, students, and civic organisations who temporarily occupy its spaces and contribute to its work.

The proposed Ministry of Urban Living Conditions redefines the conventional ministry as an institution that combines governance, research, fabrication, education, and public engagement within a single architectural framework. Rather than functioning solely as an administrative apparatus, it operates as a platform for the continuous production, testing, exchange, and communication of urban knowledge. In this report, urban knowledge refers to the collection, production, interpretation, and communication of information about the city used to guide its future development.

At the centre of the institution is the Urban Forum, a civic interface containing the Athens Urban Model Hall and a movable 1:500 scale model of

the metropolitan region. By making urban processes physically visible and accessible, it connects governmental decision-making with public understanding of the city. Around this core, the Urban Laboratory, Urban Academy, and Urban Commons support research and fabrication, education and training, professional exchange, and civic collaboration. Together, these elements form an adaptive civic framework in which governance, knowledge production, and public participation operate as parts of one institution.

Architecture serves as the organisational framework that connects these functions. The building is conceived as a stable spatial and structural system capable of accommodating evolving programmes without altering its primary order. Adaptability is therefore embedded at the level of occupation rather than construction, allowing spaces to support changing modes of work, collaboration, learning, fabrication, and public interaction over time. The building does not need to transform physically in order to adapt; instead, its users, activities, and patterns of occupation shift in response to changing urban development cycles.

Within this model, the role of the architect extends beyond designing static environments. Architects contribute to shaping systems through which urban knowledge can be produced, represented, tested, and communicated. By working in collaboration with researchers, public authorities, civic organisations, and citizens, they help translate spatial information and lived experience into strategies that can inform future urban development.

The Ministry of Urban Living Conditions is situated in Plato's Academy Park in Athens, with an estimated GFA of approximately 9,000 m<sup>2</sup>. The scope is defined by the challenge of embedding an open and adaptive governmental institution within a historically and ecologically sensitive public landscape. The primary focus was the development of a building that can maintain a clear institutional identity while allowing changing func-

Space Type	Description	No. of people	GFA/worker	Area	Number	Total Area
<b>Urban Laboratory</b>						
	Ideas/Makers Space	110		10		1 100
	Fabrication Wood Workshop					160
	Metal Workshop					50
	Laser Cutting Space					80
	CNC ShopBot					80
	Paint Room				15	30
	Material Archive				20	60
	3D Printing Space					40
	Fine Detail Workshop					100
<b>Archive</b>						
	Controlled Archive					130
	Open Archive					120
	Reading Space					150
<b>Urban Forum</b>						
	1:500 Athens Model Hall (model 12.5×12.5 m + circulation)			370		600
	Exhibition of the Past: "Urban Memory Register"					300
	Exhibition of the Present: "The Live Conditions Forum"					300
	Exhibition of the Future: "The Civic Futures Laboratory"					300
	Digital City Lab (interactive screens, GIS, VR-Lab, Digital twin)				40	80
	Curator/Control Room					20
	Exhibition Temporary Storage					20
	Foyer/Lobby					100
	Executive Department Offices	30		7		210
	Presentation Rooms				20	40
<b>Urban Academy</b>						
	Open Spaces for collaborative working	150		10		1 500
	Big Meeting Rooms				30	30
	Medium Meeting Rooms				15	90
	Small Meeting Rooms				10	20
	Kitchen					50
	Storage Facilities					50
	Outdoor Discussion Zones			30	3	90
<b>Urban Commons</b>						
	Open Spaces for collaborative working	100		10		1 000
	Medium Meeting Rooms				15	30
	Presentation Room				20	40
	Storage Facilities					50
	Outdoor Discussion Zones					100
<b>Catering</b>						
	Restaurant	150		2		300
	Bar					40
	Kitchen					180
<b>Auditorium</b>						
	Seating (200 seats)					230
	Stage / Platform					50
	AV / Control Room					10
<b>Net Area (subtotal)</b>						
						<b>7 930</b>
Auxiliary	MEP, comms/server allowance, cores, toilets, structure, walls, shafts				5% of total	397
Circulation	Vertical, horizontal, voids				10% of total	793
<b>GFA</b>						<b>9 120</b>

Table 1. Building programme

■ Urban Academy 
 ■ Urban Commons 
 ■ Auxiliary 
 ■ Auditorium 
 ■ Restaurant 
 ■ Lobby 
 ■ Archive 
 ■ Urban Forum 
 ■ Urban Laboratory 
 ■ Circulation

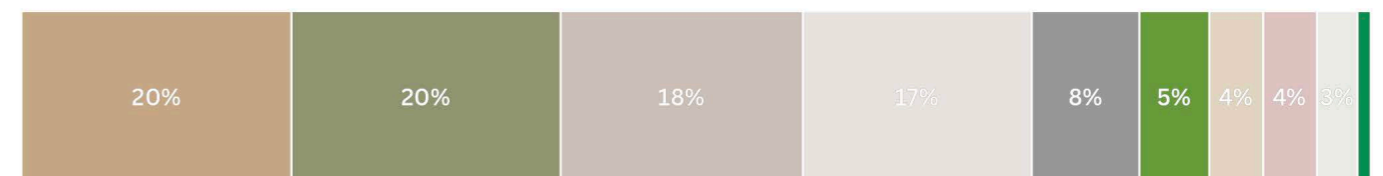


Figure 4. Building Programme Distribution



tions, users, and degrees of public participation over time.

Plato's Academy Park carries strong associations with knowledge production and public dialogue, providing a relevant context for a ministry that integrates governance, research, and civic engagement. The site offers high public accessibility, a strong landscape character, and archaeological significance, all of which inform the spatial organisation of the project.

These conditions lead to five key architectural principles:

*Civic transparency:* The building should make urban knowledge visible and accessible through public exhibitions, models, presentations, and shared spaces.

*Distributed knowledge production:* Research, fabrication, education, collaboration, and public communication should be organised as connected but distinct institutional environments.

*Institutional adaptability:* The building should remain operational during different seasons and phases of urban development by allowing changing patterns of occupation and use.

*Stable framework / changing occupation:* The structural and spatial order should remain clear and continuous, while internal programmes, users, and activities can shift over time.

*Integration with landscape:* The building should respond sensitively to Plato's Academy Park, preserving existing conditions and extending the continuity between built space, courtyards, public routes, and landscape.

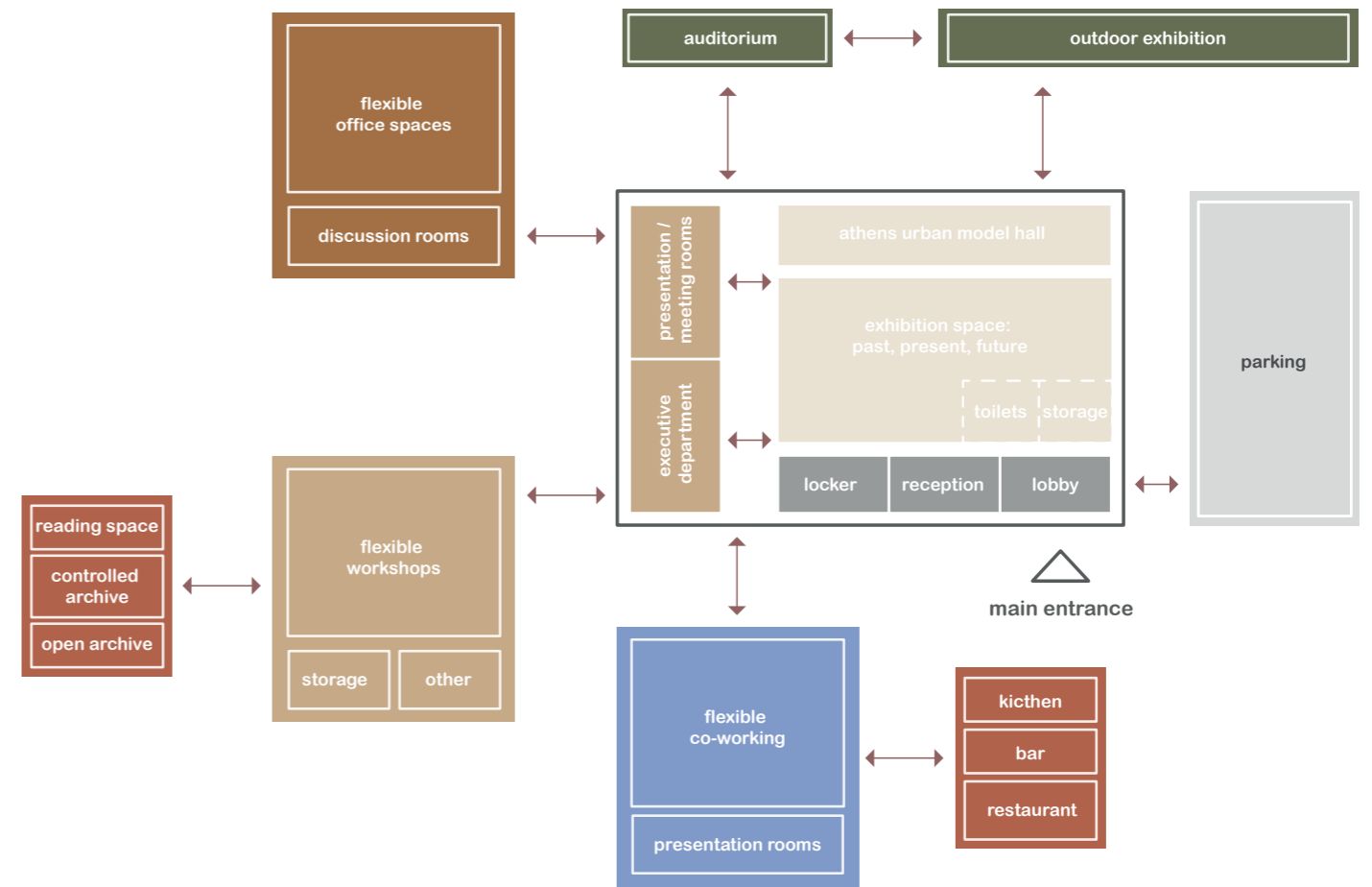


Figure 5. Functional relation



## 2. APPROACH

2.1 Method

2.2 Theoretical Framework



## METHODS

The project was developed through a research-through-design approach, in which spatial analysis, theoretical research, precedent studies, and iterative design exploration informed one another throughout the process. The project used research to define the institutional problem and design experimentation to test how this problem could be translated into architectural form.

The pre-design research phase combined qualitative on-site investigation with quantitative spatial analysis. On-site data collection was conducted through a sensory analysis of Plato's Academy Park, organised around a series of observation points distributed across the site. Using a structured notation method derived from Raymond Lucas's Designing a Notation for the Senses, spatial qualities such as sound, light, temperature, movement, and visual intensity were recorded and translated into diagrams. These diagrams informed decisions related to building placement, orientation, landscape continuity, access, and environmental response. Full results of the study can be found in Appendix.

In parallel, quantitative spatial analysis was conducted using QGIS and publicly available datasets, including OpenStreetMap and municipal GIS platforms. This analysis established the broader spatial and environmental context of the site at two scales. At the metropolitan scale, the site was studied in relation to Athens' topography, mobility networks, institutional distribution, administrative boundaries, and urban morphology. At the local scale, the analysis focused on Plato's Academy Park, its archaeological remains, vegetation, public routes, road infrastructure, surrounding urban fabric, and potential areas for intervention. The outputs of this phase include combined site-analysis drawings, sensory maps, and diagrams identifying spatial constraints and opportunities. Full results of the study can be found in Appendix.

Precedent analysis formed another component of the preliminary research. The selected case studies include ministry buildings and research-oriented institutions from different periods and geographical contexts. The selection was guided by institutional function, spatial organisation, documentation availability, and temporal diversity, ranging from the 1960s to contemporary examples. Because ministry buildings often have limited published drawings, the analysis prioritised projects with sufficient documentation to allow comparison of access structures, functional relationships, spatial hierarchy, programme distribution, and organisational strategies. The results are presented in the appendix and were used to inform the relationship between the Urban Forum, the specialised clusters, and the surrounding public realm.

The design process was developed through iterative exploration using both analogue and digital methods. Early studies were conducted through sketches, diagrams, and rapid foam models, allowing different spatial concepts, fractal configurations, massing strategies, and courtyard relationships to be tested quickly. As the project developed, selected design directions were translated into Revit to refine the spatial organisation, produce drawings at multiple scales, test structural and material logic, and develop technical details. Physical model making was used to test the relationship between building, park, and detail, including a collaboratively produced base for the 1:500 urban site model and a 1:20 building fragment model. The expected outputs of the method are therefore not only analytical drawings, but also a final architectural proposal documented through plans, sections, visualisations, physical models, and construction details.

Count	Building Name	Institution	Year of completion	Size (m <sup>2</sup> )	Country	Location	Architect	Climate
	<b>Ministry of Housing and Urban Development Building</b>	Ministry	2015	5545	Chile	Rancagua	Carreño Sartori Arquitectos	Cold desert (BWk)
1	<b>Ministry of Public Works</b>	Ministry	2011	10000	Chile	La Serena	Teodoro Fernandez Arquitectos	Cold desert (BWk)
	<b>Human Development and Habitat</b>							
3	<b>Ministry</b>	Ministry	2019	21000	Argentina	Buenos Aires	Direccion General de Arquitectura, GCBA, MDUyT	Temperate (Cfa)
4	<b>Urban Environment House</b>	Ministry (Division)	2020	40900	Finland	Helsinki	Lahdelma & Mahlamäki architects	Continental (Dfb)
	<b>Ministry of Development and Housing</b>							
5	<b>offices</b>	Ministry	2015	41400	Spain	Sevilla	Cruz y Ortiz Arquitectos	Temperate (Csa)
6	<b>Salk Institute for Biological Research</b>	Research Centre	1965	65000	USA	La Jolla (California)	Louis Kahn	Temperate (Csa)

Table 2. Precedent buildings for analysis

## THEORETICAL FRAMEWORK

The theoretical framework combines three main lines of investigation: institutional theory, environmental mediation, and organisational systems. Together, these informed the project's approach to the ministry as an open civic institution rather than a closed administrative object.

First, a broader investigation into the historical development of institutions in Athens was conducted collectively within the graduation studio. Eleven different types of institutions were outlined and analysed in parallel, allowing for a comparative understanding of how institutional forms and functions have emerged and later transformed across different historical periods in the city. The outcome is a chronological timeline that traces institutional development in Athens and identifies moments of continuity, transformation, and mutual influence. The research revealed a gap within the institutional landscape of Athens: there is no clearly defined civic institution dedicated to continuously producing, communicating, and debating urban knowledge as a shared public resource.

Louis I. Kahn's *Silence and Light* provided a theoretical foundation for understanding institutions as civic places rather than merely functional organisations. Kahn's idea of the institution as a "place of happening" informed the Urban Forum as the central space where public encounter, knowledge production, and governmental decision-making become spatially connected. In this project, the ministry is therefore understood as a place where institutional presence is made visible through spatial hierarchy, structure, light, and public accessibility.

Marcel Breuer's *Sun and Shadow* added a complementary climatic and spatial framework. Breuer's discussion of light, shade, opacity, transparency, and material contrast was used to understand environmental response as an architectural instrument rather than as a technical afterthought. This was particularly relevant for the project's hovering roof and deep overhangs and courtyards that cre-

ates transition between interior workspace and exterior park. Breuer's work supported the project's ambition to use shade, threshold, and material contrast to mediate between civic openness and climatic protection.

Finally, the spatial organisation was informed by the concept of fractal systems, developed through design research and supported by Benoît Mandelbrot's *The Fractal Geometry of Nature*. The relevance of fractals lies not in copying natural forms, but in understanding how repeated organisational rules can produce coherence at the scale of the whole while allowing local variation at the scale of individual parts. This provided a framework for organising the ministry as a stable institutional system composed of differentiated clusters: the Urban Forum, Urban Laboratory, Urban Academy, and Urban Commons.

The project therefore combines theory, precedent research, site analysis, and design experimentation into one architectural strategy: a stable civic framework capable of supporting changing patterns of occupation, public participation, and urban knowledge production.



## **3. RESULTS**

3.1 Drawing Set

3.2 First Design Principles

3.3 Spatial Concept

3.4 Final Architectural Proposal



Figure 6. Urban plan: Metropolitan Athens  
1:20000 (scaled)

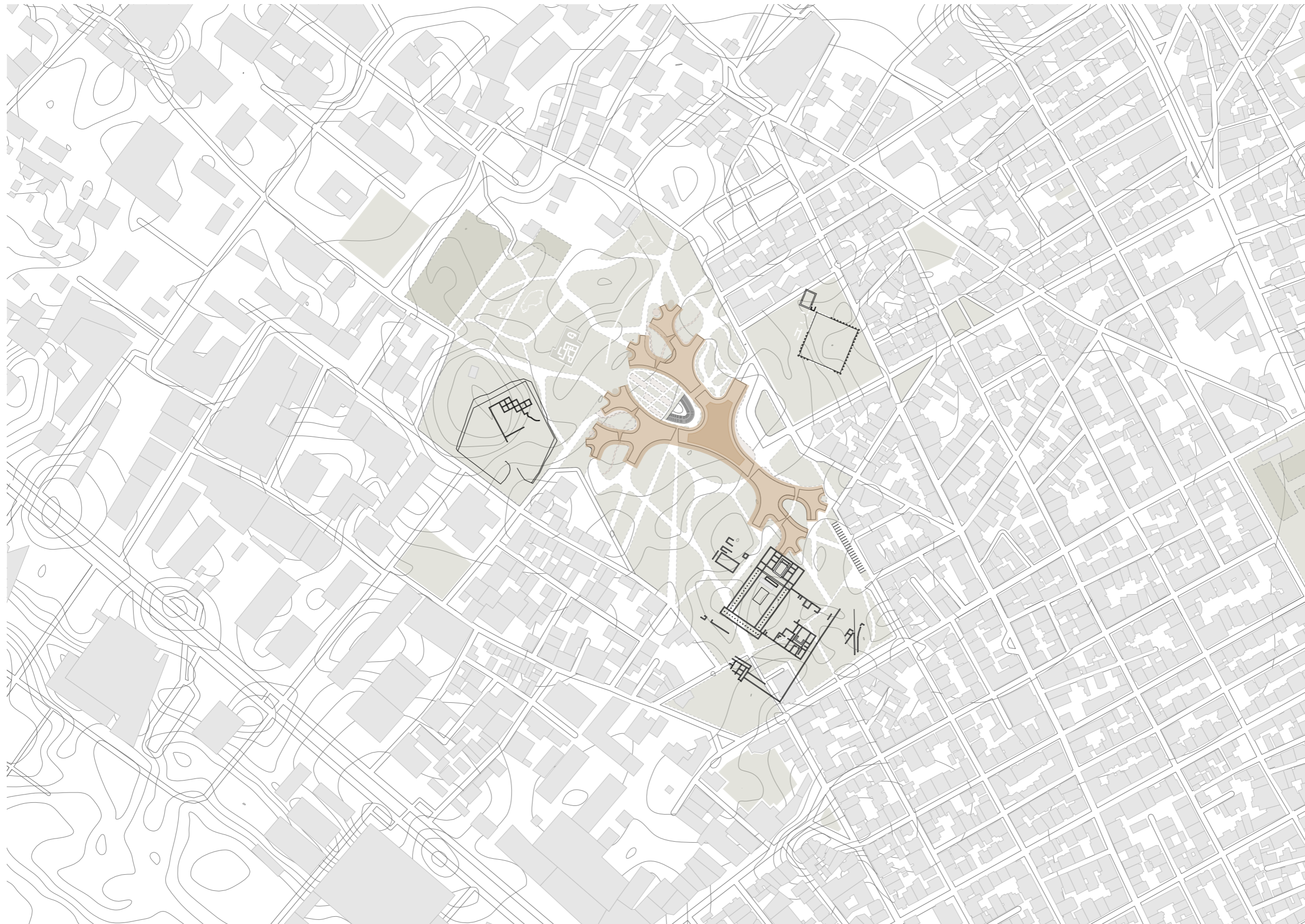


Figure 7. Site plan:  
Plato's Academy Park  
1:2000 (scaled)



Figure 8. Bus lane removal



Figure 9. Building plan  
1:666 (scaled)

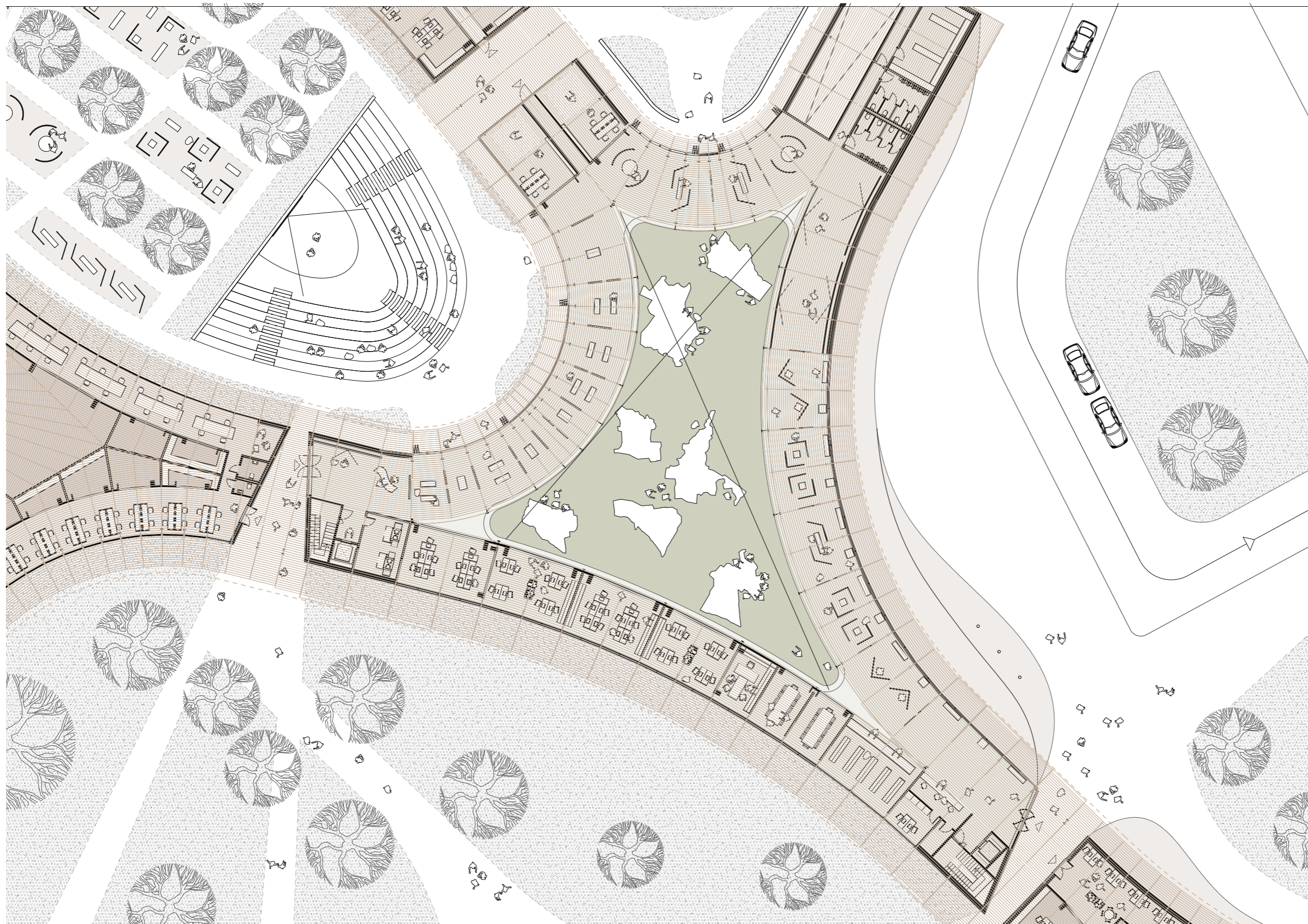


Figure 10. Floor plan:  
Urban Forum  
1:200 (scaled)

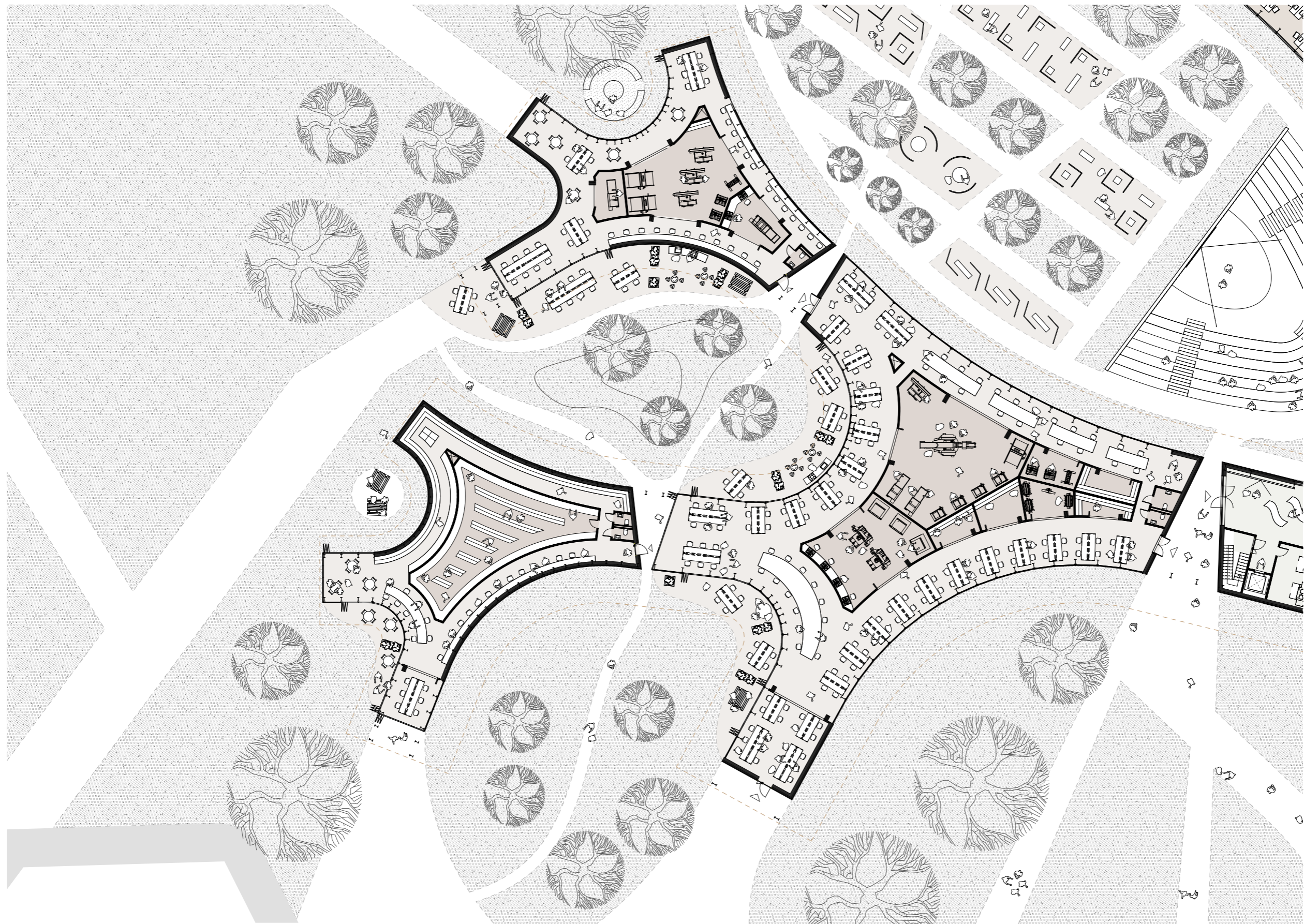


Figure 11. Floor plan:  
Urban Laboratory  
1:200 (scaled)

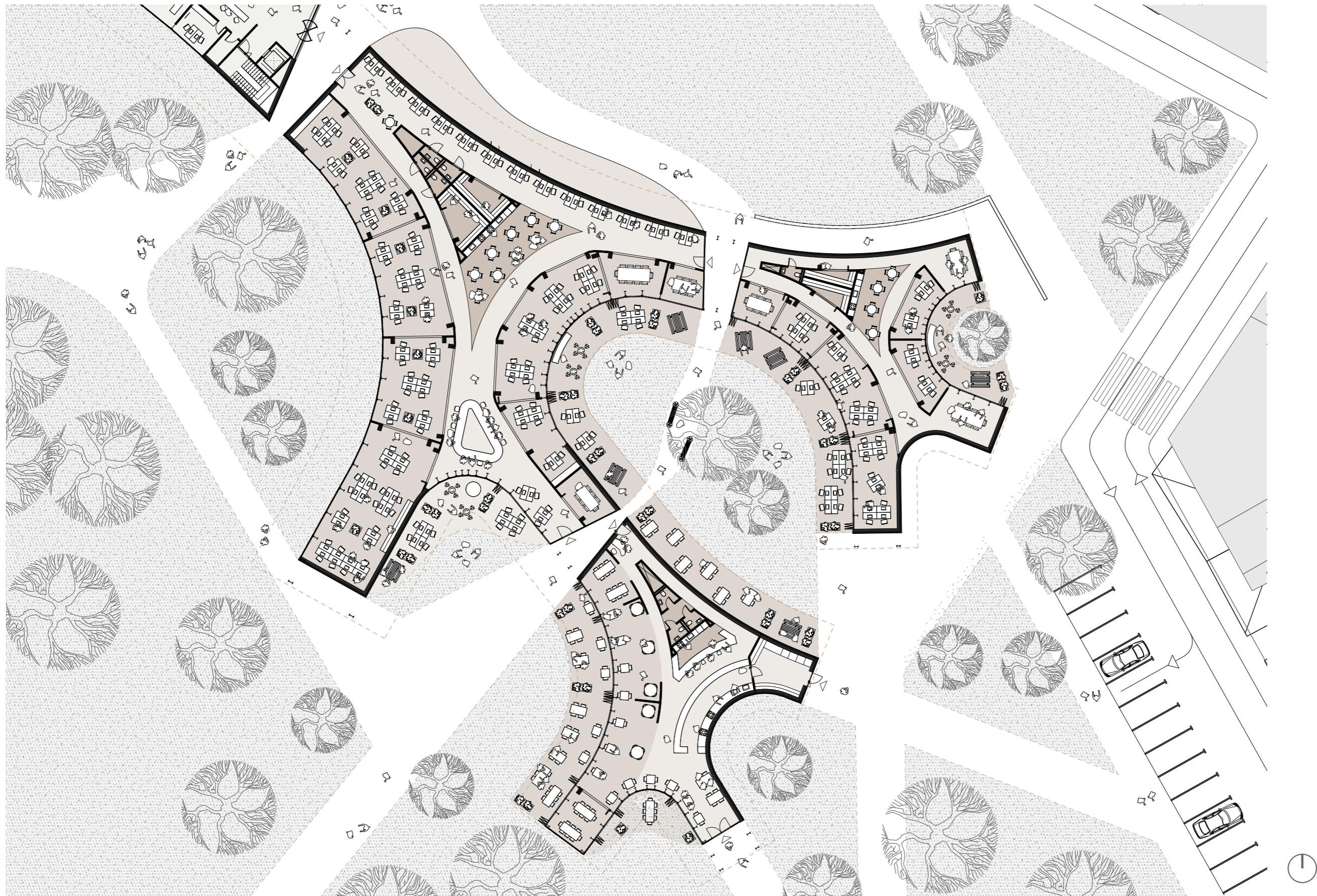


Figure 12. Floor plan:  
Urban Commons  
1:200 (scaled)



Figure 13. Floor plan:  
Urban Academy  
1:200 (scaled)



Figure 14. Floor plan: Urban Academy  
low season  
1:200 (scaled)

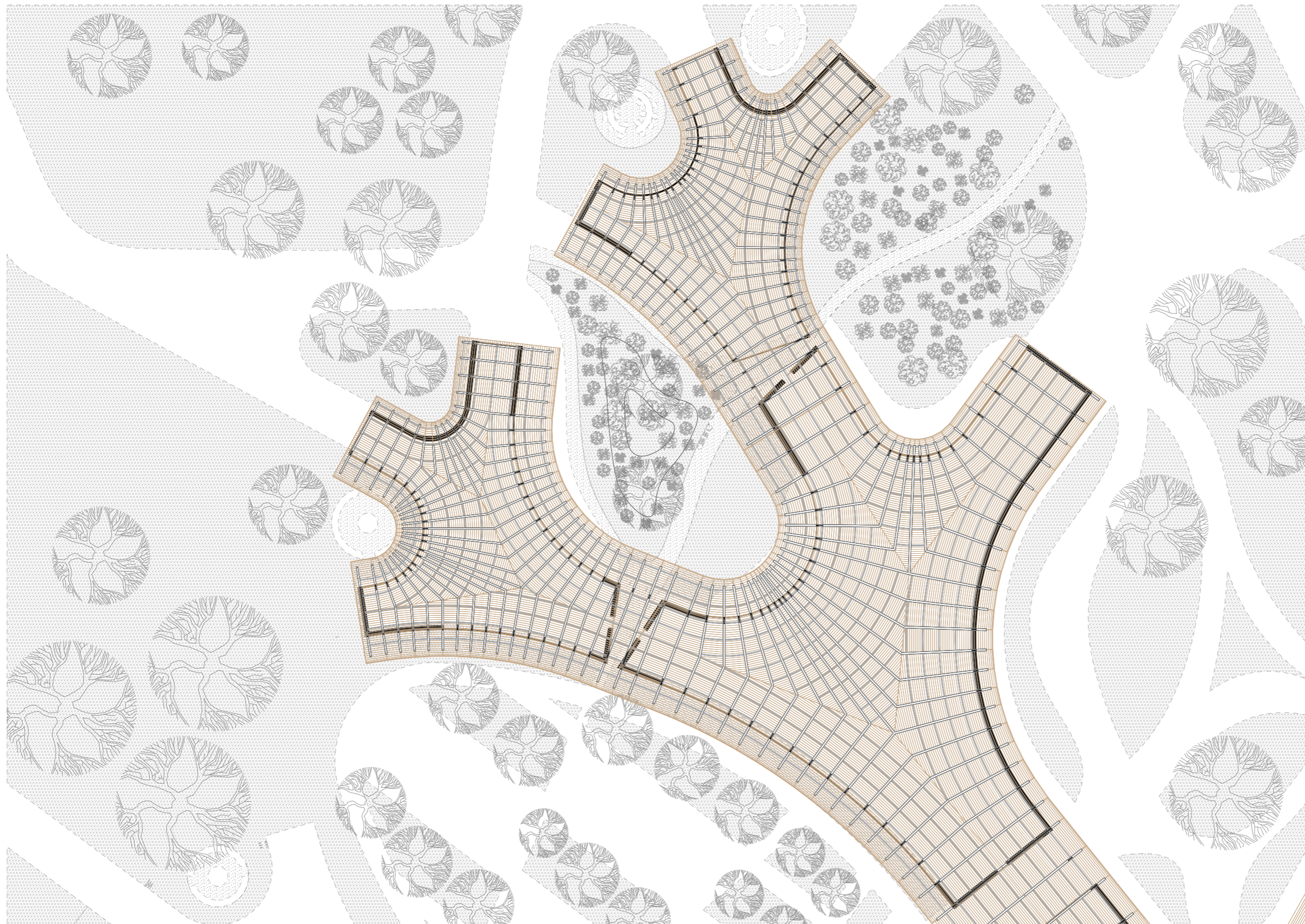


Figure 15. Structural scheme:  
1:200 (scaled)

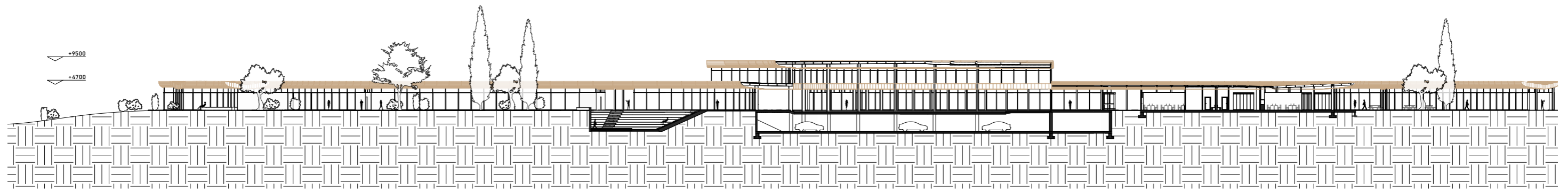


Figure 16. Building Section:  
1:500 (scaled)

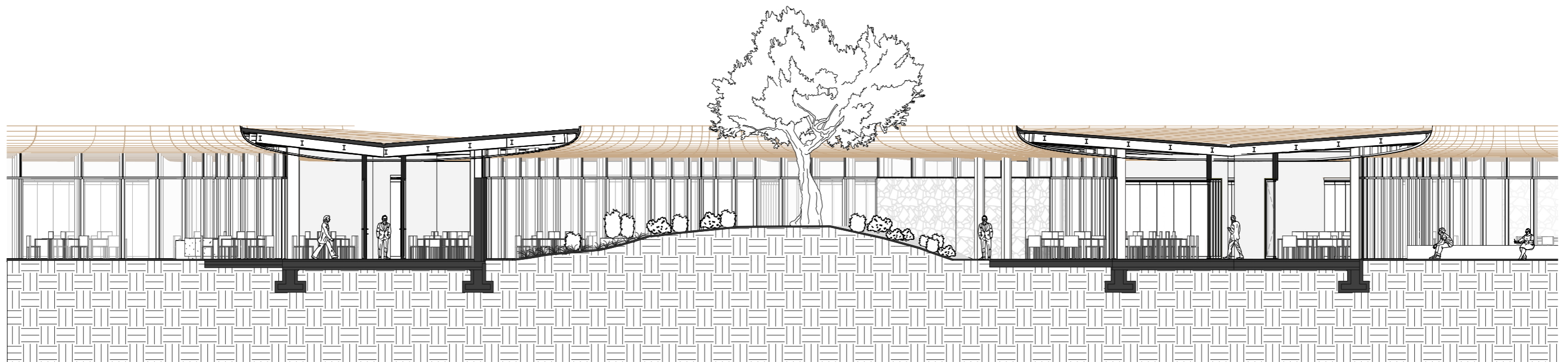


Figure 17. Building Section:  
1:100 (scaled)

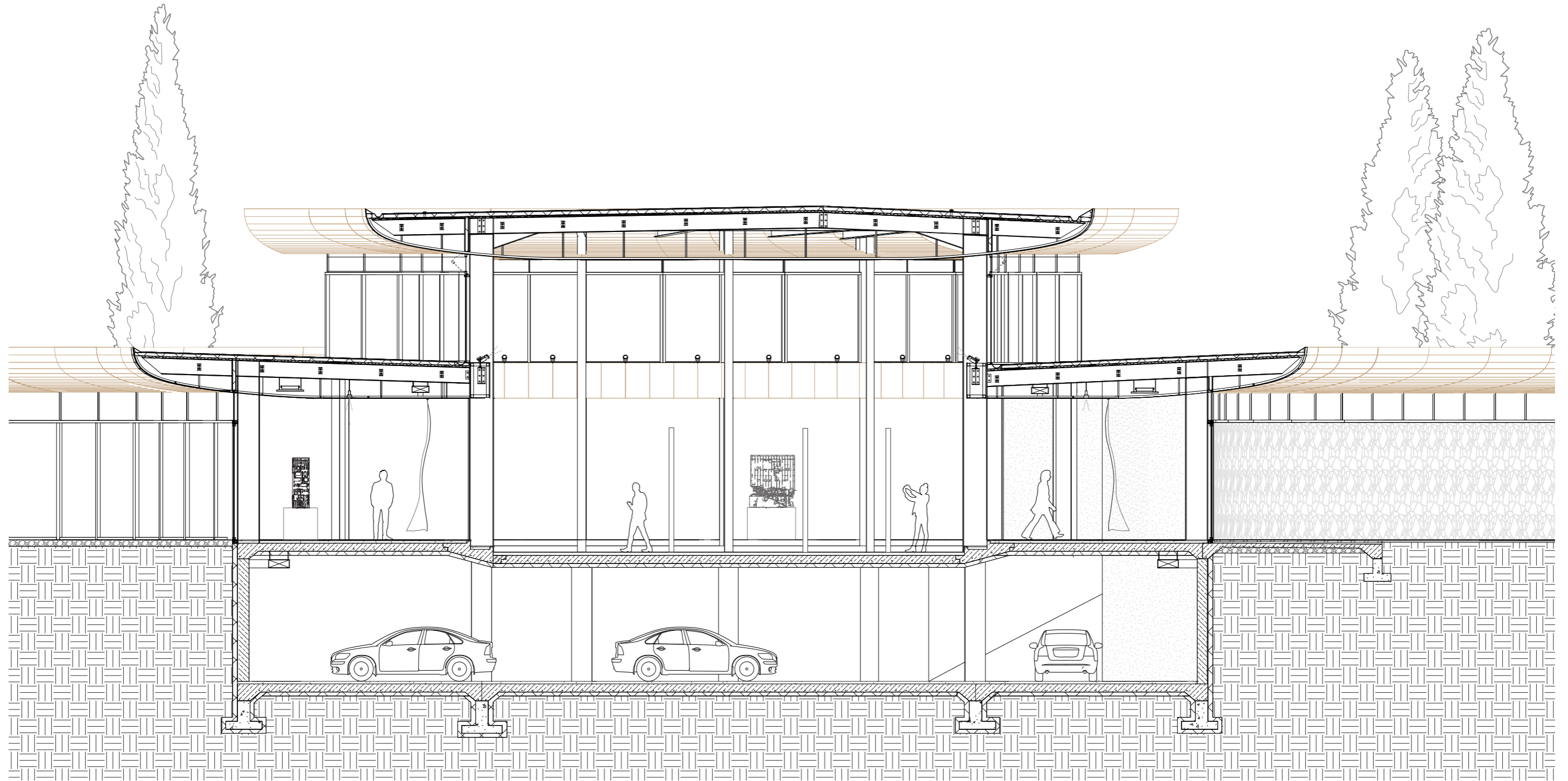


Figure 18. Building  
Section: Urban Forum  
1:66 (scaled)

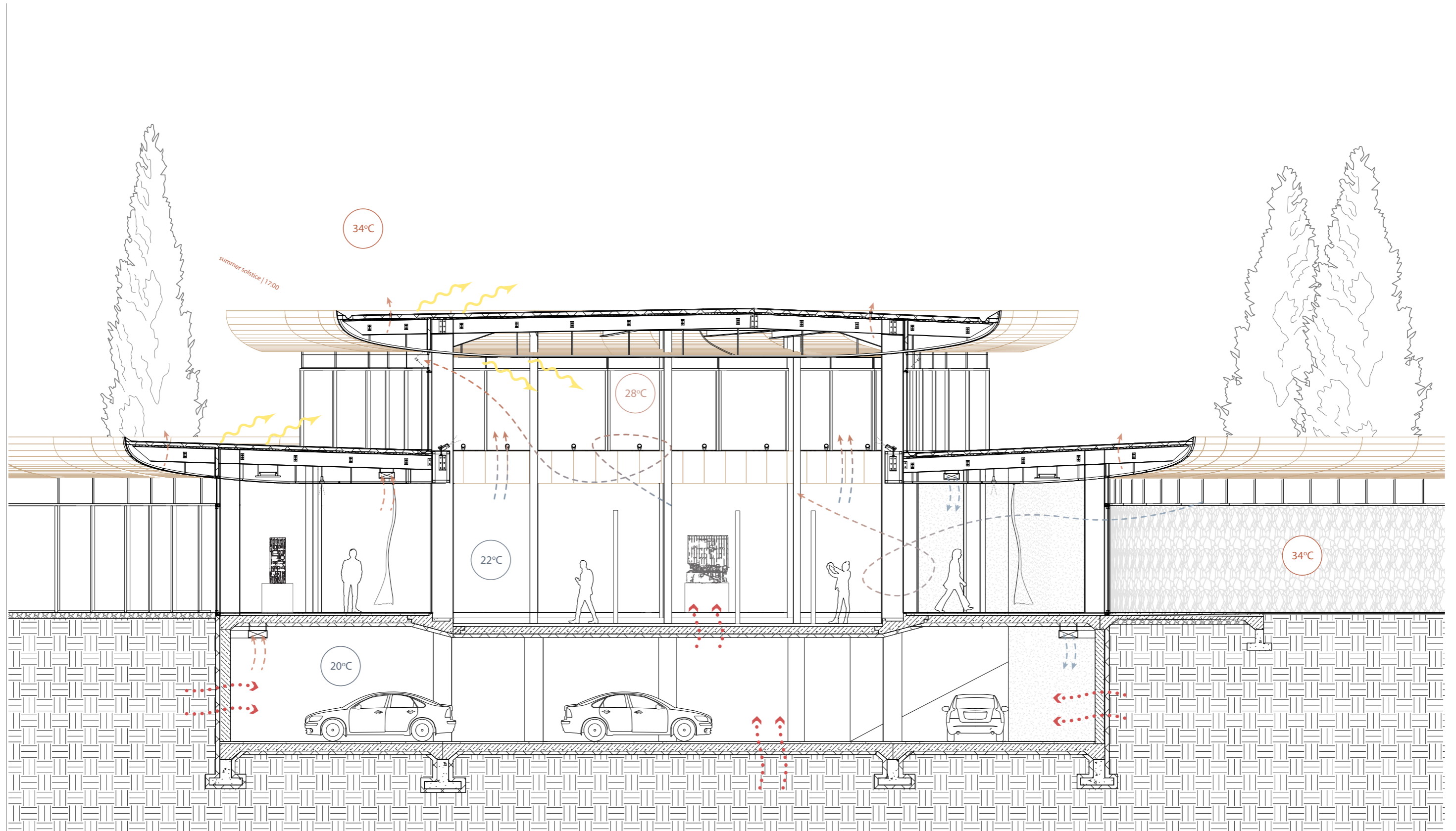


Figure 19. Climate  
Section 1:66 (scaled)

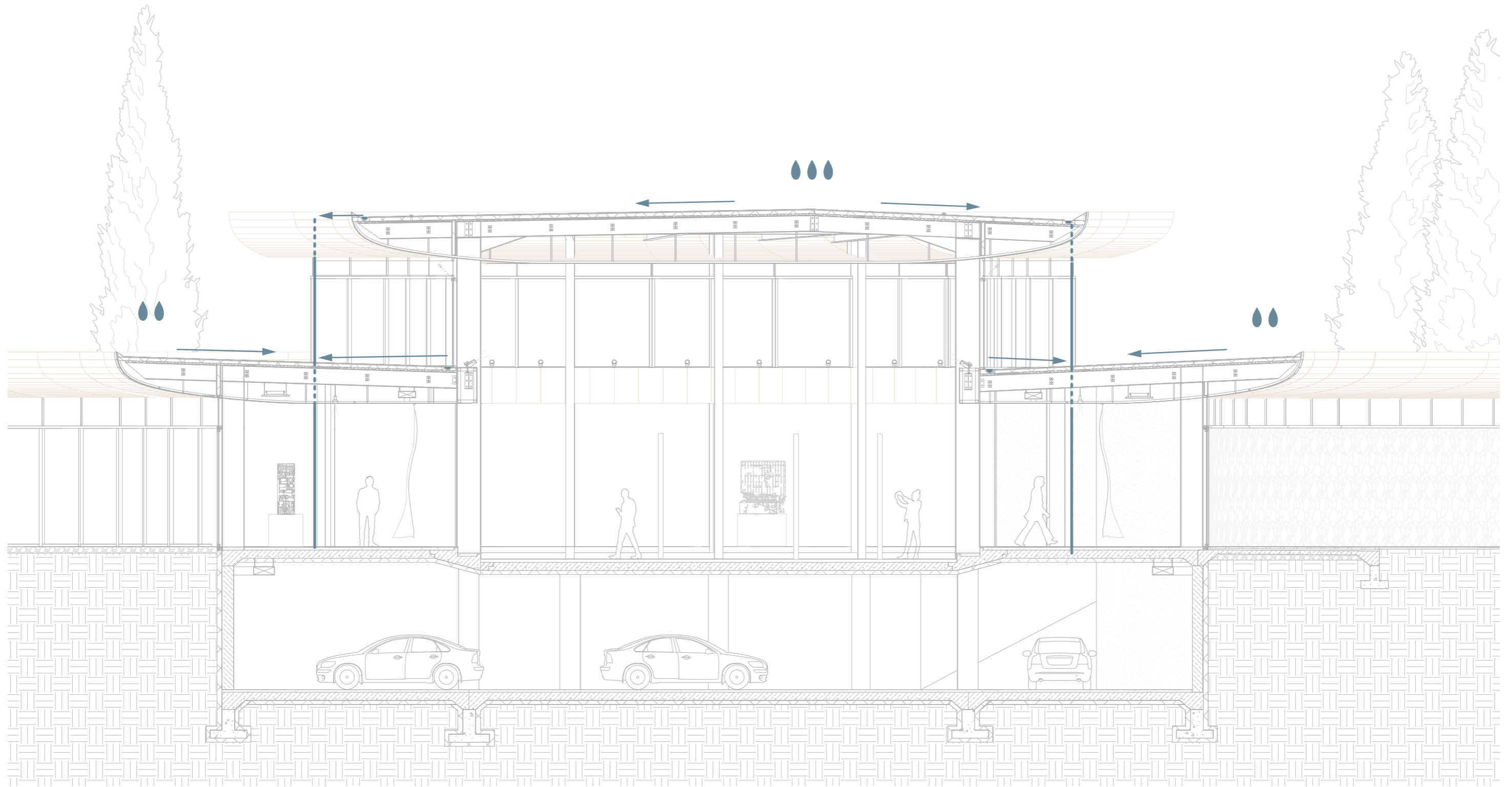


Figure 20. Rainwater collection 1:66

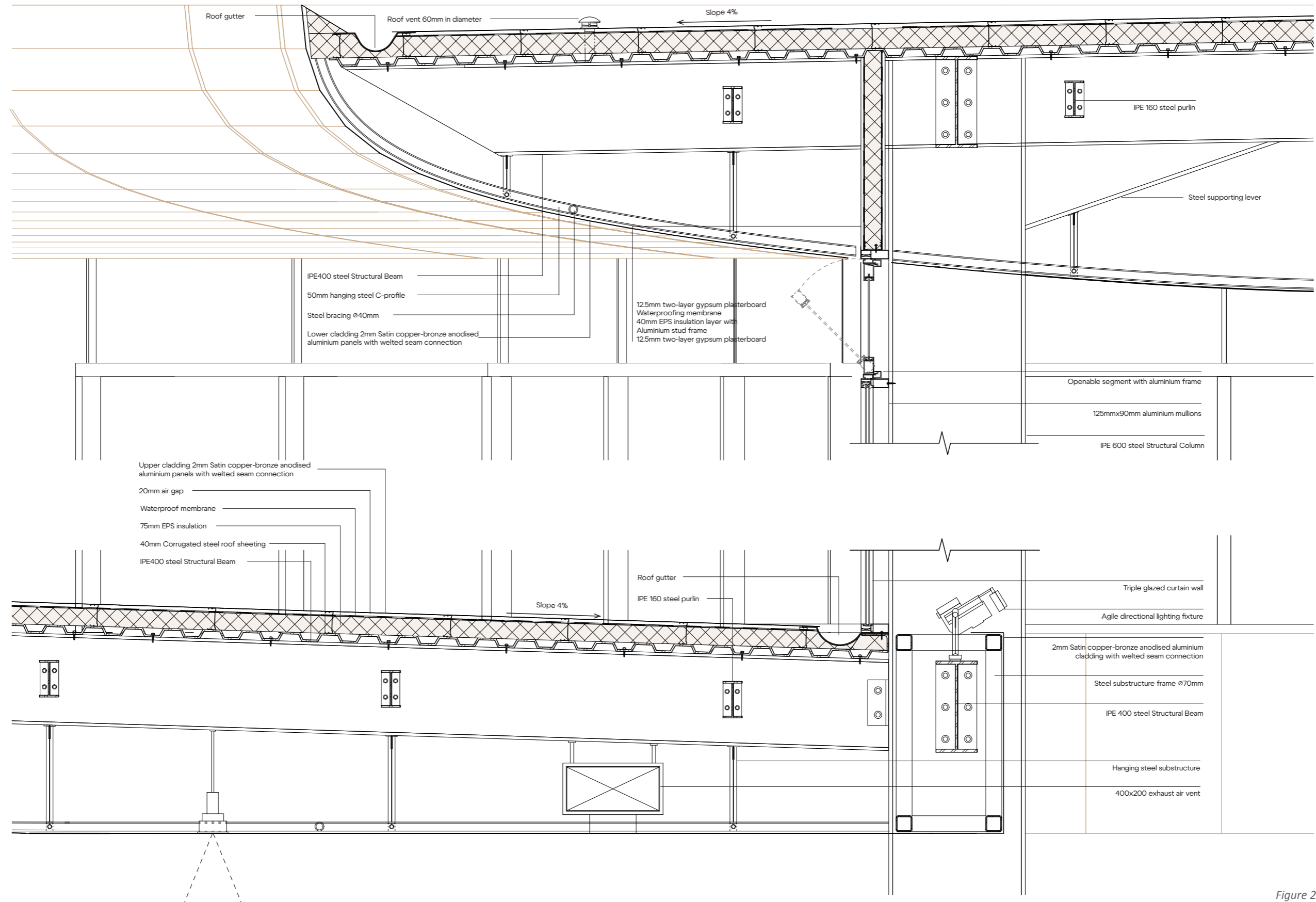


Figure 23. Detail Section:  
1:10 (scaled)

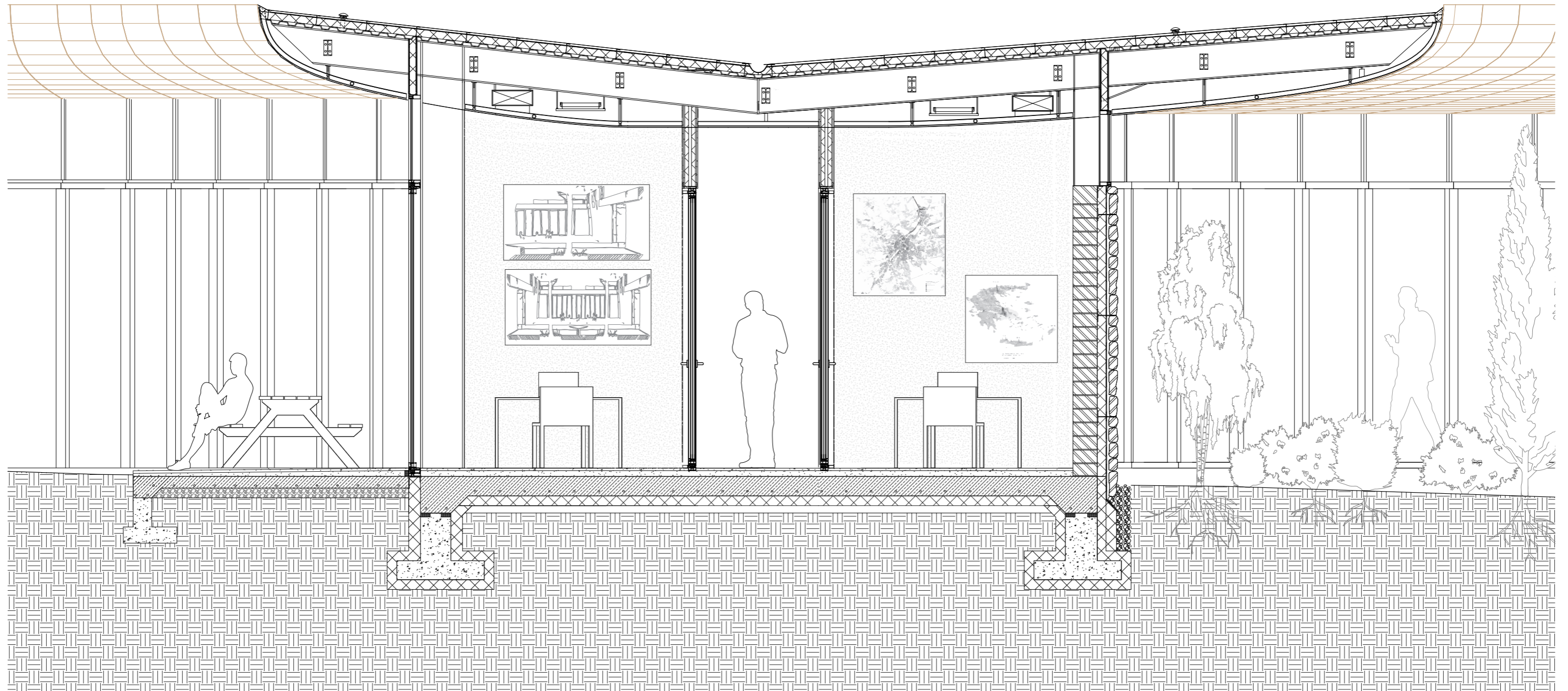


Figure 24. Fragment Section:  
1:20 (scaled)

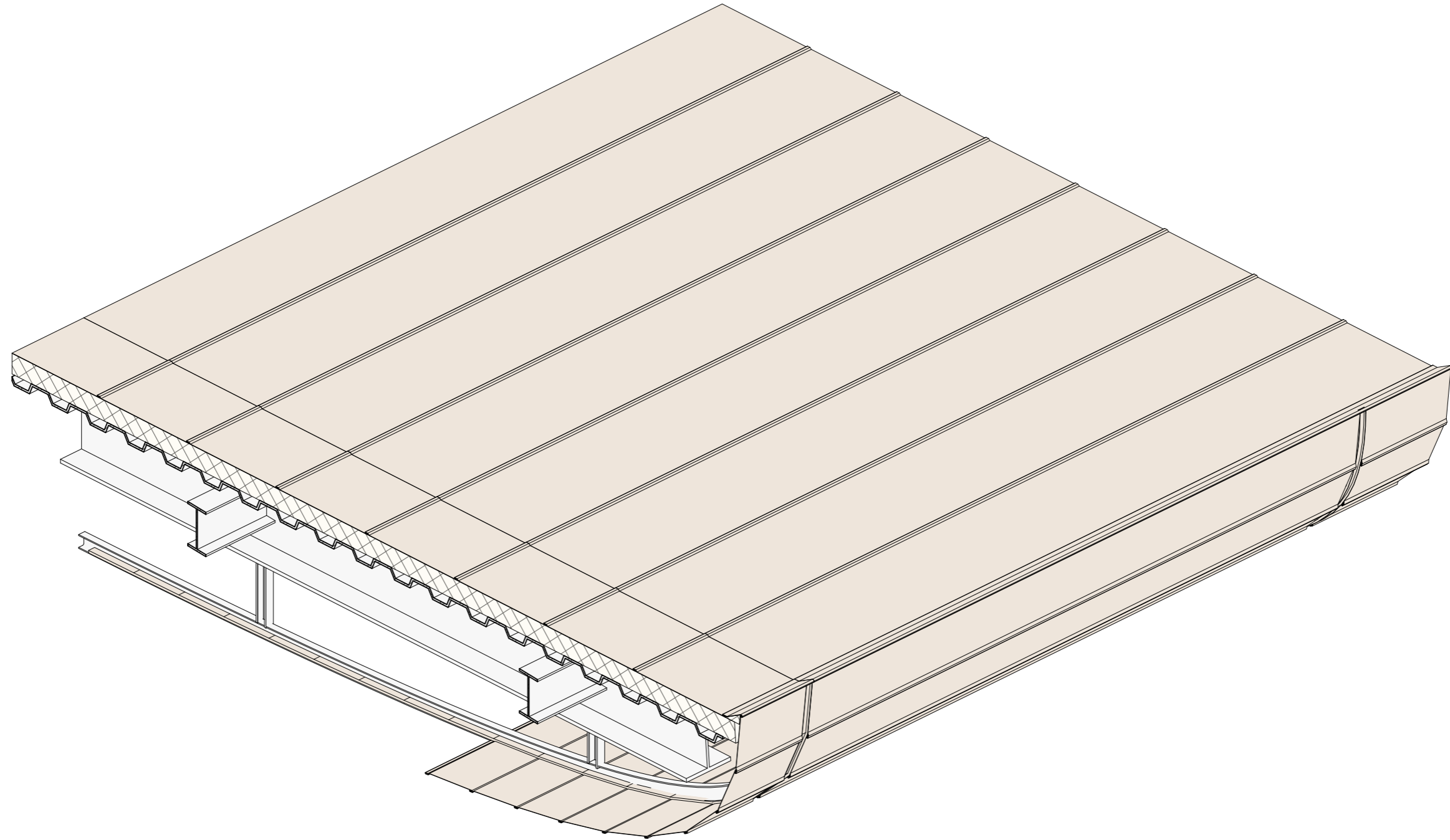


Figure 25. Roof axonometry:  
1:5 (scaled)



Figure 26. Interior-exterior visualisation showing folding façade elements and the continuity between workspace and courtyard.



Figure 27. Interior visualisation showing Athens Urban Model Hall.



*Figure 28. Exterior courtyard visualisation showing the hovering roof, limestone wall, and Mediterranean planting.*

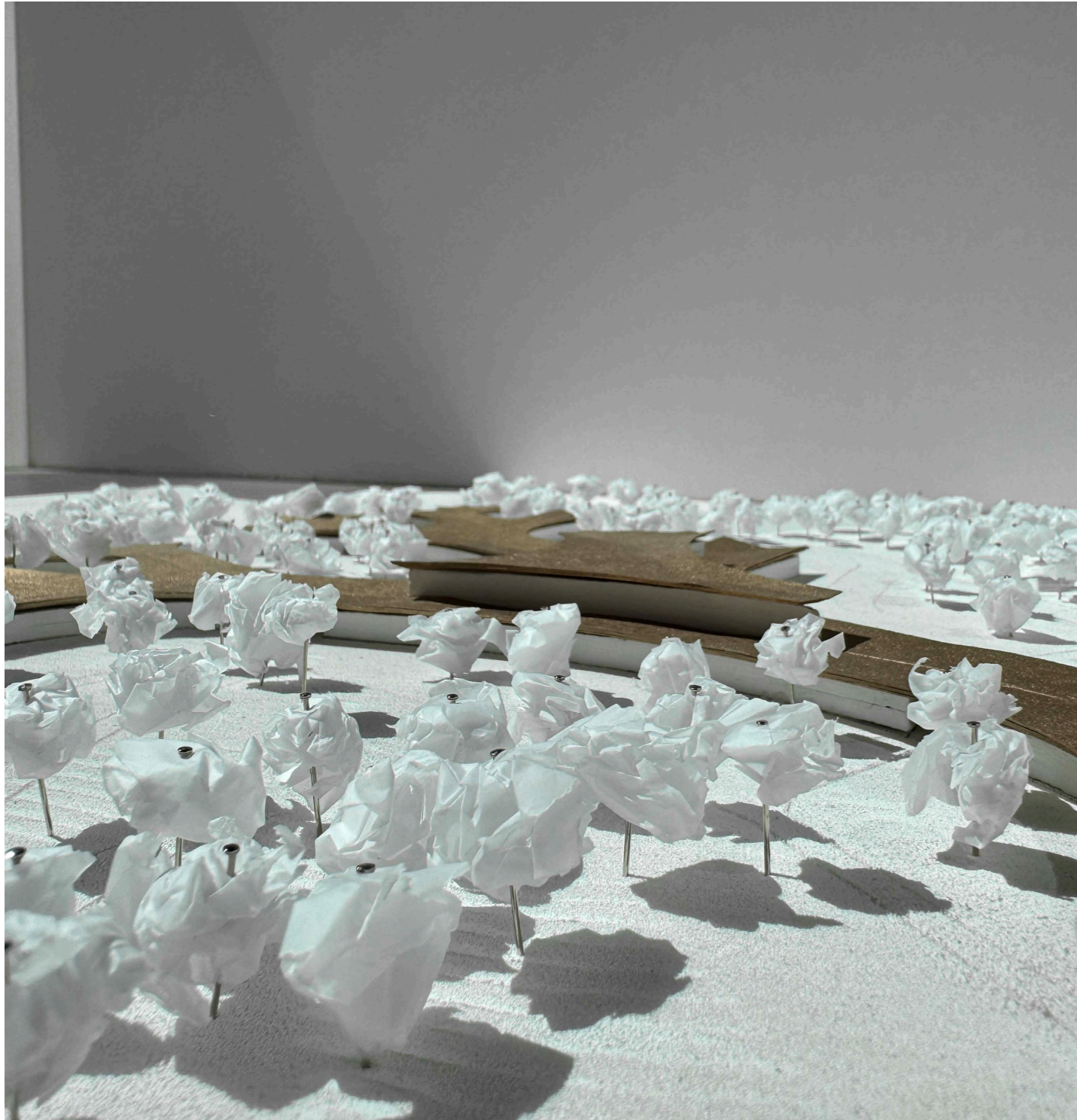


Figure 29. Site model  
1:500

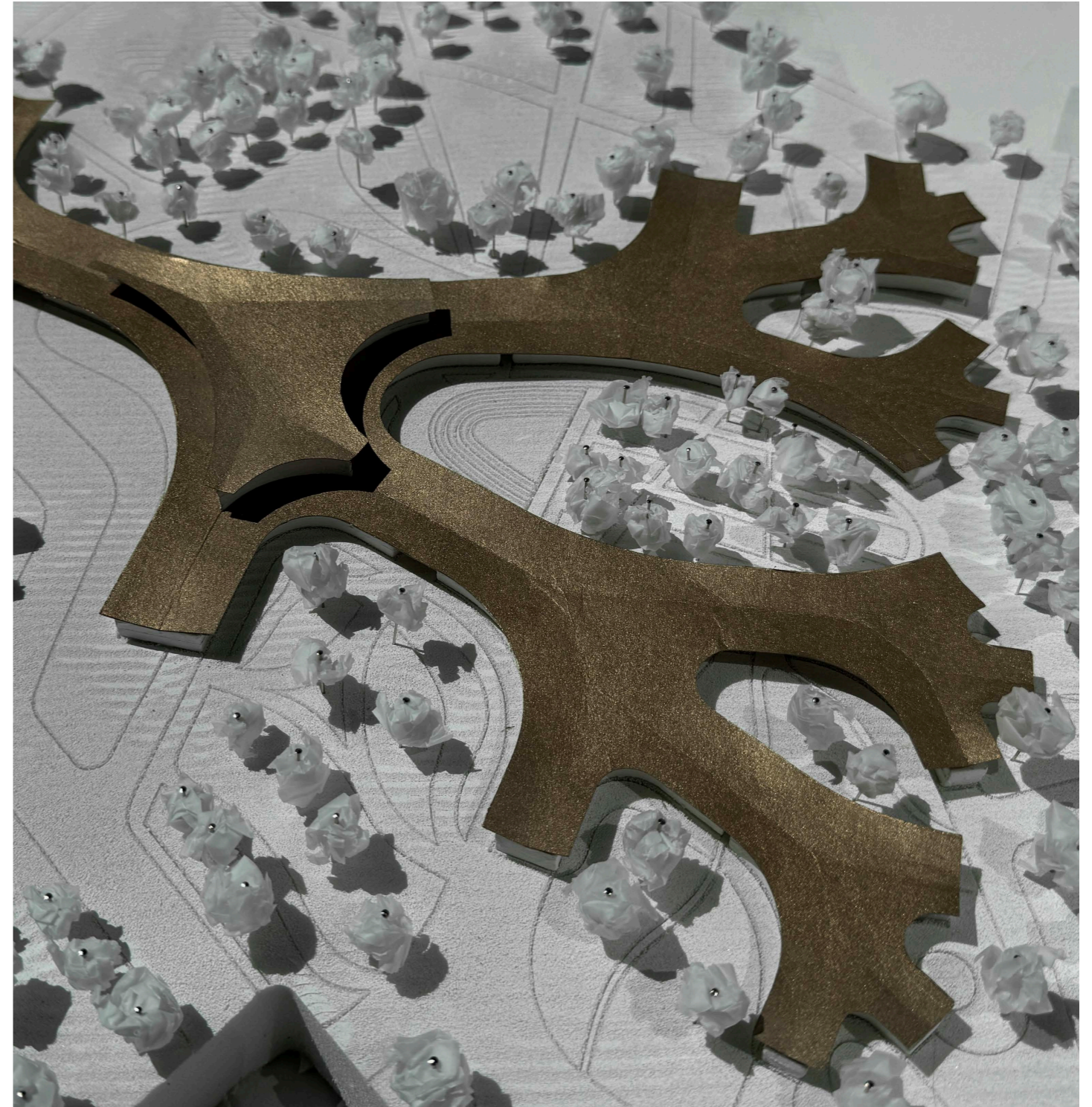


Figure 30. Site model  
1:500

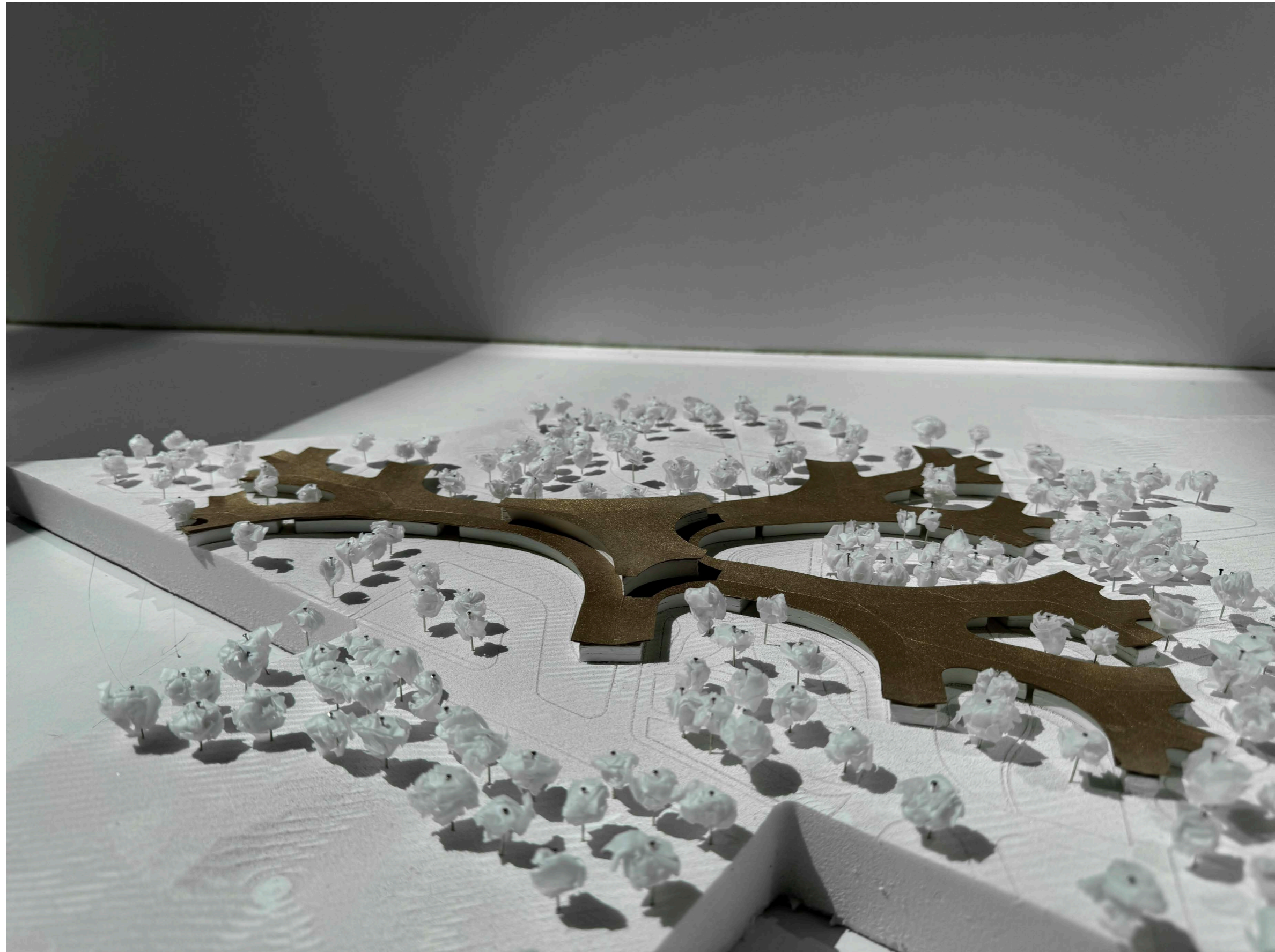


Figure 31. Site model  
1:500

## DESIGN PRINCIPLES

The development of the design concept began during a studio bootcamp focused on exploring alternative organisational models for architecture and institutions. Through collective discussions and parti-model studies, a conceptual framework was established based on the comparison between conventional building systems and adaptive natural systems. This framework was organised around three groups of principles: spatial (boundary–gradient, object–field), temporal (fixed–process, permanence–succession), and environmental (standardisation–microclimate). Visualisations can be found in the Appendix.

The spatial and temporal principles were understood as mechanisms that generate environmental diversity. In natural systems, gradual transitions and continuous transformation allow multiple conditions to coexist, producing heterogeneous microclimates rather than uniform environments. While these principles provided a broad conceptual foundation, their direct translation into architecture would have resulted in an overly complex design process. The challenge therefore became identifying a single organisational principle capable of integrating these ambitions.

## SPATIAL CONCEPT

Fractal systems emerged as such a principle. The conceptual relevance of fractal systems was informed by Benoît Mandelbrot's *The Fractal Geometry of Nature*, in which he argues that many natural forms cannot be adequately described through conventional Euclidean geometry. Rather than being composed of simple, isolated shapes, natural systems often develop through irregularity, branching, repetition, and scaling across different levels. For this project, the importance of Mandelbrot's argument lies not in copying natural forms, but in understanding fractals as organisational systems: they combine a recognisable underlying order with local variation and adaptation. This provided a useful framework for translating the institutional ambition of the project into spatial terms. The ministry required a structure that could remain coherent as a whole while allowing indi-

vidual clusters to develop distinct functions and changing patterns of occupation over time<sup>4</sup>.

The fractal principle also resonates with the urban structure of Athens, not as a direct formal reference, but as an organisational analogy. Much of the city's modern fabric is shaped by the repetition of the polykatoikia: a generic structural and spatial framework capable of accommodating varied domestic, commercial, and social uses over time. In this sense, the project translates an Athenian condition of repeated structure and differentiated occupation into an institutional model, where a common spatial rule supports local variation. This analogy does not claim that the polykatoikia is itself a fractal system, but uses it as a local reference for understanding how repeated structures can accommodate differentiated patterns of occupation.

Unlike a neutral free-plan grid, the fractal organisation does not only provide flexibility; it also establishes hierarchy, local autonomy, public legibility, and differentiated relationships between the specialised clusters.

Through the repetition of a common organisational rule across different scales, fractals combine stability with local adaptation. This understanding was reinforced by the precedent studies, which revealed that many institutional buildings rely on clustered or radial relationships between a central (civic) core and specialised functional components.

Together, these investigations informed the project's key design principles: civic transparency, distributed knowledge production, institutional adaptability, integration with landscape, and a stable framework capable of supporting changing patterns of occupation.

Following the establishment of the fractal principle as the project's organisational framework, a series of spatial studies was conducted to investigate its architectural implications. The studies fo-

cused on the fundamental properties of fractals, including repetition, branching, hierarchy, and scaling. A proportional scaling factor of 0.618, derived from the golden ratio, was used as a design device to maintain proportional coherence between the parent fractal, the intermediate branches, and the smaller compartments.

Several fractal configurations were explored, ranging from simple and rigid arrangements to more complex structures with three and four branches. The four-branch configuration provided the most balanced relationship between floor area efficiency, courtyard formation, daylight access, and programmatic distribution. Through repetition and aggregation, the fractals formed a distributed institutional structure composed of a central parent fractal and a series of specialised clusters.

The resulting configuration offered several spatial advantages. The spaces between fractals generate courtyards that extend the landscape into the building. These courtyards function as transitional environments, blurring the distinction between interior and exterior space. At the same time, the separation of individual fractals allows each cluster to maintain a degree of independence and local adaptation while remaining part of a coherent institutional whole.

<sup>4</sup> Benoît B. Mandelbrot, *The Fractal Geometry of Nature* (San Francisco: W. H. Freeman, 1982).



Figure 32. Parti Model A (top view)



Figure 33. Parti Model B (top view)

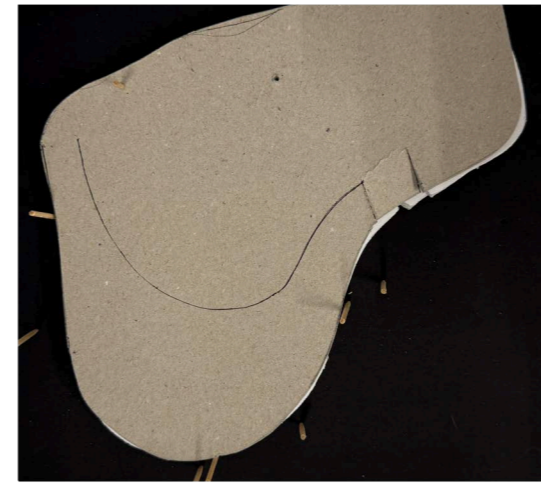


Figure 36. Parti Model C (top view)

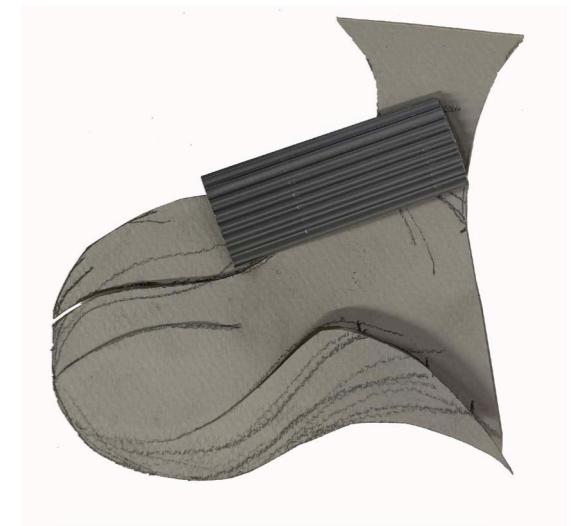


Figure 37. Parti Model D (top view)

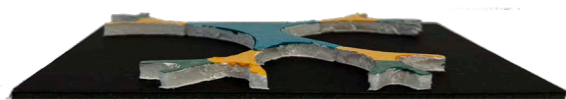


Figure 34. Parti Model A (side view)



Figure 35. Parti Model B (side view)

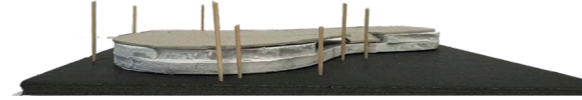


Figure 38. Parti Model C (side view)



Figure 39. Parti Model D (side view)





## FINAL ARCHITECTURAL PROPOSAL

The final proposal is organised as a predominantly one-storey civic institution above ground, with a partial basement level accommodating parking and service functions beneath selected areas. The building is composed of a central parent fractal and three surrounding clusters, each formed by three smaller fractals. Together, the ten compartments create a distributed institutional structure gathered around the Urban Forum, the main public space of the ministry and the primary civic interface between the institution and the city.

The ministry is designed for a broad but specific civic audience. Its permanent users include ministerial staff, researchers, architects, urbanists, planners, policy-makers, archivists, and fabrication specialists. However, the institution also depends on temporary and external users: students, community representatives, civic organisations, consultants, makers, local residents, and citizens affected by urban decisions. These groups do not occupy the building in the same way, but together they expand the ministry's capacity to observe, discuss, test, and communicate urban conditions. Public participation is therefore not treated as an occasional event, but as a spatial condition embedded into the courtyards, routes, exhibitions, workshops, and presentation spaces of the building.

The clusters are separated by courtyards that act as extensions of the interior programme. Each courtyard develops a specific character according to the activities around it, ranging from outdoor exhibitions to informal work areas and public gathering spaces. The auditorium is placed outside within one of these courtyards, allowing lectures, discussions, and events to activate the open space. In this way, the building uses the Athenian climate as an architectural opportunity, softening the boundary between interior, exterior, and park.

The proposal also reorganises the surrounding park structure. The road cutting through Plato's Academy Park is removed and the bus route is redirected around the site, allowing the fragmented parts of the park to be reconnected. This intervention responds to the site analysis, which identified the road as the strongest internal boundary fragmenting the park and limiting continuity between its public spaces. Existing archaeological remains are carefully preserved, while new pedestrian routes pass through the building and courtyards without fully closing them off. These routes create varying degrees of public invitation, depending on the character and accessibility of each courtyard.

The main architectural gesture is a continuous hovering roof that unites the separate fractal compartments into one recognisable institution. Its strong horizontal presence gives the ministry civic identity without relying on monumentality or vertical dominance. The depth of the overhang responds to solar conditions, providing shade where required and reinforcing the roof as both spatial and environmental infrastructure.

The Urban Forum functions as the civic and representative core of the ministry. At its centre is a movable 1:500 model of Metropolitan Athens, subdivided according to administrative boundaries and used as a tool for communicating urban conditions and development strategies. The model is surrounded by thematically organised exhibitions presenting the history of Athens' urban development, current projects and development processes, and future scenarios and competitions for the city. By combining physical models, exhibitions, digital simulations, and public presentations, the Urban Forum transforms urban governance into a visible and accessible process. The executive department of the ministry is also located within this central cluster.

Branching from the Urban Forum are three specialised clusters: the Urban Laboratory, the Urban Academy, and the Urban Commons. Together, they form a distributed institutional network

connected through a shared spatial framework. The Urban Laboratory accommodates research, fabrication, prototyping, and archival functions. It acts as the productive branch of the ministry, where urban knowledge is generated, tested, and materialised through physical models, material experiments, and analytical studies. During periods of intensive urban development, it operates primarily as a production environment supporting exhibitions, policy development, and urban interventions. During periods of reduced development activity, its facilities open to public workshops, community-led initiatives, and educational making activities.

The Urban Academy forms the knowledge-transfer branch of the institution. It contains departmental workspaces, meeting rooms, and adaptable office environments that support the daily operation of the ministry. Through movable partition systems, these spaces can be reconfigured into classrooms, lecture spaces, and training environments. The cluster therefore accommodates both internal policy development and external educational programmes, enabling professional training, public lectures, and urban literacy initiatives to take place within the same spatial framework.

The Urban Commons functions as the collaborative interface between the ministry and external actors. It provides co-working environments, project rooms, informal meeting spaces, and a public restaurant that acts as a social condenser for the institution. The cluster supports collaboration between ministry staff, architects, researchers, consultants, civic organisations, and independent initiatives. During periods of intensive development, it facilitates project work and interdisciplinary exchange; during periods of reduced development activity, it can host residences, civic organisations, and experimental urban initiatives.

Each cluster is organised around its own central courtyard, which serves as a shared meeting and collaboration space. Together, the

three clusters establish a continuous cycle of knowledge production, knowledge transfer, and public exchange around the civic core of the ministry. Although the institution is publicly accessible, degrees of access are differentiated through the organisation of clusters, courtyards, folding façades, and internal thresholds.

Seasonal and cyclical adaptability is embedded through movable partition systems that allow spaces to expand, subdivide, and change occupation over time. The interiors remain largely column-free, supporting flexible use and unobstructed movement. Structurally, the building relies on a load-bearing perimeter system composed of steel columns and solid walls, allowing the internal spaces to remain open and adaptable. Adaptability is therefore achieved through changing patterns of occupation rather than through structural transformation.

Materially, the project contrasts permanence and openness. The roof is clad in anodised aluminium, selected for its durability, low maintenance requirements, light weight, and resistance to the Mediterranean climate. The solid façades are clad in irregular local limestone, grounding the building in its Mediterranean context through weight, texture, and material continuity with regional construction traditions. In contrast, the glazed façades incorporate large folding door systems that dissolve the boundary between interior and exterior, reinforcing the project's ambition to create a continuous relationship between institutional space and the surrounding park. The primary structural system combines steel, concrete foundations, and concrete floor slabs, reflecting established construction practices in Athens and responding appropriately to the site's alluvial soil conditions<sup>5</sup>.

<sup>5</sup> Boronkay et al., "Geological Map of Athens Metropolitan Area, Attica (Greece)," supplementary map to "Geological Map of Athens Metropolitan Area, Attica (Greece): A Review Based on Athens Metro Ground Investigation Data," *Bulletin of the Geological Society of Greece* 57 (2021): 68–126, accessed May 31, 2026



Figure 44. Interior-exterior visualisation showing folding façade elements and the continuity between workspace and courtyard.



# 4. CONCLUSION AND DISCUSSION

4.1 Conclusion

4.2 Discussion

4.3 Reflection



## CONCLUSION

This graduation project investigated the question: how can architecture mediate between governance, urban knowledge production, and civic participation while enabling a governmental institution to adapt to cyclical changes in urban development? The final design demonstrates that adaptability does not necessarily require a transformable building. Instead, it can be achieved through a stable architectural framework capable of accommodating changing patterns of occupation, collaboration, and public engagement over time. By distinguishing between permanent spatial structure and adaptable modes of use, the project proposes an alternative approach to institutional architecture that remains operational across varying urban conditions.

The Ministry of Urban Living Conditions is conceived as more than an administrative facility. It operates as a platform for the production, development, exchange, and communication of urban knowledge. Through the combination of research environments, fabrication facilities, educational programmes, public exhibitions, and civic gathering spaces, the institution establishes new relationships between government, experts, and citizens. The Urban Forum acts as the central civic interface where urban conditions, policies, and future visions become visible and accessible through exhibitions, public presentations, and the Athens Urban Model Hall. In this way, architecture functions as a mediator between knowledge and decision-making, transforming governance from a largely internal process into a public and participatory activity.

Adaptability is embedded within the organisational structure of the ministry. The Urban Laboratory, Urban Academy, and Urban Commons clusters form a continuous cycle of knowledge production, knowledge transfer, and public exchange. During periods of intensive urban development, these spaces support research, fabrication, policy development, and professional collaboration. During periods of reduced development activity,

the same spaces accommodate educational programmes, public workshops, civic initiatives, and urban experimentation. The building therefore remains relevant regardless of fluctuations in construction activity, while maintaining institutional continuity.

The architectural ambitions established at the beginning of the project are addressed through a series of spatial strategies. Civic transparency is achieved through the integration of public programmes and direct ground-level accessibility to each cluster. Institutional adaptability is enabled through a stable structural system combined with flexible patterns of occupation and movable partition systems. Distributed knowledge production is reflected in the fractal organisation of specialised clusters connected to a common civic core. Integration with landscape is achieved through the low horizontal building form, the system of courtyards, and the extension of public pathways through the site. Finally, the principle of a stable framework with changing occupation is embedded throughout the project, allowing the institution to evolve without requiring fundamental changes to its architectural structure.

Rather than proposing a monument to governance, the project proposes a framework for continuous learning, adaptation, and public engagement. The Ministry of Urban Living Conditions positions architecture as an active participant in the production and communication of urban knowledge, enabling institutions to remain relevant within changing urban conditions while strengthening the relationship between civic life and governmental decision-making.

## DISCUSSION

The significance of this project extends beyond the design of a single building. It proposes an alternative model for how governmental institutions can operate in relation to the public. Ministries are traditionally conceived as closed administrative bodies, separated from everyday civic life and often inaccessible to those affected by their decisions. While such institutions are responsible for shaping urban environments, the processes through which decisions are developed frequently remain invisible to the public. As a result, a distance emerges between citizens and the organisations responsible for governing the city.

The Ministry of Urban Living Conditions challenges this condition by proposing a fundamentally different relationship between administration and society. Rather than functioning as an isolated governmental facility, the institution is conceived as an open platform where citizens, professionals, researchers, students, and community groups actively participate in the production and exchange of urban knowledge. Workshops, model-making activities, exhibitions, lectures, public discussions, and collaborative research programmes transform the ministry from a place of administration into a place of collective engagement. During periods of reduced construction activity, these external actors become an essential driving force of the institution, ensuring its continued relevance and activity.

Such an approach has implications for transparency and public trust. By making urban information visible and accessible, and by inviting direct participation in discussions about the future of the city, the project proposes a more open model of governance. Rather than treating citizens as passive recipients of planning decisions, it positions them as active contributors to the development of urban knowledge. In this sense, architecture becomes a tool for strengthening dialogue between institutions and society.

The project also addresses a broader challenge

within the context of Athens. The city's built environment has evolved through decades of fragmented development, often characterised by limited coordination between long-term urban strategies and individual interventions. As a result, questions of urban quality, maintenance, public space, and environmental performance frequently remain unresolved. The Ministry of Urban Living Conditions proposes a dedicated institutional framework through which these issues can be continuously monitored, researched, debated, and addressed. While architecture alone cannot solve such challenges, it can provide the spatial conditions necessary for new forms of collaboration and decision-making to emerge.

The project argues that institutions responsible for shaping cities should themselves become more adaptable, transparent, and publicly engaged. It suggests a shift from governance as administration towards governance as participation, where the production of urban knowledge becomes a shared civic process. While conceived within the context of Athens, this proposition may offer broader relevance for future institutional architecture facing increasingly complex social, environmental, and urban challenges.



## REFLECTION

The most challenging aspect of this graduation project was the fact that the institution itself did not exist prior to the design process. Unlike other architectural projects, where the programme, organisational structure, and operational requirements are largely predefined, this project required the simultaneous development of both the institution and its architecture. Before designing the building, it was necessary to define how the Ministry would operate, who would use it, how its departments would relate to one another, and how it would remain relevant over time. This significantly expanded the scope of the project beyond the design of a physical building and required continuous movement between institutional thinking and architectural design.

Research into the history of urban development in Athens played an important role in shaping the project's narrative. Archival studies revealed recurring cycles of growth, decline, and transformation that informed the ministry's adaptability strategy. At the same time, identifying relevant precedents proved challenging. While existing ministries provided useful insights into spatial relationships, hierarchy, and organisational struc-

ture, they offered limited guidance regarding the type of public engagement, knowledge production, and adaptability explored in this project. As a result, precedent studies became less about copying programmes and more about understanding institutional relationships and operational frameworks.

The design methodology evolved through a combination of research, model making, sketching, digital modelling, and iterative testing. The bootcamp at the beginning of the graduation process introduced alternative ways of thinking by requiring students to develop concepts for one another's projects. While this exercise generated valuable discussions and broadened the range of possible directions, many of the resulting ideas ultimately proved difficult to develop further into the specific context of the project. Similarly, physical parti models were useful for quickly testing spatial concepts, but their value depended on the stage of the design process. In most cases, drawing and diagramming provided a faster and more precise way of exploring organisational ideas.

One of the important lessons of the project was that the relationship between research and design is rarely linear. Research findings often in-

formed design decisions, but design explorations also challenged earlier assumptions and required parts of the research to be reconsidered. This process highlighted the importance of metacognition within architectural practice: the ability to critically evaluate one's own thinking, recognise when assumptions are no longer valid, and adapt the design process accordingly. Many of the project's key decisions emerged not from following a predetermined method, but from repeatedly questioning and refining earlier conclusions.

Digital workflows played a significant role throughout the project. Working in Revit enabled rapid testing of spatial ideas and the production of drawings at multiple scales for weekly discussions and reviews. Equally important was the iterative nature of the design process itself. Exploring a wide range of alternatives, including ideas that initially appeared unsuccessful, often led to unexpected discoveries and more robust design decisions. The project also benefited greatly from the collaborative studio environment. Regular interaction with peers provided valuable feedback, alternative perspectives, and solutions to design challenges that may have remained unresolved in a more isolated working environment.

The project also has several limitations. As a speculative institution, the Ministry of Urban Living

Conditions depends on conditions that architecture alone cannot guarantee. Its success would require political support, financial feasibility, and sustained public participation. The adaptability strategy similarly relies on assumptions about future urban development cycles derived from historical patterns. However, the economic, political, and social forces that shaped previous periods of growth and decline cannot be predicted with certainty. Future forms of urban development may follow entirely different trajectories, while changing social behaviour could influence the willingness of individuals to participate in collective and community-oriented initiatives.

Finally, the reduced duration of the graduation project inevitably influenced the level of detail that could be achieved. The programme and building size underwent significant revisions throughout the process, including a substantial reduction after the first assessment phase. With additional time, further research into patterns of public participation, collaborative working cultures, and everyday spatial behaviour within the Athenian context would have strengthened the proposal. Such investigations could provide a deeper understanding of how local cultural practices influence the use of institutional and civic spaces, allowing the project to be developed with a greater degree of specificity.



Figure 45. Exterior courtyard visualisation showing the hovering roof, limestone wall, and Mediterranean planting.



## 5. BIBLIOGRAPHY

Bambó Naya, Raimundo, Pablo de la Cal Nicolás, Carmen Díez Medina, Isabel Ezquerro, Sergio García-Pérez, and Javier Monclús. "Quality of Public Space and Sustainable Development Goals: Analysis of Nine Urban Projects in Spanish Cities." *Frontiers of Architectural Research* 12, no. 3 (2023): 477–495. <https://doi.org/10.1016/j.foar.2023.01.002>.

Boronkay, K., G. Stoumpos, M. Benissi, G. Rovolis, K. Korkaris, D. Papastamatiou, G. Dimitriou, A. Chrysikopoulou, I. Miliotis, A. Giakoumis, M. Novack, and P. Marinos. "Geological Map of Athens Metropolitan Area, Attica (Greece)." Supplementary map to "Geological Map of Athens Metropolitan Area, Attica (Greece): A Review Based on Athens Metro Ground Investigation Data." *Bulletin of the Geological Society of Greece* 57 (2021): 68–126. Accessed May 31, 2026 via <https://eclass.uoa.gr/modules/document/file.php/GEOL290/ΑΣΚΗΣΗ%20ΥΜΗΤΟΣ/Boronkay%20et%20al.%2C%202021%2C%20Fig2%2C%20Supplementary%20Geological%20Map%20of%20Athens.pdf>.

Breuer, Marcel. *Marcel Breuer: Sun and Shadow: The Philosophy of an Architect*. Edited by Peter Blake. London: Longmans, Green and Co., 1956.

Buitelaar, Edwin, Stefano Moroni, and Anita De Franco. "Building Obsolescence in the Evolving City: Reframing Property Vacancy and Abandonment in the Light of Urban Dynamics and Complexity." *Cities* 108 (2021): <https://doi.org/10.1016/j.cities.2020.102964>.

Cha, Jinwoo, Chang Uk Kim, and Yujin Leng. "Urban Noise Mapping Using Building Façade Information Extracted through Deep Learning." *Environmental Science & Ecotechnology* 13 (2023): <https://doi.org/10.1016/j.ese.2023.100238>.

Hatzis, Aristides. "The Institutional Deficit." February 6, 2025. Accessed December 15, 2025. <https://www.ekathimerini.com/opinion/1260825/the-institutional-deficit/>.

Kahn, Louis I. *Silence and Light: The Lecture at ETH Zurich, February 12, 1969*. Zurich: Park Books, 2013.

Lucas, Raymond. "Designing a Notation for the Senses." *Architectural Theory Review* 14, no. 2 (2009): 173–192. <https://doi.org/10.1080/13264820903049240>.

Maloutas, Thomas, and Giannis Souliotis. "Vacant Shops." *Athens Social Atlas*. December, 2016. Accessed December 14, 2025. <https://www.athenssocialatlas.gr/en/article/vacant-shops/>.

Mandelbrot, Benoît B. *The Fractal Geometry of Nature*. San Francisco: W. H. Freeman, 1982.

Protagon.gr. "Τι μπορούμε να κάνουμε για τα άδεια και εγκαταλελειμμένα κτίρια της Αθήνας." *Protagon*. Published March 4, 2018. Accessed December 11, 2025. <https://www.protagon.gr/themata/ti-boroumena-kanoume-gia-ta-adeia-egkataleimmenena-ktiria-tis-athinas-44341575681/>.

Rigopoulos. "Demolition of Old Athens Buildings Begins." July 8, 2025. Accessed December 14, 2025. <https://www.ekathimerini.com/news/1274454/demolition-of-old-athens-buildings-begins/>.

UN-Habitat. "Public Space." No date. Accessed December 11, 2025. <https://unhabitat.org/topic/public-space>.



## 6. APPENDIX

6.1 Precedent Analysis

6.2 Site Analysis

6.3 Institutional development in Athens



City Model	Location	Model scale	Visitor Interaction	Lighting Strategy	Architectural Observations
Berlin City Model	Berlin Senate Department for Urban Development	~1:500	Visitors walk around perimeter viewing tables, which are raised above the ground.	Roof atrium opening above the model for natural lighting. No windows around perimeter	Model functions as a planning instrument. Space is minimal and focuses attention on the urban morphology
Shanghai Planning Model	Shanghai Urban Planning Exhibition Center	~1:500 (city centre)	Visitors view from multiple levels including elevated galleries.	Natural light from translucent windows.	Architecture emphasizes spectacle and planning power
Moscow Interactive City Model	VDNKh Pavilion, Moscow	~1:400 (city centre)	Visitors circulate around perimeter with touchscreens for projections on the model. Huge main screen and immersive multimedia walls	No natural lighting. Controlled lighting synchronized with digital projections	Mainly for entertaining purposes and theatrical urban simulation
Panorama of the City of New York	Queens Museum	1:1200 scale	Visitors walk along raised balcony surrounding the model. Gallery hall	No natural lighting. Controlled lighting simulates night-time city lights	Spatial organization creates an aerial planning perspective, emphasizing overview rather than street experience
Stockholm Model (Stockholmsmodellen)	Kulturhuset, Stockholm	~1:1000	Model embedded beneath a glass floor in public building. Visitors walk above the city model	Some natural lighting coming from the adjacent windows. Ambient architectural lighting integrated with floor glazing	Likely restricted by smaller rooms scale, therefore the floor is flat.

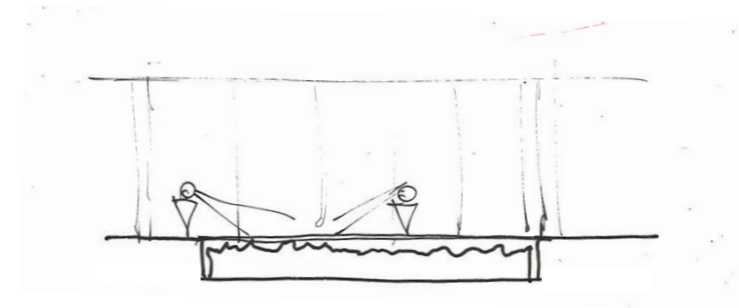
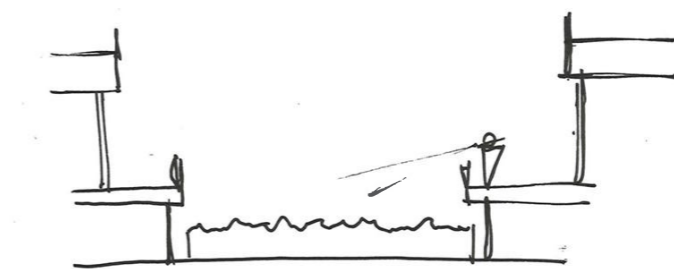
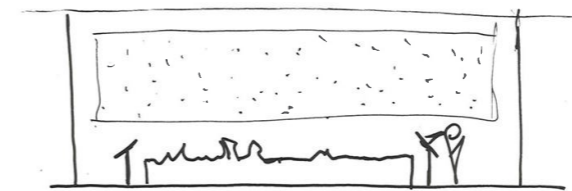
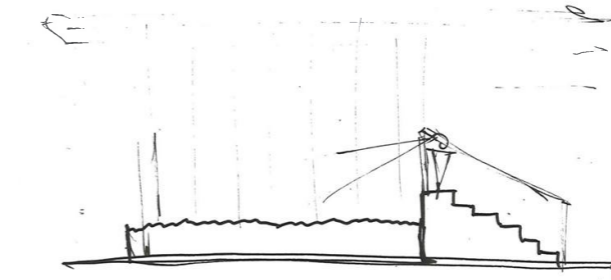
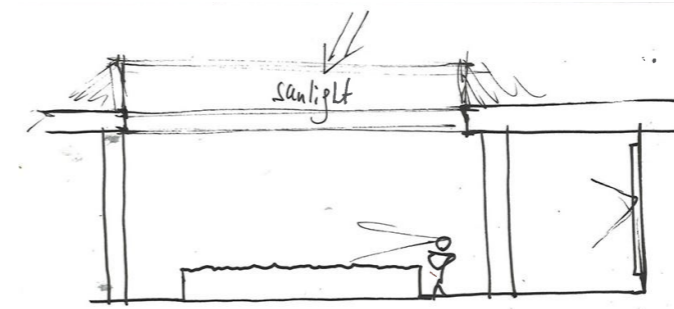
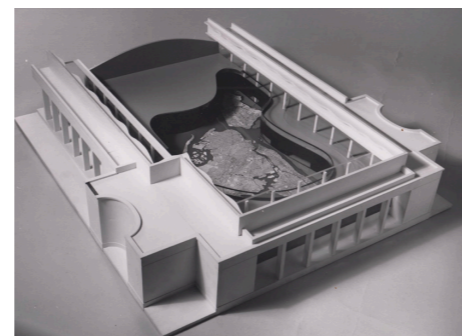
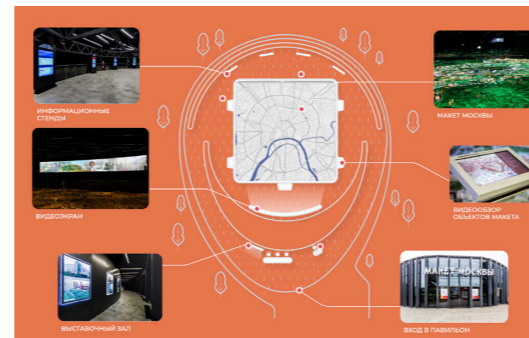
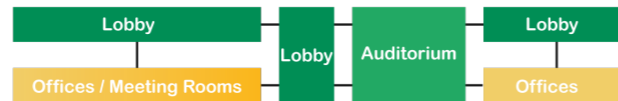
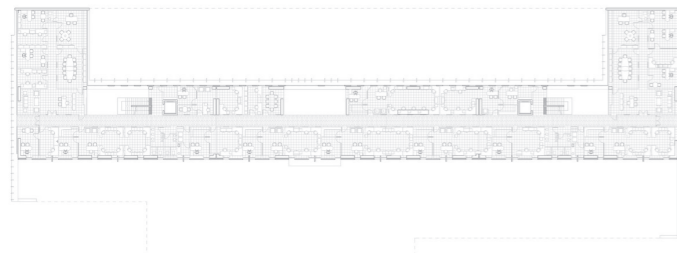


Figure 46. Analysis of precedent Urban scale models

\*The precedent studies were compiled from selected public architectural publications, architects' office project descriptions, institutional websites, and mapping data. The analysis is interpretative and focuses on spatial organisation, programme distribution, scale, access structure, and institutional relationships.

## MINISTRY OF HOUSING AND URBAN DEVELOPMENT

Location: Rancagua, Chile  
 Coordinates: -34.169530, -70.747460  
 Architect: Carreño Sartori Arquitectos  
 Completed: 2015  
 GFA: ≈5,500m<sup>2</sup>  
 Floors: 3 (+1 underground)  
 Typology: Ministry



## MINISTRY OF PUBLIC WORKS

Location: La Serena, Chile  
 Coordinates: -29.89705, -71.25281  
 Architect: Teodoro Fernandez Arquitectos  
 Completed: 2011  
 GFA: ≈18,000m<sup>2</sup>  
 Floors: 4 (+3 underground)  
 Typology: Ministry

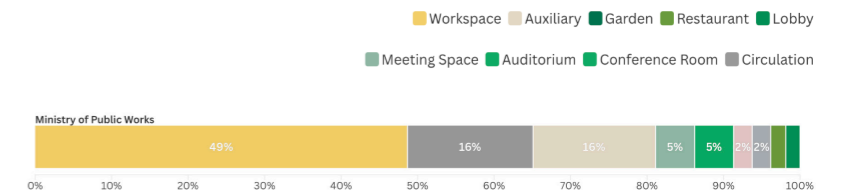
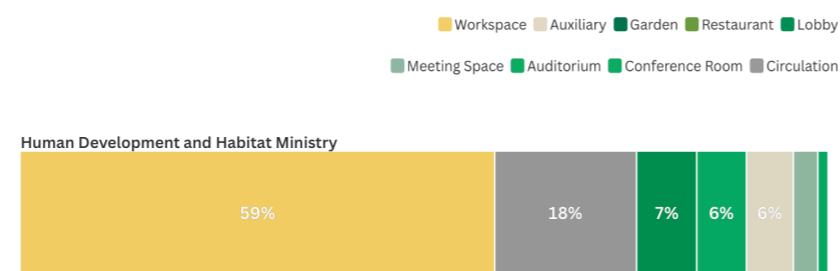
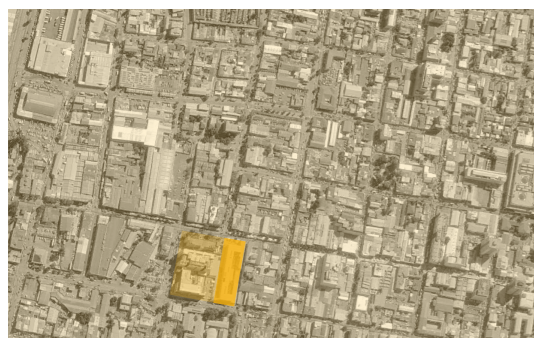
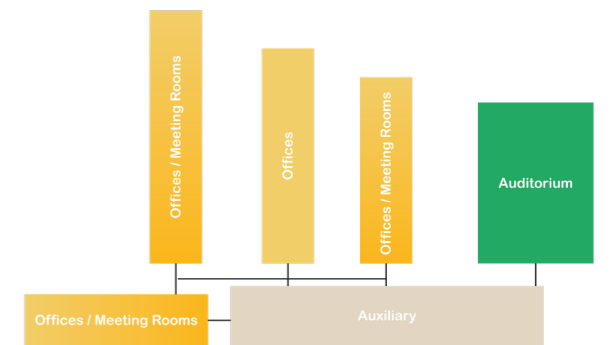


Figure 47. Analysis of precedent projects\*: Ministry of Housing and Urban Development

Figure 48. Analysis of precedent projects: Ministry of Public Works



## HUMAN DEVELOPMENT AND HABITAT MINISTRY

Location: Buenos Aires, Argentina  
 Coordinates: -34.672039, -58.493718  
 Architect: Direccion General de Arquitectura  
 Completed: 2019  
 GFA: ≈21,000m<sup>2</sup>  
 Floors: 5 (+1 underground)  
 Typology: Ministry

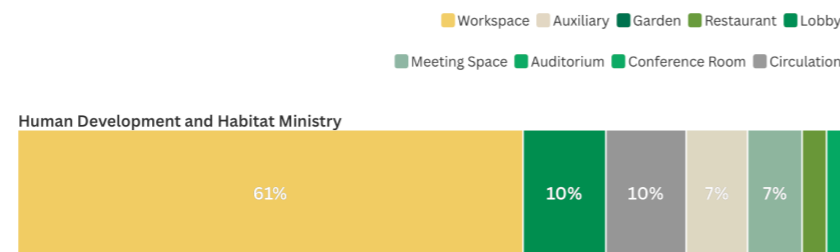
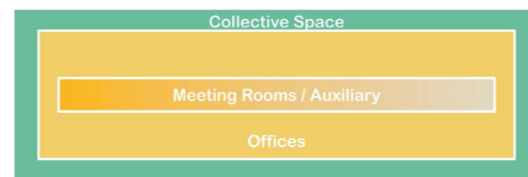
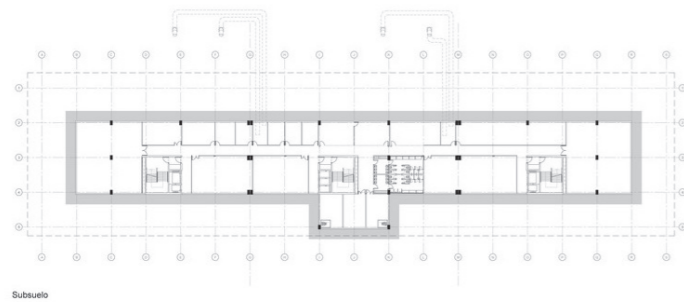


Figure 49. Analysis of precedent projects: Human Development and Habitat Ministry

## URBAN ENVIRONMENT HOUSE

Location: Helsinki, Finland  
 Coordinates: 60.190200, 24.978300  
 Architect: Lahdelma & Mahlamäki architects  
 Completed: 2020  
 GFA: ≈40,900m<sup>2</sup>  
 Floors: 7 (+1 underground)  
 Typology: Ministry

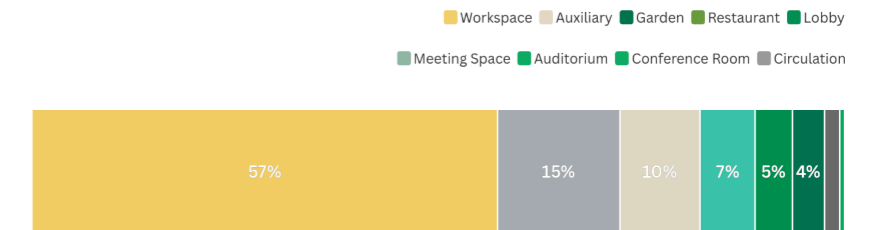
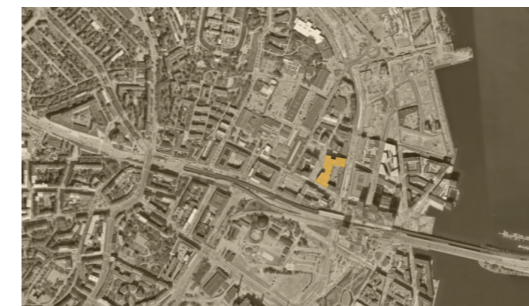
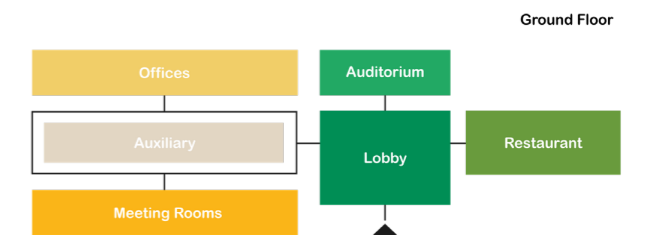


Figure 50. Analysis of precedent projects: Urban Environment House

## MINISTRY OF DEVELOPMENT AND HOUSING OFFICES

Location: Seville, Spain  
 Coordinates: 37.391900, -5.974300  
 Architect: Cruz y Ortiz Arquitectos  
 Completed: 2015  
 GFA: ≈41,400m<sup>2</sup>  
 Floors: 8 (+4 underground)  
 Typology: Ministry



## SALK INSTITUTE OF BIOLOGICAL STUDIES

Location: La Jolla (California), USA  
 Coordinates: 32.887150, -117.246211  
 Architect: Louis Kahn  
 Completed: 1965  
 GFA: ≈65,000m<sup>2</sup>  
 Floors: 2 (+1 underground)  
 Typology: Research Center

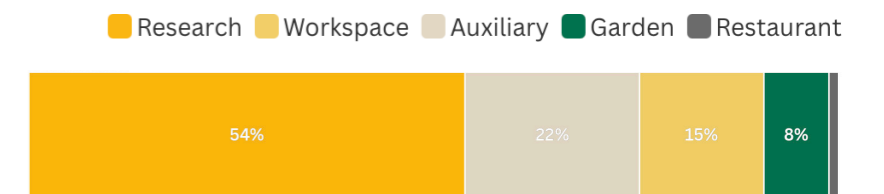
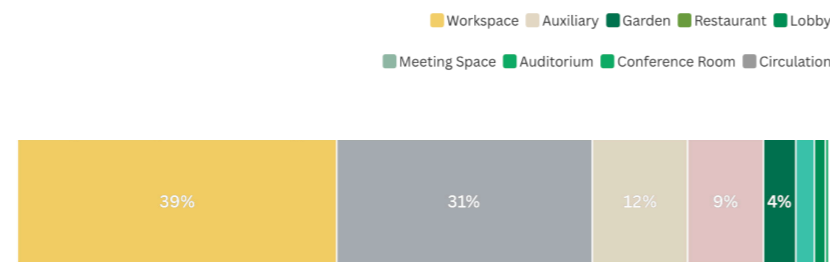
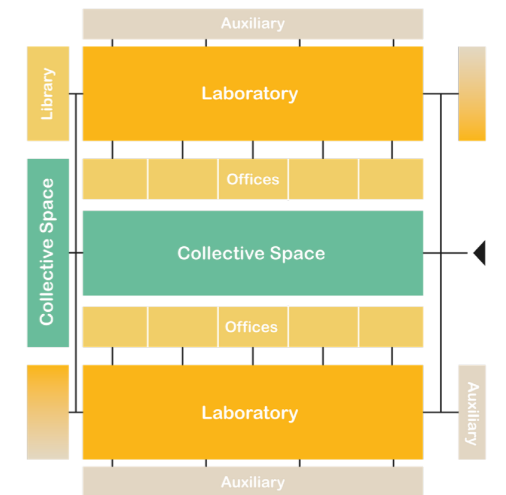
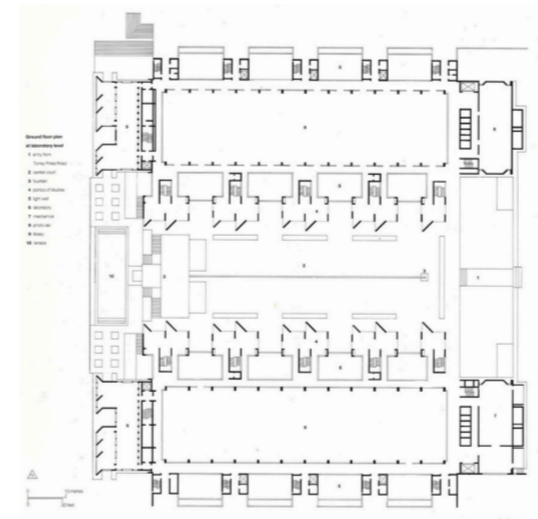
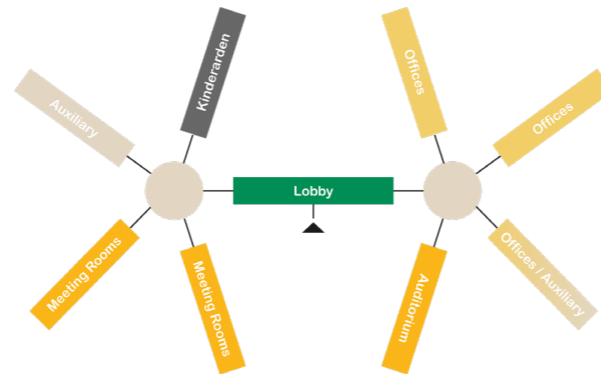
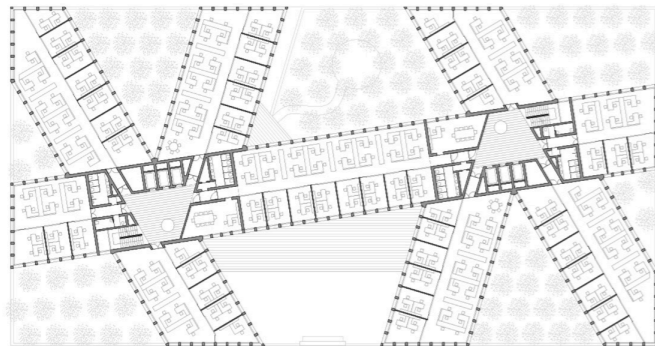


Figure 51. Analysis of precedent projects: Ministry of Development and Housing Offices

Figure 52. Analysis of precedent projects: Salk Institute of Biological Studies



Figure 53. Analysis points of the Plato's Academy Park

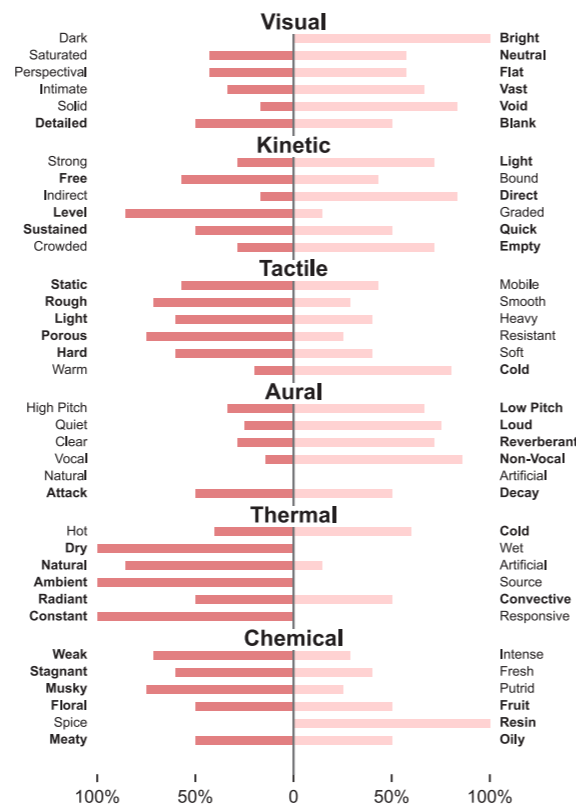
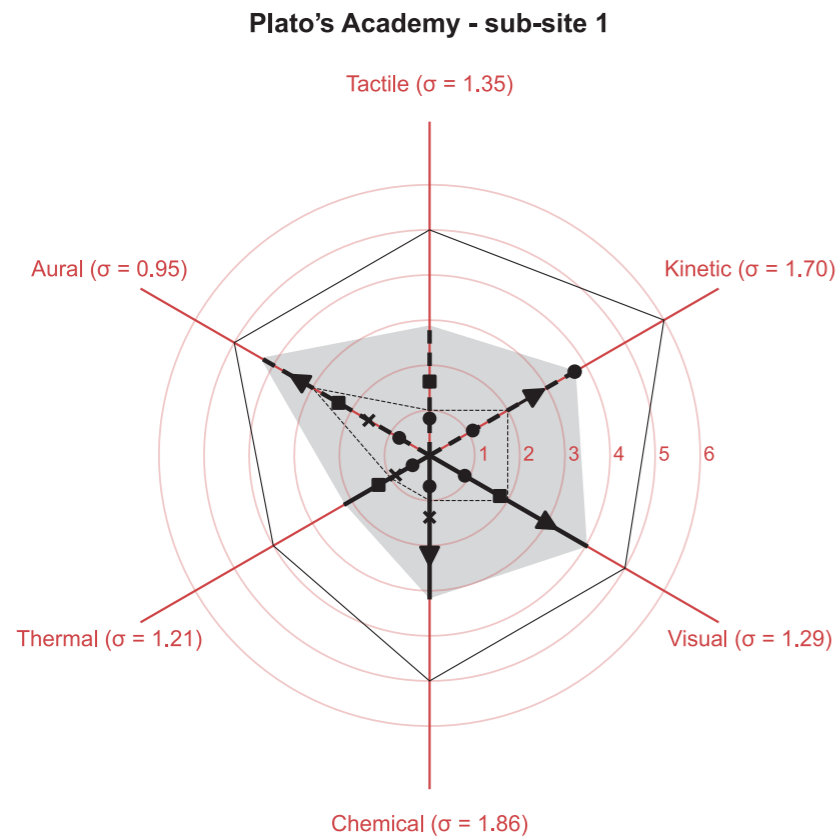


Figure 54. Sensory Notation diagram: Plato's Academy - sub-site 1

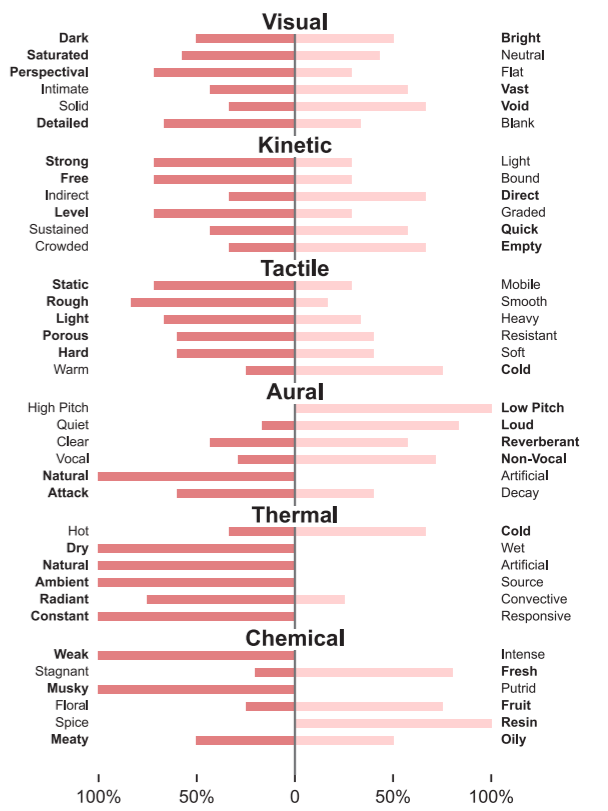
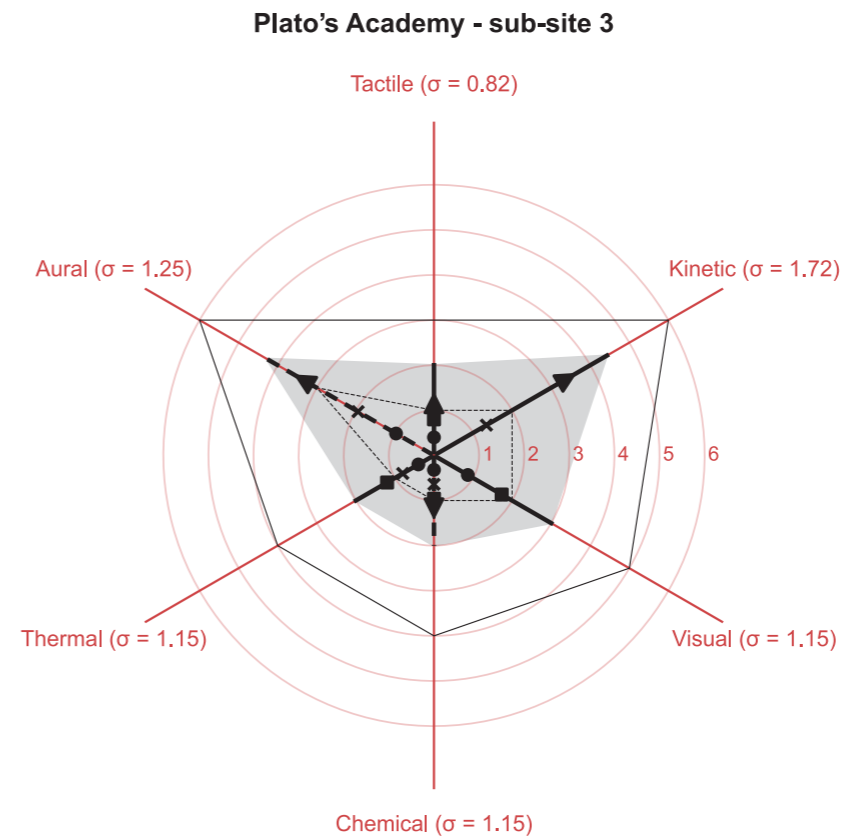


Figure 56. Sensory Notation diagram: Plato's Academy - sub-site 3

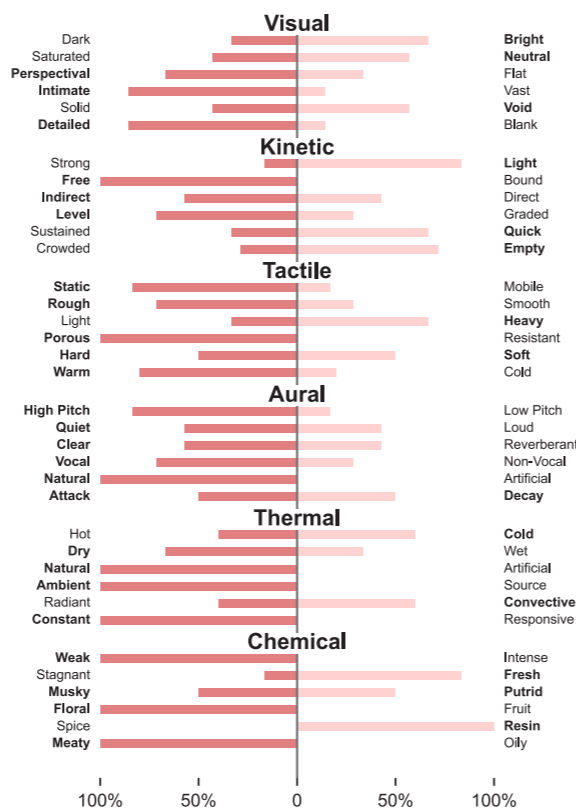
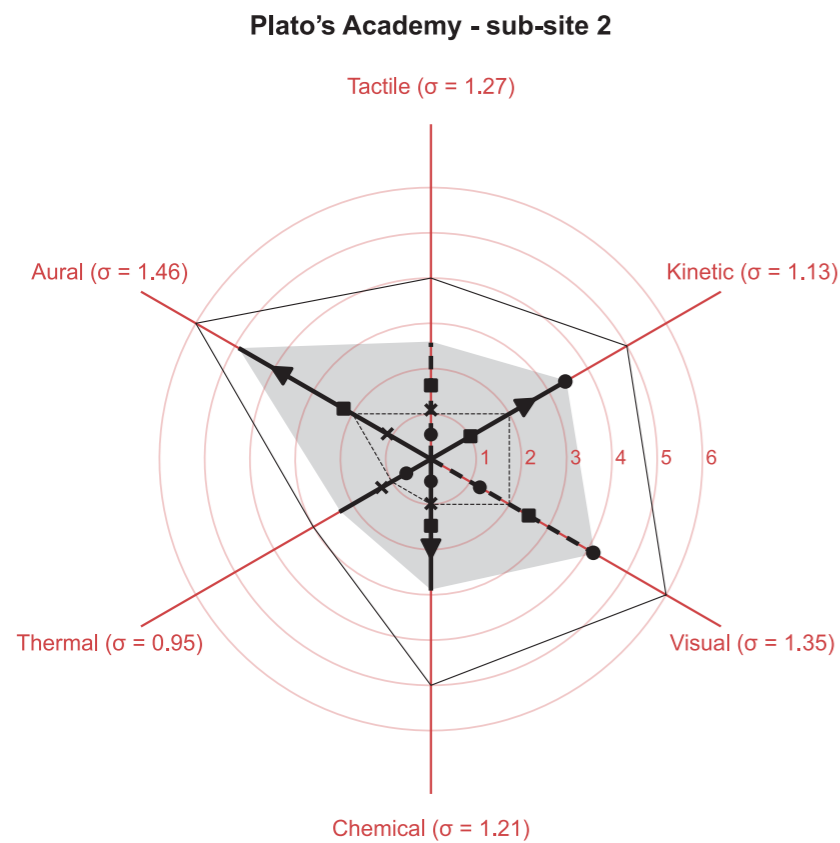


Figure 55. Sensory Notation diagram: Plato's Academy - sub-site 2

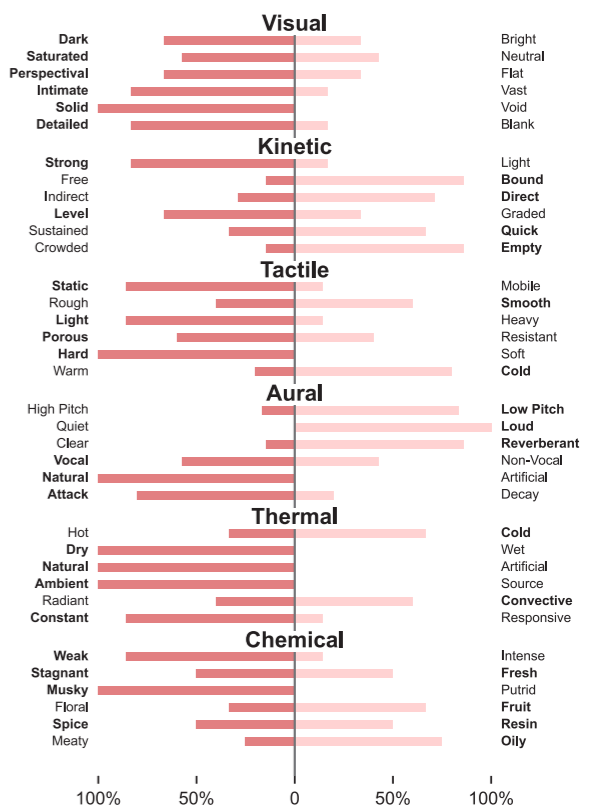
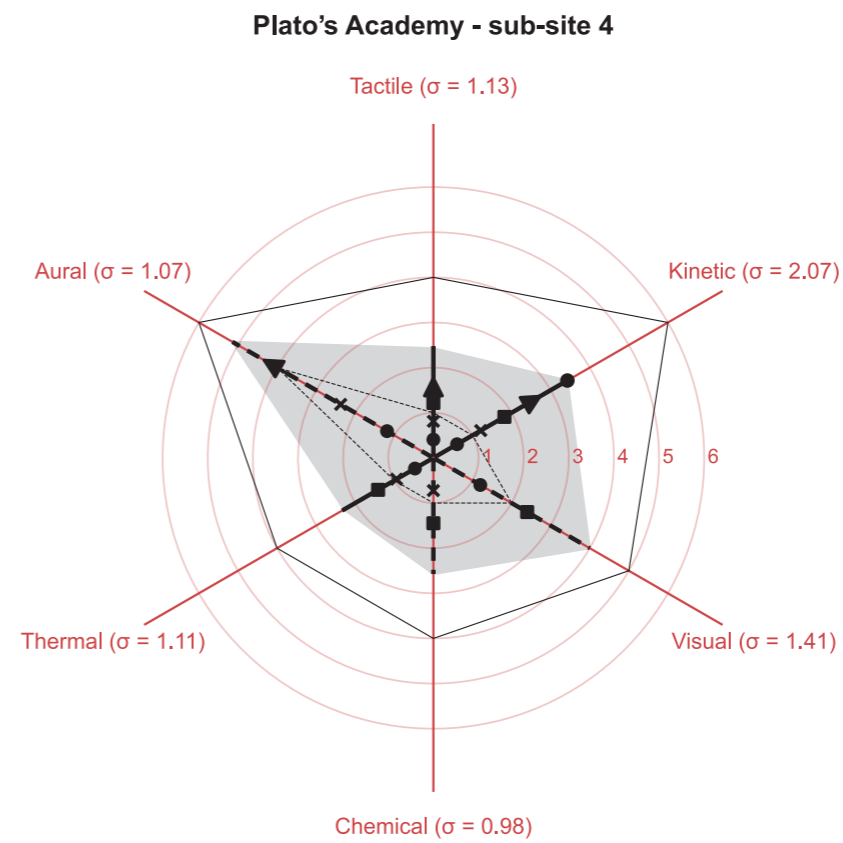


Figure 57. Sensory Notation diagram: Plato's Academy - sub-site 4

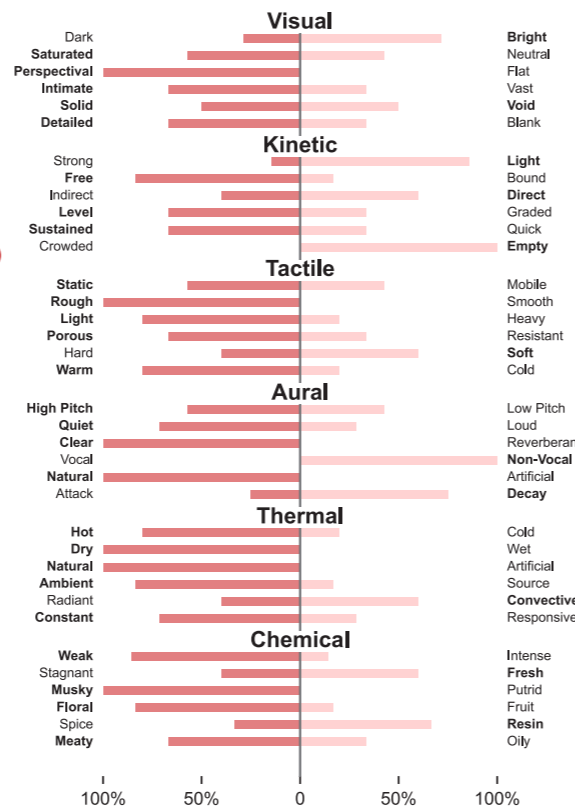
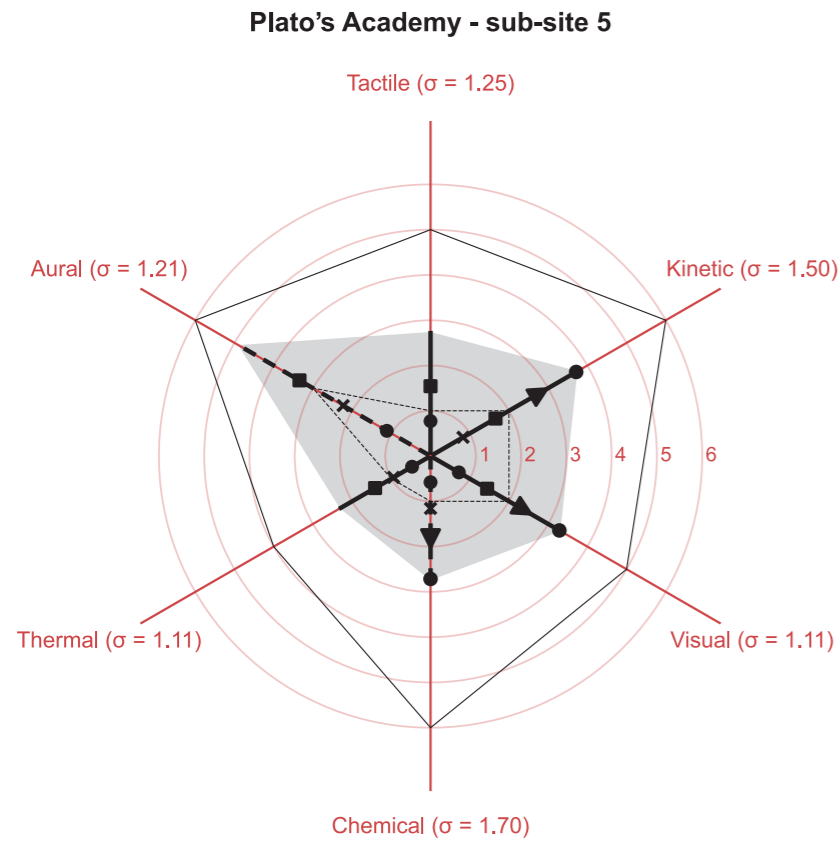


Figure 58. Sensory Notation diagram: Plato's Academy - sub-site 5

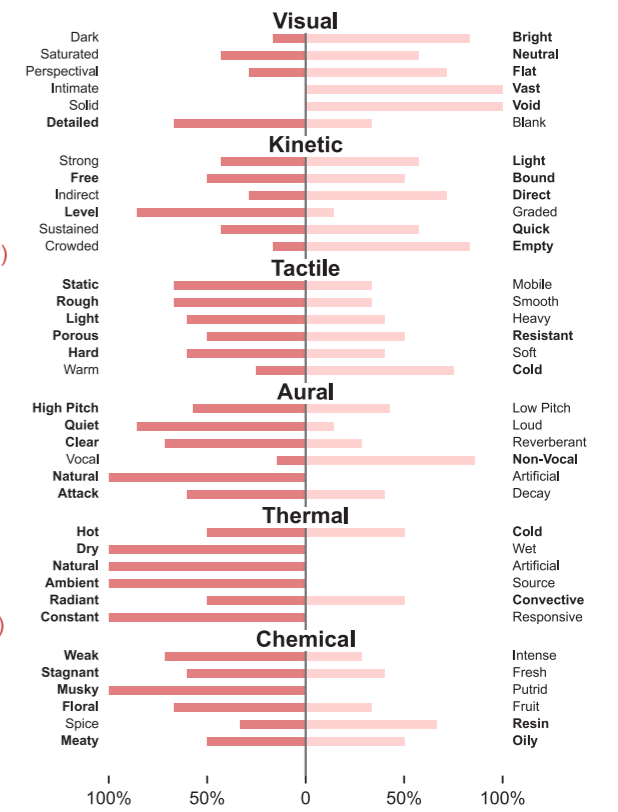
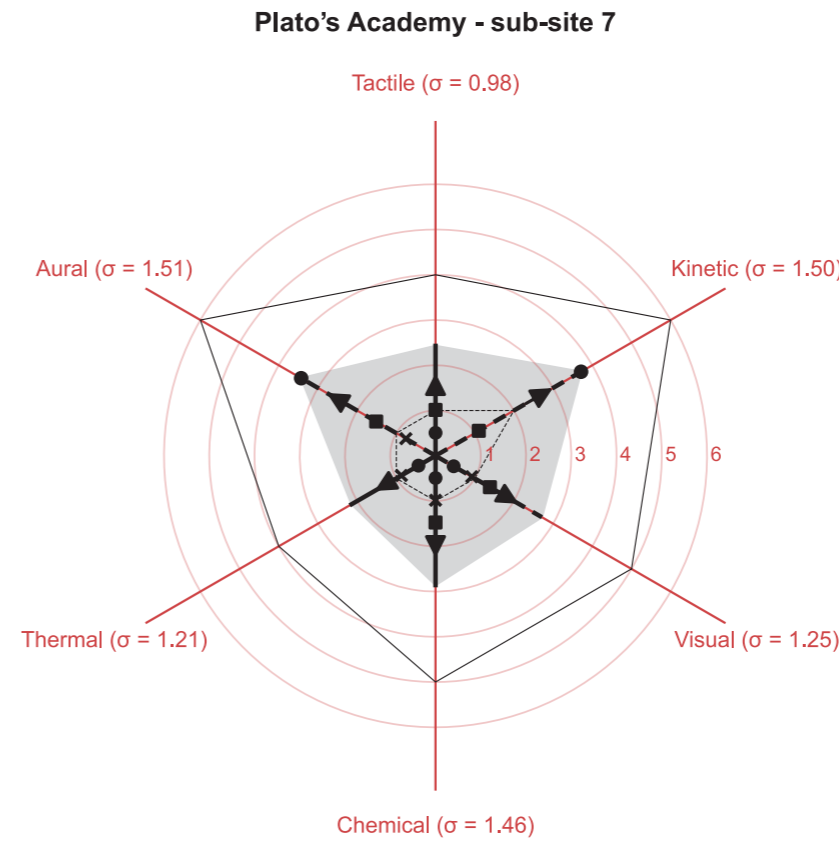


Figure 59. Sensory Notation diagram: Plato's Academy - sub-site 7

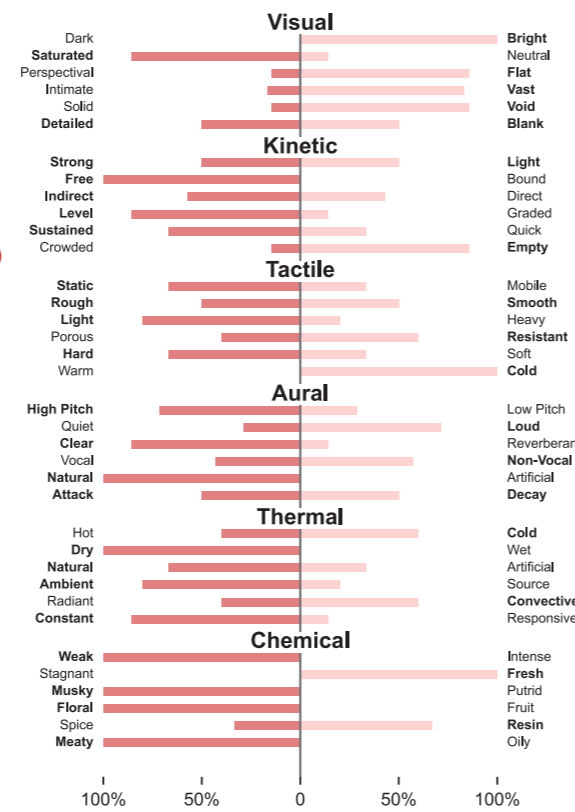
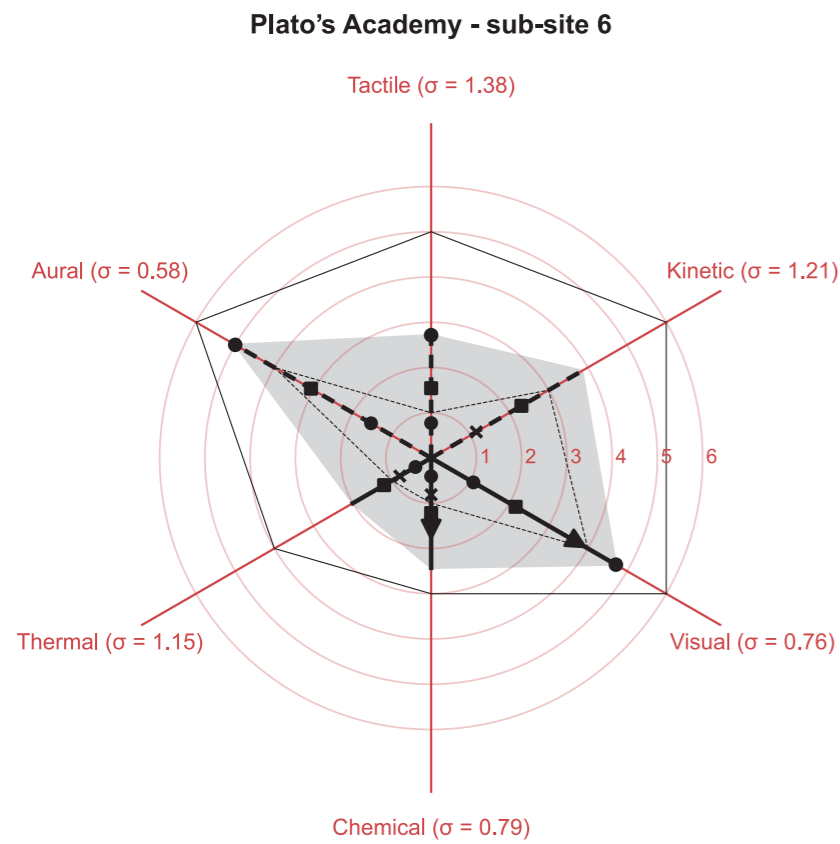


Figure 60. Sensory Notation diagram: Plato's Academy - sub-site 6

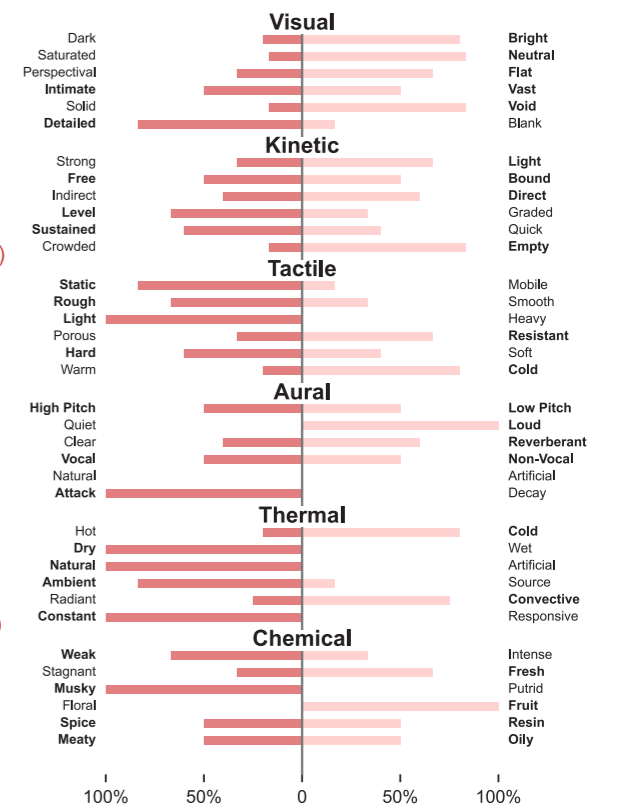
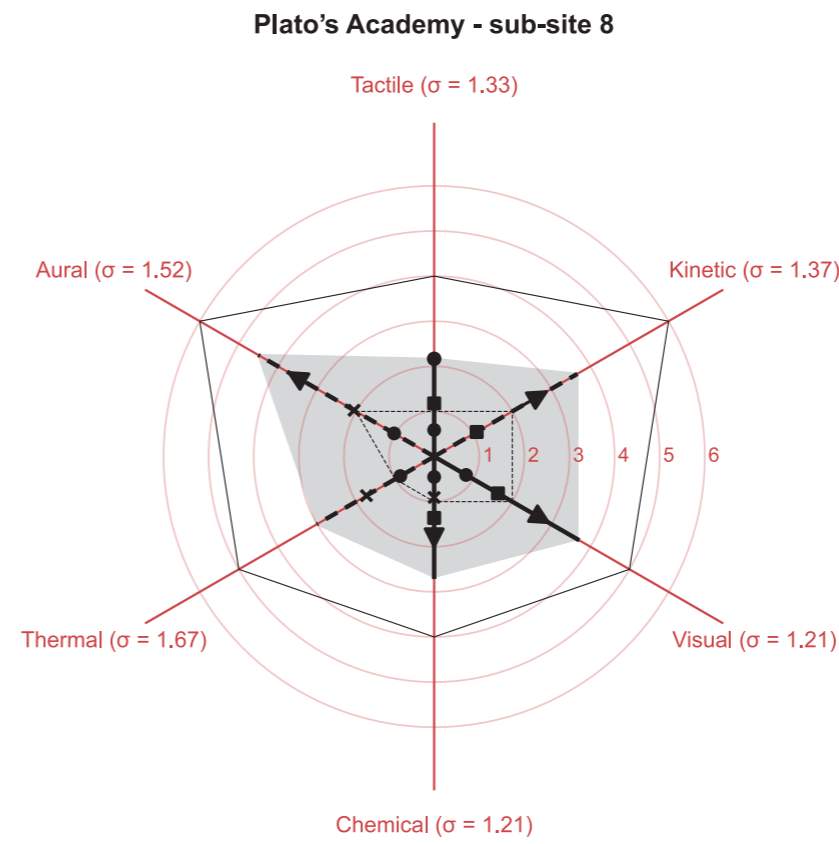


Figure 61. Sensory Notation diagram: Plato's Academy - sub-site 8

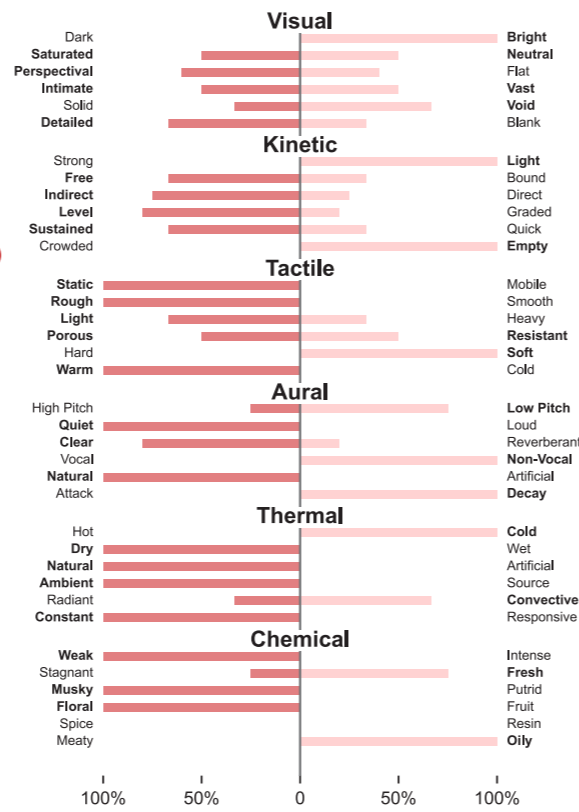
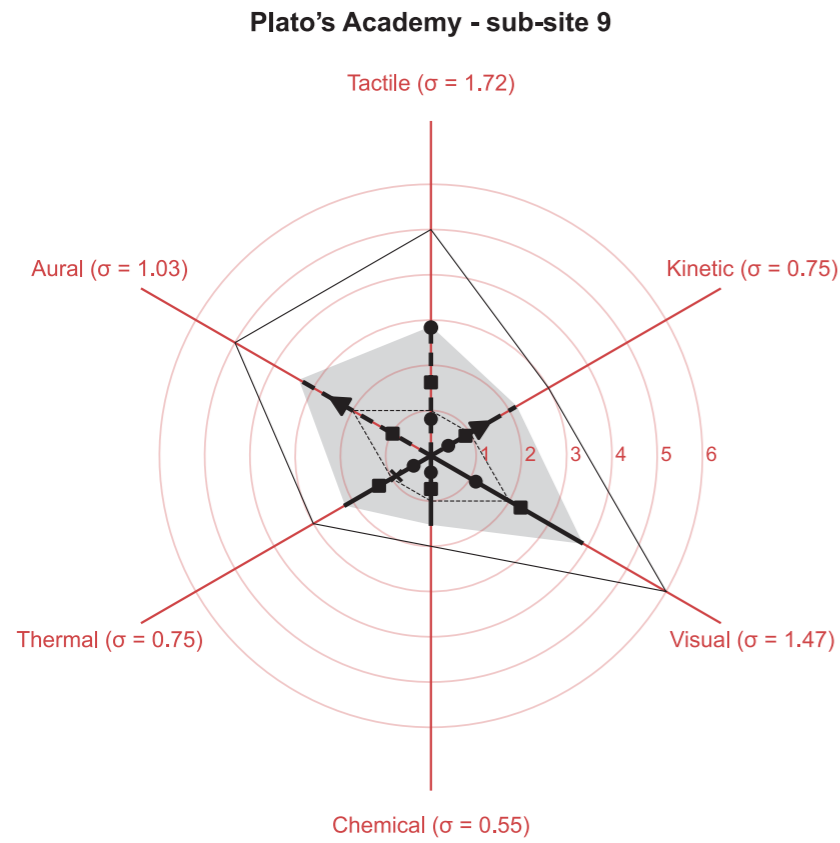


Figure 62. Sensory Notation diagram: Plato's Academy - sub-site 9

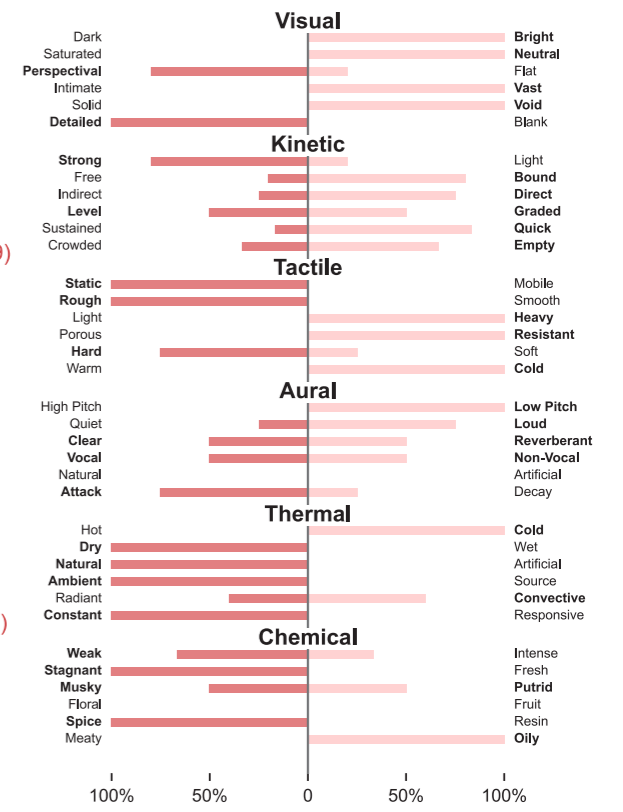
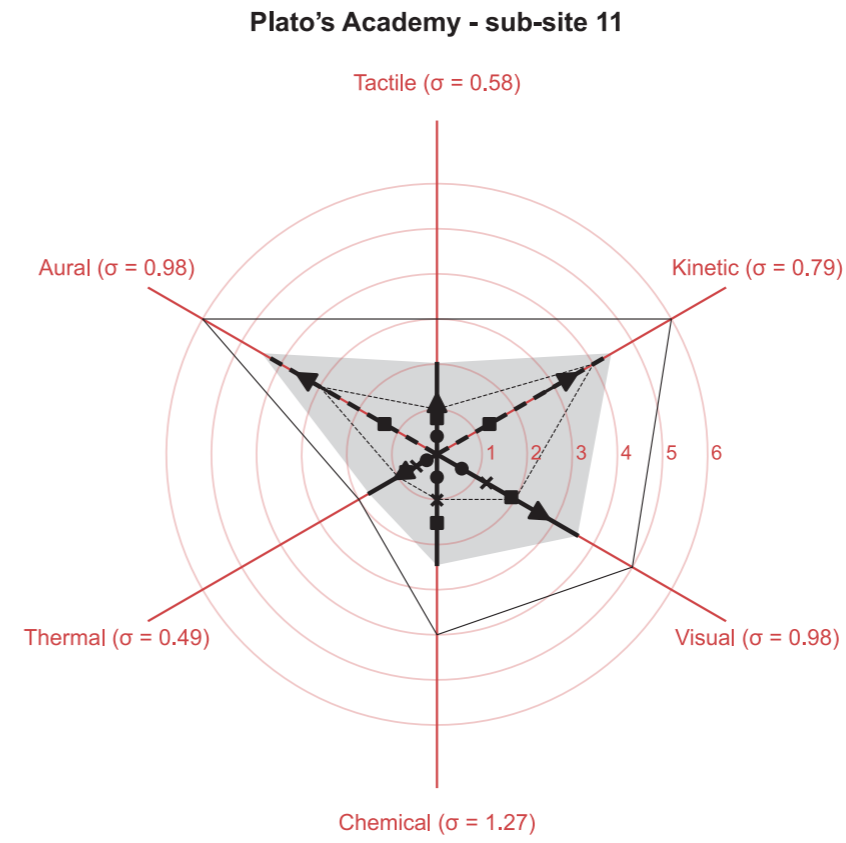


Figure 63. Sensory Notation diagram: Plato's Academy - sub-site 11

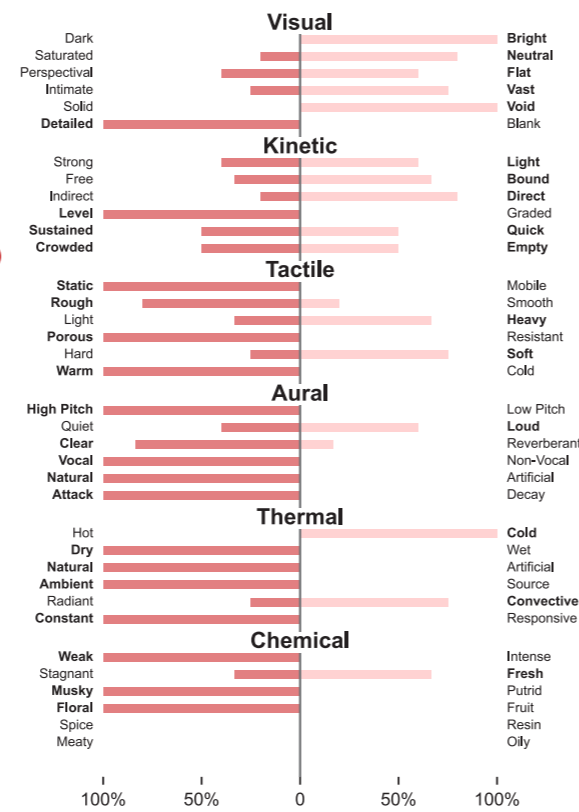
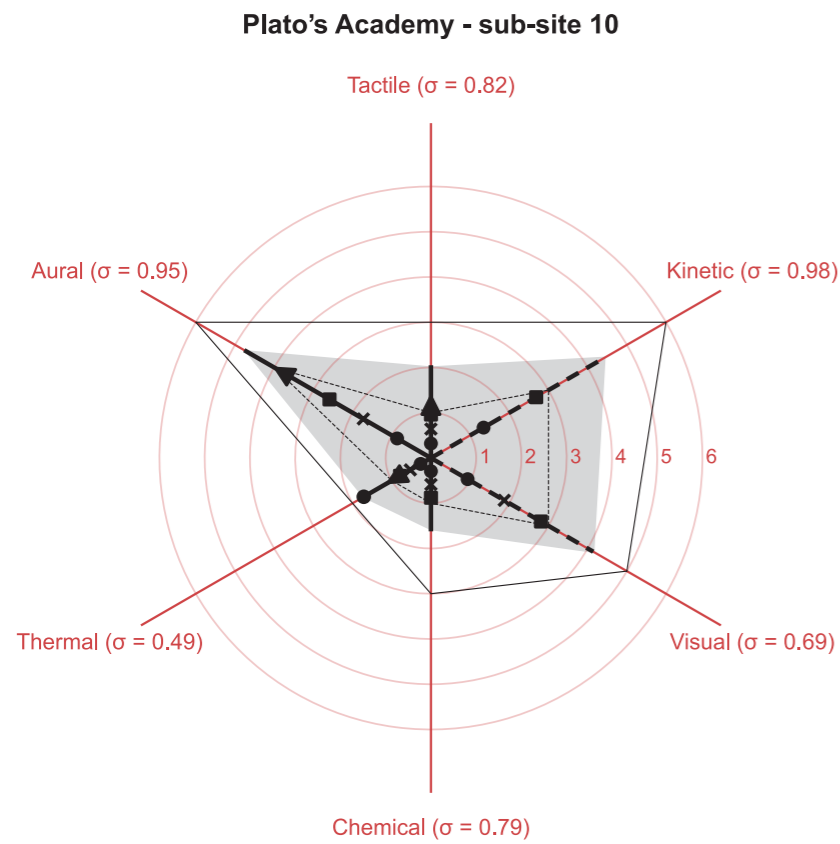


Figure 64. Sensory Notation diagram: Plato's Academy - sub-site 10

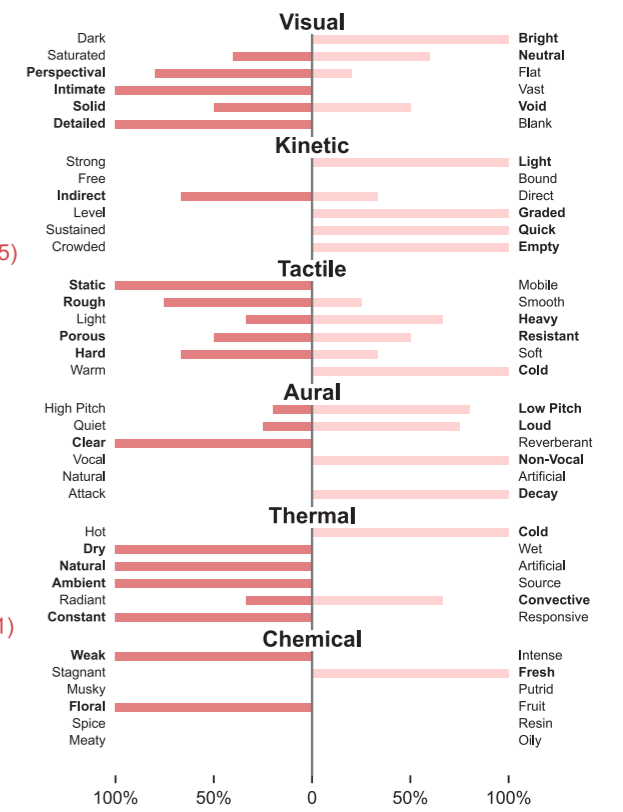
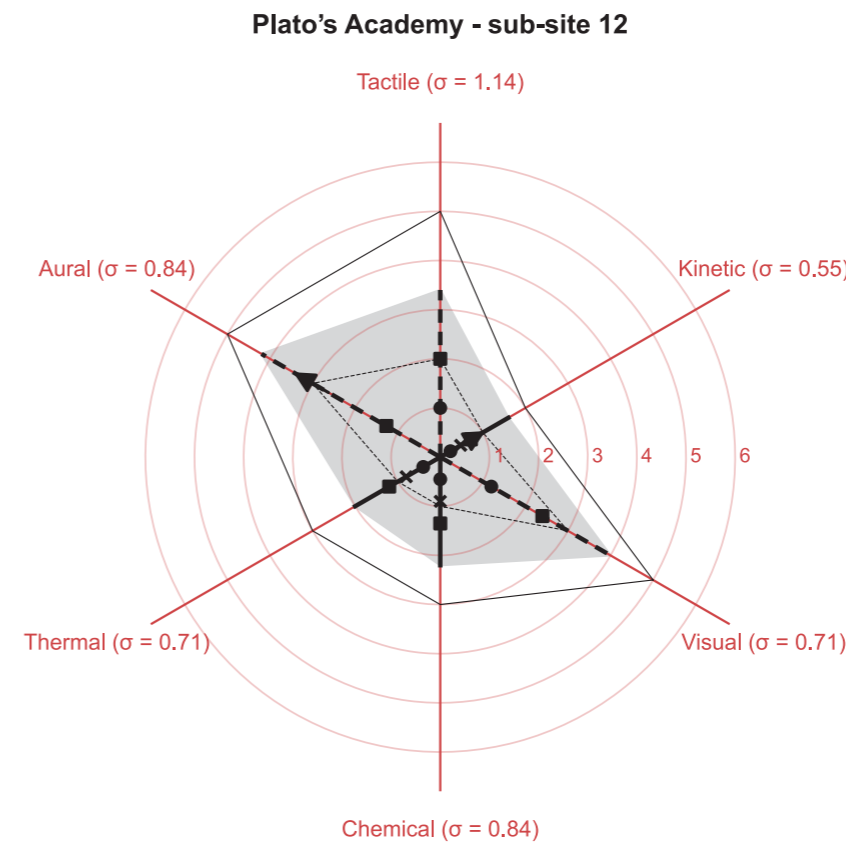


Figure 65. Sensory Notation diagram: Plato's Academy - sub-site 12

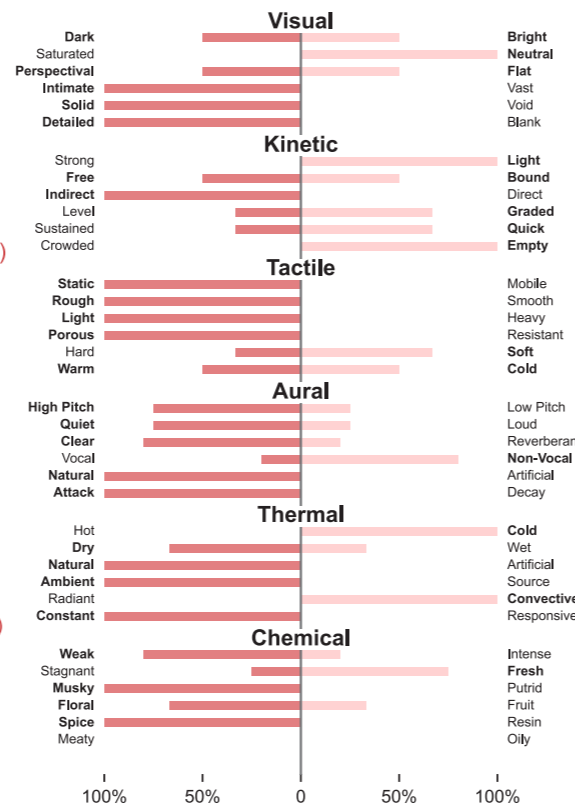
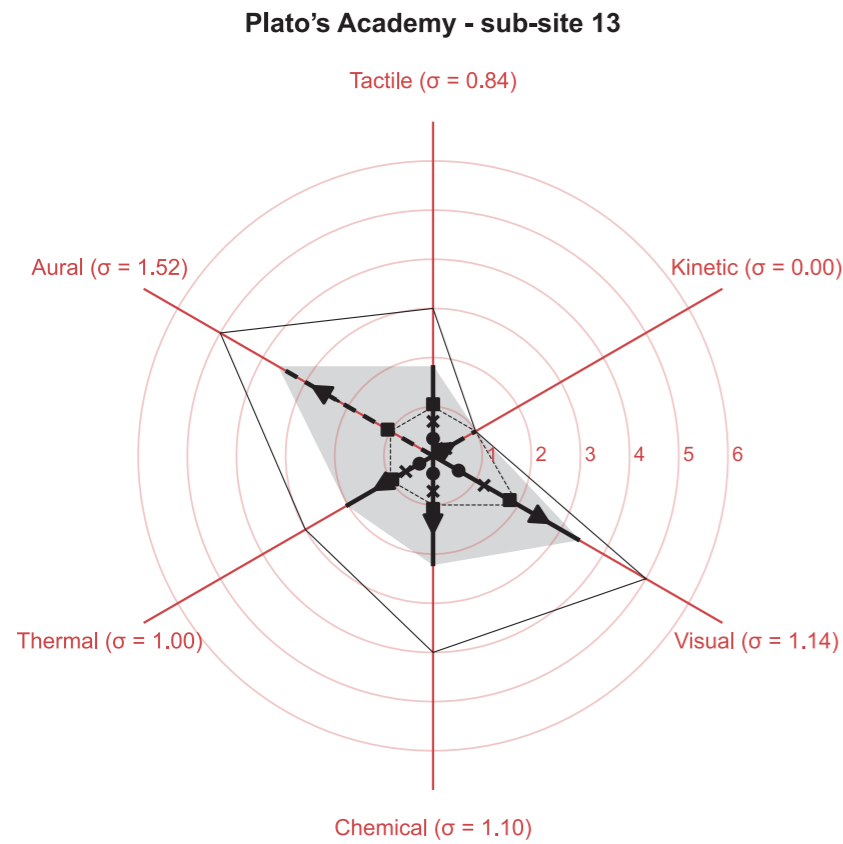


Figure 66. Sensory Notation diagram: Plato's Academy - sub-site 13

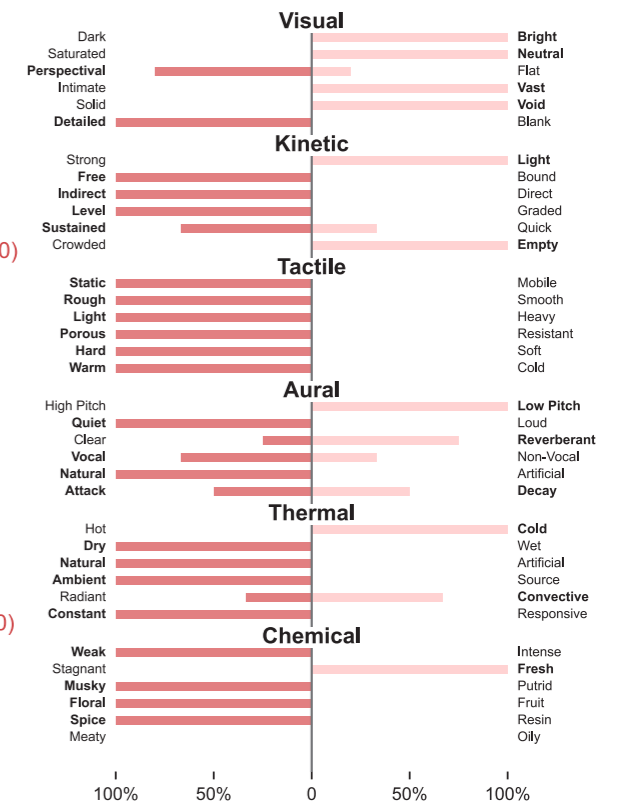
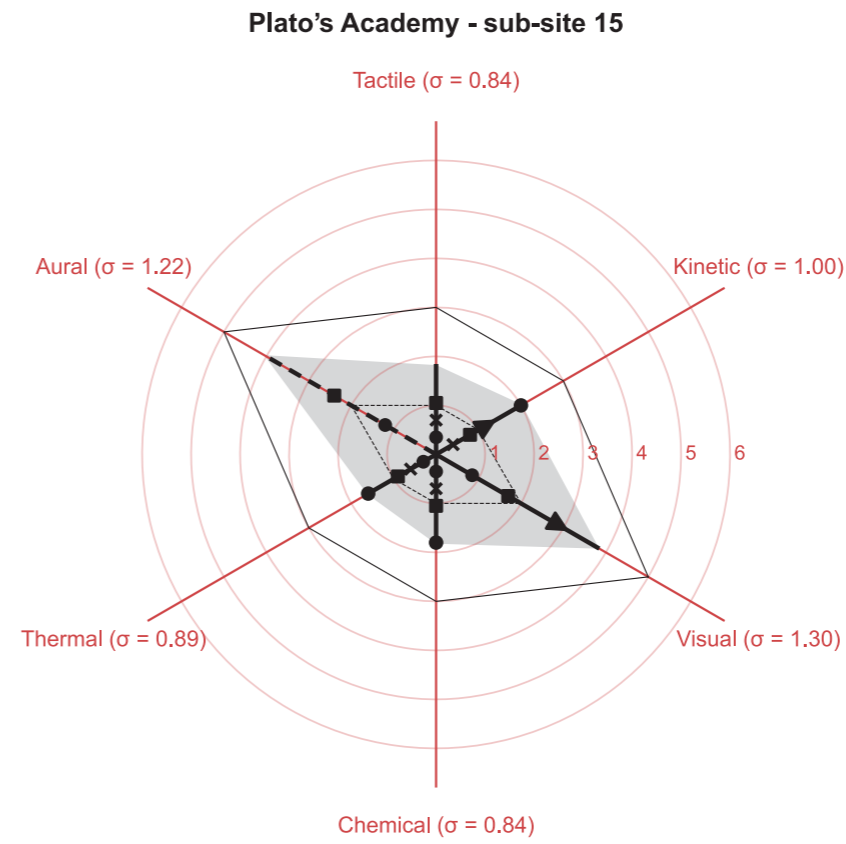


Figure 67. Sensory Notation diagram: Plato's Academy - sub-site 15

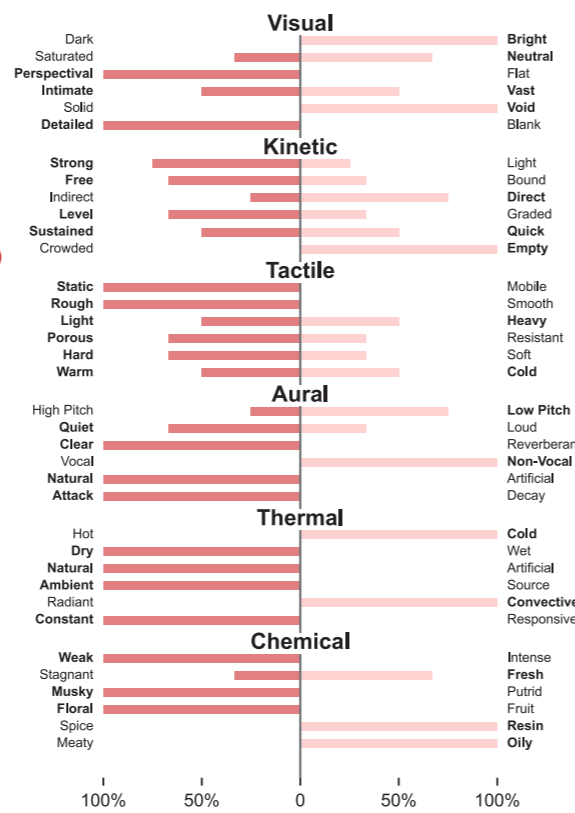
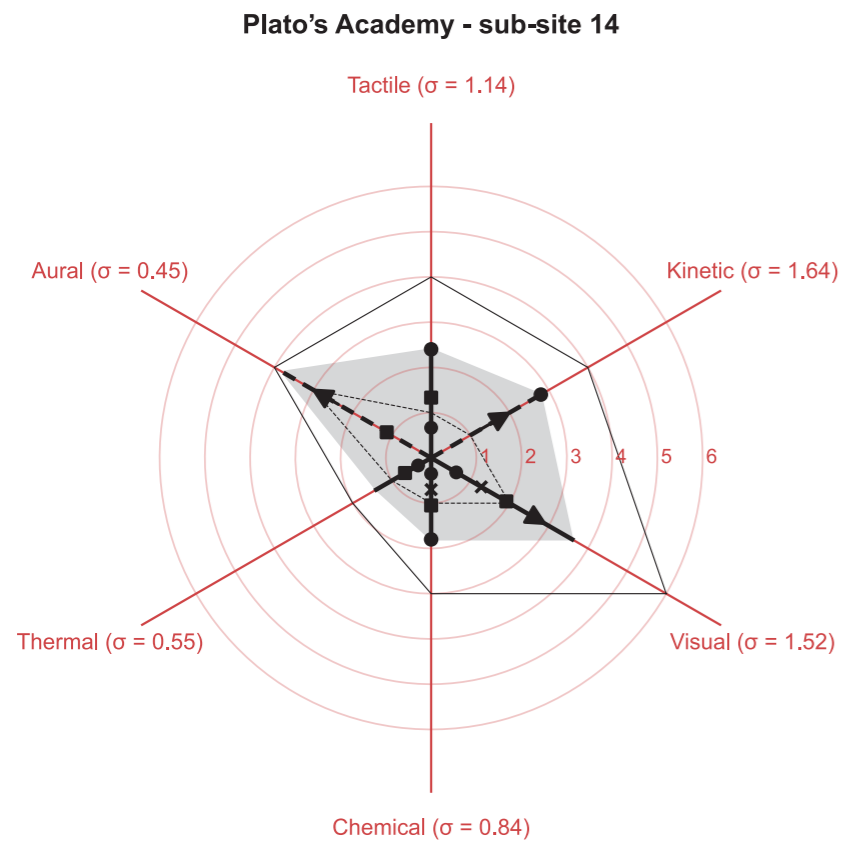


Figure 68. Sensory Notation diagram: Plato's Academy - sub-site 14

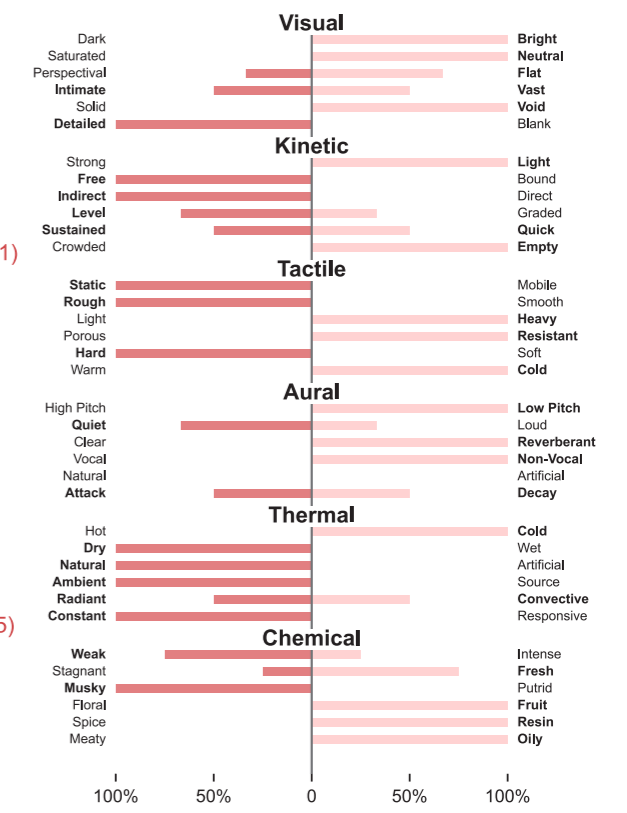
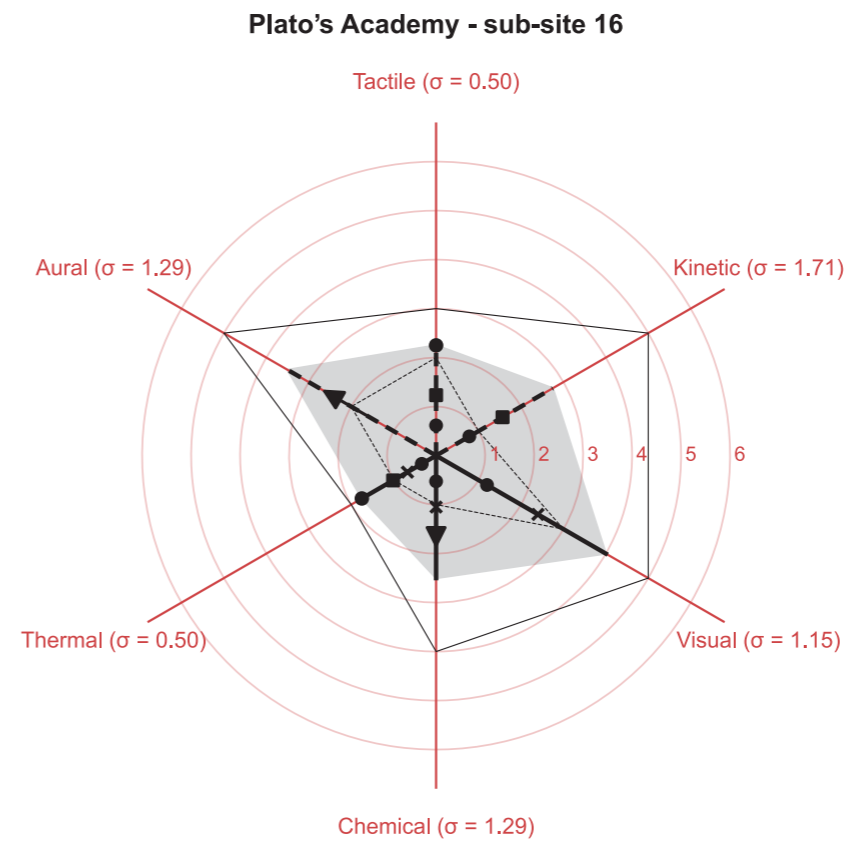


Figure 69. Sensory Notation diagram: Plato's Academy - sub-site 16

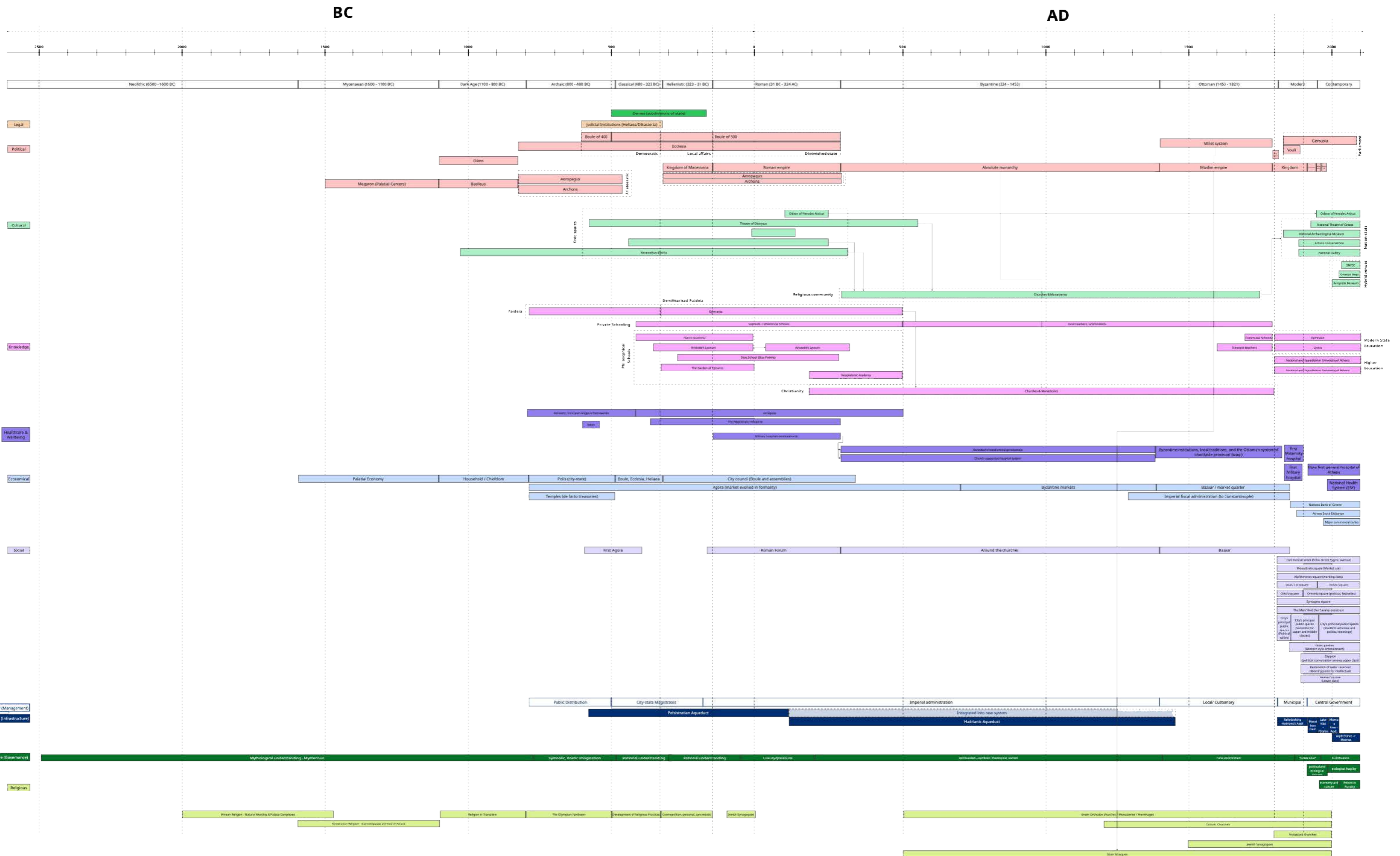
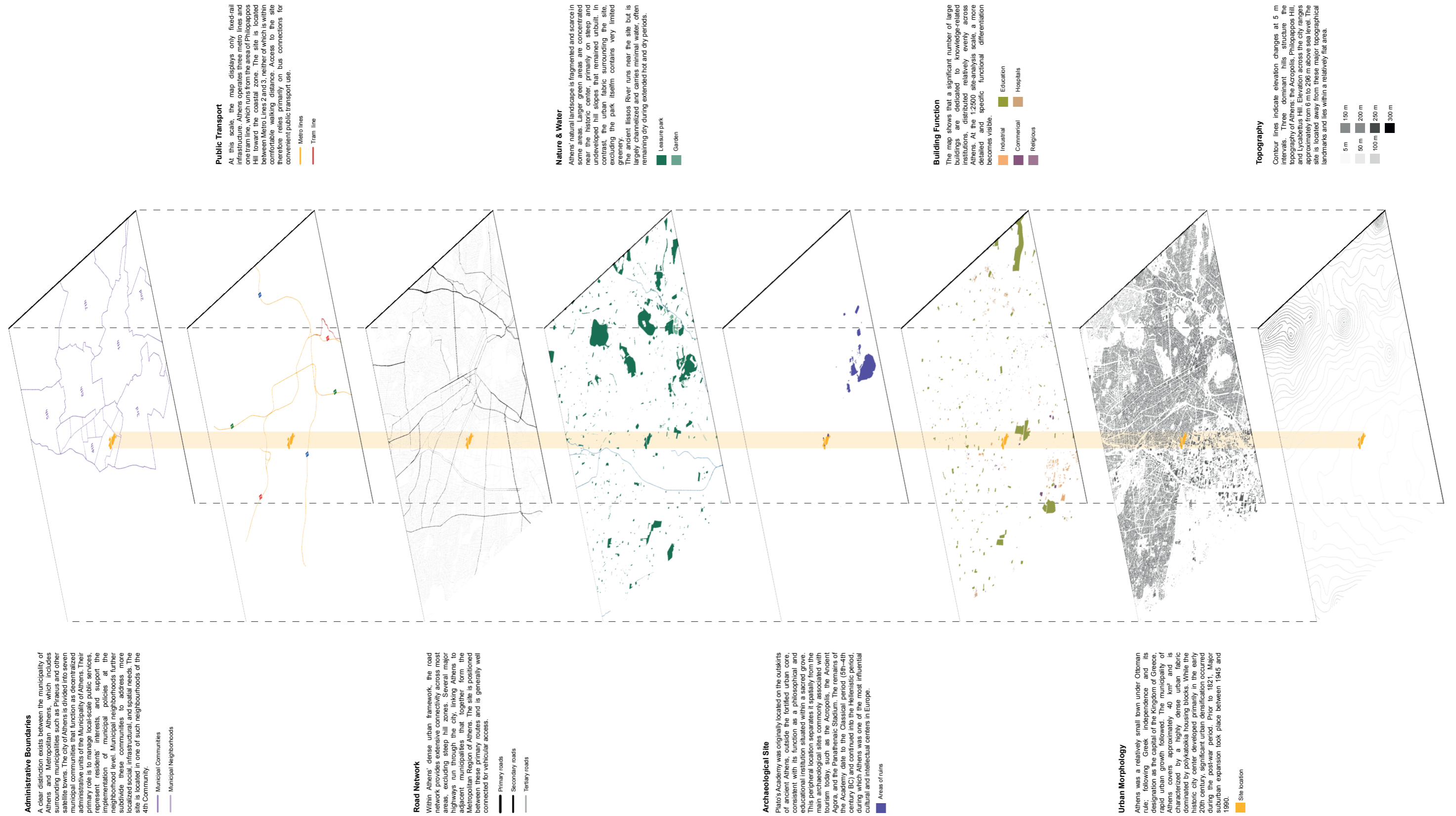


Figure 70. Timeline depicting historical development of institutions in Athens\*

\* The timeline is the result of a collaborative group study conducted within the Design, Data, Society Graduation Studio. It was developed through shared archival research, comparative analysis, and collective visualisation of institutional development in Athens.



**Administrative Boundaries**

A clear distinction exists between the municipality of Athens and Metropolitan Athens, which includes surrounding municipalities such as Piraeus and other satellite towns. The city of Athens is divided into seven municipal communities that function as decentralized administrative units of the Municipality of Athens. Their primary role is to manage local-scale public services, represent residents' interests, and support the implementation of municipal policies at the neighborhood level. Municipal neighborhoods further subdivide these communities to address more localized social, infrastructural, and spatial needs. The site is located in one of such neighborhoods of the 4th Community.

- Municipal Communities
- Municipal Neighborhoods

**Road Network**

Within Athens' dense urban framework, the road network provides extensive connectivity across most areas, excluding steep hill zones. Several major highways run through the city, linking Athens to adjacent municipalities that together form the Metropolitan Region of Athens. The site is positioned between these primary routes and is generally well connected for vehicular access.

- Primary roads
- Secondary roads
- Tertiary roads

**Archaeological Site**

Pleto's Academy was originally located on the outskirts of ancient Athens, outside the fortified urban core, consistent with its function as philosophical and educational institution separated from the city. This peripheral location separates it spatially from the main archaeological sites commonly associated with tourism today, such as the Acropolis, the Ancient Agora, and the Panathenaic Stadium. The remains of the Academy date to the Classical period (5th–4th century BC) and continued into the Hellenistic period, during which Athens was one of the most influential cultural and intellectual centers in Europe.

- Areas of ruins

**Urban Morphology**

Athens was a relatively small town under Ottoman rule, following Greek independence and its designation as the capital of the Kingdom of Greece, rapid urban growth followed. The municipality of Athens covers approximately 40 km<sup>2</sup> and is characterized by a highly dense urban fabric dominated by polykatholia housing blocks. While the historic city center developed primarily in the early 20th century, significant urban densification occurred during the post-war period. Prior to 1821, major suburban expansion took place between 1945 and 1990.

- Site location

**Public Transport**

At this scale, the map displays only fixed-rail infrastructure. Athens operates three metro lines and one tram line, which runs from the area of Philopappos Hill toward the coastal zone. The site is located between Metro Lines 2 and 3, neither of which is within comfortable walking distance. Access to the site therefore relies primarily on bus connections for convenient public transport use.

- Metro lines
- Tram line

**Nature & Water**

Athens' natural landscape is fragmented and scarce in some areas. Larger green areas are concentrated near the historic center, primarily on steep and undeveloped hill slopes that remained unbuilt. In contrast, the urban fabric surrounding the site, excluding the park itself, contains very limited greenery.

The ancient Ilissos River runs near the site but is largely channelized and carries minimal water, often remaining dry during extended hot and dry periods.

- Leisure park
- Garden

**Building Function**

The map shows that a significant number of large buildings are dedicated to knowledge-related institutions, distributed relatively evenly across Athens. At the 1:2500 site-analysis scale, a more detailed and specific functional differentiation becomes visible.

- Industrial
- Commercial
- Religious
- Education
- Hospitals

**Topography**

Contour lines indicate elevation changes, at 5 m intervals. The site is located on a hill overlooking the topography of Athens: the Acropolis, Philopappos Hill, and Lycabettus Hill. Elevation across the city ranges approximately from 6 m to 296 m above sea level. The site is located away from these major topographical landmarks and lies within a relatively flat area.

- 5 m
- 50 m
- 100 m
- 150 m
- 200 m
- 250 m
- 300 m

Figure 71. Combined site analysis (1:25000)



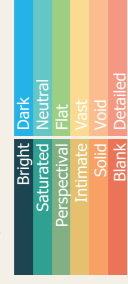
Figure 72. Combined site analysis (1:2500)



**Visual**

Visual descriptors vary significantly across the site, making localized contrasts more prominent than overall trends. Despite this variation, the overall visual priority remains moderate, indicating a generally stable and calm visual environment with limited rapid change or dynamic visual stimuli.

**Descriptors**



**Tactile**

The tactile sense remains low in priority and largely static across the site. Few tactile stimuli are present, and surface conditions offer limited variation, resulting in minimal sensory engagement.

**Descriptors**



**Chemical**

The chemical sense remains weak and low in priority across most of the site, with relatively uniform conditions. Slightly higher intensity is recorded near the southern entrance, likely influenced by stagnant odors from nearby urban activities and traffic-related emissions.

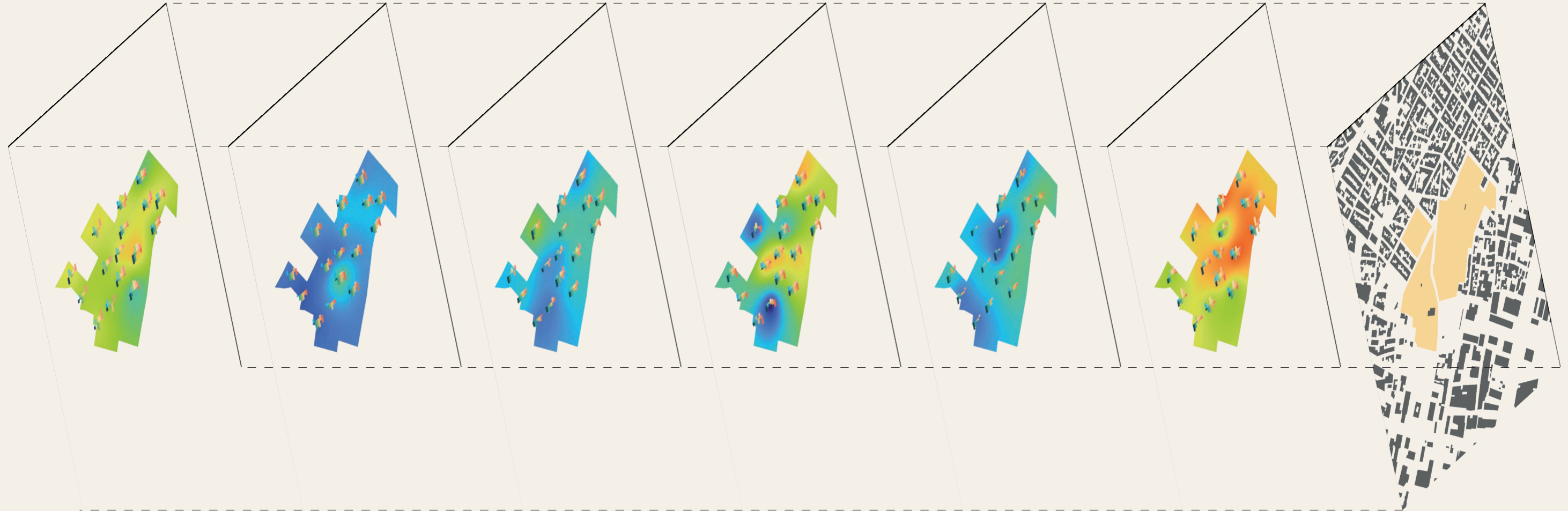
**Descriptors**



**Urban Morphology**

The site is bordered to the east and south by a highly dense urban fabric, dominated by post-war polykatoikia housing blocks typical of Athens. This continuous grid contrasts with the western and northern edges, where larger-scale industrial buildings from the 1960s to the early 2000s interrupt the dense fabric and introduce a looser urban structure. The park itself forms a clear void within the surrounding city, a large, unbuilt open area in stark contrast to the compact urban blocks. Apart from archaeological remains, the site remains free of permanent construction.

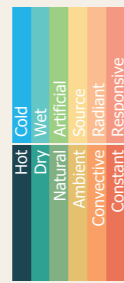
Site location



**Thermal**

Thermal perception registers the lowest priority across most measurement points. Conditions are relatively constant, reflecting a dry climate, stable weather patterns, and limited microclimatic variation within the site.

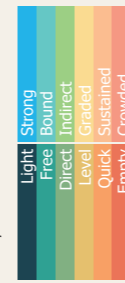
**Descriptors**



**Kinetic**

Kinetic perception is primarily influenced by vehicular movement along surrounding streets and internal roads. Due to local topographical variations and visual obstructions, kinetic intensity varies: in some areas, perceived movement remains low while aural intensity remains high, caused by blocked sightlines despite ongoing traffic flow.

**Descriptors**



**Aural**

The aural sense scores the highest priority across the site. This is due to the surrounding dense urban fabric and road network, where continuous vehicular traffic generates high noise levels. Traffic noise penetrates deep into the park, including its central areas, with limited acoustic buffering.

**Descriptors**



Priority (applicable for all maps)



\*The dataset for the sensorial maps was collected collectively with 15 students from the studio group. Data visualization was made by Marcel Janstrens.

Figure 73. Combined sensorial analysis (1:2500)

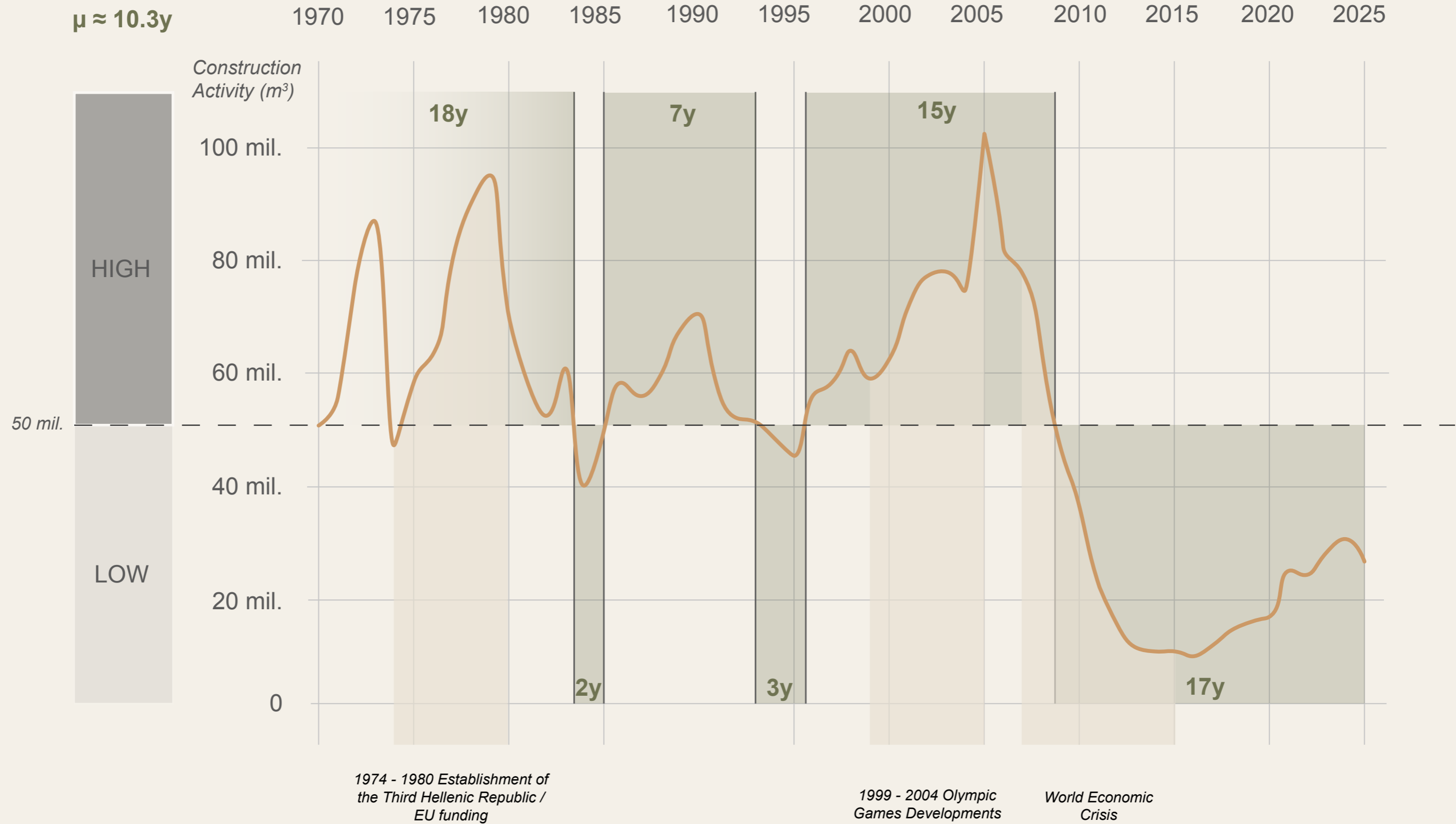


Figure 74. Urban development cycles in Athens based on construction activity volume, 1970–2025. Analysis based on ELSTAT building activity data.

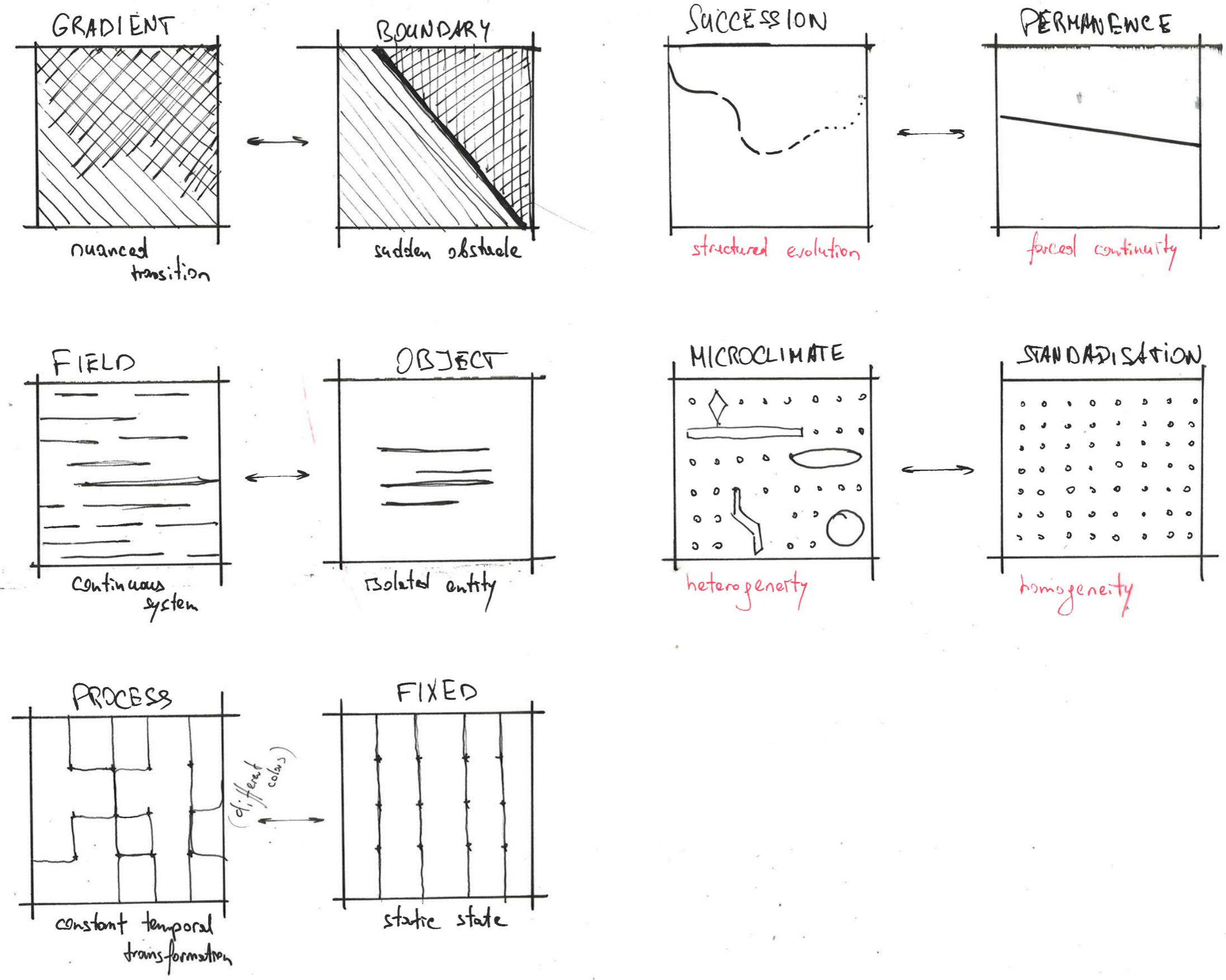


Figure 75 Principles of Systems